

Committees:	Dates:	Item no.
Projects Sub Housing Management and Almshouses Sub-Committee	17/02/2017 16/05/2017	
Subject: Gateway 3/4 Options Appraisal: Petticoat Tower Stairwell Panels	Gateway 3/4 Options Appraisal	Public
Report of: Director of Community & Children's Services		For Decision

Summary

Dashboard

Project Status	Green
Time Line	Specification of Works: July 2017 Undertake Procurement: October 2017 Contract Let: March 2018 Works Start: May 2018 Works Complete: November 2018
Programme status	Pending Approval of Gateway 3/4 – Options Appraisal
Latest estimated cost of works	£383,000
Expenditure to date	Survey & Specification, Staff Costs and H&S Works £16,556
Total Project Cost	£429,000

Progress to date (including resources expended and any changes since previous gateway)

The Gateway 1/2 report outlined the need to undertake a stock condition survey on the Petticoat Tower Stairwell Panels to assess current safety issues as well as a feasibility study to explore a variety of options.

A detailed survey was carried out by a firm of Chartered Surveyors and forms the basis of this report which seeks approval of the programme and budget prior to procurement for a contractor to complete these works. The survey looked at options including continued repair and maintenance, feasibility of full replacement on a like for like basis and additional options of fully enclosed systems for the stairwells.

Due to the urgent nature of the works and from a Health & Safety perspective we raised a priority order for the erection of a scaffolding protection fan at the base of the Petticoat Tower, and installation of safety netting to the two elevations where the glass panelling is situated. We are now seeking approval for the costs accrued so far to be retrospectively agreed, as well as approval for the costs for the continued scaffold hire until we receive authority to start works Gateway 5.

Overview of options:

Appendix 1 includes visualisation of the various options that were considered.

Option 1 Glazing Refurbishment

One off replacement of defective and missing panels. Continue to assess and test the assets on a regular basis, undertaking ad-hoc repair works in a reactive fashion. However, future failure would mirror current H&S issues, specifically glazing falling from height in close proximity to public highways and children's play area.

Option 2 Replacement - Reglit Curtain Wall System

Reglit are a glazing supply and installation company with close ties to Pilkington Glass, and are currently replacing a similarly degrading glazed system at Guildhall West Wing.

Reglit's recommendation makes it clear that the existing design at Petticoat Tower could not be replaced on a like-for-like basis as the glazing was not designed to be installed in an off-set arrangement. Furthermore, they highlighted that no consideration had been made for the expected wind-loads that the glass panels are currently being subjected to.

Their recommendation is that the existing system should be replaced with an enclosed system similar to the current installation being undertaken at Guildhall West Wing.

Option 3 Replacement - Schüco FW50 Curtain Wall System

The Schüco aluminium framed Glazed Curtain Wall System which is a floor to ceiling glazed curtain wall system similar to surrounding buildings, came recommended by a number suppliers. The design ensures that the stairwell would be fully protected from the elements, and lighting levels maintained. Furthermore, it could be replicated to match the existing enclosed design at Petticoat Square.

Option 4 Replacement - Graepels Panel Systems

This manufacturer's designs have been investigated as a cost-effective solution which still allows light and ventilation through to the stairwell and bin chute areas. Designs can either be supplied as a flat perforated metal acting as a curtain wall system, or as perforated metal planks to mimic the existing installation.

Proposed Way forward and summary of recommended option

Having explored the various options and considered the advantages and disadvantages of each it is our recommendation to approve option 3. Having consulted with Planning there is no issue with replacement on a non "like-for-like" basis as long as the design does not appear incongruous with the surrounding environment.

Procurement Approach

Given the relatively small cost of the works, and subject to approval of Option 3, City Procurement will be asked to invite three specialist contractors to carry out the works as specified by our Consultant via a standard quotation exercise. Option 3 will be set out within the tender documentation.

Table with Financial Implications

Description	Option 1	Option 2	Option 3	Option 4
Works Costs	£540,000	£431,000	£383,000	£351,000
Fees & Staff Costs	£65,000	£52,000	£46,000	£42,000
Total	£605,000	£483,000	£429,000	£393,000

Funding Strategy: Housing Revenue Account (HRA) which includes service charge recovery from leaseholders for most works (current proportion circa 36%).

Recommendations

- Note the budget of £429,000
- That Option 3 is approved for proceeding to Procurement and Gateway 5.
- Approve the £35,839 as detailed at section 20 of the options appraisal (which includes):
 - £18,000 resources required to reach next gateway.
 - Retrospective approval of the £13,354 associated with the installation of the scaffolding and debris netting under Health & Safety requirements.
 - The on-going costs for the hire of scaffolding up to Gateway 5.

Options Appraisal Matrix

See attached.

Appendices

Appendix 1	Summary of Options
Appendix 2	PT 1 Report

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Options Appraisal Matrix

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>
1. Brief description	Working with the existing system in place on a refurbishment basis. Replacing defective & missing panels. Requires additional works around the re-design and replacement of the existing fixing panels and brackets.	Replacement with a like-for-like system is not a valid option. Reglit have recommended that we remove and replace with a curtain-wall design using similar panes of glass as existing, although the new arrangement would create a totally enclosed space.	Remove and replace with Schüco Façade FW-50+, which is a floor to ceiling glazed curtain wall system, replicating a similar design to the existing one at Petticoat Square.	Remove and replace with a Graepels Panel Perforated Metal System, which can be supplied as a flat panel acting as a curtain wall system, or as planks to mimic the existing installation.
2. Scope and exclusions	Refurbishment of the existing system, or removal and replacement with alternative systems. Including removal costs, scaffolding costs, skip and waste removal, pavement licences, hoisting, vertical distribution and storage facilities Excluding: <ul style="list-style-type: none"> • Internal equipment e.g. lifts, handrails, lighting. • Any other works already covered by other projects, such as concrete repair. 			
Project Planning				
3. Programme and key dates	<ul style="list-style-type: none"> • Specification of works: July 2017 • Undertake Procurement: October 2017 • Contract Let: March 2018 • Works Complete: November 2018 			

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>
4. Risk implications	<ul style="list-style-type: none"> Health and Safety of residents and staff is compromised if assessments, testing and any associated works are not carried out in a timely fashion. That option 3 is not approved by Planning. 			
5. Benefits and disbenefits	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> Low level of waste required to be removed from site. No planning restrictions to be considered. <p><u>Disbenefits:</u></p> <ul style="list-style-type: none"> Future failure would mirror current H&S issues, specifically glazing falling from height. Panels are not designed for the wind-loading required in the existing offset arrangement. Future replacements / isolated repairs would have to be undertaken externally, with the 	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> Any future failure of the system after time would still maintain the glazed materials fixed in place, and therefore the current scenario of falling glazing would not be encountered. System has similar appearance to the existing; possibly negating the need for planning approval, or likely to be approved if planning is required. Potentially provides the longest guarantee based on materials. Stairwell would be fully protected from the elements, and light levels maintained. 	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> The approximate costs have included access arrangements. The design ensures that the stairwell would be fully protected from the elements, and light levels maintained. Offers a standard life expectancy, and glazed louvres can be inserted into the screens for ventilation. Similar design to that on the enclosed stairwell at Petticoat Square. Second cheapest in terms of cost and considered as most viable option in terms of design and value for 	<p><u>Benefits:</u></p> <ul style="list-style-type: none"> Cost-effective as a full replacement option. It can be replaced in a like-for-like plank design, which may be easier to achieve Planning approval. The system could possibly be replaced internally for isolated repairs. Installation could be undertaken via mast climber/cradle. Ventilation requirements are maintained, and due to the durability of the materials and fixings the system has a long life expectancy.

	Option 1	Option 2	Option 3	Option 4
	<p>additional costs incurred for access.</p> <ul style="list-style-type: none"> • Further investigations would need to be undertaken to assess additional safety measures for the fixing mechanisms which potentially may require new design and installation. • Most costly of all the options. 	<ul style="list-style-type: none"> • Additional fixings should ensure the system is more stable than the existing system. • Future system failure is likely to be only at the silicon joins between the glazed panes, which shouldn't be an issue within the stairwell areas. <p><u>Disbenefits:</u></p> <ul style="list-style-type: none"> • Notwithstanding the above, this is the second most expensive option. • City Surveyors highlighted the concerns raised at committee about costs associated with the replacement of similar system on Guildhall West Wing Staircase. 	<p>money.</p> <p><u>Disbenefits:</u></p> <ul style="list-style-type: none"> • Although it will match more closely the design of the enclosed stairwell at Petticoat Square, it is a move away from the current design. • Planning permission is required. However, initial feedback following consultation indicates that there would be no issue with non "like-for-like" replacement as long as design was not incongruous with the surrounding environment. 	<p><u>Disbenefits:</u></p> <ul style="list-style-type: none"> • Further modelling would be required to assess wind noise, water penetration and to ensure lighting levels are maintained. • It is also possible that the failure of fixings would recreate the highly dangerous falling panel scenario currently being experienced. • However, WPL-UK confirms that they could undertake 5-yearly maintenance checks to minimise this risk over the lifetime of the system.

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>
6. Stakeholders and consultees	<ul style="list-style-type: none"> Residents, including leaseholders through Section 20 where they stand to incur service charges. Departments of Community and Children's Services, City Surveyor's, Town Clerks and Chamberlain's (including CLPS) and London Fire brigade. 			
Resource Implications				
7. Total Estimated cost	£605,000	£483,000	£429,000	£393,000
8. Funding strategy	Housing Revenue Account (HRA) which includes 36% service charge recovery from leaseholders for most works			
9. Estimated capital value/return	N/A	N/A	N/A	N/A
10. On-going revenue implications	Future revenue implications will be as per the existing freeholder obligations of repair and maintenance under the conditions of the lease agreements.			
11. Investment appraisal	N/A			
12. Affordability	These works are a necessary part of rolling maintenance of the City of London Corporation's Housing stock and have been included in the 5 and 30 year Asset Management Plans.			
13. Legal implications	<ul style="list-style-type: none"> The safe maintenance of the facilities supplied by the landlord/freeholder is a prime legal duty. Reputational damage caused to the City of London by failing to perform legal duty to keep assets in a good state of repair. 			

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>
14. Corporate property implications	It is important that the City's assets remain in good, safe and statutory compliant condition. Therefore all necessary action should be taken to ensure that assets are kept as such throughout the assets' lifetime.			
15. Traffic implications	Any traffic implications would be negotiated with the works contractor(s) at the pre-contract and pre-start stages.			
16. Sustainability and energy implications	There are no known sustainability and energy implications.			
17. IS implications	N/A.			
18. Equality Impact Assessment	The delivery phase of the works will be carefully planned and implemented in conjunction with residents to ensure no adverse impacts. An equality assessment will be carried out and a Design Risk Assessment will be required as part of the specification process.			
19. Recommendation	Not recommended	Not recommended	Recommended	Not recommended
20. Next Gateway	Gateway 5 - Authority to Start Work			

	<i>Option 1</i>	<i>Option 2</i>	<i>Option 3</i>	<i>Option 4</i>
21. Resource requirements to reach next Gateway	These costs relate to the recommended option 3			
	Item	Reason	Cost (£)	Funding Source
	Staff Time	Managing the design, procurement and contract-letting process.	£2,000	HRA (including proportional recovery from long leaseholders)
	Surveyor Cost	Undertaking professional Quantity Surveying Services.	£9,000	HRA (including proportional recovery from long leaseholders)
	Principal Designer (formerly CDM)	Satisfy the legal requirements of the CDM Regulations 2015	£7,000	HRA (including proportional recovery from long leaseholders)
	Works (installation of scaffolding & debris netting) & continued scaffold hire up to Gateway 5	Health & Safety	£17,839	HRA (including proportional recovery from long leaseholders)
	Total		£35,839	