Response to Silvertown Road Crossing Proposal

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My reference: SILV-217

Summary

I do not support the proposal for road crossing at Silvertown, because I do not believe it will achieve its intended aims, and further it will cause induced traffic resulting in harm to businesses, increased congestion and pollution in East London – this inference is supported by numerous academic studies of the impact of increased road capacity in urban areas in general.

I believe that the aim of improving connectivity would be better achieved by public transport based crossings, and I therefore urge you to **reject** the proposals as currently constituted, and to encourage TfL instead to work on proposals to improve public transport access for North-South journeys across the Thames, with the aim of reducing demand by providing better public transport alternatives for more journeys.

I further argue that provision for pedestrians and cyclists in the new crossing is inadequate and based on flawed reasoning by TfL. That situation is not compatible with a sustainable transport policy.

There are particular problems with the proposals to use user charges (tolling) as a means of managing demand. The logic of user charging would be sound in principle, but a number of flaws in the way that it has been set out (particularly that charging will not run 24 hours a day), combined with the lack of public transport alternatives to the new crossing mean that user charging seems unlikely to be able to manage demand in the way that TfL envisage.

Details

The Problem of Induced Traffic

Firstly, I would point out that extensive academic research shows that when new road capacity is provided in areas experiencing congestion, the new capacity invariably induces a mode-shift from public transport to private cars, as people modify their travel patterns in such a manner as to fill the new capacity, usually resulting after a few years in no reduction of congestion and the possibility of *increased* congestion on roads that feed into the new capacity. This knowledge is so well known that it should not require backing up, but in case it is helpful, I refer to Todd Litman's article, *Generated Traffic and Induced Travel* (http://www.vtpi.org/gentraf.pdf), which provides a list of extensive references to original research on the topic.

I are not aware of any reason to believe that the proposed Silvertown and Silvertown crossing would be an exception to this general rule. And indeed this problem is acknowledged by TfL:

> *Without a user charge, the benefits of additional capacity put in place by the new tunnel would be short-lived, owing to an effect known as 'induced traffic' in which the increased convenience of driving (owing to reduced journey times, for example) attracts additional traffic to the point where queues initially relieved return to their former levels.*

(Charging Policy Document, https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010021/TR010021-000241-7.11%20Charging%20Policy.pdf, Section 2.2.1)

I believe this statement is correct and constitutes the fundamental flaw in the proposed crossing: If induced traffic occurs at the levels suggested, then the Silvertown crossing will fail in its aims of improving traffic flows, mobility and connectivity, and will further cause considerable harm both to the general environment (air quality and noise etc.) and to the local economy and businesses – since the resultant increased congestion on feeder roads would slow down existing journeys and make them less reliable – with all the associated problems that would cause.

TfL argue in their proposals that this problem will not occur because the user charges that they plan to introduce would circumvent the problem of induced traffic. I argue below that this Is unlikely to be the case, and that the problems described of induced traffic, leading to a return of the long queues, are likely to occur despite user charging.

If that is the case, then the Silvertown Crossing should not be built because it will not achieve its aims, and would further cause considerable economic harm.

The Charge Risks being Ineffective

As noted earlier, TfL do acknowledge the potential problem that induced traffic could nullify the claimed benefits of the crossing. The Charging Statement (https://infrastructure.planninginspectorate.gov.uk/wp-content/ipc/uploads/projects/TR010021/TR010021-000232-7.5%20Charging%20Statement.pdf) argues strongly that this user charging ('tolls') would avoid this problem. However there are issues in the logic behind TfL's reasoning.

Firstly, TfL are not proposing to impose charges at all hours. Page 78 of the Charging Statement makes it clear that there will be no charges between 10pm and 6am. This omission undermines the rationale that charging will manage traffic. By TfL's own logic this lack of charging will result in considerable induced traffic at those hours. Although congestion may not be such an issue during the night, pollution remains an issue and night-time noise will be particularly important, since many of the traffic will pass through residential areas en route to the crossing. Further, not charging during the night will cause some traffic to be displaced in time to use the no-charging period. While this may reduce congestion to some extent during the day, this will also worsen night-time noise pollution.

Secondly, TfL state that

Setting a charge means that drivers (and potential drivers) must decide if they are willing to pay to make this journey and if not, respond by switching to another mode, changing the time or route of their journey or not making the journey at all.

(Section 3.2.4 of the Charging Statement)

The logic here is sound as an abstract principle, but applying it to the SIlvertown Tunnel is questionable: The argument that drivers could switch to another mode is dependent on other modes being available. But I point out later in this submission that for all but the shortest, most local, journeys that would use the tunnel, other modes are *not* available. Further, the suggestion that drivers will change the time of their journey does not resolve the problem of induced journeys: Even if a driver changes the time of a journey induced by the tunnel to avoid the charges, it remains an induced journey with the potential to cause knock-on congestion for other road users.

Thirdly, where public transport alternatives are available (this is really only for very short journeys), the proposed off-peak charging levels, are less than typical public transport fares. For example, a single Oyster bus fare is currently £1.50, but the proposed off-peak charge for is only £1. It seems implausible that this will provide an effective inducement for people to use public transport.

There is a further issue with user charging: User charging is not particularly tied to the physical infrastructure, and will therefore always be subject to the prevailing political mood. In their application to build the crossing, TfL give what appears to constitute good guidelines for the principle of charging in order to constrain demand. Unfortunately, there's no guarantee that this approach would continue after the crossing is built. Charging for road use tends to be politically very unpopular, and there would in all probability therefore be tremendous political pressure on TfL to abandon user charging in the future. In that scenario, there is a high risk that political pressures would mean TfL is unable to manage demand in the way that they are predicting.

Provision for Cyclists and Pedestrians

The crossing is to be built for motorized traffic only; there will not be any facility in the physical structure of the crossing for pedestrians or cyclists to use it. In previous consultations, TfL has justified this stance by claiming that pedestrians and cyclists can use the cable car that operates in the area; this is disingenuous because it ignores that the cable car does not operate 24 hours a day, and charges relatively high fares – much higher than the proposed toll levels for the Silvertown crossing. Under the proposals, at night time motorists would be able to use the crossing free of charge, but pedestrians and cyclists would not be able to cross at all because the cable car would not be operating. The incompatibility of this situation with the need for a transport policy to encourage alternatives to car use in order to avoid congestion should be obvious.

Recently the Mayor of London, Sadiq Khan has suggested that a bus service could be provided specifically to transport cyclists through the tunnel. This appears unsatisfactory for several reasons:

- The bus service does not form part of the physical structure of the crossing, and therefore there is no guarantee that it would continue to be provided in the future: It could easily be withdrawn because of, for example, political issues.

- It means that cyclists would be required to stop and wait for the next bus. Combined with the inconvenience of having to manhandle bikes onto the proposed buses, this is likely to be perceived by many cyclists as a considerable deterrent to using the crossing. This may well meant that the bus is poorly used (leading to its withdrawal) even if the ability to cycle directly would have been well used.

TfL have also separately suggested that a ferry might be provided in the area for pedestrians and cyclists to cross the Thames, but again, this does not fully make up for the lack of crossing facilities for pedestrians and cyclists within the tunnel itself:

- The ferry does not form part of the plans for the Silvertown crossing, and there is therefore no guarantee that it would be provided, even if the tunnel is built.
- The ferry would also be subject to political whim (and would be expensive to operate), and could therefore be withdrawn in the future.
- Unlike the Silvertown crossing, any ferry is unlikely to operate 24 hours a day.

In view of these considerations, it seems important that if the crossing is built, it should include permanent *physical* facilities for pedestrians and cyclists to use it (for example a separate tunnel, accessed by lift, just on either bank of the Thames). Failing to provide this with the new road crossing suggests inadequate attention to the need to encourage walking and cycling in order to avoid the problems caused by the tunnel.

Lack of North-South connectivity

A further concern of the Silvertown tunnel is the lack of public transport alternatives. The crossing would of course potentially be used by a variety of journey, but fundamentally, what the tunnel enables is easier North-South journeys in East London that cross the Thames. In other words, orbital journeys around London by car.

This is in marked contrast to the rail lines in the area: A particular problem in South-East London is that the main rail routes all run East-West: Radially into Central London. Around East London, it is very difficult to make North-South orbital journeys by public transport – hence many people wishing to make North-South journeys are forced to use cars whether they wish to or not.

TfL has in the past argued that there are now many Thames rail crossings east of central London. However, these crossings cannot on the whole provide non-car alternatives to the Blackwall/Silvertown crossings because they largely run on East-West alignments and are not suitable for orbital journeys. For example, the Jubilee line crosses the Thames no less than three times but it runs West into central London. The Elizabeth line under construction also crosses the Thames (at Woolwich) but again in an East-West direction: The line will not on the whole be useful for orbital journeys.

The exception is the DLR, which does have two largely North-South routes: From Stratford to Lewisham and Woolwich. However, the DLR is also relatively slow and only really designed for short journeys. As such, it cannot provide an alternative for most of the car journeys likely to use the new crossing.

This brings out a fundamental problem with the proposed Silvertown crossing: It would enable medium-distance car-based orbital journeys across the Thames, while still till not allowing rail-based alternatives for those journeys. This is likely to cause a further mode-shift to cars – as people arrange their lives to take advantage of the crossing, and then find there are no alternatives to driving on those journeys. Once again this would increase congestion, reduce mobility, and harm air quality, as it creates a new generation of car-dependency.

But there's a further issue. As noted earlier, TfL have argued that user charges for the crossing would encourage people to seek alternatives to driving – this is core to their argument that the crossing will not cause induced traffic. But this argument breaks down if there are no alternatives to driving in the first place! In the absence of alternatives, people would be likely to drive, irrespective of user charging. And there is clear evidence of this phenomenon at the Dartford crossing, where user charges that are considerably *higher* than those proposed for Silvertown do not prevent often massive queues of traffic for the Dartford crossing. The common theme there is of course that at Dartford, there are no alternatives to driving: There is no other way to cross the Thames there – which obviously leads to the tolls being largely ineffective at managing demand.

It is clear that for many journeys, these same factors will apply to the Silvertown crossing, which would therefore imply that user charging at Silvertown is also likely to prove ineffective at managing traffic. People making local journeys of only a few miles may be able to use the DLR or buses, and for those journeys user charging is likely to be effective. But most journeys through the tunnel will be longer, and for those journeys, the lack of alternatives means that user charging will not be effective.

The solution to this is obviously to provide public transport (especially rail)-based crossings that would allow orbital journeys by public transport in the area of Silvertown (beyond the very short journeys that are possible on the DLR or would be enabled by buses using the tunnel). This reasoning gives a clear argument that the Silvertown tunnel should not be built without also providing reasonable rail-based crossings.

Bus Services

The new crossing includes bus lanes so that buses can use it. TfL have suggested that the crossing is therefore good for public transport. However, while enabling bus journeys is welcome, this ignores the issue that buses are slow and therefore generally only suitable for short journeys. Further, buses often struggle to tempt people out of cars.

In addition to this, I understand that bus use in London has peaked and started to decline in recent years – this appears to be due to traffic congestion slowing bus journeys and harming reliability. If, as I'm arguing, the new crossing causes new induced traffic, then this problem would be exacerbated by the new tunnel. Buses would become even less reliable, so that the new crossing could on balance do more harm than good to bus services, despite the possibility of buses being able to use it.

Conclusion

I have argued that TfL's plans for the crossing are flawed because they rely on user charging to manage demand, and that is unlikely to be effective. If that turns out to be the case, then building the crossing would cause immense damage to the local economy (by causing additional congestion

and hence slower, less reliable journeys) on all feeder roads that lead to the new crossing. That would harm the vast majority road users who make journeys in the area without crossing the Thames. And if queues for the new crossing build back up to the same level currently experienced for the Blackwall crossing, then the crossing will bring very little compensatory benefit for those who do need to cross the Thames. That is of course even before you consider the adverse environmental impacts from induced traffic (pollution, noise, quality of life for local residents, etc.)

The core of the argument for the crossing is that it would allow managing traffic flows by user charging, rather than – as happens in practice at present – managing demand by queue lengths. That will however only work if reasonable alternatives to the crossing are provided. As a minimum this requires some rail link suitable for the kind of orbital journeys that would use the crossing, as well as adequate infrastructure for pedestrians and cyclists to use the crossing. Further, it requires that tolls would be in effect 24 hours a day. The proposals for the Silvertown crossing do not address any of these requirements. I therefore argue that the proposals are flawed, and the crossing should be rejected by the Planning Inspectorate.