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<b>Committees:</b> Corporate Projects Board [for decision] Streets and Walkways [for decision] Projects Sub [for decision]	<b>Dates:</b> Urgency 02 December 2021 15 December 2021
<b>Subject:</b> Beech Street Transportation and Public Realm project (Phase 1 – Zero Emission Scheme)  <b>Unique Project Identifier: 10847</b>	<b>Gateway 5</b> Complex  <b>Issue Report</b>
<b>Report of:</b> Executive Director Environment  <b>Report Author:</b> Kristian Turner – City Transportation	<b>For Decision</b>
<h1 style="margin: 0;">PUBLIC</h1>	

<b>1. Status update</b>	<b>Background:</b> <ol style="list-style-type: none"> <li>1. In June 2018, Members of the Policy and Resources Committee (P&amp;R) endorsed the “<i>Vision for Beech Street</i>”. The objective of the vision is to transform the property and public realm on Beech Street to create a vibrant retail street with a high quality public realm at the centre of the Culture Mile.</li> <li>2. The Beech Street Zero Emission scheme (Phase 1 - interim) was implemented on 18 March 2020 to improve air quality (NO<sub>2</sub>) through an Experimental Traffic Order (ETO) restricting vehicle access other than for zero emission vehicles. The ETO was made in order to determine the impacts of the restriction with a comprehensive monitoring strategy for measuring the impact on air quality, traffic flows, noise and perception.</li> <li>3. Over the past three years, Members of the respective sub committees have considered a number of reports which have steered the direction of the project, in summary:           <ul style="list-style-type: none"> <li>• <i>September 2018</i> - Gateway 3 Report approval to investigate traffic reduction options in Beech Street</li> <li>• <i>February 2019</i> - Issues Report approval to align the project objectives to the Corporate Plan and to increase</li> </ul> </li> </ol>
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	<p>the project scope to investigate 2-way closures on Beech Street</p> <ul style="list-style-type: none"><li>• July 2019 - Issues Report approval of the concept of a Zero Emission Street and to develop this as an interim scheme to quickly address poor air quality (<b>Phase 1</b>)</li><li>• December 2019 – Gateway 4/5 Report provisionally approving the implementation of a Zero Emission Restriction (<b>Phase 1</b>) in Beech Street</li><li>• October 2020 – Issues report updating on the experiment and proposing central reservation gaps</li><li>• February 2021 – Issues report to continue the ETO and progress towards public consultation on making permanent</li></ul> <p>4. The Judicial Review challenging the February Committee decision to continue with the ETO was heard in June 2021 and the final judgement in August 2021 found in the City Corporation’s favour.</p> <p>5. The delays to an already challenging programme to measure the results of the experiment and consult the public on making the scheme permanent resulted in the experiment concluding on 18<sup>th</sup> September 2021.</p> <p>6. Beech Street has now been reopened to all traffic. The central reservation gaps have been retained.</p> <p><b>This report:</b></p> <p>7. The purpose of this report is to:</p> <ul style="list-style-type: none"><li>• Update Members on the results of the experiment</li><li>• Seek Member approval for next steps</li></ul> <p><b>RAG Status: AMBER</b> (Amber at last report to Committee) <b>Risk Status: Medium</b> (Medium at last report to Committee) <b>Total Estimated Cost of Project (excluding risk):</b> ~ £12M-15M (see main report) <b>Spend to Date:</b> £1,803,366 (of a total project budget of £2,235,062 for Phase 1) <b>Slippage:</b> ~ 8 months <b>Funding Source:</b> Community Infrastructure Levy (CIL) <b>Costed Risk Provision Utilised:</b> none to date, requested in this report</p>
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<p><b>2. Requested decisions</b></p>	<p><b>Requested Decisions:</b></p> <p>8. Members of the <b>Streets and Walkways sub-committee</b> are asked to choose from the following options to progress the project:</p> <ul style="list-style-type: none"> <li>1) <b>Option 1</b> – Undertake public consultation for a permanent scheme on Beech Street based on the traffic management restrictions of the experiment (<b>recommended</b>)</li> <li>2) <b>Option 2</b> – Close the interim project and progress instead with a longer-term (*see para 123) area wide approach to managing traffic and addressing air quality on Beech Street and across the Barbican and Golden Lane areas through the Healthy Streets Plan (which is currently being progressed)</li> </ul> <p>9. In the event that Option 1 is chosen, Members of the <b>Streets and Walkways sub-committee</b> are asked to:</p> <ul style="list-style-type: none"> <li>3) Delegate authority to the Executive Director Environment, in consultation with the Chairman and Deputy Chairman, to approve the (non-statutory) public consultation content and then proceed with the public consultation.</li> </ul> <p>10. Members of the <b>Streets and Walkways sub-committee</b> and <b>Projects sub-committee</b> are requested to:</p> <ul style="list-style-type: none"> <li>4) Approve the drawing down of costed risk (£189k) for the risks that have turned into issues</li> <li>5) Approve an increase in the project budget of £50k available from the 2021/22 capital bid to fund the investigation of occasional culture events on Beech Street</li> <li>6) Note the experiment findings (as set out from paragraph 33) and conclusions</li> <li>7) Note the intent to comprehensively engage with the public, user groups and stakeholders on the next phase of the project (Appendix 9).</li> <li>8) Note that the Barbican Healthy Streets Plan has been initiated which (in the medium term) will work towards</li> </ul>
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	<p>delivering an area-based plan to delivering Healthy Streets, managing traffic and improving air quality in the Barbican and Golden Lane area.</p>
<p><b>3. Budget</b></p>	<p><b>Scheme Finance</b></p> <p>11. A total of £1,804,324 has been spent on the project to date. A breakdown of the spend profile can be found in Appendix 1.</p> <p>12. The current budget is £2,235,062 for Phase 1 (inclusive of costed risk). An increase in the budget of £50k is being requested to include a further element of work further described in paragraph 21.</p> <p>13. In October 2020 a costed risk provision of £260k (see Appendix 2) was approved. Three of the risks that were identified have since transpired to become issues:</p> <ul style="list-style-type: none"> <li>• R10 - Legal challenge;</li> <li>• R12 – Additional monitoring;</li> <li>• R13 – Removing ETO and restarting next steps;</li> </ul> <p>and the costs have been incurred against the project.</p> <p>14. A budget adjustment is proposed to draw down (a portion of) the costed risk provisions for a total of £189k:</p> <ul style="list-style-type: none"> <li>• R10 (£65k)</li> <li>• R12 (£44k)</li> <li>• R13 (£80k)</li> </ul> <p>see finance tables in Appendix 1.</p> <p>15. This report does not supersede previous delegation approvals to move funds between budget line items.</p> <p><b>Option Costs</b></p> <p><b>Option 1</b></p> <p>16. The overall budget allocation is estimated to be sufficient to develop and deliver the next steps to reach the next project milestone (a May 2021 decision report on whether to make the scheme permanent). The budget, along with a costed risk register, will be re-assessed in advance of the May report.</p> <p><b>Option 2</b></p> <p>17. The current budget is sufficient to close the project. A Gateway 6 Report would identify the project underspend. (The development of the Healthy Streets Plan for the Barbican and Golden Lane area is funded separately).</p>

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	<p><b>Central funding Capital Bids</b></p> <p>18. It was always envisaged that once Phase 1 of the project to deliver the air quality improvements was delivered, that the second phase of the Beech Street Transportation and Public Realm scheme would seek to make substantial public realm improvements to transform the covered street into a vibrant link in the Culture Mile. This is within the approved scope of the Beech Street Transportation and Public Realm project as Phase 2, with work intended to start on this following the delivery of Phase 1.</p> <p>19. In November 2021 a Capital bid for 2022/23 of £2.5M was made to fund substantive public realm improvements on Beech Street and adjacent junctions (if a permanent traffic order to conclude Phase 1 is implemented). It also contains provision for investigating ways in which cultural events in Beech Street could be supported in terms of lighting and acoustic provision. If the scheme is to be made permanent, a request to draw down this funding will be made in the May 2022 decision report.</p> <p>20. This Capital bid was accepted by the Resource Allocation Sub-Committee in November 2021 and will now progress for approval through Policy &amp; Resources Committee in December and subsequently the Court of Common Council.</p> <p>21. In 2020/2021, a capital bid for £50K was approved for officers to investigate ways to deliver greater activation of Beech Street and deliver outcomes of the Culture Mile look and feel strategy. This work will commence in early 2022 and a consultant will be commissioned to investigate how occasional events may be accommodated in Beech Street including investigating provision for lighting and acoustics.</p> <p>22. The scope of the impact (and opportunities) on the public highway from programmes such as the Barbican Renewal project and redevelopment of the Barbican Exhibition Halls are still to be defined.</p> <p>23. If any further changes are required to traffic management around Beech Street as a result of these programmes they will be determined at that time and funded by other funding mechanisms.</p>
<p><b>4. Issue description</b></p>	<p>The key issue for Members to consider in this Issues Report is the next step to be taken to address the air quality problems on</p>

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Beech Street. To allow Members to make an informed decision, this section:

- reports on the current situation
- sets out the findings of the experiment:
  - air quality
  - traffic
  - noise
  - access and legibility
  - public consultation
- draws conclusions on the experiment results

### **CURRENT SITUATION**

24. The experimental traffic order restricting traffic to Zero Emission Vehicles only has concluded.

25. Beech Street reopened to all traffic on 18<sup>th</sup> September and the closures of Golden Lane and Bridgewater Street have been removed. The central reservation gaps to residential car parks have been maintained.

26. Aldersgate Street was closed southbound for utility works between 19<sup>th</sup> September and 9<sup>th</sup> November. This delayed monitoring of post experiment traffic levels and may have had some impact on air quality.

27. Motorised traffic volumes on Beech Street (measured by the ANPR cameras in the second week of November) were an average 1,675 per day, 18% of the traffic volumes measured in 2019.

28. This is significantly lower than general traffic volumes in the area and across the City, it is likely some drivers are unaware that Beech Street has reopened to all traffic.

29. Air quality on Beech Street has seen an increase in NO<sub>2</sub> levels since the conclusion of the experiment, which would be expected with the return of traffic. Average monthly levels in October show a sharp increase compared to August.

30. However, drawing definitive conclusions from 1-2 months of air quality data is not recommended as these values are also influenced by increases in background NO<sub>2</sub>, seasonal variation as well as higher traffic because of the Aldersgate

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	<p>Street closure. Measuring annual trends is usually considered more comprehensive.</p> <p>31. Nonetheless, the return of unrestricted traffic to Beech Street, even at volumes lower than pre-pandemic, will in all probability lead to a return to NO<sub>2</sub> levels on Beech Street consistently in excess of current health based targets.</p> <p>32. A request has been made to satnav companies to reflect that Beech Street has reverted to being open to all traffic.</p> <p><b>EXPERIMENT – FINDINGS</b></p> <p><i>General info</i></p> <p>33. Previous reports detail the impacts of the pandemic on the experiment, and this is not further elaborated on in this report.</p> <p>34. Members may recall that as a result of the High Court Judge’s Interim Order (of 15 April 2021) in connection with the Judicial Review which prevented the taking of any further steps in respect of making of any traffic order, erring on the side of caution, the decision was taken to pause collection of data and public consultation pending the outcome of the Judicial Review.</p> <p>35. The conclusion of the High Court Judicial Review was that despite the impact of the pandemic on traffic and air quality, the experiment has been meaningful.</p> <p>36. Members are asked to note that the World Health Organisation (WHO) air quality guidelines have recently been updated. The revised annual average guideline for NO<sub>2</sub> is now 10 µg/m<sup>3</sup> (formerly 40 µg/m<sup>3</sup>), suggesting that this pollutant has a greater impact on health than previously thought.</p> <p>37. Nowhere in the City meets the 10 µg/m<sup>3</sup> level. At present the UK legal objective remains at 40 µg/m<sup>3</sup> as an annual average and this level is retained as the benchmark for meeting the project objective.</p> <p>38. The approach to monitoring of the positive impacts and disbenefits of the scheme were set out in the agreed Monitoring Strategy This was prepared in consultation with TfL, London Borough Islington and the Barbican Association.</p>
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39. Traffic and air quality data has been analysed and publicly accessible dashboards are in the process of being created. All other data from the Monitoring Strategy will also be publicly available through the projects page on the City Corporation's website.

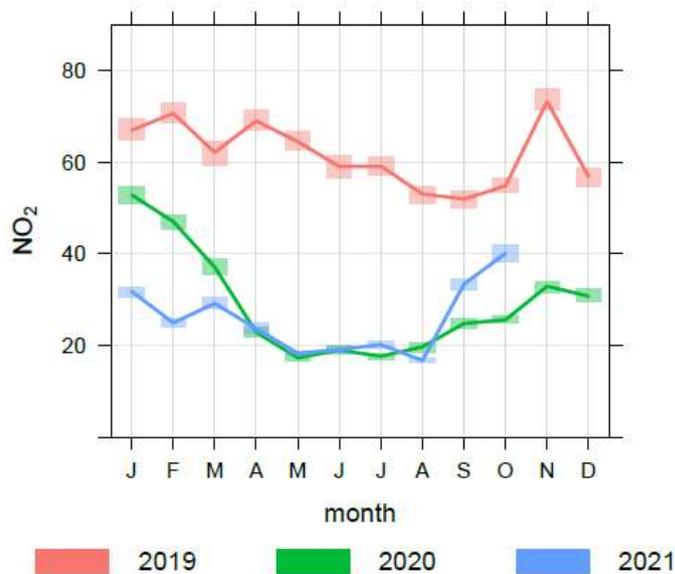
**Air Quality Results**

40. Air quality data has been collected from two sources, the continuous air quality monitor on Beech Street, and via 32 diffusion tube sites across the project area.

*Beech Street*

41. On Beech Street the annual average level of NO<sub>2</sub> measured in 2019 was 62 µg/m<sup>3</sup> as measured by the continuous monitor. During the course of the experiment, air quality measured on Beech Street significantly improved to an annual average of 24 µg/m<sup>3</sup>, for the period March 2020 to March 2021. This 61% reduction is due to reduced vehicle volumes created by the experimental restriction, ongoing improvements in air quality across London and the overall improved NO<sub>2</sub> levels in the City attributed to the COVID-19 restrictions on movement.

42. Monthly Average NO<sub>2</sub> Concentrations (µg/m<sup>3</sup>) at the Beech Street continuous monitoring station for 2019-2021 are shown below:



43. The red line for 2019 shows the monthly average NO<sub>2</sub> concentrations in the year before the experiment began.

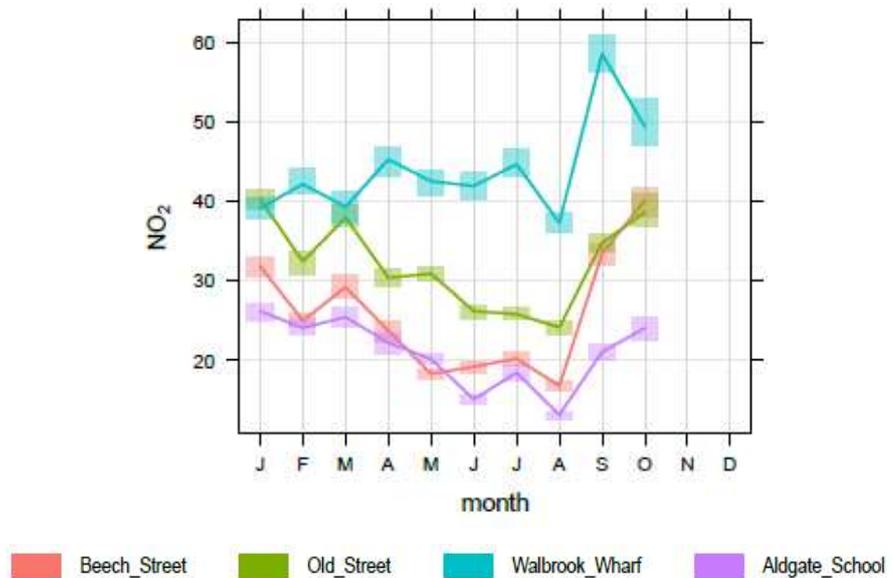
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The green line for 2020 and the blue line for 2021 show the combined impacts of the experiment and the pandemic.

44. The relative reduction in NO<sub>2</sub> on Beech Street has been compared to other continuous monitoring sites in Central London. Whilst all saw significant improvement due to the impacts of the pandemic, Beech Street recorded the largest improvement:

	2019 µg/m <sup>3</sup>	2020 µg/m <sup>3</sup>	Difference	% Difference
Beech Street	62	28	34	<b>55</b>
Walbrook Wharf	74	42	32	<b>43</b>
Old Street	47	36	11	<b>23</b>
Strand	76	44	32	<b>42</b>

45. Monthly Average NO<sub>2</sub> Concentrations (µg/m<sup>3</sup>) at Beech Street and nearby continuous monitoring stations for 2021 are shown below:



46. Comparison with nearby sites shows that since the removal of the experimental scheme the monitor on Beech Street has recorded an increase in NO<sub>2</sub> far higher than the other nearby sites. From August to October the NO<sub>2</sub> concentration on Beech Street increased by 130%. This compares to an increase of 84% at Aldgate School, 54% at Old Street and 42% at Walbrook Wharf. Some increase at this time of the year is to be expected due to the usual patterns of seasonal variation, but it is anticipated that NO<sub>2</sub> will continue to increase on Beech Street as traffic returns.

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*NO<sub>2</sub> across the Project Area*

47. NO<sub>2</sub> levels at 32 sites around Beech Street have been measured using diffusion tubes. As would be expected due to the reduced traffic volumes, all of these locations have seen an improvement in NO<sub>2</sub> levels of between 12-42% from 2019 to 2020 (see Appendix 2).

48. As reported earlier this year, it is difficult to accurately attribute how much of the air quality improvement during the course of the experiment was due to the Zero Emission Scheme restriction and how much due to the impact of the pandemic. There are many factors which influence NO<sub>2</sub> levels in the City such as traffic, meteorological conditions and seasonal variations. A longer monitoring period will be required to fully determine impacts.

*Air Quality Modelling*

49. In 2019, an air quality model was prepared by consultants to forecast the likely concentrations of NO<sub>2</sub> across the project area as a result of the experiment. This was reported in the December 2019 Gateway 3-5 Report to aid decision making.

50. The air quality model was developed using the traffic volumes on parallel streets that was determined from TfL's traffic reassignment (ONE) model.

51. In May 2021 the air quality model was revisited. Air quality data from other continuous monitoring sites in the City was used to verify the air quality model for this area.

52. Due to continued uncertainty over what future levels of traffic in the City would be, the consultants were asked to model three different scenarios for different levels of traffic returning to the area with the Beech Street restriction in place:

- 55%,
- 65%,
- 80%

53. See Appendix 3 for a table showing the modelled NO<sub>2</sub> values at receptor locations for the three scenarios, modelled with 2021 traffic compositions.

54. In summary the modelling data for NO<sub>2</sub> shows:

- i. In the baseline scenario modelling 2019 traffic volumes without the Beech Street restriction, eight of the receptor locations are over 40 µg/m<sup>3</sup>.

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	<ul style="list-style-type: none"><li>ii. With the Beech Street experiment included in the baseline scenario, seven of the receptor locations are over 40 µg/m<sup>3</sup>.</li><li>iii. At 80% of 2019 traffic volumes, there are six locations over 40 µg/m<sup>3</sup>; at 65% there are two locations over 40 µg/m<sup>3</sup>; at 55% there is one location at 40 µg/m<sup>3</sup>.</li></ul> <p>55. The relationship between traffic volumes and NO<sub>2</sub> in Beech Street is not linear due to the influences of background air pollution, the enclosed “tunnel” factor and variations in traffic composition.</p> <p>56. Based on the baseline and the Beech Street restriction scenario modelled, an estimate by the consultants was made of the maximum traffic flow in Beech Street which would still result in the air quality limit value for NO<sub>2</sub> being met.</p> <p>57. It is estimated that approximately 1,200 vehicles could travel through Beech Street without breaching the air quality limit. As there are some caveats to this calculation, it has only been used as an aid to guide decision making with regards options for the traffic approach.</p> <p><b>Traffic</b></p> <p>58. Traffic volumes in the project area were significantly affected by the pandemic for the duration of the experiment. In addition, other projects within the City (COVID-19 on-street measures, Bishopsgate temporary bus gates) have caused changes in traffic patterns that make the traffic impacts of the Beech Street experiment more challenging to interpret.</p> <p>59. Traffic counts have been undertaken at multiple locations across the project area before the experiment started (early 2020) and during the experiment (Sept 2021) over a seven-day period.</p> <p>60. Traffic counts undertaken in May 2021 showed average weekday motorised traffic volumes on Beech Street were recorded at ~ 930 per day, approximately 10% of the pre-scheme flows (~ 9,500 motor vehicles).</p> <p>61. During the experiment, average weekday cyclist volumes declined by two thirds but the relative proportion of cyclists to motor vehicles increased to 52% of all vehicle movements along Beech Street compared to 22% in 2019.</p>
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62. The very low volumes of motorised through traffic on Beech Street during the experiment demonstrated a good level of compliance with the restriction.
63. Automatic traffic counts provided by TfL estimate that traffic in Central London is now 85% of 2019 levels. The exact values for the City will be known following the results of bi-annual traffic counts becoming available in December.
64. The traffic count data comparing pre-experiment and during experiment volumes is summarised at Appendix 5.
65. In total there was a daily average of 112k vehicles at the count locations during the experiment compared to 132k before the experiment, a reduction of ~15%.
66. The ONE modelling work that was done and reported in December 2019 concluded that traffic from Beech Street would reassign to some local streets.
67. The traffic counts across the project area show a very mixed picture with regards comparing “pre” and “during” experiment traffic volumes, with some streets showing an increase and others a decrease.
68. The surveys show that there were greater volumes of traffic on the following streets in September 2021 compared to pre-experiment:
- London Wall (+5%)
  - Bath Street (+10%); and
  - Old Street (+15%);
69. The surveys show that on all other streets, traffic volumes were 12-83% lower compared to pre-experiment
- Resident observations:*
70. Reports from some residents suggest that some traffic is using Wood Street, Fore Street and Fore Street Avenue to “beat” the London Wall traffic queue. Whilst this behaviour has been observed, the traffic counts confirm that there is 65% less traffic overall on Fore Street.
71. Officers have received a number of complaints from the public about traffic congestion on London Wall. Overall there is 5% more traffic on London Wall, but observations suggest the congestion is sporadic in nature and not consistently congested.

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72. There has been feedback from some residents that there is now more traffic on Moor Lane. This is not reflected in the survey results which found that there is 83% less traffic overall on Moor Lane.

**Other measurables**

*Journey times*

73. Journey time surveys were undertaken on key traffic routes before the experiment started (early 2020) and during the experiment (Sept 2021) over a 7-day period.

74. On average, journey times measured across 8 routes have improved.

*Taxi surveys*

75. Taxi journey time surveys were undertaken on key traffic routes before the experiment started (early 2020) and during the experiment (Sept 2021) over a seven-day period.

76. The routes analysed were agreed with the taxi trade as part of the consultation with stakeholders on the Monitoring Strategy.

77. On average, taxi (black cab) journey times measured across six taxi routes improved by 6%.

78. Detailed results are included in Appendix 6.

*Noise*

79. Noise surveys were undertaken before and during the experiment at various locations in Beech Street and on surrounding streets.

80. The measure for noise that has been used is LA<sub>10</sub> which is commonly used as a measure of road traffic noise.

81. In general, the change in noise levels from traffic during the day shows an improvement on weekdays of between 5% to 19%.

82. LA<sub>10</sub> levels measured across day and night periods for weekdays, Saturdays and Sundays are summarised in Appendix 7.

*Ibus data*

83. Journey times for bus routes affected by the Beech Street experiment were agreed with TfL.

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84. In general, bus journey times across all routes are faster, caused by many external factors.

***Penalty Charge Notice Data***

85. Of the through traffic using Beech Street during the experiment:

- a total of 34k PCN's were issued
- average of 87 PCNs per day.

86. Whilst it is difficult to accurately estimate what the percentage level of compliance with the restriction would have been if the pandemic had not occurred, overall, the Parking Ticket Office Manager has estimated that there was a good level of compliance with the restriction.

**Public Consultation findings**

87. Members of the public were able to share their views of the experiment via an online consultation portal. Due to the pandemic the team was unable to conduct the drop-in sessions that would usually be held.

88. The public were made aware of the online consultation through letter drops, emails (via Barbican Estate Office), discussions with the taxi trade and a link was provided on the project page within the Corporation's website.

89. There were 149 responses to the online public consultation. Of these, 63% were from residents, with the remainder made up from businesses, visitors, workers, commuters and taxi drivers.

90. 97% responded as an individual and 3% on behalf of a business or organisation

91. 64% supported the principle of using traffic restrictions to improve air quality.

92. Overall, 55% of respondents supported the scheme as it is or with further changes, and 44% did not support the scheme.

93. However, 63% of respondents felt that the scheme impacted negatively on them, which is consistent with the 67% of respondents who felt that motor vehicles journeys were negatively impacted.

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94. There was a low number of overall responses to the consultation given the number of letters (~10,000) distributed making the public aware of the consultation.

95. One section of the survey invited people to make any additional comments, the main themes raised by people were:

- Improved safety and air quality due to lower traffic volumes
- Increased journey times leading to more pollution
- Access problems for residents, visitors, businesses
- Exemptions for residents and taxis
- Clearer signage

#### **Other findings (non-data)**

96. In addition to the data the experiment has collected, other lessons have been learned and feedback received regarding the public's general understanding of how the experiment operated. These are:

- Legibility
- Access to properties
- Fortune Street

97. This feedback and the lessons learned was covered in detail in the previous Issues Report in February 2021, and an extract of that report is in Appendix 8.

#### **Evaluation and Conclusion**

98. The project objectives for the Phase 1 project is to improve air quality and public realm in Beech Street.

99. On balance, the experiment can be considered a qualified success in meeting the air quality objective. Air quality in Beech Street was significantly improved and was reduced below legal limits.

100. If a permanent scheme based on the experiment did eventuate, some opportunity for public realm improvements could be made at the Golden Lane and Bridgewater Street junctions.

101. There is now a higher level of understanding (for the public and the design team) of how the traffic restriction works in practice in terms of access, legibility, enforcement and experiencing Beech Street with minimal traffic.

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	<p>102. The impacts of the restrictions on the streets expected to see reassigned traffic have not been fully experienced due to reduced traffic volumes generally.</p> <p>103. The impact of the pandemic, in terms of both traffic levels and changes to the road network during the duration of the experiment has affected the collection of data and the ability to draw firm conclusions as to the positive benefits and negative impacts.</p> <p>104. The experiment and the associated traffic and air quality modelling has confirmed that it is necessary to remove a significant majority of traffic from Beech Street in order to meet the air quality objectives.</p> <p>105. The experiment did create some issues particularly around deliveries to residents and access for taxis. Changes to the central reservations and signage were made during the experiment to try and address these issues and combined with changes to satnav route planning does appear to have improved the situation.</p> <p>106. Comments regarding the signage for the restrictions was also a common theme from users. Scope to make significant changes to the signing that are legally compliant, legible and enforceable whilst still conveying permitted access, is limited.</p> <p>107. Another common request was for Barbican residents to be exempted from the restriction through an approved vehicle registration list. This proposal would not improve any of the access issues for deliveries and taxi drop off/pick up but could shorten journeys for residents coming and going from their properties by allowing them to use Beech Street.</p> <p>108. Different residential blocks are differently impacted by the restriction. Shakespeare Tower/Defoe House carpark and Lauderdale Tower forecourt now has easier access than ever before due to the central reservation gaps. There has been no change for Cromwell Tower ground floor car park. But tower blocks such as Lauderdale Tower resident car park, Speed House and others are affected as residents who don't drive a zero-emission vehicle can't use Beech Street.</p> <p>109. There are significant challenges to exempting residents from the restriction, balancing the modest journey time</p>
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	<p>impacts on residents with potentially reducing the air quality benefits on Beech Street.</p> <p>110. The residual impact of the restriction on journey times extends over a wide area with residents of both the City and Islington affected.</p> <p>111. The extent to which resident’s journeys are impacted by the Beech Street restriction is highly dependent on a number of variables:</p> <ul style="list-style-type: none"> <li>• Type of vehicle</li> <li>• Car park location</li> <li>• Origin and destination</li> <li>• Time/day of journey (Moor Lane gate)</li> </ul> <p>112. Due to the permutations of these variables, it is not possible to definitively conclude that one particular group of residents is more impacted than another.</p> <p>113. Some of the challenges in administering an exemption database include:</p> <ul style="list-style-type: none"> <li>• Verifying identity</li> <li>• Documenting vehicle types</li> <li>• Creating and maintaining database in perpetuity</li> <li>• Fraud</li> <li>• Second properties</li> </ul> <p>114. On balance it is considered that a resident exemption process is not a proportional solution for mitigating the relatively moderate journey time impacts.</p> <p>115. From the results of the consultation, correspondence and engagement with stakeholders, a permanent scheme involving additional traffic management measures that further restrict traffic (such as a bus gate or a point closure) is considered unlikely to be supported by the public at this time.</p> <p>116. On balance, despite the many challenges, the experiment has shown that reducing through traffic whilst maintaining access to properties has delivered meaningful air quality benefits on Beech Street and that the impacts in the wider area are estimated to be comparatively minor.</p>
<p><b>5. Options</b></p>	<p>117. This section provides detail on each option for Members to consider and sets out the next steps for the recommended option.</p>

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118. In addition to the two options detailed in this report, consideration was given to a further option based on a “lighter” approach to the restriction. Reducing the hours of restriction to 7am-7pm Monday to Friday would give residents more access opportunities and allow them to arrange for deliveries to be made out of these hours.
119. However, there is a high level of uncertainty that this approach would be effective in reducing NO<sub>2</sub> to acceptable levels as the volumes of traffic between 7pm and 7am (measured pre-experiment) exceed the maximum volume of traffic (1,200) that was estimated from the air quality modelling.
120. Therefore, officers have not recommended consulting on this as a permanent option as it may not meet the project objectives.

#### **OPTIONS**

121. Members are invited to consider the appropriate option in the context of both the approved objectives for this project and the wider context of corporate objectives such as the Climate Action Strategy, the Air Quality Strategy and the Transport Strategy.
122. At this stage Members are only being asked if Option 1 is favoured to go to public consultation in early January or whether they would prefer to close Phase 1 of the project and allow Beech Street to be addressed in the longer term through the wider Barbican and Golden Lane Healthy Streets Plan.
123. Given the likely challenges with regards issues arising from traffic modelling and the need to work with Islington Council (as part of the area is in Islington), the longer-term delivery of comprehensive area wide measures to improve air quality and the public realm could be in the region of 2-5 years and is subject to funding.
124. As part of the public consultation, the public will be specifically asked whether they favour the air quality scheme for Beech Street in the short term (in 2022), or if they would prefer to wait for air quality improvements on Beech Street to come as part of a wider approach through the Healthy Streets plan.
125. Any decision on the making of any permanent traffic order could only be made in May 2022 at the earliest when

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	<p>Members would consider the results of the public (non-statutory consultation).</p> <p><b>Option 1 – Zero Emission Scheme based on the Experiment</b></p> <p>126. Under this Option, the design replicates that used during the experiment:</p> <ul style="list-style-type: none"><li>• 24/7 zero emission restriction</li><li>• Access maintained to Beech Street properties for residents and businesses</li><li>• Access permitted for deliveries and for any other vehicles (including taxis and PHV) who are accessing (on Beech Street) any of the car parks or forecourts.</li><li>• Existing central reservation gaps maintained</li><li>• The junction with Bridgewater Street is closed</li><li>• Two sub options for the Golden Lane junction</li></ul> <p>127. It is proposed in the consultation to offer the public two sub options for the Golden Lane junction:</p> <ol style="list-style-type: none"><li>1) To be closed, as per the experiment, and the closed section of carriageway be used to enhance the public realm by creating a new outdoor space with opportunities for greenery or culture</li><li>2) or, to remain open for zero emission vehicles (requiring signing and an additional ANPR camera) and the carriageway space to remain for vehicles</li></ol> <p><b>Advantages of this option</b></p> <ul style="list-style-type: none"><li>• People have experienced the restriction and understand how it operates</li><li>• The air quality benefits are retained if it is determined in May 2022 to make the measures permanent</li><li>• Relatively easy to reinstate as the cameras and signage remain in place and would just need to be reactivated</li><li>• The experiment and data collected during that confirms that the restriction will deliver significant air quality benefits</li><li>• Value for money delivering the air quality objectives</li></ul> <p><b>Disadvantages of this option</b></p> <ul style="list-style-type: none"><li>• Despite modifications made during the experimental period there remain some residual issues relating to deliveries and access by taxis and private hire vehicles</li><li>• The experimental scheme was generally supported by a slight majority of on-line survey respondents, however a</li></ul>
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	<p>portion of those also requested further amendments such as signage and resident exemptions</p> <ul style="list-style-type: none"><li>• There is limited scope to further improve the signage and provide exemptions</li></ul> <p><b>Risk</b> The key risk is whether TMAN approval from Transport for London can be secured given other changes made on the network such as the Bishopsgate experimental order.</p> <p><b>Option 2 – Close the Interim scheme</b></p> <p>128. This option proposes that the Phase 1 Interim scheme is closed and that the approach to Beech Street is incorporated into a wider (longer term) approach to the whole area through the Healthy Streets programme which has been initiated.</p> <p><b>Advantages of this option</b></p> <ul style="list-style-type: none"><li>• Allows the approach to the area to be developed holistically and in phases that could be coordinated to maximise opportunities with other programmes in the area</li><li>• Provides the time to understand changing traffic and air quality patterns in the area</li></ul> <p><b>Disadvantages of this option</b></p> <ul style="list-style-type: none"><li>• There will be a delay to addressing the air quality problems on Beech Street</li><li>• Loss of momentum to delivering change on Beech Street within the Corporation and in partnering organisations such as TfL</li><li>• The arrangement of streets in the area is complex and interdependent. The City Corporation does not manage all of the streets in the area and the agreement of the neighbouring highway authority (Islington) will be required to make any changes</li></ul> <p><b>Risk</b> Any traffic management and public realm projects that are identified through the Healthy Streets Plan approach are currently unfunded and may not receive capital funding to develop further.</p> <p><b>NEXT STEPS</b></p> <p>129. In the event that Members approve the recommended Option, the next steps are to:</p> <ul style="list-style-type: none"><li>• Prepare public consultation documents</li></ul>
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	<ul style="list-style-type: none"> <li>• Review and update the Equalities Assessment</li> <li>• Undertake a public consultation exercise</li> <li>• Analyse the public consultation results</li> <li>• Commence public realm feasibility design</li> <li>• Prepare a decision report on whether to make the order permanent</li> </ul> <p>130. The methodology of the public and statutory consultation approach was covered in the last report and can be found in Appendix 9.</p>
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### **Appendices**

<b>Appendix 1</b>	Finance Tables
<b>Appendix 2</b>	Risk R10, R12, R13 – eventuated risks
<b>Appendix 3</b>	Air Quality results 2019 v 2020 (diffusion tube sites)
<b>Appendix 4</b>	Air Quality Modelling results
<b>Appendix 5</b>	Traffic survey results pre-exp vs during exp
<b>Appendix 6</b>	Taxi surveys
<b>Appendix 7</b>	Noise surveys
<b>Appendix 8</b>	Feedback and Lessons learned (Feb 21 extract)
<b>Appendix 9</b>	Consultation Methodology
<b>Appendix 10</b>	Project Coversheet

### **Contact**

<b>Report Author</b>	Kristian Turner
<b>Email Address</b>	<a href="mailto:kristian.turner@cityoflondon.gov.uk">kristian.turner@cityoflondon.gov.uk</a>