

TRANSPORT FOR LONDON

M25 JUNCTION 28 IMPROVEMENTS – WRITTEN REPRESENTATION

AMENDED 10 FEBRUARY 2021

Please note that paragraphs 7.20 to 7.23 of this document replace paragraphs 7.20 to 7.22 of TfL’s Written Representation submitted at Deadline 2.

1. Introduction

- 1.1 Transport for London (TfL) is the integrated transport authority for Greater London, responsible for delivering the commitments in the Mayor’s Transport Strategy (MTS). We run the day-to-day operation of London’s public transport network and manage London’s main roads, known as the Transport for London Road Network (TLRN). The AI2 immediately west of the M25 Junction 28 roundabout, including the eastbound exit and westbound entry slip roads between the AI2 and the roundabout, is part of the TLRN.
- 1.2 This document forms TfL’s Written Representation to the Examining Authority considering the application for a Development Consent Order (DCO) for the M25 Junction 28 improvements scheme, promoted by Highways England (HE). For ease of reference, this Written Representation follows the same sets of issues and is structured in the same way as TfL’s Relevant Representation dated 9 September 2020. It provides further detail in areas where this is necessary, and reflects progress made with HE on addressing the issues raised in our Relevant Representation since it was submitted.
- 1.3 TfL is also discussing a draft Statement of Common Ground (SoCG) with HE and we refer to issues we expect to be covered in the SoCG throughout this Written Representation.
- 1.4 TfL welcomes further liaison with the Examining Authority on the issues set out in our Written Representation if any clarification is required.

2. Summary of TfL’s position

- 2.1 TfL is in principle supportive of a scheme to improve the operation of Junction 28 of the M25. We recognise that the junction regularly operates at capacity, affecting the reliability of the road network. However, we continue to have reservations as to the approach promulgated by HE in its application for the DCO, which we wish to draw to the attention of the Examining Authority.
- 2.2 TfL’s position is summarised below, including references to the relevant sections of this document where more information is provided:
 - **Ownership and maintenance responsibilities (Section 3)** – The draft DCO provides that the replacement AI2 eastbound off slip road will form part of the TLRN and that TfL will be responsible for its management and maintenance. We have raised concerns over the appropriateness of this approach given the scale and complexity of the new infrastructure proposed and have had extensive discussions with HE on this matter. With HE unwilling to consider maintaining the new slip road itself, we have reluctantly concluded that we will accept the proposal for TfL to maintain the new AI2 eastbound off slip road subject to the conditions set out in paragraph 3.5 below. This includes approval of the works and an agreement being reached for payment by HE to TfL of an appropriate commuted sum to cover the increase in TfL’s ongoing maintenance and

renewal costs, and the additional costs associated with renegotiating TfL's highways maintenance contract covering this area. If TfL and HE are unable to agree terms to satisfy these conditions, then TfL would have no alternative but to object to the DCO on the grounds of the allocation of maintenance responsibilities. TfL will require modifications to the DCO where necessary to document the responsibilities of each organisation in respect of the altered road network (on terms acceptable to us), together with an agreement with HE if appropriate. We also consider that these matters should be addressed by the inclusion in the DCO of protective provisions in favour of TfL.

- **Approvals and consultation (Section 4)** – TfL's approval ought to be sought (as part of the DCO) in respect of the design and construction of infrastructure delivered by HE to the extent it may affect TfL's assets and in respect of those assets which TfL may inherit. In addition to the need to consult TfL on such matters, we also consider that for such consultation to be meaningful, the timescales for consultation by the undertaker and/or the local authority (as detailed in paragraph 4.6 below) ought to be extended. Given the potential impact on TfL's assets, Requirement 3 (detailed design), Requirement 4 (Construction Environmental Management Plan), Requirement 5 (Landscaping), Requirement 6 (Contaminated Land and Groundwater) and Requirement 8 (Surface and Foul Water Drainage) of the DCO ought to be amended (having regard to the justification in paragraphs 4.3 and 4.4 below) so as to require TfL's approval to be given to relevant details and documents prior to commencement of the authorised development. TfL also considers that an outline Traffic Management Plan should form part of the application documents and be subject to examination.
- **Scope of works and design information (Section 5)** – TfL requires further detail about the scope and design of works on TfL's land (and those works not on TfL's land but that have the potential to impact on TfL's land/highway), both permanent and temporary, to understand the future implications for maintenance and operation of the TLRN. TfL also requires an approval role for the design and construction of infrastructure TfL will inherit, or which directly affects TfL's assets. Further information is required to assure TfL that the scheme can be constructed alongside other road improvement schemes, including those promoted by TfL and local highway authorities, without the potential for conflict.
- **Land ownership and rights (Section 6)** – TfL requires further detail about the justification for and extent of the interests required by HE to deliver the scheme. New land ownership boundaries resulting from the land acquisition proposed by HE to deliver the scheme should be aligned with the boundaries agreed for highway maintenance responsibilities.
- **Assessment of traffic impacts (Section 7)** – TfL welcomes the additional information provided in the Transport Assessment Supplementary Information Report which, alongside detailed engagement with HE, has resolved some of the issues raised by TfL. We continue to have reservations about the lack of sensitivity testing of the signage strategy for the scheme, which will impact the proportion of traffic using the new loop road, and the potentially substantial impacts of the Lower Thames Crossing (LTC) scheme on traffic patterns which could affect the robustness of the assessment of the Junction 28 scheme. TfL's position on the junction between the A12 and Woodstock Avenue is also set out in this section.
- **Environmental impacts (Section 8)** – Despite the scheme being partly within London, for some environmental topics there has been limited demonstration of how the scheme is consistent with environmental policy in London. TfL notes the assurance that has been provided by HE on these matters.
- **Transfer of Benefit (Section 9)** – The powers under the DCO could be used widely by other parties with the consent of the Secretary of State. This gives rise to an

unacceptable risk that someone other than HE or its contractor could be working on TfL land/highway. TfL is particularly concerned that the draft DCO does not provide a design and construction approval process for the diverted gas pipeline under the A12.

2.3 The remainder of this Written Representation provides more details on these and related issues.

3. Ownership and maintenance responsibilities

3.1 It is imperative that there is clarity as to the ownership, management and maintenance of the infrastructure proposed and that the necessary commitments are secured from HE so that the DCO does not unduly add to and/or prejudice TfL's ability to carry out its maintenance functions. While some aspects of future ownership and maintenance are clear from the draft DCO and ongoing discussions with HE, further clarity is required in several areas. These issues are set out in this section of our Written Representation.

TfL's concerns over the proposed split of responsibilities

3.2 Article 16 and Schedule 4 Part 2 of the draft DCO specifies that the new A12 eastbound off slip road will become a Greater London Authority (GLA) road and therefore part of the TLRN (save for the new bridge over the new loop road in accordance with Article 11 (4) of the draft DCO), with TfL becoming the highway authority. We have raised significant concerns about the impact of this responsibility on TfL's operations and costs. The new A12 eastbound off slip road is both substantially longer than the existing slip road and incorporates a more complex engineering solution, with a substantial new bridge over the new loop road (Maylands Bridge), a large embankment and support structure either side, and a drainage pond. This is clearly demonstrated by the photomontages submitted by HE as part of an additional submission in July 2020 (viewpoint A – examination reference AS-002).

3.3 The primary concerns TfL has raised are:

- the infrastructure that the draft DCO proposes TfL should maintain includes assets that TfL's contractors do not currently maintain in this part of London, such as one of the three new drainage attenuation ponds delivered by the scheme;
- the much more substantial time and resource input required by TfL, HE and its contractor to enable TfL to assure the design and construction of assets it is proposed TfL take responsibility for;
- the more complex maintenance interfaces in the long term, for example where the surface of the new Maylands Bridge is to be maintained by TfL and the structure below the waterproofing membrane is to be maintained by HE; and
- the cost implications for TfL in the context of the lack of sustained funding for highways maintenance in London, and the need for HE to compensate TfL for both TfL's long-term increase in maintenance and renewal costs and the short-term costs associated with renegotiating the contract with TfL's highway maintenance contractor.

3.4 TfL consequently remains of the view that it is wholly unreasonable for the burden of the responsibility for the new A12 eastbound off slip road to be imposed on TfL without adequate protections and assurances in place. As a strategic highway authority, HE has the capability and resources to maintain the new off slip road should it choose to and, as the authority promoting the scheme, is arguably in a better position to undertake such maintenance. TfL further remains concerned that failure to resolve these issues may result in increased costs for the public purse. Maintenance responsibility arrangements should seek to achieve the most cost-efficient solution overall and should not seek to reduce ongoing costs for a particular authority.

Agreement required with HE

3.5 Notwithstanding the concerns set out above, we recognise that the historic approach for junctions between the TLRN and the Strategic Road Network (SRN) maintained by HE is for slip roads off the TLRN to be maintained by TfL. Therefore, despite our concerns, TfL is prepared to accept the proposal for TfL to maintain the new A12 eastbound off slip road subject to agreement between TfL and HE to address the following issues. However, if TfL and HE are unable to agree terms to satisfy these conditions then TfL would have no alternative but to object to the DCO on the grounds of the allocation of maintenance responsibilities.

- An appropriate commuted sum to cover the increase in TfL's ongoing maintenance and renewal costs, and the additional costs associated with renegotiating TfL's highways maintenance contract covering this area. A new maintenance contract covering London's north area has already been let, with a commencement date of April 2021, and does not include the new infrastructure proposed at M25 Junction 28.
- Details of the proposed property ownership for land and assets that TfL will maintain. TfL will need to have ownership of the land and assets that it is being asked to maintain and the draft DCO does not provide for the transfer to TfL of that land and assets.
- The necessary rights of access to enable TfL to undertake its maintenance responsibilities. In particular, we will require access rights along the new private road accessed from the eastbound A12 to maintain the embankment of the new eastbound off slip and the drainage pond proposed to be maintained by TfL.
- TfL's need to be consulted upon, and approve, the design and construction of the scheme to the extent that it impacts on TfL's assets – or assets that are to become TfL's responsibility (see Section 4 below).
- TfL's reasonable requirements for the standard and specification for completion of works in respect of those assets TfL will inherit. Any infrastructure for which TfL is to be responsible will need to be designed in line with TfL's highway standards and policies, including TfL's Vision Zero approach¹ and the London Environment Strategy.
- TfL will need to be actively involved in inspecting and signing off works as complete before they are open for public use and the expiry of any defect period.
- A commitment from HE not to obstruct or otherwise impact upon the TLRN (and the operation and maintenance of the same) without TfL's consent and subject to the reasonable terms TfL prescribe.
- Indemnification for any damage to TfL's assets which HE's works may cause.
- The timescales and terms on which HE will remain liable for any necessary repairs and issues associated with defects (for example for aftercare of landscaping) arising out of the works.
- Other matters described in the remaining sections of this Written Representation or that may arise as discussions with HE continues.

Maylands Bridge and adjacent structures

3.6 Article II (4) of the draft DCO states that where a bridge is constructed using the powers granted by the DCO to carry a highway (other than a trunk road or special road) over a trunk road or special road, the highway surface (being the elements over the waterproofing membrane) is to be maintained by and at the expense of the local highway authority, i.e. TfL. HE is stated to be responsible for the remainder of the bridge structure. This is stated to be "unless otherwise agreed".

¹<http://content.tfl.gov.uk/vision-zero-action-plan.pdf>

- 3.7 From discussions with HE, we understand that the requirements of Article II (4) are proposed to apply to the new Maylands Bridge forming part of the new off slip road. However, the position regarding responsibility for the maintenance of the new embankment on one side of the bridge and support structure on the other side of the bridge, is uncertain. Further discussions between HE and TfL are needed to clarify the ownership and maintenance responsibility split of the new infrastructure as the draft DCO is unclear on this. To avoid any confusion in the future, a plan showing the maintenance split should form part of either the DCO or an agreement between TfL and HE.
- 3.8 TfL considers that the above matters should be addressed by inclusion in the DCO of protective provisions in favour of TfL. TfL is aware of and is reviewing the recent decision on the A303 Sparkford to Ilchester Dualling DCO which establishes the appropriateness of including within a DCO protective provisions in favour of a local highway authority. TfL would welcome the opportunity to agree with HE a suitable set of protective provisions to incorporate the necessary protections and safeguards for TfL's infrastructure.

4. Approvals and consultation

TfL's role in approvals

- 4.1 TfL needs to have a substantive role in assuring both the design and construction of those parts of the scheme which affect TfL's assets or those assets that will become TfL's responsibility. TfL notes that HE has agreed in principle in its draft SoCG with TfL that TfL should be consulted on matters of detailed design in so far as these relate to assets that are to be inherited by us or which will interface with our assets and functions. However, this must be extended to TfL having an approval role for infrastructure that is to be handed over to TfL, covering both the detailed design phase and during the construction of the scheme. This will enable TfL to ensure that assets TfL inherits are both designed and constructed to TfL's reasonable satisfaction and in accordance with TfL's standards and requirements.
- 4.2 TfL also expects to have a substantive role in informing the construction programme and agreeing the traffic management arrangements during the construction period given the impact the construction will have on the A12 and the wider TLRN. As an example of the importance of this, major works are likely to be required at Gallows Corner (the junction between the A12 and A127 which is the next major junction towards central London on the A12 from M25 Junction 28) in the next few years. There may be an overlap between the construction programmes for these two schemes so close working will be required between HE and TfL to ensure traffic management is co-ordinated to minimise any disruption.
- 4.3 TfL notes Requirement I0 in the draft DCO and the requirement to consult with the relevant highway authority on the Traffic Management Plan before its approval by the Secretary of State. However, TfL would expect any final Traffic Management Plan to be substantially in accordance with an outline Traffic Management Plan that formed part of the application documents and which had been subject to examination. In addition, given the substantial impact on traffic management around the A12 resulting from the works, consultation with TfL on the Traffic Management Plan is insufficient. No protective provisions are currently in the draft DCO in favour of TfL which would offer TfL further reassurance on traffic management.

Amendments to DCO Requirements

- 4.4 The authorised development should not commence until TfL's approval of design details and construction management has been secured. The scope of TfL's role in this regard

needs to be agreed with HE but we must be able to meaningfully comment on the information and proposals worked up by HE and subsequently submitted in order to discharge the Requirements under Schedule 2 of the DCO. This should be reflected in the draft DCO. We note further that only planning authorities, not highway authorities, are specified in the draft DCO as being consulted on detailed design (Requirement 3); we also need to be consulted on detailed design in our role as highway authority and an amendment to this Requirement is needed. As mentioned in paragraph 4.1, HE has agreed in principle that this would be appropriate so the draft DCO should be amended accordingly.

- 4.5 In addition to Requirement 3, we are seeking for the following other Requirements of the DCO to be amended so that TfL is required to be consulted on matters related to TfL's functions, in the same way as the draft DCO specifies the local planning authority should be consulted. This will ensure that TfL's assets are adequately protected and TfL's role as highway authority is not adversely affected by the carrying out of the scheme.
- The Construction Environmental Management Plan (CEMP): TfL should be consulted on the development of the CEMP (and, insofar as TfL may inherit matters addressed in it, the Handover Environmental Management Plan) (Requirement 4). In addition, TfL will require some ongoing monitoring and controls in the CEMP in relation to the impacts of the scheme where relevant to TfL's highway operations. TfL therefore needs to be consulted on the environmental control plans specified in the CEMP. There may be further monitoring and controls that TfL wishes to request, and TfL reserves its position in this respect.
 - Landscaping: where there may be implications for TfL's maintenance responsibilities where the landscaping area is adjacent to the highway boundary or other infrastructure which TfL will be responsible for maintaining (Requirement 5).
 - Contaminated land and groundwater: given that TfL is being asked to take responsibility for land and some drainage assets and where discharge from TfL roads may therefore have an impact (Requirement 6).
 - Surface and foul water drainage: given that TfL is being asked to take responsibility for some drainage assets (Requirement 8).
- 4.6 Article II of the draft DCO provides that the works to streets are to be undertaken to the reasonable satisfaction of the local highway authority. However, the effect of the draft DCO is to provide consent for the works set out in Schedule I without any requirement for HE to secure a section 4, section 6 or section 278 agreement under the Highways Act 1980. This being so, TfL's ability to control and oversee the works is significantly curtailed notwithstanding that such works may become TfL's responsibility as part of the TLRN. It is therefore crucial that protections are built into the DCO to secure for TfL greater involvement in consideration of not only the above matters but the design, site supervision of TfL's assets and progression of the scheme more generally.

Consultation timescales

- 4.7 The timescales specified in the draft DCO within which TfL is to respond to requests for consent or approval are in some cases too short for TfL to be able to effectively respond with enough clarity and robustness having considered all the issues. There is precedent for longer timescales being necessary in other DCOs, for example in the Silvertown Tunnel DCO. Materials submitted by HE should also be required to be of sufficient substance before the time limit for responding commences. Our concerns relate in particular to the following timescales where, in general, it is currently proposed that TfL's deemed consent would be assumed if no response had been received:

- A minimum of ten business days for consultation on discharge of any requirements where details need to be submitted to the Secretary of State for approval (Schedule 2 paragraph 17) – TfL considers that eight weeks is more appropriate to ensure there is time to properly review and respond adequately, particularly as some requirements will involve a major impact on TfL assets or, if a shorter timescale must be set, deemed refusal in the event of no response being provided.
- A minimum of 14 days' notice to access TfL's land to undertake surveys (Article 22 (2)) – we consider that 28 days would be more appropriate to ensure access can be provided safely and so risks to staff undertaking such surveys are reduced.
- A minimum of 14 days' notice to take temporary possession of TfL's land (Article 35 (2)) – we consider that 28 days would be more appropriate (recognising that much of the land is crucial to operation of the highway and any impacts will need to be planned safely with road users given sufficient information in advance).
- 12 weeks' notice to be given in the event of a proposed order to permanently prohibit, restrict or otherwise affect traffic – TfL considers that more notice may be required (up to six months) to plan any closures that result in a major change to traffic patterns, including consultation with road users where necessary (Article 18 (5)).
- 28 days are proposed to provide TfL's consent on traffic regulation affecting our roads (when the impact of works on traffic may be particularly complex) (Article 18 (II)), after which our consent is deemed to have been given – we consider that 56 days would be more appropriate. That deemed consent applies after such a short period is prejudicial to traffic management and is punitive; and
- 28 days for approvals of applications regarding drainage proposals (Article 19 (9)) – TfL considers that 56 days would be more appropriate. Article 19 provides HE with wide powers to use and alter drainage such that additional time is required for us to consider the impact of the works on any drainage infrastructure for which TfL is responsible. Again, deemed consent fetters TfL's ability to effectively manage its drainage infrastructure and is punitive.

4.8 TfL considers that longer timescales are required in each of these cases to ensure that it can assess the implications of the proposals sufficiently robustly. In all these cases there are precedents from other DCOs for longer timescales where this was determined by all parties as being necessary. These longer timescales will in turn ensure the construction and future operation of the scheme is managed successfully without unnecessary adverse impacts on road users or residents with insufficient notice.

Recovery of costs

4.9 TfL expects to be able to recover all costs, charges and expenses associated with design development and approval, inspection of the construction of the works, carrying out of surveys that TfL reasonably requires, and the transfer of land and rights to it on the basis that the Proposed Development would place an additional obligation upon it. This should be secured through protective provisions in the DCO in favour of TfL.

5. Scope of works and design information

Design and construction safety

5.1 It is imperative that safety is at the forefront of considerations for both design and construction. TfL's Vision Zero approach should be reviewed by HE and their contractors to ensure that the scheme is consistent with this. TfL notes HE's response to TfL's Relevant Representation which states that the Vision Zero Action Plan is aligned with the National Policy Statement for National Networks, which the scheme has been designed in

accordance with. TfL is satisfied that safety is being adequately considered in the design process and construction planning.

Design approvals

- 5.2 We appreciate that the design of the M25 Junction 28 improvements scheme is still in progress. Based on the information submitted to date as part of the DCO application, TfL cannot yet be satisfied that the design adequately safeguards TfL's assets and that any assets for which responsibility may be transferred to TfL pursuant to the DCO meets TfL's requirements.
- 5.3 TfL requires oversight of the design for those parts of the scheme which TfL is proposed to be responsible for maintaining, and/or for any other works adjacent to TfL's assets, to ensure that TfL's existing assets are not prejudiced. Visibility of the design calculations and assumptions made would also be required. This is relevant to the following areas:
- carriageway construction (sub-base materials, wearing course, etc.);
 - drainage infrastructure including boundaries of responsibilities, system design for different event types, pipe materials, bedding materials and pipe gradients;
 - the design of the proposed Grove Culvert extension (if TfL is to be responsible for this);
 - drainage ponds where there may be implications for TfL's liabilities;
 - street lighting including columns, lanterns, cables, cable routes, connection arrangements, lighting levels, etc.;
 - vehicle restraint systems (barriers) including foundations and fencing; and
 - tree planting and other environmental mitigation.
- 5.4 We welcome that in recent correspondence between HE and TfL, HE has stated that John Graham Construction (HE's appointed principal contractor) and their consultants are committed to working with us as they move forward through the detailed design phase and into construction. This will enable us to understand the assumptions underpinning the design principles, and that the scope of works and design is fit for purpose to our reasonable satisfaction. The details of how TfL, HE and HE's contractors will work together should be documented in the draft DCO to ensure that there is clarity and certainty for all parties.

Diverted gas pipeline

- 5.5 A further area where TfL requires more detailed information from HE and thereafter some involvement as the design progresses is in respect of the diversion of the gas pipeline. This diversion is required both under the new A12 eastbound off slip but also under the main carriageway of the A12. HE has provided TfL with information on the existing route of the pipeline which was not available in the documents submitted as part of the DCO application, so we now understand the scope of the diversion proposed.
- 5.6 We require further liaison with HE, its contractor and Cadent Gas over the design of, and protection for, the diverted pipeline so that we can understand both the impact of the construction of the works to divert the pipeline on the operation of the A12 and the future maintenance arrangements for both the A12 and the pipeline. Some initial liaison has now taken place to discuss design standards for the proposed service tunnel under the A12 that will carry the diverted pipeline. We understand the size of this tunnel will be less than 2 metres in diameter, but no further design information is yet available. Further assurances regarding the impact on TfL's assets will be required from HE and TfL expects these to be documented in the DCO or in an agreement prior to any works being undertaken. Please also see our comments in Section 9 (transfer of benefit) below.

Ground stability

- 5.7 TfL has raised with HE concerns about ground stability in the local area on this section of the M25. We have seen some physical evidence of instability on existing infrastructure in the area, particularly between M25 Junctions 28 and 29 and at Junction 29 where settlement and ground movement are manifesting as defects in the edge of the carriageway and embankments resulting in the potential need for deep carriageway reconstruction. We have shared available reports on this matter with HE.
- 5.8 Given known issues in the local area, it is important for HE to ensure that the design of new infrastructure mitigates for any ground stability issues, with our particular concern being for assets TfL may inherit. The SoCG to be agreed between HE and TfL should acknowledge that the information provided by us will be used to inform the detailed design of the earthworks, road and structure designs to ensure that the ground conditions are fully considered to achieve the required design life. We will need to see further engineering details as the design progresses to ensure that ground stability issues have been sufficiently accounted for in the design of infrastructure to ensure long term stability.
- 5.9 TfL notes the Ground Investigation Report submitted at Deadline I. TfL will review this report to identify whether it addresses the concerns raised over ground stability.

Construction timescales

- 5.10 TfL acknowledges that the construction programme for the scheme has not been finalised and may not be for some time, but we need to understand whether there are any issues with the timing of works conflicting with other schemes. Given the recent withdrawal of the DCO application for the LTC scheme, there is a decreasing likelihood that it will pose any significant conflict with works for M25 Junction 28. However, we would still like to understand any implications if the M25 Junction 28 improvements scheme were to be delayed given the relatively close geographical proximity.
- 5.11 A review should also be undertaken to determine whether there are any conflicts with the construction programme of other HE, TfL or local authority schemes within the area in which traffic flows are affected by the Junction 28 scheme. This may be particularly relevant for the potential scheme at Gallows Corner (see paragraph 4.2 above) for which the construction programme may overlap with that for M25 Junction 28. We request clarity and as appropriate assurances in this respect to ensure that conflicts are acknowledged and addressed.

Pedestrian and cycle route

- 5.12 There is an existing pedestrian and cycle route that connects Havering and Brentwood alongside the A12, around the M25 Junction 28 roundabout and onto the A1023. TfL understands that the route is currently relatively lightly used. This is likely to be due to it being unattractive to users.
- 5.13 The draft DCO also commits HE to maintaining the existing pedestrian and cycle route through the junction. We recognise that HE is seeking funding for a separate scheme to upgrade the current route to a high-quality shared use cycling and walking route. While we do not expect this separate scheme to be incorporated into the DCO, it is essential that the design of the M25 Junction 28 improvements scheme is consistent with and does not preclude the separate walking and cycling scheme and TfL notes that policy requires accessibility for non-motorised users to be enhanced. In particular, HE will need to ensure that safe crossings of the A12 and M25 slip roads which the pedestrian and cycle route traverses can be provided.

6. Land ownership and rights

Inconsistency of ownership boundaries

- 6.1 The existing land ownership within the boundary of the scheme, as described in the Book of Reference accompanying the DCO application, is inconsistent with the designations of the TLRN and SRN. The DCO makes provision for HE to compulsorily acquire the land needed for the scheme and it is important that the ownership and maintenance responsibility boundaries are aligned for the new infrastructure. This also presents an opportunity for the land ownership and highway boundaries for existing infrastructure to be aligned, i.e. so that TfL owns the subsoil under the TLRN, and HE owns the subsoil under the SRN, and TfL seeks to agree this with HE because it would facilitate more efficient operation and maintenance of the future highway network and reduce the risk of confusion over responsibilities. This is also important in relation to the maintenance of the new assets for which TfL will become responsible and where HE is currently the owner of the land or subsoil.

Permanent and temporary rights sought

- 6.2 The draft DCO makes provision for the compulsory acquisition by HE of certain rights over TfL land. As set out in our Relevant Representation, we continue to request more detail as to the need and justification for such rights so that we can understand the impact on TfL land/highway.

- 6.3 The areas where further information is required are as follows:

- HE will have the rights to undertake permanent works on TfL land without acquiring the land permanently (Article 35). We need to understand whether any of TfL's land is intended to be affected by these rights. Further, we reserve our position as to whether temporary possession and permanent acquisition of rights is an adequate and suitable means of carrying out the works specified.
- HE will also have the rights to temporarily take possession of TfL land to maintain the new infrastructure for up to five years after opening of the scheme (Article 36). Again, we need to be aware of whether any of TfL's land is likely to be required temporarily for this purpose and why. The draft DCO provides that TfL will assume maintenance responsibility once the works are complete. Further, to the extent that TfL is responsible for any highway or structure, HE will need to secure for TfL sufficient rights to maintain that highway or structure (as mentioned in Paragraph 3.7 above).
- Schedule 6 specifies that HE will be granted permanent powers to construct, access and maintain works on the A12 eastbound carriageway. TfL needs to understand what rights HE requires permanently given that these sections of road are part of the TLRN and are maintained by TfL. We suggest that the land referred to in Schedule 6 forming part of the TLRN should be required for temporary possession only, given it is central to the local highway network and the safe operation of the same, save in relation to the permanent right needed for the diverted pipeline. The Limits of Deviation for the diverted pipeline form only a small part of Plot I/I and therefore only a small part of Plot I/I should have powers for a permanent right in relation to the diverted pipeline. The remainder of the plot should only be required for temporary possession.
- Some rights are proposed to be transferred to Cadent Gas to undertake works on the diverted pipeline (as discussed in the previous section) and TfL needs to understand what these rights are and how they will affect TfL's assets.

Transfer of land where TfL is to be the highway authority

- 6.4 Where TfL is to become highway authority of new infrastructure then it will need the land within the scope of its responsibilities transferred to it. This will be particularly important

given the significant infrastructure associated with the maintenance of the new A12 eastbound off slip road. TfL requires a clear understanding of boundaries of responsibility where assets are inter-related, for example surface run-off from HE assets to new TfL assets, and structures to protect the diverted gas pipeline which are located underneath the embankment that is proposed to become a TfL asset. Currently the draft DCO does not provide for the transfer to TfL of land associated with new infrastructure for which TfL will assume responsibility.

Corrections required to Book of Reference

- 6.5 There are some inconsistencies in records of land ownership and highway authority responsibilities contained in the Book of Reference. For example, the London Borough of Havering is listed in the Book of Reference as highway authority for some sections of the A12 where TfL is the highway authority. We have discussed these errors with HE and the London Borough of Havering, and it has been agreed that updates to the Book of Reference are required. We understand that HE intends to submit an updated Book of Reference at Deadline 3 of the Examination to address these issues.

7. Assessment of traffic impacts

- 7.1 Sections 7 and 8 of this Written Representation cover the forecast impacts of the scheme, with this section focusing on traffic and transport.
- 7.2 TfL has held discussions with HE over the traffic modelling and the forecast impacts of the scheme. Considerable additional information has now been provided which has addressed some of TfL's concerns to be addressed. This information has been provided in both the Transport Assessment Supplementary Information Report submitted at Procedural Deadline B (examination reference PDB-003), and at meetings between TfL, HE and the London Borough of Havering.
- 7.3 TfL's position on each of the issues concerning traffic impacts previously raised in our Relevant Representation is set out below.

Gallows Corner

- 7.4 TfL needs to ensure that Gallows Corner (the A12 / A127 junction), less than 4 km distant from M25 Junction 28, is not adversely affected by the scheme. HE has provided some model outputs to show that, for the core growth scenario, traffic demand and turning movements at this busy junction are not forecast to be significantly affected by changes to the design of M25 Junction 28, with an increase of no more than around 75 additional Passenger Car Units (PCUs) on the A12 east of Gallows Corner.
- 7.5 Given that the Gallows Corner junction is expected to be congested in the future, any substantial increase in traffic flows caused by external factors could have a disproportionate impact on queues and delays to traffic. Based on the evidence presented, there is no reason to believe that the M25 Junction 28 improvements scheme will cause a substantial increase in delays at Gallows Corner. Nevertheless, TfL will continue to review available information to ensure that the impact of the scheme on Gallows Corner has been adequately considered, and TfL notes an issue below regarding a greater forecast relative impact of the scheme in the low growth scenario.

A12 junction with Petersfield Avenue

- 7.6 TfL notes the proposal that construction traffic from the north via the M25 and east via the A12 is proposed to make a U-turn at the A12 junction with Petersfield Avenue to access the construction sites, as set out in paragraph 6.1.6 of the Transport Assessment Supplementary

Information Report. TfL has concerns about the ability of large vehicles to turn from the westbound to eastbound A12 at this junction. Tracking will be necessary to demonstrate whether these turns can be made safely without the swept path of vehicles encroaching into the A12 westbound main carriageway or kerb lines. If it is not possible it is likely that large vehicles will need to turn back at Gallows Corner and TfL will need to understand whether this has any implications for traffic at this location.

A12 junction with Woodstock Avenue

- 7.7 TfL understands the concerns raised by residents of Woodstock Avenue about the impact of the construction and operation of the scheme on their ability to access and egress their street. It is essential that closures of the A12 eastbound off slip road during construction are minimised to ensure that traffic exiting Woodstock Avenue and wishing to travel towards London does not have to travel a long diversionary route via the A12/A1023 junction north east of Shenfield. When any closures cannot be avoided, TfL considers that arrangements should be put in place to allow emergency service vehicles exiting Woodstock Avenue to be escorted through the closed section of slip road to ensure they are not substantially delayed in an emergency.
- 7.8 TfL notes that during the most disruptive period of construction, expected to last for 30 days, the forecast increased journey time from the eastbound to westbound A12 via M25 Junction 28 is between 35 and 64 seconds dependent on the time period (as set out in Table 6-1 of the Transport Assessment Supplementary Information Report). We assume a similar level of disruption may occur for the additional 55 days when one lane is closed on the A12 eastbound off slip road. TfL considers that this increase in journey time is sufficiently small, and will be experienced for a relatively short period, to not require mitigation by providing an alternative route from Woodstock Avenue to the westbound A12, for example by allowing right turns from Woodstock Avenue to the westbound A12 or by allowing U-turns from the eastbound to westbound A12 at the junction with Maylands Avenue, as proposed in various Relevant Representations. TfL has concerns about the feasibility of designing safe junctions to facilitate such movements.
- 7.9 Furthermore, TfL notes traffic surveys undertaken by the London Borough of Havering which shows that the numbers of vehicles existing Woodstock Avenue and travelling via the M25 Junction 28 roundabout onto the westbound A12 is small, an average of four vehicles per hour and a maximum of seven vehicles per hour in the hours surveyed across a weekday and Saturday. Given the disruption to the much larger volume of through traffic on the A12 that modified junctions would cause (particularly since a junction to allow right turns out of Woodstock Avenue would likely need to be signalised), TfL does not consider it appropriate that such modifications should be provided given the relatively small delays that construction of the M25 Junction 28 scheme will cause for traffic travelling from the eastbound to westbound A12 at the roundabout.
- 7.10 Following completion of the M25 Junction 28 scheme, TfL notes the improvements in journey times from the eastbound to westbound A12 resulting from the reduced traffic levels on the Junction 28 roundabout. Tables 5-4 and 5-7 of the Transport Assessment forecast improvements in AM peak journey times of 36 seconds in the 2022 modelled year and 731 seconds (over 12 minutes) in 2037, with negligible forecast increases in journey times (6-10 seconds) in the PM peak. This demonstrates that following completion of the scheme, journey times for residents of Woodstock Avenue wishing to travel west on the A12 will be substantially improved at some times of the day, reducing the case further for modifications to the junctions on the A12 at Woodstock Avenue or Maylands Avenue.

Growth scenarios

- 7.11 TfL welcomes the presentation of the traffic impacts of the scheme under low and high growth scenarios included in Chapter 5 of the Transport Assessment Supplementary Information Report. It is entirely appropriate for high and low growth scenarios to be considered to inform a range of outcomes rather than a single scenario when assessing the impact of the scheme, given the level of uncertainty in relation to future changes in traffic levels, exacerbated by the potential long-lasting impacts of the Covid-19 pandemic. Local adjustments to include developments deemed as reasonably foreseeable are also welcomed but an explanation of how developments which are considered 'reasonably foreseeable' to go ahead has not been provided. TfL needs to be provided with more details of the adjustments made in relation to local planning policy to understand whether the high growth scenario presents a realistic upper limit of the range of outcomes.
- 7.12 TfL notes that, for most modelled years and time periods, the impact of the scheme on traffic flows on the TLRN is relatively small except for the 2037 PM peak period for the low growth scenario. This shows a much greater relative impact on traffic flows on the A12, with up to 200 additional PCUs – an increase of 9 per cent on the A12 westbound between M25 Junction 28 and Gallows Corner – and a similar percentage increase eastbound. This is a much greater traffic impact than is forecast in any other growth scenario, year or time period, where the impact was no more than an additional 80 PCUs. TfL is seeking assurance from HE that this increase does not result in greater traffic levels and delays at Gallows Corner than those forecast under the core scenario.

Forecast usage of new loop road

- 7.13 Evidence from the HE traffic model presented in Chapter 3 of the Transport Assessment Supplementary Information Report shows some unexpected routes taken by traffic at M25 Junction 28. A significant proportion of traffic between the northbound M25 and eastbound A12 (approximately 40 to 45 per cent) is forecast to continue to use the Junction 28 roundabout rather than the new loop road, as intended by the scheme design. This is understood to be due to the travel distance via the loop road being so much longer than via the roundabout, which means that for some vehicles the route via the roundabout will be quicker. The model has not taken account of the signage strategy which would direct traffic via the new loop road instead of via the roundabout.
- 7.14 TfL has requested that HE undertake sensitivity tests to assess the impact on traffic patterns if a greater proportion of traffic between the northbound M25 and eastbound A12 (up to 100 per cent) uses the new loop road. TfL's concern is that with less traffic using the Junction 28 roundabout, this would release capacity and potentially result in larger scale re-routing of traffic via the A12 which could have a consequential adverse impact on delays at other junctions including Gallows Corner. The larger increase in traffic on the A12 in the 2037 PM peak low growth scenario discussed in paragraph 7.7 above could potentially be indicative of this type of impact.
- 7.15 HE has chosen not to undertake this type of sensitivity test, advising that there is no way of 'banning' the movement from the northbound M25 to the eastbound A12 in the model to determine the impact of all traffic using the new loop road. The failure to realistically represent the likely flows on the primary piece of new infrastructure to be delivered undermines the robustness of the approach to modelling undertaken by HE. The Examining Authority is requested to instruct HE to undertake additional modelling to represent likely flows considering the envisaged signage strategy, and so provide assurance about any wider impacts.

Impacts on A1023 Brook Street

- 7.16 TfL has previously raised concerns about the forecast increased delays on the A1023 approach to the Junction 28 roundabout from Brentwood, which results from the roundabout operating more freely once the northbound M25 to eastbound A12 traffic has been removed. TfL buses operate on this route and TfL would not wish to see any substantial increase in bus journey times, with the adverse impact on sustainable mode share that would result. This is of particular concern since the queue lengths and delays on the approach to the roundabout from Brook Street are forecast to be very high even without the scheme. In the 2022 AM peak period without the scheme, a queue length of over 500 metres on the A1023 and a journey time of 20 minutes between the A1023 and westbound A12 are forecast in the AM peak period. This rises to an equivalent Do Minimum journey time of 27 minutes by 2037².
- 7.17 HE has now provided updated modelling for the junction in Chapter 2 of the Transport Assessment Supplementary Information Report. This assumes an extended inter-green phase for the traffic signals at the end of the A12 westbound off slip road, allowing more time for traffic to access the roundabout from the A1023. If implemented as part of the scheme, this results in decreases in journey time and queue lengths on the A1023 approach to Junction 28. TfL welcomes this improvement and support the increased inter-green phase being delivered as a core part of the scheme.
- 7.18 However, TfL notes that delays on the A1023, while improved, remain substantial, e.g. a journey time of 23 minutes in the 2037 AM peak period between the A1023 and westbound A12, compared to 27 minutes without the scheme. TfL does not consider delays of this magnitude remaining on one arm of the junction to be an acceptable outcome when such a major upgrade to the junction as a whole is being proposed.

Impact on TfL bus routes

- 7.19 TfL notes that construction is forecast to cause delays of up to 166 seconds for traffic between the eastbound A12 and A1023 Brook Street, as shown in Table 6-1 of the Transport Assessment Supplementary Information Report, which will affect buses on route 498 between Queen's Hospital, Romford and Brentwood. This route would also be seriously affected if any closures of the A12 eastbound off slip road are required. We also note a potential impact on several bus routes that use Straight Road and Noak Hill Road north of Gallows Corner caused by traffic diverting via these roads during the construction period. Highways England will need to liaise closely with TfL on impacts on these bus routes and TfL reserves the right to seek funding for mitigation of the impacts should this prove necessary.

Impact of Lower Thames Crossing on performance of M25 Junction 28 scheme

- 7.20 The modelling for the LTC scheme shows substantial increases in traffic flows and worsened congestion on the M25 main carriageway through Junction 28 following opening of the new river crossing. For example, the table overleaf shows the forecast increase in demand on the northbound M25 between Junctions 29 and 28 in the AM peak hour.

² [Figures derived from Transport Assessment Supplementary Information Report, Tables 2-1 to 2-6](#)

Modelled year	Flow (PCUs)			Volume / capacity	
	Without LTC	With LTC	Difference	Without LTC	With LTC
2026	7,232	8,031	+799	0.79	0.87
2031	7,471	8,486	+1,016	0.81	0.92
2041	7,769	8,988	+1,219	0.85	0.98
2051	8,127	9,174	+1,047	0.89	1.00

Source: Derived from Lower Thames Crossing Traffic Forecasting Report, Statutory Consultation 2018, Tables 7.11, 7.31, 7.51 and 7.71

- 7.21 The table shows that by the 2031 modelled year, the impact of the LTC scheme will result in the northbound M25 reaching a volume / capacity level over 90 per cent on the approach to Junction 28 in the AM peak hour. The LTC scheme is forecast to result in substantial increases in traffic on the M25 for other time periods and in the southbound direction, albeit without approaching total capacity to the same extent.
- 7.22 TfL recognises that the modelling undertaken for the M25 Junction 28 scheme has included the LTC as a committed scheme in the future year scenarios. TfL also acknowledges that, as stated in paragraph 5.3.18 of the M25 Junction 28 improvements Transport Assessment report, the model for M25 Junction 28 is understandably not designed to assess the impact of the LTC scheme, so flows on the M25 will be different to those forecast by the different model used to assess the LTC. Nevertheless, TfL is concerned that the substantially increased flows on the M25 and potentially through Junction 28 resulting from the LTC scheme will change the forecast traffic impacts of the Junction 28 scheme. TfL considers that additional sensitivity tests need to be undertaken by HE to assess the likely performance of the new layout for Junction 28 with the LTC in place, making use of the latest available information about the impacts of the LTC, so that it can be demonstrated that the junction will operate with acceptable levels of queuing and performance in the medium to long term.
- 7.23 TfL also notes the Applicant's response to TfL's Relevant Representation (RR-028-24), which states that it is reviewing the potential need to address "future traffic matters", which TfL assumes refers to capacity constraints and forecast congestion, between Junctions 27 and 29 of the M25. TfL considers that it would be appropriate for the Applicant to demonstrate that the infrastructure delivered by the Junction 28 scheme would not require substantial modification, and that the proposed Junction 28 scheme would operate satisfactorily, with any likely conceptual solutions to address congestion between Junctions 27 and 29 of the M25.

Monitoring and mitigation

- 7.24 To ensure the continued operation of the wider highway network at an acceptable level of performance, TfL considers that a traffic monitoring and mitigation strategy will be needed and proposes that HE should commit to undertaking the monitoring for a defined period and taking steps to address any adverse impacts on traffic attributable to the M25 Junction 28 improvements scheme. Such mitigation as is necessary would need to be developed and funded by HE in collaboration with the local highway and traffic authorities. TfL proposes that this is dealt with by way of an additional Requirement or an amendment to Requirement 10.

8. Environmental impacts

Policy

- 8.1 The scheme is partly within the GLA boundary but for many of the topics in the Environmental Statement no reference has been made to environmental policy within London, particularly the London Environment Strategy and the Mayor's Transport Strategy. This is relevant for the topics of air quality, noise and vibration, biodiversity, drainage and water, materials and waste, and climate. HE needed to provide evidence to show how the scheme including the proposed environmental mitigation is compliant with such policies within London. This information was necessary to ensure that interested parties have an opportunity to review and comment upon all environmental information submitted in support of the application and that the Secretary of State is able to discharge his obligations under regulation 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations, should he be minded to grant the DCO.
- 8.2 HE has set out in its response to TfL's Relevant Representation how the policies in the London Environment Strategy and Mayor's Transport Strategy have been addressed through the Environmental Statement submitted being compliant with relevant national policy. The strategies for London are also compliant with the same national policy. TfL will continue to review all environmental information provided to ensure it can be satisfied that compliance with these strategies in London has been adequately demonstrated.

Himalayan balsam

- 8.3 Reference is made in Section 7.9 of the Environmental Statement to the presence of Himalayan balsam in the area. If not managed properly during construction, there could be a risk of this spreading onto TfL land. The construction of the scheme must be managed properly to reduce this risk and any necessary safeguards must be built into Requirement 4 (CEMP). TfL notes that the Register of Environmental Actions and Commitments (REAC) commits that a method statement for the management and removal of Himalayan balsam will be produced and implemented as part of the CEMP. As set out in Paragraph 4.5 above, TfL needs to be consulted on the CEMP and the environmental control plans contained within it and we are seeking for the draft DCO to be amended to secure this.

9. Transfer of benefit

- 9.1 TfL is concerned about the scope of the power under Article 9 of the draft DCO to transfer the benefit of provisions under the DCO to Cadent Gas in relation to Work No. 29 without the consent of the Secretary of State. Although Cadent Gas will be subject to the same restrictions, liabilities and obligations under the draft DCO as would apply to HE, the draft DCO currently has no protective provisions for the benefit of TfL that would provide it with a design and construction approval process for the diverted pipeline. As such the draft DCO is currently not sufficient in providing TfL with adequate assurance arising from these works.