

Committees:	Dates:	Item no.
Streets & Walkways Sub Committee	13 January 2014	
Projects Sub Committee	22 January 2014	
Subject: Gateway 3 – Outline Options Appraisal – Beech Street	Public	
Report of: Director of the Built Environment	For Decision	

Summary

Dashboard

Project Status: Amber

Timeline: Detailed Options Appraisal – November 2014

Total Estimated Cost: £150,000 - £2.5m

Spend to Date: £28,089

Overall Project Risk: Medium

Context

Beech Street is a key street in the context of the Barbican Area Strategy, forming an important east-west link and serving as the main pedestrian route from the Barbican Underground station to the Barbican Centre.

A consultants report has been completed to provide options for the enhancement of Beech Street. An important aspect of the consultants work has been to establish that Beech Street is not a tunnel, but is a covered roadway, and so there is no requirement to ensure compliance with UK and EU legislation relating to tunnels.

Brief description of project

Options have been developed that will enhance the user experience of Beech Street in a variety of ways. Three broad categories of options have been developed, ranging from relatively minor enhancements to the street, to increasing access at podium level, to removing some traffic from the street. The options set out in this report will be the subject of full public consultation prior to the next Gateway.

Options

The classification of Beech Street as a covered roadway, rather than a tunnel, gives greater scope in terms of the options available for enhancement. These options range in scale, from minor enhancements such as changes to the lighting or cladding through to major changes such as removing the roof. However, such minor changes are unlikely to yield sufficient benefits to justify their progression, and wholesale changes to the roof structure would be prohibitively expensive (more technical information is contained in section 11 of this report); therefore these options have not been considered for further investigation. The broad options that are being considered are set out below and in the main body of the report.

Description	Option 1 – Improving the street £	Option 2 – Enhanced podium level links £	Option 3 – Removal of traffic £
Total Estimated Cost	£150,000 - £900,000	£400,000 - £2.5m	£150,000 - £500,000
Tolerance +/-	10%	20%	10%
Likely Funding Strategy	On Street Parking Reserve / local developer contributions	On Street Parking Reserve / local developer contributions	On Street Parking Reserve / local developer contributions

NB Full details of all of the options are available in paragraphs 11 to 20.

Recommendations

Option(s) recommended to develop to next Gateway

It is recommended that:

- All three options are progressed to the next Gateway and are subject to a full public consultation, and;
- An additional £19,000 is allocated to progress the project to the next Gateway, as set out in the table in Appendix 5.

Next Steps

Undertake a full public consultation with local residents, stakeholders and relevant City departments, with a view to producing a Gateway 4 report in late 2014. The Gateway 4 report will also identify any potential impacts on the function of the City's streets and any other technical requirements of the options taken forward.

Resource requirements to reach next Gateway and source of funding

The current approved budget is £28,500, with an actual spend to date of £28,089 (as of 16 December 2013). This spend has been used to develop the initial options appraisal and complete the consultant report.

A total of £19,000 is requested to progress these options to the next Gateway (see Appendix 5). This will allow for management of the public consultation process, assessment of the results, and associated fees for the consultation material.

Plans for consultation prior to the next Gateway report

A full public consultation, involving local residents, stakeholders and relevant City departments will be undertaken in spring 2014. The outcomes of this consultation will inform the Gateway 4 report.

Tolerances

It is recommended that the following tolerance be agreed in respect of the design process:

- A tolerance of £2000 be granted in respect of the Staff Costs element to allow for further assessment of the consultation responses if required.

Main Report

Overview

<p>1. Evidence of Need</p>	<p>The Barbican Area Streets & Walkways Enhancement Strategy ('Barbican Strategy') considered options to improve the public realm in the vicinity of the Barbican Estate and was approved by Court of Common Council in October 2008. The Strategy identified potential improvements to Beech Street including: widened footways; improved lighting; adjustments to the 'cap' roof to increase lighting and / or ventilation; public art installations; improved wayfinding; and enhanced conditions for cyclists.</p> <p>The accompanying Committee Report listed individual projects in priority order; Beech Street Tunnel was considered a medium priority project. However, the street is the key approach to the City's 'Cultural Hub' and is therefore important in this context. The Barbican Centre Board and Barbican Finance Committee have expressed strong support for bringing forward options for the enhancement of Beech Street Tunnel. Additionally the Barbican Residential Committee passed a motion at their meeting on 24th September 2012, that:</p> <p style="padding-left: 40px;">"The Planning and Transportation Committee be asked to consider improvements to Beech Street Tunnel as a matter of priority, given its significance within the cultural quarter".</p> <p>All of the 'high priority' projects identified in the Barbican Strategy now have funding allocated for their implementation and are at varying stages of progression. Therefore it is now possible to take forward other projects identified in the Barbican Strategy.</p>
<p>2. Success Criteria</p>	<ul style="list-style-type: none"> • Enhanced public realm in the area in accordance with the Barbican Strategy; • Improved gateway to the City's emerging cultural hub.
<p>3. Project Scope and Exclusions</p>	<p>One of the key risks associated with this project was the potential requirement to comply with relevant legislation on tunnels and the health & safety infrastructure associated with this. Therefore a key consideration of the consultant report was to clarify the position on this. The report concluded that Beech Street is not a tunnel but is a covered roadway, and so there are no requirements to develop the street to tunnel standards.</p> <p>This allows for a wide variety of options to be</p>

	<p>considered. However, minor enhancements such as changes to the cladding or lighting are not being considered as they are unlikely to yield sufficient benefits. Similarly, major interventions such as removal of the roof structure are likely to be prohibitively expensive and so are not being considered in this report.</p> <p>The consultant report also considered an option which would remove all vehicular traffic from the street to create a pedestrianised environment. However, given the various access points that need to be maintained along the length of the street (see Section 11 below), it is not proposed to take this option forward.</p> <p>A number of the options set out in Section 11 below, have potentially significant implications for the function of the City's streets and those of neighbouring authorities, as well as other technical requirements. In addition, there are a number of issues relating to the mechanical and engineering services within the confines of the structure (or indeed whether these are all required), including water ingress from the podium level above. These factors and their likely impacts will be assessed and set out at the next Gateway, following the conclusion of the public consultation.</p>
<p>4. Link to Strategic Aims</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. The improvements will provide more accessible routes through the area.</p> <p><i>Aim 3: To provide valued services to London and the nation</i></p> <p>The proposals will improve the user experience of Beech Street and contribute to the enhancement of the City's emerging 'Cultural Hub'.</p>
<p>5. Within which category does the project fit</p>	<p>City funded (On Street Parking Reserve) (<i>public consultation</i>)</p> <p>Substantially reimbursable (<i>detailed design / implementation</i>)</p> <p>Asset enhancement / improvement (capital)</p>
<p>6. What is the priority of the project?</p>	<p>Advisable.</p>

<p>7. Governance arrangements</p>	<p>The project will be guided through regular design team meetings. Various parties will be consulted during the design process; see section 15. Regular updates will be provided to the Cultural Hub Working Party.</p>
<p>8. Resources Expended To Date</p>	<p>Fees: £15,000 Staff costs: £13,089 Total: £28,089</p> <p>The fees expended to date have been used to employ consultants to produce a technical report, primarily to understand any legislative requirements and also to investigate potential options for enhancement; the main highlights of the technical report are discussed in the body of this report.</p> <p>The staff costs incurred to date have allowed for management of the consultants and the associated initial consultation, and for other aspects of the preliminary evaluation.</p>
<p>9. Results of stakeholder consultation to date</p>	<p>The technical report has been subject to consultation with City officers to ensure that the scope was sufficient and that the content was accurate. Ward Members and Barbican residents have been briefed on the main outcomes of the technical report.</p> <p>A comment from these briefings suggested that creating 'holes' in the roof or removing it completely would likely meet with strong opposition from local residents owing to increased noise; obtaining Listed Building Consent for such works would also likely be problematic.</p>
<p>10. Consequences if project not approved</p>	<p>The perception that the street is an unpleasant environment will remain and the existing function of the street will be retained.</p>

Outline Options Appraisal

<p>11. Commentary on the options considered</p>	<p>The consultant report, which is available for viewing in the Members Reading Room, has attempted to define Beech Street in a number of different contexts. From a traffic perspective the street acts as a local connector route on the east-west axis and is regularly used as a diversionary route when London Wall is closed. From a pedestrian perspective the street is an important link between Farringdon, Moorgate and the Barbican Centre, and also through to the Golden Lane Estate.</p> <p>From a functional point of view, the south side of Beech</p>
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Street provides vehicular access to a number of areas including the residential and Barbican Centre car parks, and the servicing areas for the residential estate; it is also used as the loading area for the London Symphony Orchestra. There is also pedestrian access to an office block on the north side of the street, and a connection through to the Golden Lane Estate.

The podium deck above Beech Street consists of precast concrete planks, with an in-situ concrete topping, spanning between the concrete beams. These beams span across the width of the street and are either supported directly on concrete columns, or span on to primary edge beams. These primary beams then span between concrete columns, the faces of which protrude from the cladding line on the north side of the street and are aligned with the cladding on the south side. The columns appear to be supported on a transfer structure above dedicated Barbican service tunnels, which are in turn supported on piled foundations.

The options have been divided into three broad categories, each of which contain 'sub options' that are variations on the theme of each main option. These are set out below.

Option 1 – Improving the street

This option is based around reconfiguring the existing street to make it function more effectively for all users, and to improve the experience for pedestrians. The 'sub options' involve making greater use of the northern footway which is already wider than the southern footway and has the scope to be widened further. In order to fully maximise the potential footway width it would be necessary to remove the existing cycle lane and bring cyclists into the main lane of traffic. This would allow either the northern footway to be widened in isolation, or to be combined with some widening of the southern footway.

Alternatively the existing cycle lanes could be retained and physically segregated to achieve clear delineation. This option could potentially still allow for the northern footway to be widened, although the gain would not be as great as in the scenario with the cycle lanes removed.

This option has the potential to be supplemented with new lighting arrangements to the footways. The carriageway lighting would need to be maintained to avoid creating a 'strobing' effect for drivers and cyclists. Changes to the cladding of the structure may also

produce an enhanced environment.

Three sketches showing the variations within this option are shown in Appendix 1.

Option 2 – Providing an enhanced link at podium level

The existing connections from street to podium level at each end of Beech Street are poor, involving secluded staircases such as at Barbican station, or long and winding ramps such as at Whitecross Street. This option therefore proposes measures to increase the use of the podium level of the Barbican Estate, which will require the creation of clear routes from street level and the improvement of existing podium level connections. The use of escalators and lifts has been suggested by some residents to maximise accessibility.

At the western end of Beech Street it has been considered that a new escalator connection could be made through the existing commercial property, currently occupied by Virgin Active. A connection in this location would be easily visible upon exiting Barbican Underground station.

At the eastern end there are two potential access points. On the north side this would be from the existing footway adjacent to the new Barbican cinemas; on the south side this would be from the open space of the Cromwell Tower forecourt.

The implementation of these new links would require the creation of 'holes' in the existing podium deck and would be subject to Listed Building Consent (this is discussed in more detail below). This option may make the existing link stairs and bridge from Barbican station redundant, allowing these to potentially be removed.

An indicative plan of new connections at podium level is shown in Appendix 2.

Option 3 – Removal of traffic from Beech Street

This option involves creating a more vibrant and active pedestrian space by either partially or completely removing traffic from the street. Given the current layout of the street and the amount of servicing that takes place it is unlikely that a proposal to completely remove traffic would be feasible without a major overhaul of the servicing arrangements for the Barbican Estate. Therefore a more realistic option is making Beech Street one way, maintaining access to the south side whilst creating a significantly improved pedestrian and cyclist environment by widening the northern footway.

	<p>If the street was made one way there would still be a requirement to provide vehicular access to the northern wall at certain times in order to maintain the ventilation grilles connected to the car parks.</p> <p>In order to progress any of the options to the next gateway it will be necessary to undertake further research to determine the exact layout and function of the street and the infrastructure surrounding it.</p> <p>An indicative plan of some traffic removed from Beech Street is shown in Appendix 4.</p>
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Information Common to All Options

12. Key benefits	<ul style="list-style-type: none"> • An improved east-west connection for pedestrians; • Improved accessibility; • An enhanced connection to the Barbican Centre.
13. Estimated programme and key dates	<p>Consultation on the proposals: April 2014 – June 2014</p> <p>Assessment of consultation and option development: July 2014 – October 2014</p> <p>Gateway 4 report – November 2014</p>
14. Potential risk implications	<p><i>1. Drainage and utilities impact on the design options</i></p> <p>Surveys will be carried out as appropriate to determine the extent of sub-surface utilities and reduce the risk element associated with this.</p> <p><i>2. Options selected impact on the Listed fabric of the Barbican</i></p> <p>The option assessment will take Listed Building issues into consideration and make this clear at the next Gateway</p> <p><i>3. Funding for the preferred option is not obtained</i></p> <p>Funding requirements and potential sources will be identified at the next Gateway</p>
15. Anticipated stakeholders and consultees	<ul style="list-style-type: none"> • Ward Members • Community & Children’s Services (Barbican Estate Office) • Barbican Centre • Barbican Occupiers User Group

	<ul style="list-style-type: none"> • Barbican Association • English Heritage • Twentieth Century Society • Local residents and occupiers • Cultural Hub Working Party • Planning (Development Control) • City Surveyor • Chamberlain • Comptroller and City Solicitor • Access Team • Open Spaces Department • Environmental Health • Cleansing Services
16. Legal implications	Beech Street is within the curtilage of the Grade II listed status of the Barbican Estate. Any works affecting the architectural and historic interest may require Listed Building Consent, and would need to be considered alongside the City's Core Strategy and the Barbican Listed Building Guidelines SPD.
17. HR implications	None.
18. Anticipated source(s) of funding – capital and revenue	<p>The funding to progress the project to the next gateway is expected to be met from the On Street Parking Reserve (OSPR) allocation committed to the Barbican Strategy.</p> <p>Funding for the full implementation of the project has yet to be identified but would likely be sourced from local developer contributions in the area and / or from the Community Infrastructure Levy.</p>
19. Affordability	The progression of the project to the next gateway is to be met from the OSPR allocation committed to the Barbican Strategy. Funding has not yet been identified to take the project beyond this stage; this will be investigated during the detailed options appraisal stage.
20. Next steps	The preferred option(s) will be taken forward to consultation residents and other key stakeholders, including the Barbican Estate Office and the Barbican Centre. The feedback from this consultation will be incorporated into the detailed options appraisal process and a report will be presented to Members.

Outline Options Appraisal Matrix

See attached.

Appendices

Appendix 1	Beech Street and the surrounding area
Appendix 2	Sketches of variations within Option 1
Appendix 3	Potential new connections at podium level
Appendix 4	Sketch indicating some traffic removed from Beech Street
Appendix 5	New budget table

Contact

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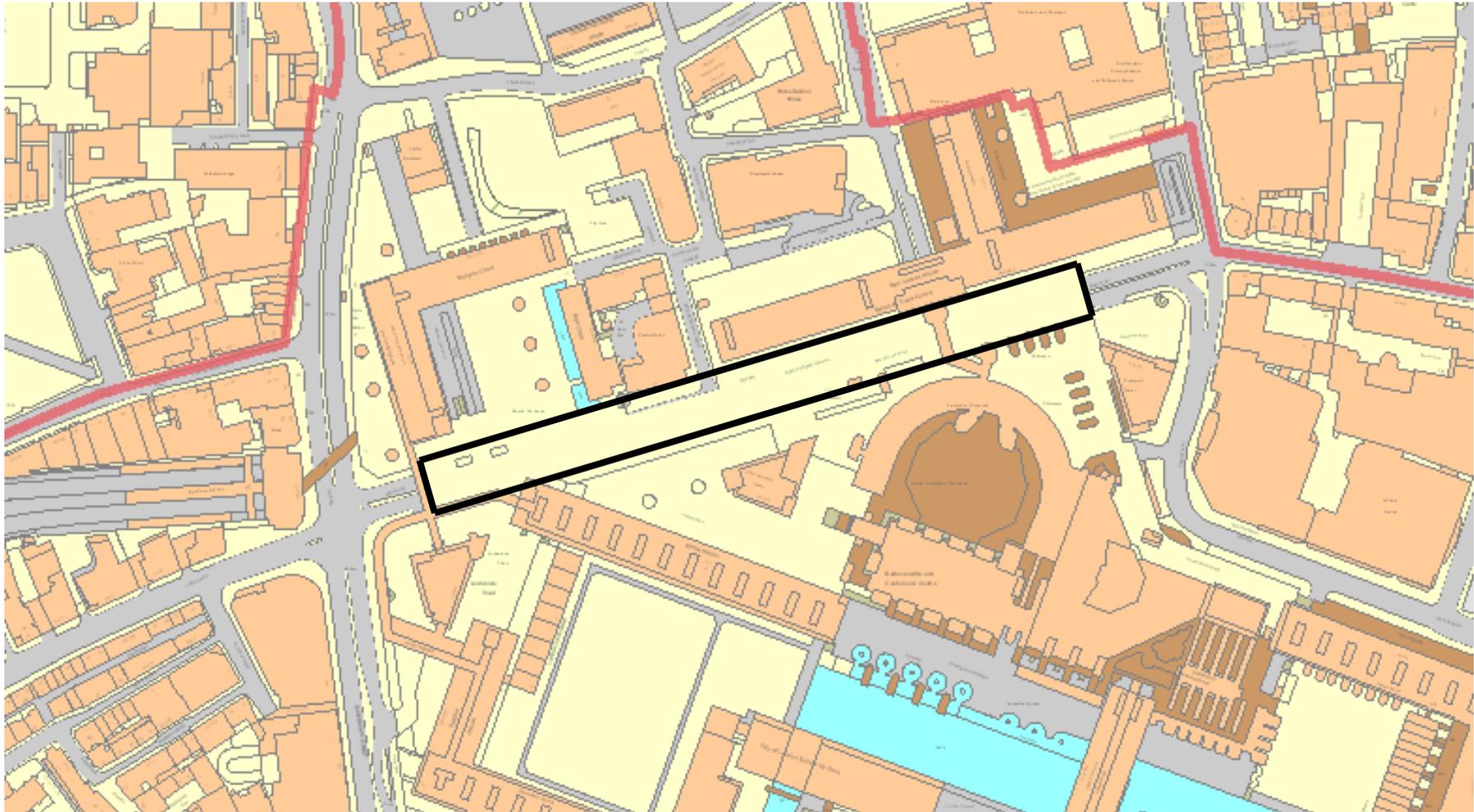
	Option 1	Option 2	Option 3
21. Brief description	Reconfiguring the street to make it function more effectively for all users. The 'sub options' involve making greater use of the northern footway which is already wider than the southern footway and has the scope to be widened further. In order to fully maximise the potential footway width it may be necessary to remove the existing cycle lane and bring cyclists into the main lane of traffic.	This option proposes measures to increase the use of the podium level of the Barbican Estate, which will require the creation of clear routes from street level and the improvement of existing podium level connections. The use of escalators and lifts has been suggested to maximise accessibility.	This option involves creating a more vibrant and active pedestrian space by partially removing traffic from the street.
22. Scope and Exclusions (where different to section 3)	N/A	N/A	N/A
23. Key benefits (where different to section 12)	<ul style="list-style-type: none"> • Widened footways to increase pedestrian space; • Additional lighting to enhance the setting of the space; • Potential to improve conditions for cyclists. 	<ul style="list-style-type: none"> • Improved connections to the podium level, increasing the vibrancy of these areas; • Improved accessibility through the provision of escalators and lifts. 	<ul style="list-style-type: none"> • A significant gain in footway space on Beech Street; • Improved conditions for cyclists.
24. Estimated Programme (where different to section 13)	N/A	N/A	N/A
25. Potential risk implications (where different to section 14)	N/A	N/A	N/A

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
26. Anticipated stakeholders and consultees (where different to section 15)	N/A	N/A	N/A
27. Legal implications (where different to section 16)	N/A	N/A	N/A
28. HR implications (where different to section 17)	N/A	N/A	N/A

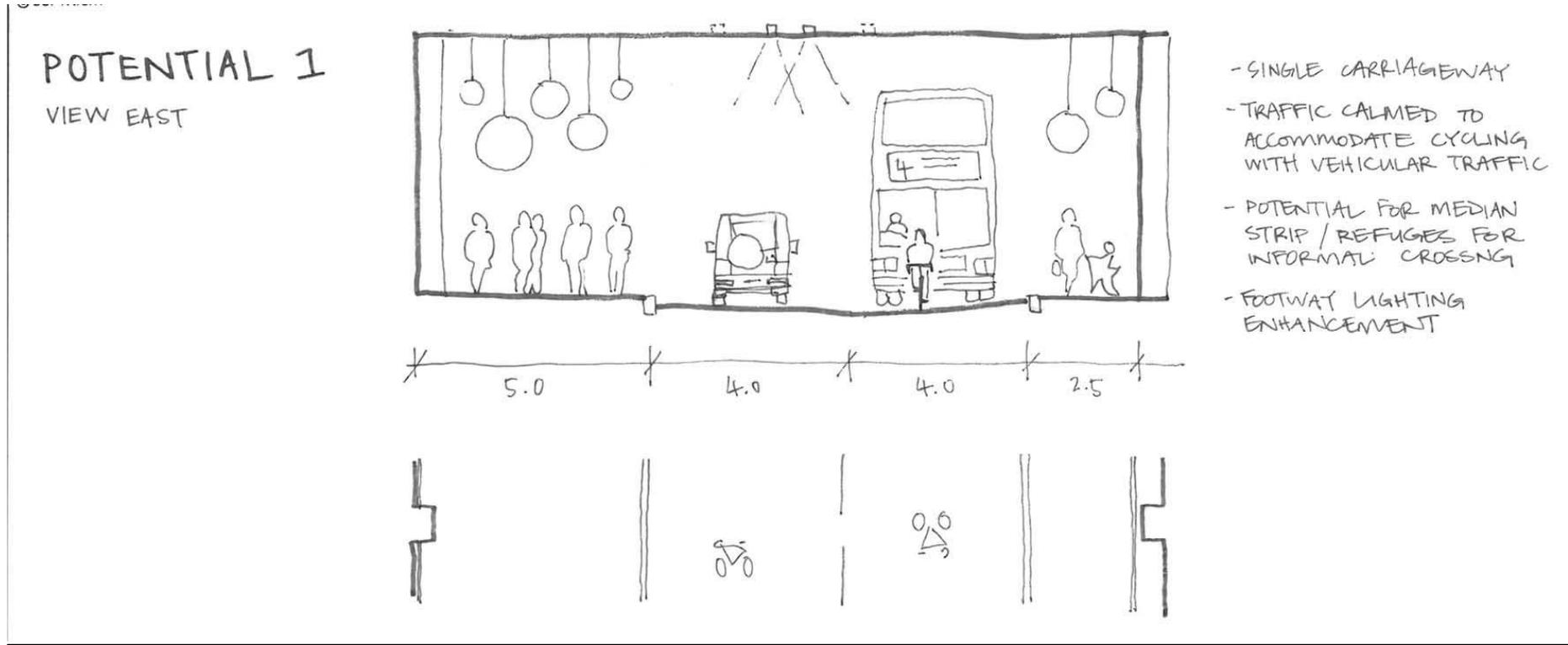
<u>Financial Implications</u>	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
29. Total Estimated cost (£)	£150,000 - £900,000	£400,000 - £2.5m	£200,000 - £800,000
30. Anticipated source of project funding (where different to section 18)	N/A	N/A	N/A
31. Estimated capital value/return (£)	N/A	N/A	N/A
32. Fund/budget to be credited with capital return	N/A	N/A	N/A
33. Estimated ongoing revenue implications	There may be some additional maintenance costs incurred should the	New infrastructure, such as lifts or escalators, would require additional	There may be some additional maintenance costs incurred should the

(£)	entire street be required to close during routine maintenance works, as opposed to just one traffic lane as at present.	maintenance.	entire street be required to close during routine maintenance works, as opposed to just one traffic lane as at present.
34. Anticipated source of ongoing revenue funding (where different to section 18)	N/A	N/A	N/A
35. Fund/budget to be credited with income/savings	N/A	N/A	N/A
36. Affordability (where different to section 19)	N/A	N/A	N/A
37. <u>Recommendation</u>	<i>It is recommended that this option is included in the public consultation and evaluated towards Gateway 4.</i>	<i>It is recommended that this option is included in the public consultation and evaluated towards Gateway 4.</i>	<i>It is recommended that this option is included in the public consultation and evaluated towards Gateway 4.</i>
38. Reasons	This option is recommended for progression in order to ascertain the opinions of stakeholders during the public consultation.	This option is recommended for progression in order to ascertain the opinions of stakeholders during the public consultation.	This option is recommended for progression in order to ascertain the opinions of stakeholders during the public consultation.

Appendix 1 – Beech Street and the surrounding area

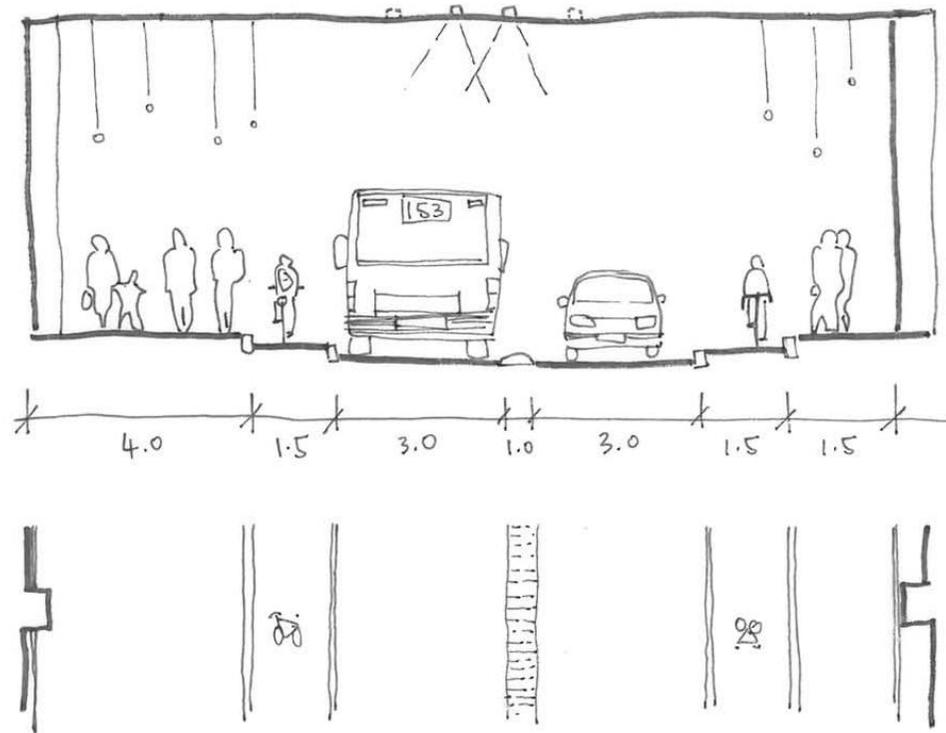


Appendix 2 - Sketches of variations within Option 1



POTENTIAL 2

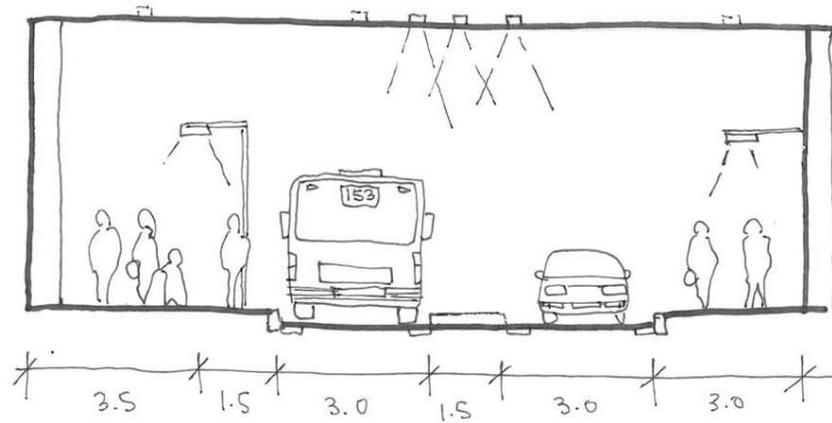
VIEW EAST



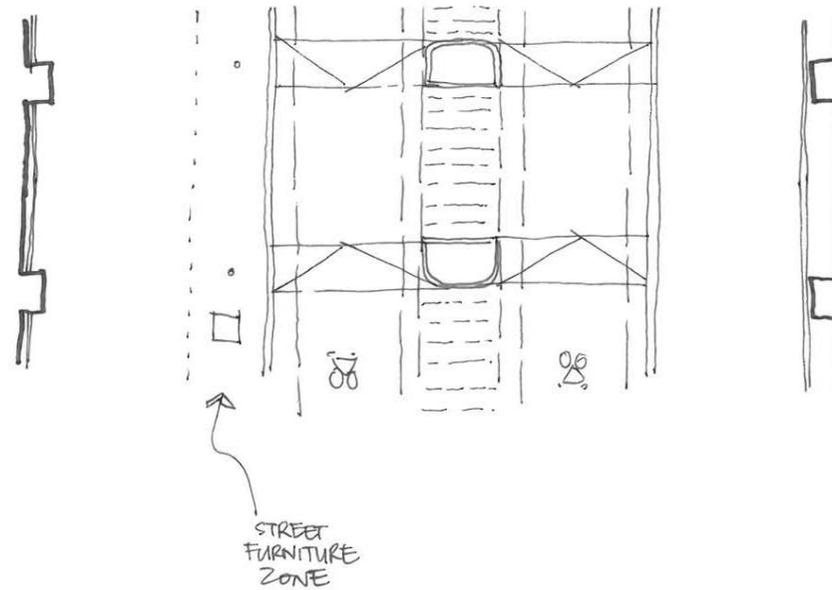
- DANISH-STYLE HALF KERB SEGREGATED CYCLE LANES
- OVERRUNNABLE CENTRAL STRIP TO VISUALLY NARROW CARRIAGWAYS

POTENTIAL 3

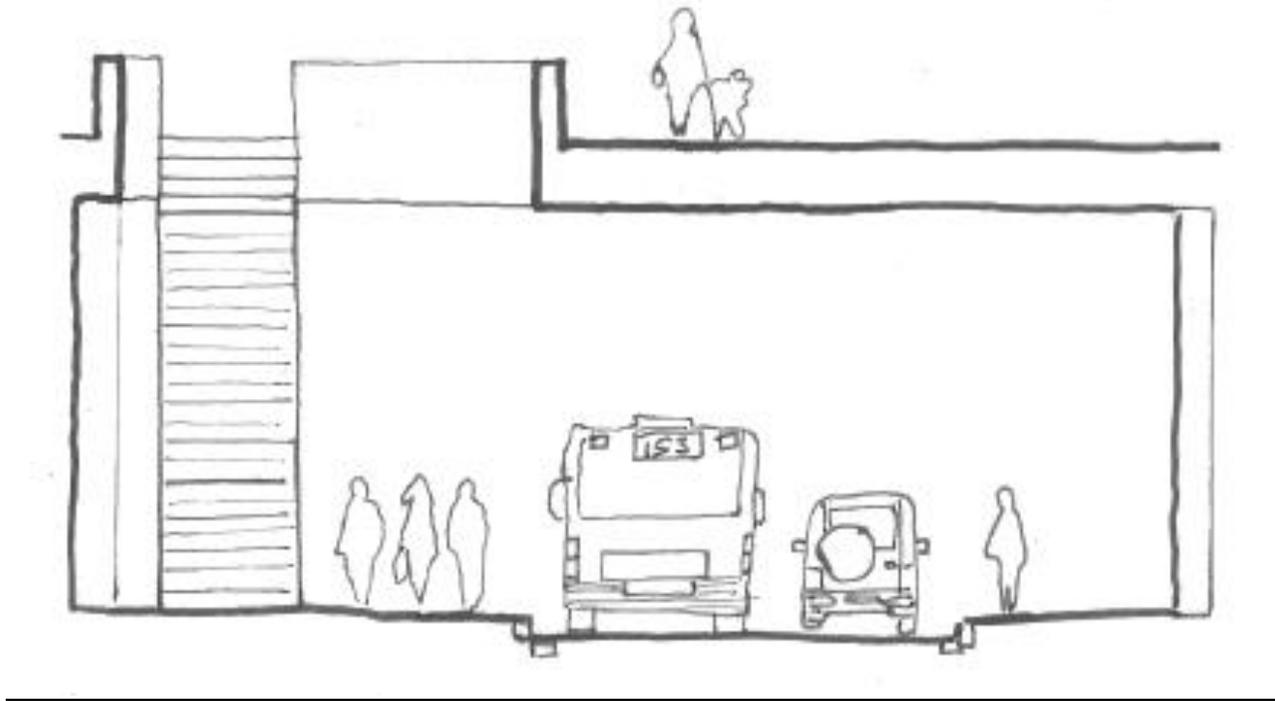
VIEW EAST

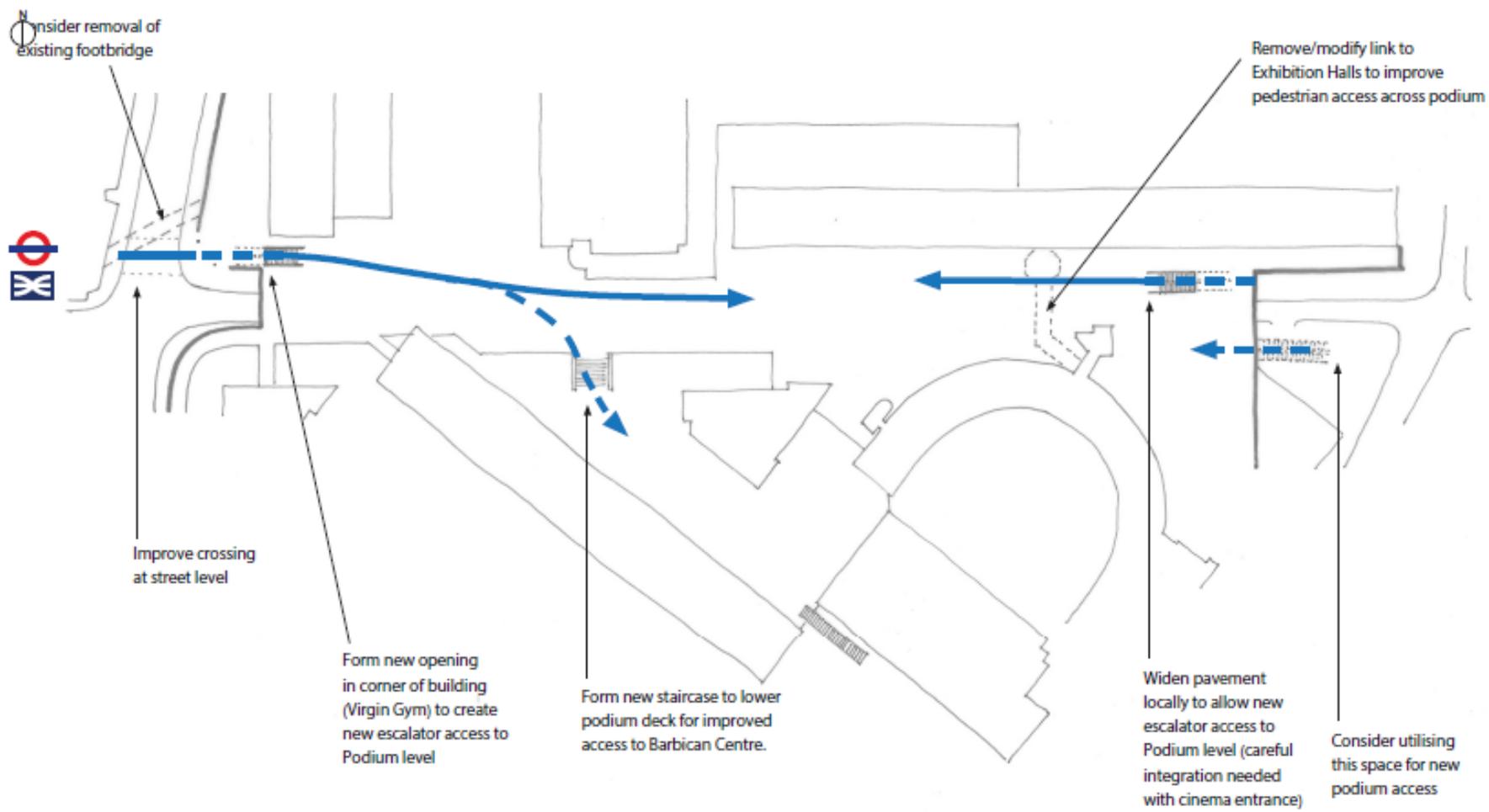


- CARRIAGEWAYS NARROWED
- 20 MPH ZONE
- CONTINUAL CROSSING STRIP IN CENTRE OF CARRIAGEWAY
- WIDE INFORMAL CROSSINGS
- NO STOPPING ZONE
- FOOTWAY LIGHTING ENHANCEMENT

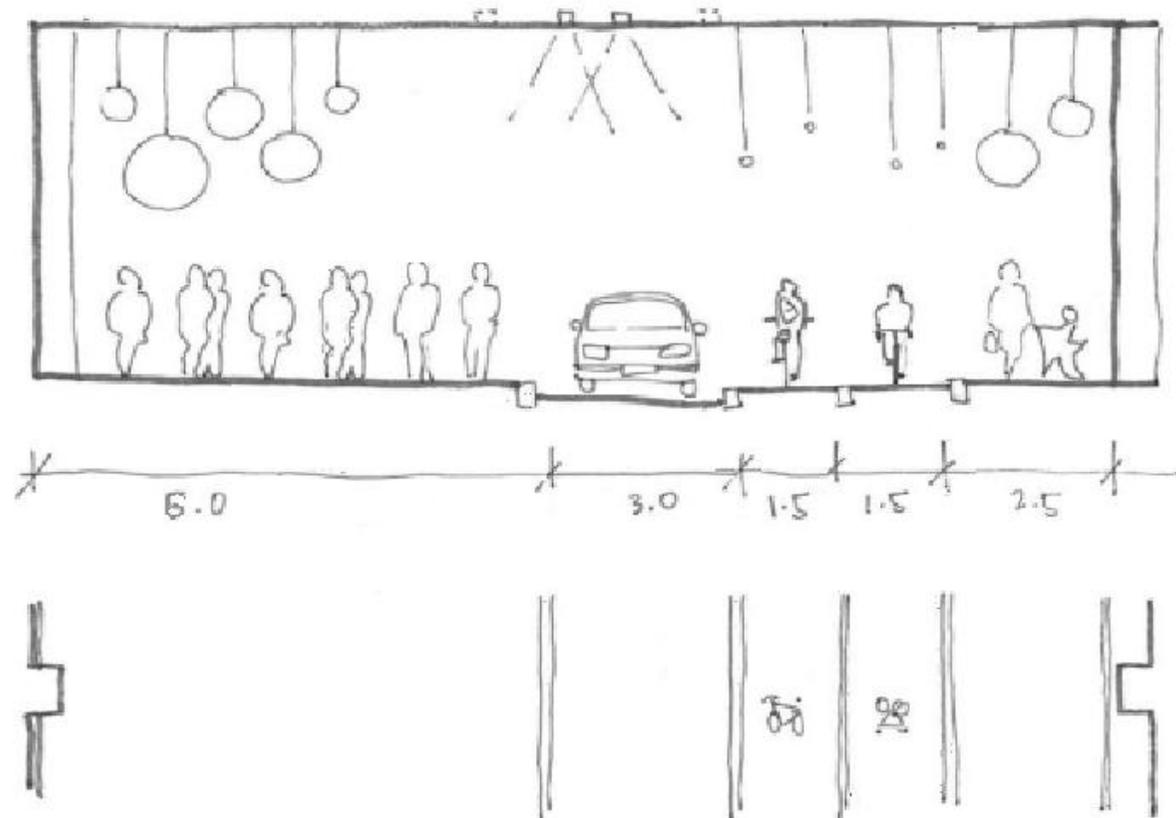


Appendix 3 – Potential new connections at podium level





Appendix 4 – Sketch indicating some traffic removed from Beech Street



Appendix 5 – new budget table

Current budget

Beech Street Tunnel	Budgets	Spend to Date	Remaining
PreEv P&T Fees	£15,000	£15,000	£0
PreEv P&T Staff Costs	£10,000	£13,089	-£3,089
PreEv Surveyors Staff Costs	£3,500	£0	£3,500
Total	£28,500	£28,089	£411

Proposed budget to next Gateway

Beech Street Tunnel	Current Budgets	Proposed Budgets	Variance
PreEv P&T Fees	£15,000	£25,000	£10,000
PreEv P&T Staff Costs	£10,000	£22,500	£12,500
PreEv Surveyors Staff Costs	£3,500	£0	-£3,500
Total	£28,500	£47,500	£19,000