

# Lower Thames Crossing

## 9.116 Applicant's Comments on IP submissions at Deadline 4

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# 1 Introduction

## 1.1 Introduction

- 1.1.1 The Applicant has reviewed the submissions by others, published at Deadline 4, which are not regarding the Examining Authority's First Written Questions (ExQ1) or post-hearing submissions (from the September hearings).
- 1.1.2 The Applicant has provided responses to part of the following submissions with the aim of assisting the Examining Authority and the Examination process:
- a. Gravesham Borough Council – Response to comments on Local Impact Reports [[REP4-292](#)] (Section 2 of this document)
  - b. Port of Tilbury London Limited – response to comments on Deadline 3 (D3) submissions [[REP4-349](#)] (Section 3 of this document)
  - c. Shorne Parish Council – response to comments on Deadline 3 (D3) submissions [[REP4-396](#)] (Section 3 of this document)
  - d. Natural England – response to Deadline 4 (D4) submissions [[REP4-324](#)] (Section 4 of this document)
  - e. Higham Parish Council – written representation [[REP4-371](#)] (Section 4 of this document)
- 1.1.2 The Applicant has no comments to make on the other Deadline 4 submissions by Interested Parties.

## 1.2 Signposting to other responses to Deadline 4 submissions

- 1.2.1 This does not include those submissions in relation to the following:
- a. Responding to the ExQ1. For information on this, refer to the Applicant's Comments on IP Responses to ExQ1 at Deadline 4 [**Document Reference 9.105**].
  - b. Responding to post-event submissions by others. For information on this, refer to the Applicant's Responses to IP's post-event submissions at Deadline 4 [**Document Reference 9.115**].
  - c. Any comments made on the draft Development Consent Order (dDCO), planning obligations, agreements and the adequacy of security. These have been covered in the Applicant's response to IP's comments on the dDCO at Deadline 4 (**Document Reference 9.118**).

## 2 Applicant's response to comments on Local Impact Reports

Type of submission	Interested Party (IP)	Link to IP's submission / Applicant's response
Applicant's response to comments on Local Impact Reports	Gravesham Borough Council	<p><b>Link to IP's submission:</b> GL3.27 in <a href="#">[REP4-292]</a></p> <p><b>Applicant's response:</b> The Applicant has not stated that the Lower Thames Area Model (LTAM) would not be suitable for testing the impacts of the emergent Gravesham Local Plan. LTAM was developed for the purpose of assessing the impacts of a new river crossing in the Lower Thames area but could be used for modelling Local Plan proposals. It is worth noting that the Applicant has offered the Council the option of the Applicant undertaking a run using the LTAM to help with their emergent local plan, but to date this has not been taken up by the Council.</p> <p>The advantage to Gravesham of using Kent County Council's (KCC's) Kent Transport Model for their Local Plan work lies more around the practicalities of the modelling work, for example they can appoint consultants directly to do the modelling work, they can more easily set up alternative Uncertainty Logs and future scenario tests and model other time periods and forecast years.</p>
Applicant's response to comments on Local Impact Reports	Gravesham Borough Council	<p><b>Link to IP's submission:</b> GL3.4 in <a href="#">[REP4-292]</a></p> <p><b>Applicant's response:</b> The Applicant considers, as set out in the Need for the Project <a href="#">[APP-494]</a> that each of the Scheme Objectives are met by the proposed Project. The Applicant has undertaken its economic appraisal in line with Department for Transport's Transport Analysis Guidance (TAG) as set out in Combined Modelling and Appraisal Report Appendix D: Economic Appraisal Package – Economic Appraisal Report <a href="#">[APP-526]</a> and Combined Modelling and Appraisal Report Appendix D: Economic Appraisal Package – Level 3 Wider Economic Impacts Report <a href="#">[APP-527]</a>.</p> <p>This analysis shows that the Project is forecast to bring '<i>substantial economic benefits to Gravesham and wider to North Kent</i>'. The provision of a new crossing of the river and the relief the Project provides at the Dartford Crossing, compared to a future without the Project, will provide substantial benefits to the area and boost local development.</p>

### 3 Applicant's response to comments on Deadline 3 (D3) submissions

Type of submission	Interested Party (IP)	Link to IP's submission / Applicant's response
Applicant's response to comments on Deadline 3 (D3) submissions	Port of Tilbury London Limited	<p>Link to IP's submission: <a href="#">[REP4-349]</a></p> <p><b>Applicant's response:</b></p> <p>In relation to the ASDA roundabout VISSIM construction assessment <a href="#">[REP3-132]</a> undertaken by the Applicant for construction traffic modelling phase 1, the Applicant has comments on the following paragraphs of the response provided by PoTLL at Deadline 4 <a href="#">[REP4-349]</a>.</p> <p>Paragraph 3.2: The outputs from the LTAM are clear that the traffic flow increases due to the temporary traffic management measures would be far greater in phase 1 than any other phase and it is not correct that the measures in phases 2-4 are likely to have the same impact. The phase 1 impacts are specifically due to the temporary traffic management measures at Marshfoot Road/Chadwell Hill/Brentwood Road, which occur in 300m segments. This is required to carry out the installation of a new electricity network for construction compounds. In phase 1, a contraflow is in place at the roundabout of Marshfoot Road and Chadwell Hill, in response to which local traffic diverts to Dock Road and ASDA roundabout. In phase 2, the contraflow works move further north along Chadwell Hill leaving the roundabout free from traffic management and removing the restriction from phase 1 which caused the reassignment. All phases from phase 3 onwards continue to be free of traffic management measures at the roundabout so the reassignment effect does not re-occur.</p> <p>Paragraph 3.3: The mean maximum queue of 1,009m occurs only for the 08:00-09:00 hour. The preceding hour is forecast a queue of 99m, and the 17:00-18:00 queue is 96m.</p> <p>Paragraph 3.5: The LTAM does show some construction workforce using A1089 and Fort Road, and the proportion of construction workforce traffic that does this is relatively small. In respect of the statement that impacts identified in phase 1 are likely to reflect traffic conditions present throughout all construction phases, this is not correct and the response to paragraph 3.2 provides further explanation for this. Evidence from the modelling which supports this is in Plate 2.3 and Plate 2.4 of Localised Traffic Modelling Appendix M <a href="#">[REP3-132]</a> which shows that the spike in volume capacity ratio on the northern and southern approach is unique to Phase 1.</p>

Type of submission	Interested Party (IP)	Link to IP's submission / Applicant's response
		<p>In relation to comments made by PoTLL in relation to phase 6, the Applicant comments as follows:</p> <p>Paragraph 3.10: The Applicant considers that the impacts are being correctly assessed. It is important to note that Volume/Capacity percentages are not merely a function of traffic volume, but also capacity, and therefore it is not the case that a direct comparison and inferences of V/C can be made based on volume alone. In fact, there is a small increase in construction vehicles on the circulatory of the roundabout (these are vehicles from the port to going to the North Portal that are unable to turn right out of the port). This causes a small reduction in capacity for the northern approach onto the roundabout. In response to the reduction in capacity, there is a small amount of reassignment in the LTAM of cars and light vehicles away from the A1089, hence the volume decreases. Overall, the capacity decrease is greater than the volume decrease, and hence the V/C increases.</p> <p>In relation to comments made by PoTLL on Localised Traffic Modelling Appendix J: ASDA roundabout VISSIM Forecasting Report <a href="#">[REP3-129]</a>, the Applicant comments as follows:</p> <p>Paragraph 4.3: The Applicant rejects the assertion that operational impacts have not been correctly assessed. Growth applied in traffic models rarely results in uniform traffic growth across all links in a model. As a result of the variable demand modelling, the number of trips between particular origins and destinations may change due to behaviour responses to changes in travel time along the network. In addition, the re-assignment of traffic, with drivers taking different routes in the future, again in response to changes in travel times along roads and through junctions in the network, means that it is anticipated for certain links to have a lower flow in a later forecast year. Taking the junction as a whole, Table 4.1 and Table 4.2 shows that there is an increase in flow between 2030 to 2045.</p>
Applicant's response to comments on Deadline 3 (D3) submissions	Shorne Parish Council	<p><b>Link to IP's submission:</b> <a href="#">[REP4-396]</a></p> <p><b>Applicant's response:</b></p> <p>The proposed change to a one Tunnel Boring Machine (TBM) approach would require a minor alteration to the timing of and duration of 24hr working. This would be within the deep cutting, and therefore screened from noise sensitive receptors. No material changes to the noise effects included within the assessment are anticipated. This matter is described in more detail on pages 135 to 137 in Appendix C to the Applicant's Environmental Statement Addendum submitted at Deadline 4 <a href="#">[REP4-175]</a>.</p> <p><b>In response to volume to capacity figures for local roads:</b></p>

Type of submission	Interested Party (IP)	Link to IP's submission / Applicant's response
		<p>The base figure in the forecasts is the forecast number of vehicles on these roads in the forecast year and time period, without the Project. The change in flows is the difference in the number of vehicles on these roads solely as a result of the opening of the Lower Thames Crossing. The capacity of the road is the number of vehicles that can use the road within a defined time period. The traffic modelling forecasts that the greatest impact on these roads would be in the evening peak hour.</p> <p>Plates 7.19 and 7.24 of the Transport Assessment [<a href="#">REP4-148</a> to <a href="#">REP4-152</a>] show that volume to capacity ratios in the 2045 PM peak are forecast to be below 75% without the Project, and between 75 and 85% with the Project. Plate 7.15 confirms the increase in flows in the 2045 PM peak is between 50 and 250 vehicles an hour, and Plate 7.18 confirms this is a flow increase of greater than 40%.</p> <p><b>Response to Brewers Road junction:</b></p> <p>Paragraph 5.9.7 of Localised Traffic Modelling Appendix H [<a href="#">REP1-194</a>] identifies that improvements to traffic signal timings would minimise the forecast queuing on the slip road. The 90m figure is the maximum queue length forecasted and the average queue length would be lower at 18m (taken from Table 5.18 of the same document). The length of the slip road is well in excess of 90m (circa 250m), so there is sufficient stacking capacity on the slip road to accommodate the maximum queue length predicted by the modelling.</p> <p><b>In response to bus routes:</b></p> <p>Plate 6.29 in the Transport Assessment [<a href="#">REP4-148</a> to <a href="#">REP4-152</a>] has been reproduced from the service provider. The Applicant has not omitted any routes from the diagram. The Transport Assessment looked at all bus routes in the area, including the 311, 416 and 417 buses through Shorne in the operational phase and construction phase as appropriate (see Table 6.7 of the Transport Assessment [<a href="#">REP4-148</a>] and Section 8.9 of the Transport Assessment [<a href="#">REP4-152</a>]).</p> <p><b>Response on accidents:</b></p> <p>Plate 9.3 of the Transport Assessment [<a href="#">REP4-152</a>] shows the opposite of what Shorne Parish Council state. The plate shows that the A226 through Shorne and Higham would see a reduced accident benefit which means that an increase in accidents is forecast, not a reduction.</p>

## 4 Applicant A2's response to Deadline 4 (D4) submissions

Type of submission	Interested Party (IP)	Link to IP's submission / Applicant's response
Applicant's response to Deadline 4 (D4) submissions	Climate Emergency Policy and Planning (CEPP)	<p><b>Link to IP's submission:</b>  <a href="#">[REP4-361]</a></p>
		<p><b>Applicant's response:</b>                      The Applicant is considering the matters raised by Climate Emergency Policy and Planning (CEPP) in their Deadline 4 submission <a href="#">[REP4-361]</a> and intend to provide a response by Deadline 6.</p>
Applicant's response to Deadline 4 (D4) submissions	Natural England	<p>Link to IP's submission:                      Annex E in <a href="#">[REP4-324]</a></p>
		<p><b>Applicant's response:</b>                      The Applicant acknowledges that the amended photomontage from Representative Viewpoint S-05a in Environmental Statement (ES) Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 of 4) <a href="#">[REP3-102]</a> indicates greater visibility of High Speed 1 (HS1) infrastructure and passing trains than was apparent in ES Figure 7.19: Photomontages – Winter Year 1 and Summer Year 15 (1 of 4) <a href="#">[APP-244]</a>, submitted with the DCO application. However, the amended photomontage does not change the visual impact assessment presented in ES Appendix 7.10: Schedule of Visual Effects <a href="#">[APP-385]</a>. This is because the visual impact assessment in ES Appendix 7.10 considers the full range of Project design information presented in the DCO application documents. This is evident from the visual impact assessment commentary presented in ES Appendix 7.10, which states that:  <i>'There would be close-range views of the modified A2 corridor and associated vehicle movements. Extensive vegetation loss along the south of the A2 corridor would open up views to HS1... The modified A2 corridor would be visible together with the local distributor roads, resulting in up to 12 lanes of traffic being visible adjacent to HS1, within a wider, open corridor...'</i>                      The effectiveness of proposed planting mitigation is shown in the Summer year 15 view of the amended photomontage from Representative Viewpoint S-05a in ES Figure 7.19. The commentary in ES Appendix 7.10 for the design year (15 years after opening) states that <i>'over time, established mitigation planting adjacent to HS1 would reduce visibility of the railway. However, passing trains are likely to remain visible'</i>.</p>



Type of submission	Interested Party (IP)	Link to IP's submission / Applicant's response
		The Applicant adds that any remaining views of passing HS1 trains in the design year would be fleeting glimpsed views, filtered by proposed mitigation planting and mainly apparent in winter, in the absence of foliage cover on the predominantly deciduous species composition of the proposed planting type: LE 2.4 Linear Belt of Shrubs and Trees.

## 5 Applicant's response to comments on Deadline 2 (D2) submissions

Type of submission	Interested Party (IP)	Link to IP's submission / Applicant's response
Applicant's response to comments on D2 submissions	Higham Parish Council	<p><b>Link to IP's submission:</b> Point 1 in <a href="#">[REP4-371]</a></p> <p><b>Applicant's response:</b> Response to 'Enhanced Cross Sections – DL2': A response on the height of the Lower Thames Crossing southbound to A2 westbound connection is included in the Deadline 5 response to the Examining Authority accompanied site inspection (ASI) action 1B <b>[Document Reference 9.111]</b>.</p> <ul style="list-style-type: none"> <li>• There is a photomontage of the viaduct shown on ES Figure 7.19 (Sheets 1 of 4 viewpoint S-22 <a href="#">[APP-244]</a> and 2 of 4 viewpoint S-28 <a href="#">[APP-245]</a>). Viewpoint S-28 provides a view from the edge of Riverview. Any view of the viaduct from the A226 would be distant and with the vegetation on the southern edge of the A226 restricting the view.</li> <li>• The limits of deviation (LOD) allow a degree of tolerance for the height of the link to be reduced which will be considered at the detail design stage.</li> </ul>

## Glossary

Term	Abbreviation	Explanation
<b>A122</b>		The new A122 trunk road to be constructed as part of the Lower Thames Crossing project, including links, as defined in Part 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1)
<b>A122 Lower Thames Crossing</b>	<b>Project</b>	A proposed new crossing of the Thames Estuary linking the county of Kent with the county of Essex, at or east of the existing Dartford Crossing.
<b>A122 Lower Thames Crossing/M25 junction</b>		New junction with north-facing slip roads on the M25 between M25 junctions 29 and 30, near North Ockendon.
<b>A13/A1089/A122 Lower Thames Crossing junction</b>		Alteration of the existing junction between the A13 and the A1089, and construction of a new junction between the A122 Lower Thames Crossing and the A13 and A1089, comprising the following link roads: <ul style="list-style-type: none"> <li>• Improved A13 westbound to A122 Lower Thames Crossing southbound</li> <li>• Improved A13 westbound to A122 Lower Thames Crossing northbound</li> <li>• Improved A13 westbound to A1089 southbound</li> <li>• A122 Lower Thames Crossing southbound to improved A13 eastbound and Orsett Cock roundabout</li> <li>• A122 Lower Thames Crossing northbound to improved A13 eastbound and Orsett Cock roundabout</li> <li>• Orsett Cock roundabout to the improved A13 westbound</li> <li>• Improved A13 eastbound to Orsett Cock roundabout</li> <li>• Improved A1089 northbound to A122 Lower Thames Crossing northbound</li> <li>• Improved A1089 northbound to A122 Lower Thames Crossing southbound</li> </ul>
<b>A2</b>		A major road in south-east England, connecting London with the English Channel port of Dover in Kent.
<b>Application Document</b>		In the context of the Project, a document submitted to the Planning Inspectorate as part of the application for development consent.
<b>Construction</b>		Activity on and/or offsite required to implement the Project. The construction phase is considered to commence with the first activity on site (e.g. creation of site access), and ends with demobilisation.
<b>Design Manual for Roads and Bridges</b>	<b>DMRB</b>	A comprehensive manual containing requirements, advice and other published documents relating to works on motorway and all-purpose trunk roads for which one of the Overseeing Organisations (National Highways, Transport Scotland, the Welsh Government or the Department for Regional Development (Northern Ireland)) is highway authority. For the A122 Lower Thames Crossing the Overseeing Organisation is National Highways.
<b>Development Consent Order</b>	<b>DCO</b>	Means of obtaining permission for developments categorised as Nationally Significant Infrastructure Projects (NSIP) under the Planning Act 2008.

Term	Abbreviation	Explanation
<b>Development Consent Order application</b>	<b>DCO application</b>	The Project Application Documents, collectively known as the 'DCO application'.
<b>Environmental Statement</b>	<b>ES</b>	A document produced to support an application for development consent that is subject to Environmental Impact Assessment (EIA), which sets out the likely impacts on the environment arising from the proposed development.
<b>Highways England</b>		Former name of National Highways.
<b>M2 junction 1</b>		The M2 will be widened from three lanes to four in both directions through M2 junction 1.
<b>M2/A2/Lower Thames Crossing junction</b>		New junction proposed as part of the Project to the east of Gravesend between the A2 and the new A122 Lower Thames Crossing with connections to the M2.
<b>M25 junction 29</b>		Improvement works to M25 junction 29 and to the M25 north of junction 29. The M25 through junction 29 will be widened from three lanes to four in both directions with hard shoulders.
<b>National Highways</b>		A UK government-owned company with responsibility for managing the motorways and major roads in England. Formerly known as Highways England.
<b>National Planning Policy Framework</b>	<b>NPPF</b>	A framework published in March 2012 by the UK's Department of Communities and Local Government, consolidating previously issued documents called Planning Policy Statements (PPS) and Planning Practice Guidance Notes (PPG) for use in England. The NPPF was updated in February 2019 and again in July 2021 by the Ministry of Housing, Communities and Local Government.
<b>National Policy Statement</b>	<b>NPS</b>	Set out UK government policy on different types of national infrastructure development, including energy, transport, water and waste. There are 12 NPS, providing the framework within which Examining Authorities make their recommendations to the Secretary of State.
<b>National Policy Statement for National Networks</b>	<b>NPSNN</b>	Sets out the need for, and Government's policies to deliver, development of Nationally Significant Infrastructure Projects (NSIPs) on the national road and rail networks in England. It provides planning guidance for promoters of NSIPs on the road and rail networks, and the basis for the examination by the Examining Authority and decisions by the Secretary of State.
<b>Nationally Significant Infrastructure Project</b>	<b>NSIP</b>	Major infrastructure developments in England and Wales, such as proposals for power plants, large renewable energy projects, new airports and airport extensions, major road projects etc that require a development consent under the Planning Act 2008.
<b>North Portal</b>		The North Portal (northern tunnel entrance) would be located to the west of East Tilbury. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.
<b>Operation</b>		Describes the operational phase of a completed development and is considered to commence at the end of the construction phase, after demobilisation.

Term	Abbreviation	Explanation
<b>Order Limits</b>		The outermost extent of the Project, indicated on the Plans by a red line. This is the Limit of Land to be Acquired or Used (LLAU) by the Project. This is the area in which the DCO would apply.
<b>Planning Act 2008</b>		The primary legislation that establishes the legal framework for applying for, examining and determining Development Consent Order applications for Nationally Significant Infrastructure Projects.
<b>Project road</b>		The new A122 trunk road, the improved A2 trunk road, and the improved M25 and M2 special roads, as defined in Parts 1 and 2, Schedule 5 (Classification of Roads) in the draft DCO (Application Document 3.1).
<b>Project route</b>		The horizontal and vertical alignment taken by the Project road.
<b>South Portal</b>		The South Portal of the Project (southern tunnel entrance) would be located to the south-east of the village of Chalk. Emergency access and vehicle turn-around facilities would be provided at the tunnel portal. The tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations.
<b>The tunnel</b>		Proposed 4.25km (2.5 miles) road tunnel beneath the River Thames, comprising two bores, one for northbound traffic and one for southbound traffic. Cross-passages connecting each bore would be provided for emergency incident response and tunnel user evacuation. Tunnel portal structures would accommodate service buildings for control operations, mechanical and electrical equipment, drainage and maintenance operations. Emergency access and vehicle turn-around facilities would also be provided at the tunnel portals.

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