SPECIFICATION & SCHEDULE OF WORKS

Masonry conservation

at

Anti-slavey arch, Paganhill, Stroud, Gloucestershire

for

Stroud District Council

Initial issue 15th January 2022
Checked & amended 10th July 2022
Amended 14April 2023
Amended 30th May 2023

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for the conservation & creation of unique buildings

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1 Preliminary information (for non-domestic Works)

1.1 Contract particulars

1.1.1 Employer

Stroud District Council
c/o Mr Brian McGough
Brianmcgough@stroud..gov.uk
Telephone: 01453 766321

1.1.2 Contract administrator

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The Mercers House, The Street, Leonard Stanley, Stonehouse, Gloucestershire GL10 3NR
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1.2 Site and Work particulars

1.2.1 Description of the site
The relevant site (Contractors Site) is the area around the triumphal arch as indicated on the drawing 295/SU01

1.2.2 Description of the Works
The Works comprise the conservation of the masonry to the triumphal arch on all elevations.

1.2.3 Use of the site
The structure is close to a school and will be regularly frequented by schoolchildren. Do not allow the use of any radio or musical device at any time. Use appropriate language and behaviours at all times. Do not use the site for any purpose other than carrying out the Works.

1.2.4 Use of the site by others
The site is part of a public pavement and must be secured at all times to prevent inadvertent and deliberate trespass.

1.2.5 Outcomes of the Works
The Works seek to:

- Preserve the structural and aesthetic integrity of the structure
- Slow or halt rates of deterioration, erosion and decay.
- Reinstate water-shedding where designed to do so

1.2.6 Construction, Design & Management Regulations 2015
For the purposes of the CDM Regulations 2015:

· the Contractor awarded the building contract will be deemed the *Principal Contractor*.
· The Employer will be deemed the *Client*.
· The Contract Administrator will be a *Designer*.
· The Contract Administrator will be the *Principal Designer*

In the absence of an externally appointed Principal Designer at any point in the project such duties will be fulfilled by the Employer (*Client*).

The Works are estimated to last no longer than 30 working days and have no more than 20 operatives working simultaneously at any point in the project, nor exceed 500 working person days. Section 1of the CDM Regulations 2015 apply. The Works are not deemed notifiable to the HSE at this point, however if the contractor deems the Works to exceed the above requirements he should

promptly inform the Employer or Contractor Administrator. In such instance section 2 of the CDM Regulation2015 will apply and the project will be formally notified to the HSE.

For the purposes of tendering, a Health & Safety File for the project (where it exists), and pre-construction information will be made available for inspection by appointment during normal office hours at the office of the contract administrator or an electronic may be e-mailed upon request. A copy of the pre-construction information will be issued to all tendering contractors.

The Principal Contractor will be draw up a Construction Phase Plan before the start date of the contract and to ensure the plan is appropriately reviewed, updated and revised during the course of the Works; and to address any significant changes to risks involved, and appropriate controls put in place. The Principal Contractor will provide the Principal Designer with relevant information for inclusion within the Health and Safety File.

1.2.7 COVID-19

The contractor must operate in line with current government Coronavirus guidance to prevent infection of operatives or members of the public.

The contractor will provide in his Health and Safety File and retain a copy on display on site at all times, a statement describing the measures every operative is to take to prevent infection of COVID-19 to others. Procedures are to be enforced rigorously and assessed & updated monthly or whenever official advice is updated.

1.3 Tendering & contract particulars

1.3.1 Inspecting the site

The Contractor is advised to properly examine the site before tendering to ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works. No claim for extras will be entertained for items that could reasonably be foreseen by such an inspection.

1.3.2 Nature of tender documents

The tender documents consist of a performance specification, schedule of work & drawings and combined indicate the full scope of the Works to be priced.

The following drawings are tender drawings:

Where works are indicated on the drawings but not in the schedule of work or vice-versa, such inconsistencies must be identified to the Contract Administrator & must be priced for in the tender return. No claims for extras will be entertained where such inconsistencies occur. The tender documents will become the certified contract documents, expressly varied only by mutual agreement of both parties in accordance with the contract particulars.

1.3.3 Pricing

Alterations and qualifications to the specification must not be made without the written consent of the Contract Administrator. Tenders containing unauthorised alterations or qualifications may be rejected. Prices are to be itemized against each clause of the Schedule of Work and summarized in the collection. Costs relating to items in the specification which are not priced will be deemed to have been included elsewhere in the tender.

Where work in connection with the execution and completion of the Works is not explicitly described but can be reasonably assumed to be required in order to comply with the tender documents, the pricing will be deemed to include for such work. No claim for extras will be entertained for such items subsequently identified.

1.3.4 Tendering procedure generally

Tendering procedures will follow the principles of selective single stage tendering procedure as set out in JCT '*Tendering 2017*' Practice Note produced by the Joints Contracts Tribunal Limited. A copy is available upon request.

1.3.5 Public Sector Procurement

The Works are for a public sector local authority and as such the tender will follow The Public Contracts Regulations 2015 where applicable. It is understood this contract does not meet the value threshold for the full regulations to apply.

The tendering procedure will follow the restricted procedure, under which a selection is made of those who respond to the advertisement and only they are invited to submit a tender for the contract. This will be based upon assessment of a returned Questionnaire. Three contractors will be invited to submit competitive tenders.

The pre-selection questionnaire will be issued by Stroud District Council and is compliant with Procurement Policy Note 8/16 : Standard Selection Questionnaire (SQ) . In addition to the information required by the questionnaire, the prospective contractor must submit the following information at the same time:

Historic building skills statement as clause 1.23.9

1.3.6 Public Sector tender programme

The project will be advertised on the Supplying the South West Portal and will adhere to the following programme:

30 days initial response to advertisement with questionnaire
5 days to select and notify invitees to tender
10 days to submit electronic tenders
10 days consider, select and notify contractors

1.3.7 Tender returns

Each tendering contractor is required to return a fully itemized schedule of work & collection together with the signed summary sheet. Details of sub-contractors and a list of alternative products (see clause 1.5.10) are also required. The Employer is not bound to accept the lowest nor any tender & will not be responsible for any costs incurred in the preparation of any tender.

1.3.8 Health & safety information

A statement must be submitted with the tender describing the organisation and resources which the contractor proposes and undertakes to provide to safeguard the health and safety of operatives, including those of subcontractors and of any person who may be affected by the works, including:

- contractors health and safety policy document,
- Accident and illness records for the past five years.
- Records of previous HSE enforcement action.
- Records of training and training policy.
- The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.

1.3.9 Historic building skills statement

8Where the Work includes work to or within the vicinity of an

historic structure each tendering contractor must complete and return an historic building skills statement. The statement must include confirmation that all slaters are skilled and experienced in random limestone slating including proper gauging to ensure evenly diminishing courses and adequate side-laps.

1.3.10 Form of Contract (main works)

The AGREEMENT will be:
RIBA Concise Building Contract 2018
with all current revisions, issued by the Royal institute of British Architects. The selected contractor will be bound to sign this form of contract. The following contracts details will be inserted as follows:

A	Client - as clause 1.1.1 of this document.
B	Contractor - tbc.
C	Description of the Works - as clause 1.2.2 of this document.
D	Contract documents - Drawings and Specification including priced schedule of work as tendered
E	Contract period: tbc Start date - tba Date for Completion - tbc Working hours restrictions - 08.00 to 18.00 Monday to Friday, excluding Bank Holidays
F	Facilities - The contractor may use the following: Electricity
G	Contract Administrator, tbc
H	Other appointments by the Client - None
I	Consents, fees and charges Building regulations - Client
J	Insurance (see also clause 1.3.51 of this document) Contractor's Public liability - £5,000,000 per claim Contractor's employer's liability insurance £10,000,000 per claim All risks insurance to cover damage to the Works, products and equipment; Contractor's liability, sum £5,000,00 per claim All risks insurance to cover damage to the existing structures; Client responsibility
K	Contract Price - The price will be a fixed lump sum.
L	Liquidated damages - none
M	Defects Fixing Period - twelve months
N	Dispute Resolution - Adjudication. Nominating body will be the Royal Institute of Chartered Surveyors.

Optional items - the following optional clauses will/will not apply as follows:

O	Programme - Applies. Requirements: The activities the Contractor will carry out to complete the Works, the start and finish dates of each activity and the relationship of each activity to the others, including lead and lag times. Additional requirements: Consequences of failing to provide a programme will be non-financial.
P	Contractor design - Does not apply
Q	Required specialists - Does not apply.
R	Completion in sections - Does not apply.
S1	Milestone payment - Does not apply
S2	Payment on Practical Completion of the Works - Does not apply.
T	Advance payment - Does not apply.
U	Insurance-backed guarantee - Does not apply.
V	New building warranty - Does not apply
W	Evidence of Ability to Pay the Contract Price - Does not apply.
X	Collateral Warranty/Third Party Rights - Does not apply.
Y	Public Sector Clauses - Does not apply

1.3.11 Contract
A single contract with a bona fide set of contract documents will be signed by both parties and retained by the contract administrator. Certified copies will be made available to either party upon request.

1.3.12 Construction issue documents
The contractor will be provided with one full set of the contract documents for his use in executing the works. Additional copies may be obtained at a cost.

1.4 Management of the Works

1.4.1 Pre-contract meeting
The Contractor shall convene a pre-contract meeting in advance of works starting on site with attendees to include, where applicable, the contracts manager, foreman, main sub-contractors, Employer, Contract Administrator and other Consultants.

1.4.2 Programme
As soon as possible and before starting work on site prepare a programme for the Works which must make allowance for the Contractor's planning and mobilisation, sub-contractor's work, work resulting from instructions issued in regard to the expenditure of provisional sums, Work by others concurrent with the Contract, drying times and testing & commissioning of services and plant. Submit two copies to the Contract Administrator. See also optional item O of the Contract conditions, clause1.3.8.

1.4.3 Control of the Works
The Contractor will be required to maintain on site at all times a designated Foreman who shall take full responsibility for the works. This will ordinarily be a single approved person for the duration of the works, however where works are of a minor nature and where expressly agreed prior to the start this may be more than one person. In all cases the Foreman shall be continuously supported by a single designated Contracts Manager for the duration of the contract. By definition a Foreman may be a working foreman, but such activities should not inhibit the proper management of the site and Works.

1.4.4 Control of the Works on Historic sites
In addition to the requirements of clause 1.2.6, any Foreman managing work to or in the vicinity of an historic structure will be required to demonstrate by the Contractor their suitability for such responsibility with information to include a full c.v. detailing relevant experience for at least a two year period. The Employer reserves the right to refuse any Foreman without cause for a claim for extra cost until a suitable candidate is found.

1.4.5 Site Meetings
The Contract Administrator will convene monthly site meetings to review progress and other matters. Ensure the availability of accommodation and attend all meetings. The Contract Administrator will chair the meetings and take and distribute minutes.

1.4.6 Attendance on Sub-Contractors
The Contractor is to obtain from all sub-contractors full particulars as to their requirements and is to supply them with all necessary dimensions and other information so that their work may be correctly executed. If the Contractor fails to do this, he is to effect all such alterations at his own expense or pay the sub-Contractors' charges therefore. Attend upon, cut away for and make good after all trades, by all other workmen, including affording facilities to all sub-contractors and any other parties

employed upon the building so that their work may proceed during the ordinary progress of the work.

Allow such persons the free use of ordinary scaffolding, ladders etc, provide and erect any additional scaffolds required and alter, shift and strike same when directed; un-loading if required all goods supplied by sub-contractors and provide them with water, watching, lighting, storage. The Contractor must make arrangements with the sub-contractors as to the time and manner of executing their work and for working in conjunction with them.

1.4.7 Materials arising

Regularly remove from site all rubbish and other materials arising from the Works. Materials arising from the Works are to become the property of the Contractor except where otherwise stated. Regularly remove waste material as it accumulates & maintain the site in a clean and orderly condition for the duration of the Contract. The Contractor is to comply with current legislation regarding controlled tipping of refuse & disposal of contaminated water, etc.

1.4.8 Drying the Works

Allow for all necessary fuel, power, use of appliances, attendance and all other costs involved in maintaining suitable temperatures and humidity conditions for drying out the building as may be necessary to ensure completion of the Works in accordance with the Contract Completion date.

1.4.9 Use of Site by Contractor

Work will be permitted only during normal working hours (8.00am – 6.00pm, Monday - Friday) unless otherwise agreed beforehand by the Contract Administrator.

Agree with the Customer at the earliest possible opportunity how and where contractor's operatives are to access the work areas ; how and where to take materials to and from the Works; where contractors operatives are not to enter; where to store materials, plant and rubbish; where to carry out mixing and other preparations, eg. sawing/planing carpentry.

1.4.10 Unloading and Hoisting

The Contractor shall be responsible for unloading, placing in and removal from store and for hoisting all materials and plant for the Contract whether to be fixed by the Contractor or sub-Contractor.

1.4.11 Works at Completion

The Contractor shall remove all rubbish, plant and surplus materials from the site and leave the whole of the Works in a clean condition fit for immediate occupation and use to the satisfaction of the Contract Administrator.

1.4.12 Notice of Completion

Give the Contract Administrator at least two weeks notice of the anticipated date of Practical Completion of the whole or parts of the Works.

1.4.13 Advertisements

No advertisement or name-boards are to be exhibited on or around the site.

1.4.14 Personal music devices

The playing of personal music devices (radios, MP3 players, smart phones etc) on site will not be permitted at any time.

1.5 Quality standards & control

1.5.1 Good Practice

Where materials, products & workmanship are not fully detailed or specified they are to be of a standard appropriate to the Works & suitable for the functions stated or inferred in the contract documents & in accordance with good building practice.

1.5.2 Quality of products

Products are to be new unless otherwise specified. Where a choice of manufacturer or source is allowed for any particular product, the whole quantity required must be of the same type, manufacture &/or source unless otherwise approved. If products are prone to deterioration or have a limited shelf life, order in suitable quantities to complete the Work. Do not use if there are any signs of deterioration, setting or other unsatisfactory condition.

1.5.3 Proprietary products

Handle, store, prepare & use each product in accordance with the manufacturer's recommendations and submit copies to the Contract Administrator upon request. Where British Board of Agrément certified products are used, comply with the limitations, recommendations & requirements of the relevant valid certificates.

1.5.4 Protection of products

Enact the protections recommended by the manufacturer and generally protect adequately from undue stress, impact damage, distortion, rain, damp, dust, dirt, frost, sun and other elements as appropriate. Prevent staining, chipping, scratching or other disfigurement, particularly of products exposed to view in the finished work.

Provide appropriate, well-secured storage facilities. Keep different types and grades of products separately and adequately identified. Keep products in their original wrappings, packings or containers until immediately before they are used.

1.5.5 Workmanship generally

Ensure that all operatives are appropriately skilled and experienced in the work they are asked to do and take all necessary precautions to prevent damage to the work from the elements and other hazards.

Inspect components and products carefully before fixing or using and reject any which are defective. Fix/lay securely, accurately and in alignment. Provide suitable packings at screwed and bolted fixings to take up tolerances and prevent distortion. Do not over tighten. Adjust location and fixing of components and products so that joints which are open to view are even and regular. Ensure that all moving parts operate properly and freely. Do not cut, grind or plane prefinished components and products to remedy binding or poor fit.

1.5.6 Setting out generally

Dimensions stated on the drawings are to be worked to but on no account should dimensions be scaled from the drawings. The contractor is responsible for the accuracy of the setting out of all the works including that of the of sub-contractors and shall bear all costs for such setting out and for the rectification of works arising from any inaccuracies.

1.5.7 Setting out - existing structures

Any dimensions shown on the drawings must always be cross-checked against actual site dimensions where work is affected by the presence of existing structures. Where a conflict arises, resolve the issue with the Contract Administrator. The pre-

sumption should be for new work to be made to fit the existing.

1.5.8 Appearance & fit - new work
Arrange the setting out, erection and application of finishes to ensure satisfactory fit at junctions, no practically or visually unacceptable changes in plane, line or level and a true, regular finished appearance.

1.5.9 Samples
Submit to the Contract Administrator samples of materials or methods as set out in the schedule of works. Allow sufficient time in the programme for proper consideration and approval of the samples and for a repeat process where approval is not given. Samples are to be retained on site for the duration of the works. The person(s) preparing samples should also be involved in carrying out the work to which the samples relate.

1.5.10 Equivalent and alternative products
Where this document states '*or equivalent*' the Contractor is at liberty to choose a different product which is equivalent in technical performance, quality, standard, function, finish and environmental performance as the one specified.

Where the document states *'or alternative'* the contractor may, with the prior approval of the Contract Administrator choose an alternative product which meets the requirements for equivalent. Furthermore, all such alternative products are to be declared at tender stage in the tender summary. Failure to do so will mean that the Contractor is deemed to have included for the specified products and will be expected to supply the specified products at no extra cost to the contract.

1.6 Security, safety, welfare & protection

1.6.1 Safety & Welfare Measures
The Contractor shall ensure that all Safety and Welfare measures, required under the provisions of any current enactment or regulation or the working rules of any relevant industry, are strictly complied with. The Contractor shall comply with the duties of the 'Principal Contractor' under the Construction (Design and Management) Regulations 2015.

The Contractor will be entirely responsible for the safety of the public and all persons lawfully using the premises during the execution of the Works.

The Contractor will be responsible for providing a site hut and mess facilities as required under safety and welfare legislation.

1.6.2 Coronavirus
The contractor shall ensure he has implemented the government's current guidance on protection measures in respect of Coronavirus to properly protect both employee, members of the public and visitors to the site.

1.6.3 Security of scaffolding
Protect the perimeter of all scaffolding and access equipment with suitable security fencing of at least 3 metres high. Fencing to be held together with tamper-proof fittings or secured from the inside only. To restrict unauthorised access, at the end of each working day remove the lowest section of scaffolding ladders from site entirely.

1.6.4 Protections generally
Provide all necessary tarpaulins, sacking, boarding or other coverings, temporary gutters, down chutes, drains, soak-away, fences and storage compound etc. as required for the protection of material, works and site which may be damaged by storm, rain, snow and frost or other inclement weather and

succeeding work and traffic. Clear away when required and make good all work so damaged as the result of the omission of all such protection etc.

1.6.5 Protecting trenches
Clearly demarcate trenches and other earthworks to ensure other people on the site do not enter the area. Where unavoidable, cover trenches in publically accessible areas with timber boarding, metal sheeting or other similar material to provide a secure, safe walking surface.

1.6.6 Safeguarding the Works, Materials and Plant
Allow for lighting and other security measures as may be required for the protection of the public and security of the Works, plant and materials on site. The Contractor will also be held responsible for all materials and fittings delivered to the site for his own, and all sub-contractor's use and shall make good any damaged or missing materials and fittings at his own expense, and shall provide all necessary protection to such materials and fittings.

1.6.7 Fire Precautions
The use of flame-producing apparatus will not be allowed unless prior approval has been obtained from the Contract Administrator. All combustible waste such as shavings, packing, etc must be removed at the end of each working day. Do not light bonfires on site. The Contractor is to ensure that appropriate fire-fighting equipment (extinguishers, fire blankets) is available on site for the duration of the Contract and that the Foreman is familiar with their use and position on site at all times. Ecclesiastical (insurance) hot works permit system will apply.

1.6.8 Protection against damage/injury by erection and use of scaffolding
Ensure that all protective measures (eg sheeting over windows), security fencing and warning signs are provided prior to erection of the scaffolding and are left in place until after the scaffolding is struck. Foreman to be present on site for the duration of erection and dismantling of all scaffolding.

Adequate precautions to be taken to protect both all persons from falling debris. Loose items to be removed from the scaffold as the work proceeds. No spare fittings, poles or boards to be left above ground level. Scaffolding components to be transferred by hand, pulley or hoist. No dropping or throwing (up or down) of fittings or other materials will be permitted. must be secured with proprietary clips with the tightening bolts positioned on the inside face in each and every case. Each panel to panel connection must be secured with a minimum of two fittings. Cable ties, ropes etc must not be used.

1.7 Site services & facilities

1.7.1 Wc
The contractor is to make his own arrangement for the provision of toileting facilities on the site

1.7.2 Welfare facilities
Agree with the Employer a suitable location for such welfare facilities as the contractor deems necessary to satisfy his statutory obligations.

1.7.3 Electrical supply
The contractor should provide his own Battery-operated power tools since there is no power supply close to the site.

1.7.4 Water supply
The contractor is to make his own arrangements for the provi-

sion of potable water for both the Works and welfare purposes.

1.8 Temporary access

1.8.1 Scaffolding and ladders

All scaffold contractors are to be members of NASC and are to be responsible for the safe design of the scaffold to comply with NASC TG20:05 and all relevant British Standards.

Provide all scaffolding, boarding, ladders, hoists as necessary for carrying out the Works.

All scaffolding to be designed to be without fixing to the building unless otherwise agreed by the Contract Administrator.

All scaffolding poles within 25mm of the surface of the building and where exposed ends may be a hazard to the workforce, to be fitted with plastic end-caps.

Scaffold platform loading to be appropriate to the designation of the scaffold but should be not less than:

Inspection, painting and access	0.75 kN/m²
Plastering, rendering, pointing, light carpentry, joinery	2.00 kN/m²
Masonry-work, heavy carpentry work, roofing and where materials are placed on the scaffold platform	3.00 kN/m²

Provide lightning protection to all separate sections of scaffolding by bonding to earth electrodes at not more than 20m centres with the whole earth termination network having a combined resistance not greater than 10 Ohms.

Make provision to accept wind loading without consequential damage to the structure. Boards to be secured against wind uplift.

1.8.2 Stability generally

The stability of an historic building may rely upon structures/ materials/load paths which are not immediately apparent when based upon modern building practices. Assess and take responsibility for the stability and structural integrity of the fabric. When providing additional supports take account of the new load paths introduced. Do not increase the load on any part of the fabric where it is likely to affect the existing fabric in any way.

1.8.3 Supporting structures

In addition, but not limited to the supports identified by the specification, drawing or other documents provide and maintain during the execution of the Works all incidental shoring, strutting, needling and other supports as may be necessary to preserve the stability of existing structures on the site or adjoining, that may be endangered or affected by the Works.

Support existing structure as necessary during cutting of new openings or replacement of structural parts. Do not remove supports until new work is strong enough to support the existing structure. Prevent over stressing of completed work when removing supports. Remove protection on completion and make good all damage to the satisfaction of the CA and the contractors expense.

1.8.4 Propping design generally

Design all propping and strutting to support the dead and superimposed loads of the existing fabric as scheduled or shown

on Contract Administrator and/or consulting Engineers drawings.
Design and propose materials and methods of installation that do not damage the existing fabric. Consolidate by packing with suitable softwood all loose fabric which is to transfer or bear loads.

Adequately brace props over 2m high. Props must be erected in a true vertical plane to maintain concentric loading.
Support pins must be as supplied with adjustable steel tube props. Do not substitute.

1.8.5 Transporting/erecting scaffold, props and struts
Protect existing fabric where it is likely to be affected by the transporting, erection, alteration, or disassembly of scaffolding. Do not use historic fabric to store or transport scaffolding materials. Do not pass scaffolding through any unprotected opening. Do not throw or drop scaffolding materials on the site.

1.8.6 Founding of scaffolding, props and struts
Foundations should be well compacted with no voids. Ensure that supporting structure, basements and other voids etc below bearing points are able to safely bear additional loads without damage to the existing fabric. End each bearing point with a steel baseplate over a timber soleplate. Timber sole plates should be at least 230 x 230 x 40mm and located concentrically under each standard or prop. Where the ground is not firm or the support is to remain for longer than six months, support on railway sleepers or similar. Form supports on a level sound footing. Do not undermine.

1.9 Matters affecting the progress of the Works

1.9.1 COVID-19
In addition to site mitigation procedures, government advice and instruction may require additional precautions or suspension of the Works which should be complied with in accordance with specified timescales. Where changes or suspension is expected to occur discuss and agree with the Contract Administrator actions that will limit or eliminate delays to the progress of the Works.

1.9.2 School pupils
The site is very close to a secondary school. The area immediately around the site is a popular area for pupils to walk past and to gather. At all times ensure operatives conduct themselves appropriately avoid unnecessary engagement.

2 Materials & Workmanship for traditional mortars, masonry and their repair

2.1 MATERIALS

2.1.1 Quicklime

Quicklime for hot-mixed mortars, limewashes and sheltercoats to be fine ground Calbux 90 pure limestone quicklime manufactured by:

Tarmac Trading Limited
E-mail: Buxton.enquiry@tarmac.com
Telephone: 0800 1 218 218

Quicklime is supplied in 25kg poly sacks (40 sacks per pallet) or I tonne flexible big bags.

Alternatively, use 5-15mm chippings available in 25kg tubs from:

Chards Building Supplies, 1 Cole Road, St Philips, Bristol BS2 0UG
Telephone: 0117 977 7681
Email: info@chardsbuildingsupplies.com
Website: www.chardsbuildingsupplies.co.uk

2.1.2 Lime putty

Lime putty for grouts and fine bed mortar to be formed by slaking non-hydraulic quicklime, sieved and to be matured for a minimum period of six months before use.

2.1.3 Hydraulic Lime

Hydraulic lime for mortar to be natural hydraulic lime hydrate in sealed, marked bags complying with the requirements of BS EN 459-1 : 2001 type NHL Natural Hydraulic Lime strength classes 2, 3,5 and 5. Hydraulic lime to be supplied by:

Kalkwerke Otto Breckweg GmbH & Co.KG. Neuenkirchener Straße 400, 48432 Rheine.
Fax: 059 71/16024-77
Or

St Astier Limited, 11 Enterprise Court, Seaham, Co. Durham SR7 0PS, Telephone 0191 521 4552.

Local stockists:

Heritage Lime, Henley Farm, Miserden, Stroud, Gloucestershire GL6 7HZ
Telephone: 01285 821751
E-mail: info@heritage-lime.com

Or

Traditional Lime Company, Church Farm, Leckhampton, Cheltenham, Gloucestershire, GL53 0QJ
Telephone: 01242 525444
Email: info@traditionallime.co.uk
Website: www.traditionallime.co.uk

2.1.4 Fine graded aggregate

Sand for mortar to be 2mm down washed, well graded alluvial sand supplied by:

Hills Quarry Products Limited, Shorncote Quarry, Shorncote, Cirencester, Gloucestershire GL7 6DA
Tel: 01285 861167 Fax: 01285 860401

Or other to Contract Administrator's approval. Where an alternative comprising larger aggregateis used, sieve to remove particles 3mm and larger.

2.1.5 Coarse graded aggregate

Sand for mortar to be 3mm or 4mm down washed, well graded alluvial sand supplied by:

Hills Quarry Products Limited, Shorncote Quarry, Shorncote, Cirencester, Gloucestershire GL7 6DA
Tel: 01285 861167
Website: www.hills-group.co.uk

Or

Cullimore Group of Companies, Netherhills, Fromebridge Lane, Whitminster, Gloucestershire GL2 7PD.
Telephone: 01452 740326
Email: info@cullimoregroup.co.uk
Website: www.cullimoregroup.co.uk

Or other to Contract Administrator's approval.

2.1.6 Stone dust (porous particulate)

Stone dust to be well graded local oolitic limestone dust available from:

Heritage Lime, Perrott's Brook Barn, North Cerney, Cirencester, Gloucestershire GL7 7BS
Telephone: 01285 821751
Email: via website contact page
Website: www.heritage-lime.com

Or

Chards Building Supplies, 1 Cole Road, St Philips, Bristol BS2 0UG
Telephone: 0117 977 7681
Email: info@chardsbuildingsupplies.com
Website: www.chardsbuildingsupplies.co.uk

Un-sieved to be 3mm to dust
Sieved to be 800 microns to dust

2.1.7 Stone - ashlar and carved face-work

New ashlar stone for facework to be *Stoke Ground Top Bed* oolitic limestone supplied by:

Bath Stone Group
Stoke Hill Mine, Midford Lane, Limpley Stoke, Bath BA2 7GP.
Telephone: 01225 723 7GP
E-mail: elaine@bathstone.com, or matthew@bathstone.com
Website: www.bath-stone.co.uk

Or Hartham Park supplied by:

Lovell Stone Group
Downs Quarry, Kingston Road, Langton Matravers, Swanage, Dorset BH19 3JP.
Telephone: 01929 439255
E-mail: sales@lovellstone.com
Website: www.lovellstonegroup.com

Selection to be identified at tender stage but subject to subsequent approval of a physical sample to be supplied by the contractor. Where not acceptable the alternative to be used at no additional cost to the client.

Stone to be designed and sawn to size to allow beds to be maintained in the natural plane when incorporated into the Works. Face-bedding is not permitted.

2.1.8 **Stone - ashlar and carved weatherings**
New ashlar stone for chimney stacks, coping stones, ridge stones and weathering courses to be *Stoke Ground Base Bed* oolitic limestone supplied by:

Bath Stone Group
Stoke Hill Mine, Midford Lane, Limpley Stoke, Bath BA2 7GP.
Telephone: 01225 723 7GP
E-mail: elaine@bathstone.com, or mat-thew@bathstone.com
Website: www.bath-stone.co.uk

Stone to be designed and sawn to size to allow beds to be maintained in the natural plane when incorporated into the Works. Face-bedding is not permitted.

2.1.9 **Pins/dowels**
Pins for dowelling to masonry to be threaded or scored stain-less steel (grade 316) or phosphor bronze stud of nominal diameter and length as indicated in the method statement.

2.1.10 **Anchor resin**
Anchor resin for securing pins into stone to be proprietary thixotropic epoxy anchor resin, contractor's choice.

2.1.11 **Proprietary grout**
Proprietary grout for hand grouting is to be pre-mixed hy-draulic lime grout *Unilit B Fluid XB* manufactured by:

Telling Lime Products Ltd
Primrose Avenue
Fordhouses
Wolverhampton
WV10 8AW
Tel: 01902 789777
E-mail: info:telling.co.uk

or equivalent to Contract Administrator's approval. Use as in-structed by manufacturer.

2.3.12 **Flow agent**
Flow agent for bespoke-made grouts to be fumed silica.

2.1.13 **Pozzolan**
Pozzolan to be *Metastar 501* manufactured by:

Imerys Minerals Limited, Par Moor Centre, Par Moor Road, Par, Cornwall PL24 2SQ.Telephone 01726 818000.

2.1.14 **Biocide**
Biocide for removing lichens and algae from masonry surfaces to be *Microtech Biocide* manufactured by:

Wykamol Group Ltd. Unit 3. Boran Court. Network 65 Busi-ness Park. Hapton, Burnley BB11 5TH
Telephone: 01282 473100
Email: info@wykamol.com
Website; www.wykamol.com

or equivalent to Contract Administrator's approval.

This is a potentially hazardous material and should be handled only by skilled and experienced conservators. Download and comply with the manufacturer's Safety Data Sheet including

but not limited to storage, handling, exposure controls and personal protection measures.

2.1.15 Paint stripper - gloss paint

Paint stripper for removing oil-based paint from stone substrates to be Kling-strip alkali-based poultice manufactured by:

Strippers Paint Removers Limited
Fishers Farm, Belchamp Walter, Sudbury, Suffolk CO10 7AP.
Telephone: 01787 371524
Website: www.stripperspaintremovers.com

2.3.16 Paint stripper - emulsion paint

Paint stripper for removing emulsion paint from stone substrates to be Solvistrip solvent-based paint stripper manufactured by:

Strippers Paint Removers Limited
Fishers Farm, Belchamp Walter, Sudbury, Suffolk CO10 7AP.
Telephone: 01787 371524
Website: www.stripperspaintremovers.com

2.2 WORKMANSHIP - PREPARATION

2.2.1 Storage of materials generally

All dry bagged materials are to be stacked neatly off the ground in a dry, frost-free room or container away from liquids and damp material. Opened bags are to be re-sealed and used within 3 days of opening. Any damaged bags are to be discarded. Aggregate may be stored outside but isolated from the ground with polythene sheeting and fully protected from the rain with tarpaulin or additional polythene sheeting.

All coarse-stuff mortar (whether mixed on site or supplied to site) is to be stored in plastic tubs/dustbins or 'dumpy' bags and protected from the weather and contamination by organic material by polythene sheeting or tarpaulin.

2.2.2 Mixes

Stated mixes are an approximation and may be varied in consultation with the Contract Administrator in response to the actual characteristics of the aggregates selected for use.

Lime putty mortar mix for pointing and bedding ashlar joints, and for finishing layer of mortar repairs to be composed of:

1 part Lime putty
1 part limestone stone dust (800 microns to dust)

Lime putty mortar mix for pointing and bedding wider ashlar joints and for base/intermediate layers of mortar repairs to be composed of:

1 part Lime putty
1 part fine coarse sand
1 part limestone stone dust (1.5mm to dust)

2.2.3 Grout/slurry mixes

Site-made slurry for grouting and slurrying mating surfaces to be:

2 parts lime putty
1 part pozzolan
1 part sieved (300 microns) stone dust
1 part flow agent

Stated mixes are indicative only and may be varied in consultation with the inspecting surveyor in response to the actual characteristics of the aggregates selected for use and the nature of the void to be filled. Fine voids may require the omission of the stone dust to permit acceptable flow characteristics.

2.2.4 Hotmix sheltercoat mixes

Hotmix sheltercoat to be formed from quicklime, finely ground stone dust, earth pigment, water, casein and formulin in quantities to be agreed with Contract Administrator.

Sheltercoat to be mixed in batches sufficient to complete the Works and stored in airtight containers. Water may be added to the mix as required. Formaldehyde may be added to sheltercoat prior to use as a preservative.

Hotmix sheltercoats should be prepared in small batches on site in sufficient quantities for no more that 2 working days.

2.2.5 Preparation of mixes generally

Where aggregates are over-saturated by exposure to rainfall, condition for a period of time before use to reduce moisture content by setting on dry boards in a dry room or space. Prepare quantities of course-stuff materials off-site in one batch sufficient to complete the work. All coarse stuff to be stored

and transported in airtight plastic tubs. Where coarse stuff is found to contain excess water for the work in hand, condition for a period of time before use as noted above for aggregate to achieve a workable consistency. Work will be rejected where over-saturated mortar is found.

Pozzolans and other active ingredients to be added to the mix and the mix knocked back up immediately before use. Knock up gauged mixes only in sufficient quantities that may be safely used within the limits of the active ingredients usage. Do not mix any un-used gauged mixes with coarse stuff; discard any remaining beyond the limits of the active ingredients usage.

Only add hair after a week from mixing aggregate-slaked mortars and then use the mortar within one month. Hair to be added in the proportion of one full handful of chopped, clean teased hair to each bucketful of lime plaster with the hair well mixed in so that any trowel-full of plaster mix pulls away with difficulty from the main body of the mix.

2.2.6 Preparing stone joints generally

After the approval of samples and agreeing the general extent of re-pointing work on site with the Contract Administrator, the Contractor will be responsible for assessing the width and thickness of the joint.

Never use mechanical chisels, angle grinders or other such power tools to remove mortar. Existing lime-based and softer cement-based mortars are to be removed by hand by scraping with a chisel or similar blunt tool across the joint. Harder cement-based mortars are to be removed with a hammer and plugging chisel, striking the mortar in the middle of the joint in a short chain before prizing the two parts away, taking care not to lever against or otherwise damage surrounding stones.

Clear out the joint to the required depth and form to a clean square recess. Undercut abutting sound mortar to form a mechanical key. Remove dust and debris with blown air.

Thoroughly dampen down masonry before repointing and repeat as required to ensure joints remain damp before placing the mortar.

2.2.7 Treatment of general surface soiling

Remove atmospheric dirt, and other soiling prior to shelter-coating using a weak solution of detergent in water. Test a range of soft bristle brushes, non-ferrous wire brushes selecting the least abrasive effective type. Protect adjacent stones from contamination. Carry out different techniques and agree most effective with Contract Administrator.

2.2.8 Treatment of algae and lichen

Remove algae and lichen prior to sheltercoating by first removing larger parts on sound masonry with dry brushing with small bristle brushes. Do not use metal bristle brushes.

Damp down the surfaces and protect other areas to minimize absorption of the biocide. Dilute and apply the biocide in accordance with the manufactures instruction and taking care to comply with all safety requirements.

At all time protect from direct sunlight. Prevent from drying out (wind and sun) and oversaturation (rain) with suitable sheeting protection and where necessary lightly dampen with a mist spray. Allow the biocide to work for at least two working days before neutralizing with water. Capture and safely dispose of water run-off.

2.3 WORKMANSHIP - INSTALLATION

2.3.1 Treatment of Calcium Sulphate crusts on limestone

Remove calcium sulphate deposition on limestone to the stones indicated in the schedule of Work. Ensure adjacent surfaces are effectively protected to ensure clean lines between treated and untreated areas are maintained and in particular where only partial depositions are to be removed from specific architectural elements.

Soak the affected surfaces by repeated applications of clean water using a hand spray until the stone in unable to absorb further. Mop up any standing water with a sponge or soft cloth. Remove stalagmitic depositions by carefully scaping away with nylon or non-ferrous spatulas. Take care to avoid removal of underlying friable stone or scratching of the stone surface.

Form a poultice composed of paper pulp holding an active solution of ammonium carbonate suspended in warm water at a trial percentage of 4% by volume. If found to be ineffective, increase the percentage of ammonium carbonate up to a maximum of 7% by volume. Trials to include tests to ensure adhesion and where these fail, add up to 10% clay to the paper pulp before addition of the active solution.

Apply the poultice to affected areas and protect from wind, rain and direct sunlight. Check at regular intervals and remove as soon as softening of the deposits has occurred, up to a maximum of 24 hours. Scrub the surface with a soft bristle brush and clean water to remove the soluble sulphate and any residual ammonium carbonate solution. Repeat the process as necessary with a further two applications. Repeat the cleaning process after each application. Protect adjacent stones, especially sandstones from contamination during application and cleaning.

2.3.2 Stone indents

Determine the minimum dimensions required to make good the damage. Select a matching section of new stone with the correct bed aligning with the existing Reduce the indent down to the required size with the joints and bed faces finished fine and true. Offer the prepared indent to the stone surface and scribe the area to be cut. Cut down to the required depth (or to the old cramp to be removed) and remove scribe make to leave a sharp, true and clean arris.

Drill holes into the back of the indent to receive non-ferrous anchor pins. Flush, allow to dry and one-third fill with thixotropic epoxy anchor grout and push in pin, held in place with hardboard templates. Offer up the indent to the repair pocket, mark and drill receiving holes for the pins. Flush out holes, allow to dry and temporarily plug. At this point carry out final checks and adjustments for a close, even fit.

Resin bedding of indents is not permitted under any circumstances. Thoroughly soak the indent and pocket before covering all surfaces with lime slurry/grout mix. Drill out holes, one-third fill with thixotropic anchor grout and offer up the indent into the pocket and ensure full contact is made with all surfaces. Sponge off any slurry from the face and leave to set for at least 24 hours before surface dressing or finishing the piece, making sure to feather the edges of the indent down flush first.

2.3.3 Bedding/securing ashlar stone

Apply water by hand spray to saturate the mating surfaces to limit suction. Check and adjust the consistency of the mortar to allow adequate 'bedding-in' without loss of the mortar's

structural strength. Remove excess moisture from the surface; apply a full, even bed of mortar to the lower surface before carefully lowering the upper piece in place taking care to avoid point loading and ensuring stone is bedded on the natural bed.

Secure masonry blocks to adjacent blocks of the same coursing with proprietary cramps, joggles or ad-hoc fabricated bar as appropriate, recessed flush centrally into the bedding face of the stones . Vertically terminate into each block by at least 40mm and at least 50mm from the edge of each block. Grout in place.

Secure blocks to masonry courses below with a minimum of two non-ferrous pins set vertically into the corresponding faces of the masonry blocks. Insert to a depth of at least 40mm and positioned at least 50mm away from the edge of each block. Grout in place.

2.3.4 Re-pointing stone joints generally

Point up prepared joints ensuring that mortar is compacted into the joint, excluding voids with a tool no wider than the joint. Where joints are large allow for pointing up in layers not exceeding 25mm. Finish the mortar proud of the surface to a tight, ironed finish. Allow to set green hard before knocking tight with the back of the bristle of a churn brush. Brush lightly to remove loose material. Hydraulic lime should not be knocked back but merely brushed lightly to remove the surface latence.

2.3.5 Pointing ashlar joints

Point up raked-out joints with narrow gauge non-ferrous metal pointing tools ensuring that mortar is pushed well into joints to fill all voids. Compact the mortar and finish the joint full and flush. Control drying out to provide a slow, even set utilizing hessian, plastic sheeting, damp wadding etc as appropriate to the location. After the initial set, tighten up the surface by knocking back with a fine churn bush or similar. Rake out & re-fill any areas that are found by the brush to be soft or voided.

2.3.6 Pinning fractured masonry

Agree with the Contract Administrator the precise location and depth of dowels. Form oversized holes as detailed in the method statement and clean with blown dry air. Pre-wet the holes and remove excess liquid. Insert and restrain the dowel with a jig to permit full contact between the dowel and the grout. Using a syringe and fine hose nozzle inject the grout slurry starting at the base of the void to ensure the exclusion of air pockets. Fully fill the void and allow time to set before setting the upper stone. Subject to site conditions and prior approval of the Contract Administrator, dowels may be secured initially by epoxy resin tipping (the lower end only) before grouting.

Where fractured masonry is separated from the main, drill holes for pins as above before carefully parting separate sections of stone to be cleaned and re-affixed with a butter coat of neat lime putty spread on inner face of two sections of stone.

2.3.7 Applying shelter-coat

Clean and consolidate surfaces as specified elsewhere. Immediately prior to application, thoroughly wet surface with repeated applications of water to ensure suction is eliminated.

Where necessary, re-constitute matured shelter-coat putty to plastic state before diluting to a single cream consistency at which point, add the casesin.

Apply shelter-coat to the stone surfaces with a soft-haired brush working the shelter-coat well into the surface especially into crevices and hairline cracks. As the shelter-coat application starts to turn matt work in shelter-coat a second time with a dry bristle brush. When the surface has completed dried, a small brush can be used to remove any excess that may have built up in undercut areas and fine detail.

Protect shelter-coat immediately after initial application with damp hessian/cloth and polythene. Ensure shelter-coat remains damp for at least two days. Re-wet shelter-coat during first few weeks after application.

2.3.8 Protecting and tending mortar pointing

It is the Contractors responsibility to continuously protect & tend to the mortar to ensure a slow, even set. During warm, dry weather new masonry work and pointing should be kept covered with dampened hessian to inhibit the rate of drying out and shaded from direct hot sunlight. During wet weather the finished work should be kept covered with waterproof sheeting to prevent soaking but allowed sufficient space for circulating air to encourage the continuation of the setting process.

No masonry work is to be carried out when temperature is below +4°C or below on a falling thermometer or +2°C on a rising thermometer and all work is to be protected against damage by frost at night by being covered with insulating material.

2.3.9 Combination grouting fine joints/fracture

Following preparation and flushing/wetting of the ashlar joint or fracture, surface-point to approximately 20mm depth and allow to stiffen. Where the reverse side of the masonry is accessible, repeat the process.

Working on the exterior face, form regular application/vent holes. Frequency will depend upon each site, however a minimum of two holes per void is to be formed.

Select between a 100 to 200ml 'nutrient' type hand syringe with broad barrel and nozzle together with polythene tube to apply grout into the void. Following the initial attempt, adjust the consistency of the grout to ensure a good flow into the void without undue pressure. Apply grout in a logical order, from high to low where applicable. Alternate between hand-pressure using the plunger and gravity grouting by removing the plunger and securing in an upright position well above the entry site to ensure optimal filling of the void.

Maintain observation of the inner surface to ensure the pointing is not breached. Whenever a breach is observed, refill and allow mortar plug to stiffen before-applying grout by gravity process only.

Allow initial pass to stiffen before carefully completing a final pass to ensure voids left by settlement and shrinkage are completely filled. Cap each application/vent hole with pointing mix.

2.3.10 Mortar repairs to ashlar and carved stone

Carefully cut back any friable and otherwise decayed stone in the area to be repaired, ensuring a good key is left for the repair to adhere onto. Wash and biocide the surface (see 2.2.8). Fully saturate the surface with repeated applications of water via a mist spray. Repeat until no further uptake of moisture is observed.

Place the mortar by compacting onto the substrate in layers not exceeding 9mm thickness. Control drying out to provide

a slow, even set utilizing hessian, plastic sheeting, damp wadding etc as appropriate to the location. Base and intermediate layers to be left rough or scored to provide a suitable key for subsequent layers.

The top coat to be laid and ironed in, proud of the final surface and allowed to go green hard, ironing further during the setting period before cutting and dressing back to the adjacent surfaces. Adjacent surfaces are to dictate the 'formality' or otherwise of the finished repair which is to be finished with uniform texture and laitance-free using small plasterer's tools and a wet sponge. Continue to protect from adverse environmental conditions and control drying out until fully cured.

Where repairs are more than 40mm thickness, provide reinforcement in the form of non-ferrous wire and/or threaded stud resin-anchored into the substrate. Alternatively, and where the location allows, the reinforcement may be formed with thin threaded stud formed into flat loops and secured into drilled pockets by the tension of the loop only.

Where formal carved profiles are to be formed, use sheet zinc or copper cut to the exact site profile and to 'run' between adjacent stone sections to obtain the final profile. Attend to any minor defects with small plasterer's tools and a wet sponge.

2.3.11 Paint removal - gloss paint

Carry out initial tests to determine effectiveness of the product, and then the thickness and amount of dwell time required before removal. Do not apply the poultice in temperatures near freezing. Protect it from direct sunlight and high ambient temperatures.

Using a small trowel, flat-blade scraper, or any suitable spreading tool, apply poultice 3mm to 6mm thick - even thicker on very thick paint layers. The thicker the paint layer, the longer the poultice needs to work and the thicker it must therefore be applied. If applied too thinly, it will dry out before it has time to work. Apply thin polythene (clingfilm, plasticbag, bin liner etc.) to the applied poultice to keep it moist.

Allow sufficient time for the chemical to dissolve the paint, anything from 15 minutes to several days. The thicker the paint layer, the longer it will take. One application can dissolve a very thick paint layer if given enough time to do so. Thin paint layers will only need 2 or 3 hours; many paint layers can be dissolved overnight. For very thick paint, leave for 2 days or longer. For plaster cornices etc., leave for at least 5 days. Very thick paint layers, particularly in the crevices of a detailed surface, will need further applications.

Remove the bulk of the poultice and dissolved paint, taking care not to scratch or damage the surface. The residue is then simply washed from the surface with a scrubbing brush, sponge and water. For plaster cornices etc., having removed the bulk of the poultice, allow the residue to dry - which will cause it to shrink slightly - then brush off and carefully pick out, before gently washing to finish off.

2.3.12 Paint removal - emulsion paint

Carry out initial tests to determine effectiveness of the product, and then the thickness and amount of dwell time required before removal. Ensure adequate through ventilation to the work area and observe manufacturer's safety data.

Generously apply the viscous solution by brush to the paint surface in a thick layer. A small area of the surface should be tested first to determine the time necessary for the product to work. This will be from 60 minutes, for very thin layers, up to

24 hours for thicker layers and sprayed on coatings. On thicker, more stubborn coatings, multiple applications may be required. Do not be allowed to dry out before being washed off otherwise re-applying will be necessary.

Remove the dissolved paint with a hot water pressure-washer, avoiding wetting the areas coated with the product until they are actually being cleaned by the jet of water. Where use of a pressure-washer is not practical, use a bucket of hot soapy water, a scrubbing brush and sponge. Repeat application and removal where necessary.

3 SCHEDULE OF WORKS

3 Schedule of Works

		Cost £	p
3.1	**Access, protections and preparatory work** *These items are in addition to any costs attributed to compliance with preliminary requirements noted in section 1, statutory requirements and contractor's ordinary overheads which are to be collected into 'preliminary costs' and identified in the tender summary (section 4)*		
3.1.1	Obtain formal consent to temporarily block the pedestrian pavement below and around the edifice for the duration of the Works. Ensure consent allows for any possible constriction of the carriageway.		
3.1.2	Obtain consent of neighbour to found scaffold on ground of the former gatehouse for the duration of the Works. Made good any damage occurring including any compaction of the soil and damage to planting.		
3.1.3	Erect, maintain, adjust and remove on completion suitable access and working scaffold with protective roof to carry out the necessary works to all levels of the edifice. Ensure scaffold is independent of walls and on secure founding. Allow for loads from temporary propping.		
3.1.4	Erect, maintain, adjust and remove on completion suitable security fencing to the perimeter of the contractor's site as clause 1.6.5 and as indicated on drawing GA01.		
3.1.5	To all stone surfaces below the lead capping of the cornice, remove general atmospheric soiling either by hand techniques as 2.2..7 or by low pressure mist spray.		
3.1.6	Lay sufficient tarpaulins, plastic sheeting or other suitable materials ypon the ground or scaffold lifts to catch and contain the waste products of the Works to within the contractors site and to facilitate their dis-		

		Cost £	p
	posal.		
3.1.7	Liaise with adjacent secondary school to agree upon a suitable field trip around the site. Allow for nominal 4 hours of site time to show and inform groups of pupils of the work being carried out.		
3.2	South east elevation (drawing GA02 and returns on GA05)		
3.2.1	Cut out and indent the following stone sections: Cart away debris arising. a. 27Nr dentils b. 1Nr corner section of lower frieze capping profile c. 2Nr sections of frame to memorial panel, including one corner section d. 1Nr piece of fillet moulding to righthand capital of arch column e. 1Nr section of ashlar to base of righthand arch column		
3.2.2	Biocide all areas to receive shelter-coat and the areas below the base of the columns. Prevent over-spill to other areas. Neutralize.		
3.2.3	Remove sulphate carbonate to areas indicated. Provide mortar fillets to 'open blisters'		
3.2.4	Carry out formal mortar repairs to the areas indicated.		
3.2.5	Shelter-coat areas indicated with hot-mix shelter-coat using at least 4 tones to prevent monolithic appearance.		

		Cost £	p
3.2.6	Allow for raking out and repointing of a nominal run of 500mm of ashlar joints		
3.2.7	Allow for an additional 0.5m2 of shelter-coat		
3.3	North west elevation (drawing GA03 and returns on GA05)		
3.3.1	Cut out and indent the following stone sections: Cart away debris arising.		
	a. 23Nr dentils		
	b. 1Nr section of the upper cornice middle profile		
	c. 3Nr sections of lower frieze capping including one external return		
	d. 1Nr corner section of frame to memorial panel		
	e. 1Nr sections of the lower frieze capping profile including four external returns		
	f. 5Nr sections of the capping profile of the arch		
	g. 1Nr external return section of capping of capital to lefthand arch column		
	h. 1Nr piece of fillet moulding to lefthand capital of arch column		
	i. 2Nr Significant sections of pilaster bases, left and right		
	j. 1Nr section of capping profile to righthand pilaster pedestal		
	k. 1Nr section of ashlar external return of lefthand pilaster pedestal		
3.3.2	Biocide all areas to receive shelter-coat and the areas below the base of the columns. Prevent over-spill to other areas. Neutralize.		

		Cost £	p
3.3.3	Remove sulphate carbonate to areas indicated. Provide mortar fillets to 'open blisters'		
3.3.4	Carry out formal mortar repairs to the areas indicated.		
3.3.5	Shelter-coat areas indicated with hot-mix shelter-coat using at least 4 tones to prevent monolithic appearance.		
3.3.6	Rake out, deep tamp and point up or point and back-grout the open or defective ashlar joints indicated. Tend and protect to ensure carbonation.		
3.3.7	To 6Nr fractures, pin and grout. Use nominal 3mm diameter pins set at nominal 100mm along fracture.		
3.3.8	Allow for an additional raking out and repointing of a nominal additional run of 500mm of ashlar joints		
3.3.9	Allow for pinning and grouting of nominal 300mm length of additional fractures		
3.3.10	Allow for an additional 0.5m2 of shelter-coat		
3.4	South west elevation (drawing GA04)		

		Cost £	p
3.4.1	Cut out and indent the following stone sections: Cart away debris arising.		
	a. 12Nr dentils		
	b. 1Nr section of the lower cornice middle profile		
	c. 1Nr section of lower frieze capping profile		
	d. 1Nr section of the lower frieze, external return		
	e. 1Nr external return section of capping of capital to lefthand pilaster		
	f. 1Nr Complete section of pilaster base, lefthand side		
	g. 2Nr sections of capping profile to pilaster pedestal		
	h. 3Nr sections of ashlar to pilaster pedestal		
3.4.2	Biocide all areas to receive shelter-coat and the areas below the base of the columns. Prevent overspill to other areas. Neutralize.		
3.4.3	Remove sulphate carbonate to areas indicated. Provide mortar fillets to 'open blisters'		
3.4.4	Carry out formal mortar repairs to the areas indicated.		
3.4.5	Shelter-coat areas indicated with hot-mix shelter-coat using at least 4 tones to prevent monolithic appearance.		
3.4.6	Allow for raking out and repointing of a nominal run of 500mm of ashlar joints		

		Cost £	p
3.4.7	Allow for pinning and grouting of nominal 300mm length of fractures		
3.4.8	Allow for an additional 1.0m2 of shelter-coat		
3.5	North east elevation (drawing GA04)		
3.5.1	Cut out and indent the following stone sections: Cart away debris arising. a. 1Nr dentil b. 1Nr section of the external corner of the dentil course c. 1Nr external corner section of lower frieze capping profile d. 1Nr external return section of capping of capital to righthand pilaster		
3.5.2	Biocide all areas to receive shelter-coat and the areas below the base of the columns. Prevent overspill to other areas. Neutralize.		
3.5.3	Remove sulphate carbonate to areas indicated. Provide mortar fillets to 'open blisters'		
3.5.4	Carry out formal mortar repairs to the areas indicated.		
3.5.5	Shelter-coat areas indicated with hot-mix shelter-coat using at least 4 tones to prevent monolithic appearance.		

		Cost £	p
3.5.6	Allow for raking out and repointing of a nominal run of 500mm of ashlar joints		
3.5.7	Allow for pinning and grouting of nominal 150mm length of fractures		
3.5.8	Allow for an additional 0.5m2 of shelter-coat		

3.6 Arch inner surfaces (drawing GA05)

3.6.1 Cut out and indent the following stone sections: Cart away debris arising.

a. 1Nr dentil
b. 1Nr section of the external corner of the dentil course
c. 1Nr external corner section of lower frieze capping profile
d. 1Nr external return section of capping of capital to righthand pilaster

3.6.2 Biocide all areas to receive shelter-coat and the areas below the base of the columns. Prevent overspill to other areas. Neutralize.

3.6.3 Remove sulphate carbonate to areas indicated. Provide mortar fillets to 'open blisters'

3.6.4 Carry out formal mortar repairs to the areas indicated.

		Cost £	p
3.6.5	Shelter-coat areas indicated with hot-mix shelter-coat using at least 4 tones to prevent monolithic appearance.		
3.6.6	To the areas of 'hand' graffiti, carry out incremental efforts to remove, starting with manual cleaning as 2.2.7. Where not effective carry out further trials of poultices as specified in clauses 2.1.15 and 2.1.6 before progressing to using the most effective product and process.. Cart away debris arising. For the purposes of pricing, allow for progressing to chemical poultices.		
3.6.6	Allow for raking out and repointing of a nominal run of 500mm of ashlar joints		
3.6.7	Allow for pinning and grouting of nominal 150mm length of fractures		
3.6.8	Allow for an additional 0.5m2 of shelter-coat		

Footnote: Additional stone indents and mortar repairs will be allowed for within the identified contingency sum.

TENDER SUMMARY 4

4 Tender summary

This section must be completed, signed and returned together with the priced schedule of Works by the tender due date to constitute a valid tender

4.1 Collection

		Collection £	p
	Preliminary costs		
3.1	Access, protections and preparatory work		
3.2	South east elevation		
3.3	North west elevation		
3.4	South west elevation		
3.5	North east elevation		
3.6	Inner arch surfaces		
	Contingency @ 15%		
	Total £		

4.2 Contractor's qualifications (if any)

4.3 Contractor's statement

In consideration of the Works described above our price of (in words)

……

Is hereby submitted for the Work to be carried out in accordance with this document and to the reasonable satisfaction of the Contract Administrator. Price valid for a period of five months

Our provisional assessment of VAT on the above is £……

Our proposed start date (subject to agreement) would be……

Duration of the contract would be……

Signed……Date……

For and on behalf of……

4.4 Rates

Provide hourly rates for the following trades to be used in the negotiation of additional works should they be instructed. Wherever possible rates from costs in the schedule of work will be utilised as a basis for agreeing costs for additional works where like-for-like work can be identified.

Trade: Mason

Tradesman

Labourer