

Committees:		Dates:
Streets and Walkways Sub-Committee	For Decision	03/07/2018
Resource Allocation Sub-Committee	For Decision	05/07/2018
Projects Sub-Committee	For Decision	18/07/2018
Port Health & Environmental Services	For Information	16/07/2018
Subject: Beech Street: Transport and Public Realm Improvements	Issue Report: Gateway 3 Complex	Public
Report of: Director of the Built Environment Report Author: Kristian Turner		For Decision

Dashboard

Timeline: G4 Detailed Option Appraisal ~ May 2021

Total Estimated Cost: £12M-£15M (*for the transport, highway and public realm elements on Beech Street only*)

Approved budget: £120,525

Spend to Date: £66,336

Overall Project Risk: High

This report

In June 2018 the Policy and Resources Committee agreed the vision for Beech Street; the objective of the vision is to transform the property and public realm on Beech Street to create a vibrant retail precinct with a high quality public realm at the centre of the Culture Mile.

The programme for the delivery of the Beech Street vision, the *Beech Street Major Transformation* programme, includes three individual projects on Beech Street; the podium waterproofing, property redevelopment, and transport and public realm improvements. In June 2018 the Policy and Resources Committee agreed that these three projects, which all have significant interdependences, be developed individually with their own specific budgets and milestones through the committee approvals process.

This report is for the ***Beech Street Transport and Public Realm project***, which is a key project to be delivered in advance of the opening of the redeveloped Exhibition Halls (the property project).

It is recognised that (at least) the partial removal of traffic from Beech Street is critical to enable the widening of the northern footway which then facilitates the redevelopment of the adjacent exhibition halls.

The purpose of this report is to:

- provide an update on the results of the initial traffic modelling and traffic surveys;
- provide an update on the work that has been done to date on the concept design for the public realm;

- advise Members of the proposed next steps, forward programme and risks;
- seek Member agreement to change the scope of the project to investigate the feasibility of improving air quality by restricting some/all traffic on Beech Street to Ultra Low Emission Vehicles (as recommended by the Low Emissions Neighbourhood project);
- seek approval for the procurement route;
- seek approval to increase the existing project budget and secure funding to proceed to Gateway 4.

Progress to date – Transportation and Public Realm

Traffic Modelling – Beech Street traffic options

An initial, Preliminary Impact Analysis (using the strategic TfL 2018 ONE Model for Central London) was produced in 2016 as part of a study to identify the geographical area that would be affected by different options for the restriction or removal of traffic from Beech Street. The options for testing were:

1. An eastbound closure of Beech Street to vehicles;
2. A westbound closure of Beech Street to vehicles;
3. A total closure of Beech Street in both directions.

The areas affected by the reassignment of traffic are presented in Appendix 1.

The output from the analysis shows that each of these three scenarios would cause a significant reassignment of traffic within the City (particularly on London Wall and Moorgate) and onto the TfL Network (Old Street) and streets of neighbouring boroughs.

It was determined that Option 1 affects traffic over the smallest area. Option 1 would support the delivery of the Beech Street vision (by reducing traffic and allowing the footway to be widened) and it is proposed that the feasibility of Option 1 is now explored further as this has a higher chance of being approved by Transport for London than the other options.

The successful progression of Option 1 will present a significant challenge for the organisation, likely requiring a reduction in traffic volumes in the area to make the scheme traffic neutral and acceptable to TfL.

Traffic Modelling – Centre for Music

In addition to the aspirations for Beech Street, two other projects of significance in the Culture Mile area are the Centre for Music (at the Rotunda) and the new Museum of London at West Smithfield.

In late 2017, an initial concept design for the proposed Centre for Music (C4M) was shared with officers and Members. The C4M team sought a preliminary steer from DBE to confirm if the outline design of the building and requirement for significant highway changes would be deliverable, and this would enable the building design to progress to the Planning stage in 2020.

A similar high level scenario was run through the ONE model to understand the scope of traffic reassignment caused by the new highway layout for C4M. It was found that when considering C4M in isolation the traffic impacts could be kept within the City boundary because most of the traffic passing through the Rotunda junction would still be able to do so in all directions and traffic queues would increase but not unsustainably so.

Further scenarios were then run to get an indication of the scope of impact if Options 1,2 and 3 for Beech Street was layered with the C4M project. It was found that the areas of impact would stay broadly the same, but that further congestion would eventuate on Old Street and on the streets approaching the Rotunda junction because its capacity would be reduced by the highway changes required to facilitate the C4M building design.

Traffic Surveys during Beech Street closure (Barbican Open Fest)

In March Beech Street was closed for 5 days for the “Tunnel Visions Array” sound and light event. This was used as an opportunity to undertake traffic surveys on the key junctions on the alternative routes to the north and south of Beech Street. These surveys were then compared to a “normal” day when Beech Street was open as usual. A full briefing note is included in Appendix 2. In summary the key findings are that:

- traffic volumes are consistent, suggesting that most of the traffic has a local destination;
- the traffic signals in the area operate at full capacity in the AM peak;
- traffic diverts around Beech Street primarily via London Wall and Old Street;
- With adjoining junctions such as Moorgate / London Wall already operating at full capacity, the additional traffic causes traffic queues to increase;
- Overall, there is an average 23% increase in journey times on the routes to the south and north of Beech Street;
- On some arms of junctions, (such as Aldersgate Street northbound at Beech Street junction) journey times increase by over 100% (i.e. from 34 seconds to 73 seconds).

The above simply presents the analysed data of the traffic surveyed during a closure with no other traffic management interventions. Despite requests for information, we do not know if TfL altered traffic signal timings on the days of closure.

Public Realm

Beech Street was identified as a priority area for enhancement in the Barbican & Golden Lane Area Strategy (approved in 2015), with an emphasis on reducing traffic levels and improving conditions for pedestrians and cyclists.

The Culture Mile Look & Feel Strategy, which is due for adoption in summer 2018, also identified Beech Street as a critical section of the ‘cultural spine’, the main east-west route through the Culture Mile area. The principles for the cultural spine include creating new places along the route, prioritising pedestrian movement, and making the area easier and more pleasant to navigate. Specifically for Beech Street, the intention is to create a unique and vibrant urban ‘destination’, with an enhanced street environment and the potential for future pedestrianisation.

Initial design approaches for Beech Street have been considered, dependent on the option(s) taken forward for further development. These opportunities include, but are not limited to:

- widened footways in enhanced materials;
- alterations to the junctions at either end of Beech Street, but particularly the junction with Aldersgate Street;
- improved lighting, including the potential for architectural or curated lighting;
- the introduction of public art.

Air quality – Ultra Low Emission Vehicles (ULEV)

In parallel to the transport and public realm investigations for Beech Street has been the work undertaken in the Barbican area by the Low Emissions Neighbourhood (LEN) project. This work has identified the air quality on Beech Street as a local concern for residents and visitors.

The complexity and timelines for removing traffic from Beech Street extend beyond the TfL funding for the LEN project (i.e. April 2019). An alternative approach has been agreed by the Port Health & Environmental Services Committee in which a pilot ULEV project will be introduced on Moor Lane to both improve air quality on that street and provide a template for future ULEV only streets in the City (potentially including Beech Street) to tackle poor air quality.

The Port Health and Environmental Services Committee has requested that the potential for ULEV restrictions on Beech Street be investigated as part of the traffic reduction options. It is therefore proposed that the scope of this project be expanded to determine the feasibility of restricting some or all traffic on Beech Street to ULEV vehicles only. This will include investigating if an eastbound restriction to ULEV vehicles can be delivered in advance of the main works.

Proposed next steps

To deliver the vision for Beech Street, the following tasks will be undertaken:

1. The most urgent requirement is to establish the physical constraints of the site, in particular the structures underneath Beech Street to determine if the structure is capable of bearing the additional “loading” (i.e. the weight of extra concrete and paving) from widening the northern footway.
2. Officers will begin an engagement process with Transport for London and LB Islington at a strategic and operational level.
3. Officers will develop a detailed project plan and advise Members on the high level political engagement which is likely to be required with neighbouring authorities and GLA/TfL.
4. At this early stage, it is proposed that it will be necessary to build a VISSIM micro-simulation model over a wide area of the City and part of Islington to enable the impacts of the Beech Street proposal (Option 1) to be fully quantified. This is a more detailed model of the area that traffic will reassign to when Beech Street (eastbound) is closed. The VISSIM model enables a detailed analysis of the impact on junctions and individual streets. This will be subject to TfL’s Model Audit

Process with the objective being that TfL, as Strategic Traffic Authority, accept the model and grant the necessary approvals under the Traffic Management Act.

5. The VISSIM traffic model will be designed so that it can be adapted to be used for future City projects. It is possible that the model needs to be developed with information from other authorities to capture their schemes which also affect traffic. The City would retain ownership of this model for the future.
6. The project team will produce computer generated images of what a transformed Beech Street could look like, this will be used in engagement and stakeholder management and to help build momentum for the project.
7. When a level of confidence has been reached that traffic can be removed or reduced in Beech Street, a landscape architect will produce a design for the street. A Working Party for the public realm will be established to define objectives to guide the design approach.

Key Project Risks and Opportunities

The main project risks, challenges and opportunities are detailed below:

1. The condition and capacity of the underground structure is unknown and is to be assessed. There is a programme and cost risk that the structure will not be able to accommodate the additional loads on the surface which could prevent the footway widening, which would in turn limit the potential for the public realm improvements and property redevelopment. – **Programme and cost risk**
2. From the initial work done to date, it has been determined that the traffic modelling required to keep the project traffic neutral will be much more complex than for the Aldgate and Bank on Safety projects. The scale of the traffic modelling required has never been attempted by the City before. – **Technical risk**
3. Both Transport for London and LB Islington have aspirations on Old Street for the Old Street roundabout and a cycle route along Old Street/Clerkenwell Road. Old Street is a Principal Road in Islington linking to the Strategic Road Network (SRN) and Transport for London Road Network (TLRN) at Old Street roundabout. All works with an impact on the SRN/TLRN require TfL approval as Strategic Traffic Authority under the Traffic Management Act. These schemes are likely to seek to reduce traffic capacity whereas the partial closure of Beech Street would require more traffic to use this route. There is a risk that both parties will not support having traffic reassign to Old Street which could significantly delay or halt the Beech Street project. - **Programme and political risk**
4. There is a risk that TfL, residents or businesses will object to changes to the Route 153 bus.
- **Programme risk and political risk**
5. There is a high risk of vociferous opposition from single issue transport groups. – **Political risk**
6. There is an opportunity to work collaboratively with LB Islington on the traffic challenges so that both parties can realise their aspirations. The Culture Mile may also provide significant cross boundary benefit for Islington.
7. Future projects, such as Centre for Music and Museum of London at West Smithfield add an extra layer of complexity to the planning, management and resilience of the street network in the next 10-15 years. The delivery of C4M may require two way traffic on Beech Street – **Programme and cost risk**

8. The City's emerging Transport Strategy will provide a framework for new initiatives to actively manage traffic volumes in the City where traffic volumes are expected to be reduced over time. This is necessary to enable the delivery of the Culture Mile projects as well as other initiatives across the City.
9. To obtain the necessary Traffic Management Act permission from TfL will require more engagement and working with TfL than recent projects. TfL is undergoing its largest restructure in a generation. Key staff have been redeployed or departed and relationships need to be built at a political and operational level by Member's and officers. – **Programme risk**
10. There are opportunities to be explored for funding through the Mayor of London's Transport Strategy, i.e. the Healthy Streets initiative. With delays to other TfL programmes, Beech Street may receive a high level of GLA support.

Procurement

Work to procure the services of a transport consultancy to undertake the traffic modelling and a landscape architect for the public realm design (~£600K of services) will be undertaken with the assistance of the City Procurement team. DBE does not presently have a framework consultant for transportation and landscape services.

Studies and design will be done in-house where possible to reduce consultant costs. Traffic modelling is one service that cannot be delivered in-house, and it is considered that only 2-3 consultancies in London have the necessary experience and staff to undertake this complex work.

There are 3 options for the procurement of transportation and landscape design services:

Option 1 – Full OJEU tender

Time to tender ~ 6 months

Benefits – full compliance

Disbenefits – programme delay. The cost benefit is diminished by the cost of the officer time in preparing, tendering and assessing bids. Additional risk is a challenge if the "value" of the tender changes as the project progresses. This is difficult to estimate for the nature of this work.

Option 2 – utilise another public sector framework (i.e. TfL)

Time to tender ~2-3 months

Benefits – compliant and faster than Option 1

Disbenefit – the 2-3 consultancies we believe have the necessary skills are not on these frameworks as they tend to be smaller and more specialised SME's.

Option 3 – utilise design services in the Riney's contract (preferred method)

Time to tender ~1-2 months

Benefits – compliant and immediately available, sufficient time on Riney contract. Similar approach used in Westminster on the Conways contract

Disbenefits – would be a large amount of fees to route through the Riney's contract.

Options 1 and 3 would be the routes most likely to result in procuring a consultant with the necessary skills and experience. Given the expediency which is required for the project to meet the opening time for the redeveloped exhibition halls, in consultation with

City Procurement it is proposed that Option 3 utilising the design services in the Highway Term Contract is used.

Structural services will be procured through the term contract for Structures and Bridges.

Forward Programme

A forward programme which represents the best judgement of officers for a project of this size and complexity is detailed below. This programme is reliant on a significant amount of agreement by third parties and is indicative only.

The key dates are as follows:

- **August 2018 – December 2018** Structural assessment and site surveys completed
- **August 2018** Scoping of modelling brief
- **September 2018** Procurement of transport and public realm services (*dependent on procurement option chosen)
- **October 2018 – April 2021** Traffic model completed and accepted by TfL and supported by LB Islington
- **November 2019 – April 2021** Public realm and highway outline design completed
- **May 2021** Gateway 4 Report
- **June 2021 – August 2022** Detailed design completed (structures and highways)
- **September 2022** Gateway 5 Report
- **October 2022 – Autumn 2023** Highway construction
- **Autumn 2023** Highway works complete

It is understood that the above indicative programme would not meet Members expectations to proceed at pace with this project. Officers have further work to do to determine how the programme tasks could be expedited and advise Members in the next update report. One possibility is to accept the additional cost risk of abortive staff costs and proceed with elements of detailed design in advance of receiving the necessary approvals from TfL.

Regular update reports will be provided and significant changes to programme will be reported as part of this.

Detail on how the physical highway and public realm construction works will be coordinated with the Exhibition Halls refurbishment will emerge as both programmes progress, this is dependent upon the progress of the transportation work to reduce traffic in Beech Street. This will then define the feasibility and timing of a proposed ULEV restriction on Beech Street.

Funding

The current expenditure on the project is £66,336 of an approved budget of £120,525, leaving a remaining budget of £54,189. These remaining funds will be utilised to continue developing the project to Gateway 4.

The table below shows the estimated cost to reach Gateway 4.

Description	Approved Budget (£)	Additional Funds Required (£)	Revised Budget to Gateway 4 (£)
Fees	77,025	715,611	792,636
Highways Staff Cost	5,000	64,280	69,280
P&T Staff Costs	38,500	844,946	883,446
TOTAL	120,525	1,624,837	1,745,362

The additional budget required to reach Gateway 4 will be £1,624,837.

Please refer to Appendix 4 for a more detailed breakdown of the total estimated costs to reach Gateway 4.

The staff costs to reach Gateway 4 have been benchmarked against other transportation and public realm schemes delivered by the City and are commensurate. Staff costs to reach Gateway 4 represent approximately 6% of the £15M scheme estimate. This is considered proportionate and appropriate for a project of this complexity.

A full time Project Manager with a designated team providing technical and support skills will be required to develop the project to deliver key tasks; such as procurement, the traffic modelling and approvals, pedestrian modelling, air quality, transport surveys and monitoring, traffic design, structural assessments, public realm lighting design, public and stakeholder engagement, communications and consultation.

Funding Strategy

The table below shows the funding strategy to fund the project to Gateway 4.

Funding Source	Amount (£)
CIL (Public Realm & Local Transport Improvements	1,624,837
Total	1,624,837

Recommendations

It is recommended that all Members note:

1. The Vision for Beech Street as approved by the Policy and Resources Committee;
2. The podium water-proofing, property redevelopment and transportation & public realm projects are formally separated, to follow individual Gateway paths and reporting times;
3. The results of the traffic and public realm work done to date;
4. It is anticipated that the successful delivery of the Vision for Beech Street will require a reduction in traffic volumes in the area;
5. The proposed programme, next steps and project risks;

It is recommended that Members of the Streets and Walkways and Project Sub Committees approve:

6. Further development of the feasibility of Option 1 (Beech Street closed to eastbound traffic)

7. An increase in the scope of the project to investigate the feasibility of introducing Ultra-Low Emission Vehicle restrictions on Beech Street (in either direction or both directions)
8. The proposed procurement route for consultancy services utilising the City's Term Highways Contract;

It is recommended that Members of the Resource Allocation Committee and Streets and Walkways Sub Committee approve:

9. An increase in the estimated project budget of £1,624,837, to £1,745,362 to fund the project to Gateway 4, the final budget being subject to the procurement of the relevant consultancy appointments;
10. The allocation of Public Realm and Local Transport Improvement CIL funds to fund the development of the project to Gateway 4;
11. Delegate authority for any adjustments between elements of the £1,745,362 required budget to the Director of the Built Environment in conjunction with the Chamberlain's Head of Finance provided the total approved budget of £1,745,362 (subject to procurement) is not exceeded and the scope remains unchanged.

Appendices

Appendix 1	Traffic Modelling – areas of impact
Appendix 2	Beech Street closure – traffic survey analysis
Appendix 3	Expenditure to date
Appendix 4	Total Additional funds to reach Gateway 4

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