

<b>Committees:</b>	<b>Dates:</b>	
<ul style="list-style-type: none"> <li>• Streets and Walkways Sub-Committee</li> <li>• Planning and Transportation Committee</li> <li>• Projects Sub-Committee</li> <li>• Resource Allocation Sub-Committee</li> <li>• Policy and Resources Committee</li> </ul>	06/12/2016 (for information and comment only) 13/12/2016  14/12/2016 15/12/2016  15/12/2016	
<b>Subject:</b> Bank Junction Improvements: Experimental Safety Scheme	<b>Gateway 4/5 Authority to Start Work Regular</b>	<b>Public</b>
<b>Report of:</b> <b>Director of the Built Environment</b> <b>Report Author:</b> Gillian Howard		<b>For Information</b>
<p><b><u>Summary</u></b></p> <p>• <b><u>Dashboard</u></b>  Project Status: Green  Timeline: Gateway 4/5  Total estimated Cost: up to £1,179,100  Spend to date approx. £373,000  Approved Budget: £387,100 (October 2016 issues report)  Overall Project Risk: Green</p> <p><b><u>Summary</u></b>  The proposal is to make Bank Junction safer and improve, or at least maintain, the average vehicle journey time in the total modelled area (roughly bounded by Cannon Street, Bishopsgate, London Wall and New Change/St Martin Le Grande). General traffic will be restricted from the junction during the working day, Monday to Friday 0700 to 1900. Over the last year, officers have worked with TfL on the traffic modelling and design. Officers have also engaged extensively with the local community to develop the design in detail; to best meet the needs of the local and wider communities. The scheme has been considered by the Roads Space Performance Group (RSPG) at TfL, on a technical basis, and it supports the recommended option.</p> <p>The scheme delivers;</p> <ul style="list-style-type: none"> <li>• A highly significant casualty reduction at Bank;</li> <li>• Average general traffic journey times of a neutral/slightly positive benefit compared to the do nothing option; and</li> <li>• Significant benefits for the London bus services in the modelling area.</li> </ul> <p>To make sure that the scheme delivers maximum benefit, it is proposed to implement it using an experimental traffic order. This approach will allow modifications to be made if necessary and allow appropriate monitoring to take place.</p>		

## **Recommendations**

### **Streets and Walkway's Sub Committee:**

1. To note the contents of this report for information and make comment.

### **Planning and Transportation Committee and Projects Sub-Committee:**

2. Approve the recommendation to proceed to implementation of the experimental safety scheme at Bank to be bus and cycle only Monday to Friday, 0700 -1900 for a period of up to 18 months by use of an experimental traffic order.
3. Approve delegated authority to the Chairman and Deputy Chairman to agree the procurement for the temporary enforcement cameras if not within the estimated budget range.
4. Approve the budget of £792,000 to implement, monitor and report back to committee the outcome of the experimental scheme within 18 months of the scheme becoming operational.
5. Approve the inclusion of any further Transport for London funding to the project budget that arises after this committee decision.

### **Resource allocation Sub-Committee:**

6. Approve the allocation of the S106 deposits set out in Table 3 (Appendix 1) totalling £121,052 to the Bank junction experimental safety scheme
7. Approve the allocation of up to £670,948 from the On Street Parking Reserve account to the Bank Junction experimental scheme.
8. Approve the inclusion of any Transport for London funding to the project budget that arises with a report to this committee to confirm the inclusion and resultant balance on the On Street Parking Reserve or S106 contributions.

### **Policy and Resources Committee**

9. To approve the experiment to restrict motor vehicles crossing Bank Junction to be bus and cycle only Monday to Friday, 0700 -1900 for a period of up to 18 months.

## **Overview**

Since the Issues report in October 2016:-

- Completed and gained approval of the traffic modelling results by TfL;
- Road Space Performance Group (TfL) agreed the scheme from a technical perspective;
- Completion of the detailed design and submission and completion of the stage 1 and 2 road safety audit, which assess the design for adverse safety implications so that remedial work to the design can take place;
- Cost estimates collated; and
- Continued engagement with stakeholders.

To date the project has expended approximately £373,000 to reach this gateway 4/5 report. This has been spent on the extensive traffic modelling required by TfL; topographical and radar surveys; staff costs to cover project management, stakeholder engagement, detailed design, planning for enforcement and proposed loading changes. Table 2 in Appendix A shows expenditure against budget line.

Officers have also reported to the public inquest in July 2016 into the fatality at the junction in June 2015. The City were asked to attend pre-inquest hearings, submit written evidence for the inquest and were also invited to be present during the hearing. The Coroner also asked to ensure that relevant points and findings were taken into consideration for the future proposals for change at Bank. As requested, information from the hearing has informed the development of the recommended proposals. The Coroner felt that given the evidence submitted by the City around the work that was being done to make changes at Bank, nothing constructive could be added by way of a preventative death report on this occasion. There is therefore an expectation that measures to improve safety in this complex location will be brought forward.

The proposed experimental Safety Scheme is a way of delivering a safety benefit for the public as soon as possible whilst further consideration of the long term changes for Bank continues. The experimental scheme will not solve all safety aspects at Bank, but will make a significant difference without the need for significant infrastructure changes; which will take more time to plan and deliver.

Under section 122 of the Road Traffic Regulation Act 1984 (RTRA), the City as highways authority must exercise its powers under the RTRA so as to secure the expeditious, convenient and safe movement of vehicular and other traffic including pedestrians, and the provision of suitable and adequate parking facilities on and off the highway. These powers must be exercised so far as practicable having regard to the following matters:-

- (a) the desirability of securing and maintaining reasonable access to premises.
- (b) the effect on the amenities of any locality affected including the regulation and restriction of heavy commercial traffic so as to preserve or improve amenity.
- (c) the national air quality strategy.
- (d) facilitating the passage of public service vehicles and securing the safety and convenience of their passengers.
- (e) any other matters appearing to the City to be relevant.

Under Section 149 of the Equality Act 2010 the public sector equality duty requires public authorities to have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation
- Advance equality of opportunity and
- Foster good relations between those who share a protected characteristic ( i.e. race, sex, disability, age, sexual orientation, religion or belief, pregnancy or maternity, marriage or civil partnership and gender reassignment) and those who do not.

Part of the duty is to have “due regard” where there is disproportionate impact and to take steps to mitigate the impact, on the basis that it is a proportionate means has been adopted towards achieving a legitimate aim.

• Proposed way forward

The evidence collated and modelled shows a strong case for implementing, on an experimental basis, a restriction on all vehicles, other than buses and cycles, crossing Bank Junction between the hours of 0700 to 1900 Monday to Friday, excluding Bank Holidays. This is the time period that 75% of collisions occur at Bank and it is anticipated that between 50-60% casualty savings can be made with the recommended Scheme.

It is therefore recommended that the experiment permits buses to continue to cross the junction during the restricted hours, along with pedal cyclists. This strikes a balance between the high people movement function of the junction and its approaches, whilst making a significant improvement to safety, particularly for pedestrians and cyclists. By restricting the number of turning movements and vehicle journeys through the junction the probability of a collision and serious injury is reduced.

Chart 1 below illustrates how the junction would operate, in terms of casualty numbers, in a purely controlled environment (i.e. no vehicles permitted at all on the approach arms or across the junction, save for bus and cycle movements or bus cycle and taxi movements), projected back over the last five years. The casualty saving overall would have been 85% if it had have been bus and cycle only. The proposed experimental Safety Scheme is not recommended to be implemented on a pure controlled basis – vehicles are permitted access on the approach arms, with bus and cycle movement permitted through the junction during the restricted time period. Therefore the casualty saving potential is not likely to be as great as shown in Chart 1; however officers believe a 50-60% casualty saving is still achievable (which is on average between 11 and 13 casualties a year saved).

## Casualty Comparison: 2011 to 2015

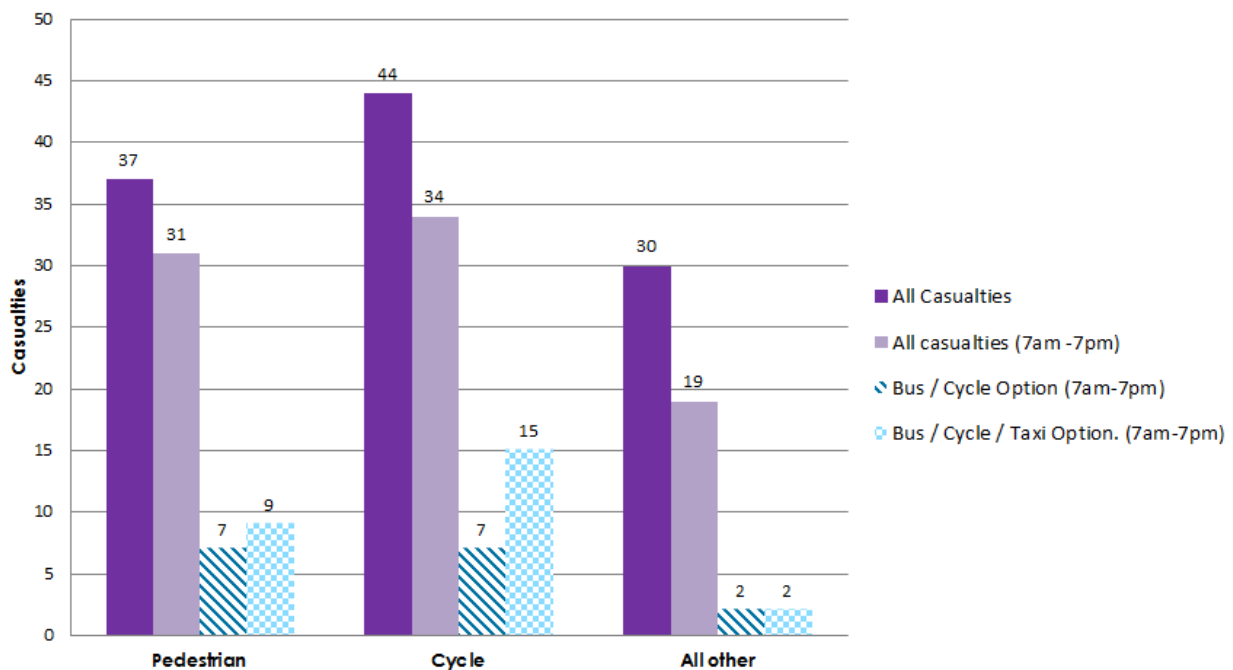


Chart 1: illustration of the impact of completely restricting vehicles in the Bank area.

The proposed Scheme makes provision for vehicle access to be permitted up to the boundary of the restricted part of the junction (marked purple on Diagram B below) for anyone with a need to visit a property, pick up and drop off a passenger, or deliver goods and services. This compromise to the design means that there are only a small number of properties that will experience some change to their servicing ability. There will also be the need for some rerouting to access properties. Therefore, the negative aspects of the restriction are expected to be limited to a few occupiers and this aspect will be monitored throughout the period of the experiment to inform future decision-making. The support for a change to improve safety at this location is widespread and is considered to outweigh the expected minor disbenefits. The volume of motor vehicles on the approach arms is expected to decrease in any event and therefore there should be an improvement in safety terms on these approaches as well as at the junction.

In the overall balance, while there is a negative impact on a few occupiers at the junction and officers are working to deliver a more flexible scheme for them without diminishing the safety benefit, it is believed that the benefits significantly outweigh the few negative impacts and it is recommended that Members agree to the implementation of this experiment and the outlined monitoring regime.

### • Total Estimated Cost

The total estimated implementation cost of this scheme is £792,000. This covers the cost of:

- pre-implementation communication exercise;
- the physical implementation of the signs and lines and other physical changes;
- temporary enforcement cameras;
- on-going monitoring;
- formal public consultation and the analysis of the data; and
- staff costs.

At the end of the process, there will be a further report to Committee which is likely to

either recommend that the experimental traffic order is made permanent, or recommend alternative measures, or recommend that the junction return to its current operation.

The total estimated project cost is £1,179,100. The explanation for this is set out in section 5.

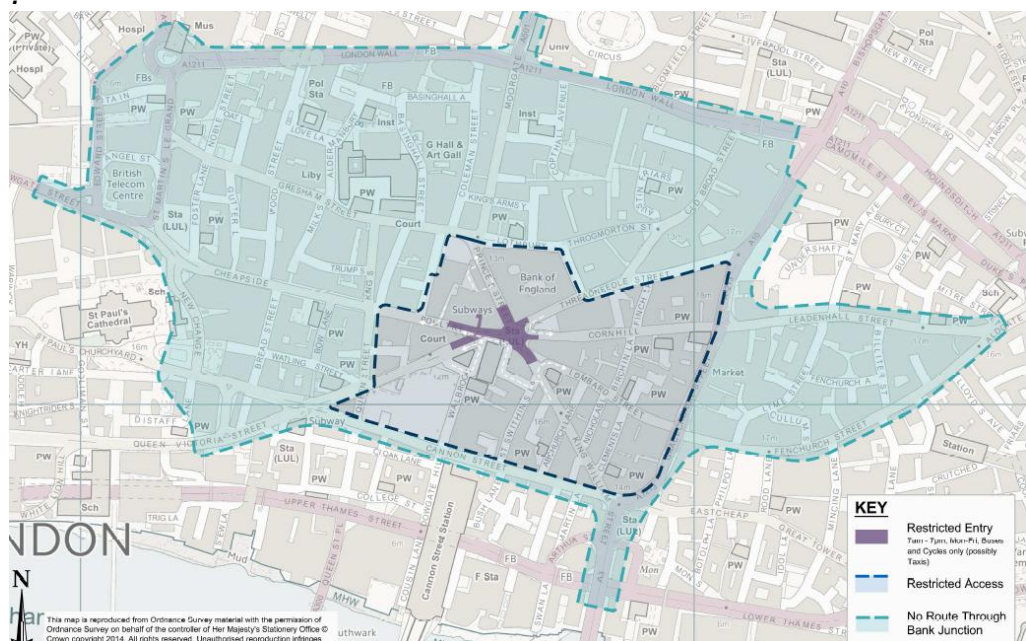
## Main Report

### 1. Design summary

In the last 12 months, Officers have worked closely with TfL to develop the design and technical work. In terms of physical changes there is very little that is required. The scheme's success relies heavily on a high compliance rate which is believed can be achieved by simple but effective signage, robust enforcement and good communication.

#### 1.1 Basics of the design

There are three layers to the design. The outer layer is the advanced warning of no through route at Bank. The inner layer is the restriction to allow access to properties but no through route. Lastly the inner centre; which is the area of the enforceable motor vehicle restriction. These can be seen in diagram A.



*Diagram A: Zones where signage strategy starts and changes*

The central part of this design can be seen more clearly in diagram B below.

The lighter grey area bounded by the dotted line effectively becomes an area that motor vehicles can enter to pick up and set down passengers and undertake loading and servicing activity at the kerbside. Without through-access to the junction, the desire to enter this grey area for any other purpose would be limited.

The dark area (purple) in the centre shows the extent of the proposed motor vehicle restriction and the beginning of the enforcement points. Within this area, vehicles that are not exempt will receive a Penalty Charge Notice (PCN) for a

moving traffic offence if they cross the junction during the operational hours of the scheme.

The white arrows indicate where servicing vehicles (some size restrictions) can gain access to the boundary of the junction restriction, but ultimately not across it. The route into Mansion House Place is covered by the existing access restriction from St Swithin's Lane which has rising bollards.

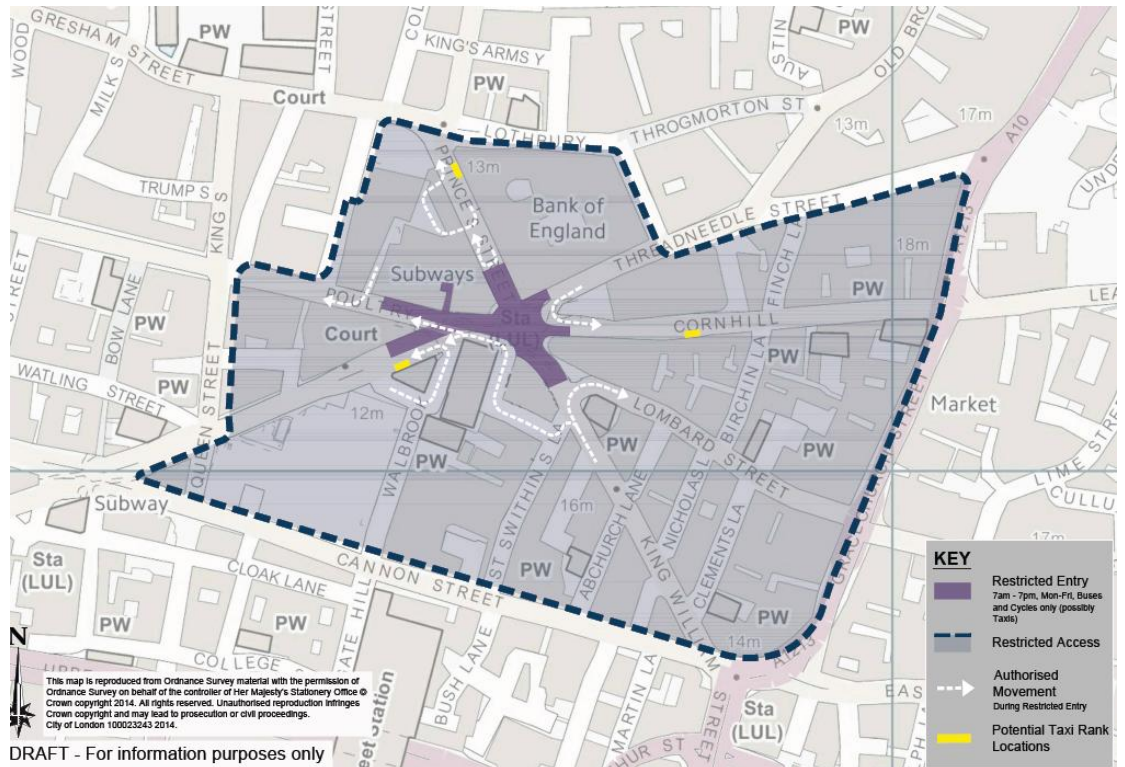


Diagram B: inner zone for access and restricted crossing movements.

The enforcement gateways are proposed to be signed as in diagram C, with a buff colour surfacing to make a visual demarcation on the highway.



Diagram C: Except buses and cycles signs.

## 1.2 Loading changes

It is necessary to make some loading changes in the wider area to prevent loading in some places where it is currently allowed, but in most cases alternative kerbside loading is provided nearby. These changes are proposed to counteract changes in traffic flow on some streets so as not to cause pinch

points on the network. The City is required to balance the competing demands of kerbside activity and secure the expeditious movement of traffic. On balance there will be a reduction in the amount of kerbside available for loading activity between 0700 and 1900 in the local area. Officers will, as part of the communication exercise, encourage businesses to consider using their service bays more often (where they have them) and consider retiming of deliveries where possible. If there is opportunity for other delivery consolidation to take place the City will assist where it can to encourage and facilitate this. These proposed loading changes will form part of the experimental traffic order, and will be monitored.

### **1.3 Enforcement**

It is proposed that the City enter a procurement process to obtain a set of temporary automatic number plate recognition (ANPR) cameras to enforce during this experimental period. The cameras would record all contraventions and submit them to the City for our ordinary enforcement procedures to take place. A penalty charge notice (PCN) would be issued to every motor vehicle that contravenes the experimental traffic order, every time it occurs. The PCN would be £130, reducing to £65 if paid within 14 days.

The reason for using unattended enforcement cameras for this experiment is to intended to produce a high level of compliance. The improved safety benefits will only be realised if there is a high compliance rate. The issuing of penalties encourages a high degree of compliance and rigorous enforcement will help achieve high compliance. People are less likely to repeat an offence if they get fined every time they do it. This does mean that in the early days of the experiment there is likely to be a high level of PCN's issued, but it is anticipated that within the first couple of months that this will decrease significantly. As is usual with this type of enforcement, there will be an initial period with warning notices issued rather than PCN's. If any revenue is generated from the enforcement of this scheme it would be returned to the On Street Parking Reserve.

Officers are also working with the City Police and the City's Road Danger Reduction team to establish a programme of behaviour support at the junction to encourage compliance by pedestrian and cyclists to reduce potential conflict. In particular, officers are working with the City Police to establish a vigorous enforcement programme for when the scheme first goes live.

#### **City Police enforcement cameras**

Unfortunately the timescales for the City Police Camera Upgrade programme at Bank and the Bank Safety Scheme do not align, which is why this temporary camera solution has been proposed. It has been assumed that the temporary cameras would be needed for a maximum of 18 months (how long an experimental traffic order can be in place before it expires). It is envisaged that within the lifetime of the experiment the City Police camera upgrade will take place. Should the experimental traffic order be made permanent at a later date, it is intended that the Police cameras will be used to continue the enforcement regime. Enforcement of the moving traffic offenses would remain with the City of London's enforcement team, but captured via the technology of the City Police cameras. If the Police cameras are operational by the time we reach the minimum contract term of the temporary camera solution, and before any

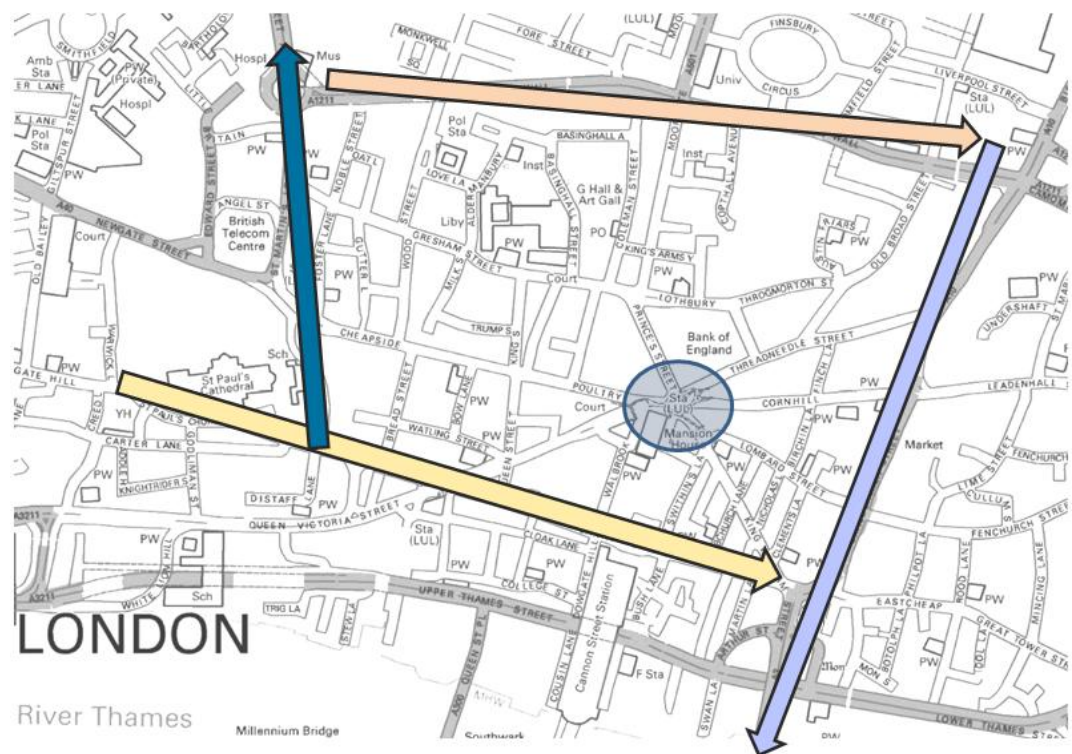


decision is made on the success of the experimental scheme, we could look to swap cameras at this point.

#### **1.4 What does this scheme do to traffic?**

The overall average impact on general traffic within the modelling area is neutral/slightly positive. Extensive traffic modelling has taken place with TfL in order for the City to be able to submit for TfL approval under the Traffic Management Act 2004. The modelling area was agreed with TfL based on the use of the Strategic ONE model, which covers Greater London, and seeing how far the impact of a closure at Bank would have in the surrounding area. The vast majority of the impact remains within the modelled area which is crudely bounded by London Wall, Bishopsgate, Cannon Street and New Change/St Martin Le Grande.

A neutral impact means that there are some streets which incur a small delay and other streets that have an improved journey time experience, but overall the average impact is neutral. TfL have focused their interest on the four key corridors that crudely outline the detailed modelling area (as seen in Diagram D), which you would expect to work harder under this proposal. In the morning peak there is a minimal impact across these key routes.



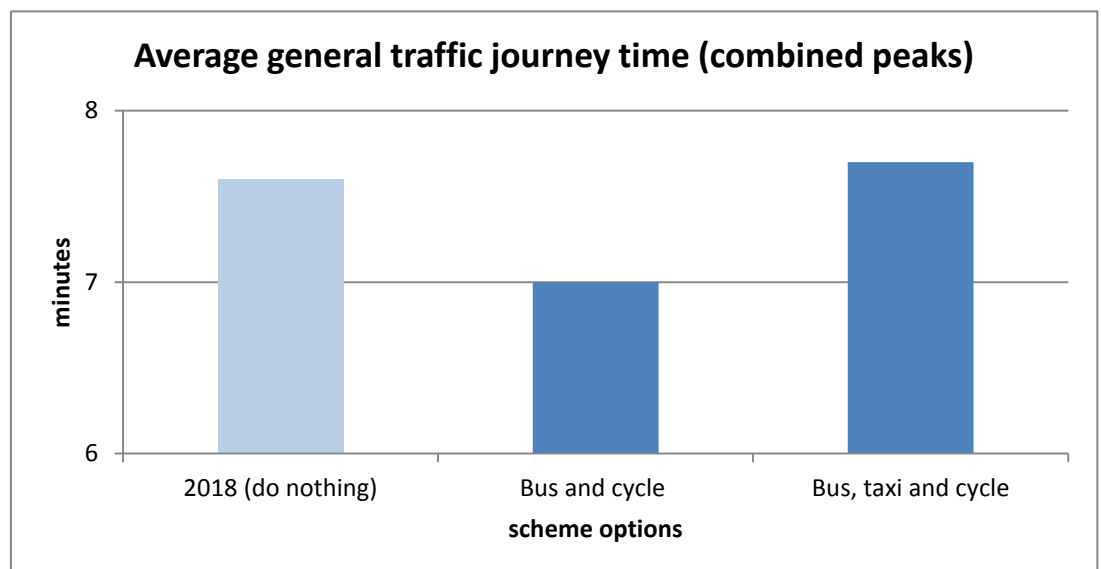
*Diagram D*

In the evening peak the model highlights a likely issue on Cannon Street. This is caused by a high demand in the model to turn right onto London Bridge at Monument Junction from Cannon Street. Given the layout of Monument junction, when the right turn is in high demand traffic blocks back past the traffic signals hindering the straight ahead eastbound movement thereby causing a delay.

As is the case now, Cannon Street in the evening peak has good and bad days regarding slow moving traffic approaching Monument. This is something that Officers intend to monitor during the experiment. With daily traffic flow fluctuations, the demand for the right turn will change daily during the peak periods which will change the impact on Cannon Street. The modelled output highlights that the occurrence of a delay on Cannon Street approaching Monument is likely to be more frequent.

It is felt that on balance, given the considerable benefits of the proposed Scheme, that the modelled increase in journey time on the Cannon Street link is acceptable. TfL's Road Space Performance Group agreed with this assessment.

Chart 2 shows the averaged modelled peak journey times for general traffic within the modelled area for the 'do nothing' scenario in 2018, i.e Bank being bus and cycle only; and Bank being bus, taxi and cycle only. As can be seen the combined average effect is that the bus and cycle scheme option has the potential to be more efficient for general traffic.



*Chart 2*

The proposal for bus and cycle only during the restricted hours at Bank balances the City's overarching duties as a traffic authority (securing the expeditious convenient and safe movement of traffic and having regard to the effect on amenities and the efficient use of the network avoiding congestion and disruption).

How is that possible?

It seems counter-intuitive to take traffic away from one area and redistribute it onto nearby streets with average journey times not increasing. In this instance, the reason is because Bank Junction, as it currently works, is extremely inefficient at moving vehicles. With six arms of traffic and a large expanse of surface between stop lines, the 96 seconds per cycle of traffic lights just doesn't go very far. The surrounding traffic lights have to allocate part of their traffic light cycle time to feeding the approach arms to and from Bank. If you reduce the demand for the approach arms by reducing the vehicles that can cross Bank, you can reallocate the surrounding signal times to give longer green times to

circulate more efficiently around the Bank area. Whilst distance travelled maybe greater, the journey time on average takes no longer, and is possibly improved.

#### Monument Junction

As previously discussed in the Gateway 3 report in December 2015, the reconfiguration of Monument junction is likely to be key for the longer term proposals for Bank. Monument Junction is a TfL managed junction. At the initial time of writing the gateway 3 report, it was anticipated that for the experimental safety scheme to work at its best, physical change to Monument Junction would be necessary. It has become clear that the only tool available to us in the short term is changing the signal timings to maximise the efficiency and demand.

With the physical constraint on the northbound London Bridge Approach reducing traffic to one lane, this has put added pressure on the traffic signals to have sufficient green time to try and prevent congestion south of the bridge. This and other complexities make Monument Junction a capacity pinch point regardless of whether the Bank experimental scheme is progressed.

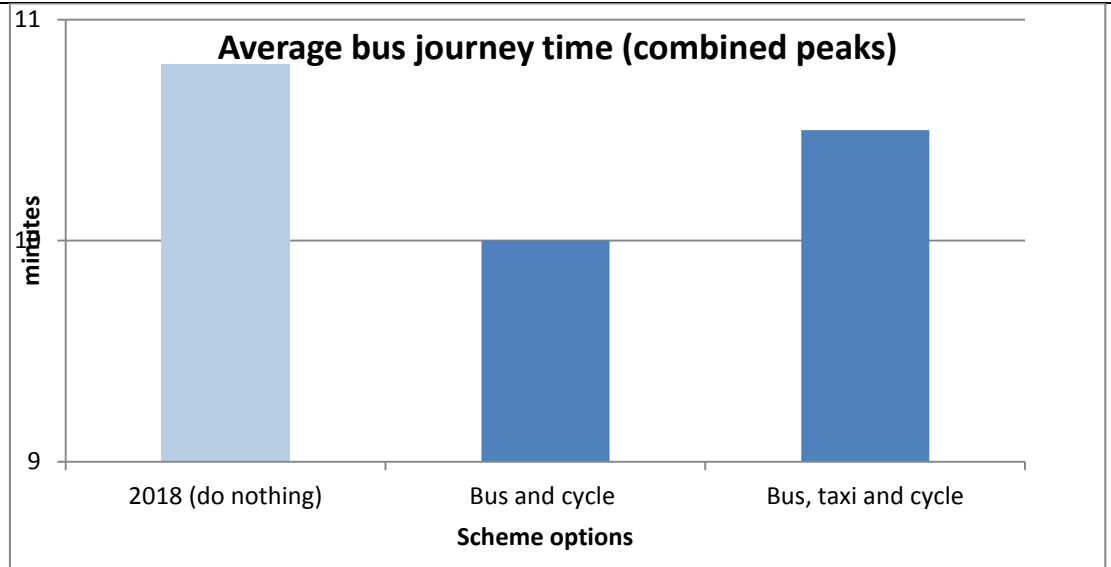
Officers have offered to work with TfL on developing plans to change Monument Junction so that it can better accommodate the large numbers of pedestrians and increasing numbers of cyclists.

#### **1.5 What happens to the bus services?**

The overall impact on bus services through the modelling area is beneficial. The experimental Safety Scheme offers the opportunity for some significant bus journey time benefits within the modelled area, of which there are 25 routes that pass through. In the morning peak period it is anticipated that 23 out of the 25 routes will see a journey time reduction. This is a significant potential saving for London bus passengers and a high probability of cost savings for London Buses.

In the evening peak, with the issues described around Monument junction and Cannon Street, 16 out of the 25 routes still experience a journey time benefit. However the improvements are more modest and balanced out by the delay to the remaining 9 routes to make a net neutral position in the evening peak.

When combining the peaks, the significant savings in the morning peak outweighs the neutral impact in the evening peak giving an average journey time saving per bus. This is demonstrated in Chart 3



*Chart 3*

Whilst on average there is a good news story for bus passengers, there are a couple of routes which the City is continuing to discuss possible mitigation measures for as part of this Scheme. The modelled journey time delay on these routes if realised could be costly for London buses as they may have to put another bus into service to keep to the existing frequency. Mitigation could include rerouting a service via Bank. These discussions are ongoing and have the potential to make the scheme work more efficiently in the evening peak.

Overall London Buses are supportive of the proposed changes and the benefits it could bring to their services.

**1.6 Benefits to pedestrians**

At Bank the traffic signals will be altered to better reflect the reduced numbers of vehicles passing them. Pedestrians will have less time to wait for the next pedestrian phase, and therefore a greater opportunity to cross during the dedicated pedestrian time.

At this stage of the experimental scheme there is no proposal to alter the width of the footways surrounding the space, or remove any of the guard railing. This is something that can be followed up with at a later date as part of the longer term scheme proposals for Bank.

The experimental scheme will also trial the removal of the zebra crossing on Threadneedle Street, east of Bartholomew Lane. It is proposed to move the crossing point to the west side of Bartholomew Lane and be replaced with a pedestrian refuge, in the first instance. The new position of the crossing point will be in a less trafficked section for the pedestrians, meaning that there will be lots of opportunity to cross without the consequence of interrupting the diverted traffic flow to the east of Bartholomew Lane. Officers will monitor and engage with public on whether they feel the refuge meets their needs or whether they would prefer a zebra crossing in the new location.

In the wider area, where traffic signals are being retimed for this Scheme there are two locations where pedestrians will have to wait longer between pedestrian

phases in the traffic light sequence. This wait time is standard at many of the surrounding sets of signals. There are also four locations where the pedestrian phase in the signal sequence has been slightly reduced to balance the additional vehicle movements. This will be closely monitored and if there is an opportunity to redistribute time back to the pedestrian phase at these locations we will endeavour to do this.

The overall impact on pedestrians is neutral in terms of their experience within the modelling area.

### **1.7 Equalities**

The overall impact on equalities within the modelling area is neutral, but it is deemed that there is a possible adverse impact that could be created during the operational hours of the scheme. For those persons who are unable or would find it difficult to move between approach arms to be picked up or dropped off by a private vehicle or taxi, they could find they have to travel an additional distance if the approach arm they are on does not offer the same direction of travel they wish to go in. For example, if on Cornhill, which during operational hours is eastbound only, and a person wished to travel west, they would have to divert eastbound first and come back on themselves in a westerly direction. Therefore, if in a taxi or private hire vehicle, this may incur an additional cost and journey time increase as the vehicle would not be permitted to cross the junction during the operational times of the restriction. (Although when using buses or wheelchairs overall beneficial impacts will be experienced)

The experimental scheme does not prevent door to door access, but it would mean that some journeys will have to reroute and cover a greater distance in order to achieve this. This impact has been mitigated as far as possible by adjustments to the restricted area.

The scheme also requires the relocation of the disabled bays currently on Bartholomew Lane. Officers have undertaken monitoring and contacted regular users of the bays to discuss relocation sites. It is proposed to relocate two of the three bays on Cornhill, which during restricted hours will be significantly less trafficked. The remaining bay, at this time, has not been relocated.

Once again, on balance, the adverse impacts are felt to be outweighed. The impacts of the Scheme will be monitored to ensure that there is no disproportionate adverse impact and/or that any impact is minimised in accordance with the City's public sector equality duty.

### **1.8 Air Quality**

The overall impact on air quality in the modelling area is neutral. It is an important issue for the City, particularly at Bank where there are high numbers of pedestrians and cyclists, but where air quality is poor. Air quality monitoring across 20 sites at and near Bank has been undertaken for a year to give a base level data for NOx. Air quality modelling was also undertaken using the 2015 feasibility traffic modelling data to assess what the likely implications of the experimental safety scheme were on air quality.

The overall result is that as approximately the same number of vehicles move within the modelling area, whether or not they can travel across Bank Junction,

the model area remains a similar poor area for air quality. The difference is that the concentrations of NOx and particulate matters are likely to go up on some streets and down on others.

Although the overall impact on air quality is likely to be neutral, levels of air pollution at Bank junction itself will be lower and, as this area is heavily used by pedestrians, this will lead to a reduction in exposure to pollution. If as expected pedestrian numbers continue to rise in this location, this will be an added benefit.

Air quality is a strategic problem that needs tackling at a level beyond this experimental scheme. However the data that can be collected could be very beneficial to quantify what happens and provide evidence for making those strategic decisions.

### **1.9 What about taxis?**

The City agreed with the taxi trade union bodies in November 2015 that we would further investigate the options for taxis to continue to cross Bank Junction or get closer than originally outlined for this experimental scheme.

Under the proposal for bus and cycle only across the junction in the operational hours, the work to date shows that there is an average neutral to slightly positive benefit for journey times within the modelling area for general traffic.

The design of the restriction area has been developed over the course of the last 12 months by talking to the local occupiers and trying to accommodate their needs as best we can whilst maintaining the principle of reducing crossing movements at junction. This design would not have changed whether the recommendation was for buses and cycles only, or buses, taxis and cycles only.

The largest part of determining whether taxis should cross the junction in addition to casualty savings was the impact on general traffic journey times and bus journey times from the traffic modelling work. This information only became available in early November 2016, with finalisation of traffic modelling results in mid-November.

The results of this were that when the two peaks are combined, the impact of permitting taxis across the junction is neutral on bus journey times over the 25 routes. However, where taxis are not permitted, on average the bus journey times are noticeably reduced. In terms of general traffic journey times on the four key routes, there were unacceptable increases in journey times on Bishopsgate with taxis included.

The Road Space Performance Group at TfL agreed that the proposed bus and cycle only option was technically the best option in terms of performance of the network, bus journey time benefits and casualty savings.

The casualty saving will not be as high if the City permits taxis across the junction as part of this experimental scheme. The more vehicles that cross the junction the higher the probability is of a collision occurring. If permitted, Bank would be seen as a priority route for taxis and the numbers crossing the junction would be likely to increase compared to today's levels. This can be seen from the traffic modelling work.

The City recognises the important role that taxis play in the transport mix, and therefore have been investigating where additional taxi rank facilities nearer to the junction's restricted boundary could be accommodated. Officers have

identified three potential locations and will continue to progress these with the City Police and aim to deliver these ranks as part of the experimental traffic order. If the experiment were to be withdrawn, this would include any ranks that were also part of the experimental order.

### **1.10 How will we monitor if the scheme is working well**

There is a plan to set up a monitoring and performance group with TfL so that we can ensure that we are able to monitor the scheme effectively. There will be a need to monitor the traffic signals that would need to be altered as part of this scheme. TfL are able to alter signal timings to adapt to changes in conditions in order to keep traffic flowing. If the signal timings are not generally running on the experimental scheme timing sequence then the traffic flow implications will be different to those modelled. This needs to be monitored so that we can understand the impact of the scheme has on traffic movement and the interaction with other external factors.

This group will establish the best way to monitor traffic movement and journey times, such as bus journey time data which is constantly monitored, and possibly queue length data at key junctions.

Clearly, one of the key success criteria for whether or not the scheme is working is around casualty numbers falling at Bank. It also important to monitor the wider area for any changes in trends of collisions that could be as a consequence of the experimental scheme. The City will do this with the City Police.

It is also intended that attitudinal/perception surveys will be undertaken before and after the change to assess how people feel about safety as well as numerical data on reported casualties.

It is planned that the introduction of this scheme would be managed in the same way that the City manages events on the highway. A managed structure will be in place to take decisions should any aspect of the scheme need tweaking in the initial roll out to give the scheme the best chance of success. Resources will be deployed as necessary to manage the on street activity and report back into the management chain any unexpected consequences.

### **1.11 Resilience of the network**

There are legitimate concerns regarding the resilience of the network with Bank restricted Monday to Friday. A resilience plan is being prepared using the traffic model to scenario test a number of key road closures and how that would work with restrictions in place. We can then plan to suspend the experiment when it is essential for street works to take place that would otherwise cause significant impacts on the surrounding network in order to maintain a resilient network.

### **1.12 Community engagement and support**

Officers have engaged with local businesses to develop the design, but also on a wider scale. Through the Project Board we have discussed the proposals with board members, including Bloomberg, City Property Association, Cheapside Business Alliance, London Underground and Oxford Properties. Overall there is support for the approach the project has taken to develop this proposal. From

	<p>the Project Board we have also undertaken to discuss the proposals with the Cheapside Business Alliance Board and the City Property Association members, and again received positive feedback. The London Cycling Campaign and Living Streets are also supportive.</p>
<b>2. Delivery team</b>	<ul style="list-style-type: none"> <li>• Project management, stakeholder engagement and communication services will be provided by the project team within City Transportation.</li> <li>• Highway construction works (signs and lines) will be delivered by the City's Highway Term Contractor (J.B.Riney &amp; Co. Limited) with supervision undertaken in-house by City Highway Engineers.</li> <li>• Joint monitoring group City of London and TfL to monitor and collect the evidence of the impact of this scheme.</li> <li>• Enforcement of the scheme will be managed by the City's Parking ticket office.</li> </ul>
<b>3. Programme and key dates</b>	<p>Seek Approval – December 2016</p> <p>Pre- scheme engagement and communication January to April 2017</p> <p>Operational end of April 2017</p> <p>Public Consultation – May- October 2017</p> <p>Monitoring – on-going.</p> <p>Report Back – Summer 2018</p>
<b>4. Outstanding risks</b>	<ol style="list-style-type: none"> <li>1) Procurement of the ANPR cameras taking place within the time for the proposed operational date and having a testing period.</li> <li>2) Ensuring that all of the new traffic signal timing software is installed in time</li> <li>3) The negative reaction of drivers who are no longer permitted to cross the junction</li> </ol>
<b>5. Budget</b>	<p>It is anticipated that an additional maximum budget of £792,000 will be required to implement, monitor, consult and report back to Members before the 18 month experimental order time period expires. These figures are based on the maximum amount of time the experiment could run for.</p> <p>There will be significant amounts of officer time required to communicate on a wide scale, particularly with drivers who currently cross Bank. There will also be a lot of local business and resident communication on the lead up to the go live date. Then, the formal public consultation exercise which will last for six months.</p> <p>We are currently in discussion with TfL regarding their possible contribution to the implementation and monitoring of this scheme. Unfortunately as the key data from the traffic model did not materialise as quickly as hoped, TfL were unable to confirm their commitment to part funding of this scheme before the submission of this committee report. It is proposed that until there is confirmation from TfL that the remaining funding is taken from the On Street Parking Reserve. This is done in acknowledgement that there may not be a further contribution from TfL.</p>



Our experience from other projects has been that owing to cancellation/slippage of other projects in their annual programme, that TfL are often able to reallocate funds from other projects towards the end of the financial year. There is also the potential for some significant bus priority savings for TfL, so there is a secondary source of funding other than the major projects funding where we have previously been successful.

Item	Description	Estimated Cost £
<b>Works Costs</b>	Highways Implementation, including VMS advanced signage and electrical connections and removal of Zebra crossing	260,000
	Transport for London: Traffic Signal infrastructure and design	28,000
	<b>Sub Total</b>	<b>288,000</b>
<b>Staff Costs</b>	City Transportation: Project Management, Stakeholder Engagement & Communications and consultation staff time for up to 18 months.	274,000
	Highways	30,000
	Enforcement	40,000
	<b>Sub Total</b>	<b>344,000</b>
<b>Professional Fees</b>	Temporary Enforcement solution including implementation and maintenance of camera equipment for 18 months.	100,000
	Monitoring surveys and communication and consultation materials budget, TRO and ancillary costs	60,000
	<b>Sub Total</b>	<b>160,000</b>
	<b>Total sum</b>	<b>792,000</b>

*Table 1*

It is proposed to utilise £121,052 of S106 funding and interest payments.

It is recommended that Members agree the use of the above funds as outlined, and permit officers to continue to liaise with TfL to seek further funding contributions. Should they be forthcoming, the TfL allocations be accepted and used instead of either the identified S106 funds or in place of the On Street Parking Reserve.

This can be confirmed to Resource Allocation Sub-Committee as appropriate.

Any balance of the existing allocation to this project should be rolled forward once staff costs and committed works are reconciled. This can be taken off of

the proposed commitment on the on street parking reserve.  
 The proposed S106 deposits and On Street Parking Reserve amounts are outlined in Appendix A Table 3 and Table 4.

**5.1 Reasons for estimated cost increase:**

In the initiation of this project, it was considered that the project could be designed and delivered for approximately £500,000. Design and traffic modelling has taken longer than hoped and incurred additional costs as outlined in the Issues report from October, of approximately £87,100.

It was assumed at initiation that enforcement of the scheme would be undertaken using the upgraded CCTV network. Unfortunately the upgrade at Bank has not yet been undertaken and the timescales do not align. This has resulted in a cost of circa £100,000 to provide a temporary camera solution for a maximum of 18 months and for additional resources in the enforcement team to deal with the PCN's of approximately £40,000. Both of these costs could be reduced depending upon the time frame that they are needed for. Any income generated would be returned to the On Street Parking Reserve.

There was no provision in the initiation for the removal and decommissioning of the zebra crossing on Threadneedle Street and the introduction of a new pedestrian refuge island. If this progresses this adds approximately £60,000 to the implementation costs. The original signage costs had been estimated using 20mph as a recent example. The detail of this scheme's signage is greater, with many directional signs needing replacing as well as the additional new signs and advance notice signs. We have included a period of variable messaging signs (VMS) in advance of the scheme go live. Altogether, this increases the sign implementation costs by approximately £90,000

It is now considered that wider monitoring work will be undertaken to establish an evidence base of the impacts of this experiment both locally at Bank and in the wider area. This will include attitudinal and perception surveys as well as more quantitative data. Costing's for staff time, now that the impacts and design are fully understood, is higher. It is believed that to make this scheme a success it is worth putting the additional staff time to encourage a higher compliance rate. This will include communication with the local community and further afield, as well as behavioural monitoring of interactions between the cyclists, buses and pedestrians at Bank and the associated work to influence behaviour change.

**6. Success criteria**

The below success criteria was put forward to the Roads Space Performance Group at TfL. The emergence of the joint monitoring and performance group may develop some other criteria that can be measured to provide evidence for the scheme's overall success.

**Significant safety improvement at Bank.**

1. A total casualty saving at Bank of 50-60% is anticipated – success would be a minimum of a 25% reduction at Bank with an improvement of 5% within the wider area.

**Maintain access for deliveries.**

2. 75% of businesses are satisfied that their servicing and delivery activity is

	<p>conveniently undertaken.</p> <p><b>Improve air quality at Bank.</b></p> <p>3. A measured reduction at Bank, but with the wider monitored area not being any worse overall.</p> <p><b>Not unreasonably impact on traffic flow, whilst preferably improve bus journey times.</b></p> <p>4. To have an average journey time improvement of bus services within the modelling area over the two peaks (Using IBUS data)</p> <p>5. The operation of the 4 key routes on average for general traffic is no worse than the proposed modelled output for 2018.</p>
<b>6. Progress reporting</b>	Monthly updates to be provided via Project Vision and any project changes will be sought by exception via Issue Report to Spending and Projects Sub Committees

### Appendices

<b>Appendix 1</b>	Financial information
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