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Schedule of Works

Royston War Memorial 17.101

FOR **REPAIRS TO WAR MEMORIAL**

AT **MELBOURN STREET, ROYSTON, HERTS**

FOR **ROYSTON TOWN COUNCIL**

DATE **FEBRUARY 2018**

A1 NAMES & ADDRESSES

Employer royston town council
Town Hall
Melbourn Street
Royston
SG8 7DA

Architects Freeland Rees Roberts Architects Ltd
25 City Road
Cambridge
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Principal Designer Freeland Rees Roberts

A2 DESCRIPTION OF SITE

Location of site: South side of Melbourn Street Royston, backing onto Priory Gardens. See drg no. 17.101. SP102.

Access and confines of working area for Contractor see drg no. 17.101. SP102

The Contractor is deemed to have visited the site, to have taken into consideration all local and existing conditions and to be thoroughly acquainted with the position and accessibility of the proposed works and the conditions under which they will have to be carried out. Visiting the site can be at any time.

A3 DESCRIPTION OF THE WORKS

Piece repairs to name plaques, lettering, new label stones, new ramps, paving, DOFF cleaning and miscellaneous repairs.

A4 CONTRACT DOCUMENTS

The Contract Documents are as follows:

1. The Specification & Schedule of Work (hereafter called the Specification).
2. The JCT Minor Works Contract 2016 Edition, as described in specification item A5.
3. The following drawings:
17.101.SP100A, 102, 103, SE300A, SZ401A

A5 CONTRACT PARTICULARS

The form of contract will be the JCT Minor Works Building Contract, 2016 Edition. The following is operative:

Attestation	The agreement will be executed under hand.	
4th Recital & Schedule 2	Base date	3 working days prior to the date for tender return
4th Recital & Clause 4.2	Construction Industry Scheme (CIS)	Employer at Base Date is not a contractor for the purposes of the CIS
5th Recital	CDM Regulations	The project is not notifiable
6th Recital	Framework Agreement	N/A
7th Recital & Schedule 3	Supplemental Provisions	
	Collaborative working	Paragraph 1 applies
	Health and safety	Paragraph 2 applies
	Cost savings and value improvements	Paragraph 3 applies
	Sustainable development and environmental considerations	Paragraph 4 applies
	Performance indicators and monitoring	Paragraph 5 does not apply
	Notification and negotiation of disputes <i>Where Supplemental Provision 6 applies, the respective nominees of the Parties shall be:</i>	Paragraph 6 applies
	Employer's nominee:	TBC
	Contractor's nominee:	TBC
Article 7	Arbitration	Article 7 and Schedule 1 (<i>Arbitration</i>) apply
2.2	Commencement Date	To be agreed
2.2	Completion Date	To be agreed <i>or such later date for completion as is fixed under clause 2.8</i>
2.8	Liquidated damages	At the rate of: £100 per week
2.10	Rectification Period	6 months from the date of Practical Completion

A5 CONTRACT PARTICULARS

4.3	Interim payments: Interim Valuations Dates	The first Interim date is to be agreed and thereafter at intervals of 1 month
4.3	Payments due prior to practical completion – percentage of the total value of work etc.	95%
4.3	Payments becoming due on or after practical completion – percentage of the total amount to be paid to the Contractor.	97.5%
4.3 & 4.8	Fluctuations provision	no fluctuations provision applies
4.3 & 4.8	Percentage addition for Schedule 2	N/A
4.8.1	Supply of documentation for computation of amount to be finally certified	3 months from the date of Practical Completion
5.3	Contractor's Public Liability Insurance: injury to persons or property – the required level of cover is not less than	£5M for any one occurrence or series of occurrences arising out of one event
5.4A, 5.4B & 5.4C	Insurance of the Works etc. – alternative provisions	Clause 5.4C applies (Works & existing structures insurance by other means)
5.4A & 5.4B	Percentage to cover professional fees	N/A
5.4C	Insurance arrangements – details of the required policy or policies	To be provided by employer
7.2	Adjudication – Nominating Body	Royal Institute of British Architects
Schedule 1	Arbitration – appointer of Arbitrator (and of any replacement)	President or Vice-President of the Royal Institute of British Architects

Statutory Obligations	<p>Comply with statutory obligations and regulations, give all notices, pay all fees and charges required by any Local Authority, Public Service or Statutory Undertaker, Police, Safety, Health and Welfare.</p> <p>Give notice to the Local Authority for inspections at all necessary stages required under the Building Regulations. Ensure a Notice of Completion is issued by the Local Authority to the Employer as soon after Practical Completion as possible.</p>
Prevention of Accident/ Nuisance	<p>Take all reasonable precautions necessary to prevent accidents or nuisance due to fire, noise, dust, smoke, water, rubbish etc.</p> <p>No radios to be used on site.</p>
Prevention of Damage/Loss	<p>a) Public and Private Services Notify all service authorities of proposed works before commencing site operations. So far as reasonable ascertain location of services or confirm that none exist in the vicinity of the works.</p> <p>b) Maintenance of Roads etc. Make good any damage beyond fair wear and tear caused by site traffic or site operations to Employer's private roads and footpaths.</p> <p>Keep approaches to the site clear of mud and debris.</p> <p>c) Trees and Shrubs Protect and preserve all trees and shrubs except those to be removed, in accordance with BS 5837 <i>Trees in relation to design, demolition & construction</i>. Large shrubs growing on the walls are to be pulled back carefully and given temporary support wherever possible.</p> <p>d) Existing Features Protect existing buildings, fences, gates, walls and other site features that are to remain in position during execution of the works.</p>
Progress	<p>a) Programme Prepare in an approved form a programme chart for the works, including work of all domestic and nominated subcontractors and other work concurrent with the Contract.</p> <p>Submit three copies of programme to the Architect within two weeks of contract signing and keep one copy in the site office.</p> <p>Record progress on the site office copy and update/redraft as circumstances arise and submit all revisions to the Architect.</p> <p>b) Site Meetings Hold monthly site meetings and weekly site visits.</p>
Resources, Temporary Works & Services	<p>a) General Maintain, alter, adapt and move temporary works and services as necessary. Clear away when no longer required and make good.</p>

- b) **Buildings**
Provide as necessary temporary facilities for offices, mess rooms, sanitary accommodation, secure stores for materials etc as required for your own use.
- c) **General Scaffolding**
Provide as necessary general scaffolding for the execution of the works.
- d) **Name Board**
Obtain approval for and provide a suitable temporary name board displaying consultants and contractors name plates.
- e) **Telephone**
Provide temporary telephone facilities for your own use.
- f) **Water, Lighting & Power**
Provide clean, fresh water, electricity and all equipment for lighting and power for the works, make temporary arrangements for storage (water) and distribution about the site. Provide lighting for any temporary hoardings and the like.
- g) **Plant Costs**
Provide all plant, tools and vehicles for the execution of the works.
- h) **Labour Costs**
Allow for all labour on costs.

Commodities & Workmanship

Quality, Testing & Approvals

- a) **Commodities**
To be new unless otherwise specified. Handle, store and fix commodities with care to ensure that they are in perfect condition when incorporated into the work.
- b) **Manufacturers' Recommendations**
Handle, store and fix each commodity in accordance with manufacturers' recommendations. Inform Architect if these conflict with any other specified requirement. Submit copies of manufacturers' recommendations to Architect when requested.
- c) **British Standards**
For commodities specified to a British Standard obtain certificates of compliance from manufacturers when requested by Architect.
- d) **Samples: Commodities**
Where approval of commodities is specified submit samples. Do not confirm orders for commodities until approval has been obtained. Retain approved samples on site for comparison with commodities used in the Works. Remove when no longer required.
- e) **Samples: Finished Work**
Where samples of finished work are specified obtain approval before proceeding with the works. Retain approved samples on site for comparison with the works. Remove when no longer required.

	<p>f) Building Regulations Main Contractor to ensure regular site visits by Building Inspector as required under Building Regulations and obtain the Completion Certificate at the end of works.</p>
Accuracy	<p>a) Setting Out Set out the works accurately from information provided by the Architect. Inform the Architect when overall setting out is complete and before commencing construction.</p> <p>b) Dimensions Check all dimensions both on drawings and site, particularly the correlation between components and the work in place. Drawings must not be scaled, work only to figured dimensions.</p> <p>c) Discrepancies The Architect must be notified of any discrepancies in the drawings or specification immediately.</p>
Protection	<p>a) The Site Safeguard the site, works, materials and plant from damage and theft. Take all reasonable precautions to prevent unauthorised access to the site, works and adjoining property.</p> <p>b) Cleanliness Keep the site and works clean and tidy. Clear away debris and surplus material as it accumulates.</p>
Drying	Allow for drying the works.
Completion	Leave the works clean and tidy at completion.
Nominated Firms/Public Bodies	
Prime Cost or Provisional Sums	For all work to be executed or commodities to be supplied by nominated subcontractors, nominated suppliers or public bodies have been included elsewhere in the contract documents.
Warranties	Forms of Warranty will be sought by the Employer from all nominated firms. You should not enter into subcontracts until you are satisfied that Forms of Warranty exist.
General Attendance	<p>Provide general attendance on nominated firms and public bodies including:</p> <p>a) Use of standing scaffolding.</p> <p>b) Use of general facilities.</p> <p>c) Space for office accommodation, storage of plant and of materials.</p> <p>d) Light, power and water.</p> <p>e) Clearing away rubbish.</p>
Supervision & Administration	Accept responsibility for the supervision, administration, co-ordination and integration of work of all subcontractors, suppliers and public bodies.

A complete set of legible contract drawings must be kept on site at all times. Update as necessary and make available for Architect's use as required.

Daywork

No additional work is to be carried out the value of which cannot be ascertained from the priced specification without the prior agreement of the Architect except where this would prevent the Contractor fulfilling his obligation under the Contract.

Maintenance Instructions

Copies of maintenance instructions and guarantees shall be obtained from subcontractors and manufacturers as required and given to the Architect within 14 days of Practical Completion.

Fire Precautions

Take all necessary precautions to prevent personal injury, death and damage to property and the fabric from fire. This care is to include:

- a) No smoking on site.
- b) No burning of rubbish on site. All rubbish must be removed from site.
- c) Inflammable materials must not be stored on site.

d) **Hot Work**

The general rule is that hot work is prohibited on site. In certain circumstances permission may be given where there is no practical alternative. If the Contractor wishes to carry out hot work he should make a prior application to the Architect for written consent.

Hot work is defined as operations involving:

Flame, hot air or arc welding and cutting equipment brazing and soldering, blowlamps, bitumen boilers, electrical element burners and other equipment producing naked flame and heat (e.g. high-speed drilling of any hard material which may be combustible or near combustible material).

Where the Architect's written permission has been received the contractor is to take all precautions to minimise fire risks.

Where prefabrication and Hot Work eg lead burning can be carried out at a minimum distance of 6 metres outside the building, on the ground and with no combustible materials within 6 metres of the Hot Work operation, it should be. Only as a last resort should hot work be carried out from the scaffolding or in the building.

Precautions to minimise fire risks should include:

- i Removal of combustible materials as agreed with Architect. Cleaning the area to remove dust and rubbish.
- ii Ventilation of enclosed spaces.
- iii Prior saturation with water of combustible materials that cannot be removed as agreed with Architect.
- iv Temporary covering of immovable combustible surfaces with a 50-75mm thickness of damp sand as agreed with Architect.

- v Removal of containers of inflammable gases or compressed gases.
- vi Protection of surrounding areas with flame retardant boards or other suitable fire-resistant material.
- vii The use of butane and not paraffin lamps where appropriate.
- viii Confining the Hot Work to mornings only.

The Contractor is to provide fire fighting equipment including:

- i Two portable extinguishers, buckets of water or sand to be immediately to hand.
- ii Fire hoses to hand (where appropriate and practical).
- iii Adequacy of water supply, and water pressure.
- iv Knowing the location of the nearest telephone. Builder's tools for opening up roofs, walls, telephone floors, etc.
- v Alerting the fire brigade of the time and location of the Hot Work.

Where the building has automatic fire detection systems the Contractor should make themselves aware of the Fire Instructions and procedures to be followed in the event of a fire.

The operatives to carry out the Hot Work are to be suitably qualified and experienced.

Numbers to be involved never to be less than 3 (i.e. 2 in addition to the experienced operative for standby surveillance).

Following Hot Work the contractor shall remain at the location for at least 1 hour after completion of the task (except for any essential minimum break, in which event alternative cover must be provided), during which time continuous inspections of the work shall be made with particular reference to the surrounding area to ascertain that there is no ignition.

A further inspection shall be made approximately 2 hours after the cessation of the Hot Work by the Contractor in conjunction with one of the standby operatives.

A record shall be made of the Hot Work by the Contractor and shall be sent to the Architect for filing with original written consent. This record is to include times, locations and subsequent checking information.

Fire extinguishers and appropriate fire-fighting equipment must be to hand during the whole of the attendance time.

NOTE: It may be prudent to advise Insurers in advance of the Hot Work operation so that they can inspect and, if necessary, approve procedures to be adopted.

**Policy Note
(Fire) 4/92**

Use of Portable Halogen Lamps

The use of portable halogen lamps for building and conservation works is barred. This does not affect the use of halogen lamps that are permanently secured, for such uses as floodlighting security lighting or emergency lighting. In these instances:

- i The angle of the lamp must be secured.
- ii The lamp must be fitted with a metal guard to avoid contact with any form of material.
- iii No combustible material or fitting which may be used for attaching combustible material shall be within two metres.

Hand held battery operated halogen lamps for conservation inspection work are not affected by this instruction.

Fluorescent, single or multi tube fittings are a low heat producing source and is one acceptable alternative.

Bats

The Wildlife and Country Act 1981 gives full protection to bats. It is illegal to kill, injure or handle bats and to intentionally damage or destroy a place used by bats for shelter or protection, or to obstruct access to such a place.

At tender stage the Contractor should contact the Natural England to establish if there are any bats in the building (Tel: 0300 060 600).

Information on looking for bats etc in buildings is available from Natural England. During the works, if the Contractor finds evidence of bats in the building, eg. bat droppings in roof spaces or below exposed roof trusses in churches, he is to immediately:

- i Stop work.
- ii Contact Natural England.
- iii Inform the Architect.

The Contractor is not to proceed with work until instructed by the Architect in writing.

Timber Treatment

Under no circumstances shall organochlorine woodwork killers (eg lindane) and fungicides be used. Synthetic pyrethroid insecticide, such as permethrin and cypermethrin can be used by an approved timber specialist.

Antiquities

Any fossils and other objects of interest or value which may be found on site or within the fabric of the building or during excavations are the property of the Employer. On discovery of such objects the Contractor must immediately:

- a) Cease work.

- b) Advise the Architect immediately. It may be necessary to call in the Diocesan Archaeological Advisor to inspect (and where necessary, the County Archaeologist will be contacted).

The Contractor is not to proceed with work in the area until instructed by the Architect in writing.

Excavations

When excavating in churchyards or in the grounds of Listed Buildings the Contractor is to inform the County Archaeologist one week prior to the works to enable them to visit site before and/or during the excavation to inspect.

Health & Safety

CDM Regulations 2015

The Contractor must take all reasonable steps to ensure the Health & Safety of those working on and visiting the construction site in accordance with all relevant Codes of Practice.

The Contractor must allow for full compliance with the current CDM Regulations and, where required, give notice of the project to the Health & Safety Executive **prior to construction work** commencing (normally for work lasting more than 30 days and involving 20 or more workers at any one time).

Where projects are notifiable or where more than one contractor is involved in the works or the Contractor is to employ one or more subcontractors, then the Contractor, unless otherwise stated, must allow for providing the role of **Principal Contractor** (PC) within the meaning of the CDM Regulations. This will involve liaising with the separate contractors on all matters concerning health and safety on the site and ensuring proper coordination of all the work on site.

Where more than one contractor is involved in the works or the Contractor is to employ one or more subcontractors, the Employer will ensure that a **Principal Designer** (PD) is appointed for the project and they will be responsible for issuing Pre-Construction Information and ensure that a Health and Safety File for the project is prepared on completion.

At the time of tender, Contractors must allow for full compliance and Health and Safety obligations.

The PC when appointed must:

- a) Prepare a Construction Phase Plan (CPP) prior to starting work. The CPP must be acceptable to the PD and submitted in good time.
- b) Discuss and advise all subcontractors with regard to the requirements of the CPP.
- c) Demand the full co-operation of all subcontractors.
- d) Ensure that all subcontractors employees are informed of on-site risk and know enough about the CPP to comply with it.
- e) Perform the same function with all of his own direct employees.

- f) Take reasonable steps to keep unauthorised persons off site.
- g) Update the CPP throughout the duration of the job.
- h) Provide the necessary information to the PD to enable him to include that information in the Health and Safety File.
- i) Provide adequate training to all site operatives.
- j) Consider all site generated risks and hazards including those arising from the design. These should be notified to the PD.
- j) The Health & Safety Executive no longer deems the use of ladders and working on flat roofs to be safe. They recommend that no work is carried out from a ladder over five metres high. If the ladder is over five metres it must be secured to approved and tested fixings, it is not acceptable to have an operative footing a ladder. Flat roofs must have parapets a minimum of 1100 mm high. If this is not the case a handrail must be erected, whatever the size of the project. It is no longer acceptable to work overhand, for example bedding coping stones unless a safety line exists.

DEMOLITIONS

Clean brick, stone and concrete from the demolitions that are reusable as hard-core to be stacked on site. The remainder is to be removed from the site.

All other materials and fittings are, unless specially mentioned to the contrary, to become the property of the Contractor and are to be removed from the site. The Contractor shall allow full credit for old material.

The pulling down and all operations for the full execution of the works are to be carried out in such a manner as to cause as little inconvenience as possible. Any damage caused to property not to be demolished is to be made good at the Contractor's expense. Allowance to be made for protection or temporary removal and replacement as appropriate.

The prices for all items of demolitions are to include for all necessary scaffolding, hoists, tarpaulins, screens etc and for removing all debris and rubbish off the site.

The Contractor is to allow in the price of the demolitions for removal of all fittings, redundant services and rubbish found within the building surplus to requirements.

If any asbestos is discovered during the course of the demolitions the Contractor is to stop work in that area and inform the Architect immediately.

Where materials and fittings are described to be set aside for re-use, the Contractor is to take particular care in the taking down and is to allow for carefully storing same until required and any damage caused is to be made good or replaced with new at the Contractor's expense.

The prices for blocking up openings, cutting new openings, pulling down lengths of wall and similar work are to include for:

- a) All requisite shoring, supports, frames etc that may be required to support and uphold the remaining and adjacent work, until the new work is completed and afterwards striking and removing.
- b) Getting out and removing all debris.
- c) Cutting, toothing and bonding new brick, blockwork to existing as applicable. Supply and building in of lintels etc.
- d) Extending internal and external finishing skirtings, floors etc, across opening into reveals and up to edges of new opening and frames as specifically described in each relevant item.
- e) Providing and fixing approved weather and burglar resistant temporary screens to openings formed in external walls.

GROUNDWORKS

Site Exploration	Where trial holes have been undertaken on the site and the report is included with the tender documents the Contractor is to allow for the ground conditions identified in the report.
Levels	<p>Set up and maintain an accurately ascertained site datum level based on an established bench mark. Reduced site levels and formation level are to be agreed with Structural Engineer</p> <p>Material to be removed from site: The term 'remove' used hereafter in this section means the removal from the site of all unwanted materials such as debris, tree roots, surplus soil, old drains and foundations etc. Remove all such material to a tip authorised by the local authority and pay all charges.</p>
Site Clearance	Before commencing excavations, clear site of rubbish, shrubs and general vegetation and remove.
Excavating	Carry out general bulk excavations to reduce site level and remove topsoil from the construction area down to formation level.
Voids in the Ground	Report any voids, soakaways, tanks or other similar potential hazards encountered and seek instructions. Back fill any voids caused by removing obstructions with hardcore and thoroughly compact.
Disused Drains	Plug any pipes. Cut off at the perimeter of excavations with foundations gravel concrete rammed into refusal (but not less than 300mm).
Existing Live Services	Report as soon as encountered and protect pending instructions. Notify all authorities concerned.
Setting Out	Set out and accurately position all foundations. Give adequate notice of when the setting out will be complete for the Architect to inspect.
Excavations	<p>Carry out trench excavations as set out on drawing. Responsibility for all design installation and maintenance of temporary works, support, planking and strutting required to form reduced levels of the trench excavation are all to be the Contractor's responsibility. Adopt the following procedures:</p> <ol style="list-style-type: none">Report if a firm bearing is encountered before the specified foundation depth is reached.Report if a firm bearing cannot be established at the specified foundation depth.Probe the bearing surface for soft spots. Report the extent and location of those encountered pending instructions in respect of additional excavation and backfilling with suitable material.Obtain approval for the excavations immediately before placing of foundation concrete, from the Structural Engineer and from the Building Inspector.Remove the final 75mm of soil and level and compact immediately before placing the concrete.Record and agree with Structural Engineer any levels that differ from those specified or declared provisional.

GROUNDWORKS

Safety	Adopt the following procedures: <ul style="list-style-type: none">a) Take whatever precautions necessary to eliminate any risk of collapse of the sides of the excavations. If any damage occurs he shall undertake any repair work as necessary or as directed at no additional cost to the contract.b) Ensure that excavations cause no risk to adjacent roads, paths or buildings etc.c) Keep raised soil well back from edges of excavations.d) Prevent (by barriers or other means) vehicles, plant, spoil or anything approaching the area adjacent to the edges of excavations.
Disposal of Excavated Material	Dispose of soil as follows: <ul style="list-style-type: none">a) Keep top soil separate and remove or stack on site as directed.b) Select the best of the excavated soil for filling and deposit in spoil heaps for that purposec) Remove all surplus spoil.
Sides of Excavations	In addition to the safety precaution previously mentioned, protect the side of excavations from deterioration and ensure that there is no risk of soil falling into concrete placed therein.
Concrete Works	Comply with BS 8500-2 <i>Concrete. Specification for constituent materials and concrete</i> and BS EN 1992-1-1 <i>Design of concrete structures. General rules and rules for buildings</i> , subject to any qualification given hereunder.
Excess excavations	Should there be any excavation in excess of that required for the works, make good the ground as directed and according to circumstances: note that reinstatement with lean mix concrete may be ordered.

CONCRETOR

Materials

Cement	Cement should be fresh ordinary (or white where specified for fair faced work) Portland Cement to BS EN 197-1 <i>Cement. Composition, specifications and conformity criteria for common cements</i> supplied in stout bags displaying the BSI Kitemark.
Sand	Sand should be washed coarse, sharp, pit sand graded in accordance with BS 812 <i>Testing aggregates</i> and BS EN 13139 <i>Aggregates for mortar</i> .
Coarse Aggregate	Coarse aggregate should be clean flint, stone or hard crusted granite, nominal size 20mm and graded in accordance with BS EN 12620 <i>Aggregates for concrete</i> .
Reinforcement	<p>Reinforcement, unless specified to the contrary, should be ribbed mild steel bar of British manufacture to BS 4449 <i>Steel for reinforcement of concrete</i>, free from grease, rust and mill scale.</p> <p>Where specified stainless steel reinforcement is to comply with BS 6744 <i>Stainless steel bars for the reinforcement of and use in concrete</i>.</p> <p>The cost of reinforced work is to include for the supply and fixing of all tying wires, stirrups, spaces, ancillary materials and bonding necessary to complete the work.</p>

Workmanship

	Workmanship generally is to comply with CP 110 <i>The structural use of concrete</i> Parts 1 to 3 and BS EN 1992-1-1 <i>Design of concrete structures</i> . Type C for formed finishes.
Fair Faced Work	Allow for wrot formwork to any fair faced work and ensure that no distortion or loss of grout occurs. Vibrate the concrete to ensure high degree of compaction. Strike formwork when concrete has reached its required strength and make good any minor blemishes in approved manner. Significant defects may require the breaking out and recasting of the element.
Frost	No concreting should be carried out during frosty weather and adequate precautions must be taken to protect finished work
Parapet Gutters	Where substructure of parapet gutters is specified as being solid excavate top of wall to a suitable depth, remove loose debris. Form temporary shuttering, isolate all timber plates by leaving a min. 12 mm air gap. Lay new gutter bottom to falls complete with drips, cess pools outlets 1:2:4 concrete or screed as appropriate.
Ring Beams	Form ring beams in accordance with the design detail provided. Excavate wall for beam, provide and fix temporary form work and support as necessary. Place and secure steel work reinforcement making sure that minimum concrete cover is 38 mm. Strike form work on completion.

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Materials

Lime	To be fresh non-hydraulic lime putty to BS890 from one of the following suppliers (or similar approved):		
	Chard Building Supplies	1 Cole Road, St Phillips, Bristol BS2 0UG	Tel. 01179 777681
	Singleton Birch Ltd	Melton Ross Quarries, Barnetby, South Humberside DN38 6AE	Tel. 01652 688386
	Bleaklow Industries Ltd	Hassop Avenue, Hassop, Bakewell, Derbyshire DE4 1NS (supply matured slaked lime putty in tubs)	Tel. 01246 582284
	Hirst Conservation Materials Ltd	Laughton Hall Farm House Sleaford, Laughton Lincolnshire NG34 0HE (supply lime putty & lime mortar)	Tel. 01529 497517
Sand	Shall be washed coarse, sharp sand, dark yellow or brown in colour, complying with the relevant provisions of BS1199. Aggregate must be added to the sand to improve match with the existing material. Aggregate may be obtained from natural sands, gravels, brick, shells, chalk or flint as appropriate. Existing original mortars are to be crushed and examined to check contents of original aggregate and are to be matched as much as possible.		
Water	Water must be clean, fresh and from the piped main.		
Bricks	Clay bricks shall comply with BS 3921 (1974) Part 1 Sections 1 & 2 and to be from sources approved by the Architect.		
Workmanship			
Mortar Mixes	Shall be 1:3 lime : sand or stonedust as specified. Pozzolanic materials are to be used where specified. Other specifications of mortars are to be used where specified.		
Mixing	Mortar must be carefully batched, gauged and mixed in accordance with best current practice. Additives shall not be used. Whenever possible coarse stuff must be left for minimum 24 hours before gauging with cement. Mixing shall preferably be carried out by one man to produce consistent results. Lime putty should be made and store in the traditional way and left for a minimum of 24 hours to fatten up. All bricks shall be well buttered with mortar before being laid with all joints flushed up as the work proceeds. Bricks with frogs to be laid frog up. Facework shall be kept perfectly clean and no rubbing down will be allowed.		

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Frost/Inclement Weather Precautions	<p>No mixing or application is to take place in temperature below 2°C on a falling thermometer or 1°C. (Lime sand mortars may require higher working temperatures – refer to manufacturer.)</p> <p>Newly placed or pointed work shall be protected where necessary from damage by night frost and drying effects of sun and wind with sacking or canvas frames applied to wall surfaces. Protect all newly repaired/erected work from inclement weather for minimum of seven days after completion of work.</p>
Brick Removal	Bricks are to be removed by drilling.
Repointing	
Trial Areas	Allow for trial areas of repointing for the Architect's approval before general repointing work proceeds.
Vegetable Growth	Brush off all loose moss and lichen growth and spray surface with Wykamol Green Range Fungicidal Concentrate by Cementone Beaver, in accordance with the manufacturer's instructions. Allow minimum 48 hours between completion of treatment and repointing.
Knapped Flintwork	Rake out loose and receded joints to minimum depth 38 mm. Liberally wet the backing mortar, press new mortar home and finish flush with a rag or stick, not a steel trowel. Brush down to remove surplus mortar after the initial set. Apply dressing of paraffin to the knapped faces.
Galletting	All existing gallets must be carefully reincorporated and any gaps made up with new gallets to match. Sometimes mortar joints are densely galletted with many fine flint flakes. New galletting should match existing in quantity of gallets in each joint as well as quality. Contractor to allow for sufficient quantities of new gallets to match existing.
Flushwork	Remove all flint flakes, rake out, wet backing, rebed and regallet as above, making up with new shaped flint flakes as required. Clean faces of flints with paraffin.
Ordinary Flintwork	Rake out joints to a firm backing (minimum depth 38 mm), liberally wet the existing mortar, press home new mortar firmly and finish slightly recessed with a rag or stick or brush (not a steel trowel). Brush after initial set to remove laitance from mortar surface and to expose aggregate.
Masonry	<p>Carefully rake out loose and open joints to a sound surface backing (twice the thickness of the joint but minimum 20 mm), wet and repoint using a 1:3 lime:sand or stonedust as specified. Joints to be flush but feather edging of mortar must be avoided by recessing the joint slightly as necessary. Finish joints flush with a rag, stick or brush.</p> <p>For wide joints with course aggregate mortar the joints should be stippled with a bristle brush to roughen the surface and tighten the joints.</p>

BRICKLAYER

Brickwork	Rake out all mortar in joints to twice the thickness of the joint but minimum 20 mm, whichever the greater, to a square firm backing, taking care not to damage the bricks themselves. Wet and repoint joints, avoiding mortar splashes on face of bricks. Joints to be finished flush with aggregate showing but feather edging of mortar must be avoided by recessing the joint slightly as necessary.
Rebuilding Flintwork	Dismantle flintwork back to a firm base. Wet backing and rebuild flintwork in short lifts taking care to match the existing flintwork. Build in bonding flints or stainless steel butterfly ties as directed to all areas of rebuilt flintwork in excess of 300 x 300 mm. Mortar for rebuilding must be as dry as possible while achieving a workable mix.
Grouting of Voids in Existing Structures	<p>Grout mixes may contain constituents from the following list and mix designs will be agreed on site: Water, fine sand, lime, pulverised fuel ash (PFA), polyester resin.</p> <p>Minor grouting operations of surface fractures, cracks and minor voids will usually be carried out using traditional hand/gravity methods. More detailed guidance is available from the Architect.</p> <p>Where larger scale grouting operations are specified the Contractor shall engage a suitable specialist subcontractor experienced in the type of work to be undertaken. The specialist subcontractor will be required to make detailed proposals for the materials, technique and procedures to be used in the grouting operations for the design team's approval. The Contractor must consult his subcontractor before submitting his tender and shall include a statement of method of grouting, proposed to be adopted, with his tender. The tender price for grouting must clearly show the breakdown of cost between the specialist's price and the main Contractor's work in connection with grouting, attendance etc.</p> <p>In all grouting operations there will be the following general requirements:</p> <ol style="list-style-type: none">Provide constant supervision and monitoring for leaks of water and grout, structural movement etc. Provide all temporary works.Keep accurate records showing volumes, mixes and pressures of water and grout used at each injection point. Copies of these records to be provided for the Architect and Engineer as soon as possible after each section of grouting.Allow for all building work and materials in connection with preparation for grouting and making good wall faces after and for cleaning off all grout stains etc. In gravity grouting operations allow for raising all materials to suitable level above grouting injection points.Flush out with clean water to remove loose material and thoroughly wet voids.Ensure that 100% grouting is being achieved by constantly checking results and regrouting as necessary.

STONWORK CLEANING

Trial Areas	Allow for trial areas of cleaning for the Architect's approval before general cleaning work proceeds.
Cleaning	<p>Use methods specified. Only JOS, nebulous sprays, poultice or microbe poultice will usually be specified.</p> <p>Allow for tight screening to area of walling being cleaned to prevent cleaning agents being blown about.</p> <p>Protect all adjoining fabric e.g. glass.</p> <p>Cleaning operations to be carried out in accordance with BS 8221-1 <i>Code of practice for cleaning and surface repair of buildings. Cleaning of natural stone, brick, terracotta and concrete</i> and BS 8221-2 <i>Code of practice for cleaning and surface repair of buildings. Surface repair of natural stones, brick and terracotta</i>.</p> <p>Protect rainwater disposal systems and drains from clogging by cleaning agents.</p>

Schedule of Works

Royston War Memorial

17.101

ITEM	DESCRIPTION	COST (£)
1.0	Introduction	
1.1	The following are brief descriptions supplementing the information shown on the drawings for pricing purposes. The contractor must include in their prices for everything shown on the drawings and in the schedules whether or not they are detailed below.	
1.2	The war memorial in Melbourn Street Royston has suffered erosion to the name plaques especially at the top. It is proposed to replace just the most damaged sections in matching Portland Stone and to protect from further erosion by inserting projecting label stones above them. Two small ramps will be inserted in the paving and the paving rebid. Other minor repairs will be undertaken as part of the work.	
1.3	Access from Melbourn Street is restricted as this is a busy road with double yellow lines and an adjacent pedestrian crossing. The pavement must not be obstructed at any time.	
1.4	Arrangements have been made for limited vehicular access into the Priory Gardens behind the memorial and a small compound. Details of this needs to be agreed with North Herts District Council and any damage reinstated to their satisfaction on completion.	
1.5	Any traffic movement across the Priory Gardens must be by the designated paths only and extreme care is to be taken (max speed 5mph) as this park is used constantly by the public, including elderly people and small children.	
1.6	A set of broad steps are available to the east of the memorial but these are regularly used by the public who must be given priority.	
1.7	No contractor parking will be permitted on the pavement, or on the Memorial itself.	
1.8	The contractor should note that the ground on the Priory Gardens side is approximately 1.5m above the pavement so transfer of personnel and materials between the two levels must be carefully considered and arrangements included in the Construction Phase Health and Safety Plan.	
2.0	General	
2.1	Allow for all preliminaries and preambles.	
2.2	Allow for all access equipment, small compound area, scaffolding, hop-ups	

	and temporary works that may be required.	
2.3	A shared lavatory will be made available for contractor's use during office hours in the nearby Town Hall and other public facilities are available in the town including Fish Hill which is nearby.	
	NB: If the contractor considers wc, welfare and wash facilities are required on site these must be allowed for in their pricing.	
2.4	Minimise dust and noise during the works. Protect all parts of the existing fabric of the memorial and adjacent landscaping from the works. Assume that all fabric is precious and protect it from damage and dust.	
2.5	Comply with all Health and Safety regulations including the CDM regulations.	
2.6	Keep the site safe and secure during the works. Protect all hazardous areas during the works. Provide Heras fencing to separate the works from the rest of the churchyard. Maintain safe pedestrian access to the entrance of the church.	
2.7	No electricity or water is available on site. The contractor must provide temporary facilities of their own as needed.	
2.8	Clear away debris as it accumulates. Carefully soft brush and vacuum down windows and other dusty surfaces on completion.	
2.9	Allow for a provisional sum of £1,500 for contingencies.	1,500
2.10	Allow a credit for all salvageable items/materials.	
2.11	All proprietary products and materials are to be employed in accordance with the manufacturer's recommendation, codes of practice etc.	
2.12	Read the Architect's drawings and the specification etc. together and allow for all the parts of the work shown and described.	
2.13	Allow Provisional Sum of £500 for Employer's additional insurance premium.	500
3.0	Masonry	
3.1	Using fine masonry tools carefully cut out the two name plaques as indicated. Allow for careful drawing and recording of all the names prior to removal.	
3.2	Make 2 no. new name plaques in Portland Stone. Provisionally allow 60mm thick. On left hand side plaque to extend to and include name of JW Mulberry and be to full width. On right side allow for left half of panel only down to and including JW Mulberry. See plaque details. Joints to be as fine	

cut as possible.

Allow for fixing new plaques, bedding and pointing with stone-dust and lime mortar mix to be agreed and using stainless steel dowels as necessary

3.3 Allow for replacing rope-work border detail to the left of the new portion of the right hand plaque to match the existing detail in Portland Stone. See plaque detail

3.4 Above each name plaque carefully cut out existing stone and insert 2 no. new Portland Stone label stones as detailed, allow 150 x 70 nominal size, with weathered top and drip, verify size and detail on site with architect. Bed into position with stone-dust and lime mortar mix to be agreed.

4.0 Lettering

4.1 New stone plaques to be cut and lettered in black enamel to exactly match the existing names.

4.2 Allow for all other lettering to be re-lettered in black enamel.

5.0 Masonry Cleaning

5.1 When stonework is complete allow for cleaning all existing stonework with DOFF cleaning system

6.0 Rendering & Repointing

6.1 NB All mortars and renders to be naturally hydraulic lime mortars from St Astier or Best of Lime: <https://bestoflime.co.uk/> Lime to be NHL 3.5 unless otherwise specified. Aggregates to include sharp sand with added grit. Pointing to be full and then brushed back slightly after initial set.

6.2 Final decision on type of lime and mixes will be made with Architect on site when the background conditions are known. Architect to approve samples.

6.3 Remove all the remaining render from the back of the apsed brick niche on west side and re-render with Best of Lime Rendacote, two coats 20mm thick overall.

6.4 Allow Provisional Sum of £1,500 for localised repointing of brickwork, to be agreed on site. 1,500

7.0 Paving & Landscaping

- 7.1 Take up all York stone paving and carefully set aside reusable slabs. (Leave in place the very top step next to the memorial itself)
- 7.2 Take up base at front of steps to allow for reduced levels as shown. Allow for excavation 300mm below pavement surface and back fill with well compacted MOT Type 1 with a min 100mm concrete layer on top for bedding granite setts and ramp paving
- 7.3 Supply and lay new light grey granite setts nominally 100x100x100 (supply sample for approval) in area shown bedded in 1:4 cement sand mix. Point with Azpects Easy Joint brush-in grout.
- 7.4 Form two ramps 1m wide as shown to 1:12 maximum slope in new diamond cut flame textured York stone sabs 50mm thick (supply sample for approval). Bed in 1:4 cement sand mix. Point with Azpects Easy Joint brush-in grout.
- 7.5 Relay all upper level York stone. Allow for 25% new slabs to match to make up damaged slabs. Bed in 1:4 cement sand mix. Point with Azpects Easy Joint brush-in grout. Agree layout on site. Lay to slight fall towards pavement.
- 7.6 Allow for raking out and repointing the very top step next to the memorial
- 7.7 To front lip of upper paved area allow for solid step in new dark grey flamed granite, 150 x 150 (Supply sample for approval). Bed in 1:4 cement sand mix. Point with Azpects Easy Joint brush-in grout.
- 7.8 Once complete make good all the landscaping around the memorial damaged by the works, rake in new topsoil and sow grass seed.

COLLECTION PAGE

1.0	Introduction
2.0	General
3.0	Masonry
4.0	Lettering
5.0	Masonry Cleaning
6.0	Rendering and Repointing
7.0	Paving and Landscaping

TOTAL (carried to form of tender)

TENDER FORM

Job Title **Royston War Memorial**

Job Number 17.101

We, the undersigned, agree to undertake and complete the whole of this work described in the Specification and Schedule of Work for the fixed price of:

Contract

Duration We are prepared to complete the whole of the work in _____ weeks.

Tender

Acceptance This tender is open for acceptance within _____ weeks of this tender.

Schedule of Rates Any work carried out on a time basis would be carried out at the following rates:

Craftsmen	£ _____	per hour
Labourers	£ _____	per hour
Percentage on basic cost of materials	_____	%

The above rates include travelling time, holidays with pay, National Insurance etc.

Proviso It is understood that the Employer is not bound to accept the lowest or any tender, and the contractor is prepared to undertake the work in accordance with the JCT Minor Works Contract 2016 Edition.

Please Note The priced schedule with items individually costed is to be returned with this form.

Site Visit We confirm that we have visited the site and have taken into account all factors reasonably apparent from site inspection in our tender.

Signed _____

On behalf of _____

Date _____

Note VALUE ADDED TAX IS NOT INCLUDED IN THE ABOVE

Value Added Tax is estimated at £ _____ subject to the Collector's approval.

This calculation will bring the total sum payable to £ _____