



## Operational Property and Projects Sub Committee

**Date:** WEDNESDAY, 20 JULY 2022  
**Time:** 1.45 pm  
**Venue:** COMMITTEE ROOMS, WEST WING, GUILDHALL

**Members:** Alderman Timothy Hailes (Chair)  
Deputy Rehana Ameer (Deputy Chair)  
Deputy Randall Anderson  
Deputy Michael Cassidy  
Deputy Henry Colthurst  
Deputy Christopher Hayward  
Deputy Shravan Joshi  
Deputy Edward Lord  
Deputy Keith Bottomley  
Paul Martinelli  
Anett Rideg

**Enquiries:** Joseph Anstee  
[joseph.anstee@cityoflondon.gov.uk](mailto:joseph.anstee@cityoflondon.gov.uk)

### Accessing the virtual public meeting

Members of the public can observe this virtual public meeting at the below link:

<https://youtu.be/nl-SbyDr1qI>

A recording of the public meeting will be available via the above link following the end of the public meeting for up to one municipal year. Please note: Online meeting recordings do not constitute the formal minutes of the meeting; minutes are written and are available on the City of London Corporation's website. Recordings may be edited, at the discretion of the proper officer, to remove any inappropriate material.

**Lunch will be served in the Guildhall Club at 1.00pm.**

**John Barradell**  
Town Clerk

# AGENDA

NB: Certain matters for information have been marked \* and will be taken without discussion, unless the Committee Clerk has been informed that a Member has questions or comments prior to the start of the meeting. These information items have been collated in a supplementary agenda pack and circulated separately.

## Part 1 - Public Agenda

**1. APOLOGIES**

**2. MEMBERS' DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA**

**3. MINUTES**

To agree the public minutes and non-public summary of the meeting held on 21 June 2022.

**For Decision**  
(Pages 9 - 14)

**4. PRESENTATION - PROJECT GOVERNANCE**

The Chief Operating Officer to be heard.

**For Information**

**5. GATEWAY 1-5 - CEMETARY EXCAVATOR REPORT**

Report of the Executive Director of Environment

**For Decision**  
(Pages 15 - 32)

**6. GATEWAY 3 ISSUE - MANSION HOUSE STATION ENVIRONS - LITTLE TRINITY LANE PUBLIC REALM ENHANCEMENTS**

Report of the Executive Director of Environment

**For Decision**  
(Pages 33 - 46)

**7. GATEWAY 3-4 - LONDON WALL CAR PARK JOINTS AND WATERPROOFING**

Report of the Executive Director of Environment

**For Decision**  
(Pages 47 - 70)

8. **GATEWAY 4 ISSUE - CITY CLUSTER - WELLBEING AND CLIMATE RESILIENCE PROGRAMME: GREEN STREETS PROJECT**  
Report of the Executive Director of Environment  

**For Decision**  
(Pages 71 - 90)
9. **GATEWAY 4C-5 - MOOR LANE ENVIRONMENTAL ENHANCEMENTS**  
Report of the Executive Director of Environment  

**For Decision**  
(Pages 91 - 110)
10. **GATEWAY 6 - 150 BISHOPSGATE**  
Report of the Executive Director of Environment  

**For Decision**  
(Pages 111 - 124)
11. **GATEWAY 6 - BERNARD MORGAN HOUSE PUBLIC REALM**  
Report of the Executive Director of Environment  

**For Decision**  
(Pages 125 - 138)
12. **GATEWAY 6 - KENLEY REVIVAL PROJECT. A NATIONAL LOTTERY HERITAGE FUND (FORMERLY HLF) FUNDED PROJECT**  
Report of the Director of Natural Environment  

**For Decision**  
(Pages 139 - 212)
13. **'INTERIM' POLICE CAPITAL LOAN-FUNDING REQUIREMENT, 22/23\***  
Report of the Commissioner of the City of London Police  

**For Information**
14. **GATEWAY 3 PROGRESS - WEST SMITHFIELD AREA PUBLIC REALM AND TRANSPORTATION PROJECT\***  
Report of the Executive Director of Environment  

**For Information**
15. **CITY SURVEYOR'S DEPARTMENTAL RISK REGISTER - JUNE 2022 UPDATE\***  
Report of the City Surveyor  

**For Information**

16. **CITY SURVEYOR'S BUSINESS PLAN 2021-26 QUARTER 4 2021/22 UPDATE\***  
Report of the City Surveyor

**For Information**

17. **2021/22 ENERGY & DECARBONISATION PERFORMANCE Q4 UPDATE FOR THE OPERATIONAL PORTFOLIO\***  
Report of the City Surveyor

**For Information**

18. **CAS NZ1, NZ3 AND RS3 WORKSTREAM UPDATE FOR THE OPERATIONAL PORTFOLIO\***  
Report of the City Surveyor

**For Information**

19. **MEES COMPLIANCE STRATEGY FOR OPERATIONAL BUILDINGS\***  
Report of the City Surveyor

**For Information**

20. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**

21. **ANY OTHER BUSINESS THE CHAIR CONSIDERS URGENT**

22. **EXCLUSION OF THE PUBLIC**  
**MOTION** - That under Section 100(A) of the Local Government Act 1972, the public be excluded from the meeting for the following item(s) on the grounds that they involve the likely disclosure of exempt information as defined in Part I of Schedule 12A of the Local Government Act.

**For Decision**

## **Part 2 - Non-Public Agenda**

23. **NON-PUBLIC MINUTES**  
To agree the non-public minutes of the meeting held on 21 June 2022.

**For Decision**  
(Pages 213 - 218)



- 24. INTEGRATED FACILITIES MANAGEMENT FRAMEWORK AWARD REPORT**  
Report of the City Surveyor
- For Decision**  
(Pages 219 - 230)
- 25. CITY ASSESSMENT CENTRE**  
Report of the Chief Operating Officer
- For Decision**  
(Pages 231 - 236)
- 26. GATEWAY 1-5 - CITY OF LONDON POLICE VEHICLE FLEET IMPROVEMENT PROGRAMME 2022/23**  
Report of the Commissioner of the City of London Police
- For Decision**  
(Pages 237 - 246)
- 27. GATEWAY 1-5 - CITY OF LONDON POLICE - HORSEBOX REPLACEMENT PROJECT 2022/23**  
Report of the Commissioner of the City of London Police
- For Decision**  
(Pages 247 - 256)
- 28. GATEWAY 2 - WALBROOK WHARF FEASIBILITY 2027 AND BEYOND**  
Report of the City Surveyor and the Executive Director of Environment
- For Decision**  
(Pages 257 - 282)
- 29. GATEWAY 2 - CENTRAL CRIMINAL COURT - CELL AREA DUCTING AND EXTRACT SYSTEM BALANCING**  
Report of the City Surveyor
- For Decision**  
(Pages 283 - 302)
- 30. GATEWAY 3 - BARBICAN FIRE SAFETY AND BARBICAN/GSMD CONFINED SPACES**  
Report of the City Surveyor
- For Decision**  
(Pages 303 - 322)
- 31. GATEWAY 3/4 - IN-CAR AUDIO-VISUAL**  
Report of the Commissioner of the City of London Police
- For Decision**  
(Pages 323 - 348)

32. **GATEWAY 3/4 - REFURBISHMENT/EXTENSION OF: THE COURTYARD - 1 ALFRED PLACE, W1**  
Report of the City Surveyor
- For Decision**  
(Pages 349 - 370)
33. **GATEWAY 4C - BARBICAN PODIUM WATERPROOFING, DRAINAGE AND LANDSCAPING WORKS (BEN JONSON, BRETON & CROMWELL HIGHWALK) PHASE 2 – 1ST PRIORITY ZONE**  
Report of the Director of Community & Children's Services
- For Discussion**  
(Pages 371 - 410)
34. **GATEWAY 4C - GUILDHALL COOLING PLANT REPLACEMENT**  
Report of the City Surveyor
- For Decision**  
(Pages 411 - 456)
35. **GATEWAY 5 - BISHOPSGATE ARMOURY PROJECT**  
Report of the Commissioner of the City of London Police
- For Decision**  
(Pages 457 - 468)
36. **GATEWAY 5 - WINDSOR HOUSE WINDOW REPLACEMENT AND COMMON PARTS REDECORATIONS**  
Report of the Director of Community & Children's Services
- For Decision**  
(Pages 469 - 488)
37. **GATEWAY 5 - YORK WAY ESTATE PROVISION OF SOCIAL HOUSING**  
Report of the Director of Community and Children's Services
- For Decision**  
(Pages 489 - 560)
38. **GATEWAY 5 ISSUE - INSTALLATION OF SPRINKLERS IN SOCIAL HOUSING BLOCKS**  
Report of the Director of Community and Children's Services
- For Decision**  
(Pages 561 - 590)

39. **DELEGATED AUTHORITY REQUEST - CITY FUND –  
REFURBISHMENT/EXTENSION OF 6 BROAD STREET PLACE AND 15-17  
ELDON STREET**  
Report of the City Surveyor

**For Decision**  
(Pages 591 - 592)

40. **DELEGATED AUTHORITY REQUEST - ASSESSMENT CENTRE FOR ROUGH  
SLEEPERS**  
Report of the Director of Community & Children's Services and the City Surveyor

**For Decision**  
(Pages 593 - 594)

41. **CITY'S ESTATE & CITY FUND 21/22 CYCLICAL WORKS REVENUE OUTTURN  
REPORT\***  
Report of the City Surveyor

**For Information**

42. **GATEWAY 5 PROGRESS - BARKING REACH POWER STATION - SITE  
REMEDIAION PROJECT\***  
Report of the City Surveyor

**For Information**

43. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB  
COMMITTEE**

44. **ANY OTHER BUSINESS THAT THE CHAIR CONSIDERS URGENT AND WHICH  
THE SUB COMMITTEE AGREES SHOULD BE CONSIDERED WHILST THE  
PUBLIC ARE EXCLUDED**

### **Part 3 - Confidential Agenda**

45. **CITY SURVEYOR'S DEPARTMENT - TOM**  
Report of the City Surveyor

**For Decision**

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## OPERATIONAL PROPERTY AND PROJECTS SUB COMMITTEE

Tuesday, 21 June 2022

Minutes of the meeting of the Operational Property and Projects Sub Committee held at Committee Rooms, West Wing, Guildhall on Tuesday, 21 June 2022 at 11.00 am

### Present

#### Members:

Alderman Timothy Hailes (Chair)  
Deputy Rehana Ameer (Deputy Chair)  
Deputy Keith Bottomley  
Deputy Michael Cassidy  
Deputy Shravan Joshi  
Deputy Edward Lord  
Paul Martinelli  
Anett Rideg

#### Officers:

Sarah Baker	- Chief Operating Officer's Department
Rohit Paul	- Chief Operating Officer's Department
Sam Collins	- Chief Operating Officer's Department
Jason Hayes	- Community & Children's Services Dept.
Ian Hughes	- Environment Department
Jo Hurst	- Open Spaces Department
Sam Lee	- Environment Department
Ola Obadara	- City Surveyor's Department
Rachel Vipond	- City of London Police
Sonia Virdee	- Chamberlain's Department
Peter Young	- City Surveyor's Department
Joseph Anstee	- Town Clerk's Department

#### 1. **APOLOGIES**

Apologies for absence were received from Deputy Henry Colthurst and Deputy Christopher Hayward. Apologies for lateness were received from Deputy Randall Anderson.

#### 2. **MEMBERS' DECLARATIONS UNDER THE CODE OF CONDUCT IN RESPECT OF ITEMS ON THE AGENDA**

Anett Rideg declared a personal interest in Item 7 by virtue of having a child attending Charterhouse Square School and advised that she would not speak or vote on this item.

#### 3. **ELECTION OF DEPUTY CHAIR**

The Sub Committee proceeded to elect a Deputy Chair in accordance with Standing Order 30. Expressions of interest from Members were sought and Deputy Rehana Ameer, being the only Member indicating their willingness to

serve, was duly elected as Deputy Chair of the Sub Committee for the ensuing year. The Deputy Chair thanked Members for their support.

4. **GATEWAY APPROVAL PROCESS**

**RESOLVED** – That the Gateway Approval process be received.

In response to a request from a Member, the Chair asked that a presentation on the Gateway process be provided for Members at a later meeting.

5. **MINUTES**

**RESOLVED** – That the public minutes and non-public summary of the meeting held on 30 May 2022 be agreed as a correct record.

Matters Arising

Responsible Procurement Policy Update - The Chair advised that the Policy & Resources Committee had deferred agreement of the Responsible Procurement Policy, pending further work, and that this may come back to the Sub Committee.

Delegations to Officers – Noting the Sub Committee’s previous discussion on project governance arrangements, the Chair suggested that criteria be agreed to guide officers as to whether a report should be submitted to the Sub Committee even where it might be within delegated authority thresholds.

List of Projects – The Chair noted that all current planning applications were regularly circulated to all Members for their information and that the Sub Committee had discussed doing something similar with existing projects. The Chair commented that whilst he wanted to increase transparency, the list of all current projects was significantly more extensive than that for planning applications, and therefore consideration would be given as to the best way to structure and deliver this information.

6. **GATEWAY 3/4 - HAMPSTEAD HEATH SWIMMING FACILITIES - SAFETY, ACCESS AND SECURITY IMPROVEMENTS**

The Sub Committee considered a Gateway 3/4 report of the Executive Director of Environment & the City Surveyor regarding safety, access and security improvements at the Hampstead Heath Swimming Facilities. In response to a question from a Member, the City Surveyor advised that officers were confident that the estimated practical completion date of May 2023 remained achievable.

**RESOLVED** – That the Operational Property and Projects Sub Committee agree:

1. That additional budget of £30,700 is approved to reach the next Gateway;
2. Note the revised project budget of £163,700 (excluding risk);
3. Note the total estimated cost of the project at £691,245 (excluding risk);

4. That a Costed Risk Provision of £27,000 is approved to reach the next Gateway (to be drawn down via delegation to City Surveyor);
5. That Option 2 is progressed as the only viable option; and
6. Note that a minor planning application was submitted on 7th June 2022.

7. **GATEWAY 6 - CITY STREETS TRANSPORTATION RESPONSE TO SUPPORT COVID-19 RECOVERY: PHASE 3 - CHARTERHOUSE SQUARE SCHOOL STREET**

The Sub Committee considered a Gateway 6 report of the Executive Director of Environment regarding Phase 3 of the Charterhouse Square School Street. The Executive Director of Environment introduced the report and advised that the Gateway 5 report had been approved by the Streets & Walkways Sub Committee, rather than under delegation as stated in the report.

**RESOLVED** – That the Operational Property and Projects Sub Committee approve the Outcome Report and agree to close the project.

8. **GATEWAY 6 - PROVISION OF STAFF WELFARE FACILITIES AT CHINGFORD GOLF COURSE EPPING**

The Sub Committee considered a Gateway 6 report of the Director of Open Spaces regarding the provision of Staff Welfare Facilities at Chingford Golf Course. A Member suggested that the report be submitted to the Corporate Services Committee for information, given the project was in respect of staff welfare facilities.

**RESOLVED** – That the Operational Property and Projects Sub Committee:

1. Note the report and lessons learned; and
2. Approve closure of this project.

9. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**

There were no questions.

10. **ANY OTHER BUSINESS THE CHAIR CONSIDERS URGENT**

There was no other business.

11. **EXCLUSION OF THE PUBLIC**

**RESOLVED** – That under Section 100(A) of the Local Government Act 1972, the public be excluded from the meeting for the following item(s) on the grounds that they involve the likely disclosure of exempt information as defined in Part I of the Schedule 12A of the Local Government Act.

<b>Item No.</b>	<b>Paragraph No.</b>
13-17, 19-20	3
18	3,5
21-22	-

12. **NON-PUBLIC MINUTES**  
**RESOLVED** – That the non-public minutes of the meeting held on 30 May 2022 be agreed as a correct record.
13. **GATEWAY 1-5 - CITY OF LONDON POLICE VEHICLE FLEET REPLACEMENT PROGRAMME 2022/23**  
The Sub Committee considered a Gateway 1-5 report of the Commissioner of the City of London Police.
14. **GATEWAY 2-5 - IT MANAGED SERVICE TRANSITION**  
The Sub Committee considered a Gateway 2-5 report of the Chamberlain.
15. **GATEWAY 3 ISSUE - PHASE 2, 3 & 4 - CITY OF LONDON SCHOOL MASTERPLAN**  
The Sub Committee considered a Gateway 3 Issue report of the City Surveyor.
16. **GATEWAY 5 ISSUE - ISLEDEN HOUSE INFILL PROJECT**  
The Sub Committee considered a Gateway 5 Issue report of the Director of Community & Children's Services.
17. **GATEWAY 5 - SOUTHWARK ESTATES WINDOW REPLACEMENT AND COMMON PARTS REDECORATIONS - PAKEMAN HOUSE, STOPHER HOUSE & SUMNER BUILDINGS**  
The Sub Committee considered a Gateway 5 report of the Director of Community & Children's Services.
18. **WEST HAM PARK NURSERY RESIDENTIAL DEVELOPMENT DISPOSAL AGREEMENT - REQUEST FOR DELEGATED AUTHORITY**  
The Sub Committee considered a report of the City Surveyor and the Executive Director of Environment.
19. **CITY OF LONDON OPERATIONAL TENANTS - ARREARS UPDATE AND RENTAL SUPPORT\***  
The Sub Committee received a report of the City Surveyor.
20. **REPORT OF ACTION TAKEN\***  
The Sub Committee received a report of the Town Clerk.
21. **QUESTIONS ON MATTERS RELATING TO THE WORK OF THE SUB COMMITTEE**  
There were questions.
22. **ANY OTHER BUSINESS THAT THE CHAIR CONSIDERS URGENT AND WHICH THE SUB COMMITTEE AGREES SHOULD BE CONSIDERED WHILST THE PUBLIC ARE EXCLUDED**  
There was no other business.



**The meeting ended at 11.36 am**

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Chair

**Contact Officer: Joseph Anstee**  
**[joseph.anstee@cityoflondon.gov.uk](mailto:joseph.anstee@cityoflondon.gov.uk)**

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<b>Committees:</b>	<b>Dates:</b>
Corporate Projects Board – for decision Operational Property & Projects Sub <i>[for decision]</i> Port Health & Environmental Services Committee <i>[for Decision]</i>	06 July 2022 20 July 2022 22 July 2022
<b>Subject:</b> Cemetery Excavator Report  <b>Unique Project Identifier:</b>  <i>PV Project ID confirmed post CPB via PMO</i>	<b>Gateway 1-5 Authority to Start Work Light</b>
<b>Report of:</b> Environment Department Choose an item. <b>Report Author:</b> Gary Burks	<b>For Decision</b>
<h1 style="font-size: 2em; margin: 0;">Public</h1>	

## Recommendations

<p><b>1. Approval track, next steps and requested decisions</b></p>	<p><b>Project Description:</b> The City of London Cemetery seeks permission to replace an aging JCB CX Midi excavator. The proposed replacement is a JCB 3CX excavator which is the most suitable vehicle for the range of work carried out at the cemetery.</p> <p><b>Next Gateway:</b> Gateway 6 Outcome Report</p> <p><b>Next Steps:</b></p> <p>If approval for this purchase is granted the next steps are to go to market with the assistance of the procurement team, procure the vehicle and receive delivery at the earliest convenient time. Funding for the vehicle has been agreed and will come from the cemetery and crematorium reserve fund.</p> <p>The Vehicle purchase has been agreed by the Transport Co-ordinating Group</p> <p><b>Requested Decisions:</b></p> <p><i>Please populate the financial information as structured below. Set out any decisions needed for this paper, if the paper is going to multiple committees note which decisions apply to which committee. Town Clerks Committee Clerks can assist you with committee terms of reference. CRP is not mandatory but can be requested if deemed necessary for projects where the G2 was approved post April 2019.</i></p> <ol style="list-style-type: none"> <li>1. That budget of <b>£90,000</b> is approved for the purchase of this vehicle in order to reach the next Gateway.</li> </ol>
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	<p>2. Note the project budget of <b>£90,000</b> (excluding risk);</p> <p>3. Note the total estimated cost of the project is currently at <b>£90,000</b> (excluding risk);</p> <p>4. That no Costed Risk Provision is approved due to the fact that this is a straightforward vehicle purchase.</p> <p>5. That option 1, the purchase of a JCB 3CX Compact is approved.</p>												
<b>2. Budget</b>	<table border="1"> <thead> <tr> <th>Item</th> <th>Reason</th> <th>Funds/ Source of Funding</th> <th>Cost (£)</th> </tr> </thead> <tbody> <tr> <td>JCB 3CX Compact Excavator</td> <td>Grave Digging and other maintenance activities at the City of London Cemetery</td> <td>Local Risk Budget from Cemetery Reserve Fund</td> <td>£90,000</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td></td> <td>£90,000</td> </tr> </tbody> </table> <p><b>There is no Costed Risk Provision requested for this Gateway: as this is straightforward vehicle purchase of a vehicle.</b></p>	Item	Reason	Funds/ Source of Funding	Cost (£)	JCB 3CX Compact Excavator	Grave Digging and other maintenance activities at the City of London Cemetery	Local Risk Budget from Cemetery Reserve Fund	£90,000	<b>Total</b>			£90,000
Item	Reason	Funds/ Source of Funding	Cost (£)										
JCB 3CX Compact Excavator	Grave Digging and other maintenance activities at the City of London Cemetery	Local Risk Budget from Cemetery Reserve Fund	£90,000										
<b>Total</b>			£90,000										
<b>3. Governance arrangements</b>	<ul style="list-style-type: none"> <li>• <b><u>Select</u> Service Committee responsible (Port Health and Environmental Services Committee)</b></li> <li>• <b>Name of Senior Responsible Officer and their role (Juliemma McLoughlin Executive Director, Executive Director, Environment Department)</b></li> <li>• <b><u>Select</u> whether a project board is appropriate. This is a simple procurement exercise, therefore there is no need for a project board.</b></li> </ul> <p><i>Guidance on project boards and other governance arrangements can be found in the <a href="#">Project Toolkit</a></i></p>												
<b>4. Progress reporting</b>	<p>Monthly updates to be provided via Project Vision and any project changes will be sought by exception via Issue Report to Spending and Projects Sub Committees</p>												

## Project Summary

<p><b>5. Context</b></p>	<p>1. The Cemetery and Crematorium carries out approximately 800 burials each year and almost all of these graves are excavated by machine.</p> <p>2. All new lawn graves are dug using an excavator (JCB) and the last two years of pandemic have required it to carry out a more significant workload, reducing the life expectancy of the vehicle slightly.</p> <p>3. The JCB is now eight years old, is becoming unreliable, the model is now obsolete, and parts are now becoming difficult to purchase and it now the appropriate time to replace this vital piece of cemetery equipment.</p>
<p><b>6. Brief description of project</b></p>	<p>1. The Project is a straightforward procurement exercise that will be carried out by the City's procurement team. The Cost of the purchase means that the gateway process is required.</p> <p>2. The project is being brought forward at this time as the replacement is necessary for the smooth running of the service.</p>
<p><b>7. Consequences if project not approved</b></p>	<p>1. If this project/purchase is not approved the cemetery and crematorium would be at risk of not being able to excavate graves for burial in the very short term if/when the current machine fails, and for the negative publicity and reputation that this would create.</p> <p>2. In the longer term the lack of a reliable excavator would mean a reliance on a hired vehicle and the costs that this would involve. Without this, all income from the sale of new graves and burials (£2.9M last year) would ultimately be at risk.</p>
<p><b>8. SMART project objectives</b></p>	<p>1. This Project is required to achieve the timely purchase of a suitable excavator for the City of London Cemetery to ensure that we continue to meet the needs of the bereaved in providing burial provision.</p> <p>2. The purchase needs to meet CoL procurement requirements including value for money.</p> <p>3. The purchase needs to be made by September 2022 and the vehicle in place as soon as is practical after that.</p> <p>4. The new vehicle needs to be as suitable but more efficient and reliable than the 8-year-old outgoing vehicle.</p>
<p><b>9. Key Benefits</b></p>	<p>The purchase of this vehicle will ensure a reliable burial service to the bereaved, bring in significant income each year, be more fuel efficient than and produce less emissions than the vehicle it replaces.</p>

<b>10. Project category</b>	3b. Income generating
<b>11. Project priority</b>	A. Essential
<b>12. Notable exclusions</b>	<b>None</b>

### Options Appraisal

<b>13. Overview of options</b>	<p>Sadly, there are very few vehicles of the size and with the specifications required on the market and the only real option is the JCB 3CX Compact (<b>Option 1</b>)</p> <p>We have included a Volvo backhoe digger (<b>Option 2</b>) for comparison purposes, but it is too large and is therefore less versatile than the JCB and not recommended.</p> <p>We have also listed the option to do nothing (<b>Option 3</b>) but again, this is not really an option as we aim to continue providing burial services at the cemetery and the vehicle is required.</p>
<b>14. Risk</b>	<p><b>Overall project risk:</b> Low</p> <p>The only real risk is if we cannot or do not purchase a new vehicle. The proposed vehicle replaces one that is at the end of its working life and it is therefore prudent to replace it now. The proposed replacement is a very similar to the existing vehicle (although more efficient and modern, with better emissions).</p> <p>For this reason, a risk register has not been included in this report.</p> <p>Further information available within the Options Appraisal.</p>

### Resource Implications

<b>15. Total estimated cost</b>	<p>For recommended option</p> <p><b>Total estimated cost (excluding risk): £90,000.</b></p> <p><b>Total estimated cost (including risk): £90,000</b> as there is no risk attached to the recommended option</p>							
<b>16. Funding strategy</b>	<p>Is the funding confirmed:</p> <p>All funding fully guaranteed</p>	<p>Who is providing funding:</p> <p>Internal - Funded wholly by City's own resource</p> <p><b>Recommended option</b></p> <table border="1"> <thead> <tr> <th>Funds/Sources of Funding</th> <th>Cost (£)</th> </tr> </thead> <tbody> <tr> <td>From Cemetery Reserve fund</td> <td>90,000</td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	Funds/Sources of Funding	Cost (£)	From Cemetery Reserve fund	90,000		
Funds/Sources of Funding	Cost (£)							
From Cemetery Reserve fund	90,000							

	<b>Total</b>	<b>£90,000</b>

*List all potential sources of funding for the whole project, not just to get to the next gateway*

*Comment on affordability and competing demands for funding sources.*

**Appendices**

<b>Appendix 1</b>	Project Briefing
<b>Appendix 2</b>	PT1 Procurement Form

**Contact**

<b>Report Author</b>	<b><u>Gary Burks</u></b>
<b>Email Address</b>	<b><u>Gary.burks@cityoflondon.gov.uk</u></b>
<b>Telephone Number</b>	

**Options appraisal table.***Delete option numbers as appropriate*

	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
<b>1. Design Summary</b>	Purchase a new JCB 3 CX Compact Plus with 12' extending dipper.	Purchase a BL61B Backhoe excavator (the only similar sized vehicle available at present).	Do not purchase a new excavator
<b>2. Scope and exclusions</b>	<p>Purchase new JCB Excavator as above though the City's procurement team.</p> <p>When new Vehicle is on site, sell off the old JCB using the City's recognised auctioneers and return moneys from the sale to the reserve fund, as agreed by PHES Committee</p>	<p>Purchase the Volvo BL61B Excavator through the City's Procurement Team.</p> <p>When new Vehicle is on site, sell off the old JCB using the City's recognised auctioneers and return moneys from the sale to the reserve fund, as agreed by PHES Committee</p>	<p>Do Nothing.</p> <p>However, the old vehicle will start to fail and the cemetery will not be able to maintain burial provision and the other work that this versatile vehicle completes unless we can find a plant hire company with a suitable vehicle in stock at short notice.</p>
<b>Project Planning</b>			
<b>3. Programme and key dates</b>	This is a simple purchase and once agreed the procurement team with seek value for money and follow all City processes for the purchase. Only then will we know that waiting time for delivery	This is a simple purchase and once agreed the procurement team with seek value for money and follow all City processes for the purchase. Only then will we know that waiting time for delivery	As this option is to do nothing there is no programme.



	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
<b>4. Delivery Team</b>	Cemetery Superintendent and Procurement Team	Cemetery Superintendent and Procurement Team	No delivery team required
<b>5. Risk implications</b>	<p>Overall project option risk: Low as it is a straightforward procurement. The risk level is based on this option being approved</p> <p>This option has no real risks other than the time delays in procurement and delivery, however the current vehicle is still operational and being serviced by the cemetery in-house fitter.</p> <p>Recommended</p>	<p>Overall project option risk: Medium</p> <p>Not Recommended as the vehicle is too large and not an ideal match for the cemetery environment. The Volvo is of a similar cost but due to the larger size will not be as versatile as the JCB.</p> <p>Not Recommended</p>	<p>Overall project option risk: High</p> <p>Not Recommended</p>
<b>6. Benefits</b>	This vehicle is by far the best available, is the most versatile vehicle of its size on the market and our experience of previous models is that they are very reliable.	The power of the vehicle is a benefit.	None
<b>7. Disbenefits</b>	Cost	The vehicle is longer, wider and heavier than the JCB and will be less versatile and manoeuvrable and would do more damage to the burial sites in wet conditions.	Doing nothing will not deal with the issue of us having an ageing excavator and we cannot operate without one.

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
		Also the cost is similar to the JCB which is an ideal machine.	
<b>8. Stakeholders and consultees</b>	As this is a piece of operational equipment/vehicle we have not consulted stakeholders but have consulted staff.	As this is a piece of operational equipment/vehicle we have not consulted stakeholders but have consulted staff.	No consultation has taken place but there is clear evidence that the equipment/vehicle is required.
<b>Resource Implications</b>			
<b>9. Total estimated cost</b>	<p>Total estimated cost (excluding risk):</p> <p>Purchase Cost     <b>£90,000</b></p> <p>Maintenance Costs £5,000 per year from local risk budget <b>£50,000</b> for the life of the vehicle.</p> <p>As this make of vehicle is known to us, we are quite confident of the maintenance costs</p> <p>Total estimated cost: £140,000 for the lifetime of the ownership of the vehicle with an estimated residual value of £15,000 to £20,000 after the 10 years lifecycle has been completed.</p>	<p>Total estimated cost (excluding risk):</p> <p>Purchase Cost     <b>£90,000</b></p> <p>Maintenance Costs £5,000 per year from local risk budget <b>£50,000</b> for the life of the vehicle.</p> <p>As this make of vehicle is not known to us, we are not confident of the maintenance costs</p> <p>Total estimated cost: £140,000 for the lifetime of the vehicle with an estimated residual value of £15,000 to £20,000</p>	<p>This option is to do nothing, therefore the outlay is zero but there is an obvious risk because we do not propose to cease grave digging activities.</p> <p>The old vehicle will start to fail and the costs to the city will be reputational and monetary in hire costs and lost income when we are unable to provide burial services.</p>

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
<b>10. Funding strategy</b>	The vehicle will be purchased outright using funds from the cemetery reserve fund	The vehicle will be purchased outright using funds from the cemetery reserve fund	There is not purchase cost using this option and all costs would fall within local risk budget
<b>11. Estimated capital value/return</b>	<p>Outright purchase cost £90,000</p> <p>Total new grave burial income per year £500,000+</p> <p>Income for the life of the vehicle £5M+</p> <p>Residual Value of vehicle at end of life £15,000.</p> <p>This does not include staffing and fuel costs but demonstrates the income generated using the vehicle and therefore the potential income that would be lost if it were not replaced.</p>	<p>Outright purchase cost £90,000</p> <p>Total new grave burial income per year £500,000+</p> <p>Income for the life of the vehicle £5M+</p> <p>Residual Value of vehicle at end of life £15,000.</p> <p>This does not include staffing and fuel costs but demonstrates the income generated using the vehicle and therefore the potential income that would be lost if it were not replaced.</p>	There is no capital investment with this option.
<b>12. Ongoing revenue implications</b>	The maintenance costs are estimated at £5,000 per year based on previous models. This is in line with maintenance costs of the vehicle being replaced and can be met from existing local risk budgets.	<p>The maintenance costs are estimated at £5,000 per year based on previous models</p> <p>This is in line with maintenance costs of the vehicle being</p>	Revenue implications are that the vehicle is used to dig graves for new burials and this function produces £500,000+ per year.

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
		replaced and can be met from existing local risk budgets.	This income is at risk if a new vehicle is not purchased.
<b>13. Investment appraisal</b>	<p>This is a simple vehicle purchase of a machine that is critical to our grave digging operations</p> <p>The investment appraisal is to purchase the recommended vehicle in order to protect income. The recommended option is tried and tested and the only real option available on the market and the income means that the vehicle will pay for itself within the first two years.</p>	This is a simple vehicle purchase of a machine that is critical to our grave digging operations	This option (to do nothing) is not recommended as it puts an essential cemetery function at risk.
<b>14. Affordability</b>	Funding has been agreed by PHES Committee	Funding has been agreed by PHES Committee	This is a high risk option and not recommended
<b>15. Procurement strategy/route to market</b>	<p>The procurement route has been agreed;</p> <p>To seek three quotations for the supply of the vehicle on an outright purchase basis.</p>	The procurement route has been agreed	N/A
<b>16. Legal implications</b>	None	None	None

	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
<b>17. Corporate property implications</b>	None	None	None
<b>18. Traffic implications</b>	None	None	None
<b>19. Sustainability and energy implications</b>	. There are currently no electric or hybrid vehicles of this nature available. This option has the most up-to-date and energy efficient engine available and the company is one of the market leaders for this type of equipment	There are currently no electric or hybrid vehicles of this nature available. This option has the most up-to-date and energy efficient engine available and the company is one of the market leaders for this type of equipment	N/A
<b>20. IS implications</b>	none	none	none
<b>21. Equality Impact Assessment</b>	<ul style="list-style-type: none"> <li>an equality impact assessment will not be undertaken</li> </ul>	<i>an equality impact assessment will not be undertaken</i>	<i>an equality impact assessment will not be undertaken</i>
<b>22. Data Protection Impact Assessment</b>	None	None	None
<b>23. Recommendation</b>	Recommended	Not recommended	Not recommended



# Project Briefing

Project identifier			
<b>[1a] Unique Project Identifier</b>	12357	<b>[1b] Departmental Reference Number</b>	GB/07-22
<b>[2] Core Project Name</b>	Cemetery & Crematorium Excavator Replacement		
<b>[3] Programme Affiliation</b> <i>(if applicable)</i>	NA- Standalone project		

Ownership	
<b>[4] Chief Officer has signed off on this document</b>	Juliemma McLoughlin
<b>[5] Senior Responsible Officer</b>	Gavin Stedman
<b>[6] Project Manager</b>	Gary Burks

Description and purpose					
<b>[7] Project Description</b>					
The City of London Cemetery & Crematorium wish to replace one large item of equipment, an aging JCB CX Midi digging machine. The proposed replacement vehicle is a JCB 3CX Compact digging machine, which is the closest equivalent, and best suited vehicle of this type available on the market.					
<b>[8] Definition of Need: What is the problem we are trying to solve or opportunity we are trying to realise (i.e. the reasons why we should make a change)?</b>					
<ul style="list-style-type: none"> <li>The JCB CX Midi is, in the opinion of the cemetery &amp; crematorium management team and staff, the most appropriate choice for the tasks performed at the cemetery and is relied upon for the digging of approximately 400 new graves each year, and for various other tasks such as ground preparation and general site maintenance.</li> <li>The vehicle is essential for ensuring the continuity of burial provision at the cemetery &amp; crematorium.</li> <li>Due to its age and heavier than usual use during the last two years, this plant vehicle is becoming unreliable and costly to maintain.</li> <li>Plant vehicle is approaching its useful life expectancy but saw excessive use during the Covid-19 pandemic and is in need of replacement.</li> </ul>					
<b>[9] What is the link to the City of London Corporate plan outcomes?</b>					
[4] Communities are cohesive and have suitable housing and facilities. [9] Our spaces are secure, resilient and well-maintained.					
<b>[10] What is the link to the departmental business plan objectives?</b>					
Open Spaces Business Plan aim 12. <b><i>Our spaces are secure, resilient and well- maintained.</i></b> This vehicle is not only used to provide a burial facility for the bereaved of East London, but also to ensure the cemetery & crematorium is maintained to the highest standards for the benefit of all stakeholders.					
<b>[11] Note all which apply:</b>					
<b>Officer:</b> Project developed from Officer initiation	Y	<b>Member:</b> Project developed from Member initiation	N	<b>Corporate:</b> Project developed as a large scale Corporate initiative	N
<b>Mandatory:</b>	N	<b>Sustainability:</b>	Y	<b>Improvement:</b>	N

Compliance with legislation, policy and audit		Essential for business continuity		New opportunity/ idea that leads to improvement	
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<b>Project Benchmarking:</b>	
<b>[12] What are the top 3 measures of success which will indicate that the project has achieved its aims?</b> <These should be impacts of the activity to complete the aim/objective, rather than 'finishes on time and on budget'>>	
1) Replacement equipment/vehicle sourced in collaboration with City Procurement and the Transport Co-ordinating Group.	
2) Vehicle ordered, delivered and put into service with no interruption to burial provision.	
3) Reliability is improved, and maintenance costs are reduced.	
<b>[13] Will this project have any measurable legacy benefits/outcome that we will need to track after the end of the 'delivery' phase? If so, what are they and how will you track them? (E.g. cost savings, quality etc.)</b>	
Reduced number of breakdowns and maintenance costs. Breakdown and repair costs recorded manually, via CBIS in the form of purchase orders and using the Key2 system.	
<b>[14] What is the expected delivery cost of this project (range values)[£]?</b>	
Lower Range estimate: £70,500 + VAT – £80,000 + VAT Upper Range estimate: £80,000 + VAT – £90,000 + VAT	
<b>[15] Total anticipated on-going revenue commitment post-delivery (lifecycle costs)[£]:</b>	
Up to five years servicing costs and repairs estimated at £6,000.	
<b>[16] What are the expected sources of funding for this project?</b>	
Local Risk Budget – from Cemetery Reserve fund (agreed by PHES Committee on the 24 May 2022)	
<b>[17] What is the expected delivery timeframe for this project (range values)? Are there any deadlines which must be met (e.g. statutory obligations)?</b>	
Lower Range estimate: start – end date 01/12/22 – 30/03/23 Upper Range estimate: start – end date 01/04/23 – 01/08/23 <Critical deadline(s):> Place order with Supplier by 01/08/22	

<b>Project Impact:</b>	
<b>[18] Will this project generate public or media impact and response which the City of London will need to manage? Will this be a high-profile activity with public and media momentum?</b>	
No	
<b>[19] Who has been actively consulted to develop this project to this stage?</b> <(Add additional internal or external stakeholders where required) >	
Transport Co-Ordinating Group:	Ben Milligan
Chamberlains: Finance	Officer Name: Simon Owens
Chamberlains: Procurement	Officer Name: Kayleigh Rippe
IT	N/A
HR	N/A
Communications	N/A
Corporate Property	N/A



External	JCB UK for specification
<p><b>[20] Is this project being delivered internally on behalf of another department? If not ignore this question. If so:</b></p> <p><b>Please note the Client supplier departments.</b></p> <p><b>Who will be the Officer responsible for the designing of the project?</b></p> <p><b>If the supplier department will take over the day-to-day responsibility for the project, when will this occur in its design and delivery?</b></p>	
Client	Department:
Supplier	Department:
Supplier	Department:
Project Design Manager	Department:
Design/Delivery handover to Supplier	Gateway stage: <Before Project Proposal>, <Post Project Proposal>, <Post Options Appraisal>, <Post Detailed design>, <Post Authority to start work>

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## PT1 – Options Report/Specification for goods/services or works between £50,000 & £100,000 (goods and services) / £400,000 (works)

Please complete all relevant fields.

### Summary of Goods, Services or works

<b>Description of your requirement</b> Insert a description of what you want to buy  <i>If the specification is set out in a separate document, please state 'See Attached'.</i>	Excavator with Identical Spec to JCB 3XC Compact Plus
<b>Pricing type</b>	Lump Sum
<b>Technical Requirements</b> Please refer to guidance notes	As per specification provided
<b>Have you considered health and safety within the Technical Requirements?</b>	Yes <input type="checkbox"/> No <input type="checkbox"/>
<b>Gateway Approval required</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<b>Location</b> Insert address	The City of London Cemetery and Crematorium Aldersbrook Road E12 5DQ
<b>Details for site visit (if required)</b> If applicable insert date and contact details for site visit	Not necessary
<b>Has anyone external to City of London been involved in the preparation of this specification?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Will this project require the supplier to process personal data?</b> Please see glossary for more information on what constitutes personal data	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, have you completed a <a href="#">Data Protection Impact Assessment?</a> Also have you included the roles and responsibilities for processing personal data within your project specification? For more information visit <a href="#">Designing Specifications under GDPR</a> . A <a href="#">G1 (Data Processing Authorisation) form</a> will also need to be included with the terms and conditions. Please complete and return with your PT1/2 form.

### Timescales

<b>Services/Works</b>	Start Date:            End date:
<b>Goods</b>	Delivery date: December 2022

### Type of Purchase

<b>Type of purchase</b>	One-off
<b>Budget Estimate</b>	£85,000 - £90,000
<b>Approved budget?</b>	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

### Evaluation Questions

Questions used as part of the Quality/Technical part of the quote exercise. These should relate to the requirements in your specification. Standard weighting is 60% Quality and 40% Price unless otherwise expressed.

Questions	Scoring (to add up to 100%)
Q1. Meet Specification	Q1. 15%
Q2. Supply to meet delivery date	Q2. 15%
Q3. Cost	Q3. 60%
Q4. Responsible Procurement – The Procurement Operations team can help you develop this question. It must be relevant and proportionate to what you are buying.	Q4. 10%

## Identified Suppliers

If this project will require the supplier to deliver two or more hours of work for the City, we must ensure the supplier will pay London Living Wage during the quote process. This is in accordance with the updated CoL London Living Wage Policy 2018.

The London Living Wage Foundation provides a list of companies who pay living wage. You can check your nominated suppliers on their database:

<https://www.livingwage.org.uk/accredited-living-wage-employers>

**\*Your nominated suppliers do not have to be on this list but any supplier who does not commit to paying living wage as part of the quote process will be disqualified.\***

Supplier Name	Reason for selection	On CBIS	Local/SME
Greenshields JCB	Used before	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Tuckwells	Used Before	<input checked="" type="checkbox"/>	<input type="checkbox"/>
SCOT JCB	Google Search	<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>
		<input type="checkbox"/>	<input type="checkbox"/>

## Requestor Comments

<b>Requestor</b>	Gary Burks
<b>Department</b>	Environment
<b>Comments</b>	

## Route to Market Approval

<b>City Procurement Officer</b>	
<b>Route to Market Agreed</b>	
<b>Comments</b>	

## Process steps:

Action	Timescale	Procurement Activities	Officer Activities
City Procurement receives an approved requisition with completed specification attached.	3 working days	Allocation to buyer Validation or creation of supplier list Creation of project on CapitalESourcing Contact suppliers	Respond to Buyer queries; agree quote documentation
Request for quotation – price only	Minimum of 5 working days	Issue documents Manage queries from suppliers Provide tender summary Update officer	Respond to queries
Request for quotation – project specific questions	Minimum of 10 working days	As above	Evaluate project specific questions.
Request for quotation – non compliant response	Additional 5 working days	Manage clarification process	Support clarification process
Contract execution	Additional 5 working days	Co-ordinate signatures	
Post-tender administration	Within 3 days of completion	Convert requisition to PO Notify successful and unsuccessful suppliers Close project on capitalEsourcing	
Contract published	Contract Signature	Contract details published on CoL Contract Register and Contracts Finder	Goods receipt

<b>Committees:</b> Streets and Walkways Sub <i>[for decision]</i> Operational Property and Projects Sub <i>[for decision]</i>	<b>Dates:</b> 5 July 2022 20 July 2022
<b>Subject:</b> Mansion House Station Environs - Little Trinity Lane public realm enhancements <b>Unique Project Identifier:</b> <i>PV Project ID: 11945</i>	<b>Gateway 3</b> Regular <b>Issue Report</b>
<b>Report of:</b> Executive Director, Environment <b>Report Author:</b> Leila Ben-Hassel	<b>For Decision</b>
<h1 style="margin: 0;">PUBLIC</h1>	

<b>1. Status update</b>	<p><b>Project Description:</b> This project aims to deliver walking and accessibility improvements and an enhanced public space at Little Trinity Lane to provide a more welcoming and comfortable environment. It is also proposed (through this report) to widen the scope of the project to include more climate resilience measures.</p> <p><b>RAG Status:</b> Green (Green at last report to Committee)</p> <p><b>Risk Status:</b> Low (Low at last report to committee)</p> <p><b>Total Estimated Cost of Project (excluding risk):</b> £418,445 (set at Gateway 3).</p> <p><b>Funding Strategy:</b> The project funding strategy as approved at Gateway 3 included S106 receipts and TfL (Local Implementation Plan) funds. The funding strategy is proposed to be revised as a result of the impact of the pandemic on TfL’s overall financial position, as well as a planned design review following the project being integrated into the Cool Streets and Greening Programme.</p> <p><b>Change in Total Estimated Cost of Project (excluding risk):</b> Costs will be reassessed as part of the design review and a cost range of £450K - £550K is proposed. This increase from £418,445 is due to a change in scope of the project to incorporate climate resilience measures along with an increase in construction costs since the last Gateway approval. The loss of the TfL funds has also meant that fewer walking and accessibility improvements are affordable within the budget. However, officers will</p>
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investigate additional funding sources prior to Gateway 4/5 to deliver these measures.

**Spend to Date:** £81,992 (including fee commitments)

**Costed Risk Provision Utilised:** None

**Slippage:** The project has been on hold since 2020 because of the withdrawal of TfL funding as a result of the pandemic. The previous completion date was late 2020. The revised completion date is summer 2023.

- 2. Requested decisions**
- Members are asked to:
1. Approve the amended scope of the project to include climate resilience measures and note that an updated design and cost estimate will be set out at Gateway 4/5.
  2. Approve the revised funding strategy as set out in this report to include funding from the Cool Streets and Greening Programme in addition to previously allocated S106 funds.
  3. Approve the additional budget of £27,000 to reach the next gateway, funded from the S106 for 39-53 Cannon Street – LCE (as previously agreed as part of the Project Prioritisation report).
  4. Note that the wider walking and accessibility improvements are to be brought forward when funding becomes available, with additional funding sources to be investigated prior to Gateway 4/5 to deliver these measures.
  5. Note the revised programme set out in Section 5 of this report.

**3. Budget**

<b>Table 1: Resources Required to reach the next Gateway</b>			
<b>Description</b>	<b>Approved Budget (£)</b>	<b>Resources Required (£)</b>	<b>Revised Budget (£)</b>
<b>Pre evaluation: 16800384</b>			
P&T Staff Costs	27,557	-	27,557
P&T Fees	13,950	-	13,950
<b>Total - 16800410</b>	<b>41,507</b>	<b>-</b>	<b>41,507</b>
<b>Post Gateway 3: 16100384</b>			
Env Servs Staff Costs	14,000		14,000
Legal Staff Costs	600		600
Open Spaces Staff Costs	2,500		2,500
P&T Staff Costs	25,000	12,000	37,000
P&T Fees	29,400	15,000	44,400

	<table border="1"> <tr> <td><b>Total - 16100410</b></td> <td><b>71,500</b></td> <td><b>27,000</b></td> <td><b>98,500</b></td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>113,007</b></td> <td><b>27,000*</b></td> <td><b>140,007</b></td> </tr> </table> <p>*Additional fees and staff costs are required for the design of the climate resilience measures and consultation with local occupiers on the revised designs</p> <p><b>Costed Risk Provision requested for this Gateway:</b> none at this stage.</p>	<b>Total - 16100410</b>	<b>71,500</b>	<b>27,000</b>	<b>98,500</b>	<b>TOTAL</b>	<b>113,007</b>	<b>27,000*</b>	<b>140,007</b>
<b>Total - 16100410</b>	<b>71,500</b>	<b>27,000</b>	<b>98,500</b>						
<b>TOTAL</b>	<b>113,007</b>	<b>27,000*</b>	<b>140,007</b>						
<b>4. Issue description</b>	<p>4.1 The project funding strategy included a mix of S106 and TfL funds. However, following the impact of the pandemic on TfL's overall financial position and ongoing uncertainty around future funding, £100k of TfL LIP funding was withdrawn from this project, and the project was subsequently put on hold in 2020.</p> <p>4.2 Officers have identified some project efficiencies, however the loss of the TfL funds and additional costs as a result of inflation, mean that not all of the planned improvements will be affordable, and the original project objectives will not be met.</p> <p>4.3 Since the Gateway 3 approval, the City has adopted the Climate Action Strategy (CAS) which seeks to introduce more climate resilience measures in the public realm through the implementation of the Cool Streets and Greening Programme (CSG). The CSG programme is a £6.8m programme to be implemented over 4 years.</p> <p>4.4 This site has been identified as a priority project of the Cool Streets and Greening programme as it has great potential to incorporate climate resilience measures due to its location, topography and greening capacity. In February 2022, the Cool Streets and Greening Programme report for Year 2 was approved and this included a funding allocation of £165,000 to widen the scope to deliver climate resilience measures as part of this project. This funding is specific to deliver climate resilience measures and is not able to be used to offset the loss of TfL funding to deliver footway widening and accessibility measures.</p>								
<b>5. Proposed way forward</b>	<p><b>Design Review</b></p> <p>5.1 It is proposed to revise the design to incorporate climate resilience measures. Please refer to Appendix 3 for illustrations of the existing design and an indication of the climate resilience measures that will be developed including:</p> <ul style="list-style-type: none"> <li>• Inclusion of Sustainable Drainage Systems (SuDs) including raingardens, channels and re-profiling footways,</li> <li>• Additional trees and planting to provide more shade and absorb rainwater run-off,</li> <li>• Climate resilient planting,</li> <li>• Inclusion of more elements and planting to support biodiversity.</li> </ul>								

5.2 The design will also be reviewed to achieve efficiencies, with a simplified lighting scheme and reduced structural works. Some footway widening and accessibility improvements will be able to be delivered within the project budget. However, these will not be as significant due to the loss of TfL funding and cost increases as a result of inflation. Therefore, it is proposed to take a phased approach, and implement the wider walking and accessibility improvements when funding is available. Officers will investigate additional funding sources prior to Gateway 4/5 to deliver these measures.

5.3 The objective is to achieve a layout that responds to the changing needs of the area, including more space for people to walk and sit individually or in small groups, along with space for the adjacent Church to use the area.

### **Project budget**

5.4 Members should note that costs are likely to increase from the previous budget of £418K (which included a capped S106 allocation). This is due to cost increases for materials and labour across the construction sector, as well as additional construction and maintenance costs of the resilience measures that are to be introduced.

5.5 The updated estimated cost range for this phase of the project is £450k–550K with the increase in budget funded from the Cool Streets and Greening Programme to cover the cost of the climate resilience measures. Additional funds will be investigated to cover the cost of the wider walking and accessibility improvements ahead of Gateway 4/5.

### **Programme**

5.6 Due to the project being on hold because of the impact of the pandemic and resultant loss of TfL funding, along with the proposed amendment of the scope, the programme has slipped. The revised project programme is as follows:

- Design development (RIBA stage 3): July – September 2022
- Consultation: September – October 2022
- Design development (RIBA stage 4): October 2022 – February 2023
- Gateway 4/5: February 2023
- Construction: 5 months Spring-Summer 2023 (to be confirmed with the City's Highway Term Contractor). Implementation of the wider walking and accessibility improvements will be subject to securing additional funding.



## **Appendices**

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Finance tables
<b>Appendix 3</b>	Approved design and outline climate resilience measures of revised design

## **Contact**

<b>Report Author</b>	Leila Ben-Hassel
<b>Email Address</b>	Leila.Ben-Hassel@cityoflondon.gov.uk
<b>Telephone Number</b>	020 7332 1569

## Appendix 1: Project Cover Sheet

### [1] Ownership & Status

**UPI:** 11945

**Core Project Name:** Mansion House Station Environs: Little Trinity Lane public realm enhancements

**Project Manager:** Leila Ben-Hassel

**Definition of need:** The space is proposed to be transformed into a larger and more attractive green public space that is greatly needed in this area, in line with the Climate Action Strategy and Transport Strategy.

The current space is in need of enhancement to improve the setting of St James Garlickhythe Church, improve accessibility and comfort along one of the key routes to the riverside and create a high-quality space for local occupiers (office workers, visitors and residents) to dwell by mitigating the impact of the pollution from Upper Thames St (one of the most polluted streets in the City).

**Expected timeframe for the project delivery:** The originally reported programme has slipped due to TfL funding being withdrawn. The revised programme is to start on site early 2023 (estimated 5 month works programme).

**Are we on track for completing the project against the expected timeframe for project delivery?**

Programme and scope are being reset through this issues report, following the project being put on hold due to TfL withdrawing project funding.

**Has this project generated public or media impact and response which the City of London has needed to manage or is managing?**

No

### [2] Finance and Costed Risk

**Headline Financial, Scope and Design Changes:**

**'Project Proposal' G2 report**

The total estimated cost was **£350K-£700K** and a budget of £60,000 was approved to reach Gateway 3.

The following streets and spaces were included in scope to be improved:

- Little Trinity Lane, including the green public space adjacent to St James's Church and the area adjacent to the new Queenhithe hotel development.
- Garlick Hill
- Pedestrian subway signage at Mansion House tube station

The key objectives were defined as follows:

- An accessible and inclusive public realm;
- A more comfortable and pleasant environment (including subways);
- Additional greenery and measures to help mitigate the impact of pollution and noise;
- An enhanced setting for the redevelopments in the area

**G3 report (as approved by PSC as part of the Queenitthe and Vintry Area Enhancement Programme December 2018)**

- Total Estimated Cost (excluding risk):  
£418,445, funded from a mix of S106 contributions from local developments (amount capped in S106 Prioritisation Report) and TfL (Local Implementation Plan) funding.
  - Spend to date: £41,507 (including evaluation costs)
  - Costed Risk Against the Project: 0
  - CRP Requested: 0
  - CRP Drawn Down: 0
  - Estimated Programme Dates: To be coordinated with the programme of the neighbouring hotel development (Which was subsequently delayed by the pandemic)
  - January to September 2019: Design development
  - Nov/Dec 2019 Gateway 4/5 – Authority to Start Work;
  - July 2020: start on site – construction works to be phased and coordinated with hotel development programme and connected Globe View Walkway Works.

Through the programme approach, existing City projects in the vicinity and the Queensbridge House Hotel development's timescales would be coordinated with the project. However the hotel development timescales slipped in 2019 and further in 2020 due to the pandemic. The project was subsequently put on hold in 2020 when TfL funding was withdrawn.

- Scope/Design Change and Impact:

The project aims to deliver an enhanced and enlarged public space at Little Trinity Lane to provide a more welcoming and comfortable environment to transform this currently unattractive and under-utilised public space.

The concept design seeks to exploit and celebrate the most striking components of the space such as the mature trees and church façade as well as introducing more seating and a strongly planted edge to increase greenery and encourage longer dwell time.

Two options were explored and included the same hard landscaping elements with widened footways (incl. relocation of doctor's parking bay), a granite-setted carriageway cutting through a York stone paved pedestrian space and additional seating. The options explored offered different treatments to the southern edge of the space. Option 2 was approved by committees.

The landscape design Option two proposed the introduction of:

- a feature pergola structure to the southern edge of the space providing a framework for climbing plants and creating a semi-perforated wall of greenery and canopy. This would act as a screen

and buffer from the adjacent road noise and add important leaf cover to filter air particulates. The planting would also provide seasonal colour as well as shade for the seating.

- integrated feature lighting making the lower level hedging and planting beds would become a more prominent focal point in the space.
- Seating centred around the feature trees and new planting

This design is proposed to be reviewed as part of this Issues' Report to refocus the benefits of the project to align with the City's Climate Action Strategy objectives and the Cool Streets and Greening Programme's requirements.

## Appendix 2 – Finance Tables

<b>Table 1: Expenditure to Date</b>			
<b>Description</b>	<b>Approved Budget (£)</b>	<b>Expenditure (£)</b>	<b>Balance (£)</b>
<b>Mansion House Station (SRP) – 16800384</b>			
P&T Staff Costs	27,557	27,557	0
P&T Fees	13,950	13,950	0
<b>Total - 16800410</b>	<b>41,507</b>	<b>41,507</b>	<b>0</b>
<b>Mansion House Station (CAP) – 16100384</b>			
Env Servs Staff Costs	14,000	-	14,000
Legal Staff Costs	600	524	76
Open Spaces Staff Costs	2,500	-	2,500
P&T Staff Costs	25,000	21,760	3,240
P&T Fees	29,400	19,776	9,624
<b>Total - 16100410</b>	<b>71,500</b>	<b>42,059</b>	<b>29,441</b>
<b>TOTAL</b>	<b>113,007</b>	<b>83,566</b>	<b>29,441</b>

<b>Table 2: Resources Required to reach the next Gateway</b>			
<b>Description</b>	<b>Approved Budget (£)</b>	<b>Resources Required (£)</b>	<b>Revised Budget (£)</b>
<b>Mansion House Station (SRP) - 16800384</b>			
P&T Staff Costs	27,557	-	27,557
P&T Fees	13,950	-	13,950
<b>Total - 16800410</b>	<b>41,507</b>	<b>-</b>	<b>41,507</b>
<b>Mansion House Station (CAP) - 16100384</b>			
Env Servs Staff Costs	14,000	-	14,000
Legal Staff Costs	600	-	600
Open Spaces Staff Costs	2,500	-	2,500
P&T Staff Costs	25,000	12,000	37,000
P&T Fees	29,400	15,000	44,400
<b>Total - 16100410</b>	<b>71,500</b>	<b>27,000</b>	<b>98,500</b>
<b>TOTAL</b>	<b>113,007</b>	<b>27,000</b>	<b>140,007</b>

<b>Table 3: Revised Funding Allocation</b>			
<b>Funding Source</b>	<b>Current Funding Allocation (£)</b>	<b>Funding Adjustments (£)</b>	<b>Revised Funding Allocation (£)</b>
TfL LIP - FY 2017/18	14,424		14,424
TfL LIP - FY 2018/19	45,053		45,053
TfL LIP - FY 2019/20	7,487		7,487
S106 - 39-53 Cannon Street - 13/00339/FULMAJ - LCE	46,042	27,000	73,042
<b>Total Funding Drawdown</b>	<b>113,007</b>	<b>27,000</b>	<b>140,007</b>

<b>Table 4: Funding Strategy</b>	
<b>Funding Source</b>	<b>Amount (£)</b>
TfL LIP - FY 2017/18	14,424
TfL LIP - FY 2018/19	45,053
TfL LIP - FY 2019/20	7,487
S106 - 39-53 Cannon Street - 13/00339/FULMAJ - LCE	121,090
S106 - 39-53 Cannon Street - 13/00339/FULMAJ - Transportation	36,455
S106 - Bucklersbury House - 11/00935/FULEIA - LCE	100,900
CAS - Cool Streets and Greening Programme	165,000*
<b>TOTAL</b>	<b>490,410</b>

\*CSG funding allocation agreed by Committees in February 2022 (additional maintenance and monitoring costs will be confirmed at the next gateway)

### Appendix 3 – proposed redesign

- Current design proposal (approved by committees GW3 in December 2018)



*Bird's eye view*







- **Design review**

This design is proposed to be reviewed as part of this Issues' Report to refocus the benefits of the project to align with the City's Climate Action Strategy objectives and the Cool Streets and Greening Programmes requirements



**Extent of redesign**

- Revised project boundary
- \* may include exploration of improved raised crossover at the end of Skinner Lane
- Area of s278 repaving works associated with Hotel (outside of project)

The proposed revised scope includes some footway widening but these works are not as significant as proposed at Gateway 3 due to the loss of TfL funding. The scope of the architectural lighting is also proposed to be reduced.

The proposed revised scope excludes any significant alterations to the southern boundary retention wall along Upper Thames St. The design review will focus on delivering environmental benefits aligned with the City's Climate Action Strategy and the Cool Streets and Greening Programme. The following will be explored for inclusion in scope:

- SuDS including raingardens, channels and re-profiling of footway,
- Retention of mature trees and enhancement of their setting,
- Increasing greening including climate resilient planting and species that help mitigate pollution,
- Pollution mitigation green screen hedge or planted pergola and biodiversity enhancements.

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<b>Committees:</b> Planning & Transportation [ <i>for decision</i> ] Operational Property and Projects Sub [ <i>for decision</i> ]	<b>Dates:</b> 19 July 2022 20 July 2022
<b>Subject:</b> London Wall Car Park Joints and Waterproofing  <b>Unique Project Identifier:</b> 12002	<b>Gateway 3/4:</b> <b>Options Appraisal (Regular)</b>
<b>Report of:</b> Executive Director, Environment  <b>Report Author:</b> Mark Bailey	<b>For Decision</b>

# PUBLIC

<b>1. Status update</b>	<p><b>Project Description:</b></p> <p>To carry out essential waterproofing and repair works to the highway structure, in order to maintain structural integrity, utility and asset value. These comprise:-</p> <ol style="list-style-type: none"> <li>1) Re-waterproofing the remaining areas of structure that were beyond the scope of the London Wall Place development highway improvement works (s278) in 2017.</li> <li>2) Replacing structural expansion joints to the structure.</li> <li>3) Concrete repairs to internal surfaces where existing concrete has spalled and exposed corroding reinforcement.</li> </ol> <p><b>RAG Status:</b> Green (Green at last report to Committee)</p> <p><b>Risk Status:</b> Low (Low at last report to committee)</p> <p><b>Total Estimated Cost of Project (excluding risk):</b>                  £ 1,784,000 (including risk £1,984,000)</p> <p><b>Change in Total Estimated Cost of Project (excluding risk):</b>                  Decrease of £ 216,000 on the £2 Million last reported to Committee, although now incorporating a proposed Costed Risk Provision of £200,000 at Gateway 5. Hence, overall total cost (including for risk) is broadly unchanged.</p> <p><b>Spend to Date:</b> £12,000 (staff costs and fees)</p> <p><b>Costed Risk Provision Utilised:</b> n/a</p>
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	<p><b>Slippage:</b> The original expectation was that the project would be completed in 2019, although the project funding was subsequently placed on hold as part of the Corporate Fundamental Review. Following subsequent approval of funding from this review, the project was deferred whilst Section 278 highway improvement works were completed to London Wall Place. Following the completion of these works, the progression of a G3/4 report was further delayed whilst investigations into failures of the newly replaced expansion joints were carried out (see section 4 of report). These investigations are now complete and the revised project programme is based on completion by the end of 2023.</p> <p><b>Funding:</b> Central funding from the On-Street Parking Reserve was agreed in principle via the 2020/21 capital bids. Release of this funding will be subject to the further approval of the Resource Allocation Sub-Committee.</p>
<p><b>2. Next steps and requested decisions</b></p>	<p><b>Next Gateway:</b> Gateway 5: Authority to Start Work</p> <p><b>Next Steps:</b></p> <ul style="list-style-type: none"> <li>• Completion of detailed design by term consultant (Arcadis)</li> <li>• Further investigations for expansion joints and concrete repairs</li> <li>• Procurement of works, either under new highways term contract or by competitive tender.</li> <li>• Coordination with highway authority and TFL to obtain road closures and bus diversions.</li> </ul> <p><b>Requested Decisions:</b></p> <ol style="list-style-type: none"> <li>1. That additional budget of <b>£ 129,000</b> is approved for staff costs, fees and investigations, as Table 1 below, in order to reach the next Gateway;</li> <li>2. Note the revised project budget of <b>£ 141,000</b> (excluding risk) up to Gateway 5, including for costs expended prior to Gateway 3/4;</li> <li>3. Note the total estimated cost of the project at <b>£1,784,000</b> (excluding risk);</li> <li>4. That delegated authority is given to Chief Officer to appoint the successful contractor at Gateway 5 and to instruct the Comptroller and City Solicitor to enter into contract, subject to tendered works costs remaining within the £1,600,000 estimate provided by this report (or to instruct under the new highways term contract subject to satisfactory agreement of costs and the same proviso).</li> <li>5. That a Costed Risk Provision of £25,000 is approved at this stage to cover unforeseen conditions during further</li> </ol>

	<p>investigations, to be drawn down via delegation to the Assistant Director Engineering.</p> <p>6. That a total Costed Risk Provision of £200,000 is approved for use following Gateway 5, subject to tender costs remaining within budget, for expenditure against identified sums from the project risk registers against specified risks at the construction stage and to be drawn down to the Assistant Director Engineering.</p> <p>7. That Option 3 is approved (implementation of waterproofing, expansion joint replacement and internal structural concrete repairs)</p>																				
<p><b>3. Resource requirements to reach next Gateway</b></p>	<p><u>Table 1: Further funding required to reach Gateway 5, for recommended option 3</u> (i.e. additional to funding approved at Gateway 1/2)</p> <table border="1" data-bbox="528 786 1390 1648"> <thead> <tr> <th>Item</th> <th>Reason</th> <th>Funds/ Source of Funding</th> <th>Cost (£)</th> </tr> </thead> <tbody> <tr> <td>Staff costs</td> <td>Project Management</td> <td rowspan="5">City Fund On-Street Parking Reserve</td> <td>14,000</td> </tr> <tr> <td>Consultant fees</td> <td>Detailed design and contract preparation</td> <td>30,000</td> </tr> <tr> <td>Investigations</td> <td>Expansion joints and concrete repairs</td> <td>75,000</td> </tr> <tr> <td>Statutory approvals / consultation</td> <td>Approvals required for road and working space</td> <td>10,000</td> </tr> <tr> <td><b>Total</b></td> <td></td> <td><b>129,000</b></td> </tr> </tbody> </table> <ul style="list-style-type: none"> <li>All cost estimates are based on recent similar projects and Gateway 6 Outcome Reports.</li> <li>Please refer to Appendix 4 for breakdown of Total Estimated Project Costs</li> </ul> <p><b>Costed Risk Provision requested for this Gateway:</b> £25,000 is required at G3/4, related to unforeseen risks during further investigations. We currently envisage a further £175,000 to be required at G5, related to construction stage risks, making</p>	Item	Reason	Funds/ Source of Funding	Cost (£)	Staff costs	Project Management	City Fund On-Street Parking Reserve	14,000	Consultant fees	Detailed design and contract preparation	30,000	Investigations	Expansion joints and concrete repairs	75,000	Statutory approvals / consultation	Approvals required for road and working space	10,000	<b>Total</b>		<b>129,000</b>
Item	Reason	Funds/ Source of Funding	Cost (£)																		
Staff costs	Project Management	City Fund On-Street Parking Reserve	14,000																		
Consultant fees	Detailed design and contract preparation		30,000																		
Investigations	Expansion joints and concrete repairs		75,000																		
Statutory approvals / consultation	Approvals required for road and working space		10,000																		
<b>Total</b>			<b>129,000</b>																		

	<p>£200,00 in total (as section 2 <i>Requested Decisions</i>). However, this will be reviewed at G5 when investigations, design and tender costs are confirmed. All CRP is to be sourced from the same fund as shown in Table 1 above.</p>
<p><b>4. Overview of project options</b></p>	<p>Three options were introduced at Gateway 1/2 in 2018, namely:-</p> <ol style="list-style-type: none"> <li>1) “Do nothing” option, other than monitoring the condition and deterioration of the structure in the two-yearly highway structures inspection programme, carrying out reactive maintenance when necessary.</li> <li>2) Design and implement re-waterproofing and expansion joint replacement works (but limited to those areas which were not already subject to s278 replacement works in 2017). This would be achieved by full exposure to the deck level in these areas but would exclude any internal structural concrete repairs.</li> <li>3) As option 2) but including all internal structural concrete repairs within the car park.</li> </ol> <p>Subsequent to Gateway 1/2, a significant number of defects and failures have been observed to the expansion joints that were replaced in 2017. Further investigations have determined that sections of rubber “water bars” which formed part of the original 1950’s construction were not subsequently removed when strengthening works to the structure (near the joints) were carried out in the late 1980’s.</p> <p>A combination of percussive works to remove the old joints in 2017 and the presence of the water bars remnants immediately underneath have weakened the structural concrete nosings immediately below the joints. This has led to premature failure of the expansion joints, as they are not securely bonded to a sound substrate.</p> <p>To prevent this from re-occurring, it is now considered necessary to replace all the expansion joints– including those replaced as recently as 2017 – but including additional concrete removal and repair works to remove the old water bar remnants and thus give a sound substrate for the new joints.</p> <p>Inspections and investigations carried out by the term consultant following the last report to committee have confirmed the scope of internal concrete repairs. In combination with a favourable review of project fees and waterproofing estimates based on similar recent projects, the Total Estimated Cost of the Project is now reduced from the £2M estimate at Gateway 1/2 (excluding Costed Risk Provision) at £1,784,000</p> <p>The revised options considered at Gateway 3/4 are therefore presented as:-</p>

	<p>1) “Do nothing” option, other than monitoring the condition and deterioration of the structure in the two-yearly highway structures inspection programme, carrying out reactive maintenance when necessary.</p> <p>2) Design and implement re-waterproofing works to part of the structure (i.e. those areas which were not already subject to s278 replacement works in 2017), in addition to replacement of all expansion joints for the entire extent of the structure (including the defective ones replaced in 2017). This would be achieved by full exposure to the deck level in these areas but would exclude any internal structural concrete repairs.</p> <p>3) As option 2) but including all internal structural concrete repairs within the car park.</p> <p>“Do nothing” (Option 1) is considered to be the least favoured option, as it would not arrest ongoing deterioration of the structure and water ingress of the car park, nor would it best protect against potential 3<sup>rd</sup> party claims thereof with respect to parked vehicles. It is understood that insurance of the car park is no longer available to cover damage/risks from water leakage. At some point, intervention in all areas will be required and it is likely to be far more expensive to tackle this in a reactive and piecemeal fashion, especially if the condition of the car park is allowed to deteriorate in the interim.</p> <p>Option 2 satisfactorily deals with the immediate problem of water ingress and waterproofing to the car park through the roof deck but fails to tackle internal structural defects in the car park which have already manifested themselves due to past water ingress. These defects will continue to deteriorate following works (albeit it at a slower rate), due to carbonation and chloride contamination of the concrete, especially where spalling and exposed reinforcement are already apparent. Option 2 also fails to tackle water ingress through the perimeter walls where cracking and “honeycombed” concrete have allowed this to occur.</p>
<p><b>5. Recommended option</b></p>	<p>It is recommended that Option 3 is implemented, with waterproofing/jointing works running concurrently with concrete repair works to the interior, in order to make best use of contractor resources and increase cost-efficiency of the works required.</p>
<p><b>6. Risk</b></p>	<p>A Costed Risk Provision (CRP) of £25,000 is requested at this stage, to cover “unforeseen conditions” during further investigations to buried/hidden structure, to be drawn down via delegated authority to the Assistant Director Engineering</p> <p>A total CRP of £200,000 is requested beyond Gateway 5 related to construction stage risks, to be drawn down via delegated authority to the Assistant Director Engineering (subject to tendered works costs remaining within budget at G5).</p>

	<p>These also relate primarily to unforeseen conditions during construction, due to the buried or otherwise hidden nature of the structure and potential defects. Whilst investigations are proposed prior to Gateway 5 to mitigate these risks, these can only be limited in their scope for reasons of economy, compared with the very large extent of the structure on London Wall.</p> <p>Further information available in the Risk Register (Appendix 2) and Options Appraisal.</p>
<b>7. Procurement approach</b>	<p>The detailed design of the works is to be carried out by consultant Arcadis under their current term contract for Management &amp; Inspection of Highway Structures, using tendered rates for professional services.</p> <p>It is proposed that flexibility is retained to procure the works from either of the two options:-</p> <ul style="list-style-type: none"> <li>a) Using the new term contract for highway works, which comes into force in 2022/23, based on agreed rates and/or agreed costs derived by open book tendering of subcontractor packages, or</li> <li>b) By competitive tender (by open invite) via the Capital e-sourcing portal based on quality and cost submissions.</li> </ul> <p>Please also additionally refer to the appended Procurement Form PT4 in Appendix 3</p>

### Appendices

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Risk Register (for recommended option)
<b>Appendix 3</b>	PT4 Procurement Form
<b>Appendix 4</b>	Financial Summary (for recommended option)

### Contact

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### Options Appraisal Matrix

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
<b>1. Brief description of option</b>	“Do nothing” option, other than monitoring the condition and deterioration of the structure in the two-yearly highway structures inspection programme, carrying out reactive maintenance when necessary.	Design and implement re-waterproofing works (those areas which were not already subject to s278 replacement works in 2017)  Replacement of all expansion joints for the entire extent of the structure (including the defective ones replaced in 2017)  This would be achieved by full exposure to the deck level in these areas, but would exclude any internal structural concrete repairs.	As option 2) but including all internal structural concrete repairs.
<b>2. Scope and exclusions</b>	As described i.e. biennial monitoring and reactive maintenance only.	<ul style="list-style-type: none"> <li>• As described.</li> <li>• Includes the defective expansion joints that were replaced in 2017</li> <li>• Excludes concrete repairs to interior</li> </ul>	<ul style="list-style-type: none"> <li>• As described.</li> <li>• Includes the defective expansion joints that were replaced in 2017</li> <li>• Includes concrete repairs to interior</li> </ul>
<b>Project Planning</b>			
<b>3. Programme and key dates</b>	Ongoing biennial programme of planned inspections, followed by reactive	Expected duration of works 12 to 16 weeks with an expected	As for option 2, as concrete repair works to interior of car park do not conflict with exterior waterproofing

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	maintenance works when necessary	completion date in late-summer 2023	works and utilise different trades. Therefore, expected to run concurrently.
<b>4. Risk implications</b>	<p>Overall project option risk: Medium</p> <ul style="list-style-type: none"> <li>• Risk of structural depreciation in between reactive maintenance cycles, leading to increased long terms maintenance costs</li> <li>• Increased risk of 3<sup>rd</sup> party claims from damage to parked vehicles from spalling concrete or water ingress with calcareous deposits. It is understood that insurance of the car park is no longer available to cover damage/risks from water leakage</li> <li>• Damage to Roman remains (London Wall)</li> <li>• Associated reputational risks to City</li> </ul>	<p>Overall project option risk: Low</p> <ul style="list-style-type: none"> <li>• Whilst dealing with the primary water ingress issues, this option does not mitigate against ongoing structural deterioration to existing interior defects, especially where reinforcement is exposed and corroding</li> </ul>	<p>Overall project option risk: Low</p> <ul style="list-style-type: none"> <li>• This option, whilst the most expensive, mitigates risks of further structural depreciation, insurance losses and asset value/utility in the most appropriate and cost-efficient manner.</li> </ul> <p>Further information available within the Risk Register (Appendix 2).</p>

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
<b>5. Stakeholders and consultees</b>	<ul style="list-style-type: none"> <li>As options 2 and 3, but on a reactive basis rather than planned works under a capital project</li> </ul>	<ul style="list-style-type: none"> <li>City Surveyors Department</li> <li>Parking Operator</li> <li>Highway Authority</li> <li>Transport for London (inc. buses)</li> <li>Adjacent businesses, especially those affronting London Wall</li> </ul>	
<b>6. Benefits of option</b>	<ul style="list-style-type: none"> <li>Zero initial cost</li> </ul>	<ul style="list-style-type: none"> <li>Tackles all issues arising from external waterproofing and joint defects</li> <li>Minimal disruption to car park interior</li> </ul>	<ul style="list-style-type: none"> <li>Tackles all issues arising from both external and internal defects</li> <li>Maximum cost efficiency by using shared project resources (overheads, closures etc) for interior and exterior works concurrently</li> </ul>
<b>7. Disbenefits of option</b>	<ul style="list-style-type: none"> <li>Tackles the important issues in only a reactive manner</li> <li>Leading to increase long-term costs</li> </ul>	<ul style="list-style-type: none"> <li>Doesn't tackle further deterioration of internal defects (or risks associated)</li> <li>Doesn't make best use of large project resources to combine works and increase cost-efficiency</li> </ul>	<ul style="list-style-type: none"> <li>Maximum project cost</li> <li>Increased temporary disruption to car park operation during interior concrete repair works, with potential loss of short term revenue</li> </ul>
<b>Resource Implications</b>			
<b>8. Total estimated cost</b>	Total estimated cost (excluding risk): <i>No capital project funding costs</i>	Total estimated cost (excluding risk): <b>£1.684 Million</b>	Total estimated cost (excluding risk): <b>£ 1.784 Million</b>

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	Total estimated cost: (including risk): <i>No capital project funding costs.</i>	Total estimated cost: (including risk): <b>£1.884 Million</b>	Total estimated cost: (including risk): <b>£1.984 Million</b>
<b>9. Funding strategy</b>	Biennial inspections and reactive maintenance are funded from City Fund Local Risk	City Fund On-Street Parking Reserve Central funding from the On-Street Parking Reserve was agreed in principle via the 2020/21 capital bids. Release of this funding will be subject to the further approval of the Resource Allocation Sub-Committee.	
<b>10. Investment appraisal</b>	Not applicable		
<b>11. Estimated capital value/return</b>	Not applicable		
<b>12. Ongoing revenue implications</b>	Increased revenue costs are associated with this option, due to addressing defects in a reactive and ad-hoc manner, whilst not addressing the causes of structural degradation in a planned manner. Additionally, increased risk of 3rd party claims from damage to parked vehicles from spalling concrete or water ingress with calcareous deposits. It is understood that insurance of the car park is no	This option reduces revenue costs associated with reactive maintenance to waterproofing and expansion joints but not those associated from internal structural degradation from carbonation and chloride contamination to reinforced concrete	This option reduces revenue costs associated with reactive maintenance to both exterior and interior.  Temporary short term revenue implications (unquantified) are expected during concrete repair works, to be mitigated by works phasing in liaison with stakeholders.

<b>Option Summary</b>	<b>Option 1</b>	<b>Option 2</b>	<b>Option 3</b>
	longer available to cover damage/risks from water leakage		
<b>13. Affordability</b>	Not applicable to capital project (no capital funding required)	Adequate Central funding from the On-Street Parking Reserve was agreed in principle via the 2020/21 capital bids. Release of this funding will be subject to the further approval of the Resource Allocation Sub-Committee.	
<b>14. Legal implications</b>	Limited mitigation of potential 3 <sup>rd</sup> party claims arising from internal concrete defects	Limited mitigation of potential 3 <sup>rd</sup> party claims arising from internal concrete defects	Most effective option in mitigating 3 <sup>rd</sup> party claims due to internal concrete defects
<b>15. Corporate property implications</b>	None (no comments received)	None (no comments received)	None (no comments received)
<b>16. Traffic implications</b>	None	<ul style="list-style-type: none"> <li>• Temporary road closures and diversions (including buses) will be required to facilitate waterproofing and expansion joint works on London Wall</li> <li>• Maintaining access to the car park during these closures will also need to be agreed/phased.</li> </ul>	<ul style="list-style-type: none"> <li>• Temporary road closures and diversions (including buses) will be required to facilitate waterproofing and expansion joint works on London Wall</li> <li>• Maintaining partial access to the car park during these closures and during concrete repair works to the car park interior will also need to be agreed/phased.</li> </ul>
<b>17. Sustainability and energy implications</b>	None		

<i>Option Summary</i>	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>
<b>18. IS implications</b>	None		
<b>19. Equality Impact Assessment</b>	Not Applicable		
<b>20. Data Protection Impact Assessment</b>	Not Applicable		
<b>21. Recommendation</b>	Not recommended	Not recommended	Recommended

# Project Coversheet

## [1] Ownership & Status

**UPI:** 12002

**Core Project Name:** London Wall Car Park Joints and Waterproofing

**Programme Affiliation** (if applicable): n/a

**Project Manager:** Mark Bailey

### **Definition of need:**

To carry out essential waterproofing and repair works to the highway structure, in order to maintain structural integrity, utility and asset value. These comprise:-

- 1) Re-waterproofing the remaining areas of structure that were not completed by adjacent London Wall Place development s278 highway improvement works in 2017.
- 2) Replacing structural expansion joints to the structure.
- 3) Concrete repairs to internal surfaces where existing concrete has spalled and exposed corroding reinforcement, as identified from the two-year inspection regime.

### **Key measures of success:**

1. To substantially reduce water ingress into the car park structure and resulting concrete degradation
2. To complete the works within a defined programme with minimum possible disruption to traffic, local residents and businesses, consistent with the nature and extent of the works.

**Expected timeframe for the project delivery:** The original expectation was that the project would be completed in 2019. However, the project was subsequently placed on hold as part of the Corporate Fundamental Review. Completion by the end of 2023 is now anticipated.

### **Key Milestones:**

- Complete detailed design and procurement
- Gateway 5 approval
- Completion of works

**Are we on track for completing the project against the expected timeframe for project delivery?** Not as originally proposed, for the reasons stated above.

**Has this project generated public or media impact and response which the City of London has needed to manage or is managing?** No

## [2] Finance and Costed Risk

### **Headline Financial, Scope and Design Changes**

#### **'Project Proposal' G1 & G2 report (as approved by Corporate Projects Board 23/03/2018 and Projects Sub Committee 16/05/2018):**

- Total Estimated Cost (excluding risk): £2 Million
- Resources to reach next Gateway (excluding risk): £12,000
- Costed Risk Against the Project: Not identified at G1/2
- CRP Requested: n/a
- CRP Drawn Down: n/a
- Estimated Programme Dates: Completion in 2019, subject to funding

*Scope/Design Change and Impact:*

**Total anticipated on-going commitment post-delivery [£]:** The highway structure will continue to be inspected biennially, as part of the highway structures inspection term contract (funded from Local Risk) with ongoing cyclical maintenance works identified within the 20-year asset plans from the Cyclical Works Programme.

**Programme Affiliation [£]:** n/a



**City of London: Projects Procedure Corporate Risks Register**

Project Name: London Wall Car Park Joints and Waterproofing

Unique project identifier: 12002

Total budget estimate: £1784000

PM's Overall risk rating	Low
Avg unmitigated risk score	5.0
Avg mitigated risk score	3.0
Red risks (open)	0
Amber risks (open)	5
Green risks (open)	4

*Corporate Risk Matrix score table*

	Minor impact	Serious impact	Major impact	Extreme impact
Likely	4	8	16	32
Possible	3	6	12	24
Unlikely	2	4	8	16
Rare	1	2	4	8

Costed risks identified (All)	£750,000.00	42%	% risk total against budget estimate
Costed risk carried (Live)	£750,000.00	42%	
Costed mitigated risk carried (Live)	£200,000.00	11%	" "
Costed Risk Provision requested	£25,000.00	1%	<i>Value of the costed risk provision requested</i>

- (1) Service Delivery/ Performance
- (2) Financial
- (3) Reputation
- (4) Legal/ Statutory
- (5) Safety/ Health
- (6) Objectives

Number of Open Risks	Avg Score	Costed impact	Red	Amber	Green
0	0.0	£0.00	0	0	0
5	6.4	£750,000.00	0	5	0
1	4.0	£0.00	0	0	1
3	3.0	£0.00	0	0	3
0	0.0	£0.00	0	0	0
0	0.0	£0.00	0	0	0

Issues (open)	0
All Issues	0

	Extreme	Major	Serious	Minor
Open Issues	0	0	0	0
All Issues	0	0	0	0

Cost to resolve all issues (on completion) £0.00

City of London: Projects Procedure Corporate Risks Register

Project Name: **London Wall Car Park Joints and Waterproofing**  
 Unique project identifier: **12002**

PM's Overall risk rating: **Low**  
 Lifetime total budget estimate: **£ 1,784,000**

Costed risk provision requested: **£ 25,000**

Average unmitigated risk: **5.0**  
 Average mitigated risk score: **3.0**

Open Risks: **9**  
 Closed Risks: **0**

General risk classification										Mitigation actions						Ownership & Action				Comment(s)
Risk ID	Category	Description of the Risk	Risk Impact Description	Likelihood Classification	Impact Classification	Risk score	Costed impact (£)	Costed Risk Provision requested Y/N	Confidence in the estimation	Mitigating actions	Mitigation cost (£)	Likelihood Classification after mitigation	Impact Classification after mitigation	Costed impact after mitigation (£)	Mitigated Risk score	Date raised	Named Departmental Risk Manager/ Coordinator	Risk owner (Named Officer or External Party)	Date Closed OR/ Realised & moved to Issues	
R1	(2) Financial	Failure to secure funding	Delay or cancellation	Possible	Serious	6	£0.00	N	B – Fairly Confident	Funds identified from City Fund On-Street Parking Reserve during Fundamental Review	£0.00	Unlikely	Serious	£0.00	4	26/04/22	DBE	M. Bailey		
R2	(4) Legal/ Statutory	Failure to secure timely access for works	Delay to project start	Possible	Minor	3	£0.00	N	B – Fairly Confident	Advance coordination with statutory authorities	£0.00	Unlikely	Minor	£0.00	2	26/04/22	DBE	M. Bailey		
R3	(2) Financial	Tenders for works above budget	Increased project costs	Possible	Serious	6	£200,000.00	N	B – Fairly Confident	Estimates based on recent similar projects, where possible	£0.00	Unlikely	Serious	£0.00	4	26/04/22	DBE	M. Bailey	Concrete repair elements constitute biggest risk elements	
R4	(4) Legal/ Statutory	Highway /TFL approval risks	Delay to project start	Possible	Minor	3	£0.00	N	B – Fairly Confident	Advance coordination with statutory authorities	£0.00	Unlikely	Minor	£0.00	2	26/04/22	DBE	M. Bailey		
R5	(2) Financial	Adverse weather during construction	Delays and additional costs	Possible	Serious	6	£50,000.00	N	B – Fairly Confident	Careful programming of works and selection of materials	£0.00	Possible	Minor	£0.00	3	26/04/22	DBE	M. Bailey	Costs included with Adverse Conditions risks	
R6	(2) Financial	Adverse unforeseen conditions during construction & pre-construction investigations	Delays and additional costs	Possible	Serious	6	£400,000.00	Y	B – Fairly Confident	Tril investigations to mitigate risks to some degree	£75,000.00	Possible	Minor	£200,000.00	3	26/04/22	DBE	M. Bailey	£25,000 of R6 is requested at G3/4 and we currently envisage a further £175,000 at G5, making £200,00 in total. This will be reviewed at G5 when investigations, design and tender costs are confirmed. Concrete repair elements constitute biggest risk elements	
R7	(4) Legal/ Statutory	Conflict with other works on network	Delays to project start	Possible	Minor	3	£0.00	N	A – Very Confident	Advance coordination	£0.00	Unlikely	Minor	£0.00	2	26/04/22	DBE	M. Bailey		
R8	(3) Reputation	Public dissatisfaction with works, including car park users	Bad PR and reputation	Likely	Minor	4	£0.00	N	A – Very Confident	Design of phased working to minimise disruption	£0.00	Possible	Minor	£0.00	3	26/04/22	DBE	M. Bailey		
R9	(2) Financial	Conflict with utilities during construction	Delays and additional costs	Likely	Serious	8	£100,000.00	N	C – Uncomfortable	Past investigations indicate very few due to shallow nature of structures	£0.00	Unlikely	Serious	£0.00	4	26/04/22	DBE	M. Bailey		
R10																				
R11							£0.00				£0.00			£0.00						
R12							£0.00				£0.00			£0.00						
R13							£0.00				£0.00			£0.00						
R14							£0.00				£0.00			£0.00						
R15							£0.00				£0.00			£0.00						
R16							£0.00				£0.00			£0.00						
R17							£0.00				£0.00			£0.00						
R18							£0.00				£0.00			£0.00						
R19							£0.00				£0.00			£0.00						
R20							£0.00				£0.00			£0.00						
R21							£0.00				£0.00			£0.00						
R22							£0.00				£0.00			£0.00						
R23							£0.00				£0.00			£0.00						
R24							£0.00				£0.00			£0.00						
R25							£0.00				£0.00			£0.00						
R26							£0.00				£0.00			£0.00						
R27							£0.00				£0.00			£0.00						
R28							£0.00				£0.00			£0.00						
R29							£0.00				£0.00			£0.00						
R30							£0.00				£0.00			£0.00						
R31							£0.00				£0.00			£0.00						
R32							£0.00				£0.00			£0.00						
R33							£0.00				£0.00			£0.00						
R34							£0.00				£0.00			£0.00						
R35							£0.00				£0.00			£0.00						
R36							£0.00				£0.00			£0.00						
R37							£0.00				£0.00			£0.00						
R38							£0.00				£0.00			£0.00						
R39							£0.00				£0.00			£0.00						
R40							£0.00				£0.00			£0.00						
R41							£0.00				£0.00			£0.00						
R42							£0.00				£0.00			£0.00						
R43							£0.00				£0.00			£0.00						
R44							£0.00				£0.00			£0.00						
R45							£0.00				£0.00			£0.00						
R46							£0.00				£0.00			£0.00						
R47							£0.00				£0.00			£0.00						
R48							£0.00				£0.00			£0.00						
R49							£0.00				£0.00			£0.00						
R50							£0.00				£0.00			£0.00						



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## PT4 - Committee Procurement Report

This document is to be used to identify the Procurement Strategy and Purchasing Routes associated with a project and only considers the option recommended on the associated Gateway report.



### Introduction

<b>City Procurement Project Reference:</b>	21/003/PS		
<b>Project / Contract Title:</b>	London Wall Car Park Joints and Waterproofing		
<b>Project Lead &amp; Contract Manager:</b>	Mark Bailey	<b>Lead Department:</b>	Environment
<b>Category Manager:</b>	Jemma Borland	<b>Other Contact:</b>	
<b>Total Contract Value (excluding VAT and inc. extension options):</b>	£1.6 Million	<b>Contract Duration (inc. extension options):</b>	12 weeks (estimated)
<b>Budget approved Capital/Revenue:</b>	Yes/No Capital/Revenue	<b>Capital Project reference (if applicable):</b>	16800398
<b>Gateway Approval Process</b>			
- Is this project subject to the Gateway process? Yes/No			
- If so, what was the last Gateway report, and date of approval, and what is the next Gateway report and scheduled date for recommendation for approval?			
Last G1&2      March 2018			
Next G3&4      June 2022			
<b>Opportunity for Inter-City Collaboration (is there another site/department that could benefit from this project)?</b>			
n/a			

### Procurement Strategy Recommendation

<b>City Procurement team recommended option</b>
<b>Option 1: Traditional – Client Led (Single Stage)</b>

### Route to Market Recommendation

<b>City Procurement team recommended option</b>
Sub-FTS Open Tender

### Specification and Evaluation Overview

<b>Summary of the main requirements:</b>	
Traditional construction contract for following works	
<ul style="list-style-type: none"> <li>Waterproofing</li> <li>Expansion Joints</li> <li>Concrete Repairs</li> </ul>	
<b>Technical and Pricing evaluation ratio</b>	
<b>30% (Technical) / 70% (Price)</b>	
<b>Overview of the key Evaluation areas (if known at this stage):</b>	
Past experience, traffic management, technical expertise, H&S	
<b>Does contract delivery involve a higher than usual level of Health &amp; Safety, Insurance, or Business risk to be allowed in the procurement strategy?</b>	
<ul style="list-style-type: none"> <li>Enhanced level of health and safety because of works</li> </ul>	
<b>Are there any accompanying documents with this report? e.g. PTO/outlined project plan identifying roles and responsibilities as appropriate</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>If yes, please include information in the appendices section below.</b>	
<b>Will this project require the winning supplier(s) to process personal data on our behalf?</b>	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<b>Is there a requirement for a Performance Bond on this Project and if so, on what grounds?</b>	
No	
<b>Will the procurement process require a financial assessment? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/></b>	
<b>If yes, please indicate recommended assessment: Finance Check <input type="checkbox"/> Financial Appraisal <input type="checkbox"/></b>	

<b>Please indicate reasons for this recommendation</b> (please include in this section information on project being rated low/not low):
<b>If yes, please make sure you've defined roles and responsibilities within your project specification. For more information visit <a href="#">Designing Specifications under GDPR</a>. You may include your <a href="#">Data Protection Impact Assessment</a> or other relevant report as an appendix to this PT form when submitting to category board (for information).</b>
<b>Evaluation Panel – Please enter Names and Departments below (if known)</b>

**Procurement Strategy Options** *This could include inter-departmental usage, external collaborative opportunities, existing contracts integrated once expired or adding it to an existing contract. Options for Make (In-house delivery) versus Buy (Outsource) decision to be considered; also indicate any discarded or radical options.*

<b>Option 1: Traditional – Client Led (Single Stage or Two Stage)</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>Completed design to share with the Tenderers.</li> <li>No additional design fees required.</li> <li>The Supplier is aware of their requirement from the outset.</li> </ul>
<b>Disadvantages to this Option:</b>
Supplier may not have the capability to include design elements within their structure, if additional works require it.
<b>Please highlight any possible risks associated with this option:</b> Providing a design that can be delivered may require additional works or surveys which may not be available within the programme or the budget.

**Route to Market Options:** *Route to market is the way in which the City will invite suppliers to bid for the procurement.*

<b>Option 1: Sub-FTS Open Tender</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>Allows us to engage with the market as a whole.</li> <li>Allows the City to build the specification it requires and work to the timescales it requires.</li> <li>Allows us to engage with SME's as opposed to using a framework, which stereotypically have larger suppliers appointed to them.</li> </ul>
<b>Disadvantages to this Option:</b>
<ul style="list-style-type: none"> <li>Will take longer to engage with the market.</li> <li>Tender may be seen as too much of a strain on resources for parties to participate.</li> </ul>
<b>Please highlight any possible risks associated with this option:</b>
<ul style="list-style-type: none"> <li>No guarantee of the quality of responses returned.</li> <li>Responses could possibly be over OJEU threshold.</li> </ul>
<b>Option 2: Appoint via a framework supplier</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>Quicker engagement with the market.</li> <li>Pre-vetted suppliers on the framework.</li> </ul>
<b>Disadvantages to this Option:</b>
<ul style="list-style-type: none"> <li>Less engagement with SME's</li> <li>Larger Suppliers will subcontract the work as opposed to having employees working directly on the project.</li> </ul>
<b>Please highlight any possible risks associated with this option:</b>
<ul style="list-style-type: none"> <li>The quality of the service and works carried out could be lower than expected.</li> </ul>

**Price Mechanism**

<b>Option 1: Lump sum fixed price</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>Once price paid for the delivery of the specification and schedule.</li> <li>A contractual arrangement where the fee is capped, and the supplier accepts the risk.</li> <li>Gives a clear cost, which aids reporting and budget management.</li> </ul>
<b>Disadvantages to this Option:</b>
<ul style="list-style-type: none"> <li>The Supplier will be looking to make efficiencies in their supply chain where they can to maximise their profit.</li> <li>Contract variations can be costly.</li> <li>Their price may contain added on cost due to the risk.</li> </ul>
<b>Please highlight benefits and possible risks associated with this option relative to the specifics of the project:</b>
<ul style="list-style-type: none"> <li>Variations to the amount of locations and requirements, maybe amended and would cause issues when variant the contract.</li> </ul>

<b>Option 2: Fixed price - schedule of rates/bill of quantities</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>• This give a more granular overview on each element, identifying how much each install is for a sized property.</li> <li>• It allows easier calculations for variation if additional properties require work or unforeseen requests.</li> <li>• Variations require less administration to action.</li> </ul>
<b>Disadvantages to this Option:</b>
<ul style="list-style-type: none"> <li>• Easier for the project team to become relied on the variations and add additional work to the contact.</li> <li>• Does not allow for works outside of the specification to be completed even in emergency situations.</li> </ul>
<b>Please highlight benefits and possible risks associated with this option relative to the specifics of the project:</b>
<ul style="list-style-type: none"> <li>• Compliancy can set in for variation and the ease in which the contract can be amended.</li> </ul>

**Form of Contract**

<b>Option 1: CoL Standard amendments to JCT</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>• Commonly used form of contract with suppliers</li> <li>• Claims are dealt with retrospectively.</li> </ul>
<b>Disadvantages to this Option:</b>
<ul style="list-style-type: none"> <li>• SME's may not have experience dealing with these terms.</li> <li>• Does not support collaborative working.</li> </ul>
<b>Please highlight benefits and possible risks associated with this option relative to the specifics of the project :</b>
<b>Option 2: CoL Standard amendments to NEC3</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>• Pro-Active approach to delivery.</li> <li>• Using the spirit of mutual trust</li> </ul>
<b>Disadvantages to this Option:</b>
<ul style="list-style-type: none"> <li>• SME's may not have experience dealing with these terms.</li> <li>• Terms favour the Supplier.</li> </ul>
<b>Please highlight benefits and possible risks associated with this option relative to the specifics of the project:</b>
<ul style="list-style-type: none"> <li>• There is a lack of understanding of the terms that will cause delay and increased resources to solve issues.</li> </ul>
<b>Option 4: Other CC&amp;S standard form</b>
<b>Advantages to this Option:</b>
<ul style="list-style-type: none"> <li>• These are well known to the Contractors and we receive minimal objections to their usage.</li> <li>• The terms are designed for low value work, this is suited to the project and the delivery.</li> </ul>
<b>Disadvantages to this Option:</b>
<ul style="list-style-type: none"> <li>• None seen at this time.</li> </ul>
<b>Please highlight benefits and possible risks associated with this option relative to the specifics of the project:</b>
<ul style="list-style-type: none"> <li>• The Supplier may propose their own terms and conditions.</li> </ul>

**Outline of appendices**

o n/a
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**Report Sign-offs**

<b>Senior Category Manager Chamberlain's Department</b>	James Carter	<b>Date</b>	<b>10/05/2022</b>
<b>Departmental Stakeholder Department</b>		<b>Date</b>	<b>Click here to enter a date.</b>

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**Appendix 4 - Financial Summary (based on recommended option 3)**

	Up to Gateway 3/4		Gateway 4 to 5	Gateway 5 to 6	Project Total
	Approved	Actual Spend	Estimated	Estimated	Estimated
<b>Staff Costs</b>	6,000	6,000	14,000	21,000	<b>41,000</b>
<b>Professional Fees</b>	6,000	6,000	30,000	22,000	<b>58,000</b>
<b>Investigations/Trials</b>			75,000		<b>75,000</b>
<b>Consultation/Statutory Fees</b>			10,000		<b>10,000</b>
<b>Works</b>				1,600,000	<b>1,600,000</b>
<b>Stage totals</b>	12,000	12,000	129,000	1,643,000	<b>1,784,000</b>

Notes

All cost estimates are based on recent similar projects and Gateway 6 Outcome Reports

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<p><b>Committees:</b></p> <p>Streets and Walkways sub- committee – <i>For decision</i></p> <p>Operational Property and Projects Sub – <i>For decision</i></p>	<p><b>Dates:</b></p> <p>5 July 2022</p> <p>20 July 2022</p>
<p><b>Subject:</b>  <b>City Cluster - Wellbeing and Climate Resilience programme: Green Streets project</b></p> <p><b>Unique Project Identifier:</b>  <i>PV Project ID</i></p>	<p>Regular  <b>Gateway 4 Issues Report</b></p>
<p><b>Report of:</b>          Executive Director, Environment</p> <p><b>Report Author:</b>          Maria Herrera</p>	<p><b>For Decision</b></p>
<h1>PUBLIC</h1>	

<p><b>1. Status update</b></p>	<p><u>Context:</u></p> <p>The implementation of the City Cluster Vision is divided between three programmes focused on:</p> <ol style="list-style-type: none"> <li>1) Pedestrian priority and traffic reduction,</li> <li>2) Well-being and climate resilience, and,</li> <li>3) Activation and engagement.</li> </ol> <p>Each programme will deliver complementary improvements, in response to the highest priorities in the area, and are being developed in close collaboration with local stakeholders. Officers have worked closely with the EC BID to understand the needs of the area at this challenging time and have developed designs that will assist post-pandemic recovery by providing attractive spaces to meet and spend time outdoors.</p> <p><u>Green Streets project description:</u></p> <ul style="list-style-type: none"> <li>○ The Green Streets project is one of seven projects within the Wellbeing and Climate Resilience Programme</li> </ul>
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(Gateway 4 approval, April 2021), and is focused on the creation of a greener more welcoming environment, increased climate change mitigation measures and contributing towards an improved walking experience and wellbeing.

**RAG Status:** Green (as last report to committee at Programme level)

**Risk Status:** Low (as last report to committee)

**Total Estimated Cost of Project (excluding risk),** £350,000-£400,000.

**Change in Total Estimated Cost of Project (excluding risk):** Increase of £150k since Gateway 3 approval as a result of the external funding contribution.

**Funding Source:** A 50% contribution from the EC BID has been confirmed, with the other 50% contribution from the Section 106 Agreement of 40 Leadenhall Street and 52-54 Lime Street projects.

**Spend to Date:** Fees to date have primarily been funded directly by the EC BID. The City Corporation has contributed £7,000 in fees towards the design development of the project. City staff costs have been funded as part of the overall City Cluster Wellbeing and Climate Change resilience programme management.

**Costed Risk Provision Utilised:** NA

<p><b>2. Requested decisions</b></p>	<p><b>Next Gateway:</b> Gateway 5 - Authority to Start Work (Light)</p> <p><b>Requested Decisions:</b></p> <ol style="list-style-type: none"> <li>1. Approve the change in scope and funding strategy as set out in this report.</li> <li>2. Note the total estimated cost of the project at £350,000-400,000 as a result of the additional external funding, and the resulting increased programme budget, details of which will be set out in a forthcoming programme update report in September 2022.</li> <li>3. Agree the installation of a prototype in September 2022 at a total estimated cost of £20,000 to be funded by the EC BID with soft landscaping costs of £7,000 covered by the City's Cool Streets and Greening programme (Climate Action Strategy).</li> <li>4. Note that, following the review of the prototype, a Gateway 5 report is to be prepared under Delegated Approval to Chief Officer for delivery of the installations proposed within Green Streets project.</li> </ol>																												
<p><b>3. Budget</b></p>	<p>Table 1. Well-being and Climate Change resilience programme spend to date. Involves the development of seven projects within the programme.</p> <p>The available funds are sufficient to reach Gateway 5.</p> <table border="1" data-bbox="528 1462 1433 1982"> <thead> <tr> <th colspan="4"><b>Table 1: Spend to Date - City Cluster Vision - Well-being &amp; Climate Change - 16800437</b></th> </tr> <tr> <th><b>Description</b></th> <th><b>Approved Budget (£)</b></th> <th><b>Expenditure (£)</b></th> <th><b>Balance (£)</b></th> </tr> </thead> <tbody> <tr> <td>Env Servs Staff Costs</td> <td>29,000</td> <td>11,502</td> <td>17,498</td> </tr> <tr> <td>Open Spaces Staff Costs</td> <td>14,000</td> <td>2,845</td> <td>11,155</td> </tr> <tr> <td>P&amp;T Staff Costs</td> <td>85,000</td> <td>81,397</td> <td>3,603</td> </tr> <tr> <td>P&amp;T Fees</td> <td>57,000</td> <td>53,914</td> <td>3,086</td> </tr> <tr> <td><b>TOTAL</b></td> <td><b>185,000</b></td> <td><b>149,659</b></td> <td><b>35,342</b></td> </tr> </tbody> </table>	<b>Table 1: Spend to Date - City Cluster Vision - Well-being &amp; Climate Change - 16800437</b>				<b>Description</b>	<b>Approved Budget (£)</b>	<b>Expenditure (£)</b>	<b>Balance (£)</b>	Env Servs Staff Costs	29,000	11,502	17,498	Open Spaces Staff Costs	14,000	2,845	11,155	P&T Staff Costs	85,000	81,397	3,603	P&T Fees	57,000	53,914	3,086	<b>TOTAL</b>	<b>185,000</b>	<b>149,659</b>	<b>35,342</b>
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<b>TOTAL</b>	<b>185,000</b>	<b>149,659</b>	<b>35,342</b>																										

	<p>The overall programme budget was approved in April 2021 at between £1.4 and £1.5M for the delivery of seven projects within the programme.</p> <p>The scope of the Green Streets project has been increased to take account of the aspirations of the recently established EC BID. This includes funding from the BID of £175,000, resulting in a total estimated project cost of £350-400k (see Section 4 below).</p> <p>As a result, Members should note that the overall cost of the Wellbeing and Climate Resilience Programme will increase. A programme level update report is intended to be submitted in September, to provide an overview on all workstreams.</p>
<p><b>4. Issue Description</b></p>	<p><b>4.1. Scope change:</b></p> <p>At Gateway 4, seven projects were approved to be taken forward as part of the delivery of the Wellbeing and Climate resilience programme. The projects were organised in three themes as follows:</p> <p>Improvements to existing public spaces:</p> <ol style="list-style-type: none"> <li>1. St Helen’s Bishopsgate churchyard:</li> <li>2. St Andrew Undershaft churchyard</li> <li>3. Jubilee Gardens</li> </ol> <p>Green streets:</p> <ol style="list-style-type: none"> <li>4. Creechurch Lane - Stoney Lane (interim greening measures)</li> <li>5. Philpot Lane - Rood Lane (interim greening measures)</li> </ol> <p>Climate Change Resilience measures</p> <ol style="list-style-type: none"> <li>6. Bevis Marks and Houndsditch; Pilot Sustainable urban drainage (Suds) scheme</li> <li>7. Area wide tree planting</li> </ol> <p>4.2 The Green Streets project initially consisted of interim greening measures (in locations listed above), to deliver a welcoming and attractive urban environment in the short-term. Proposals considered at Gateway 4 included installation of parklets, planters and seating, building on the measures delivered as part of the City Corporation’s Covid19 recovery strategy.</p> <p>However, this scope is proposed to be revised in response to the objectives of the EC BID to include longer lasting green interventions alongside seating in more locations in the City Cluster. This will result in a more sustainable and impactful outcome. The proposed locations are set out in 4.4 below.</p>

4.3 A high-quality design has been developed by architects WMB studio. The materials chosen for the modular seating and planting units are natural and durable and minimal maintenance is anticipated. The materials considered for the units are robust and long lasting. The units will be fabricated using terracotta and reclaimed timber for the seats. The modules have been designed to be movable and arranged in different configurations in response to specific site conditions. The aim is for the seating and planting units to be reused across the area in other public realm improvements.

A resilient planting palette will be selected to ensure plants are suitable for the site conditions. Please see designs in the appendix 3.

4.4 The Green Streets project will now deliver installations in the following locations:

Sites proposed at Gateway 4:

1. Rood Lane
2. Creechurch Lane north
3. Philpot Lane: a temporary intervention has been installed at this location as part of the Covid-19 recovery measures. This will be evaluated further to consider stakeholder needs, traffic movement and dependencies with nearby developments.

Additional sites proposed:

4. Lime Street
  5. Fen Court north
  6. Mark Lane / Great Tower Street
  7. Mark Lane north
  8. Fenchurch Place (London Street)
  9. St Margaret Pattens courtyard
- See plan attached in Appendix 3.

4.5 A joint funding strategy has been agreed with the EC BID which has enabled the scope to be expanded. The EC BID has committed to funding £175,000 for the delivery of the Green Streets project. The City Corporation's contribution will be from S106 receipts that were committed to this programme at Gateway 4.

4.6 A prototype installation is planned to be commissioned by the EC BID to finalise manufacturing details and reduce risk for future installations. It is proposed that the City Corporation will cover the cost of the soft landscaping for the prototype, utilising existing funds from the Cool Streets and Greening Programme.

	<p>The aim is to install a prototype in September to review and test the design ahead of rolling out the wider project by the end of 2022.</p> <p>4.7 The maintenance costs of the installations will be covered by the EC BID through a maintenance agreement to be finalised at the next stage. This will include an allowance for the occasional movement or relocation of the installations. This will be detailed in the Gateway 5 report (delegated to the Director of Environment) in the autumn. The Gateway 5 report will also include an assessment of pavement width and impact on Pedestrian Comfort Levels to ensure there is still sufficient width available for people walking.</p>
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### **Appendices**

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Risk Register
<b>Appendix 3</b>	Project summary; visuals and plans

### **Contact**

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# Project Coversheet

## [1] Ownership & Status

**UPI:**

**Core Project Name:** City Cluster - Well-being and Climate Resilience programme: Green Streets project

**Programme Affiliation** (if applicable):

**Project Manager:** Maria Herrera

**Definition of need:** Project scope increased due to additional external funding being secured

**Key measures of success:**

1. Project prototype is delivered successfully in September.
2. Design details are agreed and approved by funding partner.
3. Project objectives are achieved, and stakeholders are supportive.

**Expected timeframe for the project delivery:** July-December 2022

**Key Milestones:**

1. *Production of prototype and signoff design.*
2. *Gateway 5 report is submitted in September.*
3. *Implementation of all sites completed by December 2022*

**Are we on track for completing the project against the expected timeframe for project delivery?** Yes.

Target completion timescales is connected to the production of the prototype to ensure the design is successful and reduce risk.

**Has this project generated public or media impact and response which the City of London has needed to manage or is managing?**

Not yet. The funding partner (EC BID) intend to promote the project in the Autumn 2022.

## [2] Finance and Costed Risk

**Headline Financial, Scope and Design Changes:**

**'Project Briefing' programme report**

**City Cluster Area –Delivery Plan, as approved by:**

Planning and Transportation Committee – For decision, 14 July 2020

Streets and Walkways Sub – For decision, 07 July 2020

Projects Sub – For decision, 30 July 2020

Open Spaces Committee - For information, 14 July 2020

- Total Estimated Cost (excluding risk): £2.4-2.9m delivery of the initial three years of work (2020-23)
- Costed Risk Against the Project: NA
- Estimated Programme Dates: 2020-2023 for the overall programme which consists of several projects across three workstreams.

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<p>Scope/Design Change and Impact: The delivery of the programme was set out within three work programmes:</p> <ol style="list-style-type: none"><li>1. Pedestrian Priority and traffic reduction</li><li>2. Well-being and Climate Change resilience</li><li>3. Activation and Engagement</li></ol>
<p><b>City Cluster Area – Wellbeing and Climate Change resilience programme implementation (2021-2024) Gateway 3, as approved by:</b></p> <p>Planning and Transportation Committee – For decision-14 July 2020 Streets and Walkways Sub – For decision – 07 July 2020 Projects Sub – For decision – 30 July 2020 Open Spaces Committee - For information – 14 July 2020</p> <ul style="list-style-type: none"><li>• Total Estimated Cost (excluding risk): £750-850k for the projects within the programme.</li><li>• Estimated Programme Dates: 2020-25</li></ul> <p>Scope/Design Change and Impact: Projects within the programme have been developed further and this reflects the increase in overall estimated costs. External funding has been taken into account in the estimated programme costs.</p>
<p><b>City Cluster Area – Wellbeing and Climate Change resilience programme implementation (2021-2024) Gateway 4, as approved by:</b></p> <p>Open Spaces Committee - For decision – 27 April 2021 Streets and Walkways Sub Committee – For decision – 29 April 2021 Projects Sub Committee– For decision – 17 May 2021</p> <ul style="list-style-type: none"><li>• Total Estimated Cost (excluding risk): £1.4-£1.5 for the projects within the programme.</li><li>• Resources to reach next Gateway (excluding risk): within project budget as set out in report.</li><li>• Spend to date: £149,659 on this programme only (June 2021).</li><li>• Costed Risk Against the Project: NA</li><li>• Estimated Programme Dates:2021-24</li></ul> <p>Scope/Design Change and Impact: Detailed project scope has been presented with seven projects proposed to be taken forward to gateway 5. The Green Streets project is one of the projects within the programme.</p>
<p><b>‘Authority to start Work’ G5 report (as approved by PSC xx/yy/zz):</b></p> <ul style="list-style-type: none"><li>• Total Estimated Cost (excluding risk):</li><li>• Resources to reach next Gateway (excluding risk)</li><li>• Spend to date:</li><li>• Costed Risk Against the Project:</li></ul>

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- CRP Requested:
- CRP Drawn Down:
- Estimated Programme Dates:

*Scope/Design Change and Impact:*

**Total anticipated on-going commitment post-delivery [£]:**<Current Range>  
**Programme Affiliation [£]:**<(If applicable) What is the estimated total programme cost including this project:>

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City of London: Projects Procedure Corporate Risks Register

Project Name:	Green Streets - City Cluster Well bieng and Climate	PM's overall risk rating:	Low	CRP requested this gateway:		Average unmitigated risk:	7.1	Open Risks:	8
Unique project identifier:	NA	Total estimated cost (exc risk):	£ 350,000	Total CRP used to date:	£ -	Average mitigated risk score:	5.5	Closed Risks:	0

General risk classification											Mitigation actions					Ownership & Action				Comment(s)			
Risk ID	Gateway	Category	Description of the Risk	Risk Impact Description	Likelihood Classification pre-mitigation	Impact Classification pre-mitigation	Risk score	Costed impact pre-mitigation (£)	Costed Risk Provision requested Y/N	Confidence in the estimation	Mitigating actions	Mitigation cost (£)	Likelihood Classification on post-mitigation	Impact Classification on post-mitigation	Costed impact post-mitigation (£)	Post-Mitigation risk score	CRP used to date	Use of CRP	Date raised		Named Departmental Risk Manager/Coordinator	Risk owner (Named Officer or External Party)	Date Closed OR/Realised & moved to Issues
R1	5	(10) Physical	Project prototype not delivered by September 2022	Delivery impacted by manufacturing delays of units	Possible	Major	12	£0.00			The desing team are working with suppliers to ensure the sample is produce in time for installation in September. Ensure payment for the production of the sample is actioned promptly.	£0.00	Possible	Serious	£0.00	6	£0.00		05/05/2022	DBE			
R2	5	(10) Physical	Trees cannot be planted due to a lack of depth or utilities.	Site conditions may impact the ability to plant trees.	Possible	Minor	3	£0.00			The consideration for street trees in one location has been considered and subject to a trial hole to investigate ground conditions. Alternative locations have been identified as part of another workstream.	£0.00	Possible	Minor	£0.00	3	£0.00		05/05/2022	DBE			
R3	5	(10) Physical	Bespoke design fails and planters cannot be manufactured.	The project requires the procurement of bespoke planters with a specialist supplier.	Possible	Major	12	£0.00			The desing team are working with the suppliers to review design details and a prototype will be manufactured to rectify any design issues.	£0.00	Possible	Major	£0.00	12	£0.00		05/05/2022	DBE			Throughout the design process the design team has visited the manufacturer premises and assurance has been provided in terms of quality and experience of the selected supplier. Alternative materials have also been evaluated and could be
R4	5	(10) Physical	Works cost increase due to appointment of new term contractor.	FM Conway have been appointed as the new City's term contractor, an increase on rates is expected.	Likely	Serious	8	£0.00			The budget has taken this increase into consideration and the project can be adjusted to be delivered within the available budget.	£0.00	Likely	Serious	£0.00	8	£0.00		05/05/2022	DBE			
R5		(4) Contractual/Partnership	Delays to the Procurement of products	A significant delay to the receipt of orders will impact the programme for implementation	Possible	Serious	6	£0.00			To establish procurement route at Gateway 5 stage to ensure suppliers and stakeholders are aware of the issue.	£0.00	Possible	Serious	£0.00	6	£0.00		05/05/2022	DBE			
R6		(4) Contractual/Partnership	Sites for intervention become unavailable due to nearby construction sites.	The sites that have been selected for the implementation of the project have been evaluated based on site conditions, access and impacts of nearby developments.	Unlikely	Major	8	£0.00			The project has been developed taking into account site conditions and available areas for intervention, alternative sites can be evaluated if required.	£0.00	Possible	Minor	£0.00	3	£0.00		05/05/2022	DBE			
R7		(5) H&S/Wellbeing	Noisy Works	Noisy Works could generate complaints from local occupiers	Unlikely	Minor	2	£0.00			All noisy works times will be agreed with Environmental Health Officers and communicated with local occupiers. Delivery of the project is unlikely to cause noise issues as the units are self standing.	£0.00	Unlikely	Minor	£0.00	2	£0.00		05/05/2022	DBE			
R8		(5) H&S/Wellbeing	Funding sources are not available in time for orders to be placed.	Availability of funding is crucial for the delivery of the sample installation in September and the subsequent implementation of the rest of the interventions.	Possible	Serious	6	£0.00			CoL officers are working on committee report approvals in line with Corporate procedure. The EC BID (funding partner) have agreed the contribution to fund the project.	£0.00	Unlikely	Serious	£0.00	4	£0.00		15/03/2020	DBE			

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### Appendix 3. City Cluster Programme overview

The City Cluster delivery framework is structured around three programmes and focused on the implementation of the City Cluster Vision.

This work supports objectives set out in the Transport Strategy, Climate Action Strategy and Destination City report.

The three programmes are:

**Programme 1:**  
**Pedestrian priority & traffic reduction**

Ensure pedestrian routes can accommodate the projected increases in pedestrians and cyclists flows by rebalancing the street capacity.

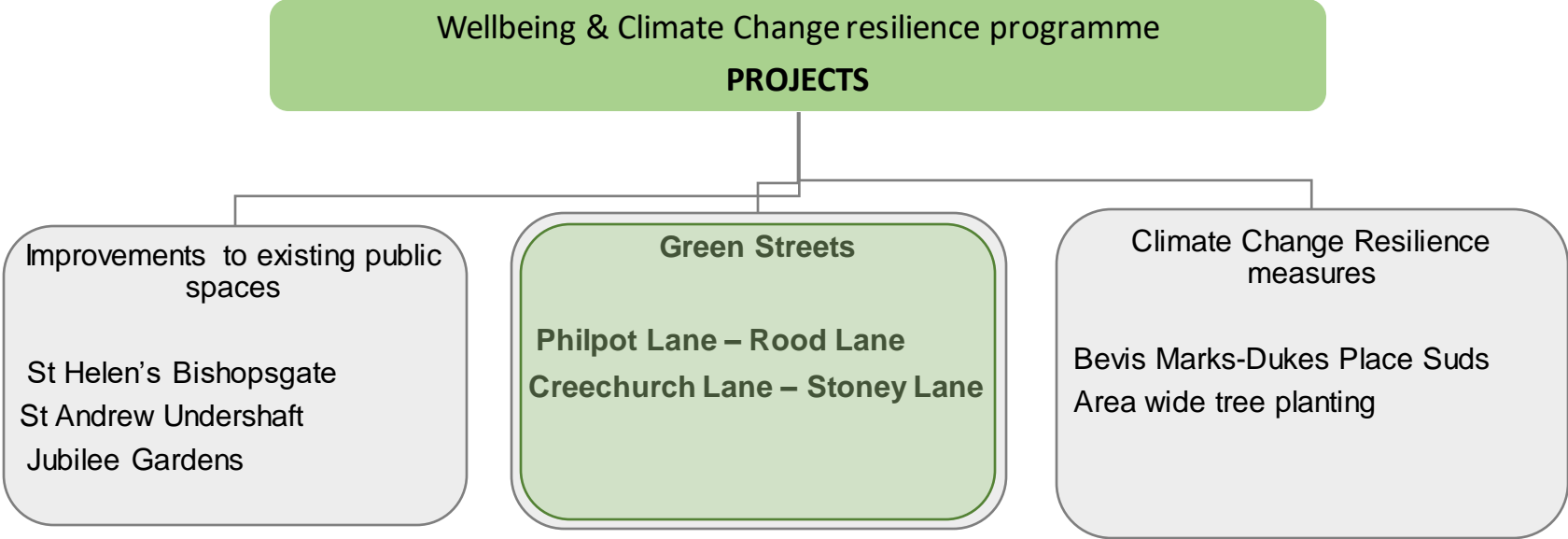
**Programme 2:**  
**Well-being & Climate change resilience**

Promote the improvement of public spaces and introduce greenery to deliver an attractive environment.

**Programme 3:**  
**Activation & engagement**

Deliver public places that are welcoming and inclusive; and encourage public participation and social engagement.

### Appendix 3. City Cluster - Wellbeing and Climate Change resilience Programme





Green Streets.  
Project summary



### Location plan; EC BID area.

Proposed sites for installations:

1. St Margaret Pattens courtyard
2. Rood Lane
3. Lime Street
4. Fen Court north
5. Mark Lane / Great Tower Street
6. Mark Lane north
7. Fenchurch Place
8. Creechurch Lane north
9. Philpot Lane: existing parklet



## Concept design.



## CLUSTERS

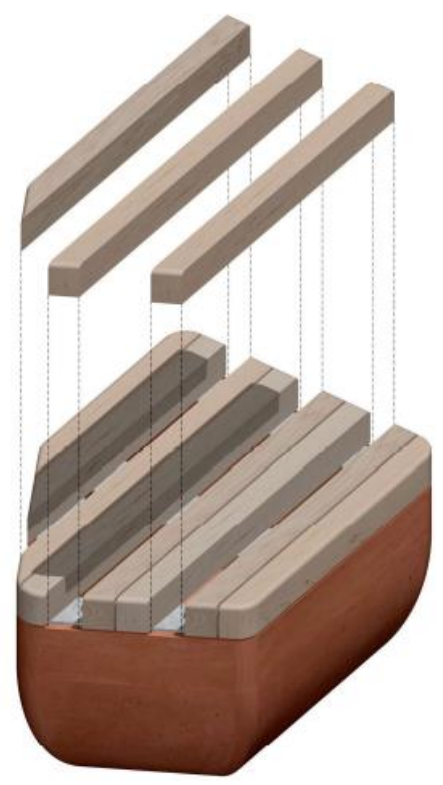
The Pentile provides versatility and allows tailoring to specific sites. The physical model shown opposite is set up in the form of a Parklet (single sided seating with planters forming a buffer to the road). The plan drawing below illustrates how this would be applied at the site in front of WeWork. A deck would be required to bring the level of the ground up to be at least flush with the pavement.

The image immediately to the left illustrates one of the smaller clusters that we recommend are distributed on 'incidental' locations throughout the Eastern City area to reinforce the idea of a connected network or trail of interventions. This 4 pentile cluster could be any combination of seats and planters, to suit the location.





# Detail. Seating units and modules



Terracotta base with timber seat





## Materials

- Terracotta base
- Sustainable timber seats
- Resilient planting palette





Example installations.



Terracotta base with timber seat

<b>Committees:</b> Streets and Walkways Sub <i>[for decision]</i> Operational Property & Projects Sub <i>[for decision]</i>	<b>Dates:</b> 5 July 2022 20 July 2022
<b>Subject:</b> Moor Lane Environmental Enhancements  <b>Unique Project Identifier:</b> 9441	<b>Gateway 4c-5:</b> Detailed Design & Authority to Start Work
<b>Report of:</b> Director of Environment  <b>Report Author:</b> Andrea Moravicova – City Operations	<b>For Decision</b>
<h1 style="margin: 0;">PUBLIC</h1>	

<b>1. Status Update</b>	<p><b>Project Description:</b> Public realm enhancements in Moor Lane to provide greening and an improved pedestrian environment, with the creation of a linear pocket park and widened footways.</p> <p>A Gateway 3 Issue Report, approved in December 2020, gave authority to expand the scope of the project to incorporate Section 278 works on the eastern side of Moor Lane, which will deliver security around the 21 Moorfields development. The design work since that approval has considered both elements of the project simultaneously.</p> <p>Although the design has been developed as a whole, it is proposed to phase the implementation, allowing the works on the eastern footway (referred to as Area A in this report) to be delivered in sufficient time for the developer to occupy the building. Revisions to the west footway designs (referred to as Area B in this report) are continuing following consultation feedback. Therefore, this report relates primarily to the Section 278 works; a further Gateway 4-5 report, covering the original 2011 public realm scheme associated with Milton Court and funded through Section 106, will be presented to Members in due course.</p> <p><b>RAG Status:</b> Green (Green at last report to Committee)</p> <p><b>Risk Status:</b> Medium (Medium at last report to committee)</p> <p><b>Total Estimated Cost of Project (excluding risk):</b> £2,958,680, with a total cost for Area A, funded through Section 278 agreement,</p>
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	<p>estimated at £1,508,680; and a total budget for Area B, funded through Section 106 for Milton Court, set at £1,450,000.</p> <p><b>Change in Total Estimated Cost of Project (excluding risk):</b> Increase of £442,290 since last report to Committee in December 2020 due to the revised scope, which will be funded by the developer.</p> <p><b>Spend to Date:</b> £364,588</p> <p><b>Funding Source:</b> Section 106 and Section 278</p> <p><b>Costed Risk Provision Utilised:</b> N/A</p> <p><b>Slippage:</b> The Moor Lane project was paused in 2012 due to the 21 Moorfields development which would have impacted on the scheme. The design has now been reviewed in conjunction with the Section 278 highway works necessary to mitigate the impacts of the 21 Moorfields development which is programmed for completion in early 2023. It is now expected that the Section 278 element of the scheme will be implemented from October 2022 with the Moor Lane (western side) works to follow on from that in spring 2023.</p>
<p><b>2. Requested decisions</b></p>	<p><b>Next Gateway:</b> Gateway 4-5 – Detailed Design &amp; Authority to Start Work to the west footway of Moor Lane (Area B)</p> <p><b>Next Steps:</b></p> <ol style="list-style-type: none"> <li>1. Finalise the Section 278 agreement with the 21 Moorfields developer to receive the additional funding to proceed with Area A implementation.</li> <li>2. Deliver the Moor Lane works in two phases to ensure works related to the 21 Moorfields development align with the developers’ programme, as follows: Area A – confined to the east footway and carriageway on Moor Lane adjacent to the development at 21 Moorfields. These works, fully funded through a Section 278 contribution, are the subject of this report. Area B – related to the west footway on Moor Lane and funded through the Milton Court Section 106. The detailed design work for this area will continue and a separate Gateway 4-5 report will be presented in due course.</li> <li>3. Finalise and approve the construction package for Area A with the City’s Highway Term Contractor to prepare for a start on site in October 2022.</li> <li>4. Progress with detailed design work for Area B and complete stakeholder engagement before presenting a separate Gateway 4-5 report in October 2022.</li> </ol> <p><b>Requested Decisions:</b></p> <ol style="list-style-type: none"> <li>1. Approve delivery of the works in two phases as described above (and as shown in Appendix 4)</li> </ol>



	<ol style="list-style-type: none"> <li>2. Authorise officers to continue design and engagement work for Area B and utilise the Section 106 budget approved at the previous gateway;</li> <li>3. Authorise the budget adjustment related to staff costs and fees to be actioned as outlined in Appendix 3.</li> <li>4. Note the total estimated cost of the project at £2,958,680, with the total estimated cost of Area A Section 278 at £1,508, 680.</li> <li>5. Authorise transfer of any design &amp; evaluation underspend paid under the 21 Moorfields Section 106 agreement from the previous gateway to the Area A (Section 278) implementation budget;</li> <li>6. Authorise an increase in scope of the Section 278 works compared to the baseline required through the Section 106 agreement and their implementation, subject to receipt of funds;</li> <li>7. Agree to delegate the final approval of the design to the Director City Operations in consultation with the Chairman and Deputy Chairman of Streets and Walkways Sub-Committee, AND: Delegate authority to the Director City Operations, in consultation with the Chairman and Deputy Chairman of the Streets &amp; Walkways Committee, to permit officers to progress an alternative design should it be required if the outcome of the outstanding surveys does not support the progression of the design in Appendix 5</li> <li>8. Authorise a budget setup for implementation of the Area A works at £1,448,680 as set out in section 3 below, subject to receipt of funds.</li> <li>9. Approve the Risk Register in Appendix 2 and the requested Costed Risk Provision of £50,000; and delegate the drawdown of funds from this register to Executive Director Environment.</li> <li>10. Delegate authority to the Executive Director Environment to approve budget adjustments, above the existing authority within the project procedures and in consultation with Chamberlains, between budget lines if this is within the approved total project budget amount; and</li> <li>11. Delegate to the Director City Operations, in consultation with the Chamberlain, authority to further increase or amend the project budgets in the future (above the level of the existing delegated authority) should any increase be fully funded by the Developer.</li> </ol>
<p><b>3. Budget</b></p>	<p>The total cost of the project is estimated at £2,958,680, with Area A fully funded by the developer through the Section 278 Agreement for 21 Moorfields and Area B funded through previously approved contribution from Milton Court Section 106 Agreement.</p> <p>Appendix 3 and tables below contain a breakdown of funds required to implement Area A designs and are based on known highway conditions and utilising a palette of materials consistent with the City's standards.</p>

Implementation estimates for Area B will be defined through a separate Gateway 4-5 report. The Area B budget is capped and, therefore, the design is being revised to ensure the costs remain within the original funding envelope.

**Table 1: Section 278 funds (Area A)**

Item	Received Funds to date (£)	Resources required to reach next Gateway (£)	Revised Budget to next Gateway (£)
Staff costs	£45,500	£83,731	£129,231
Fees	£14,500	£13,300	£27,800
Works (hard and soft landscaping, security measures)	-	£887,596	£887,596
Utilities	-	£387,355	£387,355
Maintenance	-	£76,697	£76,697
<b>GRAND TOTAL</b>	<b>£60,000</b>	<b>£1,448,680</b>	<b>£1,508,680</b>

Funding sources	Overall Cost (£)
Section 106 - Milton Court development (existing approved allocation) to fund Area B	£1,450,000
Section 278 – 21 Moorfields development for Moor Lane to fund Area A	£1,508,680
<b>GRAND TOTAL</b>	<b>£2,958,680</b>

Legal fees are secured by undertakings and are therefore excluded from the Section 278 works payment.

The above costs cover:

- Approximately 12 hours per month for eight months associated with report writing, completion of Section 278 agreement, stakeholders' liaison and engagement throughout the construction and ensuring the overall project is progressed to agreed milestones and budget.
- Approximately seven hours per month for eight months for Group Manager oversight;
- A Highways project engineer, and manager oversight, to establish the technical constraints of the scheme and progress a revised detailed design, incorporating the developer's security requirements, and supervision of works on site. This equates to approximately 500 hours over the next eight months.
- Necessary utility diversions and works to the east footway on Moor Lane, including planting and implementation of security measures required by the developer.

**Costed Risk Provision requested for this Gateway: £50,000**

<p><b>4. Design summary</b></p>	<p>The project's main objective is to improve the pedestrian environment and increase greenery in Moor Lane, whilst accommodating the requirements of the new development at 21 Moorfields. The design process has considered all of these elements as part of a holistic design for the street, but this will be delivered in two phases to ensure alignment with the developer's programme and allowing redesign of the western Moor Lane proposals following consultation feedback. These phases are shown in Appendix 4.</p> <p>In respect of security measures in Area A, the City's Local Plan contains a presumption against on-street security measures to prevent developers from exporting their security requirements on to the public highway. However, on occasion there may be 'exceptional circumstances' to override this position if it considered proportionate and justified following an appropriate technical assessment and oversight from the City's Public Realm Security Board (PRSB), supported by the City Police Counter Terrorism Security Advisors (CTSA).</p> <p>Having considered the circumstances of this development, the CTSA team and PRSB supported the assessment that the 21 Moorfields development requires enhanced security measures on the highway around the perimeter of the building. The report to the Planning and Transportation Committee in respect of the 21 Moorfields planning application (reference 17/01095/FULEIA) on the 20th of February 2018, advised members of that Committee that due to the location above an active major transport hub, there may be a need for additional security measures in the form of bollards and that any on-street installations would be subject to S278 negotiations</p> <p>Following this decision, the design for Area A was incorporated into the existing project scope. A public consultation exercise for Area B, taking the requirements for Area A into consideration, was undertaken in late 2021. Feedback from the consultation was fed into the design process for both areas.</p> <p>Two main options were considered for Area A. The first involved the widening of the eastern footway, the introduction of steps and a raised platform to access a new publicly accessible lift to highwalk level, and bollards. The second option was the same as the first but with the addition of planters interspersed with the bollards, which will be planted with multi-stemmed trees and low-level bedding plants. Officers are also undertaking further investigations to ascertain the possibility of planting two trees in the street as part of the second option.</p> <p>The second option, which is recommended for approval, is an increase in scope compared to the baseline required through the Section 106 agreement and has been achieved through extensive negotiations with the developer and following feedback from local stakeholders. The range of design options are limited by the sub-</p>
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	<p>surface conditions, namely restricted depths and loading limits on the London Underground structure, and the presence of utilities at a shallow depth.</p> <p>The proposals will upgrade the existing surface materials to the City's standard palette to ensure consistency and high-quality of the City streetscape. No alterations to function or traffic movement in the street are proposed as part of these proposals, with the carriageway width kept to minimum of 6 metres needed to accommodate two-way traffic and access into the servicing facility at 21 Moorfields. The current design proposal for Area A is shown at Appendix 5.</p> <p>The works to Area B, funded through Milton Court Section 106 agreement, include widening of the west footway in Moor Lane, and the introduction of sustainable urban drainage features and planters to create a linear park. The detailed design of these elements will be subject to a separate G4-5 report following further public engagement.</p>																		
<p><b>5. Confirmation that design solution will meet our SMART objectives</b></p>	<p>The recommended design option for Area A aligns with the project's success criteria and meets the SMART objectives of the project's proposal to deliver a high quality, accessible pedestrian environment that improves greening and environmental resilience in Moor Lane, whilst accommodating the requirements of the development at 21 Moorfields.</p>																		
<p><b>6. Delivery team</b></p>	<p><b>Project Management:</b> CoL Projects and Programmes team  <b>Principal Designer:</b> CoL Highways  <b>Construction Management:</b> CoL Highways  <b>Principal Contractor:</b> CoL Highways term contractor (FM Conway)  <b>Planting:</b> CoL City Gardens team</p>																		
<p><b>7. Programme and key dates</b></p>	<p>The implementation of Area A is proposed to commence in October 2022**. This will ensure the highways works are completed in time for the building occupation, currently programmed for early 2023.</p> <table border="1" data-bbox="448 1518 1445 1899"> <thead> <tr> <th>Activity</th> <th>Date</th> </tr> </thead> <tbody> <tr> <td>Sign S278 Agreement and receipt of funding</td> <td>July 2022</td> </tr> <tr> <td>Procurement of materials following sign-off of the construction package</td> <td>July 2022*</td> </tr> <tr> <td>Submit traffic management plan/permits</td> <td>July 2022</td> </tr> <tr> <td>Finalise construction package for Area A</td> <td>August 2022</td> </tr> <tr> <td>Commence construction of Area A</td> <td>October 2022**</td> </tr> <tr> <td>Snagging in Area A</td> <td>June / July 2023</td> </tr> <tr> <td>Gateway 5 report related to Area B</td> <td>October 2022</td> </tr> <tr> <td>Gateway 6 Outcome Report for both phases</td> <td>December 2023</td> </tr> </tbody> </table> <p>*Subject to signing the Section 278 Agreement and receipt of funds from Developer. The lead in times for procuring materials are 12-16 weeks.  **Subject to changes to the Developer's programme and site release.</p>	Activity	Date	Sign S278 Agreement and receipt of funding	July 2022	Procurement of materials following sign-off of the construction package	July 2022*	Submit traffic management plan/permits	July 2022	Finalise construction package for Area A	August 2022	Commence construction of Area A	October 2022**	Snagging in Area A	June / July 2023	Gateway 5 report related to Area B	October 2022	Gateway 6 Outcome Report for both phases	December 2023
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Snagging in Area A	June / July 2023																		
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Gateway 6 Outcome Report for both phases	December 2023																		

## 8. Risks

*1. Delay to signing the Section 278 agreement prevents completion of the works*

Officers have negotiated extensively with the developer to agree an enhanced scope for the design of Area A, namely the introduction of greenery in the form of security related planters. Revising the design further at this stage will prevent the developer from achieving practical completion and delay the fit-out of the building by the flagship tenant. Officers therefore recommended approval of the design set out in the report, delivering an enhanced design and ensuring the developer can progress without delay.

*2. Works are delivered outside the dates stated in this report due to delays in façade and areas being released by the developer.*

A detailed phasing plan has been discussed with the developer and agreed in principle. Coordination meetings will take place regularly to monitor progress of the development. An allowance has been included in the project budget to cover any costs associated with development delays.

*3. Presence of sub-surface utilities impacts on the delivery of the scheme*

Surveys and trial holes have been undertaken to minimise this risk as much as practicable. This risk will be closely monitored during the implementation phase. An allowance has been included in the project budget, and costs reasonably incurred over and above the estimate due to sub-surface issues within Area A works will be recoverable from the developer under the Section 278 agreement.

*4. Complaints about noisy works*

Maintain a dialogue with local residents and other occupiers. Work with the Environmental Health team and local stakeholders to ensure there is an agreed consensus about when noisy works take place.

*5. Increase in the overall project costs*

Any unforeseen increase in costs for Area A will be covered by the developer under the terms of the S278 Agreement. The design for Area B is being revised to ensure the costs remain within the original funding envelope. Details will be presented in a subsequent Gateway 4-5 report for Area B.

*6. Third party approvals*

The works area lays directly above third-party structures, therefore, any designs and additional loading on these structures will require their agreement. Officers are liaising with said parties to ensure designs are finalised and approved.

Further information available in the Risk Register (Appendix 2).

<p><b>9. Success criteria</b></p>	<ul style="list-style-type: none"> <li>• Improve pedestrian environment by aligning the public realm in the vicinity of the development with the City Public Realm Supplementary Planning Document.</li> <li>• Accommodate the security and servicing requirements of the new development by making necessary adjustments to the highway.</li> <li>• Introduce greening to the east footway adjoining the new development at 21 Moorfields to complement west footway proposals.</li> </ul>
<p><b>10. Progress reporting</b></p>	<ul style="list-style-type: none"> <li>• Monthly updates to be provided via Project Vision and any project changes will be sought by exception via Issue or Update reports to Spending and Operational Property and Projects Sub Committees should there be a fundamental change to the project scope.</li> <li>• Distribution of a regular e-bulletin to keep local stakeholders informed of project progress.</li> </ul>

**Appendices**

<b>Appendix 1</b>	Project coversheet
<b>Appendix 2</b>	Risk register
<b>Appendix 3</b>	Finance tables
<b>Appendix 4</b>	Plan showing the split between Area A and Area B
<b>Appendix 5</b>	Plan of the recommended option for Area A

**Contact**

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<b>Telephone Number</b>	020 7332 3925

# Project Coversheet

## [1] Ownership & Status

**UPI:** 9441

**Core Project Name:** Moor Lane Environmental Enhancements

**Programme Affiliation** (if applicable): Culture Mile

**Project Manager:** Andrea Moravicova

### **Definition of need:**

Moor Lane has been identified as an area for improvement for several years, initially identified as a high priority project as part of the 'Barbican Area Streets and Walkways Enhancement Strategy' approved in 2008. Moor Lane presents an opportunity to respond to community priorities by increasing greening in the area and prioritising more space for pedestrians.

A scheme was developed and approved in 2011, which resulted from extensive consultation and proposed the creation of a linear park along Moor Lane. The proposals were to be funded by the Section 106 agreement for the Milton Court development and approval was granted to implement the scheme on site. However, the scheme was paused in light of the emerging 21 Moorfields development which is now under construction.

The City is now in a position to recommence work on this project and proceed with a review of the design for Moor Lane, to ensure it responds to the needs of the development and mitigates the development's impact on the local environment. There is strong stakeholder support for improvements to Moor Lane and an expectation for the scheme to finally be completed.

### **Key measures of success:**

- Moor Lane is a green, biodiverse and environmentally resilient street through the introduction of trees and planting. Both the local community and the developer's priorities are met, by ensuring the security needs and desires for an improved pedestrian environment are delivered in coordination with the completion of 21 Moorfields. A welcoming, accessible and safe pedestrian environment is created on Moor Lane with widened footways to prioritise pedestrian movement.

### **Expected timeframe for the project delivery:**

Implementation of Area A (eastern footway and carriageway) is expected to commence in October 2022. Implementation of Area B will follow as closely as possible subject to further design and public engagement.

### **Are we on track for completing the project against the expected timeframe for project delivery?**

A number of factors delayed the overall project.

The project was paused and in 2020 was proposed to be recommenced with implementation in Spring – late Autumn 2022

A public consultation exercise for Area B, taking the requirements for Area A into consideration, was undertaken in late 2021. Feedback from the

consultation was fed into the design process for both areas. Further design works and public engagement will be undertaken before implementation of the Area B can commence. The implementation of Area A was aligned with the developer's schedule.

**Has this project generated public or media impact and response which the City of London has needed to manage or is managing?**

No

## **[2] Finance and Costed Risk**

### **Headline Financial, Scope and Design Changes:**

The project is part of the Barbican Area Streets & Walkways Enhancement Strategy and was approved as one of the strategy's high priority schemes by the Court of Common Council in 2008 following a public consultation exercise.

In July 2011 an evaluation report was approved by Members to implement environmental enhancements on Moor Lane.

Approval was granted to progress to detailed design stage, seek relevant permissions and implement the scheme. A budget of £1,391,136 was made available following the report approval.

### **Evaluation report – approval for implementation (as approved by Street & Walkways Sub-committee 18/07/11)\*:**

- Total Estimated Cost (excluding risk): £1.55M
- Resources to reach next Gateway (excluding risk): £1.45M
- Spend to date: £257,526
- Estimated Programme Dates: Works were intended to commence in 2012.

**Scope/Design Change and Impact:** Create a linear park, with trees and planters, along the west footway on Moor Lane.

\*It should be noted that the evaluation report approved in 2011 predated the current Gateway reporting procedure.

### **Gateway 3 - Issue report (as approved by Project Sub-committee on 30 November 2020 and Streets and Walkways Sub-committee 1 December 2020)\***

- Total Estimated Cost (excluding risk): £1.7-£2.2M
- Resources to reach next Gateway (excluding risk): £230,382 (£128,566 from approved Section 106 budget and £101,816 funded through 21 Moorfields Section 278 agreement)
- Spend to date:
- Costed Risk Against the Project:
- Estimated Programme Dates:
  - Design review & surveys: Dec 2020 - Mar 2021
  - Consultation: Mar – May 2021
  - Detail design: Jun – Sept 2021
  - Gateway 4/5: Sept 2021



- Construction package: Oct 2021– Feb 2022
- Phased implementation (minimum 6 months): Spring 2022 – late 2022/Early 2023

**Scope/Design Change and Impact:** The design aligns with the brief described within the Evaluation report, whilst considering the stakeholders' feedback to date, the changing context of the area and the development of the site at 21 Moorfields. The scope was increased to include the Section 278 works to east footway adjacent to the 21 Moorfields development.

An increase to the overall project budget has been incurred due to the revised scope, although this increase is fully funded through a Section 278 agreement.

\*Upon approval of the 2011 report, officers were given authority to proceed with detail design and implement the scheme, however, several modifications required to the scheme outlined in the issue report, officers considered the existing scheme to be at Gateway 3 stage. It was, therefore, proposed that the next report to Members is a Gateway 4/5, outlining the detail design and requesting authority to start work.

**Total anticipated on-going commitment post-delivery [£]:**

Revenue implications for highways maintenance are anticipated to be of minimum impact and will be confirmed at respective Gateway 5 when the detailed design will be finalised.

These costs will be assessed and covered by the project budget, thereby mitigating the impact on local risk budgets. The maintenance costs for Area A were calculated at £76,697. Invoice to the developer will be issued upon completion of works.

Increased greening will entail an Open Spaces maintenance commitment and a provision for this will be included in the project budget. It should be noted that the proposed implementation of Sustainable Urban Drainage System (SUDS) in the scheme is expected to reduce the overall maintenance commitment.

**Programme Affiliation [£]:** Culture Mile – the programme budget is assessed by financial year depending on the projects approved for delivery.

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City of London: Projects Procedure Corporate Risks Register

Project Name: <b>Moor Lane Environmental Enhancements</b>	PM's overall risk rating: <b>Medium</b>	CRP requested this gateway: <b>£ 50,000</b>	Average unmitigated risk: <b>6.9</b>	Open Risks: <b>14</b>
Unique project identifier: <b>PV12345</b>	Total estimated cost (exc risk): <b>£ 2,958,680</b>	Total CRP used to date: <b>£ -</b>	Average mitigated risk score: <b>3.8</b>	Closed Risks: <b>4</b>

General risk classification										Mitigation actions					Ownership & Action								
Risk ID	Gateway	Category	Description of the Risk	Risk Impact Description	Likelihood Classification pre-mitigation	Impact Classification pre-mitigation	Risk score	Costed impact pre-mitigation (£)	Costed Risk Provision requested Y/N	Confidence in the estimation	Mitigating actions	Mitigation cost (£)	Likelihood Classification on post-mitigation	Impact Classification on post-mitigation	Costed impact post-mitigation (£)	Post-Mitigation risk score	CRP used to date	Use of CRP	Date raised	Named Departmental Risk Manager/Coordinator	Risk owner (Named Officer or External Party)	Date Closed OR/Realised & moved to Issues	Comment(s)
R1	5	(3) Reputation	Project is not delivered to agreed timeline due to technical issues that arise either in design or construction phase	If security measures on Moor Lane are not completed prior to the occupation of 21 Moorfields, their tenant will not be able to occupy the building.	Possible	Serious	6	£0.00	N		A programme will be developed taking the likely cost of the scheme into account and the implementation will be phased to ensure compliance with the development's programme.	£0.00	Possible	Minor	£0.00	3	£0.00		13/09/2020		Andrea Maravicova		
R2	5	(2) Financial	Developer does not agree to full costs of the scheme	This will either extend the project timeline as negotiations would take longer or reduce the project scope to align with agreed costs	Possible	Serious	6	£0.00	N		As the design develops, the likely cost of the scheme will be established. The scope of the project will be tailored to ensure the scheme can be financed by the Section 106 and the Section 278 (where works are required to mitigate the impact of the 21 Moorfields development).	£0.00	Unlikely	Minor	£0.00	2	£0.00		13/09/2020		Andrea Maravicova		
R3	5	(4) Contractual/Partnership	Delays in supply, issues in productivity or resource	Negative impact on project delivery, both monetarily and timewise, causing potential delays to programme and increasing costs.	Possible	Serious	6		N		engaging with suppliers and term contractor to programme works and procure materials well in advance, allowing for at least 16 weeks lead in times. Reguol supply chain via existing meetings with principal contractor for monitoring		Unlikely	Serious	£0.00	4	£0.00				Andrea Maravicova		
R4	5	(10) Physical	Unforeseen technical and / or engineering issues identified	Late identification of any engineering or technical issues will disrupt delivery and may increase costs and timelines.	Possible	Major	12		N		Undertake standard surveys and trials, visit sites during development construction		Unlikely	Serious		4	£0.00				Andrea Maravicova		
R5	5	(2) Financial	The full cost of the project is unknown	If the costs are not ascertained soon enough in the project process, the design might exceed the available project budget	Unlikely	Serious	4	£0.00	N		As the design develops, the likely cost of the scheme will be established. The scope and design of the project will be tailored to ensure the scheme can be financed from the available project budget. The s278 works will only commence once the costs are agreed with the developer.	£0.00	Unlikely	Minor	£0.00	2	£0.00		14/09/2020		Andrea Maravicova		
R6	5	(3) Reputation	Stakeholders object to the amended scheme	The City would not be delivering a scheme that is supported by the local community, and it would not therefore be responsive to their needs. A redesign would be required which could impact on the programme and budget.	Possible	Serious	6	£0.00	N		Consultation will be undertaken with stakeholders as part of the project process and the design will be adapted if required. Consultation was previously undertaken in 2011 and local stakeholders were supportive of the proposals. The Meanwhile Moor Lane scheme implemented in Autumn 2020 is gathering feedback from users and will inform the permanent scheme.	£0.00	Unlikely	Minor	£0.00	2	£0.00		05/10/2020		Andrea Maravicova		
R7	5	(9) Environmental	The existing Moor Lane design must be significantly reduced in scope to accommodate 21 Moorfields development requirements	The scheme would not fully be delivering on the previously approved objectives of the scheme, missing an opportunity to deliver an environmentally resilient, biodiverse scheme.	Possible	Serious	6	£0.00	N		Both the 21 Moorfield highway requirements and Moor Lane designs for the Western footway were reviewed together as one scheme by the relevant City officers. The technical feasibility and levels design will be progressed accordingly.	£0.00	Possible	Serious	£0.00	6	£0.00		14/09/2020		Andrea Maravicova	31/05/2022	Scope for Area B as now been confirmed now that the scope for Area A has been finalised.
R8	5	(4) Contractual/Partnership	The expiry of the contract with the City's term contractor in 2022 could cause an increase in the cost of works	If a new term contractor is selected with higher rates, the cost of the works would increase	Likely	Major	16	£0.00	N		A tender process will be undertaken, where a new contractor will be appointed. Notice will be given of any cost implications as soon as possible in the procurement process.	£0.00	Likely	Serious	£0.00	8	£0.00		15/09/2020		Giles Radford	15/06/2022	The new contractor rates are now available and are being used to cost the scheme.

Risk ID	Gateway	Category	Description of the Risk	Risk Impact Description	Likelihood Classification pre-mitigation	Impact Classification pre-mitigation	Risk score	Costed Impact pre-mitigation (£)	Costed Risk Provision requested Y/N	Confidence in the estimation	Mitigating actions	Mitigation cost (£)	Likelihood Classification on post-mitigation	Impact Classification on post-mitigation	Costed Impact post-mitigation (£)	Post-Mitigation risk score	CRP used to date	Use of CRP	Date raised	Named Departmental Risk Manager/Coordinator	Risk owner (Named Officer or External Party)	Date Closed OR/Realised & moved to Issue	Comment(s)
R9	5	(3) Reputation	LUL object to the scheme on the basis of the scheme being located over their infrastructure	The project design would require further amendment, impacting project programme	Possible	Serious	6	£0.00	N		LUL will be consulted as soon as possible in the design process to ensure the design is developed in accordance with their requirements	£0.00	Unlikely	Minor	£0.00	2	£0.00		14/09/2020		Andrea Maravicova		
R10	5	(3) Reputation	Delays to public realm works starting on site due to 21 Moorfields construction delays	The implementation of the project would be delayed	Possible	Minor	3	£0.00	N		Implementation of the project is co-ordinated to align with the developer's programme. Delays in developer's construction were clearly communicated and accounted for in the revised programme.	£0.00	Possible	Minor	£0.00	3	£0.00		14/09/2020		Andrea Maravicova		
R11	5	(5) H&S/Wellbeing	A new national lockdown due to COVID-19 delays the programme, through an inability to carry out necessary surveys or trial holes	delay to programme	Possible	Serious	6	£0.00	N		follow guidance and undertake new ways of working as necessary.	£0.00	Possible	Minor	£0.00	3	£0.00	£3,500	15/09/2020	Giles Radford	Andrea Maravicova		
R12	5	(2) Financial	The developer does not agree to committed sums required for the s278	The cost of maintaining the s278 area post completion will increase and need to be funded by the City	Likely	Major	16	£0.00	N		The developer will be made aware of the maintenance implications of the s278 works, the HVM maintenance costs will need to be funded by the developer at a minimum	£0.00	Possible	Major	£0.00	12	£0.00		07/07/2021		Tom Noble/PM		
R13	5	(4) Contractual/Partnership	The developer does not agree to the terms on the s278 agreement	The programme will be delayed whilst the agreement takes longer to negotiate	Possible	Major	12	£0.00	N		Respond to the developer in a timely manner on comments and progress negotiations on elements directly if needed	£0.00	Possible	Serious	£0.00	6	£0.00		08/07/2021		Tom Noble/PM		
R14	3	(9) Environmental	s278 scope: Lack to utility information due to no PAS 128 survey information causes delays to programme and cost increases due to unexpected clashes found after the detailed design process	The programme will be delayed to redesign the relevant area and liaise with utilities, and also increases the project cost due to the re-doing of design/approvals or diversion of utilities necessary	Likely	Extreme	32	£0.00	N		Trial holes and site investigation to be carried out prior to implementation, utility clashes based on current information to be design as soon as possible	£0.00	Likely	Major	£0.00	16	£0.00		09/07/2021		Tom Noble/PM/Engineer	07/05/2022	
R15	3	(1) Compliance/Regulatory	s278 scope: Lack to utility information due to no PAS 128 survey information causes H&S issues on site during implementation	A H&S incident occurs on site, causing a legal dispute on liability and whether Principal Designer duties have been fulfilled	Possible	Extreme	24	£0.00	N		Wording to be included in the s278 agreement to make the developer aware of the risks and limit the City's liability where possible, site investigations to be carried out prior to implementation	£0.00	Unlikely	Extreme	£0.00	16	£0.00		15/07/2021		Ben Manku/Giles Radford	07/05/2022	Standard Surveys and trial holes were undertaken in the area where security measures were proposed and the designs were adjusted accordingly.
R16	5	(9) Environmental	SUDS scheme not feasible due to underground constraints	The SUDS scheme would either have to be removed from the project scope or a redesign of the SUDS would be required which could impact project programme and costs	Possible	Minor	3	£0.00	N		The 2011 design will be reviewed as part of the project scope and amended as necessary. Surveys will be undertaken to ascertain the underground constraints as far as possible, in addition to consultation with LUL. The SUDS design can be further simplified to reduce costs if required. Updates will be provided as part of the next gateway.	£0.00	Unlikely	Minor	£0.00	2	£0.00		15/07/2021		Andrea Maravicova		
R17	5	(2) Financial	SUDS design costs more than anticipated	The SUDS scheme would either have to be removed from the project scope or a redesign of the SUDS would be required which could impact project programme and costs	Possible	Minor	3	£0.00	N		A SUDS consultant will be appointed to progress to the SUDS design so a cost can be established early on in the design process. The design will be simplified to reduce costs if required.	£0.00	Unlikely	Minor	£0.00	2	£0.00		15/07/2021		Andrea Maravicova		
R18	5	(2) Financial	underground conditions / depths will require changes to design	The proposal to plant trees could be affected by insufficient depths or presence of underground utilities undetected through standard surveys and design will need to be revised.	Likely	Serious	8	£60,000.00	Y - for costed impact post-mitigation		Known utility routes have been considered in the design, additional trial holes and site investigation will be undertaken prior to implementation, data analysed and the design revised prior to implementation.	£10,000.00	Possible	Serious	£40,000.00	6	£0.00		09/06/2022		Andrea Maravicova/Engineer		

**Area B - Section 106 funded works. G5 report will be submitted to committees in October 2022**

<b>Table 1: Expenditure to Date - Moor Lane S106 - 16100237</b>			
<b>Description</b>	<b>Approved Budget (£)</b>	<b>Expenditure (£)</b>	<b>Balance (£)</b>
Env Servs Staff Costs	57,000	21,854	35,146
Legal Staff Costs	2,000	52	1,948
Open Spaces Staff Costs	1,759	544	1,215
P&T Staff Costs	124,727	116,327	8,400
Fees	86,245	62,385	23,860
Traffic Orders	6,000	-	6,000
Drainage Works	311,000	-	311,000
General Works	479,324	106,972	372,352
Lighting Works	40,000	8,510	31,490
Planting	71,326	-	71,326
Contingency	211,755	-	211,755
Open Spaces Maintenance	36,483	-	36,483
DES Maintenance	22,381	-	22,381
<b>TOTAL</b>	<b>1,450,000</b>	<b>316,644</b>	<b>1,133,356</b>

<b>Table 2: Adjustment Required to reach the next Gateway</b>			
<b>Description</b>	<b>Approved Budget (£)</b>	<b>Resources Required (£)</b>	<b>Revised Budget (£)</b>
Env Servs Staff Costs	57,000	-	57,000
Legal Staff Costs	2,000	-	2,000
Open Spaces Staff Costs	1,759	-	1,759
P&T Staff Costs	124,727	20,000	144,727
Fees	86,245	10,000	96,245
Traffic Orders	6,000	-	6,000
Drainage Works	311,000	-	311,000
General Works	479,324	-	479,324
Lighting Works	40,000	-	40,000
Planting	71,326	-	71,326
Contingency	211,755	-30,000	181,755
Open Spaces Maintenance	36,483	-	36,483
DES Maintenance	22,381	-	22,381
<b>TOTAL</b>	<b>1,450,000</b>	<b>-</b>	<b>1,450,000</b>

<b>Table 3: Revised Funding Allocation</b>			
<b>Funding Source</b>	<b>Current Funding Allocation (£)</b>	<b>Funding Adjustments (£)</b>	<b>Revised Funding Allocation (£)</b>
S106 - Telephone Exchange - 07/00092/FULL - LCE	300,000	-	300,000
S106 - Milton Court - 06/01160/FULEIA - LCE	1,150,000	-	1,150,000
<b>Total Funding Drawdown</b>	<b>1,450,000</b>	<b>-</b>	<b>1,450,000</b>

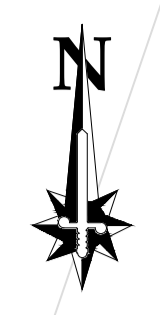
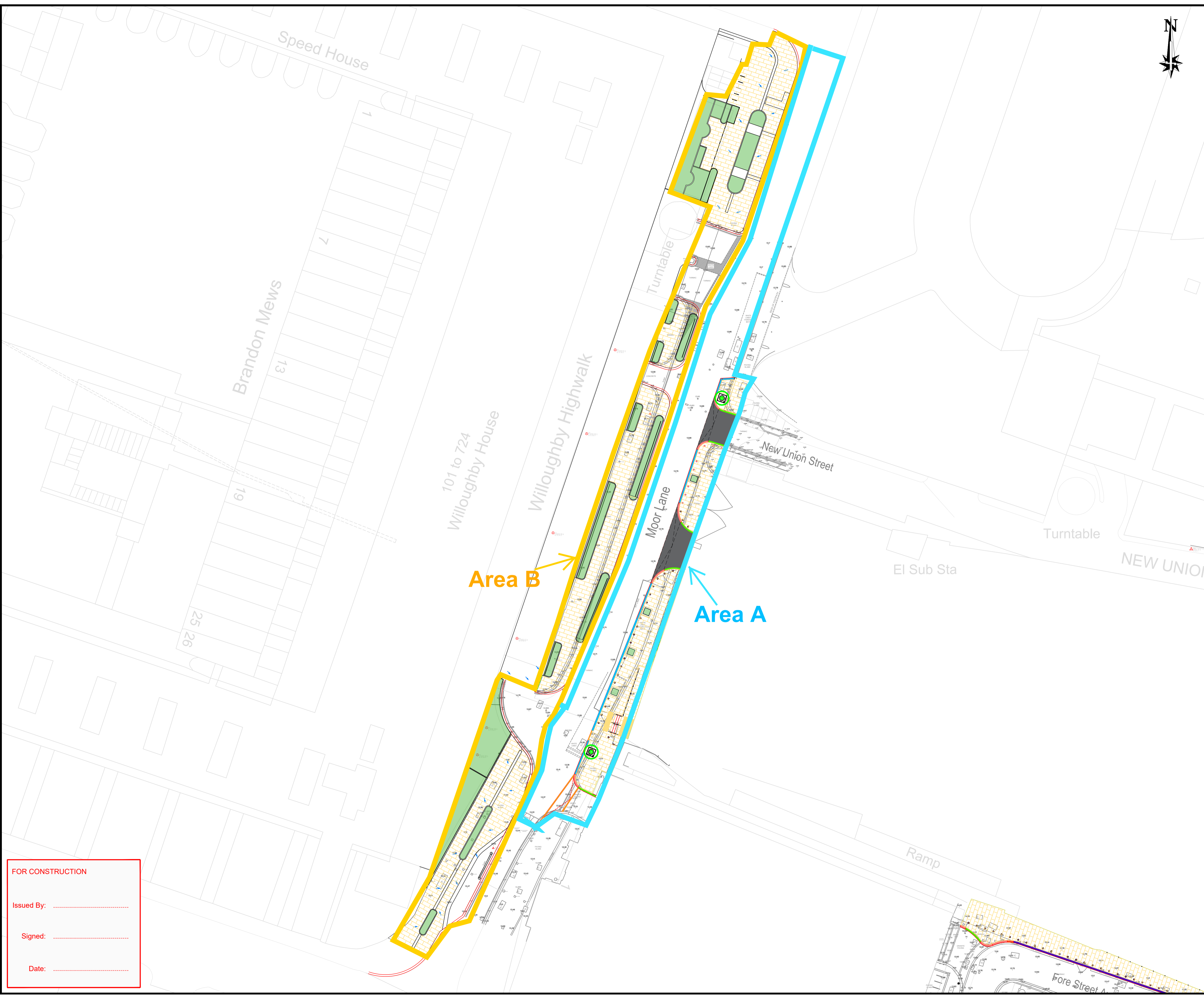
## Area A - Section 278 funded works

<b>Table 1: Expenditure to Date - Moor Lane S278 - 16100449</b>			
<b>Description</b>	<b>Approved Budget (£)</b>	<b>Expenditure (£)</b>	<b>Balance (£)</b>
Env Servs Staff Costs	27,500	14,961	12,539
P&T Staff Costs	18,000	19,165	(1,165)
P&T Fees	14,500	13,819	681
<b>TOTAL</b>	<b>60,000</b>	<b>47,945</b>	<b>12,056</b>

<b>Table 2: Resources Required to reach the next Gateway</b>			
<b>Description</b>	<b>Approved Budget (£)</b>	<b>Resources Required (£)</b>	<b>Revised Budget (£)</b>
Env Servs Staff Costs	27,500	48,000	75,500
P&T Staff Costs	18,000	35,000	53,000
City Gardens Staff Costs	-	731	731
P&T Fees	14,500	13,300	27,800
Env Servs Works	-	887,596	887,596
Utilities	-	387,355	387,355
Costed Risk Provision	-		-
Maintenance	-	76,697	76,697
<b>TOTAL</b>	<b>60,000</b>	<b>1,448,680</b>	<b>1,508,680</b>

<b>Table 3: Revised Funding Allocation</b>			
<b>Funding Source</b>	<b>Current Funding Allocation (£)</b>	<b>Funding Adjustments (£)</b>	<b>Revised Funding Allocation (£)</b>
S278	60,000	1,448,680	1,508,680
<b>Total Funding Drawdown</b>	<b>60,000</b>	<b>1,448,680</b>	<b>1,508,680</b>





- Notes:
1. No information to be scaled from this drawing.
  2. Works shall comply with the current City of London Specification for Highway works.
  3. All road markings refer to the "Traffic Signs Regulations and General Directions 2016". Refer to drawing number 1200-16100449-RM
  4. This drawing is to be read in conjunction with all relevant drawings
  5. The Contractor will be held responsible for any damage caused to private highways and privately owned street furniture.

Rev No.	Date	Description	By
Revision			

TITLE:  
**21 Moorfields S278 & S106**

TITLE:  
**Moor Lane S106 & S278  
Basic General Arrangements  
Combined**

CLIENT:  
**HIGHWAY DESIGN  
AND CONSTRUCTION**  
DEPARTMENT OF THE BUILT ENVIRONMENT  
PO BOX 270  
GUILDHALL  
LONDON  
EC2P 2EJ  
TEL: 020 7606 3030



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Date: <b>April 2022</b>	
Designed by: <b>CO'K</b>	
Checked by: <b>BM</b>	
Scale & Drawing Size: <b>N.T.S.</b>	
Revision: <b>-</b>	Drawing No: <b>100/16100237/GA1</b>

**FOR CONSTRUCTION**

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Signed: .....

Date: .....

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- Notes:**
1. No information to be scaled from this drawing.
  2. Works shall comply with the current City of London Specification for Highway works.
  3. All road markings refer to the "Traffic Signs Regulations and General Directions 2016". Refer to drawing number 1200-16100449-RM
  4. This drawing is to be read in conjunction with all relevant drawings
  5. The Contractor will be held responsible for any damage caused to private highways and privately owned street furniture.

**FOR CONSTRUCTION**

Issued By: .....

Signed: .....

Date: .....

Rev No.	Date	Description	By
Revision			

TITLE:

**21 Moorfields S278**

TITLE:

**Moor Lane S278  
Basic General Arrangements**

CLIENT:

**HIGHWAY DESIGN  
AND CONSTRUCTION**

DEPARTMENT OF THE BUILT ENVIRONMENT  
PO BOX 270  
GUILDHALL  
LONDON  
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<b>Committees:</b> Streets and Walkways Sub <i>[for decision]</i> Operational Property & Projects Sub <i>[for decision]</i>	<b>Dates:</b> 5 July 2022 20 July 2022
<b>Subject:</b> 150 Bishopsgate  <b>Unique Project Identifier:</b> 10717	<b>Gateway 6:</b> <b>Outcome Report</b> Regular
<b>Report of:</b> Executive Director Environment <b>Report Author:</b> Andrea Moravicova – City Operations	<b>For Decision</b>
<h1>PUBLIC</h1>	

## Summary

<b>1. Status update</b>	<b>Project Description:</b> Constructing new footways and carriageway around the development including a raised carriageway along Houndsditch (between Outwich Street and Bishopsgate), to cater for expected increase in people walking and cycling in this area.  <b>RAG Status:</b> Green (Green at last report to Committee) <b>Risk Status:</b> Low (Low at last report to committee) <b>Costed Risk Provision Utilised:</b> Not applicable <b>Final Outturn Cost:</b> £1,086,508
<b>2. Next steps and requested decisions</b>	<b>Requested Decisions:</b> <ul style="list-style-type: none"> <li>• Approve the content of this report and agree to close this project once the outstanding actions referred to in section 12 are complete.</li> <li>• Approve the budget adjustment related to staff costs to be actioned as outlined in Appendix 4.</li> <li>• Authorise the transfer of any underspend to the Jubilee Gardens project budget, part of the City Cluster Vision Wellbeing and Climate Change Resilience programme, subject to the developer’s agreement (and any necessary agreements), OR;</li> <li>• If the developer does not agree the transfer of underspend, authorise return of unused funds to the</li> </ul>

	developer, including any accrued interest as per the S278 agreement.
<b>3. Key conclusions</b>	<p>The project was completed within the budget and delivered its main objective: to enhance public realm in Houndsditch and support increased pedestrian movement through the area, whilst maintaining the function of the street and sufficient space for drop-offs and pick-ups at the entrance to One Bishopsgate Plaza.</p> <p>The programme was adjusted in agreement with the developer to coincide with their timelines and so the works were completed approximately six months later than originally planned.</p> <p>The main deliverables included:</p> <ul style="list-style-type: none"> <li>• Raising the carriageway in Houndsditch to footway level, paved in granite setts, and paving footways in Yorkstone;</li> <li>• Replacing trees on the south side of Houndsditch and providing a root barrier and waterproofing to protect the pipe subway;</li> <li>• Upgrading lighting in Devonshire Square and Houndsditch between Outwich Street and Bishopsgate.</li> <li>• Installing seating and cycle stands in Houndsditch.</li> </ul> <p>Key learning and recommendations for future projects:</p> <ul style="list-style-type: none"> <li>• Close liaison with the developer and their contractor ensures alignment of the works programme to the development's completion timelines.</li> <li>• Constraints of pipe subway on tree planting were overcome through close working with structural engineers and the City Gardens team.</li> </ul>

## Main Report

### Design & Delivery Review

<b>4. Design into delivery</b>	<p>The original design approved in 2012 was revised to reflect a presence of pipe subway beneath Houndsditch. The underground conditions, which seemed to have contributed to the decline of existing trees in the south footway, were carefully considered and design was revised through the introduction of root barriers to protect the pipe subway whilst allowing sufficient space for tree roots to establish.</p> <p>The revised design, approved by Committees in February 2020, was implemented to tie in with the privately owned space around the development.</p>
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<p><b>5. Options appraisal</b></p>	<p>Three design options were presented as part of the original Gateway 3-4-5 report in 2012. These options had differences in proposed carriageway surfaces (asphalt only, granite and asphalt mix, and granite only) and levels (raised to the footway level between Outwich and Bishopsgate or raised to footway level immediately outside the hotel only).</p> <p>The chosen option with a raised carriageway to footway level and granite sett finish strongly supported by the developer, met the objectives of the project, and delivered a high-quality public realm.</p>
<p><b>6. Procurement route</b></p>	<ul style="list-style-type: none"> <li>• The construction package was prepared inhouse by the Highway Engineer and work on site undertaken by the City's term contractor.</li> <li>• All soft landscaping was designed and delivered by the City Gardens team.</li> </ul>
<p><b>7. Skills base</b></p>	<ul style="list-style-type: none"> <li>• The project team has the skills, knowledge and experience to manage delivery of this and similar future projects.</li> <li>• Transport for London delivered required traffic signal changes, with works supervised by City Transportation team.</li> <li>• Required surveys, including trial holes to assess the depth and movement of the pipe subway structure, topographical and radar surveys, were commissioned.</li> <li>• The City's structural engineers were engaged in the process to address construction above and around the pipe subway.</li> </ul>
<p><b>8. Stakeholders</b></p>	<p>The project was delivered in close liaison with the developer and relevant stakeholders to ensure the proposals meet their needs.</p>

**Variation Review**

<p><b>9. Assessment of project against key milestones</b></p>	<p>The construction programme was affected by the materialisation of the risk of a delay to developer's programme.</p> <p>At Gateway 5 (February 2020), the programme proposed main construction to start end of May 2020 and complete end of September 2020.</p> <p>However, the main construction started in January 2021 and was substantially completed at the beginning of July 2021. This was a slippage of approximately seven months due to delays in developer's handover of works areas. Final resurfacing works were due to take place between 11 and 14 March but were deferred owing to emergency services dealing with an emergency.</p> <p>Inspections and snagging were undertaken throughout to November 2021.</p>
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<b>10. Assessment of project against Scope</b>	<p>The project was implemented as per the scope defined in Gateway 5 report and is summarised below:</p> <ul style="list-style-type: none"> <li>• Construction of a Yorkstone footway and a raised carriageway in granite setts in Houndsditch between Outwich Street and Bishopsgate;</li> <li>• Relay of Yorkstone along the eastern footway on Bishopsgate;</li> <li>• Replacement of existing paving with Yorkstone in Cavendish Court and Devonshire Square;</li> <li>• Upgrade of existing street lighting in Houndsditch and Devonshire Row;</li> <li>• Replacement of existing trees and irrigation along south side of Houndsditch;</li> <li>• Provision of new cycle stands and seating in Houndsditch.</li> </ul>
<b>11. Risks and issues</b>	<p>Delay in the handover of the works' areas from the developer deferred the public realm implementation start date.</p>

**Value Review**

<b>12. Budget</b>	<table border="1"> <tr> <td data-bbox="462 1010 766 1131"><i>Estimated Outturn Cost (G2)</i></td> <td data-bbox="766 1010 1468 1131">Estimated cost (excluding risk): £250k - £2m</td> </tr> </table>		<i>Estimated Outturn Cost (G2)</i>	Estimated cost (excluding risk): £250k - £2m																		
	<i>Estimated Outturn Cost (G2)</i>	Estimated cost (excluding risk): £250k - £2m																				
<table border="1"> <thead> <tr> <th data-bbox="462 1131 766 1243"></th> <th data-bbox="766 1131 1053 1243"><i>At Authority to Start work (G5)</i></th> <th data-bbox="1053 1131 1468 1243"><i>Final Outturn Cost</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="462 1243 766 1288">Pre-evaluation</td> <td data-bbox="766 1243 1053 1288">£66,314</td> <td data-bbox="1053 1243 1468 1288">£66,313</td> </tr> <tr> <td data-bbox="462 1288 766 1332">Fees</td> <td data-bbox="766 1288 1053 1332">£47,795</td> <td data-bbox="1053 1288 1468 1332">£42,972</td> </tr> <tr> <td data-bbox="462 1332 766 1377">Staff Costs</td> <td data-bbox="766 1332 1053 1377">£293,797</td> <td data-bbox="1053 1332 1468 1377">£304,784</td> </tr> <tr> <td data-bbox="462 1377 766 1422">Highway works</td> <td data-bbox="766 1377 1053 1422">£785,418</td> <td data-bbox="1053 1377 1468 1422">£770,418</td> </tr> <tr> <td data-bbox="462 1422 766 1467">Maintenance</td> <td data-bbox="766 1422 1053 1467">£80,204</td> <td data-bbox="1053 1422 1468 1467">£0</td> </tr> <tr> <td data-bbox="462 1467 766 1512"><b>Total</b></td> <td data-bbox="766 1467 1053 1512"><b>£1,273,528</b></td> <td data-bbox="1053 1467 1468 1512"><b>£1,086,508</b></td> </tr> </tbody> </table> <p>The project is practically completed with resurfacing of Houndsditch between Camomile Street and Goring Street deferred due to emergency services dealing with incident. A total of £56,000 will be required for resurfacing works and their supervision, which has been included in the final outturn cost in the table above.</p> <p>The final account for this project is yet to be verified. An existing works commitment for JB Riney, accounted for in the overall project outturn costs, is yet to be receipted.</p> <p>Project accounts will be closed once invoices from the works are received, in line with the Chamberlain project's account processes.</p> <p>It is recommended that, subject to the developer's / landowner's agreement and waiver of the City's repayment obligation, the underspend is used to fund the improvements proposed for Jubilee Gardens, a part of the City Cluster Vision Wellbeing and Climate</p>			<i>At Authority to Start work (G5)</i>	<i>Final Outturn Cost</i>	Pre-evaluation	£66,314	£66,313	Fees	£47,795	£42,972	Staff Costs	£293,797	£304,784	Highway works	£785,418	£770,418	Maintenance	£80,204	£0	<b>Total</b>	<b>£1,273,528</b>	<b>£1,086,508</b>
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<b>Total</b>	<b>£1,273,528</b>	<b>£1,086,508</b>																				

	Change Resilience programme. If the developer does not agree the transfer of underspend, unused funds, including any accrued interest as per the S278 agreement, will be returned to the developer.
<b>13. Assessment of project against SMART objectives</b>	Through introduction of high-quality materials, trees and seating in Houndsditch and improved footway surfaces in Bishopsgate and Cavendish Court, the project delivered on its aims to enhance the experience of walking and spending time in the area, whilst accommodating the needs of the new development.
<b>14. Key benefits realised</b>	The improvements facilitate convenient pedestrian movement in the area, whilst providing sufficient space for vehicles to pass those dropping off and picking up passengers at the entrance to the hotel. The design created additional capacity to support the expected increase in people walking in the area and added to the attractiveness of the City of London as a place to work, live and visit.

### Lessons Learned and Recommendations

<b>15. Positive reflections</b>	<ul style="list-style-type: none"> <li>• The delivery of the scheme was possible due to a Section 278 contribution from the developer, who recognised the importance and added value of an attractive urban realm to match the quality of the development.</li> <li>• Ongoing coordination with the developer's representative ensured clear communication channels were maintained and any changes or updates were efficiently conveyed.</li> <li>• Working closely with structural engineers and the City Gardens team helped with revision of the original design from 2011, without compromising the project's main objectives.</li> </ul>
<b>16. Improvement reflections</b>	<ul style="list-style-type: none"> <li>• Undertaking detailed underground surveys at earlier stages of the project would have benefited the design process and minimised the needs for revisions, particularly in relation to the pipe subway.</li> </ul>
<b>17. Sharing best practice</b>	Information will be disseminated through team and project staff briefings.

### Appendices

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Finance table
<b>Appendix 3</b>	Before and after images

### Contact

<b>Report Author</b>	Andrea Moravicova
<b>Email Address</b>	andrea.moravicova@cityoflondon.gov.uk
<b>Telephone Number</b>	020 7332 3925



# Appendix 1

## Project Coversheet

### [1] Ownership & Status

**UPI:** 10717

**Core Project Name:** 150 Bishopsgate

**Programme Affiliation:** City Cluster Vision

**Project Manager:** Andrea Moravicova

**Definition of need:** Constructing new footways and carriageway around the development including a raised carriageway along Houndsditch (between Outwich Street and Bishopsgate), to cater for the expected increase in people walking and cycling in this area.

**Key measures of success:**

1. Deliver an enhanced public realm in Houndsditch
2. Deliver a highway that is designed and implemented to the City's standards, ensuring that the required functions of the street are maintained.
3. Improve accessibility for all throughout the area.

**Expected timeframe for the project delivery:**

Gateway 3-4-5 (December 2012) range: summer 2015 – late 2016

Gateway 5 (February 2020) range: April – October 2020

**Key Milestones:**

Gateway 5

- Replacing the trees in south part of Houndsditch: End April 2020 to end May 2020
- Repair works to pipe subway: March-May 2020
- Implementation: May – October 2020
- Gateway 6 report: January 2021

Current:

Implementation: January 2021 – April 2021

Gateway 6 report: July 2022

**Are we on track for completing the project against the expected timeframe for project delivery?** No; The works were rescheduled to align with revised developer's programme owing the Covid pandemic and were substantially completed in April 2021.

**Has this project generated public or media impact and response which the City of London has needed to manage or is managing?** No

### [2] Finance and Costed Risk

**Headline Financial, Scope and Design Changes:**

**'Project Briefing' G1 report (as approved by Chief Officer April 2012):**

- Total Estimated Cost (excluding risk): £250,000 to £2m



- Costed Risk Against the Project: £0
- Estimated Programme Dates: September 2012

**‘Project Proposal’ G2 report (as approved by PSC April 2012):**

- Total Estimated Cost (excluding risk): £250,000 to £2m
- Resources to reach next Gateway (excluding risk):
- Spend to date:
- Costed Risk Against the Project: N/A
- Estimated Programme Dates:

**‘Options Appraisal, Design and Authority to start Work’ G3-4-5 report (as approved by PSC 13/12/2012):**

- Total Estimated Cost (excluding risk): £810,103
- Resources to reach next Gateway (excluding risk): £242,004
- Spend to date: £19,800
- Costed Risk Against the Project: N/A
- Estimated Programme Dates: summer 2015 – 2017/18 financial year

**Scope/Design Change and Impact:** The design aligns with the brief described at Gateway 2, which focuses on designing a public realm to a standard the City is happy to adopt and maintain, in time for the opening of the development.

The development was paused shortly after the approval of the Gateway 3-4-5 report.

**‘Options Appraisal and Design’ Issues report (as approved by PSC April 2019):**

- Total Estimated Cost (excluding risk): TBC in the revised Gateway 5 report following a design review.
- Resources to reach next Gateway (excluding risk): £76,668
- Spend to date: £225,672
- Costed Risk Against the Project: N/A
- Estimated Programme Dates: Implementation start date - June/July 2020

**Scope/Design Change and Impact:** Changes to the design were required considering new information that became available since the Gateway 5 report was approved.

**‘Authority to start Work’ G5 report (as approved by PSC 24 February 2020):**

- Total Estimated Cost (excluding risk): £1,273,528
- Resources to reach next Gateway (excluding risk): £954,856
- Spend to date: £304,883
- Costed Risk Against the Project: N/A
- Estimated Programme Dates:
  - Implementation: April / May 2020 – October 2020
  - Gateway 6 close-down report: January 2021

**Scope/Design Change and Impact:** The design is a revised version of the one agreed in 2015 under the Heron Tower S.278(2) agreement and subsequently the Heron Tower S.278(2) variation agreement. These designs mitigated the impact of the Heron Tower development.

**Total anticipated on-going commitment post-delivery [£]:** N/A

**Programme Affiliation [£]:** City Cluster Vision.

This project has been funded separately to the City Cluster Vision programme through Section 278 contribution from the developer of 150 Bishopsgate. The officers are seeking an agreement from the developer to use the project's underspend to fund the City Cluster Vision's Jubilee Gardens project, which abuts the development.

# Appendix 2

Description	Approved Budget (£)	Expenditure (£)	Balance (£)
<b>150 Bishopsgate S278 (SRP) - 16800066</b>			
PreEv P&T Fees	9,240	9,240	-
PreEv P&T Staff Costs	47,220	47,219	1
PreEval Highways Staff Costs	9,375	9,375	0
PreEval Open Spaces Staff Costs	479	479	0
<b>Total - 16800066</b>	<b>66,314</b>	<b>66,313</b>	<b>1</b>
<b>150 Bishopsgate S278 (CAP) - 16100325</b>			
Env Servs Staff Costs	177,875	171,257	6,618
Open Spaces Staff Costs	7,922	3,007	4,915
P&T Staff Costs	123,000	124,521	(1,521)
P&T Fees	47,795	42,972	4,823
Utilities	60,700	55,568	5,132
Works - Highways	608,810	510,244	98,566
Works - Landscape	14,108	3,152	10,956
Works - Lighting	57,200	23,875	33,325
Works - TFL	29,600	29,600	-
<b>Total - 16100325</b>	<b>1,127,010</b>	<b>964,195</b>	<b>162,815</b>
<b>TOTAL</b>	<b>1,193,324</b>	<b>1,030,508</b>	<b>162,816</b>

<b>Table 2: Budget Adjustment Required</b>			
Description	Approved Budget (£)	Adjustment Required (£)	Revised Budget (£)
<b>150 Bishopsgate S278 (SRP) - 16800066</b>			
PreEv P&T Fees	9,240	-	9,240
PreEv P&T Staff Costs	47,220	-	47,220
PreEval Highways Staff Costs	9,375	-	9,375
PreEval Open Spaces Staff Costs	479	-	479
<b>Total - 16800066</b>	<b>66,314</b>	<b>-</b>	<b>66,314</b>
<b>150 Bishopsgate S278 (CAP) - 16100325</b>			
Env Servs Staff Costs	177,875	-	177,875
Open Spaces Staff Costs	7,922	-	7,922
P&T Staff Costs	123,000	1,521	124,521
P&T Fees	47,795	-	47,795
Utilities	60,700	-	60,700
Works - Highways	608,810	(1,521)	607,289
Works - Landscape	14,108	-	14,108
Works - Lighting	57,200	-	57,200
Works - TFL	29,600	-	29,600
<b>Total - 16100325</b>	<b>1,127,010</b>	<b>-</b>	<b>1,127,010</b>
<b>TOTAL</b>	<b>1,193,324</b>	<b>-</b>	<b>1,193,324</b>

## Appendix 3



Before: Construction site at 150 Bishopsgate looking south-north from Bishopsgate



After: Trees were replaced and cycle parking provisions were introduced in newly paved area of Houndsditch.





Before: Junction of Outwitch Street and Houndsditch



After: The pedestrian crossing on Outwitch Street was realigned.





Before: Houndsditch looking north towards Bishopgate



After: The raised carriageway in granite sets on Houndsditch.





After: The new layout with raised carriageway caters for expected increase in people walking and cycling in the area.



After: Cavendish Court repaved in Yorkstone

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<b>Committees:</b> Streets and Walkways Sub <i>[for decision]</i> Operational Property & Projects Sub <i>[for decision]</i>	<b>Dates:</b> 5 July 2022 20 July 2022
<b>Subject:</b> Bernard Morgan House public realm  <b>Unique Project Identifier:</b> 12056	<b>Gateway 6:</b> <b>Outcome Report</b> Regular
<b>Report of:</b> Director of the Environment <b>Report Author:</b> Andrea Moravicova	<b>For Decision</b>
<h2 style="margin: 0;">PUBLIC</h2>	

### Summary

<b>1. Status update</b>	<b>Project Description:</b> Deliver public realm enhancements in the area surrounding the new development at Bernard Morgan House.  <b>RAG Status:</b> Green (same at last gateway) <b>Risk Status:</b> Low (same at last gateway) <b>Costed Risk Provision Utilised:</b> N/A <b>Final Outturn Cost:</b> £524,649
<b>2. Next steps and requested decisions</b>	<b>Requested Decisions:</b> <ul style="list-style-type: none"> <li>Approve the content of this report and agree to close this project.</li> <li>Approve the budget adjustment related to staff costs to be actioned as outlined in Appendix 4.</li> <li>Authorise to use a portion of unspent funds (£15,000) for improvements to the north footway in Fann Street between Viscount Street and Golden Lane.</li> <li>Authorise the return of any underspend to the owner or their successor in title following finalisation of the account.</li> </ul>
<b>3. Key conclusions</b>	This project was delivered in four phases through the City's term contractor as standard practice for Section 278 agreements.

	<p>The project delivered on its main objectives to:</p> <ol style="list-style-type: none"> <li>1. Undertake works in a timely manner in line with Environmental Guidelines to ensure minimal disruption to the local street network, local business and construction activity.</li> <li>2. Support walking and cycling in the area surrounding the development by improving pedestrian crossings and provide an improved environment for cyclists using the cycle hire docking station.</li> <li>3. Provide a more inclusive, inviting environment that improves pedestrian access, particularly where footways are narrow.</li> </ol> <p>The project was delivered to budget, although its programme was affected by delays in the developer's schedule, which restricted access to site.</p> <p>Key learning and recommendations for future projects:</p> <ul style="list-style-type: none"> <li>• Close monitoring of expenditure ensured the project was delivered within the approved budget.</li> <li>• Defining clear project goals and setting out all tasks and activities to achieve these ensured the project scope was delivered to the agreed project objectives.</li> <li>• Aligning noisy working hours with noisy working approved for the nearby construction helped minimise disturbance to the nearby residents.</li> </ul>
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## Main Report

### Design & Delivery Review

<b>4. Design into delivery</b>	The detailed design was developed inhouse, considering the constraints and needs of the area, which helped with a smooth implementation.
<b>5. Options appraisal</b>	<p>The chosen options met the project's objectives. The delays to implementation were caused by several external factors, including the temporary halt in development construction works due to the Covid-19 emergency in Spring 2020.</p> <p>Two design options were produced and presented to committees at Gateway 3, following public consultation and negotiations with the owner.</p> <p>The chosen option followed the scope outlined in the Section 106 agreement, improving pedestrian highway in the immediate vicinity of the development, including:</p>

	<ul style="list-style-type: none"> <li>• Repaving of footways around the site in York stone and granite kerbs, replacement of tree grilles and minor realignments of kerb lines where necessary.</li> <li>• Decluttering of the footways through consolidation of traffic signs and lighting, with these attached to the new building where possible.</li> <li>• Constructing new vehicle crossovers in Viscount and Brackley Streets.</li> <li>• Realigning cycle hire docking station on Golden Lane.</li> <li>• Improving of the zebra crossing on Golden Lane.</li> <li>• Reducing number of parking bays along the north kerb of Brackley Street from four to three to accommodate access to the new development.</li> </ul>
<b>6. Procurement route</b>	<ul style="list-style-type: none"> <li>• The detailed design and the construction package were prepared by the Environment Department and work on site was delivered by the City's term contractor and nominated sub-contractor and statutory undertakes under the supervision of the Environment Department. This arrangement ensured consistency of approach and quality during the construction phases.</li> <li>• Specialist services, such as conservation of historic stone marker located in Fann Street, were procured with the assistance of the City of London Procurement team.</li> </ul>
<b>7. Skills base</b>	<ul style="list-style-type: none"> <li>• The project team has the skills, knowledge and experience to manage delivery of this and similar future projects.</li> <li>• Required surveys and specialist work on conservation of a historic were commissioned.</li> </ul>
<b>8. Stakeholders</b>	<ul style="list-style-type: none"> <li>• The project was delivered in close liaison with the owner to ensure the proposals meet their needs.</li> <li>• Comments from the public consultation were considered during the development and delivery of the project, however, some suggestions, including improvements to Fortune Street Park, were outside the Section 278 project scope defined in the Section 106 agreement.</li> <li>• Regular updates were provided to all interested parties throughout the project, with a small number of complaints received during the construction process which were promptly resolved.</li> </ul>

### Variation Review

<b>9. Assessment of project against key milestones</b>	<p>Gateway 5 report was approved in December 2020 and construction started in May 2021 as programmed.</p> <p>The works were completed in December 2021, two months later than originally planned to accommodate additional works in the</p>
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	area, namely the City's introduction of raised entry treatments in Brackley and Fann Streets at their junction with Golden Lane, as agreed with the owner.
<b>10. Assessment of project against Scope</b>	<p>The scope of the project remained unchanged and included the following works, which reflected the scope definition in the Section 106 agreement for the development:</p> <ul style="list-style-type: none"> <li>• Repaving of footways around the development in York stone and granite kerbs, replacement of tree grilles and minor realignments of kerb lines where necessary.</li> <li>• Decluttering of the footways through consolidation of traffic signs and lighting, with these attached to the new building where possible.</li> <li>• Construction of new vehicle crossovers.</li> <li>• Realignment of cycle hire docking station on Golden Lane to improve accessibility.</li> <li>• Realignment and repaving of the zebra crossing on Golden Lane.</li> <li>• Reducing number of parking bays along the north kerb of Brackley Street from four to three bays to accommodate waste collection access to the new development.</li> </ul> <p>Following a request from local residents, the City Operations team upgraded the north footway in Fann Street between Viscount Street and Golden Lane. The owner agreed that £15,000 from underspend can be used towards funding these works.</p>
<b>11. Risks and issues</b>	<p>Several factors affected the overall programme of this project:</p> <ul style="list-style-type: none"> <li>• The global pandemic delayed the owner's programme by approximately nine months moving the start of implementation of the public realm works from September 2020 to May 2021.</li> <li>• Presence of underground structure in Brackley Street, which seemed to have been connected to the former Bernard Morgan House structure, needed to be partially demolished, before continuing with construction adding approximately two weeks to the overall schedule.</li> <li>• Additional works to improve pedestrian access in the area, funded separately to this S278 project, needed to be incorporated into the original designs just prior to implementation, extending the original schedule by approximately three weeks.</li> </ul>

**Value Review**

<b>12. Budget</b>		
	<i>Estimated Outturn Cost (G2)</i>	Estimated cost £250,000 - £800,000

	<i>At Authority to Start work (G5)</i>	<i>Final Outturn Cost</i>
<i>Fees</i>	£36,930	£22,317
<i>Staff Costs</i>	£206,269	£191,825
<i>Works (including utilities)</i>	£370,766	£277,637
<i>Maintenance</i>	£32,870	£32,870
<i>Total</i>	£646,835	£524,649

The final account for this project has been verified.

It is recommended that a portion of the underspend is used to fund the improvements to the north footway in Fann Street between Viscount Street and Golden Lane, and the remainder of the unspent funds is returned to the owner.

<b>13. Assessment of project against SMART objectives</b>	<p>This project delivered against its main objectives to:</p> <ul style="list-style-type: none"> <li>• provide a high-quality public realm, sympathetic to the character of the area, using standard palette of materials to ensure ease of maintenance</li> <li>• create a more inclusive, inviting environment that improves pedestrian access through consolidation of street furniture around the development, realignment of the zebra crossing on Golden Lane and repaving the footways around the development.</li> <li>• Improve access to the cycle docking station on Golden Lane to support cycling.</li> </ul>
<b>14. Key benefits realised</b>	Improvements to the footway surfaces around the development and realignment of the zebra crossing on Golden Lane facilitate better pedestrian movement through the area.

### Lessons Learned and Recommendations

<b>15. Positive reflections</b>	<ul style="list-style-type: none"> <li>• Ongoing coordination with the owner's representative ensured clear communication channels were maintained and any changes or updates were efficiently conveyed.</li> <li>• Establishment of regular communication through project specific and existing Barbican and Golden Lane Estates' channels helped disseminate information about the project to stakeholders.</li> <li>• Close liaison with the City Surveyor's and Community and Children Services teams allowed co-ordination of the project's noisy working with the timings agreed for nearby development / construction works.</li> </ul>
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<b>16. Improvement reflections</b>	<ul style="list-style-type: none"> <li>Improved access to information and works' programmes for the area would enable more efficient integration of designs, preparation of necessary legal agreements and implementation schedules. (Knowing about other plans in the area would help in the preparation of the design and scheduling of the works.)</li> <li>Identification of more secluded location for welfare and toolbox units would reduce the number of noise complaints associated with the project.</li> </ul>
<b>17. Sharing best practice</b>	Information will be disseminated through team and project staff briefings.

### **Appendices**

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Before and after images
<b>Appendix 3</b>	Site plan
<b>Appendix 4</b>	Finance tables

### **Contact**

<b>Report Author</b>	Andrea Moravicova
<b>Email Address</b>	Andrea.moravicova@cityoflondon.gov.uk
<b>Telephone Number</b>	020 7332 3925

## Project Coversheet

### [1] Ownership & Status

**UPI:** 12056

**Core Project Name:** Bernard Morgan House public realm

**Programme Affiliation (if applicable):** N/A

**Project Manager:** Andrea Moravicova

**Definition of need:** Delivery of high-quality public realm works in the area surrounding the new development at Bernard Morgan House.

**Key measures of success:**

1. Improve the environment surrounding the new development to integrate it into the surrounding environment.
2. Deliver a higher quality and more attractive space that reflects the palette of materials identified in the Supplementary Planning Document
3. Improved zebra crossing which is Highways compliant

**Expected timeframe for the project delivery:** May 2021 – October 2021

**Key Milestones:**

1. Site surveys and completed construction package Mar-Oct 2020
2. Signed S278 agreement to release project funds – January 2021
3. Finalised construction packaged – January 2021
4. Start works on site – May 2021

**Are we on track for completing the project against the expected timeframe for project delivery?** The overall programme was affected by delays in the developer's schedule, which restricted access to the site. The necessary surveys to continue with the detailed design were undertaken once the site became available in October 2020. This resulted in a delay of 28 months compared to the estimate at Gateway 2.

The programme was adjusted, in agreement with the developer, to accommodate the construction of raised entry treatments in Fann Street and Brackley Street at their junction with Golden Lane, which resulted in works being completed in December 2021, two months later than estimated at Gateway 5.

**Has this project generated public or media impact and response which the City of London has needed to manage or is managing?** No

### [2] Finance and Costed Risk

**Headline Financial, Scope and Design Changes:**

The project was initiated in association with the development at former Bernard Morgan House.

**G1 & G2 report (as approved by PSC 20/02/2019):**

- Total Estimated Cost (excluding risk): £250,000-800,000
- Resources to reach next Gateway (excluding risk): £35,000
- Spend to date: £0
- Costed Risk Against the Project: N/A
- CRP Requested: N/A
- CRP Drawn Down: N/A
- Estimated Programme Dates: March 2019-August 2019

**G3-4 report (as approved by PSC 25/02/2020):**

- Total Estimated Cost (excluding risk): £725,505
- Resources to reach next Gateway (excluding risk): £85,361
- Spend to date: £14,144
- Costed Risk Against the Project: N/A
- CRP Requested: N/A
- CRP Drawn Down: N/A
- Estimated Programme Dates: September – December 2020

**'Authority to start Work' G5 report (as approved on 17/12/2020):**

- Total Estimated Cost (excluding risk): £ 646,835
- Resources to reach next Gateway (excluding risk): £ 526,474
- Spend to date: £ 120,361
- Costed Risk Against the Project: None
- Estimated Programme Dates:
  - Practical completion of the development – October 2020
  - Traffic Management Orders: February 2021
  - Construction works: May 2021 – October 2021
  - Submission of outcome report: October 2021

**Total anticipated on-going commitment post-delivery [£]:** Commuted Sum (£32,870)

**Programme Affiliation [£]:** N/A



# Appendix 2



Before: Golden Lane looking north-west



After: Golden Lane looking north-west. The footway was repaved in Yorkstone and the cycle hire docking station realigned.





Before: Golden Lane looking south-west



After: Golden Lane looking south-west. The zebra crossing was realigned and repaved.





Before: Fann Street looking west from Golden Lane



After: Fann Street; the footway adjacent to the development and the church was paved in Yorkstone.



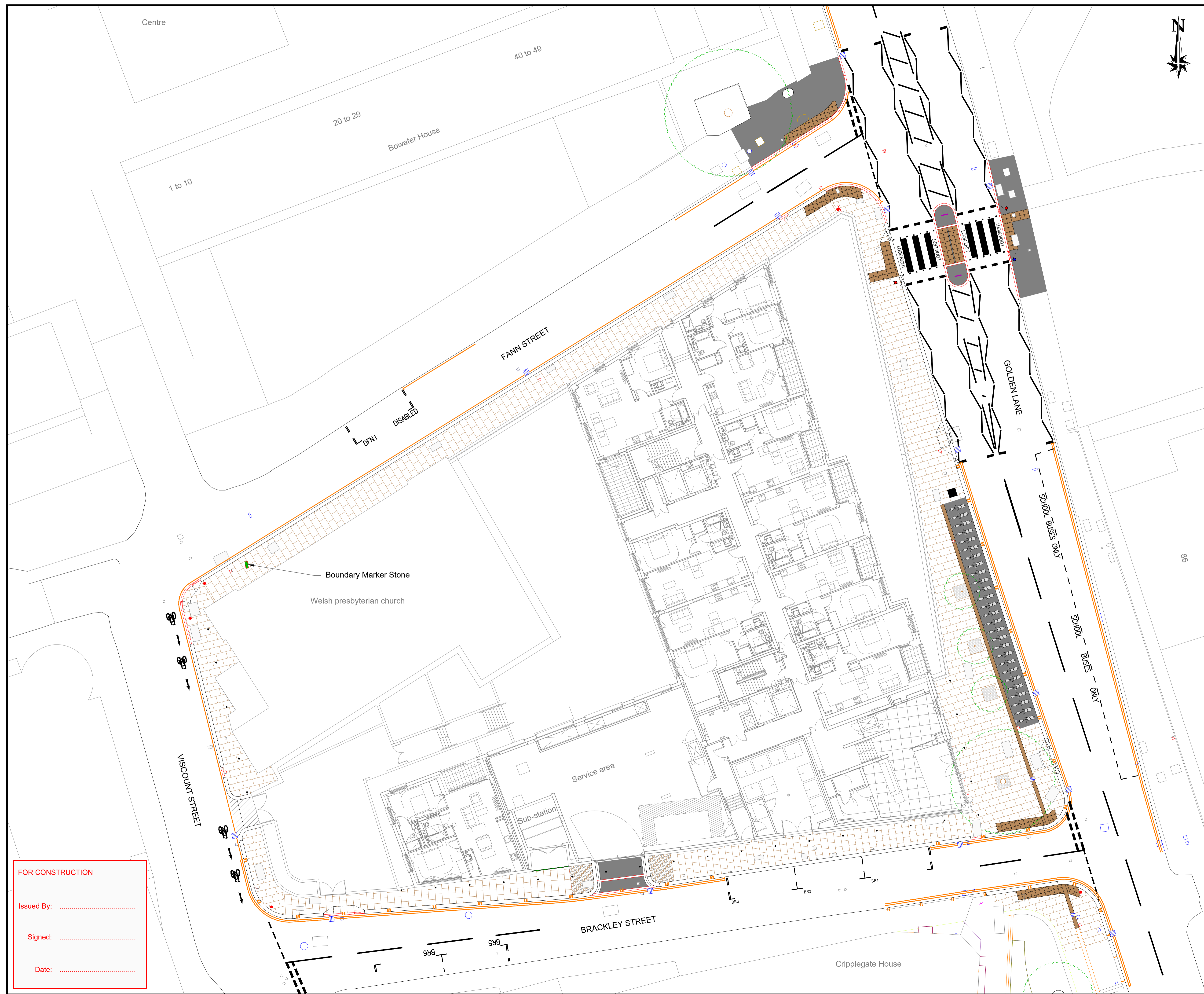


Before: Brackley Street looking east.



After: Brackley Street looking east. The north footway was repaved in Yorkstone





- Notes:**
1. No information to be scaled from this drawing.
  2. Works shall comply with the current City of London Specification for Highway works.
  3. All road markings refer to the "Traffic Signs Regulations and General Directions 2016". Refer to drawing number 1200/16100403/RM
  4. This drawing is to be read in conjunction with all relevant drawings
  5. The Contractor will be held responsible for any damage caused to private highways and privately owned street furniture.

- KEY**
- - - Proposed sign / sign & post
  - 300 x 200 fine picked silver grey granite kerb
  - 150 x 300 fine picked silver grey granite kerb
  - 50 x 225 Scoutmoor Yorkstone edging
  - Proposed 63mm thick (600mm x varied) Scoutmoor Yorkstone paving
  - Proposed 40mm thick mastic surfacing (Carriageway specification)
  - Proposed 25mm thick mastic surfacing (Footway specification)
  - Proposed 150mm thick (150 x 300mm) 2 Colour Mix Granite Setts with Mid-Grey boarder
  - Proposed HRA Carriageway surfacing
  - Proposed Flexi Pave (Installed by Open Spaces)
  - Proposed 63mm thick (400mm x 400mm) Scoutmoor Tactile Paving
  - Proposed 63mm thick (300mm x 600mm) Scoutmoor Yorkstone paving channel
  - Proposed 450 x 450mm cycle friendly gully
  - Proposed City of London C3 Bollard (Static)
  - Proposed City of London Lamp Column
  - Proposed Belisha Beacon with Halo Feature
  - Proposed 'Keep Left' Hoop Bollard

Rev No.	Date	Description	By
D	05.10.21	Re-introduction of the Brackley Street entry treatment works	SR
C	28.07.21	Removal of the Brackley Street entry treatment works	SR
B	06.07.21	Various revisions as a result of additional entry treatment & raised table works	SR
A	10.05.21	Various revisions as a result of discussions with Project Manager	SR

TITLE:  
**Bernard Morgan House S278**

TITLE:  
**General Arrangement**

CLIENT:  
**HIGHWAY DESIGN AND CONSTRUCTION**

DEPARTMENT OF THE BUILT ENVIRONMENT  
PO BOX 270  
GUILDHALL  
LONDON  
EC2P 2EJ  
TEL: 020 7606 3030



Sheet: <b>SHEET 1 of 1</b>	THIS MAP IS REPRODUCED FROM ORDNANCE SURVEY MATERIAL WITH THE PERMISSION OF ORDNANCE SURVEY ON BEHALF OF THE CONTROLLER OF HER MAJESTY'S STATIONERY OFFICE © CROWN COPYRIGHT 2006. ALL RIGHTS RESERVED. UNAUTHORISED REPRODUCTION INFRINGES CROWN COPYRIGHT AND MAY LEAD TO PROSECUTION OR CIVIL PROCEEDINGS. CITY OF LONDON 100023243 2008.
Date: <b>Oct 2021</b>	
Designed by: <b>SR</b>	
Checked by: <b>BM</b>	
Scale & Drawing Size: <b>N.T.S@A1</b>	Revision: <b>D</b>
Drawing No: <b>100/16100410/GA</b>	

**FOR CONSTRUCTION**

Issued By: .....

Signed: .....

Date: .....



# Appendix 4

Table 1: Expenditure to Date			
Description	Approved Budget (£)	Expenditure (£)	Balance (£)
<b>Bernard Morgan House S278 - 16800410</b>			
Env Servs Staff Cost	2,570	2,568	2
P&T Staff Costs	18,000	18,000	-
P&T Fees	385	385	-
<b>Total - 16800410</b>	<b>20,955</b>	<b>20,953</b>	<b>2</b>
<b>Bernard Morgan House S278 - 16100410</b>			
Env Servs Staff Costs	78,833	80,855	(2,022)
Legal Staff Costs	2,500	722	1,778
Open Spaces Staff Costs	866	-	866
P&T Staff Costs	103,000	89,679	13,321
Legal Fees	2,500	-	2,500
P&T Fees	27,045	16,200	10,845
Surveys	6,500	5,733	768
Env Servs Works	278,533	255,437	23,096
Open Spaces Works	2,233	-	2,233
Utilities	90,000	22,200	67,800
<b>Total - 16100410</b>	<b>592,010</b>	<b>470,826</b>	<b>121,184</b>
<b>TOTAL</b>	<b>612,965</b>	<b>491,779</b>	<b>121,186</b>

Table 2: Budget Adjustment Required			
Description	Approved Budget (£)	Adjustment Required (£)	Revised Budget (£)
<b>Bernard Morgan House S278 - 16800410</b>			
Env Servs Staff Cost	2,570	-	2,570
P&T Staff Costs	18,000	-	18,000
P&T Fees	385	-	385
<b>Total - 16800410</b>	<b>20,955</b>	<b>-</b>	<b>20,955</b>
<b>Bernard Morgan House S278 - 16100410</b>			
Env Servs Staff Costs	78,833	2,023	80,856
Legal Staff Costs	2,500	-	2,500
Open Spaces Staff Costs	866	-	866
P&T Staff Costs	103,000	(2,023)	100,977
Legal Fees	2,500	-	2,500
P&T Fees	27,045	-	27,045
Surveys	6,500	-	6,500
Env Servs Works	278,533	-	278,533
Open Spaces Works	2,233	-	2,233
Utilities	90,000	-	90,000
<b>Total - 16100410</b>	<b>592,010</b>	<b>-</b>	<b>592,010</b>
<b>TOTAL</b>	<b>612,965</b>	<b>-</b>	<b>612,965</b>

<b>Committees:</b> Operational Property and Projects Sub - <i>for decision</i> Epping Forest and Commons Committee - <i>for decision</i>	<b>Dates:</b> 20 July 2022 12 Sept 2022
<b>Subject:</b>  <b>Kenley Revival Project. A National Lottery Heritage Fund (formerly HLF) funded project.</b>  <b>Unique Project Identifier:</b> 1101	<b>Gateway 6:</b> <b>Outcome Report</b> Light
<b>Report of:</b> Director of Natural Environment Choose an item. <b>Report Author:</b> Andy Thwaites	<b>For Decision</b>
<b>PUBLIC</b>	

## Summary

<b>1. Status update</b>	<b>Project Description:</b>  Main project aims as stated in the original funding application: <ul style="list-style-type: none"> <li>• Empower, involve and inspire people to explore, record and take ownership of Kenley's World War Two heritage</li> <li>• Promote and raise the profile of Kenley Airfield as a nationally significant heritage resource and an important place for wildlife and recreation</li> <li>• Preserve a unique and important historical site and become a beacon of excellence for understanding the conservation of impermanent architecture</li> </ul> <b>RAG Status:</b> Red <b>Risk Status:</b> Medium <b>Costed Risk Provision Utilised:</b> £93,657 (NLHF contingency) <b>Final Outturn Cost:</b> £1,178,952* * Includes £35,190 ongoing maintenance costs yet to be spent (included because this is contractually part of the project).
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<p><b>2. Next steps and requested decisions</b></p>	<p><b>Requested Decisions:</b></p> <p>1 – That the positive balance in the project’s capital budget of £30,666.41 be transferred to the West Wickham and Coulsdon Commons local risk budget as a reserve to contribute towards ongoing maintenance costs.</p> <p>2 – Approve closure of the project.</p>
<p><b>3. Key conclusions</b></p>	<p>The project took longer and cost more than originally planned.</p> <p>Using National Lottery Heritage Fund (NLHF) terminology, the project’s Approved Purposes set out its objectives:</p> <p><u>Capital works including the conservation of five Fighter Blast Pens</u></p> <p>All the features listed as requiring work were conserved, although the delicacy of the fabric was such that some required a little more than was originally anticipated. Much of the 2017 work was affected by a rare variant of sulphate attack called thaumasite. Establishing the cause, liability and solution took considerable time, but eventually the thaumasite affected fabric was replaced in 2021. See Evaluation Report Addendum 2.</p> <p><b>Outcome: ultimately achieved, but considerably above original budget and timescale.</b></p> <p><u>Conservation Seminar to share with the sector</u></p> <p>An open seminar, ‘The Conservation of 20<sup>th</sup> Century Military Architecture’ was held at the Society of Antiquities in June 2019. It was attended by 110 people.</p> <p><b>Outcome: successful</b></p> <p><u>Increased onsite interpretation</u></p> <p>There were some changes to the Approved Purposes. The signage numbers were reduced from 45 in the Second-round submission to the following: 13 tabletops, 5 small wings, 6 large wings. The construction of a perimeter fence around the active RAF airfield negated the need for many of the directional wayfinders. The bespoke signs are made of fibreglass and are in the shape of aircraft wings. See Evaluation Report Addendum 1.</p> <p><b>Outcome: successful, but took longer than planned</b></p> <p><u>Educational programme</u></p> <p>Two Learning Festivals involved over 3000 participants. The first Learning Festival in 2017 attracted schools to onsite activities over five days. The second Learning Festival in 2018 included a</p>



Learning Festival Roadshow, Remembrance Programme and School Design Competition. Around 40 guided tours delivered to schools, uniformed groups, special interest groups, and veterans' groups, reaching over 1,700 participants. Themes for guided walks included wildlife, Battle of Britain, and Pilots and Pets. Around 20 handling workshops delivered onsite to schools and uniformed groups reaching 798 participants. The Hardest Day event in August 2019 attracted 250 participants. Around 70 workshops were delivered off site for schools, and specialist interest groups. Five screenings – Reach for the Sky (x2), Angels One Five and Spitfire (x2) A Heritage open day in 2017 and Sky Heroes open day in 2018 reached 3,000 and 5,000 people respectively. The 2018 Women at War season included a Home Front Day at Turf Projects, a performance of Amy Johnson's Last Flight Out, and Jason the Gypsy Moth school workshops, reaching a total 145 participants.

**Outcome: very successful**

Community archaeology programme

Three annual archaeological festivals were held, including an additional one organised at NLHFs request due to the success of the first two. In total over 200 participants were involved.

**Outcome: very successful**

Memories, artefacts, documents and photographs collated on a Kenley Revival website

Eight oral histories were collected and transcribed. Videos of six are on the bespoke website, plus a further two sourced from elsewhere or voiced by an actor. A recording of written memories has also been made available on the website. The online archive now features 227 objects, documents and photographs. A further 218 online memorials to Kenley's fallen have been posted. A dedicated team of volunteers continue to research, update and add material to the site.

**Outcome: successful**

## Main Report

### Design & Delivery Review

<b>4. Design into delivery</b>	<p>National Lottery Heritage Fund projects are delivered in stages. If successful at the first round, funding is provided for a development phase. If the outcome of the development phase is acceptable, funding is provided for a second-round delivery phase.</p> <p>The second-round application was highly developed and detailed, and in many respects established clear baselines and a realistic blueprint for delivery. However, the degree of risk presented by the conservation element of the project was not adequately considered. Had it been so, the design of this aspect of the project would have been quite different. See Evaluation Report Addendum 2.</p>
<b>5. Options appraisal</b>	<p>Only one option was proposed at Gateway 3-4 because the project was specifically designed to realise the opportunity offered by NLHF funding. As stated in the report:</p> <p><i>Only one option is detailed here because this project has been specifically designed to realise the opportunity that HLF funding presents. Without HLF funding the project will not happen.</i></p> <p>The Gateway 2 report offered two options. Undertake minimal conservation work and accept that the heritage assets would remain on the Heritage at Risk Register or carry out the works solely at the City's expense.</p>
<b>6. Procurement route</b>	<p>All goods and services were procured using tender processes that conformed with NLHF and City Corporation requirements.</p> <p>The conservation works were tendered by the Conservation Consultant, a team of specialist architects, using City systems and procedures.</p>
<b>7. Skills base</b>	<p>A Project Manager and a Learning and Volunteer Officer were appointed by the project.</p> <p>A Conservation Consultant acted as Contract Administrator for the conservation works (in addition to procuring the contractor as described above).</p> <p>The project was designed as a partnership partly with the intention of bringing external expertise into the project team in the areas of</p>

	conservation (Historic England), and local community engagement (Kenley Airfield Friends Group).
<b>8. Stakeholders</b>	<p>The principal stakeholder was the National Lottery Heritage Fund. They were kept informed via regular progress reports and quarterly progress meetings. In a letter dated 17 March 2022 they stated:</p> <p><i>“Congratulations on completing your Heritage Grant project. You should be tremendously proud that you and your team were able to overcome the various obstacles presented during delivery. The fact that you were able to achieve this to a high standard, during a pandemic, highlights the resilience and quality of your outputs.”</i></p> <p>The project partners – Historic England and Kenley Airfield Friends Group – were formally engaged via a project board that also included officers from the Surveyors, Chamberlains and Open Spaces Departments.</p>

### Variation Review

<b>9. Assessment of project against key milestones</b>	<p>Two aspects of the project exceeded the timescales originally planned.</p> <p>On site signage was due to be installed in May 2017. It was eventually installed in August 2020. The main cause of this delay was a breakdown in relations between the main signage contractor and a sub-contractor.</p> <p>Conservation works were due to be completed by August 2017. They were initially completed by the end of 2017, but early in 2018 the effects of thaumasite sulphate attack were observed. The affected structures were rectified at the end of 2021. See Evaluation Report Addendum 2.</p>
<b>10. Assessment of project against Scope</b>	<p>Ultimately all targets were met, but there were some variations on original (development phase) baselines during six years of delivery:</p> <ul style="list-style-type: none"> <li>• The conservation works were originally costed at £260,000. Variations during the 2017 works pushed costs to £300,000, mainly due to the fabric of the heritage assets being more delicate than originally anticipated. These additional costs were covered by the project’s inflation and contingency</li> </ul>

	<p>budgets. The cost of rectifying the thaumasite affected works was £151,000. Much of this was covered by underspends and contingency within the project's budget, but it was necessary for the City to find an additional £70,000. (£50,000 from local risk, £10,000 from the Cyclical Works Programme and £10,000 from community contributions. Ultimately the conservation works budget came in at £441,000, which was £181,000 more than the original estimate.</p> <ul style="list-style-type: none"> <li>• The Learning and Volunteer Officer post was originally a part time role. In January 2017 the job was made full-time in recognition of the demands of the activity programme. The additional cost of this change was met from within project budgets.</li> <li>• Heritage Day event target of 500 attendees. Actual figure 3,000</li> <li>• Sky Heroes Day event target of 500 attendees. Actual figure 5,000</li> <li>• Conservation Seminar target of 30 attendees. Actual number of attendees 110.</li> <li>• Learning Festivals target 1,200 students engaged. Actual figure over 3,000 engaged over two years.</li> <li>• Community Archaeology target of 60 people engaged in two annual festivals of archaeology. Actual figure of 250 involved over three years (additional year run at NLHFs request using contingency budget).</li> </ul>
<p><b>11.Risks and issues</b></p>	<p>This project passed Gateway 5 before the need for a Costed Risk Provision was introduced. However, NLHF projects are required to have a contingency budget, and this was populated partly by means of a Quantified Risk Analysis. £60,000 of the £94,000 contingency was identified in this way. Of this only £20,000 related to a risk that came to fruition, namely increased conservation costs.</p> <p>The project always intended to push the boundaries of the fledgling field of impermanent architecture conservation. However, the risks of doing so were not fully appreciated. This became apparent when thaumasite sulphate attack occurred. Although this was deemed to be an unforeseeable risk, a more cautious and graduated approach to conservation based on the possibility of unknown risk occurring could have limited the extent of the damage. See Evaluation Addendum 2.</p>
<p><b>12.Transition to BAU</b></p>	<p>Responsibility for the signage, website and support for local community volunteers has now transferred to the West Wickham</p>

	and Coulsdon Commons. The conserved heritage assets remain the City Surveyors responsibility, although vegetation control will be undertaken by the local ranger team in liaison with the Surveyor and Historic England.
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### Value Review

<b>13. Budget</b>	<table border="1"> <tr> <td><i>Estimated Outturn Cost (G2)</i></td> <td>Estimated cost (including risk): Within the range £250k to £2m (G2 report Jan 2012). Estimated cost (excluding risk): Within the range £250k to £2m.</td> </tr> </table>		<i>Estimated Outturn Cost (G2)</i>	Estimated cost (including risk): Within the range £250k to £2m (G2 report Jan 2012). Estimated cost (excluding risk): Within the range £250k to £2m.																																														
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		<i>At Authority to Start work (G5)</i>	<i>Final Outturn Cost</i>																																															
	<i>Fees</i>	£ 125,271	£ 176,700																																															
	<i>Staff Costs</i>	£ 201,619	£ 221,187																																															
	<i>Works</i>	£ 283,516	£ 476,772																																															
	<i>Purchases</i>	£ 179,039	£ 140,006																																															
	<i>Other Capital Expend</i>	£ 0	£ 0																																															
	<i>Costed Risk Provision</i>																																																	
	Contingency	£ 93,657	£ 0 (All used - vired)																																															
	Inflation	£ 34,710	£ 0 (All used - vired)																																															
	<i>Recharges</i>	£	£																																															
<i>Other*</i>																																																		
Volunteer costs	£ 25,100	£ 4,777																																																
Volunteer time	£ 79,450	£ 79,450																																																
Maintenance	£ 35,190	£ 35,190																																																
Non-cash (in kind)	£ 44,870	£ 44,870																																																
<i>Total</i>	£ 1,102,422	£ 1,178,952																																																
<b>14. Investment</b>	Not applicable																																																	

<b>15. Assessment of project against SMART objectives</b>	NLHF projects are assessed on their performance against their Approved Purposes. See section 3.
<b>16. Key benefits realised</b>	<p>In line with NLHF outcomes, the Gateway 2 report offered the following success criteria:</p> <ul style="list-style-type: none"> <li>• <i>The heritage will be in better condition</i> – this was achieved, albeit at additional time and cost.</li> <li>• <i>People will have learnt about the heritage and developed skills</i> – 19,000 people were directly engaged with the heritage through a variety of events.</li> <li>• <i>A wider range of people will have been involved</i> – 2,700 school children attended educational sessions, 90 volunteers involved, 250 participants in community archaeology, youth programme.</li> </ul> <p>Additionally, the G2 report stated that the Scheduled Monuments would be removed from the Heritage at Risk Register. This was achieved.</p>

### Lessons Learned and Recommendations

<b>17. Positive reflections</b>	<p>The people engagement aspects of the project performed better than expected.</p> <p>The project provided employment for a Project Manager, two Learning and Volunteer Officers, an apprentice and (via City PIP funding) a Legacy Officer. Many of these individuals moved on to other roles in the heritage sector.</p> <p>The project certainly advanced the fledgling field of impermanent architecture conservation by discovering a hitherto unheard-of form of sulphate attack and forming a practical solution to it. This knowledge has been shared with the heritage sector.</p> <p>The appended Evaluation Report details many more of the positive aspects of the project.</p>
<b>18. Improvement reflections</b>	<p>Regarding the conservation works, the optimism surrounding what might have been easily achieved obscured an adequate assessment of what could go wrong. That is not to say that inadequate financial provision was made for risk – that was one of the projects strong points and saving graces – but that decisions were made, and an approach taken, that did not align with the prevailing degree of uncertainty.</p>

	<p>For example, one logical way to manage the unpredictable risk would have been to phase the project or build in time for tests and trials beforehand. At the time of development this would have felt like an expensive extension to the schedule and a compromise to the desire to get the whole project done by a fixed date (see below). However, trials proved necessary anyway, and if done up front they might have identified thaumasite, or at least informed the final design.</p> <p>The trials approach could also have applied to the decision to develop bespoke signage. This would have tested the process for designing, building and installing the signs as well as their appearance and strength, and might have identified issues with contractor performance sooner than they became apparent.</p> <p>The Kenley Project initially worked backwards from a single fixed date relating to one requirement - to mark the 75th anniversary of the Battle of Britain. The aim was to get everything done by this anniversary, and unrealistic timescales were devised to achieve this. On reflection, commemorating the anniversary should have been a milestone for the project, rather than a deadline.</p> <p>The Kenley Airfield Friends Group and Historic England did a tremendous job to drive the initial development of the project by identifying both the need for it and the opportunities it offered. Later, the City assumed the lead role on NLHFs (then HLFs) advice. As the project progressed to implementation, a formalised partnership approach was seen as essential to maintain the partners involvement. With hindsight it is probably fair to say that the partnership approach was not the best option. The City carried all the risk and was ultimately solely accountable for all aspects. Involving the other stakeholders as consultees or customers rather than partners might have been a better approach.</p>
<p><b>19. Sharing best practice</b></p>	<p>The Conservation Seminar held in June 2019 for 110 participants was aimed at sharing learning with industry specialists.</p> <p>NLHF are becoming more adept at using the learning from their projects to inform future project development. The lessons learnt from this project will be shared with others.</p>



	Information on thaumasite sulphate attack has been shared with construction specialists, including the conservation contractor, who is involved in other City projects.
<b>20. AOB</b>	None

### **Appendices**

<b>Appendix 1</b>	Project Coversheet
<b>Appendix 2</b>	Kenley Revival Final Evaluation Report
<b>Appendix 3</b>	Evaluation Addendum 1 Signage
<b>Appendix 4</b>	Evaluation Addendum 2 Thaumasite

### **Contact**

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# Project Coversheet

## [1] Ownership & Status

UPI: 1101

**Core Project Name:** Kenley Revival Project

**Programme Affiliation:** N/A

**Project Manager:** Andy Thwaites

**This project is funded predominantly by the National Lottery Heritage Fund (formerly HLF)**

### **Definition of need:**

**The National Lottery Heritage Fund has now closed this project.**

Kenley Revival engaged 19,166 people with the WWII heritage of Kenley Airfield.

The project has created a website <https://www.kenleyrevival.org/> and has installed bespoke signage on site to interpret the airfield's history.

The project also conserved Kenley's WWII structures including eight Fighter Pens and a rifle range.

### **Key measures of success:**

Main project aims as stated in the original funding application were:

- Empower, involve and inspire people to explore, record and take ownership of Kenley's World War Two heritage
- Promote and raise the profile of Kenley Airfield as a nationally significant heritage resource and an important place for wildlife and recreation
- Preserve a unique and important historical site and become a beacon of excellence for understanding the conservation of impermanent architecture

### **Expected timeframe for the project delivery:**

#### **Key Milestones:**

- Originally scheduled to complete by July 30 2019.
- NLHF confirmed closure of the project on March 17 2022.

### **Are we on track for completing the project against the expected timeframe for project delivery?**

The project has now ended.

### **Has this project generated public or media impact and response which the City of London has needed to manage or is managing?**

Yes – half page article in the Sunday Express on July 26 2020 with the headline 'Bid to save crumbling Battle of Britain site.'

This included a statement from the City:

'We are committed to delivering this conservation project of great historical significance.'

## [2] Finance and Costed Risk

**Headline Financial, Scope and Design Changes:** Update relevant section post report approval. Add multiple entries to relevant box if issues reports are approved. Note this section is to tell the 'project story' of how we reached the current position outlined in the main report.

### **'Project Proposal' G2 report (as approved by PSC 10/01/12):**

- Combined G1/G2 report seeking approval to apply for Round 1 funding from HLF (now NLHF).
- Cost of conserving structures estimated at £320,000. Actual cost (excluding thaumasite costs) to date is £343,717

### **'Options Appraisal and Design' G3-4 report (as approved by PSC 25/09/13):**

- Total Estimated Cost: £879,000 excluding non-cash items like volunteer contributions
- Following a successful Round 1 application the G3-4 report sought to obtain permission to develop the project to HLF stage 2

### **'Authority to start Work' G5 report (as approved by PSC 08/09/15):**

- G5 report submitted after HLF offer of Round 2 funding
- Total estimated cost £978,102 (cash items). To date expenditure has remained within this figure, but three requests have been made to 'unlock' the inflation and contingency budget lines:
  - August 2017 to release £49,000 for additional conservation work
  - February 2018 to support the activity (public engagement) programme
  - December 2020 verbal request for authorisation to use contingency for graffiti removal and signage installation
  - March 2021 issue report to request an additional £70,000 of City funding to rectify structures affected by thaumasite sulphate attack.

### **Total anticipated on-going commitment post-delivery:**

The project commits the City to a 10-year programme of management and maintenance costed at £35,190.



## Kenley Revival

## Final Evaluation Report



January 2020

Commissioned by City of London Corporation

Produced by Anna Cullum and Pam Jarvis

Anna Cullum Associates

Arts | Museums | Heritage



# Kenley Revival

## Final Evaluation Report

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*Front cover image: Pilots of number 253 Squadron at Kenley between August 1940 and January 1941*



## 1. Introduction

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### 1.1. Context and background: the importance of Kenley Airfield

Kenley Airfield today is a tranquil scene, a local amenity valued for leisure and enjoyment of its open spaces and as a site for nature conservation. During World War II the Airfield would have looked very different: Kenley was one of the main fighter stations in the front-line for the air defence of London. Combatting the tremendous might of the German Luftwaffe during the critical days of the Battle of Britain. Kenley Airfield was devastated during the Battle of Britain, when the attack by the German Luftwaffe destroyed three hangars, destroyed or damaged thirteen aircraft, and caused extensive damage to the runways. Sadly, ten people on the ground lost their lives. The Airfield fared badly in the following decades, as a series of subsequent fires led to the gutting and demolition of the Watch Office and hangar and later, the central part and one wing of the Officers Mess building.

Today, the visible evidence of this momentous battle of World War II and a crucial moment in both Kenley Airfield, and in Britain's history can be seen in the structures that survived these onslaughts: these include the Fighter Blast Pens, a rifle range, runways, the perimeter track and dispersal systems. Historic England identifies Kenley Airfield as *'the only example identified through a national survey to retain nearly all of its dispersed fighter pens. As such, and in association with its historical significance, it is a nationally important monument which demonstrates both planned defence of aircraft from attack while on the ground and the success of this policy, as so few aircraft were lost on the ground despite repeated and heavy aerial attack.'*<sup>1</sup> The Fighter Blast Pens have been designated as Scheduled Monuments on the basis that heritage assets from military airfields are an increasingly rare and vulnerable asset type. Kenley is an important example of the conservation, preservation and restoration of one of Britain's finest examples of 'Impermanent Architecture'.

The remaining airfield is still owned by the Ministry of Defence and now hosts 615 Volunteer Gliding Squadron (VGS), a Royal Air Force squadron of the Air Cadet Organisation. The Airfield's perimeter track marks the boundary between City Corporation land and that owned by the MoD. The Airfield was designated as a Conservation Area in 2006.

### 1.2. Kenley Revival

Kenley Revival is a National Lottery Heritage Fund (NLHF) project which set out to preserve and protect this significant reminder of Britain's wartime history as the most complete fighter airfield associated with the Battle of Britain to have survived, and to reveal the significant contribution made by the people who shaped Kenley's history. Their stories have emerged through this project and it is hoped that these will remind future generations of this dangerous and tumultuous time and of the personal sacrifice reflected in the quote on the

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<sup>1</sup> <https://historicengland.org.uk/listing/the-list/list-entry/1021243>

RAF Kenley Tribute memorial: *'Never in the field of human conflict, has so much been owed by so many to so few'* Winston Churchill 1940.

The City of London Corporation and the Friends of Kenley Airfield Group have championed the conservation of the Airfield to ensure its future and to realise the vision to create opportunities leading to deeper understanding of a nationally significant heritage resource.

The support of the Heritage Fund and the recognition of Kenley Airfield's importance by Historic England signals the significance and quality of this project and its outcomes.

### 1.3. Vision, aims and objectives for Kenley Revival

Kenley Revival has defined its vision and aims as follows:

Kenley Airfield and environs: conserved, promoted, understood and enjoyed as the UK's most complete surviving Battle of Britain fighter airfield, a site of nature conservation and public open space; an active airfield that maintains a direct and tangible link to its fighter airfield history.

**Aim 1:** Preserve a unique and important historical site and become a beacon of excellence for understanding the conservation of impermanent architecture.

Outcomes:

- conserve the Fighter Blast Pens, Rifle Range and associated heritage assets,
- advance the understanding of conserving impermanent architecture, sharing this knowledge widely to help others.

**Aim 2:** Promote and raise the profile of Kenley Airfield as a nationally significant heritage resource and an important place for wildlife and recreation.

Outcomes:

- deliver a unique and inspiring programme of events and informal learning opportunities to draw people to Kenley,
- improve onsite interpretation,
- create a comprehensive and high quality 'one stop shop' online resource,
- create a high quality, high impact touring exhibition,
- increase the number and diversity of visitors to Kenley Common,
- increase the number of local people who choose heritage as the main purpose of their visit,
- promote wildlife and habitat conservation alongside heritage conservation.

**Aim 3:** Empower, involve and inspire people to explore, record and take ownership of Kenley's World War II heritage.

Outcomes:



- develop exciting and accessible opportunities for people to engage with, and learn about, the heritage,
- create community archaeology opportunities to involve people in hands on conservation,
- create interesting and rewarding opportunities for people to volunteer,
- involve audiences in the research for, and production of, all interpretation,
- develop a formal learning programme to involve schools,
- create an online resource of memories, documents and photographs, and a catalogue of artefacts.

Outcomes, approved purposes and targets are set out in further detail at the beginning of each section of this report, to provide a framework of what the evaluation measures.

#### 1.4. Evaluation scope and methodology

The City of London Corporation commissioned Anna Cullum and Pam Jarvis to produce the evaluation of Kenley Revival as part of its submission to the National Lottery Heritage Fund to satisfy funding requirements.

The evaluation process has benefited from the adoption of best practice by a dedicated team of staff and volunteers, who have worked with the evaluators from the early stages of the Delivery Phase, have encouraged feedback on all events and activities, and who have undertaken excellent record keeping. A summary of evidence sources is included in Appendix 1.

The evaluation faced a series of challenges including:

- The budget for evaluation was £6,000 (approx. 6 days per year over the lifetime of the project to date), which represents 0.005% of the overall project budget. As such, the evaluation has focused on the impact of the project on participants, and on the heritage assets. It touches upon project management and process, organisational impact and project legacy but a detailed analysis has not been possible within the resource allocated.
- The timeline of the project has extended from a planned completion in April 2019 (with the final evaluation report being delivered in January 2020) due to the challenges outlined around conservation of the historic structures in this report. This means that the evaluation has not been able to assess the final impact on heritage of the conservation works – this will be assessed through a separate appended report at the end of the project.
- Installation of the interpretation has been delayed beyond the original grant expiry date – similarly, this will be assessed through a separate appended report at the end of the project.

## The difference the project has made to heritage



*'It's a privilege to meet and talk with these people about Kenley and their lives and experiences – which were often traumatic – and to give them space to remember and share.'* Oral history volunteer

*Image: Ken Raffield, Oral History Participant*

## 2. The difference Kenley Revival has made to heritage

### 2.1. The difference the project intended to make: outcomes for heritage

**Aim 1:** Preserve a unique and important historical site and become a beacon of excellence for understanding the conservation of impermanent architecture.

**Outcomes:**

- conserve the Fighter Blast Pens, Rifle Range and associated heritage assets,
- advance the understanding of conserving impermanent architecture, sharing this knowledge widely to help others.

**Heritage Fund outcomes:** Heritage will be in better condition; heritage will be better recorded and identified; heritage will be better managed

**Aim 2:** Promote and raise the profile of Kenley Airfield as a nationally significant heritage resource and an important place for wildlife and recreation.

**Outcomes:**

- improve onsite interpretation,
- create a comprehensive and high quality 'one stop shop' online resource.

**Heritage Fund outcomes:** Heritage will be better interpreted and explained

### 2.2. What happened?

Approved Purpose	Progress against approved purpose
<p>Capital work includes conservation of five fighter blast pens (which are scheduled together as two Scheduled Ancient Monuments At Risk).</p> <p>This includes internal and external works to the Tribute memorial (KC12) to ensure full restoration and use, works to fighter pens KC40, KC52, KC44 and KC18.</p> <p>Stabilising works to all other blast pens, rifle range, fuel dump and other associated features, all within the Conservation Area.</p>	<p>All conservation works were completed by the end of 2017.</p> <p>By early 2018, it became clear that the works had suffered from a severe sulphate attack, which had turned the mortar into thaumasite, rendering it unfit for purpose</p> <p>Testing and on-site trials were progressed throughout the winter of 2018 with various combinations of different materials trialled.</p> <p>This issue is as yet unresolved.</p>
<p>Increased onsite interpretation focused on two key 'zones' focused on the areas undergoing most conservation, using narrative themes based around personal experience of those who worked on the common, related to 'Kenley and the defence</p>	<p>Touring exhibition display boards have now been completed.</p> <p>On site interpretation will be installed in early 2020.</p>

Approved Purpose	Progress against approved purpose
of London', nature, recreation and Kenley as a living airfield. Heritage Trail, 5 interactive panels, 28 interpretive signs and 17 way finding posts, a leaflet and outlines of planes in the pens will unify the interpretation, supported by a website and travelling exhibition. Annual flypasts will take place.	Plane outlines have been completed
Conservation Seminar will be held, and learning shared with the sector.	A conservation seminar was held in July 2019 at the Society of Antiquities and attended by 110 people
Memories and artefacts relating to Kenley will be collected through crowdsourcing and published on the project website alongside resources, digital cataloguing of related artefacts, documents and photographs.	8 oral histories collected, transcribed and 5 are available on the website. A recording of written memories has also been made available on the website. Online archive features 143 objects, documents and photographs

### 2.3. The difference the project has made: heritage is now in better condition

Capital work including conservation of five fighter blast pens, tribute memorial, rifle ranges and fuel dump were completed during 2017.

Throughout the winter of 2017/18 it became clear there was an issue with flaking mortar within all areas of brickwork. The Principal Designer commissioned a materials analysis firm to assess the nature of the damage, and this revealed a severe sulphate attack. Sulphate attacks are not uncommon, and can be caused by water ingress and low temperatures. However, in this case the sulphate turned the cement into thaumasite. The thaumasite mineral which forms gradually replaces the cement paste matrix of the concrete, causing the concrete surface to soften and eventually to disintegrate. This is a rare attack, and the biggest that Historic England have encountered; furthermore, the contractor had not witnessed a thaumasite attack before. There are only around 60 recorded cases of thaumasite attacks in the UK<sup>2</sup>.

The precise reason for the thaumasite attack has not yet been identified. A working group was set up in 2018 to investigate possible causes. A series of trials and tests were carried out over the winter of 2018/19 by the Buildings Research Institute, but none of these resulted in a thaumasite attack. Investigations and trials are, at the date of writing, still underway.

The worst-case scenario anticipated is that all brickwork will need to be re-done.

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<sup>2</sup> <https://www.newcivilengineer.com/archive/how-to-identify-thaumasite-sulphate-attack-01-04-2016/>

The structures were taken off the Heritage At Risk register; however, it is likely that they will need to be re-registered.

A number of issues have arisen which are still under discussion and consideration:

- Restoration of impermanent military architecture is still an emerging field. The sector lacks knowledge about the use of modern materials to restore historic structures. During the development stage the team made efforts to learn from others who had embarked on similar projects. A conservation workshop was held in 2014 attended by architects, structural engineers and heritage professionals who had conserved impermanent military structures. A conservation philosophy for Kenley was developed as a result of this workshop. However, the issue of material variation was not raised, and it was assumed that walls made from modern brick and cement selected to be authentic matches for the 1939 materials would behave in the same way as the original structures.
- The original materials generally used in military structures were not of high quality or intended to last. The mortar used in the 2017 conservation works was close to being an authentic mix. However, modern cement is different to 1930's cement; it is much stronger. Too strong in fact for use in mortar in its raw form, so it is cut with other materials to weaken it and make it less environmentally damaging. These materials can react with available sources of sulphate from the brick, soil or water in the environment, to cause a reaction that changes the chemical composition of the mortar. This is what happened at Kenley, where a particularly rare and little-known variant of sulphate attack called thaumasite (from the Greek work for surprise) occurred.
- The Inspector of Ancient Monuments at Historic England advised on the selection of bricks, and helped to steer the specification of the mortar, which were then signed off by the Principal Designer. However, the Inspector of Ancient Monuments did not have an official role in the design and specification to RIBA 4.
- The question of liability is challenging, and the City of London Corporation are pursuing a claim with the contractor as Principal Designer.

While research and testing are still in progress and understanding of how to mitigate the risk of further attacks is still inconclusive, projects looking to undertake similar works might consider

- Whether there is sufficient time to wait for more conclusive research around the best approach to materials, or to test materials in smaller areas over an appropriate period of time.

There is as yet no best practice to follow – and projects need to make informed decisions that are realistic within their project constraints.

## 2.4. The difference the project has made: heritage is now better managed

While 20<sup>th</sup> century military architecture has been subject to maintenance and repairs before, Kenley Revival presented a significant opportunity to bring the sector together to consider philosophical approaches to the conservation of military heritage assets and in particular, assets which were built as temporary structures, without longevity in mind. This has been the first project to present structured thinking around the method and approach to conservation in this area: *'how to do it, and how to think about doing it'*<sup>3</sup>.

Historic England played a critical role in setting out the project scope and parameters (and writing the original NLHF bid), as well as steering discussion and thinking both within the project and further afield. In their statutory role, their intention was to remove Kenley Airfield from the Historic Building at Risk register. More widely, the project supported their aims to improve awareness of, engagement with and conservation of historic assets – both through public engagement and sector learning.

The project was initially informed by a **'Conservation Workshop'**, which brought together an invited group of experts from Historic England, and heritage professionals such as architects and engineers. The group workshopped questions around how conservation of 20<sup>th</sup> century assets should be conserved and agreed on a philosophical approach that put authenticity of materials and experience at the forefront.

An open seminar, **'The Conservation of 20<sup>th</sup> Century Military Architecture'** was held at the Society of Antiquities in June 2019, with the intention of sharing sector knowledge in this specialist area, which will in turn improve how heritage assets are conserved, managed and maintained throughout the sector.

The seminar included speakers from Historic England and various representative sites and case studies, including Kenley Airfield, Greenham Common Control Tower and Airfield, Bletchley Park and RAF Barnham Atomic Bomb Store. The underlying theme of the seminar was that while military architecture is increasingly understood and valued, there is, at the same time, an increasing pace of loss of fabric through neglect, decay and demolition. Speaker topics included conservation philosophy and approach, and practical advice on concrete conservation.

110 people attended the seminar. Of the 59 who filled in a survey, 49 came with a professional interest and 10 with a personal interest only. Attendees included organisations entrusted with heritage assets; heritage professionals from the private sector such as architects and engineers; and from the public sector such as conservation officers and council representatives. There were also a number of post-graduate students studying archaeology or other relevant subjects.

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<sup>3</sup> Jane Sidell, Inspector of Ancient Monuments, Historic England

Participants said that they had gained sector knowledge that will help them to improve their professional practice and their understanding of conserving military architecture. Almost all of those who completed a survey scored 3 out of 3 for gaining new knowledge of conservation of impermanent architecture, and of military heritage assets; almost all scored 2 or 3 for gaining new sector knowledge in other areas (with approx. half scoring 2, and half scoring 3).

They particularly appreciated the chance to share with sector colleagues and hear about case studies.

- *Really appreciated this day. So few chances to share techniques, problems and issues on these sites.*
- *Raised my awareness of the content of sites that are at risk - lots of like-minded people committed to saving sites. Great to share experience and see different approaches.*

Many attendees said that they had learnt specific and practical information about the conservation of concrete structures, and that this was the most useful thing that they had learnt about. They were also interested in funding and management of conservation projects, conservation policy and philosophies, approaches to authenticity of restoration, and visitor engagement.

- *A fascinating series of talks covering the diverse landscape of contemporary military history.*
- *I think the different aspects of concrete conservation were of particular interest, but ALL the talks were of great interest.*

A number of attendees said that they were particularly interested in the Kenley Airfield case study and lessons learnt with regards to the thaumasite issue outlined in Section 2.3

Many attendees said that they would be sharing what they had learnt further afield, through applying new knowledge through their professional practice, or through sharing of case studies.

- *the information and networking is crucial in informing my strategic advice: keeps me up to date with sector experiences, e.g. lessons learned from live building trust and conservation projects.*
- *Whatever the type of site, the conservation/management issues are common. Interesting to see how similar solutions were developed. Kenley needs to write this up and disseminate for sector benefit.*

Attendees would have liked more opportunities to network, which would have been helped by having a delegate list. This would have helped to share knowledge even further afield. Attendees rated the event highly (50 of 54 scored the event 3/3, 4 scored 2/3 and no one scored 1/3).



- *REALLY great, well organised event that was very helpful and good opportunity to network. The best thing was the variety of speakers and topics. I would like to see more on conservation and repair of concrete structures in particular.*

The work done at Kenley, shared through the Conservation events, has spread through word of mouth – and the Inspector for Ancient Monuments reports that colleagues are contacting her for advice on similar projects. It is hoped that when time permits, Historic England will publish a case study on Kenley for wider dissemination.

The project will also inform Historic England’s thinking around assessing significance, and the balance between conserving authentically, and conserving sustainably.

## 2.5. The difference the project has made: heritage is better interpreted and explained

### Interpretation through activities

The majority of interpretation to date has been delivered through activities. *Please see Section 3.4: people have learnt about heritage.*

### Digital interpretation

A Kenley Revival project website has been created, which includes a comprehensive history of Kenley Airfield, supplemented by blog posts, online archive material and oral histories.

The online archive features 143 objects, documents and photographs, and eight oral history recordings. These include Historic England’s aerial photographs of Kenley Airfield from 1947; images of RAF war graves; a collection of photographs donated by people who have connections to the site: for example, Stan Ford’s collection of 20 photographs of his colleagues who served with him during the War. There are also photographs of important points in Kenley’s history, such as Winston Churchill’s visit to Kenley in 1939. Objects include military artefacts such as bullet cartridges, gun casings; items linked to planes such as altimeters and clocks and parts of a crushed hurricane and commemorative badges. There are collections of domestic everyday objects from the period, such as food and drink packaging, clothes made during wartime and children’s drawings. Documents include newspaper articles relating to key points in Kenley’s history, such as the departure of RAF personnel from the site in 1966; military records including air combat reports; RAF service records and daily logs, and programmes of events such as the Battle of Britain anniversary celebration.

The website is reaching approximately 1000 users per month. Major events have had a significant impact on digital engagement: Sky Heroes attracted around 8,000 Twitter and 8,000 Facebook impressions. Highlights from the archive shared through social media are typically reaching around 600-800 people per post.

### On site interpretation and touring exhibition

Design of interpretation has been a lengthy process, with many lessons learnt, and signage is still to be installed on site. An exhibition designer was commissioned to write and design

the interpretation in consultation with volunteers and Friends of Kenley Airfield, who acted as fact checkers. In retrospect, a more effective model would have been to allow content to be created by the volunteers and Friends, with early fact checking from a military historian, and for the exhibition designer to incorporate that content into design work.



Further challenges to the timetable arose when relationships between the exhibition designer and their subcontractor broke down – this led to lengthy delays. The onsite interpretation has now been designed and is due to be installed next year.

The original aspiration for the touring exhibition was to design a semi-permanent high-end exhibition which would remain on site for short periods at a time. It became apparent that a better use of resources would be to have a portable exhibition which could be taken to events.

The resultant exhibition display panels were completed in October 2019. These provide a resource that can be used to support events delivered as part of the legacy package.

## 2.6. The difference the project has made: heritage is now identified/recorded

### Archaeology project

As part of the archaeology project, MOLA has provided a comprehensive report, including topographical and historical background, a condition survey and a record of the archaeological features. The report includes recommendations for future preservation. The archaeology project has established the nature, date, purpose and state of preservation of buried features, assessed the condition of any surviving archaeology, and recorded and preserved the archaeology before it suffers any further damage.

### Oral histories:

Kenley's heritage is as much about the people who lived and worked there as it is about the wartime structures. An important part of the project has been to capture the stories of the people who lived and worked on the Airfield. A series of oral histories are now recorded on film that document first-hand experiences of the site.

Volunteers are integral to this process: David Meanwell has now produced five films, which are available on the website, making good use of his expertise and experience of documenting the oral histories of veterans of Bomber Command in Lincoln. Volunteers have also made transcripts of the oral histories, which are available on the website. Volunteers received training in best practice in recording oral history from MOLA.

Oral histories recorded so far include those of the only surviving pilot who flew from Kenley in the Battle of Britain; the memories of a WAAF from World War II, of the Blitz and planes

flying overhead; a woman who was in the Land Army; a woman who was in the women's junior Air Corps; and the extensive knowledge of decades of Kenley's history from a man in the RAF in World War II.

A recording of the written memories of Lillias Barr, an Assistant Section Officer of the Kenley Women's Auxiliary Air Force was made and presented as part of the Women at War programme. This is available on the website.

#### Case Study: the contribution and impact of lived history

*'It was a privilege to spend time interviewing Stan Ford. Stan was a fitter for 615 Squadron and was at RAF Kenley on the 18th August when the airfield was heavily bombed. He told us about that day, but also day-to-day life at RAF Kenley, his training before the war, and his many friends – some who survived the war and some who did not.*

*As work continues on the blast pens at Kenley – it was interesting to hear his description of how aircraft were made ready for take-off. His Hurricanes were normally parked on the grass airfield, pointing in the right direction to take off when the orders to scramble came through. The fitter (Stan) would be in the cockpit, ready to start the engine, seated on the pilot's parachute. After starting the engine, Stan would hop out and the pilot would jump in, buckle up the parachutes and harness then take off as quickly as possible. This reduced the time it took to scramble the aircraft. According to Stan, the blast pens were used mainly for testing. This was just one of the many interesting stories about Stan's time at Kenley and elsewhere during WW2. We spent nearly two hours recording his experiences, this will provide a wealth of information on the Kenley site and life at Kenley during the Battle of Britain.*

*It's a privilege to meet and talk with these people about Kenley and their lives and experiences – which were often traumatic – and to give them space to remember and share. The Airfield was starting to decay and Kenley Revival has been timely focusing local attention on its importance.'*

David Meanwell (volunteer)

#### Collections

There is a small selection of objects held at Kenley, such as finds from the community archaeology events. These were not deemed to be of historic value and are consequently not conserved or organised into any coherent archive (apart from the online listing). They will probably remain at Kenley's Merlewood office unless a local collection is identified as a suitable repository (publicly accessible, suitable storage etc).

## The difference Kenley Revival has made to people



*‘The whole experience has been wonderful. I have met so many interesting people who have shared their love of the Airfield.’ Kenley Volunteer*

### 3. The difference Kenley Revival has made to people

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#### 3.1. The difference the project intended to make: outcomes for people

**Aim 3:** Empower, involve and inspire people to explore, record and take ownership of Kenley’s World War II heritage.

**Outcomes:**

- develop exciting and accessible opportunities for people to engage with, and learn about, the heritage,
- create community archaeology opportunities to involve people in hands on conservation,
- create interesting and rewarding opportunities for people to volunteer,
- involve audiences in the research for, and production of, all interpretation,
- develop a formal learning programme to involve schools,
- create an online resource of memories, documents and photographs, and a catalogue of artefacts.

**Heritage Fund outcomes:** People will have developed skills, People will have learnt about heritage, People will have volunteered time

#### 3.2. What happened?

Approved Purpose	Progress against approved purpose
<p>Community archaeology programme under supervision of experienced field archaeologists comprising investigative works and recording on over 20 significant assets including blast bays, slit-trenches, foxholes, pathways and Parachute and Cable defensive system networks</p>	<p>Three annual archaeology festivals were held, with 250 participants in total. The festivals included public digs, guided tours, handling sessions, community stands and a youth programme.</p> <p>The Conservation in Action programme has reached over 200 participants, including volunteers (including young volunteers) and schools. Activities have included hands on conservation activities such as clearing the blast pens, and conservation tours of the site and assets.</p>
<p>Educational programme which will comprise of educational site visits and outreach including an online educational resource, 'hands-on' loan boxes and displays including a touring exhibition</p>	<p>Two Learning Festivals delivered, reaching over 3000 participants. The first Learning Festival in 2017 attracted schools to onsite activities over 5 days. The second Learning Festival in 2018 included a Learning Festival Roadshow, Remembrance Programme and School Design Competition.</p> <p>The Learning Festival Roadshow toured to six local libraries, offering workshops for schools and families.</p>



Approved Purpose	Progress against approved purpose
	<p>The Remembrance Season included lectures, workshops, school assemblies and film screenings for informal learners and for schools.</p> <p>School design competition: winners in six age groups were chosen by a panel including the aviation artist Barry Weekley. The overall winner, a year five pupil, had her design incorporated into a Barry Weekley painting.</p> <p>Around 40 guided tours delivered to schools, uniformed groups, special interest groups, and veterans' groups, reaching over 1,700 participants. Guided walks themes included wildlife walks, Battle of Britain, and Pilots and Pets.</p> <p>Around 20 handling workshops delivered onsite to schools and uniformed groups reaching 798 participants. The Hardest Day event in August 2019 attracted 250 participants.</p> <p>Around 70 workshops have been delivered off site for schools, and specialist interest groups such as veterans' groups and model flying clubs, and professional groups such as the Archaeological Forum. Some workshops were delivered in collaboration with other Heritage Funded projects such as Wandle Park. A presentation was given on Heritage Funded projects at Salters Hall.</p> <p>Five screenings – Reach for the Sky (x2), Angels One Five and Spitfire (x2)</p> <p>A Heritage open day in 2017 and Sky Heroes open day in 2018 reached 3,000 and 5,000 people respectively.</p> <p>The 2018 Women at War season included a Home Front Day at Turf Projects, a performance of Amy Johnson's Last Flight Out, and Jason the Gypsy Moth school workshops, reaching a total 145 participants.</p> <p>Loan boxes for KS2 and KS3 including World War II artefacts that explain the Kenley heritage, with ready-made, easy-to-use lesson plans for teachers were launched in 2017. The take up from schools was low (schools said they wanted to visit the airfield guided by experts), but the loan boxes have been used to support workshops.</p> <p>Learning Resources are available online: each category (e.g. KS2 WW2) has a lesson PowerPoint, lesson plan, set of maps, set of worksheets, inventory for the loan box with teaching notes, list of pre/post activities, loan box agreements. There are also 4 self-guided walks (WW2, 5-10 years/WW2 10-16 years/ nature 5-10 years/ nature 10-16 years).</p>

Approved Purpose	Progress against approved purpose
<p>Volunteer opportunities will be provided, and a volunteer resource and storage space will be developed at the nearby Merlewood Estate Office.</p>	<p>Approximately 90 volunteers were involved in the project, supporting a number of activities including researching, archiving, writing content of the website, oral history recording, and supporting the learning programme. Two work experience placements have been delivered.</p> <p>Formal training has included archive training, oral history recording and WordPress training.</p> <p>A youth volunteer programme was delivered over 5 sessions in summer 2019.</p>

### 3.3. The difference the project has made: people have developed skills

The **project has enabled staff and volunteers** to gain new skills through participating in the following formal training sessions:

- Oral History Recording Training by the British Library, attended by all oral history volunteers,
- ASD training for staff and volunteers working the Learning Festival, delivered in house,
- WordPress training for all website volunteers and project team delivered inhouse,
- Photography for Archives Course delivered by Museum of London, attended by the Project Manager, and Learning and Volunteer Officer,
- Volunteer Training delivered by Directory of Social Change,
- Staff (who have now moved to other posts) also received training in Outcomes Framework through MDO; Tours for Families delivered by Museum of London. One staff member gained GEM museum teaching accreditation and another gained Associateship of the Museums Association.

The project team report that they have developed the following skills through managing an NLHF project:

- Project management skills, including organisation and planning skills to support events management; presentation skills; time management; problem-solving and evaluation methods,
- Technical skills, such as conservation knowledge relating to Impermanent Architecture and managing a scheduled ancient monument, conducting archaeological digs, archiving objects, photographing museum collections,
- People skills, including managing the volunteer experience,
- Skills in oral history interviewing and recording,



- Corporate communication skills, including media presenting, article writing, working with stakeholders and networking,
- Reporting and evidence collation.

Team members who have now moved on to other jobs have remained in the heritage sector and their experience at Kenley has resulted in transferable skills that continue to benefit the sector: *'I was fortunate to be Project Manager for the Kenley Revival Project from the commencement of delivery in May 2016 until September 2018. This was a varied, exciting and challenging role and accelerated my career as a museum and heritage professional significantly. My key learning outcome that I applied from this role to other subsequent posts is resilience. In terms of being able to juggle multiple priorities, making decisions which have significant impact and how best to use the funds that are available. My personal resilience has developed considerably over this post which has now led me to managing a museum service.'* Marie Tulley-Rose (now Museum and Archive Manager, Museum of Croydon)

### **Skills development for volunteers**

Kenley volunteers had opportunities to get involved in a wide range of activities through which they developed different types of skills. These included being involved in tours and events as a volunteer; working on publicity; and helping with activities in craft and learning. Some have been involved in archaeology, the archive, research and in collecting oral histories.

As a result, volunteers say they have developed the following skills: craft activities with children; use of WordPress; archaeology (recording & documenting); research; communication; and operational and tactical skills such as litter picking and car park supervision. One volunteer gained employment with the City of London Corporation as the Kenley Revival Legacy Officer to continue delivering project related activity for a further 18 months

One volunteer had been keen to use his professional skills to develop the Kenley website *'I rather wish that my experience in website development had been taken aboard at the start. A missed opportunity. The navigational structure of the site is very poor and needs a total re-think.'* Others wished there had been more opportunity to get involved in research and archaeology.

Events and activities have also provided opportunities for skills development. The case study below indicates how archaeological activities for volunteers and the community have resulted in new skills as well as new understanding of different aspects of the site. The first archaeology project involved 25 volunteers in a week-long dig, as well as engaging 150 participants via guided tours and children's activities.

#### **Case Study: Building new skills through community archaeology:**

The Community Archaeology project is an example of how the Kenley Revival project developed skills through encouraging the involvement of the local community in investigating, interpreting and managing their historic environment, in particular that of Kenley Airfield. Volunteers at all levels were offered opportunities to gain practical

experience of archaeological field work, including building recording and field techniques, to assess and record the archaeological potential of the site, the condition of any surviving archaeology and the impacts from past and future land-use in order to inform future conservation and management of the site. MOLA gave all volunteers training.

All of 20 volunteers surveyed said that they had a better awareness of the history of Kenley Airfield and Common as a result of the project, for example '*what various parts of the airfield are actually for.*' The majority of volunteers said that they had learnt about the archaeological process, including the meaning of a Scheduled Monument and how detailed the excavation process is.

18 of the 20 volunteers surveyed had learnt new skills, including

- Surveying, measuring and recording skills, including drawing and photographing,
- Digging skills, including digging in layers and removing earth from dig sites,
- Using a metal detector.

Of the remaining two, one already had skills, but was keen to share them with other people. Volunteers also appreciated learning from a professional archaeologist.

Volunteers particularly enjoyed the opportunity to get their hands dirty and were excited by finding objects. The success of the first Community Archaeology Dig was consolidated in a further session in July 2019 at Kenley Airfield. This involved 30 volunteers across a fortnight. As a result, several new finds were excavated. These included concrete rings, which were found to be anti-aircraft gun emplacements; the base of a building near the fence line, close to where the Canadian Flight Hut and Plane Tie-Down Point were discovered in 2018. Smaller incidental finds included a piece of NAAFI china used during World War II, and a badger skeleton.

Public interest in archaeology was further fuelled through a public Archaeology Open Day in July 2019 attended by 100 people, with tours led by Jane Sidell from Historic England.

### 3.4. The difference the project has made: people have learnt about heritage

There have been a wide range of learning outcomes across a range of activities and events – including formal learning festivals and workshops targeted at schoolchildren, a varied informal learning programme for the general public for all ages and learning through volunteering.

#### 3.4.1. Participants have learnt more about:

##### The role of Kenley Airfield in WW2:

86% of teachers who were surveyed during the second learning festival said that their students had learnt more about this topic. KS6 pupils who came to workshops in 2019 filled in picture based surveys about what they had experienced – and demonstrated that they understood what the rifle ranges and blast pens were for – and how important they are as

tangible reminders of Kenley's role *'[I learnt] That a blast pens are ancient monuments and you can't dump them!'*

Schools and teachers attending workshops who filled in a post-event survey all felt that historical information provided covered the role of Kenley in WW2 and that they would return for other events.

Workshops led to greater appreciation of having such an important place in their local area: *'it's our heritage and was a big part of fighting in WW2 - something we should be proud.'*

#### The importance of the Battle of Britain:

86% of teachers who were surveyed during the second Learning Festival said that their students had learnt more about this topic.

#### People stories – the different roles played by people on the airfield:

71% of teachers who were surveyed during the second Learning Festival said that their students had learnt more about the role of pilots in WW2.

School workshops provided an overview of the history of RAF Kenley and its role in the Battle of Britain. Using the profiles of real people at RAF Kenley, learners were encouraged to define the term heritage and think about how shared experiences, identity and changing social patterns resulting from WW2 impacts on the heritage of a place. Specific objectives were defined for KS2, KS3 and GCSE.

57 pupils attending workshops in 2019 were asked to fill in picture-based surveys about what they had learnt and enjoyed. The results demonstrated an understanding of the different roles played on the airfield, including cooks, Observer Corps lookouts, a radio person or a chef: *'That lots of people worked together to ensure the safety of the pilot.'* They also understand the importance of iconic figures such as Douglas Bader.

#### Creating awareness of the different roles played by men and women in war time:

The Women at War Month 2018 explored the new active roles that women took on at the Airfield during WW2 including the Women's Auxiliary Air Force, the women who packed parachutes and operated barrage balloons and female members of the Air Transport Auxiliary. A variety of different activities related to life in war time ran throughout the month at different sites, including Croydon Airfield, Caterham Library, Croydon town centre, and local schools. These were on the themes of Make-do and Mend, Food Waste and Rationing activities - weighing scales were provided so that people could see the small size of the ration amounts. The Make-do and Mend session included a corsage-making activity using ribbon, raffia and buttons. Images were on show for people to see what kinds of clothes people made; meals they cooked because of rationing and images of women in their different uniforms and working in many different environments.

The Women at War season also featured a performance of Jenny Lockyer's play, Amy Johnson: Last Flight Out, performed at Matthews Yard in Croydon. This had a full house,

reaching a total audience of 145 who were invited to talk to the Kenley team about the project afterwards, and a table was set up with artefacts and information. Audience surveys show that one third of audiences had not heard of Kenley Airfield or of the Kenley Revival project - so this event proved an effective route to creating awareness and engaging a new and different audience with World War II.

School workshop content also featured information about the role of women at Kenley in World War II, causing one pupil to comment that *'I found it difficult that only the men could be commanders'*: another found it sad that *'the women were given less responsibility than men.'*

#### The different cultures who contributed to Britain's war effort:

The diversity of the men who served at Kenley during World War II has been documented on the Heritage and Memory learning resource developed through the project. This identifies the many nationalities who served at Kenley in World War II, such as Pilot Mohinder Singh Pujji, shown in this photograph.

This has made an impression on participants: one cadet commented on how *'many cultures have contributed to Kenley's heritage.'*



#### What Kenley means to the community

Volunteers say they have gained greater insight to the uses of the Airfield from World War I through to World War II.

They have been surprised by how much knowledge and enthusiasm other people have for the airfield, and the extent of local interest in it. The archaeology programmes have made them realise how much more there is to learn about Kenley's past *'There is more to be found in the ground.'*

## Case Study: Learning Festivals

**Kenley Revival organised two Learning Festivals**, in June 2017 and in 2018, that reflect the project's commitment to inclusivity and accessibility. Parents only had to pay £1.50 to schools to cover other expenses, making it affordable as the event itself was free.

The 2017 Learning Festival enabled schools to spend a day on Kenley Airfield and learn about the many aspects of its heritage. 850 KS2 and KS3 children from local schools attended, as well as further afield from Croydon. One day was reserved for a local school with additional needs. The aim was to develop children's understanding of Kenley's role in World War II as an operational airfield during the war, with blast pens, rifle range, and air raid shelters. Children experienced the sound of an air raid siren and could sit inside replica aircraft. Tours, games, exhibitions, a Battle of Britain show and workshops enabled them to learn about World War II and the Battle of Britain and were linked to STEM curriculum. They were able to try on replica uniforms and find out about the different roles of their wearers. Kenley's natural assets were explored through forest school activities and workshops.

All teachers who attended the Learning Festival said their pupils gained new knowledge and understanding of Kenley and World War II: *'the children get to feel it – the dressed-up people, different to museum where all is behind glass – hands-on experience.'*

Schoolchildren were engaged and inquisitive to find out as much as possible about the airfield: bombs and explosions; the rifle range; what it would have been like for children to be in the shelter. Coming into contact with aspects of the past that were very different from their daily experience held great appeal. Dressing up, sitting in a plane, making World War II posters and handling gas masks really animated them - *'A once in a lifetime opportunity!'* (Year 4 child, St. John's Primary School).

Teachers felt the Learning Festival enabled their pupils to gain a more in-depth understanding of World War II, *'it links to one of our history objectives'* and *'brought all aspects to life'* including the role of the WAAF. They felt it had created *'Respect and admiration for those involved in WW2'* and their experiences had stimulated their pupils' imagination. They noted the amount of questions they asked and how engaged they were.

The Learning Festival Roadshow in 2018 presented workshops in neighbouring libraries in Caterham, Bradmore Green and Selsdon. These were designed to increase awareness of Kenley Airfield for parents and children or for teachers and their pupils in local neighbourhoods. Parents and teachers praised the enthusiasm of the workshop leaders and the range of activities. The hands-on activity children had most enjoyed was making a model of a Spitfire, one of the aircraft that played a key role in World War II. The children were also interested to learn about female pilots such as Amy Johnson and Mary Ellis.

Teachers found the content of the workshops well-structured and well-organised and the sessions had succeeded in engaging their children. Half of the children had visited the Airfield. For the 60 children from Forest Dale School in Croydon who attended the Selsdon workshop this was part of a process of introducing the children to World War II as they were due to sing in a concert to commemorate the Battle of Britain. This workshop had increased their understanding of the Battle of Britain and the important role of Kenley's within it - and had made them more aware of the heritage of the local area in which they lived.

### 3.4.2. Participants have particularly valued learning through these aspects:

#### More in-depth learning about curriculum topics:

Teachers participating in the learning festivals said that it met their objectives of knowing about their local area's role during a historical event; and developed their pupils' grasp of historical values and context which linked well with the topic of World War II. *'it links to one of our history objectives'* and *'brought all aspects to life'* (Teacher, Learning Festival).

#### Interactive experiences:

For **schoolchildren** *'Lots of things to see and 'kind people'* had made visiting Kenley Airfield an enjoyable experience. They enjoyed dressing up in World War II uniforms *'Got to wear a hat!'* and seeing heritage they felt was *'real'*, such as the doors of the bomb shelter.

*'The children get to feel it – the dressed-up people, different to museum where all is behind glass – handle objects – lads keen for hands-on experience.'* (Teacher, Learning Festival)

#### Authentic experiences:

When asked about their favourite thing on their workshop and tour, Year 5 children from St Francis School enjoyed being able to see and touch authentic objects - for 18 of the 57 children who gave feedback the high-point of their experience was touching and feeling the bullets. This links closely to a further favourite thing - the opportunity to see the rifle range. Another aspect of the visit that made an impact was the opportunity to choose a character and dress up. Children became an Observer Corps lookout, a radio person or a chef, and they enjoyed re-enacting the jobs. They enjoyed going inside the bunkers and getting some sense of what it must have felt like to be there. Importantly, the experience was *'lots of fun'*: the workshop provided experiences that the children remember and learn through.

#### Emotional engagement with the subject:

The common factor that creates a reaction in visitors to Kenley Airfield is hearing the personal stories of the people who lived and worked there and the realities of life in the front line of war. People whose experience of the Airfield is limited to knowing it as a site for bike-riding and walking have often been surprised to find out about its vivid and extraordinary past in defending London in World War II. One child created a poster with a memorial to the *'people who cried for us'* which shows the emotional impact of seeing some of the realities of World War II. Teachers noted how engaged children have been by handling authentic objects. Words that children used to describe their experience included: *'excited, amazed, intrigued, creative,'* - but also *'scared by war'* and *'lucky to be alive.'* Children were enthralled by *'seeing how pilots drew on the wall in the shelters.'* Sky Heroes attendees were often moved by hearing personal stories and talking to people with a real knowledge or lived experience: this seemed to resonate with many visitors at the event. One attendee reflected *'The historic memory we need to maintain'* and one interviewee felt that the day had prompted her to remember *'our boys'* the Armed Forces in all wars and war zones today.





Enjoyable, memorable experiences

*'I thought it was a fantastic trip which our class will never forget. Thank you so much for letting us visit!'* Kenley Primary School

Interaction with the project team and volunteers

*'The staff were amazing. They made the experience for the children. We had a lovely day and thank you for having us.'* Teachers attending the second learning festival

**Case Study: Learning through public events**

**Sky Heroes** was a public event that allowed attenders to experience five specific areas of Kenley Airfield’s heritage. The event included displays and activities on aviation and gliding; archives and community archaeology finds, nature and environmental displays; re-enactments, vintage displays and music at Portcullis Field. Most people had visited or were planning to visit all or most areas of the site.

Re-enactments were the most popular activities, followed by aviation and displays of planes and vehicles. Visitors highlighted the following displays: heritage and learning; Hurricane; memorial; control room; fragments; tour round bomb protections. Of the 135 comments on what visitors enjoyed most, only one comment referred to the nature display. Visitors valued seeing authentic objects from the archives, including letters from airmen shot down at Kenley; hearing personal stories and the air crew lecture; and war time aspects of the site such as bomb disposal, army vehicles, air raid shelter and control.

Memorable moments that brought the Kenley story to life included *'Meeting a real pilot (& 11-year-old son loved it), music, Hurricane flypast, vehicle jeeps and going in the bunker.'* The event also brought in aspects of the local history: *'Reading about RAF pilot Trueman as we live on Trueman Road,'* (Local resident). They commented on *'how well maintained the field is, the commitment of the volunteers.'*

Events such as this created awareness of Kenley’s stories and significance: 34% of visitors surveyed said that they had limited or no knowledge of the Kenley Airfield and its role and history including during World War II, but they had learnt more and found out information by attending the event. 14% said that they had no knowledge at all of Kenley’s historical role before attending the event. They wanted to know more about Kenley’s role in World War II - for example, how many planes landed here or crashed; the blast pens and the location of fuel dumps; the role of women; top pilots, life in the Officers Mess, and more personal stories of people working out of Kenley.



### 3.5. The difference the project has made: people have volunteered time

#### Building the volunteer team

Kenley Airfield has benefited from the work of the Kenley Airfield Friends Group since 2003. The Kenley Revival project gave the opportunity to further utilise the skills and knowledge of the Friends of Kenley Airfield, but also to recruit new volunteers to support project activities. Approximately 90 volunteers have been involved with the project.

Kenley Revival recruited volunteers through a variety of differing sources showing a good reach by the recruitment campaign, run by the Project team. Sources included Kenley Airfield Facebook Group (38%); local newsletters, press and leaflets; Caterham Volunteer Centre; and by word of mouth.

The project created a variety of different roles for volunteers, including archaeology sessions; supporting events and activities; restoration and conservation; helping with administration; and creating content for the Kenley Airfield website and social media. Other volunteers have undertaken history interviews and worked with the education sector, for example as a guide during school visits.

#### Volunteer motivation

Volunteers were particularly motivated to volunteer because of their interest in the Airfield.

#### Reasons that people volunteered their time (Volunteer survey 2017)

An interest in the Airfield and wanted to be involved;	92%
To volunteer in their local community setting and bring knowledge and understanding of local issues and of the geography and environment.	46%
An interest and enthusiasm for the local area	38%
To share their professional skills in their volunteering role.	31%
To develop their personal skills and include the voluntary work on a CV	15%

This is also reflected in the reasons for choosing to support particular activities - 69% selected activities that seemed interesting to them and 38% chose activities that were happening at a particular location or time that fitted in with their other commitments.

People wanted to help others understand what they felt was the importance of Kenley, to help preserve the legacy of the airfield:

*'I have an interest and passion for making local and aviation history come alive to others'*

*'I hope that we can inform more people about the historic importance of RAF Kenley and protect this heritage for future generations.'*

*'To be part of the team preserving and promoting the airfield, its achievements and artefacts'*

Defined outcomes from the project were important to volunteers - *'that the project will leave the airfield in a better state than when it started...'*

### Volunteer demographics

At the time of the 2017 volunteer survey<sup>4</sup>, the majority, (62%) of volunteers who were volunteering on a regular basis were 26 - 59 years of age; 23% of volunteers were 60 - 70 years of age; 8% of volunteers were 19 - 25 years of age. All volunteers described their ethnic background as white British. 15% said they were disabled. Over half had come from managerial and professional occupations.

Events and activities such as the archaeology programme and youth programme have involved people from a wider age range; however, there is no evidence to suggest that those people have gone on to become regular volunteers.

#### Case Study: Diversifying the volunteer team/Youth programme

In 2019, a youth volunteering programme was initiated, offering work experience for 15-16 year olds every Monday morning for 6 weeks. Volunteers were recruited through schools, local youth groups and the local gliding club. Eight young volunteers signed up, and around five attended per session.

Participants were involved with contributing to the website, writing blog entries, photographing the second archaeology open day, and designing an Escape Room style activity which is ready to be rolled out by the project team.

All of the participants have been given references, and received a 'passport' which showed which activities they had been involved in.

Participants said that they had gained skills in group work and working independently, communication skills, writing online content, cataloguing objects, designing activities and understanding of archaeology.

They particularly enjoyed hands on activities, such as the chance to 'pitch' an activity *'The hands-on nature of the project has been awesome'*. Riding in the back of the land rover was particularly popular.

The programme has provided valuable learning for the team which they plan to apply by engaging more with the cadets who are based on the airfield.

<sup>4</sup> The volunteer survey 2019 did not generate sufficient returns for robust demographic analysis.

## Volunteer experience

Volunteers were positive about their experience: *'one of the best run projects I've been involved with – people really know what they are doing!'* Volunteers say they have particularly enjoyed activities that brought them into contact with other people, including doing the guided tours; helping with the learning programme in primary schools; research and doing the oral history interviews and archaeology. They have also found it rewarding to meet others with an interest in the Airfield.

*'I just wanted to say how much I'm enjoying volunteering. The sessions are always really friendly, open and collaborative and it feels like we're working towards something really new and exciting.'* Education volunteer, 22 years old

## The difference the project is making to communities



*'It made me feel like I'm standing on history. Kenley is part of our country's history and we wouldn't be here without those pilots.'* Cadet

## 4. The difference Kenley Revival has made to communities

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### 4.1. The difference the project intended to make: outcomes for communities

Aim 2: Promote and raise the profile of Kenley Airfield as a nationally significant heritage resource and an important place for wildlife and recreation.

Outcomes:

- Deliver a unique and inspiring programme of events and informal learning opportunities to draw people to Kenley,
- Increase the number and diversity of visitors to Kenley Common,
- Increase the number of local people who choose heritage as the main purpose of their visit,
- Promote wildlife and habitat conservation alongside heritage conservation.

Heritage Fund outcomes: More and a wider range of people will have engaged with heritage; The local area/community will be a better place to live, work or visit.

### 4.2. The difference the project has made: more people and a wider range of people have engaged with heritage

Prior to the Kenley Revival project, the Airfield and its history was mainly known to a small group of people with a passion and knowledge for local history and/or military history.

As a result of the project:

- Nearly 20,000 have engaged with the heritage through formal activities, as of Sept 2019,
- Over 2,700 schoolchildren have been engaged through workshops and learning festivals,
- Large scale events such as Sky Heroes have brought people to the airfield who were not regular visitors: 45% had come especially to Kenley for the Sky Heroes event, and 25% came across Sky Heroes rather than making a special visit for the event. Of these, 34% had little or no knowledge about the role of Kenley in the past but had learnt more by attending the event. 35% of attendees came from outside the area (CR postcode which includes Croydon - South London; North West and central Surrey),
- Large scale events such as Sky Heroes have also brought a younger audience to the site – 69% of attendees were under 60 years old,
- Younger people have been involved through the youth volunteer programme,

- The project has generated press activity which will have reached further afield – Sky Heroes alone generated 12 online articles, 5 print articles, 2 TV interviews with London Live (available on YouTube) and 1 radio interview with BBC Radio London
- The website is reaching around 1,000 people per month. Around three quarters of visitors are within the UK, but there is a significant reach in the US, as well as smaller numbers of visitors from Canada, Poland, Australia and India.
- Physical access on site is problematic – there is a long walk between each heritage area. The team have been able to mitigate this on large event days by providing a land train. The team have also made efforts to make tours accessible for people who are disabled in other ways. A visually impaired tour participant gave the following feedback: *‘Thank you kindly for the wonderful tour of RAF Kenley you arranged and lead for us on Saturday. I really found it very interesting and your explanations was so vivid that I felt I could see’*.
- Older people who may be less able to access parts of airfield, or go on tours have participated in talks and tours; of 70 people who filled in surveys as part of the remembrance season in 2018, 35 were between 60-74 years old, and 26 were over 75 years old.

#### 4.3. The difference the project has made: the local area is a better place to work, live or visit

- Local people are acknowledging the connection between their local area and a nationally significant history: *‘We are so lucky to have so much history on our doorstep.’* (participant, Pets and Pilot tour 2019); *‘[I enjoyed] reading about RAF pilot Trueman as I live on Trueman Road and going in the bunker’* Sky Heroes Participant.
- Local people feel proud of this connection: *‘This workshop made me feel proud of Kenley’* Yr. 6 student, Hayes Primary School poster workshop.
- Local people appreciate large scale engagement events as a means of bringing the community together: *‘It is a local event and has brought community together’* (Sky Heroes attender). 70% of the 5,000 attenders were local residents.



## The difference the project is making to the organisation



*It feels like we're working towards something really new and exciting.*  
Volunteer



## 5. The difference Kenley Revival has made to the organisation

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### 5.1. The difference the project intended to make: outcomes for the organisation

(NB, no specific outcomes for the organisation were specified within the original application)

### 5.2. What happened?

Approved Purpose	Progress against approved purpose
F/t Project Manager and p/t Learning and Volunteer Officer employed for three years, supported by the ranger team.	Project Manager and Learning Officers have been in post since the beginning of the project. The Learning and Volunteer Officer role was made full-time to cope with the demands of delivering the ambitious activity programme. The City Corporation also secured funding from its own resources for an Events Apprentice and a Legacy Officer.
Exit strategy and evaluation	<p>Evaluation has been ongoing; the team have had regular meetings with external evaluation consultants and an interim report was submitted in 2017.</p> <p>Work on a legacy programme began in 2018, and a legacy workshop with project staff and Friends of Kenley Airfield helped to inform the final proposal. As a result of this process, the City of London corporation created a Legacy Officer position for a further year post NLHF project completion.</p>

### 5.3. The difference the project made: the organisation is more resilient

Prior to the Kenley Revival project, preserving the heritage asset was championed by a small but dedicated committee of volunteers (The Kenley Airfield Friends Group). While the City of London Corporation was the custodian of the asset, there was no dedicated member of staff. Through the Kenley Revival project, two full-time staff posts - Project Manager, Learning and Volunteer Officer and a traineeship (not NLHF funded) have been created. The project has also been supported by one of the rangers, who runs the oral history project and the conservation monthly volunteers/also delivers educational events.

Organisational resilience has been increased in the following ways:

**Organisational learning and evaluation:** The team have consistently reviewed key events as they have happened, organising debrief sessions with volunteers, and reviewing data

collected with the external evaluators. Lessons learned have been documented to inform future activity.

**Increased understanding of organisational capacity required:** Staff have reflected that larger projects and events such as the Learning Festivals and archaeology programme have required significant staff resource, and more than originally anticipated. While volunteers play a valuable role, they cannot provide a substitute for paid staff. This understanding has underpinned the City of London Corporation's decision to appoint a Legacy Officer to deliver the first year of the legacy package.

**Gaining knowledge and new skills:** The team have participated in a number of training sessions, described in Section 3.3. In addition, they have learnt from peers across the sector through a number of visits to and consultation with comparator organisations. Examples include Brighton Museum, for a knowledge sharing session with the project team and the Curator of the exhibition. the Land Girls, on the role of women in wartime has informed thinking on future programming, and Tower Bridge and Visitor Development.

**Sharing knowledge and building reputation:** as a result of new expertise accrued through the project, project team members have shared their knowledge and experience through events and presentations including Volunteer Recruitment and Selection training at the Museum of London, and a sharing event at Salter's Hall 'Building an Education Programme from Scratch.' The 2017 Learning Festival appeared as a case study on the GEM website.

**Sourcing and building partnership opportunities and resources:** The team have consulted with a number of organisations in order to build long lasting relationships. They include

- A professional fighter station network has been developed and established with other key heritage sites, including Biggin Hill, Uxbridge, Hendon and Bentley Priory,
- Programming opportunities with Wandle Park, Keats House, David Lean Cinema, West Ham Park and Epping Forest,
- Audience development with Caterham Volunteer Bureau, local WI groups,
- Event delivery opportunities with various re-enactment groups, and local artist Jenny Lockyer (Amy Johnson performance),
- The team have built confidence amongst local schools that they have a strong learning offer. 100% teachers said they would come back to the Learning Festival.

**Increasing volunteer engagement and satisfaction,** through opportunities to engage with visitors and schools. The valuable input of the volunteers has been acknowledged, and for their outstanding contribution Kenley volunteers have been nominated by the Learning and Volunteer Manager for a Team London Volunteer Award for the 'Culture in London' category: these Awards celebrate individuals and corporate volunteers making outstanding contributions to their communities. However, the team have learnt that for some activities, particularly the larger scale events, adding more volunteer resource increases the demands on paid staff without offering significant additional capacity.

## Conclusions



*'It's our heritage and was a big part of fighting in WW2 - something we should be proud of.'* Teacher

## 6. Conclusions

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### 6.1. Achievements and project legacy

**Aim 1:** Preserve a unique and important historical site and become a beacon of excellence for understanding the conservation of impermanent architecture.

- Restoration and conservation of the physical assets was undertaken in 2017 and taken off Historic England's Heritage at Risk register. However, material failure through a rare form of sulphate attack means that conservation works require remedial work – this is still in progress.
- As the first site to undertake a structured approach to applying a conservation philosophy to 20<sup>th</sup> century military architecture, the project has involved the sector from the beginning. Sector experts were involved with agreeing a conservation approach at the beginning of the project, through 'Concrete Day', and lessons learnt from the sulphate attack were shared widely at a Conservation Seminar in 2019.
- The project team have applied a collaborative approach to wider aspects of the project, such as community engagement, project management and historic research, and have established relationships by networking with a wider range of military and/or heritage organisations, as well as NLHF funded projects.

**Aim 2:** Promote and raise the profile of Kenley Airfield as a nationally significant heritage resource and an important place for wildlife and recreation.

- Approximately 20,000 people have been engaged with the project through an extensive community engagement programme. Many were not aware of Kenley's heritage prior to their engagement.
- The project's impact has been recognised by City of London Corporation, who cite it in their strategic planning as a valuable project. As a result, the council have invested in a legacy package, which includes a Legacy Officer working 21 hours per week for 18 months.

**Aim 3:** Empower, involve and inspire people to explore, record and take ownership of Kenley's World War II heritage.

- A wide range of activities have been delivered, including large scale open days attracting thousands of people, archaeology projects, school workshops, public tours, film screenings, oral history recordings and digital engagement.
- Schoolchildren have been introduced to the significance of World War II through the local history of Kenley Airfield, through learning festivals on and off site, and dedicated school workshops.
- Approximately 90 volunteers have been involved over the course of the project. Their experiences have been positive, particularly when they have engaged in activities that have brought them into contact with other people, for example, through guiding tours,

working on activities with schools, or talking to people through the oral history projects.

- Models of engagement and resources have been built and established, which are being used for further engagement through the work of the Legacy Officer. These include school workshops, tours and volunteer engagement.

## 6.2. Lessons Learnt and Recommendations

### Project management, planning and delivery

- **Collaborative working** has been key to the success of the project. The development of the project was informed through learning from other organisations and projects. The project's ongoing research into conservation of impermanent architecture, and lessons learnt have been shared widely in the sector and will inform the way that projects approach this emerging discipline.
- The project team identified early on that the original **Activity Plan** and Interpretation strategy were extremely ambitious given the available resources, while lacking necessary detail on delivery. Furthermore, needs changed as the project progressed, and the new team brought their own skills and experience that were not available in the development phase. However, it took the team a while for them to feel that they had 'permission' to revise it. We recommend that NLHF encourages project teams to review their Activity Plans as soon as the project team is appointed during the Delivery Phase, to ensure that they are still relevant and fit for purpose, and that the Heritage Fund encourages people to make changes and improvements that better deliver the project outcomes, where appropriate.
- In hindsight, the project team felt that they could have been more '**NLHF-ready**' at the beginning of the Delivery Phase; for example, a considerable amount of time was taken up on administrative tasks, such as setting up cost-headings to align with NLHF reporting. We recommend that NLHF shares learning and offers toolkits to support issues that are common across projects.
- The project team embedded **evaluation and legacy planning** from the beginning of the Delivery Phase. This meant that the project was continually improving and drawing upon lessons learnt. It also meant that a strong legacy package had been identified mid-way through the project, and steps were taken to deliver it – in particular, the decision of the City Corporation to employ a Legacy Officer.

### Engagement and participation

- **Large scale events** such as Sky Heroes have been successful in drawing large numbers of visitors to the site, who have learnt about the heritage and enjoyed their experience. However, such events are costly and time heavy, and would not be possible without the support of the NLHF grant. Kenley is not aspiring to run any more large-scale events. In fact, with Sky Heroes the organisation pushed the boundaries of what the site (excluding the RAFs part) could handle. In view Kenley

should not attempt to do such major events on Kenley Airfield in the future unless significant levels of funding are made available.

- **Interactive activities** have been the most effective in promoting learning and engagement. People engaged through the archaeology programme were most excited about getting their hands dirty and finding things. Schoolchildren became bored with activities where they were 'talked to', but came alive when interacting with costumed interpreters, making their own posters or – by far the most popular activity - sitting in a plane. *'The hands-on nature of the project has been awesome!'* (Youth volunteer)
- Participant numbers to events have exceeded targets, and there is clearly a local appetite for the project's activities. The demographic survey conducted at Sky Heroes demonstrated that the vast majority of visitors described themselves as white British (93%) and this would be considered representative of a local demographic of 90% white British, but not when compared within the demographic context of the wider area, such as Croydon or London as a whole. The volunteer survey of 2017 painted a similar picture.
- **Volunteer engagement** was critical in supporting and advocating the project, but paid staff were essential to ensuring activities were delivered, and as we have noted, any increase to volunteer resource increases the demands on paid staff but does not offer significant additional capacity. The learning for other projects is not to overestimate the amount that can be delivered by volunteers. Keep it realistic and manageable.
- **Access** was a challenge when dealing with a large site, where heritage assets are spread out. This could be alleviated at large scale events, using transport such as land trains. However, there is no easy answer to providing consistent access to those with mobility restrictions.
- **The most valuable learning outcome** about managing an HLF project for the project team has been: *'Understanding the complex motivations and expectations of local communities/stakeholders when it comes to best managing and preserving a heritage which is fundamentally a public open space.'*



## 7. Appendix 1: Achievements V Targets

Activity	Ref	Targets for participation	Achievements V targets
<b>Onsite Activities</b>			
Learning Festival Year 1	DH1	<ul style="list-style-type: none"> <li>850 visitors over 5 days</li> <li>3 local print articles</li> <li>10 volunteers sign up</li> </ul>	<ul style="list-style-type: none"> <li>570 pupils over 5 days</li> <li>30 volunteers participated</li> </ul>
Learning Festival Year 2	DH2	<ul style="list-style-type: none"> <li>1200 visitors over 5 days</li> <li>3 local print articles</li> <li>10 volunteers sign up</li> <li>New social media followers</li> </ul>	<ul style="list-style-type: none"> <li>Learning Festival Roadshow: 296 participants</li> <li>Remembrance Season: 2184 participants</li> <li>Design Competition: 200 participants</li> <li>Total: 2,680 participants</li> </ul>
Guided Tours	DH3	<ul style="list-style-type: none"> <li>10 of guided tours delivered as part of onsite events</li> </ul>	<ul style="list-style-type: none"> <li>40 tours delivered</li> <li>1,717 participants</li> </ul>
Handling Workshops	DH4	<ul style="list-style-type: none"> <li>High pupil engagement</li> </ul>	<ul style="list-style-type: none"> <li>20 workshops</li> <li>798 participants</li> </ul>
Heritage Day	DH5	<ul style="list-style-type: none"> <li>500 visitors over 1 day</li> <li>3 local print articles</li> <li>10 volunteers sign up</li> </ul>	<ul style="list-style-type: none"> <li>3,000 participants</li> <li>Print articles in Caterham and District Independent, Croydon Advertiser and Inside Croydon.</li> </ul>
Sky Heroes	DH6	<ul style="list-style-type: none"> <li>500 visitors over 1 day</li> <li>3 local print articles</li> <li>10 volunteers sign up</li> <li>50 new social media followers</li> </ul>	<ul style="list-style-type: none"> <li>5,000 visitors</li> <li>Just under 1000 users to the website on the day of the event</li> <li>Just under 8000 impressions for most popular tweet to date relating to the event</li> <li>12 online press articles, 5 print articles</li> </ul>
Community Archaeology Dig and Open Day	DH7	<ul style="list-style-type: none"> <li>10 local people trained</li> </ul>	<ul style="list-style-type: none"> <li>Year 1: 100 participants</li> <li>Year 2: 100 participants</li> <li>Year 3: 50 participants</li> <li>30 volunteers trained</li> </ul>
Conservation and Hard Hat Tours	DH8	<ul style="list-style-type: none"> <li>6 tours x 10 people</li> </ul>	<ul style="list-style-type: none"> <li>200 participants involved in conservation activities, including hands on conservation, and tours and demonstrations.</li> </ul>
Conservation Seminar	DH9	<ul style="list-style-type: none"> <li>30 attendees</li> <li>1 journal article</li> </ul>	<ul style="list-style-type: none"> <li>110 attendees</li> </ul>
Dig for Victory! Kenley's Women at War	DH10	<ul style="list-style-type: none"> <li>200 Attendees</li> </ul>	<ul style="list-style-type: none"> <li>Home Front Day – 30 participants</li> <li>Amy Johnson Last Flight Out – 55 participants</li> <li>Jason the Gypsy Moth school workshops – 60 participants</li> <li>Total 145 participants</li> </ul>
Portaloos for events	DH11	N/A	N/A
Volunteer recruitment and participation	DH12	<ul style="list-style-type: none"> <li>300 volunteers involved in project</li> <li>10,600 volunteer hours</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 90 volunteers engaged with the project</li> <li>5,763 volunteer hours contributed</li> </ul>
<b>Offsite Activities</b>			



Activity	Ref	Targets for participation	Achievements V targets
Oral history recordings	D01	<ul style="list-style-type: none"> <li>15 oral history recordings</li> </ul>	<ul style="list-style-type: none"> <li>8 oral histories collected; 5 are shared on website, plus a recording of written memories</li> </ul>
INSET and teacher training sessions	D02	<ul style="list-style-type: none"> <li>3 x 30-minute inset session x 10 participants</li> </ul>	<ul style="list-style-type: none"> <li>1 inset day 2016 with 15 participants</li> </ul>
Outreach and handling workshops	D03	<ul style="list-style-type: none"> <li>10 schools participating</li> </ul>	<ul style="list-style-type: none"> <li>Approx. 70 workshops and outreach events delivered, reaching 3979 participants</li> </ul>
Reach for the Sky film showing	D04	<ul style="list-style-type: none"> <li>65% capacity (44 of 68 seats)</li> </ul>	<ul style="list-style-type: none"> <li>55 participants</li> </ul>
<b>Onsite Resources</b>			
Self-Guided Walks	RH1	<ul style="list-style-type: none"> <li>500 downloads*</li> </ul>	<ul style="list-style-type: none"> <li>Download data not currently available</li> </ul>
Quiz Trails		<ul style="list-style-type: none"> <li>200 participants*</li> </ul>	<ul style="list-style-type: none"> <li>Amalgamated with self-guided walks</li> </ul>
Teaching Resources	RH2	<ul style="list-style-type: none"> <li>30 downloads</li> <li>250 pageviews</li> <li>90% minimum satisfaction rating of resources from teachers</li> </ul>	<ul style="list-style-type: none"> <li>Lesson plans and self-guided walks now available online.</li> <li>Download data not currently available</li> </ul>
Painting of Spitfire and Hurricanes	RH3	<ul style="list-style-type: none"> <li>Positive feedback from public</li> </ul>	<ul style="list-style-type: none"> <li>To be assessed in further evaluation supplementary addendum 2020</li> </ul>
<b>Offsite Resources</b>			
World Wars Display	R01	<ul style="list-style-type: none"> <li>Positive feedback from public</li> </ul>	N/A
Loan Boxes – resource design	R02	N/A	N/A
Loan Boxes – artefacts and objects	R03	<ul style="list-style-type: none"> <li>15 loans over period of project</li> </ul>	<ul style="list-style-type: none"> <li>Handful of loans over period</li> </ul>
<b>Other</b>			
Project Overview	OT1	<ul style="list-style-type: none"> <li>Project on time and on budget</li> <li>Approved purposes met</li> </ul>	<ul style="list-style-type: none"> <li>To be assessed in further evaluation supplementary addendum 2020</li> </ul>
Travelling Exhibition	OT2	<ul style="list-style-type: none"> <li>To be shown at local venues</li> <li>Positive feedback from public</li> </ul>	<ul style="list-style-type: none"> <li>To be assessed in further evaluation supplementary addendum 2020</li> </ul>
Onsite Interpretation	OT3	<ul style="list-style-type: none"> <li>Positive feedback from public</li> </ul>	<ul style="list-style-type: none"> <li>To be assessed in further evaluation supplementary addendum 2020</li> </ul>
Website and digital access	OT4	<ul style="list-style-type: none"> <li>200 no items digitised and uploaded</li> <li>Volunteers upskilled in digital skills</li> </ul>	<ul style="list-style-type: none"> <li>143 items digitised and accessible on the website</li> <li>The website is now attracting approx. 1000 users per month</li> <li>Just under 8000 impressions for most popular tweet to date - Sky Heroes</li> <li>Just over 8000 people reached on Facebook for Sky Heroes event</li> </ul>

## 8. Appendix 2: Summary of Evidence Sources

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### Reports and publications:

- Kenley Revival Community Archaeology Project 2018, Kenley Airfield, London Borough of Croydon Archaeological Investigation Report, October 2018
- GEM case study 2017

### Participants Surveys:

- Sky Heroes (sample size: 131)
- Volunteer Surveys, 2017 (sample size: 30) and 2019 (sample size: 7)
- Remembrance Season 2018 (sample size: 70)
- Conservation Seminar 2019 (sample size: 30)
- Pupil survey, Year 5 workshop 2019 (sample size: 55)

### Interviews and reflection sessions:

- Project team (regular sessions)
- Friends of Kenley Airfield (Legacy planning workshop 2018)
- Learning Festival volunteers feedback sessions 2018
- Interview with Jane Sidell, Historic England 2019

### Evaluator attendance and observation

- Learning Festival 2017
- Sky Heroes 2018
- Conservation Seminar 2019

### Other

- Email feedback from teachers and participants
- Feedback forms from youth programme participants
- Feedback forms from teachers and workshop participants

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# Kenley Revival

## Evaluation Addendum 1



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December 2021

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Arts | Museums | Heritage



# Kenley Revival: Evaluation Addendum 1

## 1. Introduction

Kenley Revival was a National Lottery Heritage Funded project to revive interest, appreciation and understanding of Kenley Airfield. The project originally due to complete in April 2019, and was first extended to the end of 2019. It was further extended to resolve issues with thaumasite damage to the conservation works, and allow for the installation of interpretation. However, the delivery of the HF funded activity plan effectively completed as planned in 2019, and the project evaluation report by sam-culture was submitted at that time.

This addendum to the evaluation, produced for Kenley Revival, was commissioned to cover:

- The response to onsite signage which was delayed due to difficulties and delays in the production and installation.
- Activities delivered by the Legacy Officer, funded by the City of London Corporation to continue community engagement activities.
- Lessons learnt in the final stages of the project.

## 2. Onsite signage and interpretation: design and production

Kenley Airfield is the most intact fighter airfield from World War II. The image below indicates the extent of this historically significant site. Although many of the buildings associated with the WW2 airfield have been lost, the original fighter pens, Officers' Mess and NAAFI and other smaller buildings and structures remain. Onsite signage is important to allow visitors greater engagement with the location and its history and relevance as a site.



### Heritage Fund Approved purposes

The Approved Purpose for the onsite interpretation as set out in the HF funding agreement were as follows.

Increased onsite interpretation focused on two key 'zones' in the areas undergoing most conservation, using narrative themes based around personal experience of those who worked on the common, related to 'Kenley and the defence of London', nature, recreation, and Kenley as a living airfield.

A Heritage Trail, 5 interactive panels, 28 interpretive signs and 17 way finding posts, a printed leaflet, and outlines of planes in the pens will unify the interpretation, supported by a website and travelling exhibition. Annual flypasts will take place.

### What was delivered from the Approved Purposes

- 6 Large wings (information boards)
- 4 small wings
- 13 table tops
- A travelling portable exhibition that has been on display at Croydon Museum and the Battle of Britain Museum, as well as local venues

Signage has only recently been installed on site in 2021, due to the following reasons:

- **Interpretation design:**

Creating signage design and text should have been a less protracted process. Imagemakers exhibition design was sub-contracted by Allsigns to write and design the interpretation for onsite signs. Their scheme was based on access and a WW2 character-led trail more suited to a museum experience than a large outdoor space with multiple entry points.

Consultation and input from volunteers and Friends of Kenley Airfield led to a different approach focused on technical information and memorials to pilots and that also directed people to different parts of the Airfield.

A lesson learnt was that input from RAF military historians to fact-check text should have been woven into the process. It was important not to assume knowledge and to produce text suited to a reading age of 12, although this caused difficulties when describing technical details around aircraft and airfield equipment.

- **Planning permission issues:**

Planning and conservation officers initially questioned the approval of planning permission on the basis that the number of signs envisaged would clutter up the landscape and disrupt views of the site's features. Their suggestion for less signage would have led to their being fewer signs than the small number already there.

The planning application was then delayed due to the content and design work requiring more time than allowed for, and pending the need for a fully detailed design proposal for the planning application.

This delay and subsequent revisions led to changes to the Approved Purposes. The signage numbers were reduced from 50 in the tender to the following: 13 tabletops; 5 small wings; 6 large wings. The 17 wayfinding posts were deemed unnecessary due to the installation of a new perimeter fence. Smaller signs are now in place on focal points and more in keeping with an airfield rather than a countryside environment. Following a suggestion by RAF Head of History, signs are made of fibreglass rather than wood in the shapes of Spitfire wings that reflect the Airfield's history. These locations were fixed and reduced the risk of visual clutter flagged as an issue by planners

The Ministry of Defence owns the operational part of the Airfield and required changes to the locations of signs on their land as these would affect Kenley's operations as an active airfield to train pilots using gliders. The airfield is also used by Surrey Hills Gliding Club and for training RAF Air Cadets.

- **Production issues with the signs:**

The biggest production issue arose from a breakdown in the relationship between the primary contractor and their sub-contractor doing the design work



### 3. Onsite signage and interpretation: visitor response

#### What was delivered:

A new Heritage Trail. This signage provides information across the site, from the large Spitfire Wing signs at the entrances to the Common to the smaller Hurricane Wing signs identifying the WW2 remaining heritage features. Information about the stories of the men and women who served at Kenley and the historic events which took place there is shown on thirteen tabletop stands.

The project team requested that Allsigns produced samples of the sign types to be used to discharge the planning condition. However, when these tabletop signs were installed onsite, they were found to be unfit-for-purpose: the tops split as they were not strong enough, despite having seemed so when inspected in the factory. Allsigns consequently strengthened the signs.

Regrettably, some of the new signs have been vandalised and damaged through public misuse as seats or for children's play: this required removal of the signs from the site for repairs and strengthening.



#### Meeting Heritage Fund outcomes and project objectives:

The quotes below have been collected by the Kenley Revival Legacy Officer from various Facebook groups and comments posted on the Kenley Revival website.

- Heritage will be better interpreted and explained:

*'How amazing all the new information signs are around the aerodrome. We live in Halton Road, my 4-year-old loved the old signs, but these new ones sparked an amazing interest in the world wars and our local history with him. We have been fascinated by all the old aircraft and people and what used to be here. He now often tells our family about it. Thank you.'*

*'I was pleased to see the new information boards (wings) at Kenley recently. Along with the fence posters, they offer an interesting insight into the role of Kenley and the RAF personnel during WW2. They are a welcome addition to the airfield.'*

- People will have learnt about heritage:

The Kenley Revival Legacy Officer reports positive feedback to the signage from onsite visitors and comments on the website. Visitors like the Q&A format: the personal stories of WW2 pilots and support staff featured on the signs are of particular interest and have created more awareness of these people.

*'I see dads especially explaining who these pilots were to their families and sharing their knowledge about the war and how local streets are named after 'Kenley's Few'.*

Visitors particularly value the opportunity to learn about:

- The role of Kenley Airfield in WW2:

*'The combination of the fence posters and new 'wings' made for an informative walk that will help with our school history lessons. Clearly a lot of time has been spent on this. We hope people continue to respect the efforts of those in the past and also the present to keep the history 'alive'.*

*'The new information boards (wings) at Kenley recently. Along with the fence posters, they offer an interesting insight into the role of Kenley and the RAF personnel during WW2. They are a welcome addition to the airfield.'*

- People stories – the different roles played by people on the airfield:

*'The new signage and remembrance cards placed around Kenley's perimeter look terrific and serve as an appropriate tribute to all the servicemen and women who gave their lives in the summer of 1940. Having now read all the boards and tributes it really brings home the sacrifices made.'*

*'Over to Kenley Airfield to see the new displays about the airmen and their stories - prompting a conversation about how young pilots went up time after time until they were finally shot down and killed. My boys were shocked to read and learn about pilots that bailed out only to be killed when parachuting down, and pilots with no graves as they were lost at sea. They were surprised how many nationalities of airmen were involved at Kenley. They are 11 and 7 and keen to learn more because of the wonderful signs and work that has been done to bring the stories of these men and women back to life. Today has added to their curiosity about WW2.'*

- The role of Kenley Airfield in the Battle of Britain

*'I was blown away by the Battle of Britain 80th Anniversary memorials and the new information notices displayed, particularly the mix of both Spitfire and Hurricane wings as a backdrop. Brilliant work from all involved. The content is presented in a very thought provoking and informative way. If you haven't seen it yet it's a must see.'*

- The local area is a better place to work, live or visit

*'Kenley is now more than just for riding their bikes round.'*

#### 4. Legacy Officer: the value this role brought.

The HF project originally due to complete in April 2019. Although the project was extended to resolve issues with thaumasite damage to the conservation works, delivery of the HF funded activity plan effectively completed as planned in 2019.

The City of London Corporation agreed to fund a Legacy Officer to continue the community engagement work for a fixed period. The Legacy Officer supported volunteers (including those delivering school workshops), delivered guided tours and talks, researched and wrote material for the website, and delivered exhibitions and events.

The programme had the following reach. (We note that the data is incomplete, and that more events and activities were delivered than have been recorded).

	<b>Attendance</b>	<b>Number of events delivered</b>
Guided Tours	109	5
School Workshops	378	6
Events off site	121	2
Events on site	486	4
Mini Museum	240	3
Talks	180	6
	1,514	26

Over 30 events planned for 2020 had to be cancelled as a result of the pandemic. Work continued on the website and social media.

#### Guided Tours and Talks

Monthly themed public tours were delivered during 2019. The intention of theming talks, and holding talks at different times of day, was to widen the audience reach, and encourage repeat participation. This worked particularly with specialists and volunteers who came to multiple tours and talks.

Themes include

- Pilots and Pets: this tour was popular with dog-walkers, who brought their own pets along. It attracted press attention from BBC Radio London, who interviewed the Legacy Officer on the JoAnne Good show.
- Women at War: this tour attracted groups such as the local Women's Institute

- **Air Defences:** this tour was led by a Veteran Armourer, and included topics such as ordnance, gun emplacements, landscape and how landscape affected strategies and positioning of defences. This tour attracted people with more specialist military knowledge, who appreciated the expertise that the tour guide brought.
- **Voices from the Past:** this tour introduced written material from people associated with the airfield, read at appropriate locations. Hosted on a Saturday evening, the tour attracted a mixed audience.

One of the aspects of the tours that people appreciated was that they were conversational and interactive – people with experience within the audience were encouraged to tell their own stories. For example, a veteran of the Malaysian campaign talked about his experiences.

There is evidence that the tours provide material for other activities and resources. For example, a videographer used material from Voices from the Past for one of his recordings; a writer included material from the Women at War tour in an audio series she was writing.

The Legacy Officer has also delivered talks to local interest groups, such as the local U3A and Sutton Humanists.

### School Workshops

School workshops were delivered by the Legacy Officer and three experienced volunteers. One volunteer is a supply teacher in local schools, so has good links and relationships; a second is a retired teacher; and the third is a local resident with excellent story telling skills. The three volunteers will continue to deliver school workshops, once current Covid concerns are alleviated.

Workshops are tailor made for schools. Example workshops include

- **How many people does it take to get a pilot in the air?** Children are invited to role play all of the various personnel who were involved in the process, including roles such as riggers and mechanics. The children are given the hat and equipment of the person they are role playing. The activity gives children the opportunity to understand the wide variety of roles that were needed, and which roles women were allowed to undertake, and which they weren't. They are taught about how much work went into supporting one flight, which delivered 15 seconds worth of ammunition. Finally, the children are invited to take an envelope which tells them whether the pilot lived or died. Stories of real pilots who lived or dies are enacted, which introduce their family members, and draw up real written testimonies, such as a mother's letter from the Canadian air force about the death of her son.
- **Remembrance:** Children make poppies, and write a letter to an individual pilot, who they learn about. They go to find his grave, and leave the poppy there as remembrance. Children learn about the different headstones for people of different nationalities, and the difference between headstones for those who died in combat, supplied by the War Commission, and those who died from other means, supplied by families. Children can go into St Luke's church to see the bomb damage.

Two aspects of the school workshops have particularly resonated with local children. One is the message that their generation ‘will one day be in charge of the world, and that they should put all their efforts into keeping peace and making the world a better place.’ This has particularly resonated with children from SEND schools, who are inspired by the concept. The second has been exploring stories of the contribution of different nationalities, for example, the Polish, Czech and Belgian squadrons, which has resonated with children from those origins.

Other activities and interactions with schools have included:

- An informal arrangement with a local SEND school, who often drop in for quick 10-minute sessions.
- Field Days for secondary schools, where students have a talk, followed by volunteering activity led by a ranger, such as scrub clearance. The local boys’ school are keen to repeat their field day.
- Remembrance Assemblies at local schools.

#### Research, oral histories and website

The lockdown periods gave the Legacy Officer and two volunteers the opportunity to conduct more research and add more content to the website. This included

- Phone interviews with a Battle of Britain Veteran, Douglas Bader’s secretary and a national serviceman. These interviews have been written up as articles for the website and approved by the interviewees.
- An oral history recording with local resident Norman Skinner, which is yet to be edited.
- Memorials: 219 individual entries memorialising the individuals whose deaths were associated with the airfield. The team believe this is the most comprehensive record of everyone whose death was associated with Kenley – with around half a dozen army personnel still to ‘find’.
- Research around New Zealand pilots associated with the airfield.
- Further research around the buildings and structures on the airfield.

The emerging research has been valued by family members, enthusiasts and researchers alike. Unseen photographs have been shared with family members, and family members have used the website entries to share comments and further knowledge. An unseen photograph of Pilot Officer Mudie was shared with the Battle of Britain Monument team.

Activities have also led to new knowledge and links. The Legacy Officer told us this story:

She had been looking for information about a child who was killed in a bombing raid in the area. While she was delivering a workshop at Hillcroft school, a child said that he knew that children from the school had been killed. No-one believed him, but when questioned further, he said his grandfather had told him. The details from his story were similar to the ones that



she had heard about – shopkeepers pulling children into shops as the bombing happened. She could now locate the bombing raid to Chaldon Road, and make links with other pieces of archive material, with help from the Bourne Society. This led her to find two members of the family of a boy who had been killed in the bombing, who contributed photos. Residents from the road wanted to maintain his grave, and were able to locate it with her help. They have since planted a rose bush at the grave in remembrance.

### Mini-Museum

Mini-Museum began as an experiment to see if activities hosted at the City of London Corporation office, a mile or so down the road from the Airfield, could attract visitors. Three Mini-Museum events were held in the classroom space, and included the pop-up exhibition which was created during the NLHF project period, artefacts and object handling, re-enactors, and activities for children (including dressing up). One of the events focused on archaeological finds and was attended by MOLA and Historic England.



All three events were well attended, with between 50 – 100 people at each.

### Other activities

Other activities have included:

- Attendance at Brookwood Military Cemetery's open day. The Legacy Officer gave a tour of graves associate with Kenley, and volunteers manned a stall. The event was attended mainly by military enthusiasts

- A manned exhibition at Kenley Airfield to accompany the annual flypast from Biggin Hill commemorating The Hardest Day. The outdoor exhibition featured information about pilots from both sides who lost their lives in the Battle of Britain. The flypast typically attracts around 250 people from within and outside the local area.

## Volunteering

During the Legacy Officer's tenure, over 60 days of volunteer time have been contributed to the project, from approximately 10 volunteers. Volunteers have been involved in delivering events and activities, research and website content development, transcribing oral histories and working with archaeology finds.

## Conclusions – the value the Legacy Officer role brought

The Legacy Officer role has enabled the delivery of a programme that has reached over 1,500 people. While there are skilled and enthusiastic volunteers available to deliver distinct activities, such as school workshops, having a paid member of staff has provided the resources and infrastructure necessary to deliver a coordinated programme.

The officer was a visible ambassador for the project – people know her, and continue to contact her about Kenley and the work that happens there, even though she is no longer in a paid position.

## 5. In hindsight: advice to inform further projects

A reflection session with Andrew Thwaites, Kenley Revival Project Manager, identified lessons learned by the Kenley Revival Project which can be shared to support other projects.

### ➤ The pitfalls of positivity/optimism bias

A Heritage Fund project presents an organisation with the opportunity to make a difference, so people approach planning and delivery with a positive and optimistic mindset - a 'can-do attitude.' Whilst 'optimism bias has advantages it can also influence decisions on the project delivery through overestimating positive progress and underestimating risk and negative factors.

Project managers need to recognise that inevitably things will take longer, cost more, teams will change, and the original vision will shift and evolve during the lifecycle of any project.

Effective and pragmatic risk assessment is essential early in the planning stage, to consider project costs, time schedules and to anticipate potential risks and complications that may emerge. Informed estimates are essential and using techniques like three-point estimating will lead to more realistic predictions and avoid the pitfalls of setting timescales and budgets purely on optimistic estimates.

### ➤ The importance of defining scope



The early adoption of project management techniques such as a requirements analysis is essential to allow a detailed work breakdown structure (WBS) to establish the scope. Realistic forecasting for each task in the WBS can then be forecast, looking ahead rather than working backwards from a pre-determined date, timeline, or cost estimate. In any complex project timescales are likely to become more complex and interdependent as a project progresses.

- **Recognise issues of organisational buy-in**

Innovation and change within any organisation are essential to continuous improvement but require leadership and management to ensure the smooth delivery of a project. In instances where there is resistance to change or a department, individual or stakeholder is unwilling to commit to the project or take any responsibility for delivering it, the project team leader should acknowledge the situation and deal with it. This is not something to be skirted around as it could potentially be the most harmful factor affecting any project. Document any challenges in writing to allow for changes in personnel and circumstances.

- **Set criteria for partnerships**

Partnerships should be properly set up to clearly define expectations and establish clear lines of communication.

- **Understand experimental and bespoke elements take time**

Staff time and a clear budget should be allocated to developing and testing new ideas, interpretation, or signage. Anything experimental, even if considered low risk, will take resources to be successful.

- **Formal milestones and design stages**

Build in formal handovers between design and construction phases. As you move between stages, re-present the next version of the project plan as a new document / plan with the names of those responsible clearly displayed. Be mindful that during delivery, new milestones might need to be added, dependant on subcontracted work. Ensure the main contractors are on track to deliver the key milestones.

- **Human resources and skills development**

Be realistic about the human resources available for the lifetime of the project. People may be employed to deliver one aspect of the project plan, but the core team will have the same time and resource allocation throughout the project.

Be aware it can be difficult to combine the project manager responsibilities of overseeing construction and conservation type elements with those focused on engaging people. Both elements require different skills and must be fully resourced.

The Kenley team report they have developed core skills though managing a National Lottery Heritage Fund project, including people management skills, organisational and planning skills, event management, presentation skills, time management, problem solving, and evaluation methodology.

# Kenley Revival

## Evaluation Addendum 2



### Thaumasia Sulphate Attack

## Scope of this report

The purpose of this report is to explain the issue of Thaumassite Sulphate Attack (TSA) as it affected the Kenley Revival Project.

It is not intended to be a specialist report on the technical aspects of TSA itself, or how it relates to the conservation of impermanent architecture.

## Background

In June 2014 a seminar was convened to discuss the challenge of conserving Kenley Airfield's historic assets in a professional forum that included architects, structural engineers and subject specialists from the heritage industry who had experience in conserving historic brick and concrete structures. The aim was to inform the development of a conservation philosophy for Kenley, leading to a specification of work to conserve Kenley Airfield's remaining WWII structures as part of the Lottery funded Kenley Revival Project.

Following an exploration of some case study examples, attendees visited site and returned to offer input into how Kenley Airfield's conservation philosophy could evolve. The following summary is presented in the Kenley Common Conservation Management Plan 2015:

*'The seminar had been designed to consider how to approach the issues of conservation, and then discuss how the assets on the airfield should be treated, but not to start designing a programme of works. A clear context was provided in the morning, with presentations on current issues and some recent case studies. The round table discussion was wide-ranging and identified a number of lines in the sand. Removing assets or imposing a regime of benign neglect were considered wholly inappropriate. A modest degree of restoration of already compromised fabric was felt to be worth considering, along with the introduction of new elements to improve understanding of how the airfield functioned during the Second World War'.*

It is notable that none of the specialists involved in the seminar raised concerns about replicating 1930's methods or material choices in a modern context, although as noted above the session did not consider the detail of the work itself.



This picture of Fighter Pen KC44 taken in 2014 shows the extent to which Kenley Airfield's structures had deteriorated. The mortar remained reasonably intact, but the brickwork was badly eroded and spalled. The structures were not expected to survive much longer without intervention.

## Specification of works

The Specification of Works that resulted from the conservation philosophy and submitted as part of the Second-round application was developed jointly by the City Corporation and Historic England. Precedence was given to selecting materials that authentically replicated those originally used, as exemplified by the following entry in the specification about bricks:

*Source and supply new brick to exactly match the original LBC Phorpres bricks. Where the same brick is not available new, salvaged sources may be acceptable.*

*Where neither is available, source and submit samples of a near matching alternative for approval before placing an order. The bricks must match in size, shape, colour and texture.*

The Specification also described the desired characteristics of the other materials involved such as tiles and mortar, but for each the emphasis was on look and visual match rather than performance. Generally, the assumption was made that since the original structures had survived (although badly weathered) for 75 years, modern replacements using like-for-like material choices would perform in the same way.

Additionally, the Specification detailed methods for waterproofing and drainage, but specifically in relation to protecting concrete air raid shelters nestling within the Fighter Pens (and in one case end walls) and generally not for the earth retaining walls.

## Tendering, Principal Design and Contract Administration

The project outsourced responsibility for tendering the conservation work and the subsequent contract administration (clerking the work) to a firm of specialist architects. As part of its undertaking the firm was asked to review the design and act as Principal Designer for the implementation phase. The design was at RIBA Design Stage Four – Technical Design, which is the final detailed design used for tendering and construction. The specialist firm was asked to fulfil the role of Principal Designer at RIBA Five – Construction, under CDM regulations.

It is notable that the specialist firm appointed did not comment on or alter the stage four design. However, the overriding quest for authenticity and implications regarding Scheduled Monument Consent probably had a bearing on this. Nonetheless, as part of its function at RIBA five, the Principal Designer was involved in materials selection and sample sign-off.

## Thaumasite Sulphate Attack

Work to conserve the assets commenced in April 2017, and a Practical Completion Certificate was issue on January 4<sup>th</sup>, 2018.



KC44 following conservation work in 2017.

Shortly afterwards it was observed that some of the mortar in newly conserved sections of brick wall had failed. Mortar joints had expanded, ejecting material to create spoil heaps of extruded paste laying at the foot of the walls. The mortar itself appeared to be soft and saturated. In places it was possible to push a finger into the mortar joints. This phenomenon had not affected all the 2017 conservation work, and where it had not to the same degree, but it was quite widespread across the site.

The situation was possibly exacerbated later in the winter with the arrival of the 'Beast from the East' a period of particularly cold weather that hit the UK on February 22<sup>nd</sup>. However, it is important to note that the mortar degradation was noticed before this date.

Investigations into the cause commenced. In April 2018 the project's conservation contractor commissioned a report from a specialist material testing consultancy that identified higher than expected levels of sulphate in the mortar. However, it was not until the project's Principal Designer involved the Buildings Research Establishment (BRE) that a definitive diagnosis was given. BRE reported to the Principal Designer in July 2018 identifying Thaumaside Sulphate Attack as the cause.

Thaumaside (pronounced tormaside) is named after the Greek word for surprise. Thaumaside Sulphate Attack (TSA) is a type of salt weathering that is dependent on a particular combination and concentration of salts, temperature and humidity. The TSA reaction degrades mortar, chemically changing it into thaumaside. It can occur where there is a source of sulphate, abundant carbonate and water at temperatures around 5 °C.



Example of TSA damage affecting the end wall of the new central spine in Fighter Pen KC12. Salt staining is also visible.

## Trials

BRE was commissioned by the Principal Designer to devise a trial of alternative material combinations onsite using the new central spine wall in Fighter Pen KC12 as the test bed. In early November 2018 the existing (2017) brickwork on the side retaining walls was dismantled, and new walls were constructed using four separate mortar mixes including two cements and two hydraulic limes, three sands, two brick types and drainage. The bricks and mortars were:



- Two brick types
  - London Brick Company, common Fletton (as used in 2017)
  - Northcot, Nine Elms Common
- Four mortar mixes
  - Ordinary Portland Cement, Blue Circle Mastercrete (CEMII/A-L) (as used in 2017)
  - Low sulphate Portland Cement, Aarlborg White (CEMI)
  - Natural Hydraulic Lime, St Astier NHL 3.5
  - Natural Hydraulic Lime, St Astier NHL 5.0

Additionally, an impermeable high-density polythene sheet and permeable geotextile filter fabric were installed as waterproofing, and on one elevation a separate back up wall of 7N dense concrete blocks was constructed. Both sides were drained using slotted pipes and pea shingle.

The panels were left in situ during the winter of 2018-19 and examined and tested in January and May 2019. A range of laboratory tests were carried out by BRE on samples of brick, water and soil.

The trials failed to replicate the wholesale failure of the brickwork experience in 2017. However, some deterioration was noted in some material combinations, and performance in relation to strength and water saturation varied. The combination of Northcot Nine Elms bricks and Aarlborg White cement was found to be the most resilient, indeed it was found to be stronger than the original wartime construction.

## Cause and liability

The City Corporation considered that the Principal Designer was liable for the failure of the 2017 work, and this view was backed-up by legal advice from a specialist law firm.

Consequently, much of 2019-20 was taken up with an attempt to initiate proceedings under the Pre-action Protocol for Construction and Engineering Disputes. Ultimately this approach failed, mainly because the technical complexities involved in establishing the cause of TSA made it impossible for the City's expert witness to give an opinion. The City, its legal advisors and expert witness relied on information provided by BRE. As can be seen from the following, there was a degree of uncertainty regarding both cause and solution:

BRE Report for the Principal Designer, July 13 2018

- *The failure was not caused by workmanship but a combination of the use of the London Brick and the type of cement used to make the mortar. There were no waterproof barriers between the retained earth and the brickwork, which allowed water to flow through the brickwork, exacerbating the sulphate attack.*

BRE Report for the City Corporation – Final Trial Investigation Report, July 31 2019

- *The soluble salt content results suggest that the bricks are a source of sulphate, which is likely to have contributed to the deterioration of the 2017 brickwork. The original and 2017 wall design together with the soluble salt content of the fletton brick has contributed to both new and old brick deterioration as the walls are earth retaining wall, in exposed location and lack a suitable coping detail [sic].*

BRE Report for Beale & Company Solicitors, December 18 2019

- *The use of modern Fletton bricks provided a source of sulphate salts, which allowed TSA to occur.*
- *The choice of premixed Mastercrete to make the initial mortar conservation works in 2017 was not appropriate as the mix is a CEMII A-L. A CEMII cement contains between 80%-94% cement clinker together with between 6%-20% limestone and 5% minor constituents. The presence of the ground limestone within the cement together with the active soluble salts from the brick, along with a sloping bank of wet soil and cold winter conditions resulted in TSA.*
- *It is likely that TSA would not have occurred if a sulphate resistant cement had been used, but sulphate resistant cement has been shown to be susceptible to sulphate attack in some circumstances.*

BRE Letter to Beale & Company Solicitors, April 30 2020

- *In our view there is no product based on modern OPC that would be suitable in this circumstance with this particular S2 brick. [Note – S2 classification means the brick has a low active soluble salt content].*
- *It is possible that the 1940's OPC, with its different mineralogy, etc. to modern OPC, may not have been as susceptible to TSA in these circumstances.*
- *Sulphate-resisting mortars are resistant to ettringite formation but not to thaumasite formation.*
- *The cause of the difference in performance between the 2017 and 2018 brickwork is likely to be a difference in water saturation and rate of flow of water through and across the brickwork.*

BRE Email to Beale & Company Solicitors May 7 2020

- *We only measured the soluble salt content of two bricks and these were both from KC44 and were manufactured in the 1940s. Therefore, the comment at 5.4.4 of our report (that the bricks are a source of sulphate) is correct and relates to the two old bricks from KC44. We cannot comment on the sulphate content of the new bricks other than to say that it is, in our view, unlikely that they did not achieve an S2 classification. And to reiterate for clarity, we think it is likely that the new bricks met the S2 classification.*

The confusion surrounding the exact cause of the thaumasite sulphate attack rendered it impossible to establish liability, but also made it difficult to determine how to rectify the failed 2017 work to avoid it happening again.

## Rectification

In February 2021 architects and structural engineers working for the project's conservation contractor produced a condition survey and schedule of work for rectifying the 2017 defects. This aimed to replace failed sections of the 2017 work using the most resilient material combination from the trials – Northcot Nine Elms bricks and Aarlborg White cement. Additional waterproofing and drainage were prescribed for many of the replaced sections.



Rectification work commenced in July and continued through to November (material shortages caused by the pandemic led to delays).



2021 reconstruction of the central spine wall in KC12. The structure now includes waterproofing applied to soil facing areas of brickwork, drainage and a waterproof membrane.

Note – the colour match is reasonably authentic (see P2)

The pictures above also illustrate several design changes for the new central spine. The 2017 structure utilised high-density polystyrene blocks as a core for the tall central wall. The top courses of brickwork and the concrete coping sat on this polystyrene core, separated by a geotextile membrane. In their 2021 assessment of this structure the architect and structural engineer found that the brick and concrete ridge had expanded and contracted, slipping over the geotextile and pushing on the end walls, which were already weakened by thaumasite. This caused the end walls to bow out.

The 2021 structure has a full-length wall and expansion joints at both ends. Unlike the 1939 and 2017 structures, all the walls now sit on their own foundations. Interestingly, when digging the foundations, it was discovered that the concrete apron upon which the 1939 and 2017 structures sat varied greatly in thickness front to back; a fact that possibly further exacerbated rotation and cracking as the apron probably yielded inconsistently under their weight.

Also of note is the addition of a buttress at the outside end wall of the new 2021 structure. Volunteer researchers discovered that this was an authentic feature at Kenley, but not one that was present in 1939. In fact, the central spines were constructed in phases; first - a single wall, later the soil infill and end walls, finally the buttress. This final addition in particular indicates that the original wartime structures probably suffered from the same damaging movement that affected the 2017 work. The fact that the buttresses were constructed over a pre-existing pattern (as replicated in 2021), itself a feature designed to mitigate movement, further reinforces this notion.

All the above helps illustrate an important learning point for the project in relation to the assumption that the original structures fared ok to the present day. Although much of the 1939 construction proved to be robust and resilient, elements of it had failed earlier in its lifetime.

## Conclusion

Thaumasite Sulphate Attack is a relatively unknown phenomenon, even within specialist circles. It is possible that TSA could have occurred at Kenley even if measures had been taken to mitigate the more common form of sulphate attack. However, some of the factors that gave rise to TSA at Kenley are known to cause other problems, and consequently would have been designed out under normal circumstances (by using F2 rated bricks and applying waterproofing for example).

The same characteristics that made the 2017 bricks prone to frost damage also made them prone to TSA (the Flettons used in 2017 had a water absorption rating of 23% by volume, as opposed the Northcot Nine Elms bricks with a rating of less than 12%). A degree of frost damage was expected to affect the 2017 work because the original structures suffered from this form of deterioration persistently over their lifetime. However, accepting this apparent low-level chronic risk opened the door to the hidden and acute danger of TSA.

At Kenley, the quest for authenticity relied on an assumption that conserved structures would behave in the same way as the original 1939 features. However, this assumption failed to take into account the fact (realised much later) that parts of the original wartime features had indeed failed, and that modern materials do not always share the same chemical properties as their 1940s counterparts, even if they are of the same lineage.

The establishment of exact cause and liability was ultimately impossible, and this meant that the City and project partners had to fund the full cost of rectification. No matter how comprehensive contracts and specifications are, professionals cannot be held accountable for failings specific to things they are not expected to know anything about. They can however be held accountable for not providing advice and warning more generally, but at Kenley the situation was clouded by the project's strive for authenticity and assumptions made about what was involved in meeting that aim.

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