

SILVERTOWN TUNNEL

Volume 4

4.2 Funding Statement

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Planning Act 2008
Infrastructure Planning (Applications:
Prescribed Forms and Procedure)
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April 2016

Silvertown Tunnel

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List of Abbreviations

APFP	Applications: Prescribed Forms and Procedure
CA	Compulsory Acquisition
CPP	Compulsory Purchase Process
DCLG	Department for Communities and Local Government
DCO	Development Consent Order
PPP	Public Private Partnership
TfL	Transport for London

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1. INTRODUCTION

1.1 Purpose of the document

- 1.1.1 This Funding Statement relates to an application made by Transport for London ("TfL" / ("the Applicant") to the Secretary of State, as represented by the Planning Inspectorate under the Planning Act 2008 ("the PA 2008") for a Development Consent Order ("DCO"). If made, the DCO would grant consent to the Applicant to undertake the construction, operation and maintenance of the Silvertown Tunnel ("the Scheme") - a new road tunnel between the A102 Blackwall Tunnel Southern Approach on the Greenwich Peninsula (Royal Borough of Greenwich) and the Tidal Basin roundabout junction on the A1020 Lower Lea Crossing/ A1011 Silvertown Way (London Borough of Newham).
- 1.1.2 This funding statement indicates how the Scheme is proposed to be funded and has been prepared and submitted in compliance with Regulation 5(2)(h) of the Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009 (the APFP Regulations) and in accordance with the following guidance issued by the Department for Communities and Local Government:
- Planning Act 2008: Guidance related to procedures for compulsory acquisition (September 2013) ("the DCLG CA 2013 Guidance"); and
 - Guidance on Compulsory Purchase Process and the Crichel Down Rules (October 2015) ("the DCLG CPP 2015 Guidance").
- 1.1.3 This Funding Statement is required because the DCO, if made, would authorise the compulsory acquisition of interests in and rights over land. Where a DCO would include such powers it is a requirement under Regulation 5(2)(h) of the APFP Regulations that the application must be accompanied by a statement indicating how implementation of the order is proposed to be funded.
- 1.1.4 The DCLG CA 2013 Guidance explains at paragraphs 17 & 18 that the Funding Statement should provide as much information as possible about the resource implications of both acquiring the land and implementing the works for which the land is required (including the resource implications of acquisition resulting from blight); and the applicant should be able to demonstrate that adequate funding is available to enable the compulsory

acquisition to be effected within the statutory period following the order being made.

- 1.1.5 This Funding Statement explains (i) how the acquisition of the land necessary to build the Scheme would be funded; and (ii) how the Scheme generally is to be funded. It should be read alongside TfL's other application documents and, in particular, the Statement of Reasons for Compulsory Acquisition (application document Reference 4.1) which sets out the justification in the public interest for the powers of compulsory acquisition sought in the DCO.

1.2 Description of the Scheme

- 1.2.1 The Scheme - known as the Silvertown Tunnel – involves the construction of a twin bore road tunnel providing a new connection between the A102 Blackwall Tunnel Approach on Greenwich Peninsula (Royal Borough of Greenwich) and the Tidal Basin roundabout junction on the A1020 Lower Lea Crossing/Silvertown Way (London Borough of Newham). The Silvertown Tunnel would be approximately 1.4km long and would be able to accommodate large vehicles including double-deck buses. The Boord Street footbridge over the A102 would be replaced with a pedestrian and cycle bridge.
- 1.2.2 New portal buildings would be located close to each tunnel portal to house the plant and equipment necessary to operate and maintain the tunnel.
- 1.2.3 The introduction of free-flow user charging on both the Blackwall and Silvertown Tunnels would play a fundamental part in managing traffic demand and would help to support the funding of the construction and operation of the Silvertown Tunnel.
- 1.2.4 The design of the Silvertown Tunnel would include a dedicated bus/coach and HGV lane, which would provide opportunities for TfL to provide additional cross-river bus routes.
- 1.2.5 Main construction works would likely commence in 2018 and would last approximately 4 years with the new tunnel opening in 2022/23. The main construction compound would be located at Silvertown, utilising the existing barge facilities at Thames Wharf along with a new temporary jetty for the removal of spoil and delivery of materials by river. A secondary site compound would be located adjacent to the alignment of the proposed cut and cover tunnel on the Greenwich Peninsula.

2. SCHEME PROCUREMENT, COSTS AND FUNDING

2.1 Scheme procurement

- 2.1.1 TfL is proposing to deliver the Scheme through a Public Private Partnership (PPP) arrangement.
- 2.1.2 The procurement process is expected to run in parallel with the DCO process, so as to ensure that TfL is ready to award the contract to a successful bidder if the Secretary of State's decision on the DCO application is positive. This will help to ensure that the benefits of Silvertown tunnel are realised as early as practicable, as well as helping to minimise the cost increases due to inflation and enable the land required for construction of the tunnel to be released early.
- 2.1.3 Under the proposed PPP arrangements the:
- a) Project Co (the private sector) will be responsible for the detailed design, construction and ongoing maintenance of Silvertown tunnel for a period of 25 years and for raising the debt required to finance the construction cost;
 - b) Project Co, in return, will receive, over the 25 years, payments from TfL linked to the availability of the tunnel for safe use by traffic; and
 - c) TfL will be responsible for setting and collecting the user charge at both Blackwall and Silvertown tunnels and will use the user charge revenue to offset the payments to the Project Co.
- 2.1.4 TfL will thus retain the demand risk in respect of user charging income, whilst the majority of the construction, maintenance and availability risks for the Silvertown tunnel will be passed to the Project Co.
- 2.1.5 The funding requirements for delivering the Scheme and the impact on TfL's business plan are therefore influenced by three main factors:
- a) TfL's direct development costs, including land acquisition costs and cost of mitigating the scheme impacts;
 - b) Availability payments that TfL will make to Project Co; and

- c) Revenue received from charging users of Blackwall and Silvertown tunnels, less collection costs.

2.1.6 These are discussed in the section below.

2.2 Direct development cost and related funding

Land acquisition cost

- 2.2.1 In accordance with the DCLG CA 2013 Guidance (at paragraphs 24-25), TfL has been and is seeking, through negotiations, to secure by agreement the necessary land interests and rights to build, operate and maintain the Scheme. However, in parallel with those efforts, TfL is seeking powers of compulsory acquisition in the draft DCO, to ensure that the Scheme can still be implemented, and the public benefit it would bring can be realised, within a reasonable timescale should attempts to acquire land interests and rights by agreement fail.
- 2.2.2 TfL has engaged with all known affected landowners to discuss the Scheme, and its impact on land holdings, to agree the access necessary for surveys and to seek the acquisition of the land and rights needed by agreement where possible. This engagement and negotiation with the affected landowners is expected to continue throughout the DCO process.
- 2.2.3 TfL's operational property team have estimated the likely cost of using and acquiring the land and rights necessary to build and operate the Scheme and of the cost of blight and compensation claims likely to arise and become payable. Appropriate allowances have been made for all foreseeable costs (such as disturbance payments), risk and inflation, based on professional analysis and experience.
- 2.2.4 The land costs have been derived from analysis of recent comparable property transactions obtained within the locality in east London where the Scheme will need to acquire properties. These values have then been applied to the land identified in the Scheme drawings for acquisition or occupation by the acquiring authority. Also, where available, the cost estimates have been corroborated with estimates produced by independent local agents for other projects/schemes.
- 2.2.5 The estimates, unless required for temporary possession, provide a capital value for the land required and incorporate both the freehold value of the property as well as those of any leases that are granted on the land and also include an estimate of disturbance compensation. The disturbance figures

are based on the property team's past experience of dealing with similar compensation claims.

- 2.2.6 Where land is required on a temporary basis such as for a work site, the land value is generally based on the rental value that land can achieve in the open market.

Other direct development cost

- 2.2.7 In addition to the cost of obtaining land, TfL has also estimated the other direct costs associated with implementing the Scheme, including the cost of obtaining consents, the cost of procuring the scheme including the likely spend on obtaining specialist technical, legal and commercial advice, the cost associated with monitoring and mitigating the Scheme effects, where necessary, and the cost related to marketing and communicating the user charges.
- 2.2.8 These estimates are in line with TfL's past experience on other schemes and, where relevant, have been benchmarked to other projects of similar magnitude. These also include allowances for risk and inflation.

Funding for the direct development costs

- 2.2.9 TfL has already committed significant financial resources to the development of the Scheme.
- 2.2.10 The TfL Board has approved a budget provision of £107.4 million for the Scheme's direct development costs including all costs associated with the acquisition of the necessary land and also the costs of obtaining all the necessary consents and procuring the scheme [see Appendix A: TfL Board Paper February 3rd 2016, Silvertown Tunnel].

2.3 Availability payments to Project Co and related funding through user charge revenue

- 2.3.1 TfL's advisors KPMG have developed a shadow bid financial model to estimate the cost of the availability payments that will be made to the Project Co to cover the detailed design, construction, finance and maintenance costs of Silvertown tunnel and to enable comparison with the forecast user charging revenue.
- 2.3.2 The estimates have been prepared in accordance with TfL's procedures and HM Treasury Green Book guidance and include allowances for risk and inflation.

- 2.3.3 The design, construction and maintenance costs for the shadow bid model are based on the reference design. TfL has validated and verified the costs by benchmarking to other projects, where appropriate, and through consulting with relevant global contractors, designers and cost consultants with noted expertise in the tunnelling market TfL has gained a comprehensive understanding of the cost estimates produced for the project. Mechanical engineers, specialist tunnelling engineers and suppliers of materials, plant and labour were also consulted.
- 2.3.4 KPMG, as TfL's financial advisor for the Silvertown Tunnel project, has benchmarked the costs of finance likely to apply to the project given the proposed contractual and risk transfer arrangements and financial market conditions today. In our opinion the rates used in the shadow bid model are representative of the rates that this transaction would be likely to achieve in the market today. Whilst the final rates achieved at financial close will be dependent on the prevailing market at that time, and as such are subject to fluctuation, the rates used within the Shadow Bid Model include a buffer against the underlying long term interest rate designed to protect TfL against underlying rate movements between now and the anticipated date of financial close [see appendix B: Confirmation Letter from KPMG].
- 2.3.5 The projected user charge revenue is based on the Assessed Case and collection costs are based on TfL's current Congestion Charging contract.
- 2.3.6 The forecasts show that over the life of the PPP contract, the estimated availability payments to the Project Co are covered by the user charging income from both Blackwall and Silvertown tunnels.
- 2.3.7 Thus the funding required for developing and delivering the Scheme is committed (in respect of TfL's direct development costs) and available through user charging (in respect of the availability payments) and for this reason, TfL believes that the Scheme is demonstrably financially viable.
- 2.3.8 If due to unforeseen circumstances, a funding shortfall arises in meeting the availability payments to Project Co (such as lower user charging income than projected or increases in TfL's direct development costs), then these would be expected to be funded from TfL's general income base.
- 2.3.9 TfL's income base comes from a variety of sources including fares, the Congestion Charge, government grant and borrowing and is forecast to be c.£10.4 billion for 2016/17. As the forecast availability payments are less than 1% of TfL's annual income, TfL is, accordingly, confident that any costs (after user charging income) of the Scheme (including payments to the

Project Co), the costs of acquiring all the necessary interests in and rights over land and the payment of any compensation claims arising from such acquisition (if required) can be met from its general income base as and when such costs become due.

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3. POTENTIAL FOR BLIGHT

- 3.1.1 The term 'blight' refers to the reduction of economic activity or property values in a particular area resulting from the expectation of possible future development, or associated restrictions on development. Where incidences of blight occur, blight notices may be served by those with a qualifying interest in land affected on the authority responsible for the planned development that gives rise to the blight, requiring the authority to acquire the 'blighted' interests in land. To date no blight notices have been served in respect of the Scheme.
- 3.1.2 The risk of receiving a valid blight notice has been assessed as relatively low as the qualifying criteria are unlikely to be met by the landowners within the Order Limits boundary. Should any claims for blight arise as a consequence of the threat of compulsory acquisition of land or rights over land related to the Scheme, the costs of meeting any valid blight notice claim will be met by TfL.

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4. CONCLUSION

- 4.1.1 The Scheme is required in the public interest to address and resolve the continuing congestion, poor journey time reliability, frequency of traffic incidents and lack of network resilience to consequential disruption at the Blackwall river crossing and to support and facilitate the significant economic and population growth forecast in east and south-east London.
- 4.1.2 For the reasons set out in this Funding Statement, the Secretary of State can be satisfied that requisite funding will be available to meet the resource implications of both:
- (a) the direct development costs, including the costs of acquiring the land and rights for constructing, operating and maintaining the Scheme, and
 - (b) constructing, operating and maintaining the Scheme for which the land and rights are required.

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Appendix A. TfL Surface Board Paper, February 3rd 2016, Silvertown Tunnel

Board

Date: 3 February 2016

Item: Silvertown Tunnel



This paper will be considered in public

1 Summary

1001/ST-PJ482C		Silvertown Tunnel			
	Existing Financial Authority	Estimated Final Cost (EFC)	Existing Project Authority	Additional Authority Requested	Total Authority
TfL direct costs	£50.5m	£107.4m	£50.5m	£0m	£50.5m

Authority Approval: This paper sets out the results of the statutory consultation on the Silvertown Tunnel scheme. The Board is asked to note the paper and approve the submission of the Development Consent Order (DCO) application for the necessary powers to construct, charge for and operate the Silvertown Tunnel. Approval is also sought for the revised Financial Authority, as well as the advance acquisition of land. In addition, the paper seeks endorsement for the delegation of the signing of the DCO submission documents to TfL Officers.

Outputs and Schedule: The Silvertown Tunnel will carry four lanes of traffic under the Thames, connecting the A102 to the south with the A1020 Lower Lea Crossing to the north. The scheme is designed to relieve congestion at Blackwall Tunnel and improve network reliability and resilience, as well as supporting planned economic growth in east and south-east London. Statutory consultation took place between 5 October and 29 November 2015 and approval is now being sought to submit the DCO application to the Planning Inspectorate for the powers to construct and operate the scheme.

- 1.1 The previous paper to the Finance and Policy Committee on the Silvertown Tunnel and other proposed river crossings was in February 2014.
- 1.2 On 21 January 2016, the Finance and Policy Committee endorsed the recommendations in this paper.
- 1.3 A paper containing exempt information is included on Part 2 of the agenda. The information is exempt by virtue of paragraph 3 of Schedule 12A of the Local Government Act 1972 in that it contains information relating to the business affairs of TfL. Any discussion of that exempt information must take place after the press and public have been excluded from this meeting.

2 Recommendation

2.1 The Board is asked to note the paper and the supplementary exempt information in the paper circulated in Part 2 of the agenda and:

- (a) approve the submission by TfL or any Subsidiary (as described in paragraph 2.2 below) of an application for a Development Consent Order (DCO) under the Planning Act 2008 to provide all the necessary rights and consent to construct, operate and maintain the Silvertown Tunnel, including the associated use and compulsory acquisition of land and the application of user charges at both Silvertown and Blackwall Tunnels;**
- (b) approve the additional unbudgeted Financial Authority to make additional budget provision of £56.9m (giving a cumulative total of £107.4m) for the TfL direct costs associated with land agreements and other matters;**
- (c) approve the advance acquisition of land for the scheme up to a maximum value of £20.7m in line with the current Project Authority;**
- (d) authorise the TfL Officers (as described in paragraph 2.2 below) to:**
 - (i) agree the final terms of the application (including the funding statement, the land interests and rights to be acquired permanently or temporarily, and the likely significant environmental effects and proposed mitigation) for the DCO;**
 - (ii) do all such other things as they consider necessary or desirable to facilitate the making of the DCO including:**
 - a. authorising the agreement and execution (whether by deed or otherwise) of any documents, agreements or notices required in connection with the submission of the application;**
 - b. promoting the DCO including responding to any objections raised by third parties and questions asked by the examining authority and dealing with the examination that will be held by the Planning Inspectorate; and**
 - c. authorising the agreement and execution (whether by deed or otherwise) of any related land agreements including without limitation any advance acquisition of land up to a maximum value of £20.7m and any arrangements for accommodation works for affected owners.**

2.2 The following Officers and Subsidiaries shall have delegated authority:

- (a) TfL Officers: the Commissioner, Managing Director Surface Transport, Managing Director Planning and General Counsel; and**
- (b) Subsidiaries: Subsidiaries of TfL including Transport Trading Limited (TTL) and any other subsidiary (whether existing or presently to be**

formed) of TTL and the directors of such authorised company shall be authorised to act for and on behalf of that company.

3 Background

- 3.1 The Silvertown Tunnel project has been developed to address the significant issues of traffic congestion and unreliability at the Blackwall Tunnel and the consequential effects these have on travel, air quality, the economy and growth across the wider east and south east London area. The main issues are:
- (a) the Blackwall Tunnel is one of the most severely congested roads in London. In the peak periods, queues routinely stretch back up to two miles, adding around 20 minutes to journey times (it is estimated that some one million hours are wasted each year in queuing for the Blackwall Tunnel, equating to an equivalent cost of c.£10m of people's time);
 - (b) journey times for trips through the tunnel are more unpredictable than anywhere else on the Transport for London Road Network (TLRN), and despite ongoing efforts, each year there are around 1,000 closures (far more than on comparable tunnels, even accounting for its heavy usage). Many of these closures have significant ramifications for the performance of the wider road network across east and south east London;
 - (c) in the event of prolonged closures, rerouted drivers are forced to distant crossing points, which are themselves lacking in capacity, often along unsuitable routes, causing widespread disruption;
 - (d) the current restricted height clearances in the northbound Blackwall Tunnel and the unreliable journey times mean that only one single decker bus service, the 108, is available for cross river bus connections between east and south east London; and
 - (e) the area surrounding the Blackwall Tunnel is subject to enormous change with major employment and population growth taking place across the Isle of Dogs, Royal Docks, Greenwich Peninsula and Lea Valley. At present the Blackwall Tunnel provides the only crossing of the river by road that serves these development areas. With the scale of growth taking place, there will be increasing pressure placed on the Blackwall Tunnel, which will exacerbate the issues identified above.
- 3.2 Due to the significance of London as an economic driver nationally, this decrease in the efficiency of London's transport system can reasonably be expected to have a consequential detrimental impact nationally.
- 3.3 The Silvertown Tunnel project would:
- (a) significantly contribute to eliminating congestion at the Blackwall Tunnel;
 - (b) significantly reduce the number of unplanned closures at Blackwall, in particular closures caused by vehicles which are too tall for the tunnel;
 - (c) ensure the cross river road network is more resilient to incidents at Blackwall by providing a nearby alternative route;

- (d) enable the provision of new cross river bus links, transforming bus services and significantly increasing the proportion of cross river trips made by public transport;
 - (e) reduce the environmental impact of current traffic congestion on some of London's most polluted roads; and
 - (f) support population and economic growth by enabling more reliable journeys, improving access to new markets and keeping traffic moving in east and south east London.
- 3.4 The scheme would consist of a twin bore road tunnel providing a new connection between the Greenwich Peninsula and the Lower Lea Crossing in the Royal Docks area. There would be two traffic lanes in each direction and it is proposed that one lane will be reserved for buses and freight usage (vehicles of height up to 5 metres). New junctions will be built to link the tunnels into the existing road network, and new portal buildings to house the equipment necessary to operate the tunnels. A plan of the scheme is provided as Appendix 1.
- 3.5 To ensure that traffic levels are managed and that the benefits of the scheme are locked-in for the longer term, a user charge is necessary at both Silvertown and Blackwall tunnels. The user charge will also help pay for the new tunnel. The Mayor's Transport Strategy sets out the commitment to a new road crossing at Silvertown (MTS 39) and the circumstances in which the Mayor may consider introducing road user charging. Charges to support specific infrastructure improvements, such as river crossings, are specifically referenced (MTS 130). Chapter 6 of the London Plan sets out the need for river crossings in east London including "*a new road-based tunnel crossing between the Greenwich Peninsula and Silvertown*" (section 6.20).
- 3.6 The Secretary of State for Transport designated the scheme a Nationally Significant Infrastructure Project in 2012. This means that TfL must apply for powers to build the scheme through a DCO application.
- 3.7 The DCO application process is used to provide the necessary consent for projects which have been classified as nationally significant. This means that separate applications for a range of other consents, such as planning permission and listed building consent, will not be required. The DCO will also include provisions authorising the compulsory acquisition of land or of interests in or rights over land which is subject to the application and charging the Silvertown Tunnel and Blackwall Tunnel. The Silvertown Tunnel DCO application will be determined by the Secretary of State for Transport.
- 3.8 Three non-statutory consultations on the scheme have been previously held, the most recent of which took place between October and December 2014. This paper sets out the results of the statutory consultation that precedes the DCO application. At the time of writing, analysis of the responses is not complete and the action plan to address issues raised is not yet settled. In preparing that action plan, consideration will need to be given to whether further consultation on any discrete elements of the proposal will be required.

4 Results of Statutory Consultation

Details of the Statutory Consultation

- 4.1 Statutory consultation on the Silvertown Tunnel scheme ran from 5 October – 29 November 2015. The scheme proposals were set out in a consultation booklet, the contents of which were replicated on TfL's online consultation 'portal'. Also available online were a range of detailed technical reports, supplementary factsheets and short films including a Silvertown Tunnel 'drive through' animation. The online consultation portal provided access to a questionnaire that respondents were asked to consider and complete, although TfL also promoted its email address and Freepost address as a means for responding to the consultation. TfL held 12 separate 'roadshow' events at venues throughout the boroughs of Greenwich, Newham and Tower Hamlets. These events enabled the public to speak to key members of the Silvertown Tunnel project team, to query or clarify areas of concern. In addition, a series of stakeholders meeting were held with interested parties and groups to provide additional information on the scheme and answer any questions. The consultation was extensively publicised and details of the tools used are provided in Appendix 2.

Overview of results

- 4.2 There were 4,135 responses in total. The consultation included an opening question which asked respondents 'Do you support the Silvertown Tunnel scheme as a means to address congestion and closures at the Blackwall Tunnel, and support future growth in London?' 58 per cent of respondents answered that they supported the Silvertown Tunnel scheme, with 31 per cent not in support and 11 per cent not responding to the question. The consultation also included a number of questions on various aspects of the scheme, such as the user charge, traffic and environmental mitigation strategy and proposals for public transport improvements. A number of overall common themes have emerged from the analysis of the results, with each theme made up of a variety of issues. The common themes relate to user charging, public transport/walking/cycling, construction, environment, traffic and highways, optioneering, tunnel design and operations and the consultation itself. The common themes and a summary of the work in hand to address these are set out in Appendix 3.
- 4.3 TfL received responses to the consultation from 92 stakeholder organisations. A full list of those stakeholders who replied is provided in Appendix 2. Of particular interest to the project were the views of the 'host Boroughs' of Greenwich, Newham and Tower Hamlets, all of whom replied in detail to the consultation. Greenwich was supportive of the scheme, although with caveats including the need for associated public transport improvements and that the scheme should not incorporate any road widening other than at the immediate approaches to the tunnel. Tower Hamlets commented that the Silvertown Tunnel should form part of a wider package of east London crossings and stressed the need for the Council to have confidence in the supporting assessment in order for them to be able to support the scheme, highlighting particular concerns about the validity of the traffic/environmental modelling. Newham advised that it was not able to support the scheme as currently presented, highlighting concerns with the impact of Silvertown traffic in the Royal Docks opportunity area and the potential impacts of removing tunnel spoil by road. A series of workshop sessions has been initiated

with the host boroughs to work through all the matters raised. The intention being to produce statements of common ground on the main topics, which will then be submitted to the Planning Inspectorate as part of the DCO process.

- 4.4 All three host boroughs requested a discount to the proposed user charge for their residents and/or for the proposed community fund, which has been proposed by TfL to deliver transport, environmental and social enhancements to local communities, to be sufficient for them to offer a local discount, as well as seeking price reductions for pedestrians and cyclists using the Emirates Air Line (EAL). TfL officers are undertaking further work to demonstrate the impacts of a residents' discount, which had previously been discounted as this would encourage additional traffic, thereby leading to the scheme failing the Government's policy tests for new roads¹. Further work is also taking place to define the specific uses for the proposed community fund, as well as exploring opportunities for reduced fares for regular users of the EAL.
- 4.5 A Consultation Report, setting out TfL's response to every issue raised in the consultation, along with an explanation of the work to develop and deliver the consultation will be prepared and submitted to the Planning Inspectorate in Spring 2016, along with our submission documents.

5 User Charging

- 5.1 User charging is an integral component of the Silvertown scheme, needed to manage traffic demand, lock-in the benefits of the project in the longer term and fund the cost. While it has, therefore, been the most commonly cited concern by respondents to the statutory consultation, the charge is essential in order to meet the Government policy test for new roads by ensuring that overall traffic demand is managed to levels that ensure no significant adverse effects on air quality and other environmental factors.
- 5.2 The level of the user charge would be set by the Mayor much closer to scheme opening (which is forecast for June 2023). An assumed user charge was presented as part of the statutory consultation to enable stakeholders to form a view on the scheme, and to inform the assessment of traffic and environmental effects, as well as the scheme's business case.
- 5.3 If the user charges are set too high, it will lead to a significant displacement of trips onto other river crossings, pushing additional traffic onto local roads and undermining the case for the scheme. If the charges are set too low, it will generate too much additional traffic leading to congested conditions that would undermine the reliability and resilience benefits. The objective therefore is to set the charge at a level that meets the Government's policy tests, as well as helping to meet the cost of delivering the project.
- 5.4 As detailed in the consultation, it is proposed that user charges will be applied at Silvertown and Blackwall Tunnels seven days per week, but every night there would be a free period between 10pm and 6am, which mirrors the arrangements at the Dartford Crossing. This would provide an opportunity for freight vehicles to

¹ National Policy Statement for National Networks, published by the Department of Transport (Dec 2014)

travel at night – something that would offer wider benefits in terms of congestion relief. Charges would be higher in the peak period and by peak direction to address the times when congestion is most severe. Off peak prices and counter peak flows would be less. As with Congestion Charging, users would be encouraged to have an account to access lower charges and non-account holders would pay higher charges.

5.5 Certain exemptions and discounts would be applied for users of the tunnel and set closer to the time of opening. For example, emergency services and local TfL bus services would be exempt and an appropriate discount strategy would be set to encourage a greater take up of low emission vehicles.

5.6 The table below sets out the charge levels applied in the ‘assessed case’ which was set out within the statutory consultation. Information is also provided on how these compare to the charges at Dartford. Although not fixed, these represent TfL’s best estimate at the current time of the charges that are necessary to meet the tests set out in the Government’s National Networks National Policy Statement in respect of traffic, environmental and economic objectives, against which the DCO submission needs to be assessed.

	Blackwall and Silvertown Charges per single crossing			
Vehicle type	Every day 10pm – 6am	Weekday Peak prices (£) Northbound: 6am- 10am Southbound: 4pm-7pm	All other times on weekdays and weekends between 6am and 10pm (£)	Dartford charge (per trip for account holders) 6am to 10pm (£)
Cars and small vans	No charge	3.00	1.00	1.67
Large vans and minibuses	No charge	5.00	1.65	2.63
HGVs	No charge	7.50	4.00	5.19

All figures are in 2015 prices.

5.7 As part of the sensitivity analysis for the DCO submission and in response to comments received during the statutory consultation, TfL is assessing the impacts of higher or lower growth in population, jobs and car ownership and the consequential changes that would be required to the user charges to ensure the scheme still meets its traffic, environmental and economic objectives. The sensitivity analysis will be shared with the host boroughs, as well as with the Planning Inspectorate as part of the DCO application.

6 The Development Consent Order (DCO) Application

6.1 The Silvertown Tunnel DCO application will be determined by the Secretary of State for Transport. The decision will follow a six month examination by a panel of examiners appointed by the Planning Inspectorate. The Planning Act 2008 prescribes that, in deciding the application, the Secretary of State must have

regard to the National Networks National Policy Statement (NNNPS), the Local Impact Reports prepared by the boroughs and Greater London Authority (GLA), and any other matters that are important and relevant.

- 6.2 The NNNPS acknowledges that there is a critical need to improve the national networks to address road congestion, to facilitate safe and reliable journeys, and to provide a transport network that is capable of stimulating and supporting economic growth. It also acknowledges that there is an equally important need to ensure improvements have minimal impact on the environment, are well designed and improve safety.
- 6.3 Following the statutory consultation, the key submission documents that are being updated and will be submitted in support of the DCO application are outlined in Appendix 4.
- 6.4 Unlike other consents processes, the DCO timetable is fixed and cannot be delayed.

7 Business Case

- 7.1 An outline business case for the scheme has been produced in accordance with the Department of Transport's (DfT's) Business Case Guidance, as required for nationally significant infrastructure projects. The DfT Guidance stipulates a five case model to developing a transport business case which considers whether the scheme:
 - (a) Is supported by a robust case for change that fits with the wider public policy objectives – the 'strategic case'
 - (b) Demonstrates value for money – the 'economic case'
 - (c) Is commercially viable – the 'commercial case'
 - (d) Is financially affordable – the 'financial case'
 - (e) Is achievable – the 'management case'
- 7.2 The business case shows that the project represents the best solution for addressing the current problems at Blackwall and the adverse effects these have on the economy and local environment. The project also helps support future sustainable growth. The case for the scheme is summarised in the table below.

DfT Business Case Requirement	Summary of Silvertown Tunnel Outline Business Case (OBC)
The strategic case	There is a clear and robust case for a new tunnel at Silvertown to address the current traffic congestion and unreliability and to cater for the needs of future economic growth. The 'strategic case' is closely aligned with national, London-wide and local policy objectives, with a particular reference to the London Plan and Mayor's Transport Strategy.

The economic case	The scheme demonstrates excellent value for money with an NPV of £976m to £1,273m (the latter when reliability benefits are included) over 60 years. These values increase significantly if London values of time are used in the appraisal with the net user benefits rising by some £600m to £700m (the latter for the adjusted estimates).
The commercial case	The scheme is commercially viable. The Outline Business Case sets out the procurement and commercial structure, the proposed allocation of risk and payment mechanisms for the project.
The financial case	The scheme is financially affordable. The majority of the project would be delivered through a public / private partnership (PPP), with the finance repaid during the operating period of the PPP concession and the user charging income offsetting the majority of these costs.
The management case	The project can be efficiently delivered, with clear governance, process and project controls in place for the next stages of development of the scheme.

8 Key milestones

- 8.1 The key milestones for the DCO submission, subsequent decision by the Secretary of State and the design and construction of the tunnel are set out in the table below.

Milestone	Target Date
TfL Board Approval for DCO submission	Feb 2016
Submit DCO application	Apr 2016
DCO examination	Sept 2016 – Mar 2017
Examiner's recommendation	Mar 2017 – Jun 2017
Decision by Secretary of State and cooling-off period	Jun 2017 – Oct 2017
Detailed design	Sept 2018
Works start on site	April 2019
Silvertown Tunnel opening	June 2023

- 8.2 In parallel with the DCO submission timetable, TfL will be pursuing the procurement process so as to be ready to award the contract to a successful bidder in mid-2018, once the Secretary of State's decision on the DCO application is confirmed.

9 Other matters

Land Acquisition

- 9.1 As stated above, the DCO includes the provisions authorising the compulsory acquisition of land or of interests in or rights over land which is subject to the application. In the case of the Silvertown Tunnel scheme this refers to land required for both the construction phase and the permanent operation. While the majority of the scheme will be constructed underground and therefore powers will be sought to acquire the sub-soil rights, surface interests will also have to be acquired for the areas around the portals at either end of the tunnel and the tie in junctions of the A102 Blackwall Tunnel Approach in the south and Tidal Basin Roundabout in the north. No temporary or permanent acquisition of residential property is required for the project.
- 9.2 Where any party has land that is subject to compulsory purchase for the Silvertown Tunnel, their entitlement to compensation is governed by the statutory compensation code. The cost of land compensation is included in the project budget. TfL is in contact with all the landowners affected and is seeking to acquire the necessary land and rights by negotiation in the first instance as per statutory obligations. In some instances this may include the early acquisition of land where this is considered expedient and cost effective for TfL within the limits of the existing Project Authority for land purchases (£20.7m for land inclusive of risk and inflation).

Funding Statement

- 9.3 As part of the DCO submission, TfL is required to prepare a Funding Statement in line with the requirements of the Planning Act 2008 that confirms how TfL would meet the cost of implementing the project and particularly the compulsory acquisition of land or of interests in or rights over land that is necessary for the scheme. The Funding Statement will also need to provide an indication of how any potential shortfalls in funding will be covered in the next prioritisation of the TfL Business Plan. The strong overall business case means the project is a high priority for TfL. Further information on the costs for the scheme and the balance sheet / budget treatment are provided in the paper on Part 2 of the agenda.

10 Assurance

- 10.1 The project has recently been the subject of an interim Integrated Assurance Review (IAR) by TfL Project Assurance and the Independent Investment Programme Advisory Group (IIPAG). The Independent Assurance Review External Experts (EE) were GHD who concluded “the level of maturity of the project to both deliver a comprehensive transport system and to be ready for the DCO application is considered to be acceptable.” TfL Project Assurance recommended “that approval to submit the Development Consents Order application be granted” and the IIPAG advised “The main objective of the review was to determine readiness for the submission of the DCO application in March 2016 and IIPAG saw no reason why this should not be achieved. IIPAG noted the progress that has been made in all aspects of the project”.

10.2 A number of general recommendations have been made by TfL Project Assurance and the IIPAG, reflecting the size and complexity of the project. All the recommendations have been addressed.

10.3 In addition, an Infrastructure UK 'Project Initiation Action Plan' has recently been produced to help TfL align the sponsor and delivery team capability to meet the challenges associated with the project during initiation and delivery. The resultant actions are now being taken forward by TfL. TfL also continues to make use of the independent peer review panel of industry experts appointed at TfL's request by the Institution of Civil Engineers, as well as other key groups such as the TfL Tunnel Design Safety Consultation Group. Benchmarking and good practice is also being adopted for the project based on lessons learned from Crossrail, Thames Tideway Tunnel, Northern Line Extension and Highway's England schemes that are currently progressing through the DCO process, notably the A14 and M4.

11 Views of the Finance and Policy Committee

11.1 On 21 January 2016, the Finance and Policy Committee considered a similar paper. The Committee endorsed the recommendations in this paper.

11.2 The Committee Chairman recorded his view that having a roundabout at the northern end of the tunnel would cause congestion in the area. Charging for the tunnels would also result in congestion at other crossings as motorists would seek to use alternative routes. He also believed that including a cost figure in the consultation (which included contingency and risk) was ill advised and that the PPP funding and Design, Build, Maintain and Operate contract approach would not achieve the best value for money.

List of appendices to this paper:

Appendix 1: Proposed layout of the Silvertown Tunnel

Appendix 2: Details of consultation publicity and response from statutory consultees

Appendix 3: Common themes raised during the statutory consultation and summary of actions to address these matters

Appendix 4: Summary of the main documents to be submitted in the DCO application

Exempt supplemental information is contained in a paper on Part 2 of the agenda

List of background papers:

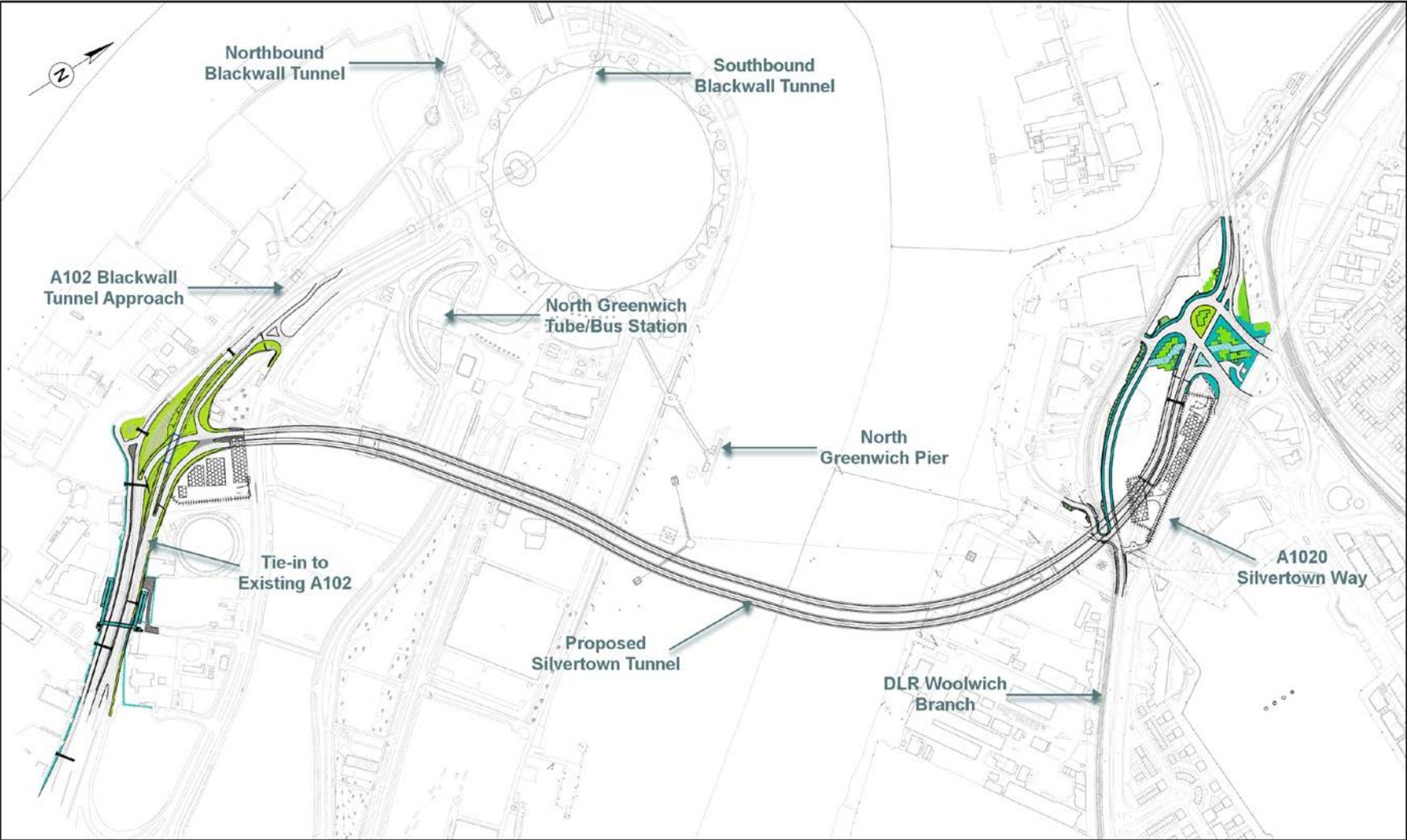
- Mayor's Transport Strategy
- Letter to Mayor of London from the Secretary of State confirming Silvertown Tunnel's status as a nationally significant infrastructure project
- Outline business case
- Procurement strategy
- IIPAG and PMO Reports and the Management Response

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Appendix 1: Proposed layout of the Silvertown Tunnel



Appendix 2 – Details of consultation publicity and stakeholder responses.

Statutory consultation on the Silvertown Tunnel scheme ran from 5 October – 29 November 2015.

The consultation was extensively publicised using a variety of tools, as follows:

- Advertising in the local, London-wide and National press
- ‘Pop-up’ digital advertising targeted at residents browsing the internet in the boroughs of Greenwich, Newham and Tower Hamlets; or to visitors to relevant transport and travel related websites
- Delivering a letter to around 500,000 properties throughout east and south-east London
- Distributing the consultation booklet to over 100 community centres, libraries and other public buildings in the boroughs of Greenwich, Newham and Tower Hamlets
- An extensive email campaign, including to around 350,000 registered Oyster card holders
- Through TfL’s existing communications channels, such as its ‘Business Bulletin’ and ‘FORS eNews’ tools, sent respectively to businesses and freight operators across London
- Issuing a Press Release at the start of the consultation and regular tweets throughout
- Through extensive stakeholder engagement in the run-up to and during the consultation to promote awareness of the scheme and consultation and to encourage third-party publicity of the consultation.

Responses to the consultation were received from the following stakeholders:

Boroughs

Barking & Dagenham, Bexley, City of London, Essex County Council, Greenwich, Hackney, Havering, Lewisham, Newham, Redbridge, Southwark, Tower Hamlets, Waltham Forest

Statutory bodies

Canal & River Trust, Coal Authority, Environment Agency, Historic England, Health & Safety Executive, NATS (National Air Traffic Service), Office for Nuclear Regulation, Public Health England, Marine Management Organisation, National Grid (Gas), Port of London Authority

Political stakeholders

Clive Efford MP, David Evennett MP, Darren Johnson AM, GLA Labour Group, GLA Lib Dem Group, Greenwich Council Conservative Group

Utilities/landowners/major businesses

BT, Gamma, National Grid, Tata Steel, Ballymore Group, ASD Ltd, Battersea Investments Ltd, Brenntag, Hanson, Knight Dragon, Lidoka Estates, Morden College, Quintain, Railway Pensions, Tarmac, U+I Group, ExCEL, Spitalfields Market Tenants Association, London City Airport

Campaign & representative groups

Alliance of British Drivers, Campaign for Better Transport, Confederation of Passenger Transport, Federation of Small Businesses, Freight Transport Association, Friends of the Earth (in addition to Newham and Greenwich local FotE groups), Institution of Civil Engineers, London Cycling Campaign, Road Haulage Association, London Chamber of Commerce & Industry, London First, London TravelWatch, Motorcycle Action Group, No 2 Silvertown, SE London Chamber of Commerce, Sustrans

Residents Associations/Civic Societies

CITIZENS UK, Greenwich Society, The Eltham Society, Charlton Central Residents Association, Evelyn Road Residents Association, Charlton Rail Users Group, East Greenwich Residents Association, Westcombe Society

Emergency Services

London Fire Brigade

Appendix 3 Common themes arising from the consultation and summary of actions

Theme	Issues	Action being taken in response
User charging	Suggestions for alternative funding sources; complaints that the charge is 'unfair' (often in the context of the availability of charge-free crossings in west London); requests for discounts (particularly for local residents); comments about the charge structure/timings.	Impacts of a residents discount will be modelled to demonstrate implications in terms of traffic, environment and economy. Greater clarity to be provided on role of the charge in achieving scheme objectives and locking-in the benefits over the longer term. Detailed comments on charging structure and timings are being analysed to identify if any new proposals have been put forward and to test these against the scheme objectives.
Public transport/walking/cycling	Comments reflecting (positive and negatively) on the perceived benefits of new bus services; suggestions for particular routings/service enhancements - including new rail links and/or cycling/walking facilities within the tunnel; demands for bus enhancements to be delivered instead of the Silvertown Tunnel.	Clarity to be provided on the timings and procedures for the bus service development, with stakeholder proposals for routes to be studied as part of the planning process. Further development of measures for pedestrians, cyclists and public realm in the areas where the tunnel emerges on the south and north sides of the river. Exploration of potential for an annual pass for pedestrians and cyclists using the Emirates Airline (EAL).
Construction	Concerns about construction traffic affecting local roads and that closures of Blackwall Tunnel should be minimised; suggesting for mitigation to minimise construction impacts/comments about such impacts; requests for prior notification of works.	All matters to be considered as part of the further development of the Code of Construction Practice (CoCP), together with the setting of specific targets for use of the river for transporting materials to and spoil away from construction sites.
Environment	Comments on the perceived environmental impacts of the scheme (positive and negative) especially air quality and noise; suggestions for additional environmental mitigating measures, questions around the role of the scheme in contributing to national/EU environmental requirements.	Suggested mitigation measures to be examined as part of the next stage of project development and design. Clarity to be provided on the air quality benefits delivered through the scheme and any further requirements to be confirmed with Counsel and Planning Inspectorate.

Theme	Issues	Action being taken in response
Traffic & highway issues	Comments about the perceived traffic impacts of the scheme; suggestions for mitigation schemes; comments about the design of new junction tie-ins.	Modelling of high and low growth scenarios to test traffic impacts and ability of the user charge to effectively manage demand. Further validation of the traffic models with host boroughs. Detailed consideration of suggested traffic mitigations and revisions to junction tie-ins to address stakeholder comments.
Optioneering	Requests for a bridge alternative at Silvertown; suggestions that a highway link should be built elsewhere (Thamesmead – Beckton was a frequent suggestion); requests for a public transport/walking/cycling-only alternative to Silvertown.	Work is ongoing to identify any entirely new suggestions for alternative schemes (or revisions to the proposed scheme), so that these can be assessed against the scheme objectives.
Tunnel design & operations	Requests for additional capacity for general traffic; comments about the addition of a bus/HGV lane within the tunnel; comments about enforcement of speed limits/other 'anti-social' driving practices; comments about HGV traffic in Blackwall Tunnel in future.	Capacity requirements to be informed through high and low growth scenario tests. Sensitivity test underway to understand effects of not allowing any HGVs to use Blackwall in the future. Enforcement requirements to be considered as part of the next stage of project planning and design.
Consultation	Reflections (positive and negative) on the consultation process or materials; complaints that there has been too much consultation; comments about the decision making process.	All comments to be considered within Consultation Report, as well as informing future consultations on similar schemes.

Appendix 4: Summary of the main documents to be submitted in the DCO application

Document	Purpose
Draft Development Consent Order	This sets out the matters to be covered by the DCO, including the powers to construct and operate the new tunnel and introduce user charging at Silvertown and Blackwall Tunnels.
Statement of Reasons	This explains TfL's purpose and provides the justification for using the Compulsory Purchase Order (CPO) powers.
Funding Statement	This confirms how TfL would meet the cost of implementing the project and particularly the compulsory acquisition of land or of interests in or rights over land that is necessary for the scheme.
Consultation Report	Details what has been done in compliance with the consultation requirements under section 42, 47 and 48 of the Planning Act 2008, including any relevant responses and how account has been taken of these.
Case for the Scheme	This report provides a detailed summary of the reasons for developing the scheme, as well as the different options we have considered to meet its objectives, and the case for Silvertown Tunnel as the solution.
Outline Business Case	This report demonstrates the business case for the Scheme. It assesses the case for the scheme and its compliance with public policy, its value for money, whether it is commercially viable and can be financed; and that TfL has the capacity and ability to deliver the scheme.
Engineering Report	This report presents the proposed engineering design and an assumed method of construction for the scheme. The engineering design has been developed up to a 'Reference Design' stage that defines the scheme in sufficient detail to enable an understanding of the scope and extent of the Scheme and to inform the studies assessing the environmental, socio-economic, construction and transport related impacts of the Scheme.
Maps, Plans and Drawings	This document comprises a series of drawings describing the engineering details of the Scheme. They illustrate the Scheme both in plan and in cross-section, highlighting the key features of the engineering design. The drawings show how the works would fit within the existing road network and highlight the area over which the construction would be carried out.

Document	Purpose
Design and Access Statement (DAS)	This document explains how the above ground elements of the scheme would take the existing and future context into account and how this would shape the eventual design for the scheme.
Charging Report	This report explains the user charging proposals for the Blackwall and Silvertown Tunnels, in particular the scope of the charges and when, how and where these would apply. It also sets out the proposed process to set and vary the charge.
Transport Assessment (TA)	This report details the impacts of the Scheme on the transport network and transport users, with a particular focus on the expected highway effects. Consideration is given to the impacts of the Scheme both on its completion and during the construction stage.
Environmental Information Report	This report details the main environmental impacts of the scheme and the proposed measures to minimise any negative impacts identified. This relates to a wide range of environmental elements such as air quality, the noise environment, plant and animal life.
Health Impact Assessment (HIA)	This report assesses the scheme's impact on human health and wellbeing, identifying issues which may harm or improve levels of health and wellbeing and seeking to address these. At all times HIA seeks to recommend mitigation that may improve health and reduce inequalities in health.
Equalities Impact Assessment (EqIA)	This report details how the Scheme takes into account needs and impacts upon equality groups as defined in the Equalities Act 2010.
Sustainability Statement	This report is a sustainability assessment of the proposed Scheme. It describes how the Scheme addresses sustainability policies set by the Greater London Authority and the local authorities.

Appendix B. Confirmation Letter from KPMG

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Our ref **Jonathan Turton**
Mobile: 07917 173000

26 April 2016

Dear Stephen,

KPMG, as TfL's financial advisor for the Silvertown Tunnel project, has benchmarked the costs of finance likely to apply to the project given the proposed contractual and risk transfer arrangements and financial market conditions today.

In our opinion the rates used in the Shadow Bid Model are representative of the rates that this transaction would be likely to achieve in the market today.

Whilst the final rates achieved at financial close will be dependent on the prevailing market at that time, and as such are subject to fluctuation, the rates used within the Shadow Bid Model include a buffer on the underlying long term interest rate designed to protect TfL against underlying rate movements between now and the anticipated date of financial close.

Yours sincerely



Jonathan Turton
Director, Deal Advisory, Infrastructure