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Lower Thames Crossing
Review of the Code of Construction Practice (CoCP)

On behalf of **Thurrock Council**



Document Control Sheet

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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"> ▪ Construction compounds - layout and activities ▪ Construction logistics and off site facilities (e.g. segment factory) ▪ Materials abstraction and waste management strategy ▪ Borrow pits and haul road strategy ▪ Temporary works (e.g. road diversions) ▪ On and off-site enabling works ▪ Special requirements (including use of jetty and delivery of abnormal loads) 	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 & 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
		<p>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.</p>	
<p>Statutory Consultation</p>		<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>	<p>Comments are included in Appendices A (1), B (2) and H</p>
<p>Statutory Consultation</p>		<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>	<p>Comments are included in Appendices G and H and in specific comments on the REAC (Appendix C (2))</p>

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
		<p>TTROs is being considered as part of the response on the oCTMPfc and the draft DCO.</p> <p>No progress has been made on this matter.</p>	
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	<p>Paragraphs 5.2.7-5.2.9</p> <p>Paragraph 5.2.10-5.2.13</p>	<p>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.</p> <p>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</p>	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 specific 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 pf 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"> ▪ ensure that they are effective and current to changing programmes/tasks/methods; ▪ coordinated across contracts; ▪ give clarity of ownership of measures, enforcement and consent; ▪ include associated off-site Statutory Undertakers Works and; ▪ reflect on-going maintenance regimes – including street cleansing. <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
		<p>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?</p> <p>No progress has been made on this matter.</p>	
CoCP		<p>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.</p> <p>No progress has been made on this matter.</p>	Further comments are included in Appendix A (2), but no targets have been set.
CoCP	Table 6.1	<p>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.</p> <p>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.</p> <p>No progress has been made on this matter.</p>	Still not resolved adequately.
CoCP		<p>Saturday hours should be limited to 0700-1300 only, as is normal practice.</p> <p>No progress has been made on this matter.</p>	

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	<p>Extended working hours – how far in advance will small s61 notices be made?</p> <p>No progress has been made on this matter.</p>	Not yet resolved or clear.
CoCP	Table 6.2	<p>Short notice working – how will the use of these hours be limited such that they do not become common place?</p> <p>No progress has been made on this matter.</p>	Not yet resolved or clear.
CoCP	Table 6.2	<p>Tidal river working – these should be limited to marine operations only and no land based movements/operations included.</p> <p>No progress has been made on this matter.</p>	Not yet resolved or clear.
CoCP	Table 6.2	<p>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.</p> <p>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.</p> <p>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).</p>	<p>Not yet resolved or clear.</p> <p>Also, further comments are within Appendix B (2)</p>

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
		<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"> 2. Will be outlined further in Section 4 of the OCTMP. 3. Some metrics will be outlined in CTMP, specific details to be developed by the contractor. 4. 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. <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"> 1. Include how safety and environmental improvement initiatives will be progressed to reduce the materials and vehicle miles and reduce emissions. 2. 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. 3. 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. 4. Identify the driver training standards and the aspirations to increase skill levels within the industry – including CLOCS training and Van Smart or equivalent standards. 5. Include commitments to minimise road movements of materials including primary aggregates for concrete and other construction 	Unresolved.

Source	Reference	Summary of Comments	Action and/or Recommendation
		<p>materials. This should include the maximisation of the use of marine operations and rail transport.</p> <ol style="list-style-type: none"> 6. Indicate where commits are to be made to use local plant and materials suppliers to minimise the transportation mileage. 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. 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>HE response –</p> <ol style="list-style-type: none"> 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). 2. Under consideration internally. 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. 4. CLOCS and FORS Silver or above, with the MWC to detail their training plan (Driver CPC etc.) for their scope. 5. The CoCP requires consideration of multimodal transport. See CoCP Section 5.1. 6. Under consideration internally. 7. Under consideration internally. 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>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. - CH	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. - CH	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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For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved
A	08/09/2021	Issued to Thurrock Council	-	CS	CS

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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.	Reference to the Arboricultural Method Statement and BS5837:2012 should be made. 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.	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. Agreed it is covered in LV028 - would prefer there to be a reference to it for avoidance of doubt.
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.	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. 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.	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.	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. 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.	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.

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	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.

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	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.	<p>Requirement 4 of Schedule 2 to the DCO (DCO application ref 3.1)</p> <p>Requirement 4 provides for consultation with the relevant planning authority.</p>	Need to continue to review; however, there are not large numbers of trees that would be directly impacted.
LV029		<p>REAC now says that LV029 is not used?</p> <p>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.</p>	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

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	robur) and Sweet Chestnut (Castanea sativa). 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?

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	<p>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.</p>		
GS002	<p>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.</p>		<p>Should part of the achievement criteria be that the areas affected will be returned to previous condition/higher quality conditions?</p>
RDWE001	<p>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>	<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: 'Work site drainage systems would incorporate pollution control systems designed in line with Control of Water</p>

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		<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>

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		<p>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)</p>	
RDWE006	<p>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>	<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>	<p>Achievement Criteria amended: 'SoS approval of drainage details following consultation with relevant drainage authority.' reference to Highways England approval removed.</p>

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	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

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	<p>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.</p>	<p>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.</p>	<p>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.</p>
RDWE025	<p>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>	<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>

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		<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>

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	<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>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 PRoWs 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>

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		<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>	<p>temporary traffic management measures).</p>

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		<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"> 1. All on-road heavy vehicles would comply with the standards set within the London Low Emission Zone (LEZ) 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. 3. Ensure all vehicle engines, mobile and fixed plant stationed on site are not left running or idling unnecessarily 4. Use low emission vehicles and plant fitted 	<ol style="list-style-type: none"> 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. 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 	<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>	

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		<p>This is in part applied by enforcing points 1 & 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"> • The emergence of safe and efficient autonomous transport should be reflected in the aspirations to minimise environmental impacts. • 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. • Site access points should be designed to avoid queuing traffic. <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>	

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AQ003	<p>Implement good practice controls to reduce dust during works such as:</p> <ol style="list-style-type: none"> 1. Cover with topsoil and re-vegetate earthworks and exposed areas including soil stockpiles to stabilise surfaces 2. Use a cover such as hessian, mulches or trackifiers, where it is not possible to re-vegetate or cover with topsoil 3. Remove the cover systematically during work to reduce exposure of areas that are not being worked on 4. Avoid removing thin layer scabbling of concrete from structures by compressed air powered machines, where practicable 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 	<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>

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	<p>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>	<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	<p>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>	<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>	<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</p>

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		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>

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CC005	<p>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>	<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. This 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>	<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.</p>
CC006	<p>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>		<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>

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			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

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			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

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<p>REAC Table, pages 53-58 - NV007 – best practicable means, page 55</p>	<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>

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	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"> 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. 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 		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.

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	<p>emission standard Stage IV as a minimum.</p> <ol style="list-style-type: none"> 3. Ensure all vehicle engines, mobile and fixed plant stationed on site are not left running or idling unnecessarily. 4. Use low emission vehicles and plant fitted with catalysts, diesel particulate filters or similar devices where reasonably practicable. 5. Use ultra-low sulphur fuels in plant and vehicles where reasonably practicable. 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>	<ol style="list-style-type: none"> 1. Undertake on-site and off-site inspections to monitor dust 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</p>

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	<p>away from receptors, as far as this is reasonably practicable</p> <ol style="list-style-type: none"> 3. Erect suitable solid screens or barriers around dusty activities or the site boundary 4. Avoid site runoff of water or mud 5. Remove waste materials that have a potential to produce dust from site as soon as reasonably practicable 6. Cover, seed or fence stockpiles to prevent wind whipping 7. Cutting/grinding/sawing equipment to use water as dust suppressant or suitable local extract ventilation 8. Ensure an adequate water supply on the site for effective dust/particulate matter suppression, using recycled water where reasonably practicable 9. Use enclosed chutes, conveyors and covered skips to reduce escape of dust 		<p>assumed to be case, it appears to be omitted from the REAC.</p>

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	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 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 12. Reuse and recycle waste to reduce dust from waste materials		
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

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<p>compound electricity, page 63 and CC007 – greenhouse gas emissions: operational supply of electricity, page 64</p>	<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>		<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.</p>
<p>Table 7.2 – REAC Table – GS025 – northern tunnel entrance compound: ground gas, page 72</p>	<p>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.</p>		<p>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.</p>
<p>Table 7.2 REAC Table – GS026 – Foundation Works Risk</p>	<p>Construction of foundations has the potential to create pollution pathways and mobilise contaminants. The Contractors would prepare a</p>		<p>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</p>

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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.

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	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.

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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

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	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

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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 Contactor 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		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

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	<p>walking 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>
<p>Table 7.2 – REAC Table – TB001 – Hedgerow replacement, page 101</p>	<p>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</p>		<p>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</p>

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	<p>programme as reasonably practicable, having regard for the completion of potentially damaging construction activities within and adjacent to the planting area, and seasonal requirements for planting.</p>		<p>support reductions in climate change 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.</p>
<p>Table 7.2 – REAC Table – TB007 – Habitat management, page 101</p>	<p>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.</p>		<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 clarification required.</p>
<p>CH NEW</p>	<p>Grade II listed buildings</p>		<p>Record of Baker Street Windmill setting not mentioned.</p> <p>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</p>

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			previously regarding the potential to 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

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			spill into non lit areas. The correctly 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>	

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		<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 & 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
		<p>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.</p>	
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"> • Mitigation in relation to the open space replacement. • Mitigation in relation to the environmental impacts on the traveller site. • Environmental commitments to ensure multimodal use of transport for construction workers. • Commitments on working hours for the construction period (these are currently too long) • Commitments for contractors to be using sustainable materials and minimise plastics and harmful substances • Commitments for the provision of welfare facilities and exactly what these contain 	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<ul style="list-style-type: none"> • Use of low emission vehicles and HGVs • Mitigation in relation to green infrastructure for visual, noise and AQ impacts. • Commitment to Green Bridges with WCH links/connections • Mitigation in relation to the open space replacement is secured via the Environmental Masterplan (Application Document 6.2 ES Figure 2.4). • 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. • 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. • 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 • Numerous commitments are made in the REAC in relation to material selection e.g. CC001, MW001 and MW002. • Provision of welfare facilities in which location? • AQ001 requires compliance with LEZ standards 	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		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 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)	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.	

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
		<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 (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'.</p>	
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> <p>a) The Contractor, or a delegated representative, shall at the earliest reasonable opportunity, investigate activities on the site to ascertain whether any visible</p>	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>dust is emanating from the site or activities are occurring that are not in line with dust control procedures.</p> <p>b) Any identified causes will be rectified, where reasonably practicable. Actions will be recorded in a 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)		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

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			<p>there are high levels of deprivation, and poor health, such as Tilbury. Highways England should ensure that cumulative effects are included and sufficiently assessed and mitigated against as required.</p>
Geology and Soils	Further comments (14)		<p>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)</p>
Geology and Soils	Further comments (15)		<p>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)</p>
Geology and Soils	Further comments (16)		<p>Preliminary remediation options appraisal aims to show that there are</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			<p>remediation techniques available that would be able to meet the general objectives, should remediation be required. Currently the SG 0027 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)</p>
<p>Geology and Soils</p>	<p>Further comments (17) provided by Thurrock Council</p>		<p>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)</p>
<p>Geology and Soils</p>	<p>Further comments (18)</p>		<p>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</p>

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			amended to include consultation with the Local Authority to ensure that protection of off-site human health is 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

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			feature/location/issue. (response to ES Appendix 10.7)
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

REAC ref no.	Commitment	Summary of Comments	Action and/or Recommendation
			construction. It is expected that this would be delivered through the Environment Management Plan (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**



Document Control Sheet

Project Name: Lower Thames Crossing

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For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved
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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 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
Chapter 1: Explanation of Schedule 2 of the Draft Development Consent Order		
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 underling 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.
Chapter 2: Schedule 2 Requirements		
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 Limits. It also reconfirms that the compulsory purchase powers do not apply outside of the Order Limits.</p>

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		<p>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 sufficiently widely worded that it would ensure that any EMP (Second Iteration) we need to be implemented in the relevant phase.</p>

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		<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 submitted to and approved in writing by the Secretary of State. Please could you confirm how traffic

Relevant Section in the Schedule 2 Requirements and Explanatory Memorandum		The Council's Comments
		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"> a. The traffic monitoring locations post completion. These must be agreed by the relevant highways authority. b. Confirmation of how long operational monitoring will last. c. Ongoing noise and air quality monitoring to ensure that it is within the limits assumed in the appropriate EMP. 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.
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
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For and on behalf of Stantec UK Limited				

Revision	Date	Description	Prepared	Reviewed	Approved
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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
General Comments					
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 (https://www.nic.org.uk/assessment/national-infrastructure-assessment/choosing-and-designing-infrastructure/). However, such an analysis is 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	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
		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 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	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 quality measures for this area will only worsen the environment for this population.

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
		impact on residents of East Tilbury.			
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 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.	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
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 existing traffic projections, the project does not address the potential level of growth which will be triggered by the implementation of the Local Plan.	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
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.
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-

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
					wide design principles and the area-specific design principles.
Chapter 1: Introduction					
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 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	The passive provision is designed into the submission proposal, the design does not preclude a junction at a future date. The Legacy and Benefits team are working alongside stakeholders, including Thurrock to investigate the benefits of a number or legacy projects, these are not	While it is agreed that this is not a direct issue with regards the Design Principles it is a key ongoing discussion with the Council.	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
		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.	sufficiently progressed to be part of the DCO.		
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 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	Public transport is not prohibited on the LTC. Furthermore, rail connections have been considered in the past, but were not deemed to be technically viable.	This does not address the question of "is the design 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	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
		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.		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 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	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
	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 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.	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
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 & 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 comply with DMRB highway design requirements.</p> <p>Also please see SoCG issues #0253 and #0585."</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>	<p>No change to April's comments.</p>
Chapter 2: Overarching design vision					

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
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?
Chapter 3: Project-wide design principles					
3.1	Introduction				No comment.

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
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, for example PEO.01 “All Public Rights of Way (PRow) crossing the Project route shall be convenient, safe and provide a pleasant experience with changes in level minimised”. How do Highways England	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 (PRow) crossing the Project 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.	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.

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
		propose to provide convenient and safe PRowS?	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 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'

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>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.</p>
3.3 Connecting places PLA.05	<p>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>	<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 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</p>	<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?</p>	<p>Discussions are still ongoing, e.g. with relation to Tilbury Fields and connections to other important sites in the locality.</p>

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
			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 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	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 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	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 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.	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>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 not been seen or discussed with the Council and consequently our position is still in opposition to the current design. Understanding future design</p>	<p>Council Task Force and members.</p> <p>A consistent material palette is now a requirement across all bridge structures (Design Principle STR.07).</p>		

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
		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 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	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 naturalistic landscape. We have allowed for the sensitive inclusion and integration of acoustic barriers (where required). This was also explained in an email	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 which structures are enhanced, and which are not enhanced remains unclear. The specification and detail for the	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
		major structure included in the Project Enhanced Structures list.	response to the Council on 19/12/2020 at 15:44 and presented to the Council and Task Force on Monday 18/01/2021.	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.
3.5	Structures STR.02	'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	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	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	Further design work is moving in the right direction but still has not been finalised.

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
		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.	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).	however the form of the surrounding earthworks have not been finalised. This potential park area needs to be secured through the DCO process.	
3.5	Structures STR.06				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 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.

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
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 where the Order Limits overlap with publicly owned land could be an option to consider for mitigations.</p>	More information is now available. Text now refers to EMP.

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
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 viaduct design proposed by LTC is not being adopted. The Council will need to see more detailed plans showing what this will entail.	The design evolution of the Mardyke and Orsett Fen viaducts were presented on 18/01/2021 to the Council Task Force and members.	Agreed mainly covered above; however, in light of changes to water vole mitigation the areas of wetland might need to be reviewed.	No change to April 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
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 show standard engineered designs. The final design of all the ponds should be undertaken in consultation with local authorities.	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 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	The LPA should still be consulted on final designs.

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
				costed and designed accordingly by the future MWC.	
Chapter 4: Area-specific design principles					
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.
4.5	S7, S8 & S9 – Tilbury Marshes	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	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	Further design work has been presented to the council and other stakeholders and this shows greater integration with the surrounding ecological and

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
and North Portal	essential however that there is sensitivity to the surrounding scheduled monuments and remnant marshland.		forward by Thurrock that relate to an existing masterplan for the waste site at the north portal to create an integrated ecology area.	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 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	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.

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
		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 Issues #0063, 0074, 0168 and 0282.	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.
4.5	S7, S8 & S9 – Tilbury	Is this not an EMP item as well? it is important that the Council has the opportunity to see the	Yes, this is also contained within the Environmental Masterplan (Application Document 6.2,	This area is no longer to be used for water vole mitigation. We will need to receive details of the	This is out of date and should be removed.

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
	Marshes and North Portal S9.13	design of this area and how it relates to Coalhouse Fort given its proximity.	Figure 2.4) and will also be contained within the OLEMP.	design of the new mitigation features.	
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 of common land will not be diminished." Please also see our response to THU DP 36.	The future alignment of Two Forts Way is being reviewed as part of mitigation requirements.	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
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 detailed design of S11.13-15 should be undertaken in liaison with the Council.	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

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
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 prepared in consultation with the local authorities.	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 uninterrupted, as shown in the EMP (Section 12, Sheet 2 & 3).	More details have now been presented regarding the design of the structures and their setting.	No change to April 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
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.
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

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
4.9	S13 & S14 – M25 junctions				No comment.
Appendix A: Planting Palettes					
					No comment.
Appendix B: Project Enhanced structures, Bridge Diagram					
					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

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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 3rd 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
Chapter 1: Introduction		
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.
Chapter 2: Project aims and objectives		
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.
Chapter 3: Implementation of the LEMP		

Relevant Section in the OLEMP		The Council's Comments
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?
Chapter 4: Management areas south of the Thames		
No comments on this section		
Chapter 5: Management Areas – North of the river to A13 junction		
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.
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.

Relevant Section in the OLEMP		The Council's Comments
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.
Chapter 6: Management Areas – North of A13 junction to M25		

Relevant Section in the OLEMP		The Council's Comments
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.
Chapter 7: Habitat Typologies		
<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

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For and on behalf of Stantec UK Limited				

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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
Chapter 1: Introduction		
para 1-11	Overview of the Ward impact summaries	Very ambiguous wording - may, could, if.
1.2 para 12-14	Ward selection	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? Would like a comparison to the Dartford crossing air quality/ light pollution and noise levels and the reach of these for comparison.
1.3 para 15-16	Topics covered in each chapter	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. 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.
	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.
1.4	Transport	
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"> ▪ Rectory Road, Orsett Village ▪ Stifford Clays Road, Orsett Village ▪ B186, North Ockendon ▪ B186, South Ockendon ▪ B188, Baker Street village ▪ A1014 Northbound ▪ A128 Brentwood Road ▪ A1089 ▪ Buckingham Hill Road Northbound ▪ A13 West Bound at Stanford Le-Hope Bypass

Relevant Section in the Ward Impact Summaries - North of the River - Part 1	The Council's Comments
	<ul style="list-style-type: none"> ▪ Orsett Cock Roundabout ▪ Manorway Roundabout ▪ M25 Junction 30 ▪ Asda Roundabout ▪ Daneholes Roundabout ▪ Marshfoot Road roundabout <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	Environmental Impact Assessment	<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	Air quality and noise assessments	
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.
Chapter 12: East Tilbury ward		
12.1	Overview	
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 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.</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	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 undertaken 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. Health inequalities are mentioned but there is no clear information about what mitigation will be employed to reduce these inequalities.
	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 all 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>
12.2	Project description	
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. 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). 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>
12.3 para 111	Traffic	
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.
12.4	Public transport	
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.
12.5	Footpaths, bridleways and cycle routes	
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.
12.6	Visual	
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.
12.7 para 154	Noise and vibration	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. HH
12.8 para 186	Air quality	
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?
12.9	Health	
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.
12.10	Biodiversity	
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
12.11	Built heritage	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?
12.12	Contamination	
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.
Chapter 13: Tilbury Riverside and Thurrock Park ward		
13.1	Overview	
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	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). 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.
	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	No inclusion of archaeological deposits 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

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>
13.2	Project description	
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.
13.3	Traffic	
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"> ▪ A1089 ▪ Asda Roundabout <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.
13.4	Public transport	
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
13.5 para 296	Footpaths, bridleways and cycle routes	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.
13.6	Visual	
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.
13.7	Noise and vibration	

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>
13.8	Air quality	
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.
13.9 para 345-348	Health	
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.
13.10 para 361-363	Biodiversity	No comments.
13.11	Built Heritage	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?
13.12	Contamination	
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.
Chapter 14: Tilbury St Chads		
14.1	Overview	

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>
14.2	Project description	
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	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> " 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?
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?
14.3 para 412	Traffic	
14.3.1	Construction	
14.3.1 para 413-414	Construction impacts	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. 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: <ul style="list-style-type: none"> ▪ A1089 ▪ Asda Roundabout (A1089)

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.
14.4	Public transport	
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.
14.5	Footpaths, bridleways and cycle routes	Agreed no routes.
14.6	Visual	
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
14.7	Noise and vibration	
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?
14.8	Air quality	
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.
14.9	Health	

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.
14.11	Built Heritage	No assessment of below ground archaeological deposits. Extensive survival of World War II anti glider ditches.
14.12	Contamination	
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.
Chapter 15: Chadwell St Mary ward		
15.1	Overview	
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 routing 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?
15.2	Project description	
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.
15.3 para 542	Traffic	<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"> ▪ A1089

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
15.4	Public transport	

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.
15.5	Footpaths, bridleways and cycle routes	
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.
15.6	Visual	
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.
15.7 para 583	Noise and vibration	<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: <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>
15.8	Air quality	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 612		
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	<p>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?</p> <p>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?</p>
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 – KB HH
15.9	Health	
para 623-626	Existing situation	<p>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.</p> <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>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		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
15.9.1	Construction	
para 631-632	Measures to reduce impacts on health during construction	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. Further mitigation required than what is proposed in the CoCP/REAC.
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	How has the improvements in accessibility of more than 10% been modelled and calculated? 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.
para 636	Measures to reduce health impacts of the operational project	Further mitigation/compensation required for the negative health impacts on the community here.
15.11	Built heritage	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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
15.12	Contamination	
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.
Chapter 16: Orsett ward		
16.1 para 663-664	Overview	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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. TF</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>
	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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1	The Council's Comments
	<p>Footpaths, bridleways and cycle ways - 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. 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"> ▪ For the local council cycling activity supports many health and wellbeing objectives by encouraging more healthy behaviours and improving the attractiveness of the borough. ▪ 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. ▪ 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. <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>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		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.
	Visual	Visual Impact - 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.
	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. 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>
	Contamination	See general comments.
16.2	Project description	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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> '.
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> '.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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> '.
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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
16.3 para 740	Traffic	
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"> ▪ Rectory Road, Orsett Village ▪ Stifford Clays Road, Orsett Village ▪ B188, Baker Street village ▪ A1014 North Bound ▪ A128 Brentwood Road ▪ Buckingham Hill Road North Bound ▪ A13 West Bound at Stanford Le-Hope Bypass- ▪ Orsett Cock Roundabout ▪ Manorway Roundabout

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>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"> ▪ Measures have insufficiently considered access for educational settings such as Orsett Primary School and William Edwards Secondary school which would be severely disrupted. ▪ Emergency services routes and routes connecting communities to other medical facilities such as Basildon Hospital would be severely disrupted. ▪ 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. ▪ 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. ▪ The impact to business activity within the village i.e. shops, pubs and restaurants has not been considered. ▪ The ward of Orsett has a higher proportion of elderly residents reliant on public transport for access to everyday amenities. <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>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<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	<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>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.</p>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
16.4	Public transport	
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.
16.5	Footpaths, bridleways and cycle routes	
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. See comments on signage above.
16.5.2 para 782	Operations	The mitigation measures have been discussed elsewhere.
16.6	Visual	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
16.7 Para 804	Noise and vibration	
16.7.1 para 810-821	Construction	<p>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 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>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		This is important as the current 'averaged' method is only marginally below BS5228 permitted limits at some assessment locations leaving intermittent exceedances highly probable.
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: <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>
16.8 para 834	Air Quality	
16.8.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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>
16.9	Health	
16.9.1	Construction	
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 an above the CoCP required for residential areas surrounding the junction and for those with reduced accessibility.
16.9.2	Operations	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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).
16.11	Built heritage	
	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	
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	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
16.12	Contamination	
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	
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.
Chapter 17: Little Thurrock Blackshots and Little Thurrock Rectory wards		

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
17.1	Overview	
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). 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.

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	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
17.2	Project description	
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).
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> '.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
17.3	Traffic	
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"> ▪ Daneholes Roundabout (A1013) <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>

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		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.
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	<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>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"> ▪ 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. ▪ Traffic flows into the Daneholes roundabout (southbound) would increase by 20-40% ▪ 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% ▪ Northbound slip of the A1089 would see an increase of 40% in traffic ▪ Dock Road interchange at its junction with Marshfoot, Eastbound increases of 10-20%

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
		<ul style="list-style-type: none"> ▪ The old Dock Road approach towards the Daneholes roundabout an increase of 40% ▪ Increase of between 20 - 40% in long Lane <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	<p>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.</p> <p>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.</p>
17.5	Footpaths, bridleways and cycle routes	
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? TF

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
17.6	Visual	
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.
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.
17.7	Noise and vibration	
17.7.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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 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?
17.8	Air quality	
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.
17.11	Built heritage	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
17.12	Contamination	
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
Chapter 18: Stifford Clays, Chafford and North Stifford, and Belhus wards		
18.1	Overview	
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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	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.
	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
18.2	Project description	
18.2.1	Construction	
para 1057-1061	Construction activities	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 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 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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
18.3 para 1077	Traffic	
18.3.1 para 1078	Construction	<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 these wards at:</p> <ul style="list-style-type: none"> ▪ B186, South Ockendon <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	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
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.
para 1090-1091	Operational traffic flows	Refer to the Council's response to paragraphs 122-124.
18.4	Public Transport	
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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
18.5	Footpaths, bridleways and cycle routes	
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. 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.
18.6	Visual	
	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	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1119	Measures to reduce visual impacts during operation	Standard mitigation only.
18.7 para 1120	Noise and vibration	
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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1140-1142	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? Currently major impacts in construction noise levels.
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.
18.8 para 1151	Air quality	Assessments are out of date and based on old versions of the project.
18.8.1	Construction	
para 1156-1158	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. Air quality impacts stated as temporary but unclear how long temporary is. 3 AQMAs have been highlighted in this ward, but the consultation lacks information on what the impacts will be on these.
18.8.2	Operations	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1160-1164	Operational impacts	<p>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.</p> <p>Little information provided on PM10. No information on PM2.5.</p>
18.9 para 1166	Health	
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.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1181-1182	Measures to reduce impacts on health during construction	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.
18.9.2	Operations	
para 1183-1186	Operational impacts	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. Barely noticeable change in air quality noted but not described by how much and whether this is negative or positive. 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.
para 1187-1188	Measures to reduce operational health impacts	Noise impacts noted for Stifford Clays ward but no mitigation specific to this described.
18.11	Built heritage	
para 1206-1208	Existing situation	No assessment of archaeological deposits
18.11.1	Construction	
para 1209-1211	Construction impacts	Revise definition of setting.

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
18.12	Contamination	
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.
Chapter 19: West Thurrock and South Stifford ward		
19.1	Overview	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.
19.2	Project description	
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.
19.3	Traffic	
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"> ▪ M25 Junction 30 <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
19.5 para 1257	Footpaths, bridleways and cycle routes	Agreed no routes affected.
19.7	Noise and vibration	
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..
19.8	Air quality	
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.
19.9	Health	
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?
Chapter 20: Ockendon Ward		
20.1	Overview	
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
20.2	Project description	
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"> ▪ Stifford Clays Road, Orsett Village ▪ B186, North Ockendon ▪ B186, South Ockendon ▪ B188, Baker Street village <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	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. See the Council's comments on Construction Update (Appendix H (1)).
para 1302-1306	Construction compounds	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. See the Council's comments on Construction Update (Appendix H (1)).
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 WISs 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"> ▪ B186, North Ockendon ▪ B186, South Ockendon ▪ 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 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.
20.4	Public transport	
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.
20.5	Footpaths, bridleways and cycle routes	
20.5.1	Construction	
para 1347	Construction impacts	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. 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.
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.
20.6	Visual	
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).
20.7 para 1363	Noise and vibration	
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.
20.8 para 1390	Air quality	
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	<p>What monitoring will be in place to ensure the improvements described at two points in figure 20.20 will be realised?</p>
20.9	Health	
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"> • The ability to identify stress, anxiety and depression through community engagement activities and to adequately signpost to local services. • 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. • How the training and employment benefits will be secured for the community in Ockendon. • Provision of clear information on the duration of disruption. • Additional mitigation to respond to reduction in access to services/facilities/social networks as a result of public transport delays. <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 though 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	Built heritage	
para 1429	Existing situation	No information on the archaeological deposits present.
	Scheduled monuments	Unlike the summary table does include the scheduled monuments.
20.11.1	Construction	

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
para 1430		
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.
20.12	Contamination	
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. See general comments.
para 1441-1444	Measures to reduce	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?

Relevant Section in the Ward Impact Summaries - North of the River - Part 1		The Council's Comments
	contamination risk	<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.