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Committees: Housing Management and Almshouses Sub Committee Projects Sub	Dates: 16 September 2019 20 September 2019
Subject: Fire Safety Doors - Great Arthur House Unique Project Identifier: 11983	Gateway 3/4: Options Appraisal (Regular)
Report of: Director of Community & Children's Services Report Author: Jason Crawford	For Decision
<h1>PUBLIC</h1>	

1. Status update	<p>Project Description: Replacement of front doors to meet statutory requirements for fire safety as laid out in Part B of the Buildings Regulations 2010. The scope of this project has been expanded to include the replacement of all panel compartmentation surrounding the front doors, replacement of internal/external common area fire doors and internal fire escape doors to achieve compartmentation requirements.</p> <p>Due to listed building consents and bespoke nature of the works we will be looking to install FD30 (30 minute) rated fire doors.</p> <p>RAG Status: Green (Green at last report to Committee)</p> <p>Risk Status: Low (Low at last report to committee)</p> <p>Total Estimated Cost of Project (excluding risk): £1,993,000</p> <p>Change in Total Estimated Cost of Project (excluding risk): Increase of £1,318,000 since last report to Committee</p> <p>Spend to Date: £6,000 (£1,250 Architect fees, £750 compliance tests & £4,000 staff fees)</p> <p>Costed Risk Provision Utilised: n/a</p> <p>Slippage: Following the Gateway 1-2 report a Fire Safety Review (FSR) was undertaken by Frankhams, our specialist fire safety consultant. We also undertook destructive testing to one of the existing door sets. The scope has been adjusted to</p>
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	incorporate additional works, outlined in more detail under section 4.
<p>2. Next steps and requested decisions</p>	<p>Next Gateway: Gateway 5: Authority to Start Work</p> <p>Next Steps:</p> <ul style="list-style-type: none"> • Gateway 3/4 - September 2019 • Tender/appoint design team – November 2019 • Interim Design – January 2020 • Manufacture & Interim Installation – May 2020 • Removal & Destructive Testing – July 2020 • Review / Final Design – September 2020 • Destructive testing / Final Planning Approval – December 2020 • Tender for works – February 2021 • Gateway 5 – April 2021 • Start on site – June 2021 <p>Requested Decisions:</p> <ol style="list-style-type: none"> 1. Committee is asked to note that the above timelines are estimates based on the assumption that the works will be considered as improvements and there will be no recharge to leaseholders; 2. Committee is asked to give authority to proceed (unless told otherwise) on the assumption that the works, as per advice from counsel, are considered as improvements and cannot be recharged to long leaseholders; 3. Committee is asked to approve the increased scope of works; 4. Committee is asked to approve the appointment of a design team and fire safety consultant to assess the increased scope of works required to achieve full compartmentation and fire stopping; 5. Committee is asked to approve the additional budget of £119,000 to reach next Gateway stage. This covers additional design stage testing related to the increased scope, design fees, and works associated with temporary installations to reach the next Gateway; 6. Committee is asked to note the revised project budget (works) of £1,856,000 (excluding risk); 7. Committee is asked to note the total estimated cost of the project at £1,993,000 (including spend to date, additional consultancy fees & staff costs / risk not included); 8. That Option 1 is approved. Replacement of front doorsets and frames, fanlights, all panel compartmentation, internal and external common area fire doors as well as internal fire escape doors within the individual properties.

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<p>3. Resource requirements to reach next Gateway</p>	<p><i>For recommended option 1:</i></p> <table border="1" data-bbox="528 421 1390 1357"> <thead> <tr> <th data-bbox="528 421 762 562">Item</th> <th data-bbox="762 421 1007 562">Reason</th> <th data-bbox="1007 421 1198 562">Funds/ Source of Funding</th> <th data-bbox="1198 421 1390 562">Cost (£)</th> </tr> </thead> <tbody> <tr> <td data-bbox="528 562 762 741">Works</td> <td data-bbox="762 562 1007 741">Temporary installations & destructive testing</td> <td data-bbox="1007 562 1198 741">HRA</td> <td data-bbox="1198 562 1390 741">£56,000</td> </tr> <tr> <td data-bbox="528 741 762 958">Fees</td> <td data-bbox="762 741 1007 958">Design fees, Principal Designer & Fire Consultant</td> <td data-bbox="1007 741 1198 958">HRA</td> <td data-bbox="1198 741 1390 958">£46,000</td> </tr> <tr> <td data-bbox="528 958 762 1285">Staff Time</td> <td data-bbox="762 958 1007 1285">To engage with and facilitate design, temporary installations and coordinate testing</td> <td data-bbox="1007 958 1198 1285">HRA</td> <td data-bbox="1198 958 1390 1285">£17,000</td> </tr> <tr> <td data-bbox="528 1285 762 1357">Total</td> <td data-bbox="762 1285 1007 1357"></td> <td data-bbox="1007 1285 1198 1357"></td> <td data-bbox="1198 1285 1390 1357">£119,000</td> </tr> </tbody> </table> <p>Costed Risk Provision requested for this Gateway: N/A (however a Risk Register has been included at Appendix 2).</p> <p>At the moment there is a pending payment of £750 for compliance testing to be processed. This is a payment to be offset against the existing budget from Gateway 1/2. Once this payment is processed the remaining unspent budget can be set to zero</p>	Item	Reason	Funds/ Source of Funding	Cost (£)	Works	Temporary installations & destructive testing	HRA	£56,000	Fees	Design fees, Principal Designer & Fire Consultant	HRA	£46,000	Staff Time	To engage with and facilitate design, temporary installations and coordinate testing	HRA	£17,000	Total			£119,000
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Total			£119,000																		
<p>4. Overview of project options</p>	<p>In the Gateway 1-2 report approved by Corporate Project Board in January 2018 and Project Sub-committee in February 2018, the original scope was to replace the front door sets, including top window lights and all associated door furniture (hinges, door closers etc) with FD60 (60 minute) rated door-sets, at an estimated cost of £675,000.</p>																				

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	<p>The original estimate has been reviewed to incorporate some of the additional measures recommended following the Fire Safety Review which was undertaken after the original Gateway 1/2 report was approved.</p> <p>In April 2018 a report entitled Fire Safety Review – HRA Properties was submitted to Community and Children’s Services Committee. The report highlighted several relevant matters which are summarised as follows:</p> <ul style="list-style-type: none">• Vast majority of front entrance doors are as originally installed and are expected to provide notional 15 to 20 minutes fire resistance• A small number of front entrance doors were identified to be sent away for destructive fire resistance testing, and that the average resistance on the doors tested at the time was 16 minutes• Leaseholder recharges – Counsel’s advice was sought on the issue of being able to recharge leaseholders for fire safety improvement works. The advice received was that the works could not be recharged. As such, for the purpose of this report there is no provision made forthwith regarding recharging leaseholders.• Furthermore, no provision has been made in the timelines to accommodate the time required to undertake leaseholder Section 20 consultations, which would normally be undertaken where there is a recharge to leaseholders.• Frankhams reported that, although not as serious as first thought, there are issues with compartmentation at Great Arthur House.• The report also highlighted that as a result of the FRA carried out under the provisions of the Regulatory Reform (Fire Safety) Order 2005, deficiencies were highlighted in the structure of the building undermining the required level of compartmentation in relation to fire safety. In such cases, these deficiencies must be addressed and remedied, and it is no defence to argue that the building complied with the Building Regulations at the time it was built.• The report also referenced the works being undertaken as part of this project to undertake destructive resistance testing of front entrance doors, details of which are given below. <p>The above matters have been taken into account and considered within the context of the works being proposed as part of this project.</p>
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Destructive testing

In March 2019 we undertook the installation of a temporary door set to one property in Great Arthur House so that the existing door set could be removed and destructively tested to establish fire and smoke resistance.

Due to the backlog at UK test centres the door set was tested at a facility in Poland, which conforms to the same standards for testing and compliance as the facilities in the UK.

The tests are undertaken to establish both fire and smoke resistance and are normally terminated at the point of failure on fire breach or insulation failure.

As mentioned previously, the notional expectation is for door sets of this type and age to resist for 15 to 20 minutes, however in this instance the door set failed in under 5 minutes - point of failure being sustained flame (lasting more than 10 seconds) penetrating top of the glass pane.

Following the results of the testing we installed communal fire alarms as an immediate measure. We also undertook some interim works to upgrade the fanlights to a number of properties, however we have not been able to gain access to all.

In light of the above it is apparent that the amount of work required to achieve the full compartmentation (in line with the guidance in Approved Document B of Building Regulations) has to be given full consideration.

We are proposing to appoint a Design Team and a Fire Safety Consultant to establish whether the entire screen, including its hardwood framing may need to be removed and replaced as well as any additional fire stopping measures that may be required.

These additional works will also require the removal and reinstatement or re-siting of gas and electric Meters, as well as a design solution to the current ventilation of the gas service pipes, as these form an integral feature of the existing screens and currently ventilate into the communal areas.

As such the original scope has now been expanded significantly and this report, as well as the cost estimations is based on the assumption that we need to include the replacement of all panel compartmentation, replacement of internal and external common area fire doors as well as internal fire escape doors.

Having engaged with Planning and undertaken advice on requirements of Listed Building Consent we have established that we are unable to accommodate FD60 rated fire doors due to the sizes of the door profiles on the FD60 door sets.

As such, we are now looking to install FD30 rated door sets. A Design Team and Fire Consultant will be appointed to fully assess the current compartmentation and compliance with fire

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	<p>stopping requirements as well as to recommend additional fire stopping works that may be required to achieve compliance and ensure the safety of our residents.</p> <p>Milestones have been reviewed to take into account the requirement to re-design, achieve planning and listed building consent on the new designs, and undertaking destructive testing of both the existing and proposed new designs before tendering for the works.</p> <p>Option 1: As per option 2 but in order to achieve full compartmentation this has been expanded to include the internal communal doors as well as the doors and associated glazing on the communal doors leading to the stairwells.</p> <p>Furthermore, we are looking at the need to replace the internal fire escape doors as well as allowing for compartmentation of the walls separating the flats from common corridors, which necessitates replacement of the entire screen between the flats, including its hardwood framing.</p> <p>We have incorporated the requirement for all the additional works on the assumption that they will be required to achieve full compartmentations and compliance with Fire Safety. However, by appointing a fire Safety Consultant post Gateway 3/4 we will ascertain which of these works are actually required to achieve statutory compliance. Any works that aren't required will be omitted when we go out to procure the works and final costs will be submitted at Gateway 5.</p> <p>Option 2: The original approach was to consider the replacement of front doors, including additional works to counter sink the raised door thresholds, replacing side and top window lights and the adjacent wall panels in order to meet statutory requirements and compliance with Fire Safety as laid out in Part B of the Buildings Regulations 2010. These works remain a requirement, but a desktop review has been undertaken by the Asset programme manager and project Manager (Delivery) to include the additional fire stopping works and re-assess the original estimates that were provided at Gateway 1/2.</p>
<p>5. Recommended option</p>	<p>Option 1 is recommended because it allows for complete compartmentation, enhanced statutory compliance and greatly increased safety for residents.</p> <ul style="list-style-type: none"> • Greater compliance with Building Regulations Approved Document B Fire Safety.

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	<ul style="list-style-type: none"> • Better accessibility for residents in compliance with Equality Act 2010. • Improved security, acoustics and thermal efficiency. • Fully addresses the lack of compartmentation leading to a significant increase in the level of fire safety / protection for residents. • Along with the works already undertaken we are mitigating multiple risks and significantly improving the overall safety. • Potential costs savings – economies of scale.
6. Risk	<p>Although a risk register has been included there is no costed risk provision.</p> <p>The overarching risk is that we don't meet statutory compliance and let monetary concerns override the safety of residents. The approach we're taking is to assume all additional works are required at this stage. We will appoint a Design Team & Fire Safety Consultant to fully assess, in detail what works are required and omit any unnecessary works before we go out to tender.</p> <p>Costed Risk Provision Utilised at Last Gateway: N/A</p> <p>Change in Costed Risk: N/A</p>
7. Procurement approach	Procurement consultation has been undertaken and advice received as per the attached PT4 report at Appendix 3.

Appendices

Appendix 1	Project Coversheet
Appendix 2	Risk Register (for recommended option)
Appendix 3	PT4 Procurement Form

Contact

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Options Appraisal Matrix

Option Summary	Option 1	Option 2
1. Brief description of option	Replacement of front doors to meet statutory requirements as laid out in Part B of the Buildings Regulations 2010. This has now been expanded to include replacement of all panel compartmentation and replacement of internal/external common area fire doors as well as individual fire escape doors.	Replacement of front doors to meet statutory requirements as laid out in Part B of the Buildings Regulations 2010. Panel compartmentation and internal and external common area fire doors to be replaced at another time.
2. Scope and exclusions	<ul style="list-style-type: none"> • Replacement of 120 front doors with 30 minute fire doors. • Replacement of all panel compartmentation. • Replacement of internal and external common area fire doors. 	<ul style="list-style-type: none"> • Replacement of 120 front doors with 30 minute fire doors. <p><u>Exclusions:</u></p> <ul style="list-style-type: none"> • Replacement of all panel compartmentation. • Replacement of internal and external common area fire doors. • Replacement of individual fire escape doors.
Project Planning		
3. Programme and key dates	<ul style="list-style-type: none"> • Gateway 3/4 - September 2019 • Tender/appoint design team – November 2019 • Interim Design – January 2020 • Manufacture & Interim Installation – May 2020 • Removal & Destructive Testing – July 2020 	<ul style="list-style-type: none"> • Gateway 3/4 - September 2019 • Tender/appoint design team – November 2019 • Interim Design – January 2020 • Manufacture & Interim Installation – May 2020 • Removal & Destructive Testing – July 2020 • Review / Final Design – September 2020

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	<ul style="list-style-type: none"> • Review / Final Design – September 2020 • Destructive testing / Final Planning Approval – December 2020 • Tender for works – February 2021 • Gateway 5 – April 2021 • Start on site – June 2021 	<ul style="list-style-type: none"> • Destructive testing / Final Planning Approval – December 2020 • Tender for works – February 2021 • Gateway 5 – April 2021 • Start on site – June 2021
4. Risk implications	<p>Overall project option risk: Low</p> <ul style="list-style-type: none"> • By addressing all of the compartmentation and fire stopping issues we're reducing the overall risk. • By addressing these as a single contract we mitigate the risk of adding further cost if these are addressed through a separate procurement at a later date. 	<p>Overall project option risk: Low</p> <ul style="list-style-type: none"> • By not addressing all of the compartmentation and fire stopping issues we may be deemed to be putting residents at risk. • By not addressing these as a single contract we risk potentially adding further cost if these are addressed through a separate procurement at a later date.
5. Stakeholders and consultees	Residents, Departments of Community and Children's Services, City Surveyor's, Town Clerks and Chamberlain's (including CLPS). City of London Building Control and Planning Department, Heritage England.	Residents, Departments of Community and Children's Services, City Surveyor's, Town Clerks and Chamberlain's (including CLPS). City of London Building Control and Planning Department, Heritage England.
6. Benefits of option	<ul style="list-style-type: none"> • Greater compliance with Building Regulations Approved Document B Fire Safety. • Better accessibility for residents in compliance with Equality Act 2010. • Improved security, acoustics and thermal efficiency. 	<ul style="list-style-type: none"> • Lower overall cost £839,000 • Part compliance with Building Regulations Approved Document B Fire Safety. • Better accessibility for residents in compliance with Equality Act 2010. • Improved security, and partially improved acoustics and thermal efficiency.

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	<ul style="list-style-type: none"> • Fully addresses the lack of compartmentation leading to a significant increase in the level of fire safety / protection for residents. • Along with the works already undertaken we are mitigating multiple risks and significantly improving the overall safety. • Cost savings through economies of scale & procuring works under one contract. 	
<p>7. Disbenefits of option</p>	<ul style="list-style-type: none"> • Higher overall cost £1,993,000 • Higher levels of disruption for residents. • Need to re-site gas & electric meters. 	<ul style="list-style-type: none"> • Does not address the lack of compartmentation leading to a significant impact in the level of fire safety / protection for residents. • Does not feed into a cohesive strategy to address/mitigate multiple risks. • Works will still need to be procured at a later date. • Potential of increased costs through not procuring all works as one contract. • Additional staff / committee member time required if the works are all procured separately.

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Resource Implications																						
8. Total estimated cost	Total estimated cost of recommended option 1: £1,993,000 (no costed risk provision).																					
	<table border="1"> <thead> <tr> <th>TOTAL COST</th> <th>Option 1</th> <th>Option 2</th> </tr> </thead> <tbody> <tr> <td>Works</td> <td>£1,856,000.00</td> <td>£745,000.00</td> </tr> <tr> <td>Consultancy</td> <td>£90,000.00</td> <td>£47,000.00</td> </tr> <tr> <td>Spend to date (architect fee £1250 / compliance testing £750))</td> <td>£2,000.00</td> <td>£2,000.00</td> </tr> <tr> <td>Staff Costs</td> <td>£41,000.00</td> <td>£41,000.00</td> </tr> <tr> <td>Spend to date</td> <td>£4,000.00</td> <td>£4,000.00</td> </tr> <tr> <td>GRAND TOT</td> <td>£1,993,000.00</td> <td>£839,000.00</td> </tr> </tbody> </table> <p>The estimates for works and staff fees are based on a desk top exercise undertaken by the Asset Programme Manager and Project Manager. Consultancy fees have been estimated using quotes received currently.</p> <p>The estimates from G1/2 have been updated in the table above, to reflect some of the additional recommendations (fire stopping etc) highlighted following the Fire Risk Assessments undertaken by Frankhams.</p> <p>There is a pending payment of £750 to be processed and offset against the remaining budgets from Gateway 1/2. Once this payment has been processed the remaining un-spent budget can fall away.</p>		TOTAL COST	Option 1	Option 2	Works	£1,856,000.00	£745,000.00	Consultancy	£90,000.00	£47,000.00	Spend to date (architect fee £1250 / compliance testing £750))	£2,000.00	£2,000.00	Staff Costs	£41,000.00	£41,000.00	Spend to date	£4,000.00	£4,000.00	GRAND TOT	£1,993,000.00
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GRAND TOT	£1,993,000.00	£839,000.00																				
9. Funding strategy	Housing Revenue Account & assumption is that these are improvements so no contributions from leaseholders through service charge recovery.	Housing Revenue Account & assumption is that these are improvements so no contributions from leaseholders through service charge recovery.																				

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10. Investment appraisal	(Option 1) The costs of reactive, one-off replacements are up to 20% higher than replacing as part of a planned project, due to economies of scale in larger projects. As such, it is considered a sounder investment approach to procure and deliver at a fixed price via a contracted programme of works rather than reactive works.	
11. Estimated capital value/return	N/A There is no estimated capital return and as it's being considered as an improvement there is likely to be no return through leaseholder contributions.	
12. Ongoing revenue implications	The responsive repairs and maintenance budget will resume responsibility for these assets following the completion of the works and lapsing of the guarantee period. The responsive repairs budget will benefit from savings as fewer repairs will be required to the replaced installations.	The responsive repairs and maintenance budget will resume responsibility for these assets following the completion of the works and lapsing of the guarantee period. The responsive repairs budget will benefit from savings as fewer repairs will be required to the replaced installations.
13. Affordability	This approach of procuring the works and addressing all compartmentation issues as one contract is considered not only more commercially viable but as a better approach to ensuring the overall safety of residents by undertaking the works as a single contract.	The approach of procuring the original scope of works as laid out in the original Gateway 1/2 (incorporating some of the additional items highlighted by Frankhams) will keep the overall cost down but is not as commercially sound, and costs should not override safety of residents.
14. Legal implications	<ul style="list-style-type: none"> • Need to ensure statutory compliance with Building Regulations Approved Document B Fire Safety. • Fully meets the above and further addresses wider compartmentation and fire safety issues. 	<ul style="list-style-type: none"> • Need to ensure statutory compliance with Building Regulations Approved Document B Fire Safety. • Only partially meets the above.

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15. Corporate property implications	It is important that the City's assets remain in good, safe and statutorily-compliant condition. Therefore, all necessary action should be taken to ensure that assets are kept as such throughout the assets' lifetime.	It is important that the City's assets remain in good, safe and statutorily-compliant condition. Therefore, all necessary action should be taken to ensure that assets are kept as such throughout the assets' lifetime.
16. Traffic implications	These are not anticipated; however, any traffic implications would be negotiated with the works contractor(s) at the pre-contract and pre-start stages.	These are not anticipated; however, any traffic implications would be negotiated with the works contractor(s) at the pre-contract and pre-start stages.
17. Sustainability and energy implications	<ul style="list-style-type: none"> • The works should help to improve the energy efficiency of the dwellings and should help residents reduce their own domestic fuel costs. • Better accessibility for residents in compliance with Equality Act 2010. • Improved security, acoustics and thermal efficiency. 	<ul style="list-style-type: none"> • The works should help to improve, to a lesser extent, the energy efficiency of the dwellings and should help residents reduce their own domestic fuel costs. • Better accessibility for residents in compliance with Equality Act 2010. • Improved security, and (to a lesser extent) acoustics and thermal efficiency.
18. IS implications	N/A	N/A
19. Equality Impact Assessment	(Option 1) N/A – we are not changing the design or dimensions and therefore there is no negative impact on accessibility. We are looking to replicate the existing design, using materials that will enable full compliance with Building regulations approved document B, at the same time improving security (secure by design), thermal comfort and acoustics.	
20. Data Protection Impact Assessment	N/A	N/A

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21. Recommendation	Recommended	Not recommended
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