

Committee(s):	Date(s):	Item no.
Streets & Walkways Sub-Committee	21st May 2012	
Projects Sub-Committee	23rd May 2012	
Subject: Lime Street & Cullum Street enhancement works - Gateway 5 report	Public	
Report of: Director of the Built Environment	For Decision	
Ward (if appropriate): Lime Street and Langbourn		
<u>Summary</u>		
<p>This report sets out the results of detailed design work into enhancements to Lime Street and Cullum Street and incorporates a public consultation into the possible management of traffic on Lime Street, in line with Committee approval of November 2010.</p> <p>The existing area is already very busy and the streets are especially crowded at peak times. With several tall buildings currently under construction at either end of Lime Street, the area will shortly experience a large increase in working population and in visitors to the Leadenhall Market Principal Shopping Centre. The proposed enhancements will provide an increase in pedestrian space, improved and fully accessible walking routes, and new seating and greenery.</p> <p>A key element of the enhancement works has been an investigation into ways to manage road safety for the vehicles, cyclists and pedestrians that use Lime Street daily. Officers carried out a public consultation, survey work and traffic and loading analysis, to assess the needs and issues in Lime Street and recommend what measures could make the area safer. This report recommends an experiment to test traffic management measures including loading facilities in surrounding streets, subject to further Member approval in 2013.</p>		
Recommendation		
It is recommended that Members:		
<p>(a) Approve environmental enhancement works in Lime Street and Cullum Street including an experiment on managing traffic access in Lime Street at a cost of £653,963 as set out in this report, subject to obtaining necessary traffic orders and legal agreements;</p> <p>(b) Approve the implementation of enhancement works in Cullum Street subject to obtaining the necessary traffic orders and any legal agreements;</p> <p>(c) Approve preparation for a traffic experiment to investigate traffic</p>		

management on Lime Street and any facilities required on nearby streets, and seek authority to start the experiment from Members in autumn 2013;

(d) Approve implementation of physical enhancement works to Lime Street subject to obtaining necessary traffic orders and legal agreements only after the experiment has been concluded, if run, and Members have approved any design amendments in light of the experiment results.

Gateway 5: Authority to Start Work

Committee(s):	Date(s):	Item no.
Streets & Walkways Sub-Committee	21/05/2012	
Projects Sub-Committee	23/05/2012	
Subject: Lime Street & Cullum Street enhancement works - Gateway 5 report	Public	
Report of: Director of the Built Environment	For Decision	

Overview

Context	<p>An evaluation report for the enhancement of Lime Street and Cullum Street was approved by Committees in October and November 2010. The approval was conditioned on receipt of the necessary Section 106 monies, a public consultation on the possible management of traffic on Lime Street and a design report.</p> <p>The scheme is fully externally funded through the Section 106 Agreement for 20 Fenchurch Street which provides £1,143,224 (excluding interest and indexation) for environmental enhancement works, with first consideration for enhancement works being adjacent to the site and in Lime Street and Cullum Street. The planning application was implemented in January 2011, and the funds were received in March 2011. A consultation on the possible traffic management was carried out in November 2011 – January 2012.</p> <p>Proposed enhancements include measures to address the existing transport issues in Lime Street. Lime Street currently caters for high numbers of pedestrians during AM, lunchtime and PM peaks. Pedestrian usage is increasing as Lime Street is a key route connecting public transport hubs and the Eastern City Cluster area, where the majority of tall building developments are being located. The footways on Lime Street are too narrow to accommodate the existing pedestrian numbers. The existing unmanaged arrangement of cyclists, vehicles and pedestrians creates road safety issues, restricts cycle and pedestrian connections and routes, and affects the vitality and viability of the Leadenhall Market Principal Shopping Centre.</p>
Brief description of	The project involves public realm enhancements in Lime Street, Cullum Street and Leadenhall Place, including the creation of a

<p>project</p>	<p>new public space at Cullum Street, footway widening and repaving, tree planting and proposed managed access on Lime Street for vehicles.</p> <p>This report recommends a timetable for first delivering enhancements to Cullum Street, then undertaking an experiment to assess the possible management of traffic on Lime Street, then delivering enhancements to Lime Street including any traffic management measures, and lastly enhancing Leadenhall Place if sufficient funds remain.</p>
<p>Success Criteria</p>	<ul style="list-style-type: none"> • Accommodate increasing numbers of City workers using the public realm as a direct result of the redevelopment • Improve accessibility for all through the area, in particular pedestrian movement along footways and across Lime Street, where the kerbs are high compared to other City streets • Reduce potential vehicle, cyclist and pedestrian conflict in the area • No negative impact on through traffic in the local area • Improve connectivity and safety for cyclists • Ensure loading facilities meet the needs of local businesses • Provide a new public space for the benefit of the City community • Increase greenery and biodiversity • Enhance the Leadenhall Market Conservation Area and Principal Shopping Centre • increase facility for cultural/leisure activities in the public realm
<p>Notable Exclusions</p>	<p>None</p>
<p>Link to Strategic Aims</p>	<p><i>Aim 1: To support and promote 'The City' as the world leader in international finance and business services</i></p> <p>The project will create a new public space and improve key routes in the Eastern City Cluster – one of the City's focal points for national and international inward investment.</p> <p><i>Aim 2: To provide modern, efficient and high quality local services and policing within the Square Mile for workers, residents and visitors with a view to delivering sustainable outcomes</i></p> <p>The City's working population is expected to grow by 89,000 from 2007 to 2026 and many of these workers will be located in the Eastern City Cluster. The improvements will provide more accessible routes from offices to transport links, enhance an existing destination for workers and visitors, and create a new cultural and leisure activity space.</p>
<p>Within which category does the project fit</p>	<ul style="list-style-type: none"> • Substantially reimbursable • Asset enhancement/ improvement (capital)
<p>Resources Expended To</p>	<p>In line with Member approvals, a total of £77,176 has been spent on the evaluation and design of the scheme (staff costs and</p>

Date	fees). This includes the public consultation on the Lime Street proposals.
Option Selected at Detailed Options Appraisal	<p>The approved option comprised enhancement works to Lime Street, Cullum Street and Leadenhall Place at a cost of £659,126, fully funded from the Section 106 Agreement connected to the development at 20 Fenchurch Street.</p> <p>The outline design was approved subject to:</p> <ul style="list-style-type: none"> • A detailed design report for future Member approval (which this report now comprises) and the making of any necessary traffic orders • A consultation on better managing vehicle use of Lime Street, the results to be reported to Committee on completion of the design report (included in this report) • Production of the design report only to commence once the development was implemented and all funds were received (now received)

Authority to Start Work

Design summary	<p>The scheme comprises three parts –</p> <ul style="list-style-type: none"> • physical enhancement works to Cullum Street; • possible traffic management on Lime Street; and • physical enhancement works to Lime Street including the junction with Leadenhall Place <p>Physical enhancement works to Cullum Street</p> <p>It is proposed physical works would comprise the following:</p> <ul style="list-style-type: none"> • Pedestrianisation of the western half of the street to enhance the function of the retail area and create a new public space in line with the objectives of the Open Spaces Strategy, subject to a statutory Traffic Regulation Order; • Minor alterations to the footway in the eastern half of the street to enable manoeuvring of servicing vehicles. Repaving of footways in York stone to enhance the conservation area. <p>Recommendation:</p> <p>That the enhancement work in Cullum Street be implemented, subject to the making of necessary Traffic Orders.</p> <p>Possible traffic management on Lime Street</p> <p>Lime Street is a busy walking route all day, but is especially well-used in the morning and evening rush hours, when people often walk in the carriageway due to narrow footways. Light and heavy delivery vehicles are using Lime Street, which creates road safety issues and potential conflict</p>
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between pedestrians, cyclists and vehicles. Increasing numbers of people are coming to Leadenhall Market and the surrounding area during the day.

Following observation of the way that Lime Street functions and discussions with key users, the following proposal was developed for public consultation on managing vehicular access:

- A traffic gate on Lime Street (south of Lime St Passage to manage vehicle access beyond the Marks and Spencer servicing entrance) between 7am and 7pm on weekdays
- The gate could be managed by Leadenhall Market staff, subject to confirmation of hours of operation. Alternative arrangements would be explored when developing the experiment
- Cyclists to remain able to travel along Lime Street
- Vehicles to gain access to Leadenhall Market and Leadenhall Place from the north via Leadenhall Street, with Fenchurch Avenue and part of Lime Street becoming two-way

In November 2011 a letter and plan seeking views on this proposal was circulated to the 225 businesses in the local area. 18 responses were received in December 2011 and January 2012. Officers met with local businesses that had questions to discuss the proposal in more detail.

Eight of the respondents were in favour of the management of traffic on Lime Street. Two respondents were in favour with slight alteration. Two respondents wanted to see further detail, and six respondents were concerned. A number of questions were raised over the impact on local deliveries and how this would be accommodated in surrounding streets. Please see Appendix B for a copy of the letter and plan and a summary of responses.

At the same time, a traffic and loading survey was carried out on Lime Street on a typical Tuesday, Thursday and Saturday. There was very little loading or traffic activity observed on the Saturday. Observations were done on a Tuesday and two Thursdays. On the Tuesday and Thursday surveys, there was loading and servicing observed throughout the day. Analysis indicated activity peaks in the morning, at lunchtime and after 8pm. The table below shows the peak number of vehicles loading and traffic flow numbers.

	AM Peak (hour of peak flow)	Lunch Peak (hour of peak flow)	PM Peak (hour of peak flow)
Vehicle loading activity			
Lime Street (between Fenchurch Street and Lime St Passage)	11 (6-7am)	15 (12-1pm)	13 (8-9pm)
Lime Street (between Lime St Passage and Cullum Street)	11 (10-11am)	11 (12-1pm)	2 (9-10pm)
Lime Street (between Cullum Street and Leadenhall Place)	10 (9-10am)	11 (1-2pm)	6 (4-5pm)
Leadenhall Place	8 (7-8am)	7 (11am- 2pm)	4 (8-9pm)
Vehicle traffic flow activity			
Accessing Lime St Passage from Lime Street	23 (7-8am)	2 (12-1pm)	n/a
Accessing Lime Street from Cullum Street	30 (8-9am)	32 (12-1pm)	11 (10-11pm)
Travelling along Lime Street between Cullum Street and Leadenhall Place	359 (8-9am)	170 (11am- 12pm)	136 (7-8pm)
Accessing Leadenhall Place from Lime Street	20 (8-9am)	10 (1-2pm)	8 (6-7pm)
<p>The surrounding network in Fenchurch Street, Gracechurch Street and Leadenhall Street would not be significantly affected by the addition of the recorded peak time traffic flow that traffic management of Lime Street would generate.</p> <p>It is considered that the displacement of loading activities, however, could have an adverse impact on the surrounding traffic network. However, the benefit to be had for other road users from removing this traffic from the narrow street makes it worth undertaking an experiment to see what the impact would be. It is recommended an experimental traffic scheme is undertaken and monitored prior to making any</p>			

	<p>final traffic order, and to ensure the scheme objectives outlined within the success criteria would be met. Adjustments could be made during the experiment, such as to the hours of operation of the managed access, to work around needs in the local area.</p> <p>Please see Appendix C for details of Lime Street Traffic Management Analysis, and Traffic Impact Analysis incorporating the approach to the experiment.</p> <p>Recommendation: Once Cullum Street has been completed, it is recommended to prepare for an experimental traffic scheme to fully test traffic management on Lime Street and the displacement measures required in surrounding streets. Once the experiment has been designed in detail, a proposal to start the experiment will be submitted to Members for approval.</p> <p>Physical enhancement works to Lime Street including junction with Leadenhall Place Design development work included consideration with the Access team of how to provide fully inclusive access between Leadenhall Market and Cullum Street, where there is insufficient space for drop kerbs. It is proposed physical works, subject to the findings of any experimental traffic scheme, would comprise the following:</p> <ul style="list-style-type: none"> • Footway widening and repaving in York stone between Fenchurch Street and the junction with Leadenhall Place; • Introduction of a raised asphalt or similar material pedestrian table with bollards providing level and fully inclusive access across Lime Street between Beehive Passage and Cullum Street; • Provision of a vehicle loading bay north of Cullum Street, planting of a new street tree. <p>Recommendation: Physical enhancement works in Lime Street (and Leadenhall Place subject to sufficient funds remaining from the contingency sum) could be informed by the findings of the traffic experiment. It is proposed works would be implemented only after the experiment has been completed and Members have decided whether to make managed traffic access on Lime Street permanent.</p>
<p>Proposals for delivery of the project</p>	<p>It is proposed to use the City's term contractor to carry out the works. This approach offers greater flexibility for the implementation of a scheme of this scale and nature where there is a need to ensure that access to retail units is maintained and the construction is managed so as to cause</p>

	minimum disruption.			
Benefits and details of how they will be achieved	<p>The benefits of the enhancement works would be measured through a combination of surveys and possible pedestrian counts (subject to funds remaining).</p> <p>The benefits of any experiment and subsequent management of traffic on Lime Street would be measured through a combination of on-street filming, interviews with City and external stakeholders, and vehicle survey data taken before and after the experiment/implementation. A presentation or report may be produced for City and external stakeholders.</p>			
Scope and exclusions	For scheme scope please see map in Appendix A. Exclusions are areas outside Lime Street including the end of Lime St Passage, Cullum Street, Leadenhall Place			
Constraints and assumptions	Current cost estimated have been based o the existing City term contractor arrangements (FM Conway and Laing's).			
Programme	Date		Activity	
	May – Oct 2012		Commence Traffic Regulation Order (TRO) statutory advertisement period on the pedestrianisation of part of Cullum Street. This is a 3 month process, however if objections are received it becomes a 6 month process and would require a report back to Committee in October/ November 2012.	
	Nov 2012 – Apr 2013		Subject to Committee approval being required in October/ November 2012, appoint consultants and complete the construction package for all physical enhancement works.	
	Apr – Nov 2013		Procure materials for Cullum Street (16 week process) and implement works.	
	Aug – Nov 2013		Plan an experiment to investigate traffic management on Lime Street and necessary support facilities, to be run once the enhancement works are complete, to be fully funded through the 20 Fenchurch Section 106 Agreement.	
	Nov 2013		Seek Member authority to start the experiment	
	Nov 2013 –2014/5		Commence experiment for a period of 6-18 months.	
	tbc		Implement Lime Street works and result of experiment. Produce an outturn report with filming for evaluation and information purposes.	
Risk implications	Risk	Risk Category	Risk Value	Mitigating Action
	Risk of utility	Cost/	Medium	Accept. A

	works exceeding the £40,000 budget allocated	Scope		contingency sum of £45,000 has been set aside to allow for increased costs.
	Risk of pedestrianisation of Cullum Street not being approved through Traffic Regulation Order statutory process	Scope	Low	Reduce Scheme has been designed to ensure that there will be minimal impact on servicing in the area. Key stakeholders have already been made aware of proposals.
	Risk of experiment on a managed traffic access into Lime Street leading to a conclusion that no traffic management should occur in this area	Scope	Low	Accept The experiment will ensure that this proposal is fully tested
Legal implications				
HR implications	N/A			
Communications strategy	<p>The enhancement works have been developed in consultation with relevant internal City Departments. Officers have kept key local stakeholders including Leadenhall Market, Lloyd's and Willis up to date with developments and will continue to do so. For the enhancement works, officers will continue to manage external and internal communications through existing established relationships.</p> <p>The public consultation completed in November and December 2011 for the possible traffic management on Lime Street involved 225 local businesses. Officers will continue to notify local businesses of further developments.</p>			
Results of consultation carried out to date	Please see Appendix B.			
Quality control arrangements	Progress reports and project management procedures in accordance with approved City of London processes.			
<u>Financial Implications</u>				

<p>Total capital cost (£)</p>	<p>The preferred design was approved in 2010 in an evaluation report at an estimated cost of £659,126. This included £27,000 for production of a detailed design report including £6,000 for a consultation on the possible traffic management on Lime Street.</p> <p>The total revised cost is £653,963. Please see Appendix D for a full breakdown and phasing of expenditure.</p> <p>This comprises £27,000 spent on this detailed design report, £419,504 for the capital works to Lime Street and Cullum Street, £82,500 for associated fees and staff costs including any evaluation or reporting work required revised estimate, and £60,000 for a new experiment on managing traffic access in Lime Street, in order to fully explore the issues raised in the public consultation.</p> <p>The works budget has decreased by £4,743 to £419,504. This reflects a combination of the increased cost of the new pedestrian raised table and utilities works, and a reduced project scope due to an amended focus on Lime Street and Cullum Street only. Works to Leadenhall Place would only be implemented if sufficient funds remain after the priority areas (Lime Street and Cullum Street) have been delivered and the contingency was not needed for utilities works. Works to Lime Street north of junction with Leadenhall Place would be transferred to the enhancement project funded by the 51 Lime Street Section 106 Agreement.</p> <p>Fees have increased by £4,800 to £28,000, to cover landscape and civil design work required. Estimated staff costs remain unchanged. Revenue costs have decreased by £366 to £19,959 for 5 years cleansing and maintenance of the proposed tree.</p>
<p>Breakdown of capital expenditure</p>	<p>Please see Appendix D.</p>
<p>Contingency</p>	<p>£40,000 has been allocated within the project budget for utilities works, in particular works to alter utilities covers. However, a contingency element of £45,000 is recommended to cater for any further utilities works costs incurred, as officers have experienced increasing cost of such works in recent years. If not required for utilities works, the contingency will be used to repave Leadenhall Place.</p>
<p>Source of capital funding</p>	<p>The scheme is fully externally funded through the Section 106 Agreement signed with the developer of 20 Fenchurch Street.</p>
<p>Phasing of capital</p>	<p>Please see Appendix D.</p>

expenditure	
Anticipated capital value/return (£)	It is anticipated the improved public realm will have a significant positive impact on the vitality and viability of retail units in the eastern part of Leadenhall Market and on Cullum Street. It is expected pedestrian footfall and rental returns will increase as a direct result of these works.
Fund/budget to be credited with capital return	Any unspent monies will be used for other enhancements works in the area in line with the Section 106 Agreement and the Fenchurch Street Area Strategy.
Estimated revenue implications (£)	Hard landscaping works are expected to be revenue neutral, as public highway is already subject to footway and carriageway cleansing maintenance regimes. Five years revenue funding for cleansing is provided for the extra seating area through the project at a total cost of £18,091. Five years establishment funding of the tree at £1,868 has been included.
Source of revenue funding	The first five years are funded through the Section 106 Agreement signed with the developer of 20 Fenchurch Street at a total cost of £19,959 for the five years. Following this, revenue requirements for the public highways and the tree would be funded from the local risk allocation of Open Space and Built Environment Departments.
Fund/budget to be credited with income/savings	n/a
Anticipated life	n/a
Budgetary control arrangements	Day-to-day project management and supervision of works on site
<u>Recommendation</u>	<i>It is recommended that Members:</i>
<u>n</u>	<p>(a) Approve environmental enhancement works in Lime Street and Cullum Street including an experiment on managing traffic access in Lime Street at a cost of £653,963 as set out in this report, subject to obtaining necessary traffic orders and legal agreements;</p> <p>(b) Approve the implementation of enhancement works in Cullum Street subject to obtaining the necessary traffic orders and any legal agreements;</p> <p>(c) Approve preparation for a traffic experiment to investigate traffic management on Lime Street and any facilities required on nearby streets, and seek authority to start the experiment from Members in autumn 2013;</p> <p>(d) Approve implementation of physical enhancement works to Lime Street subject to obtaining necessary traffic orders</p>

	<i>and legal agreements only after the experiment has been concluded, if run, and Members have approved any design amendments in light of the experiment results.</i>
Tolerances	A contingency would be retained to cover the risk of significant utility costs associated with the delivery of Lime Street and Cullum Street. If a sufficient sum remains after the priority elements have been delivered, it will be used to deliver repaving on Leadenhall Place, and resurfacing and carriageway resurfacing on Lime Street and on Leadenhall Place, where the kerb height creates access problems.
Progress reporting	Autumn 2012 if a report is required due to the traffic Regulation Order process relating to Cullum Street. If not, a progress report will be submitted in Autumn 2013.

Appendices

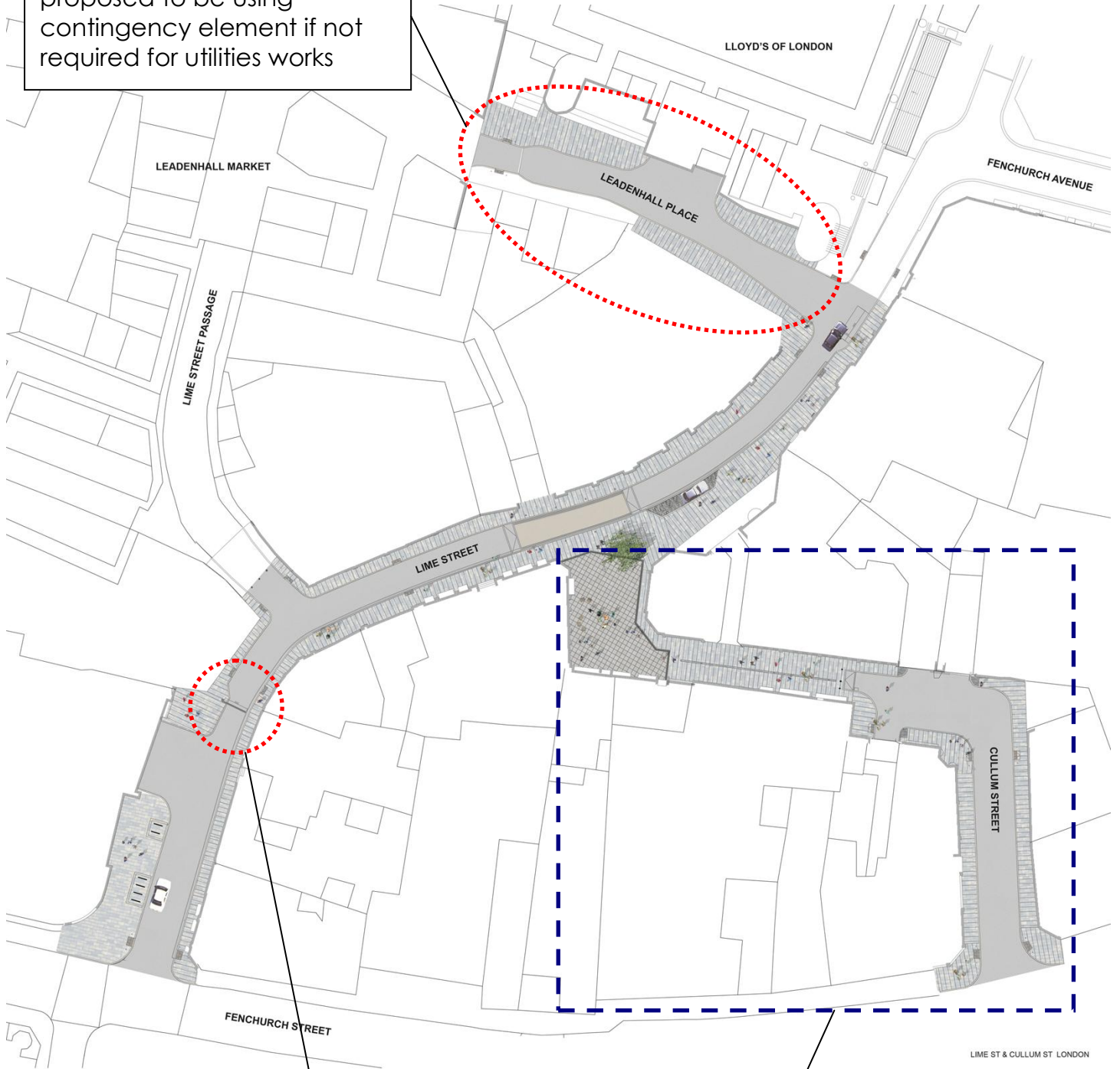
- Appendix A** Scheme area and annotated plan of scheme
- Appendix B** Consultation on traffic management in Lime Street – letter, plan and results
- Appendix C** Lime Street Traffic Management Analysis and Traffic Impact Analysis
- Appendix D** Cost and phasing breakdown
- Appendix E** Existing and proposed images of Cullum Street

Appendix A Scheme area



Annotated plan of scheme

Leadenhall Place works, proposed to be using contingency element if not required for utilities works



Possible traffic management on Lime Street

Cullum Street works, proposed to be delivered first



Appendix B Consultation on traffic management in Lime Street – letter, plan and results

Officers sought to investigate the opinion of local businesses on possible measures to better manage vehicle use on Lime Street.

In November 2011 a letter with a plan seeking views on a proposal to introduce restricted access to vehicles on Lime Street from 7am to 7pm on weekdays was circulated to the 225 businesses in the local area.

Officers received views in December 2011 and January 2012, and met with local businesses in December and January to get further detail on concerns raised.

A majority of respondents were in favour of the management of traffic on Lime Street. There were key material concerns raised over the impact on local deliveries and how this would be accommodated in surrounding streets. Please find below a summary of the consultation responses received of the consultation were:

Summary of comments in support:

- Very greatly in favour, only issue being deliveries, would like barrier moved to north of Lime St Passage
- The more walking the better
- Current pavements are totally inadequate for the footfall
- Cannot emphasize enough the need to restrict access. Would suggest essential access only. Have nearly been hit by a courier bike and black cab several times
- Agree, as have observed some dangerous near misses over the years
- Would have a positive impact on Leadenhall Market, would like to consider increasing loading bays on Gracechurch Street or Fenchurch Street, concern over crowding on Leadenhall Place
- Brilliant regenerative move, would like to keep barrier south of Lime St Passage to minimise possible road safety issues, would like to investigate whether 7am start is best time given existing 10am barrier on Lime St Passage
- Support stopping of traffic entering Leadenhall Market through Lime St Passage in the mornings as would benefit the Market and prevent large vehicles who currently ignore Leadenhall Market vehicle restriction times

Summary of comments in partial support:

- Support removing large vehicles but would like to retain taxis, cyclists, cars so a barrier would not be the best way
- Would it be better to limit traffic between 7-10am and 4-7pm
- Concerns over possible pinch points in Leadenhall Place, by Lloyd's servicing, and on Lime Street outside Lloyd's main entrance

Summary of comments against:

- It would impede emergency services, deliveries and people with mobility impairments accessing the area
- It would cause problems for businesses with deliveries and collections in Lime St Passage (would be satisfied if barrier was moved to north of Lime St Passage)
- It would cause problems for businesses with deliveries through out the day in Lime St Passage (would be satisfied if barrier was moved to north of Lime St Passage)
- Would like to maintain existing arrangement; often need access to make deliveries to maintain plant displays
- Do not think it is realistic for deliveries to be scheduled before 7am or after 7pm, can foresee chaos in Lime Street by Fenchurch Street and in Leadenhall Place/Lime Street/Fenchurch Avenue area. Cullum St could also be a problem
- Would cause significant issues with deliveries, couriers and taxis having difficulty finding the address or refusing to drive round to access. Possible risk to pedestrians from vehicles turning at junctions of Leadenhall Place-Lime Street, and Fenchurch Street-Lime Street.
- Completely disagree with the proposal, people choose to walk in the road to overtake other pedestrians

Officers sought advice from the Access Team on the comments received. The Access team supported an experiment that tests restricting access through signage only, as well as with a physical barrier.

Lime Street Traffic Management Analysis

Introduction

This is an initial assessment of issues that need to be further assessed in developing the detail of the traffic experiment and the potential permanent traffic order.

Traffic Flow and Composition

A traffic flow survey in December 2011, showed morning peak hour flow of 359 vehicles on Lime Street (between Cullum Street and Leadenhall Place) between the hours of 8.15 am to 9.15 am. (This time period was selected for further analysis as it constitutes the single highest hourly peak flow surveyed.)

These 359 vehicles comprised 181 cycles, 46 motorcycles and 132 motorised vehicles including cars, taxis, light goods vehicles, heavy goods vehicles, refuse vehicles and buses. The number of heavy goods vehicles and refuse vehicles were low at six and two respectively.

In considering the traffic impact, the 181 cycles can be excluded from consideration as they will continue to enjoy the same level of access into Lime Street since pedal cycles will be exempt from the proposed traffic restriction.

Likewise, the impact on queues and waiting times at nearby junctions will be negligible for an additional 46 motorcycles. This leaves the balance of 178 motorised vehicles to be taken into account at the morning peak hour.

The corresponding loading survey for this time period shows a total of 17* of the 178 motorised vehicles (about 10 percent) requiring access to properties at Lime Street or Leadenhall Place. It can therefore be concluded that the remaining 161 motorised vehicles are using Lime Street as a through-fare during the morning peak hour. This traffic should be encouraged onto other more suitable routes in the highway hierarchy.

* Area 1 (5 vehicles loading), Area 2 (0), Area 3 (7), Area 4 (5)

Loading Issues

It is noted that traffic management on Lime Street would alter existing loading activity, as the majority of deliveries currently occur between the hours of 7 am to 7 pm. This loading activity may be displaced to earlier and later in the day. It is possible that there could be an

adverse impact on surrounding streets from loading activities displaced onto these streets.

It is recommended an experiment be prepared that is based on a full analysis of the existing provision of delivery and servicing facilities, expected need for additional loading facilities on nearby streets, and prepared in consultation with local stakeholders including Leadenhall Market, Lloyd's and Willis.

Origin-Destination

The surrounding street network has a number of existing traffic restrictions including one-way operations and turning restrictions. It is noted that vehicles that enter Lime Street (which is one-way northbound) are only able to exit onto Leadenhall Street either (a) via Fenchurch Avenue, Billiter Street then Leadenhall Street, or (b) via Leadenhall Place, Whittington Avenue and Leadenhall Street (before 10 am).

One of the reasons why vehicles undertake this route may be that northbound vehicles along Gracechurch Street are not able to turn right at Leadenhall Street. Similarly, vehicles that continue eastbound down Fenchurch Street are not able to turn left into Leadenhall Street. The destination of vehicles beyond Leadenhall Street is not obvious from the existing traffic survey.

It is further noted that when the survey was conducted in early December 2011, road works / utility works in the immediate vicinity necessitated a southbound restriction along Gracechurch Street (i.e. Gracechurch Street operated one-way northbound only during this period). The traffic diversion along Leadenhall Street, Aldgate Gyratory and Fenchurch Street was lifted in February 2012. This temporary restriction is considered unlikely to have affected the results of the survey.

If Lime Street (from the south of Lime Street Passage) was closed to motor vehicles, and assuming their destination is Leadenhall Street and surrounding areas, the alternative routes for the remaining 161 motorised vehicles would be:

(a) Continuing northbound along Gracechurch Street and Bishopgate, then turning right into Camomile Street

(b) Continuing eastbound along Fenchurch Street, and entering the Aldgate Gyratory.

Highway Hierarchy

The displacement of the 161 motorised vehicles onto the above identified routes will generally result in a wider dispersion of traffic onto

more strategic parts of the network, consistent with our adopted highway hierarchy:

- (i) Gracechurch Street being a TLRN / local distributor road;
- (ii) Fenchurch Street as a local distributor road;
- (iii) Outwich Street and Aldgate Gyratory are borough distributor roads.

Assuming a worse case scenario where all 161 motorised vehicles were to divert onto the same route, this would translate into an additional 2-3 vehicles per minute during the morning peak hour. This increase in traffic can be considered negligible in the overall scheme. It is considered appropriate that through traffic use these streets instead of Lime Street which is a local access road.

Traffic Impact Analysis

Officers recommend a traffic impact analysis study on possible traffic management on Lime Street forms part of the experiment to be prepared, to enable before and after data to be reported back to Members once the experiment has been undertaken.

The traffic impact analysis will incorporate the following subjects:

Element	Relevant 2011 LIP objective	2012 assessment	Experiment monitoring
Pedestrian connectivity	5 – increase permeability, connectivity and accessibility; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	Limited connectivity due to high kerbs, lack of drop kerbs, presence of vehicle traffic travelling at varying speeds.	
Pedestrian safety	3 – reduce road traffic dangers and casualties; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	Perception of danger from vehicles of varying sizes overriding the kerb, overtaking.	
Cyclist connectivity	5 – increase permeability, connectivity and accessibility; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	Partial connectivity, presence of vehicles has an impact.	

Cyclist safety	3 – reduce road traffic dangers and casualties; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	Perception of danger from vehicles of varying sizes overriding the kerb, overtaking.	
Local vehicle speed	5 – increase permeability, connectivity and accessibility; 6 – smooth traffic flow and reduce journey-time variability	Varying speeds, anecdotal evidence of vehicles travelling at high speeds at certain times of day.	
Journey waiting times at local junctions	5 – increase permeability, connectivity and accessibility; 6 – smooth traffic flow and reduce journey-time variability	To be assessed as part of preparation for the experiment, if approved.	
Vehicles using appropriate road in adopted highway hierarchy	5 – increase permeability, connectivity and accessibility; 6 – smooth traffic flow and reduce journey-time variability; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	Survey data indicates vehicles using Lime Street in an inappropriate manner – as a cut through rather than being a destination.	
Access for emergency services to Lloyd's and vicinity, including in a terror attack	5 – increase permeability, connectivity and accessibility	Emergency vehicles would not be affected. The emergency services hold keys to all managed traffic gates in London. Not having other moving or parked vehicles in the street would be a benefit.	
Access for people with mobility impairments to Lloyd's and vicinity	5 – increase permeability, connectivity and accessibility; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	Access arrangements to, or within the Lloyd's building would not be altered.	
Access for people with mobility impairments to	5 – increase permeability, connectivity and accessibility; 8 – plan for a City with	Plans to widen the eastern footway on Lime Street.	

avoid walking on cobbles	operational Crossrail and increased pedestrians and cyclists		
Impact on deliveries and servicing affecting business operation, and a lack of manoeuvring ability for vehicles in Lime Street/ Fenchurch Street area	5 – increase permeability, connectivity and accessibility; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	It was confirmed this is the main impact of the proposal and needs careful consideration. The impact would depend on the operating time of any restriction, and would happen in two ways: 1. displacement onto other streets in the vicinity of Lloyd's, or into certain areas in Fenchurch Avenue, Lime Street and Leadenhall Place 2. displacement to parts of the day or week when access is not restricted	
Issues of client drop off/ pick up area for taxis servicing Lloyd's and vicinity	5 – increase permeability, connectivity and accessibility	This issue could be picked up as part of the investigation into the displacement of delivery and servicing vehicles.	
Reduction of unnecessary vehicle journeys	1 – reduce pollution from transport; 2 – reduce contribution of transport to climate change; 4 – reduce adverse effects of transport on health; 6 – smooth traffic flow and reduce journey-time variability; 8 – plan for a City with operational Crossrail and increased pedestrians and cyclists	Survey data indicates vehicles using Lime Street in an inappropriate manner – as a cut through rather than being a destination.	

Appendix D Cost and phasing breakdown

Table 1 below details the design budget approved in November 2010 and actual expenditure:

Table 1 - design budget	Approved/ Actual
Fees:	
Design fees	5,000
Surveys	4,000
Staff Costs:	
Built Environment (Highways) Staff Costs	3,000
Open Spaces Staff Costs	2,000
Built Environment Staff Costs	7,000
Sub-total	21,000
Revenue	
Public consultation on timed closure	3,000
Built Environment Staff Consultation Costs	3,000
Sub-total (design)	27,000

Table 2 below details the estimated cost of the scheme approved at evaluation on 18th November 2010:

Table 2: Guideline Cost Estimate	Value (£)
Design report	
Fees and staff costs	27,000
Capital works	
Works:	
Site preparation and hard landscaping works	305,270
Drainage/ utilities	44,500
Street furniture	33,415
Lighting	10,000
Soft landscaping	9,062
Traffic management	12,000
Timed closure	10,000
Sub-total (Works)	424,247
Fees:	
Design fees including CDM Coordinator	13,000
Traffic orders and management	10,200
Staff costs:	
Built Environment (Highways) Staff Costs	25,500
Open Spaces Staff Costs	2,500
Built Environment Staff Costs	26,500

Sub total (Fees and Staff costs)	77,700
Revenue	
Open spaces maintenance (5 years)	3,325
Built Environment (Highways) maintenance (5 years)	17,500
Sub-total (Revenue)	20,325
Contingency @ 20%	109,854
Overall total	659,126

Table 3 below outlines the estimated costs of delivering the designed scheme as at 4th May 2012. Each column shows the total cost of delivering the overall enhancement in the order laid out in the recommendation, namely:

1. Enhancement works to Cullum Street, subject to necessary traffic orders (proposed delivered first),
2. Experiment to assess managed traffic element on Lime Street (proposed delivered second),
3. Enhancement works to Lime Street, subject to necessary traffic orders (proposed delivered third).

Enhancement works to Leadenhall Place will only be taken forward once all works in elements 1-3 above are completed, and officers can confirm there is sufficient money remaining from the contingency element.

Table 3: Estimated cost of the proposed works to Cullum Street, experiment to assess managed traffic on Lime Street, and proposed works to Lime Street	Cullum Street Value (£)	Experiment to assess managed traffic on Lime Street estimate Value (£)	Lime Street Value (£)
Capital works			
Works:			
Site preparation and hard landscaping works	147,970	0	180,853
Drainage/ utilities	28,750	0	28,750
Street furniture	18,581	0	0
Lighting	5,000	0	5,000
Soft landscaping	4,600	0	0
Traffic management	0	0	0

Timed closure	0	11,500	0
Sub-total (Works)	204,901	11,500	214,603
Fees:			
Design fees including CDM Coordinator	15,250	18,000	5,750
Traffic orders and management	3,500	3,500	3,500
Staff costs:			
Built Environment (Highways) Staff Costs	15,300	27,000	10,200
Open Spaces Staff Costs	2,500	0	0
Built Environment Staff Costs	15,900	0	10,600
Sub total (Fees and Staff costs)	52,450	48,500	30,050
Revenue			
Open spaces maintenance (5 years)	1,868	0	0
Built Environment (Highways) maintenance (5 years)	7,236	0	10,855
Sub-total (Revenue)	9,104	0	10,855
Contingency @ 20%	22,500	0	22,500
Overall total	288,955	60,000	278,008

These tables show the total cost of all proposed works including the funds used for the design report, the managed traffic experiment, all fees, staff costs, revenue and the contingency element is now estimated at £653,963. This represents a saving of £5,163 on the estimate in the evaluation report approved on 18th November 2010.

Table 4 below details the estimated phasing of expenditure:

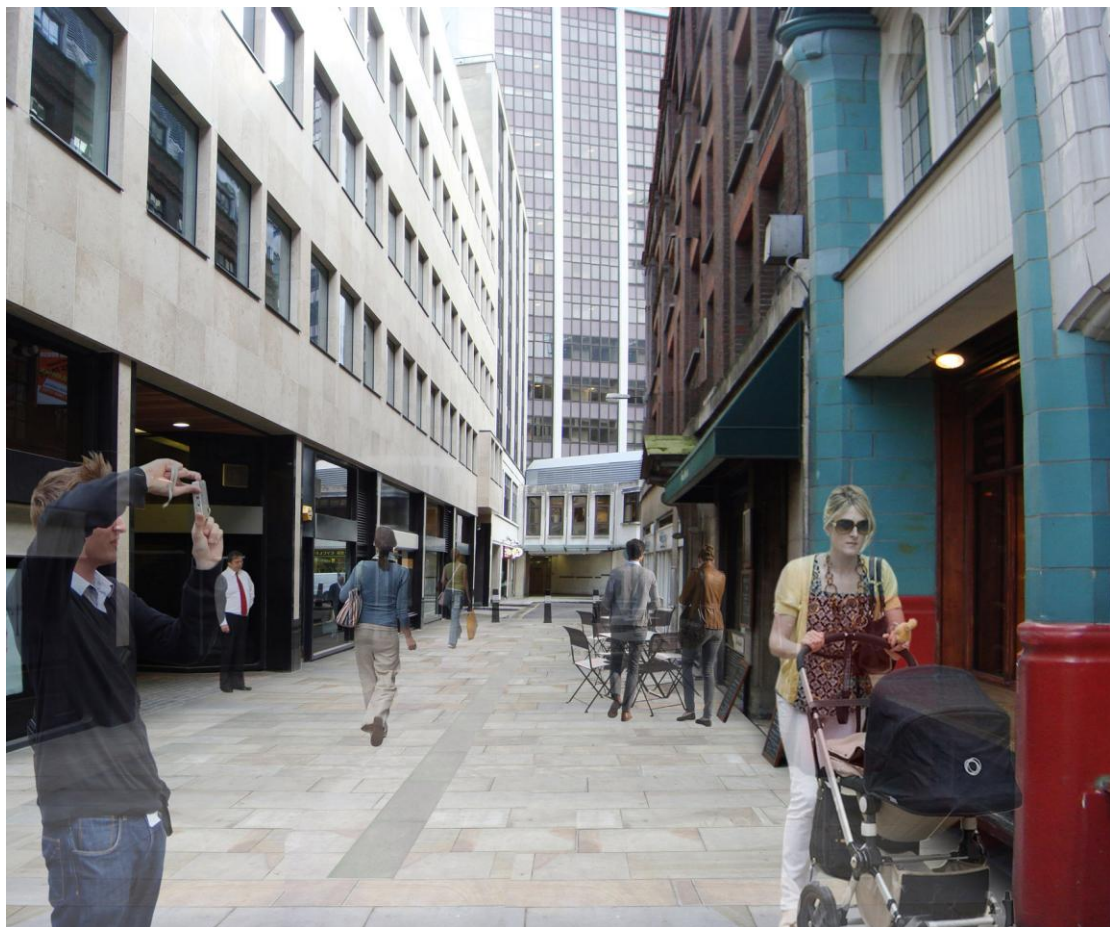
Table 3 phasing of expenditure	2012/13	2013/14	Later years	Total
Experiment to assess managed traffic gate on Lime Street				
Fees		9,000	12,500	21,500
Staff costs		12,000	15,000	27,000
Works			11,500	11,500
Capital works				
Fees	15,000	3,750	9,250	28,000
Staff costs	16,000	17,700	20,800	54,500
Works		204,901	214,603	419,504
Revenue		1,821	18,138	19,959
Contingency			45,000	45,000
Total	31,000	249,172	346,791	626,963

Appendix E

Existing and proposed images of Cullum Street



Cullum Street looking east - existing



Cullum Street looking east - proposed



Cullum Street at junction with Lime Street - existing



Cullum Street at junction with Lime Street - proposed