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| Committees: | | Dates: |
| Streets and Walkways Sub-Committee | For Decision | 04/09/2018 |
| Policy and Resources | For Decision | 06/09/2018 |
| Projects Sub-Committee | For Decision | 12/09/2018 |
| Port Health & Environmental Services | For Information | 25/09/2018 |
| 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: £218,927

Spend to Date: £70,858

Overall Project Risk: High

Report Summary

This report is for the Beech Street Transport and Public Realm project which aims to deliver air quality, property and public realm improvements in Beech Street, which in turn can best be achieved by the removal/reduction of traffic.

The key risks to delivering the project remain:

- the wider traffic impact of reducing traffic in Beech Street;
- attaining the necessary statutory approvals and agreement of Transport for London (TfL) and neighbouring authorities;
- the potential conflict with nearby projects just outside the City boundary which reduce traffic capacity on parallel streets and may cause displacement of vehicles onto Beech Street.

The purpose of this report is to provide an update on the work done to date, to seek Member endorsement of the development of two options for reducing traffic in Beech Street, and to advise on the project risks.

A previous version of this report was brought to Members of the Streets and Walkways Sub Committee in July 2018. Following discussions at that Committee, it was agreed to withdraw the report and resubmit it with additional consideration given to:

- Developing further options for the reduction of traffic in Beech Street by investigating both an eastbound and westbound closure, with a key objective being the improvement of air quality;

- That officers should consider the possibility of a City-wide traffic model to allow Members to consider the cumulative traffic implications of future projects.

Since the July Committee, officers have met with TfL to understand the traffic implications of the Old Street roundabout scheme and the issues surrounding a City-wide traffic model, plus they have met with LB Islington regarding the Old Street / Clerkenwell Road cycle grid route. This report provides an update on both those discussions, plus an update on the structural investigation work at Beech Street.

Background

Vision & Governance

In June 2018 the Policy and Resources Committee agreed the vision to transform Beech Street. It was to create a vibrant street with a high quality public realm at the centre of the Culture Mile, improve air quality and provide the opportunity to realise property outcomes.

The programme for the delivery of the Beech Street vision, the *Beech Street Major Transformation programme*, includes three individual projects: transport and public realm improvements, property redevelopment, and podium waterproofing. These projects have significant interdependences, but June's Policy and Resources Committee also agreed that they should be developed individually with their own specific budgets and milestones through the Committee approvals process.

Air quality

Beech Street has recently been measured as one of the most polluted streets in London for noxious emissions (NOx) from vehicles. The NOx data doesn't differentiate between westbound and eastbound traffic, but based on existing traffic flows and the queues approaching Aldersgate St, it is reasonable to assume that westbound traffic contributes 60% or more. This will be a factor to consider when balancing the merits of an eastbound closure versus a westbound closure.

The work undertaken in the Barbican area by the Low Emissions Neighbourhood (LEN) project has identified air quality on Beech Street as a local concern for residents and visitors, and a pilot scheme will be trialled on Moor Lane to restrict traffic to Ultra Low Emission Vehicles (ULEV).

The Port Health and Environmental Services Committee has requested that the potential for Ultra Low Emission Vehicle (ULEV) restrictions on Beech Street be investigated as part of the traffic reduction options. It is therefore proposed that the scope of the project be expanded to determine the feasibility of restricting some or all traffic on Beech Street to ULEV vehicles only.

Progress to date – Transportation and Public Realm

Traffic Modelling – Beech Street traffic options

An initial Preliminary Traffic 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 tested were:

Option 1 - An eastbound closure of Beech Street to vehicles;

Option 2 - A westbound closure of Beech Street to vehicles;

Option 3 - A total closure of Beech Street in both directions (i.e. pedestrianisation except for vehicular access to the Barbican Car Park, residential car parks and servicing).

The areas affected by the reassignment of traffic are presented in Appendix 1. This shows that all three scenarios would cause reassignment of traffic to other streets within the City (particularly on London Wall and Moorgate), the TfL Network (Old Street) and the streets of neighbouring boroughs.

In terms of scale of impact, an eastbound closure causes traffic to reassign over the smallest area, and a full closure affects the widest area.

Given the scale of impact from a full closure, it is proposed that the project focusses on Options 1 and 2 for now, with Option 3 (a full closure) remaining a longer-term aspiration.

City wide traffic model

At July's Streets and Walkways Sub Committee, Members asked officers to consider the merits of a City-wide traffic model to enable strategic decision making. It was suggested this would be useful in understanding the traffic impacts of various aspirational schemes, including Beech Street, Museum of London, Centre for Music, Bank and the Eastern City Cluster.

Officers have since met with TfL's transport modelling team to discuss options for this approach. TfL are currently investigating the rollout of new software for a Central London traffic model which allows more of the traffic modelling tasks to be undertaken in one software package. Officers have been advised that using this approach will be the most cost effective and efficient method for testing traffic scenarios from various schemes together.

We have requested more information on how TfL's model will be created, their programme, funding, on-going maintenance costs and how the model might reduce the time for getting traffic scheme approvals.

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 October 2018, identifies 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 public space 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, particularly at Aldersgate Street;
- improved lighting, including the potential for architectural or curated lighting;
- the introduction of public art.

Property studies relevant to the highway

A significant amount of work has been done by the Culture Mile property team in determining the business case for the refurbishment of property space along Beech Street. Studies have looked at both the under-utilised space available on the north side in Exhibition Halls 1 and 2 and on the south side by relocating car parking spaces and utilising the refuse area.

It was found that the refurbishment of the Exhibition Halls is supported by the property business case and that their revenue potential would be maximised by (significantly) widening the footway on the northside and improving the public realm. On the south side, it was determined that only substandard units could be physically achieved, and these would not command sufficient levels of rent to justify the estimated cost. It has therefore been established that retail space on the south side would not be economically viable.

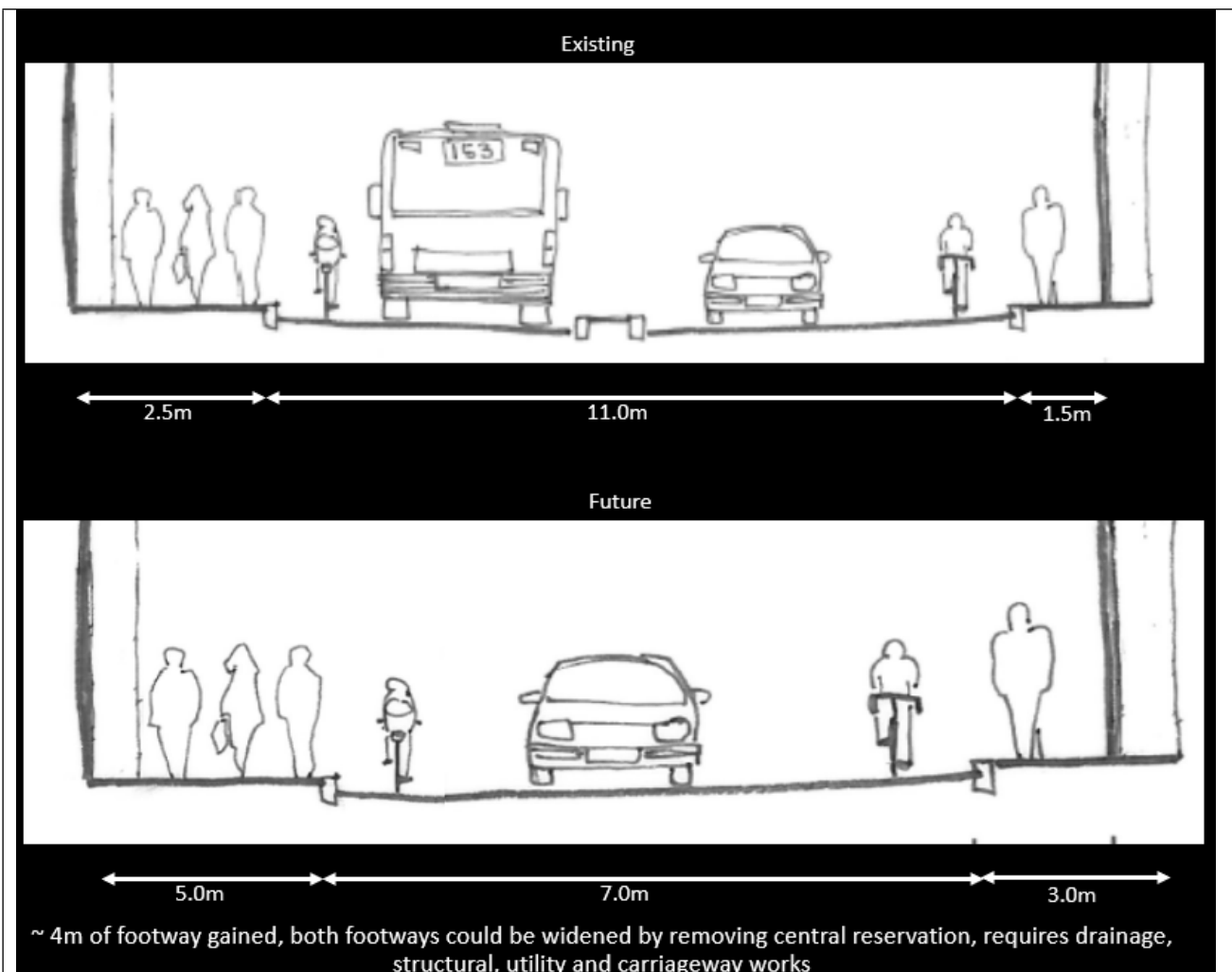
Appendix 3 illustrates how shallow public display cases displaying artefacts from core partners could still combine with new retail units in the vicinity of Lauderdale Tower to bring variety to the long south frontage.

Footways and pedestrian comfort levels

The footways in Beech Street are quite narrow, around 2.5m wide on the north side and 1.5m on the south. However, pedestrian flows in Beech Street are relatively moderate compared to some locations in the City, so that pedestrian comfort levels have been calculated as very good at B+ and A- respectively.

Nevertheless, widening of each footway will be reviewed during the design process, with the potential for reducing traffic to one direction allowing the opportunity to widen the northern footway to compliment the property development and / or widen the southern footway to improve pedestrian comfort.

Widening the footway on both sides would be more challenging because it would require the “running” traffic lane to move towards the middle of the street, the removal of the central reservation and changes to the road’s profile and drainage (see below).



Structural constraints

Since July's Streets and Walkways Committee, the project team have undertaken inspections and reviewed historic design and drainage drawings for Beech Street. Further ground radar surveys and trial holes are programmed for late August and September which will confirm whether the footway widening is achievable. Early indications are positive as it's been determined that except for a small area at the southern end of Golden Lane, the Ben Johnson House car park does not extend beneath the road.

Key Project Risks and Opportunities

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

1. The condition and capacity of the various underground structures is now being assessed because if they cannot accommodate the additional loads on the surface, the footway widening would be restricted, which in turn would limit the potential for the public realm improvements and property redevelopment.
2. The complexity of traffic modelling will be greater than either the Aldgate and Bank on Safety projects, and potentially the largest traffic model ever built by the City.
3. TfL and LB Islington have aspirations to significantly change the Old Street roundabout by reducing traffic capacity to transform the junction. In addition, LB

Islington have aspirations to develop a new cycle route along Old Street / Clerkenwell Road. The partial closure of Beech Street would reassign traffic to these routes, so there is a risk that both TfL and LB Islington will object to changes at Beech Street, significantly delaying or halting the Beech Street project. However, we are now working with TfL and LB Islington to identify collaborative opportunities to realise both sets of aspirations, with Culture Mile also providing significant cross boundary benefit potential.

4. There is a risk that TfL, residents or businesses will object to changes to the Route 153 bus.
5. Experience from other recent schemes would suggest that the permanent closure of any major street in the City will create a high risk of vocal, influential and prolonged opposition from single issue transport groups.
6. Future projects, such as Centre for Music and Museum of London at West Smithfield, will add an extra layer of complexity to the planning, management and resilience of the street network in the next 10-15 years, with any changes to the London Wall roundabout a future consideration for Beech Street.
7. The City's emerging Transport Strategy will provide a framework for new initiatives to actively manage traffic volumes in the City. This will be important given that traffic reductions are likely to be needed to enable the delivery of various Culture Mile projects, as well as other initiatives across the City.
8. Changes at Beech Street will require Traffic Management Act consent from TfL who are currently undergoing a significant restructure. With new resource constraints and the loss of key staff, it remains to be seen how TfL will respond, but equally there are opportunities through the Mayor's Transport Strategy Healthy Streets initiative where the Beech Street project could receive a high degree of GLA support.

Procurement

Work to procure the services of a transport consultancy to undertake the traffic modelling (~£500K of services) will be undertaken with the assistance of the City Procurement team. 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 A – Full OJEU tender

Time to tender ~ 6 months

Benefits – Full OJEU compliance

Disbenefits – Programme delay; cost of officer time in preparing, tendering and assessing bids; risk of challenge if the value of the tender changes as the project progresses.

Option B – 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 C – Utilise design services in the Riney Highway Term contract (preferred method)

Time to tender ~1-2 months

Benefits – Compliant and immediately available, sufficient time on the Riney term contract. Similar approach used in Westminster on their Highway Term contract

Disbenefits – Would be a large amount of fees to route through the Riney term contract.

Options A and C would be the routes most likely to result in procuring a consultant with the necessary skills and experience. Given the pace required to meet the opening of the redeveloped exhibition halls, DBE and City Procurement propose to use Option C.

(NB Structural services will be procured through the term contract for Structures and Bridges as usual.)

Proposed next steps

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

1. Continue to establish the physical constraints of the site, particularly the structures, utilities and drainage below Beech Street.
2. Continued engagement with TfL and LB Islington at a strategic and operational level and seek Traffic Management Act approval for the scheme from TfL.
3. Develop a detailed project plan and advise Members on the likely high level political engagement required with neighbouring authorities and GLA/TfL.
4. Gather baseline information on air quality on Beech Street and the alternate streets to help assess the impact of any traffic changes.
5. Begin to build a VISSIM micro-simulation model over a wide part of the City and Islington to enable the impacts of the Beech Street proposals (Option's 1 and 2) to be fully quantified.
6. Develop the model with information from other authorities to capture their schemes which also affect traffic.
7. Produce computer generated images of what a transformed Beech Street could look like for use in stakeholder engagement and to help build momentum for the project.
8. Once there is confidence that traffic can be removed or reduced in Beech St, have a landscape architect produce a design for the street based on objectives established by a new working party.
9. Co-ordinate the physical highway and public realm construction works with the Exhibition Halls refurbishment as both programmes progress. This is dependent on

the progress of the transportation work to reduce traffic in Beech Street which will then define the feasibility and timing of a proposed ULEV restriction in Beech Street.

Forward Programme

Given the size and complexity of the project, an indicative programme is outlined below, but this is reliant on significant third-party agreements.

The key dates are as follows:

- **August 2018 – December 2018** Structural assessment and site surveys completed
- **October 2018** Scoping of modelling brief
- **November 2018** Procurement of transport and public realm services (*dependent on procurement option chosen)
- **December 2018 – June 2021** Traffic model completed and accepted by TfL and supported by LB Islington
- **November 2019 – April 2021** Public realm and highway outline design completed
- **July 2021** Gateway 4 Report
- **August 2021 – October 2022** Detailed design completed (structures and highways)
- **December 2022** Gateway 5 Report
- **January 2023 – January 2024** Highway construction
- **Q1 2024** Highway works complete

Funding

The current expenditure on the project is £70,858 from an approved budget of £218,927, leaving £148,069 to be utilised in developing the project to Gateway 4. However, a further £1,526,435 is thought to be required to reach Gateway 4 (see summary below and Appendix 4), and is proposed to be funded from DBE's Public Realm and Local Transport Improvement CIL allocation.

| Description | Approved Budget (£) | Additional Funds Required (£) | Revised Budget to Gateway 4 (£) |
|---------------------------|---------------------|-------------------------------|---------------------------------|
| Fees | 112,636 | 680,000 | 792,636 |
| Highways Staff Cost | 5,000 | 64,280 | 69,280 |
| P&T Staff Costs | 82,889 | 782,155 | 865,044 |
| DBE Structures Staff cost | 18,402 | 0 | 18,402 |
| TOTAL | 218,927 | 1,526,435 | 1,745,362 |

The staff costs to reach Gateway 4 represent approximately 6% of the £15m scheme estimate. These have been benchmarked against other transportation and public realm schemes delivered by the City and have been found to be proportionate and appropriate for a project of this complexity.

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

Recommendations

It is recommended that **all Committees** note:

1. The vision for Beech Street as approved by the Policy and Resources Committee, which includes the reduction of traffic, improvements to the public realm, widening of footways and improvements in air quality;
2. The separation of the podium water-proofing, property redevelopment and transportation & public realm projects, to follow individual Gateway paths and reporting times;
3. The results of the traffic and public realm work done so far;
4. The key project risks, next steps & programme.

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

5. Further development of the feasibility of Option 1 (Beech Street closed to eastbound traffic) and Option 2 (Beech Street closed to westbound traffic)
6. An increase in the scope of the project (requested by the Port Health & Environmental Services Committee) to investigate the feasibility of introducing Ultra-Low Emission Vehicle restrictions in Beech Street
7. The proposed procurement route for consultancy services utilising the City's Highways Term Contract;

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

8. An increase in the estimated project budget of £1,526,435, to £1,745,362 to fund the project to Gateway 4, subject to the procurement of the relevant consultancy appointments;
9. The allocation of Public Realm and Local Transport Improvement CIL funds to fund the development of the project to Gateway 4;
10. Delegate authority for any adjustments between elements of the 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

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| Appendix 1 | Traffic Modelling – areas of impact |
| Appendix 2 | Beech Street closure – traffic survey analysis |
| Appendix 3 | Beech Street southside visualisations |
| Appendix 4 | Expenditure to date |
| Appendix 5 | Total Additional funds to reach Gateway 4 |

Contact

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