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| Committees: Corporate Projects Board <i>[for information]</i> Projects Sub <i>[for decision]</i> Housing Management & Almshouses Sub <i>[for decision]</i> | Dates: 26 August 2020 21 October 2020 30 September 2020 |
| Subject: Concrete Repairs to Cullum Welch House Unique Project Identifier: 11760 | Gateway 6: Outcome Report Regular |
| Report of: Director of Community & Children's Services Report Author: David Downing, Asset Programme Manager | For Decision |
| PUBLIC | |

Summary

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| 1. Status update | <p>Project Description: The reinforced concrete elements of Cullum Welch House had been showing signs of deterioration as seen through areas of cracking and spalling on the external facing surfaces. A project was initiated to first survey and test the structures to identify the causes and extent of this deterioration and then secondly to deliver a programme of repairs based on the recommendations from the condition survey.</p> <p>The pre-cast concrete balustrades on the north elevation of the building were deemed life expired and replaced in full. Patch repairs to the external staircases, beams and slab ends, and concrete elements (principally pre-cast planters and pot-holders) on the south elevation were also enacted to restore these areas. The works are now fully complete.</p> <p>RAG Status: Green (Green at last report to Committee)</p> <p>Risk Status: Low (Low at last report to Committee)</p> <p>Costed Risk Provision Utilised: £0</p> <p>Final Outturn Cost: £698,531</p> |
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| <p>2. Next steps and requested decisions</p> | <p>Requested Decisions:</p> <p><u>Projects Sub Committee and Housing Management & Almshouses Sub Committee</u></p> <ol style="list-style-type: none"> 1. To note the content of this report, 2. To note the lessons learnt, 3. To authorise closure of this project. |
| <p>3. Key conclusions</p> | <ol style="list-style-type: none"> 1. Works were completed within budget but slightly outside the timescales envisaged at Gateway 5. 2. Following the replacement of the balustrades on the north elevation and completion of the identified repairs to other areas of the building, the concrete elements of Cullum Welch House are now in good condition. 3. The replacement balustrades were specified to have a 50 year lifespan. The units installed are under manufacturer's warranty for 60 years. The elevations where patch repairs to the concrete elements were completed should be subject to further testing in 10-15 years which is consistent with the other residential buildings on the Golden Lane Estate. 4. The initial survey design, testing analysis and repair specification was supplied by industry leading specialist Dr John Broomfield. Dr Broomfield's technical guidance throughout the project was invaluable and critical to the successful outcome. 5. The main works contractor, Concrete Repairs Ltd, as secured via a second procurement exercise, performed well, impressing throughout delivery of the contract with their diligence, expertise and commitment to deliver works to the satisfaction of the City's officers. Concrete Repairs Ltd are strongly recommended for future works of this nature. 6. By contrast, an earlier contract offer to complete the works was withdrawn from ENGIE (Keepmoat Regeneration) who were unwilling to sign a contract to deliver the works at the tendered price and attempted a post-tender renegotiation to inflate the fee. The inflated risk of accepting low cost bids from similar large contract management companies should be noted for future projects. |

Main Report

Design & Delivery Review

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| 4. Design into delivery | <p>The project design worked well. The comprehensive condition testing of the concrete post Gateway 2 allowed for a detailed repair specification to be drawn up and applied to a measured bill of quantities for the subsequent replacement and repair contract post Gateway 5.</p> <p>Equally, the early appointment of architects, Howse Wallis Partners ensured that the design and heritage constraints were quickly addressed with the necessary approvals in place in good time.</p> <p>The survey design, analysis of testing results and repair specification was supplied by industry leading concrete corrosion specialist Dr John Broomfield. Procuring separate testing and repair contracts did increase programme length but follows industry best practice and enabled proposed repairs to be independently verified. This also allowed for greater control of costs as a single contractor was not identifying their own repairs.</p> <p>The project was combined at earlier Gateways with what at face value seemed similar, albeit smaller scale, concrete issues at the other residential buildings of the Golden Lane Estate and Middlesex Street Estate. Although brought together to explore potential savings through economies of scale, little benefit was realised from this however as the complexity of the balustrade replacement at Cullum Welch House and the particular design issues which had to be overcome inevitably led to the separation of projects during the detailed design phase.</p> |
| 5. Options appraisal | <p>The selected option to procure a contractor to deliver a programme of repairs via open tender successfully delivered the projects objectives. No changes were required during project delivery.</p> |
| 6. Procurement route | <p>Works were procured via open tender advertised on the capital esourcing portal.</p> <p>Procurement Reference: itt_COL_9526</p> |
| 7. Skills base | <p>The City of London project team had the required skills and experience to manage the delivery of the project.</p> <p>A multi-disciplinary design team was put in place to ensure that all technical and heritage aspects of the project were successfully</p> |

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| | addressed. Architectural services were provided by Howse Wallis Partners, concrete condition surveys were conducted by Structural Renovations Ltd and structural engineering expertise was provided by Watermans. An external concrete corrosion specialist, Dr John Broomfield, was also employed to define the testing requirements, analyse testing results, specify the repair methodology for identified repairs and oversee the enactment of those repairs. |
| 8. Stakeholders | Stakeholder engagement was not straightforward for this project, particularly with regard to a number of challenges from Golden Lane Estate leaseholders as to whether the identified repairs should be recoverable via the service charge. With the assistance of the City Solicitor, confirmation of leaseholder obligations to contribute costs was clearly communicated. |

Variation Review

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| 9. Assessment of project against key milestones | <p>The project progressed as expected throughout the concrete testing and design phases culminating in the approval of Gateway 4 in May 2017.</p> <p>Post Gateway 4 the project was subject to a significant delay that affected several key milestones. An initial procurement exercise for a main contractor appeared successful with a decision taken to award a contract to ENGIE (Keepmoat Regeneration). However, this contractor was unwilling to sign a contract to deliver the works at the tendered price and were, as a result, removed from the project by the City prior to any works or approved expenditure taking place. The extended fruitless negotiations with ENGIE, the withdrawal of the contract offer, a supplier engagement exercise to attract a better calibre of contractor, a repeat procurement and repeat Section 20 consultation process with long leaseholders caused a 12 month delay to the programme.</p> <p>The repeat procurement saw Concrete Repairs Ltd appointed as the successful works contractor. At Gateway 5 authorising this appointment, works were forecast to commence May 2019 and conclude December 2019, a period of 8 months. The actual delivery of the project took the 8 months as forecast but did not formally commence until July 2019 with a successful conclusion in March 2020.</p> |
| 10. Assessment of project against Scope | There were no changes to project scope from design to delivery. |

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| <p>11. Risks and issues</p> | <p>As detailed above, the contractor selected from the initial procurement for a main works contractor were withdrawn from the project as were unwilling to sign a contract to deliver the works at the tendered price. It is worth clarifying that this was not a risk of a failed procurement being realised, rather that of a contractor not being able to deliver what they had offered and confirmed they could supply during the tender process.</p> <p>The project proceeded as planned with no significant risks realised during the delivery phase following the appointment of Concrete Repairs Ltd. This is largely attributable to the successful application of lessons learnt from previous projects which were incorporated into the project design and specification which greatly aided the management of the resultant works contract.</p> <p>Costed Risk Provision was not applicable to this project.</p> |
| <p>12. Transition to BAU</p> | <p>The repairs have a defect liability period of 12 months commencing from the date of practical completion. At the close of this period, the ongoing maintenance of these repaired sections of concrete will transfer to the general Repairs & Maintenance contract.</p> <p>The replacement balustrades have a manufacturers warranty of 60 years.</p> |

Value Review

| <p>13. Budget</p> | <table border="1" data-bbox="491 1339 1366 1417"> <tr> <td data-bbox="499 1339 778 1417"><i>Estimated Outturn Cost (G2)</i></td> <td data-bbox="778 1339 1358 1417">Estimated cost (excluding risk): £600,000</td> </tr> </table> <p>The Gateway 2 projected cost was estimated in 2014 with no provision for cost inflation. The officers managing the project at this time are no longer with the City and the estimating methodology they used is not known.</p> <table border="1" data-bbox="491 1637 1428 1906"> <thead> <tr> <th data-bbox="499 1637 837 1715"></th> <th data-bbox="837 1637 1125 1715"><i>At Authority to Start work (G5)</i></th> <th data-bbox="1125 1637 1420 1715"><i>Final Outturn Cost</i></th> </tr> </thead> <tbody> <tr> <td data-bbox="499 1715 837 1753"><i>Fees</i></td> <td data-bbox="837 1715 1125 1753">£140,000</td> <td data-bbox="1125 1715 1420 1753">£96,228</td> </tr> <tr> <td data-bbox="499 1753 837 1792"><i>Staff Costs</i></td> <td data-bbox="837 1753 1125 1792">£60,000</td> <td data-bbox="1125 1753 1420 1792">£52,209</td> </tr> <tr> <td data-bbox="499 1792 837 1830"><i>Works Contract</i></td> <td data-bbox="837 1792 1125 1830">£619,911</td> <td data-bbox="1125 1792 1420 1830">£550,094</td> </tr> <tr> <td data-bbox="499 1830 837 1868"><i>Costed Risk Provision</i></td> <td data-bbox="837 1830 1125 1868">£0</td> <td data-bbox="1125 1830 1420 1868">£0</td> </tr> <tr> <td data-bbox="499 1868 837 1906"><i>Project Total</i></td> <td data-bbox="837 1868 1125 1906">£819,911</td> <td data-bbox="1125 1868 1420 1906">£698,531</td> </tr> </tbody> </table> | | <i>Estimated Outturn Cost (G2)</i> | Estimated cost (excluding risk): £600,000 | | <i>At Authority to Start work (G5)</i> | <i>Final Outturn Cost</i> | <i>Fees</i> | £140,000 | £96,228 | <i>Staff Costs</i> | £60,000 | £52,209 | <i>Works Contract</i> | £619,911 | £550,094 | <i>Costed Risk Provision</i> | £0 | £0 | <i>Project Total</i> | £819,911 | £698,531 |
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| | <p>A final retention payment is due to be made to the main contractor on expiry of the defects liability period in March 2021. The retention sums are included in the figures presented above.</p> <p>There is a total underspend on the approved Gateway 5 budget of £121,380. Of this sum, the £69,817 underspend on the works contract is accounted for largely by provisional sums included to cover any additional concrete repairs required to those identified in the condition survey which had arisen in the period between testing and remedial works. In event, no such additional repairs were required therefore these provisional sums were omitted from the contract.</p> <p>The remainder of the underspend is unused provision for professional fees and staff costs. The main works contractor, Concrete Repairs Ltd, performed well throughout the contract and did not require the degree of management and oversight that a less diligent operator would warrant.</p> <p>Final accounts have been subject to an independent verification check, undertaken by a suitably experienced officer within the relevant implementing department.</p> |
| 14. Investment | N/A |
| 15. Assessment of project against SMART objectives | <ol style="list-style-type: none"> 1. The condition of the concrete elements of the Cullum Welch House is now known, having been tested to the satisfaction of a leading concrete corrosion specialist, with appropriate future testing requirements identified and to be programmed. 2. The life-expired pre-cast concrete balustrades have been replaced satisfying both modern safety and heritage requirements. 3. Repairs to the other concrete elements of the building have been completed extending the useful life of the building and safeguarding residents and the wider public from the risk of falling debris. |
| 16. Key benefits realised | <p>The defective pre-cast reinforced concrete balustrades have been replaced in full to the satisfaction of heritage and all modern safety requirements. The replacement balustrades have a manufacturer's warranty of 60 years. A comprehensive testing programme has been carried out on other concrete elements of the building and all identified repairs have been completed. The external concrete elements of the building have been confirmed to be in good condition for their age and exposure now that repairs are complete.</p> |

Lessons Learned and Recommendations

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| 17. Positive reflections | <p>Works were done to a high standard, satisfying the heritage constraints of the Grade II Listed building and were delivered within the approved Gateway 5 budget and close to the approved Gateway 5 programme.</p> <p>The works contractor, Concrete Repairs Ltd, performed well, impressing throughout delivery of the contract with their diligence and expertise. They were proactive in working with the City's project management team to keep costs under control, to deliver the works within the agreed budget and to complete to the high standard demanded. Concrete Repairs Ltd are strongly recommended for future works of this nature.</p> <p>The consultant employed, Dr John Broomfield, is a world leader in the field of concrete corrosion. Dr Broomfield provided specialist advice throughout the project, drafted the repair specification and provided independent oversight of the repairs. The access to industry leading knowledge and experience throughout the project was a critical factor in its successful delivery particularly in terms of responding to leaseholder challenge with expert testimony and verifying the quality of repairs undertaken.</p> |
| 18. Improvement reflections | <p>Procurement – The initial procurement exercise for this project attracted only two bids, both from contract management companies, which limited the options for the delivery of this project. The successful contractor from this procurement, ENGIE, however refused to sign the offered contract at their tendered price without a commitment from the City to increase the contract sum before they had started work. As stated above, the contract offer was withdrawn and re-advertised. Subsequent investigation revealed that ENGIE had failed to adequately survey the site when pricing the works and had submitted a low tender to win the contract without having a clear idea as to how they would carry it out despite maintaining throughout the tender clarification process that their proposed delivery method and pricing were sound. It is recommended to highlight the increased risk of accepting low cost bids from similar large contract management companies for future projects.</p> <p>The works contract was re-tendered following a supplier engagement exercise carried out by the project team. This process revealed that SME concrete repair specialists who</p> |

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| | <p>would be ideal for this type of work were put off from bidding for local authority contracts due to the perceived tendency of those authorities to appoint the large contract management companies with whom they struggle to compete with on price. Pre-tender engagement with suitable specialist contractors is therefore recommended for future projects to ensure that the City's commitment to the most economically advantageous rather than necessarily the cheapest is forefront. The project team's supplier engagement was successful with six contractors bidding for the work at the second advertisement.</p> <p>In reaction to the set aside contract with ENGIE (and another tender competition which concluded in a similar fashion), the Housing Working Group was set up to investigate the reasoning behind the project issues and possible solutions. The results of which were presented to the DCCS Committee on 24th April 2020. The lessons learned from this report are summarised thus:</p> <p>Risk – Where the City transfers risk to the bidder, the City must ensure bidders make their assumptions explicit.</p> <p>Variation – When the cost of variations submitted by the set-aside tenderer are added to the submitted price, that price becomes comparable to that submitted by the unsuccessful bidder.</p> <p>Procurement Process – Officers should not use the procurement process as a method to recover time on a project rather than utilising the procurement tools to achieve the best outcome. Officers need to work more effectively to utilise the experience of the procurement team and be realistic about tender timeframes.</p> <p>Documentation – The report on the condition of the Reinforced Concrete Structures included in the tender was from 2014, this report should have been updated before going out to tender.</p> |
| <p>19. Sharing best practice</p> | <ol style="list-style-type: none"> 1. Dissemination of key information through team and project staff briefings. A standard approach to concrete repairs has been adopted by the Major Works team reflecting industry best practice. 2. Lessons learned have been logged and recorded on departmental SharePoint. |

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| 20.AOB | N/A |
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Appendices

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| Appendix 1 | Project Coversheet |
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