Public Document Pack

Streets and Walkways Sub (Planning and Transportation) Committee

Date: **FRIDAY, 24 NOVEMBER 2017**

Time: **10.30 am**

Venue: **COMMITTEE ROOMS, 2ND FLOOR, WEST WING, GUILDHALL**

Members:
Christopher Hayward (Chairman)
Oliver Sells QC (Deputy Chairman)
Randall Anderson
Emma Edhem
Marianne Fredericks
Alderman Alison Gowman (Ex-Officio Member)
Deputy Clare James (Ex-Officio Member)
Alderman Gregory Jones QC
Paul Martinelli
Deputy Alastair Moss
Graham Packham
Jeremy Simons (Ex-Officio Member)

Enquiries: **Amanda Thompson**
tel. no.: 020 7332 3414
amanda.thompson@cityoflondon.gov.uk

Lunch will be served in Guildhall Club at 12.30PM
NB: Part of this meeting could be the subject of audio or video recording

John Barradell
Town Clerk and Chief Executive

AGENDA

Part 1 - Public Agenda

1. **APOLOGIES FOR ABSENCE**

2. **MEMBERS' DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA**

3. **MINUTES**
To agree the public minutes and summary of the meeting held on 17 October 2017.

For Decision
(Pages 1 - 6)

4. **OUTSTANDING REFERENCES**
Report of the Town Clerk.

For Decision
(Pages 7 - 10)

5. **ANNUAL ON-STREET PARKING ACCOUNTS 2016/17**
Report of the Chamberlain

For Information
(Pages 11 - 16)

6. **REPORTS OF THE DIRECTOR OF THE BUILT ENVIRONMENT :-**

a) **100 Minories Area Enhancements**

For Decision
(Pages 17 - 44)

b) **City Wide Pedestrian Model**

For Decision
(Pages 45 - 64)

c) **City Wayfinding Signage Review**

For Decision
(Pages 65 - 82)

d) **Islington's Controlled Parking Zone Change**

For Decision
(Pages 83 - 90)

e) **Liverpool Street & Moorgate Crossrail Ticket Halls**

For Decision
(Pages 91 - 102)

f) **Bank on Safety**

For Decision
(Pages 103 - 120)

g) **Major Highway Works for 2018**

For Information
(Pages 121 - 134)

h) **City Lighting Strategy**

For Decision
(Pages 135 - 140)

i) **Highway Maintenance Efficiency**

For Information
(Pages 141 - 160)

7. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**

8. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**

9. **EXCLUSION OF THE PUBLIC**
MOTION – That under Section 100A(4) of the Local Government Act 1972, the public be excluded from the meeting for the following items of business on the grounds that they involve the likely disclosure of exempt information as defined in Part I of Schedule 12A of the Local Government Act as follows:-

Part 2 - Non-public Agenda

10. **NON-PUBLIC QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**

11. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT AND WHICH THE SUB COMMITTEE AGREES SHOULD BE CONSIDERED WHILST THE PUBLIC ARE EXCLUDED**

STREETS AND WALKWAYS SUB (PLANNING AND TRANSPORTATION) COMMITTEE

Tuesday, 17 October 2017

Minutes of the meeting of the Streets and Walkways Sub (Planning and Transportation) Committee held at the Guildhall EC2 at 10.00 am

Present

Members:

Oliver Sells QC (Deputy Chairman)
Randall Anderson
Emma Edhem
Marianne Fredericks
Alderman Alison Gowman (Ex-Officio Member)
Paul Martinelli

Officers:

Karen McHugh	-	Comptroller & City Solicitor's Department
Paul Monaghan	-	Department of the Built Environment
Ian Hughes	-	Department of the Built Environment
Patrick Hegarty	-	Department of the Built Environment
Alan Rickwood	-	City of London Police
Mark Lowman	-	City Surveyor's Department
Sam Lee	-	Built Environment
Julie Smith	-	Chamberlain's Department
Simon Glynn	-	Department of the Built Environment
Leah Coburn	-	Department of the Built Environment

The Chief Commoner, Wendy Mead, was also in attendance.

1. **APOLOGIES FOR ABSENCE**
   Apologies for absence were received from the Chairman, Deputy Claire James and Jeremy Simons.

2. **MEMBERS' DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA**
   There were no declarations of interest.

3. **MINUTES**
   RESOLVED – That the minutes of the meeting held on 5 September 2017 be agreed as a correct record subject to the following amendments:

6a) Tudor Street/New Bridge Street

Officers further advised that it might be possible to ask TfL to reconsider the need for two bus stops.

6d) Temple Area Traffic Review

In response to a suggestion by a Member that Middle Temple Lane, currently used as a rat-run, be included in the review, officers agreed that traffic entering and leaving the lane could be monitored.

4. **OUTSTANDING REFERENCES**

RESOLVED – That the list of outstanding references be noted and updated as appropriate.

Two Way Cycling in Seething Lane/Muscovy Street

A member expressed concern that although officers had now written to residents again, the letter did not say why they were being written to which was because they had been omitted from the original consultation.

Bollards/Bakers Hall Court

Officers advised that the issue of vehicles mounting the pavement was due to the fact that the occupiers were using big vehicles and so they had been written too and asked to use smaller ones.

A member stated that that action needed to be taken quickly and that consideration should be given to the addition of skinny bollards.

5. **REPORTS OF THE DIRECTOR OF THE BUILT ENVIRONMENT :-**

a) **Tudor Street**

Officers reported that at its meeting on 12 October the Court of Common Council had given approval for officers to continue to work with TfL and representatives of the Temples to establish the viability of the new layout and to investigate possible funding options for the scheme.

In response to a question concerning the need for two bus stops which had been discussed at the last meeting, officers advised that dialogue with TfL had started and an update would be provided when available.

b) **2-6 Cannon Street Public Realm**

Members considered a Gateway 5 Issues Report of the Director of the Built Environment regarding 2-6 Cannon Street Public Realm Offsite Works.

RESOLVED - that Members Authorise an increase to the current project budget of £95,000, to be fully funded from the Section S106 agreement.

c) **Greening Cheapside: St. Paul's Tube Station Area and St. Peter Westcheap Churchyard Improvements**

Members received a Gateway 3 report concerning the Greening Cheapside project, previously identified as a high priority in the Cheapside and Guildhall Area Enhancement Strategy (adopted by the City in 2015) with the objective of enhancing greening and re-landscaping in the area.

RESOLVED **–** To approve

1) Progression of option 2 and 3 for St. Paul's tube station area to Gateway 4 and 5 (detailed design and implementation) under the 'regular' Gateway process.

2) Progression of option 1 for St. Peter's Westcheap churchyard to Gateway 4 and 5 (detailed design and implementation) under the 'regular' Gateway process

3) The funding to develop the preferred options for each site to Gateway 4 and 5, at a total cost of £109,000 to be fully funded by the Cheapside Business Allowance (£100,000), underspend from the project (£7,500) and s106 monies from 100 Cheapside (£1,500).

d) **Shoe Lane Quarter Public Realm Enhancements - Phase 2**

Members received a Gateway 5 report concerning the Shoe Lane Quarter Public Realm Enhancements.

RESOLVED - To

1) Approve the implementation of the public realm, highway and security works with an estimated total cost of £7.6 million as shown in Table 1;

2) Delegate authority to the Director of the Built Environment, in consultation with the Chamberlain to make any adjustments between elements of the £7.6 million budget; and

3) Approve the traffic management proposals on Shoe Lane (north) and proceed to advertising of the traffic orders

e) **Lime Street and Cullum Street Area**

Members received a Gateway 6 report concerning the Lime Street and Cullum Street area project.

RESOLVED – To

1) Approve the revised design for Lime Street as shown in Appendix 1;

2) Approve authority to start work following completion of the construction information at a total project cost of £526,331 as set out in appendix 2.

3) Approve the revised total project sum of £824,929 (inclusive of Lime Street area project, Lime Street Traffic Management Experiment and Cullum Street);

4) Approve the additional funding required of £248,323 and that it be met from the underspend of the completed Cullum Street (£63,926) and Lime Street Traffic Experiment (£3,532) projects and £180,865 from the Section 106 contribution connected to 20 Fenchurch Street (specific in purpose and geography).

f) **City Public Realm Projects Consolidated Outcome Report**

Members received a consolidated outcome report for a number of projects which had delivered enhancements across the City public realm.

In response to a question concerning assurance that the lessons learnt were implemented and not lost, officers advised that this was done by way of review meetings.

A member also raised the issue of bollards and tree planting and asked that developers be encouraged to take a softer approach to the use of these so that did not appear to designate separate areas.

RESOLVED – that the outcome information be received and recommendations on individual reports approved

g) **North - South Cycle Superhighway Phase 2**

Members received a report updating on the outcomes of the work being undertaken with TfL in relation to the North-South Cycle Superhighway Phase 2.

Members were advised of a number of significant improvements that officers had secured, however TfL had not agreed to a timed suspension of the proposed left turn ban into West Smithfield.

Officers recommended supporting TfL's proposals even though these would cause some inconvenience for those wishing to access the market. This was due in part to the evidence provided by TfL of the current relatively low demand for the left turn into West Smithfield, in part by the traffic delay that introducing a timed suspension would cause but primarily having regard to the increased road danger it was believed would result from a timed suspension of the ban.

A member expressed concern that the risk of contraventions of the left turn ban throughout the day would introduce a risk for cyclists, and the fact that there would be no further attempts at mitigating this.

REOLVED – To

1) Accept and support TfL's proposal and approve its concept design as shown in Appendix 1,

2) Agree that officers continue to work with TfL to facilitate the delivery of the proposals using the powers and authority available to the City Corporation

Following approval of the recommendations Marianne Fredericks advised that she wished to be recorded as having abstained from the vote.

h) **Aldgate Highway Changes and Public Realm Enhancement**

Members received an update on progress relating to the Aldgate highway changes and public realm enhancement.

RESOLVED – To note

1) That a further £2.8M of the original £10M On Street Parking Reserve (OSPR) fund allocation can be returned leaving £3.7M of OSPR underwriting the project; and

2) The potential funding gap that may need to be met from the existing underwriting allocation, from the OSPR fund.

6. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**
There were no questions.

7. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT**
There were no items of urgent business.

8. **EXCLUSION OF THE PUBLIC**
RESOLVED – That under Section 100A(4) of the Local Government Act 1972, the public be excluded from the meeting for the following items on the grounds that they involve the likely disclosure of exempt information as defined in Part 1 of Schedule 12A of the local government Act.

9. **NON-PUBLIC MINUTES**
RESOLVED – That the non-public minutes of the meeting held on 5 September 2017 be agreed as a correct record.

10. **SECURITY PROGRAMME**
Members received a Gateway 1&2 project proposal on a programme of protective security measures.

RESOLVED - That the report be noted.

11. **NON-PUBLIC QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**
There were no questions.

12. **ANY OTHER BUSINESS THAT THE CHAIRMAN CONSIDERS URGENT AND WHICH THE SUB COMMITTEE AGREES SHOULD BE CONSIDERED WHILST THE PUBLIC ARE EXCLUDED**
There were no items of urgent business.

The meeting closed 11.00pm

Chairman

Contact Officer: Amanda Thompson
tel. no.: 020 7332 3414
amanda.thompson@cityoflondon.gov.uk

Outstanding References – Streets and Walkways Sub Committee

Date	*Action*	*Officer responsible*	*To be completed/ progressed to next stage*	*Notes/Progress to date*
25 July 2016 **27 September 2016** **8 November 2016** **6 December 2016** **14 February 2017** **16 May 2017** **20 June 2017** **5 September 2017** **17 October 2017**	**Parking for Motorcyclists** As part of the review of fees and charges for car parks, consideration be given to the implications on motorcycle parking. A further report to be submitted to the Sub Committee regarding the framework for charging, provision of more parking bays and theft of motorcycles. Consideration would be given to the timings for the project at a future meeting.	Director of the Built Environment Director of the Built Environment	2017	The matter is now included in the 2017/18 work programme and within the restructured City Transportation teams work plan. In response to Members asking that this piece of work be brought forward from 2017/18, officers reported that further advisement of timings would be considered at the January Streets and Walkways Sub-Committee meeting, but it will be a priority on the 2017/18 business plan for consideration at the February Planning and Transport Committee. Complete programme to be reported post elections Members expressed concern regarding the period of time this issue was taking to address and asked that a clear and robust policy, including environmental issues, be brought to the Sub-Committee as soon as possible. It was agreed that officers bring proposals for the programme to the Sub-Committee to enable priorities to be set, and to determine exactly what resources would be required to deliver it.
Ongoing Action **25 July 2016** **27 September 2016**	**Swan Pier** Swan Pier area is to be tidied up in conjunction with the delivery of the	Director of the Built Environment	Ongoing	The matter had now been referred to the City Surveyor. Officers to update.

8 November 2016 **6 December 2016** **14 February 2017** **16 May 2017** **20 June 2017** **24 July 2017** **5 September 2017** **17 October 2017**	Fishmongers Ramp project which is due for completion Summer 2016			Officers advised that a consultant had now been appointed to undertake a review of the repairs needed and that a report would be coming to the Sub-Committee after the recess. The Consultant was now undertaking loading testing which was due to be completed in October 2017. Officers reported that there had been a delay and completion date would now be December 2017.
20 June 2017	**London Wall Place** A member asked if all the necessary procedures had been put in place to promptly adopt the London Wall Place high walks and to ensure the lift that had been out of service functioned properly when these were reinstated?	Director of the Built Environment	Ongoing	Officers undertook to look into this. Officers advised that a report would be coming to the Sub-Committee after recess once assurance on technical compliance had been received. Officers undertook to report back on the process for doing this. Officers reported that it had not yet been confirmed that construction was completed and that the walkways were ready for adoption. The Sub-Committee would be advised as soon as this happened.
20 June 2017	**Two Way Cycling in Seething Lane/ Muscovy Street.** A member asked why officers had not leafleted local residents and occupiers, outlining the proposal, as they had done so previously a number of years ago when the proposal was first suggested, and	Director of the Built Environment	Ongoing	Officers advised that a vigorous design process had been undertaken and they would provide a written response to the Member A decision was taken to conduct informal consultation again in this area; as several years had elapsed. The proposals for the street had been through design and safety audits; especially in their interface with the

	also why, given that circumstances in the area have drastically changed since the idea was first conceived, what review had been undertaken?			design for the garden area in Seething Lane. A consultation letter was sent out by post on 11 July 2016 to all premises fronting onto Seething Lane and Muscovy Street. Our data base showed 12 Trinity Square as the address. Whereas I understand that your flat is part of 15 Trinity Square. You received the consultation letter and plan in an e-mail, as a ward member (on the 11 July) and also through distribution to the Trinity Square Area Stakeholder Group (on 12 July). No comment was received from that consultation. The formal traffic order consultation took place in March 2017. Notices were placed on street and some these were placed adjacent to the doorways that provide entrance to your block of flats. Again, no comment was received to the formal consultation.
5 September 2017				The Member advised the Sub-Committee that officers had admitted that appropriate consultation with residents did not take place and that the occupiers of the flats in 15 Trinity Square had been missed off in error. The Sub-Committee agreed that the residents should be written to again.
17 October 2017				A member expressed concern that although officers had now written to residents again, the letter did not say why they were being

				written to which was because they had been omitted from the original consultation.
22 Bishopsgate **24 July 2017** **17 October 2017**	The Sub-Committee considered an outline options appraisal report of the Director of Built Environment concerning works to improve the public realm areas and security in and around the 22 Bishopsgate development (formerly known as 'The Pinnacle').	Director of the Built Environment	Ongoing	Reference was made to servicing and consolidation measures and officers agreed to report back on this.
Bollards/Bakers Hall Court	It was agreed that this matter should be added to the list of Outstanding References.	Director of the Built Environment	Ongoing	Officers advised that the issue of vehicles mounting the pavement was due to the fact that the occupiers were using big vehicles and so they had been written too and asked to use smaller ones. A member stated that that action needed to be taken quickly and that consideration should be given to the addition of skinny bollards.

Committee(s):	Dates(s):
Planning & Transportation	14th November 2017
Finance	21st November 2017
Streets and Walkways Sub	24th November 2017
Court of Common Council	7th December 2017
Subject: Annual On-Street Parking Accounts 2016/17 and Related Funding of Highway Improvements and Schemes	**Public**
Report of: Chamberlain	**For Information**
Report author: Simon Owen, Chamberlain's Department	

Summary

The City of London in common with other London authorities is required to report to the Mayor for London on action taken in respect of any deficit or surplus in its On-Street Parking Account for a particular financial year.

The purpose of this report is to inform Members that:

- the surplus arising from on-street parking activities in 2016/17 was £6.313m;
- a total of £3.421m, was applied in 2016/17 to fund approved projects; and
- the surplus remaining on the On-Street Parking Reserve at 31st March 2017 was £20.121m, which will be wholly allocated towards the funding of various highway improvements and other projects over the medium term.

Recommendation

Members are asked to:

- Note the contents of this report for their information before submission to the Mayor for London.

Main Report

Background

1. Section 55(3A) of the Road Traffic Regulation Act 1984 (as amended), requires the City of London in common with other London authorities (i.e. other London Borough Councils and Transport for London), to report to the Mayor for London on action taken in respect of any deficit or surplus in their On-Street Parking Account for a particular financial year.

2. Legislation provides that any surplus not applied in the financial year may be carried forward. If it is not to be carried forward, it may be applied by the City for one or more of the following purposes:

a) making good to the City Fund any deficit charged to that Fund in the 4 years immediately preceding the financial year in question;

b) meeting all or any part of the cost of the provision and maintenance by the City of off-street parking accommodation whether in the open or under cover;

c) the making to other local authorities, or to other persons, of contributions towards the cost of the provision and maintenance by them, in the area of the local authority or elsewhere, of off-street parking accommodation whether in the open or under cover;

d) if it appears to the City that the provision in the City of further off-street parking accommodation is for the time being unnecessary or undesirable, for the following purposes, namely:

- meeting costs incurred, whether by the City or by some other person, in the provision or operation of, or of facilities for, public passenger transport services;
- the purposes of a highway or road improvement project in the City;
- meeting the costs incurred by the City in respect of the maintenance of roads at the public expense; and
- for an "environmental improvement" in the City.

e) meeting all or any part of the cost of the doing by the City in its area of anything which facilitates the implementation of the Mayor's Transport Strategy, being specified in that strategy as a purpose for which a surplus can be applied; and

f) making contributions to other authorities, i.e. the other London Borough Councils and Transport for London, towards the cost of their doing things upon which the City in its area could incur expenditure upon under (a)-(e) above.

3. In the various tables of this report, figures in brackets indicate expenditure, reductions in income or increased expenditure.

2016/17 Outturn

4. The overall financial position for the On-Street Parking Reserve in 2016/17 is summarised below:

	£m
Surplus Balance brought forward at 1st April 2016	17.229
Surplus arising during 2016/17	6.313
Expenditure financed during the year	(3.421)
Funds remaining at 31st March 2017, wholly allocated towards funding future projects	**20.121**

5. Total expenditure of £3.421m in 2016/17 was financed from the On-Street Parking Reserve, covering the following approved projects:

Revenue/SRP Expenditure:	**£000**
Highway Resurfacing, Maintenance and Enhancements	(1,971)
Concessionary Fares and Taxi Card Scheme	(530)
Bank Junction Experimental Safety Scheme	(163)
Ring of Steel Compliance and Stabilisation	(125)
Beech Street Tunnel	(116)
Special Needs Transport	(93)
Planting Maintenance	(16)
Street Lighting Project	(3)
Off Street Parking Contribution to Reserves	233
Total Revenue/SRP Expenditure	**(2,784)**
Capital Expenditure:	
Aldgate	(531)
Bank Junction Experimental Safety Scheme	(72)
Barbican Podium Waterproofing – Phase 1	(15)
Milton Court Highway Works S278	(10)
Street Lighting Project	(5)
Barbican Area Strategy - Silk Street	(4)
Total Capital Expenditure	**(637)**
Total Expenditure Funded in 2016/17	**(3,421)**

6. The surplus on the On-Street Parking Reserve brought forward from 2015/16 was £17.229m. After expenditure of £3.421m funded in 2016/17, a surplus balance of £2.892k was carried forward to future years to give a closing balance at 31st March 2017 of £20.121m.

7. Currently total expenditure of some £69.428m is planned over the medium term up to 31st March 2022, by which time it is anticipated that the existing surplus plus those estimated for future years will be fully utilised. This total includes expenditures of £8.344m, £14.903m, £26.999m, £13.249m and £5.933m planned from 2017/18 until 2021/22 respectively, which are anticipated to reduce significantly the surpluses arising in those years.

8. The total programme covers a number of major capital schemes including funding towards the Barbican Podium Waterproofing and Highwalk Remedial Works, repairs to Holborn Viaduct & Snow Hill Pipe Subways, Street Lighting Project, Temple Area Traffic Review, Dominant House Footbridge Repairs, HVM Security Bollards & Security Team, Minories car park structural monitoring/work, 'Ring of Steel' Compliance and Stabilisation and Bank Junction Experimental Safety Scheme.

9. The programme also covers ongoing funding of revenue projects including highway resurfacing, enhancements and road maintenance projects, concessionary fares and taxi cards, special needs transport, and contributions to the costs of Off-Street car parks. The progression of each individual scheme is, of course, subject to the City's normal evaluation criteria and Standing Orders.

10. A forecast summary of income and expenditure arising on the On-Street Parking Account and the corresponding contribution from or to the On-Street Parking Surplus, over the medium term financial planning period, is shown below:

On-Street Parking Account Reserve Projections 2016/17 to 2021/22	**2016/17 Actual £m**	**2017/18 Forecast £m**	**2018/19 Forecast £m**	**2019/20 Forecast £m**	**2020/21 Forecast £m**	**2021/22 Forecast £m**	**Total £m**
Income	9.3	16.6	16.4	16.5	8.9	9.0	76.7
Expenditure (*Note 1*)	(3.0)	(4.0)	(4.0)	(4.0)	(3.0)	(3.1)	(21.1)
Net Surplus arising in year	**6.3**	**12.6**	**12.4**	**12.5**	**5.9**	**5.9**	**55.6**
Capital, SRP and Revenue Commitments	(3.4)	(8.3)	(14.9)	(27.0)	(13.3)	(5.9)	(72.8)
Net in year contribution (from)/ to surplus	**2.9**	**4.3**	**(2.5)**	**(14.5)**	**(7.4)**	**0.0**	**(17.2)**
(Deficit) / Surplus cfwd at 1st April	17.2	20.1	24.4	21.9	7.4	0.0	
(Deficit) / Surplus cfwd at 31st March	**20.1**	**24.4**	**21.9**	**7.4**	**0.0**	**0.0**	

Note 1: On-Street operating expenditure relates to direct staffing costs, repair & maintenance of pay & display machines, Indigo contractor costs, fees & services (covering cash collection, pay by phone, postage & legal), IT software costs for enforcement systems, provision for bad debts for on-street income and central support recharges.

11. A noticeable increase in income generated from 2017-18 to 2019-20 is a result of the Bank Junction Experimental Safety Scheme. Depending upon future motorist's compliance and possible extensions to the current trial scheme timeframe, these income streams may need refining.

12. There is now a combined service for 'Civil Parking & Traffic Enforcement, including the Cash Collection Contract' which has resulted in on-going savings to the operating costs of the On-Street Parking Account.

Conclusion

13. So that we can meet our requirements under the Road Traffic Regulation Act 1984 (as amended), we ask that the Court of Common Council notes the contents of this report, which would then be submitted to the Mayor of London.

Consultees

14. The Comptroller & City Solicitor has been consulted in the preparation of this report and his comments have been included.

Background Papers

15. Road Traffic Regulations Act 1984; Road Traffic Act 1991; GLA Act 1999 sect 282.

16. Final Accounts 2016/17.

Simon Owen
Chamberlain's Department

T: 020 7332 1358
E: *simon.owen@cityoflondon.gov.uk*

This page is intentionally left blank

Committees:	**Dates:**	
Streets and Walkways Sub-Committee Projects Sub-Committee	24 November 2017 11 December 2017	
Subject: 100 Minories Area Enhancements	Gateway 5 (S278 works – Phase 1); and Gateway 3/4 Options Appraisal (public realm enhancement works – Phase 2)	**Public**
Report of: Director of the Built Environment **Report Author:** Leila Ben-Hassel		**For Decision**

Summary

Dashboard
Project status*:* Green
Timeline:
Phase 1(S278 works) implementation to commence February 2018;
Phase 2 (enhancement works) implementation to commence in April 2018.
Spend to date: £81,271(evaluation costs both phases)
Total Phase 1 estimated implementation cost: £453,229
Total Phase 2 estimated implementation cost: £476,034 - £676,225
Total estimated project sum: £1,078,229 - £1,278,420
Overall project risk: Low

Brief Description of Project

This project is a high priority of the Aldgate and Tower Area Strategy and includes public realm enhancements and highway changes in association with the hotel development at 100 Minories (see location plan in appendix 1). It is proposed to transform Crescent into a new green tranquil public space. A new north-south pedestrian route (highlighted on the location map in appendix 1) through the development will be integrated into the street design along with improvements to the play area at Tower Hill Gardens. The works will be primarily funded from S106 and S278 agreements connected to the development, along with Transport for London LIP funding and other possible third party contributions, including a voluntary contribution from the developer which is currently being investigated. The cost of the implementation of Phase 1 is fully funded through the s278 Agreement with the developer. For the implementation of Phase 2, funding of £502,705 is currently available (£420,000 of S106 and £82,705 of TfL funding). However, the developer and other stakeholders have indicated a willingness to provide additional funding contributions to deliver the Phase 2 design options presented in this report. Should these additional funding contributions not be forthcoming, a reduced scheme will be delivered, which is likely to comprise the removal of much of the green infrastructure currently proposed.

Progress to Date

Following Gateway 1/2 approval in 2016, officers have worked closely with the developer of the hotel at 100 Minories and the appointed landscape architect to develop the scheme. It is proposed to divide the project into 2 phases (please refer to the phase plan in appendix 2) in order to align with the developer's programme:

- ***Phase 1 (S278 works)***

These works are necessary to enable the successful integration of the new development into the highway and include repaving footways around the development, together with a raised carriageway in Hammett Street and part of Vine Street in order to safely enable the new north-south pedestrian route between key transport hubs, and facilitate the hotel's operations, including servicing into the loading bay of the new development. It is proposed to change from two-way traffic to one-way north bound along Hammett St, Crescent and the south end of Vine St and introduce an 'access only' restriction in order to better accommodate the hotel's servicing operations and enhance pedestrian safety. It is anticipated that these changes will have neutral impact on the highway network as Hammett St has been closed for 3 years and 7 months (43 months). The design for phase 1 (please refer to the general arrangement drawing in appendix 3) has been developed to construction stage and agreed with the Developer.

- ***Phase 2 (public realm enhancement works and S106 obligations)***

Two options have been developed to create a new green public space at Crescent. These have been progressed to concept design stage taking into consideration requirements from key stakeholders identified as well as the site constraints and policies. Improvements to Tower Hill playground will also be undertaken.

Overview of Options (Phase 2 enhancement works)

Both options propose the creation of a new green public space in Crescent with associated seating and lighting and aim to celebrate the original Georgian Crescent design. Option 1 is mostly inspired by the original crescent shape of the site with a semi-circular lawn area with formal seating at both sides (details of each options are included in the options appraisal matrix in appendix 4). Option 2 includes the creation of a focal point and spiral lawn area. This option centres the Crescent with Hammett St and Vine St creating a more harmonious geometry. It provides informal and formal seating along the lawn area. Please see indicative montage views in appendix 6.
There are additional works in Phase 2 comprising obligations under the S106 to carry out improvements to the new pedestrian north-south route at Vine Street and improvements to the Tower Hill play area.

Proposed Way Forward

Phase 1 (S278 works):

Authority to start work is sought for Phase 1 and it is proposed to start the works in February 2018 following completion of the construction package and necessary legal agreements.

Phase 2 (*public realm enhancement works and S106 obligations*):

Option 2 is recommended to be taken forward to the next gateway and development of the detailed design and construction package will be undertaken from November 2017 to January 2018.

Recommendations

It is recommended that Members:

1) Give authority to start work on Phase 1 (S278 works) at a total estimated implementation cost of £453,229;

2) Approve the design for Phase 2 (Option2) to progress to Gateway 5 at a total estimated cost of £67,695 to be funded from TfL Local Implementation plan 2017/18;
3) Provide officers with the authority to undertake all the necessary processes to implement the proposed traffic changes and legal agreements associated with the project.

1. Design summary	**Phase 1 (S278 works)** These works are necessary to integrate the development into the surrounding highway (please refer to the phase plan in appendix 2) and include: • Re-paving the footways around the development in York stone; • A raised carriageway treatment in Hammett Street and part of Vine Street to enhance safety and facilitate access to the hotel's new servicing yard and into the new loading bay by the railway bridge (as shown on the General Arrangement drawing provided in appendix 3) • Adjustments to kerb lines to accommodate safe vehicular movement associated with the hotel's operations and servicing; these adjustments also enable the successful integration of the new pedestrian north-south route along Vine Street from America Square to Tower Gardens supporting a route away from heavy traffic and pollution between key transport connections: Aldgate, Tower Gateway and Tower Hill – please see highlighted route on the location map in appendix 1. • Change from two-way traffic to one-way north bound along Hammett St, Crescent and the south end of Vine St and introduce 'access only' restriction. These changes contribute to better accommodate the hotel's servicing operations and related anticipated traffic to their loading area whilst enhancing pedestrian safety. It is anticipated that these changes will have neutral impact on the highway network as Hammett St has been closed for 43 months;

	• Accessibility enhancements: the retention of 1 disabled parking bay relocated from Crescent to Hammett St where the raised carriageway enables a step free access to Minories, Vine St, the Crescent buildings and new hotel amenities, America Square as well as Tower Gardens; crossings along desired lines are indicated by tactile paving. It should be noted that works at the junction of Hammett St and Minories will be undertaken under a Section 8 agreement between TfL and the City of London – please refer to the area highlighted in the plan provided in appendix 2. Early engagement with TfL has been undertaken and support for the scheme has been secured. A general arrangement drawing of the Phase 1 works (S278 highway works) is included in appendix 3. **Phase 2 (public realm enhancement works and S106 obligations)** The work area of the enhancement works are highlighted on the map provided in appendix 2 and they include: • Delivery of a new tranquil public space with added high quality greenery • An improved hard landscape in the Crescent celebrating its Georgian heritage • Lighting improvements along Vine St from America Square to create a pleasant and inviting pedestrian environment along the new pedestrian north-south route • Kerb realignments at the southern end of Vine St to accommodate a step-free and wider footway along the newly created north-south pedestrian route; these will also facilitate the introduction of a new loading bay which will enable servicing to the Crescent and America Square; • Minor landscape enhancements to Tower Gardens with paths and play equipment improvements as per the S106 requirements. • Other associated enhancements include screening of the London Underground Ltd sub-station façade (subject to LUL approval) and lighting under the Network Rail bridge underpass in Vine Street. These works are all included within the range of the total project sum as set out in this report. Two concept design options have been developed in liaison with key internal and external stakeholders and are assessed in the appraisal matrix included in appendix 4.

2. Delivery team	• Project Management – City Public Realm team • Detailed design – Highways Division & Growth Industry Landscape Architects • Construction – JB Riney (under the City's term contract) • Construction Management – Highways Team • Green infrastructure – City Gardens Team
3. Programme and key dates	**Phase 1 – S278 works** • Finalisation of construction package: November – December 2017 • Statutory consultation on traffic orders: November 2017 – January 2018 • Implementation (S278 works) : February – April 2018 **Phase 2 – (public realm enhancement works and S106 obligations)** • Develop landscape and lighting design by December 2017 • Gateway 5: February 2018 (delegated to Chief Officer as per the Corporate Project Procedure) • Implementation of Crescent and Vine St Enhancement works: April 2018 – September 2018 • Implementation of Tower Gardens Improvements and planting in Crescent: October – December 2018
4. Outstanding risks	This phase of the project (S278 Highways works) is considered low risk. However risks include: 1. Works costs exceed budget due to underground utilities Investigations and surveys have been undertaken and a lot of information on underground structures (gathered during construction) from the developer's project team has been shared with City officers. These have informed the design development and cost estimation. The project manager will monitor cost closely in liaison with the construction manager to ensure the project stays within budget. 2. Archaeology impact on programme The site area is identified in the Local Plan as an area of archaeological significance. The London underground tube line runs directly under parts of the project site and only shallow drainage is anticipated for the highways works. Moreover a lot of excavation has been undertaken during the construction of the hotel and archaeological finds have been appropriately documented. Officers therefore anticipate the risk of archaeological finds to be low. They have however included within costs an archaeology watching brief. Should any find be uncovered during excavation works lead to a cost increase, further

	funding may be needed. These costs will be met by the developer and would be requested through an issue report. 3. Objections to changes to servicing arrangement in Crescent Servicing in the Crescent will be accommodated by a new loading bay under the railway bridge connected to the Crescent by a step free route. Vehicle drop off is also facilitated by a widened carriageway along Hammett St and Crescent. Initial consultation has been undertaken with occupiers and the developer and consultees are supportive. Active stakeholder engagement will continue as the design is finalised. Risks specific to phase 2 (public realm enhancement works and S106 obligations) are outlined in the options appraisal matrix' risk section (appendix 4 – section 4)
5. Budget	**Phase 1 (S278 works)** – implementation budget: £453,229 implementation. Any additional costs will be fully met by the Developer through the S278 agreement. **Phase 2 (public realm enhancement works and S106 obligations)** – estimated implementation costs: £476,034 - £676,225. These costs will be refined by the next gateway and will be fixed by the resources made available. Other possible third party contributions, including a voluntary contribution from the developer are currently being investigated. Further financial information is provided in appendix 5.
6. Success criteria	• An enhanced public realm and walking routes in accordance with the aims of the Aldgate and Tower Area Enhancement Strategy and in keeping with the conservation area; • A well-functioning street environment in the vicinity of the hotel with road danger reduction where applicable; • Improvements to the play area at Tower Gardens; respecting the character of the World Heritage Site; • Improved accessibility for all, particularly for those with mobility difficulties.
7. Legal implications	The first Section 278 Agreement securing the Design and Evaluation works has been concluded. The second Section 278 Agreement is due to complete by the end of January. A Section 8 agreement is being negotiated with TfL in order for the City to carry out the works to the area highlighted in the plan provided in appendix 2. Further legal agreement (or amendment to existing agreements) will be required should any voluntary contribution be forthcoming from the Developer.

8. Progress reporting	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

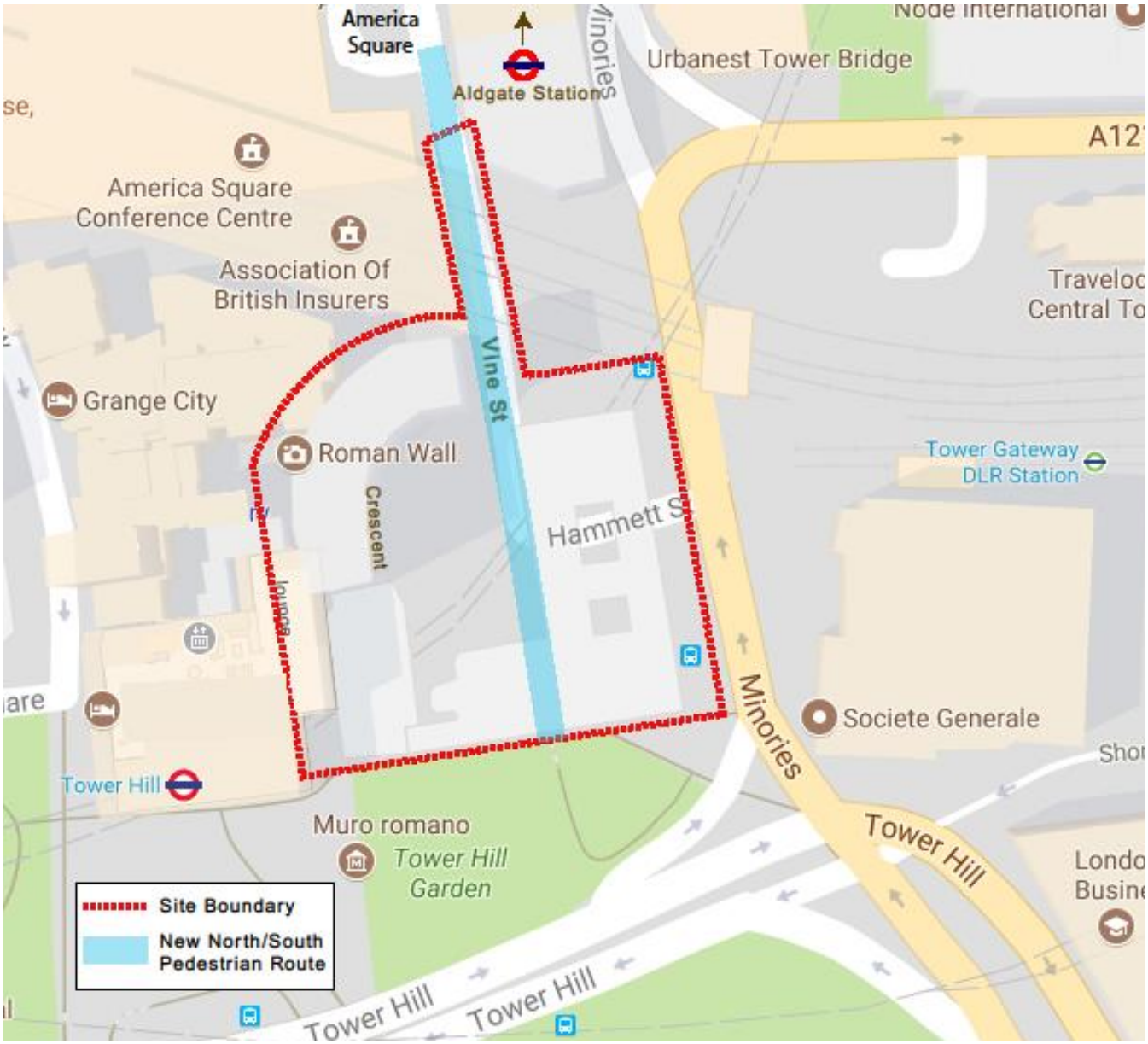
Appendices

Appendix 1	Location map
Appendix 2	Phase plan
Appendix 3	Phase 1 (S278 Highways works) - General Arrangement Drawing
Appendix 4	Phase 2 (public realm enhancement works and S106 obligations) - Options Appraisal Matrix
Appendix 5	Financial Information
Appendix 6	Indicative montages of options

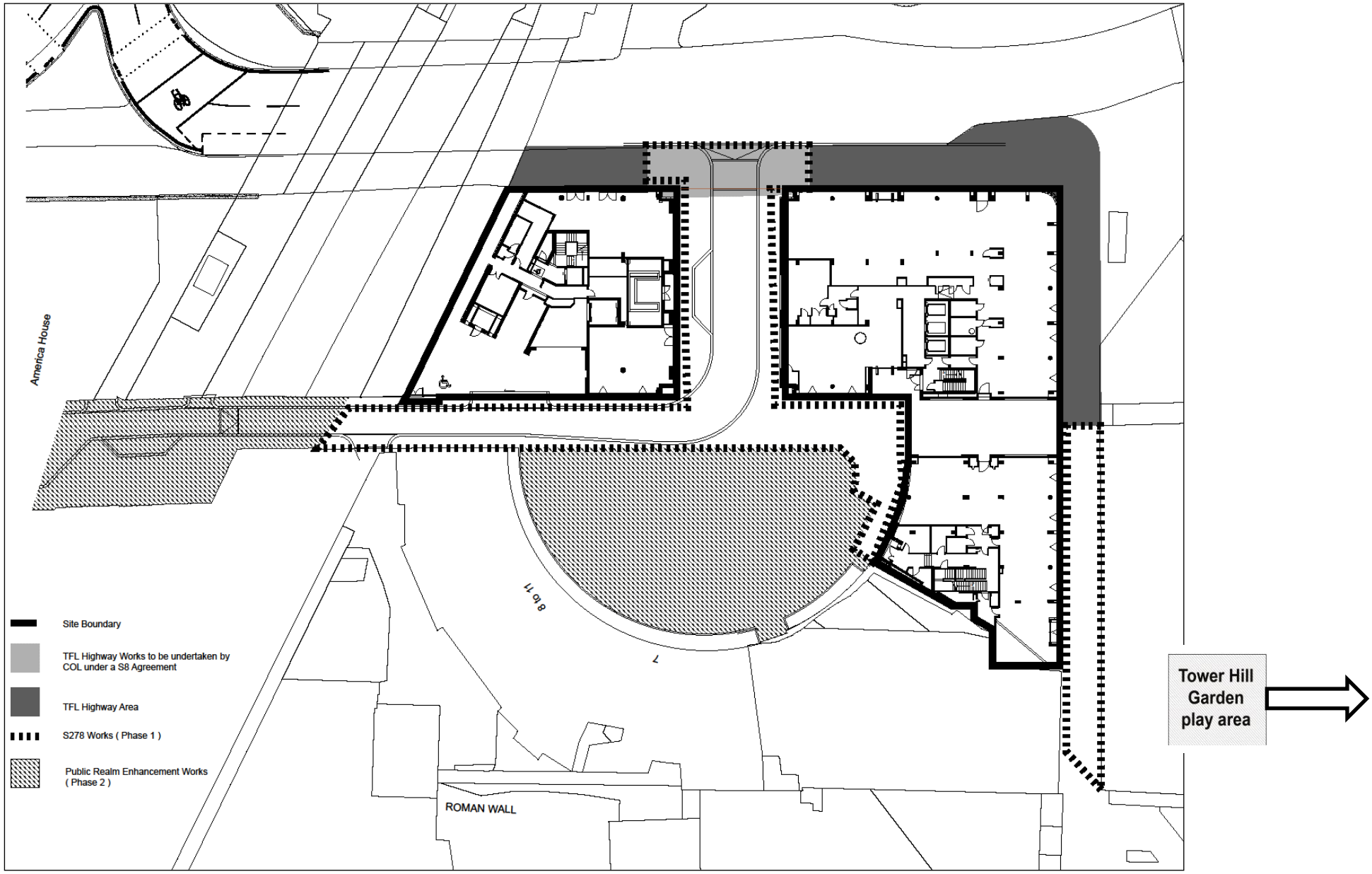
Contact

Report Author	Leila Ben-Hassel
Email Address	Leila.ben-hassel@cityoflondon.gov.uk
Telephone Number	020 7332 1569

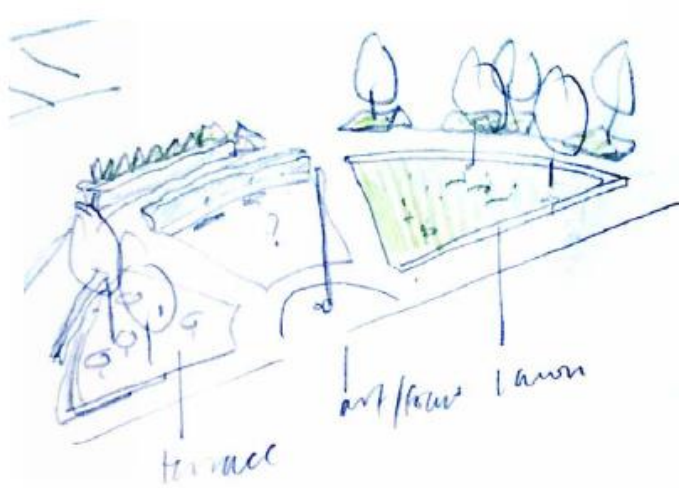
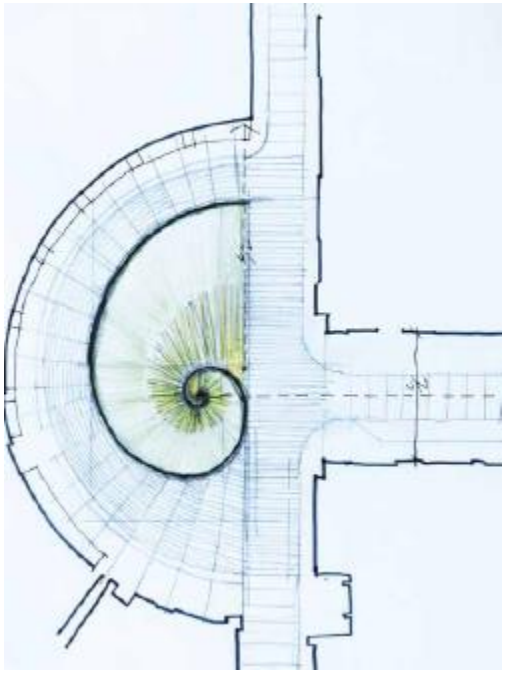
Appendix 1: Location map



Appendix 2: phase plan



Appendix 3: Phase 2 (enhancement works) Options Appraisal Matrix

	Option 1	*Option 2*
1. Brief description	**"Radial" concept design option**  This option proposes the creation of a new green public space with the layout informed by the geometry of the historic Crescent. A central lawn is proposed in the sunniest part of the space along with planting beds and traditional timber benches. Anti-skate measures will be incorporated into the design York stone paved terrace areas are proposed to the south and north of the lawn with trees and further seating. A flexible space is provided on the eastern side of the lawn that could be used for public art in the future. Please refer to plans and indicative montage views	**"Golden Ratio" concept design option**  This option proposed the creation of a new green public space in Crescent. The design refocuses the centre of Crescent informed by the Georgian proportions of scale and geometrical rigour of the Golden ratio. A central spiral lawn is proposed in the sunniest part of the space. The lawn and perimeter ornamental planting bed is contained by a gradually emerging wide granite edge that becomes a backed seating edge overlooking the paved entrance area to the Apart hotel and potential outdoor seating.

	Option 1	***Option 2***
	in appendix 6.	The centre of the spiral brings together the formal geometry of the Crescent with the centre of Hammett Street, thus establishing a focus in the space and uniting old and new. The focal point includes a raised granite plinth seating area that can also be used for public art. Planting beds and seating areas are also proposed along with a York stone paved terrace area to the south of the lawn with trees, planting and further seating. Anti-skate measures will be incorporated into the design. Please refer to plans and indicative montage views in appendix 6.
2. Scope and exclusions	• Both options include enhancements to Tower Hill Garden and play area which is an obligation of the S106 agreement, including improvements to the paths, planting and play equipment; • Both options include both functional and feature lighting.	
Project Planning		
3. Programme and key dates	• Gateway 5: February 2018 (approval delegated to Chief Officer as per the Corporate Project Procedure) • Phase 2 Implementation – Crescent and Vine St works : April 2018 to September 2018 • Tower Garden improvements and Crescent planting – October 2018 to December 2018 (planting season)	
4. Risk implications	Phase 2 of the project is considered to be medium risk. Main risks include: 1. Works costs exceed budget due to underground utilities Investigations (trial holes) and utilities surveys will be undertaken. Some information on underground structures relating to parts of Crescent (gathered during construction) has been shared by the developer's project team with City officers. These will inform the design development and cost estimation. 2. Works estimate exceeds budget available and additional funding isn't secured Officers will develop the detailed design to the funding available. This would imply a significant reduction of the greenery element of the scheme. 3. Archaeology impact on programme The site area is identified in the Local Plan as an area of archaeological significance. The London underground tube line runs directly under parts of the project site. The excavation to install	

	Option 1	*Option 2*
	drainage, irrigation and seating foundations is anticipated to be shallow. Officers therefore anticipate the risk of archaeological finds to be low. They have however accounted for an archaeology watching brief should any find be uncovered during excavation works.	
5. Benefits and disbenefits	**Benefits joint to both options:** • Both design options accommodate well the new hotel's operational activities as well as the requirements of servicing the LUL sub-station • Both design options deliver a new tranquil green space for occupiers, the new hotel's clients and the wider City community in line with the key objectives of the City's Aldgate and Tower Area Strategy; • Both design options provide opportunities for historical interpretation; • Both design options provide potential for public art or activation for the benefit of the wider city community, such as hosting events (Aldgate Partnership's run events for example).	
	Benefits • The design attempts to reinstate the historical shape of Crescent • It provides opportunities for formal seating **Disbenefits** • The design could be considered too conservative; • The historical Crescent geometry cannot fully be reinstated due to the constraints relating to vehicle movement associated with site operations.	**Benefits** • The design unifies the geometry of Crescent and Hammett Street uniting old and new. • The design provides greater scope for activation, public art and historical interpretation **Disbenefits** • This option provides more informal seating and less formal seating areas; • This option has slightly less greenery than option 1.
6. Stakeholders and consultees	The designs have been developed in coordination with the developer of the new hotel at 100 Minories who is supportive of the scheme. Officers have also engaged with the occupiers of Crescent, Ward Members and have liaised with LUL and Network Rail and the feedback has been positive thus far. Further consultation is planned following the approval of this Gateway.	

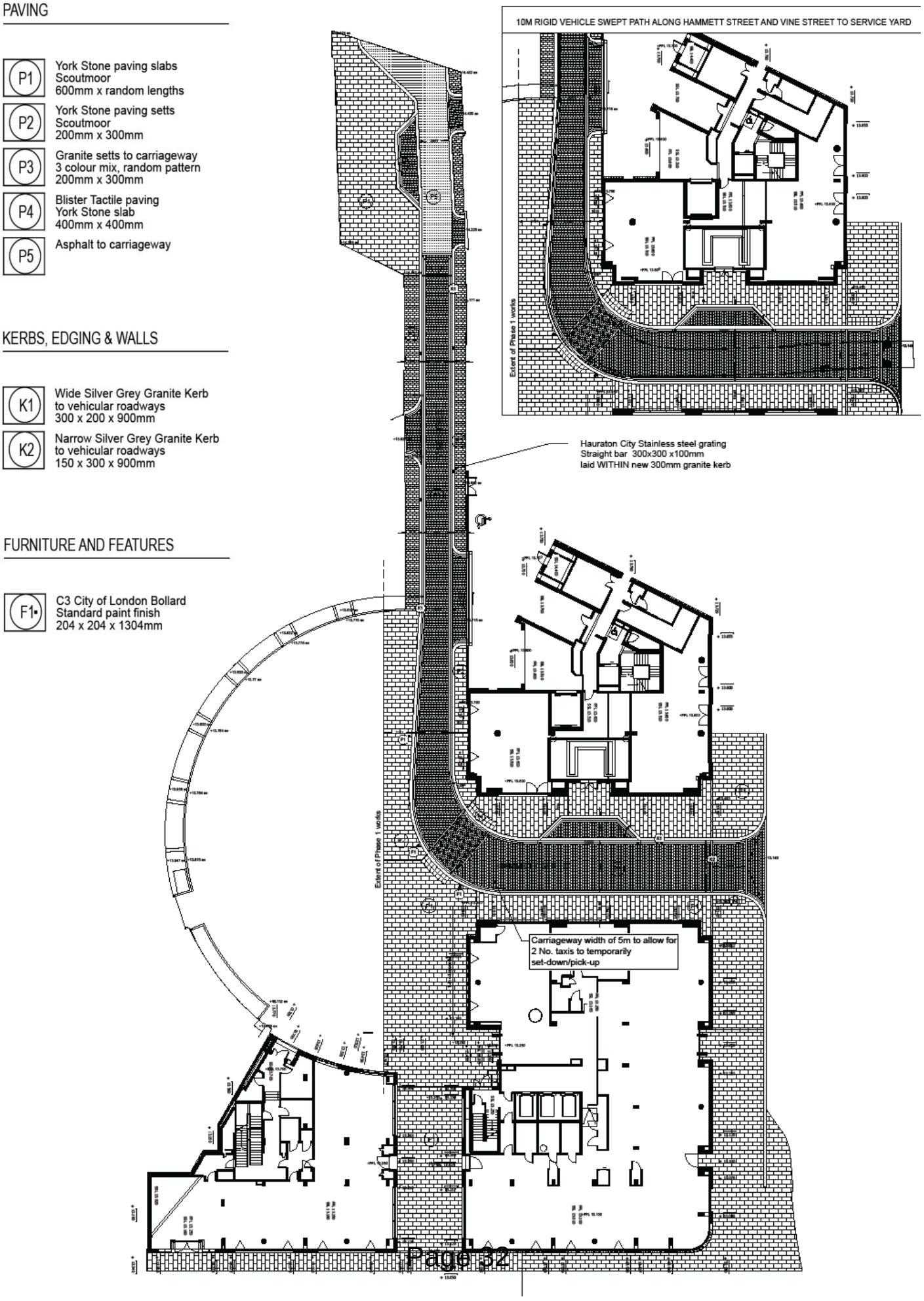
Resource Implications	
7. Total Estimated cost	Estimated Implementation costs (Phase 2): £476,034 - £676,225 Total estimated project sum (total evaluation costs, implementation phases 1 and 2): £1,078,229 - £1,278,420 Further information is included in appendix 5.
8. Funding strategy	The majority of the funding for this project (£475,000) comes from the S106 Environmental Improvement Works obligation connected to the hotel development. However, this funding on its own is not sufficient to deliver the scheme and so in accordance with the approval at Gateway 2, officers have investigated additional funding sources and propose to also utilise TfL LIP funding (£150,000) as well as other possible third party contributions, including a voluntary contribution from the developer which are currently being investigated. In addition, the same S106 obligation includes £143,578 for Transport Improvement Works which will also be investigated as a source of funding for this phase of the project. The scheme with the scale of greenery shown on the montage views in appendix 6 would require officers to successfully secure additional funding contributions. A scheme reduced in scope can be delivered without other third party contributions. However, this is likely to result in the removal of much of the green infrastructure. This green infrastructure is a significant element of the budget, both in terms of capital costs and the associated long-term maintenance costs.
9. Ongoing revenue implications	Maintenance costs of the Open Spaces Department cannot be adequately covered by the S106 obligation. The S106 agreement restricts maintenance payments to 5 years. Discussions will be required with the developer in order to secure appropriate maintenance payments through the negotiation of a voluntary contribution. It is proposed to cover 20 years of maintenance costs of the planting utilising part of the S106 contribution to cover a 5 year period in line with the agreement and a voluntary contribution from the developer to cover the following 15 years.
10. Legal implications	The hotel development at 100 Minories (12/00263/FULMAJ) is currently under construction. The associated S106 Agreement includes a number of environmental enhancements that are to be funded by the S106 as follows: (a) enhancements to Tower Gardens play area; (b) Enhancements to the street environment within the immediate vicinity of the development, with first priority to Crescent and the new route through the site; (c) Compensatory greening for the loss of the raised flower bed along the walkway to the south of the site.

11. Traffic implications	• Hammett St has been closed to traffic for 43 months to facilitate the development and pay and display facilities were revoked as part of a consolidation order in 2012 prior to the development's construction. It is therefore proposed not to re-introduce pay and display parking bays to provide potential for added green public space, in line with the approved area enhancement strategy; • There are two disabled parking bays located on Crescent; It is proposed to relocate one of the two existing bays in Hammett St; the relocation of the 2nd bay will be reviewed in close liaison with the City's Access Team ahead of the next Gateway; • The use of the previous 9 metre motor-cycle facility originally located on Hammett St has been reviewed by City Transportation officers prior to the closure for the development works. No alternative motor-cycle parking was provided. Officers do not propose to reinstate motor-cycle parking facility following completion of the development Motorcycle parking is available in the nearby Minories car park as well as several on-street sites. • Reduction in the amount of loading on Crescent is proposed. An alternative loading bay under the railway bridge on Vine St is proposed and is accessible step-free from Crescent. In addition, the proposed widened carriageway, from Minories along Crescent and Vine Street north bound, accommodates vehicles drop-offs; • Hammett St used to be a 'rat-run'; City Transportation Officers have assessed the one way movement north bound from Minories, Hammett St, Crescent to Vine St and do not anticipate that it will encourage short-cuts: these are no longer necessary since Minories was made two way; • A taxi rank isn't proposed – the nearest rank is opposite the new hotel along Minories; Taxi movement is comfortably accommodated by the widened carriageway along Hammett St and Crescent.	
12. Sustainability and energy implications	• Greenery to mitigate impacts of pollution; • The inclusion of suds will be investigated , in close liaison with the Open Spaces Department and accommodated as best as possible as the design progresses, taking into account constraints of lack of depths relating to the London Underground tunnel and known underground structures; • Materials sourced from the UK and Europe to ensure a more sustainable to the scheme.	
13. Equality Impact Assessment	Engagement with the City's Access team is ongoing and a full Equality Impact Assessment will be undertaken ahead of Gateway 5.	
14. Recommendation	Not recommended	Recommended
15. Next Gateway	Gateway 5 - Authority to Start Work	

16. Resource requirements to reach next Gateway

Item	Reason	Cost (£)	Funding Source
Fees	Detailed design Ph2 Lighting design concept and detailed design C4 – utilities' investigations and trial holes	£31,385	TfL
Highways Staff costs	Production of construction package drawings for Phase 2	£23,250	TfL
City Public Realm and Transportation Staff costs	Project Management, incl. liaison with developer, consultation with internal and external stakeholders, communication and managing approvals	£10,560	TfL
Open Spaces Staff costs	Liaison and input in the general design and planting design	£2,500	TfL
Total		**£67,695**	

Appendix 4: Phase 1 (S278 Highways Works) - General Arrangement Drawing



Appendix 5: Financial Information

1. Spend to date – pre-evaluation stage

100 Minories S106			
Description	**Approved Budget (£)**	**Actual (£)**	**Balance (£)**
Pre-Evaluation Fees	25,000	18,181	6,819
Pre-Evaluation Fees Total	**25,000**	**18,181**	**6,819**
Pre-Evaluation Staff costs			
Planning and Transportation	30,000	30,000	0
Pre-Evaluation Staff costs Total	**30,000**	**30,000**	**0**
(i) 100 Minories S106 - Total	**55,000**	**48,181**	**6,819**
100 Minories S278			
Description	**Approved Budget (£)**	**Actual (£)**	**Balance (£)**
Pre-Evaluation Fees*	15,000	15,000	0
Pre-Evaluation Fees Total	**15,000**	**15,000**	**0**
Pre-Evaluation Staff Costs*			
Planning and Transportation	10,000	9,000	1,000
Highways	10,000	9,090	910
Pre-Evaluation Staff Costs Total	**20,000**	**18,090**	**1,910**
(ii)100 Minories S278 - Total	**35,000**	**33,090**	**1,910**
Total (i + ii) 100 Minories Pre-evaluation	**90,000**	**81,271**	**8,729**

** Estimated costs to 11th December.*

2. Phase 1 (S278 highways works)

- Implementation budget sought at Gateway 5

Item	S278 (£)
Works	347,124
Staff Costs	43,000
Fees	56,275
Future Maintenance**	6,830
S278 Works Implementation total	**£453,229**

*** Corresponds to commuted sums for standard highways maintenance including granite setts and York stone*

- Breakdown information

Item	(£)
Works	
Preliminaries and site clearance	20,746
Earthworks	27,000
Hard landscaping	210,534
Traffic signs and road markings	10,802
Lighting	15,000
Drainage and service ducts	18,042
Utilities related works	45,000
Works total	**347,124**
Maintenance	
Maintenance (20 years - Highways)	6,830
Maintenance total	**6,830**
Fees	
Design consultant	7,875
Utilities related fees	15,000
Traffic orders and permits related costs	8,400
TfL lane rental	25,000
Fees total	**56,275**
Staff costs	
P&T staff costs	17,000
Highways staff costs	26,000
Staff costs total	**43,000**
Project Phase 1 – total implementation costs	**453,229**

- Funding

All costs will be fully funded by the developer following successful agreement of the S278. Any underspend other than commuted sum for maintenance will be returned to the developer following the project close down and approval of the Gateway 7 by committees.

3. Phase 2 (public realm enhancement works and S106 obligations)

- Additional budget sought to get to Gateway 5

Item	(£)
Fees	
Design fees (incl. landscape, lighting and planting)	13,385
Utilities and trial holes related fees	18,000
Fees total	**31,385**
Staff costs	
P&T staff costs	10,560
Highways staff costs	23,250
Open Spaces	2,500
Staff costs total	**36,310**
Phase 2 - resources to reach next Gateway	**67,695**

- Total Estimated Implementation cost (phase 2)

Item	Phase 2 Implementation cost range (£)	
Works	358,309	526,000
Fees	22,225	22,225
Staff Costs	50,500	53,000
Maintenance (20 year - Open Spaces)	45,000	75,000
Project Phase 2 - total estimated Implementation	**476,034**	**676,225**

4. Total project sum (ph. 1 + ph. 2) and proposed funding strategy

- Total project sum

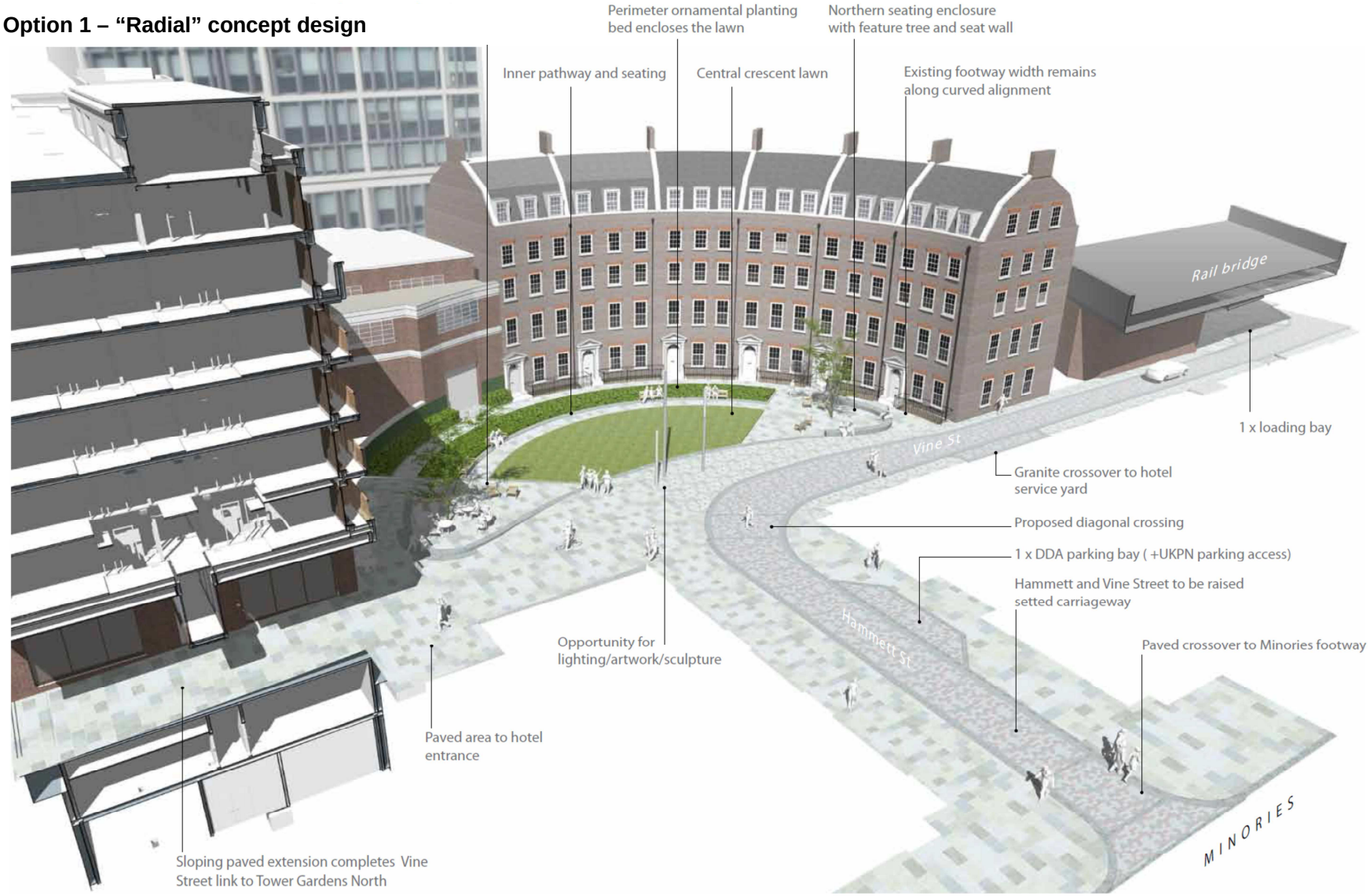
Item	(£)	
Pre-evaluation costs (phases 1 and 2)	81,271	
Phase 1 - Total estimated implementation costs	453,229	
Phase 2 - Total evaluation costs to reach next gateway	67,695	
Phase 2 - Total estimated implementation costs	476,034	676,225
Total estimated project sum (phase 1 + phase 2)	**1,078,229**	**1,278,420**

- Proposed funding strategy

Funding source	(£)
TfL LIP 2017/18	£70,000
TfL LIP 2018/19	£80,000
S106	£475,000
S278	£453,229
Third party contributions to be determined by Gateway 5	TBC
Total funding to date	**£1,078,229**

Appendix 6: Indicative montages of proposed options

Option 1 – "Radial" concept design



CONCEPT OPTION 1

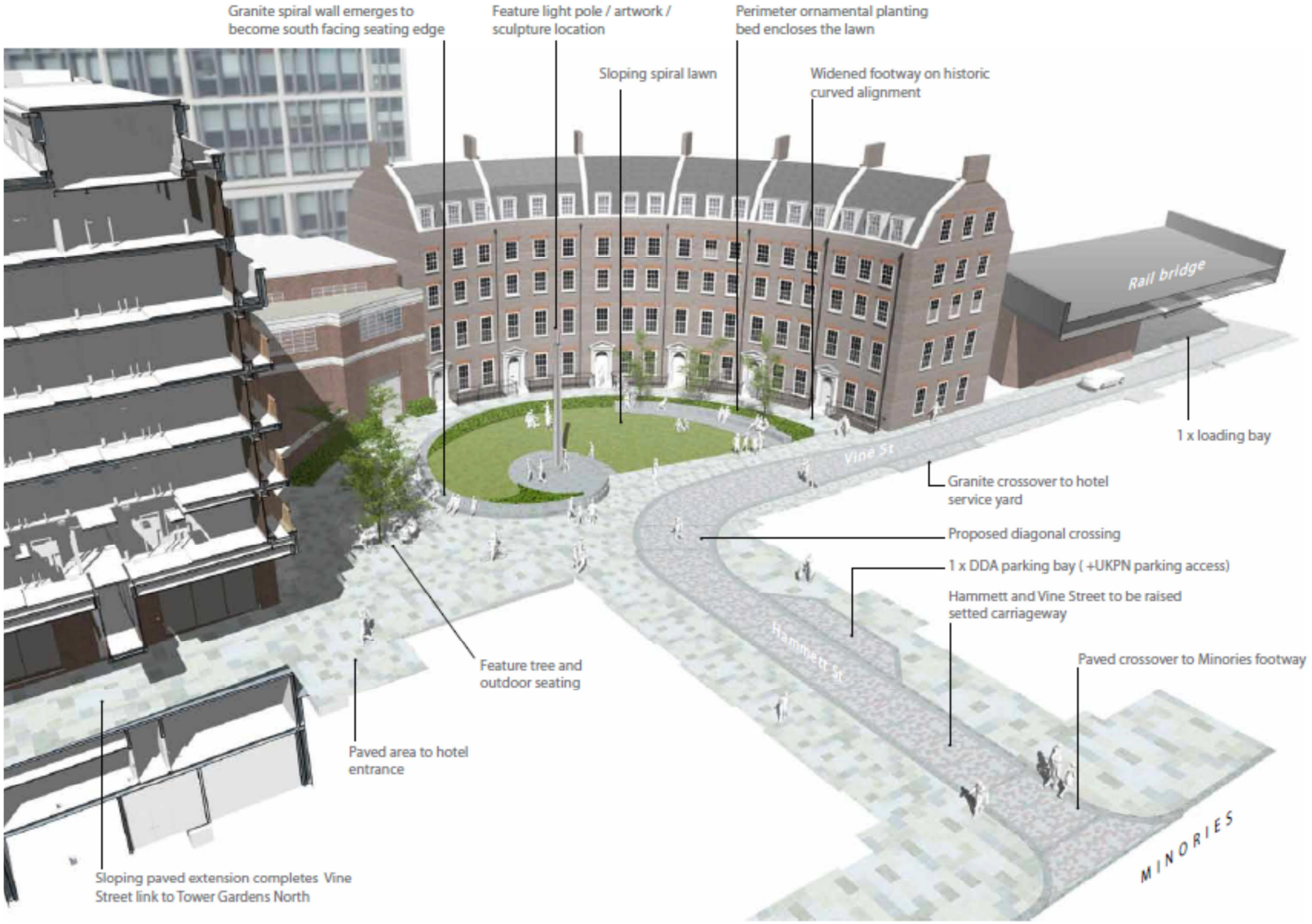
View along Hammett Street in to Crescent

overview into the Crescent

CONCEPT OPTION 1

View looking south along Vine Street with seating opportunities and feature tree planting

Option 2 – "Golden Ratio" concept design



overview into the Crescent

CONCEPT OPTION 2

View along Hammett Street in to Crescent

CONCEPT OPTION 2

Paved outdoor seating opportunities around Apart Hotel entrance with seating edge to feature lawn

Committees:	Dates:	Item no.
Streets and Walkways Sub-Committee Projects Sub-Committee	24 November 2017 11 December 2017	
Subject: City Wide Pedestrian Model	**Gateway 6** **Update Report**	**Public**
Report of: Director of the Built Environment		**For Decision**

Summary

Dashboard

- Project Status: Green
- Timeline: Gateway 6, first progress report following initial procurement
- On programme
- Approved budget: £311,826
- Spend and commitments to date: £311,515.
- The Planning & Transportation and Resource Allocation Committees have approved the allocation of £60,000 of TfL funds for further development of the pedestrian model in the 2017/18 financial year.

In August 2015 Members authorised officers to procure consultants to build a digital pedestrian model of the entire City of London. The purpose of this model was to enable the City to predict future pedestrian flows for a range of different scenarios. This would enable the City to understand the impacts of physical or policy changes upon future pedestrian movement in the City and in particular to support decision making regarding accommodating the additional pedestrian movement generated by Crossrail.

That project was successfully completed, on time and on budget. The City now has pedestrian models that predict levels of pedestrian movement on all streets in the City of London for the years 2016 and 2026. The model is a unique data source which provides a strong evidence base to underpin strategic planning of City streets to ensure that they meet the needs of future residents, workers and visitors. Using these models, we can:

- Identify where pedestrian movement levels are likely to experience most growth as a result of developments which are likely to be delivered over the next ten years;
- Identify areas of the City which have spare pedestrian capacity to absorb increased levels of movement;
- Identify where new pedestrian routes would be most beneficial in terms of relieving stress on existing footways; and
- Use the information above to inform our discussions with developers, and to inform future strategy planning.

Subsequent to this, Members authorised officers to commission consultants to

use the model to:

- Identify streets which are unlikely to have sufficient capacity to accommodate projected growth in pedestrian movement; and
- Carry out an evaluation of the impacts on pedestrian movement of growth in the Eastern City Cluster.

In addition to the above, the consultants were asked to investigate alternative data collection methods which would allow the model to provide more detailed forecasts of pedestrian movement. Through this study, it became apparent that Telefonica, the City's WiFi network delivery partner, could potentially use mobile telephone data collected via the WiFi network to provide a very detailed source of pedestrian movement data in the City. This could provide pedestrian movement data with which the model could be significantly refined.

As an example of the type of refinement that could be achieved, the model in its current form provides predictions of pedestrian movement on streets but does not distinguish direction of travel, or which side of the street pedestrians are travelling on. By incorporating the WiFi data, we would certainly be able to predict direction of movement and, for most streets, which side of the street pedestrians are travelling on. This could for example, help us to determine when a building redevelopment proposal is of inappropriate scale for the local footway network and thus direct refusal; or to identify very specific improvements in the local footway network that the developer would have to pay for in order to mitigate the impact of their development; or to promote new ground floor routes through buildings to improve pedestrian permeability.

It is therefore proposed that a trial study is conducted whereby the City would procure WiFi data from Telefonica, then provide this to consultants in order for them to update the pedestrian model. The trial study will focus upon the Eastern City Cluster Area. The outputs of this study will be:

i) An enhanced pedestrian model of the Eastern City Cluster area which will enable us to better determine where we can target interventions to improve conditions for pedestrians, particularly in light of the massive increases in pedestrian movement that are predicted to take place in that area; and
ii) A set of protocols regarding how the process of integrating WiFi data into the pedestrian model could be rolled out across the entire model in the most effective manner.

The model has been developed by Space Syntax Ltd., using their purpose-built software. Space Syntax Ltd. is the only company with sufficient specialist knowledge of this modelling package to develop it in the way that we have specified. Therefore a waiver of standing orders is required to procure further development of the model directly from Space Syntax Ltd.

It should also be noted that as Telefonica are the only people with access to the WiFi data, officers will also need to procure directly from Telefonica.

The funding for this work would come from TfL's Local Implementation Plan funding award for 2017/18. In March 2017 both the Planning and Transportation and Resource Allocation Committees approved the allocation of £60,000 of TfL funding towards the Pedestrian Model.

It is recommended that:

- ***Members note that both the Planning and Transportation and Resource Allocation Committees have approved the allocation of £60,000 of TfL funding for further development of the pedestrian model;***
- ***In accordance with this approval, Members authorise officers to extend the project budget by £55,000 in order to procure WiFi data from Telefonica, and to commission Space Syntax to use this data to update their model in the Eastern City Cluster area. This will be entirely funded by TfL; and***
- ***Members note that the procurement route will require sole source waivers in order to procure services directly from Space Syntax Ltd and Telefonica.***

Main Report

1. Reporting period	1.1 August 2016 to October 2017 inclusive.
2. Progress to date	**Model Development** 2.1 In August 2015 Members authorised officers to procure consultants to build a computerised pedestrian model of the entire City of London. The purpose of this model was to enable the City to predict future pedestrian flows for a range of different scenarios. This would better enable the City to understand the impacts of new developments or policy changes upon pedestrian movement in the City. 2.2 Following the Committee approval, officers appointed consultants to build the model. The Consultants appointed, Space Syntax Ltd, constructed the model using their specialist software platform. This platform is widely recognised throughout the planning industry as a robust and effective pedestrian modelling tool. 2.3 Following construction of two base year models for the year 2015 (representing a typical weekday morning peak hour and a typical weekday lunchtime peak hour), the consultants then worked closely with officers to construct models representing a future year scenario. This scenario includes all development and infrastructure change that is anticipated to take place between now and the year 2026. As with 2015, morning peak and lunchtime peak models were constructed. Thus, these models represent the City's best estimate

	of likely pedestrian movement for the year 2026, and should be used to inform any decision making where pedestrian movement is likely to be affected. 2.4 The models were delivered to the City in April 2016, and are currently available as a series of GIS layers within the City's mapping system. Appendices 1-3 illustrate some sample outputs from the models: • Appendix 1 illustrates 2026 morning peak hour predicted pedestrian flows; • Appendix 2 illustrates the predicted increase in morning peak hour pedestrian flows between the years 2015 and 2026; and • Appendix 3 combines 2026 morning peak hour predicted pedestrian flows with air pollution data, to illustrate the streets where high numbers of pedestrians will be exposed to highest levels of air pollution. 2.5 Subsequent to this, Members authorised officers to commission consultants to use the model to: • Identify streets which are unlikely to have sufficient capacity to accommodate projected growth in pedestrian movement; and • Carry out an evaluation of the impacts on pedestrian movement of growth in the Eastern City Cluster. 2.6 Both of these studies have been completed and are being used to inform decision making in both of these areas. Sample data from each study are provided in Appendices 4&5. 2.7 In addition to the above, it was recognised that the model could usefully be used as a means of assessing levels of pedestrian permeability across the City. This analysis provides useful guidance for the planning department when dealing with building redevelopment projects, as it allows officers to identify potential new pedestrian routes through the City, which could potentially be incorporated into new building redevelopment proposals. A sample of this study is provided in Appendix 6. **Finance & Funding to Date** 2.8 Expenditure to date is as follows: • Staff: £54,689 • Fees: £256,826 • Total: £311,515 2.9 Secured funding to date The bulk of this funding (£253,310) has been provided by TfL. The remainder (£57,000) was met by the departmental local risk budget.
3. Next steps	3.1 Although the model has demonstrated itself to be an extremely

	useful tool with a range of potential applications, it has also been recognised that owing to the strategic nature of the model, it is less useful for application where very detailed pedestrian flow forecasts are required. The key reason for this is the limited availability of observed pedestrian flow data. The use of observed data is critical for the validation of a model of this nature – without an abundance of observed data, there is a limit to the level of detail that the model can achieve. 3.2 In recognition of this, consultants were asked to investigate alternative data collection methods which would allow the model to provide more detailed forecasts of pedestrian movement. Through this study, it became apparent that Telefonica, the City's WiFi network delivery partner, could potentially use mobile telephone data collected via the WiFi network to provide a very detailed source of pedestrian movement data in the City. This could provide the City with an exceptionally detailed source of pedestrian movement data with which the model could be refined. 3.3 As an example of the type of refinement that could be achieved, the model in its current form provides predictions of pedestrian movement on streets but does not distinguish direction of travel, or which side of the street pedestrians are travelling on. By incorporating the WiFi data, we will certainly be able to predict direction of movement and, for most streets, which side of the street pedestrians are travelling on. 3.4 The benefits of this increased level of accuracy would be numerous. For example, it would allow us to identify specific footways where pedestrian provision is poorest, which would enable us to target infrastructure expenditure to places where it is most needed. Additionally, it would allow us to influence the planning process by ensuring that new developments either developed to a scale appropriate for the adjacent footway network, or provided funding for specific mitigations in the area surrounding the development. 3.5 There is also a potential financial benefit to the City if this increase in accuracy can be achieved. It has been identified that if the model was sufficiently detailed, it would provide the basis for detailed assessment of building redevelopment proposals. On that basis, a business model could be established whereby developers pay to access information from the model as part of the planning application process. This payment would cover the cost of extracting pedestrian flow data that developers need to provide as part of their planning application, plus an additional levy which would contribute towards the on-going upkeep, maintenance and improvement of the model. If successfully realised, the model would become a self-funding project. 3.6 It is therefore proposed that a trial study is conducted whereby the City would procure WiFi data from Telefonica, then provide this to consultants in order for them to update the pedestrian model. The

trial study will focus upon the Eastern City Cluster Area.

Budget Adjustment

3.7 In March 2017, Members of the Planning and Transportation and Resource Allocation Committees approved the allocation of £60,000 of TfL funding for further development of the pedestrian model.

3.8 In September 2017 the Director of the Department of the Built Environment, under delegated authority, approved a project budget increase of £5,000 from this £60,000 allocation. This brought the approved budget for the project to £311,826. The cost to conduct this trial study is as follows:

- Procurement of WiFi data for the Eastern City Cluster - £30,000;
- Incorporation of data into model, and testing - £11,500

3.9 In addition to the above, there will be staff costs expended on procuring, and managing the consultants. The staff cost is estimated at £13,500. This brings the total budget increase to £55,000. Officers recommend that the budget for this project should now be increased from £311,826 to £366,826 to allow the procurement of the model enhancements set out in this report.

Waiver Requirement

3.10 As the WiFi data belongs to Telefonica, we will be required to procure the data directly from them.

3.11 Regarding the model, the works to the model can only be undertaken in an efficient and effective way by consultants that had a detailed knowledge of the workings of this model. This would only be possible for the consultants that developed the model. For that reason, it is proposed that we do not undertake a competitive tender process, as no other consultant would have the capability or understanding of the model to undertake this work.

3.12 In addition, given the importance of avoiding any underspend in Transport for London Local Implementation Plan funding, it is imperative that the consultants are appointed as soon as possible. This would be impossible were this piece of work to go to open tender.

3.13 It should be noted that whilst waivers will be required, the specific waivers needed shall be sole source waivers, and shall be entirely compliant with Section 32 of the Public Contracts Regulations 2015. The proposed procurement route has been discussed and agreed with City Procurement.

Data Protection

	3.14 Officers have reviewed the position with regards to the data that Telefonica collect with a view to ensuring that the City complies with Data Protection requirements by using aggregated and depersonalised WiFi data provided by Telefonica. 3.15 Officers from the Comptroller and City Solicitor's department have advised that the aggregated and depersonalised data which we would procure from Telefonica cannot be linked to any individual person or device, so is not classed as 'personal data'. As such a Privacy Impact Assessment is not required. 3.16 The raw data would be collected by Telefonica, who have very clear Terms and Conditions for those that use their services (and this includes WiFi). These Terms and Conditions clearly state that Telefonica collects data from those that use its services, and that they will use the data to provide products/services to third parties. Further details are available at the following: https://www.o2.co.uk/termsandconditions/privacy-policy 3.17 Turning to the data that Telefonica would actually provide to the City, this data will have been subject to significant processing and analysis before the data would be disclosed. Telefonica will provide the City with aggregated and depersonalised data on the number of movements on links in the City, what direction the movement is in, and potentially what side of the road the movements were on. They will also provide us with further aggregated and depersonalised data which should help us to distinguish between different modes of travel. 3.18 The data will be provided in csv format. There will be a single record for each highway link in the City, which will contain the information discussed in the preceding paragraph. The data is considered 'safe' as the re-identification risk is minimal.

Appendices

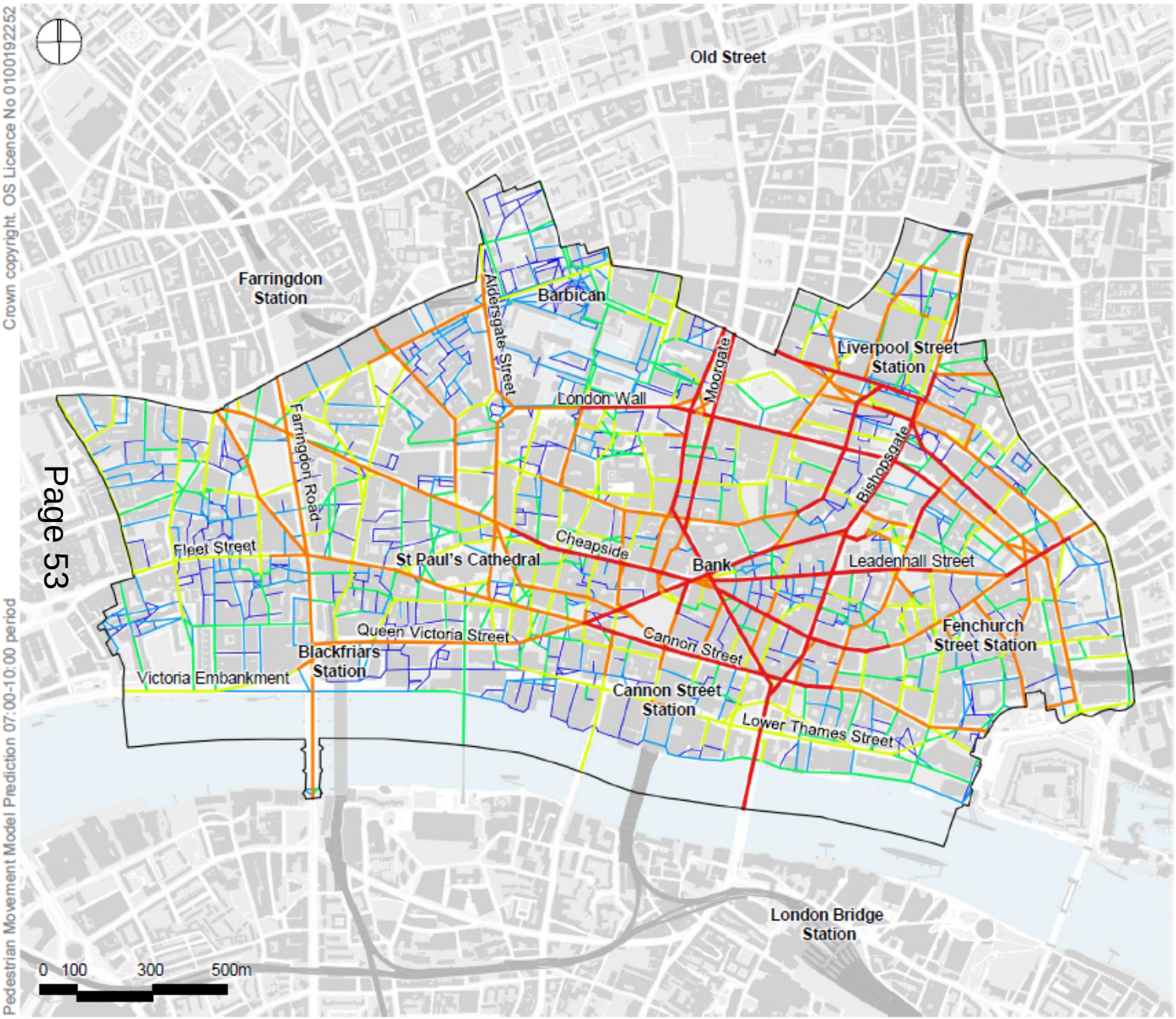
Appendix 1	2026 morning peak hour predicted pedestrian flows
Appendix 2	Predicted increases in morning peak hour pedestrian flows between the years 2015 and 2026
Appendix 3	2026 morning peak hour predicted pedestrian flows combined with air pollution data
Appendix 4	Footway crowding risk, 2026
Appendix 5	Urban block size analysis
Appendix 6	Eastern City Cluster

Contact

Report Author	Jon Wallace
Email Address	Jon.wallace@cityoflondon.gov.uk

Telephone Number	020 7314 1589

2026 morning peak model



Pedestrian Movement Model Prediction 07:00-10:00 period

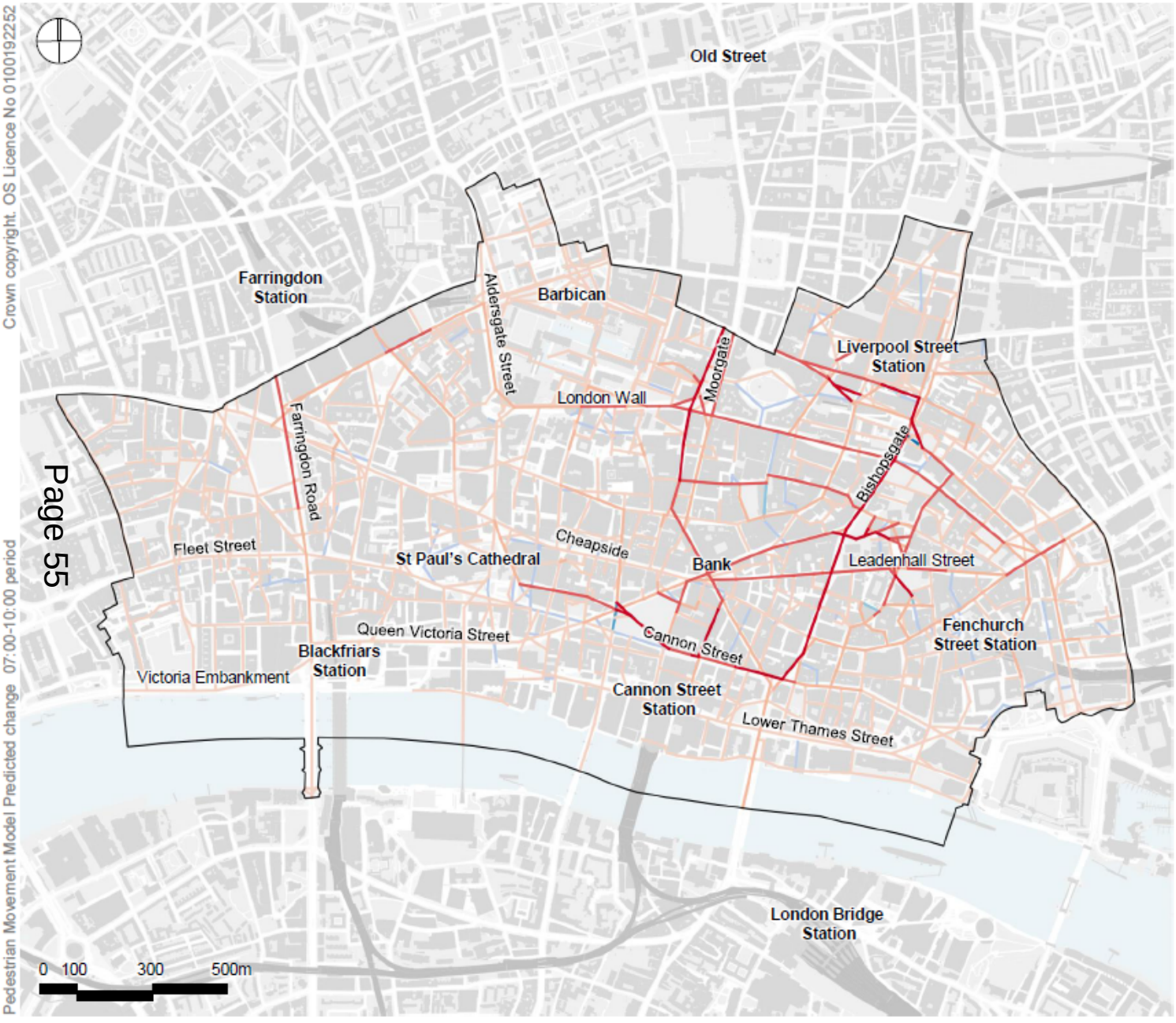
Pedestrian movement
people per hour

- 2,000 - above
- 1,000 - 2,000
- 500 - 1,000
- 250 - 500
- 100 - 250
- 0 - 100

City of London Boundary

This page is intentionally left blank

Difference map 2015 and 2026 Morning peak scenario



Crown copyright. OS Licence No 0100192252

Pedestrian Movement Model Predicted change 07:00-10:00 period

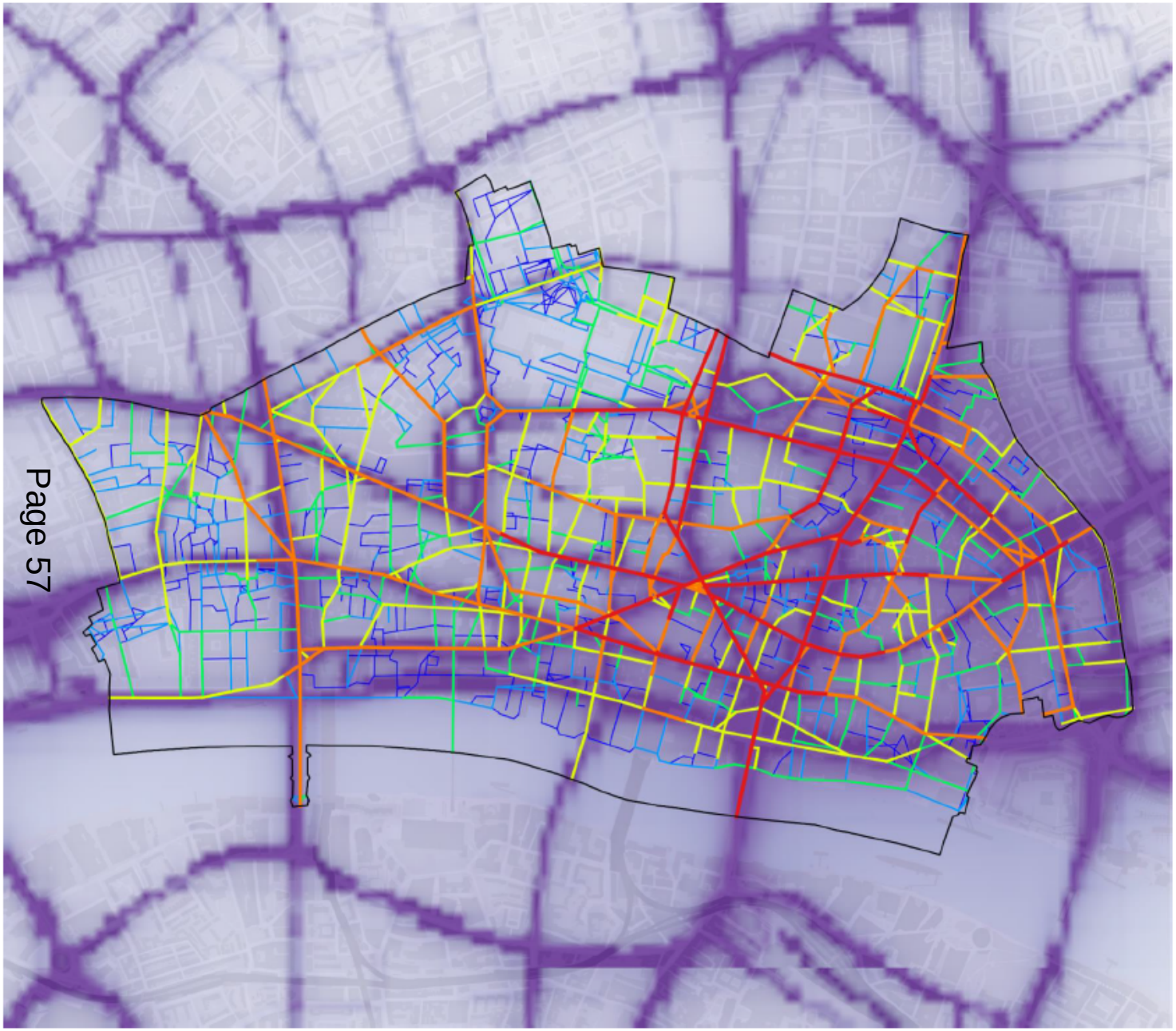
Page 55

Pedestrian movement difference
people per hour

- 1,000 - above
- 500 - 1,000
- 250 - 500
- 0 - 250
- no change
- -250 - 0
- -500 - -250
- -1,000 - -500
- below - -1,000
- City of London Boundary

This page is intentionally left blank

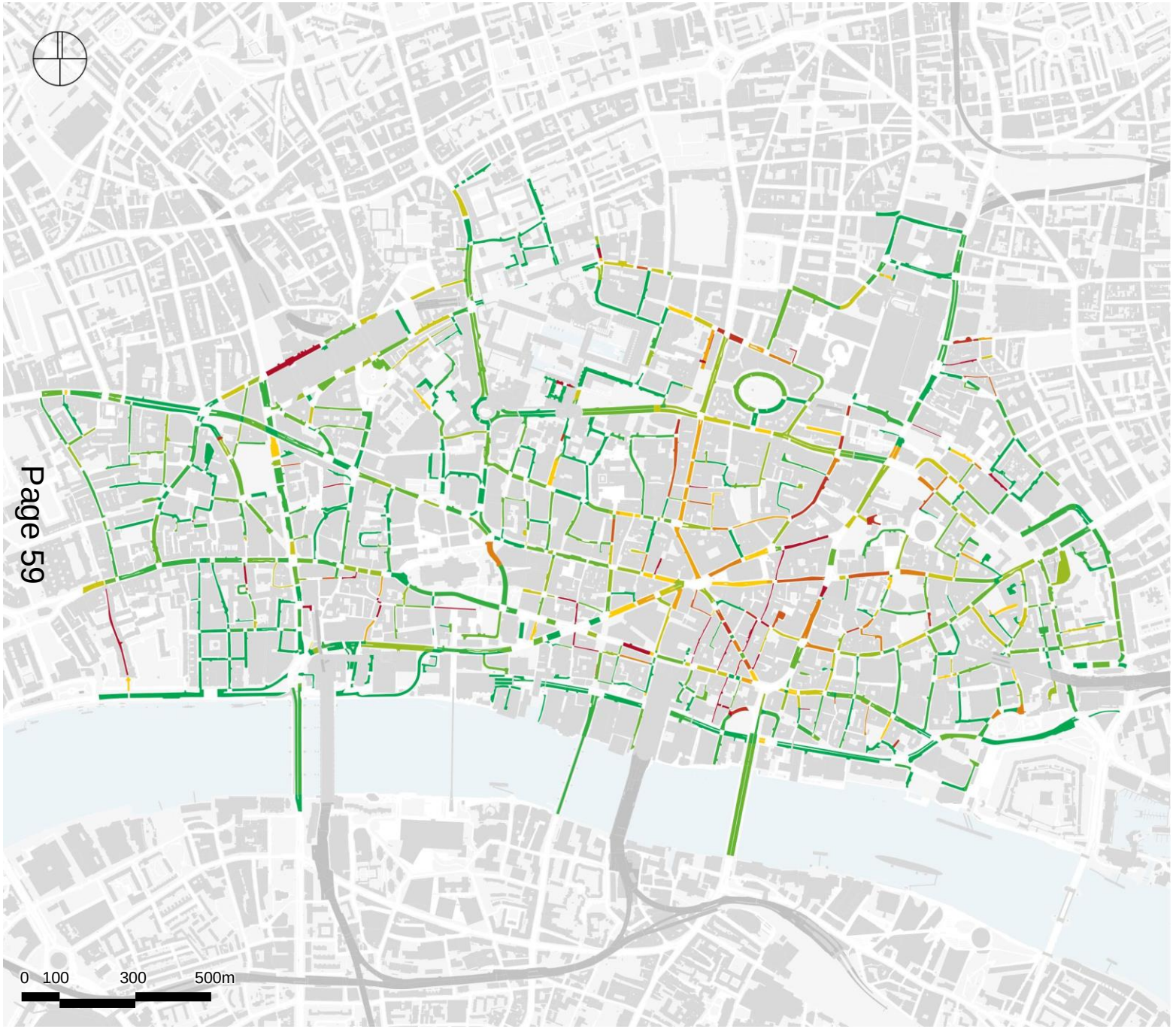
Identification of high risk areas Air quality



City of London Pedestrian Movement Model Corporation of the City of London

This page is intentionally left blank

2026 Pedestrian Comfort Level Morning peak (07:00 – 10:00) with 1.05 metre reduction



Pedestrian Comfort Levels

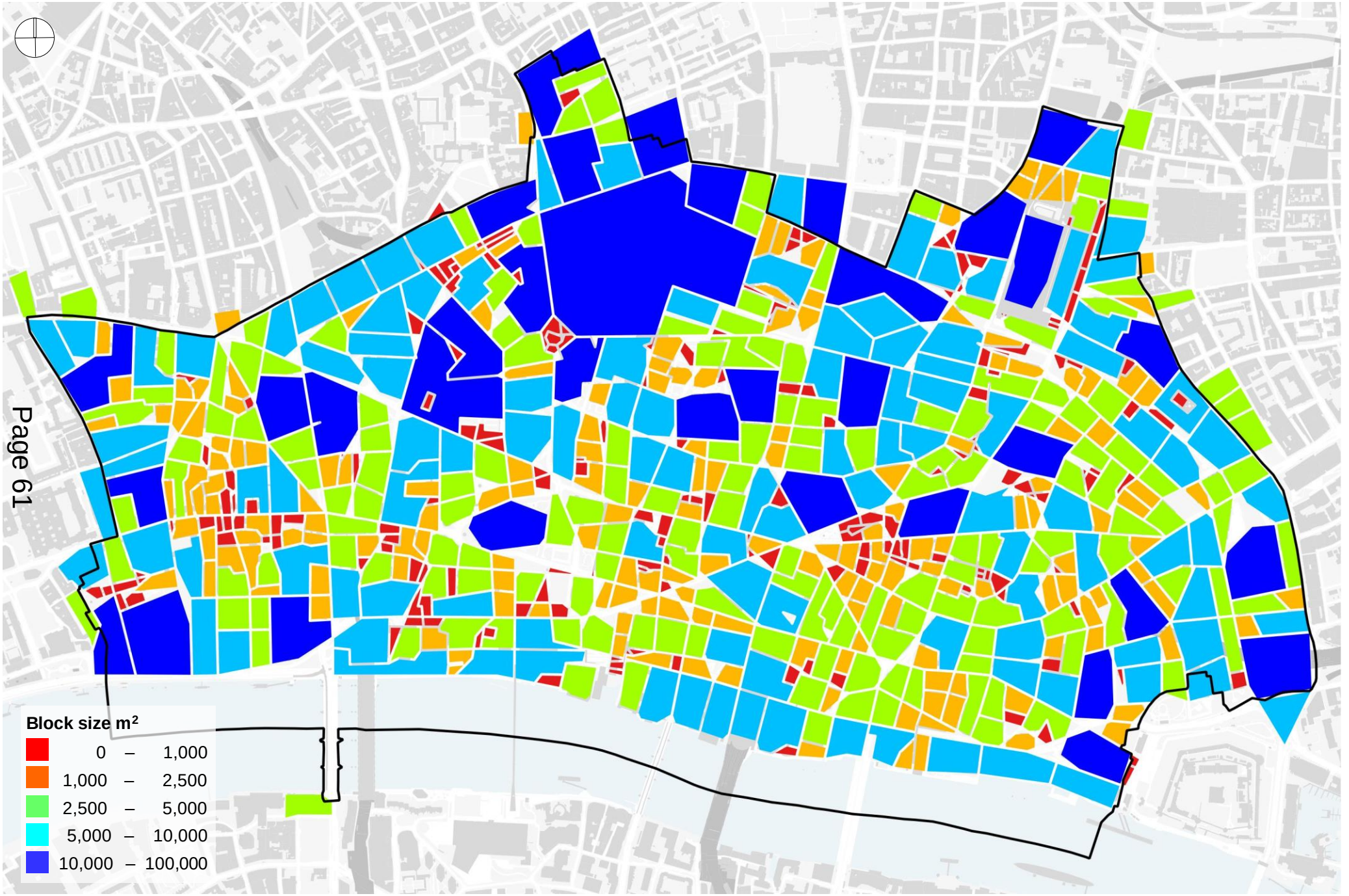
TfL recommended minimum

- A+ comfortable
- A
- A-
- B+
- B
- B-
- C+
- C
- C-
- D
- E very uncomfortable

PCL Estimate

This page is intentionally left blank

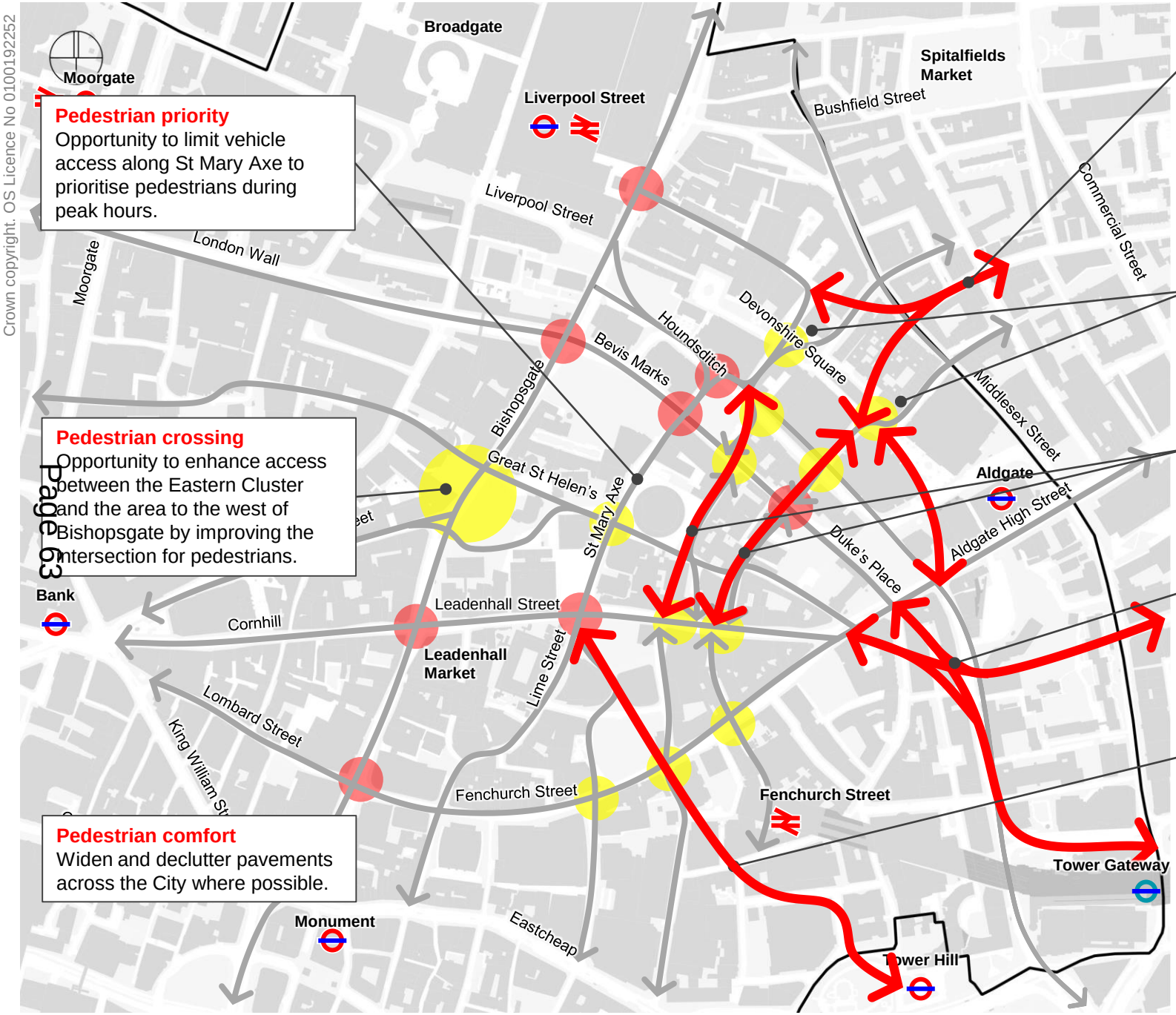
Urban block size analysis 2026 scenario



2026 Block Size

This page is intentionally left blank

Emerging implications for the public realm design and spatial strategies



Pedestrian priority
Opportunity to limit vehicle access along St Mary Axe to prioritise pedestrians during peak hours.

Pedestrian crossing
Opportunity to enhance access between the Eastern Cluster and the area to the west of Bishopsgate by improving the intersection for pedestrians.

Pedestrian comfort
Widen and declutter pavements across the City where possible.

New/improved links
Opportunity to enhance access between the Eastern Cluster and the wider context by creating new links.

Pedestrian crossing
Opportunity to embed the Eastern Cluster with the wider context in all directions by connecting existing links with pedestrian crossings.

New/improved links
Opportunity to enhance access to the Eastern Cluster from its adjacent areas by realigning streets and providing crossings.

New/improved links
Opportunity to enhance access between the Eastern Cluster and the wider context by creating new links.

New/improved links
Opportunity to enhance access between the Eastern Cluster and the existing transport nodes (i.e. Fenchurch Street and Tower Hill stations).

- Further enhancement opportunity
- Existing and emerging desire lines
- Existing crossing facilities
- Lack of crossing facilities
- City of London Boundary

This page is intentionally left blank

Committees:	Dates:	Item no.
Streets and Walkways Sub-Committee Projects Sub-Committee	24 November 2017 11 December 2017	
Subject: City wayfinding signage review	Gateway 3/4 Detailed Options Appraisal (Regular)	**Public**
Report of: Director of the Built Environment		**For Decision**

Summary

Dashboard:

(i) Project status: Green
(ii) Timeline: Gateway 3/4
(iii) Project estimated cost: £3.2M
(iv) Spend to date: £103,876 from a budget of £125,000 (staff costs and fees). It is estimated that £435,000 is required to progress the project to gateway 5.
(v) Overall project risk: Low

This report summarises the findings of the City wayfinding signage review. It details the options appraisal undertaken by consultants Applied Wayfinding and makes recommendations for the future of wayfinding in the City of London Corporation (City Corporation).

Progress to date

In April 2016, the Planning and Transportation Committee and the Projects Sub-Committee approved a Gateway 1 & 2 project proposal for a City wayfinding signage review. The review was considered necessary as the existing City wayfinding system has not kept pace with the constantly evolving street scene and because of initiatives that will bring more visitors into the City such as Crossrail and Culture Mile.

A working party was established comprising both internal and external stakeholders. The working party's remit was to set the review's objectives, input in to the development of the project brief and oversee the review once consultants had been appointed. The review brief sought suitably experienced consultants to assess a range of wayfinding options and recommend a system that is fit for purpose now and in the future.

Applied Wayfinding were appointed to undertake the review in March 2017 and a final recommendations report was approved by the working party in August 2017.

Recommendation

It is recommended that Members approve the proposals to:

- Introduce Legible London as the core wayfinding system in the City of London to improve the experience of walking in the Square Mile;
- Progress the scheme development phase to inform the gateway 5 report;
- Work with internal and external stakeholders to promote existing - and develop new - digital wayfinding products;
- Promote awareness of the benefits of cues & clues that can assist intuitive wayfinding and placemaking, particularly in visitor destinations such as Culture Mile.

Overview of options
Applied Wayfinding (AW) was tasked with assessing a range of different options as part of the review. The options were:

- Do Nothing;
- Update the existing static City signage;
- Replace the existing static signage with a digital system;
- Use of "cues & clues" - such as artwork or bespoke lighting - to assist with wayfinding;
- Modify the existing City signage to incorporate the Legible London system widely used in the rest of London;
- Migrate fully to the Legible London system.

The working party played a valuable role during the course of the review, providing helpful local insight across a wide range of disciplines and interests. A full list is included as Appendix A.

Between April and July, the working party took part in three workshop sessions led by AW. These focussed on AW's initial research and insights findings; an assessment of different wayfinding systems and tools; and a review of Future/Smart City technology. At the final workshop AW presented their assessment of the various options and recommendations for the future of wayfinding in the City. The research and insights report is included as Appendix B and a copy can be viewed in the Members' Library or obtained by contacting the report author.

Options appraisal
Applied Wayfinding used thirteen criteria and sub-criteria to evaluate each option. As part of the evaluation process, it was acknowledged that if cost were no option then any option could potentially be made to work. AW used an evaluation system whereby each option was assessed against a series of achievable and realistic outcomes. The options criteria were graded as either positive and achievable or negative/problematic. The criteria were then combined to give an overall score.

An independent accessibility review of the City's existing wayfinding system was also undertaken as part of the full review and included in the evaluation. The accessibility consultant met with the City of London Access Group to get resident and worker insights and travelled around the City. Of the City's current wayfinding system the review says it "does not reflect access best practice: the font (Albertus), text colours and size are not optimum for visibility and legibility."

The recommendations report is included as Appendix C and a copy can be viewed in the Members' Library or obtained by contacting the report author. A summary of the route options evaluation matrix is shown overleaf:

		Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
		Do nothing	Update existing	Digital	Cues & clues	Legible London hybrid	Legible London
Criteria	**Sub-criteria**						
Cost	Short term	✓	×	×	×	×	×
	Long term	✓	×	✓	✓	✓	✓
Maintenance	Physical object	×	×	×	✓	×	✓
	Content	×	×	✓	✓	✓	✓
Management		×	✓	✓	✓	×	✓
Flexibility		×	×	✓	×	×	✓
Identity		×	×	×	✓	×	×
Strategy		×	×	×	×	×	✓
Accessibility	City currently	×	×	×	×	×	✓
	Opportunity	×	×	✓	✓	×	✓
Sustainability	Physical implementation	✓	×	✓	✓	×	✓
Integration		×	×	✓	×	✓	✓
Impact on visitor experience		×	✓	✓	×	✓	✓

Score	**23% ✓**	**15% ✓**	**62% ✓**	**54% ✓**	**31% ✓**	**85% ✓**
	77% ×	85% ×	38% ×	46% ×	69% ×	15% ×

The wayfinding review recommends a combination of option 3 (Digital), option 4 (cues & clues) and option 6 (Legible London) are progressed. The recommendation is for Legible London to form the core method of wayfinding for the City, with complementary wayfinding tools being provided using digital products and cues and clues, where appropriate. The review notes that as “the primary focus is to improve the on-street pedestrian experience” the introduction of Legible London “should be the priority”.

The three recommended options provide opportunities to develop a co-ordinated pedestrian wayfinding system comprising inclusive signage, digital technology, real time and pre-visit information that better meets the access needs of all pedestrians using the City’s streets.

Proposed way forward

Legible London

Legible London is a multiple award-winning wayfinding system developed by Transport for London to support walking and cycling journeys around London. Legible London is recognised as a global leader in wayfinding. New York City's Transportation Commissioner has described it as the 'gold standard for wayfinding research and design'. The Legible London design has been adopted across the world by local government, transport authorities, private companies, landowners, business improvement districts and other stakeholders with an interest in providing better wayfinding information.

Legible London is designed to provide a consistent visual language and wayfinding system across the Capital, allowing visitors and local residents to easily gain local geographic knowledge regardless of the area they are in. Legible London is fully integrated into the wider transport network. In addition to on-street signs, Legible London maps appear in all underground stations, at Docklands Light Railway stations, on bus shelters and at cycle hire docking stations. The Legible London product range is included as Appendix D

A static, on-street presence in the form of maps and directional maps – when done well - provides a welcoming civic voice and will show that the City cares about its visitors. Legible London has an authority and a simplicity that is easy to trust and requires relatively little effort to use. It is also more democratic than a digital interface that some users struggle with. A static system helps to filter out the environment for the user and identify key destinations. This will be particularly effective in somewhere as dense as the City of London where line of sight (or legibility of the environment) is greatly reduced.

All the boroughs around the City have now adopted the Legible London system and it is already in use in the Square Mile at bus stops, underground stations and cycle hire docking stations. Adoption by the City will ensure that people walking in and around the Square Mile benefit from a seamless and consistent wayfinding experience. This is particularly important for visitors who will not be aware of administrative boundaries and, unlike Legible London, the City's current maps do not generally extend beyond the boundaries of the Square Mile.

Legible London encourages people to walk as maps inform users what can reached within a five and a 15 minute walk and reduce concerns about getting lost. Analysis by TfL has found that there are over 75,000 journeys a day in the City of London that could potentially be walked but are currently made by motorised modes of transport.

Legible London will support the City to deliver outcomes of the draft Corporate Plan by ensuring the City is physically well-connected, people are safe and feel safe and enjoy good health and wellbeing; something that walking is known to improve. It will help deliver a key objective of the City's draft Cultural Strategy; "better wayfinding". Due to the economies of scale achieved by being a pan-London system, the on-going maintenance costs of Legible London will be considerably cheaper than the current system (specific examples of this are detailed in section 10 of the Main Report).

Legible London will also help meet key objectives of the Mayor of London's draft Transport Strategy that states the Mayor, through working with London local authorities "will make it easier for people to walk and cycle in London by:

- Maintaining, expanding and improving 'Legible London' pedestrian wayfinding maps and ensuring that on-street cycle network signage is clear and consistent.
- Using new data to develop and improve online journey planning and navigation tools that will make walking and cycling trips the most easy journeys to plan."

To progress the move to the Legible London wayfinding system and inform a gateway 5 report, the following activities need to take place:

- Citywide audit of the existing City and adjacent borough Legible London wayfinding systems to inform pedestrian route network, sign placement and content plans (to include an assessment of the retention of existing City fingerpost infrastructure where necessary);
- Legible London basemap review;
- Production of sign placement plan, sign content and de-clutter schedules;
- Production of signage artwork
- Submission of sign placement plan/content schedule to obtain scheme estimate. Estimate from highways term contractor for clutter removal;
- Composite estimate to introduce Legible London for gateway 5 report.

<u>Digital</u>

The wayfinding review concluded that a digital on-street system is not practical. In contrast to a static system, a digital interface becomes locked into a single user request once in use, whereas a static system can be used by multiple users at the same time. In addition, the review suggests that people tend to digest information on a static map more easily than its digital format and, crucially, information gleaned from a static map is more likely to be retained for future reference.

The review however outlines a number of digital products that could be developed to complement the Legible London system. Digital is best applied to personal tools such as smartphones or personal computers or for specific applications such as buying tickets. A current example of this is the City Toilet Finder App that enables people to locate the nearest available toilet. This App. could be further developed to include other useful destinations.

Digital kiosks/screens work well in controlled environments such as visitor centres, libraries and foyers. The following digital initiatives could be progressed to complement the Legible London static system:

- Promote TfL's digital service in office/hotel foyers that provides live travel information on TV screens. The service is free if there a screen available and can encourage people to think about alternative modes of transport including cycling and walking. The screens could also include information about air quality, local events and highlight alternative walking routes and green spaces.
- As part of the City's Future Cities initiative, work with TfL to research and develop digital wayfinding opportunities. This could potentially lead to a trial of a Legible London digital tool in the City of London and the piloting of wayfinding

systems that assist people with access needs.

- Should TfL adopt a digital Legible London base map, many opportunities will be opened up to use digital mapping that is consistent with the static system to promote bespoke tools such as historical walks, step-free routes, wayfinding in Culture Mile and alternative routes during construction works.

Cues and clues

Cues and clues can take multiple forms, from a discrete object, to the bespoke treatment of a large area such as Exhibition Road, to a series of themed interventions such as those being developed for the City's Lighting Strategy. Whilst cues and clues can be effective in enhancing the environment and provide memorable placemaking cues, they do not inherently communicate detailed information. For this reason, they provide a supporting element rather than a stand-alone wayfinding solution.

Cues and clues are expected to play an important role in Culture Mile's Look and Feel Strategy and several projects are being developed including colourful crossings, artwork, installations and bespoke lighting. The opportunities for the City are only limited by imagination but too may interventions can introduce clutter and lose their intention or impact. Cues and clues therefore need to be coordinated and this is probably best managed through the City's Area Strategies.

Financial implications

To date, the City has incurred total costs of £103,876 out of a current budget of £125,000. The further scheme development required to progress the project to gateway 5 is estimated to cost £435,000.

<table>
<tr><td></td><td colspan="2">Main report</td></tr>
<tr><td>Proposal</td><td colspan="2"></td></tr>
<tr><td>1. Brief description</td><td colspan="2">The City of London wayfinding review has assessed a range of options for the future of wayfinding in the City and has recommended that the Legible London system is adopted throughout the Square Mile. The introduction of Legible London will greatly improve the experience for visitors to the City and will be of great benefit to visitor-led initiatives such as Culture Mile. This phase of the project will deliver the sign placement plan, sign content, clutter audit, artwork and a detailed estimate for the construction phase.</td></tr>
<tr><td>2. Scope and exclusions</td><td colspan="2">• Legible London will be introduced across the whole of the City of London but will be restricted to the public highway and City walkways.
• The proposals do not cover areas of private land but private landowners are able to introduce Legible London by contracting directly with Transport for London.</td></tr>
<tr><td>Project Planning</td><td colspan="2"></td></tr>
<tr><td>3. Programme and key dates</td><td colspan="2"><table>
<tr><th>Task</th><th>Target date</th></tr>
<tr><td>Procurement of consultants to produce Citywide Legible London sign placement plan, content schedule and clutter audit.</td><td>January-April 2018</td></tr>
<tr><td>Agreement of maintenance plan to ensure new signage is regularly updated and properly maintained.</td><td>September 2018</td></tr>
<tr><td>Production of sign placement plan, content schedule and clutter audit.</td><td>June 2018-May 2019</td></tr>
<tr><td>Production of estimate for Citywide installation of Legible London.</td><td>June 2019</td></tr>
<tr><td>Gateway 5 report</td><td>July 2019</td></tr>
<tr><td>Commence the phased installation of Citywide Legible London wayfinding system.</td><td>September 2019</td></tr>
</table></td></tr>
</table>

4. Risk implications	A key risk is the reputational damage to the City if it does not move to make its wayfinding system fit for purpose: • The existing system contains out of date information and is not being maintained; • The existing system does not reflect access best practice for visibility and legibility; • The City risks failing to fully comply with its equality duty where signage does not conform to access best practice. The implications of not moving to Legible London include: • Not creating a welcoming environment for visitors to the City who may have experienced - and become familiar with - Legible London in the boroughs that border the City. • The City not contributing to the draft "Mayor's Transport Strategy" objective of "maintaining, expanding and improving 'Legible London' pedestrian wayfinding maps and ensuring that on-street cycle network signage is clear and consistent". An implication of moving to the Legible London system is that: • The City will no longer have full control of its wayfinding base map. TfL is the custodian of Legible London and have clear asset selection criteria for inclusion on the base map. N.B. The City is able to submit requests to TfL for amendments to the base map and these are assessed against the asset selection criteria. To date, most requests for amendments have been accepted by TfL
5. Benefits and disbenefits	These are comprehensively assessed in the review recommendations report. Please see options appraisal above and Appendix C for further information.
6. Stakeholders and consultees	The working party established for the wayfinding review will be re-convened to oversee and input in to the scheme development phase. Its membership will be reviewed and could be expanded to include representatives of the Cheapside BID and Crossrail.
Resource Implications	
7. Total Estimated cost	Scheme development to gateway 5: £435,000 Installation cost estimate: £3.2 million
8. Funding strategy	Local Implementation Plan (LIP) funding will be used to fund the scheme development phase and progress the project to gateway 5. This will comprise £315,000 from the 2018/19 allocation and £120,000 from the 2019/20 allocation. Further LIP funding has been provisionally allocated in future years to fund a phased approach to the installation of Legible London. If a funding bid for DBE CIL was successful, the project could be completed more quickly. Funding may also become available for the installation phase via specific Section 106 contributions.

9. Estimated capital value/return	Not applicable.
10. Ongoing revenue implications	The existing City wayfinding system was introduced in 2006/07 and has not kept pace with the constantly evolving street scene. An update of the existing maps is estimated to cost over £200,000, notwithstanding the access review conclusion that the current style of mapping does not reflect best practice for visibility or legibility. This figure does not include City finger posts which account for over 150 extra signs. The wayfinding review included an evaluation of both short term and long term costs for each option and the long term cost implications of adopting Legible London were assessed as positive. Compared to the existing system, Legible London system will be much cheaper to maintain: • The Legible London base map is continually updated at no cost to participating local authorities, whereas a small revision to the artwork of one City map costs approximately £120; • Access to the pan-London TfL framework contract and resultant economies of scale keep Legible London product costs low; • The cost to replace an existing City map is £1368.00, whereas the cost to replace a Legible London base map is £162 - a reduction of £1,206; • A four slat City finger post costs £6,652, whereas a four slat Legible London finger post costs £1315 - a reduction of £5,337; • A typical City Monolith costs £7988, whereas a Legible London Monolith costs £3.485 - a reduction of £4,503. A maintenance plan will be produced and summarised in the gateway 5 report.
11. Investment appraisal	Please see Appendices B and C for further information.
12. Affordability	The a detailed cost estimate for the recommended option will be produced as part of the proposed next phase of work and will be confirmed at gateway 5,
13. Procurement strategy	To progress the project to gateway 5: all consultancy work commissioned for the audit of the existing Legible London wayfinding systems in the City, the production of sign placement plan, sign content and de-clutter schedules will be procured by the City through City Procurement. For the installation phase: The City is able to utilise framework contracts via Transport for London for the production of detailed mapping artwork and the supply and installation of the Legible London signage. The City's highway term contractor, JB Riney,

<table>
<tr><td></td><td>will undertake the removal of redundant signage.</td></tr>
<tr><td>14. Legal implications</td><td>In its role as highway authority, the City must have regard to its duty: assert and protect the rights of the public to the use and enjoyment of the highway; and to secure the expeditious, convenient and safe movement of traffic, including pedestrians.

The City must also have regard to the public sector equality duty in exercising its functions under the Equality Act 2010.</td></tr>
<tr><td>15. Corporate property implications</td><td>There are no known corporate property implications at this time.</td></tr>
<tr><td>16. Traffic implications</td><td>The introduction of Legible London signage across the City of London will make it easier for people to walk and cycle in the City and will make a positive contribution to the City’s Active Travel programme.</td></tr>
<tr><td>17. Sustainability and energy implications</td><td>It is anticipated that all material will be sustainability sourced where possible and suitably durable for the life of the asset.</td></tr>
<tr><td>18. IS implications</td><td>There are no known IS implications at this time.</td></tr>
<tr><td>Recommended option</td><td></td></tr>
<tr><td>19. Equality Analysis</td><td>An Equality Analysis will be carried out.</td></tr>
<tr><td>20. <u>Recommendation</u></td><td>The wayfinding review recommends a combination of option 3 (Digital), option 4 (cues & clues) and option 6 (Legible London) are progressed. The recommendation is for Legible London to form the core method of wayfinding for the City, with complementary wayfinding tools being provided using digital products and cues and clues, where appropriate.</td></tr>
<tr><td>21. Next Gateway</td><td>Gateway 5 – Authority to start work.</td></tr>
<tr><td>22. Resource requirements to reach next Gateway</td><td>It is estimated that £435,000 is required to reach gateway 5:
<table>
<tr><th>Item</th><th>Description</th><th>Estimated cost (£)</th></tr>
<tr><td>Fees</td><td>Production of sign placement plan, content schedule, clutter audit and artwork.</td><td>350,000</td></tr>
<tr><td>Works costs</td><td>Trial holes and site surveys</td><td>20,000</td></tr>
<tr><td>Staff costs</td><td>City Transportation: Project Management</td><td>47,000</td></tr>
<tr><td></td><td>City Public Realm: project partner</td><td>3,000</td></tr>
<tr><td></td><td>Highways: coordination of trial holes/site surveys</td><td>15,000</td></tr>
<tr><td>Total</td><td></td><td>435,000</td></tr>
</table></td></tr>
</table>

Appendices

Appendix A	City wayfinding review working party members
Appendix B	Research and insights report (review copy in Members' Library or please contact report author)
Appendix C	Recommendations report (review copy in Members' Library or please contact report author)
Appendix D	Legible London product range

Report history

Gateway 1 & 2	Approved at Planning & Transportation 5 April 2016; approved at Projects sub-committee 13 April 2016.

Contact

Report Author	George Wright
Email Address	George.Wright@cityoflondon.gov.uk
Telephone Number	07802 378812

This page is intentionally left blank

Appendix A

City wayfinding review: Working party membership

Organisation	Representative	Position
City of London	Craig Stansfield	Transport Planning and Development (Chairman of working party)
City of London	Iain Simmons	Assistant Director City Transportation (project sponsor)
City of London	David Bianco	Cultural Hub Property Director
City of London	Nick Bodger	Head of Cultural/Visitor Development
City of London	Mel Charalambous	Group Manager, Public Realm
City of London	Alanna Coombes	Place and Future Cities Officer
City of London	Bhakti Depala/Daisy Estrada	Planning
City of London	Ian Hughes	Assistant Director Highways
City of London	Helen Kearney	Cultural Hub Look & Feel Strategy
City of London	Rob Oakley	Head of Access
City of London	Kathryn Stubbs	Assistant Director Historic Environment
Barbican Association	Jane Smith	Chair of Barbican Association
Barbican Centre	Sir Nick Kenyon	Barbican Centre representative
Transport for London	Max Zindoga	Borough liaison
City of London Police	Alan Rickwood	Police Sergeant
City of London	George Wright	City Transportation (project manager)

This page is intentionally left blank

Waymarker Bollard
solar powered

Minilith A
Central London

Minilith B
Outer London

Midilith C

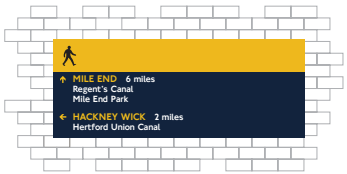
Monilith D

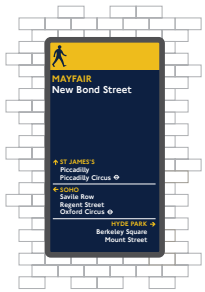
Finger Post
Standard

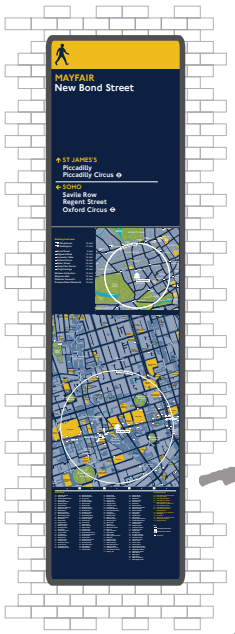
Finger Post
Headline

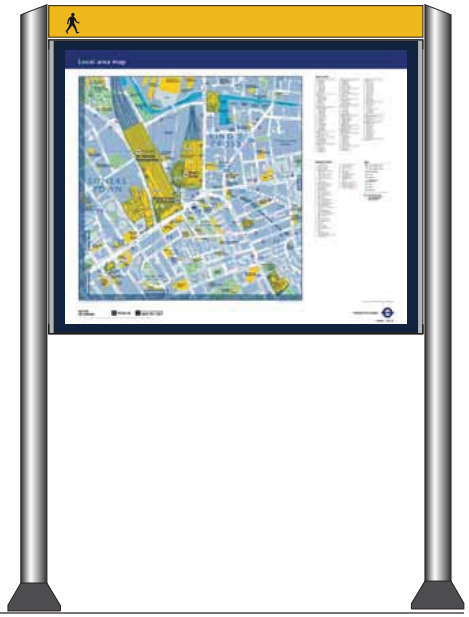
Totem A

Totem B
showing different transport modes









Wall Mounted 115 Slat Sign shown with Beacon Header

Wall Mounted Directional Sign - Vitreous Enamel Panel

Wall Mounted - Glazed Mapping Lith/ with Vitreous Enamel Panel

Wall Mounted - Quad Royal Display with Beacon Header

Freestanding Unit - Quad Royal Display with Beacon Header

This page is intentionally left blank

Committee(s):	Date:
Streets & Walkways Sub-committee – For decision	24 November 2017
Subject: Islington's Controlled Parking Zone Change	**Public**
Report of: The Director of the Built Environment	**For Decision**
Report author: Albert Cheung	

Summary

On 26th June 2017, Islington Council introduced, on an experimental basis, changes to one of their Controlled Parking Zones adjacent to the north of the City. This followed significant dialogue between the two authorities over the City's concerns, particularly around the potential for displaced parking onto the City's streets.

The first six months of the experimental scheme forms the statutory consultation period and therefore enables the City or interested parties, a further opportunity to submit their representation or objections. If such objections are made, Islington Council are required to consider these before they make the changes permanent.

As part of the dialogue with Islington, they have offered to obtain parking data before and after the implementation of their change. This was to monitor the impacts of their scheme on the City's highway network. Analysis of that data has been completed by City officers, which has shown that there has been an increase in parking displaced onto the City's street. However there are still plenty of parking spaces available within the City and no comments or complaints have been received from the City community. Members are therefore asked to accept Islington's changes to their Controlled Parking Zone without the need for any further action at this stage.

Recommendation(s)

Members are asked to:

- Note the monitoring outcomes and accept Islington's Controlled Parking Zone changes.

Main Report

Background

1. In May 2017, Members of this Sub-committee considered a report on Islington's proposal to implement permanent changes to one of their Controlled Parking Zones (CPZ), adjacent to the north of the City. This followed significant concerns, particularly regarding potential displacement of parking, raised by the City for consideration by Islington but unfortunately, this was without success.

2. Subsequently, through further political and officer engagement, it was possible to secure an agreement from Islington to introduce their changes initially on an experimental basis. This enabled the changes to proceed however, if unacceptable impacts materialised, the City would have an opportunity to make further representations and these would need to be considered by Islington. As part of this, Islington has additionally agreed and provided pre and post-implementation parking data. They have also offered to provide the City with funding should parking issues ensue to support any identified mitigation measures. It should be noted that no mitigation measures or funding contributions are considered necessary.

Current Position

3. Islington's CPZ change which effectively extends a ban on evening and overnight parking on single yellow lines and introduces further controls on parking bays throughout the week (except on Sundays) was introduced experimentally on 26 June 2017. The purpose of the change was to primarily manage the impacts of parking generated by that borough's night time economy.

4. As part of the procedure for experimental orders, the first six months forms the statutory consultation period where members of the public or other interested parties may make representations or submit their objections. Islington must therefore consider these before making the order permanent. This period expires on 27 December 2017.

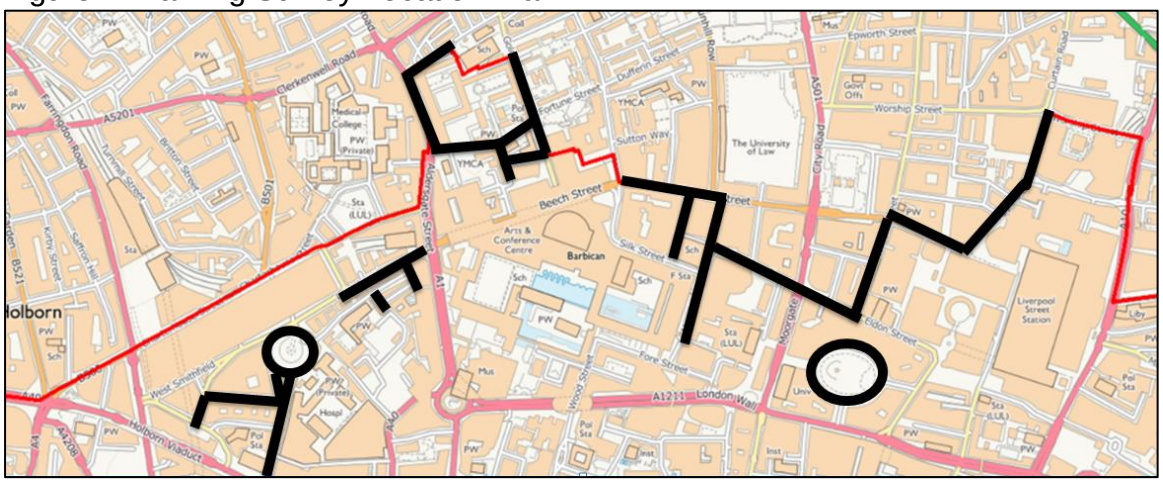
5. Parking surveys to understand the parking usage on City streets likely to be affected by Islington's proposal were commissioned by Islington following discussions with City officers. The surveys were undertaken in June and October 2017 and covered 7 days between 7pm to 1am Monday – Friday, 11am to 1am on Saturday and Sunday, and between 6am to 12 noon on Sunday.

6. Officers have now completed and analysed the surveys, which are detailed below.

Monitoring

7. The extent of the parking survey covers an area approximately 3 minutes' walk (250 metres) from the boundary with Islington. This distance is considered reasonable for measuring parking displacement as the benefits of driving diminishes the further a driver parks away from their destination, and therefore paying for parking (pay & display bays) in Islington becomes more desirable. The streets surveyed are shown in Figure 1 below. It should be noted that the remaining streets near the boundary are already covered by double yellow lines (parking prohibited at all times) and therefore has controls in place to manage any displaced parking. In these streets, surveys were not considered necessary.

Figure 1: Parking Survey Location Plan



Key: ▬ streets surveyed

8. In total 24 City streets were included in the 'before' and 'after' parking surveys. These streets provide a maximum capacity of approximately 281 vehicles parking spaces in either designated bays or on single yellow lines, without causing an obstruction to movement or being considered detrimental to road safety. Each continuous 6 metre length of single yellow line has been considered to equate to 1 vehicle parking space.

9. A detailed breakdown of the data is shown in Appendix 1. From this, it can be seen that the majority of streets have had marginal changes to the number of parked vehicles. Most have increased whilst others have reduced. Some of this could be due to random fluctuations rather than as a direct result of the CPZ change. However, due to the closeness of the CPZ change, it is logical to conclude that these locations are more attractive for displaced parking.

10. There are some streets which have seen noticeable increases to the number of parked vehicles on-street, particularly at Finsbury Circus, Golden Lane, Wilson Street and Cloth Street. This is fairly consistent with the City's civil enforcement team's observations. However even though the increase is noticeable there remains ordinarily, spare parking capacity and therefore is not a concern.

11. The data also shows that there is a significant reduction to the number of parked vehicles on Long Lane. However, this is thought to be inconsistent with logic as the area around Long Lane has an active and lively night time economy.

12. Tables 1 and 2 below, provides a high level summary of the parking data. From these, it can be seen that there has been an increase in parking displacement of up to 47 vehicles or an increase of 42% during the survey period across the 24 streets. The average increase across the week is 28 vehicles or 22%. Average utilisation of the total kerbside space has therefore increased from 44% to 55%.

Table 1: Average total number of parked vehicles

Day	Average total number of parked vehicles		Change
	Before (June 17)	After (October 17)	
Monday	111	158	+47 (+42%)
Tuesday	115	150	+35 (+30%)
Wednesday	123	143	+20 (+16%)
Thursday	120	163	+43 (+36%)
Friday	96	129	+33 (+34%)
Saturday*	164	164	0 (0%)
Sunday	143	164	+21 (+15%)
Average	125	153	+28 (+22%)

Surveyed area can accommodate a total of 281 vehicles

Table 2: Average Parking Utilisation

Day	Average Parking Utilisation		Change
	Before (June 17)	After (October 17)	
Monday	40%	56%	+9%
Tuesday	41%	53%	+12%
Wednesday	44%	51%	+7%
Thursday	43%	58%	+15%
Friday	34%	46%	+12%
Saturday*	58%	58%	0%
Sunday	51%	58%	+7%
Average	44%	55%	+11%

Surveyed area can accommodate a total of 281 vehicles

* It should be noted that the data for Saturday appears to be unusual as this is thought to be a busy night for the night time economy. It is therefore likely that the level of parking displaced on to the City streets on a Saturday will add a further 30 – 40 vehicles onto City streets, increasing the average utilisation of the kerb side space to about 70%.

13. Since Islington's CPZ change was implemented in May 2017, officers are not aware of any reported parking related issues or complaints from City occupiers, businesses or visitors, which can be associated with the CPZ change. It is therefore reasonable to assume that the changes made, despite the transfer and increase in parking is not adversely affecting these users. This may be due to certain streets at particular periods being fully parked already and therefore unable to accommodate displaced parking or may be because other streets can accommodate displaced parking without being full.

14. Environmental Health officers have also confirmed that there have been no increases in late night noise disturbance complaints arising from the parking change.

Recommendations

15. In view of the monitoring outcomes and despite the fact of a small increase in parking displaced onto the City's streets, it is recommended that Members accept Islington's CPZ changes.

Legal Implications

16. Under s.122 Road Traffic Regulation Act 1984, the City has a duty to secure the expeditious, convenient and safe movement of vehicular traffic and other traffic (which includes pedestrians) and the provision of suitable and adequate parking facilities on and off the highway. Islington's proposals do not appear to be conflict with this duty.

Conclusion

17. Islington has introduced their CPZ changes on an experimental basis to enable the impacts of their scheme to be monitored. If unacceptable implications arose, further representations or objections can be submitted and must be considered by them before they can proceed to making it permanent.

18. The analysis of the parking survey before and after the introduction of the experimental scheme has identified an increase in parking displaced onto the City's streets but this increase does not appear to have been substantial or to have adversely affected local City occupiers or users. The increase still leaves spare parking capacity across the wider area.

Appendices

Appendix 1 Parking Survey Summary

Background Papers

Islington's Controlled Parking Zone Change	May 2017
Islington's Controlled Parking Zone Consultation	September 2015

Contact

Report Author	Albert Cheung
Email Address	albert.cheung@cityoflondon.gov.uk
Telephone Number	020 7332 1701

Islington CPZ Change
Before and After Parking survey Comparison
Monday – Friday Average

	SYL & PD Bay	Average No. Vehicles			Average Utilisation			Predicted	Comments
Street	Veh Capacity	Before	After	Difference	Before	After	Difference	Transfer	
Appold Street	16	7	6	-1	44%	38%	-6%	Low	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Baltic St West	12	4	3	-1	33%	25%	-8%	High	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Brackley Street	6	1	3	2	17%	50%	33%	Low	No comment
Chiswell St	5	0	0	0	0%	0%	0%	Med	No comment
Cloth Street	4	1	3	2	25%	75%	50%	High	No comment
Fann Street West	11	3	5	2	27%	45%	18%	Med	No comment
Fann Street East	6	1	3	2	17%	50%	33%	Med	No comment
Finsbury Circus	71	31	44	13	44%	62%	18%	Med	13 vehicle increase. Possibly a result of random fluctuation and or parking transfer
Giltspur Street	15	7	6	-1	47%	40%	-7%	Med	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Golden Lane	15	4	9	5	27%	60%	33%	High	5 parked vehicle increase. Significant change, possibly a result of random fluctuation and or parking transfer. Parking not reached capacity
Goswell Road	8	3	4	1	38%	50%	13%	High	No comment
Hosier Lane	6	3	4	1	50%	67%	17%	Med	No comment
Ironhorn Street	2	1	0	-1	50%	0%	-50%	Med	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Milton Street	15	4	6	2	27%	40%	13%	Med	No comment
Moor Lane	3	2	3	1	67%	100%	33%	Low	No comment
Ropemaker Street	6	4	4	0	67%	67%	0%	Low	No comment
South Place	5	2	2	0	40%	40%	0%	Low	No comment
Sun Street	4	2	2	0	50%	50%	0%	Med	No comment
Viscount Street	4	2	1	-1	50%	25%	-25%	Med	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
West Smithfield Rotunda	16	11	11	0	69%	69%	0%	High	No comment
West Smithfield (St Barts)	11	5	7	2	45%	64%	18%	High	No comment
Wilson Street	20	6	15	9	30%	75%	45%	High	9 parked vehicle increase. Significant change, possibly a result of random fluctuation and or parking transfer. Parking close to capacity
Long Lane	16	8	2	-6	50%	13%	-38%	High	6 parked vehicle reduction. Inconsistent with logic as the area around Long Lane has an active and lively night time economy, it would be fair to assume a likely increase in parking due to closeness of Islington's CPZ change.
Smithfield Street	4	2	2	0	50%	50%	0%	Med	No comment

Islington CPZ Change
Before and After Parking survey Comparison
Sunday – Saturday Average

Street	SYL & PD Bay Veh Capacity	Average No. Vehicles			Average Utilisation			Predicted Transfer	Comments
		Before	After	Difference	Before	After	Difference		
Appold Street	16	8	11	3	50%	69%	19%	Low	3 vehicle increase which is possibly a result of random fluctuation and or parking transfer
Baltic St West	12	8	7	-1	67%	58%	-8%	High	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Brackley Street	6	5	4	-1	83%	67%	-17%	Low	1 parked vehicle reduction. Change not considered significant, possibly a result of random fluctuation or parking transfer
Chiswell St	5	3	1	-2	60%	20%	-40%	Med	2 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Cloth Street	4	0	4	4	0%	100%	100%	High	4 parked vehicle increase. Significant change and full capacity reached. Possibly a result of random fluctuation and or parking transfer.
Fann Street West	11	7	8	1	64%	73%	9%	Med	No comment
Fann Street East	6	7	7	0	117%	117%	0%	Med	No comment
Finsbury Circus	71	30	39	9	42%	55%	14%	Med	9 vehicle increase which is possibly a result of random fluctuation and or parking transfer
Giltspur Street	15	7	7	0	47%	47%	0%	Med	No comment
Golden Lane	15	3	10	7	20%	67%	47%	High	7 parked vehicle increase. Significant change which is possibly a result of random fluctuation and parking transfer
Goswell Road	8	6	5	-1	75%	63%	-13%	High	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Hosier Lane	6	6	5	-1	100%	83%	-17%	Med	1 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Kinghorn Street	2	3	1	-2	150%	50%	-100%	Med	2 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
Milton Street	15	10	8	-2	67%	53%	-13%	Med	No comment
Moor Lane	3	3	3	0	100%	100%	0%	Low	No comment
Ropemaker Street	6	3	3	0	50%	50%	0%	Low	No comment
South Place	5	1	3	2	20%	60%	40%	Low	No comment
Sun Street	4	2	3	1	50%	75%	25%	Med	No comment
Viscount Street	4	2	3	1	50%	75%	25%	Med	No comment
West Smithfield Rotunda	16	10	6	-4	63%	38%	-25%	High	4 parked vehicle reduction. Likely to be random fluctuation but logic would assume a likely increase in parking due to closeness of Islington's CPZ change
West Smithfield (St Barts)	11	4	8	4	36%	73%	36%	High	4 parked vehicle increase. Possibly a result of random fluctuation and or parking transfer
Wilson Street	20	10	14	4	50%	70%	20%	High	4 parked vehicle increase. Possibly a result of random fluctuation and or parking transfer
Long Lane	16	10	3	-7	63%	19%	-44%	High	7 parked vehicle reduction. Inconsistent with logic as the area around Long Lane has an active and lively night time economy, it would be fair to assume a likely increase in parking due to closeness of Islington's CPZ change.
Smithfield Street	4	2	3	1	50%	75%	25%	Med	No comment

This page is intentionally left blank

Committees:	Dates:	Item no.
Streets and Walkways Sub-Committee Projects Sub	24 November '17 11 December '17	
Subject: Liverpool Street & Moorgate Crossrail Ticket Halls: Highway Reinstatement: Gateway 5	**Gateway 5 -** Authority to Start Work	**Public**
Report of: Director of the Built Environment		**For Decision**

Summary

Dashboard

- Project Status: Green
- Timeline: Gateway 5 – Construction anticipated to commence Spring 2018
- Project estimated cost: £4.7M
- Spent to date: £24,100
- Overall project risk: Green
- Importance to Cultural Hub: High

Progress to date

The Crossrail station at Liverpool Street will be accessible from two separate purpose-built ticket halls in the City – Liverpool Street and Moorgate. The City has been working closely with Crossrail Ltd (CRL) to develop proposals for the reinstatement of highways surrounding these ticket halls.

Under the terms of the Crossrail Act 2008, CRL reinstate highway which has been damaged[1]. CRL may also enter into agreements with highway bodies relating to highway works.[2] In accordance with this, CRL have agreed to fully fund the reinstatement and enhancement of the highways within a defined area surrounding each ticket hall. For the purposes of this report, the reinstatement/enhancement areas surrounding each site are referred to as the Crossrail Work Sites.

The bulk of the design work for the Crossrail Work Sites was undertaken by CRL, and a consultation exercise was undertaken in April 2016 and where required, details were approved through the Crossrail Act consenting process.. In Summer 2017, Members authorised officers to take responsibility for the construction of the works, all of which would be funded by CRL. It was also agreed that CLR would continue to develop the detailed design of the schemes, albeit under supervision of City officers. These designs have been progressed and officers now seek Gateway 5 approval to begin construction.

The works at each site entail a variety of measures designed to improve the pedestrian experience for Crossrail passengers arriving in the City. All highway

[1] Schedule 17 para 15 Crossrail Act 2008
[2] Schedule 3 para 14 Crossrail Act 2008

areas will be reinstated in new, high-quality materials, and a number of highway features will be introduced in order to reduce traffic speeds and facilitate pedestrian movement. New public art will also be installed at each of the Work Sites. Given the location of the ticket halls relative to the Culture Mile, a step-change improvement in the pedestrian environment was considered essential. In addition to the above, PAS-rated security features to protect the station from incursion from vehicle-borne explosives will be installed on the footways surrounding the station entrances.

As set out above, the areas defined as falling within the Crossrail Work Sites did so because they were specifically affected by the Crossrail works. Whilst it is reasonable that CRL should only be obliged to reinstate areas that they specifically affected, the result of selecting very specific areas for enhancement can be that these areas look out of place when viewed in a wider context. Therefore, in parallel with the development of the Crossrail Work Sites, officers have been developing "Wider Area Schemes". These schemes seek to take the design approaches that were used in the reinstatement schemes, and apply these across a wider area.

Of the Wider Area Schemes, specific proposals for the development of Moorfields north have been advanced, as previously reported to Members in December 2016. Options for the development of Moorfields north will be submitted to Members in a separate report.

Proposed way forward

City officers have costed up the Crossrail Work Site proposals and CRL are in the process of approving these costs. It should be noted that these costs included an element of contingency in order to mitigate any risks that the City may be incurring by agreeing to take on these works. The inclusion of a contingency has been agreed with CRL.

A legal agreement with CRL is being drafted to cover the cost of the works at the Crossrail Work Sites – this agreement will be signed following Gateway 5 approval. The City as highway authority has power to enter into agreements relating to highway works.[3] On completion of the agreement, CRL will pay the full cost of the works to the City. Officers will then be able to place orders. This approach was previously agreed by members of Streets and Walkways and Projects Sub Committees in June/July 2017.

Crossrail will commence running through the City in December 2018. It is imperative that the Crossrail Work Sites are reinstated by this stage, otherwise the station will not be able to open. In accordance with this, the works at each of the Crossrail Work Sites are programmed to begin in April '18. In order to achieve this, officers must be able to place orders in January '18, otherwise certain key materials

[3] Section 278 Highways Act 1980

(particularly the security-rated bollards) may not be supplied in time for this construction window.

Officers are still in the process of agreeing final costings with CRL – we expect to have agreed these costings by early December 2017. We therefore seek outline Gateway 5 approval at this stage, subject to the detailed costings being approved under delegated authority in December 2017.

With regards to the construction programme for the Crossrail Work Sites reinstatement, there are a number of building redevelopment projects already underway which significantly compromise the City's ability to fully implement the reinstatement schemes by December 2018. In recognition of this, officers have agreed with CRL a minimum scheme specification that must be delivered in order for CRL to open Liverpool Street station. The City has committed to deliver this minimum specification at each ticket hall by the end of 2018. The remainder of the Crossrail Work Site proposals will be implemented in a phased basis over a number of years.

Recommendations

It is recommended that Members:

1. Note that officers will be entering into a legal agreement with CRL for them to cover the staff, fees and works costs expended by the City in constructing the reinstatement works around the Liverpool Street and Moorgate ticket halls, as agreed by Members in June/July 2017;
2. Approve the implementation of the highway works with at an estimated total cost of £2.4m at Liverpool Street and £2.3m at Moorgate, subject to the final detailed costings being approved under delegated authority by the Director of the Department of the Built Environment in conjunction with the Town Clerk and Chairman and Deputy Chairman of the Streets and Walkways and Projects Sub-Committees;
3. Delegate authority for any adjustments between elements of the budgets to the Director of the Built Environment in conjunction with the Chamberlain's Head of Finance provided the total approved budget of is not exceeded. This includes access to an agreed Crossrail-funded contingency sum;
4. Authorise Officers to seek relevant regulatory and statutory consents, orders and approvals as may be required to progress and implement the scheme (e.g. traffic orders);
5. Note that whilst the areas immediately surrounding the new Crossrail ticket halls will be completed by December 2018, the full reinstatement projects are unlikely to be completed until 2022.

Main Report

1. Design summary	The design of the highway works at the Liverpool Street Crossrail Work Site is detailed in Appendix 1, whilst the Moorgate Work Site is detailed in Appendix 2. Key features of each scheme are listed below: ***Liverpool Street*** • Permanent closure of Liverpool Street West to vehicular traffic; • New raised table at the junction of Old Broad Street and Liverpool Street; • Raised table sections on Eldon Street; • Widened footway on Eldon Street; • New inset loading bay on Eldon Street; • Security rated bollards immediately surrounding the ticket hall entrance; • A public art installation; and • High quality materials used throughout. ***Moorgate*** • Permanent closure of Moorfields South to vehicular traffic except for access; • Moor Place to operate one way eastbound; • Security rated bollards installed to the north and south of the ticket hall entrance across the full width of Moorfields, thus creating a secure zone; • Raised carriageway on Moorfields, south of New Union Street; • Raised carriageway on Moor Place; • Raised carriageway section on Moorgate; • New 3.1m width central pedestrian island on Moorgate; and • High quality materials used throughout. The proposals will significantly improve the local environment around each ticket hall by providing more space for pedestrians, and by reducing local traffic speeds.
2. Delivery team	Project management, stakeholder engagement and communication services will be provided by the project team within City Transportation. Highway construction works will be delivered by the City's Highway

	Term Contractor (J.B.Riney & Co. Limited) with construction supervision undertaken in-house by City Highway Engineers.
3. Programme and key dates	The construction programme for each of the reinstatement projects is dictated by a number of factors. The main factor dictating when the City can begin works is the scheduled release date for each of the sections of the site currently sit behind the Crossrail hoarding. The key deadline for finishing the works is 9 December 2018, when Elizabeth Line services commence operations in Central London. However, the construction programme at each site is further influenced by on-going building redevelopment projects. The programme is particularly influenced by the on-going redevelopment of 100 Liverpool Street, which occupies the entire northern section of Liverpool Street West. As part of this redevelopment project, the bus station at Liverpool Street will be closed for a 12 month period between November 2017 and November 2018, then for a further six month period between April and October 2019. During these periods, bus services will be particularly reliant upon access to both Eldon Street and Moorgate, meaning that we will be unable to carry out works on either of these streets during these periods. Furthermore, it is understood that the 100 Liverpool Street redevelopment will be reliant upon Eldon Street for construction deliveries until the end of 2019, meaning that the Eldon Street reinstatement will not be possible until 2020. Indeed, the delivery of Eldon Street may be delayed further if the neighbouring 1 Liverpool Street redevelopment project goes ahead (which is highly likely), as this development will also be reliant upon construction vehicle access via Eldon Street. Furthermore, delivery of the Moorgate reinstatement is likely to be influenced by the 21 Moorfields redevelopment which sits directly above the Crossrail ticket hall on Moorfields, and by the 101 Moorgate redevelopment which lies between Moorfields and Moorgate. Based upon the constraints that we are currently aware of, the draft timescales for the Crossrail Work Site reinstatement projects are as follows: ***Liverpool Street*** • Materials procurement/mobilisation – Q1 2018; • Reinstatement of Liverpool Street West – Q2/3 2018; • Raised table at Old Broad Street / Liverpool Street – Q3 2019; and • Eldon Street raised tables and other works – Q1 2020.

	Moorgate • Materials procurement/mobilisation – Q1 2018; • Reinstatement of Moorfields south and Moor Place – Q2/3 2018; • Raised table and other works on Moorgate – Q1/2 2019 Members should note that these draft timescales are extremely fluid, and are subject to the outcome of on-going discussions between the City, CRL, London Underground Limited and various local property developers.
4. Outstanding risks	**Overall project risk: Low** Although we believe the overall project risk to be low, there are some outstanding risk items that we are currently managing. These are set out below. a) Interfaces between the City's works, CRL's works, and various third-party developer's works have yet to be fully resolved. These are subject to on-going discussion; however, we have advised the various developers involved that in the event that their works look likely to jeopardise the City's works, the City may need to withhold licences for hoarding etc. to prevent their works from going ahead. b) As part of the construction of the new Crossrail station, numerous utilities were moved from Moorfields into Moorgate. Unfortunately, there was insufficient available depth beneath the carriageway surface to accommodate these extra utilities. As a result, the carriageway surface above the utilities is failing. CRL are fully aware of this issue, and are attempting to design proposals to mitigate this problem. c) Because of the fluid nature of the programme at the moment, we cannot yet communicate to the public exactly what the programme will be; d) Owing to the tight timescales that this project is working to, the works budget estimate has had to include assumptions about various items. CRL understand the City's position, and are prepared for us to add a contingency to our cost estimate to mitigate this risk, including an element for inflation should works extend beyond 2018; and e) Traffic orders have yet to be advertised. It will be clear from the above that there remain risks associated with the timing of delivery of the reinstatement schemes and the potential for this affecting our ability to deliver the schemes in

	advance of the December 2018 deadline. Officers are aware of this, as are CRL. To mitigate this risk, it has been agreed that the City will only be contractually obliged to deliver a very tightly defined and limited project scope by the end of 2018. Specifically, the City will only be obliged to deliver the security aspects of the reinstatement schemes. Officers are working closely with CRL, and with the relevant third-party developers and are confident that this deadline will be met. Clearly, it is our aspiration to deliver out the programme as set out earlier in this report – however, in recognition of the fluid nature of this situation, officers were keen to avoid the City being placed at risk of not fulfilling any contractual obligations to CRL.
5. Budget	In order to meet the deadlines required for delivery of the Work Site Reinstatements, officers will need to place orders at the beginning of January 2018. However, it is unlikely that the detailed costings for the schemes will be agreed until early December 2017. As there is no Streets & Walkways Sub-Committee meeting in December, this report is being submitted to the November Streets & Walkways Sub-Committee with provisional costings, with a view to the detailed costings being approved in December 2017 by the Director of the Department of the Built Environment in consultation with the Town Clerk, Chairman and Deputy Chairman of the Streets & Walkways and Projects Sub-Committees under delegated authority. It should also be noted that owing to the accelerated nature of the design programme, officers have had to produce budget estimates in advance of completing the detailed design. This has been discussed with CRL, and it has been agreed by CRL that it is necessary in this instance for their payment to the City to include a contingency element to reflect uncertainties in the design. The provisional cost estimates are as follows: Liverpool Street: £2.4M Moorgate: £2.3M It should be noted that there is a significant element of uncertainty associated with the Moorgate costing, owing to the Moorgate utilities issue discussed in Section 4 of this report. In the event that this issue cannot be satisfactorily resolved by December 2017, officers will provide a detailed costing for the Moorfields and Moor Place elements of the scheme which will be based upon an interim design for Moorgate (where Moorgate is assumed to remain

	unchanged). In the meantime, officers will continue to work with CRL to find a satisfactory solution to the Moorgate issue, and will look to report back to Members early in the New Year.
6. Success criteria	a) The City has completed sufficient works necessary for the Crossrail ticket halls at Liverpool Street and Moorgate to open in December 2018; b) The City ensures that bus operations are not compromised by the temporary closures of the bus station at Liverpool Street; c) Through on-going programme management, the City is able to identify and exploit opportunities to deliver specific elements of the reinstatement schemes, whilst working with developers to facilitate their construction programmes where possible; d) The reinstatement schemes significantly improve the pedestrian environment surrounding the ticket halls; e) The reinstatement schemes provide new public realm which can accommodate the growth in local pedestrian movement that will result from both the opening of the new Crossrail station and from various local building developments in the area; and f) The City will communicate regularly with the public to ensure that they are fully appraised of the works programme for the reinstatement scheme.
7. Progress reporting	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

Appendix 1	Proposed highway layout – Liverpool Street Ticket Hall
Appendix 2	Proposed highway layout – Moorgate Ticket Hall

Contact

Report Author	Jon Wallace
Email Address	Jon.wallace@cityoflondon.gov.uk
Telephone Number	020 7332 1589

DRAFT

Legend

- Extent of urban realm works
- Private ownership boundary (indicative)
- Crossrail hoarding line

Footways:

- TYPE P1: Yorkstone slab paving (600mm x random length)
- TYPE P4: Granite sett paving, 2-colour-mix (350x150mm)
- TYPE P5: Yorkstone tactile paving - crossing (blister)
- TYPE P6: Yorkstone tactile paving - hazard warning (corduroy)
- TYPE P7: Granite tactile paving - hazard warning (corduroy)

Carriageway:

- TYPE P3: Granite sett paving, 3-colour-mix (350x150mm)
- TYPE P8: Black asphalt surfacing

Kerbs:

- TYPE K1: Granite kerb (width: 300mm)
- TYPE K2: Granite kerb (width: 150mm)
- TYPE C1: Yorkstone flat channel (width: 300mm)
- TYPE C2: Yorkstone flat channel (width: 390mm)

Drainage:

- Stainless steel footway gulley (300x300mm)
- Black ductile iron carriageway gulley (450x450mm)
- Vented drainage channel
- Linear drainage channel (width: 250mm)

Bollards:

- City of London cast iron D3 bollard
- Stainless steel fixed bollard (Marshalls Rhinoguard Titan MKII "Fixed")
- Stainless Steel manually retractable bollard (Marshalls Rhinoguard Titan MKII "Independence")

Lighting:

- New wall mounted light (IGuzzini WOW)
- New wall mounted light (replace existing) (IGuzzini WOW)

Other:

- Existing underground service cover

ELDON STREET
Full kerb upstand
Shallow carriageway ramp
Tie in with existing road alignement
Re-located pedestrian crossing lights
Existing CCTV camera
P1
Raised carriageway area 40mm kerb upstand
Existing telephone box
City of London 'node point' Wayfinding Totem
TfL Crossrail ground mounted exterior roundel
Section B3 (continuation)
Section B2
Section B1
Section B3
Section B4
100 LIVERPOOL STREET
Crossrail Broadgate Station access
Existing steps (black)
Additional proposed steps (red)
Green line indicative land boundary
Proposed steps and guiding element
LIVERPOOL STREET BUS STATION
Tie in with existing kerb alignement
Loading bay
Existing post box
P3
P8
Proposed stainless steel handrails
Existing vent structures
100 LIVERPOOL STREET RAIL STATION
Existing post box
Shallow carriageway ramp
Crossrail construction hoarding line
P1
LIVERPOOL STREET (WEST)
HOPE SQUARE
FINSBURY CIRCUS
Tie in with existing road alignement
Full kerb upstand
BLOMFIELD STREET
1-14 LIVERPOOL STREET
Vented drainage channel
Section B6
P4
RAILWAY TAVERN
LIVERPOOL STREET (EAST)
To tie in with road allignmment proposed by City of London
Crossrail construction hoarding line
BUS STAND
Tie in with existing road alignement
LIVERPOOL STREET LUL STATION ACCESS
OLD BROAD STREET
Tie in with existing road alignement

Rev.	Date	Description	By	Chkd	App	Auth
02	18/03/2016	Draft submission to City of London	SK	SN	KF	
01	20/01/2016	RIBA E SDR Issue	PB	SN	KF	

Notes

1. Issued under cover of report C138-MMD-L-RGN-C101-50002

5m 0 5m 10m 15m 20m 25m

N

Crossrail Limited
25 Canada Square
Canary Wharf
London
E14 5LQ

www.crossrail.co.uk

Contract : LIVERPOOL STREET STATION DESIGN
Originator : Mott MacDonald Limited
Location : Liverpool Street Station
Title : Broadgate Urban Realm Broadgate Station Access Public Realm
By : P.BEARD
Chk : S.NICE
App : K.FOSTER
Auth :
Scale : 1:250 @ A1
Drawing and CAD file No : C138-MMD-L-DDH-C101-40001
Rev : 02
Suitability : --

This page is intentionally left blank

DRAFT

Tie in with existing kerb layout
Chamferred kerb section for vehicular access
FORE STREET AVENUE
Crossrail construction hoarding line
Existing pedestrian crossing lights
LONDON WALL
Existing telephone box
Existing lawn and tree area
Section M5
Section M4
Section M3
Section M2
Section M1
P1
P2
P3
P4
FUTURE 21 MOORFIELDS DEVELOPEMENT (ABOVE) (by others)
City of London 'node point' Wayfinding Totem
CROSSRAIL MOORGATE STATION ACCESS
Extent of canopy
Access control pillars (entry and exit)
MOORFIELDS
FUTURE 101 MOORGATE DEVELOPMENT (by others)
KEATS PLACE (location subject to Section 247 application)
NEW UNION STREET
Chamferred kerb section for vehicular access
Tie in with existing road alignement
MOORGATE
MOOR PLACE
Existing location of disabled parking bay (dashed line)
Proposed location for disabled parking bay
Existing parking and Cycle Hire arrangement shown on Moorfields
KEEP CLEAR
Bus cage
Existing bus shelter
Existing bus flag
MOORGATE LUL STATION ACCESS
Existing telephone box
Crossrail construction hoarding line
FINSBURY CIRCUS

Legend
- Extent of urban realm works
- Crossrail hoarding line

Footways:
- TYPE P1: Yorkstone slab paving (600mm x random length)
- TYPE P2: Yorkstone sett paving (300x200mm)
- TYPE P4: Granite sett paving, 2-colour-mix (350x150mm)
- TYPE P5: Yorkstone tactile paving - crossing (blister)

Carriageway:
- TYPE P3: Granite sett paving, 3-colour-mix (350x150mm)
- TYPE P8: Black asphalt surfacing

Kerbs:
- TYPE K1: Granite kerb (width: 300mm)
- TYPE K2: Granite kerb (width: 150mm)

Drainage:
- Footway gully (300x300mm)
- Carriageway gully (450x450mm)
- Linear drainage channel (width: 200mm)

Bollards:
- City of London cast iron C3 bollard
- City of London cast iron C3 security bollard
- Black painted retractable bollard

Other:
- Existing underground service cover

Lighting:
- New wall mounted light (IGuzzini WOW)
- New wall mounted light, replacing existing (IGuzzini WOW)
- New wall mounted light, provided by new development
- Existing wall mounted light

Rev.	Date	Description	By	Chkd	App	Auth
02	18/03/2016	Draft submission to City of London	PB	SN	KF	
01	07/01/2016	RIBA E SDR Issue	PB	SN	KF	

Notes

1. Issued under cover of report C138-MMD-L-RGN-C101-50002

5m 0 5m 10m 15m 20m 25m

N

Crossrail Limited
25 Canada Square
Canary Wharf
London
E14 5LQ
© Crossrail
www.crossrail.co.uk

Contract : LIVERPOOL STREET STATION DESIGN
Originator : Mott MacDonald Limited
Location : Liverpool Street Station
Title : Moorgate Urban Realm Moorgate Station Access Public Realm
By : P.BEARD
Chk : S.NICE
App : K.FOSTER
Auth :
Scale : 1:250 @ A1
Drawing and CAD file No : C138-MMD-L-DDH-C101-10001
Rev : 02
Suitability : --

S Fry's

This page is intentionally left blank

Committees:	**Dates:**	
Streets and Walkways Sub-Committee Planning and Transportation Committee Projects Sub	24 November 2017 12 December 2017 17 January 2018	
Subject: Bank on Safety: Update on monitoring	**Gateway 6 Progress Report Regular**	**Public**
Report of: Director of the Built Environment **Report Author:** Gillian Howard		**For Information**

Summary

• **Dashboard**:
Project Status: Amber
Total estimated Project Cost: £1,368,207
Spend to date: £808,496 and commitments of £218,440
Overall Project Risk: Amber
Approved Budget: £1,179,100 of which 1,159,901 is funded. A request for an increase in budget to £1,368,207 is awaiting confirmation.

• **Last Gateway approved**: Gateway 4/5 December 2016

Progress to date:
The experimental scheme was implemented on 22nd May 2017. The Chairman of the Planning and Transportation Committee gave an update at the June Court of Common Council on the initial observations of how the experimental scheme was settling in. Formal public consultation is open until the end of November with the formal objection period to the experimental traffic order closing on 24th November. At the time of writing there have been over 1800 consultation responses.

Summary of report:
The Chairman of Planning and Transportation Committee circulated to all Court Members the agreed monitoring strategy for the experimental period in April 2017. The strategy set out how the success criteria agreed with Members in the Gateway 4/5 report in December 2016, were to be evaluated. The report presents some of the early data that has been collated and identifies how the scheme is initially performing against the criteria.

It is important to recognise that in most cases the data available is time limited and it is too early to identify clear trends. However, to date, the data available shows that the approved key success criteria are either being met or exceeded other than air quality where it is too early to make any conclusions.

The 4 approved key success criteria headings are:

1. A significant safety improvement at Bank
2. Maintain access for deliveries
3. Improve air quality at Bank
4. Not unreasonably impact on traffic flow, whilst preferably improving Bus Journey times

Further details in relation to the key criteria are covered in this report below along with commentary on traffic demand, scheme compliance and taxis.

Total Estimated Cost:
£1,368,207 (awaiting Resource Allocation Sub-Committee approval at time of writing)

Recommendations

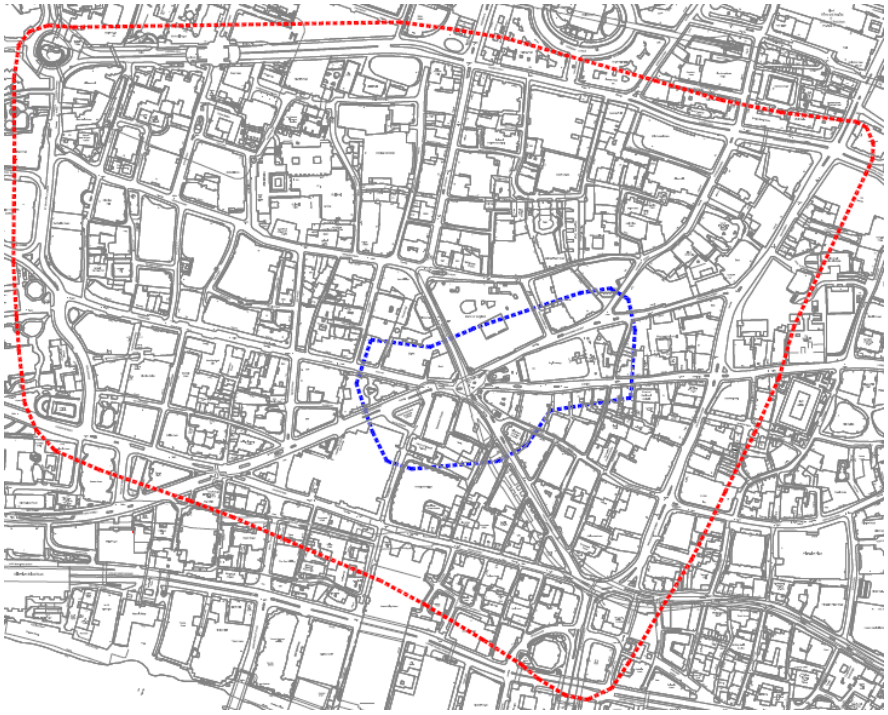
It is recommended that Members note the progress made to date on monitoring the Bank on Safety experimental scheme and that a further report be received in summer 2018.

Main Report

1. Reporting period	Focus is on the performance of the experiment and associated impacts since 22nd May 2017.
2. Progress to date	The agreed key success criteria and sample data are set out below. **Criteria 1: Significant safety improvement at Bank** **1.** In the approved November 2016 Gateway 4/5 report, it stated that a 50-60% casualty saving could be expected at Bank Junction with the recommended scheme, and that a 25% saving would be a minimum criteria for success. Additionally it was stated that a reduction in collisions of 5% within the wider area could be expected. **2.** The Gateway 4/5 report stated that between 2011 – 2015 there was; • A total of 111 casualties at Bank Junction; and • an average of 22 per year, consisting of 18 slights and 3 serious. A fatal casualty on average was every two and half years. **3.** Officers now have the full 2016 data which was not available at the time of the previous report. The new five year total for 2012 – 2016 is; • A total of 107 casualties at Bank; with • an average of 21 per year, consisting of 17 slights, 3 serious and a fatal casualty every two and half years.

4. Figure 1 below shows the boundary of Bank Junction (blue or inner boundary) and the wider monitoring area (red or outer boundary). It should also be noted that the data provided to the City for 2017 is provisional and has not yet been fully verified through the typical process. As such it is subject to change. It does however give an indication that the experiment is having a positive impact on casualty numbers

Figure 1: Areas defined as Bank Junction and the Bank monitoring area.



*Inner boundary is defined as the Bank Junction area
*Outer boundary is defined as the Bank Monitoring area

5. To date, the first 19 weeks since the scheme became operational has been analysed, which takes us to the end of September 2017. Table 1 summarises the average of the previous 5 years for that same time period for comparison during the operational hours of the scheme only. It covers the whole City, (including Bank Junction) the Bank monitoring area (excluding Bank junction) and Bank Junction.

6. The 3 casualties at Bank since the scheme has been operational provisionally consist of 2 slight casualties and 1 serious. In the Monitoring area, the casualty split is 21 slight and 3 serious.

7. As can be seen in Table 1, comparing the specific time frames of the previous five year average to the data since the scheme has been operational, shows that so far the Bank junction success criteria is being realised and the wider Bank monitoring area is also exceeding the target to date. There is some additional casualty information in

Appendix 1 regarding collisions that have occurred including outside of the operational hours of the scheme, and their severity

Table 1: Monday to Friday 7am to 7pm (operational hours) casualty occurrence:

	22nd May - end Sept average (2012 - 2016)	**22nd May - end Sept 2017**	**Success Criteria in G4/5 report (% change)**	**Actual % change**
City-wide	96	71	N/A	N/A
Bank Monitoring area (excluding Bank Junction)	30	24	-5%	-21%
Bank Junction	7	3	possible – 50 to 60%, minimum - 25%	-56%

Criteria 2: Maintain Access for deliveries

8. The success criteria, agreed by Members in the Gateway 4/5 report, was that 75% of businesses that the City previously worked with, should be satisfied that their servicing and delivery activity is conveniently undertaken in the post-scheme scenario.

9. Officers are in the process of contacting and re-visiting 46 businesses to gather their post-scheme responses and views for comparison. To date, those visited have not indicated any specific concerns regarding ability to access their properties. In the main they are supportive of the changes to date. Understanding their delivery requirements during the design phase has helped to ease the impact of the traffic pattern changes on their businesses and our communication efforts on the lead up to the scheme provided information to share with suppliers.

10. As would be expected, any issues of significance were raised with officers directly in the first weeks of the scheme going live. The only location of concern was Lothbury. Officers responded to the concerns, monitored the activity and were able to resolve the issues for the businesses to their satisfaction. We will report more fully on this aspect of meeting the success criteria when all 46 businesses have been visited. However Officers are not aware of any outstanding complaints regarding these businesses ability to service and deliver.

Criteria 3: Improve Air Quality

11. Members agreed a measured reduction at Bank, but with the wider

monitored area not being worse overall.

12. Following advice from the Air Quality Team, it is difficult to assimilate any data trends for NOx changes at Bank or the wider area from the limited data set that we have so far. Practicalities of how the other influencing factors for NOx levels also need to be considered with the readings of the diffusion tubes, such as the weather. This should then be compared to continuous monitoring stations elsewhere in the City to get a better understanding of Air Quality trends in general, and therefore the likely impact of the experimental scheme vs other changes. This is a bigger piece of work than simply presenting the diffusion tube readings and will be undertaken in due course when there is a larger dataset available to work with.

Criteria 4: To not unreasonably impact on traffic flow whilst preferably improving bus journey times.

13. The agreed post-implementation monitoring strategy indicated that success in this criterion would consist of an average journey time improvement of bus services within the modelling area over the two peaks; and that the operation of the 4 key routes on average for general traffic would be no worse than the proposed modelled output for 2018.

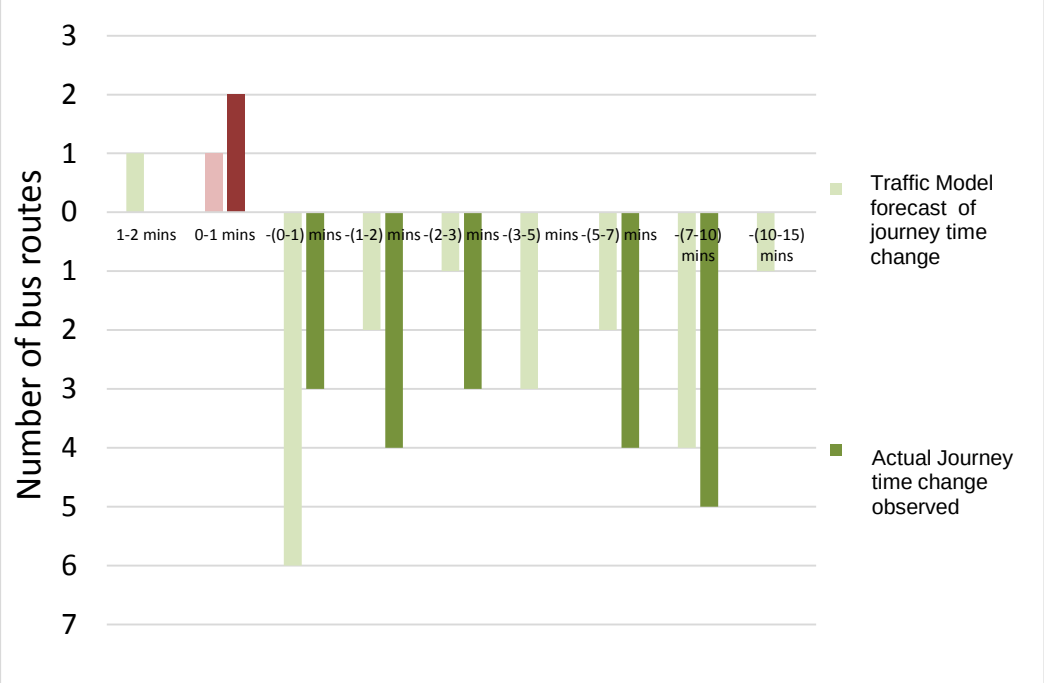
<u>iBus Data</u>

14. iBus data is collected by London Buses from every single bus on the network through GPS recording. Currently, the pre-scheme data stretches back to October 2015 and post scheme is to the end of September 2017. The pre-scheme data is over a sufficient period of time that the impact of road works and traffic fluctuations is smoothed giving a more robust average for comparison. With the post scheme data we are limited to the first 19 weeks of scheme operation and so the following figures are likely to change over time as the datasets get larger.

15. Figure 2 below shows the number of routes experiencing an average journey time saving or increase in the 19 weeks since the scheme was implemented (Bold bars) vs what was forecast by the traffic model (light bars) for the AM peak.

16. Figure 2 shows that more services have experienced larger savings in journey times in the AM peak than the model predicted. A similar chart for services in the PM peak, which shows a similar pattern, can be found in Appendix 2 for information.

Figure 2: Bus Journey times in the AM peak – model forecast vs observed post scheme change, categorised by number of services



17. The overall average journey time change for services that are directly routed through Bank Junction and those that are not is shown in Table 2.

Table 2: Average journey time savings of bus routes in the peaks.

Bus routes:	**Through Bank**	**Not through Bank**
AM	7-10 mins saving	2-3 mins saving
PM	5-7 mins saving	1-2 mins saving

18. It should be noted that this data includes the journey times of buses on diversion due to directional road closures, such as London Wall and Bishopsgate since the scheme began. However, to date, the average bus journey times for all services both through Bank and in the perimeter are showing journey time reductions; there by meeting the success criteria.

General traffic Journey times

19. The four key corridors, as agreed at Committees and Road Space Performance Group at TfL, are as follows;

- **London Wall**
- **Bishopsgate/ Gracechurch Street**
- **Cannon Street**
- **New Change / St Martin Le Grand**

20. The monitoring strategy intended to use the Traffic Master dataset from the DfT, to assess the impact of journey times on the above four corridors. However we have had to use iBus data as the trafficmaster data is not currently available.

21. Although the data presented in Figure 2 extends to the end of September, for the purposes of assessing the impact to the key corridors, we have used to end of August only. This is because of the southbound road closure on Bishopsgate during September. This closure re-routed many buses on significant diversions. If these diverted journeys were included it would skew results for the Bishopsgate corridor. The London Wall eastbound closure between May and July has been included as the diversion route was minor , and did not appear to add significant time to the eastbound routing.

22. The initial data, which is in Appendix 2 shows that journey times in the peaks have improved on three of the four corridors compared to the previous average bus journey times.

23. In comparison to the forecast modelled general traffic journey time savings and increases in the peaks, the iBus data suggests that the corridors are performing well to the forecast; However with such a small after data set, robust conclusions cannot yet be formed.

Other points of interest

Vehicle Numbers within the City

24. It is important to understand whether collision numbers and journey time monitoring has been affected by a reduction of vehicles entering the City. Table 3 shows the total vehicles per month entering the City's 'Ring of Steel' ANPR area since the scheme went live, and how this compares with 2016.

Table 3: Monthly vehicle volumes in 2016 & 2017

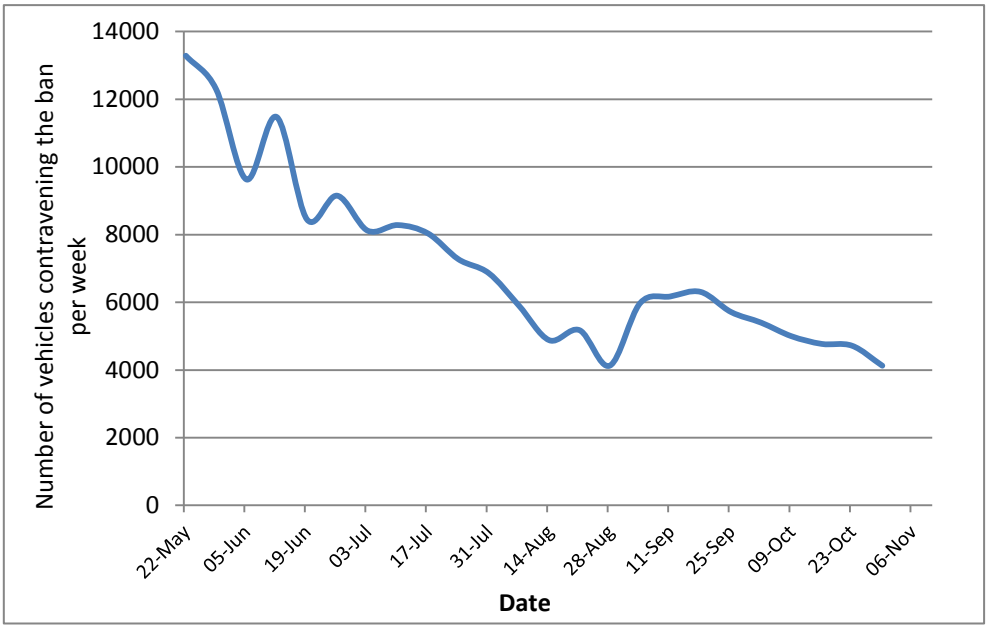
	2016 Monthly Totals	2017 Monthly Totals	% change
May	1,714,466	1,692,138	-1.30
June	1,662,919	1,584,327	-4.73
July	1,640,937	1,673,796	2.00

25. Table 3 shows that there were minor changes in May and June 2017, however volumes increased in July 2017, indicating that traffic has not been significantly deterred, from entering the City.

Compliance levels with the experiment

26. It is also important to understand the number of vehicles that are complying with the restriction at Bank. Figure 3 shows the number of vehicles per week that have incorrectly driven across Bank, or entered Cornhill form Leadenhall Street, since the scheme went live.

Figure 3: Number road users contravening the Bank Junction restriction since 23rd May (Monday – Friday 7am – 7pm)



27. Figure 3 shows that the number of vehicles contravening the restriction has decreased over time. This can be attributed to ongoing engagement around the scheme and the number of PCN's issued to drivers encouraging greater compliance.

28. In total, there are less motor vehicles that contravene the restriction by crossing Bank over the 12 hour period per day, than there used to be that traversed the junction in an hour before the scheme went live. This is a massive reduction in vehicle numbers and there is currently a high compliance rate of almost 95%. Officers will continue to attempt to improve the compliance rate during the experimental period and are exploring what physical changes could be made to reinforce the restriction should the scheme be made permanent.

<u>Taxi data</u>

29. Concern for the impact on the taxi trade and their passengers was voiced at the Gateway 4/5 report and was incorporated into the monitoring strategy in 'other success criteria'. The description of what was agreed to be monitored was "taxi journey times and costs not unreasonably increased".

30. Information to date onto the impact of the scheme on the taxi trade and their passengers is summarised below. Detailed information is contained within Appendix 3. It is worth noting that the London Taxi Drivers Association (LTDA) have also been monitoring ranks and journey times before and after the scheme. To date the City has not seen any of this external data, but the LTDA have said that they would provide us with their report in due course.

	31. An independent research company was commissioned by the City to undertake 'Mystery Shopper taxi journeys between defined points suggested by taxi trade representatives on 5 routes. Journeys were undertaken during the morning peak (8 am to 9 am), afternoon (12 pm to 1 pm) and evening peak (5 pm to 6 pm) in each direction, on Tuesdays, Wednesdays and Thursdays both before the scheme and post-implementation. Officers are currently in the process of organising a repeat of the survey which will allow for more robust post-scheme data to ensure that the situation has not changed significantly over time. **32.** The identified routes were a collection of popular journeys, some of which would have gone through Bank and some which would not. This exercise was undertaken to get an impression of changes to movement within the City which could be attributed to the Bank on Safety scheme. **33.** The data shows that on average there has been an increase to seven of the ten directions surveyed of between 00.01 and 4.20 minutes. Three directions had an average reduction of between 00.25 and 4.40 minutes. The maximum journey time increase observed on one run was 8.00 minutes with the maximum journey time saving observed was 6.00 minutes. **34.** This data set is being used to inform the situation, but is a small sample of journeys undertaken by taxi. As such no firm conclusions can be taken based solely on this data at this time. We will be undertaking the 'mystery shopper' task again to increase the number of journeys undertaken for better comparison. **35.** In Appendix 3 there is also information regarding a survey undertaken at London Bridge station taxi rank following concerns of the trade that passenger numbers could be affected at this location. To date the small sample size is inconclusive showing little evidence between the pre and post surveys of change. Other factors including seasonality have not been considered as part of this work to date and given that we only have one pre survey period, the influence of seasonality will be difficult to prove.
3. Next steps	There are surveys and further monitoring to be undertaken in all aspects to assess whether the experiment has met its objectives and success criteria. The report containing the full monitoring data and results of the consultation is scheduled for the summer of 2018.

Appendices

Appendix 1	Collision Data
Appendix 2	Journey Times & iBus data
Appendix 3	Taxis

Contact

Report Author	Gillian Howard
Email Address	Gillian.howard@cityoflondon.gov.uk
Telephone Number	020 7332 3139

Appendix 1 – Collision Data

Table 4 below is comparable to Table 1 in the main body of the report, however the data shown below is over a 24/7 period (i.e. Monday to Sunday and all times). The table is used to show collisions that have occurred both during and outside the operational hours of the scheme.

Table 4 – 24/7 casualty occurrence split by severity

	Average Casualties per year between 22nd M ay - end Sept (2012 - 2016)				**Provisional casualties 22nd May - end Sept 2017**				**Success Criteria in G4/5 report (% change)**	**Actual % change (based on total)**
	Total	Slight	Serious	Fatal	Total	Slight	Serious	Fatal		
City-wide	141	122	19	1	100	87	13	0	N/A	N/A
Bank Monitoring area (excluding Bank Junction)	44	38	6	0	34	29	5	0	-5%	-23%
Bank Junction	10	9	1	0	3	2	1	0	possible - 60%, minimum -25%	-70%

Figures 4 and 5 below provide an outline indication of emerging 2017 collision data in comparison to 2016 collision data for the same period (22nd May – 31st August, Monday – Friday, 7am – 7pm).

It should be noted that the data presented in the main body of the report and in table 4 above extends to the end of September however at the time of producing the below accident plots, only data to the end of August was available. Additionally the plotting method used to assemble these maps is accurate to approximately four metres only.

Figure 4: Collisions occurring in the Bank Area in 2016 (22/05/2016 – 31/08/2016, Monday – Friday, 7am – 7pm)

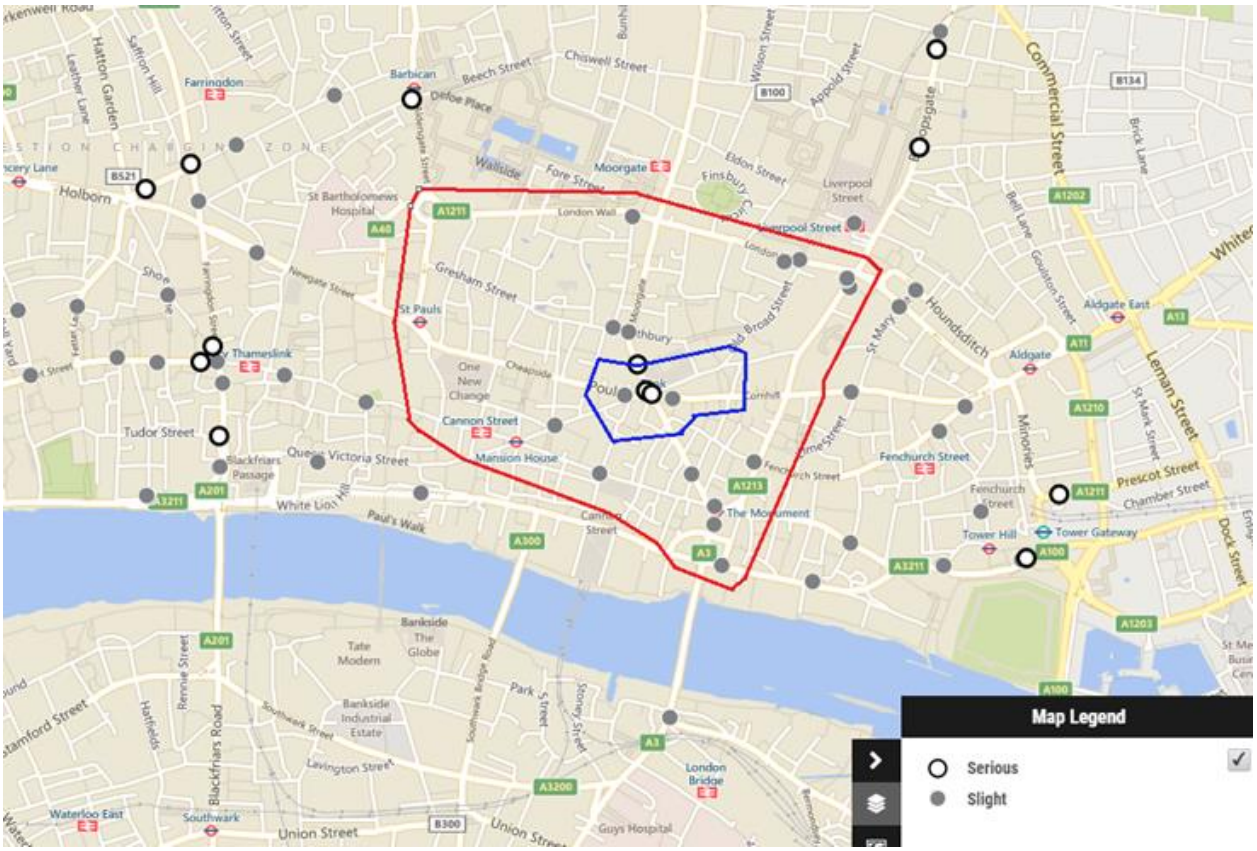
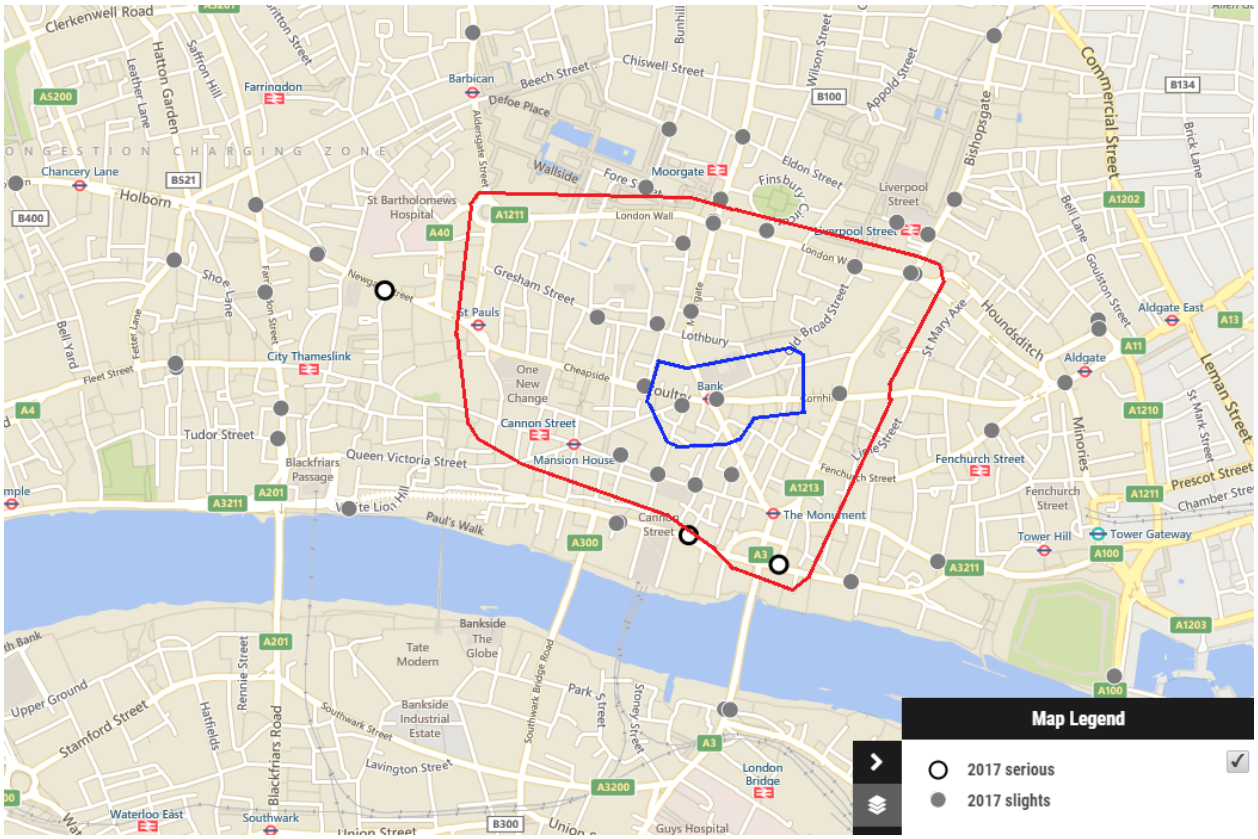


Figure 5: Collisions occurring in the Bank Area in 2017 (22/05/2017 – 31/08/2017, Monday – Friday, 7am – 7pm)



Appendix 2 – Journey Times & iBus data

Figure 6 below is for the PM period showing the data for bus journey time differences pre-scheme, stretching back to October 2015, and post scheme, to the end of September 2017. The lighter bars show the model's prediction of the change to bus journey times in the PM peak, and the bolder bars show the actual change in bus journey times observed so far in the PM peak.

Figure 6: Bus Journey times in the PM peak – model prediction and actual post scheme change, categorised by number of services

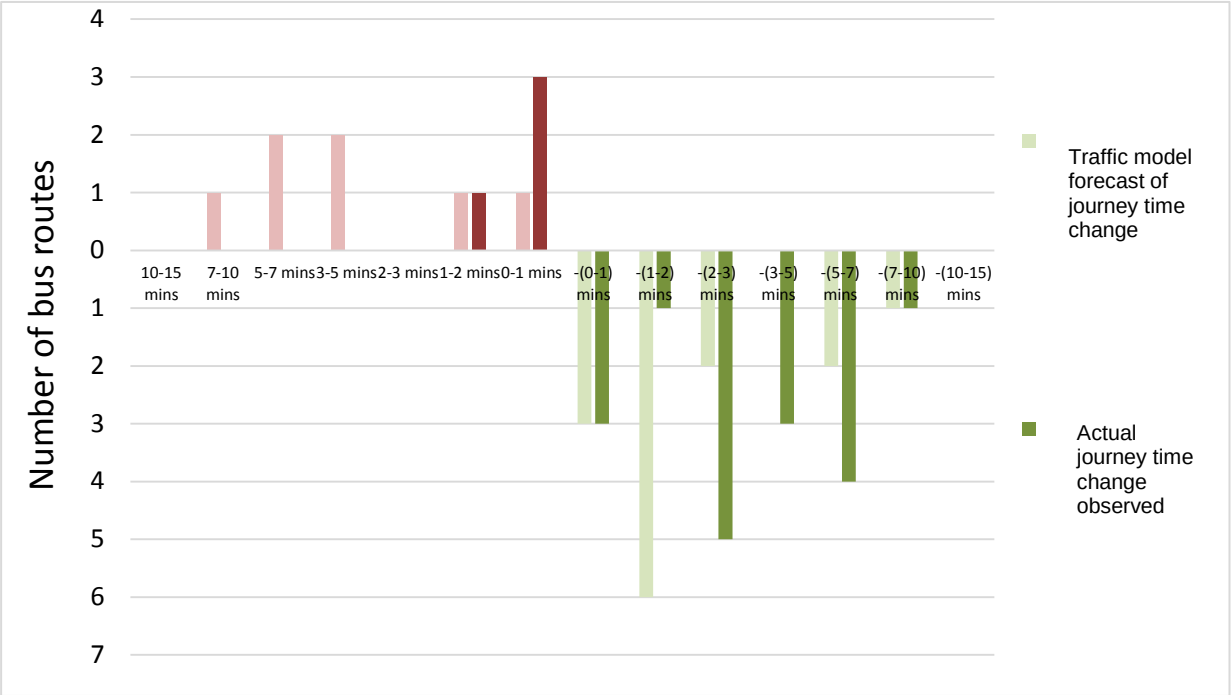


Figure 6 shows that more services have experienced larger savings in journey times in the PM peak than the model forecast since the scheme went live.

<u>Corridor Journey times</u>

The four key corridors as discussed at Committees and Road Space Performance Group are as follows;

- **London Wall**
- **Bishopsgate/ Gracechurch Street**
- **Cannon Street**
- **New Change / St Martin Le Grand**

Officers have used iBus journey times for comparison between pre and post implementation states. Outcomes from this comparison can give a good indication of the impact to general traffic, as we can infer if there has been a change to bus journey times on these corridors, then it is likely that traffic has seen a similar impact.

Officers are due to receive Trafficmaster data which will give an independent view of general traffic journey times, though this data is not yet available.

There are bus routes which run the entire length of the corridors and there are some which run for only part of the corridor. For the purposes of clarity, only those routes which run along the whole of the corridor have been included. In time, as more data becomes available, officers will be undertaking a more detailed aggregate analysis for these corridors to understand journey time changes using a broader spectrum of routes.

The tables below show the both movements (EB and WB or NB and SB), combined to give an average journey time change and sorted into bandings, to show overall corridor performance. As stated in paragraph 20 of the report the data presented below extends to August 2017 only to account for diversions.

Table 5: London Wall

Route	Journey time change AM peak (8am – 9am) in minutes	Journey time change PM peak (5pm – 6pm) in minutes
100	-(2-3)	-(2-3)

Table 6: Bishopsgate

Route	Journey time change AM peak (8am – 9am) in minutes	Journey time change PM peak (5pm – 6pm) in minutes
47	-(2-3)	-(2-3)
48	-(3-5)	-(2-3)
149	-(3-5)	-(2-3)
344	-(5-7)	-(3-5)

Table 7: Cannon Street

Route	Journey time change AM peak (8am – 9am) in minutes	Journey time change PM peak (5pm – 6pm) in minutes
15	-(0-1)	-(2-3)
17	-(0-1)	+(1-2)

Table 8: New Change / St Martin Le Grand

Route	Journey time change AM peak (8am – 9am) in minutes	Journey time change PM peak (5pm – 6pm) in minutes
4 (Southbound only)	+(0-1)	+(1-2)

The data compares the difference in the average bus journey time between the same two stops on the corridor, after the scheme and before the scheme. The figures seem to indicate that to the end of August there has been a neutral to positive overall impact on journey times.

Appendix 3 – Taxis

The effect of the scheme on the taxi trade and their passengers was a particular concern mentioned by members at the Gateway 4/5 report. As such a number of surveys have been undertaken by the City to determine any potential impacts. The averages below are taken across the three time periods surveyed, 8-9am, 12-1pm and 5-6pm.

Journey Time and cost

Table 9: Minimum, maximum and average pre and post scheme taxi journey time comparison (averages are taken across the three surveyed peaks).

			Pre - Scheme			Post - Scheme			Difference			% Using Bank before the trial	Deviation from previous route in miles
	Start Point	Destination	Min	Max	Average	Min	Max	Average	Min	Max	Average		
1	Liverpool Street Station	St Bart's Hospital, Giltpur Street Entrance (Kenton & Lucas Wing)	08:00	19:00	12:10	10:00	17:00	13:30	02:00	-02:00	01:20	0%	-0.11
2	Taxi rank south of St Bart's Hospital	Liverpool St Station, Mainline Entrance	05:00	14:00	11:00	08:00	13:00	09:51	03:00	-01:00	-01:09	22%	-0.13
3	Taxi rank on Liverpool Street	Mermaid Conference Centre on Puddle Dock	08:00	14:00	11:27	11:00	19:00	13:33	03:00	05:00	02:07	89%	0.28
4	Queen Victoria Street	Liverpool Street Station, Mainline Entrance	06:00	09:00	07:33	09:00	17:00	11:53	03:00	08:00	04:20	100%	0.03
5	Taxi rank on Fenchurch Place	Bread Street Kitchen on Bread Street	08:00	17:00	11:27	07:00	16:00	11:27	-01:00	-01:00	00:01	89%	-0.19
6	Ted Baker on Cheapside near Bread Street	Fenchurch Street Station	07:00	13:00	08:47	09:00	14:00	11:54	02:00	01:00	03:07	100%	-0.22
7	Taxi rank west of London Bridge Station	Bloomberg on Finsbury Square Garden	10:00	18:00	13:20	11:00	20:00	15:00	01:00	02:00	01:40	100%	0.05
8	Finsbury Square Garden	London Bridge Station Mainline Entrance	10:00	23:00	15:40	09:00	24:00	17:12	-01:00	01:00	01:32	100%	0.11
9	Aldgate Station	Hatton Garden	13:00	17:00	14:40	10:00	20:00	14:15	-03:00	03:00	-00:25	33%	0.28
10	Hatton Garden (South of Greville Street)	Aldgate Station	14:00	32:00	21:10	12:00	26:00	16:30	-02:00	-06:00	-04:40	17%	0.35

Table 10: Minimum, maximum and average pre and post scheme taxi journey cost comparison (averages are taken across the three surveyed peaks).

		Pre - Scheme			Post - Scheme			Difference			% Using Bank before the trial	Deviation from previous route in miles
Start Point	Destination	Min	Max	Average	Min	Max	Average	Min	Max	Average		
Liverpool Street Station	St Bart's Hospital, Giltpur Street Entrance (Kenton & Lucas Wing)	£6.40	£11.60	£ 8.20	£8.00	£10.20	£ 9.50	£1.60	-£1.40	£ 1.30	0%	-0.11
Taxi rank south of St Bart's Hospital	Liverpool St Station, Mainline Entrance	£5.60	£10.00	£ 7.74	£7.00	£9.00	£ 7.97	£1.40	-£1.00	£ 0.23	22%	-0.13
Taxi rank on Liverpool Street	Mermaid Conference Centre on Puddle Dock	£8.00	£10.00	£ 8.60	£8.40	£12.20	£ 9.94	£0.40	£2.20	£ 1.34	89%	0.28
Queen Victoria Street	Liverpool Street Station, Mainline Entrance	£6.00	£8.00	£ 6.78	£7.60	£12.00	£ 9.04	£1.60	£4.00	£ 2.27	100%	0.03
Taxi rank on Fenchurch Place	Bread Street Kitchen on Bread Street	£6.00	£11.20	£ 8.28	£7.00	£10.60	£ 8.60	£1.00	-£0.60	£ 0.32	89%	-0.19
Ted Baker on Cheapside near Bread Street	Fenchurch Street Station	£5.80	£8.20	£ 6.67	£7.40	£10.00	£ 8.72	£1.60	£1.80	£ 2.05	100%	-0.22
Taxi rank west of London Bridge Station	Bloomberg on Finsbury Square Garden	£8.00	£12.60	£ 9.75	£8.60	£13.42	£ 10.54	£0.60	£0.82	£ 0.80	100%	0.05
Finsbury Square Garden	London Bridge Station Mainline Entrance	£8.40	£14.96	£ 10.73	£8.60	£15.20	£ 12.18	£0.20	£0.24	£ 1.45	100%	0.11
Aldgate Station	Hatton Garden	£9.40	£12.20	£ 10.33	£10.00	£13.20	£ 10.85	£0.60	£1.00	£ 0.52	33%	0.28
Hatton Garden (South of Greville Street)	Aldgate Station	£10.40	£18.00	£ 13.46	£10.00	£15.00	£ 12.15	-£0.40	-£3.00	-£ 1.31	17%	0.35

NB: The above fare prices for the post scheme monitoring include the tariff increase of 3.7% which was introduced in June 2017.

Whilst the data displayed in the above tables is useful and important it, does not act as a direct comparison to the modelling data reported at Gateway 4/5 which was an average of all journeys, undertaken within the modelled area.

Further analysis on this data and the new post-survey will be conducted in due course.

Taxi Rank Surveys

The City has gathered pre and post-implementation data to ascertain the number of customers waiting for and using taxis at the rank at London Bridge station, following concerns raised by taxi trade representatives.

Pre-scheme surveys were undertaken on Tuesday 9th and Wednesday 10th May and post-scheme surveys were undertaken on Tuesday 11th and Wednesday 12th July. All surveys were undertaken between 8am and 9am. Table 11 below compares pre and post scheme waiting time figures for the front taxi to obtain a fare, and Table 12 compares the direction of travel upon leaving the rank.

Table 11: Pre and post scheme comparison of time taken for a taxi to obtain a fare and the total number of fares (8am – 9am).

	Pre - scheme		Post - scheme	
	May 9th	**May 10th**	**July 11th**	**July 12th**
Minimum wait time (seconds)	14	15	11	7
Maximum wait time (seconds)	479	462	548	670
Average wait time (seconds)	181	141	157	153
Number of fares between 8am and 9am	63	76	71	67

Whilst the above data is useful for indication purposes, the sample sizes taken to date are too small to draw robust conclusions on the dataset.

This page is intentionally left blank

Committee(s)	Dated:
Streets & Walkways Sub - For information Planning & Transportation - For information Policy & Resources - For information	24 November 2017 9 January 2018 18 January 2018
Subject: Major Highway Works for 2018	**Public**
Report of: Director of the Built Environment	**For Information**
Report author: Ian Hughes	

Summary

As predicted in last year's report, the volume of activity taking place in the Square Mile has placed increasing demands on the City's highway network. In particular, the sheer scale of schemes such as Crossrail, the Bank Northern Line upgrade and the Thames Tideway project means that long-term co-ordination of works is vital to keep the City moving.

In addition, the City currently has the largest volume of building development taking place since 2008, as well as the highest number of utility openings since 2011. The two are undoubtedly connected, and although development activity in particular is traditionally a sign of a thriving Square Mile, it brings with it a need for road and footway space for construction, essential utility connections and additional heavy vehicle traffic.

A great deal of effort goes into ensuring that such activity is coordinated as much as possible, and although this effort is not always visible, the 548 days of disruption saved through collaborative works in the first 10 months of 2017 reflects this proactive approach.

The City has a statutory responsibility to minimise disruption as part of its Network Management Duty, and so officers will continue to work to ensure the co-operation of major project sponsors, utility companies and developers in co-ordinating their works and minimising disruption. The key objectives remain:

- balancing the need to keep projects on track with the need to minimise congestion and limit the impact on traffic and pedestrians (especially vulnerable road users);
- ensuring the needs of the City's wider stakeholders (ie businesses, residents and visitors) are also considered;
- maximising the opportunity to combine works together to minimise their overall impact;
- working with Transport for London and our neighbouring authorities to ensure the needs of the wider transport network are considered.

Key to that effort remains:

- the close level of contact established by officers with individual utilities, developments and projects;
- the ability of officers to find, influence and negotiate innovative solutions to construction problems and programmes with contractors;
- understanding, programming and managing the City's own long-term programme of projects;
- continuing the development of the City's various communication channels through which upcoming activities are publicised.

Recommendation

Members are recommended to receive this report.

Main Report

Background

1. The Highways team within the Transportation and Public Realm Division of the Department of the Built Environment (DBE) is tasked with co-ordinating all major activities on the highway, and has officers involved in negotiating, approving and facilitating the extent and timing of:
    a. All road closures and diversions
    b. Major building site operations, including mobile crane works
    c. Special events, including the Lord Mayor's Show
    d. Street works by utilities
    e. Major street scene and transportation projects by the City
    f. Resurfacing & highway repairs by the City's term contractor, JB Riney
    g. Works by major transport infrastructure providers, such as Crossrail
    h. Works by TfL on the 'Red Routes', and by the City's neighbouring authorities on the City fringe
    i. Large scale deliveries and building removals through the parking 'dispensation' system
    j. Large film shoots and outside broadcasts
    k. Parking bay suspensions
2. To deliver this function, officers have well-established links with the City's Environmental Health and Highway Structure teams, the emergency services, Transport for London and other key City stakeholders so that information can be shared, co-ordinated and publicised to the general public.
3. The demand for room on the City's streets remains high, and officers try to accommodate the needs of applicants and works promoters whenever they can. However, the Highways team seeks to ensure that the needs of the public are not

forgotten, and that a balance is struck between their needs and those of the works promoters.

4. As an example, when considering road closures, the following general approach is adopted:
    a. no works are allowed that directly conflict with each other;
    b. no diversions that use the same streets;
    c. no parallel streets to be affected;
    d. local access to be maintained as far as possible;
    e. ideally two ‘north / south’ and ‘east / west’ routes through the City to be kept clear of disruption at all times.

Limitations to the Consent Process

5. The City exercises its authority to control activity on-street through the issue of scaffold & hoarding licences, permits to dig up the street, traffic orders to allow roads to be closed, approval of Construction Logistics Plans for developments, and the granting of parking dispensations & bay suspensions for lorries to deliver.
6. However, the City has to act reasonably in exercising these powers, and its ability to control the pace and detail behind major works has a number of limitations. This can often mean using the City’s influence to co-ordinate and manage that activity, rather than relying on its limited regulatory authority. For example:
    a. The utilities retain wide-ranging statutory powers to excavate the highway, particularly in emergencies.
    b. A developer can decide when they trigger a planning application, and highway reparation or enhancement works around the site typically need to be delivered in time for the building to be occupied.
    c. As Strategic Transport Authority, TfL have the authority to implement Mayoral transport policy such as the construction of the cycle super highway on their road network.
    d. Crossrail, the Bank Northern Line upgrade and Thames Tideway come with bespoke powers enabled by Acts of Parliament that assume primacy of their works over other projects. They disapply many of the City’s normal controls, and are deliberately drafted to limit the ability of a local authority to prevent, delay or control those works.
7. The City obviously has full control of its own works programme, and these are planned to ensure they only proceed with a full understanding of their scale, timing and impact, avoiding other major projects and activities such as the key special events.

Current Position

8. The demand for space on the City's highway network largely comes from four main sources, namely:
    a. Development activities
    b. Major infrastructure projects
    c. Utility works
    d. City of London works

9. Although utilities are traditionally thought to be the main source of disruption to the highway network, the scale of major projects such as the cycle super highway, Crossrail, Bank Northern Line upgrade and Thames Tideway has changed that profile.

10. Such projects have certainly had a wide ranging impact in recent years, but the last two years has seen the City enjoy its largest development boom since 2008, and although this is usually to be welcomed as a sign of a healthy City economy, the current concentration of development requires road space for scaffolds, hoardings, lorries and logistics, as well as associated utility connections.

11. The table below shows the breakdown of road closure applications by source over the last six years.

Road Closure Application Volumes

Type / Year	**2011/12**	**2012/13**	**2013/14**	**2014/15**	**2015/16**	**2016/17**
Developments	99	107	101	155	231	175
Utilities	68	52	62	67	89	95
Emergencies	92	69	26	57	68	38
CoL	22	25	40	85	89	78
Other	18	8	3	18	17	51
Total	**299**	**261**	**232**	**382**	**494**	**437**

12. Although the last full year saw a reduction in applications for road closures related to buildings and development activity, the continuing surge in this sector has ensured that this remains the largest single cause for roads to be closed. Although most of these applications are for side streets and / or take place at weekends (for activities like crane operations), a significant number are for much longer periods to facilitate day to day construction activity.

13. In parallel, the number of road closure applications from utilities has reached a six year high, which is likely to be linked to development activity as most developments require upgraded and diverse supplies from multiple utilities. This is reflected in the number of permit applications received from utilities to excavate the City's highway.

Utility Street Works Permit Applications

Year	2011	2012	2013	2014	2015	2016	2017
Total Permit Applications	4379	3331	3319	3099	3074	3448	3980*

* Projection based on permit application volumes from Jan-Oct 2017.

14. As seen in the above table, the volume of utility permit applications is now at its highest level since 2011 (the pre-Olympic moratorium rush), and since none of the major utilities are currently undertaking a major network upgrade, this demonstrates the impact of the development boom is being felt here too. In other words, rather than network upgrades or replacement works, the need for additional power, heating, cooling and telecom requirements for new developments is now driving a considerable part of overall utility workload.

15. As in previous years, officers continue to identify opportunities to combine works from different contractors, thereby reducing the need for yet more closures. This resulted in 548 days of disruption saved on the network between January and October this year - an exceptionally high number for any highway authority - and reflects the pro-active forward looking approach by officers and the level of co-operation by utilities in using round table discussions to draw out medium and long-term works plans.

16. Finally, one other trend in road closures is the increase in 'other' closures, which this year included 19 special events and 29 film shoots. Until a relatively recent change in the law, filming was not a legitimate reason for streets to be closed, so that film shoots were managed (often with difficulty) under police powers or short traffic holds. Now film companies can legitimately close streets to better manage their operations, so the number of road closures has increased without necessarily a corresponding increase in filming activity.

Major Works & Schemes for 2018

17. This section of the report looks ahead to the major works expected to take place in the next 12 months, including details of how officers have sought to assess, co-ordinate and influence each project in turn. Summary details can be found in the appendices to this report, including an outline calendar of major works proposed in 2018 and a map of the locations of these various projects.

Development Activities

18. Once a developer has a planning consent in place, the City cannot control when a development starts, nor do we have the power to stop a development just because other activities are taking place in the vicinity. In other words, we are unable to set an arbitrary limit on the volume of development taking place in any one area.

19. In many ways, redevelopment of the City has historically been seen as an indication of a thriving Square Mile, but given the overall level of on-street activity is noticeably higher, work sites will inevitably overlap in places as they bring a

need for road space, a reduction in network capacity and additional heavy vehicle traffic to our streets.

20. However, those same streets still need to function for residents, businesses and visitors, and be safe for motor vehicles, cyclists and pedestrians. To that end, we have staff dedicated to liaising with building sites to understand their construction needs, to working with the major projects to help manage their impacts, and to co-ordinating activities so that works overlap as little as possible.

21. That typically involves making the best use we can of the tools we have at our disposal, including our Considerate Contractor Scheme (which currently has over sixty active building sites as members) and Construction Logistics Plans for sites that are conditioned from the Planning approval process.

22. As Members are no doubt aware, the City undertakes the vast majority of public realm work around building developments through its term highway contractor (JB Riney), funded by those developments. The majority of these works are done with little or no network impact, with the focus being minimising the impacts on local businesses and residents. In the coming 12 months, those development-related works include:

    a. St Alphage Garden for the London Wall Place Development
    b. Bartholomew Close for Helical
    c. 100 Bishopsgate
    d. 100 Minories
    e. 2-6 Cannon St

23. However, some elements of development-related activity, including both construction and subsequent public realm works, do have the potential to impact the road network, and in that context, the key activities where this might be the case for 2018 are briefly summarised as follows:

<u>Bloomberg (Queen Victoria St)</u>

24. Works to complete the public realm around this landmark development near Bank junction have largely finished on three of its four frontages, leaving the Queen Victoria St elevation as the final area to complete.

25. This will involve the creation of a new diagonal pedestrian crossing facility at the junction of Queen Victoria St / Queen St / Watling St, and will involve a closure of Queen Victoria St westbound from December until September next year. However, with only buses and cycles currently passing through Bank junction, the traffic impact of this closure is expected to be limited.

<u>The London Development (Shoe Lane)</u>

26. The public realm works around this major development will also begin before the end of 2017, but will gather pace during 2018 in time for completion in spring 2019. Works are being programmed to fit the timetable for Goldman Sachs' occupation, with the first key element being on Farringdon St between January and May next year.

27. These works are being undertaken by the City through our term contractor (JB Riney) by agreement with TfL, who have agreed the City is best placed to undertake all the works around the site, even though Farringdon St is a TfL road.

The works are also being designed to take place within the current site loading bay, keeping traffic capacity on Farringdon St largely unaffected.

100 Liverpool St

28. This development by British Land has had a minor impact on the pedestrian flows in and out of Liverpool St railway station, but the upcoming work adjacent to Liverpool St bus station has required TfL to agree to the bus station itself being closed for 12 months from November this year.

29. To compensate for this, DBE have agreed for a number of bus stands and stops to be relocated to Finsbury Circus and other nearby streets. However, in order to minimise the impact of this closure on the local bus network, TfL and the City have agreed to keep the major corridors in the vicinity of the bus station open for the duration of the works, including Moorgate, Blomfield St, London Wall and Bishopsgate.

Eastern Cluster

30. The greatest concentration of activity in the City remains in the Eastern Cluster, where the number of individual building sites proposed or already underway has now reached 31 (see Appendix 3).

31. It is almost inevitable that works for these various developments will overlap, but the City continues to meet these sites together once a month to co-ordinate their respective programmes, and to combine (or separate out) their utility works, crane operations and construction logistics accordingly.

32. In the coming year, two sites in particular will have public realm enhancement works that will impact the local street network:

    a. 10 Fenchurch Ave: These works include returning Fen Court and Billiter St to public use, but the footway works on Fenchurch St itself are extensive and will require a westbound closure for approximately two months, either side of Christmas / New Year.

    b. Scalpel, Leadenhall St: Works to enhance the public realm around the Scalpel will also require a westbound closure of Leadenhall St, but this will be programmed to commence after Fenchurch St reopens. Currently these works are expected to last around three months.

Major Infrastructure Projects

Crossrail

33. Crossrail continues to have a major presence in the Square Mile, but thanks to the close co-operation between the City and the five surface-level construction sites at Moorgate, Liverpool Street, Blomfield Street, Finsbury Circus and Lindsey Street, complaints from the public have remained at a very low level, and Crossrail as a whole has become part of the background activity in the City.

34. Moorfields, Moor Place, Finsbury Circus (west arm), Liverpool Street (west), Hayne Street and Charterhouse Square (westbound) all remained closed throughout the last year, and will likely stay closed until the completion of the project. However, with the live stations due to open at the end of next year, focus is now shifting to rolling back these worksites, and constructing the urban realm elements to be delivered around each station entrance.

35. Members may recall that the City has reached an agreement to undertake these urban realm works on behalf of Crossrail, and detailed design and construction planning is now well underway. Core areas around each station will be completed by the December 2018 deadline, but it is important to note that with oversite development activity above and around each of the stations (in particular at Lindsey St and 100 Liverpool St), completion of all the Crossrail-related public realm works will be a long-term process lasting into 2022 as construction areas gradually become available.

Thames Tideway

36. The project to connect London's 'super sewer' to the outfall of the River Fleet just west of Blackfriars Bridge is already well underway. A new pedestrian lift connecting the riverside walkway with the bridge level has been opened, and Blackfriars Pier has been relocated to a new permanent position east of Blackfriars Rail Bridge.

37. In terms of construction impact, the riverside walkway has now been closed to pedestrians, and the intersection of the cycle superhighway has been revised, with the down ramp from Blackfriars Bridge to the Embankment now closed. Both measures will be in place until the completion of the project in 2021.

38. For 2018, local Ward Members are already aware that Tideway are exploring the potential need to divert two large gas mains from their current position within the riverside pipe subway, under Victoria Embankment and the Underground Tube Lines towards Temple Avenue and Tudor St. Tideway and Cadent (formally National Grid Gas) are currently evaluating the need to do this work, caused by potential settlement and risk to this equipment in its current location, but such a diversion represents a considerable engineering challenge and has the potential to cause significant disruption to local stakeholders.

39. Although Tideway are yet to approach Members, officers and local residents & businesses with the conclusions from their recent trial holes and scoping exercise, this information is likely to be made available before the end of this year. Nevertheless, should a diversion of the gas network be needed, works of this type are typically programmed for late spring to early autumn when the demands on the gas network are lower.

Bank Northern Line Upgrade

40. This project will deliver a new Northern Line tunnel for Bank station by 2022, a new ticket hall in Cannon St, various new subterranean interchanges and lift access from street level direct to the Docklands Light Railway.

41. At surface level, the project now has two main worksites, namely Cannon St for the new station entrance and Arthur St, where a shaft has been sunk to create space to tunnel northwards. That tunnelling is about to reach the area under Bank junction itself, and with City officers involved in the overall planning of the project since its inception, both sides continue to meet on a monthly basis to discuss progress.

Cycle Super Highway

42. As Members are no doubt aware, work to construct the Mayor's separated cycle lane corridors, north / south and east / west across London, has largely been completed. However, there are three main locations in the City where TfL are

expected to undertake cycle super highway-related works in the next 12-18 months:

a. TfL are currently consulting on a scheme to amend the junction of Tower Hill and Trinity Square to facilitate a movement into the Square 'at any time'. If approved, these works are likely to begin in January 2018 and last for six months, with a westbound lane closure on Tower Hill and a full closure of Trinity Square. TfL are also hopeful that once completed, the scheme will add a certain amount of capacity back into the traffic flow along this key east / west corridor.

b. TfL have also just completed a public consultation on an extension to the north / south cycle super highway, starting in Farringdon Street by Stonecutter Street and heading north towards Kings Cross. Proposals are still subject to detailed design and approval by TfL's Project Board, but if approved, works (with lane closures) are likely to run from February to June 2018 in conjunction with the public realm works for the London Development.

c. Finally, as Members are well aware, TfL are completing the feasibility study for the changes to the New Bridge St / Tudor St junction, and subject to this being successful and funding being identified, this element of the cycle superhighway could become part of their programme of work next year.

43. As with the previous super highway programme, City officers will work closely with TfL colleagues to understand the impact of the construction, monitor & inspect any works on City Corporation streets, and co-ordinate activity on the rest of the network.

Thameslink

44. Tooley St continues to be closed as part of the Thameslink upgrade to London Bridge station, and although this is likely to have placed additional pressure on the London Bridge corridor at the start, such pressures typically decline over time as drivers find more suitable alternative routes. Based on their current programme, the closure is expected to be lifted by May 2018.

Utility Works

45. Other than the potential gas main diversion related to Thames Tideway, there are few major set piece works currently being planned by utilities. Of those that may come forward in 2018, the most likely aspects also relate to gas main repairs for Cadent.

46. Although Members may recall the significant investment from Cadent (formally National Grid Gas) in recent years to upgrade their medium & low pressure gas main networks from Aldgate to Newgate St, the City is aware that Cadent are finding more significant gas leaks on a more frequent basis, with this year's problems including major leaks in Cannon St, Cheapside, Fenchurch St and Tudor St.

47. We are aware that Cadent are coming under pressure from the Health & Safety Executive to resolve these issues, and although they have a five year window to identify funding and complete the works, we understand they are likely to

consider works in Cheapside during the second half of 2018. Firm details have yet to be supplied by Cadent, but any works they propose will be subject to considerable advance planning and publicity, as well as trial holes to prove the extent and duration of their activity.

City of London Works

48. Separate to development and Crossrail activity, the vast majority of the City's own planned public realm, road safety and highway maintenance programme is expected to have little impact on the road network. For example, the major enhancement projects at Monument, Artizan St and Aldgate continue without affecting traffic, and the City's major set piece highway maintenance projects, including our resurfacing programme and soon to commence street lighting upgrade, will be sensitively programmed to avoid both traffic congestion and complaints from local stakeholders.

49. In terms of major City Corporation projects with the potential to affect major streets in the Square Mile, the Structures team within DBE are planning long-term works to replace and / or repair London Bridge's waterproofing and bearings, and this may fall towards the end of the 2018 window. However, this will be subject to TfL's agreement on network availability and works on other river crossings, albeit full daytime road closures of the bridge are not yet thought necessary.

Communications

50. The Highways team continues to strengthen its communications with the public, helping to mitigate the impact of all these works. These channels include:

    a. Fully refreshed and published Guidance Notes that cover all aspects of building site operations affecting the public highway. These were recently recognised by the Health & Safety Executive as containing some of the most stringent yet effective measures in London.

    b. 3,650 followers to the Highways Twitter feed (@squarehighways), providing up-to-date information on road closures, special events and road safety initiatives.

    c. Nearly 1,160 people receive the weekly e-mailed Traffic Management Bulletin, covering major highway works and events for the week ahead.

    d. Over 46,000 people visited our road closure web pages in the first half of this year.

Corporate & Strategic Implications

51. The activity outlined above serves to create a safe, effective and fit-for-purpose environment for the City community to flourish in the long term. Development activity in particular is traditionally seen as a sign of a thriving Square Mile, but it brings with it a need for road and footway space for construction, essential utility connections and additional heavy vehicle traffic.

52. The City has its statutory duties to maintain safe highways for the public to enjoy, to regulate activity that takes place on its streets and to co-ordinate that activity to ensure that its impact is minimised. Therefore the focus must continue to be to meet these statutory requirements and to deliver safer streets, but at the same time ensuring the City maintains it competitive edge for business and remains an attractive place to live, work and visit.

Conclusion

53. The approach from officers remains to identify the needs of these major projects early, to combine them where possible, and to keep them apart when necessary. This requires officers to:

    a. establish the dependency between separate projects;

    b. understand their potential conflicts and impacts, and;

    c. engage with project managers at an early stage (and frequently thereafter) to ensure that disruption can be minimised through a combination of regulation, negotiation and influence.

54. With projects such as Crossrail, Thames Tideway and Bank Northern Line Upgrade now well underway, co-ordinating works on the City's road network will remain a challenge into the longer term, but officers will continue to work to ensure the co-operation of major project sponsors, utility companies and developers in co-ordinating their works programmes, as well as fitting the City's own activity into that picture.

55. The aim will remain to ensure there is a balance between the need to keep projects on track and the need to limit both the direct and cumulative impact they cause on the public at large.

Appendices

- Appendix 1 - Major Works Timeline
- Appendix 2 – Major Works Map
- Appendix 3 – Current and proposed sites in the Eastern Cluster

Ian Hughes
Assistant Director (Highways)

T: 020 7332 1977
E: ian.hughes@cityoflondon.gov.uk

Appendix 1: City of London: Major Works Timeline 2018

(High, Medium & Low Impact schemes) – Numbers relate to locations in Appx 2

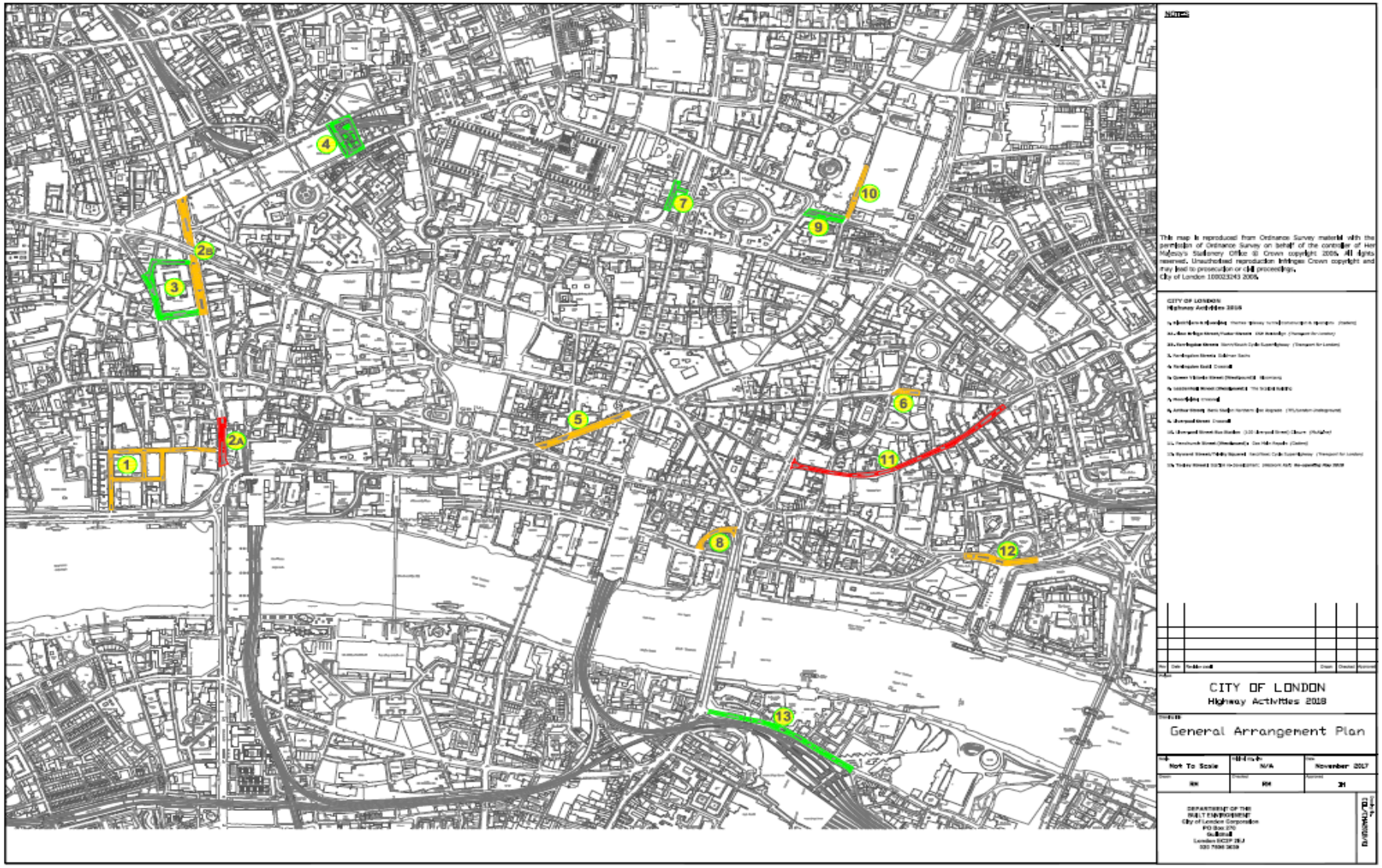
Q1	**Jan** 11 Fenchurch St W/B (10 Fenchurch Ave) 2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH)	**Feb** 2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 6 Leadenhall St (Scalpel) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH)	**Mar** 2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 6 Leadenhall St (Scalpel) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH)
Q2	**April** 2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 6 Leadenhall St (Scalpel) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH) Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	**May** 2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH) Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St **(13 Tooley St reopens)**	**June** 2B/3 Farringdon St (GS & CSH) 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station 12 Byward St/Trinity Sq (CSH) Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St
Q3	**July** 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	**Aug** 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	**Sept** 5 Queen Vic St W/B (Bl'mberg) 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St
Q4	**Oct** 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	**Nov** 10 L'pool St Bus Station Crossrail – 4 Farringdon East, 7 Moorfields, 9 Liverpool St	**Dec**

NB:

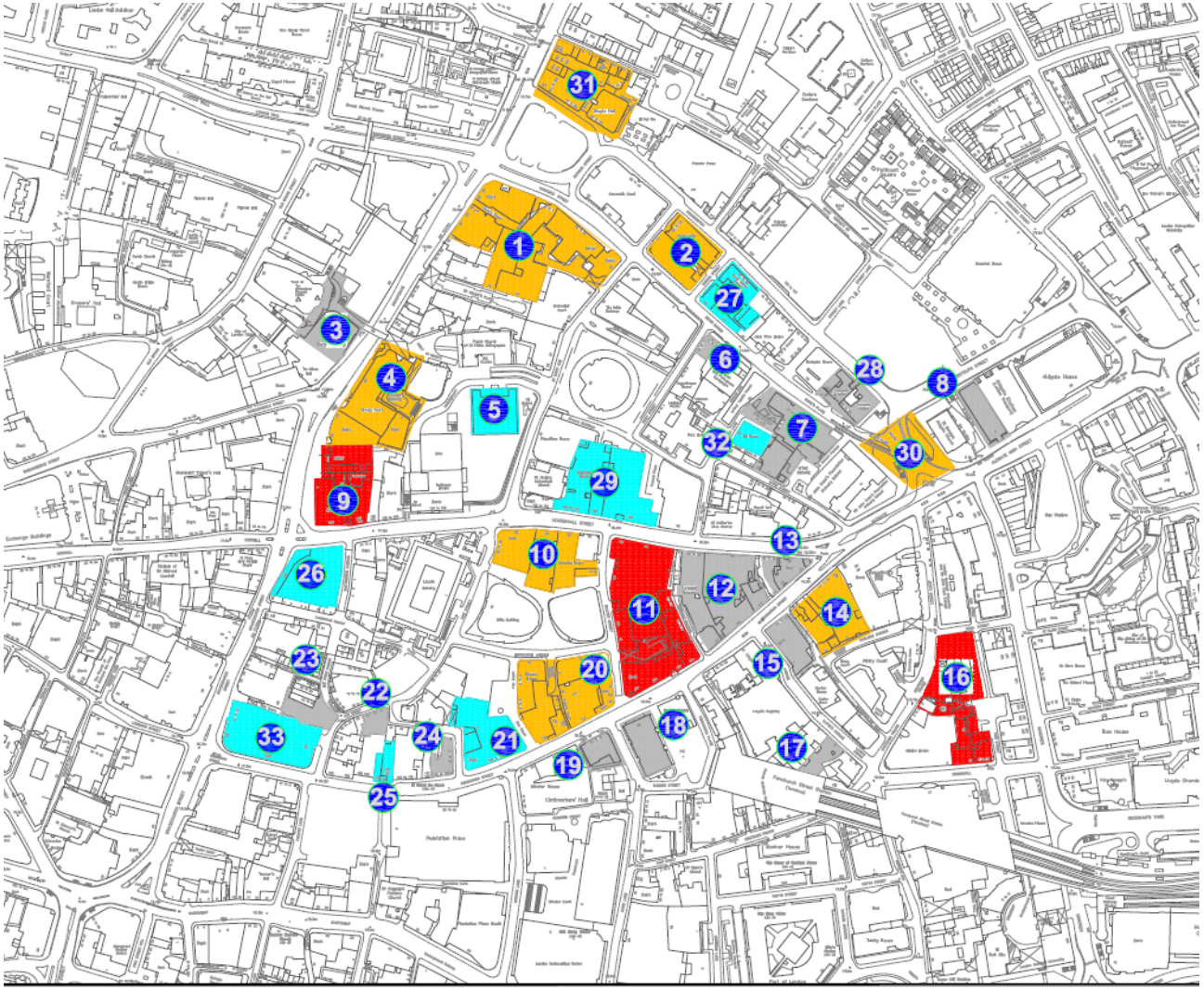
8 Arthur St (LUL) & Blackfriars slip closure (Tideway) in place throughout 2018

1 Tudor St Area (Cadent / Gas / Tideway) and 2A New Bridge St (CSH) – To be programmed

Appendix 2: Major Works Map



Appendix 3: Current and proposed sites in the Eastern Cluster



Developments:

No.	Site	Stage
1.	**100 Bishopsgate** (Brookfield Multiplex),	*Construction*
2.	**60-70 St. Mary Axe** (The Can Of Ham) (Keltbray/Mace)	*Demolition*
3.	**15 Bishopsgate** (Erith Demolition)	*Demolition*
4.	**22 Bishopsgate** (Keltbray)	*Demolition*
5.	**Aviva Tower, Undershaft**	*Planning Consent*
6.	**12 Bury Street** (Primus)	*Construction*
7.	**Creechurch Place** (Skanska)	*Construction*
8.	**Matrix Hotel, Aldgate** (Willmott Dixon)	*Construction*
9.	**150 Leadenhall Street** (Keltbray)	*Demolition*
10.	**52 Lime Street** (The Scalpel) (Skanska)	*Construction*
11.	**40 Leadenhall Street (Project Vanquish)** (Keltbray)	*Inactive*
12.	**108 Fenchurch Street** (Gilbert Ash)	*Fit-Out*
13.	**69 Leadenhall Street** (Parker Ray)	*Fit-Out*
14.	**80 Fenchurch Street** (JF Hunt)	*Demolition*
15.	**75 Fenchurch Street** (ISG)	*Demolition*
16.	**Roman Wall House** (Kennedy)	*Demolition*
17.	**8 Lloyds Avenue** (Parker Ray)	*Fit-Out*
18.	**58 Fenchurch Street** (Structuretone)	*Construction*
19.	**54 Fenchurch Street** (Unknown)	*Inactive*
20.	**10 Fenchurch Avenue** (McAlpine)	*Construction*
21.	**130 Fenchurch Street** (Unknown)	*Inactive*
22.	**Asia House, 33 Lime Street** (Parker Ray)	*Fit-Out*
23.	**21 Lime Street** (Blenheim House)	*Construction*
24.	**140 Fenchurch Street** (Unknown)	*Completed*
25.	**150 Fenchurch Street** (Unknown)	*Inactive*
26.	**1 Leadenhall Street (Leadenhall Court)** (Multiplex)	*Planning Consent*
27.	**Bevis Marks House** (Unknown)	*Planning Consent*
28.	**22-30 Dukes Place (Irongate House)**	*Completed*
29.	**100-116 Leadenhall Street (Diamond Tower)**	*Pre-App Discussions*
30.	**Aldgate Pavilion** (Kier)	*Construction*
31.	**150 Bishopsgate** (Lend Lease)	*Construction*
32.	**24 Creechurch Lane** (Unknown)	*Pre-App Discussions*
33.	**70 Gracechurch Street** (Unknown)	*Pre-App Discussions*

Correct as of 6 November 2017

Committee(s):			Dates:
Street and Walkways Sub Committee	-	For information	November 24th 2017
Planning and Transportation Committee	-	For decision	December 12th 2017
Policy and Resources Committee	-	For Information	December 14th 2017
Subject: City Lighting Strategy: Draft Strategy consultation			**Public**
Report of: Director of the Built Environment			**For Decision**

Summary

In September and October 2016, Members approved a Street Lighting LED upgrade, together with the installation of a new Control Management System (CMS) that allows the dynamic real time management of street lighting throughout the City of London. However this project also provided the ideal opportunity to establish the very first City wide lighting strategy for the Square Mile.

Lighting consultants were appointed in January 2017 and a draft City Lighting Strategy has now been produced, following a series of workshops including a wide variety of internal officers from the City of London and City of London Police. This report presents the main recommendations of the Strategy and sets out details of the planned public consultation exercise. Copies of the draft strategy are available in the Members' Reading Room.

The City Lighting Strategy will seek to improve the quality, efficiency, sustainability and consistency of lighting for the whole City, providing a holistic approach to lighting and helping to ensure a safe, vibrant and pleasant night environment for businesses, residents and visitors.

The Strategy also considers the negative consequences of artificial lighting and how a healthy and sustainable balance can be achieved between light and darkness within the City, maintaining safety and security considerations as paramount. Its key recommendations include a new set of lighting standards and a series of innovative approaches and techniques in line with the Smart City agenda. The Strategy also recommends guidelines for both the level and colour of lighting (i.e. its warmth) for main streets, secondary streets and foot ways.

The document suggests how smarter, more human scale lighting can provide both the necessary functional lighting the City requires, and also a powerful tool to enhance the public realm after dark, supporting the development of the City's night time economy.

Officers are recommending that a formal public consultation exercise is undertaken to gather public responses to the principles presented in the Strategy. It is proposed that the Strategy is out for consultation for a period of six weeks, using a variety of methods to engage with the public as set out in this report.

Recommendations:

- That the draft City Lighting Strategy be approved for public consultation to be initiated in January 2018.

Main Report

Background

1. The majority of the City's street lighting equipment is in need of replacement and a project is currently underway to deliver a technical upgrade. This involves replacing the existing street lighting units with Light-Emitting Diode (LED) lighting as well as a new integrated control management system. In that context, the opportunity to establish a City Lighting Strategy will ensure that the new system delivers lighting which is efficient, sustainable, functional and that can enhance the City's unique night-time character.
2. A series of workshops to identify key lighting issues and objectives were organised by the City, and these identified the need for a lighting strategy to set out the City's approach in a holistic way. These workshops informed the production of a brief, and Speirs and Major, a lighting design consultant, was appointed in January 2017 to develop the strategy.
3. Consultation has played a key role in the development of the strategy, with a working party set up and workshops, meetings and presentations organised to engage with a wide variety of stakeholders. This allowed the sharing of different expertise and a better understanding of the current lighting issues and opportunities. Such groups have included internal officers from planning, highways, public realm, transportation, access, environmental health and policy teams; Open Spaces department, Transport for London (TfL) and City of London Police.

Current Position

4. The City Lighting Strategy has now been drafted, having been informed by comments and suggestions received from the Working Party. The document provides a holistic approach to lighting and seeks to ensure a safe, vibrant and pleasant night environment for businesses, residents and visitors, as well as by improving the quality, efficiency, sustainability and consistency of lighting.
5. The Strategy will form part of the City 'Smart City' agenda: an ambitious forward plan to enhance the uniqueness and competitiveness of the City,

helping cement its status as the World Financial and Business Centre, as well as a historical and cultural destination.

6. This strategy will also serve as a guidance document for public realm and transportation projects and recommend lighting approaches for future developments, ensuring lighting considerations are included at the early stages of any design process.

7. This document provides a unique opportunity for the City of London to re-think its current approach to lighting, particularly how a smarter, more human scale of lighting can be delivered that better meets the needs of pedestrians and cyclists rather than the current focus on high level, high powered, traffic focused lighting. The objective is not just to provide the City with the necessary functional lighting it requires, but also improve the quality of life for its residents and workers by avoiding unnecessary light pollution, over-lighting, excessive glare and inconsistencies in lighting design.

8. This transformative approach equally suggests lighting can be a powerful tool to improve the public realm after dark, supporting the development of the City's night time economy and contributing to the success of after dark events and celebrations. It suggests how playful and/or colourful lighting could be used to strengthen the identity of Culture Mile, the City's new cultural destination, though temporary or more permanent installations.

9. Key recommendations in the document address three main areas:

   a) **Functional:** these recommendations ensure the new lighting approach provides a safe, secure and accessible environment for all.
   b) **Environmental:** this set of guidelines provides a sustainable approach that balances the economic, environmental and social impact of lighting, and considers how lighting can play a key role in the cultural development of the City of London at night.
   c) **Technical:** these recommendations suggest how the above can be delivered, starting with fully embedding lighting within the planning system, setting out a clear structure to manage street lighting, including the formation of a Strategic Lighting Board, and encouraging the use of smarter technologies and innovations.

10. Lighting standards that meet the needs of the different types of road and typologies of spaces have also been suggested as follows:

    a) **Lighting levels:** it is recommended to provide different lighting levels for the different types of road (main roads; side roads; footways and Riverside) with lighting levels varied dependent upon time of day (e.g. peak / off-peak) and/or current need (e.g. crime or other incidents). It is proposed lighting levels will be, where necessary, determined on a street by street basis.

    b) **Colour temperature:** the hue of white light of the public lighting systems is recommended to be more consistent. It is suggested that the main street and amenity lighting systems range from warm white light (2700K) to cool white light (4000K) depending on the typology of the route or open space.

c) **Lantern mounting height:** it is recommended that mounting height of lighting equipment should generally be sympathetic to the height and width of a street or open area, to ensure uniformity of lighting level throughout the City.

11. The Strategy has also identified a series of character areas within the City of London, each with its unique attributes. Distinctive recommendations are suggested for each area, which allows lighting to respect and enhance their characteristics.

Proposal

12. In summary, the strategy's aim is to provide the vision, methodology, standards and guidance to meet the future requirements of the City of London. It seeks to deliver a creative, holistic, cohesive, forward looking and intelligent approach in which light and darkness are better balanced to meet both the functional and aesthetic need. It also suggests how light may be employed to help reinforce the City's existing identity as a world-class business centre, whilst respecting and complementing both its heritage and character

13. The Strategy also specifically looks to encourage walking and cycling by creating an enjoyable, safe and secure experience of the public realm after dark, but in a sensitive and environmentally responsible manner. In recognising the City of London's Future City and Smart City initiatives it introduces an innovative approach to both technology and technique to help create much greater flexibility for the future.

14. Officers are recommending that a formal public consultation exercise is undertaken to gather public responses to the ideas in the strategy. It is proposed that the Strategy is out for consultation for a period of six weeks from January 2018, using a variety of methods:

- Leaflets and questionnaires available to the general public and placed in City of London public buildings including libraries and offices;
- A total of four drop in sessions, during lunchtime and evening periods, open to the general public in Guildhall;
- Consultation web pages with access to the electronic version of the draft strategy and on line questionnaires;
- Email updates to interested members of the public and stakeholders;
- Two night walking tours for Members, taking place in November and December 2017, to see new LED technology in its trial stage and consider the issues the strategy seeks to address; and
- Officers will also follow up on any requests made for presentations to groups or individual briefing sessions.

15. Copies of the draft strategy have been made available in the Members' Reading Room.

Corporate & Strategic Implications

16. The City Wide Lighting Strategy is in line with the aims and objectives of the City of London Corporate Plan 2015-19

Corporate Plan

KPP2 Improving the value for money of our services within the constraints of reduced resources

KKP5: Increasing the outreach and impact of the City's cultural heritage and leisure contribution to the life of London and the nation, including the more specific deliverable of

- Developing and improving the physical environment around our key cultural attractions; and providing safe, secure, and accessible Open Spaces

Policy Implications

The proposed Strategy is in line with the following adopted City of London policies:

Local Plan 2015

Policy CS3 Security and Safety

3.10.15 The illumination of buildings should only occur where it would contribute to the unique character and grandeur of the City townscape by night. Lighting intensity, tone and colour need to respect the architectural form and detail of the building, be sensitive to the setting and avoid light pollution of the sky and adverse effects upon adjacent areas and uses. Light fittings, including street lighting, should be discreetly integrated into the design of the buildings, where possible.

Policy CS10 Design

3.10.23 The City Corporation will actively promote schemes for the enhancement of the street scene and public realm, in appropriate locations.

3.10.26 All projects should be inclusive in design so that they provide access for all.

Policy CS15 Sustainable Development and Climate Change

15.7 Noise and light pollution

Internal and external lighting should be designed to reduce energy consumption, avoid spillage of light beyond where it is needed and protect the amenity of light-sensitive uses such as housing, hospitals and areas of importance for nature conservation.

Conclusion

17. This report updates Members about the City Lighting Strategy. It outlines the process of drafting the strategy, including stakeholder workshops and sets out the key recommendations presented in the Strategy. It recommends that Members approve a public consultation on the draft strategy be undertaken in January 2018 for six weeks.

Background Papers:

Draft City Lighting Strategy ‘Light + Darkness in the City, A Lighting Vision for the City of London’. This can be viewed in the Member’s reading room, or an electronic copy can be sent directly to Members on request.

Stefania Pizzato
Project Manager, City Public Realm

T: 020 7332 393
E: stefania.pizzato@cityoflondon.gov.uk

Committee(s)	Dated:
Streets & Walkways Sub Committee	**24 November 2017**
Subject: Highway Maintenance Efficiency	**Public**
Report of: Director of the Built Environment	**For Information**
Report author: Ian Hughes, Assistant Director (Highways)	

Summary

The Department of the Built Environment (DBE) and their term highway maintenance contractor, JB Riney, are responsible for the construction, maintenance and safe repair of highways, lighting and street furniture for most of the Square Mile.

DBE has delivered a 'steady state' position to nationally accredited standards over recent years ie the network as a whole is getting no worse, and if anything, it has slightly improved. Despite past budget cuts, this has been done by capitalising on additional sources of investment, through service efficiencies and by using better data and analysis to inform a more considered highway maintenance regime.

This approach has ensured that only around 7% of the City's road network requires resurfacing at any one time, accident rates for trips and falls remain extremely low, and projects such as the switch to LED lighting ensure that the City is responding to the challenges of sustainability, energy saving and budget constraints.

However, detailed analysis suggests that the number of occasions where Riney are completing temporary (as opposed to permanent) repairs is increasing, typically because fixing all the identified defects within the budgets available requires cheaper, more affordable short term materials to be used.

In addition, DBE's local risk budget for road resurfacing (£266k pa) currently represents less than half the target spend (£683k pa) necessary to replace streets in the 20 years before they typically wear out. That leaves a funding gap currently filled through TfL grants, major development schemes and DBE income from building site licences, creating a dependency on TfL's budget position and the buoyancy of the City economy.

This residual risk of a funding shortfall is also relevant given the City's historic expectation that its highways should be maintained to the highest of standards. This is exemplified by the high inspection frequencies embedded in the Riney contract, as well as various specification details, such as the very definition of what is a pedestrian trip hazard worthy of repair.

A similar position can be found in relation to the maintenance of highway structures, where limited annual repairs and maintenance budgets mean that the condition of

the City's highway structures is gradually deteriorating in the long-term. This will inevitably result in several major set-piece Supplementary Revenue schemes being brought forward in future years.

This and other aspects of highway, street lighting and structural maintenance will be considered as part of a move towards adopting the Government's new Code of Practice for Well-Managed Highway Infrastructure by autumn 2018. This will be subject of a separate report early next year, but key to meeting the new Code's requirements will be setting out a formal highway asset management policy, which will involve engagement with Members regarding what quality standards, performance levels and funding streams the City wishes to adopt in the longer term.

Recommendation(s)

Members are recommended to:

- Receive this report;
- Receive a further report early next year regarding the Government's new Code of Practice for Well-Managed Highway infrastructure;
- Receive and consider a third report later next year that considers the quality standards, performance levels and funding streams for highway & public realm maintenance the City wishes to adopt in the longer term.

Main Report

Background

1. The City Corporation is the Highway Authority for all the public highway and City walkway areas in the Square Mile, except for those streets that fall within the Transport for London Road Network (or 'Red Routes').
2. As such, the City is responsible for maintaining its streets, footways and walkways, including:
    - inspecting them for defects, undertaking repairs and resurfacing;
    - changing or enhancing streets, through major projects or in conjunction with developments;
    - maintaining signs, bollards, street furniture, nameplates and drainage;
    - looking after all the powered & illuminated street furniture in the City, from road signs to street lights;
    - maintaining highway structures, from bridges and viaducts to pedestrian underpasses and utility pipe subways.
3. The City's term contractor, JB Riney, works in partnership with City officers to identify highway and electrical defects, prioritise them, order the works and undertake the repairs, resulting in a lean, joined-up and efficient process. The City then sample checks these works on a monthly basis to ensure they are correctly managed.

4. In terms of Highway Structures, these are inspected in accordance with the current code of practice by Arcadis Ltd, who are appointed by the City to perform

these duties and to advise on their status using a bespoke IT software package designed for recording the condition of structures (Bridgestation).

Current Position: Highway Maintenance Efficiency Plan

Highway Maintenance Efficiency Plan

5. The City's historic expectation, whether expressed by the public, by Members or by officers themselves, is to maintain the City's highway, lighting and structures to a very high standard. That assumption has been written into successive highway maintenance contracts, where standards (such as what constitutes a 'trip hazard' needing repair) are amongst the most stringent in the country, and where a high quality management approach is also required.
6. This has led to levels of service that are noticeably higher than most local authorities in London, and that many authorities can no-longer afford to match. In fact, when City budgets were historically larger, this sometimes led to repairs that could be deemed cosmetic, rather than necessary for safety purposes.
7. However, highway maintenance in the City has not been exempt from the current challenging funding environment. The last significant budget reduction was in 2012 when resurfacing budgets were halved, albeit two years later, Members defended those budgets against what would have been further reductions that had been identified in the Service Based Review process.
8. Given the nature of highway construction, the City's repairs and maintenance budgets are inevitably split between short-term reactive repairs and long-term planned investment. That means funding changes do not necessarily have immediately visible effects. However, if funds are limited, the need to keep the public safe from harm tends to drive a focus towards fixing the immediate problem, and the lack of planned investment only tends to become apparent in the longer-term.
9. In recent years, officers have applied a greater focus on formally monitoring the condition of the highway, which is an initiative also driven by CIPFA (the Chartered Institute of Public Finance & Accountancy) who now require accurate and auditable whole government accounting. They consider all highways, structures and street furniture as assets to be valued, monitored and depreciated, and CIPFA require annual financial reporting on this basis.
10. Officers in DBE have also followed Department for Transport Best Practice by establishing a Highway Maintenance Efficiency Plan that sets out to track the available survey evidence on highway quality, and to identify how budgets and operational activities can be delivered more effectively. This has led to a better understanding of whole life costing for highway materials, and a far greater focus on efficiency in highway maintenance generally.
11. However, in developing strategies for the future, understanding the expectations of Members and the public in terms of long term quality standards will be key. By autumn 2018, Parliament will have introduced a new Code of Practice for Well-Managed Highway Infrastructure, which will be the subject of a further report to Members early next year. However, the intention is that by next autumn & in parallel with the Code's adoption, Members will be asked to revisit the quality

standards for our highway, structure & public realm maintenance, with these views not only setting expectations on current and future performance standards but also helping to determine long-term funding needs.

Repairs & Maintenance

12. The City's carriageways have historically been maintained to a high standard, with an intensive maintenance regime that requires the 34 Category A roads in the Square Mile to be inspected once a fortnight, and all other roads once a month. This compares very favourably with other authorities, who typically inspect their streets monthly at best, or sometimes only annually.

13. As can be seen in Appendix 1, 52% of the current highways repair & maintenance budget of £1.6m is spent on footway repairs, about a quarter (24%) is used for roads maintenance, and the rest is spent on inspections, emergencies and street furniture.

14. In the last two years, officers have embarked on significant changes in how we monitor highway defects and problems. Riney's now track each and every defect they find on the City's electronic highways asset register, separated into different forms of defect such as potholes, road repairs, broken or rocking paving, granite sett damage, street furniture repairs, missing yellow lining etc.

15. The City and Riney review this data every month to consider the current and future spend profile, trends within this data, Riney's available resources, and ways in which inspections and repairs can be done more efficiently. This includes reviewing the longevity of particular highway materials to ensure increases in maintenance costs are not an unintended consequence of new public realm designs. Through this regular review & forecasting process, the maintenance budget has been fully spent in the last two years to within 1% of the available amount.

16. In terms of the trend data, this shows us that not surprisingly the number of defects tends to increase in the winter months (due to the adverse weather), but more fundamentally:

    - The number of repairs where Riney 'make safe' rather than undertake a permanent fix has gradually increased, to the point where by May 2017, the value of outstanding defects (where a 'make safe' has happened but a permanent repair is still required) was approximately £90k. This is because available budgets in the short term can better afford the cheaper temporary repair compared to the more expensive permanent repair, even though this only defers the eventual cost of the permanent work.

    - The overall number of defects being identified has increased in some key categories such as carriageway potholes, but not in others eg granite setts. This suggests our targeted approach to utilities over granite sett reinstatements has been successful, but the significant increase in building development and HGV traffic in recent years seems to be having an effect on road surfaces.

17. In terms of conclusions from this analysis:

    - It re-emphasises the need to continue accurately profiling all Riney activity across the year;

    - It suggests that a case can be made for a review of revenue expenditure to readdress the balance between 'make safe' and permanent repairs;

    - It helps identify the causes of long-term deterioration to our road network that can be partially mitigated through proactive discussions with utilities and developers;

    - It underlines the fact that an effective revenue maintenance regime still cannot prevent the cumulative deterioration of the network, which must eventually be addressed by full road resurfacing.

Road Resurfacing

18. Carriageway repairs are needed to compensate for a number of problems, particularly:

    - weathering caused by the natural expansion and contraction of the surface, amplified by water acting against the integrity of the construction;
    - loading from heavy vehicles driving along set tracks such as bus lanes or police check points, or caused by HGVs related to development activity;
    - the cumulative effect of utility excavations disrupting the integrity of the road base construction;
    - less hard wearing materials such as granite setts or anti-skid surfaces, typically used to deliver wider road safety benefits.

19. From an engineering perspective, a road surface typically starts to fail after 20 to 25 years, depending on the extent to which those factors outlined above might apply. The City has just over 410,000m² of carriageway surface, but based on the cost of resurfacing, and DBE's current local risk budget for road resurfacing (£266k pa, see Appendix 1), it would take over 50 years to resurface every single street in the Square Mile.

20. That resurfacing allocation has fallen by 69% in the last ten years, partly in response to negotiated efficiency savings in contract rates, but also from general departmental budget reductions. The obvious consequence is that the City's roads can wear out before they can be replaced, although financial realities across the country suggest this problem is common to probably all highway authorities in the UK.

21. To put DBE's local risk resurfacing budget into context, the following benchmarking data was published in the 2017 Annual Local Authority Road Maintenance (ALARM) survey. This collates information from highway authorities across the UK, and shows that if the City relied on DBE's resurfacing budget

alone, it would be aligned with the national average but well below the London average for resurfacing frequency.

Avg length of time before roads are resurfaced

Class of Road	England	London	City of London
Principal	34 years	17 years	31 years
Unclassified	87 years	31 years	76 years
All classes	55 years	23 years	50 years

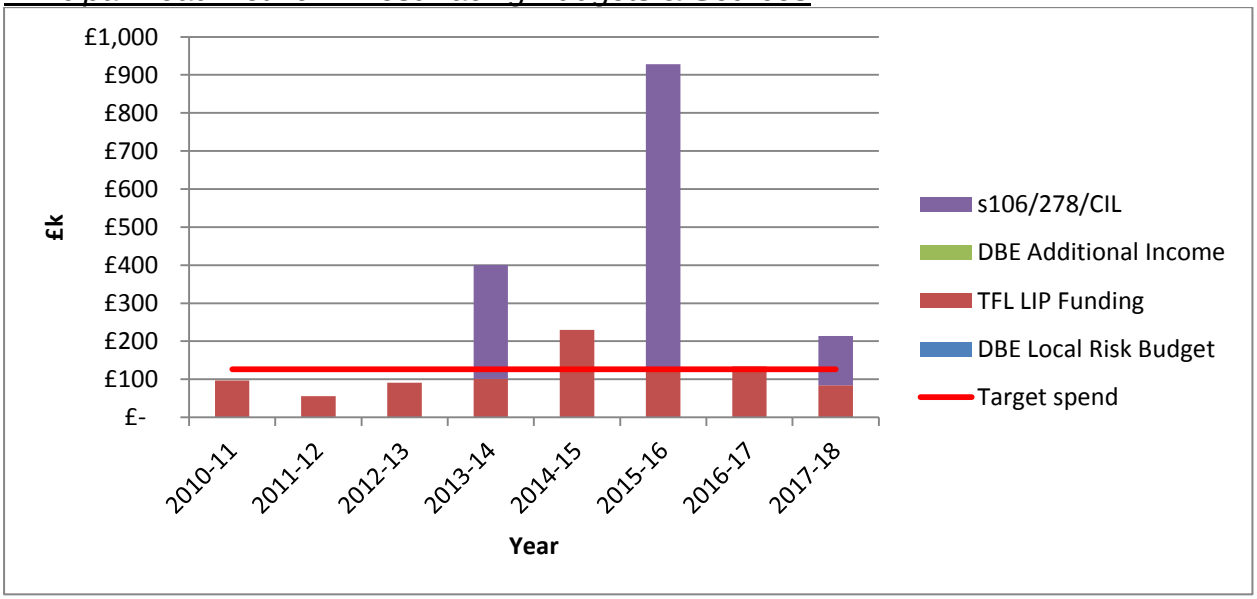
(NB: This table refines the above analysis into a more realistic spend profile, where funding is split between major (principal) roads and minor (unclassified) roads, with priority given to the former.)

22. An alternative way to assess this funding gap is to calculate the budget required to resurface every street in the City within a 20 year cyclical programme. This would require £683k pa, and with DBE's local risk budget for resurfacing set at just £266k pa, this creates a funding gap of £417k each and every year.

23. In order to offset the long term risk that streets will deteriorate faster than they can be resurfaced, officers have had to target additional sources of funding to fill that gap, and work smarter in terms of where and how current budgets are spent. This has involved making use of TfL funding from the Local Implementation Plan process, diverting additional income from DBE's wider budget, or by using funds from transportation projects, urban realm enhancements or development-related highway schemes.

24. In terms of the City's major east / west bus route corridor (the Principal Road Network – see Appendix 4), the City now relies on TfL's Local Implementation Plan grant to fund its resurfacing work, supplemented by occasional major investments on landmark schemes which are typically funded by TfL (again) or by s106/s278/CIL commitments. (The Target Spend red line in the table below indicates the annual spend of £126k pa that would be required on average to replace the PRN streets once every 20 years.)

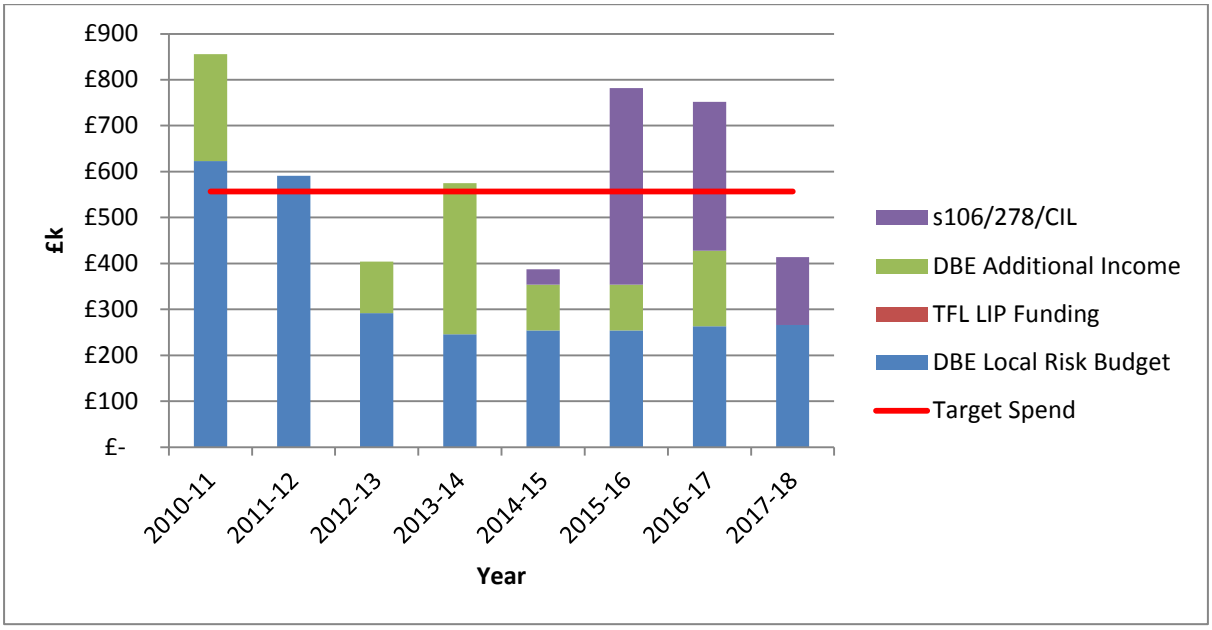
25. *Principal Road Network: Resurfacing Budgets & Sources*



Note: 2013/14 scheme funding was for Holborn Circus, & 2015/16 was for Aldgate and 2017/18 was for St Botolph St and London Wall

26. As this table shows, TfL's LIP funding can sometimes be slightly short of the Target Spend, but the City's one off scheme investments help offset this shortfall over the longer term. However, it is well known that TfL budgets have recently been reduced as a result of funding reductions from Central Government, so the current level of LIP funding cannot necessarily be relied upon into that longer term.

27. Non-Principal Road Network: Resurfacing Budgets & Sources



Note: 2015-16 funded largely from Cycle Super Highways, 2016-17 from Cycling Quiet Ways, and 2017/18 from five schemes, including Bloomberg & Middlesex St Public Realm enhancement.

28. This table shows that in the last seven complete years, the City has significantly exceeded the Target Spend on the Non-Principal Road Network (£557k pa) in three of those seven years. It has also been on target twice, but on two occasions it has significantly under invested.

29. This table clearly illustrates the point that following Departmental Local Risk budget cuts & efficiency savings in 2012-13, DBE are now heavily reliant on funding beyond its local risk budget to meet more than half the necessary Target Spend each year. These additional sources of income are either linked to the City's currently high level of building activity (through income from scaffold & hoarding licences and road closure fees) or to third party schemes, creating a dependency on the buoyancy on the City economy as well as TfL's own budget position. Should either of these fall away, DBE's ability to resurface roads before they wear out will diminish.

Highway Monitoring

30. The Target Spend noted above is the amount needed to maintain a 'steady state' position (ie enough investment to maintain the current overall street condition). In order to understand how well the City is delivering on this 'steady state' ambition,

a number of metrics are used to monitor road condition, and using them together provides a balanced scorecard approach, accepting the pros and cons of each type of survey. Briefly, these audits are:

All Streets

- SCI: The City's own carriageway inspection survey called the *Street Condition Index*, using a bespoke set of City standards to rate the condition of every street.
- UKPMS: Visual inspections of all the City's footways and carriageways by an independent consultant to the nationally-accredited standard; the *UK Pavement Management System*.

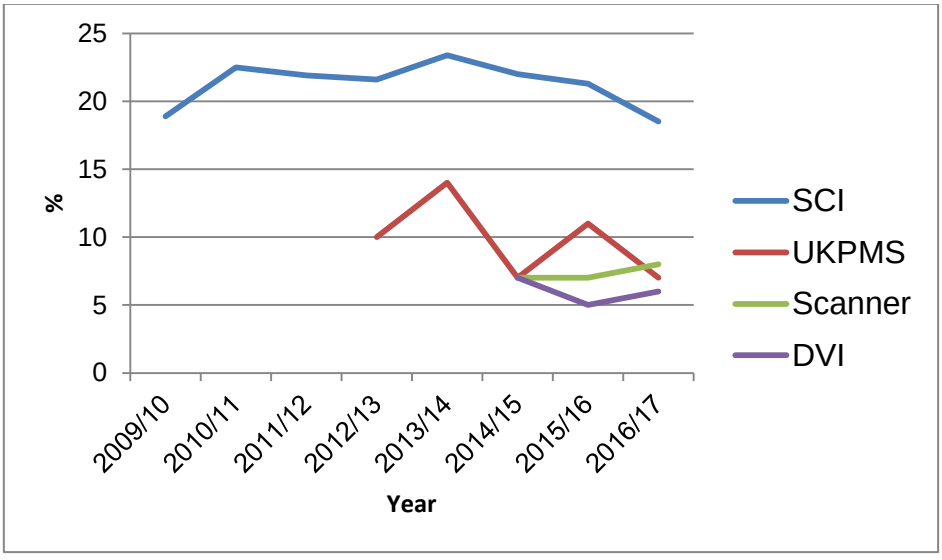
Principal Road Network Only

- SCANNER: Automated radar carriageway condition surveys of the Principal Road Network by LB Hammersmith & Fulham, which measure the structure of the highway rather than just the surface to national standards (*Surface Condition Assessment of the National Network of Roads*).
- DVI: *Detailed Visual Inspection* surveys, also undertaken by LB Hammersmith & Fulham to national standards, of just the surface condition of the City's principal roads.

31. The City's UKPMS surveys are also mapped (see Appendices 2 and 3) and converted into a highway valuation which currently estimates the nominal replacement value for the City's highway (according to rules set out by CIPFA) at £191m. This same survey also allows us to calculate the depreciated value based on the amount of defects observed, in other words the value of the highway repair backlog, which in 2016/17 amounted to around £6.5m.

32. Using these four different measures, the table below sets out the percentage of the City's highway network identified as failing and requiring repair for the Principal Road Network and for all the City's streets together:

% of the network failing (data comparison)



National Accredited Standards (UKPMS, SCANNER, DVI)

33. According to these three broadly aligned assessment standards, the above information suggests that DBE has delivered a 'steady state' position over recent years ie the network as a whole is getting no worse, with around 7% of the network requiring repair. This has been done by capitalising on additional sources of investment, through service efficiencies and by using better data and analysis to inform a more considered highway maintenance regime.

City Expectations (SCI)

34. As noted earlier, the City has historically had higher expectations when it comes to highway maintenance compared to the nationally accredited standard. Against those City standards (the Street Condition Index noted above), the percentage of roads requiring resurfacing has typically been double the national score, and at the beginning of the decade was well over 20%.

35. However, through implementing the various efficiency measures outlined in the next part of this report, that percentage has declined for the past four consecutive years, meaning in that time we have moved beyond a 'steady state' position, and in terms of the City's expectations, we have achieved a real improvement in the overall condition of the City's road surfaces.

36. Nevertheless, by those standards, over 18% of the City's streets are still in need of resurfacing, so to maintain the current improvement and to better meet expectations given the long-term funding uncertainty, further investment is still needed. For example, our records also suggest that around a fifth of the City's road network has not been resurfaced in the last 30 years, and although some will still be fit for purpose, this illustrates that a significant percentage of our streets are already operating well beyond their original design life.

37. The above analysis is now starting to provide officers with sufficient information to develop a planned long-term strategy for highway maintenance, and part of that strategy will be to review the balance between short term reactive repairs and long term planned maintenance.

38. However, shifting the balance of funding towards planned maintenance has implications for short term priorities and public safety risks, so identifying alternative sources of funding for one-off cash injections may become the way forward. Both this and the question of long-term investment to meet the City's higher expectations will be considered as part of the Well-Managed Highway review that will be outlined in subsequent Committee reports next year.

Efficiency Measures

39. As noted earlier, a significant part of the recent improvement in road surface quality can be attributable to a range of initiatives implemented to maximise the efficiency of the available budget. Some of these include:

- Limited use of specialist materials: items such as granite setts and bespoke street furniture (which are typically more expensive to maintain and have a shorter lifespan) are now limited to where there are specific benefits, and ideally commuted sums are set aside for maintenance purposes.

- Reinstatement protocols for granite setts: utilities can now purchase specialist materials direct from the City's term contractor, allowing more first time reinstatements which minimise disruption to the road surface.

- Targeted coring: the detrimental effects to the network from utility works can reduce the life of the carriageway by up to 17%, even when reinstatements are done correctly, so monitoring (and enforcing) the quality of utility reinstatements is key (see Appendix 5).

- Long term works programming: co-ordination with the City Public Realm & Transportation teams ensures that streets liable for externally-funded enhancement in the medium to long term are maintained (in the short term) with that in mind.

- Highway investment & depreciation projections: this analysis sets out the anticipated depreciation rate of every street in the City, when it is likely to need resurfacing, when that resurfacing can be afforded and when it can be programmed.

- Accident claims analysis: analysis of individual accident claims with the Chamberlain's Insurance team serves to identify risks, issues and trends that can be fed back into the maintenance regime to minimise future incidents and claims.

- Reviewing commuted sums from developers: reviewing and standardising the process by which developments contribute to the repair of the highway after the completion of their project, and how funding can be secured for new highway maintenance liabilities around their building into the medium term.

Street Lighting

40. The majority of the City's street lighting stock is now over 30 years old and is reaching the end of its serviceable life. Maintenance costs are accelerating, energy costs are high and rising, and the Government's carbon tax on energy has further added to the cost of lighting the highway. As shown in Appendix 1, 44% of the total mechanical & electrical budget of £1.188m currently relates to energy costs, which would have been expected to rise by a further £250k by 2022/23.

41. In order to address these issues, a technical evaluation of Light Emitting Diodes (LEDs) has been underway for some time, together with a trial of Radio Frequency (RF) mesh technology to allow the City to control its street lights in

real time, as well as receive fault reports and energy readings for every single lantern in the Square Mile.

42. Taken together, these technological advances will not just reduce energy and maintenance costs by almost half, but will also enable Smart City sensors to function through the RF Mesh, and create the opportunity to establish a new street lighting strategy to enhance the City's public realm at night.

43. The value of the LED project is just over £4m, and obviously could not be afforded through standard revenue maintenance budgets. However, a successful business case based on the long term savings and opportunities from the technological upgrade enabled this to be funded from the On Street Parking Reserve. Gateway 5 approval was given in July, and the initial mesh 'canopy' is expected to go live early next year. Public consultation on the street lighting strategy is also expected to take place from January 2018, subject to Member approval before the end of this year.

Highway Structures

44. The City is responsible for maintaining nearly 80 highway structures, from bridges and viaducts to pedestrian underpasses and utility pipe subways. Unlike highways and lighting, responsibility for structures has remained with the Planning & Transportation Committee rather than being delegated to Streets & Walkways.

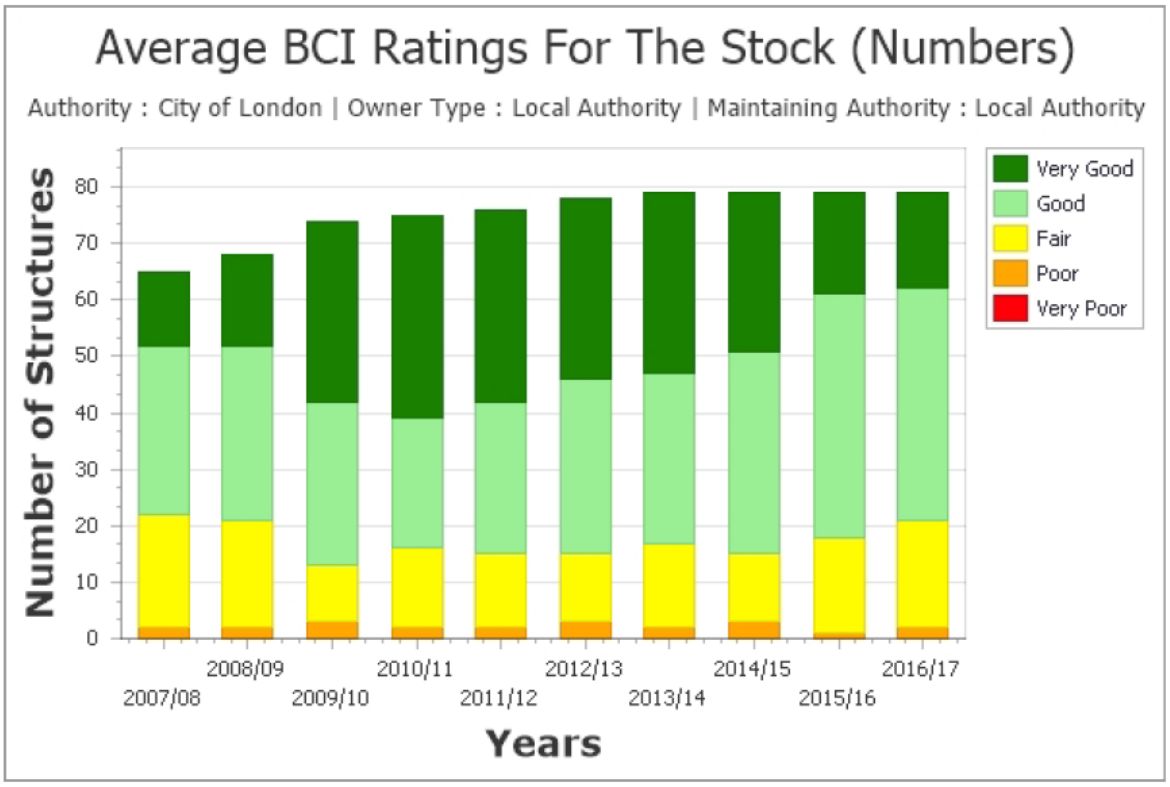
45. Excluding the Thames Bridges (which are dealt with separately because of Bridge House Estates), the current Gross Replacement Cost of these structures (to replace them from new) is just over £302m. However, with annual depreciation valued at around £1.5m pa, their Depreciated Replacement Cost (ie their value taking into account their current condition) is approximately £232m. By comparison, annual maintenance budgets are relatively small (£245k pa), so most repair works are managed as Supplementary Revenue projects through the Gateway process.

46. Arcadis are DBE's specialist consultant for structural inspection works, and were appointed on a six year contract to match the inspection cycle. As part of that appointment, they provide an annual report on the condition of the bridge stock using the London Borough Engineering Group's (LoBEG) asset management programme called 'Bridgestation'. This holds all the inspection reports, helps identify different expenditure profiles and calculates the bridge value as gross & depreciated replacement stock for the appropriate CIPFA returns.

47. The Bridge Condition Index (shown in the table below) illustrates that the City's stock of structures has generally deteriorated over the last five years, with modelling suggesting that approximately £75m in investment will be needed over the next 30 years, particularly on railway bridges and pipe subways.

48. In addition, the limited budget for maintenance work has led to the amount of outstanding work increasing, resulting in a small number of structures being closed to the general public. If sufficient investment is not made to prevent further

deterioration beyond the respective serviceability limits, further closures may be needed.



49. This background context illustrates why a number of significant projects have recently been identified and brought forward, including last year's major repair work on Tower Bridge. In terms of future priorities, these include replacing the bearings & waterproofing on London Bridge, waterproofing on Southwark Bridge and repairing the railway structures below Snow Hill and Holborn Viaduct.

50. Finally, the current inspection, repairs and maintenance regime complies with the current standards for highway bridges and structures, but the move to a more risk based approach (as outlined in the new Government Code of Practice) will likely result in a move away from the current more prescriptive approach. It is possible that such a switch will have further financial implications for our structures that will have to be considered.

Proposals

51. Having set out the current position in terms of highway surface, street lighting and highway structural maintenance, these aspects of DBE's performance are now under review in the context of a move towards adopting the Government's new Code of Practice for Well Managed Highway Infrastructure by autumn 2018. Details on this Code, and how well the City is aligned with its objectives, will be subject of a separate report early next year.

52. However, in the context of this report, key to meeting the requirements of the new Code will be setting a formal highway asset management policy, which will involve engagement with Members regarding what quality standards,

performance levels and funding streams the City wishes to adopt in the longer term. A report setting out these items for Members to consider will be brought forward later next year.

Corporate & Strategic Implications

53. Assumptions about how the City wants its highways & structures to be maintained are already implicitly embedded in its commercial term contracts. However, in the context of high public expectations and limited financial resources, a review of these performance levels and available budgets is necessary in order to help determine future expectations and long-term funding needs.

Health Implications

54. Maintaining a safe highway for the public is a statutory function that remains central to the City's core highway maintenance operation, and although the level of successful claims made against the City is minimal, this will undoubtedly remain the focus of any future policy proposal.

Conclusion

55. Through the intelligent use of data analysis, DBE are looking to ensure the City's highways, lighting and structures are safe and fit for purpose today and for the future. Standards remain high, the overall position remains positive and the City continues to innovate ways to improve its service delivery, such as the move to LED lighting and its Smart control system.

56. However, previous budget reductions have created a reliance on third party, capital and supplementary revenue funding to fill the funding gap needed to maintain and replace the City's highways, street lights and structures respectively. An understanding of these expectations, risks and issues will be central to establishing the new highway asset management policy required of the new Code of Practice.

Appendices

- Appendix 1 – Highway, M&E and Structural Maintenance Funding: 2017/18
- Appendix 2 – UKPMS Carriageway Condition Survey 2016/17
- Appendix 3 – UKPMS Footway Condition Survey 2016/17
- Appendix 4 – SCANNER & DVI Condition Survey 2016/17 (Principal Road Network)
- Appendix 5 – Targeted coring results (2011-12 to 2016-17)

Background Papers (available on request)

- Annual Asset Management Report 2016-17: City of London Inspection and Management of Structures & Bridges

Ian Hughes
Assistant Director (Highways)
T: 020 7332 1977 E: ian.hughes@cityoflondon.gov.uk

Appendix 1: Highway, M&E and Structural Maintenance Funding: 2017/18

Highway Repairs & Maintenance Funding

Type	**Amount (£'000s)**
Footway repairs	850
Resurfacing	266
Road surface repairs inc granite setts	122
Inspections	118
Emergency repairs	90
Miscellaneous cyclical works	65
Tunnel & subway repairs	40
Street furniture repairs	31
Street name plates & wayfinding	14
Road markings	13
Coring	12
Parking signage	8
Total	**1,629**

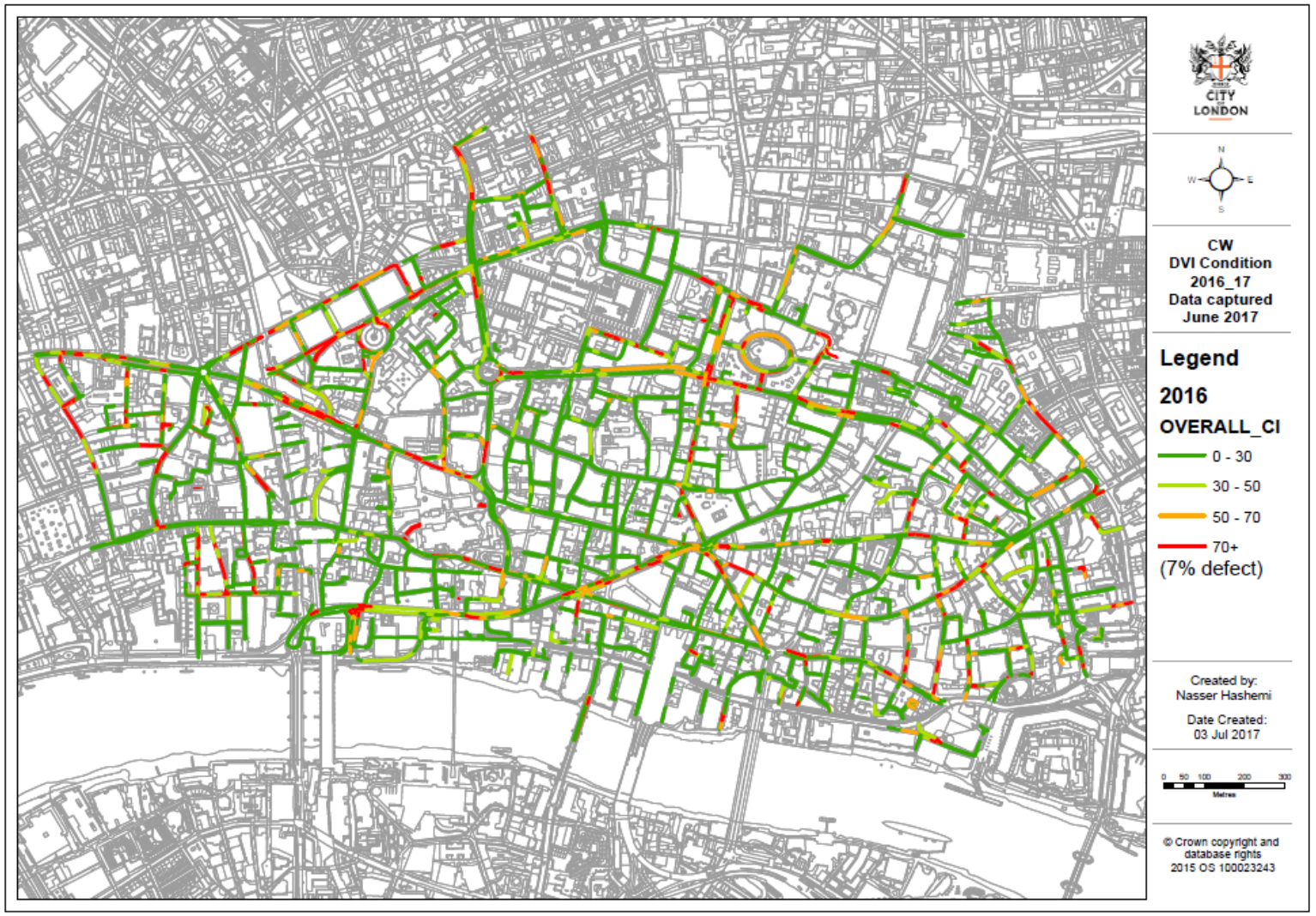
Mechanical & Electrical Repairs, Maintenance & Energy Funding

Type	**Amount (£'000s)**
Street lighting energy	478
Street lighting repairs	346
Illuminated street furniture repairs	245
Illuminated street furniture energy	47
Street lighting carbon tax	43
Festive lighting	27
Illuminated street furniture carbon tax	2
Total	**1,188**

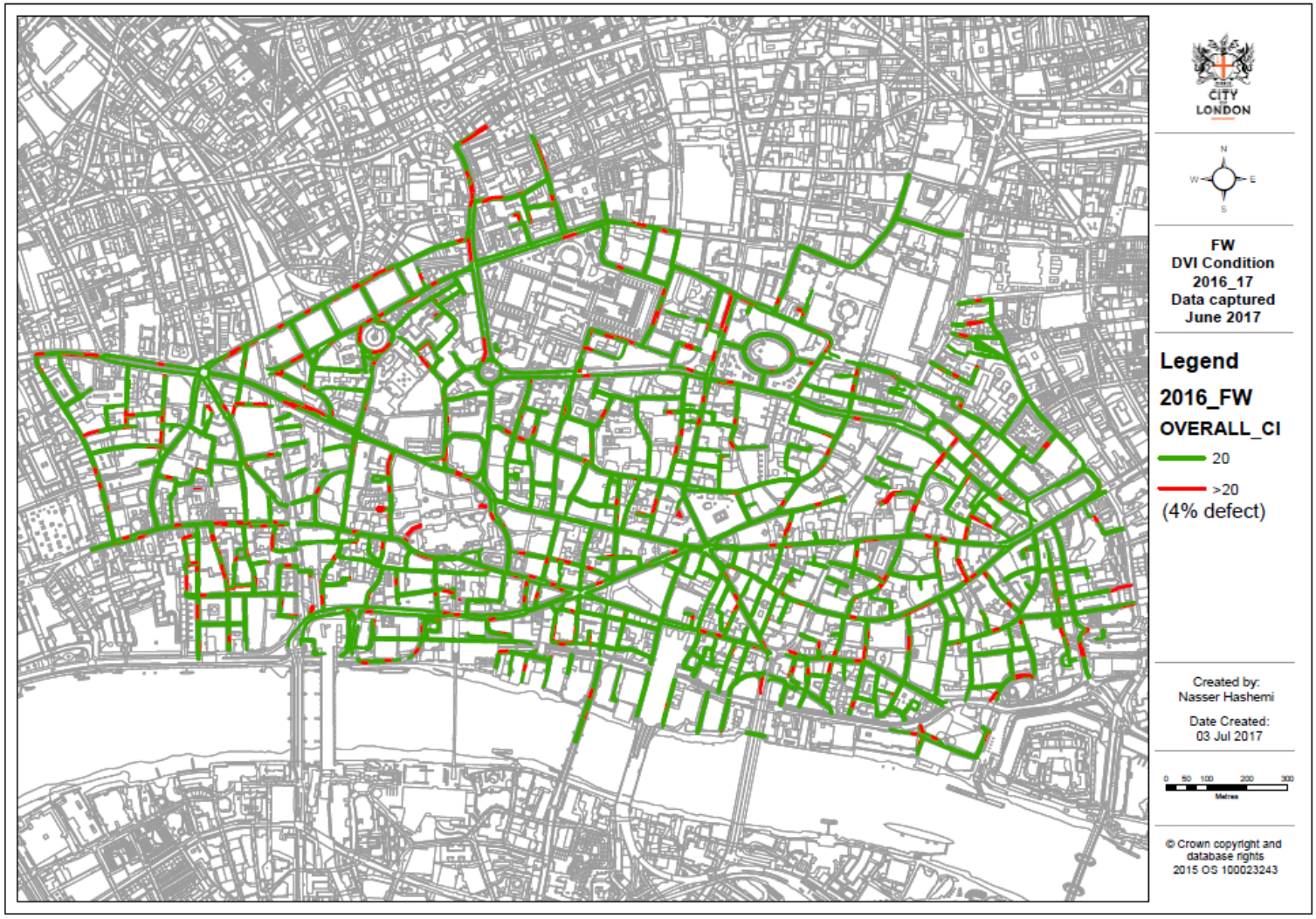
Highway Structures Funding

Type	**Amount (£'000s)**
Breakdown maintenance	95
Inspections	150
Total	**245**

Appendix 2 - UKPMS Carriageway Condition Survey 2016/17



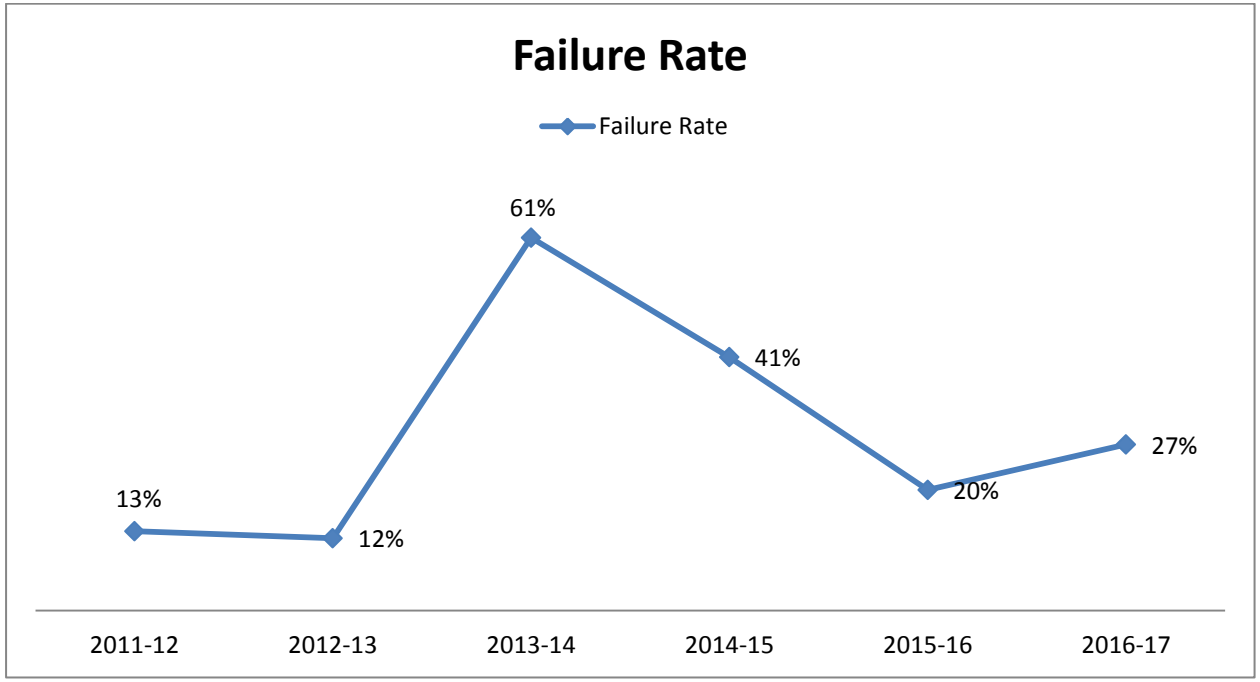
Appendix 3 - UKPMS Footway Condition Survey 2016/17



Appendix 4 – DVI Condition Survey 2016/17 (Principal Road Network)

Appendix 4 – SCANNER Condition Survey 2016/17 (Principal Road Network)

Appendix 5 – Utility Trench Reinstatement Coring Results (2011-12 to 2016-17)



2011-12 & 2012-13 – Random coring of all utility works
2013-14 onwards –Targeted coring for works by contractors thought to be 'poor performers'

Individual coring failures are addressed with the respective utilities and contractors, with a variety of penalties incurred, including recharging costs, requiring the reinstatement to be redone, and poor Considerate Contractor Streetworks Scheme scores.

This page is intentionally left blank