

Committee(s):	Date(s):	
Project Sub-committee	2nd April 2014	
Subject: Options Appraisal - Extending Burial Space at the City of London Cemetery (The Shoot)	Public	
Report of: Director of Open Spaces	For Decision	

Summary

Dashboard

- Project Status: Green
- Timeline indicating the stage at which the project is: Subject to G3/4 approval and determination of planning application in July 2014; delegated G5 approval by end July 2014; major levelling works to be completed by end of 2015 to allow 5 years of soil settlement and consolidation in advance of site being available for interments by end of 2020. Other landscape works such as planting to take place before end of 2016.
- Total Estimated Cost: £504k +/- 15%
- Spend to Date: £23k
- Overall project risk: Medium

Context

The City of London Cemetery has been open since 1856 and it is estimated there is now less than 10 years of space left for new lawn graves, which are the most popular choice by the public. New grave and burial income is vital to sustaining the service for the public and lawn graves have produced, on average, an income of £700k pa over the last 5 years, approximately half the income from burial.

Significant efforts have been made to maximise the life of the cemetery through a number of initiatives. However it is anticipated that there will be a gap in the availability of space for lawn graves between the existing unused space running out and the availability of lawn grave space through reuse in years to come.

There is an area in the Cemetery, known as 'the Shoot', which is potentially suitable for lawn burials but the land will need to be cleared, levelled and landscaped to bring it into use in order to help bridge the gap. This area could provide over 10 years of additional space for new lawn burials, therefore providing much needed burial space for the medium term.

Brief description of project

The self-contained 'shoot area' was previously used for the storage and disposal of spoil from grave digging and cemetery waste (now stored elsewhere within the cemetery). The area is 4 acres in size and has not been used for burial previously. The aim of the project is to produce approximately 3,000 additional lawn graves which will provide further lawn burial space for more than 10 years beyond the current availability.

The works will include the clearance of the site, level changes and landscaping with the introduction of pathways and planting. From the completion of landscaping works, it is estimated that 5 years of settlement would be required prior to the commencement of burials at 'the Shoot', in keeping with industry best practice.

Options

City officers have worked closely with specialist consultants to develop options for the Shoot based on detailed site investigation work and risk assessment based on Environment Agency methodology, landscape design considerations and the business requirements of the Cemetery. Three options were identified.

Description	Option 1 £	Option 2 £	Option 3 £
Works Costs	470,200	570,200	827,000
Fees	34,300	34,300	34,300
Staff Costs	0	0	0
Total	504,500	604,500	861,300
Tolerance +/-	15% related to the risk of unforeseen underground conditions and regulatory compliance regarding waste material	15% related to the risk of unforeseen underground conditions and regulatory compliance regarding waste material	15% related to the risk of unforeseen underground conditions and regulatory compliance regarding waste material
Funding Strategy			
Local risk budget	34,300	76,500	192,300
Cemetery and Crematorium Reserve Fund (currently £528k)	470,200	528,000	528,000
City Fund			141,000
Total Funding Requirement	504,500	604,500	861,300

NB Full details of all of the options are available in paragraph 10 below.

Recommendations

Option recommended to develop to next Gateway

It is recommended that Option 1 is approved for City officers to develop to Gateway 5 subject to planning approval by the London Borough of Newham. In the event that the Environment Agency insisted on additional works to the culvert running under the site, Option 2 is recommended as a reserve option to be developed to Gateway 5.

Next Steps

Gateway 5 delegated approval in July subject to planning approval;

Tendering of works in early autumn 2014;
Major ground works (levelling and screening) to be completed by end of 2015;
Other landscaping works (planting, etc.) to be completed before end 2016;
Ground to be left to settle and consolidate until 2020, ready for interments.

Resource requirements to reach next Gateway and source of funding

£11,700 for fees to be funded from the Cemetery and Crematorium's existing local risk budget to bring the project to Gateway 5. The amount of officer time required is not significant and will be achieved from existing local risk budget.

Plans for consultation prior to the next Gateway report

Consultations will be held with the Environment Agency as a statutory consultee and further consultation will take place with the London Borough of Newham as part of the planning application process.

Procurement strategy

The recommended procurement strategy for the works is to invite tenders from suitable contractors in consultation with CLPS.

Tolerances

The budget tolerance is +/- 15% related to the risk of unforeseen underground conditions.

Overview

1. Evidence of Need

The City of London Cemetery provides burial services to communities in many London boroughs and there is a critical shortage of burial space across London as a whole.

There is now less than 10 years of space left for new lawn graves in the Cemetery. These are the most popular choice by the public and although grave re-use is being piloted at the cemetery, it is anticipated that lawn graves will next be available for reuse in 35 to 40 years' time.

A 4 acre site in the City of London Cemetery, known as the Shoot, was previously used for the storage and disposal of spoil from grave digging and cemetery waste. The material is currently piled up in large mounds on the site. The area has never been used for burials. A location plan is included as Appendix 1 and photograph of the site are at Appendix 2.

The aim of the project is to produce 3,000 additional lawn graves which will provide lawn burial space for more than an additional 10 years beyond the current availability.

Burial income for the Cemetery and Crematorium service currently delivers in excess of £1.5M per annum

	<p>which will be reduced by almost 50% if new lawn burial space is not realised.</p>
<p>2. Success Criteria</p>	<p>Obtaining all necessary planning consents for the site to become a lawn burial area.</p> <p>Clearance and disposal of all unwanted materials, the landscaping and levelling of the site by December 2015 and the creation of all paths, drainage and planted areas by December 2016.</p> <p>Availability of 'The Shoot' for burials in December 2020 following a 5 year settlement period post completion of the landscaping works.</p> <p>Project delivered within budget.</p> <p>The Cemetery maintains Grade I listed landscape English Heritage status.</p>
<p>3. Project Scope and Exclusions</p>	<p>The project proposes:</p> <ul style="list-style-type: none"> • Clearance of the existing site and disposal of unwanted material. • Partial screening and sorting of the remaining material and remodelling of the existing spoil heaps. • Landscaping and planting of the site to integrate it with the English Heritage Grade I listed Cemetery. • Improvement of access in and around the site. • Extension of the water supply for the benefit of visitors to the site. • Creation of an additional access chamber to a culvert which runs under the site in order to facilitate any future works to the culvert. • Extensive site investigations to determine the suitability of the site to inter up to 6,000 bodies. <p>The laying of memorial foundations or memorials will not form part of this project.</p> <p>A long term (greater than 20 years) burial plan will not be considered within this project.</p>
<p>4. Link to Strategic Aims</p>	<p>This Project links to the City's Strategic Aim: To provide valued services to London and the nation.</p> <p>The site is the major burial provider for the local boroughs as well as the City of London and beyond, but this service is threatened by a future lack of affordable burial space. This project aims to ensure burial provision for a further ten to fifteen years, beyond the</p>

	<p>current 10 year supply, therefore providing a potential of 20 to 25 years in total.</p> <p>In addition through enhancing an English Heritage Grade I listed landscape it supports the City Together Strategic Theme of providing a World Class City which protects, promotes and enhances our environment.</p>
5. Within which category does the project fit	Income generating
6. What is the priority of the project?	Essential
7. Governance arrangements	A Project Board was set up and has met on a regular basis through the development of this project.
8. Resources Expended To Date	£22,600 has been spent on fees, funded from the Cemetery's local risk budget. As well as design work this has included extensive site investigations and testing necessary to determine the suitability of the site for burials. The remainder of the £34,300 fees will be required to progress the project to Gateway 5.
9. Results of stakeholder consultation to date	<p>Consultations have been held with English Heritage (EH) and pre-application discussions have been had with LB Newham.</p> <p>The Cemetery has a Conservation Management Plan in place since 2004 (revised 2010). During consultations for that document EH noted the negative impact of the Shoot, an extensive site for storing materials, in the middle of the Cemetery's Grade I listed landscape. Recent consultations with EH have been very positive and they are happy to support the proposals as an appropriate use of the land. They raised suggestions about strengthening the relationship of the proposed design with the surrounding Cemetery landscape and their comments will be fed into the design process leading to Gateway 5. EH will be formally consulted by LB Newham as part of the planning application process.</p> <p>Pre-application discussions have been held with officers of the LB Newham as a planning application is required on the basis of Operational Development. They were positive about the proposals but advised they would have to consider the requirement for Environment Agency consultation.</p>
10. Commentary on the options considered	<p><u>Option 1</u></p> <p>The existing vegetation on site is to be cleared and removed. Levelling of the mounds will be carried out and all the spoil material will be re-used in the ground</p>

modelling. As the material is placed the lower levels will be compacted. The upper levels will be screened to approximately 2.3m depth to remove larger inclusions, and compacted as they are installed. Embankments, typically around the edge of the site, will be processed and compacted to their full height to ensure slope stability. Finer selected screened material will be used for topsoil formation of the upper 200mm. Larger arisings will be incorporated into the landform at depth, below the burial zone.

Formation of pathways and planting will follow in accordance with the landscape design, with plants and trees selected in keeping with the Conservation Management Plan for the Cemetery. The soft landscaping works would be carried out incrementally by in-house staff.

The ground will be allowed to settle and consolidate for 5 years after the works which will assist in providing suitable ground conditions in which to dig graves safely. However shoring of the diggings may be required to assist in the safe operation of grave digging. As the major part of the Cemetery lies on sand and gravel soils Cemetery staff already carry out shoring techniques to safely excavate graves and this is an accepted operational requirement.

Option 2

The same as Option 1 but also includes re-lining the brick drainage culvert which runs under the Shoot. As an indicative price, re-lining the culvert as part of this project would cost up to £100k.

Option 2 could only be funded from the Cemetery & Crematorium Reserve Fund if significant amounts of the other necessary works (ground clearance, earthmoving, etc.) were carried out using in-house staff and equipment. Using Cemetery in-house staff and equipment is a fall-back which would have implications for the service and the time it would take to deliver the landscaping of the Shoot.

Given the cost, it is not recommended that re-lining the culvert is carried out at this time and would only be undertaken if re-lining was insisted upon by the Environment Agency.

The addition of the new access chamber, common to all three options, would facilitate re-lining of the culvert if required in the future.

Option 3

Clear vegetation from site. Carry out systematic

	<p>removal and extensive screening of all material to the full heights of the mounds. This would result in hard-core material separated out for re-use on footways and topsoil material for re-use. The bulk of the material would be re-laid in compacted layers systematically across the site to give ideal soil structural conditions for digging graves in the future. This would help reduce the operational need for shoring of the graves during excavations. Option 3 also includes additional drainage and footpath infrastructure and soft landscaping works to be carried out by the works contractor.</p> <p>This is the most expensive option, the main benefit of which is the creation of consistent and ideal digging conditions. However as indicated at Option 1 above the safety of grave digging can be readily managed through shoring techniques already in use in the Cemetery. This option is not recommended.</p>
<p>11. Consequences if project not approved</p>	<p>Without the proposed new burial area the Cemetery will cease to provide lawn burials by 2022, therefore reducing the income from burials by 50% and current service for the community and effectively ending its operational life.</p> <p>Whilst it is not a statutory requirement for a local authority to provide cemeteries, it is a requirement under the Local Authorities' Cemeteries Order 1977 for those which are provided and maintained by the burial authority to be kept in good order and repair and the stated reductions in income would mean that this cost would ultimately be transferred to the City Corporation and the City Fund.</p>

Information Common to All Options

<p>12. Key benefits</p>	<p>Landscaping of the Shoot, an area formerly used for storing waste material, will provide more than 10 years of additional lawn burial space beyond the current availability, thus ensuring the continuation of the operational life of the Cemetery.</p> <p>All the grave spoil and compostable material which is currently mounded on site will be utilised in the re-landscaped Shoot area thus avoiding costly disposal off site. Careful 3D modelling has resulted in a proposal which minimises steep banks and maintains shallow gradients which are accessible and maximises burial space across the site. This is in part achieved by having planted banks along some of the site perimeter which help integrate the site with the adjacent Birches nature reserve. The landscape layout is somewhat formal with</p>
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	<p>a central pathway and hedges and is in keeping with the listed landscape of the Cemetery.</p> <p>A plan of the proposed landscaping is included as Appendix 3.</p> <p>An Equalities Impact Assessment was carried out at Gateway 2 and indicated the project would have a neutral impact. This remains a valid assessment of the proposals.</p>
<p>13. Programme and key dates</p>	<p>Gateway 5 delegated approval would be sought in July 2014. This would be followed by tendering of contractor's works and implementation of the ground works before December 2015.</p> <p>The area would then be left to settle and consolidate for five years prior to use.</p>
<p>14. Constraints and assumptions</p>	<p>(1) Ground water contamination</p> <p>The consultant's site investigations were based on the requirements of the Environment Agency to carry out adequate assessments of the risk of contamination of ground water from the proposed burials on site. This included a review of previous reports commissioned by the City of London, historic mapping and environmental background information (geology, hydrology, etc.) followed up with trial pits across the site to confirm the content and depth of the material in the Shoot and the extent of underlying clay layers which act to impede contamination.</p> <p>The consultant established that the environmental risk is low with regard to groundwater contamination from burials on the site. This investigation will form part of the information supplied to determine the planning application.</p> <p>(2) <u>Brick culvert</u></p> <p>A brick culvert runs under the Shoot site and drains into the adjacent woodland reserve in the Cemetery known as the Birches, from where the water eventually joins the Roding River which flow to the east of the Cemetery. This culvert is located approximately 6m below ground and appears to be the termination of a historic drain which arises as an overflow to Alexandra Lake on Wanstead Flats to the west of the Cemetery. Consultant's advice is that the culvert life expectancy has been exceeded. It is proposed to carry out jetting and debris removal of the culvert within the site and create an additional access chamber to facilitate any maintenance works including re-lining of the culvert in</p>

	<p>the future. The proposed layout of the burial area has been designed to accommodate a construction trench of an appropriate width in case of future access requirements along the length of the culvert within the site. In the design this corridor is kept free of burials and will be utilised as a pathway following the east-west route of the culvert across the site.</p> <p>Care will be taken during the construction phase to ensure the culvert is not damaged.</p> <p>(3) <u>Material currently on site</u></p> <p>Laboratory chemical analysis was also carried out on samples taken from the trial holes. The results show that there is no evidence of elevated concentrations of potential contaminants in the material currently on site.</p> <p>This material essentially comprises spoil from grave digging and compostable arisings from the operation of the Cemetery. Some screening of the material may be required to take out larger objects such as wood, bricks and metal. There is a possibility that this processing, albeit limited to the top 2.3m of the material, may result in the material being classified as waste by the Environment Agency (EA) which could invoke the waste regulatory system which could increase costs and be more onerous to manage. It is important to determine the 'waste' status of the material in the Shoot in order to avoid invoking the regulatory system or to ensure an appropriate level of compliance with waste management regulations. In the first instance we will seek a position statement from the Environment Agency as it may be that no further action is required. If there is still a waste regulation compliance requirement we will seek to utilise an industry accepted protocol which requires limited involvement from the EA but requires a qualified person to oversee the operations. If that is not acceptable to the EA we will need to seek a permit from the EA to process the material. However this could involve delays to the programme and be onerous to implement.</p>
<p>15.Risk implications</p>	<p>(1) The potential <u>risk of not developing the site</u> for burials is that the City of London Cemetery will cease to function as a working cemetery in 10 years' time. This project is income generating and aimed at sustaining our current income levels from the sale of new graves and from burials. It will also increase income for the cemetery in years to come as other local providers run out of space. Not making provision for future lawn burial space would result in a loss of income which currently helps offset the cost of running the service and</p>

	<p>maintaining the site.</p> <p>(2) <u>Statutory approval from the Environment Agency</u></p> <p>The EA is responsible for determining the impact of the proposals on ground water and are expected to be formally consulted as part of the Planning Application. The work done by our consultant established the proposals carry a low risk of contaminating the water supply. However until we have confirmation from the EA that they accept these findings this is a Medium Risk. The implications could range from their insistence on additional site investigation and environmental monitoring, to insistence on the re-lining of the culvert before proceeding, to prohibiting the use of the area for burials without constructed burial chambers which would significantly increase the costs and timing of the project.</p> <p>There is a Low Risk of the EA placing a burden on the City for compliance with waste regulation requirements with regard to processing the existing material on the site. The implications could be an increase in monitoring and compliance costs and delay to the works programme. It is estimated that this compliance would add £7,500 to the costs arising from overseeing the operation.</p> <p>(3) <u>Planning permission from the London Borough of Newham</u></p> <p>The extension of lawn burials to the Shoot area is proposed in the context of an extant and operating cemetery. Given the critical need for additional burial space in the Borough and London generally, there is a Low Risk that the planning application would be refused, except if it was not acceptable to statutory consultees as noted above. The implications would be as in (1) above.</p>
<p>16. Stakeholders and consultees</p>	<p><u>Internal stakeholders</u></p> <p>CoL Members</p> <p>City Surveyor</p> <p>Finance</p> <p><u>External Stakeholders</u></p> <p>Environment Agency</p> <p>LB Newham</p> <p>English Heritage</p> <p>Cemetery Ministers and Funeral Directors</p>

<p>17. Legal implications</p>	<p>Section 214 of the Local Government Act 1972 empowers burial authorities to provide and maintain cemeteries. Under the Local Authorities' Cemeteries Order 1977 a burial authority may do all such things as they consider necessary or desirable for the proper management, regulation and control of a cemetery. A burial authority also has powers under the Order to enclose, lay out and embellish a cemetery in such manner as they think fit, and from time to time improve it, and are required to keep the cemetery in good order and repair.</p> <p>As regards the planning application, the cemetery's registration on the Register of Historic Parks and Gardens is a material consideration in the planning process which means that the local planning authority must consider the impact of the development on the landscape's special character. English Heritage is a statutory consultee where development is likely to affect a registered park or garden classified as Grade I or II* and the Environment Agency is a statutory consultee for development relating to the use of land as a cemetery.</p>
<p>18. HR implications</p>	<p>N/A</p>
<p>19. Benchmarks or comparative data</p>	<p>N/A</p>
<p>20. Funding strategy</p>	<p>The intended source of funding the recommended option is the Cemetery and Crematorium service through its Reserve Fund (currently standing at £528,000) which was set up to ease the burden of maintaining the historic areas of the cemetery in years to come.</p> <p>If re-lining the culvert was a requirement of the planning approval (Option 2) this would be funded by calling on all of the Cemetery & Crematorium Reserve Fund in the first instance and making up the shortfall by carrying out some of the works using the local risk budgets by utilising existing staff and equipment. At least £64k worth of works items have been identified within the cost estimate which could be carried out using existing CoL Cemetery staff and equipment.</p> <p>Option 3 is not recommended for developing further as it would necessitate calling on all of the C&C Reserve Fund, a substantial amount of local risk resource (£158k worth of works identified within the cost estimate) and the shortfall to be met from City Fund estimated at £141k. Using this extent of Cemetery local risk staff and equipment resources would have a negative impact on the operational service and the time taken to complete</p>

	the project.
21.Affordability	The works are to be completed within the available budget. The Project Manager will monitor expenditure via the City of London CBIS system and provide adequate reporting via Project Vision on a monthly basis.
22.Procurement approach	The recommend procurement strategy for the works is to invite tenders from suitable contractors in consultation with CLPS.

Options Appraisal Matrix

See separate document.

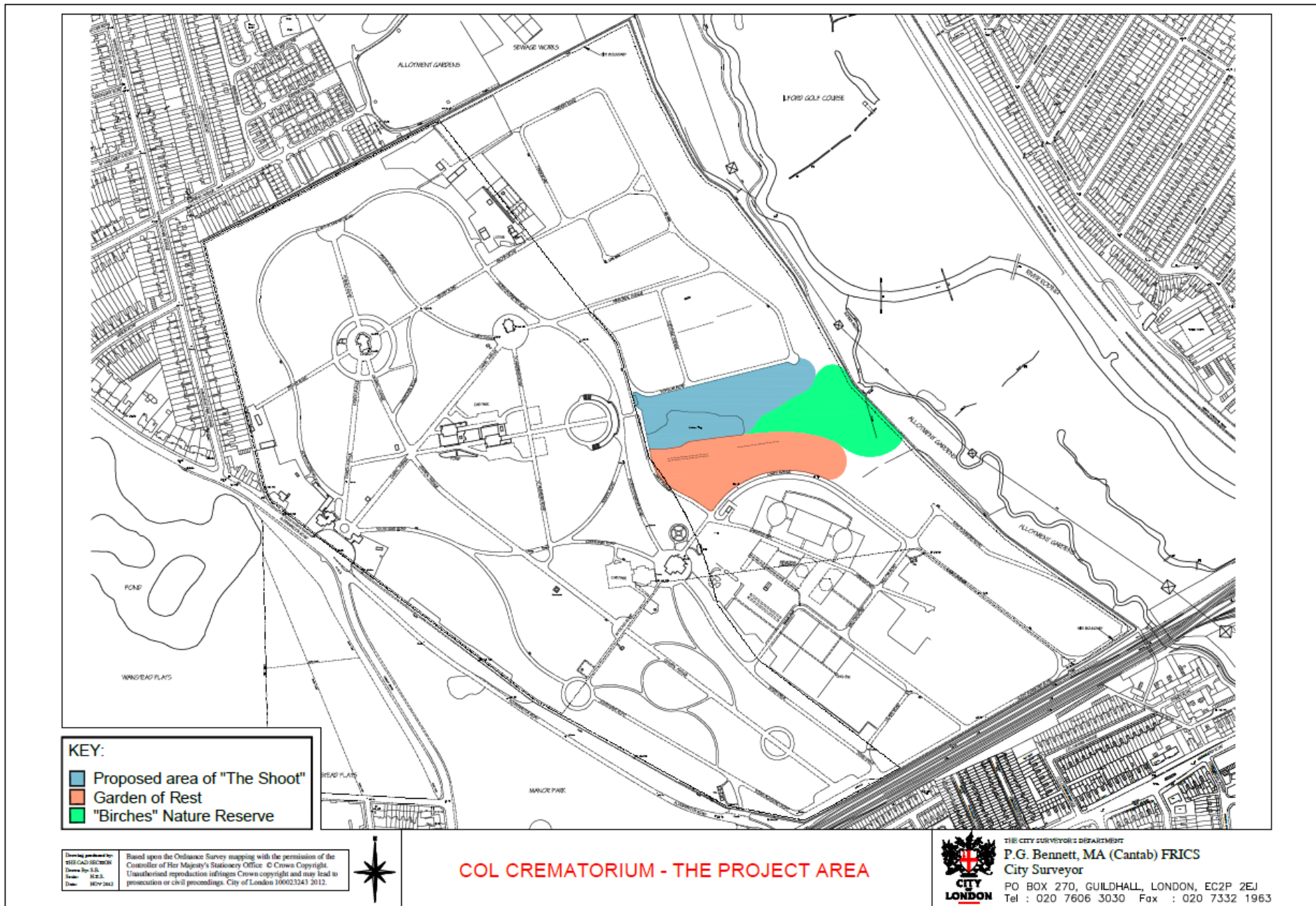
Appendices

Appendix 1	Site location
Appendix 2	Photographs of the site
Appendix 3	Landscape proposals

Contact

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Appendix 1 Site Location



Appendix 2 Photographs of the site



client:	project:	scale:	date:	drawn:	checked:
City of London	City of London Cemetery- The Shoot		20.01.14	PH	PH
drawing title:	Photograph Locations Sheet	drawing number:	009-01-12	rev:	status: P

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design - development

Appendix 3 Landscape Proposals

