

Committee(s):	Date(s):
Streets & Walkways Sub Committee	20 th October 2014
Subject: Museum of London Roundabout - Proposed Road Danger Reduction Measures	Public
Report of: The Director of the Built Environment	For Decision
Summary	
<p>The roundabout at the Museum of London is the City's only roundabout. It is the fourth most dangerous location for road traffic injuries in the City of London. The other three locations have either just been improved or are part of current active projects.</p> <p>The accident rate at this roundabout is higher than the average for inner London roundabouts. In the last 3 years, there have been 14 collisions resulting in injuries. The majority of the injuries (9) were to cyclists.</p> <p>The City has a legal duty to prepare and carry out a programme of measures to promote road safety and proposals set out in this report are in accordance with the Road Danger Reduction Plan (RDRP) to "work to improve the safety of 20 junctions ... during the life of the Plan".</p> <p>As there are proposals for major change in this area, a short term, low cost solution to improve road safety has been developed. In addition, as the roundabout is part of the Strategic Road Network and given there will be some traffic impacts, it is proposed to implement the road marking changes on a trial basis using cones and other temporary materials. This trial would be in place for one month and will be monitored by officers to gauge the level of impact. The results will then be reviewed and if supported, the permanent road markings can then follow</p> <p>Lighting improvements are proposed at the roundabout which are not part of the trial and will be implemented independently.</p>	
Recommendation(s)	
Members are asked to:	
<ul style="list-style-type: none"> • Approve the measures as detailed in this report, at a total estimated cost of £49,000, to be funded from DBE's Traffic Management Budget of £125,000 in 2014/15. 	

Main Report

Background

1. The Museum of London roundabout is the City's only roundabout. It is located at the junction of Aldersgate Street, London Wall and Montague Street in the Aldersgate Ward. The high numbers of injury collisions have prompted officers to investigate measures to make this location safer.
2. The characteristics of the roundabout are as follows:-
 - a. It is a large four arm roundabout surrounding a cylindrical shaped building which houses part of the Museum of London. The north-eastern part of the roundabout is covered by a structure, which is also part of the museum.
 - b. The frontages around the roundabout are predominantly commercial offices with some mixed use retail units such as food outlets. Around the area, there are also residential units and the Barbican Estate is located to the northeast.
 - c. Also to the north-eastern area, there is a TfL Cycle Hire docking station located on the footway.
 - d. The width of the carriageway forming the roundabout is approximately 10m wide. This is wide enough to accommodate 3 lanes of circulating traffic but observations have shown that rarely, if ever, more than two lanes of traffic circulate it.
 - e. The streets forming the roundabout consist of Aldersgate Street to the north and south, London Wall, to the east and Montague Street to the west. Aldersgate Street (north) and London Wall are straight, two lane dual carriageways with a central reservation dividing the traffic flows. Aldersgate Street (south) is a straight two lane one-way southbound street. Montague Street is a two lane eastbound carriageway that approaches the roundabout from a bend.
 - f. There are pedestrian crossings on all arms of the roundabout except on Aldersgate Street (north). Zebra crossings are provided in London Wall and Montague Street. Aldersgate Street (south) has a light controlled crossing.
3. A plan showing the existing roundabout layout is provided in Appendix A.

Current Position

4. The Road Traffic Act 1988 places a duty on local highway authorities to prepare and implement a programme of measures designed to promote road safety. The study of the occurrence of collisions and development of preventative measures is consistent with that duty.
5. In January 2013, Members approved the Road Danger Reduction Plan (RDRP). This plan sets out ways to make our streets safer and includes traditional measures such as engineering, education, training, publicity and

enforcement. In addition it sets out a number of new approaches including preventative measures, further research and (through the Road Danger Partnership) influencing safety improvements delivered in the City by other authorities such as TfL.

6. Casualty trends in the City have generally been increasing since 2003. However, vulnerable road users (cyclists, pedestrians and powered two wheelers) account for a disproportionately higher rate than other user groups.

Collision Analysis

7. Excluding TfL streets, the Museum of London roundabout is the 4th most dangerous location in the City. The other three have either had improvements implemented (Holborn Circus) or are part of active projects in progress (Bank junction and Leadenhall/St Mary Axe).
8. In the last 3 years (2011 to 2013), there has been 14 injury collisions recorded at this location. A plot of the collisions data is shown in Appendix B, however a summary of these collisions are detailed below.
 - a. 4 (29%) serious injuries. All were to vulnerable road users (pedestrians, cyclists and powered two wheelers)
 - b. 4 (29%) collisions involved vehicles failing to give-way.
 - c. 11(79%) collisions occurred in the north-eastern section of the roundabout within the covered area.
 - d. 12 (86%) involved vulnerable road users. 9 (64%) of these were to cyclists.
 - e. Average annual collision rate is 4.7 per year compared to 3.04 per year at other inner London roundabouts.
 - f. Cycle collision rate is one of the highest in the City and is 3 times higher than at other inner London roundabouts.
9. Although the above analysis only covered the latest 3 years, data from 2007 has also been reviewed. This has shown a clear problem where vehicles are cutting across the path of cyclists.
10. Officers have also carried out site observations. These have shown that traffic is entering and circulating the roundabout at inappropriate speeds. The layout of the dual-carriageways and the wide circulating carriageway could give the impression the roundabout is a high speed, motor-vehicle dominated location. There are also no lane markings in the roundabout, which makes lane discipline poor (which has resulted in some recorded collisions).
11. Although the illumination of the covered part of the roundabout is within acceptable levels, it is highly probable that, due to the large clustering of the collisions, the rapid transition from light to dark conditions is a contributory factor in the collisions occurring at this location.

Considerations

12. The roundabout is within an area where there are aspirations for significant transformation (Cultural Hub and major highway's project). Proposals should therefore ensure that there are benefits in the short to medium term (before those transformations) and that it does not preclude or hinder future changes.
13. The roundabout is used as an HGV route for Crossrail's construction vehicles. This route is 'safeguarded' through an Act of Parliament. Proposals will therefore need to maintain access for HGV's.
14. The roundabout is on the Strategic Road Network (SRN) and therefore the Traffic Management Act 2004 applies. This means that Transport for London must approve any changes to the junction including those that are proposed. Measures will therefore need to consider the impact on traffic flow.

Proposals & Implementation

15. In view of the above considerations, a short term, low cost scheme has been developed to reduce collisions. It consists of road markings and lighting improvements. As there are no engineering measures involved, the cost to remove these are very minimal and will have no impact on future schemes. The proposals are shown in Appendix C but are briefly explained below.
 - a. Reduce the width of the circulating carriageway from 10m to approximately 6m. This will reduce speeds and improve lane discipline but maintain a route for HGV's.
 - b. Introduce cycle lanes at key conflict locations.
 - c. Reduce the approach and exit lanes on London Wall and Aldersgate Street (north) to a single lane. This will reduce speeds, improve lane discipline and reduce conflict.
 - d. Upgrade the lighting units under the covered area to reduce the rapid light dark transition.
16. It is likely that the proposal will have a minor impact on traffic capacity and journey times, however, the safety benefits expected to be achieved are considered to outweigh this impact. It is therefore proposed to implement the road marking changes on a trial basis using cones and other temporary materials. The impacts can then be assessed before moving onto the permanent road marking change. This trial would be in place for one month and will be closely monitored by officers. The results will then be reviewed and if supported, the permanent road markings will then follow (subject to Traffic Management Act approval from TfL).
17. The lighting improvements do not have any impact on traffic and therefore these are not part of the trial and will be implemented on a permanent basis independently.
18. If members approve the proposals, it is envisaged that the trial and lighting improvements will be implemented in November/December 2014. Monitoring

will take place in Jan/February 2015 and if successful, the lining changes will be implemented by April 2015.

19. The works are very minor in nature and therefore road closures are unlikely to be required. For minimal disruption the proposed measures will be implemented off peak at night or early morning over the weekend.

Corporate & Strategic Implications

20. The proposals are in accordance with the Strategic Aims “to provide modern, efficient and high quality local services and policing within the Square mile for workers, residents and visitors”. It is also in accordance with the Road Danger Reduction Plan (RDRP) to “work to improve the safety of 20 junctions... during the life of the Plan”

Implications

21. The total estimated cost to implement the measures is £49,000. This can be met from DBE’s Traffic Management Budget of £125,000 for 2014/15. A breakdown of the estimate is provided below.

Trial & carriageway markings	£19,500
Improved lighting	£25,500
Staff cost	<u>£ 4,000</u>
TOTAL	<u>£49,000</u>

22. It has been estimated that the proposals will save an average of 1.2 accidents per year. With the latest cost of an accident at £72,739 (DfT - 2012 figures), the first year rate of return is estimated at 175%, which represents excellent value for money.

Conclusion

23. The roundabout at the Museum of London is the City’s only roundabout. It is the fourth most dangerous location for road traffic injuries in the City of London. The majority of the injuries were to cyclists. The City has a legal duty to improve road safety. As there are aspirations for major transformation in this area a short term, low cost scheme, which is expected to save 1.2 collisions per year, is recommended for approval.

- Appendices:

- Appendix A: Existing layout plan.
- Appendix B: Collisions plot.
- Appendix C: Proposed measures plan.

- Background Papers:

- 2012 A valuation of road accidents and casualties in Great Britain – Department of Transport.
- Levels of collision risk in Greater London (Issue 13) April 2012 - Transport for London.

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