



Lower Thames Crossing Review of Local Refinements Consultation (LRC)

On behalf of **Thurrock Council**



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Registered Office: Buckingham Court Kingsmead Business Park, London Road, High Wycombe, Buckinghamshire, HP11 1JU
Office Address: 10 Queen Square, Bristol, BS1 4NT
T: +44 (0)117 332 7840 E: bristolqueensquare@stantec.com

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	Name	Position	Signature	Date
Prepared by:	Various	Various	Various	June 2022
Reviewed by:	Sharon Jefferies / Keith Mitchell / Chris Stratford	Associate / Director	SJ / KM / CS	June 2022
Approved by:	Keith Mitchell / Chris Stratford	Director	KM / CS	June 2022
For and on behalf of Stantec UK Limited				

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1 Introduction

1.1 Context

- 1.1.1 National Highways (NH) will be re-applying for a Development Consent Order (DCO) to construct and operate the Lower Thames Crossing (LTC), which is approximately 14.3 miles (23 km) of new road connecting the existing road network from the A2/M2, south-east of Gravesend, to the M25, to the north of North Ockendon. The scheme incorporates two 2.6-mile (4.3 km) tunnels under the River Thames and associated modifications to the M25, A2 and A13, and free flowing charging systems. It should be noted that the LTC route (and its Order Limits) through Thurrock accounts for circa 10% of the land area of the Borough. Thurrock would accommodate approximately three quarters (i.e. approximately 14 kms of its full 18.75kms) of the linear above-ground route (4.25kms is in tunnel).
- 1.1.2 The road scheme is classified as a Nationally Significant Infrastructure Project (NSIP) and we understand that there are a further five utility relocation NSIPs within the forthcoming DCO application, therefore consent will be sought via a DCO under the Planning Act 2008 (PA 2008) and the Planning Inspectorate (PINS) will consider the application on behalf of the Secretary of State for Transport. NH's current programme is to re-submit the DCO application in Autumn/Winter 2022/23.
- 1.1.3 At the end of 2018, Highways England (now renamed NH) presented its '*Statutory Consultation Scheme*' for the proposed LTC. A series of design changes was the subject of a Supplementary Consultation exercise which ended in April 2020. A further round of Design Refinement was the subject of non-statutory consultation, undertaken virtually, from 14 July to 12 August 2020. HE made its submission of its first DCO (DCOV1) in October 2020. Subsequently, following discussions with PINS, it withdrew DCOV1 application in November 2020. A further significant Community Impacts Consultation was held from 14 July to 8 September 2021. It was undertaken virtually and at in-person events in response to the Covid-19 pandemic and comments from PINS. A further round of Local Refinement Consultation was held from 12 May to 20 June 2022. It was undertaken virtually and at in-person events. Unfortunately, the Council have not received responses to each of its formal consultation responses, except a brochure following Statutory Consultation some 9 months later in late 2019 and the current report reviewed in Section 4.1 below.
- 1.1.4 In summary, since the Statutory Consultation in 2018 there has been an aborted DCO application and four further rounds of non-statutory consultation. The LTC scheme has changed significantly in the four years since the Statutory Consultation in 2018. The changes have been presented to the public in a piecemeal manner through many rounds of consultation focussed on changes to the scheme. This has created significant 'consultation fatigue' where residents and businesses affected by the scheme have become disengaged, and in many instances, antipathy has set in. The Council is concerned that there is a presumption in NH communications that assumes the majority of people are supportive of the scheme with only the minority expressing concern. The Council asked Survation, one of the UK's most respected market research companies, to survey Thurrock residents and find out their views. The results are clear. Most of those Survation spoke to are aware of NH proposals for the LTC and share the concerns Thurrock Council have about the current plans. It was evident from the research, carried out only a few months ago, that most Thurrock residents: do not believe the Lower Thames Crossing will have a positive impact on the local area; consider that the severity of disruption caused to the local area over several years will outweigh the claimed benefits of the LTC; insist that National Highways must be transparent about the impacts of the Lower Thames Crossing by releasing a Health Impact Report as part of community consultation; and, believe that the estimated reduction in traffic congestion at the Dartford Tunnel is not enough to justify the proposed Lower Thames Crossing. The manner in which NH has undertaken continuous rounds of piecemeal consultation on amendments to the

scheme has confused the public and eroded trust that this scheme will deliver on all of its objectives. The Council's view is that in the interest of fairness there is a compelling justification for a Statutory Consultation to be undertaken prior to submission of DCOv2 for LTC. Without re-consultation on the full scheme that NH intends to submit to DCO, any of those who were entitled to be consulted on the application would be deprived of the opportunity to make any representations that they may have wanted to make on the application as amended.

- 1.1.5 This report has been prepared for Thurrock Council (the Council) to provide a review of the material presented as part of the Local Refinement Consultation (LRC) exercise. Its purpose is to identify areas of concern, potentially significant issues and identify areas of further work required to be conducted by NH in order to allow the scheme to be properly and proportionately assessed and mitigated, prior to DCO re-submission.
- 1.1.6 Overall, the Council has continued actively to engage with NH. However, based upon the consultation materials available, the information presented in the LRC by NH is slim, lacking in any technical materials and often missing key data. It is not supported by evidence that is required for stakeholders, including the Council, to provide an informed response to the proposed design and the wider scheme. Progress by NH on the traffic modelling, air quality and noise assessments and environmental and health impact assessment work has continued to be slow. The result of this is that the Council's ability to engage with NH on the technical analysis of potential effects of the scheme has been so constrained by NH to render it unproductive. Consequently, it has not been possible to appropriately evaluate the effectiveness of any mitigation proposals, prior to the planned submission of the DCO application later this year. The Council contend that, due to this lack of information, a fully informed consultation response is not possible, especially as there are still 500+ significant issues unresolved. Therefore, the Council reserves its right to comment further once this vital information is both available and has been assessed. Further detail on these matters of prematurity are contained in **Section 2** below.
- 1.1.7 This Review of Local Refinement Consultation sets out all the Council's concerns. The Council's comments in the following Review have been restricted to the following three reasons to comment, in order to meet the requirements of the Consultation:
1. Comments that arise directly from the Consultation documents (*'Guide to Local Refinement Consultation'*, *'Map Books 1, 2 and 3'*), but also, we have included the *'Landowner Engagement and Minor Refinements'* and the *'Response to Community Impacts Consultation'* documents.
 2. Missing information and data that has not been included in any of the consultation documents that are significant enough to draw attention to is highlighted, relevant to the topics covered in the LRC. It should be stressed though that there are many other outstanding issues.
 3. Comments that have been made by the Council in previous consultations and which have not been dealt with either in this consultation or so far more broadly. The key deficiencies and omissions both from PINS (which led to the withdrawal of DCOv1) and from the Council are set out below.

1.2 Document Structure

- 1.2.1 This report is structured, as follows:
1. **Section 2** provides the Council's response to issues related to Prematurity and Adequacy of Consultation.

2. **Section 3** provides a Summary of the Council's Outstanding Technical Issues.
3. **Section 4** contains 13 sub sections and sets out detailed technical comments on all aspects of the Local Refinement Consultation.
4. **Section 5** sets out key recommendations and next steps.

1.3 Overview

The Council's Overall Position on LTC

- 1.3.1 As with the four previous rounds of public consultation, the Council's position is one of objection in principle to the LTC scheme as fails to strike an acceptable balance between national benefit in relation to substantial harm to the Borough. This position is unlikely to change as a result of the current proposals, which currently delivers very little benefit for local people and does not deliver on NH's own scheme objectives *"to support sustainable local development and regional economic growth in the medium to long term"* or to *'minimise adverse impacts on health and the environment'*.
- 1.3.2 The Council continues to engage with NH in order to fulfil its statutory obligations and to protect the interests of the Borough. This is important in order to comply with PINS Advice Note Two: *"The role of local authorities in the development consent order process"* (this states at paragraph 6.2 *"Local authorities should engage proactively with a developer even if they disagree with the proposal in principle... Local authorities are not undermining an 'in principle' objection to a scheme by engaging with a developer at the pre-application stage"*). With this in mind, the Council continues to have a Planning Performance Agreement (PPA) in place with NH, which will provide some financial support for resources needed to respond and engage with NH on technical matters. This aligns with the Council's usual practice for major development applications within the Borough.
- 1.3.3 The Council has consistently set out in consultation responses its key issues with the scheme. In February 2021, the Council published its Hatch Report entitled *'LTC Mitigation Benefits'*, which set out in some detail the 58 mitigation, avoidance and compensation measures it required should the scheme proceed.
- 1.3.4 The Council has continued to engage with NH to achieve the measures identified in the Hatch Report through the DCO securing mechanisms and other means, which necessarily will involve much discussion and some compromise. The Council has also engaged with NH on a range of technical matters, inter alia, the transport implications of alternative scheme layouts; impacts on and operation of the local road network; integration with Local Plan growth, housing, and infrastructure; provision for public transport and active modes; provision for future crossings of the LTC; construction traffic and materials handling; traffic management; health impact; climate change; health and equalities; and emergency services.
- 1.3.5 However, progress on agreeing measures for mitigation, avoidance or compensation has been slow and difficult, with very little movement on significant measures and accompanied by behaviours that suggest that the necessary collaboration and engagement from NH to resolve such matters are unlikely. There are no clear signals that NH are sufficiently invested in a commitment to achieve an improved level of support from the Council as main host local authority to LTC prior to the DCO Examination. In its detailed and ongoing analysis of LTC the Council is of a strong view that the extent of local disbenefit arising from the scheme is not outweighed by the scheme's strategic benefit. It will therefore maintain its opposition, whilst negotiating these measures and other scheme improvements, without compromising this overall position.

- 1.3.6 The Council's constructive opposition is to details of the proposed route as set out below in more detail, not necessarily opposition to the principle of a further Thames crossing to improve accessibility across the Estuary, recognising this does not alter the 'in principle opposition' stance.

Summary of the Council's Key Issues

- 1.3.7 The Council has now responded to four previous consultations and offered Executive Summaries of its key issues. The following sets out the Council's current key issues as set out in more detail in **Sections 2, 3 and 4** below. These issues are in response to this Consultation, whilst recognising missing information (deficiencies and omissions) and issues that have not previously been responded to adequately by NH. The following narrative broadly follows the sequential sections of the following Review (**Sections 2 and 3 and Sections 4.1 – 4.13**).

Prematurity and Adequacy of Consultation

- 1.3.8 **Prematurity** – the Council considers that there is a serious issue of prematurity relating to this LRC. It believes that significant further work is needed to be completed in order to address the Council's critical concerns and yet despite this the LRC consultation has proceeded prematurely. Whilst much of this work is being progressed, key information may not be received until post-summer or not until DCO submission and such assessments may lead to further changes which in turn require a further round of consultation.
- 1.3.9 Of principle concern to the Council are the following issues:
1. The LTAM traffic modelling work has been delayed (but now received and under review) and will provide important inputs to other work, yet to be completed – such reviews will establish whether the LTC design works and establish whether there are scheme alternatives that could reduce local impacts whilst retaining strategic benefits. However, important local models remain in process, and it cannot yet be ruled out that data emerging from local models will not have a bearing on the strategic LTAM model.
 2. Detailed meetings are being held to discuss the development and use of local traffic models to assess the traffic impacts of LTC on a number of major junctions in Thurrock (including A13 Orsett Cock, A13 Manorway, A1089 Asda Roundabout), potentially resulting in further mitigation.
 3. LTC have confirmed that assessment work for many topics within the ES and all of the HEqIA are still underway and may not be concluded until after summer 2022 and so as the conclusions are not yet available, it is contended that both further mitigation and scheme changes may be necessary to satisfy the assessment results.
 4. It is expected/required that the LTC project will need to provide further provision and scheme changes to accommodate recent policy changes, especially regarding decarbonisation (in construction especially), active travel and public transport provision. Such changes are likely to need to be significant and therefore need further consultation.
- 1.3.10 So, in summary, following further work/discussions there are very likely to be changes that may require additional consultation for the following significant matters: junction mitigation design changes, additional noise impact mitigation, changes to construction proposals and traffic routing mitigation, additional environmental mitigation, further health impact mitigation and additional provision for active travel/public transport provision.
- 1.3.11 **Adequacy of Consultation** – there are many issues that the Council considers are not adequate in the current LRC consultation: it is not 'local refinement' as there are some 26

changes, and many are quite significant. There has been very little technical feedback since the Council's comments at CIC in October 2021 resulting in over 500 significant issues outstanding and unresolved. The consultation period of 5.5 weeks is insufficient and 8 weeks would have been more suitable. The Council has concerns about the accessibility of the LRC consultation materials giving residents less time to review and comment. There have been no events arranged in Chadwell or South Ockendon, thereby prejudicing those communities. There are some 10 deficiencies/omissions within this LRC consultation that relate to prematurity and other key technical issues. Furthermore, it is important to stress that, in Thurrock, there are currently some 21 Group 3 issues relating to Adequacy of Consultation and 5 issues of Quality of Engagement, all of which are not yet resolved.

- 1.3.12 **Technical Engagement** – in late June 2021, a 'Note of Issues' was issued to PINS collectively from four directly affected local authorities – Thurrock Council, Gravesham Borough Council, London Borough of Havering and Kent County Council, which was subsequently published by PINS. This Note set out a range of issues related to inadequate technical engagement, limited issues resolution, delays and inadequacy of various technical documents, transport/traffic issues, DCO Order issues and DCO timetable. The Council are of the view that over the last year most of these matters of concern have not improved with very little change of attitude at NH. There are still some 11 major concerns relating to technical engagement set out in **Section 2.3.2** below. In addition, **Sections 2.3.4 – 2.3.17** sets out the still outstanding main CIC concerns under the themes of traffic modelling and transport alternatives, local impacts and benefits, the future, the legacy and other technical matters.
- 1.3.13 The Council considers that all these above concerns, Group 3 Issues Log matters and the Council's CIC concerns must be addressed before DCOv2 to resolve the vagueness of the current proposals and mitigations. All of this is likely to result in further design changes probably leading to further NH consultation and so NH's LTC DCO submission programme needs to be much more realistic, i.e. probably Spring – Summer 2023.

Summary of Outstanding Technical Issues

- 1.3.14 This summary is divided into 10 parts for ease of understanding and represents to outstanding Council concerns historically, notwithstanding subsequent comments on the LRC. It is a list in order to effectively summarise key issues, as more detailed descriptions of these matters are either contained in our CIC response, the Group 3 Issues Logs or within this LRC response. There are two broad groupings of Strategic and Local, then there is a list the 10 key issues each divided into more detailed matters. The overall list of 10 matters is, as follows:

- 1 Lack of support for Sustainable Integrated Growth and Development.
- 2 Inadequate incorporation of Strategic Transport/Traffic Latest Policy and Mitigation of Impacts.
- 3 Limited Legacy Provision.
- 4 Inadequate Value for Money against Scheme Traffic or Local Benefits.
- 5 Construction Impacts on Residents and Businesses.
- 6 Local Environmental Health Impacts and Limited Mitigation.
- 7 Inadequate provision of Additional Local Traffic Modelling to address Potential Impacts.
- 8 Local Transport Network Impacts.
- 9 Emergency Services Provision and Utility Relocations.

10 Inadequate Mitigation for Impacts on Local Land and Property.

Response to Community Impacts Consultation

- 1.3.15 This summary (and Section 4.1) is based on Chapter 3 of the *'Guide to Local Refinement Consultation'* (only 10 pp) and on the NH document entitled *'Response to Community Impact Consultation'* (109 pp), which NH maintains is not part of the LRC consultation. These documents tend to use a number of 'stock' responses and is hence quite repetitive. It is resplendent in its confidence that NH has designed a scheme that adequately mitigates impacts and provides benefits to the local community. NH's confidence in its proposals being transformative and responding to public comments belies the barrage of negative technical comments and questions from the Council and other key stakeholders. Furthermore, it is focussed largely on public and landowner responses and does not appear to account for local authority and other technical stakeholder comments.
- 1.3.16 The feedback is presented in 12 tables covering construction impacts; construction impact mitigation; operation impacts of the LTC; operational impact mitigation; concerns about changes south of the river; concerns about changes north of the river; changes in the land needed for LTC; changes regarding special category land and private recreational facilities; concerns about Tilbury Fields proposals; concerns about the height of the landform within Tilbury Fields; concerns about Chalk Park proposals in Gravesham BC; and, concerns about how issues and suggestions have been addressed in previous consultations. As set out in Section 4.1, the Council's broad view on each of these topics of public concern is that NH responses are too general, do not acknowledge any shortcomings of their proposals, 'gloss' over residents real concerns to justify the NH view, allow no room for improvement or change, are wary of 'double-counting' of mitigation claims for various open space initiatives in order to emphasise its intended 'green legacy' and responses are often repetitive.
- 1.3.17 The overall impression after reading this NH document responding to public concerns at CIC is that everything that can be done is being done by NH and is further assisted by these LRC changes. Given the Council repeated technical comments over the last 1-2 years this is a false narrative and misleads the public into the true impacts in detail, the inadequate levels of mitigation in key areas and the need for improved design mitigation, caused in part by the lack of up-to-date assessments and evidence base to make mitigation decisions. Furthermore, the Council disagree with Matt Palmer's claim that the CIC was *"....one of the most comprehensive ever delivered by NH.....it helped us to further develop our plans for this transformative project, so we can maximise its benefits and minimise its impacts."* This has so far not been achieved to the degree required after now 5 rounds of consultation and over 6 years of design development.

Modelling Changes in Traffic

- 1.3.18 The modelling presented in the LRC consultation material indicates that the effect of the new link road between the Orsett Cock junction and the A1089 is that the scheme is no longer reliant on the A1013 for access to the Port of Tilbury and Grays, but further evidence is needed to determine if the main interchange design can accommodate the significant increases in traffic, test the effects of implementing traffic management measures, test the Marshfoot Road junction (particularly the priority junction on the east side of the A1089, which is an accident hot spot) and test the ASDA junction, given that the junction is operating close to its capacity.
- 1.3.19 The modelling results presented do not provide any indication of the wider effects of the project and the new link road, the results are only shown as far as Orsett Cock junction on the A13 and Marshfoot Road on the A1089. The information presented in the *'Guide to Consultation'* could be easily misunderstood by consultees, as the information is shown as changes in traffic flows between the Community Impacts consultation and the current Local

Refinements consultation. The Council reserves judgement on traffic flow changes and network impacts until further evidence is provided and/or analysed to allow an informed and considered judgement of the effects of the project on the local communities and travel networks.

Changes to A13/Orsett Cock Junction Arrangements

- 1.3.20 These proposals do not address the Council's opinion that the interchange between LTC/A13/A1089 and the Orsett Cock junction is overly convoluted, confusing, and potentially unsafe for users, whilst also sterilising a large area within the Borough. The Council has repeatedly requested that NH provides evidence as to the options appraisal for the proposed interchange, such that the Council can take a balanced judgement of the impacts, effects and possible merits of the interchange. The Council notes, however, that there continues to be predicted increases in traffic flow on Brentwood Road, Marshfoot Road, and Buckingham Hill Road / East Tilbury Road corridor as a consequence of LTC.
- 1.3.21 Whilst the overall effect of the adjusted link is welcomed it does not change the very serious concerns the Council has regarding the LTC scheme overall and its proposed configuration at the LTC/A13/A1089 interchange in particular in relation to: Strategic Road Network (SRN) connectivity and inappropriate use of local roads; lack of clarity on NH's A13 trunking / de-trunking proposals; impacts at A13 Orsett Cock junction; inadequate assessment of alternative LTC configuration options; impacts on local roads during operation; and, potential risks to safety within the interchange between LTC / A13 / Orsett Cock and A1089. These are all dealt with in more detail in **Section 4.3** below.
- 1.3.22 The 10 key points from the detail in Section 4.3 are considered to be:
- 1 The Council is concerned that the LTC / A13 / A1089 interchange configuration is using Council roads at the A13 Orsett Cock junction (which is designated as part of the Major Road Network (MRN)) to provide critical SRN to SRN connections. This will be inappropriately reducing the cost of LTC by using this local highway road and junction and will increase future financial burden on the Council, by placing SRN traffic on the MRN junction. It will also mean LTC traffic will use up capacity delivered at this junction as part of the recent and expensive A13 highway upgrades to support local growth requirements and aspirations.
 - 2 The proposals represent a substantive number of weaving points and decision points in short succession. Many drivers will be confused and will find themselves on local roads either from Orsett Cock or having to travel to the North Stifford junction to return via Grays. The option proposed by NH for connection between LTC and A1089 reduces the likely routing through the Manorway junction but introduces further confusion to the operation of the interchange.
 - 3 NH's trunking / de-trunking proposals as part of the LTC scheme are not yet clear and have not been the subject of effective technical engagement and / or consultation. The LTC scheme will inevitably require NH to adjust the boundary between the SRN and MRN via trunking orders and de-trunking parts of the A13. It is currently unclear whether NH will include the Trunking Order as part of the LTC DCOv2. It would also remove any ability of the Council, in all its duties, to influence the future operation of the junction and the adjoining local roads. This would hinder the realisation of high standard connections for active travel and the Council's aspirations for high-frequency and high-quality public transport services along the A1013 corridor.
 - 4 It is a serious concern that the A13 Orsett Cock junction will not be able to operate safely and effectively with the additional traffic that the LTC scheme will route through the junction. NH is yet to complete, after over 9-months, the micro-simulation traffic modelling

(VISSIM) of the junction necessary to demonstrate that once LTC is operational that it can operate safely and efficiently and with a good level of service. The increased capacity delivered as part of the A13 highway upgrades will now be used by traffic arising as a result of LTC for which the Council believes it should be compensated by DfT and a strategy derived by NH as to how that reserve capacity would be reintroduced to the network to allow the Council to realise its local growth requirements and aspirations.

- 5 It is the Council's view that the crucial SRN links between LTC, A13 and A1089 could alternatively be made via a junction at Tilbury and the Tilbury Link Road (TLR). This could enable an alternative LTC / A13 / A1089 interchange configuration (potentially removing some A1089 links), reducing its complexity, scale, cost and local community impacts and making the interchange safer. Since the Statutory Consultation in December 2018, the Council has continually raised concerns about the lack of adequate options appraisal by NH in identifying the preferred LTC scheme configuration along the selected route alignment. These concerns have focused on the configuration of the LTC / A13 / A1089 interchange, the connections between the LTC and the local area, and necessary local highway network mitigation.
- 6 The effect of the new link in increasing traffic flows through Orsett village (Rectory Road / Conways Road) is concerning. Whilst it is noted that the overall predicted effect of the project will be to reduce flows through the village, the Council remains very concerned about LTC's traffic impacts on Orsett Village during construction and the ongoing risk of rat running through the area once LTC is operational due to potential congestion at the A13 Orsett Cock.
- 7 The Council believes more detailed local junction modelling work is crucial to understanding and developing the junction improvements, that the Council believes will be required to mitigate the impacts of LTC and to support local sustainable growth aspirations. Micro-simulation (VISSIM) models are now being developed by NH for the A13 Orsett Cock, A13 The Manorway and for an East-West Corridor through Thurrock (A13 Stifford Clays – A1013 Lodge Lane – A1013 Daneshole Roundabout – Old Dock Approach Road – Marshfoot Road / A1089) and this ongoing work is being discussed with the Council.
- 8 The Council initial review of NH's latest strategic modelling (LTAM DCOv2) has determined that there are impacts of the LTC on Thurrock's LRN at A13 Orsett Cock roundabout, A128 Brentwood Road, Marshfoot Road and Priority Junction, Buckingham Hill Road, Muckingford Road and Fort Road / Turnpike Lane / Station Road. At present NH's strategic and local modelling work appears to be piecemeal and disjointed and a programme is required to help the Council understand the interdependency between the different modelling workstreams and to forward plan its own resources.
- 9 The Council presented a Technical Note (date 11 January 2022) to NH on its concerns regarding the perceived safety and operational challenges associated with the proposed interchange between LTC, A13, A1089, A1013 and A128 (which incorporates the Orsett Cock junction). The interchange is a non-typical arrangement that incorporates numerous and frequent decision points with many merges and diverges. Drivers will be confused as they seek to navigate through the junction, and this will be magnified where the design and layout of the network is substandard.
- 10 NH has effectively concluded that the safety matters raised by the Council are either not of concern or can be mitigated during detailed design. This response is unreasonably dismissive, and it is considered inappropriate to delay resolution for post DCO submission or grant. The Council is of the opinion that the Stage 1 Road Safety Audit undertaken by NH is not an adequate review for the level of design required for DCO submission and as

a minimum would expect the undertaking of an Interim Stage 2 Road Safety Audit, which could focus on the more specific points that we have raised through our review.

Tilbury Fields

- 1.3.23 The Council still has outstanding concerns that have yet to be resolved. In particular, the Council requires the alternatives options appraisal analysis to be provided to demonstrate that the currently proposed site is appropriate and why the East Tilbury Landfill area was not included in order to lower landform levels. The Council continues to request visualisations showing how the new earthworks will appear from Coalhouse Fort in context with intervening East Tilbury Landfill to better understand its visual effects on this sensitive heritage site. In addition, the Council has requested to see more details of the emerging design, including habitat features and their future management prior to DCO submission at the earliest opportunity to enable adequate time for review.
- 1.3.24 The Council has requested that a horse-riding route connecting the Two Forts Way to FP200 is included as part of the scheme. In addition, the Council is still concerned that the separation of habitats caused by the Tilbury Viaduct has not been satisfactorily addressed and requires further work to demonstrate that this separation is prevented, possibly by the creation of a new wildlife corridor.
- 1.3.25 The final design of the public open space provision and facilities have yet to be prepared and will not form part of the DCO, however, the Council requires additional Design Principles and an 'Indicative Plan' to be prepared, so that the design of Tilbury Fields is both constrained, controlled and delivered as discussed to the appropriate standard and agreed with the Council. In particular, these should include the layout, route of all the WCHs, surfacing palette and ecological finish and details of any structure/building.

Tilbury Operational Access

- 1.3.26 The provision of a new junction at Tilbury is supported in principle by the Council, if it is accompanied by a commitment to deliver the future Tilbury Link Road (TLR) that it is intended to facilitate. In the absence of this commitment, the junction is over-specified for an operational and emergency access only. Simply provided as an operational and emergency access it is an expensive and unnecessary luxury in the context of the LTC scheme as currently proposed.
- 1.3.27 It is the Council's view that NH has to date not completed (or presented as part of this Local Refinement Consultation) adequate option assessment, traffic modelling and design development work in relation to the LTC scheme overall, at the A13 Orsett Cock junction or at the proposed Tilbury junction to enable it to make fully informed judgements and comments on this latest proposal. The Council expects NH to demonstrate that the proposed junction design will provide the vital capacity, connectivity, configuration and operational performance required to accommodate future traffic, public transport and walking, cycling and horse-riding (WCH) movement demands arising as a result of the proposed LTC scheme configuration with a TLR in place and with local growth aspirations for the area (e.g. Thames Freeport expansion and the Thurrock emerging Local Plan).
- 1.3.28 The Council's view remains that the LTC scheme should include provision of both a junction at Tilbury and the TLR to connect LTC to the A1089 and provide multi-modal access to the Tilbury, East Tilbury and potentially Chadwell St Mary Growth Areas. TLR is fundamental to support Thames Freeport access and growth (a key part of Government policy) and Local Plan development aspirations in the area and should be brought forward as part of the LTC DCOv2 scheme. The Tilbury junction and TLR would also enable public transport connectivity to support sustainable development in the Tilbury Growth Area and East Tilbury and provide

direct access from Thurrock to LTC unlocking opportunities for the delivery of Cross River public transport services in the future.

- 1.3.29 NH's recent letter (11 May 2022) to Thurrock Council casts serious doubt that the Tilbury Link Road would be eligible for funding via any future RIS3 programme and therefore the Council believes that it is now very clear that the most efficient way of delivering the TLR is as part of the LTC scheme. The Council has reviewed the comparative programmes for delivery and provided alternative timelines for further consideration and believes that a Combined LTC / TLR scheme DCO could only take 12-18 months more than the LTC only scheme DCO. If TLR is not included within the LTC scope, then it becomes essential to find ways to accelerate its delivery using alternative funding and delivery mechanisms and there must be a firm legal commitment from NH/DfT for its provision.
- 1.3.30 The Council has continually raised concerns about the lack of adequate options appraisal by NH in identifying the preferred LTC scheme configuration through Thurrock. Also, NH has not yet completed the VISSIM operational traffic modelling work at the A13 Orsett Cock Junction. The Council is concerned that without completion of this work it is not possible to fully understand whether the proposed Tilbury junction design provides adequate future capacity to support delivery of a Tilbury Link Road and growth in the area.
- 1.3.31 The Council has a number of concerns related to the half-clover leaf junction configuration and design as currently proposed which requires further evidence to be provided by NH covering junction design options assessment, junction design capacity and standards, provision of a future East Tilbury link and the ability to accommodate future public transport and active travel.

Utilities

- 1.3.32 Section 4.6 contains many detailed comments about the proposals and whilst many of them are largely supportive of the changes, there are a number of concerns, relating to the following matters:
- 1 The main concern and note is that NH do not appear to have addressed or referenced the previous extensive comments made and issued at the CIC in October 2021. Furthermore, there does not appear to be any detailed information regarding the other five utility infrastructure NSIPs.
 - 2 Refinements to the electricity diversion north of St. Marys Lane – it is unclear what diversion works these are in reference to, no electricity diversion is shown in that area. Therefore, the Council requires further clarification at the earliest opportunity to assess this proposal.
 - 3 In order for the Council to review and comment on the utilities NSIPs it is necessary to provide further details of these works and the assessments related to them. This section also does mention that one NSIP for the high-pressure gas pipeline diversion, but more detailed information is needed, for example, current existing location, consultation distances, etc.
 - 4 The proposal to extend the Order Limits to include the former Tilbury Power Station and former coal yard. Due to its previous use, the Council requires confirmation as to whether a search has been conducted to determine whether any existing utilities infrastructure remains on site.
 - 5 The East Tilbury and Linford (ETL) Gun Club is needed to install a new electrical overhead line. The Council requires confirmation that there is minimal or no risk to damaging the overhead lines, during the activities of the Gun Club or that the club and its members are not adversely affected.

- 6 We note that there is no mention of the proposed National Grid (NG) 'East Anglia GREEN' project, of which the current potential alignment options intersect with LTC works around Tilbury. The Council requires clarification and details on how the LTC works will operate alongside NG's East Anglia GREEN project.
- 7 There are areas of detail that need to be enhanced to provide clarity on the proposals associated with utilities diversions and corridors. Unfortunately, none of the existing utility infrastructure is shown on maps, which does not allow one to see how the proposed diversions or new infrastructure relate to the existing.
- 8 Furthermore, the utilities information provided is vague and general. Plans showing detailed utility infrastructure are needed to be able to review the proposals appropriately.

Walking, Cycling and Horse Riding (WCH) Routes

- 1.3.33 The proposals seem broadly acceptable; however, the Council has previously requested that one route within Tilbury Fields should be suitable for cycle and horse-riding users as this provides an alternative connection between FP200 and FP146. This should be shown.

Landscaping Changes at A13 Junction and North Road

- 1.3.34 The revisions to the landscape design for the A13 / A1089 junction (and M25 / LTC) have been driven by the need to reduce the amount of excavated material that requires removal outside of the Order Limits. It is proposed that clean excavated material would be used to create 'noise mitigation bunds, enhance biodiversity and create other environmental benefits.' A total of six landscape features are proposed around the A13 / A1089 junction, with a seventh comprising of a bund around the relocated Gammonfields Way traveller site.
- 1.3.35 The proposed maximum heights for the individual earthworks are provided, however, no detailed cross sections have been included, which is considered an omission. The individual earthworks are plotted with very close contours which indicate that they will be steep-sided.
- 1.3.36 The Council wishes to see the detailed cross-sections for each of the seven earthworks in context with the surrounding existing and proposed roads, and where relevant, buildings prior to DCO submission to better understand the visual effects of the revised proposals. If appropriately contoured, they could have potential to soften the visual effects of the new roads and structures.
- 1.3.37 No detail of the revised planting mix has been provided. It is stated that this will be set out within the Outline Landscape and Ecology Management Plan as part of the DCO submission and not before, which is not acceptable. Also, semi-mature tree planting is shown on the top of the bunds in illustrations within the LRC Guide, although no year is given to show how long it is expected to take to reach this point. The Council has significant concerns about the potential success of tree planting on these high bunds as they will be prone to drought and it would not be feasible to irrigate them, so further details are required. Furthermore, the Council wishes to have details of the proposed planting mix prior to DCO submission to be confident that it is likely to succeed on these steep earthworks.

Air Quality and Noise Impacts

- 1.3.38 It is clear that the revisions to the Orsett Cock junction to A1089 link road will result in changes to traffic flow on numerous roads within Thurrock (as evidenced in Figures 4-21 to 4-26 of the LRC) with resultant changes in the air quality and noise impacts associated with LTC. In the absence of traffic data for these road links it is not possible to provide comment on the wider potential noise and air quality impacts. There is also no information provided on construction traffic impacts. Furthermore, the qualitative narrative as to the potential changes in air quality

resulting from these changes are considered speculative and not in keeping with the seriousness of the health effects of air quality and it is disappointing the NH have given that topic such cursory consideration.

- 1.3.39 It is not clear from the information provided whether detailed acoustic modelling has been undertaken for the identified areas or whether simplistic calculations have been undertaken to quantify the impacts. The lack of clarity in this regard is disappointing, as the inclusion of the results of acoustic modelling would allow greater insight into where impacts have either improved or deteriorated, as well as provide greater clarity to inform the public. This is particularly of concern close to the southbound off-slip of the Lower Thames, to the east of the A13 / A1089 junction. The LRC reports a change from a moderate / major beneficial effect to an adverse effect but does not quantify the extent of the adverse effect.
- 1.3.40 The Council therefore repeat our request for NH to provide inputs and results for air quality and noise modelling assessments, in an accessible format, to allow meaningful review and understanding as soon as possible, to enable the Council to review and discuss with NH and any additional mitigation provided in a timely manner, prior to DCO submission.

Proposed Order Limits, Land and Private Recreational Facilities Changes

- 1.3.41 There were a range of NH policies offered at the CIC and continue to be offered and are within the LRC document library, however, despite Council comments in October 2021, these have not changed. We set out below a summary of our comments on each of these documents.
- 1.3.42 The brochure '**Your Property and Blight**' goes no further than the statutory position in terms of the blight process and the compensation that is offered, that being the full unaffected market value of the property (plus additional home loss if the property is residential).
- 1.3.43 Also, the '**Your Property and Compensation or Mitigation for the Effects of our Road Proposals**' goes no further than the statutory position in terms of mitigation of any environmental impact and the compensation payable if the compulsory acquisition of land is required in order to undertake mitigation works. For 'Offsite Planting Agreements', it is not clear at what stage and for whom this policy might be available. Finally, noise insulation is offered in line with the Noise Insulation Regulation, 1975, and this also only follows the statutory provisions and does not include any enhanced offer. In addition, NH includes a policy for claims that can be made for disturbance either from construction works or from traffic using the new or improved road. To qualify for a noise payment due to construction noise, the noise from the construction of a new or altered highway must have seriously adversely affected the enjoyment of a mobile home for a continuous period of six months. In the Council's view the policy includes a number of conditions some of which raise concerns and should be amended to protect residents in movable homes impacted by the LTC scheme, such as the existing travellers at Gammonfields, whom are proposed to be relocated.
- 1.3.44 There is also a policy for residents that live adjacent to the site of the construction works for a new or improved highway, where the physical effects of the works are causing such significant disruption and discomfort as to make their continued occupation not reasonably practicable. This policy is seemingly in place as an alternative, where noise insulation is deemed disproportionately expensive for the length or extent of the construction impact. As a general point, there is not enough detail or support provided within the policy. The policy is only available to occupiers living adjacent to scheme works – the definition of which is unclear. There is no allowance for support in maintenance of impacted properties – for instance window, building or front garden cleaning. No procedure or response timeframe for application is included within the policy. There should be specific consideration for categories of persons that would suffer an exacerbated impact due to noise and construction work, such as but not limited to, vulnerable persons and night/shift workers.

- 1.3.45 The Off-Line Discretionary Purchase policy sets out the options for residential property owners who may have a pressing need to sell their property and are unable to do so except at a significant loss as a result of the LTC scheme. The aim of a policy such as this should be to allow the local market to continue to operate in a normal manner and to provide comfort and certainty to impacted residents and local businesses. In the Council's view, this policy does not provide that support. The offer extends to residential properties only and does not offer any support for local businesses or other use types. The policy should be extended to all with relevant land interests. NH should expand this policy to create Offer Zone both along the Order Limits of the scheme and for surrounding properties that will suffer noise and construction impacts and the hardship element of the policy should be removed.
- 1.3.46 The brochure '**Your Property and Discretionary Purchase**' outlines the need to sell, hardship and mechanisms in which a property could be purchased by LTC outside of compulsory purchase. It does not offer anything outside of statutory minimums and the Council would request further information around the need to sell on grounds of noise disruption and how the threshold noise level that causes disruption to property owners was set at 70dB.
- 1.3.47 The brochure '**Your Property and Compulsory Purchase**' describes the compulsory purchase process, compensatable interests, disturbance, claiming compensation and the advance payment mechanism. The policy goes no further than the statutory position in terms of compensation offered and timescales for responding to advance payment requests and compensation claims, essentially it is considered insufficient by the Council and the Council request further consideration be given to additional non-statutory compensation to address these concerns.
- 1.3.48 There is an inconsistency with the A66 Trans-Pennine project and LTC, as the A66 project offers an Acquisition Completion Premium, whereby those who agree to sell within 12 months of having been advised of the scheme will receive a premium on the land acquisition compensation only of 20% - this is not being offered for LTC.
- 1.3.49 For public open space, under s19 of the Acquisition of Land Act 1981 an acquiring authority is in all but a limited number of cases that where the land to be acquired forms 'part of a common, open space or fuel or field garden allotment' that there will be provided as replacement land to fulfil the function of the land acquired and that other land will be of no lesser area and no less advantageous. This requirement should apply both in respect of land permanently acquired and that acquired temporarily. Failure in either circumstance would leave the residents of Thurrock with less of this particular land type.
- 1.3.50 The document entitled 'Landowner Engagement and Minor Refinements' has been reviewed and whilst the majority of changes do not affect Thurrock-owned land, there is one – additional landscape screening is proposed around the relocated Gammonfields Way traveller's site, but it is unclear how this is impacted from the provided maps, we would request additional information and timescales.

Nitrogen Deposition Impacts and Mitigation

- 1.3.51 The Council understands that the need for additional mitigation has arisen to revisions in assessment methodology in response to the latest scientific opinion and discussions with Natural England. The new assessment takes into account ammonia emissions which are not expected to decrease as rapidly as nitrogen oxides. No detail has been provided regarding the methodology for quantifying the predicted emissions or for determining what levels of mitigation would be required. As a result, it is not possible to assess the robustness of the assessment and proposed mitigation and compensation. The mitigation hierarchy requires that avoidance and mitigation are fully considered before compensation measures are adopted as a final level. No detail has been provided setting out the reasoning why measures

such as lower speed limits could not be enforced along the route. The Council wishes to see the detailed evidence justifying the proposed approach.

- 1.3.52 The Guide states that, while the primary purpose of the compensation sites will be to compensate for nitrogen deposition, the land could provide other benefits, such as increasing public access and landscape enhancement, but it not clear if such double-counting is possible.
- 1.3.53 It is clear that proposals for the Thurrock sites have not been developed in detail. It is unclear why 'security fencing' would need to be erected around the perimeter of these sites as a first step. What type of fencing is proposed? How long would it be in place? It is essential that Thurrock Council is involved in development work to ensure that these schemes deliver appropriate new habitat and wider green infrastructure benefits that accord with the Council's emerging Local Plan. We therefore request an additional DCO Requirement to cover such controls and discussions.

Health, Equalities and Wellbeing

- 1.3.54 It is known that many factors contribute to health, equalities and wellbeing, some of which we have more control over others; genetics, lifestyle, community, local economy, the activities we undertake, our built and natural environments and the global ecosystem all play a part. Informed by the WHO's broad definition, our review will consider the following aspects: environmental, psychological, social, physical and economic. The LRC review has considered key concerns raised at the CIC stage to inform the assessment of the LRC and suggestions for Further Clarifications.
- 1.3.55 The key points made in the CIC are reiterated, as are the recommendations of the Independent Review agreed by all nine local authorities. NH responded, advising that the next iteration of the HEqIA will not be available to view until after the submission of the DCO application. This is unfortunate, particularly given the potential changes to impacts as a result of the LRC, the fundamental significance of those recommendations and given that NH state that the aim of the consultation is to improve the project for local people. Without sight of an updated assessment, the conclusions of still stand, and the Council cannot comment on the health outcomes highlighted in the HEqIA in relation to the LRC. The primary impacts identified during the construction phase are set out below in **Sections 1.3.56 – 1.3.59**.
- 1.3.56 The Council's CIC review identified that there were limited mitigation options proposed for the closure or diversion of WCH links during construction, with few diversions provided and the risk of the closure of some routes for several years throughout the construction phase. The Council still considers this unacceptable and has requested the provision of temporary diversions on suitable and similar routes for all closures to avoid severance and other community effects, such as limitations to the accessibility of active travel routes. As yet, these have not been confirmed, although some progress has been made and it is therefore suggested that these commitments are clarified to the Council for an assessment of the potential health, equalities and wellbeing effects to ensure no adverse effects to active travel opportunities.
- 1.3.57 The CIC review highlights a lack of secured benefits for existing communities and future growth in Thurrock. In addition, the 6-8 year construction period will create unacceptable impacts to the local community. Major concerns are highlighted as effects to the local road network, WCH route closures and environmental effects of which air quality degradation, noise disturbance and the deleterious effects on sense of place and cultural assets would have the greatest impact to health, equalities and wellbeing of the local community.
- 1.3.58 The potential health, equalities and wellbeing impacts of the LRC have been considered in the context of the baseline conditions, the HEqIA reviewed at CIC stage and the independent review and are also informed by the information regarding the LRC as prepared by NH. This

LRC review has been grouped under six themes in line with NH's Guide to LRC document: sustainable construction, changes to Tilbury Fields, landscaping and provision of open space, transport proposals, WCH provision for active travel and utilities.

1.3.59 The 10 key points from the detail in Section 4.12 are:

- 1 Lack of any formal responses until after DCO submission, within the HEqIA methodology to the 20 recommendations within the Independent Review of the HEqIA for DCOv1.
- 2 NH advises that the air quality and noise impacts of the new link road will be fully assessed and presented in the Environmental Statement included as part of the DCO submission. Without prior sight of this information a robust assessment of the potential extent of changes to air quality and noise and the potential effect to health, is not possible.
- 3 It is not clear which communities / aspects of communities may be affected and therefore the potential health, equalities and wellbeing impacts. With regards to access to local opportunities for active travel. NH have not yet committed to diversion routes to WCH routes affected during construction, stating that "*potential diversions...would be discussed with relevant stakeholders*". Therefore, a robust assessment of the potential effects to active travel cannot yet be made for the construction phase.
- 4 Without updated transport, air quality and noise modelling it is not possible to quantify the potential health impacts of the proposed refinements to transport proposals during construction. Furthermore, NH has not currently committed to mechanisms to reduce the impacts of the materials handling for the project; the greening of the construction fleet, plant and equipment; and reducing the travel impacts of the construction workforce.
- 5 The Council confirmed to NH that the proposed WCH routes and crossings should meet LTN 1/20 standards and although progress has been made there is not final agreement on provision and standards.
- 6 It is also unclear as to how local communities will benefit from the proposals set out in the LRC proposals, whereby no clear commitments have been made to the project's legacy, such as employment and upskilling. The Council has therefore requested sight of the final SEE Strategy (as without this we are unable to assess effects to the local community) and a clear mechanism for securing targets within the DCO, via the SEE strategy. The final SEE strategy is awaited to assess commitments proposed towards local skills and employment.
- 7 No substantive commitments as to how the proposals would adapt and respond to transport decarbonisation. Climate change is an important consideration in regard to health, equalities and wellbeing, whereby a reduction in pollutants is beneficial to health (such as lung and cardiovascular health) and the implementation of climate resilience measures helps in mitigating the potential physical and mental health effects of climate change.
- 8 The reduction of HGV movements on local roads would likely have a positive health, equalities and wellbeing effect to physical and environmental health through a reduction in congestion and resultant air and noise pollution. NH must commit and incentivise its contractors (via securing mechanisms within the DCO) to meet and exceed current levels, whilst also investigating how to further reduce the movement of all materials, plant and equipment – particularly by road using marine transport and other means.
- 9 There is the potential for construction noise effects to local receptors, such as the residential areas of East and West Tilbury. However, although these would be temporary

it would be experienced over a 6-8 year period - therefore, for people in later life the impacts could result in a permanent erosion of the quality of their remaining life.

- 10 The temporary / permanent purchase of land for private recreational facilities, this would have an adverse effect to health, equalities and wellbeing due to the closure of exercise and recreational facilities during construction and / or operation of the LTC scheme. Without clear commitments at this stage, it is difficult to assess the potential impacts in this case to health, equalities and wellbeing beyond being adverse.

Climate Change and Decarbonisation

- 1.3.60 The Council seeks clarity on how 'new standards for reducing carbon during construction' have been incorporated into the design of these local refinements and carbon reduction has been achieved through these design changes.
- 1.3.61 Further information is required to understand how the habitat proposals are designed to achieve the objective of a landscape-scale compensation approach and how the habitats will be established to be resilient to the impacts of climate change. Furthermore, the Council seeks clarity about how commitments will be made in DCOv2 to ensure habitat design and delivery will maximise carbon sequestration where appropriate balanced against good design for nature recovery.
- 1.3.62 The Council wishes to have details of how the LTC's 'pathfinder' status will be delivered and secured prior to DCO submission. The Council would expect to see details of what infrastructure will be included within the DCO to enable carbon neutral construction.
- 1.3.63 The Council seeks clarity and confirmation on details of how innovative ways of building and operating the infrastructure will be delivered and secured prior to the DCO submission. As per our previous '*Review of Community Impacts Consultation*' response the proposals should clearly address how the scheme will support the 6 strategic priorities set out in the *Transport Decarbonisation Plan* (Pages 36-37).
- 1.3.64 The Council would expect to see details of the infrastructure delivered to enable users access to hydrogen or electricity to achieve NH's statements within the DCO submission. Also, the Council requests clarification on how the DCOv2 will be sufficiently transformational to demonstrably reduce the proportion of journeys undertaken by car.
- 1.3.65 The Council are seeking clarity from NH on how their Net Zero Highways Strategy will be translated into DCOv2 commitments to deliver significant reductions in direct greenhouse gas emissions during construction and provide infrastructure beyond the construction of LTC to ensure the continued transition to net zero of the Thurrock economy. Clear commitments and mitigation measures should be set out in DCOv2 to demonstrate how the scheme will lead the way on decarbonisation throughout its lifecycle. Furthermore, there is still a lack of clarity in terms of commitments that will be incorporated within the DCOv2 application "*to mitigate the impacts of the Scheme and to realise and deliver value-for-money and positive outcomes for local communities and the environment*".

2 Prematurity and Consultation

2.1 Prematurity

- 2.1.1 The Council continues to have significant objections to the Lower Thames Crossing scheme proposed and in late January 2022 urged National Highways to reconsider the appropriateness of holding another consultation at this stage. Consequently, the Council continues to urge National Highways to commit instead to re-focus its efforts on a collaborative approach to work with the Council to address serious concerns with the proposed scheme following this round of premature consultation, which may as a result of such critical technical information being supplied, require further consultation.
- 2.1.2 The Council has a wider concern with NH's intended programme for DCO submission later in 2022. It believes that significant further work is needed to be completed in order to address the Council's concerns. Whilst much of this work is being progressed, critical information may not be received until post-summer (for instance, some is delayed by over 3-months on the original traffic modelling programme) or not until DCO submission. This would leave the Council with very little time to review and therefore adequately represent the views of its residents or as a technical authority in certain matters. In addition, such assessments may lead to further changes which in turn require a further round of consultation.
- 2.1.3 There is therefore a serious issue of prematurity relating to this LRC. Through the Council's engagement with NH, a very wide range of issues have been raised and discussed. There is much ongoing discussion and packages of work in progress, which could have a significant bearing on the scheme being promoted. Of principle concern to the Council are the following issues:
- 1 Traffic modelling work continues at both the strategic and local level. This work has already been significantly delayed and its outputs will provide important inputs to other studies, yet to be completed. It is recognised that the Council has received the updated LTAM Cordon Models for both operation and construction in May-June 2022, but important local models remain in process, and it cannot yet be ruled out that data emerging from local models will not have a bearing on the strategic LTAM model. It would be entirely normal for iteration between strategic and local models to take place to ensure local mitigation is taken into account in delivering robust outcomes. However, there is no indication that this will take place, thus reducing confidence in model output.
 - 2 As the traffic modelling is still being refined for both construction and operation, it is unclear if its outputs will affect the current proposals for construction, operation or the permanent design.
 - a. The Council has not yet had the opportunity to review any construction methodology, how this has been applied in the construction models and how this might have a bearing on the need for construction traffic management. There have also been recent changes to proposals for transporting construction materials and the Council wishes to see these extended further. Construction impacts on Thurrock residents and businesses could be severe and last over a period of years. The Council therefore believes that this needs to be tested and mitigation proposals secured before finalising the proposals. Although it is recognised that the Council has received the updated LTAM Cordon, this alone provides insufficient detail.
 - b. The Council is in the process of reviewing further Lower Thames Area Model (LTAM) refinements to establish whether the LTC design works and establish whether there are scheme alternatives that could reduce local impacts whilst retaining strategic benefits. These alternatives include an assessment of how the LTC and Tilbury Link

Road (TLR) will facilitate attractive options to increase mass rapid transit operations necessary to support Local Plan and Freeport growth. Notwithstanding this, NH submit that the current scheme is robust as currently envisaged, but the Council believes that the scheme is not robust and that this position cannot be substantiated until the implications of Local Plan and Freeport growth and its infrastructure requirements (including the TLR) have been fully understood and accounted for. It should be noted that very recent changes to the A13 junction have been brought about by a review of outputs from recent iterations of the LTAM and further alternative configurations remain under consideration. NH are still testing the scheme and it is highly likely that further changes will be required once future traffic and non-motorised travel requirements are properly understood.

- 3 Traffic modelling work continues, and National Highways has provided us with an ever-changing and much-delayed programme for further detailed modelling work, which remains under Council scrutiny. NH has informed the Council that only once traffic modelling work is completed can the updates to the noise and air quality assessments be started, and outputs produced some months after. This data then needs to be reviewed and further mitigation may be required, which would then directly affect residents. NH remain convinced that this further assessment work will not result in any further impacts or need for additional mitigation. The Council is unconvinced by this position and further contends that the NH position on this matter is inappropriate and not in the best interest of the public.
- 4 Detailed meetings are being held to discuss the development and use of local traffic models to assess the traffic impacts of LTC on a number of major junctions in Thurrock (including A13 Orsett Cock, A13 Manorway, A1089 Asda Roundabout). This may result in the need for further mitigation to identified impacts involving scheme design changes, which may have a bearing on the scope of the DCO application.
- 5 LTC have confirmed that assessment work for many topics within the Environmental Statement (ES) and all of the Health, Equalities Impact Assessment (HEqIA) are still underway and may not be concluded until after summer 2022, at which time stakeholders may be just presented with those results over the summer-autumn period, just prior to NH's intended re-submission of the DCO. As the conclusions are not yet available it is contended that both further mitigation and scheme changes may be necessary to satisfy the assessment results, Environmental Impact Assessment process and stakeholders' requirements, which could require further consultation.
- 6 In view of the DfT's *'Decarbonisation Transport Plan'* and NH's own *'Net Zero Highways Plan'* both published in 2021 and the Government now legal commitment to reduce carbon by 78% by 2035 and achieve its carbon budgets, it is expected / required that the LTC project will need to provide further provision and scheme changes to accommodate these recent policy changes, especially regarding decarbonisation (in construction especially), active travel and public transport provision. Such changes are likely to need to be significant and therefore need further consultation. It is recognised that LTC has now been designated a 'pathfinder' project in February 2022. It is recognised that this designation may help NH explore carbon neutral construction and may help the UK reach net zero by 2050, as part of its efforts to make the new crossing the greenest road ever built in the UK. The Council awaits further evidence that this laudable aim will be affordable and deliverable, and in the absence of such crucial information is concerned that the claims being made are tantamount to greenwash.
- 7 Thurrock Council is positively engaging with NH in the work being undertaken to consider these issues and it would appear prejudicial to the outcomes to be seeking views on the scheme before this work and assessments are completed, thus risking the need for yet more consultation should further changes be required.

- 2.1.4 Consequently, following further work / discussions there are changes that may require additional consultation for the following significant matters: junction mitigation design changes, additional noise impact mitigation, changes to construction proposals and traffic routing mitigation, additional environmental mitigation, further health impact mitigation and additional provision for active travel / public transport provision.

2.2 Consultation Arrangements

- 2.2.1 **Not Local Refinement** – as the Council stated in its comments on the draft SoCC Addendum in late-January 2021, we do not agree with the title or the impression of this consultation and ‘local refinement’, i.e. it misleads the general public, Thurrock residents and other stakeholders, that this consultation involves only minor changes. We contend this because the range of changes are numerous (there are some 26 changes of which 15 are located in Thurrock), quite significant, occur across the entire scheme and are more than just local in nature.
- 2.2.2 **No CIC Responses / Feedback included in LRC** – LTC’s responses to all significant points from the previous CIC consultation in September 2021 are not included in this LRC consultation, which is considered a serious omission. The document entitled ‘*Response to Community Impacts Consultation*’ is available in both digital and print format prior to the LRC commencing, but NH have stated that no comments are required from stakeholders, it does not form part of the LRC and does not acknowledge or deal with any of the Council’s comments at CIC. This is inappropriate and misdirects important consultees. The Council therefore required this document to form part of the formal consultation content and although this was not agreed by NH, we do provide our broad comments on it in **Section 4.1** below.
- 2.2.3 The Council understands that NH prefer instead to deal with all these technical comments through the Issues Log process, but there are some 500+ technical issues to respond to yet unresolved. NH are slowly working through their technical responses to these issues; however, they have only trickled through for the Council’s review since May 2022 – some 7-8 months after the CIC comments were received by NH. The approach chosen by NH has served to overwhelm the Council knowingly and deliberately, and in full knowledge of concerns raised by the Council about the approach deployed by NH with regards to meaningful engagement. This means that the Council has been overwhelmed by this consultation, new traffic modelling data and Issues Logs responses, all at the same time during June-August. This allows little time for the Council to consider and response / discuss all these NH responses (especially during this consultation) and to resolve issues prior to DCO submission, supposedly later in 2022. Furthermore, it allows NH very little time to review LRC responses and the Council’s other technical comments on new information prior to submission.
- 2.2.4 **Insufficient Consultation Period** – this LRC was originally proposed from 24 March to 22 April which was pointed out to NH would obviously be inappropriate. The Council, other local authorities and other stakeholders were then forced to make representations to formally emphasise the inappropriateness of the original date for LRC. Following this time consuming and unnecessary process, NH did both delay the consultation until after the ‘purdah’ period of local elections and Easter and agree to marginally extend the overall period by one week and offer an additional week for response submissions to local authorities for governance purposes. Notwithstanding this, the Council consider that the 5.5 week consultation period is still insufficient, as we sought a minimum period of 8-weeks in our response to the draft SoCC Addendum in January 2022. Despite National Highway’s view that the aspects being consulted upon ‘are relatively modest’, these are very significant project changes, with many being major, which are likely to have wide ranging impacts. To only allow members of the public this short period, who need to understand the impact on them as individuals, is not in accordance with the various guidance principles. The public will once again need to gain a rapid understanding of what is a highly complex scheme but, on this occasion, it is during a

period when there are higher priority matters and concerns affecting people's health, wellbeing and in many cases, their ability to work resulting in significant personal and financial challenges. Keeping to the current proposal will significantly limit the ability of community groups and third-party channels, many of whom will be advocates for the groups with protected characteristics whose wellbeing we are seeking to consider via the Health & Equalities Impact Assessment. They will have a particular interest in reviewing the Community Impacts section, but the short period does not provide a fair period of time for the voluntary sector, severely impacted by Covid-19, to mobilise those they represent to engage adequately or to consider and invite LTC representatives to community meetings.

- 2.2.5 **Accessibility of Consultation Materials** – we are concerned that those who request paper copies will be prejudiced as their short time for review and comment will be reduced and a limit of one copy per household is too restrictive given the prevalence of multi-occupancy households. Similarly, the public events timing may reduce the subsequent period for comment following such events. We are also concerned that the time taken for call-backs or written responses to questions (potentially 10 days) will erode the time left for responding formally to the consultation. Current guidance relating to consultation is set out in DCLG's '*Planning Act 2008: Guidance on the pre-application process March 2015*'. That guidance establishes that consultation should be thorough, effective, and proportionate with sufficient time for consultees to understand proposals and formulate a response. The Council contend that the period of 5.5 weeks is insufficient to comply with the intent of this guidance, as we sought a minimum period of 8-weeks in our response to the draft SoCC Addendum in January 2022.
- 2.2.6 **Not Enough Events in Key Communities** – we acknowledge that additional events were provided at East Tilbury and Stanford-le-Hope/Corringham, following Council comments. However, despite requesting in late-January further events in Chadwell and South Ockendon, these events were refused by NH, despite several cogent written requests in late May from several local Councillors and the TCAG. It was clear that several of the proposed changes within the LRC, such as for Chadwell – the A13 landscaping and the Orsett Cock/A1089 roundabout changes and for South Ockendon – the road level changes, impacted both communities.
- 2.2.7 **Key Deficiencies / Omissions in LRC** – the Council believes that there are a number of key deficiencies and omissions within the current LTC scheme and within this current consultation that have been set out in previous Council consultation responses and are set out briefly below. However, before setting these out it is worth reconsidering the deficiencies and omissions identified within the PINS meeting note dated 26 November 2020, following the HE DCOv1 withdrawal and after discussions with HE (refer to CIC Response Section 2.3.2) – these deficiencies remain, as the Council has not seen any updated technical documentation (except updated Cordon Models), despite providing many valid technical comments some 7-8 months ago and holding many subsequent technical meetings. The remaining deficiencies that were not covered within the CIC and which are not covered in this LRC include:
- 1 Lack of updated Air Quality and Noise modelling assessments.
 - 2 Lack of updated Health and Equality impacts and mitigation for consideration and discussion.
 - 3 Lack of adequate Consideration of Alternatives for various elements of the current scheme (such as the LTC / A13 / A1089 junction, Tilbury Link Road, etc.).
 - 4 Lack of adequate Local Impact Assessment and / or related benefits provision.
 - 5 Lack of consideration of Impact on Local Roads, due to the lack of finalised assessment and information from LTAM and local microsimulation (VISSIM) modelling workstreams.

- 6 Lack of consideration of and provision for Future Travel Patterns, Public Transport Provision and Future Technology changes.
 - 7 Lack of options testing for alternative locations for spoil deposition. The East Tilbury Landfill site between LTC and Coalhouse Fort is an ideal location that has not been adequately investigated.
 - 8 Lack of commitment to securing targets for skills and employment local provision and social value procurement.
 - 9 Inadequate response and provision for the changing policy environment and legislation relating to Climate Change and Decarbonisation.
 - 10 Limited provision for legacy or the securing commitment to do so, beyond some helpful but limited provision of NH's Designated Funds for open space improvements. In fact, the potential provision of the Tilbury Loop Line Overbridge is now very much in doubt despite a year of negotiations. All the Council's legacy requests were set out in the Hatch Report of February 2021.
 - 11 Lack of adequate provision for emergency services within the LTC scheme or any securing mechanism for its provision, especially relating to the lack of detail and absence of measures to support the emergency services and safety partners.
- 2.2.8 It is considered that the timely provision of the above data and allowing time for analysis and discussion with NH to resolve issues would mean that the NH intention for a DCOv2 submission later this year is not appropriate, as there will be many unknowns and limited resolution of key issues prior to submission, which is not the express intention of the DCO 'front loading' principle.

2.3 Technical Engagement Since CIC

- 2.3.1 As a means of introduction, we should point out that in late June 2021, a 'Note of Issues' was issued to PINS collectively from four directly affected local authorities – Thurrock Council, Gravesham Borough Council, London Borough of Havering and Kent County Council, which was subsequently published by PINS on their website. This Note set out a range of issues related to inadequate technical engagement, limited issues resolution, delays and inadequacy of various technical documents, transport / traffic issues, DCO Order issues and DCO timetable. In summary, there was a recognition that there have been some welcome changes in the approach taken by NH. However, it was noted that we await convincing evidence that this progress will translate into reasonable resolution on key outstanding matters, especially given the very limited timescale now available. It is of upmost concern that critical matters regarding the design of LTC north of the river continue do not receive adequate attention. It is evident that the NH focus since withdrawal of DCOv1 has been on issues that do not affect their basic scheme design. NH have repeatedly failed to recognise that LTC must perform an important local function, providing necessary connectivity to the north of the river to complement that to the south. In this context it was considered that the DCO timetable and proposed consultation periods to be premature. More time must be given to enable a scheme to be brought forward that optimises its ability to deliver on its strategic objectives and represent best value. The Council are of the view that over the last year most of these matters of concern have not improved with very little change of attitude at NH.
- 2.3.2 Subsequently, meetings have continued to be held by Thurrock Council and other directly affected local authorities with PINS collectively and individually, in order to share concerns concerning technical engagement, which can be summarised as:

- 1 Lack of meaningful engagement with delayed or an absence of committed programmes for responses or information provision.
 - 2 The design is fixed, and NH is engaged only in justifying pre-determined outcomes.
 - 3 Increasingly, fundamental Group 3 issues are being prematurely closed down by NH. These are simply being determined as 'not agreed' and there are many issues still unresolved. This approach will collectively threaten any DCO Examination timetable as it will be impossible to cover all matters within a reasonable window of time.
 - 4 There are some 1,300 Group 2 issues that are being increasingly closed down, despite the fact that many require more technical discussion to resolve them.
 - 5 There is a lack of adequate information and prematurity of both this consultation and the intended DCOv2 submission (as set out above in **Section 2.1**).
 - 6 Insufficient consultation feedback from CIC after 6-9 months.
 - 7 Poor and stilted progress on Section 106 matters and no sign of any Heads of Terms, nor any reasonable programme to deliver these within the current NH DCO timescales. In particular, lack of traffic modelling results and known design refinements being necessary, it is very difficult to cost some matters prior to DCO Examination, which ties back to NH's too tight programme for DCO submission.
 - 8 Limited response to a changing national policy environment, especially relating to climate change and decarbonisation, promotion of public transport and active travel provision.
 - 9 Very limited progress on addressing the ESSPSG's 56 recommendation from September 2021.
 - 10 No apparent progress on updating the technical 'control' documents despite comments being received 6-9 months ago.
 - 11 Continued use of local roads, such as the A13, to sever / join respective SRN's of the M25 and A1089, with no determination of impact and currently no proposed mitigation.
- 2.3.3 In addition, it is also important to stress that, in Thurrock, there are currently some 21 Group 3 issues relating to Adequacy of Consultation and 5 issues of Quality of Engagement, all of which are not yet resolved. It is acknowledged that NH recently provided further written responses to Group 3 and Group 2 issues during this LRC consultation, consequently due to the late provision the Council has not yet had the capacity to reviewed them.
- 2.3.4 The Council's key issues within our CIC response (summarised in **Section 1.3** and set out in more detail in Sections 2.5 – 2.15 of that response) covered the following:
- 1 Traffic Modelling and Transport Alternatives;
 - 2 Local Impacts and Benefits;
 - 3 The Future;
 - 4 The Legacy; and
 - 5 Other Technical Matters.

- 2.3.5 Each of these matters will now be reviewed in light of the ongoing technical engagement from October 2021 until June 2022, in order to determine any progress and to highlight the much-needed outstanding work require to resolve as many of these key issues as possible. During this period, the Council has had many technical meetings with NH, issued NH many email requests for information and to seek responses to technical queries and has received many responses. Technical engagement continues but it moves forward very slowly, with long delays to receipt of technical responses and often inadequate responses leading to very few changes or even any recognition that the current scheme or its justification are not adequate in the Council's view. Even minutes of meetings with action points can take 6 weeks before NH release them. Given technical engagement has been ongoing for 9 months since the CIC response was submitted, the lack of positive progress is, frankly, shocking, as set out below.
- 2.3.6 **Traffic Modelling and Transport Alternatives** – there has been very little development or change on this matter and so the Council remains concerned that it has not yet received sufficient transport modelling evidence in support of the evaluation of alternative scheme configurations, provision for future growth scenarios in Thurrock and consideration of impacts on the Local Road Network (LRN). The Council therefore contends that NH has:
- 1 Failed to demonstrate that the proposed layout of LTC through Thurrock is the optimum configuration, particularly the LTC / A13 junction;
 - 2 Failed to adequately consider the implications of the very significant levels of local growth on the LTC scheme; and
 - 3 Failed to satisfactorily assess the impacts of the LTC scheme on the local highway network.
- 2.3.7 The appraisal of options for the route north of the Thames thus far is wholly inadequate in the context of the scheme's substantial impact on the communities of Thurrock, and does not think it unreasonable to expect that NH should be able to present its appraisal of the options for alternatives: the design of the A13 junction, Tilbury Link Road (TLR), connections with local junctions, provision for local growth, connections with active travel and public transport modes. NH seems to be taking the lack of debate on these matters in previous years, and the passing of the scheme into its investment strategies, as being sufficient evidence that these matters have been dealt with. The recent experiences on other high-profile NH schemes suggests that this is not a safe assumption. Clearly, this lack of appraisal of such options does not allow for any changes or to consult on such changes.
- 2.3.8 **Local Impacts and Benefits** – there still remains a lack of **secured benefits for existing communities and future growth in Thurrock. Key strategic issues remain outstanding**, which have previously been raised by the Council. This lack of real benefits for Thurrock from LTC is in terms of a number of factors:
- 1 Investment in delivery of a practicable local benefits strategy (through all the Hatch measures);
 - 2 Ability to help facilitate a legacy in terms of local regeneration;
 - 3 Provision of open space to contribute positively to place-making and deliver community benefits;
 - 4 Improved local road operability to help facilitate liveable communities;
 - 5 Increased Public Rights of Way (PRoW) connectivity; and
 - 6 Facilitate movement by active travel through improved connectivity and standards.

- 2.3.9 This is especially true regarding the emerging Local Plan, as the LTC scheme does not make provision for, and is inconsistent with, the housing and development potential for Thurrock and the aspirations for the Borough and for the wider South Essex area. LTC clearly presents, along its route, an opportunity to support and enable growth in sustainable locations, particularly in East Tilbury, Chadwell St Mary and South Ockendon, based on appropriate local access, which would be consistent with one of the LTC scheme objectives, namely: *“To support sustainable local development and regional economic growth in the medium to long term.”*
- 2.3.10 The Tilbury Link Road, as a critical ingredient in the success of Thames Freeport, must either be provided within the LTC scope or there must be a legal commitment for it to be delivered in parallel to LTC, so that it is open for use at the same time LTC becomes operational. In addition, in the interim NH must legally commit to ‘passive provision’ for South Ockendon junction and DfT must commit to the viability and principle of this junction being provided onto the SRN. A related concern is the **effect of LTC on Thurrock’s local roads affecting local connectivity**, which has been and continues to be a key concern of the Council. In fact, the Council has consistently and repeatedly raised concerns at meetings and via representations that the impacts on the local roads and junctions are likely to be underestimated resulting in increased likelihood of delay at key junctions, such as the A13 Orsett Cock, A13 Manorway, and A1089 ASDA roundabouts and several other key locations. Detailed microsimulation modelling work has been underway for some 9 months now, but with no conclusions. In fact, these modelling results are now expected in stages until July – September 2022, giving the Council very little time to review and comment or NH to consider these comments prior to the DCO submission. Initial indications suggest that this work is likely to need to be followed by improved mitigation proposals to further amend the LTC design to address identified impacts. These mitigations could take the form of junction improvements and / or complementary environmentally sound initiatives, including enhanced public transport connections and provision. These are completely missing from the current proposals. The Council contends that the impact on local roads must be part of the traffic modelling evidence base and if mitigation is required then NH should legally commit to a process for that mitigation (possibly a S278 or S38 Agreement or similar or even through a new Schedule 2 Requirement).
- 2.3.11 The Council contends that the LTC **construction for a period of 6-8 years will create unacceptable impacts that require serious mitigation**. Further work on construction traffic modelling is still required to understand likely impacts and more robust traffic management and travel plans are required with defined governance, complemented by a progressive Materials Handling Plan that together maximise non-road transport, minimises impacts on local communities and reduces embedded carbon. Workforce travel also must be secured, with targets, through encouragement of the use of active travel modes and reducing private car use. The Council considers that certain environmental and health impacts are likely to be significant, but subsequent assessments must be based on more granular and updated data, especially in respect of air quality, noise, health, severance, effect on PRoWs with closures and diversions, loss of historic buildings and deleterious effects on cultural heritage and other key topics. Utility relocations are extensive and whilst reduced impacts have been achieved over the last year, there is still a lack of information on likely impacts on residents and businesses or more definitive timescales during their construction. Monitoring during construction for a range of factors is essential and the proposed monitoring regime to inform key control, management and governance is unclear.
- 2.3.12 **The Future** – the current LTC scheme currently makes no substantive reference to the implications of the LTC scheme to **transport decarbonisation**, how the scheme might need to be adapted to respond to this challenge or to become an enabler of transport decarbonisation and green growth in the Thames Estuary using alternative modes and travel patterns. Given that LTC has been designated a ‘pathfinder’ project in February 2022, this designation may help NH explore carbon neutral construction and may help the UK reach net zero by 2050, as part of its efforts to make the new crossing the greenest road ever built in the

UK, but the Council awaits further evidence of this aim. However, without sight of the emerging Carbon & Energy Management Plan or other commitments, the Council still expects that NH should be making commitments in the DCO about transport decarbonisation and its implications locally. NH has stated that the DCO commitments on carbon will be stronger and more comprehensive than previously seen but has expressed strong concern about committing to delivering outcomes that are inherently uncertain. However, the Council believe that it is possible and desirable to set broad objectives and a committed framework for future action, secured through the DCOv2. Measures expected should include both project specific interventions, such as zero carbon energy provision for operation, landscaping and low embodied carbon material use: and, regional interventions, such as supporting strong modal shift to sustainable transport modes, new low carbon infrastructure and legacy skills.

- 2.3.13 The Council is promoting its Active Travel Strategy through the emerging Local Plan that should result in **increased usage of PRoW and cycling routes** throughout the Borough. The Council is therefore seeking meaningful support from the LTC scheme by requesting the addition of further routes and to some extent this has been accommodated by NH, but further proposals (as has been requested) would help considerably. The Council wants to ensure that up to date DfT standards (LTN 1/20) for cycling infrastructure provision at all bridge crossings are employed by NH (not currently confirmed, but some improvements have occurred following protracted and time-consuming discussions) to accommodate this future usage. This will help to ensure that LTC does not become a future barrier to increased walking and cycling use across the Borough or cause the Council to incur severe financial penalties from DfT, resulting in a loss of capital and maintenance funding allocations.
- 2.3.14 There is no currently secured commitment from NH to **achieve local skills and employment targets**, particularly for apprentices, workless job starts, graduates and traineeships, work placements and training for local residents. On a positive note, it is understood though that whilst the **Skills, Education and Employment Strategy (SEE)** is not a 'control' document, it is intended to be appended to the S106 Agreement, although this is in very early development. In addition, there is **no adequate commitment for the LTC project to adopt the social value procurement requirements** set out in both the Social Value Act, 2012 and the Council's Social Value Framework, adopted in November 2014 in procuring its goods, materials and services.
- 2.3.15 **The Legacy** – the Council is disappointed that **very few of the 58 measures set out in the Hatch Report have been agreed**, currently only 14 measures, despite over one year of continued and focussed technical discussions. Key priority measures for the Council are jobs and skills commitments, social value commitments, wider network (East Facing Slips and A13 trunking) commitments, several local connectivity improvements (passive provision for two future junctions, Tilbury Loop Line Overbridge, roundabout improvements and TLR), improvements to public transport connections, Council funding support and further improvements to the PRoW and cycling network and use of compliant standards. These measures are considered crucial to the Council in achieving its provision for the emerging Local Plan and to ameliorate the current LTC scheme, reducing its impacts on residents.
- 2.3.16 **Other Technical Matters** – the Council is concerned about the **lack of adequate provision for emergency services within the LTC scheme or any securing mechanism for its provision**, especially relating to the lack of detail and absence of measures to support the emergency services and safety partners. It does, however, recognise that the Emergency Services and Safety Partners Steering Group (ESSPSG) have provided their CIC response to NH in September 2021, which set out their concerns in detail. The ESSPSG obtained all the memberships' approval to submit this response. There were some 56 recommendations and despite an interim response from NH in November 2021 to each recommendation and a number of ESSPSG and other 'Scoping Group' meetings, there has been very little progress on achieving these recommendations and ensuring they are secured within the DCO.

2.3.17 The Council's main **substantive concerns regarding proposed utilities diversions** relate to the extent of land-take required (although some reductions have occurred) and likely impacts on communities and existing infrastructure, including in terms of disruption and safety. These concerns and deficiencies significantly hinder the ability of the Council to clearly understand the types and levels of environmental impacts and mitigation requirements associated with each proposed utility diversion and so the current LTC scheme does not clearly establish the environmental acceptability of all proposed diversions. These concerns can be summarised:

- 1 Inadequate reporting;
- 2 Absence of consistent referencing and diversion descriptions;
- 3 Inability to validate NSIP screening conclusions;
- 4 Lack of clear identification / screening of OHL proposals;
- 5 Absence of justification to support assumed associated development status of non-NSIP diversions (as required in DCLG Guidance on Associated Development, 2013);
- 6 Utility diversions have been considered as a consequence of the preferred route and not as a major design consideration at the outset;
- 7 Weak application of undergrounding test within NPS EN-5; and
- 8 Weak approach to environmental mitigation secured through EMP2 (and limited commitments in the CoCP/REAC) with consequently less control.

2.3.18 **Light pollution** – the original Landscape and Visual Impact Assessment submitted as part of DCOv1 included an assessment of night-time representative viewpoints. Project-wide embedded mitigation was included within the Design Principles (LST 01, LST 02 & LST 03). At the time it was proposed that much of the route would be unlit, with lighting mainly concentrated around the portals and main junctions. Since DCOv1 there have been numerous changes to elements of the scheme, including the A13 / A1089 junction and connections to Orsett Cock and the A128; raising the level of the LTC around North Road, South Ockendon, the arrangement of false-cuttings and other landscape mitigation and the proposed incorporation of tall earth bunds around the A13 / A1089 junction. These changes have potential to increase light pollution, or if appropriately designed, to help mitigate some of the effects. The Council requests clarification on lighting impacts to understand how areas of the Borough will be affected by LTC.

2.3.19 Since DCOv1 there have been significant issues regarding the need for sufficient lighting on the newly widened A13 to enable the speed limit to be raised to 70mph. Therefore, given the scheme changes and the A13 issues, the Council wishes to understand and gain written responses to the following matters:

- 1 Where will lighting be required on the revised route (including the new connections to Orsett Cock roundabout)?
- 2 How has this changed since DCOv1?
- 3 What are the anticipated heights of lighting columns associated with the complex junction layout?
- 4 What consideration has been given to the visual effects of vehicle headlights on unlit sections of the route?

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- 5 Is the Landscape and Visual Impact Assessment, including the assessment of night-time views, going to be updated prior to DCO2? If so, please explain what will change and if the Council will have an opportunity to review the draft prior to DCO submission?
 - 6 What additional mitigation is required to lessen the visual effects, particularly in tranquil parts of the Borough, where there is little light pollution, particularly associated with the Mardyke Valley?
- 2.3.20 All these above concerns, Group 3 Issues Log matters and the Council's CIC concerns must be addressed before DCOv2 to resolve the vagueness of the current proposals and mitigations. All of this is likely to result in further design changes probably leading to further NH consultation and so NH's LTC DCO submission programme needs to be much more realistic. In the absence of receiving updated documentation these concerns remain.

3 Summary of Outstanding Technical Issues

3.1 Introduction

- 3.1.1 This summary covers the Council's formal comments on the previous four consultations (especially the CIC response of October 2021), the current Group 3 Themes and Issues, progress on the Hatch Mitigation Measures and elements from a range of technical meetings held over the last 9 months. It is a development and broader representation of the technical engagement issues since CIC, set out in **Section 2.3** above and is intended to briefly capture such issues in order to provide NH a further opportunity to address these issues prior to subsequent DCO submission.
- 3.1.2 This summary has been divided into 10 parts for ease of understanding and represents outstanding Council concerns historically, notwithstanding subsequent comments on the LRC in **Section 4** below. It remains as a list in order to effectively summarise key issues, as more detailed descriptions of these matters is either contained in our CIC response, the Group 3 Issues Logs or within this LRC response. There are two broad groupings of strategic and local, which then sets out in a list the 10 key issues, below each of which is an indication of the likely content of these key issues:

Strategic

- 1 Lack of support for Sustainable Integrated Growth and Development:
 - a Lack of LTC's performance against national and NH strategic policies and its 7 scheme objectives (which have not been prioritised or weighted).
 - b Lack of support for sustainable local development (covering passive provision for the South Ockenden junction, Tilbury Loop Line Overbridge, additional distributor road facilitation, Tilbury Link Road, key junction improvements, etc.), despite strong indications of growth scenarios and locations through the emerging Local Plan, even considering the 'Issues and Options' stage some 3-4 years ago. Although NH are seeking to accommodate Local Plan growth in traffic modelling testing; NH are aware that the Local Plan is now coming forward along similar timescales to the DCO submission and will therefore be a material consideration.
 - c Lack of provision to facilitate public transport access and promote cross river public transport connectivity including allowing for bus priority in key areas such as the A1013 or to assist / facilitate the creation of an integrated transport network to support local growth.
 - d Inadequate recognition of the need for improvement to and not create poorer or delayed access to Thames Freeport and its growth objectives.
 - e No provision for increased active travel during construction as there are no targets or secured commitments, despite much technical engagement about improving construction provision and offering strong encouragement / targets, via DCO commitments.
- 2 Inadequate incorporation of Strategic Transport / Traffic Latest Policy and Mitigation of Impacts:
 - a Lack of provision or commitment to respond to the latest climate change and decarbonisation policies from Government and NH.

- b Inadequate recognition of the likely impacts on the wider transport network in Thurrock and no additional mitigation at key local junctions.
 - c Insufficient provision / commitment to reduce / remove construction traffic from local roads through greater use of internal haul roads and marine transport.
 - d No recognition or provision of analysis of alternatives for various scheme elements, such as the A13 junction, in order to justify the scheme design.
- 3 Limited Legacy Provision:
- a Very little agreement on legacy provision, despite there being 23 legacy measures within Hatch, but only 3 measures have been technically agreed.
 - b Opportunities have not been taken for the TLR, a bridge over the Tilbury Loop Line, key junction improvements, passive provision at South Ockendon, wider network mitigation and provision, facilitate improved local distributor roads / connections, limited improvements to PRoW and environmental degradation areas and adequate active travel provision – despite over a year of negotiations.
- 4 Inadequate Value for Money against Scheme Traffic or Local Benefits:
- a Value for money estimates have been difficult due to limited information being provided by NH, but costs have been rising over the past 4 years and scheme benefits decreasing (as is evidenced in the latest LTAM Cordon Model) and scheme mitigation is currently considered inadequate.
 - b Information provided on the LTC Combined Modelling & Appraisal Report (ComMA) so far is now 2 years out-of-date and requests for updates of this document or the OBC have been refused by NH (despite two FoI formal requests) leading to inadequate conclusions. Consequently, the Council is undertaking further work on the economic costs of the proposed scheme.

Local

- 5 Construction Impacts on Residents and Businesses:
- a There may be serious local impacts on local roads and junctions and connectivity and unacceptable impacts from construction over 6-8 years, especially ongoing impacts on PRoW and limited mitigation.
 - b Despite many technical comments, there has been no feedback over 6-9 months on outline traffic management plans or travel plans or other related 'control' documents.
- 6 Local Environmental Health Impacts and Limited Mitigation:
- a Lack of commitment to improve air quality and reduce noise impacts or providing updated assessment results (i.e. the evidence base), including no agreement to monitor PM 2.5 or NO2, likely impacts or the adequacy of previous noise barriers within DCOv1.
 - b Lack of sharing of updated health impact assessments (impacts or mitigation proposals), an updated methodology for the HEqIA (despite 15 independent recommendations from 9 local authorities indicating the document was not of an appropriate standard) and no indication of likely mitigation needed for the deleterious

impacts on accessibility, severance and access to open space, despite clear indications in DCOv1 of negative impacts.

- 7 Inadequate provision of Additional Local Traffic Modelling to address Potential Impacts:
 - a Lack of validation of LTAM relating to the local road network and key junctions.
 - b Inability to provide a defined and coordinated modelling programme covering all modelling requests / agreements and delays to several such modelling tasks.
 - c Lack of transport modelling evidence relating to core scheme LTAM Cordon Model, four key junctions (VISSIM modelling), Local Plan growth scenarios, alternative layouts, incident / network resilience or Tilbury Junction.
 - d Inadequate consideration or modelling of induced traffic and its effects on the effectiveness of LTC and the impact on local roads.
- 8 Local Transport Network Impacts:
 - a Lack of commitment to monitor and then mitigate effects on the wider network or junctions and local roads within Thurrock. Despite many technical comments from the Council, there has been no feedback over 6-9 months on NH's Wider Network Impacts Monitoring and Mitigation Plan.
 - b Lack of adequate provision for routes / links to encourage the increased use of PRoW and WCH routes, including adequate LTN 1/20 standards, so as to help promote active travel as a key part of Thurrock's for local transport network.
- 9 Emergency Services Provision and Utility Relocations:
 - a Limited progress on the ESSPSG's 56 recommendations within their CIC response, supported by all emergency services and local authorities, despite many meetings and a November 2021 interim response from NH.
 - b Given that there are 5 additional NSIPs related to significant power and gas diversions, there has been inadequate reporting on these matters in the ES and no information has been provided on impact assessment or effects. There has also been a weak application of the undergrounding test in the NPSNN and the REAC does not adequately cover necessary commitments.
- 10 Inadequate Mitigation for Impacts on Local Land and Property:
 - a Inadequate provision for compensation to residents and businesses affected beyond that covered in statutory provision, particularly covering non-statutory compensation, respite stays, additional noise mitigation and off-line discretionary purchase.
 - b Despite positive engagement on the likely effects on Thurrock-owned land, there is still no assessment of likely impacts or compensation requirements on the 150-200 land parcels in Thurrock ownership, through proposed permanent and temporary acquisition and rights. Further work is required on the Statement of Reasons or a separate Agreement setting out adequate provisions.

4 Comments on Proposed LRC Changes

4.1 Response to Community Impacts Consultation (CIC)

- 4.1.1 This Section is based on Chapter 3 of the *'Guide to Local Refinement Consultation'* (only 10pp) and on the NH document entitled *'Response to Community Impact Consultation'* (109 pp), which NH maintains is not part of the LRC consultation. Nevertheless, in this sub section we offer commentary on these two documents relating to feedback from the previous CIC consultation. It is inappropriate that any feedback on the CIC consultation has only emerged now, some 7-8 months after the Council's CIC response was submitted to NH.
- 4.1.2 All comments below relate to NH's response to the public and landowner comments only during the CIC consultation and therefore the comments below should be read in conjunction with the Council's CIC comments.
- 4.1.3 Chapter 3 of the Guide sets out the number of respondents to the CIC and concentrates on public and landowner feedback. It maintains that a number of scheme changes included within the LRC consultation have been influenced by CIC feedback – some 6 changes in Gravesham Borough Council, 6 in Thurrock Council, 3 in London Borough of Havering and 1 in Brentwood Borough Council, a total of 16 changes. Within Thurrock, 3 changes were improvements to utility diversions, Tilbury Fields was a significant change and was influenced by both Thames Freeport and the Council and finally instructed by DHLUC and DfT, the new Orsett Cock/A1089 link road was strongly suggested by the Council (despite resistance from NH) and the footpath links around Coalhouse Fort were Council initiatives. These changes, albeit after a long unwieldy and unnecessarily protracted progress framed by the consequences of a lack of meaningful engagement with key stakeholders, are welcomed.
- 4.1.4 The NH document tends to use a number of 'stock' responses and is hence quite repetitive. It is resplendent in its confidence that NH has designed a scheme that adequately mitigates impacts and provides benefits to the local community. NH's confidence in its proposals being transformative and responding to public comments belies the barrage of negative technical comments and questions from the Council and other key stakeholders. In an attempt to positively influence opinions, NH stresses at the start of each of the 12 tables what percentage of respondents were supportive of that aspect of the scheme and is eager to stress the support for it. This is despite the fact that only 50-60% or less of those people sufficiently motivated to respond to the consultation actually offer supportive commentary. The statistics presented are unrepresentative of public opinion as a whole, a fact substantiated by recent independent polling in the Borough undertaken by leading social research company Survation. Most local residents remain opposed to the scheme presented by LTC. Indeed, NH statistics are a concern to the Council as they in fact demonstrate low support for a scheme that has been in design development for over 6 years now and is supposedly responding positively to feedback.

Commentary on the Response to CIC

- 4.1.5 The *'Response to Community Impact Consultation'* focussed largely on public and landowner responses and does not appear to account for local authority and other technical stakeholder comments. The feedback is presented in 12 tables covering construction impacts; construction impact mitigation; operation impacts of the LTC; operational impact mitigation; concerns about changes south of the river; concerns about changes north of the river; changes in the land needed for LTC; changes regarding special category land and private recreational facilities; concerns about Tilbury Fields proposals; concerns about the height of the landform within Tilbury Fields; concerns about Chalk Park proposals in Gravesham Borough Council; and, concerns about how issues and suggestions have been addressed in

previous consultations. The following comments deal only with matters to the north of the river.

- 4.1.6 **Construction impacts** – public comments rightly concentrated on impacts on the local community, property and land impacts, traffic impacts and detrimental traffic increases, significant effects of noise, pollution, and traffic over 6-8 years, 24/7 working impacts and a range of environmental impacts. NH responses were only general in nature and reaffirmed correct processes had been followed, referred to previous information in the CIC, broadly reassured residents that all impacts have been considered and appropriate mitigation employed. However, NH did not acknowledge any shortcomings. NH concentrated on their LRC changes maintaining instead that they have ‘further reduced’ impacts, which in the Council’s view are only occasionally correct.
- 4.1.7 **Construction impact mitigation** – public comments rightly concentrated on the insufficiency of mitigation, that mitigation measures will not be implemented, loss of woodland, insufficient measures to mitigate carbon emissions, inadequate noise mitigation, poor traffic management measures leading to local traffic congestion and more pollution. NH responses focus on emphasising that ‘good practice’ has been followed, there has been ongoing technical engagement, reductions of impacts, and promoting LTC as a pathfinder project to explore carbon neutrality. The emphasis is on stressing how NH has strived to follow due process, work with local authorities and refinements to improve mitigation. Again, all general in nature with little specific examples of successful improvement. This is a classic example of where meaningful engagement has been side-lined by NH in preference to window-dressing. The Council has raised its concerns about the woeful absence of meaningful engagement repeatedly. It maintains that there has been insufficient change in behaviours from NH since PINS last advised NH on the inadequacy of their consultation leading to the subsequent withdrawal of DCOv1.
- 4.1.8 **Operational impacts of the LTC** – public comments rightly concentrated on implementing a charge for LTC which would be too expensive and not be removed when costs have been recouped, criticism of ‘smart’ motorways design, safety and emergency provision concerns, increases in local road journey times and local congestion due to LTC, adverse comments on pollution increases in specific areas relating to air quality and human health and noise pollution increases. NH responses focus on compliance with Government and DfT policies, the availability of discounts on charging, emphasise specific safety measures, states that traffic flows on the Dartford Crossing would reduce by 20% at opening year (this figure is now 15% in the AM peak and 19% in the PM peak on opening year and only 4% in the AM peak or 11% in the PM peak by year 15) and NH conclude there will be no significant effects associated with air quality impacts on human health. It is considered that many of NH responses effectively ‘gloss over’ real resident concerns and justify their current position.
- 4.1.9 Public comments rightly concentrated on the ineffectiveness of mitigation proposals focussing on why the proposals are not sufficient, air quality and noise will not be monitored during operation, there is a lack of commitment to actually implement measures, the deleterious impacts on air quality and noise with inadequate noise barriers, the loss of Green Belt and good quality agricultural land (pertinent in view of current Government emphasis on its new food strategy), the negative impacts of pollution on wildlife, the potential division of communities and lack of any benefits and inadequate mitigation of local traffic congestion in specific areas. NH responses do not address these concerns but instead focus on them justifying that they have provided adequate information throughout the project’s development, that air quality mitigation is not sufficient or adequate, that no air quality or noise monitoring is necessary during operation based on NH’s current assessments but that traffic impacts would be monitored. NH stress the benefits of the scheme to local communities (such as green bridges, additional PRow, work opportunities for local people and additional open space). However, there is limited response on the effects on wildlife focussing on compliance with process and replacement habitat proposals. NH stresses the Orsett Cock link road additional

lane advantages in a premature and inappropriately positive manner yet unsubstantiated by ongoing traffic modelling work. Repeatedly, the NH responses desperately justify their current position and leave no room for improvement or change, despite many technical comments from both the public and the Council.

- 4.1.10 **Changes north of the river** – public comments rightly concentrated on the impact and disruption caused by the route, specific area traffic concerns, impacts on safety and congestion, impacts on traffic on A13 and criticism of the A13 junction design, impacts on air quality in specific areas, loss of habitat, woodland and green space, increases in noise pollution and that the changes are insufficient and ineffective to mitigate disruption. NH responses focus on quicker journey times on certain routes, refer to previous technical ‘control’ documents at CIC setting out adequate mitigation, sets out changes in response to previous feedback, stresses the efforts to reduce impact and provide an adequacy of mitigation and, very blandly, that bridges would be designed to standards (no reference being made to LTN 1/20 for active travel provision). Importantly, NH stress that one of the key objectives of LTC is to relieve congestion on the Dartford Crossing, but this ignores that there are 6 other objectives and no priorities have ever been indicated. NH focus on scheme objectives that suit their narrative, not the ones that were agreed as the basis for LTC.
- 4.1.11 **Changes in land** – public comments rightly concentrated on loss of agricultural land, Green Belt and ancient woodland, increased land requirements damage to natural habitats and the environment, negative impacts of land acquisition on communities and property values, insufficient reductions in land requirements and opposition as previous issues not addressed, NH responses focus on emphasising that impacts of loss have been consulted on and adequately mitigated with further mitigation proposed in this LRC, habitats have been avoided wherever possible, ecological mitigation areas provide increased biodiversity, amended habitat creation areas and additional compensation proposals, Blight Notices have been offered and there is some compensation available through NH processes, explained the variations in Order Limits areas during previous consultations and that open space proposals are secured through the DCO. The ecological and compensatory habitat proposals and changes are welcomed, although the Council is wary of areas being ‘double-counted’ for ecological mitigation and additional woodland and even use for landscaping nursery provision – each area cannot be claimed for all four benefits. As an example, although outside of Thurrock, it is noted that Hole Farm, which the Council understands was purchased using NH Designated Funds, is now being used as part of the Nitrogen Deposition compensation. The Council needs to understand further what the claims are and how they are justified.
- 4.1.12 **Tilbury Green** – the route, while common land, is principally used as a public right of way and currently contains FP200. The Council has previously requested that this route be upgraded to bridleway the same as all other affected rights of way have been. The Council therefore supports the proposal to upgrade the route to bridleway. The changes in alignment have been designed to link into the revised Tilbury Fields proposals.
- 4.1.13 **Walton Common** – an application to de-register part of Walton Common is being made as part of the Thurrock Flexible Generation Plan NSIP, with an alternative being proposed. It is possible therefore that this area could be de-registered prior to LTC commencing. LTC require temporary possession for utility works. The area required has been reduced to 1.01 hectares from 2.57 hectares. The land will be reinstated following completion of the works. The Council has no objection to this proposal.
- 4.1.14 **Changes regarding Special Category Land and Private Recreational Facilities** – public comments rightly concentrated on there being too much special category and private recreational land affected / required (such as common land, allotments, Fenland and recreational pitches) and the environmental impacts on such land, negative impacts on wildlife habitats, air quality impacts on such land, negative impacts on local community and quality of life and that the NH proposals are ‘greenwash’ and a distraction. NH responses focus on

restricting / reducing / avoiding use of such land, replacement land having been selected and designed to comply with legal requirements, amended proposals for certain areas are within the LRC and NH stresses the wish to create a 'green legacy'.

- 4.1.15 **Tilbury Fields Proposals** – public comments rightly concentrated on the fact that Tilbury Fields does not mitigate the project's long term damage, the open space already exists and is unnecessary, it is a 'greenwash' proposal, its use for excavated material is for convenience, concerns about excavated material being contaminated, it would cause additional flooding elsewhere, there are no details about its future management / maintenance, negative effects of open space creation on existing wildlife and habitats in specific areas and likely poor air quality due to its proximity to the LTC. NH responses focus on stressing its positive green legacy by creating this formal open space in discussion with the Council and Port of Tilbury, stresses the benefits of using the area for excavated materials to reduce local impacts, refers to the potential contamination from East Tilbury Landfill as low, sets out flood risk assessment work and its low risk to create flooding elsewhere due to flood alleviation measures, NH is vague on proposals for future maintenance and stresses that the area would comply with air quality standards. Whilst some of these proposals are welcomed by the Council, its comments on the Tilbury Fields amended proposals are set out below in **Section 4.4**. In addition, the Council still has concerns about the lack of use of the East Tilbury Landfill area and its potential effects on surrounding land caused by LTC proposals.
- 4.1.16 **Tilbury Fields Landform** – public comments rightly concentrated on the landform being a distraction from wider environmental issues, the landform may limit public pedestrian accessibility, its use for the excavated material is a convenience that may be unsafe / contaminated, the landform may accentuate flooding concerns, the high landform of up to 22.5 metres would negatively impact on the low-level surrounding landscape and the landform may accentuate air quality impacts. NH responses focus again on stressing its positive green legacy by creating this formal open space and its benefits to the wider community, stresses the benefits of using the area for excavated materials to reduce local impacts, sets out the reasoning for the landform height, stresses the valuable habitat it will create for a variety of wildlife, stress the green links it would provide to surrounding habitats and stresses the mitigation provided during its construction to nearby protected sites. Whilst some of these proposals are welcomed by the Council, its comments on the Tilbury Fields amended proposals are set out below in **Section 4.4**.
- 4.1.17 **How issues / suggestions have been dealt with in previous consultations** – public comments rightly concentrated on previous comments being ignored, some 'campaign' responses were ignored, many changes are categorised as 'greenwash', the current scheme still provides many negative impacts, there is still inadequate mitigation provided, further changes are needed to safety, security and sustainability measures, air quality impacts still remain unsatisfactory and complete opposition to the project. NH responses focus on stressing the comprehensiveness of all four previous consultations and previous changes, explain that the project has been designed well and compliant to all 'good practice' and design standards, reiteration of air quality compliance and measures and how LTC is required to relieve the Dartford Crossing. The NH responses in this sub section are repetitive, general in nature and lacking any recognition of issues with the current proposals and the need to change the scheme.
- 4.1.18 **Utilities** – the main concern and note is that this document does not appear to have addressed or referenced the previous extensive comments made and issued at the CIC in October 2021. Furthermore, as raised in Section 4.6 below, there does not appear to be any detailed information regarding the utility infrastructure NSIPs.
- 4.1.19 Page 37, which starts to discuss the changes since the Design Refinement Consultation; it is noted that a number of changes have been made to the proposed scheme. These

refinements have been introduced based on concerns raised by the stakeholders to reduce physical and visual impacts due to the proposed works.

- 4.1.20 Page 45, changes north of the river includes extending the Order Limits into the land to the south of Substation Road, which allows for a new powerline to be placed underground, refining the area to the north of Rectory Road and Orsett Cock roundabout, to divert a high-pressure gas pipeline, which reduces the impact on Orsett Showground and land being used for football pitches.
- 4.1.21 Pages 54-63, summarises the most common concerns raised about the changes to the proposed area of land needed to build the LTC. It advises that following statutory consultation they have developed a more detailed understanding of the proposed diversion routes required, which overall led to a reduction in land required by the scheme.
- 4.1.22 Pages 64-73 discuss the changes to special category land and private recreational facilities that were presented in the CIC. The areas mentioned where utilities have an impact are, Linford Allotments – the land would be required for the temporary construction and for the permanent operation in relation to an overhead electricity cable and new corridor for several utilities; and Orsett Park Royals Football Club pitches which are proposed to divert a gas pipeline to the south and east of the pitches. It has been confirmed that once the works are completed, there will be no effect on the use of the land as identified.
- 4.1.23 Pages 107 – 108 sets out the minor refinements that have been made because of the ongoing engagement with affected landowners and stakeholders. We have no further comments on these minor amendments.
- 4.1.24 **Final Conclusions** – the overall impression after reading this NH document is that everything that can be done is being done by NH and is further assisted by these LRC changes. Given the Council repeated technical comments over the last 1-2 years this is a false narrative and misleads the public into the true impacts in detail, the inadequate levels of mitigation in key areas and the need for improved design mitigation, caused in part by the lack of up-to-date assessments and evidence base to make mitigation decisions. The changes proposed in both CIC and LRC consultations demonstrate that the DCOv1 scheme was clearly not ‘fit for purpose’ despite NH previous arguments to the contrary and given the comments in **Section 2 and 3** above and further in **Section 4** there are still many significant improvements that could still be made with more meaningful technical engagement with the Council. This is, of course, providing NH does not continue to justify the current scheme as sound, despite falsely maintaining a similar narrative in the earlier DCOv1. This in turn is likely to lead to further design changes followed by another round of consultation.
- 4.1.25 In Matt Palmer’s introduction to the ‘*Response to Community Impact Consultation*’ he states that the CIC consultation in summer 2021 was “...one of the most comprehensive ever delivered by NH.....it helped us to further develop our plans for this transformative project, so we can maximise its benefits and minimise its impacts.”. The Council would contend that given the above responses (some 3,218), it is most surprising that there have only been just 26 ‘local refinements’ (15 in Thurrock), which is considered insufficient. We would have expected many more, as the Council has been recommending and technically engaging to achieve, in order to “*maximise benefits and minimise impacts*”. This has so far not been achieved to the degree required after now 5 rounds of consultation and over 6 years of design development.

4.2 Modelling Changes in Traffic

- 4.2.1 The modelling presented in the LRC consultation material suggests that the effect of the new link road between the Orsett Cock junction and the A1089, is to mean that the scheme is no

longer reliant on the A1013 for access to the Port of Tilbury and Grays. However, further evidence is needed to:

- 1 Demonstrate that the complicated, confusing, and potentially unsafe LTC / A13 / Orsett Cock / Rectory Road interchange design can accommodate the significant increases in traffic shown in Figures 4-27 to 4-32. Microsimulation modelling is needed (also see paragraphs 4.3.13 – 4.3.15 of this response document).
 - 2 Test the effects of implementing traffic management measures (assumed to be proposed as a mitigation measure) in Orsett Village. The further measures required to resolve the effects of the project on A128 Brentwood Road, Buckingham Hill Road, Muckingford Road and Fort Road, as this may result in further traffic using Orsett Cock junction or other routes (also see paragraph 4.3.23 – 4.3.29 of this response document).
 - 3 Test the Marshfoot Road junction, particularly the priority junction on the east side of the A1089, which is an accident hot spot (also see paragraph 4.3.23 – 4.3.29 of this response document). Note: Table 1 states that *“In the morning peak, eastbound traffic on Marshfoot Road east of the A1089 is predicted to increase by between 101 and 250 PCUs. This would be a rise of between 20% and 40%.”* This is a significant concern and remains unmitigated by NH.
 - 4 Test ASDA junction, given that the junction is operating close to its capacity and Table 1: states that *“Southbound traffic on the A1089 between the junction with Marshfoot Road and the Asda roundabout is also predicted to increase by between 51 and 100 PCUs in the inter and evening peaks. This would be a rise of up to 10%”*. This is a significant change and must be mitigated by NH such that there are no negative effects on the local communities including the linking roads of Dock Road, Thurrock Park Way, and London Distribution Centre.
 - 5 The potential issue of deviations from design standards of the A13 / LTC / A1089 junction and safety concerns, this is dealt with in Sections 4.3.36 – 4.3.46 below.
- 4.2.2 The modelling results presented do not provide any indication of the wider effects of the project and the new link road, the results are only shown as far as Orsett Cock junction on the A13 and Marshfoot Road on the A1089. Performance results in terms of volume over capacity, speeds, delays, and queues are not provided.
- 4.2.3 The information presented at Figures 4-21 to 4-26 and Table 1 of the ‘*Guide to Consultation*’ is misleading. It could be easily misunderstood by consultees as the information is shown as changes in traffic flows between the Community Impacts consultation and the current Local Refinements consultation. It does not compare with the ‘no LTC’ scenario. The current outputs from the traffic modelling work further includes changes to assumptions in the models which are not as a result of the network changes between the Community Impact consultation and the Local Refinements consultation. Only at Figures 4-27 to 4-32 are the traffic flow predictions compared to the modelled base case and these show significant changes in traffic flow on the local road network, including apparent reductions in overall modelled traffic flow in the projected opening year of 2029. Appraisal and comment on the modelled data and a comparison can only be made by inspection of the Lower Thames Area Model outputs and detailed considerations such as select link analysis.
- 4.2.4 The traffic flow and modelling information within the Local Refinements consultation materials does not extend to the limits of the Thurrock Borough and so it is not feasible for the Council to take a view on the current impacts of the project on areas such as the Five Bells junction and routes through Corringham, or the residual impacts on the A1014 / A13 The Manorway junction.

4.2.5 As local highway authority, Thurrock Council reserves judgement on traffic flow changes and network impacts until requested data is provided and / or analysed to allow an informed and considered judgement of the effects of the project on the local communities and travel networks.

4.3 Changes to A13 / Orsett Cock Junction Arrangements

4.3.1 It is welcomed that NH has listened to the concerns that the Council has raised during the development of the LTC project and again raised during the July - September 2021 Community Impacts consultation regarding the poor and circuitous access provided from LTC to the A1089 southbound and the Port of Tilbury. This does not address, however, the Council's opinion that the interchange between LTC / A13 / A1089 and the Orsett Cock junction is overly convoluted; confusing, and potentially unsafe for users whilst also sterilising a large area within the Borough. The Council has repeatedly requested that NH provides evidence as to the options appraisal for the proposed interchange, such that the Council can take a balanced judgement of the impacts, effects, and possible merits of the interchange. This evidence has not been provided and so the Council retains its opposition (see **Section 1.3** above) to the current scheme.

4.3.2 The Council has the following observations with reference to the current Local Refinements consultation material and the proposed adjustments to the linkage to A1089 southbound. Traffic modelling prepared by NH at the time of the Community Impacts consultation was predicting large increases in LTC traffic (particularly HGVs) using some local roads and junctions (including along the A1013 and at Daneshole Road Roundabout, along Brentwood Road or using the A13 and U-turning at The Manorway) to access the A1089 southbound and the Port of Tilbury. The Council was obviously very concerned about the unacceptable safety and environmental impacts this would have on local communities and so sought that NH mitigated that impact.

4.3.3 The latest LTAM traffic modelling outputs at Figures 4-21 to 4-26 and details in Table 1 presented by NH in the LR consultation material predicts that the proposed Orsett Cock / A1089 Junction Link Road will help to address the Council's concerns and reduce the amount of LTC traffic using the above referenced local roads, when compared to the previous consultation material. It should be noted that strategic modelling is not appropriate for completing this work. It is normal practice to develop micro sim modelling (and is the standard normally required by NH) it is premature therefore to make assumptions based only on strategic modelling.

4.3.4 The Council notes, however, that there continues to be predicted increases in traffic flow on Brentwood Road, Marshfoot Road and Buckingham Hill Road / East Tilbury Road corridor as a consequence of LTC. Whilst the overall effect of the adjusted link is welcomed it does not change the very serious concerns the Council has regarding the LTC scheme overall and its proposed configuration at the LTC / A13 / A1089 interchange in particular in relation to:

- 1 Strategic Road Network (SRN) connectivity and inappropriate use of local roads;
- 2 Lack of clarity on NH's A13 trunking / de-trunking proposals;
- 3 Impacts at A13 Orsett Cock junction;
- 4 Inadequate assessment of alternative LTC configuration options;
- 5 Impacts on local roads during operation; and
- 6 Potential risks to safety within the interchange between LTC / A13 / Orsett Cock and A1089.

- 4.3.5 These concerns have been shared with NH during engagement correspondence and meetings and are described in more detail in the sections below.

SRN Connectivity and Inappropriate Use of the Local Roads

- 4.3.6 Irrespective of the Council's significant concerns over the configuration of the interchange, the Council is concerned that the LTC / A13 / A1089 interchange configuration is using Council roads at the A13 Orsett Cock junction (which is designated as part of the Major Road Network (MRN)) to provide critical SRN to SRN connections. This will be inappropriately reducing the cost of LTC by using this local highway road and junction and will increase future financial burden on the Council, by placing SRN traffic on the MRN junction. It will also mean LTC traffic will use up capacity delivered at this junction as part of the recent and expensive A13 highway upgrades to support local growth requirements and aspirations. The current LTC scheme proposes that:
- 1 The existing A13 westbound (w/b) off-slip SRN to A1089 southbound (s/b) SRN link is disconnected to be replaced by a link through the Orsett Cock junction. To re-establish this connection, the SRN designation should be extended on the A13 w/b carriageway further to the east to the point at which A1089 s/b traffic leaves the A13 w/b at the Orsett Cock junction off-slip. However, this is not currently proposed by NH, instead LTC will stop-up the existing SRN existing link and use the MRN A13 Orsett Cock Junction to make this connection.
 - 2 The LTC s/b SRN does not connect directly with the A1089 s/b SRN. The scheme diverts traffic from the SRN via the MRN at the A13 Orsett Cock junction to access back onto the SRN. In contrast the A1089 n/b SRN connects directly to the LTC n/b SRN, albeit through a substandard confluence of links (the latter point of which has been raised with NH).
 - 3 The LTC n/b SRN does not connect directly with the A1089 s/b SRN. It diverts traffic from the SRN via the MRN at the A13 Orsett Cock Junction to access back onto the SRN. In contrast the A1089 n/b SRN connects directly to the LTC s/b SRN.
- 4.3.7 The Council has responsibility for the A13 Orsett Cock junction as part of the MRN. It is concerned that if the LTC scheme is approved as currently proposed then it will be burdened with financial responsibility for future improvements and maintenance costs at this junction, which will effectively be operating as a crucial part of the SRN.
- 4.3.8 The connection between LTC northbound and southbound is extremely convoluted and requires traffic to navigate to the Orsett Cock junction using an extremely short section of link merge on the approach to the junction circulation – a point previous raised with NH. If traffic successfully navigates into the Orsett Cock junction care must be taken to not mistakenly access Brentwood Road or Stanford Road; then to join the apparent on-slip to A13 westbound but ensure that it leaves that slip to access A1089 and not join A13 westbound. This represents a substantive number of weaving points and decision points in short succession. Many drivers will be confused and will find themselves on local roads either from Orsett Cock or having to travel to the North Stifford junction to return via Grays. The option proposed by NH for connection between LTC and A1089 reduces the likely routing through the Manorway junction but introduces further confusion to the operation of the interchange.
- 4.3.9 Traffic previously travelling westbound on A13 to join A1089 southbound now has to route through the Orsett Cock junction to use the apparent A13 westbound on-slip. Confused drivers could readily find themselves back on A13 westbound, having missed the connection to A1089.
- 4.3.10 NH has not shared any visualisations of how the directions and decision points will be communicated to drivers. Signing within the interchange would be complex, numerous and

confusing. That signing strategy would include signs erected on the MRN and local roads, which are not included within the current Order Limits.

Unclear Trunking / De-Trunking Proposals

- 4.3.11 To address the issues raised in Section 4.3.4, of this response document, the Council believes it would be logical to extend the A13 trunking from the A1089 up to and including the A13 Orsett Cock junction. However, NH's trunking / de-trunking proposals as part of the LTC scheme are not yet clear and have not been the subject of effective technical engagement and / or consultation.
- 4.3.12 The LTC scheme will inevitably require NH to adjust the boundary between the SRN and MRN via trunking orders and de-trunking parts of the A13. It is currently unclear whether NH will include the Trunking Order as part of the LTC DCOv2. Trunking and de-trunking would normally require a Trunking Order under the Highways Act 1980, Section 10. Section 10 sets out a procedure under which the Local Highway Authority is consulted on the trunking proposals, at which point it can object and require a Local Inquiry. The procedure set out in Section 10 of the Highways Act should be applied by NH with an equal rigour through the LTC DCO process and the DCO process should not be used to circumvent these requirements. Normally the merits of de-trunking are consulted on and discussed whereas in this instance there has been no meaningful engagement by NH on this issue to date. Setting aside the Council's concerns over the impact on the operation of the Orsett Cock junction, it is of significant concern that the trunking of that junction would remove any ability of the Council, in all its duties, to influence the future operation of the junction and the adjoining local roads. This would hinder the realisation of high standard connections for active travel and the Council's aspirations for high-frequency and high-quality public transport services along the A1013 and A128 / Brentwood Road corridors.
- 4.3.13 NH should set out its proposals for trunking and de-trunking within the network affected by the project and demonstrate that its proposed approach has successful precedent, including where a junction is trunked within a local road network, rather than the more typical arrangement with slip roads approaching a local road network. To date NH has presented a confused and contradictory proposal where different teams within NH propose different suggestions for amendments to the trunk road network within Thurrock. Proposals have included trunking of the network to incorporate significant sections of A13 and A1014, whilst others have considered sections within the LTC / A13 / A1089 / Orsett Cock junction that do not align with the former suggestions and do not appear to align well with the LRN and MRN. NH's proposals must be coordinated, reasoned and reasonable and properly consulted on with the Council. The Council does not agree currently that sections of the LRN should be utilised as part of the SRN without suitable justification, analysis, mitigation, and agreement as to how that would operate within the wider road network. NH must engage fully on its proposals on this matter.

Impacts at A13 Orsett Cock Junction

- 4.3.14 The LTC scheme is proposing a large, complex, confusing and convoluted interchange with A13 / A1089 that uses the A13 Orsett Cock junction as an integral part of its operation and to provide SRN critical connectivity. Whilst the new link road proposed between the A13 Orsett Cock Junction and the A1089 s/b will help reduce the impacts of LTC on some local roads it will increase the use of the Orsett Cock junction by traffic from LTC and the A13.
- 4.3.15 It is a serious concern that the A13 Orsett Cock junction will not be able to operate safely and effectively with the additional traffic that the LTC scheme will route through the junction. NH is yet to complete, after over 9-months, the micro-simulation traffic modelling (VISSIM) of the junction necessary to demonstrate that once LTC is operational that it can operate safely and efficiently and with a good level of service. This work is crucial to understanding what scale of

junction improvements will be required to mitigate the impacts of LTC, to support local growth aspirations and to prioritise walking, cycling and public transport movements through the area. It is inappropriate for NH to repeatedly consult the public on a scheme that they do not know will operate effectively and have not fully assessed or communicated the scheme impacts. NH cannot adopt the opinion that the detailed required for the determination of the DCO has only to be of a conceptual nature, such that the detail arrangements will be defined through the contractor's detailed designs. This approach does not confirm the impacts of the project to sufficient detail for the Council to be confident of delivery of the project without significant unmitigated impact and does not effectively assess any 'worst case' through the EIA process. The changes anticipated by the Council to be required would need to be suitably audited to understand that the junction operates safely and efficiently, including for walking, cycling, horse-riding, and bus travel. This has not been carried out by NH at this stage and does not allow those changes to be consulted on.

- 4.3.16 Thurrock Council has recently contributed significant funding to upgrade the A13 in Thurrock including the A13 Orsett Cock junction to provide increased highway capacity to support significant future local growth. The traffic modelling presented by NH is predicting LTC will significantly increase traffic on the A13 east of the Orsett junction and at the junction itself. The increased capacity delivered as part of the A13 highway upgrades will now be used by traffic arising as a result of LTC for which the Council should be compensated, accompanied by a strategy derived by NH as to how that reserve capacity would be reintroduced to the network to allow the Council to realise its local growth requirements and aspirations.

LTC Configuration and Lack of Adequate Option Assessment

- 4.3.17 The Council remains very concerned about the configuration of LTC north of the river and in particular the proposed LTC / A13 / A1089 interchange (that uses the A13 Orsett Cock junction to accommodate strategic traffic and connectivity). As part of this Local Refinement Consultation NH is proposing yet more modifications to the overall configuration, adding a modification to the link between the A13 Orsett junction and the A1089, and making it more complex and more convoluted for drivers.
- 4.3.18 It is the Council's view that the crucial SRN links between LTC, A13 and A1089 could alternatively be made via a junction at Tilbury and the Tilbury Link Road (TLR). This could enable an alternative LTC / A13 / A1089 interchange configuration (potentially removing some A1089 links), reducing its complexity, scale, cost, and local community impacts and making the interchange safer. It could also reduce traffic demands and impacts on the A13 and A13 Orsett Cock junction and also on the A1089 and at the A1089 / Asda Roundabout. Whilst this option is recognised by NH it is the Council's view that alternative options have not been adequately assessed.
- 4.3.19 Since the Statutory Consultation in December 2018, the Council has continually raised concerns about the lack of adequate options appraisal by NH in identifying the preferred LTC scheme configuration along the selected route alignment. These concerns have focused on the configuration of the LTC / A13 / A1089 interchange, the connections between the LTC and the local area, and necessary local highway network mitigation. The Council has also continued to express concern about the lack of consideration of the very significant proposals for growth in Thurrock, and thus the potential for the scheme to be a barrier to sustainable growth in the area.
- 4.3.20 In March 2020, June / July 2021 and again in December 2021, the Council requested evidence of the alternative options tested by NH to determine the DCO configuration. The Council has also identified a number of alternatives for testing, including:

- 1 LTC with a Tilbury Junction and Link Road;

- 2 LTC without direct connection to A13 (and with a Tilbury Junction and Link Road);
 - 3 LTC without direct connection to A1089 (and with a Tilbury Junction and Link Road); and
 - 4 LTC without direct connections to A1089 and between A13 West to / from LTC North (with a Tilbury Junction and Link Road).
- 4.3.21 The Council has also provided NH (in March 2020) with indicative Local Plan growth scenario assumptions and network files to model and test LTC under a number of Local Plan growth scenarios and with alternative transport network assumptions such as:
- 1 Provision of a junction at Tilbury and Link Road to provide multi-modal access to the Tilbury Growth Area, East Tilbury and potentially Chadwell St Mary Growth Area;
 - 2 Public transport access (if TLR is not delivered early) and crossing of the LTC at Brentwood Road (Chadwell St Mary);
 - 3 A1013 corridor bus priority; and
 - 4 Provision of a future junction at South Ockendon to provide access to growth locations.
- 4.3.22 Some progress has been made by NH over the last 6 months in developing suitable strategic traffic models for testing these alternative LTC configuration options. However, data and findings from the initial traffic model runs are only now, as of the end of May 2022, starting to be shared with the Council for review. Further work and engagement with the Council will be required to review, refine, and draw conclusions to this critical options assessment work. It is a serious concern to the Council that NH has already stated that it has no intention that the scheme will be further amended as a result of the option testing currently underway – even if a more optimum scheme emerges from the work. This is inadequate and devalues the process of engagement to a futile exercise. It is noted that NH has also still not agreed or provided a programme for modelling of the Local Plan growth scenarios.
- 4.3.23 Without this information, the Council remains in a position where it is unable to accept that sufficient evidence has been provided to justify the proposed LTC scheme configuration through Thurrock or to make informed judgements about preferred options, and the balance between strategic highway requirements, substantial local transport and associated impacts, (including air quality, noise, severance, etc) and any benefits to the local community.

Impacts on Local Roads

a Impacts of Proposed New Link on Local Roads (also see Section 4.2 Traffic Modelling)

- 4.3.24 The latest LTAM traffic modelling presented by NH in the LR consultation material predicts that the proposed Orsett Cock / A1089 Junction Link Road will help to reduce the effects of LTC traffic on A1013 Stanford Road and Brentwood Road, which is welcomed, albeit there continues to be an overall increase in traffic flow on A128 Brentwood Road which remains unmitigated.
- 4.3.25 A negative impact of the proposed new link is to route more traffic through the A13 Orsett Cock junction itself. Table 1 of the *'Guide to Local Refinement Consultation 2022'* should have provided specific information on the expected overall increases in traffic flows at the junction itself and commentary on predicted impact this will have on the operational performance of the junction. The Council is concerned that NH has not completed its assessment of this impact and is not presenting the public with this information.

- 4.3.26 The effect of the new link in increasing traffic flows through Orsett village (Rectory Road / Conways Road) is concerning. Whilst it is noted that the overall predicted effect of the project will be to reduce flows through the village the Council remains very concerned about LTC's traffic impacts on Orsett Village during construction and the ongoing risk of rat running through the area once LTC is operational due to potential congestion at the A13 Orsett Cock. NH must work closely with the Council to design and fund traffic and environmental mitigation measures for this area and it is disappointing that little progress has been made on this issue. The effects of the project on Orsett Village must be further studied through the emerging microsimulation models and consequential iterations of the strategic models better to understand the impacts.
- 4.3.27 On 26 January 2022, the Council shared a Technical Note with NH summarising traffic survey data, which recorded the road activity through Orsett village during weekend closures of the Orsett Cock roundabout (to enable construction of recent A13 upgrades). This assessed and provided analysis and evidence of the impact on the village as traffic is reassigned during periods of closure and disruption at Orsett Cock Junction. This will provide useful evidence to inform the design of appropriate mitigation measures in the village. To date NH has provided no response to this Technical Note.
- 4.3.28 Whilst the predicted effect of the new link is a reduction in the forecast increase of traffic flows on A128 Brentwood Road, the overall forecast effect of the project is a significant increase in traffic on this road and on Chadwell Hill through Chadwell St Mary. Again, this is concerning, and it is the Council's view that NH should either amend the project, such that traffic flow is not increased on Brentwood Road. If this is not viable NH must work closely with the Council to design and fund traffic mitigation measures for this area. NH must test the effects of implementing these traffic management measures (assumed to be a mitigation measure) on the A128 Brentwood Road and also on Buckingham Hill Road, Muckingford Road and Fort Road as all of these roads are predicted to see an increase in traffic as a result of the project. These traffic management mitigation measures may result in further traffic using Orsett Cock junction or other routes.
- 4.3.29 NH must also develop and test the effect of mitigation measures at Marshfoot Road, particularly the priority junction on the east side of the A1089, which is an accident hot spot.
- 4.3.30 The significant increases in traffic forecast on the A1089 arising as a result of the new link and the LTC scheme overall also raises concerns for the Council, in particular in relation to impacts on the operational performance of the A1089 Asda Roundabout and given the critical importance of this junction for access to the Port of Tilbury and the residential and retail community around Tilbury, the Council has consistently requested that local micro-simulation is undertaken to better understand LTC impacts at this junction.

b Overall Impacts of the LTC Project on Local Roads

- 4.3.31 The Council's response to the '*Supplementary Consultation*' (January to April 2020) and the '*Community Impact Consultation*' (July to September 2021) set out its concerns about the validation of the LTAM in the Thurrock area, with the model data suggesting that baseline traffic flows were being under-estimated, thus undermining the ability of the model to be used for assessment of local highway impacts and mitigation. Concerns have also been expressed about the mismatch between the local AM peak hour (between 08:00 and 09:00hrs) and the modelling peak hour within LTAM, (07:00 and 08:00hrs) and the potential this has for under-estimating local traffic impacts; as well as the issues of induced traffic and rat running (i.e. traffic not following the intended route).
- 4.3.32 The Council is aware that NH has, in the period since the Community Impacts Consultation, completed some work to better calibrate and validate the LTAM model in the Thurrock area. This has been done using more up to date local junction and link count data, as the previous

version of LTAM (DCOV1) was based on traffic data sourced in 2016. Updated Cordon models of LTAM (DCOV2) covering only Thurrock Borough have been provided to the Council in late April 2022 for analysis of scheme impacts on local roads and NH's Strategic Road Network (SRN). However, the Council has not yet received a Local Model Validation Report (LMVR) for the latest LTAM model (DCOV2) to demonstrate or give confidence regarding the ability of LTAM to predict the traffic effects of the LTC scheme on Thurrock's local road network. We would also expect analysis / sensitivity testing to have been completed by NH to demonstrate the validity of LTAM given significant events that have influenced travel patterns, such as the pandemic and associated working pattern changes. No evidence of this has been presented.

- 4.3.33 Given that the strategic LTAM model is not a suitable tool for testing detailed operations of specific junctions, the Council has consistently suggested, since engagement at the time of the October 2020 publication of the DCOV1 documents, that NH also use locally validated micro-simulation models to assess local highway impacts at A13 Orsett Cock, A13 The Manorway and A1089 ASDA Roundabout. The Council believes this local junction modelling work is crucial to understanding and developing the junction improvements that the Council believes will be required to mitigate the impacts of LTC and to support local sustainable growth aspirations.
- 4.3.34 Micro-simulation (VISSIM) models are now being developed by NH for the A13 Orsett Cock, A13 The Manorway and for an East-West Corridor through Thurrock (A13 Stifford Clays – A1013 Lodge Lane – A1013 Daneshole Roundabout – Old Dock Approach Road – Marshfoot Road / A1089) and this ongoing work is being discussed with the Council. However, future year forecast models including LTC traffic have not yet been developed to demonstrate that once LTC is operational that these can operate efficiently and with a good level of service. NH is also currently not proposing to develop a VISSIM model of the A1089 ASDA Roundabout which the Council believes is a critical gap in this work programme.
- 4.3.35 The Council is currently reviewing the latest outputs from cordon LTAM models (DCOV2) for Thurrock (issued in late April 2022) and reserves the right to comment or update our comments on any identified issues related to the new LTAM modelling and predicted project impacts. The Council has also reviewed the evidence presented as part of this Local Refinement Consultation (*'Guide to Local Refinement Consultation'* Figures 4.21 to 4.32) which unfortunately do not provide any indication of the wider effects of the project and the new link road (the results are only shown as far as Orsett Cock junction on the A13 and Marshfoot Road on the A1089). Thurrock Council therefore reserves judgement until this evidence is provided and / or further analysed of the LTAM (DCOV2) has been completed. However, figures 4.27 to 4.32 indicates impacts of the LTC on Thurrock's LRN are at.
- 1 **A13 Orsett Cock Roundabout** – significantly increased traffic flow (over +40% on some roundabout links in AM and PM peak) negatively impacting on the operational performance of the junction (increasing delays and queuing) and reducing capacity for future local plan growth;
 - 2 **A128 Brentwood Road (and Chadwell Hill through Chadwell St Mary)** – significantly increased traffic flow (+20% to 40% on some links in AM peak and over +40% on some links in Inter and PM peaks) with associated safety, noise and air quality impacts on local communities;
 - 3 **Marshfoot Road and Marshfoot priority junction** – significantly increased traffic flow (over +40% on some links in AM and PM peak periods) negatively impacting on the operational performance of the junction (increasing delays and queuing). This has also been identified as an existing accident 'hotspot';

- 4 **Buckingham Hill Road (and East Tilbury Road / Princes Margaret Road corridor through Linford)** – significantly increased traffic flow (over +40% on some links in AM, Inter and PM peaks) with associated safety, noise and air quality impacts on local communities;
- 5 **Muckingford Road (at Chadwell)** – significantly increased traffic flow (+10% to +20% on some links in AM peak and +40% on some links in PM peak with associated safety, noise and air quality impacts on local communities; and
- 6 **Fort Road / Turnpike Lane/ Station Road (including through West Tilbury)** – increased traffic flow (+40% on some links in PM peak) with associated safety, noise and air quality impacts on local communities.

4.3.36 The further traffic modelling work that NH has been undertaking in relation to local road network impacts and alternative LTC configuration options noted above is welcomed. However, a programme for completing this vital work still has not been provided by NH and the Council has grave concerns that the work and associated engagement cannot be completed in advance of the DCOv2 submission and would not provide NH the time to make any changes to the scheme. At present NH's work appears to be piecemeal and disjointed and a programme is required to help the Council understand the interdependency between the different modelling workstreams and to forward plan its own resources. It should also demonstrate how this programme of modelling work is informing and influencing the:

- 1 Scheme business case work;
- 2 Scheme design development;
- 3 Assessment and identification of areas of wider network impacts that will require mitigation schemes and/or future monitoring of impacts;
- 4 Development and design of road network mitigation schemes;
- 5 Environmental and safety impacts assessment and mitigation development; and
- 6 Public consultation and stakeholder engagement.

Potential risks to safe movement within the interchange between LTC / A13 / Orsett Cock and A1089

4.3.37 The Council presented a Technical Note (date 11 January 2022) to NH on its concerns regarding the perceived safety and operational challenges associated with the proposed interchange between LTC, A13, A1089, A1013 and A128 (which incorporates the Orsett Cock junction). The note identified many points of concern including in relation to:

- 1 LTC off slips to A13 / Orsett connection – poor sight lines/visibility;
- 2 Orsett Cock to A13 and LTC connection link – risk of headlight blinding and confusion between opposing traffic movement;
- 3 A1013 to A13 / A1089 / LTC link turn at Orsett – tight turning radius requiring vehicles to turn across a number of traffic lanes;
- 4 LTC to Orsett Cock Link – significant lane changing, and decision points required and short lengths for traffic merging mixed with slowing/queuing traffic on the approach to the Orsett Cock junction circulatory;

- 5 Orsett Cock to A13 westbound and A1089 southbound link – risk of off-side diverges, late decisions and lane changes and conflicts;
 - 6 Active travel facilities at Orsett Cock – limited facilities for safe movement of pedestrians and cyclists;
 - 7 Poor standard emergency service connection facility between Orsett Cock and LTC access links, with potential impact on safe operation of the network;
 - 8 Link LTC northbound to A13 eastbound / Orsett Cock – tight radius and risk of loss of control accidents; and
 - 9 A1089 northbound merge with LTC northbound link and LTC on slip – off-side merge between slow moving HGV traffic and faster moving traffic in short distance will create dangerous conflict point.
- 4.3.38 NH responses (dated 11 February 2022 and 18 March 2022) effectively concluded that the matters raised are either not the Council's concern or would be mitigated during detailed design and therefore should not be included within the Issues Log. The Council does not accept this position. It does note that minor adjustments have been made to lane provision and merge / diverge points within the LTC / A13 / A1089 / Orsett Cock interchange. The changes do not resolve the Council's concerns and the Council continues to have the opinion that there are material safety concerns about the operation of the convoluted and confusing interchange. The interchange is a non-typical arrangement that incorporates numerous and frequent decision points with many merges and diverges. Drivers will be confused as they seek to navigate through the junction, and this will be magnified where the design and layout of the network is substandard.
- 4.3.39 The Council is responsible for the safe operation of its network, and this includes the interaction with NH's SRN. NH and the Council has not yet concluded where the boundary will be between the local and trunk road networks and so the Council cannot determine whether issues that it raises in relation to the safe operation and maintenance of the proposed LTC network are the responsibility of NH or the Council. The Council cannot, therefore, confirm that the resultant network connections and alterations will be acceptable for future operation and management. The matters raised by the Council, therefore, need to be resolved prior to the submission of the DCOv2. It is not acceptable to leave these actions to the detailed design of the scheme.
- 4.3.40 It is further valid for the Council to raise concerns about the safe operation of the overall interchange and LTC when the Council is yet to be convinced that the convoluted and confusing interchange is even the right option for linkage between the local and strategic road network.
- 4.3.41 The response from NH regarding the safety concerns was unreasonably dismissive and it is considered inappropriate to delay resolution for post DCO submission or grant. The DCO process 'front loads' the project development to enable meaningful consultation and collaborative engagement in advance of an acceptable outcome through the Examination process, which will examine areas of disagreement in particular.
- 4.3.42 NH has effectively concluded that the matters raised are either not of concern or can be mitigated during detailed design. This is not acceptable to the Council as the impacts on the network adjoining the scheme cannot be fully considered without the resolution of the concerns raised. As an example, the configuration of the LTC will require significant work on the Council's and other local authorities' networks to upgrade direction signs and distance plates in advance of the area of works currently consulted to provide consistent destination signing to safely guide motorists joining and travelling on the A13. Although the sign faces

can reasonably be considered as being detailed design, the principles need to be set out which requires an agreed strategy, which the Council consider as a minimum requirement before DCO submission. It is therefore not appropriate to dismiss the matters raised by the Council as items to be resolved unilaterally by NH or with the Council post-submission.

- 4.3.43 In the Council's opinion many of the points raised are not of a form that would be adequately resolved through detailed design, but instead relate to more fundamental design configuration issues.
- 4.3.44 The Stage 1 Road Safety Audit provided by NH, is by its very nature high level and covers the entire scheme. The Council is of the opinion that a Stage 1 Road Safety Audit is not an adequate review for the level of design required for DCO submission and as a minimum would expect the undertaking of an Interim Stage 2 Road Safety Audit, which could focus on the more specific points that we have raised through our review. That greater level of detailed audit would inform consultees as to any initial safety issues with the emerging design.
- 4.3.45 The Council does concur that, subject to confirmation of the boundary between local and trunk road network, some of the concerns that it has raised in the safety note could only directly affect the SRN. The Council, however, is right to raise these concerns with NH when it considers that they have a significant effect on the overall operation of the interchange and, particularly, when it is considered that they require fundamental changes to the configuration of the scheme in order to be resolved.
- 4.3.46 Points raised in the Council's note relate directly to the interface between the SRN and Thurrock's network. It is also conceivable that problems at the other locations identified by the Council could have indirect impacts on the local road network. These are set out in the Technical Note previously provided to NH on 11 January 2022 and raise safety concerns for the Council. It may be that NH's designers have concluded that there are no concerns at these locations, but that point must be documented and not ignored.
- 4.3.47 Unmitigated safety concern will all add to the cumulative considerations and the concerns which the Council holds, which also include adherence to standards; effectiveness of operation (i.e. modelled outcomes); land sterilisation; severance; and, air quality. It is the Council's opinion that it is appropriate that it seeks clarification on these points of safety and operational concern. NH should not continue to simply dismiss the Council's concerns but engage adequately to seek common understanding and agreed resolution.

4.4 Tilbury Fields

- 4.4.1 The key purpose of Tilbury Fields is to accommodate excavated material from the tunnel boring to minimise the amount that requires removal from site and to provide additional ecological mitigation, principally to address a shortfall in open mosaic habitat for invertebrates. The design has sought to respond to the nearby military Scheduled Monuments and to provide new public access, include connecting paths.
- 4.4.2 The latest significant revision has been made to accommodate the Thames Freeport.
- 4.4.3 Thurrock Council has provided detailed feedback on the emerging Tilbury Fields proposals, including the proposals provided as part of this consultation. This has enabled the refinement of the design to address issues that have been raised.
- 4.4.4 The Council still has outstanding concerns that have yet to be resolved. In particular, the Council requires the alternatives options appraisal analysis to be provided to demonstrate that the currently proposed site is appropriate and why the East Tilbury Landfill area was not included in order to lower landform levels. This analysis should be provided at the earliest opportunity and well before DCO submission.

- 4.4.5 The reorientation of the site layout and reduction in the site footprint means that while the overall height of mounds will not be significantly higher than the previous scheme there will be more mounds and they will extend further inland. The Council continues to request visualisations showing the how the new earthworks will appear from Coalhouse Fort in context with intervening East Tilbury Landfill to better understand its visual effects on this sensitive heritage site. The Council considers it is essential that these are provided prior to DCO submission and requires this information at the earliest opportunity to enable adequate time for review.
- 4.4.6 The ecological mitigation will be of a similar overall area as that previously proposed but will be arranged as 'stepping-stones' associated with the seven mounds rather than a single site. This could provide improved connectivity, including a new habitat corridor linking northwards towards Linford. In principle this is considered appropriate; however, the Council has requested to see more details of the emerging design, including habitat features and their future management prior to DCO submission at the earliest opportunity to enable adequate time for review.
- 4.4.7 An impact of the proposed change is described as *"improved access to the riverfront as a result of moving the proposed bridleways and pathways to provide a north-south link"*. The plans for Tilbury Fields, however, still show a pedestrian route only running north-south. Thurrock Council has requested that a horse-riding and cycling route connecting the Two Forts Way to FP200 is included as part of the scheme.
- 4.4.8 In principle the proposed network of paths would improve recreational connectivity between the river and three Scheduled Monuments. However, the Council do require further details of the proposed designations of these WCHs.
- 4.4.9 The Council is still concerned that the separation of habitats caused by the Tilbury Viaduct has not been satisfactorily addressed and requires further work to demonstrate that this separation is prevented, possibly by the creation of a new wildlife corridor.
- 4.4.10 The final design of the public open space provision and facilities have yet to be prepared and will not form part of the DCO, however, the Council requires additional Design Principles and an 'Indicative Plan' to be prepared, so that the design of Tilbury Fields is both constrained, controlled and delivered as discussed to the appropriate standard and agreed with the Council. In particular these should include the layout, route of all the WCHs, surfacing palette and ecological finish and details of any structure / building. The Council has previously stated that indicative images used within the DCO should be realistic and recognise that the site is unlikely to have power and other services and will not have staff to manage any facilities. Further details of these aspects are required to ensure that once completed the area can be effectively managed and maintained and there are plans and funding in place to enable this to be implemented.

4.5 Tilbury Operational and Emergency Access

- 4.5.1 The provision of a new junction at Tilbury is supported in principle by the Council if it is accompanied by a commitment to deliver the future TLR it is intended to facilitate. In the absence of this commitment, the junction is over-specified for an operational and emergency access only. Simply provided as an operational and emergency access it is an expensive and unnecessary luxury in the context of the LTC scheme as currently proposed. The Council agrees that the junction should be designed with the future delivery of a TLR and future development in mind to avoid potentially disruptive re-work at a later date. However, it is the Council's view that NH has not to date completed (or presented as part of this Local Refinement Consultation) adequate option assessment, traffic modelling and design development work in relation to the LTC scheme overall, at the A13 Orsett Cock junction or at the proposed Tilbury junction to enable it to make fully informed judgements and comments on

this latest proposal. The Council expects NH to demonstrate that the proposed junction design will provide the vital capacity, connectivity, configuration and operational performance required to accommodate future traffic, public transport and walking, cycling and horse-riding (WCH) movement demands arising as a result of the proposed LTC scheme configuration with a TLR in place and with local growth aspirations for the area (e.g. Thames Freeport expansion and the Thurrock emerging Local Plan). This evidence has not been provided thereby making it impossible for the Council to take a reasonably informed position on this junction proposal and design.

Need for Tilbury Junction and the Tilbury Link Road

- 4.5.2 It has consistently been the Council's view over many years that a LTC scheme which does not include the TLR significantly weakens the business case for LTC, as it fails to provide the connectivity required to realise the growth potential of the Thames Freeport, fails to recognise the requirements of the emerging Local Plan, and creates serious traffic pressure on the Council's Orsett Cock junction of the A13. In fact, indications from the data provided by NH to date strongly suggest that the current scheme is likely to hinder potential for economic growth and the Councils' ability to level-up the Borough. The Council's view therefore remains that the LTC scheme should include provision of both a junction at Tilbury and the TLR to connect LTC to the A1089 and provide multi-modal access to the Tilbury, East Tilbury and potentially Chadwell St Mary Growth Areas.
- 4.5.3 TLR is fundamental to support Thames Freeport access and growth (a key part of Government policy) and Local Plan development aspirations in the area and must be brought forward as part of the LTC DCOv2 scheme. It would also help to reduce traffic at the LTC/A13/A1089 interchange, on the A1089 (particularly at the Asda Roundabout) and on the A13 (particularly at the constrained Orsett Cock and The Manorway junctions). This would ensure there is a deliverable strategy to provide connectivity to the Port area and avoid the unnecessary impacts of HGVs accessing LTC on the Local Road Network (LRN) and on local communities. The Tilbury junction and TLR would also enable public transport connectivity to support sustainable development in the Tilbury Growth Area and East Tilbury and provide direct access from Thurrock to LTC unlocking opportunities for the delivery of Cross River public transport services in the future.
- 4.5.4 NH's recent letter (11 May 2022) to Thurrock Council casts serious doubt that the TLR would be eligible for funding via any future RIS3 programme and therefore the Council believes that it is now very clear that the most efficient way of delivering the TLR is as part of the LTC scheme. It is unfortunate that the LTC scheme is therefore in a position where another delay is likely necessary to accommodate the TLR and unfortunate that this is due to a lack of effective engagement on this crucial matter. There have previously been many opportunities for NH to reduce the potential length of delay to LTC by the incorporation of the Tilbury Link Road. Indeed, it is now approaching 2 years since the previous DCO submission was subsequently withdrawn, which would have provided opportunity to bring the TLR into the LTC scheme has NH been willing to engage appropriately on this crucial matter.
- 4.5.5 This Local Refinement Consultation provides details of a new LTC junction at Tilbury, which NH has stated is suitable for changing its proposed use (for operational and emergency access only) to a junction to connect with a future TLR. The speed at which NH was able to change the design of LTC and to create design a new junction within a short period of time was impressive and illustrative of what can be achieved with a focussed and can-do approach.
- 4.5.6 NH have provided the Council with three comparative pathways and programmes for delivering the TLR (1. LTC only scheme DCO 2. TLR only scheme DCO 3. Combined LTC / TLR scheme DCO). NH have suggested that a combined LTC / TLR DCO would add 4 years to the delivery programme making it an unacceptable option. The Council has reviewed these and provided alternative timelines for further consideration and believes that a Combined LTC

/ TLR scheme DCO could only take 12-18 months more than the LTC only scheme DCO. This relatively short potential additional delay re-emphasises the Council's belief that that the most efficient way of delivering the TLR is as part of the LTC scheme. The inclusion of the TLR would help overcome a serious Council objection to the current LTC scheme, and opportunity for the Council to support crucial changes to LTC which provide an essential function in helping to realise the Thames Freeport potential.

- 4.5.7 If TLR is not included within the LTC scope, then it becomes essential to find ways to accelerate its delivery using alternative funding and delivery mechanisms and there must be a firm legal commitment for its provision, ensuring that the necessary funding envelope is put in place to provide the investment needed to deliver TLR, given its crucial role in facilitating the delivery of the Thames Freeport.

Lack of Appraisal of LTC Configurations with Tilbury Junction, TLR and Local Development

- 4.5.8 The Council has continually raised concerns about the lack of adequate options appraisal by NH in identifying the preferred LTC scheme configuration through Thurrock. Furthermore, the Council is not in a position to accept that sufficient evidence has been provided to justify the currently proposed LTC scheme configuration or to make judgements about the LTC configuration or the proposed Tilbury junction. It cannot conclude the balance between strategic highway requirements, substantial local transport and associated impacts (including air quality, noise, severance, etc) and any benefits to the local community. It is also the Council's view that it has not been provided with sufficient evidence of assessment that demonstrates that the proposed Tilbury junction design can enable future delivery of the TLR and accommodate future traffic, public transport and walking cycling and horse-riding movements required to accommodate growth and development aspirations in the area (Thames Freeport expansion and the emerging Local Plan growth areas).

Incomplete Operational VISSIM Modelling at A13 Orsett Cock Junction

- 4.5.9 The Council also believes that understanding the future performance of the A13 Orsett Cock junction, once LTC is operational, is also critical in understanding forecasts of future traffic demands and therefore the capacity required at the proposed Tilbury Junction and using a Tilbury Link Road. The A13 Orsett Cock junction is currently proposed as an integral part of the LTC / A13 / A1089 interchange, and its operation and performance will be essential to providing access and connectivity from the LTC and A13 to A1089 and the Port of Tilbury. As set out in **Section 4.3**, NH has not yet completed the VISSIM operational traffic modelling work at the A13 Orsett Cock Junction. The Council is concerned that without completion of this work it is not possible to fully understand whether the proposed Tilbury junction design provides adequate future capacity to support delivery of a TLR and growth in the area.

Proposed Tilbury Junction Options and Design Issues

- 4.5.10 The Council has a number of concerns related to the half-clover leaf junction configuration and design as currently proposed which requires further evidence to be provided by NH, further design development and further engagement with stakeholders including the Council and the Port of Tilbury. These are described below:

- 1 **Junction Design Option Assessment** – a half-clover leaf junction arrangement is the only junction design that has been put forward. Evidence to demonstrate why this configuration has been proposed at this location and why other alternatives were discounted, should be provided by NH.

- 2 **Junction Design Capacity and Standards** – NH should confirm the overall capacity constraints associated with the proposed half-clover junction design (and associated NH design standards), particularly arising from the merge / diverge arrangements between the slip roads / LTC. This is particularly important given the current uncertainty surrounding potential future traffic demand at the junction (and TLR). The Council wants to avoid a future scenario whereby future delivery of a TLR is refused by NH on the grounds that the Tilbury junction does not meet design standards. The layout of the junction and its slip road links must also reflect the positioning of any tunnel gantries and detection.
- 3 **Future East Tilbury Link** – NH should provide evidence to demonstrate that the junction design proposed can accommodate a future link eastward towards the East Tilbury growth area.
- 4 **Future Public Transport and Active Travel** – the junction design makes no provision across LTC for public transport priority lanes and pedestrian and cycle facilities. The Council is developing its spatial planning and transport strategy for the Borough and has identified that a route through the Tilbury junction (and along the TLR) from East Tilbury to Tilbury Growth area will function as a major future public transport and active travel connector between existing settlements, new development areas and to the Port of Tilbury. The aspiration is to seek a Bus / Mass Rapid Transit link and high-quality active travel facilities along this corridor and through this junction and as such it is important to safeguard the ability to provide dedicated facilities in the future. The Council therefore requests that further design work is undertaken by NH to demonstrate that sufficient width and space is provided at the proposed Tilbury junction and on the new bridge structure across LTC to facilitate the creation of that high quality public transport and active travel corridor. The added widths should allow for a minimum of 3.5m bus lane in each direction across the bridge and for a 5.0m segregated path pedestrian and cycle path.

4.6 Utilities

- 4.6.1 The '*Guide to Local Refinement Consultation*' has been reviewed and the comments below relate to the utilities infrastructure detailed within this document.
- 4.6.2 The '*A2 Roman Road increased working area for electricity works*' (page 17) proposal, which is further described on page 36 and indicated on Figure 4-7 (pages 34-35), to install the electricity cables Roman Road and Pepper Hill to avoid the potential closure of the NCR 177, allowing existing vegetation to remain, is beneficial and will allow for 24/7 access and maintenance to UK Power Networks (UKPN), if required.
- 4.6.3 The '*Removal of proposed Dock Road water connection*' (page 18) proposal, which is further described on page 55 and indicated on Figure 4-9 (pages 42-43) where pipework is no longer required along Dock Road shows is a suitable outcome of discussions held with Essex and Suffolk Water.
- 4.6.4 The '*Coopers Shaw Road water connection refinement*' (page 18) proposal, which is further described on page 56 and indicated on Figure 4-9 (pages 42-43) appears a suitable solution.
- 4.6.5 The '*Refinements to the route of a gas pipeline diversion around Orsett*' (page 19) proposal, which is further described on page 95 and indicated on Figures 4-36 (page 96) and 4-39 (pages 98-99), does not confirm whether it is high, intermediate, medium or low pressure. This should be indicated, as safety distances vary.
- 4.6.6 The '*Refinements to the electricity works west of Clay Tye Road*' (page 20) proposal, which is further described on pages 110 and 132 and indicated on Figures 4-45 (pages 108-19), 4-46 (page 111) and 4-47 (page 112), should be suitable, based on the information given.

- 4.6.7 With regards to the '*Refinements to the electricity diversion north of St. Marys Lane*' (page 20) proposal, which is indicated on Figure 4-45 (pages 108-109), it is unclear what diversion works these are in reference to, as when comparing map reference 24 to Map Book 1 General Arrangement Plan Sheet 42, no electricity diversion is shown in that area. Therefore, the Council requires further clarification at the earliest opportunity to assess this proposal.
- 4.6.8 The '*Utilities*' paragraph on page 27, mentions NSIPs and that these will be included in the DCO application. In order for the Council to review and comment on the utilities NSIPs it is necessary to provide further details of these works and the assessments related to them. This section also does mention that one NSIP for the high-pressure gas pipeline diversion, which is shown in Figure 4-4, but more detailed information is needed, for example, current existing location, consultation distances, etc.
- 4.6.9 Page 54 outlines the proposal to extend the Order Limits to include the former Tilbury Power Station and former coal yard. Due to its previous use, the Council requires confirmation as to whether a search has been conducted to determine whether any existing utilities infrastructure remains on site.
- 4.6.10 Pages 60-61 detail an alternative diversion option for electrical overhead lines, which is also detailed on page 134 and indicated on Figure 4-14 (pages 58-59) and Figure 4-15 (page 62), which should be suitable.
- 4.6.11 Page 63 outlines a proposal, which is indicated on Figure 4-14 (pages 58-59), to amend a proposed water main diversion to avoid leaving existing residents with no supply, which appears to be acceptable, based on the information provided.
- 4.6.12 Pages 122-123 outline a proposal, which is indicated on Figure 4-50 (page 120), to upgrade footpath FP136 to a bridleway and realign a bridleway link to the existing Mardyke Way bridleway BR219, which would remain a footpath. The proposal indicates that there would be utilities and maintenance access along the length of the new route, to which we have no further comments.
- 4.6.13 Page 135 notes that a small section of the Condozers Scout Activity Centre is temporarily required for water main construction works, to which we have no further comments.
- 4.6.14 Page 135 also notes that part of the East Tilbury and Linford (ETL) Gun Club is needed to install a new electrical overhead line. The Council requires confirmation that there is minimal or no risk to damaging the overhead lines, during the activities of the Gun Club or that the club and its members are not adversely affected.
- 4.6.15 Page 135 also notes that a small part of a site currently owned by Foxhound Riding School would need to be acquired temporarily to access the main and utilities working areas during construction, to which we have no further comments, although comments from the landowner are required to determine if there is any operational impact on this local business.
- 4.6.16 Page 136 notes that access to InFitness Gym, Franks Farm is within the Order Limits required for the purposes of utilities diversion works. It is noted that access to the gym would be maintained, although the outdoor area to the north may have access restricted. We have no further comments.
- 4.6.17 We note that there is no mention of the proposed National Grid (NG) 'East Anglia GREEN' project, of which the current potential alignment options intersect with LTC works around Tilbury. The Council requires clarification and details on how the LTC works will operate alongside NG's East Anglia GREEN project.

Map Book 1

- 4.6.18 It is evident when reviewing the information contained with Map Book 1 that there are areas of detail that need to be enhanced to provide clarity on the proposals associated with utilities diversions and corridors. Unfortunately, none of the existing utility infrastructure is shown which does not allow one to see how the proposed diversions or new infrastructure relate to the existing. For instance, the maps also show proposed utility diversions / corridors passing through areas of tree planting or ancient woodland, which ordinarily would not be permitted by the utility network operators.
- 4.6.19 In several instances, a multi-utility corridor is shown, but what is not clear is whether this indeed is a corridor containing electricity, gas, telecoms and water infrastructure or one utility only.
- 4.6.20 It is also not clear what distribution tier the utilities infrastructure is (e.g. 11kV, 33kV electric / low, medium, intermediate, high pressure gas).

Map Book 2

- 4.6.21 It is noted that there is no information shown or contained within this map book relating to existing or proposed utilities.

Map Book 3

- 4.6.22 It is noted that there is no information shown or contained within this map book relating to existing or proposed utilities.

4.7 Walking, Cycling, Horse Riding (WCH) Routes

- 4.7.1 The proposed new path network close to the Coalhouse Fort would be beneficial, providing new shorter circular routes allowing users to get closer access to the nearby Scheduled Monuments and longer views over the Thames. The bridleway connection between FP200 and BR58 would be particularly useful.
- 4.7.2 The Council has previously requested that one route within Tilbury Fields should be suitable for cycle and horse-riding users as this provides an alternative connection between FP200 and FP146. This should be shown.
- 4.7.3 The refinement to BR219 beside the Mardyke is minor and would benefit the water vole mitigation. The Council has no objection to this change.
- 4.7.4 The proposed upgrade of all FP136 to bridleway has been previously requested by the Council. The previous route required crossing the LTC and raised concerns regarding unauthorised use of other rights of way. The current proposal would keep the bridleway further from the LTC.

4.8 Landscaping Changes at A13 Junction and North Road

- 4.8.1 The revisions to the landscape design for the A13 / A1089 junction (and M25 / LTC) have been driven by the need to reduce the amount of excavated material that requires removal outside of the Order Limits. It is proposed that the clean excavated material would be used to create 'noise mitigation bunds, enhance biodiversity and create other environmental benefits.' A total of six landscape features are proposed around the A13 / A1089 junction, with a seventh comprising of a bund around the relocated Gammonfields Way traveller site.

- 4.8.2 The changes to the previous scheme are presented in part as a response to the CIC consultation. The changes would include creating an earthwork on an area previously proposed as a small woodland within the junction area.
- 4.8.3 Figures 4-17 and 4-18 have been provided to show the potential visual benefits that one of the bunds could provide for residents of Whitecroft Care Home.
- 4.8.4 Figure 4-16 provides the proposed maximum heights for the individual earthworks; however, no detailed cross sections have been included within Map Book 3, which is considered an omission. The individual earthworks are plotted with very close contours which indicate that they will be steep-sided. Most of these earthworks would be viewed in the context of a major junction, which is already going to have major landscape and visual impacts and therefore additional visual effects of the bunds within the junction are not likely to be significantly greater. If appropriately contoured, they could have potential to soften the visual effects of the new roads and structures. The most sensitive new earthwork will be F, which is adjacent to Whitecroft Care Home. Figure 4-18 shows a relatively gentle slope, however, without the detailed cross-sections the Council cannot be confident that this will be acceptable.
- 4.8.5 The Council wishes to see the detailed cross-sections for each of the seven earthworks in context with the surrounding existing and proposed roads, and where relevant, buildings prior to DCO submission to better understand the visual effects of the revised proposals.
- 4.8.6 No detail of the revised planting mix has been provided. It is stated that this will be set out within the Outline Landscape and Ecology Management Plan as part of the DCO submission and not before, which is not acceptable. Figure 4-18 shows semi-mature tree planting on the top of the bund although no year is given to show how long it is expected to take to reach this point. The Council has significant concerns about the potential success of tree planting on these high bunds as they will be prone to drought and it would not be feasible to irrigate them, so further details are required.
- 4.8.7 The Council wishes to have details of the proposed planting mix prior to DCO submission to be confident that it is likely to succeed on these steep earthworks.

4.9 Air Quality and Noise Impacts

- 4.9.1 It is clear that the revisions to the Orsett Cock junction to A1089 link road will result in changes to traffic flow on numerous roads within Thurrock (as evidenced in Figures 4-21 to 4-26 of the LRC) with resultant changes in the air quality and noise impacts associated with LTC. The transport comments identified that not all roads had been assessed. In the absence of traffic data for these road links it is not possible to provide comment on the wider potential noise and air quality impacts. There is also no information provided on construction traffic impacts.
- 4.9.2 The qualitative narrative as to the potential changes in air quality resulting from these changes are considered speculative and not in keeping with the seriousness of the health effects of air quality and it is disappointing the NH have given the topic such cursory consideration.
- 4.9.3 The Council hopes that clearly detailed modelling and assessment is ongoing and will be submitted as part of the DCO application, and that NH have taken onboard our concerns as to the limitations of their previously submitted assessments that failed dismally to inform the public as to the impacts of LTC.
- 4.9.4 With respect to noise, some quantification of impacts has been provided. However, it is not clear from the information provided whether detailed acoustic modelling has been undertaken for the identified areas or whether simplistic calculations have been undertaken to quantify the impacts. The lack of clarity in this regard is disappointing as the inclusion of the results of

acoustic modelling would allow greater insight into where impacts have either improved or deteriorated, as well as provide greater clarity to inform the public.

- 4.9.5 This is particularly of concern close to the southbound off-slip of the Lower Thames, to the east of the A13 / A1089 junction. The LRC reports a change from a moderate / major beneficial effect to an adverse effect but does not quantify the extent of the adverse effect.
- 4.9.6 We therefore repeat our request for NH to provide inputs and results for air quality and noise modelling assessments in an accessible format to allow meaningful review and understanding, as soon as possible to enable the Council to review and discuss with NH and any additional mitigation provided in a timely manner prior to DCO submission.

4.10 Proposed Order Limits, Land and Private Recreational Facilities Changes

Overview

- 4.10.1 Having overlaid the revised Order Limits on a plan of the Council's ownership we do not consider that any additional Council land has been included nor any Council land removed.

Tilbury Green

- 4.10.2 The route, while common land, is principally used as a public right of way and currently contains FP200. The Council has previously requested that this route be upgraded to bridleway the same as all other affected rights of way have been. The Council therefore supports the proposal to upgrade the route to bridleway. The changes in alignment have been designed to link into the revised Tilbury Fields proposals.

Walton Common

- 4.10.3 An application to de-register part of Walton Common is being made as part of the Thurrock Flexible Generation Plan NSIP, with an alternative being proposed. It is possible therefore that this area could be de-registered prior to LTC commencing. LTC require temporary possession for utility works. The area required has been reduced to 1.01 hectares from 2.57 hectares. The land will be reinstated following completion of the works. The Council has no objection to this proposal.

Your Property and Blight

- 4.10.4 **Summary:** the brochure describes the process of blight, how the affected property could be affected by blight, compensation applicable and referral of the blight notice to the Upper Tribunal.
- 4.10.5 **Response:** this policy goes no further than the statutory position in terms of the blight process and the compensation that is offered, that being the full unaffected market value of the property (plus additional home loss if the property is residential). As such the Council has no further comments.

Your Property and Compensation or Mitigation for the Effects of Our Road Proposals

a Environmental Mitigation

- 4.10.6 **Summary:** powers to acquire land by compulsion to carry out environmental mitigation works.

4.10.7 **Response:** this policy goes no further than the statutory position in terms of mitigation of any environmental impact and the compensation payable if the compulsory acquisition of land is required in order to undertake mitigation works. In terms of environmental mitigation – the vital consideration is the assessment of environmental impact and the suitability and level of mitigation proposed. We look forward to more information in this regard prior to DCO submission.

b Off-Site Planting Agreements

4.10.8 **Summary:** voluntary agreements with landowners to mitigate the adverse effects (e.g. noise) on land from the construction works, or the new or improved road in use, by planting and then maintaining trees, shrubs or plants on the land, or taking other mitigation measures.

4.10.9 **Response:** it is not clear at what stage and for whom this policy might be available. For instance, it should be made clear whether it is available for all property uses and is there a qualifying level of impact required before this voluntary option becomes available? The aim of this policy seems to be to reduce the impact of the new road or construction noise due to the LTC scheme and is offered on a voluntary basis. However, the potential terms of the agreement noted within the policy impose significant inconveniences on the occupier both in terms of restricting the use of the land, maintenance obligations and a local land charge – all of which may lead to negative consequences solely due to the LTC scheme and no fault of the occupier in terms of re-sale, the local property market and most importantly the occupier's enjoyment of their property and imposed burden. Furthermore, and as is well understood, trees, shrubs and plants do not mitigate noise without being accompanied by distance or barriers. In those locations where trees, shrubs and plants are identified as mitigation for noise the noise attenuation fencing should be provided.

c Noise Insulation

4.10.10 **Summary:** in line with the Noise Insulation Regulations 1975, NH includes a policy to conduct insulation work (or to make a grant for homeowners to carry out the work) in order to mitigate against noise above the 'specific level' resulting from the Lower Thames Crossing when operative or due to long exposure to excessive construction noise. In addition:

- 1 The offer only applies only to residential dwellings;
- 2 The offer applies only to dwellings that are adjacent to the works (for construction insulation);
- 3 Applies only to properties within 300 metres of the new road;
- 4 For construction noise, the noise level must exceed 70dB(A) Leq over long periods of the day extending over a period of months;
- 5 For noise from the new road, additional carriageway or altered highway, the noise level must be predicted to increase by a minimum of 1dB(A) and be not less than 68dB(A) L10 (18 hour) within 15 years of the new or improved road opening to public traffic.

4.10.11 **Response:** This offering follows the statutory provisions and does not include any enhanced offer. Particularly given the disruption to lives that will be experienced over a significant period of time, the Council encourages NH to go beyond the minimum legal requirement to demonstrate its commitment to address community concerns.

- 1 We would contest that the offer should be extended to all property types that can evidence a detrimental impact due to the increase in noise – for instance, educational

establishments, hotels or certain medical facilities could be severely impacted by road and construction noise.

- 2 The distance of a property from the operational road or construction works should not be a limiting factor. If a noise assessment reveals that the property has a qualifying impact from an increase in noise, then noise insulation should be made available regardless of location. For instance, this distance trigger does not take into account vulnerable persons that might be more significantly impacted by an increase in noise and disturbance in their property.
- 3 There is no stipulated response timeframe or procedure for claiming.
- 4 It is unclear what level and type of noise mitigation will be provided and what involvement the occupier will have in that decision process. Is there a proposed sum or scope of works? Comparable major infrastructure schemes have offered noise mitigation measures costing in the region of £3,000 - £5,000 or up for a full package of sound installation, depending on the degree of noise pollution.

d Noise Payments for Movable Homes

4.10.12 **Summary:** In line with the Noise Insulation Regulations 1975, NH includes a policy for claims that can be made for disturbance either from construction works or from traffic using the new or improved road. To qualify for a noise payment due to construction noise, the noise from the construction of a new or altered highway must have seriously adversely affected the enjoyment of a mobile home for a continuous period of six months. To qualify for a noise payment due to noise from traffic using the new or altered highway, the predicted noise level 15 years after the road opens to traffic must be not less than 68dB(A) L10(18-hour).

4.10.13 **Response:** The policy includes a number of conditions some of which raise concerns and should be amended to protect residents in movable homes impacted by the LTC scheme.

4.10.14 The movable home must be located within 300 metres of the Scheme. However, eligibility should be based on noise impact and not limited by distance from the Scheme. For instance, this distance trigger does not take into account vulnerable persons that might be more significantly impacted by an increase in noise and disturbance in their home.

4.10.15 Compensation of £1,650 for the level of impact required in order to trigger the payment is not a fair level of compensation. This should be enhanced – for instance noise insulation measures on comparable schemes have been up to a level of £3,000 - £5,000.

4.10.16 There is no stipulated response timeframe or procedure for claiming.

e Reasonable Additional Expenses to Move into Temporary Suitable Alternative Residential Accommodation

4.10.17 **Summary:** a policy for residents that live adjacent to the site of the construction works for a new or improved highway where the physical effects of the works are causing such significant disruption and discomfort as to make their continued occupation not reasonably practicable. In this scenario, NH has a discretionary power to pay the reasonable additional expenses (the costs that exceed those that would have been incurred if the resident had continued to occupy their home) to move into 'temporary suitable alternative residential accommodation' ('TSARA') during the period of those works. TSARA will normally only be accepted:

- 1 For periods of up to 5 months; and

- 2 Where the occupier's additional expenses are likely to be less than the cost of noise insulation.
- 4.10.18 **Response:** this policy is seemingly in place as an alternative where noise insulation is deemed disproportionately expensive for the length or extent of the construction impact. As a general point, there is not enough detail or support provided within the policy.
- 4.10.19 The policy is only available to occupiers living adjacent to scheme works – the definition of which is unclear. This does not take into account occupiers (including vulnerable persons) that might live close to but not neighbouring the works and who have also been significantly impacted – in some cases more severely.
- 4.10.20 There is no allowance for support in maintenance of impacted properties – for instance window, building or front garden cleaning.
- 4.10.21 There is no support for medical expenses that might arise from the increase air or noise pollution.
- 4.10.22 No procedure or response timeframe for application is included within the policy. There is concern therefore that a resident could be living in very challenging conditions awaiting a response and living with significant uncertainty, especially as the policy notes that expenses will only be reimbursed if they are agreed by NH before they are incurred.
- 4.10.23 There is no detail on what might be a reasonable TSARA for the impacted resident – this is vital as the policy requires the impacted resident to undertake their own searches in this regard.
- 4.10.24 Compensation should include the cost of any Council Tax at the resident's original property or at the TSARA and any pro rata increases in utilities. It should be made clear that all associated costs of the TSARA should also be reimbursed – for instance, if the most appropriate option is hotel accommodation, then a kitchen might not be available and contributions to sustenance should be included.
- 4.10.25 There should be provision within this policy to provide temporary support to local businesses that are impacted by construction work. For instance, if they have to close or suffer a reduction in trade due to road closures, diversions or access difficulties.
- 4.10.26 Similar infrastructure schemes have provided assistance with recording the particular requirements of an applicant (for instance, existing accommodation and location in relation to schools and workplace) and assisting with identifying suitable relocation premises/options and removal services. This assistance should be provided within NH's policy.
- 4.10.27 There should be specific consideration for categories of persons that would suffer an exacerbated impact due to noise and construction work, such as but not limited to, vulnerable persons and night/shift workers.
- f Off-Line Discretionary Purchase**
- 4.10.28 **Summary:** in line with Highways Act 1980, this policy sets out the options for residential property owners who may have a pressing need to sell their property and are unable to do so except at a significant loss as a result of the LTC scheme.
- 4.10.29 Section 248 applications can be made for properties on the line of one of our proposed route options (on-line property).

4.10.30 Section 246 applications can normally be made once the preferred route is announced for properties not on the line of the preferred route (off-line property), but the enjoyment of which is seriously affected.

4.10.31 The offer is only available to persons:

- 1 Holding a qualifying interest (unless a section 248 application) in a property;
- 2 Where reasonable efforts have been made to sell – marketed for 13 weeks with no offers received within 15% of the unaffected market value;
- 3 With no foreknowledge of the LTC scheme at purchase; and
- 4 With a pressing need to sell and hardship.

4.10.32 The offer, if an application is successful, is the unaffected market value (MV) of the property, professional fees and a disturbance payment (statutory loss payments will be considered for those applicants with properties on the preferred route).

4.10.33 **Response:** this aim of a policy such as this should be to allow the local market to continue to operate in a normal manner and to provide comfort and certainty to impacted residents and local businesses. In our view, this policy does not provide that support.

4.10.34 It is noted in the policy that this is a discretionary offer and will only be offered in exceptional circumstances – this does not provide comfort or certainty to impacted occupiers. The offer to purchase is generally time limited and subject to agreement on consideration – the time allowed does not allow for dispute resolution before expiration of the time limited offer.

4.10.35 The offer extends to residential properties only and does not offer any support for local businesses or other use types. The policy should be extended to all with relevant land interests.

4.10.36 Other schemes have offered further assistance to occupiers, such as Home Relocation Assistance Schemes (as well as Business Support and Relocation Schemes). This would provide helpful support to impacted residents and should be included within NH policies.

4.10.37 NH should expand this policy to create Offer Zone both along the Order Limits of the scheme and for surrounding properties that will suffer noise and construction impacts. In addition, the hardship element of the policy should be removed. This will provide support for any local occupiers that are unable to sell their property at a reasonable unaffected market value. An Offer Zone policy if this type will enable the local market to continue to operate in a more normal manner and provide certainty and support for occupiers under the threat of noise and construction impact due to the LTC scheme. Occupiers that wish to relocate will therefore be able to, either through the usual methods if there are willing buyers in the market at the unaffected value level or to the Secretary of State. This Offer Zone policy should be actioned at the earliest opportunity, so that the support is available throughout the DCO submission process.

Your Property and Discretionary Purchase

4.10.38 **Summary:** This document outlines the need to sell, hardship and mechanisms in which a property could be purchased by LTC outside of compulsory purchase.

4.10.39 **Response:** The document appears to be thorough in its response in outlining various scenarios in which property can be discretionarily acquired - however it does not offer anything outside of statutory minimums or already established schemes we have had

experience on, such as High Speed 2 and their hardship scheme. We would request further information around the need to sell on grounds of noise disruption and how the threshold noise level that causes disruption to property owners was set at 70dB.

Your Property and Compulsory Purchase

- 4.10.40 **Summary:** the brochure describes the compulsory purchase process, compensatable interests, disturbance, claiming compensation and the advance payment mechanism.
- 4.10.41 **Response:** we have little to respond to due to the policy going no further than the statutory position in terms of compensation offered and timescales for responding to advance payment requests and compensation claims – essentially it is considered insufficient by the Council.

Acquisition Completion Premium

- 4.10.42 It is noted that on the A66 Trans-Pennine project NH has introduced what it calls an Acquisition Completion Premium. This is a scheme whereby those who agree to sell within 12 months of having been advised of the scheme will receive a premium on the land acquisition compensation only of 20%.
- 4.10.43 No similar scheme is proposed on the Lower Thames Crossing – it is unclear on what basis the Acquisition Completion Premium is offered on one NH scheme but not this LTC scheme.

Public Open Space

- 4.10.44 Under s19 of the Acquisition of Land Act 1981 an acquiring authority is in all but a limited number of cases that where the land to be acquired forms 'part of a common, open space or fuel or field garden allotment' that there will be provided as replacement land to fulfil the function of the land acquired and that other land will be of no lesser area and no less advantageous.
- 4.10.45 We see no reasons why this requirement should not apply both in respect of land permanently acquired and that acquired temporarily. Failure in either circumstance would leave the residents of Thurrock with less of this particular land type.
- 4.10.46 It is for NH to demonstrate, in each instance, the extent to which it meets this criteria.

Landowner Engagement and Minor Refinements

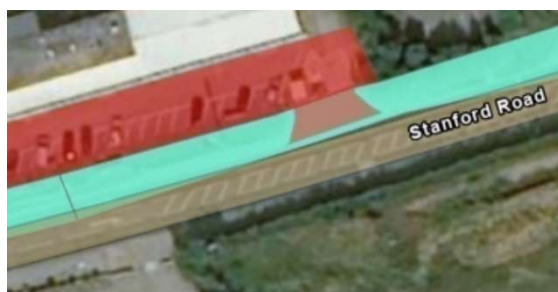
a Engagement on Proposed Changes to the Project with Persons with an Interest in Land

- 4.10.47 From reviewing the proposed changes to the project in the Thurrock area:
1. Figure G – Linford borehole pipeline realignment and land use change – no Thurrock owned land has been impacted by this change.
 2. Figure I – Revised alignment of electricity pylons, east of Hoford Road, west of the Tarmac Site – no Thurrock owned land has been impacted by this change.
 3. Figure J – Reduction to the Order Limits to reduce the impact on a local business – no Thurrock owned land has been impacted by this change.
 4. Figure L – Adjustment to Hornsby Lane area provided for turning – no Thurrock owned land has been impacted by this change.

5. Figure O – Relocation of Stanford Road construction compound – no Thurrock owned land has been impacted by this change.
6. Figure S – Realignment of Brentwood Road gas pipeline – no Thurrock owned land has been impacted by this change.
7. Figure T – Land use change at Green Lane to accommodate rights to operate and maintain utility assets – no Thurrock owned land has been impacted by this change.

4.10.48 Additional changes being consulted in alongside the local refinement consultation:

1. Map Ref M – Extension to the Order Limits south of Hornsby Lane – no Thurrock owned land has been impacted by this change.
2. Map Ref N – Extension to the Order Limits at Orsett Cock – access to the site is now being sought which impacts Thurrock owned highways. We would request additional information on how Cadent infrastructure works will impact traffic flow or road closure.



Source: Stantec – Land Requirement Information from Thurrock v1.2

3. Map Ref U – Provision of alternative construction access route to the Medebridge Road construction compound – no Thurrock owned land has been impacted by this change.
4. Map Ref W – Relocation of the Mardyke construction compound – no Thurrock owned land has been impacted by this change.
5. Map Ref Z – Relocation of the Medebridge construction compound – no Thurrock owned land has been impacted by this change.
6. Map Ref AC – Extension to the Order Limits west of North Road – no Thurrock owned land has been impacted by this change.

b Minor Design Refinements

4.10.49 The consultation document states that all affected landowners have been contacted regarding minor design refinements. After reviewing the proposed changes in the Thurrock area, we would make comment on the following changes:

1. Map Ref P – additional landscape screening around the relocated Gammonfields Way traveller's site – unclear how this is impacted from provided maps, we would request additional information and timescales.

4.11 Nitrogen Deposition Impacts and Mitigation

4.11.1 The Council understands that the need for additional mitigation has arisen to revisions in assessment methodology in response to the latest scientific opinion and discussions with Natural England. It is clear that NH may have ignored this issue for two years and it provides another example of where NH have refused to countenance issues raised by stakeholders

until forced to do so. The new assessment takes into account ammonia emissions which are not expected to decrease as rapidly as nitrogen oxides. No detail has been provided regarding the methodology for quantifying the predicted emissions or for determining what levels of mitigation would be required. As a result, it is not possible to assess the robustness of the robust of the assessment and proposed mitigation and compensation. The mitigation hierarchy requires that avoidance and mitigation be fully considered before compensation measures are adopted as a final level. No detail has been provided setting out the reasoning why measures such as lower speed limits could not be enforced along the route. The Council wishes to see the detailed evidence justifying the proposed approach.

- 4.11.2 Ammonia emissions are assessed as potentially impacting designated habitats of ecological importance within 200 metres of the LTC and other roads affected by the scheme. Within Thurrock three Local Wildlife Sites have been identified as potentially being impacted due to their proximity to the scheme, Mucking Heath (Orsett Golf Course), Rainbow Shaw and Goshems Farm.
- 4.11.3 The consultation document states that, while the primary purpose of the compensation sites will be to compensate for nitrogen deposition, the land could provide other benefits, such as increasing public access and landscape enhancement.
- 4.11.4 Two compensation sites have been identified within Thurrock. An area of privately owned farmland adjacent to the Orsett Golf Club and the Council-owned Buckingham Hill landfill have been proposed, which have a combined area of 45 hectares.
- 4.11.5 It is proposed for the farmland that a combination of natural regeneration of woodland close to the road with more open habitats to the north. In principle this is considered an appropriate approach; however, it will be essential that the open habitat component provides suitable acid grassland conditions to adequately compensate for the effects on Mucking Heath Local Wildlife Site.
- 4.11.6 The document recognises that proposals for Buckingham Hill landfill will be determined by the soil conditions resulting from its previous restoration. The Council would be supportive of a proposal to create a largely open mosaic habitat on this site, which integrates some additional trees and scrub.
- 4.11.7 It is clear from the consultation document that proposals for the Thurrock sites have not been developed in detail. It is unclear why 'security fencing' would need to be erected around the perimeter of these sites as a first step. What type of fencing is proposed? How long would it be in place?
- 4.11.8 It is essential that Thurrock Council is involved in development work to ensure that these schemes deliver appropriate new habitat and wider green infrastructure benefits that accord with the Council's emerging Local Plan. We therefore request an additional DCO Requirement to cover such controls and discussions.

4.12 Health, Equalities and Wellbeing

Introduction

- 4.12.1 The World Health Organisation definition of health is *"a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity"* (World Health Organisation. 2021. The Constitution. Available from: <https://www.who.int/about/who-we-are/constitution>); this definition provides the context in which the following health, equalities and wellbeing review of the Local Refinement Consultation is framed. The health, equalities and wellbeing of our neighbourhoods is influenced by a broad range of interconnected factors.

4.12.2 It is known that of these many factors that contribute to health, equalities, and wellbeing, some of which we have more control over others; genetics, lifestyle, community, local economy, the activities we undertake, our built and natural environments and the global ecosystem all play a part. This review seeks to understand the potential effects on the health, equalities, and wellbeing of the local community of the project as set out in the Local Refinement Consultation in the context of comments made on earlier stages of consultation, notably at the Community Impacts Consultation (CIC) stage. Informed by the WHO's broad definition, our review will consider the following aspects of wellbeing:

- 1 Environmental;
- 2 Psychological;
- 3 Social;
- 4 Physical; and
- 5 Economic.

4.12.3 This review will consider the following:

- 1 Key concerns raised at the CIC stage and Further Clarifications: this section of the health, equalities and wellbeing review discusses the primary concerns and queries raised by the Council regarding the potential health, equalities and wellbeing implications of the Community Impacts Consultation (CIC). Further work required is also outlined including the concerns raised by the Council that have not been addressed by this LRC and items that would be required in order to complete a review of the potential health, equalities and wellbeing effects of certain proposals; and
- 2 Assessment of Local Refinement Consultation: this section on health, equalities and wellbeing sets out the local health baseline, reviews the LRC that NH has proposed in response to the CIC consultation and assesses their potential health, equalities and wellbeing impacts to the community in Thurrock.

4.12.4 The Council undertook a review of the proposals made at the CIC stage. The review identified that the information presented by NH regarding health outcomes was considered incomplete, therefore rendering the Council incapable of providing a fully informed consultation response, stating that it is not considered that the LTC project meets one of its own scheme objectives, which aims to 'minimise adverse impacts on health and the environment'.

4.12.5 The concerns presented by the Council review can be grouped under the following themes, summarised below: general health outcomes; transport, active travel, community, and project legacy.

General Health Outcomes

4.12.6 There was an Independent Review in June 2021 of the Health and Equalities Impact Assessment (HEqIA) (from DCOv1) on behalf of nine Local Authorities named in the report. The review highlighted the following considerations for NH to inform the next iteration in relation to health, equalities, and wellbeing – firstly in relation to the HIA part:

- 1 Links between local health priorities and the should be made clear. Where the local priorities identify topics or sensitive groups, these should be considered in the assessment (including in consideration of enhancement measures).

- 2 Further information should be provided on construction phasing as part of HEqIA (when available) and indication of how this may influence assessment and an explanation of how HEqIA has been planned and timed to inform decision making.
- 3 Further commentary and evidence should be provided to understand how the scope of the HIA was identified and agreed. This could include provision of further information on the outcomes of discussions on scoping that were undertaken with the Community Impacts and Public Health Advisory Group (CIPHAG).
- 4 Further information should be provided on the outcomes of stakeholder engagement exercises and how this has meaningfully informed the HEqIA and the LTC project. This includes providing further details of what was agreed at the CIPHAG and methods of engagement and issues raised at the focus groups and how these comments were addressed. Information should also be included on measures used to reach hard to reach groups. Wider concerns have also been raised regarding the consultation activities, which should be addressed as part of the wider consultation strategy.
- 5 Clarify how ward sensitivity has been determined through clear links to the baseline.
- 6 Justification / methodology for aggregating impacts at general population / ward level should be provided. Use of GIS mapping for baseline and assessment information would enable a clearer understanding of specific impacts, including effects on health inequalities.
- 7 Further information should be included about the duration of effects anticipated beyond if they are temporary or permanent. This is particularly relevant to the health outcomes identified during the construction phase as this phase is anticipated to last 6-8 years. Further information should be included on if effects are considered to be short term, medium term or long term and a definition provided which outlines what each of these terms mean (e.g. short term = 1-2 years).
- 8 The assessment should provide information on the severity and likelihood of the health outcomes. At present it is just stated whether a health outcome is considered to be positive, negative or neutral. However, the assessment would benefit from further information being provided on the severity of the effect (e.g. minor, moderate or major positive/ negative) to help provide a more balanced assessment and increase understand of the level of health outcomes anticipated.
- 9 There are some concerns identified with the technical data sources used to inform the HEqIA (e.g. transport, air quality and noise assessments). Technical concerns should be addressed and updated accordingly in the HEqIA as these may have implications for the health outcomes identified. Clarification should also be provided on how the level of effect identified in the source assessment has been translated into the effect identified in the HEqIA (including how this has been aggregated to general population / ward level).
- 10 The HEqIA should provide further information regarding effectiveness of mitigation / enhancement measures. This could include providing a conclusion on the residual health outcome anticipated after mitigation measures is implemented.
- 11 Further information to be included on monitoring (impacts, mitigation, and enhancement – to be clearly specified), how this will be secured and anticipated timelines. This could be included as a separate section within the report.
- 12 An assessment of cumulative effects (in relation to inter project effects) should be included in the HEqIA instead of cross referencing the ES to see that cumulative effects on vulnerable groups are appropriately considered.

- 13 The HEqIA should include a limitations section to clearly outline any limitation or constraints of the assessment.
- 4.12.7 The review highlighted the following considerations for NH to inform the next iteration in relation to health, equalities, and wellbeing – secondly in relation to the EqIA part:
- 1 The overall document lacks specificity, with individual incidences being highlighted in the tabulated analysis of the EqIA. It is important to be specific about the rationale behind decisions when evidencing that they meet the requirements of the Equality Act 2010 and the Public Sector Equality Duty. Lack of specificity in the EqIA leads to an assumption that some things have been missed, when it is possible this work has been done.
 - 2 The document lacks important context, such as study area demographic breakdowns. Providing this would give a clearer picture as to whether resources/consultation efforts have been correctly apportioned. Where shortfalls are identified, analysis of possible reasons for this and reasonable mitigations should be included.
 - 3 There is a large disparity between numbers of male and female consultees. This is of particular concern as gender plays an important role in travel patterns and women may have less time to take part in consultation activities than men.
 - 4 Additionally, the scheme has been recorded as having a 'neutral' impact on sex and religion or belief characteristic groups. It is recommended this is reviewed and consultation with representatives of these groups evidenced and reconsidered.
 - 5 Covid-19 should be considered more comprehensively in the EqIA, as it effects groups differently and is impacting upon and shaping travel habits and consultation efforts.
 - 6 Intersectional characteristics (i.e., religion and gender, age, and disability) appear not to have been considered. This can be of specific use in identifying hard-to-reach groups who may have more complex considerations and in providing important context.
 - 7 The baseline occasionally missed an opportunity to use more recent or relevant data than the 2011 Census. It is recommended that alternatives are researched where indicated. If better data does not exist then it is recommended this is stated in the report, so that reviewers are aware.
- 4.12.8 NH responded, advising that the next iteration of the HEqIA will not be available to view until after the submission of the DCO application. This is inadequate, particularly given the potential changes to impacts as a result of the Local Refinement Consultation, the fundamental significance of those recommendations and given that NH state that the aim of the consultation is to improve the project for local people. Without sight of an updated assessment, the conclusions of the Independent Review above still stand, and we cannot comment on the health outcomes highlighted in the HEqIA in relation to the proposed Local Refinement Consultation.
- 4.12.9 Where there is still uncertainty over routes / diversions used during construction of the project or provided as alterations to the active travel / Public Rights of Way (PRoW) network, it is not possible to undertake a robust assessment of potential impacts of construction traffic, construction workforce travel or alterations to connectivity and use of the local road network and active travel opportunities on protected and sensitive groups within the local communities, as impacts may be different depending on the final design/locations selected.
- 4.12.10 It is recommended that all comments made in the review are addressed in the DCO documents and shared in advance with the Council, as all public sector bodies (including the Council) have a statutory duty under the Equality Act 2010 to give due regard to potential

impacts on equality in their decision making. It will therefore be important for NH to present a comprehensive assessment of such impacts.

Transport

- 4.12.11 At the CIC stage, the Council had indicated to NH that it required further information on the options appraisal for the project, not least the proposal for the interchange between LTC / A13 / A1089 and Orsett Cock. Sufficient transport modelling evidence was not provided regarding potential alternative scheme configurations, consideration of the impacts on the local road network and provision for future growth scenarios. Further information was therefore requested regarding an appraisal of the options for alternatives: the design of the LTC / A1089 / A13 interchange, TLR and associated junction with LTC, connections with local junctions, provision for local growth, connections with active travel and public transport modes. The review also highlights that the CIC makes no substantive reference to the implications to transport decarbonisation and climate change measures, which themselves affect wellbeing. The LTC project as it stands remains entirely focused on relieving congestion at the Dartford Crossing and introducing further capacity within the SRN for additional travel by road freight and other road travel. The scheme is not configured such that it would encourage or facilitate a switch to travelling by public transport or active modes. Initial transport modelling provided by NH indicates an increase in movements across the assessed network, including movements across the river with both the Dartford Crossing and LTC in place. This is all contrary to the aspiration for decarbonisation.
- 4.12.12 The CIC review states that NH has *“failed to consider the implications of the very significant levels of growth on the LTC scheme”* and *“failed to satisfactorily assess the impacts of the LTC scheme on the local highway network”*. The improper consideration of the worst-case transport scenario could lead to increased congestion as a result of increased, and improperly managed, traffic flows whereby the implications to health, equalities and wellbeing include degraded air quality, noise disturbance, and congestion through local residential areas impacting the local community’s ability to travel without disruption.
- 4.12.13 To quantify the potential health impacts of the proposed refinements to transport proposals during construction (including the proposed reduction in HGV traffic due to the re-use of excavated material on-site and the introduction of the amended proposals around the Orsett Cock junction (as discussed above), updated transport, air quality and noise modelling is required. The Council continues to engage with NH to seek reductions in the quantity of materials, plant and equipment moved to the project and particularly moved by road-based transport. NH has not currently committed to mechanisms to reduce the impacts of the materials handling for the project; the greening of the construction fleet, plant and equipment; and reducing the travel impacts of the construction workforce. These appraisals then need to be carried forward into the final analysis of operations impacts, which is yet to be finalised by NH, including detailed analysis of the impacts across the wider network and interchanges with the Council’s road network and active travel facilities.

Active Travel

- 4.12.14 Active travel and the ability to access well-connected walking, cycling and horse-riding (WCH) links provides many health, equalities, and wellbeing benefits through opportunities for physical exercise, social interaction, mental stimulation and a reduced reliance on vehicular travel (whereby vehicle ownership / lease or public transport may not be a financial possibility for some). The CIC review highlighted that the Council is currently promoting its Active Travel Strategy through its emerging Local Plan and is looking for support from NH in delivering this strategy to provide a future active travel network of well-connected WCH links to encourage active travel and reduce local car dependency.

- 4.12.15 The CIC review identified limited mitigation options proposed for the closure, alteration, or diversion of WCH links during construction and into the operational state, with few diversions provided and the risk of the closure of some routes for several years throughout the construction phase. The Council considers this unacceptable and has requested further detail on the provision of temporary diversions on suitable and similar routes for all closures to avoid severance and other community effects, such as limitations to the accessibility of active travel routes. As yet, although some progress has been achieved, these have not been confirmed and it is therefore suggested that these commitments are clarified to the Council for an assessment of the potential health, equalities and wellbeing effects to ensure no adverse effects to active travel opportunities.
- 4.12.16 Where land is required for temporary or permanent possession, and potential effects have been identified, NH have committed to ongoing discussions with the landowners and operators to explore solutions for addressing potential impacts. At this stage it is unclear as to what the potential mitigation or compensatory solutions would be to Council-owned land, therefore further information regarding these commitments would be required to comment on the potential significant impacts to health, equalities, and wellbeing.
- 4.12.17 Once operational, there are proposed to be 13 WCH crossings of the LTC in Thurrock. The Council requires that the LTC does not become a barrier to future increased active travel across the Borough, with particular concern given to cycling and public transport, whereby it is unclear if the proposed widths would provide suitable room for a segregated cycle path/bus lane to be provided. The review advises it is imperative that WCH crossings are designed to the required LTN 1/20 standards, however, NH is yet to confirm that the design of the proposed cycleways will meet LTN 1/20 standards. In general, the Council is concerned by the challenges it has experienced when trying to ensure that NH properly considers the opportunities to bring forward design that will actively encourage cycling and walking. Notwithstanding, the Council has engaged with NH on the proposed infrastructure at the crossings of LTC to understand the widths that would be provided at those points. A further response from NH is currently outstanding and this should align with and feed into a comprehensive response from NH on the wider provision for Active Travel and LTN1/20 compliance.

Community

- 4.12.18 As highlighted in the review of the proposals at the CIC stage, the Council advised of its priority for the LTC proposals to provide benefits to the local community. The CIC review highlights a lack of secured benefits for existing communities and future growth in Thurrock regarding the following:
- 1 Investment in the delivery of a local benefits strategy;
 - 2 Contribution towards local regeneration to support delivery of a legacy for the local community;
 - 3 Provision of open space to deliver place-making and community benefits (such as opportunities for exercise, leisure, enjoyment of nature). However, it is acknowledged that the Council currently has legacy funding for park master planning work for sites in Chadwell and Tilbury as per the Hatch mitigation measure L15 and L17. It is hoped that this will lead to further funding. Similarly, we have the SEEPARK first phase funding of £750k;
 - 4 Increased connectivity of WCH and Public Right of Way (PRoW) routes to facilitate active travel; and
 - 5 Improvement of the operability of the local road network to facilitate liveable communities.

4.12.19 In order to understand the potential effect to the local community and its financial health and resilience, further information regarding the anticipated economic turnover of the Thames Freeport in relation to LTC would be useful in order to quantify the potential effect to the local economy and what local impacts there could be that would specifically benefit local communities.

4.12.20 The CIC review also asserts that the 6-8 year construction period will create unacceptable impacts to the local community that require further modelling and mitigation. Major concerns are highlighted as effects to the local road network, WCH route closures and environmental effects of which air quality degradation, noise disturbance and the deleterious effects on sense of place and cultural assets would have the greatest impact to health, equalities, and wellbeing of the local community.

Project Legacy

a Employment and Skill Commitments

4.12.21 The CIC highlights that the primary commitments of the Council towards the future, to be delivered via the LTC proposals are, as follows:

- 1 The delivery of increased usage of PRoW and cycling routes throughout the Borough;
- 2 Contribution to the achievement of local skills and employment targets, and training for local residents; and
- 3 Contribution towards transport decarbonisation and green growth in the Thames Estuary.

4.12.22 Commentary regarding PRoW and cycle routes proposals are as discussed above.

4.12.23 The CIC review finds that the commitments to skills and employment are as yet not fixed, and are under discussion, such as targets for apprentices, workless job starts, graduates and traineeship, work placements and training for local residents, the quantum for which is to be determined. This matter is intended by NH to be within the Skills, Education and Employment Strategy (SEE Strategy), which is yet to be finalised and provided for the latest proposals. Commitments to the upskilling and employment of the local community are an important aspect of health, equalities, and wellbeing to consider, as their implementation contributes towards the local economy and therefore the financial resilience of the local community. Financial security also impacts on local deprivation rates and the associated health outcomes, with poorer communities less able to access healthcare and wellbeing opportunities (such as private healthcare, exercise facilities, social care, and education regarding healthy choices). The SEE Strategy has yet to be finally reviewed by the Council, therefore the Council has requested a review of the final document; however, in May 2021 NH informed the Council that 'there are no plans to include the SEE Strategy in its current format into the DCO application, however, LTC are currently discussing internally the most suitable way to incorporate relevant parts of the documents into our DCO application'. Without sight of the final document, we are unable to assess commitments proposed towards local skills and employment and therefore unable to comment on the impact of the LRC changes.

b Transport Decarbonisation

4.12.24 The CIC review finds that the LTC proposals made no substantive commitments as to how the proposals would adapt and respond to transport decarbonisation. Climate change is an important consideration in regard to health, equalities and wellbeing, whereby a reduction in pollutants is beneficial to health (such as lung and cardiovascular health) and the implementation of climate resilience measures helps in mitigating the potential physical and mental health effects of climate change (such as warmer weather, flash flooding, more

extreme heat events) and related climate anxiety, which has been recognised by the medical profession, including and notably in younger people (Hickman, C. et al (2021) Climate anxiety in children and young people and their beliefs about government responses to climate change: a global survey. Accessed online [https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(21\)00278-3/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00278-3/fulltext); Thompson, T. (2021) Young people’s climate anxiety revealed in landmark survey. Access online – <https://www.nature.com/articles/d41586-021-02582-8>; and Ro, C. (2019) Climate anxiety and eco-awareness. Accessed online <https://www.bbc.com/future/article/20191010-how-to-beat-anxiety-about-climate-change-and-eco-awareness> .

4.12.25 Many of the comments made at CIC stage remain valid and current in the context of the LRC and this is explained in the following sections.

Assessment of LTC Local Refinements

a Thurrock’s Health, Equalities and Wellbeing Environment

4.12.26 It is important to understand the baseline conditions of the affected local communities when taking a view on potential health, equalities and wellbeing effects, the implications of the LRC and the adequacy of their assessment and consideration by NH. A summary of the local health, equalities and wellbeing environment is as follows, as informed by the HEqIA (DCOV1) undertaken by NH to assess the sensitivities of the surrounding wards in Thurrock, LB Havering, Brentwood BC, Dartford DC, Gravesham BC and Medway Council.

4.12.27 Across the host and affected local authorities (LAs), the health, equalities and wellbeing environment is characterised by poor economic conditions and deprivation and resultant poor health outcomes, including lower life expectancy, variations in life expectancy between richer and poorer areas, childhood and adult obesity and significantly worse mortality rates. It is not clear whether the comparisons are made with the region and/ or country, but it presumed to be the case.

4.12.28 Primary health, equalities and wellbeing sensitivities in Thurrock wards were identified as:

- 7 High proportion of population under 16 – important as children have different health, equalities and wellbeing needs and issues;
- 8 High proportion of elderly people and resultant ageing population – again, important as older people have different needs and more dependency on others;
- 9 Poor health outcomes:
 - a High rates of hospital admissions for chronic obstructive pulmonary disease (COPD), a group of lung conditions that cause breathing difficulties;
 - b High rates of death from respiratory diseases;
 - c High rates of death from coronary heart disease;
 - d High rates of bad and very bad health;
 - e High levels of deprivation; and
 - f Low life expectancy.

b Health, Equalities and Wellbeing Assessment of Local Refinement Consultation

4.12.29 The potential health, equalities and wellbeing impacts of the LRC have been considered in the context of the above baseline conditions, the HEqIA reviewed at CIC stage and the

Independent Review of the HEqIA from DCOv1 and are also informed by the information within the LRC.

4.12.30 **Table 4.1** contains the assessment. Please note, where adjustments to the scheme's Order Limits are proposed, these are considered alongside the proposed scheme changes they are resultant of, rather than separately.

4.12.31 The LRC response has been grouped under the following themes to align with those presented in the 'Guide to Local Refinement Consultation' document:

- 1 Sustainable construction;
- 2 Changes to Tilbury Fields;
- 3 Landscaping and provision of Open Space;
- 4 Transport Proposals;
- 5 WCH Provisions for Active Travel; and
- 6 Utilities.

4.12.32 Each proposed refinement is assessed for its potential effect to the health, equalities, and wellbeing of the local community in Thurrock.

Table 4.1: Health, Equalities and Wellbeing Assessment

	Proposed Refinement	Potential Impacts to Health, Equalities and Wellbeing
Sustainable Construction (pages 28 to 43 of the 'Guide to Local Refinement')	<p>Clean excavated material is proposed to be re-used onsite to reduce the need for vehicles to transport the waste material offsite for disposal. The clean material would be used to provide new landscaping features such as the following:</p> <ul style="list-style-type: none"> • Provision of several placemaking landforms (ranging in height from 18m to 24m) to provide interesting landscape features for visual enjoyment, such as at A13/ A1089 junction and to the south and east of the northern tunnel entrance; • For use in raising of the road level in cuttings at The Wilderness and North Ockendon without increasing air quality and noise effects; and • Provision of an increased working area for electricity works to avoid the need for prolonged closure of cycle route NCR117 and to retain vegetation screening. 	<p>The provision of new landscaping features (such as landforms and bunds) throughout the scheme is project by NH to reduce the transport offsite of surplus excavation waste to 700,000 cubic metres from 1.2million by updating landscape design to reuse clean material. This will act to reduce truck movements on the local road network during construction compared with the CIC proposals, which was a concern raised in the Council's CIC response regarding potential effects of the construction phase. This would likely have a positive health, equalities and wellbeing effect to physical and environmental health through a reduction in congestion and resultant air and noise pollution. NH must, however, commit and incentivise its contractors to meet and exceed this proposal whilst also investigating how to further reduce the movement of all materials, plant and equipment – particularly by road. Suitable control measures are not in place and there is no governance mechanism to ensure that if material is not deemed suitable for use within the Order Limits that the contractor must stick to committed limits of movement of material, which still need to be reduced from the current suggestions made by NH.</p> <p>During construction of the proposed landforms there is the potential for construction noise effects to local receptors, such as the residential areas of East and West Tilbury. However, although these would be temporary it would be experienced over a 6-8 year period - therefore, for people in later life the impacts could result in a permanent erosion of the quality of their remaining life.</p> <p>Once operational, the provision of naturalised landforms will provide enhancements to mental wellbeing, greater than the CIC proposals, by providing opportunities for visual enjoyment of the scheme and local area and by creating a sense of character through placemaking. Use of the landforms would enable far-reaching views of the Thames Estuary and nearby heritage features.</p>
Changes to Tilbury Fields	<p>Amendments to design of the Tilbury Fields area are comprised of the following:</p>	<p>As advised by NH, LTC and Thames Freeport are vital to supporting the UK's number one growth opportunity (the Thames Estuary). Thames Freeport can support 25,000 jobs and will be much better connected to the rest of the country if LTC is constructed; cumulatively, they are</p>

	Proposed Refinement	Potential Impacts to Health, Equalities and Wellbeing
(pages 44 to 68)	<ul style="list-style-type: none"> Redesign of Tilbury Fields (a new publicly accessible open space on the north bank of the Thames) to provide space for future Thames Freeport development; Due to changes to access roads, flood protection for the tunnel entrance have been changed from flood bund to concrete retaining walls which can be built earlier to provide better protection during construction works; Extension of Order Limits to include Tilbury Power Station and former coal yard sites for use during construction; and Coordination with the developers of the Thurrock Flexible Generation Plant and the Port of Tilbury to coordinate the multiple construction plans and access requirements therefore <i>'increasing the sustainability of the combined development plans'</i>. 	<p>considered important opportunities for economic regeneration. The LRC proposes to move the proposed bridleways and pathways of LTC in order to free up land on which to develop the Thames Freeport. As highlighted in the Council's review of the proposals at the CIC stage, the legacy of the LTC project and its beneficial provisions to the local community are considered to be primary concerns of the Council, therefore efforts to enable and promote the development of the Thames Estuary are likely to support the Council in its ambition to support local the local economy and regeneration of the local area to the benefit of the community. In this case, further information regarding the anticipated economic turnover of the Thames Freeport in relation to LTC would be useful in order to quantify the potential effect to the local economy. This should include information on how local communities in particular may benefit through indirect and multiplier effects in the supply chain rather than just a generalised quantification of impact. Economic security has a bearing on health, equalities and wellbeing from a psychological, physical and mental point of view.</p> <p>The refinement to the design of Tilbury Fields includes more recreational routes and links to footpaths than previously proposed at CIC stage, an increase in the amount of open mosaic habitat proposed. The proposed pedestrian links will be beneficial to the local community, providing opportunities for physical activity and recreation, as well as providing links to local heritage assets.</p>
Landscaping and provision of Open Space (129 to 137)	<p>Some areas of common land and private recreational facilities will be possessed (temporarily or permanently) resulting in changes to the availability of open space including:</p> <ul style="list-style-type: none"> Temporary/ permanent purchase of land at private recreational facilities including a gun club, Scout activity centre and outdoors centre; Purchase and de-register of common land at Walton Common and Parsonage Common; and Temporary possession of land at Linford Allotments for construction of utility works, which will be restored to their existing use as allotments once the scheme is operational. 	<p>NH proposes to acquire all or some of the common land and private recreational facilities as identified. For those where temporary purchase is proposed during construction, this may have a temporary effect to physical, mental and social health and wellbeing whereby access to open space for recreation, exercise and social interaction is limited; however, this would be for a short-term and the area's use would be restored once the scheme is operational.</p> <p>Regarding the temporary/ permanent purchase of land occupied by private recreational facilities, this would have an adverse effect to health, equalities and wellbeing due to the closure of exercise and recreational facilities during construction and/ or operation of the LTC scheme; however, NH have taken care to ensure that the effects to the operation of these facilities in affected areas to as minimal an extent as possible</p>

	Proposed Refinement	Potential Impacts to Health, Equalities and Wellbeing
		<p>whereby the areas required are unlikely to directly affect the operation of these private facilities to a significant extent. Where effects are anticipated, such as effects to the operation of the Wild Thyme Outdoors centre, discussions are ongoing with the landowners and operators to explore solutions in mitigating or compensating for the potential effect. Without clear commitments at this stage, it is difficult to assess the potential impacts in this case to health, equalities and wellbeing beyond being adverse.</p>
<p>Transport Proposals (page 67)</p>	<p>A new link road from the Orsett Cock junction to the A1089 (to replace an existing slip road) is proposed in response to CIC and Council's concerns regarding the re-routing of traffic onto the local road network, including u-turning traffic at The Manorway / A1014 junction. The proposed refinement is intended to reduce traffic congestion on the local road network by improving connectivity between the scheme and the Port of Tilbury.</p> <p>Modified access will also be to the northern tunnel entrance, providing a safer operation of the tunnel facilities and better access for the emergency services.</p>	<p>NH advises that <i>'air quality and noise are directly impacted by the predicted changes in traffic flows that result from the newly proposed A13/A1089 link road'</i>. As such the introduction of the new link road could lead to changes in the air quality and noise environment, and the potential effects to the local community. As identified, the local community has high rates of hospital admissions for COPD and high rates of death from respiratory diseases, meaning they will likely be very sensitive to changes in air quality.</p> <p>NH has compared the predicted traffic flows associated with the new link road to the traffic flows presented at CIC stage, finding that where predicted traffic flows have been identified to increase <i>'this may lead to greater changes in air quality and road traffic noise than those presented at the CIC'</i> and <i>'where reductions in predicted traffic flow have been identified, this may lead to an improvements in air quality and road traffic noise'</i>. For each affected road, NH identifies the predicted change to traffic flows and the modelled noise and predicted air quality effects at these roads links as presented at the CIC stage when compared to the absence of the LTC scheme. However, no further modelling has been undertaken to quantify the potential effects to air quality and noise of the introduction of the new link road. NH advises that the air quality and noise impacts of the new link road will be fully assessed and presented in the Environmental Statement included as part of our DCO submission. Without prior sight of this information in advance, as would normally be expected in this stage of consultation, an assessment of the potential extent of changes to air quality and noise and the potential effect to health, is not possible.</p> <p>The proposed modification of access to the northern tunnel entrance will aid in enabling safer operation of the tunnel facilities and improved</p>

	Proposed Refinement	Potential Impacts to Health, Equalities and Wellbeing
		<p>access for the emergency services, therefore providing a beneficial effect to health, equalities and wellbeing through enhanced safety measures for future users and maintenance staff. This significant change may reduce disturbance to local residents from construction noise and effects to air quality by aligning the potential access road on the western side of the scheme (the TLR) with the proposed construction haul road. Again, no air quality and noise modelling has been provided in order to assess the extent of potential effects. The proposal does not go far enough to consider the option to link LTC to the Port of Tilbury and the emerging Thames Freeport via a new junction and the Tilbury Link Road. That connectivity could further assist with mitigating the effects of the current LTC / A13 / A1089 / Orsett Cock interchange – noting that the Council has significant comments on the currently proposed interchange within Section 4.5 above.</p>
<p>WCH Provisions for Active Travel (pages 114 to 128)</p>	<p>Amendments to the WCH proposals comprise:</p> <ul style="list-style-type: none"> • Re-design of Tilbury Fields to provide link from BR58 (Coal Road) to FP200 through this area; • New PRoW and permissive path links to link the heritage assets of Coalhouse Fort, Coalhouse Battery and Bowaters Battery to East Tilbury; and • Eastern end of FP136 to be upgraded to bridleway to form connection between Mardyke Way and changes to proposed equestrian bridge over the Mardyke river. 	<p>During construction, NH have advised of their intent to close several PRoW and WCH routes. The Council has previously requested provision of temporary diversions to routes of suitable and similar standards for all closures to avoid severance and other community effects, such as limitations to the accessibility of active travel routes. As yet, while NH has begun to identify potential diversion routes, these have yet to be confirmed; therefore a robust assessment of the potential effects to active travel cannot be made for the construction phase. It is not clear which communities/ aspects of communities may be affected and therefore what potential health, equalities and wellbeing impacts there could be.</p> <p>Once operational, the LRC propose enhancements to the provision of WCH and PRoW links including the re-designation of public footpaths to bridleways; these proposals would prove beneficial to the physical safety of equestrians, walker and cyclists whereby horse-riders are segregated from roads. For cycleways the Council expects NH to adopt LTN 1/20 standards throughout. NH has yet to confirm that this will be adopted, where necessary and advised by the Council.</p> <p>New WCH links will reduce historical severance issues and enable improved access to local heritage links and to areas of open space. As identified, the area local to the scheme is largely urban and developed,</p>

	Proposed Refinement	Potential Impacts to Health, Equalities and Wellbeing
		therefore the ability to access and enjoy pleasant natural areas and heritage features will benefit the local community.
Utilities (pages 42 to 58)	<p>Several proposed refinements to utility works comprise:</p> <ul style="list-style-type: none"> • Removal of the proposed Dock Road water connection and associated land removed from the Order Limits; • Retention and refinement of the Coopers Shaw Road water connection; • Amendment to the delivery of Muckingford Road electricity works further to CIC and addition of land to the Order Limits; • Realignment of water pipeline (and extension to Order Limits) which, at CIC stage, would have severed a water connection for residents, and now reconnects residents by providing a new pipe from the existing supply; and • Refinements to route of a gas pipeline diversion around Orsett to avoid a Scheduled Monument west of Orsett. The Order Limits have been modified so the pipeline can now pass through a gap in existing vegetation, removing a risk to a veteran tree. 	<p>NH advises that some effects to road traffic flows would be likely due to the requirement for traffic lights during construction, however, these would be limited to 2 to 3 weeks, therefore limiting the extent of potential effects to severance and congestion.</p> <p>The removal of the pipe at Dock Road compared to the CIC stage means that there is no requirement for the connection on Dock Road, therefore no impact to residents and no requirement for traffic management (this would have included nine months of traffic lights every 300m along a 1.4km road). This is beneficial to the local community as it reduces potential construction effects to local residents and removes potential congestion effects to the local road network, therefore helping achieve 'liveable' roads. The full effects of the construction phase on Dock Road are not yet appraised, since NH has only recently released the transport modelling data and analysis for the construction periods and the Council has not yet completed its assessment of that data.</p> <p>The retention and refinement of the water connection at Coopers Shaw Road would move the proposed connection away from residential properties. The proposal would have several impacts to local traffic, however, these would be less adverse than those at the CIC stage.</p> <p>The proposed refinements to the gas pipeline diversion around Orsett would bring the working area within 50m of the nearest residential property. NH have advised that the construction noise levels are not anticipated to exceed the existing background noise levels and the existing vegetation would screen the visual impact of closer works. Therefore, the potential disruptive effects to the noise and visual environments of these residents are unlikely to be significant.</p> <p>No significant impacts to the local community, and therefore health, equalities and wellbeing, are anticipated as a result of amendments to proposals for utilities at Muckingford Road.</p>

4.13 Climate Change and Decarbonisation

- 4.13.1 The LRC consultation states it is ‘about improving the project for local people’ in relation to changes such as the redesign of Tilbury Fields, increasing open space, a new link road and bridge and modified access to the tunnel entrance. The Council seeks clarity on how ‘new standards for reducing carbon during construction’ have been incorporated into the design of these local refinements and carbon reduction has been achieved through these design changes. If the standards are not enforceable by NH, then this supposed benefit is simply conjecture.
- 4.13.2 **Climate risk and resilience** – the consultation confirms consideration of a landscape scale compensation approach. The landscape scale approach to habitat creation is welcomed, and NH note this will provide additional environmental benefits, such as climate change resilience. Further information is required to understand how the habitat proposals are designed to achieve this objective, and how the habitats will be established to be resilient to the impacts of climate change (for example noting earlier comments made in Section 4.8 regarding landscaping and tree planting on high bunds and irrigation challenges, which may be exacerbated by future climate change).
- 4.13.3 **Carbon** – the consultation confirms that the *“current proposal is that our DCO application should contain the powers to create approximately 250ha of new wildlife-rich habitats”*, and that planting new habitats would absorb carbon dioxide. The Council seeks clarity about how commitments will be made in DCOv2 to ensure habitat design and delivery will maximise carbon sequestration where appropriate balanced against good design for nature recovery.
- 4.13.4 The *‘Guide to Local Refinement Consultation’* reiterates LTC’s status as a ‘pathfinder’ project and ‘exploring carbon-neutral construction as part of our efforts to make the new crossing the greenest road ever built in the UK’. This announcement is welcomed by the Council. However, the Council is aware of strong public concerns about greenwash statements unsubstantiated by binding commitments and requests details of how this will be delivered and secured prior to DCO submission. The Council would expect to see details of what infrastructure will be included within the DCO to enable carbon neutral construction (for example power infrastructure scaled and sited for electrification of construction equipment, or spatial planning of new fuels, such as hydrogen). The Council are in discussion with NH regarding the Climate Change Action Plan (prepared by the Council) to encourage the development of tangible NH commitments to deliver improved measures for decarbonisation.
- 4.13.5 The consultation states that *“We know the vehicles on our roads are evolving rapidly and carbon emissions from those using the Lower Thames Crossing is expected to fall dramatically as more people switch to electric. Together with our partners and local businesses, we’ll continue to identify innovative ways of building and operating our infrastructure. Ideas include removing diesel from our sites by only using hydrogen and electric equipment and looking at alternatives to carbon-intensive materials like concrete and steel.”* It is contended strongly that NH cannot ‘know’ with any certainty about carbon emissions falling dramatically. Hybrid vehicles can be sold until 2035, although Government is likely to extend the period due to increasing supply chain and charge-point issues. The average life of a vehicle in the UK is 14 years, so emissions may not reduce as ‘dramatically’ (whatever that means) as suggested by NH. Also, particulate pollution is an important emission, and this is not set to reduce with the transfer to EV, let alone dramatically. The Council considers that this is yet another misleading statement from NH.
- 4.13.6 The Council seeks clarity and confirmation on details of how this will be delivered and secured prior to the DCO submission. As per the Councils’ previous *‘Review of Community Impacts Consultation’* response the proposals should clearly address how the scheme will support the 6 strategic priorities set out in the Transport Decarbonisation Plan (Pages 36-37) and in particular, how the scheme will support and contribute to:

- 1 Accelerating modal shift to shift to public and active transport;
 - 2 Decarbonise road transport, and
 - 3 Decarbonise how we get our goods.
- 4.13.7 The Council would expect to see details of the infrastructure delivered to enable users access to hydrogen or electricity to achieve NH's statements within the DCO submission.
- 4.13.8 The Council requests clarification on how the DCOv2 will be sufficiently transformational to demonstrably reduce the proportion of journeys undertaken by car.
- 4.13.9 Overall, to ensure long-term societal benefits are realised the Council is seeking clarity from NH on how its Net Zero Highways Strategy will be translated into DCOv2 commitments to deliver significant reductions in direct greenhouse gas emissions during construction and provide infrastructure beyond the construction of LTC to facilitate (and not hinder) the continued transition to net zero of the Thurrock economy. Clear commitments and mitigation measures should be set out in DCVOv2 to demonstrate how the scheme will lead the way on decarbonisation throughout its lifecycle.
- 4.13.10 Since autumn 2021, NH have been in discussions about wider ambitions and innovation measures to address climate change and decarbonisation, including with the TEGB and supply chains. These discussions are welcomed by the Council, but there is still a lack of clarity in terms of commitments that will be incorporated within the DCOv2 application *“to mitigate the impacts of the Scheme and to realise and deliver value-for-money and positive outcomes for local communities and the environment”*.

5 Recommendations and Next Steps

5.1 Recommendations

- 5.1.1 The Council strongly recommends that NH enter into detailed discussions about all comments made within this Review to ensure that meaningful engagement about all issues is undertaken prior to DCOv2 submission.
- 5.1.2 Furthermore, it is imperative that the Council understands NH's position on each issue / comment raised and has opportunities for discussions with NH on all matters, prior to the DCOv2 re-submission, which should then be followed by a written response from NH to the Council's comments. Notwithstanding this, all the issues raised in this LRC response will be included within the Issues Logs and therefore continue to be part of the emerging SoCG.
- 5.1.3 It is understood that not all of the many issues / comments contained within this LRC response will be accepted or agreed by NH, even after further technical discussions. Also, probably even less may result in changes to the LTC scheme design, improvements to the deleterious effects on Thurrock residents and businesses, its consequential mitigation provisions, its legal commitments within control documents or indeed its in-scope legacy provision. However, the Council believes that there are many critical, valid and acceptable points that could be built into the scheme prior to re-submission that would greatly improve the scheme. Such changes, if accepted by NH, would offer the Planning Inspectorate (PINS) a greater chance of dealing with all such issues within the 6-months period of the Examination, otherwise it will be challenging, as so many issues will be outstanding (currently there are in excess of 500 significant issues unresolved) and the SoCG would be substantively negative.
- 5.1.4 At present, the LTC project seems determined to make its DCOv2 re-submission later in 2022, some several months following completion of this LRC. This is especially unrealistic given the predicted DCO submission following the CIC was November 2021 – it is now likely to be at least one year later than last predicted by NH. The Council believes this deadline of later in 2022 to be both impractical, if a quality DCO submission is the driver, and is likely to lead to a further recommendation from the Council for the scheme's Adequacy of Consultation to be rejected by the PINS. The Council therefore recommends that DCOv2 re-submission is not made until 2023 in order to allow these ongoing technical discussions to be undertaken in a proper and thorough way.

5.2 Next Steps

- 5.2.1 The Council's consultation response will be submitted prior to 4 July 2022, after the public submission deadline of 20 June 2022 and the local authority deadline of 27 June 2022, following further discussions with NH concerning the Council's governance processes.
- 5.2.2 The full report will be uploaded to the Council's website following Council approval / acceptance of its contents and shared with other key stakeholders, including PINS, in the interests of openness and transparency.
- 5.2.3 The Council believes that most of the NH 'control' documents are not technically adequate, do not follow best practice and do not offer either sufficient detail or adequate commitments that can be relied upon by the Council and the public following any DCO grant. Furthermore, many of them required considerable technical amendment and are required by the Council to be shared for review several months prior to the DCO submission. We strongly recommend significant amendments.
- 5.2.4 This Review attempts to distil the Council's main issues / comments into a more cogent form. It therefore recommends that the above-mentioned discussions with NH focus on this Review.