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Committees: Corporate Projects Board - for decision Project Sub Committee – for decision Planning and Transportation Committee - for decision	Dates: 26 August 2020 15 September 2020 06 October 2020
Subject: London Wall Car Park – Ventilation, Electrical, Fire Alarm and Sprinkler Works (Ref – CS 295/20) Unique Project Identifier: <i>PV ID: 12227</i>	Gateway 2: Project Proposal Regular
Report of: City Surveyor Report Author: Jessica Lees	For Decision
<h1>PUBLIC</h1>	

Recommendations

1. Next steps and requested decisions	<p>Project Description: <i>This project will install a new ventilation system, upgrade the power supply, replace the current electrical installation to bring this up to compliant standards, including replacing the lighting and sprinkler system, and installing a carbon monoxide and fire detection system at London Wall Car Park.</i></p> <p>Next Gateway: Gateway 3/4 - Options Appraisal (Regular)</p> <p>Next Steps: <i>To get a detailed survey to provide options at gateway 3/4</i></p> <p>Requested Decisions:</p> <ol style="list-style-type: none"> 1. That budget of £240,000 is approved to carry out enabling works, including an upgrade of electrical supply and more detailed surveys to prepare the M&E design and tender documents to reach the next Gateway; 2. Note the total estimated cost of the project of £1,155,000 (excluding risk);
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	<p>3. Note that there is a Costed Risk of £260,000 (post-mitigation)</p> <p>4. Note that the total estimated cost of the project of £1,415,000 (including risk);</p> <p>5. Note that an element of funding for this project was approved 'in principal' by from the Resource Allocation Sub Committee, with draw down subject to further approval at the next gateway.</p>			
2. Resource requirements to reach next Gateway	Item	Reason	Funds/ Source of Funding	Cost (£)
	UKPN	Upgrade of the electrical supply	CWP - R089CW001 L - London Wall Car Park Ventilation and extract system works	£25,000
	Consultant services engineer	To carry out surveys and prepare detailed M&E design and tender documents	CWP - R089CW001 L - London Wall Car Park Ventilation and extract system works	£60,000
	R&D asbestos survey	Survey to locate and identify all asbestos-containing materials (ACMs)	CWP - R089CW001 L - London Wall Car Park Ventilation and extract system works	£15,000
	Asbestos removal	To remove ACMs before work commencement	CWP - R089CW001 L - London Wall Car Park Ventilation and extract system works	£50,000
	Smoke stimulation	To carry out a CFD analysis	Additional resources for	£25,000

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			City Fund properties*	
	Fire risk consultant	To review fire risks identified against highway structure	Additional resources for City Fund properties*	£25,000
	Structural consultant	To review fire risks identified against highway structure	Additional resources for City Fund properties*	£20,000
	CDM advisor	To meet health and safety duties	Additional resources for City Fund properties*	£10,000
	Other	Planning/ building control	Additional resources for City Fund properties*	£5,000
	Staff costs	Project management	Additional resources for City Fund properties*	£5,000
	Total			£240,000
<i>*Report of the Chamberlain dated 02/05/2019 – Cyclical Works Programme (CWP) and Additional Resources for City Fund Properties – Request for Funding for 2019/2020</i>				
3. Governance arrangements	<ul style="list-style-type: none"> • Planning and Transportation • Ian Hughes, Assistant Director, Highways • A project board is not required as this is a regular project and works are not considered complex or to impact on a high number of stakeholders • The project will be progressed by the City Surveyor's Department (CSD) in conjunction with the Department of Built Environment. • CSD Project Manager - Carmel McGowan, Senior Principal Engineer 			

Project Summary

<p>4. Context</p>	<p>4.1 The electrical installation is in a poor condition and requires urgent attention.</p> <p>4.2 A recent fire risk assessment identified that extensive work is required to the ventilation, fire alarm and sprinkler systems.</p> <p>4.3 Ventilation of car parks is recommended in order to limit concentrations of carbon monoxide (CO) and other vehicle emissions in the day-to-day use of car parks and to remove smoke and heat in the event of a fire.</p> <p>4.4 The existing ventilation system is no longer operational, the fans are obsolete, it is critical that ventilation is reinstated to control the amount of potentially harmful airborne pollutants present in the car park.</p> <p>4.5 There is no means to dissipate heat and smoke and the current state of the car park facilities could be considered a Health and Safety at Work Act contravention.</p> <p>4.6 There are 6 No electric vehicle charging points installed in the carpark. They are considered to be a high risk as the ventilation system is not operational and there is no way to remove fumes and smoke in the event of a battery fire.</p> <p>4.7 Currently it is not possible to quickly isolate electrical supplies to battery charging units in the event of an emergency.</p> <p>4.8 The existing fire alarm and sprinkler systems are unable to respond rapidly to an electric vehicle fire.</p> <p>4.9 The work identified is in line with the forward maintenance plan for the property.</p>
<p>5. Brief description of project</p>	<p>5.1 The project will upgrade the electrical supply, install a new ventilation system, sprinklers, and a carbon monoxide and fire detection systems in the car park.</p> <p>5.2 As the structure of the car park is a highway structure fire and structural consultants will be commissioned to ensure that the design addresses the necessary compliance required for this high risk.</p>

	<p>5.3 The current electrical installation will also be brought up to compliant standards by replacing the main LV panel and distribution boards and installing new containments and rewiring circuits. The current 200amp main electrical supply is not sufficient for what the site needs as 100amps has been diverted to the electric vehicle chargers, so UKPN will upgrade to 400amp. The existing circuits will be stripped out and replaced and new lighting will be installed.</p>
<p>6. Consequences if project not approved</p>	<p>6.1 If deferred, these systems will continue to be an increased risk that a fire would have significant consequences. Given the public awareness of the Grenfell Tower fire as well as the King's Dock car park fire next to the Echo Arena in Liverpool in 2017, there is a public expectation that local authorities are doing all they can to mitigate fire risk in their buildings</p> <p>6.2 The current installation does not comply with the City of London Guidance for electric vehicle charging.</p> <p>6.3 Current H&S issues identified would remain including poor ventilation in the car park exposing the City to the risk of legal challenges by not providing a safe environment.</p> <p>6.4 Local authorities are required to ensure their premises are fundamentally safe and fit for purpose. The review of the Echo Arena fire highlighted the implications of a fire spreading rapidly from vehicle to vehicle & floor to floor, accelerated by the failure of plastic fuel tanks. This re-emphasised the need for effective sprinkler systems, ventilation and fire management procedures to underpin an integrated risk management plan.</p> <p>6.5 If the car park closed due to not meeting the required standards identified the City could lose a projected £772k per annum based upon 2020/21 forecast income.</p>
<p>7. SMART project objectives</p>	<p><i>What is the project required to achieve? Highlight a few objectives. These may be derived from your measures of success as described in your Project Briefing.</i></p> <ul style="list-style-type: none"> - <i>To ensure that there is a compliant ventilation system, fit for purpose with acceptable levels of carbon monoxide and other pollutants present</i> - <i>To increase fire safety with the installation of a new fire alarm and sprinkler system</i> - <i>To upgrade the power supply</i>

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	<ul style="list-style-type: none"> - <i>To deliver compliant electrical installations with the adequate lighting, including emergency lighting</i>
8. Key benefits	<ul style="list-style-type: none"> - <i>To reduce energy charges associated to lighting as LED smart lighting would be installed</i> - <i>To reduce maintenance charges as the smart system does not require manual monthly PPMs</i>
9. Project category	1. Health and safety
10. Project priority	A. Essential
11. Notable exclusions	<i>11.1 Fire door replacements – this will be covered within the Fire Safety – Works in Car Parks Project which is due to go to committee for approval in October/ November. The reason for keeping this item separate is due to economies of scale with other works within the Works in Car Parks project scope.</i>

Options Appraisal

12. Overview of options	<p><u>Numbered list format</u></p> <p><i>Option1 – Closure of the car park due to not meeting the required standards identified and high risk to the public</i></p> <p><i>Option 2 Part retain and part replacement of the existing mechanical and electrical (M&E) services</i></p> <p><i>Option3 – Replace all of the M&E Services</i></p>
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Project Planning

13. Delivery period and key dates	<p>Overall project: <i>Eight months from start work on site/ estimated completion date April 2022</i></p> <p>The project briefing previously estimated a completion date of between June and August 2021, this was on the basis that the project would start on site between May – June 2020. Due to review of project scope and detailed survey requirements identified within this gateway 2, the start on site date is now estimated October 2021 with an estimated completion date of April 2022.</p>
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	Key dates:	
	Gateway 2 approval	September & October 2020
	Appoint consultant for survey and design	December 2020
	Instruct UKPN to upgrade electrical supply	December 2020
	Undertake asbestos R&D survey	December 2020
	Gateway 3/4 report for approval	February 2021
	Finalise tender documents	March 2021
	Tender project	April 2021
	Tender return	June 2021
	Gateway 5 report for approval	July 2021
	Place order with contractor	September 2021
	Start work on site	October 2021
	Project completion	April 2022
	Other works dates to coordinate: <i>these works are likely to coincide with the fire door replacement works as part of the car park fire mitigation project due to committee later this year. We do not envisage works to impact upon one another.</i>	
14. Risk implications	Overall project risk: Low <i>Project risk is low as at early stages of the gateway process.</i> The overall project risk may change once detailed surveys are carried out as part of the gateway 2. Please note the current total costed risk (post-mitigation) for the project of £260,000 Further information available within the Risk Register (Appendix 2).	

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15. Stakeholders and consultees	15.1 Department of Built Environment (DBE) – Highways, including Kieran McKay 15.2 DBE District Surveyors – Paul Monaghan and Gordon Roy 15.3 Terence Short – Fire Officer, CSD 15.4 DBE parking contractor – SABA
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Resource Implications

16. Total estimated cost	Likely cost range (excluding risk): £1,030,000 - £2,000,000 Likely cost range (including risk): £1,415,000 - £2,000,000 <i>The upper cost range has been kept at £2m due to some uncertainty of scope of works; the necessary detailed surveys will be carried out as part of gateway 2. This will be adjusted at the next gateway stage.</i>											
17. Funding strategy	Choose 1: Partial funding confirmed	Choose 1: Internal - Funded wholly by City's own resource										
	<table><tr><th>Funds/Sources of Funding</th><th>Cost (£)</th></tr><tr><td>Additional resources for City Fund properties</td><td>£572,000</td></tr><tr><td>CWP - R089CW001L - London Wall Car Park Ventilation and extract system works*</td><td>£152,000</td></tr><tr><td>On street parking Reserve**</td><td>£431,000</td></tr><tr><td>Total</td><td>£1,155,000</td></tr></table>		Funds/Sources of Funding	Cost (£)	Additional resources for City Fund properties	£572,000	CWP - R089CW001L - London Wall Car Park Ventilation and extract system works*	£152,000	On street parking Reserve**	£431,000	Total	£1,155,000
	Funds/Sources of Funding	Cost (£)										
	Additional resources for City Fund properties	£572,000										
	CWP - R089CW001L - London Wall Car Park Ventilation and extract system works*	£152,000										
	On street parking Reserve**	£431,000										
	Total	£1,155,000										
<i>*This budget was approved as part of the 2018/19 CWP programme which now falls within the wider scope of this project. Therefore the funding will be reallocated from the CWP programme to this project.</i>												
<i>**'In principle' funding was approved by Resource Allocation Sub and Policy and Resources Committees in December 2019 as part of the 2020/21 annual capital bid round. Further approval of RASC and P&R to draw down these funds will be required following approval of the relevant gateway reports.</i>												
18. Investment appraisal	Annual loss of income if the Car Park was to close is £772k (based on 2020/21 forecast income)											

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19. Procurement strategy/route to market	<p><i>The procurement of the Consultants will be run in line with the City of London's procurement code and liaising with the City Procurement Team.</i></p> <p><i>The works for this project proposed at the next gateway, will at this time be run via the Internal Intermediate Works Framework as a competition to all parties.</i></p>
20. Legal implications	None
21. Corporate property implications	<i>No direct implications. This project is in support of the management plan for this incoming generating asset.</i>
22. Traffic implications	<i>Parking bays will need to temporarily be closed off to enable plant replacement above</i>
23. Sustainability and energy implications	<p><i>The project is to replace lighting with LED smart lighting and CO controlled ventilation which is in line with best practice.</i></p> <p><i>The Corporate Energy Team should be further consulted during the design and specification drafting stage.</i></p>
24. IS implications	None
25. Equality Impact Assessment	<ul style="list-style-type: none"> <i>An equality impact assessment will not be undertaken</i>
26. Data Protection Impact Assessment	<ul style="list-style-type: none"> <i>The risk to personal data is less than high or non-applicable and a data protection impact assessment will not be undertaken</i>

Appendices

Appendix 1	Project Briefing
Appendix 2	Risk Register
Appendix 3	

Contact

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