TRO10032 LOWER THAMES CROSSING

SUBMISSION AFTER HEARINGS: ISH3, ISH4, ISH5, ISH6, ISH7, and OFH4 held between 5th and 11th September 2023

For Deadline D4 (19th September 2023)

SHORNE PARISH COUNCIL (IP ref 20035603)

A Parish Council representative attended the hearings (or listened to the recordings/viewed the transcripts) of the hearings held between 5th September and 15th September 2023. This document provides details of Shorne Parish Council's verbal representations plus a range of comments on the discussions that took place. Hearings are discussed in date order and individual items are presented in the order of the discussion at the hearings.

We were pleased to note that a considerable number of our concerns were shared by other IP's.

Thank you very much for considering our submitted comments.

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Shorne Parish Council 19th September 2023

ISH3: PROJECT DESIGN (5th September 2023); Includes AS-145.

Item 3a and 3b: The A2/M2/LTC Intersection:

Capacity on the A2 to M2 line (and back) when it is narrowed from 4 lanes to 2 lanes:

- There is a major difference of opinion between the Applicant and IP's (including ourselves) over this matter.
- The Applicant claims that their modelling shows that two lanes will be enough, but IP's do not regard that as credible or realistic.
- Our observations are that the majority of traffic on the A2, by the time it approaches M2J1 with the A289, continues on via the M2 whereas the Applicant imagines (as shown by their proposal) that there is a 50:50 split, the supposition being that eastbound A289 plus south Strood/Rochester plus Cobham/Shorne exit traffic equals eastbound M2 traffic.
- This disagreement is an impasse which cannot be resolved except through proper modelling (preferable, with subsequent modification of the plans) or regrettably being proved correct retrospectively.
- The problem that arises is over what if any re-widening will be possible later.

Deciding which eastbound route to take:

- At the hearing it was said that the split of traffic streams occurs within the Gravesend East junction level with Valley Drive however that is the location of the physical split so the actual lane choice will have to be made some distance further west.
- There could be conflict with the Gravesend East eastbound off-slip also needing to be chosen at around the same point.
- There will also be significant weaving created over just more than 1km as traffic from Gravesend Central heading eastbound for the M2 has to move to the two right side lanes at the same time as traffic eastbound on the A2 has to move into the two left side lanes for LTC, Cobham/Shorne and the A289.

Conflict with LTC traffic:

- What was not been mentioned, and was not shown on Slide 5 of App-145, is that traffic heading east from London and wanting the LTC also has to choose to take, then almost immediately filter off, the same eastbound frontage road.
- So in total there is a funnelling into two lanes of all traffic heading eastbound from the London direction and wanting the LTC northbound, the Cobham/Shorne junction, the A289 and south Strood/Rochester.
- That will be a large amount of traffic and furthermore, when there is a problem with the LTC, the entire eastbound northern frontage road will be blocked off from use.
- Similarly, as traffic will also ratrun through Gravesend East junction to reach the unwanted LTC on-slip, Gravesend East junction will also become blocked, and then with knock-on consequences of traffic re-routeing using Gravesend Central.
- Drivers will accordingly make choices much earlier on in their journey about what risks of being held up that they are prepared to face.
- We share the concerns for the future functioning of the Gravesend East junction that were voiced by our colleague from Higham Parish Council.

Accessing Shorne and Cobham from the east:

- To reach Shorne westbound along the A2/M2 line will in future require a long diversion 1km more westbound on the A2/M2 then another 1km back eastbound) via a traffic light controlled roundabout then eastbound along the southern two-way connector road.
- To reach Cobham the obvious choice is to use Henhurst Road, so adding to traffic congestion and difficulties there, rather than following the route just mentioned to Halfpence Lane.

Difficulties of the southern two-way connector road:

- The presentation on Slide 6 (and others) hides the difficulties that will be caused by the series of newly traffic light controlled and additional roundabouts that will have to be negotiated in order e.g. to reach the A289 from Valley Drive.
- Describing this route as "convoluted" is accurate but belittles the difficulties that drivers (and WCH route users) will experience in negotiating the route.
- During the various Consultations, the Applicant was strongly requested to provide a link from Gravesend East back to the A289 (rather than to the LTC) but has so far refused to do so.
- We would be grateful if they could be asked to explain why they consider that providing such a link is not possible.
- A potentially easier route that residents might alternatively choose to take could be to junctionhop from Gravesend East westbound to Gravesend Central and then to head eastbound taking the northern eastbound connector road.
- This will add to westbound traffic west of Gravesend that is supposed to be relieved (only for a very few miles) by the project.
- As Miss Laver commented, a lot of extra traffic is being forced onto the two-way connector road.

Lack of traffic lights at Thong Lane southern junction with "Darnley Lodge Lane":

- Turning movements out of Thong Lane were mentioned.
- These movements will be exceedingly difficult without facilitation by traffic light controls, although at some times WCH users may trigger their traffic lights nearby.
- Increased traffic is predicted on Thong Lane and we believe that even more will ratrun using this route due to the difficulties that are being built in at Gravesend East and due to the complex structure of the southern two-way connector road.
- The present proposal is patently inadequate, it would be better to have a combined set of three-way traffic lights.
- This had been requested to the Applicant but without a positive response to date.

Function of additional roundabouts on the two-way connector road south of the A2:

- There was discussion about the function of one of the roundabouts on the southern two-way connector road.
- The layouts and functions can be seen more easily in the clearer plan in PDB-003 and on Page 44 of APP-509.
- However we have a <u>new concern</u> over whether or not all the roundabouts on the southern twoway connector route will be traffic light facilitated. This was originally stated to be so, but from the Vissim modelling (REP1-194 9.15 Localised Traffic Modelling Appendix H - Traffic Operational Appraisal - VISSIM Forecasting Report) it now appears that this may not be the case. Without facilitation they will be compromised by the dominant vehicle paths (as currently happens

already at Gravesend East), as the afferent arms are sometimes very close together. We would be grateful for this aspect to be clarified or signposted by the Applicant.

Direct connection from Gravesend East to the LTC:

- The Applicant stated that the connection to the LTC from Gravesend East is from the northern eastbound connector road but that is not correct the Gravesend East link joins more northerly onto the line that flows from the A2 eastbound to the connector road and then immediately onto the LTC northbound on-slip and not the connector road itself.
- There are therefore two merges onto the LTC northbound very close together, which is inherently unsafe.
- This layout can be seen more easily in the clearer plan in PDB-003.
- It was explained later by TCAG that such a turnaround was now quite difficult and might require local knowledge to achieve.

Can the direct LTC on-slip from Gravesend East be deleted?:

- In REP3-112 Page 116 point 7.3.7 it states that the number of vehicles joining the Project from the M2/A2 in the AM peak in 2045 is 4,566 PCUs in the core scenario. Of this traffic: 83% would come from the east, 10% (457) would access from the Gravesend East junction (the pm figure is given as 8% but the base figure is not stated) and 7% would come from the A2 to the west.
- The 457 quoted would be a combination of a small number of residents at Gravesend East and
 the immediate western part of Gravesend, who could otherwise go west to Gravesend Central
 and turn back eastwards to take the LTC link. The other users need to deliberately travel to use
 Gravesend East, which is going to be very congested, when they could use other junctions
 instead.
- We consider that this on-slip to the LTC directly from Gravesend East is not needed.

Traffic movements (APP-145 part 2 (including Verbal Representations made at the hearing):

- The origin-destinations points Slide 10 does not Show Higham, Shorne Ridgeway or Sole Street which are also important origin-destinations to consider.
- Slide 16 was described as "the route into Strood" but that depends very much on which part of Strood one wants and why – other routes use A289, A226 eastbound or M2J2 then via A228 westbound.
- Slide 18 does not convey the complexity of the proposed new route especially when compared to the ease of the present simple on-slip. It does however show that traffic will be tempted to stay on Brewers Road and continue along Pear Tree Lane to the A226 traffic lights.
- Slides 19 and 20 depending where in Cobham one starts from (or from the A228 if rat-running via Bush Road and Cobhambury Road), Henhurst Road is more likely to be used at present and also particularly in future.
- Slides 21 and 22, this is not a frequently used origin and destination in itself.
- Slides 23 and 24, it is unclear what the evidence base is for these slides. Slide 23 is a misrepresentation as the colours should be reversed. It also does not factor in Shorne Ridgeway. Slide 24 is correct and shows what a nuisance the replacement routes are, particularly if the requested traffic light facilitation at the A226 roundabouts is not provided. There is an extra 4km to be travelled to reach the M2 westbound, and an extra 2km on the return journey. The northern route shown on both slides is longer than at present and involves attempting to turn right on the A226 across 50mph traffic, which is hazardous and also requires traffic light facilitation.

- We have many times discussed with the Applicant that there is a difference between providing a function, which is what they claim to have done, as compared with providing something that is functional for local residents to use.
- We disagree with the Applicant's statement made later to the effect that in many cases the diversion routes are no longer than the existing routes as there are also many cases where they are longer.

The correcting route back when drivers to south Strood miss the A289 lane at Gravesend East:

- The extra distance travelled if a driver missed the A289 split and had instead joined the M2 and turns back at M2J2 to M2J1 is about 5km in total.
- The Applicant stated that south Strood could also be reached by turning back at M2J2 to M2J1 but this was not right and was corrected by KCC.
- We also think that it would be more likely that drivers would then use the A228 northbound and cut across residential areas, depending upon exactly where in south Strood they wanted to get to. Alternatively they could use the A289 to then take the A226 eastbound.

The correcting route back when drivers at Gravesend East mistakenly take the LTC on-slip:

- Miss Laver raised later about what happens when a driver mistakenly turns on to the LTC slip-road from Valley drive.
- We had raised this with the Applicant previously suggesting that closely sequential north and then south trips should not be charged at all let alone doubly although that was when a turnaround junction was still in the plans just north of the river.

Shorne Woods Country Park access routes; Park financial viability:

- We note the comments made in discussion and subsequent questions about access routes involving the southern two-way connector road, and the long diversions via the A289 to access the M2.
- We note that the Inspectorate had witnessed "moderately substantial" visitor numbers. This causes concern about the number of vehicles, many of whom are visitors from afar and less familiar with the routes, which either need to use the new "convoluted" access routes or might be tempted to travel through Shorne when they would not have done previously.
- We do not believe that Country Park visitor vehicles have been adequately incorporated in the modelling, particularly as numbers are not steady throughout the year, being higher in school holidays and when there are (frequent) special events and Bank Holidays.
- KCC later raised their financial concerns for Shorne Country Park, relating to Construction impacts and the difficult road access in future. The Country Park is important to local residents, particularly as it has a very large playground, so its financial viability is very important to us too.

Land take at the LTC:A2 junction:

- This could be reduced a little by removing the unwanted slip road direct from Valley Drive to the LTC.
- It could also be greatly reduced and simplified by using Gravesend East and M2J2 as turn back routes to access and use the LTC.
- We had commented previously on restricted junction function.

Impact on Thong, Riverview Park and Shorne West:

- As regards the LTC:A2 junction, the relationship is particularly to the <u>Shorne West</u> part of Shorne, which is not close to the Shorne Village Conservation Area.
- The Applicants discussion demonstrated some confusion about local geography (see below).

Not a Freeflow junction:

The Applicant stated that they are delivering a free-flowing junction but traffic modelling shows
that it will be constrained by traffic volumes to have reduced running speeds on several
important access links.

Item 3c: Design mitigations:

- <u>Confusion over Shorne versus Shorne West</u>: The Applicant again is suffering from confusion about the names of the different parts of local areas, please see map in Appendix A in separate document in response to Action Point 7.
- "Tree planting is used at the junctionsfor visual screening": The design aim was said by the Applicant to be to have trees around the junctions providing visual screening, however for the LTC:A2/M2 junction this is not the case as the junction has bare flyovers that cannot be effectively screened to Shorne West, the currently heavily wooded central reservation and previous mitigation plantings are being removed, and wooded areas on the south side of the proposals, between the A2 and HS1 are also being lost under the two way connector road and several large roundabouts.
- Change from original fully wooded design (Verbal Representation made): The design of the area between Shorne West and Thong at Statutory Consultation was completely wooded west of the LTC line, (which we were happy with) and with bunds along the line of the LTC. We requested more wooding to screen Thong from the LTC. Then the design was changed removing the bunds and made very bare we had no understanding of how that change happened (see below about influence of "Stakeholders" and we were not consulted. Perhaps in connection with our adverse comments, now woodland has been increased again at Shorne West, with a thicker band connecting to Riverview, but planting along the line of the LTC remains patchy. We would prefer it to be much more wooded, and with the bunds restored as together these would beneficially reduce air pollution and noise impacts, particularly for users of the replacement footpaths which as currently proposed have a low ambience. As the setting of Thong will be irreversibly changed by the project, we do not see the point of pretending that the existing setting is unaffected by the LTC so should be retained when weighed against the opportunity to protect residents and landscape from the introduction of highly adverse views this was ample demonstrated during the recent ASI.
- <u>Linking up pockets of woodland through the junction</u>: The Applicant said that they were requested by "DEFRA families" to look at potential woodland links through the junction linking up the pockets of woodland in and around the junction by a green bridge. The Applicant has not done this as the only link is via the Thong Lane N Green Bridge which is 1km from the junction.
- Influence of "Stakeholders" with Cultural Heritage opinions: The area only has an open character presently because the west side is a productive arable field, and other areas are currently used for grazing. We do not know who these "Stakeholders" are who are not making the lives of local residents the highest priority. We do not think that anyone living locally thinks about the open view of Thong from Shorne West, and Thong residents would prefer not to have

a view of the urban edge of Gravesend. After the change was made we had discussions with the Applicant as part of the SoCG process and said that Cultural Heritage depends what century is chosen, as before WW2 the area was small fields bounded by hedges and copses, so we did not see why the post WW2 artificial openness is dominating the mitigation planning. (Please see ISH3 Appendix A, first Ordnance Survey 1797)

Verbal submissions by other IP's:

- We strongly support the comments made by other IP's, particularly Higham Parish Council, Gravesham Borough Council, Kent County Council (excepting their standard preamble expressing support for the project), and TCAG.
- We agree with both Higham PC and Mr John Johnson who spoke later about the critical importance of Gravesend East junction working properly to permit the intended functions of the southern two-way connector road.
- We share the concerns raised by TfL but from the reverse viewpoint, that additional "Resilience" traffic diverting eastbound on the A2 in order to use the LTC will block access to the northern connector road for the Shorne/Cobham turn off and the A289. This would lead to use of alternative routes which would also get blocked. It should be possible for the Applicant/others to model the effects of such congestion.
- The TCAG point about the potential introduction of road charging per mile (or km) is a very good one about the adverse cost to residents of long diversions both during Construction and Operationally.
- Like Mr Robin Beard, we also consider that simpler designs of the LTC junction with the A2/M2 are possible, e.g. perhaps by making more use of Gravesend Central and M2J2 with facilitated turnback, but these do not appear to have been considered and evaluated by the Applicant.

Verbal comments by the Applicant:

- The connector roads increase Safety:
 - We disagree that local traffic making short journeys on the A2 is as great a problem as the Applicant makes out. Such traffic keeps to the nearside lane and any problems, including any safety issues, are minor when weighed against the additional difficulties that are being created for all drivers who want to join the A2 for all reasons including to make longer journeys. Furthermore, the same problem exists and is much worse on the A282 through Dartford yet no additional interventions are being proposed there.
 - If the aim of the connector roads is to remove such traffic from the mainline, then all that is actually being achieved is the creation of new problems due to excessive traffic on the connector roads.
 - The biggest problem presently is the sheer volume of traffic that joins and leaves the A2, and the worst location in that respect is at Gravesend Central/A227. Not only is this junction not being improved as part of the project but it is also having its function further compromised by the attraction of extra traffic that will be caused by the LTC.
 - A new problem that is being created in that the Brewers Road eastbound on-slip will in future be joining the northern eastbound connector road which will already be at near capacity due to the large volume of traffic that will be funnelled down it.
 - Along with the weaving being introduced between Gravesend Central and Gravesend East eastbound, those changes would seem to create much greater adverse safety impact that any existing impacts that are claimed to be being reduced.

- It is not just "local" traffic that is being moved onto the connector roads but on the north side it is also A2 eastbound traffic that wants to take the LTC and traffic from the LTC that wants the A289.
- Signage preventing users making errors:
 - The Applicant considers that signage will largely prevent users from making errors but if you
 ask local residents many will recount errors made at M25 J2 from taking the flyover slip road
 from the A2 westbound onto the M25 northbound instead of the later slip road onto the M25
 southbound, plus witnessing drivers making dangerous late lane changes when they realise
 their error
 - Another example is trying to find the A227 northbound from the M20 westbound as one has to first take the M26.

Item 6: Alignment design choices over mitigation (Verbal Representation made):

Landscaping:

- Please also see under Item 3c above and ISH3 Appendix A.
- The Applicant discussed their "Landscape led" design basis for mitigation planting between junctions but we disagree with their approach south of the river Thames. They stated that they "have used planting and earthworks to screen the road from view wherever possible" however south of the Thames they have done the opposite.
- While they have in the latest iteration added to and created new planting fringe around the
 residential areas in Shorne West, this has the effect of closing these residents in by cutting them
 off from their currently open view, rather than screening the actual problem of the scar/chasm of
 the LTC from spoiling their view.
- We consider that the planting strategy has been the opposite of what is best for residents.
- From higher ground, as seen on the recent ASI, having planting along the line of the LTC will not block the wider views but would hide the LTC in the landscape. This would not necessarily draw attention to the LTC line through linearity, as it could easily be made naturalistic.
- There was reference to "wooded hilltops either side" but there is no such thing west of the LTC line.
- Views from the new mounded Chalk Park were mentioned but there is an adverse effect that by raising the land level there what is actually provided is a greater view into the chasm of the LTC portal and of alien associated structures (control building, electricity substation).
- We also commented that the A2/M2 corridor as proposed will have extremely poor ambience and could be improved.

Design of Structures:

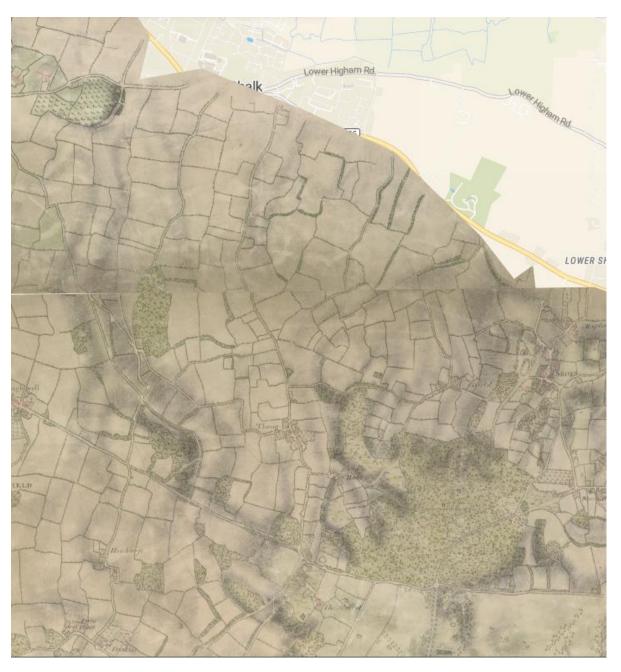
- Regarding the tunnel control building that was mentioned, we were told previously that this
 would be fully underground but APP-513 Pages 25 and 26 shows this not to have been true. The
 design should be reconsidered to make it less visually obtrusive and more hidden from view,
 given the Green Belt location and additional impact on openness. The structure will be very
 conspicuous in the landscape.
- <u>Ask</u>: We would be grateful for an explanation as to why we cannot have one or more WCH bridges provided south of the Thames such as those proposed for Thames Chase (which we note also crosses a considerable number, maybe 12, lanes of traffic), for example located as far south

as possible across the LTC line to prevent the severance issues and restore connectivity, and also between Shorne Woods Country Park and the south side of the southern two-way connector road.

Verbal submissions by other IP's:

- We support the comments made by KCC, GBC,
- We consider that much more could be done to improve a variety of aspects of design.

ISH3 Appendix A: Ordnance survey original map drawings 1797 showing field and hedge etc patterns, from https://www.oldmapsonline.org/compare#, drawings "Northfleet and "Cobham" (remainder lost). The "A2" is in the lower part heading approximately west to east, and Thong Lane is in the centre heading north. Some road layouts, such as Brewers Road were changed subsequently.



ISH4: TRAFFIC AND TRANSPORTATION (6th September 2023)

Item 3ai: Traffic Modelling:

- <u>Peak hour identification</u>: We note that in Thurrock they have the same issue with the peak hour identification as we do in Gravesham, that peak hours on the road network locally are different to those that the Applicant uses for strategic modelling.
- <u>Popularity of alternative routes</u>: We disagree with the Applicant's opinion that drivers will not travel by alternative routes that are longer in distance and time. In our opinion and experience, drivers prefer to keep moving rather than stay sat in a long queue for an unknown, and potentially very long time. Therefore there will not be any significant discouragement as a result of such time and distance increases.
- <u>LTAM compliance with TAG</u>: We are grateful to Thurrock Council for their analysis of TAG compliance within their LIR and noted also their comment that National Highways were updating their LTAM model (for the full business case) at the time of DCO submission.
- <u>Disagreement between experts</u>: It was apparent through the discussion that there is major disagreement between independent traffic modelling experts and the Applicant over age of data, methodology, and practical application of the various models, with major discrepancies identified. This is not just an academic argument as the success of the project rests on all the major junctions performing effectively unfortunately, even by this late stage, this outcome is not assured.
- <u>Mitigation possibilities</u>: Like Tilbury we are very concerned about how problems arising from poor planning of the project can be mitigated south of the Thames given the narrowness and environmental constraints of the A2/M2 corridor.
- <u>Latent demand</u>: This was mentioned, as it had also been previously by Medway Council who are concerned about traffic being held up outside the model.

Item 3aii: Modelling uncertainties:

- <u>TAG guidance documents</u>: We have read many of the TAG guidance documents referenced but will leave commenting to experts.
- Medway HIF (Housing Infrastructure Fund) scheme: This was mentioned as an example justifying the Applicant's approach to omitting proposed developments as the HIF funding was later withdrawn. However, as the name suggests, that funding was for highway and other infrastructure and not the housing, and the withdrawal of the infrastructure funding does not mean that housing development will not go ahead regardless. Medway are presently reconsulting on their Regulation 18 proposed housing allocation sites (Please see https://democracy.medway.gov.uk/mgconvert2pdf.aspx?id=70205) with figures of 11,625 homes in Rochester and 14,621 homes on the Hoo Peninsula all of these would one way or another use the A289.
- <u>Has there been change since 2016</u>?: The Applicant's answer about 2016 data validity was that "they believe" it is still valid. We do not consider this to be an adequate form of assessment.
- <u>Use of "TomTom" data</u>: While there may be many users of that system there are also many drivers that do not use it, so it would be needed to know what is the proportion of all road users that the data applies to, and has the remainder changed since 2016. All the repeated extracts from that system may have shown is that the trips by TomTom users have not changed, and that does not increase confidence in the LTAM predictions for all road users. This is another example of Sampling Error as the base data is inappropriately restricted.

Item 4: Wider Networks Impacts Management and Monitoring:

• <u>Outbuilding congestion or building-in congestion</u>: The Applicant quoted from RIS 2 stating that it is not possible to outbuild congestion but surely that is what they are trying to do as regards the Dartford Crossing. It is also the case that as regards Blue Bell Hill and the M2 they are building-in

- congestion that they are doing nothing about mitigating. If the LTC is to be successful it needs to work, and inability to get onto and through the A229 to the LTC will stop potential users from accessing it that way and encourage them to continue up to the M25 and to use the Dartford Crossing.
- Inadequate Mitigation for NMU's: The Applicant stressed the importance of mitigation for NMU's over severance and accessibility however we consider that this has not been adequately addressed by the scheme south of the Thames as the alternative routes provided involve lengthy (1-2Km) diversions with low ambience and particular difficulties for persons with poorer mobility. A WCH/NMU bridge (or bridges) could and should have been, and still could be, provided to properly retore the severed west to east paths.
- <u>Investigation versus delivery</u>: The Applicant went on to quote RIS2 again saying "We expect to investigate linked improvements on the A2 into Kent as part of the pipeline of work for the next RIS. This wording overall implies considerable uncertainty whereas it is certainty that is needed by IP's and residents. Also, it is unclear what is meant by "the A2 into Kent" when for Blue Bell Hill it is the M2 that is relevant.
- The "Kent Corridors to the M25" document update (May 2023): This was referenced in the ISH's. It has much general content and little in the way of specifics, however it has some interesting content, including:
 - On page 2 "The orientation of the route can result in safety issues due to sun glare", and on Page 51 "Much of the route is east-west facing, resulting in safety issues due to sun glare." – this is a problem that is being created/increased by the LTC.
 - On Page 3, "Diversion routes are often less suitable for high volumes of freight or general traffic, which can result in secondary impacts such as increased congestion, reduced air quality, and increased noise".
 - On Page 3, "Delay can occur at junctions when traffic diverts (or in some cases during typical operation), particularly where the MRN and LRN interact with the SRN. This includes..... the M2 Junction 3 (Bluebell Hill), and M20 Junction 6 LRN operation can also result in local traffic 'junction hopping'"
 - On page 3, "Delays are exacerbated by seasonality...." in which context we have not seen discussion by the Applicant of the impacts of seasonality driven fluctuations in traffic levels in relation to Shorne Woods Country Park (and Jeskyns) and the Bluewater Shopping Centre.
- <u>Transformation can be positive or negative</u>: The Applicant describes the LTC as "transformational" we take the view that it will be but just not as the Applicant believes it will be, as bringing the economy of North-West Kent to a halt will certainly be some transformation.
- <u>Congestion is a safety issue</u>: We agree with Mr Young's point that congestion has adverse impacts on safety, especially when there is queuing back at all let alone onto main carriageways.
 Creating or worsening congestion should be a significant concern for the Applicant.
- Required interventions at Blue Bell Hill: We support very strongly the comments by KCC about lack of inclusion of Blue Bell Hill, or other assured funding, and we understand and share their opinions.

Item 5: Construction Traffic Management:

• Traffic Light Facilitation of junctions in Construction phase (Verbal representation made): The point we made verbally, in connection with the suggested closure of Brewers Road bridge for 19 months, was that road closures force residents to take a different route. This will be the case for Shorne residents, who will have to go north to the A226 and turn left or right, which is going to be joining or across the construction traffic increase on the A226. These movements do need to be facilitated with traffic lights and we would like some assurance that this point is being taken seriously and will be taken forward to the construction plan.

- Expansion of Verbal representation: Although the proposed closure is long, we have "been there before" when the HS1 bridge was built and again when the HS1 bridge was fire damaged shortly afterwards, so we are less daunted by the closure than some of the other local residents who routinely take routes traversing Shorne. However, the HS1 construction was a long time ago now and traffic levels are much higher, so the impacts will be greater.
- Shorne Woods Country Park traffic during Construction: This is a much greater concern, that difficult and congested routes by which visitors will access the Park may induce them to try and do this Through Shorne residential area where the roads are not suitable for extra traffic and can easily get gridlocked.

ISH5: TUNNELLING (7th September 2023)

Item 3ai, ii: Limits of deviation:

Characteristics of Alluvium:

- The input from Mr Terry for the PLA was educational as he said that "Alluvium is like a silt and clay deposit. It has got lenses and beds of peat, seams of sand and gravel." Please see relevant points below.
- Shallowness of the tunnels (main and Ground Preparation) under the marshes (Verbal Representation made):
 - We commented (at the wrong time in the proceedings so deferred to later) that discussion had largely been about shallowness under the river but we are concerned about shallowness under the adjacent land. For us south of the river, the adjacent land is the North Kent Marshes Special Protection Area and Ramsar site, and associated functional land.
 - Mr Clarke-Hughes for the Applicant stated that the main tunnel is shallower at that point than
 in generality, but deeper than the worst-case position. He also said that the C/D
 (cover/depth) ratio for the main tunnel is better at that point than the worst area, which is
 north of the river. However, we are concerned as the Ground Protection tunnel is above the
 main tunnel, so even shallower.
 - He referred to the limits of deviation of the Ground Protection Tunnel and that these would also be flexed along with the main tunnel. This is obviously a great concern to us, as the shallower is the worse, as the risks of damage to the overlying marshland are would then be greater.
 - However, as <u>the Ground Protection tunnel has to be created first</u>, any flexing of main tunnel deviation limits would be secondary as presumably a safety margin has to be maintained between the two.
 - We consider that there needs to be a maximum limit on shallowness of the either/both tunnel types under the marshes.

• Possibility that the Ground Protection Tunnel might not be needed:

This would be a great relief if so. There was discussion about TBM types later so it would be
preferable if the least damaging types, and requiring least grout, were specified in the DCO for
both the main tunnel and the Ground Protection Tunnel.

• The Ground Protection Tunnel is a permanent structure:

- Mr Clark-Hughes stated that "It is entirely temporary for construction purposes" however
 while its use might be temporary the Ground Preparation tunnel structure is in fact being left
 in place permanently, leading to concerns that its very presence may result in alterations to
 water flow and damage to the overlying marshland.
- Water and other issues from the tunnelling under the mashes (Verbal representation made):
 - We stated that our concerns are about the risks to the marshes, about possible dewatering and the risk of ground water drawdown. The risk is bad enough from the main tunnel, but the ground protection tunnel increases this risk by its presence and because it is even shallower.
 - We had noted it being said earlier that the reason for tunnelling deeper is because of poor soil conditions, and also that the characteristics of the land and geology improves with depth.
 Therefore our desires would be for the main tunnel to be lower and for a TBM to be used that didn't require a ground protection tunnel at all, because that would greatly reduce the risks.
 - We had inadvertently got our comments in before GBC on this point and are very grateful that they said much the same.
 - Our concern is that once damaged, recovery of marshland (if actually possible) can take a very long time indeed.

• <u>Injection of Grout into the Alluvial soil (Verbal representation made):</u>

Our other concern is the fact that Grout is going to be injected at all and so closely underneath the marshes. This is in the North Kent Marshes Special Protection Area and associated land, which has an ecosystem that connects with the Ramsar site. The northern end of the Ground Protection Tunnel is in the Ramsar site so we are concerned about this matter of chemicals being injected there as well.

• Risks of tunnelling not going to plan:

 We noted the comprehensive but alarming content of the further input from Mr Terry on the risks and contributory factors to risks of tunnelling and detailing some of the adverse incidents that are known to have occurred. We found additional examples through an internet search relating to tunnelling through Alluvium (see more below)

Item 4: Tunnel Boring Methodology:

Waste material differences with different types of TBM:

There was discussion about Slurry TBMS and the EBM type which produce dry arisings, however we are concerned about it being said that the dry arisings are mixed with "conditioning foam", and we also understand polymers. With the Ramsar site water system being not far above the tunnelling, more injection of chemicals could pose a hazard to the marshes, and also to underlying aquifers, and we raised this concern verbally.

Various issues (Verbal Representation made):

- We raised (as we have elsewhere) that a major difference between having one TBM and two
 for the main tunnels, is of there then being 24-hour working (for a considerable length of
 time) at the south portal, because under the two-TBMs scenario that wouldn't happen. The
 Applicant did not comment on this point in their response.
- We commented in connection with something said earlier about simultaneous tunnelling that
 we had realised from the documents that in the two TBM scenario, although everyone had
 understood them to be driven simultaneously, they are in fact separated in time. The
 Applicant confirmed these would be staggered by three months, due to concerns about
 ground stability. We believe this is caused by vibration.
- We pointed out that there hadn't been any discussion about the type of TBM to be used for the ground preparation tunnel, which in turn would alter the kinds of arisings (see above).
- o Regarding the Ground Protection Tunnel and Grouting, we have asked several times about whether these techniques have been used elsewhere in the same ground scenario (Alluvium under protected marshland) and what the outcomes were, particularly in terms of safety and chemical contamination. The response by Mr Clark-Hughes did not truly answer the question. He said that "....we have, nationally, lots and lots of experience of driving in the clays and in the gravels. It is simply a question of selecting the appropriate machine for the ground condition." That did not answer about use of a Ground Preparation Tunnel in Alluvium (see section on composition of Alluvium above), we are especially concerned as internet researching revealed some adverse reports. We look forward to a more comprehensive response from the Applicant, including about using Grout injection in Alluvial marshland that is part of a Ramsar site.
- We pointed out again, that the landing area for the Ground Protection Tunnel is in the Ramsar site and the works involve some modification to the ditch network. Also, as Gravesham had also said, the marshes ecosystem is joint so it makes no difference whether you are inside or outside of the Ramsar site - if you are within the marshes ecosystem complex, then it is all one and the same as regards contamination

• TBM type for the Ground Protection Tunnel:

 In response to a question from Mr Taylor the Applicant stated that the type of TBM to be used would be an Earth Pressure Balance Machine, which does raise further concerns about contamination of the soil. (Please see Waste Material Differences section above).

Emergency preparedness planning:

• This was mentioned so, although the question was bounced from immediate discussion, we would like to comment that another consequence of the "one or two TBM's" scenario is about where emergency response teams would come from to reach an incident in the south-to-north single TBM drive. This would affect the stationing/availability of crews and/or the distance and difficulty, and therefore time to treatment/other response elapsing when having to negotiate the whole of the first tunnel and swerve assorted construction vehicles before turning back into the second.

Item 4b, c: Water Resource management:

Southern portal – water runoff and its management (Verbal Representation made):

- The Applicant said (paraphrased) that at the southern portal, the greatest source/type of
 water needing to be managed in terms of volume would be rainfall runoff generated from
 areas that have a low risk of being contaminated, such as roofs from offices and hardstanding,
 and that water would be separated and encouraged to infiltrate into the ground, which
 replicates the situation there at present.
- We commented in response that it was said that the rainfall runoff in the southern compound will be low risk, but that risk doesn't exist presently as the land is fields in cultivation. So if you introduce hardstanding and vehicles parked on such hardstanding, not to mention all the other construction vehicles, that's introducing a risk of pollution to the local aquifers which doesn't currently exist. (By Aquifers we also meant groundwater and the marshes ecosystem).
- The Applicant's response (paraphrased) was that this drainage would be tubed to ground via vegetative systems such as "Whales" which offer treatment for any contaminants that are in the runoff.
- The term "Whales" was not explained or findable on internet searching so further explanation would be welcomed, these may perhaps be Detainment Bunds.

• Chalk Stockpile Drainage:

- The Applicant went on to discuss (paraphrased) the stockpiles of chalky material, with consequent risk that runoff from those areas might be contaminated with fines of chalk, saying that it is proposed to treat that runoff through a series of treatment lagoons which would be present on the internal construction compound, and then that water would be discharged into the watercourse that they call 'the western ditch', a designated Environment Agency main river. And in discussion with Natural England and the Environment Agency, we have 've agreed that that discharge would be subject to a discharge consent, and the parameters of that consent in terms of both quality and discharge rate, they would be agreed with both of those bodies. And again, that's secured via one of our commitments in the REAC.
 - We are unclear what is meant by "internal construction compound" and the location of the "series of treatment lagoons" mentioned.

Drainage into the "western ditch"/Ramsar Ditch:

- We commented in response to the Applicant's statements that the plans for the Great Clane marsh area (north of Lower Higham Road) show square outlines which haven't yet been explained, and are close to houses where there could be noise and negative visual effect problems. The exact structure of the discharge arrangement (pipes, pumps, buildings etc) has not been shared with us despite many requests.
- The Applicant's response is that these matters are left to Construction phase design details however we consider that it is necessary for the Applicant to know now whether what they are proposing is actually possible as otherwise alternative plans are needed which might have

- increased adverse impacts. We note that Thurrock Council subsequently made much the same point for their area.
- The western ditch/main river referred to is part of the Ramsar Site we had an interesting argument about semantics with the Applicant during the ASI when we were assured that water was not being discharged into the Ramsar site because the exact point where water will be entering the "western ditch" is outside the part of the very same ditch that is classified as Ramsar. Clearly the water itself would still be entering the Ramsar site within a few centimetres of the point of discharge, and there would be no discernible difference caused by a very small part of its journey being in an existing ditch rather than in a new pipe.

• Great Clane Marsh is prone to flooding in winter:

- We also commented verbally that the Great Clane marsh lagoon area is an area that is prone
 to flooding in winter anyway. In that case the effect of additional water being discharged has
 different effects depending on the season.
- The Applicant also said (paraphrased) that discharge into the "western ditch" would be at green field runoff rates, which are one to two litres per second, so that would reduce any impact on flood risk in the receiving catchment. The points here are that the area is marshland so greenfield runoff rates are not applicable, and the proposal is for a very large volume of water to be discharged relative to existing volumes.
- We would like to see direct input from the North Kent Marshes Internal Drainage point about these issues as the key aspect will be the rate at which water can get out into the Thames.
- The Applicant stated that "greenfield runoff rates are very low in this area because of the geology" but we are not convinced from our reading of the water investigations that these were properly carried out at the correct times of the year to detect maximum flows or that the Applicant fully understands how marsh ecosystems work in practice.
- Since the hearing we have been in contact again with a longstanding Lower Higham Road resident who has confirmed that the marsh regularly floods in winter but that houses and gardens off Lower Higham Road do not at present, in part due to a boundary ditch running in a west-east direction. The worst mentioned event was when the culvert under the North Kent Railway line collapsed, when ditches were brim full as a result. However some of the new houses off Dering Way do have problems such as a flooded vehicle inspection pit and foul drainage backing up in ground floor bathroom facilities. The secondary consequences of additional water being discharged in this area affect more than just the marsh itself.

Duration of chalk stockpiles:

• We asked a subsidiary question about the duration of existence of the chalk stockpiles, because originally there was discussion about the chalk stockpile to the east of the tunnel portal being left in situ for a long time and only being removed gradually to landfill. We could not find any further discussion of that in the documents submitted for the DCO, so requested clarification. The concern being that if there is prolonged storage then that prolongs the duration of issues such as vehicle movements, disturbance, dust, use of the local road network, and risk of contamination. The Applicant undertook to check this and revert.

• Drainage capacity for "Extreme" or peak weather conditions:

- GBC had raised about ability of drainage proposals to cope with "Extreme" weather events but the Applicant's responses were dismissive of their concerns. We had also raised on many occasions about capacity to cope with peak weather conditions such as torrential rain after a dry spell with similar responses. This applies to both the Construction period and during Operation.
- The concern is that, with 2km of 6 lanes plus width of verges on a 4% slope, in torrential rainfall the amount of contaminated water runoff could be very large and exceed drainage, pumping and storage capacity so that overspill from the drainage ponds could occur with consequent damage to the marshes and Ramsar Site.

- We consider that these valid concerns should be taken more seriously by the Applicant than at present.
- Dewatering and groundwater problems from tunnelling:
 - The Applicant considered the effect of groundwater on the tunnelling, the TBM and the tunnels themselves rather than the effect of tunnelling etc on the ground and nearby properties, thereby missing the point about the nature of Interested Parties concerns about impact on groundwater. Matters such as risk of groundwater drawdown were not mentioned.
 - We remain concerned about the use of Grout, or any other form of chemical injection, at all in this area (due to contamination risk). In that connection, we note the additional use of Grout for building of cross passages was mentioned but also Ground Freezing which needs further information to enable assessment of the methodology and risks.

Subsequent to the hearing/other points:

- Ground Protection Tunnel shallowness and ground conditions:
 - On reviewing document REP3-146 we noted that the detailed cross section geology plan
 presented excluded the full area south of the river and did not show the depth of the ground
 protection tunnel in that context, and which types of soil it was tunnelling in.
 - The chart suggested that there was another drawing that would show this, which we could not identify in the DCO documents. Therefore we asked the Applicant for that drawing to be signposted or provided.
 - The Applicant's response has been to say that the drawing is not part of the submitted documents but then neither was the drawing supplied for REP3-146 so there seems no reason why it could not also be provided to enable proper assessment of the Ground Protection Tunnel.
- Input from relevant water organisations south of the Thames:
 - We have ongoing concerns that relevant organisations with direct knowledge of and routine involvement in management of water issues south of the Thames, such as Southern Water and the North Kent Marshes Internal Drainage Board, are not participating directly in the hearings.
 - While we appreciate that water abstraction may not be a relevant issue south of the Thames, drainage and aquifer issues and the water supply to the marshes definitely are.
 - We have gained the impression that despite that a Ramsar Site and Special Protection Area is involved, water issues and adverse impacts south of the Thames are not being presented to the Inquiry and explored at hearings in the same level of detail as occurs for locations north of the Thames.

ISH 6: MITIGATION, COMPENSATION and LAND REQUIREMENTS (8th September 2023)

Item 3: Mitigation, Compensation and Enhancement:

We support the various comments made by Interested Parties, particularly GBC, KCC, the AONB, CPRE Kent and TCAG and have nothing to usefully add in writing at thus time.

Item 4a, b: Purpose of Green Bridges; Maintenance and Monitoring:

• <u>Inadequacy of present proposals:</u>

- o We strongly support the strong and extensive input from expert Interested Parties.
- So much was said, so well by so many that we did not see any need to say anything ourselves (put hand up but took it down again).
- We consider that the Green Bridge designs proposed by the Applicant for south of the Thames are all inadequate in various ways:
 - Thong Lane north is approaching a satisfactory design but needs to be wider;
 - Thong Lane south needs to be wider, and with pleasanter ambience for WCH users however it is useless for habitat/biodiversity connectivity due to the severance by 3 traffic lanes plus 2 pavements that would have to be crossed and the severe disturbance from traffic on the bridge including WCH users, plus traffic noise and fumes from below;
 - Brewers Road needs to be wider with much wider green section. It also has habitat/biodiversity severance as there is a busy road to be crossed. The Country Park representative at the ASI made some good suggestions for improvement in that respect.
- When green bridges were mooted we were (and still are) expecting to see something more like Scotney Castle lane, whereby users do not realise that they are crossing over a roadway.

• Dressing up an existing road bridge:

- o It is quite clear that all 3 so-called green bridges south of the Thames are dressing up of existing/replacement, primarily road bridges as Miss Laver said.
- o Furthermore, the view of Brewers Road bridge that Miss Laver put up to view made the inadequacy of the design very clear.
- We consider that there is something wrong with the Applicant's measuring method the
 wispy whips on the parapet outside of the primary traffic barrier are standard architectural
 features of the basic bridge design and should not count towards the total it is what is
 beside the carriageway plus available to WCH users that is relevant.
- We agree with whichever IP said it that human animals are also relevant and increasing ambience for human animals is also important.

• Impossibility of greater width/enhancement:

- We disagree with what the applicant said, that it is not possible to green Park Pale bridge or further widen the others:
 - Park Pale: We accept the Applicant's point that there are barriers to habitat/biodiversity connectivity here due to HS1 but the bridge could still be widened and greened to improve ambience for WCH users;
 - Brewers Road: We disagree that the bridge cannot be widened and more greening provided. The Applicant claimed it to be impossible due to impact on the SSSI however we consider that widening would be possible without any/much impact;
 - Thong Lane south easily possible;
 - Thong Lane north easily possible.
- We do not accept the Applicant's statement that the A2 would need to be shut for any longer than all the other bridge replacement work that we have seen being undertaken in the area. We have seen and experienced Brewers Road bridge and Thong Lane south

bridges (plus Bean and the massive flyover at M25J2) all built and installed with minimal closure except for when the new spans were installed. For the brief period of closure traffic would use the M20 just at M20 users had to use the M2/A2 when bridge structures were replaced there. We have also lived through all the disruption and closure of various local roads for the building of HS1.

- Regarding impact on SSSI's, there is greater impact from lack of habitat connectivity as new animals cannot move in to the SSSI environment to replace those that have been lost. The effect over time will be sterilisation of the Country Park and SSSI's and all other woodland and other habitat north and east of the LTC.
- Regarding the statement that widening of Park Pale bridge would cause "loss of revenue for local businesses in the area", this also does not stand up to examination as we consider that it would not be difficult to add a second identical span as was recently undertaken at Bean and will also be done at Gravesend East.
- Overall, the principal problems as set out above seem to be lack of commitment to the concept of green bridges coupled with lack of inventiveness in design and prioritisation of cost minimisation.
- We see the statements made by the Applicant about why they cannot do things better as not being reasons but rather indefensible excuses.

Missed opportunities south of the Thames:

- The Applicant said that there is an aim at "mitigating landscape severance and providing improved experience for walkers, cyclists and horse riders." This has not been achieved.
- There are opportunities for Thames Chase style WCH bridges south of the Thames that have not been taken. We suggest two locations:
 - Across the A122 line in approximately the present location of NS167, this would remove the severe WCH severance currently created;
 - Between Shorne Woods Country Park and Ashenbank Wood/near Scotland Lane, this would provide connectivity between the two SSSI's.
- We recognise that these would likely be project enhanced structures rather than green bridges but they would be major improvements to the present proposals.
- o Perhaps similar green-only/wildlife structures are needed, as mentioned by TCAG.

• Other biodiversity enhancing structures south of the Thames:

- The Applicant also referred to there being other biodiversity features such as "other structures, underpasses, culverts, mammal ledges and viaducts, for example, which also provide further permeability of the reach for wildlife."
- We would be grateful if the location of these structures etc south of the Thames, arguably the area where they are most required, could be signposted.

• Amount of greening and target species:

- The Applicant said that "The minimum width of the natural zone should be calculated based on project aims in terms of the target species that you're providing bridge structures for, or planting on the bridge structures for."
- In that case it may be right to assume that the target species for Brewers Road bridge are actually ants and rats.
- We look forward to watching the dormice "commute" across the bridges along with the traffic, we had a discussion with the Country Park representative at the ASI and apparently dormice are fortunately quite fast movers however they are deterred by disturbance.
- We noted the input from TCAG to the effect that "there is no proven mitigation for bats in regard to new roads".
- We appreciated the clarification provided by Natural England over the aspect that it is the width of green that needs to be measured and not the overall width of the bridge. We assume that they mean undivided greening.

• Separation of the WCH routes on the green bridges:

- The Applicant said that "The corridor on the green bridges has been designed to provide green corridors to provide a degree of separation between the wildlife corridor and the walking, cycling and horse-riding corridor, so it's really used for things like double hedgerows."
- We cannot see that this has been applied to either Brewers Road or Thong Lane south bridges
 where the WCH route is bare pavement not providing any let alone "adequate degrees of
 separation from road traffic", and separated from the green strip by the full width of the twoway carriageway.
- o In that situation, save for the wispy whips on the parapet, the ambience for WCH users is almost zero and certainly not meeting any reasonable criterion for "high-quality provision".

• Getting things to grow and continue growing on the bridges:

- We had previously queried about what would be able to grow, particularly on Thong Lane south bridge above the pollution from 16 live lanes of traffic.
- The connected point was well made by TCAG that watering in and ongoing water supply are very important to achieve successful plantings.
- We are not convinced, given e.g. the length of Thong Lane south bridge in particular, and its severance at the southern end, that "because we've got continuous connection across the bridge, there should be sufficient water capacity". There could be water ingress through perforated kerbs but that would be contaminated water and conversely there could at times be too much water.
- We agree with the IP's who discussed various monitoring needs plus remedial actions for any deficiencies, although save for replacement plantings we are unclear what will be done and by whom if target species are not using the green bridge.

Item 6: Nitrogen deposition:

• Calculation of quantity of land area required:

- Even after the discussion at the hearing we consider that the amount of land required remains opaque.
- o In Shorne we are losing a large area of productive farmland, and horse grazing paddocks where residents currently keep their horses. Residents like to see the crops growing and being harvested and the horses when they go on walks. Our landscape is being forcibly changed against our will, and without any consultation from the Applicant. We acknowledge that there could be benefit if housebuilding on those sites is permanently prevented (even if landowner aspirations might have been unlikely to succeed), however that just means that development pressure will increase elsewhere.
- As expressed previously in our representations we are also concerned that Nitrogen damage to private land (which may be of equal or even greater habitat value as not subject to visitor disturbance) and public land, such as the Parish Council owned "Crabbles Bottom", does not get factored into calculations.
- The Nitrogen deposition land is touted as being for increased habitat connectivity but human connectivity also needs to be included in the proposals. We have made suggestions about improving human connectivity through this land acquisition but this has not yet been facilitated by the Applicant either for the Nitrogen Deposition land or for other Mitigation/Compensation land.

• Archaeological surveys required on extra land; other constraints:

- We have pointed this out to the Applicant many times, that surveys have not been done on the additional Nitrogen Deposition sites and are needed.
- We accept the Applicants point that planting layout and types can be tailored flexibly to avoid such but that does depend on the extent and nature of what is found, especially in an area

- that is quite rich in below-ground archaeological findings we have already had the situation whereby one area of mitigation land on Shorne Ifield Road had to be moved for this reason.
- There are also constraints on these land areas due to electricity cables on poles running through. However if National Grid could be persuaded as part of the scheme to convert some of these to underground cables (as they are doing for a line of poles in Thong) that would be advantageous for landscaping reasons and also increasing reliability of the local electricity supply.

ISH 7: The DRAFT DCO (11th September 2023)

Item 3a: Changes proposed to the dDCO since ISH2:

What constitutes beginning etc:

- We remain of the opinion, and agree with other concerned IP's about how much, or rather how little work can be done by the Applicant to define that the project has begun.
- When individual landowners on small plots do minimal work yet claim that they have started implementing a large planning application (the "spade in the ground" argument), other local residents view it as sneaky behaviour.
- We are very concerned that for example removing 2m of boundary treatment to effect an entryway to a field somewhere near the M25 junction could count sufficiently with such a large and physically long scheme in its entirety.
- We consider that there should be a very tight definition of preliminary works, meaning those that do not actually involve anything to do with physical building of roads, and these items should not count as the project having begun (or any synonymous wording).
- Once works on roadbuilding have begun (in our definition) then there should be a requirement for them to continue until the scheme is completed.

Item 3b: Changes not yet submitted but under consideration:

No specific comments needed.

Item 3c: dDCO matters arising from ISH's 3-6:

Modelling workshop for Gravesham:

- We support the suggestion for this to take place (as in the ISH7 Action Points).
- We hope it will cover the LTC and directly affected junctions on the A2/M2 as well as Blue Bell Hill issues.
- Parish Council representatives would be willing to participate if this is considered appropriate by GBC.

• "Grampian condition" for the Blue Bell Hill improvement:

- This is a new concept to us but seems eminently sensible to be included in the DCO, that Blue Bell Hill must be "fixed" before the LTC opens for use.
- We also support GBC's comment about the lack of utility of simple monitoring as it would clearly be an inadequate approach as it builds in at least long delays to resolution.

Item 3d: Any other matters relating to the dDCO:

No specific comments needed.

OFH 4: IP REPRESENTATIONS (6th September 2023)

Mr Purkiss (Welcome Forum):

Mr Purkiss mentioned a large number of concerns that we share and support:

- Consultation Fatigue among residents this is also demonstrably the case south of the Thames.
- Procedure for unexploded Ordnance came up at another hearing, we support the need for proper emergency planning.
- We agree with the opinion that longer distance of tunnelling would have reduced local impact and therefore community annoyance at the proposals.
- Air pollution monitoring locations need to be more extensive and in place longterm.

Mr Johnson:

• Mr Johnson asked some very good questions about materials and waste management, which we hope that the Applicant will answer.

Mr Cole:

 We support the comments made by Mr Cole about: the poor outcomes at the Dartford Crossing; existing congestion on the M2 and A229 being problematic; lack of published resilience modelling; complexity pf proposed junctions; and environmental/landscape impacts.

Mr G Pratt (Chairman of KenEx):

Mr G Pratts presentation was very interesting and raised some good points about:
 accommodation being built in town centres without much car parking provision (leading to
 reduced traffic demand for the crossing); and community transport provision in general. It
 seems that the tramway proposals are proceeding but they need to be focused on serving town
 centres, in which case the LTC crossing location does not aid their plans. He also referred to the
 approach in Sweden that new road crossings always have rail provision incorporated.