



Specification and Schedule of Work

for

Phase II Repairs

at

OTFORD, ARCHBISHOP'S PALACE

867503

June 2016

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LONDON

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867503 Otford, Archbishops Palace, Repairs Phase II Prelims

20 June 2016

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A10 PROJECT PARTICULARS

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110 THE PROJECT

- Name: Otford, Archbishop's Palace.
- Nature: Conservation & Repairs.
- Location: The Archbishop's Palace, south of St Bartholomew's Parish Church, Otford, Kent.
- Length of contract: 12 weeks.

120 EMPLOYER (CLIENT)

- Name: Sevenoaks District Council.
- Address: Council Offices, Argyle Road, Sevenoaks, Kent TN13 1HG.
- Contact: Mr Dave Shaw.
- Telephone: 01732 227000.
- E-mail: Dave.Shaw@sevenoaks.gov.uk.

130 PRINCIPAL CONTRACTOR (CDM)

- Name: T.B.C.
- Address: _____.
- Contact: _____.
- Telephone: _____.
- E-mail: _____.

140 ARCHITECT/ CONTRACT ADMINISTRATOR

- Name: Thomas Ford & Partners.
- Address: 177 Kirkdale, Sydenham, London SE26 4QH.
- Contact: John Bailey.
- Telephone: 020 8659 3250.
- E-mail: John.bailey@thomasford.co.uk.

150 PRINCIPAL DESIGNER

- Name: Pierce Hill Project Services Ltd.
- Address: 7 Tonbridge Chambers, Pembury Road, Tonbridge, Kent TN9 2HZ.
- Contact: Peter Rowe.
- Telephone: 01732 471 288.
- E-mail: peterrowe@phproject.services.

A11 TENDER AND CONTRACT DOCUMENTS

- 110 TENDER DRAWINGS
 - The tender drawings are: 867503/ 01-07.
- 120 CONTRACT DRAWINGS
 - The Contract Drawings: The same as the tender drawings.
- 160 PRECONSTRUCTION INFORMATION
 - Format: The Preconstruction information is described in these preliminaries in Section A34. It refers to information given elsewhere in the preliminaries and other tender documents.

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A12 THE SITE/ EXISTING BUILDINGS

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- 110 THE SITE
 - Description: The exterior and interior of the Palace north western tower. The whole site and buildings are a Scheduled Ancient Monument.
- 120 EXISTING BUILDINGS ON/ ADJACENT TO THE SITE
 - Description: The two sections of the surviving Palace are linked by a surviving range of buildings now in private hands. The whole site is surrounded by a field within which are further remains of the Palace.
- 200 ACCESS TO THE SITE
 - Description: There is no vehicle access to the site. The Contractor might like to negotiate with the Parish Church about using their car park. Parking and storage is available down the side of the gatehouse fragment behind the Cedar tree.
 - Limitations: The site is passed by a public footpath and this must not be blocked.
- 210 PARKING
 - Restrictions on parking of the Contractor's and employees' vehicles: There is no parking on site, but parking is available next to the gatehouse fragment.
- 220 USE OF THE SITE
 - General: Do not use the site for any purpose other than carrying out the Works.
 - Limitations: Do not enter or take bearings off the adjacent properties.
- 230 SURROUNDING LAND/ BUILDING USES
 - General: Adjacent or nearby uses or activities are as follows:
 - The Tower stands within grounds which are archaeologically sensitive and are a Scheduled Ancient Monument. No excavation is allowed on site.
- 240 HEALTH AND SAFETY HAZARDS
 - General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However the following hazards are or may be present:
 - Collapsing brickwork to tower internally and externally. Unstable window heads.
 - Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representative. Ascertain if any additional information is required to ensure the safety of all persons and the Works.
 - Site staff: Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.
- 250 SITE VISIT
 - Assessment: Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
 - Arrangements for visit: with Miss Emma Vincent email: Emma.Burdett@sevenoaks.gov.uk. The tower is locked at all times.

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- Description: Urgent and preventative conservation repairs.

A20 JCT MINOR WORK BUILDING CONTRACT (MW)

JCT MINOR WORKS BUILDING CONTRACT

- The Contract: JCT Minor Works Building Contract 2011 Edition, incorporating amendment 1, March 2015..
- Requirement: Allow for the obligations, liabilities and services described.

THE RECITALS

First - THE WORKS AND THE CONTRACT ADMINISTRATOR

- The work comprises: Urgent and preventative conservation repairs.
- Architect/ Contract Administrator: See clause A10/140.

Second - CONTRACT DOCUMENTS

- Contract drawings: As listed in clause A11/120.
- Contract documents: The following have been prepared which show and describe the work to be done Specification.

Third - PRICED DOCUMENTS

- Documents to be priced or provided by the Contractor: Specification.

THE ARTICLES

3 - ARCHITECT/ CONTRACT ADMINISTRATOR

- Architect/ Contract Administrator: See clause A10/140.

4 and 5 - PRINCIPAL DESIGNER/ PRINCIPAL CONTRACTOR

- Principal Designer: See clause A10/150.
- Principal Contractor: See clause A10/130.

CONTRACT PARTICULARS

Fourth Recital and Schedule 2 - BASE DATE

- Base date: Date of tender return.

Fourth Recital and clause 4.2 - CONSTRUCTION INDUSTRY SCHEME (CIS)

- Employer at the Base Date is not a 'contractor' for the purposes of the CIS.

Fifth Recital - CDM REGULATIONS

- The project is notifiable.

Sixth Recital - FRAMEWORK AGREEMENT

- Framework agreement: N/A.
- Details:
 - Date: _____.
 - Title: _____.
 - Parties: _____.

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- Seventh Recital and Schedule 3 - SUPPLEMENTAL PROVISIONS
- Collaborative working: Paragraph 1 Does not apply.
 - Health and safety: Paragraph 2 Applies.
 - Cost savings and value improvements: Paragraph 3 Does not apply.
 - Sustainable development and environmental considerations: Paragraph 4 Does not apply.
 - Performance indicators and monitoring: Paragraph 5 Does not apply.
 - Notification and negotiation of disputes: Paragraph 6 Applies. Where paragraph 6 applies, the respective nominees of the parties are:
 - Employer's nominee: CA.
 - Contractor's nominee: TBC .
 Or such replacement as each party may notify to the other from time to time.
- Article 7 - ARBITRATION
- Article 7 and Schedule 1 Applies.
- Clause 2.2 - COMMENCEMENT AND COMPLETION
- Date for Commencement of the Works: Within 4 weeks of an order being placed.
 - Date for Completion: Within 12 weeks.
- Clause 2.8 - LIQUIDATED DAMAGES
- At the rate of £500 per week.
- Clause 2.10 - RECTIFICATION PERIOD
- Period: 6 months from the date of practical completion from the date of practical completion.
- Clause 4.3 - PERCENTAGE OF THE TOTAL VALUE OF THE WORK ETC.
- Percentage: 95.
- Clause 4.4 - PERCENTAGE OF THE TOTAL AMOUNT TO BE PAID TO THE CONTRACTOR
- Percentage: 97.5.
- Clause 4.8.1 - SUPPLY OF DOCUMENTATION FOR COMPUTATION OF AMOUNT TO BE FINALLY CERTIFIED
- Period: 3 months from the date of practical completion.
- Clause 4.11 and Schedule 2 - CONTRIBUTION, LEVY AND TAX CHANGES
- Clause 4.11 and Schedule 2 will be deleted.
- Clause 5.3.2 - CONTRACTOR'S INSURANCE - INJURY TO PERSONS OR PROPERTY
- Insurance cover (for any one occurrence or series of occurrences arising out of one event): £10,000,000.
- Clauses 5.4A, 5.4B and 5.4C - INSURANCE OF THE WORKS ETC - ALTERNATIVE PROVISIONS
- Clause Clause 5.4B applies.

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Clauses 5.4A.1 and 5.4B.1.2 - PERCENTAGE TO COVER PROFESSIONAL FEES

- Addition: 15 per cent.

Clause 7.2 - ADJUDICATION

- The Adjudicator is: N/A.
- Nominating body: RIBA.

Schedule 1 paragraph 2.1 - ARBITRATION

- Appointor of Arbitrator (and of any replacement): President or a Vice president of the: RIBA.

THE CONDITIONS

SECTION 1: DEFINITIONS AND INTERPRETATION

1.4 - RECKONING PERIODS OF DAYS

- Amendments: None.

1.7 - APPLICABLE LAW

- Amendments: None.

SECTION 2: CARRYING OUT THE WORKS

SECTION 3: CONTROL OF THE WORKS

SECTION 4: PAYMENT

SECTION 5: INJURY, DAMAGE AND INSURANCE

SECTION 6: TERMINATION

SECTION 7: SETTLEMENT OF DISPUTES

EXECUTION

- The Contract: Will be executed under hand.

CONTRACT GUARANTEE BOND

- Contract Guarantee Bond: Is not required.

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A30 TENDERING/ SUBLETTING/ SUPPLY

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MAIN CONTRACT TENDERING

- 110 SCOPE
- General: These conditions are supplementary to those stated in the Invitation to Tender and on the form of tender.
- 145 TENDERING PROCEDURE
- General: In accordance with NBS Guide to Tendering for Construction Projects.
 - Errors: Alternative 2 is to apply.
- 160 EXCLUSIONS
- Inability to tender: Immediately inform if any parts of the work as defined in the tender documents cannot be tendered.
 - Relevant parts of the work: Define those parts, stating reasons for the inability to tender.
- 170 ACCEPTANCE OF TENDER
- Acceptance: No guarantee is offered that any tender will be recommended for acceptance or be accepted, or that reasons for non acceptance will be given.
 - Costs: No liability is accepted for any cost incurred in the preparation of any tender.
- 190 PERIOD OF VALIDITY
- Period: After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than 16 weeks.
 - Date for possession/ commencement: See section A20.

PRICING/ SUBMISSION OF DOCUMENTS

- 210 PRELIMINARIES IN THE SPECIFICATION
- The Preliminaries/ General conditions sections (A10-A56 inclusive) must not be relied on as complying with SMM7/ NRM2.
- 250 PRICED DOCUMENTS
- Alterations: Do not alter or qualify the priced documents without written consent. Tenders containing unauthorised alterations or qualifications may be rejected.
 - Measurements: Where not stated, ascertain from the drawings.
 - Deemed included: Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender.
 - Submit: with Tender.
- 310 TENDER
- General: Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

- 440 SCHEDULE OF RATES
- Schedule of rates (unpriced): Included with the tender documents. The Contractor may insert additional items. All items must be fully priced.
 - Fully priced copy: Submit with Tender.
- 510 ALTERNATIVE METHOD TENDERS
- General: In addition to and at the same time as tendering for the Works as defined in the tender documents, alternative methods of construction/ installation may be submitted for consideration. Alternatives, which would involve significant changes to other work, may not be considered.
 - Alternative tenders: Such alternatives will be deemed to be alternative tenders and each must include a complete and precise statement of the effects on cost and programme.
 - Safety method statement: Carry out a health and safety risk assessment for each alternative and where appropriate provide a safety method statement suitable for incorporation in the Health and Safety Plan.
 - Full technical data: Submit for each alternative together with details of any consequential amendments to the design and/ or construction of other parts of the Works.
 - Submit: with Tender.
- 515 ALTERNATIVE TIME TENDERS
- General: In addition to and at the same time as tendering based upon the date or period specified in section A20, an alternative tender based upon a different date for completion or period may be submitted.
 - Date for completion: If any such tender is accepted the date for completion inserted in the Contract will be the date stated in the alternative tender or determined from the period stated in the alternative tender.
- 530 SUBSTITUTE PRODUCTS
- Details: If products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered.
 - Compliance: Substitutions accepted will be subject to the verification requirements of clause A31/200.
- 550 HEALTH AND SAFETY INFORMATION
- Content: Describe the organisation and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
 - Include:
 - A copy of the contractor's health and safety policy document, including risk assessment procedures.
 - Accident and sickness records for the past five years.
 - Records of previous Health and Safety Executive 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.
 - Submit: with Tender.

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- 570 OUTLINE CONSTRUCTION PHASE HEALTH AND SAFETY PLAN
- Content: Submit the following information within one week of request:
 - Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
 - Details of the management structure and responsibilities.
 - Arrangements for issuing health and safety directions.
 - Procedures for informing other contractors and employees of health and safety hazards.
 - Selection procedures for ensuring competency of other contractors, the self-employed and designers.
 - Procedures for communications between the project team, other contractors and site operatives.
 - Arrangements for cooperation and coordination between contractors.
 - Procedures for carrying out risk assessment and for managing and controlling the risk.
 - Emergency procedures including those for fire prevention and escape.
 - Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
 - Arrangements for welfare facilities.
 - Procedures for ensuring that all persons on site have received relevant health and safety information and training.
 - Arrangements for consulting with and taking the views of people on site.
 - Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
 - Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
 - Review procedures to obtain feedback.
- 599 FREEDOM OF INFORMATION
- Records: Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the Freedom of Information Act.
 - Determination: Submit requests received. Do not supply information to anyone other than the project participants without express written permission.
 - Confidentiality: Maintain at all times.

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A31 PROVISION, CONTENT AND USE OF DOCUMENTS

DEFINITIONS AND INTERPRETATIONS

- 110 DEFINITIONS
- Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated therein or in the appropriate British Standard or British Standard glossary.
- 120 COMMUNICATION
- Definition: Includes advise, inform, submit, give notice, instruct, agree, confirm, seek or obtain information, consent or instructions, or make arrangements.
 - Format: In writing to the person named in clause A10/140 unless specified otherwise.
 - Response: Do not proceed until response has been received.
- 130 PRODUCTS
- Definition: Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
 - Includes: Goods, plant, materials, site materials and things for incorporation into the Works.
- 135 SITE EQUIPMENT
- Definition: All appliances or things of whatsoever nature required in or about the construction for completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
 - Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.
- 140 DRAWINGS
- Definitions: To BSRIA BG 6 A design framework for building services. Design activities and drawing definitions.
 - CAD data: In accordance with BS 1192.
- 145 CONTRACTOR'S CHOICE
- Meaning: Selection delegated to the Contractor, but liability to remain with the specifier.
- 155 SUBMIT PROPOSALS
- Meaning: Submit information in response to specified requirements.

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160 TERMS USED IN SPECIFICATION

- Remove: Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes taking out and disposing of associated pipework, wiring, ductwork or other services.
- Fix: Receive, unload, handle, store, protect, place and fasten in position and disposal of waste and surplus packaging including all labour, materials and site equipment for that purpose.
- Supply and fix: As above, but including supply of products to be fixed. All products to be supplied and fixed unless stated otherwise.
- Keep for reuse: Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, adequately protect and store until required by the Employer/ Purchaser or for use in the Works as instructed.
- Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
- Repair: Execute remedial work to designated products. Make secure, sound and neat. Excludes redecoration and/ or replacement.
- Refix: Fix removed products.
- Ease: Adjust moving parts of designated products or work to achieve free movement and good fit in open and closed positions.
- Match existing: Provide products and work of the same appearance and features as the original, excluding ageing and weathering. Make joints between existing and new work as inconspicuous as possible.
- System: Equipment, accessories, controls, supports and ancillary items, including installation, necessary for that section of the work to function.

170 MANUFACTURER AND PRODUCT REFERENCE

- Definition: When used in this combination:
 - Manufacturer: The firm under whose name the particular product is marketed.
 - Product reference: The proprietary brand name and/ or reference by which the particular product is identified.
- Currency: References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

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- 200 SUBSTITUTION OF PRODUCTS
- Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
 - Reasons: Submit reasons for the proposed substitution.
 - Documentation: Submit relevant information, including:
 - manufacturer and product reference;
 - cost;
 - availability;
 - relevant standards;
 - performance;
 - function;
 - compatibility of accessories;
 - proposed revisions to drawings and specification;
 - compatibility with adjacent work;
 - appearance;
 - copy of warranty/ guarantee.
 - Alterations to adjacent work: If needed, advise scope, nature and cost.
 - Manufacturers' guarantees: If substitution is accepted, submit before ordering products.
- 210 CROSS REFERENCES
- Accuracy: Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
 - Related terminology: Where a numerical cross-reference is not given the relevant sections and clauses of the specification will apply.
 - Relevant clauses: Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
 - Discrepancy or ambiguity: Before proceeding, obtain clarification or instructions.
- 220 REFERENCED DOCUMENTS
- Conflicts: Specification prevails over referenced documents.
- 230 EQUIVALENT PRODUCTS
- Inadvertent omission: Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.
- 240 SUBSTITUTION OF STANDARDS
- Specification to British Standard or European Standard: Substitution may be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK.
 - Before ordering: Submit notification of all such substitutions.
 - Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.
- 250 CURRENCY OF DOCUMENTS AND INFORMATION
- Currency: References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

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260 SIZES

- General dimensions: Products are specified by their co-ordinating sizes.
- Timber: Cross section dimensions shown on drawings are:
 - Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.
 - Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

DOCUMENTS PROVIDED ON BEHALF OF THE EMPLOYER

410 ADDITIONAL COPIES OF DRAWINGS/ DOCUMENTS

- Additional copies: Issued free of charge.

440 DIMENSIONS

- Scaled dimensions: Do not rely on.

450 MEASURED QUANTITIES

- Ordering products and constructing the Works: The accuracy and sufficiency of the measured quantities is not guaranteed.
- Precedence: The specification and drawings shall override the measured quantities.

460 THE SPECIFICATION

- Coordination: All sections must be read in conjunction with Main Contract Preliminaries/ General conditions.

**DOCUMENTS PROVIDED BY CONTRACTOR/
SUBCONTRACTORS/ SUPPLIERS**

630 TECHNICAL LITERATURE

- Information: Keep on site for reference by all supervisory personnel:
 - Manufacturers' current literature relating to all products to be used in the Works.
 - Relevant British, EN or ISO Standards.

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A32 MANAGEMENT OF THE WORKS

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GENERALLY

110 SUPERVISION

- General: Accept responsibility for coordination, supervision and administration of the Works, including subcontracts.
- Coordination: Arrange and monitor a programme with each subcontractor, supplier, local authority and statutory undertaker, and obtain and supply information as necessary for coordination of the work.

115 CONSIDERATE CONSTRUCTORS SCHEME

- Registration: Before starting work, register the site and pay the appropriate fee:
- Contact:
 - Address: Considerate Constructors Scheme Office, PO Box 75, Great Amwell, Ware, Hertfordshire, SG12 0YX.
 - Tel. 01920 485959.
 - Fax. 01920 485958.
 - Free phone 0800 7831423
 - Web. www.ccscheme.org.uk
 - E mail. enquiries@ccscheme.org.uk
- Standard: Comply with the Scheme's Code of Considerate Practice.
 - Minimum compliance level: _____.

120 INSURANCE

- Documentary evidence: Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract.

130 INSURANCE CLAIMS

- Notice: If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the Employer, the person named in clause A10/140 and the Insurers.
- Failure to notify: Indemnify the Employer against any loss, which may be caused by failure to give such notice.

140 CLIMATIC CONDITIONS

- Information: Record accurately and retain:
 - Daily maximum and minimum air temperatures (including overnight).
 - Delays due to adverse weather, including description of the weather, types of work affected and number of hours lost.

150 OWNERSHIP

- Alteration/ clearance work: Materials arising become the property of the Contractor except where otherwise stated. Remove from site as work proceeds.

PROGRAMME/ PROGRESS

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- 210 PROGRAMME
- Master programme: Immediately when requested and before starting work on site submit in an approved form a master programme for the Works, which must include details of:
 - Planning and mobilisation by the Contractor
 - Subcontractor's work.
 - Running in, adjustment, commissioning and testing of all engineering services and installations.
 - Work resulting from instructions issued in regard to the expenditure of provisional sums.
 - Work by others concurrent with the Contract.
 - Submit at prestart meeting.
- 245 START OF WORK ON SITE
- Notice: Before the proposed date for start of work on site give minimum notice of 6 weeks.
- 260 SITE MEETINGS
- General: Site meetings will be held to review progress and other matters arising from administration of the Contract.
 - Frequency: Monthly.
 - Location: On site.
 - Accommodation: Ensure availability at the time of such meetings.
 - Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.
 - Chairperson (who will also take and distribute minutes): Architect.
- 280 PHOTOGRAPHS
- Number of locations: All working areas.
 - Frequency of intervals: Weekly.
 - Image format: To be confirmed.
 - Number of images from each location: One.
 - Other requirements: N/A.
- 290 NOTICE OF COMPLETION
- Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
 - Associated works: Ensure necessary access, services and facilities are complete.
 - Period of notice (minimum): 2 weeks.
- 310 EXTENSIONS OF TIME
- Notice: When a notice of the cause of any delay or likely delay in the progress of the works is given under the contract, written notice must also be given of all other causes which apply concurrently.
 - Details: As soon as possible submit:
 - Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
 - An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
 - All other relevant information required.

CONTROL OF COST

- 420 REMOVAL/ REPLACEMENT OF EXISTING WORK
- Extent and location: Agree before commencement.
 - Execution: Carry out in ways that minimize the extent of work.
- 430 PROPOSED INSTRUCTIONS
- Estimates: If a proposed instruction requests an estimate of cost, submit without delay and in any case within seven days.
- 440 MEASUREMENT
- Covered work: Give notice before covering work required to be measured.
- 450 DAYWORK VOUCHERS
- Before commencing work: Give reasonable notice to person countersigning daywork vouchers.
 - Content: Before delivery each voucher must be:
 - Referenced to the instruction under which the work is authorised.
 - Signed by the Contractor's person in charge as evidence that the operatives' names, the time daily spent by each and the equipment and products employed are correct.
 - Submit: By the end of the week in which the work has been executed.
- 470 PRODUCTS NOT INCORPORATED INTO THE WORKS
- Ownership: At the time of each valuation, supply details of those products not incorporated into the Works which are subject to any reservation of title inconsistent with passing of property as required by the Conditions of Contract, together with their respective values.
 - Evidence: When requested, provide evidence of freedom of reservation of title.

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A33 QUALITY STANDARDS/ CONTROL

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STANDARDS OF PRODUCTS AND EXECUTIONS

110 INCOMPLETE DOCUMENTATION

- General: Where and to the extent that products or work are not fully documented, they are to be:
 - Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
 - Suitable for the purposes stated or reasonably to be inferred from the project documents.
- Contract documents: Omissions or errors in description and/ or quantity shall not vitiate the Contract nor release the Contractor from any obligations or liabilities under the Contract.

120 WORKMANSHIP SKILLS

- Operatives: Appropriately skilled and experienced for the type and quality of work.
- Registration: With Construction Skills Certification Scheme.
- Evidence: Operatives must produce evidence of skills/ qualifications when requested.

130 QUALITY OF PRODUCTS

- Generally: New. (Proposals for recycled products may be considered).
- Supply of each product: From the same source or manufacturer.
- Whole quantity of each product required to complete the Works: Consistent kind, size, quality and overall appearance.
- Tolerances: Where critical, measure a sufficient quantity to determine compliance.
- Deterioration: Prevent. Order in suitable quantities to a programme and use in appropriate sequence.

135 QUALITY OF EXECUTION

- Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- Colour batching: Do not use different colour batches where they can be seen together.
- Dimensions: Check on-site dimensions.
- Finished work: Without defects, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- Location and fixing of products: Adjust joints open to view so they are even and regular.

- 140 COMPLIANCE
- Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied.
 - Compliance with performance specifications: Submit evidence of compliance, including test reports indicating:
 - Properties tested.
 - Pass/ fail criteria.
 - Test methods and procedures.
 - Test results.
 - Identity of testing agency.
 - Test dates and times.
 - Identities of witnesses.
 - Analysis of results.
- 150 INSPECTIONS
- Products and executions: Inspection or any other action must not be taken as approval unless confirmed in writing referring to:
 - Date of inspection.
 - Part of the work inspected.
 - Respects or characteristics which are approved.
 - Extent and purpose of the approval.
 - Any associated conditions.
- 160 RELATED WORK
- Details: Provide all trades with necessary details of related types of work. Before starting each new type or section of work ensure previous related work is:
 - Appropriately complete.
 - In accordance with the project documents.
 - To a suitable standard.
 - In a suitable condition to receive the new work.
 - Preparatory work: Ensure all necessary preparatory work has been carried out.
- 170 MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS
- General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
 - Changes to recommendations or instructions: Submit details.
 - Ancillary products and accessories: Use those supplied or recommended by main product manufacturer.
 - Agrément certified products: Comply with limitations, recommendations and requirements of relevant valid certificates.
- 180 WATER FOR THE WORKS
- Mains supply: Clean and uncontaminated.
 - Other: Do not use until:
 - Evidence of suitability is provided.
 - Tested to BS EN 1008 if instructed.

SAMPLES/ APPROVALS

- 211 SAMPLES
- Products or executions: Comply with all other specification requirements and in respect of the stated or implied characteristics either:
To match a sample expressly approved as a standard for the purpose.

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- 220 APPROVAL OF PRODUCTS
- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
 - Approval: Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
 - Complying sample: Retain in good, clean condition on site. Remove when no longer required.
- 230 APPROVAL OF EXECUTION
- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
 - Approval: Relates to the stated characteristics of the sample. (If approval of the finished work as a whole is required this is specified separately). Do not conceal, or proceed with affected work until compliance with requirements is confirmed.
 - Complying sample: Retain in good, clean condition on site. Remove when no longer required.

ACCURACY/ SETTING OUT GENERALLY

- 330 APPEARANCE AND FIT
- Tolerances and dimensions: If likely to be critical to execution or difficult to achieve, as early as possible either:
 - Submit proposals; or
 - Arrange for inspection of appearance of relevant aspects of partially finished work.
 - General tolerances (maximum): To BS 5606, tables 1 and 2.

SERVICES GENERALLY

- 410 SERVICES REGULATIONS
- New or existing services: Comply with the Byelaws or Regulations of the relevant Statutory Authority.

SUPERVISION/ INSPECTION/ DEFECTIVE WORK

- 525 ACCESS
- Extent: Provide at all reasonable times access to the Works and to other places of the Contractor or subcontractors where work is being prepared for the Contract.
 - Designate: Architect.
- 530 OVERTIME WORKING
- Notice: Prior to overtime being worked, submit details of times, types and locations of work to be done.
 - Minimum period of notice: 2 weeks.
 - Concealed work: If executed during overtime for which notice has not been given, it may be required to be opened up for inspection and reinstated at the Contractor's expense.

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540 DEFECTS IN EXISTING WORK

- Undocumented defects: When discovered, immediately give notice. Do not proceed with affected related work until response has been received.
- Documented remedial work: Do not execute work which may:
 - Hinder access to defective products or work; or
 - Be rendered abortive by remedial work.

560 TESTS AND INSPECTIONS

- Timing: Agree and record dates and times of tests and inspections to enable all affected parties to be represented.
- Confirmation: One working day prior to each such test or inspection. If sample or test is not ready, agree a new date and time.
- Records: Submit a copy of test certificates and retain copies on site.

610 DEFECTIVE PRODUCTS/ EXECUTIONS

- Proposals: Immediately any work or product is known, or appears, to be not in accordance with the Contract, submit proposals for opening up, inspection, testing, making good, adjustment of the Contract Sum, or removal and re-execution.
- Acceptability: Such proposals may be unacceptable and contrary instructions may be issued.

WORK AT OR AFTER COMPLETION

710 WORK BEFORE COMPLETION

- General: Make good all damage consequent upon the Works.
Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed.
- Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
- Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
- COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
- Minor faults: Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.
- Moving parts of new work: Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.

720 SECURITY AT COMPLETION

- General: Leave the Works secure with, where appropriate, all accesses closed and locked.
- Keys: Account for and adequately label all keys and hand over to Employer with itemized schedule, retaining duplicate schedule signed by Employer as a receipt.

730 MAKING GOOD DEFECTS

- Remedial work: Arrange access with the Architect.
- Rectification: Give reasonable notice for access to the various parts of the Works.
- Completion: Notify when remedial works have been completed.

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A34 SECURITY/ SAFETY/ PROTECTION

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SECURITY, HEALTH AND SAFETY

121 EXECUTION HAZARDS

- Common hazards: Not listed. Control by good management and site practice.
- Significant hazards: The design of the project includes the following:
 - Hazard: Imminent danger of collapse of sections of internal and external brickwork.
 - Precautions assumed: Full assessment of risk. Implement temporary support before any work is undertaken.
 - Hazard: Working within an enclosed space.
 - Precautions assumed: No single person working, escape routes noted.
 - Hazard: Working at height.
 - Precautions assumed: All necessary safety barriers, harnesses.
 - Hazard: Falling material.
 - Precautions assumed: Do not work under dangerous material until made safe, monitor constantly and change safety precautions as necessary.
 - Hazard: Lightning strike.
 - Precautions assumed: Do not work during electrical storms externally.
 - Hazard: Work above and close to areas occupied by the public and private owners.
 - Precautions assumed: Ensure all safety barriers, temporary works and separation are in place.
 - Hazard: Work on unstable brickwork.
 - Precautions assumed: Ensure all temporary support works are in place before any works are undertaken.
 - Hazard: Lifting items over 15kgs.
 - Precautions assumed: All necessary lifting equipment and labour.
 - Hazard: Vibration injury.
 - Precautions assumed: Working within legal working hour limitations.
 - Hazard: Contamination from pigeons and other fouling.
 - Precautions assumed: Clean site before work commences. Maintain cleanliness.

131 PRODUCT HAZARDS

- Hazardous substances: Site personnel levels must not exceed occupational exposure standards and maximum exposure limits stated in the current version of HSE document EH40: Workplace Exposure Limits.
- Common hazards: Not listed. Control by good management and site practice.
- Significant hazards: Specified construction materials include the following:
 - Hazard: Caustic burn.
 - Material: All lime-based products.
 - Hazard: Dust.
 - Precautions assumed: The cutting of all brick and stone materials.

- 140 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN
- Submission: Present to the Employer/ Client no later than 2 weeks before commencement on site.
 - Confirmation: Do not start construction work until the Employer has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by the CDM Regulations.
 - Content: Develop the plan from and draw on the Outline Construction Phase Health and Safety Plan, clause A30/570, and the Pre-tender Health and Safety Plan/ Preconstruction information.
- 150 SECURITY
- Protection: Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
 - Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.
 - Special requirements: Ensure site is secure at all times. No ladders of materials left on site out of working hours.
- 160 STABILITY
- Responsibility: Maintain the stability and structural integrity of the Works and adjacent structures during the Contract.
 - Design loads: Obtain details, support as necessary and prevent overloading.
- 171 OCCUPIED PREMISES
- Extent: Existing buildings will be occupied and/ or used during the Contract as follows: The adjoining houses remain in use throughout the contract period.
 - Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.
- 210 EMPLOYER'S REPRESENTATIVES SITE VISITS
- Safety: Submit details in advance, to the Employer or the person identified in clause A10/140, of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
 - Protective clothing and/ or equipment: Provide and maintain on site for the Employer and the person stated in clause A10/140 and other visitors to the site.
- 221 WORKING PRECAUTIONS/ RESTRICTIONS
- Hazardous areas: Operatives must take precautions as follows:
 - Work area: The site.
 - Precautions: No single person working.

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PROTECT AGAINST THE FOLLOWING

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- 331 NOISE AND VIBRATION
- Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
 - Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
 - Restrictions: Do not use:
 - Percussion tools and other noisy appliances without consent outside working areas.
 - Radios or other audio equipment not permitted on site.
- 340 POLLUTION
- Prevention: Protect the site, the Works and the general environment including the atmosphere, land, streams and waterways against pollution.
 - Contamination: If pollution occurs inform immediately, including to the appropriate Authorities and provide relevant information.
- 350 PESTICIDES
- Use: Not permitted.
- 360 NUISANCE
- Duty: Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
 - Surface water: Prevent hazardous build-up on site, in excavations and to surrounding areas and roads.
- 370 ASBESTOS CONTAINING MATERIALS
- Duty: Report immediately any suspected materials discovered during execution of the Works.
 - Do not disturb.
 - Agree methods for safe removal or encapsulation.
- 371 DANGEROUS OR HAZARDOUS SUBSTANCES
- Duty: Report immediately suspected materials discovered during execution of the Works.
 - Do not disturb.
 - Agree methods for safe removal or remediation.
- 375 ANTIQUITIES
- Duty: Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the Works.
 - Preservation: Keep objects in the exact position and condition in which they were found.
 - Special requirements: No excavations allowed on site.
- 380 FIRE PREVENTION
- Duty: Prevent personal injury or death, and damage to the Works or other property from fire.
 - Standard: Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by Construction Industry Publications and The Fire Protection Association (The 'Joint Fire Code').
- 390 SMOKING ON SITE
- Smoking on site: Not permitted.

- 400 BURNING ON SITE
- Burning on site: Not permitted.
- 410 MOISTURE
- Wetness or dampness: Prevent, where this may cause damage to the Works.
 - Drying out: Control humidity and the application of heat to prevent:
 - Blistering and failure of adhesion.
 - Damage due to trapped moisture.
 - Excessive movement.
- 420 INFECTED TIMBER/ CONTAMINATED MATERIALS
- Removal: Where instructed to remove material affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.
 - Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other micro organisms are within acceptable levels.
- 430 WASTE
- Includes: Rubbish, debris, spoil, surplus material, containers and packaging.
 - General: Minimize production. Prevent accumulations. Keep the site and Works clean and tidy.
 - Handling: Collect and store in suitable containers. Remove frequently and dispose off site in a safe and competent manner:
 - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
 - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
 - Recyclable material: Sort and dispose at a Materials Recycling Facility approved by the Waste Regulation Authority.
 - Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
 - Waste transfer documentation: Retain on site.
- 440 ELECTROMAGNETIC INTERFERENCE
- Duty: Prevent excessive electromagnetic disturbance to apparatus outside the site.
- 460 POWER ACTUATED FIXING SYSTEMS
- Use: Not permitted.
- 470 INVASIVE SPECIES
- General: Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or Works economically, environmentally or ecologically.
 - Special precautions: None.
 - Duty: Report immediately any suspected invasive species discovered during execution of the Works.
 - Do not disturb.
 - Agree methods for safe eradication or removal.

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PROTECT THE FOLLOWING

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510 EXISTING SERVICES

- Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
- Identification: Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.
- Work adjacent to services:
 - Comply with service authority's/ statutory undertaker's recommendations.
 - Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
- Identifying services:
 - Below ground: Use signboards, giving type and depth;
 - Overhead: Use headroom markers.
- Damage to services: If any results from execution of the Works:
 - Immediately give notice and notify appropriate service authority/ statutory undertaker.
 - Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
 - Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
- Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

520 ROADS AND FOOTPATHS

- Duty: Maintain roads and footpaths within and adjacent to the site and keep clear of mud and debris.
- Damage caused by site traffic or otherwise consequent upon the Works: Make good to the satisfaction of the Employer, Local Authority or other owner.

530 EXISTING TOPSOIL/ SUBSOIL

- Duty: Prevent over compaction of existing topsoil and subsoil in those areas which may be damaged by construction traffic, parking of vehicles, temporary site accommodation or storage of materials and which will require reinstatement prior to completion of the Works.
- Protection: Before starting work submit proposals for protective measures.

540 RETAINED TREES/ SHRUBS/ GRASSED AREAS

- Protection: Preserve and prevent damage, except those not required.
- Replacement: Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

- 550 **RETAINED TREES**
- Protected area: Unless agreed otherwise do not:
 - Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within an area which is the larger of the branch spread of the tree or an area with a radius of half the tree's height, measured from the trunk.
 - Sever roots exceeding 25 mm in diameter. If unintentionally severed give notice and seek advice.
 - Change level of ground within an area 3 m beyond branch spread.
- 555 **WILDLIFE SPECIES AND HABITATS**
- General: Safeguard the following: Do not contaminate streams that run past south of gate.
 - Protected habitats and species: Upon discovery immediately advise. Do not proceed until instruction is received.
 - Education: Ensure employees and visitors to the site receive suitable instruction and awareness training.
- 560 **EXISTING FEATURES**
- Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.
 - Special requirements: Do not remove any material from site without consent.
- 570 **EXISTING WORK**
- Protection: Prevent damage to existing work, structures or other property during the course of the work.
 - Removal: Minimum amount necessary.
 - Replacement work: To match existing.
- 580 **BUILDING INTERIORS**
- Protection: Prevent damage from exposure to the environment, including weather, flora, fauna, and other causes of material degradation during the course of the work.
- 625 **ADJOINING PROPERTY RESTRICTIONS**
- Precautions:
 - Prevent trespass of workpeople and take precautions to prevent damage to adjoining property.
 - Pay all charges.
 - Remove and make good on completion or when directed.
 - Damage: Bear cost of repairing damage arising from execution of the Works.
- 630 **EXISTING STRUCTURES**
- Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
 - Supports: During execution of the Works:
 - Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining, that may be endangered or affected by the Works.
 - Do not remove until new work is strong enough to support existing structure.
 - Prevent oversteering of completed work when removing supports.
 - Adjacent structures: Monitor and immediately report excessive movement.
 - Standard: Comply with BS 5975 and BS EN 12812.

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640 MATERIALS FOR RECYCLING/ REUSE

- Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.
- Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

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**A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/
TIMING**

170 WORKING HOURS

- Specific limitations: 8am to 5.30pm Monday to Friday. There is no weekend working permitted.

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A36 FACILITIES/ TEMPORARY WORK/ SERVICES

£

GENERALLY

110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES

- Location: Give notice and details of intended siting.
- Maintenance: Alter, adapt and move as necessary. Remove when no longer required and make good.

ACCOMMODATION

210 ROOM FOR MEETINGS

- Facilities: Provide suitable temporary accommodation for site meetings, adequately heated and lit. The room may be part of the Contractor's own site offices.
- Furniture and Equipment: Provide table and chairs for 6 people.

230 TEMPORARY ACCOMMODATION

- Proposals for temporary accommodation and storage for the Works: Submit two weeks prior to starting on site.
- Details to be included: Type of accommodation and storage, its siting and the programme for site installation and removal.

TEMPORARY WORKS

340 NAME BOARDS/ ADVERTISEMENTS

- Name boards/ advertisements: Not permitted.

SERVICES AND FACILITIES

421 POWER

- Provide generators as necessary for the supply of electrical power for lighting and tools. Do not use outside working hours. Store petrol or other fuels off site.

431 WATER

- There is no water on site. Bring water to site and store correctly.

440 TELEPHONES

- Direct communication: As soon as practicable after the Date of Possession provide the Contractor's person in charge with a mobile telephone.

550 THERMOMETERS

- General: Provide on site and maintain in accurate condition a maximum and minimum thermometer for measuring atmospheric shade temperature, in an approved location.

570 PERSONAL PROTECTIVE EQUIPMENT

- General: Provide for the sole use of those acting on behalf of the Employer, in sizes to be specified:
 - Safety helmets to BS EN 397, neither damaged nor time expired. Number required: 5.
 - High visibility waistcoats to BS EN ISO 20471 Class 2. Number required: 5.
 - Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: 5.
 - Disposable respirators to BS EN 149.FFP1S.
 - Eye protection to BS EN 166.
 - Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
 - Hand protection - to BS EN 388, 407, 420 or 511 as appropriate.

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**A40 CONTRACTOR'S GENERAL COST ITEMS:
MANAGEMENT AND STAFF**

110 MANAGEMENT AND STAFF

- Cost significant items: _____.

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**A41 CONTRACTOR'S GENERAL COST ITEMS: SITE
ACCOMMODATION**

110 SITE ACCOMMODATION

- Details: Site accommodation required or made/ not made available by the Employer: See section A36.
- Cost significant items: _____.

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**A42 CONTRACTOR'S GENERAL COST ITEMS: SERVICES
AND FACILITIES**

110 SERVICES AND FACILITIES

- Details: Services or facilities required or made/ not made available by the Employer: See section A36.
- Cost significant items: _____.

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**A43 CONTRACTOR'S GENERAL COST ITEMS:
MECHANICAL PLANT**

110 MECHANICAL PLANT

- Cost significant items: _____.

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**A44 CONTRACTOR'S GENERAL COST ITEMS:
TEMPORARY WORKS**

110 TEMPORARY WORKS

- Details: Temporary works required or made/ not made available by the Employer: See section A36.
- Cost significant items: _____.

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A54 PROVISIONAL WORK/ ITEMS

- 110 PROVISIONAL SUMS FOR DEFINED WORK
- Item: Pointing.
 - Description of work: Additional raking out and pointing.
 - Provisional Sums: Include £2,000.
 - Allow for general attendance.
- 210 PROVISIONAL SUMS FOR UNDEFINED WORK
- Item: Masonry.
 - Description of work: Additional masonry conservation.
 - Provisional Sums: Include £2,000.
 - Allow for general attendance.
- 590 CONTINGENCIES
- Provisional sum: Include: £4,000.

£

867503 Otford, Archbishops Palace, Repairs Phase II, W&M

20 June 2016

This document includes:

Code	Section	Revision	Dated
C41	Repairing/ Renovating/ Conserving masonry		

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C41 Repairing/ Renovating/ Conserving masonry

To be read with Preliminaries/ General conditions

GENERALLY/ PREPARATION

110 SCOPE OF WORK

- Schedule: Attached to Specification.
- Records of masonry to be repaired: Before starting work, use measurements and photographs as appropriate to record bonding patterns, joint widths, special features, etc.
- Identification of masonry units to be removed, replaced or repaired: Mark clearly, but not indelibly, on face of masonry units or parts of units to be cut out and replaced. Transcribe markings to drawings/ photographs.

120 SITE INSPECTION

- Purpose: To confirm type and extent of repair/ renovation/ conservation work shown on drawings and described in survey reports and schedules of work.
- Parties involved: Architect, English Heritage, Sevenoaks District Council and Contractor.
- Timing: At start of works on site.
- Instructions issued during inspection: by Architect.

130 REMOVAL OF PLANT GROWTHS FROM MASONRY

- Plants, root systems and associated soil/ debris: Carefully remove from joints, voids and facework.
- Removal of roots: Where growths cannot be removed completely without disturbing masonry seek instructions.
- Unwanted plants close to masonry: Where removal of root system is not possible or desirable, cut through stem as close to the ground as possible. Remove bark from stump and apply herbicide paste. Leave stump to wither.

140 RECORD OF WORK

- General: Record work carried out to masonry clearly and accurately using written descriptions, sketches, drawings and photographs, as necessary.
- Specific records: Marked up copies of tender documents showing extent of executed works.
- Documentation: Submit on completion of the work.
 - Number of sets: Two.

WORKMANSHIP GENERALLY

150 POWER TOOLS

- Usage for removal of mortar: Not permitted.

155 PUTLOG SCAFFOLDING

- Usage: Not permitted.

160 PROTECTION OF MASONRY UNITS AND MASONRY

- Masonry units: Prevent overstressing during transit, storage, handling and fixing. Store on level bearers clear of the ground, separated with resilient spacers. Protect from adverse weather and keep dry. Prevent soiling, chipping and contamination. Lift units at designed lifting points, where provided.
- Masonry: Prevent damage, particularly to arrises, projecting features and delicate, friable surfaces. Prevent mortar/ grout splashes and other staining and marking on facework. Protect using suitable nonstaining slats, boards, tarpaulins, etc. Remove protection on completion of the work.

165 STRUCTURAL STABILITY

- General: Maintain stability of masonry. Report defects, including signs of movement that are exposed or become apparent during the removal of masonry units.

170 DISTURBANCE TO RETAINED MASONRY

- Retained masonry in the vicinity of repair works: Disturb as little as possible.
- Existing retained masonry: Do not cut or adjust to accommodate new or reused units.
- Retained loose masonry units and those vulnerable to movement during repair works: Prop or wedge so as to be firmly and correctly positioned.

180 WORKMANSHIP

- Skill and experience of site operatives: Appropriate for types of work on which they are employed.
 - Documentary evidence: Submit on request.

185 ADVERSE WEATHER

- General: Do not use frozen materials or lay masonry units on frozen surfaces.
- Air temperature: Do not bed masonry units or repoint:
 - In cement gauged mortars when ambient air temperature is at or below 3°C and falling or unless it is at least 1°C and rising, unless mortar has a minimum temperature of 4°C when laid and the masonry is adequately protected.
 - In hydraulic lime:sand mortars when ambient air temperature is at or below 5°C and falling or unless it is at least 3°C and rising.
 - In nonhydraulic lime:sand mortars in cold weather, unless approval is given.
- Temperature of the work: Maintain above freezing until mortar has fully set.
- Rain, snow and dew: Protect masonry by covering during precipitation, and at all times when work is not proceeding.
- Hot conditions and drying winds: Prevent masonry from drying out rapidly.
- New mortar damaged by frost: Rake out and replace.

190 CONTROL SAMPLES

- General: Complete an area of each of the following types of work, and arrange for inspection before proceeding with the remainder: Brickwork, pointing, masonry consolidation, mortar repairs.

MATERIAL/ PRODUCTION/ ACCESSORIES

210 ADVANCE REGISTRATION

- Material registered in advance by the Employer: Obtain from the supplier named in Preliminaries section A56.
 - Ordering: Supersede the Employer's registration and take over responsibility by an order to the supplier covering price, supply and delivery to suit the progress of the work.

215 MATERIAL SAMPLES

- Representative samples of designated materials: Submit before placing orders.
 - Designated materials: Building sands, replacement bricks.
- Retention of samples: Unless instructed otherwise, retain samples on site for reference. Protect from damage and contamination.

220 RECORDING PROFILES

- Profiles: Take measurements from existing masonry units, as instructed, to allow accurate matching of replacements.
- Recording in situ: If there are no suitable joints to allow use of inserts, seek instructions.
- Drawings and templates: Prepare as necessary. Templates must be clearly and indelibly marked to identify use and location.

230 INSPECTION OF DRAWINGS, TEMPLATES, CASTS, ETC

- Timing: Before starting production of masonry units associated with the following items: All replacement stones.
- Period of notice (minimum): One week.

241 KENTISH STONE

- Supplier: [Gallagher's Hermitage Lane Quarry, Hermitage Lane, Barming, Maidstone, Kent, ME20 7PX (Tel: 01622 716 543)].
- Type: [Kentish ragstone, for rubble facings and dressed stone].
- Quality: Free from vents, cracks, fissures, discolouration, or other defects that may adversely affect strength, durability or appearance. Thoroughly seasoned, dressed and worked in accordance with shop drawings prepared by the supplier.
Finish: [Rubble: Rough hewn, hammer dressed or similarly tooled to match existing rubble where re-facings are specified. New facings in rubble to match surface texture of adjacent existing work].

245 REPLACEMENT STONE UNITS

- Sizes and profiles: To match existing masonry. Maintain existing joint widths.
- Sinkings for fixings, joggles and lifting devices: Accurately aligned and positioned in relation to existing masonry.
- Marking: Mark each block/ dressing clearly and indelibly on a concealed face to indicate the natural bed and position in the finished work.

250 STONE ORIENTATION

- Orientation of natural bed:
 - In plain walling: Horizontal.
 - In projecting stones and copings: Vertical and perpendicular to wall face.
 - In arches: Perpendicular to line of thrust.

255 ASHLAR BLOCKS/ DRESSINGS

- Cutting and dressing stone: To true and regular surfaces, free from hollow or rough areas.

258 EXISTING TEMPLATES

- General: Templates for replacement stones are available for making copy templates.

260 BRICKS

- Manufacturer: Lambs Bricks and Arches, Nyewood Court, Brookers Road, Billingshurst, West Sussex, RH14 9RZ (Tel: 01403 785 141) or Bulmer Brick and Tile Company, The Brickfields, Bulmer, Sudbury, Suffolk, CO10 7EF (Tel: 01787 269 232).
 - Product reference: Handmade red bricks to match colour and texture of original 16th century bricks.
- Size: To match existing.
- Special shapes: Chamfered corners.
- Recycled content: N/A.

DISMANTLING/ REBUILDING

310 DISMANTLING MASONRY FOR REUSE

- Masonry units to be reused: Remove carefully and in one piece.
 - Treatment: Clean off old mortar, organic growths and dirt, and leave units in a suitable condition for rebuilding.
 - Identification: Mark each unit clearly and indelibly on a concealed face, indicating its original position in the construction. Transcribe markings to drawings/ photographs.

321 REBUILDING

- Replacement materials: [Existing salvaged bricks and other materials].
- Mortar:
 - Mix: [1:3 NHL 2 hydraulic lime and aggregate].
 - Sand source/ type: [Well graded non marine, quarry or river sand aggregate, sharp up to 3mm with chalk nodules as well].
- Rebuilding: To match previous face and joint lines, joint widths and bonding. Adequately bonded to retained work/ backing masonry, as appropriate.
- Joint surfaces: Dampen, as necessary, to control suction.
- Laying masonry units: On a full bed of mortar; perpend joints filled.
- Exposed faces: Remove mortar and grout splashes immediately.
- Joints: [Joints recessed 2mm].

REPLACEMENTS AND INSERTIONS

330 PREPARATION FOR REPLACEMENT MASONRY

- Defective material: Carefully remove to the extent agreed. Do not disturb, damage or mark adjacent retained masonry.
- Existing metal fixings, frame members, etc: Report when exposed.
- Redundant metal fixings: Remove.
- Recesses: Remove projections and loose material; leave joint surfaces in a suitable condition to receive replacement units. Protect from adverse weather if units are not to be placed immediately.

341 REPLACEMENT OF STONE

- Stone: Kentish ragstone as clause 241.
- Bedding depths: To match existing minimum 200mm.
- Mortar:
 - Mix: 1:3 NHL 2 hydraulic lime and aggregate.
 - Sand source/ type: Well graded non marine, quarry or river washed.
- Joints: To match existing.

361 TILE REPLACEMENT OF MASONRY ELEMENTS

- Tiles: Second hand Kent peg tiles colour red.
 - Installation: Tiles cut neatly, laid to break joints, set into backing on a full bed of mortar.
- Mortar:
 - Mix: 1:3 lime putty and aggregate.
 - Sand source/ type: Well graded non marine, quarry or river washed, with aggregate up to 3mm.
 - Joints: Recessed 2mm.
 - Other requirements: N/A.

366 REPLACEMENT OF BRICKS

- Bricks: As clause 260.
- Mortar:
 - Mix: 1:3 lime putty and aggregate.
 - Sand source/ type: Well graded non marine, quarry or river washed with aggregate up to 3mm and chalk nodules.
- Fixings: N/A..
- Joints: Recessed 2mm.
- Other requirements: N/A.

385 LAYING REPLACEMENT MASONRY UNITS

- Exposed faces of new material: Keep to agreed face lines.
- Faces, angles and features: Align accurately. Set out carefully to ensure satisfactory junctions with existing masonry and maintain existing joint widths.
- Joint surfaces: Dampen to control suction as necessary.
- Laying units: On a full bed of mortar, all joints filled.
- Exposed faces: Keep clear of mortar and grout.

390 GROUTING JOINTS

- Grout mix: Telling Unilit B - Fluid X-B natural hydraulic lime binder fluid 4. - Supplier: Telling Lime Products Limited, Primrose Avenue, Fordhouses, Wolverhampton, WV10 8AW (Tel: 01902 789777, Fax: 01902 398777, Email: info@telling.co.uk). - Mix in accordance with manufacturer's instructions.
- Joints that cannot be fully filled with bedding mortar: Grout thoroughly around replacement masonry units.
- Grouting: Keep grout back from exposed face to allow for the depth of pointing, using an approved temporary sealing material. Prevent grout staining exposed face.

391 GROUTING FOR VOIDS

- Telling Unilit B - Fluid X-B natural hydraulic lime binder fluid 4.
 - Supplier: Telling Lime Products - as clause 390.
 - Mix in accordance with manufacturer's instructions.
 - Voids that cannot be fully lined with bedding mortar: Grout thoroughly around replacement masonry units.

395 STONE INSERTS

- Pockets to receive inserts:
 - Cut out accurately. Undercut sides of pocket where necessary to provide space for bonding material.
 - Adjust depth so that insert stands proud of existing stone for finishing in situ.
 - Clean out thoroughly.
- Inserts: Cut to the smallest rectangular shape necessary to replace the defective area and provide a firm seating. Install accurately and securely.
 - Exposed faces: Keep clear of bonding material.
- Existing joint widths: Maintain. Do not bridge joints.

420 TEMPORARY DISTANCE PIECES FOR JOINTS IN ASHLAR STONework

- Material: Lead or stainless steel.
- Removal: When mortar/ grout is sufficiently strong to take loading without compression.

TOOLING/ DRESSING STONE IN SITU

450 WEATHERING LEDGES AT JOINTS

- Locations: Where stones project or are recessed.
- Requirement: Carefully weather the ledge, to approval.
- Method: Suitably graded carborundum blocks or tooling as appropriate.

455 DESCALING STONE

- Requirement: Carefully remove loose scaling and powdering from stones to the extent agreed.
- Method: Suitable bristle brushes or carborundum blocks. Do not use wire brushes.

458 REDRESSING STONE

- Requirement: Carefully dress back stones to the extent agreed.
- Method: Suitably graded carborundum blocks or tooling as appropriate.

MORTAR REPAIRS

510 PREPARATION FOR MORTAR REPAIRS

- Repair area: Scribe area of masonry to be removed using straight horizontal and vertical lines parallel to joints. Where repair area abuts joints, maintain existing joint widths and do not bridge joints.
- Decayed masonry: Cut back carefully to a minimum depth of 20 mm to a sound background. Where the depth of removal exceeds 50 mm, seek instructions.
- Precautions: Do not weaken masonry by removing excessive material. Do not damage adjacent masonry.
- Top and vertical reveals of repair area: Undercut.

516 REINFORCEMENT FOR MORTAR REPAIRS

- - Use where prepared cavity is 50mm or greater in depth.
- - Material: Austenitic stainless steel or copper alloy wire, diameter 3mm.
- - Armatures: Form to suit profiles of mortar repair and provide effective reinforcement.
- - Cover to reinforcement: Not less than 18mm.
- - Drill holes into background to receive the reinforcement and bond firmly with a suitable epoxy resin, or 'Prompt'.

517 SAMPLES

- - Prepare mortar samples (mortar biscuits) for the following repairs:
 - Caen stone repairs.
 - Prepare 'biscuits' on a board and make adjustments following comments by the Architect for each repair type.
 - Allow for 2 no. adjustments to each board (i.e 3 no. presentations in total for each type of repair).
 - Prepare biscuits to show colour and texture to match each type of repair.

518 AGGREGATES

- Select aggregates in both colour and grain size so that when mixed with the binder, applied to the surface and totally dried out, they resemble the weather surface of the stone. Use a variety of strong coloured sands and stone dusts to match the colour of the stones to be repaired.
- Mortar colour is to be 'through' colour, throughout the depth of the repair.

521 MORTAR REPAIRS WALLING & PROFILED STONE

- Undercoats:
 - Mix: Mix 1:2.5 St Astier NHL 2 hydraulic lime:sand.
 - Slurry the undercoat mix with water and use to paint all the surfaces of the cavity. Allow the slurry to partially dry out into the stone. Apply the first undercoat before final set is reached.
 - Sand source/type: Well graded sharp sand or crushed stone dust (1-4mm).
 - Building up: In layers where necessary, each layer not exceeding 12mm. Finishing coat: To match approved samples.
 - Mix: Mix: 1:3 St Astier NHL 2 hydraulic lime:sand.
 - Sand source/type: Well graded sharp sand or crushed stone dust (1-2mm).
 - Finished thickness: 6-8mm.
 - Finish: Scrape back to finished line and further compact using a coarse hessian pad.
- Reinforcement: As required.

540 APPLYING MORTAR

- Surfaces to receive mortar: Clean, and free from dust and debris. Dampen to control suction.
- Applying coats: Build up in layers to specified thickness. Apply mortar firmly, ensuring good adhesion with no voids. Form a mechanical key to undercoats by combing or scratching to produce evenly spaced lines.
Allow each layer to achieve an initial set before applying subsequent coats. Prevent each layer from drying out rapidly by covering immediately with plastics sheeting and/ or dampening intermittently with clean water.
- Finishing mortar coat: Form accurately to required planes/ profiles, and finish flush with adjacent masonry.
- Protection: Protect completed repairs from adverse weather until mortar has set.

550 SCRAPED FINISH TO MORTAR REPAIRS

- Procedure: Finish final coat of repair mortar proud of existing masonry face. When mortar is set, but not too hard, scrape back to required face line using fine saw blade or other suitable means, to achieve required finish.

555 FLOAT FINISH TO MORTAR REPAIRS

- Finish: Use a wood float and/ or a felt faced float to give an even overall texture. Do not use steel floats.

CRACK REPAIRS/ TIES/ REINFORCEMENT

615 MORTAR REPAIR OF CRACKS

- Mortar:
 - Mix: 1:3 lime putty and aggregate
 - Sand source/type: Well graded non marine, quarry or river washed with aggregate up to 3mm.
- Preparation: Clean out cracks to remove debris, dust and dirt. Dampen recesses, as necessary, to control suction.
- Applying mortar: Press well into cracks so that they are fully filled. Ensure that mortar does not encroach upon exposed faces. Finish mortar flush with masonry face.

640 PINNING OF MASONRY

- Dowels/ Pins:
 - Type: Stainless Steel.
 - Diameter: 6mm.
 - Additional requirements: None.
- Resin: Hilti Hit - HY resin or similar approval.
- Holes: Drill carefully, sloping downwards into background. Remove drilling dust and debris and keep dry.
- Filling holes:
 - Check that dowel lengths are correct before filling with resin
 - Use sufficient resin so that when the dowel is inserted the resin is dispersed to achieve an effective repair.
- Exposed faces: Keep clean and free from resin stains. Use temporary plugging material and/ or isolating membranes as necessary.
- Clearances: Keep ends of ties and resin back from face of masonry.
- Making good after resin has cured: With mortar repair to match masonry.

690 MAKING GOOD TO INJECTION AND INSERTION HOLES

- Preparation: Clean out holes thoroughly.
- Repair mortar: To match existing masonry units/ joints in colour and texture. Fill holes and finish mortar neatly and flush with surrounding masonry.
- Finished appearance: Obtain approval for first two holes before completing the remainder.

GROUTING RUBBLE FILLED CORES

710 PREPARATION FOR GROUTING

- Grouting holes: Drill in joints at horizontal and vertical centres to suit coursing and to achieve an effective distribution of grout so that, on completion, all voids in masonry are filled.
- Maximum height of each grout pour: Regulate to prevent disruption to masonry.
- Open joints in masonry: Seal with an approved temporary material to prevent leaking of grout. Leave weep holes every two or three courses to assist in flushing out dust and debris, and to prove effectiveness of grouting. Locate temporary seal back from facework to allow for specified repointing. Seek instructions if repointing precedes grouting.

712 FLUSHING OUT

- Timing: Before grouting.
- Requirement: Flush out core of masonry walls using clean water delivered under moderate pressure through grouting holes.

720 HAND GROUTING TO VOIDS

- Grout mix: As clause 390.
- Method: Direct grout into open joints using clay cups formed against masonry surface. Pour grout to refusal; allow to set; break off excess mortar and brush down masonry face.

740 APPLICATION OF GROUTING

- Grouting: Continuous operation during each lift. Allow grout to set before commencing subsequent lifts.
- Monitoring: Monitor grouting carefully and continuously at each delivery point (flow and delivery pressure), and at adjacent/ opposite wall faces, to ensure that there is an effective distribution of grout with no leaking, staining, or disruption to the masonry.
- Temporary seals: Remove on completion of grouting and leave joints in a suitable condition for repointing.

POINTING/ REPOINTING

811 PREPARATION FOR REPOINTING

- Removing mortar:
 - Work from top of the wall downwards.
 - Remove carefully and without damaging adjacent masonry, arrises or widening joints, using toothed masonry, plugging and jointing chisels.
 - Recess for repointing: Form a neat recess of depth not less than 25mm or the width of the joint, whichever is the greatest. When mortar beyond this depth is loose or friable and/or cavities are found seek instructions.
 - Remove dust and loose debris using a bristle brush or low pressure water wash. Work from the top to the bottom of the wall. Dampen joints to control suction as necessary.
 - Carefully cut out the joints using a fine-toothed saw blade or hooked knife to a depth of 25mm. Use inserted blades to gauge when an adequate depth has been cut out.
 - Flush out the joints using a large hypodermic syringe and clean until the water runs clear.
 - Insert a backing 'rod' to contain the new mortar, when introduced with the grouting technique. This technique will be necessary when the masonry is hollow bedded or when the joints are largely empty. Make a rod by using a length of fine waxed string coated in a petroleum jelly. Stretch the string and twist it several times before pushing it into the joint with a knife blade. As the string tries to unwind, it will close of the joints.

821 POINTING TO BRICKWORK

- Preparation of joints: As clause 811.
Mortar:
 - Mix: 1:3 hydraulic lime NHL 2 and aggregate.
 - Sand source/ type: Well graded non marine, quarry or river washed with aggregate up to 3mm and chalk nodules.Joints profile/ finish: Recessed 2mm.
Other requirements: None.

822 LIME SHELTER COAT

- Material: Lime putty in clear water suspension.
 - Diltute to thin mix.
- Application: Dampen area to be treated, apply in thin even coats and allow to dry. Allow up to 5 no. coats. Application not to be thick or paint like but to consolidate surface allow masonry to grin through.

LIME CONCRETE

831 LIME CONCRETE

- Limecrete manufacturer/ supplier: Contractor's choice from one of the following:
 - The Limecrete Company Ltd. Ashby St Mary, Norfolk, NR14 7BZ. Tel. 01953 888011.
 - The Traditional Lime Co. Ltd. Cheltenham. Glos. FL53 0QJ. Tel. 01242 525444.
 - Womersleys Ltd. Heckmondwike, West Yorkshire WF16 0PG. Tel. 01924 400651.
- Supply/ delivery: Ready mixed and delivered to site.
- Mix: 1:3, NHL5 Lime:lightweight aggregates.
- Natural hydraulic lime: Obtain from one of the following:
 - St Astier.
 - Hanson (Socli).
- Admixtures: None permitted.
- Finish: Smooth trowelled, even with no ridges or steps. -
- Additional requirements:
 - Method statements: Manufacturer to provide method statements for mixing, laying, compaction and curing prior to starting works.
 - The limecrete will be reinforced with short cut lengths of polypropylene fibres and thoroughly mixed in with limecrete.

840 POINTING WITH TOOLS/ IRONS

- General: Press mortar well into joints using pointing tools/ irons that fit into the joints, so that they are fully filled.
- Face of masonry: Keep clear of mortar. Use suitable temporary adhesive tape on each side of joints where necessary. Finish joints neatly.

850 POINTING WITH INJECTION MORTAR

- General: Inject mortar into joints so that they are fully filled with no voids.
- Face of masonry: Keep clear of mortar. Finish joints neatly.

860 BRUSHED FINISH TO JOINTS

- Timing: After initial mortar set has taken place remove laitance and excess fines by brushing, to give a coarse texture. Do not compact mortar.

Works Schedule

To be read with Preliminaries and Workmanship and Materials sections of the specification and drawings as given in clause A11/110.

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1. Works to Exterior of Tower

To be read in conjunction with drawings 867503/01-03.

- 1.1 Liaise with residents in adjoining property through Sevenoaks District Council regularly regarding access, working times and general matters.
- 1.2 Erect access scaffolding necessary to undertake the works. Encase base of scaffolding in 3m steel hoarding, debris net scaffolding above and link to lightning conductor.
- 1.3 Price to install alarm system linked to monitoring station.
- 1.4 Reinstate garden destroyed by scaffolding in adjoining property.
- 1.5 Provide welfare and toilet facilities on ground adjacent to remains of gatehouse behind cedar tree.
- 1.6 Provide generators on site for electrical power.
- 1.7 Provide water on site and store correctly.

South Elevation

- 1.8 Remove all cement-based pointing from plinth as shown in red on drawing No. 02, depth 50mm and repoint as clause C41/821.
- 1.9 To return wall marked 'A' on drawing 01, remove all cement-based pointing to a depth of 50mm and repoint as clause C41/821.

Allow provisionally for 50% of area.
- 1.10 To band of brickwork above door shown in blue install lead weathering Code 4 to protect brickwork and throw water off masonry below.
- 1.11 To area of brickwork below item 1.10 apply 1 No. 10mm lime render coat to protect friable brickwork.
- 1.12 To bottom of doorway jambs shown in blue, remove cement-based repairs and pointing and repoint as clause C41/821.
- 1.13 To staircase door opening remove cement-based pointing shown in red to depth of 50mm and repoint as clause C41/821.

South West Elevation

- 1.14 Remove all cement-based pointing from plinth as shown on drawing 02, depth 50mm and repoint as clause C41/821.
- 1.15 Remove all cement-based mortar repairs to window shown in blue and reinstate to original profiles in lime mortar repairs as clause C41/521 including cill.
- 1.16 To upper area of brickwork shown in black, remove cement-based pointing to depth of 50mm and repoint as clause C41/821.

Allow provisionally for 100% of area.

West Elevation (main Tower and Garderobe)

- 1.17 Carefully remove cement-based pointing to plinth as shown in red on drawing 02, depth 50mm, and repoint as clause C41/821.
- 1.18 To main two-light window remove cement-based mortar repairs as shown in blue and reinstate to original profiles as lime mortar repairs as clause C41/521.
- 1.19 To quoin stones on main tower, remove cement-based repairs marked in blue and install new lime based mortar repairs to original profiles as clause C41/521.
- 1.20 On main tower area of brickwork shaded black between ground floor and first floor window and ground floor brickwork, remove cement-based pointing, depth 50mm and repoint as clause C41/821.
- 1.21 To garderobe walling remove cement-based pointing in areas shaded black to depth of 50mm as clause C41/821.
- 1.22 To blocked doorway, remove cement-based repairs as noted in blue and install new lime-based repairs to original profiles as clause C41/521.
- 1.23 To single light ground floor window, mortar repair upper stones marked in blue in lime to original profiles as clause C41/521.

North West Elevation

- 1.24 Carefully remove cement-based pointing to plinth as shown in red on drawing 02, depth 50mm and repoint as clause C41/821.
- 1.25 To quoin stone marked in blue, remove cement-based repair and install new lime-based mortar repair to original profile as clause C41/521.
- 1.26 Carefully rake out cement-based pointing in three areas of brickwork shown in black to depth of 50mm and repoint as clause C41/821.

North Elevation

- 1.27 Carefully remove cement-based pointing to plinth as shown on drawing 03 in red, depth 50mm and repoint as clause C41/821.
- 1.28 To window remove all hard cement-based repairs in areas shown in blue and reinstate to original profiles in lime mortar repairs as clause C41/821.
- 1.29 To brickwork shaded black, remove cement-based pointing to depth of 50mm and repoint as clause C41/821.

Allow provisionally for 100% of area shown.

North East Elevation

- 1.30 Carefully remove cement-based pointing to plinth as shown in red on drawing 03 depth 50mm and repoint as clause C41/821.
- 1.31 To two-light window remove cement-based mortar repairs shown in blue including cill and reinstate to original profiles in lime mortar repairs as clause C41/521.
- 1.32 To brickwork below line marked 'A' remove cement-based pointing to depth of 50mm and repoint as clause C41/821.

Allow provisionally for 75% of area.

East Elevation

- 1.33 Carefully remove cement-based pointing to plinth shown in red on drawing 03 depth 50mm and repoint as clause C41/821.
- 1.34 To two-light window install mortar repairs to original profiles in areas shown in blue as clause C41/521.
- 1.35 To brickwork below line marked A, remove cement-based pointing to depth of 50mm and repoint as clause C41/821.

Stair Turret (3 Facets)

- 1.36 Carefully remove cement-based pointing to plinth shown in red on drawing 03, depth 50mm and repoint as clause C41/821.
- 1.37 To brickwork below line marked A, remove cement-based pointing to depth of 50mm and repoint as clause C41/821.

Allow provisionally for 50% of area.

- 1.38 To small window allow man for 4 days to undertake mortar repairs as clause C41/521 to original profiles.
- 1.39 To small openings install anti-pigeon netting internally.

2. Works to Interior of Tower

To be read in conjunction with drawings 867503/04-07.

Generally

- 2.1 Erect internal access scaffolding as necessary to undertake the works. Do not fix to fabric. Remove on completion.
- 2.2 Provide generator on site for electrical power.
- 2.3 Provide water on site and store correctly.

South Wall (Drawing 04)

- 2.4 In area marked in blue, carefully cut out severely decayed bricks, under direction of the architect and supply and install new bricks as clause C41/366.

Allow provisionally for 50 No. bricks.

- 2.5 Undertake selective repointing as clause C41/821.

Allow man for 3 days. Scope to be agreed on site.

South West Elevation (Drawing 05)

- 2.6 Carefully remove cement-based pointing in two areas shown in red and repoint to a depth of 50mm as clause C41/821.
- 2.7 To window remove small cement-based repair marked in blue.

West Elevation (Drawing 05)

- 2.8 Remove any remaining cement-based repairs to window jambs shown in blue and reinstate in lime mortar to original profiles as clause C41/521.

North West Elevation (Drawing 05)

- 2.9 Carefully remove areas of cement-based pointing to brickwork around fireplace and repoint to depth of 50mm as clause C41/821.

North Elevation (Drawing 06)

- 2.10 Carefully remove areas of cement-based pointing to brickwork around window shown in blue to depth of 50mm and repoint as clause C41/821.
- 2.11 In areas marked red on two-light window, remove remaining cement-based repairs and reinstate all areas using lime mortar to original profiles, as clause C41/521.

North East Elevation (Drawing 07)

- 2.12 Carefully remove remaining cement-based mortar repairs in areas shaded red to two-light window and reinstate all in new lime mortar repairs to original profiles, as clause C41/521.

East Elevation (Drawing 07)

- 2.13 Carefully remove cement-based pointing surrounding two-light window shaded blue to depth of 50mm and repoint as clause C41/821.
- 2.14 Carefully remove remaining cement-based mortar repairs to window jamb shown in red and install new lime-based mortar repairs to all to original profiles as clause C41/521.
- 2.15 In area marked A allow for 20 No. new bricks as clause C41/366 and isolated repointing as clause C41/821.

Allow provisionally for a man for 3 days for the pointing.

Collection for Preliminaries Clauses

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Collection for Workmanship and Materials Clauses

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Collection for Works Clauses

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Summary

Total from Preliminaries Collection

Total from Workmanship and Materials Collection

Total from The Works Collection

To Tender



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PROJECT

OTFORD ARCHBISHOPS PALACE
REPAIRS PHASE TWO

TITLE

EXTERIOR
SOUTH ELEVATION

DATE	DRAWN	SCALES	CHECKED
05/16	JB	NTS	
PROJECT REF.		DRG. No.	REV
867503		01	



NORTH ELEVATION



NORTH WEST ELEVATION



WEST ELEVATION



SOUTH WEST & SOUTH ELEVATIONS.

WORK ITEM 1-8

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PROJECT

OTFORD ARCHBISHOPS PALACE
REPAIRS PHASE TWO

TITLE

EXTERIOR
SOUTH ELEVATION TO NORTH ELEVATION

DATE

05/16

DRAWN

JB

SCALES

NTS

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PROJECT REF.

867503

DRG. No.

02

REV



EASTERN SIDE



NORTH EAST ELEVATION



NORTH ELEVATION

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PROJECT

OTFORD ARCHBISHOPS PALACE
REPAIRS PHASE TWO

TITLE

EXTERIOR
NORTH ELEVATION TO EAST ELEVATION

DATE

05/16

DRAWN

JB

SCALES

NTS

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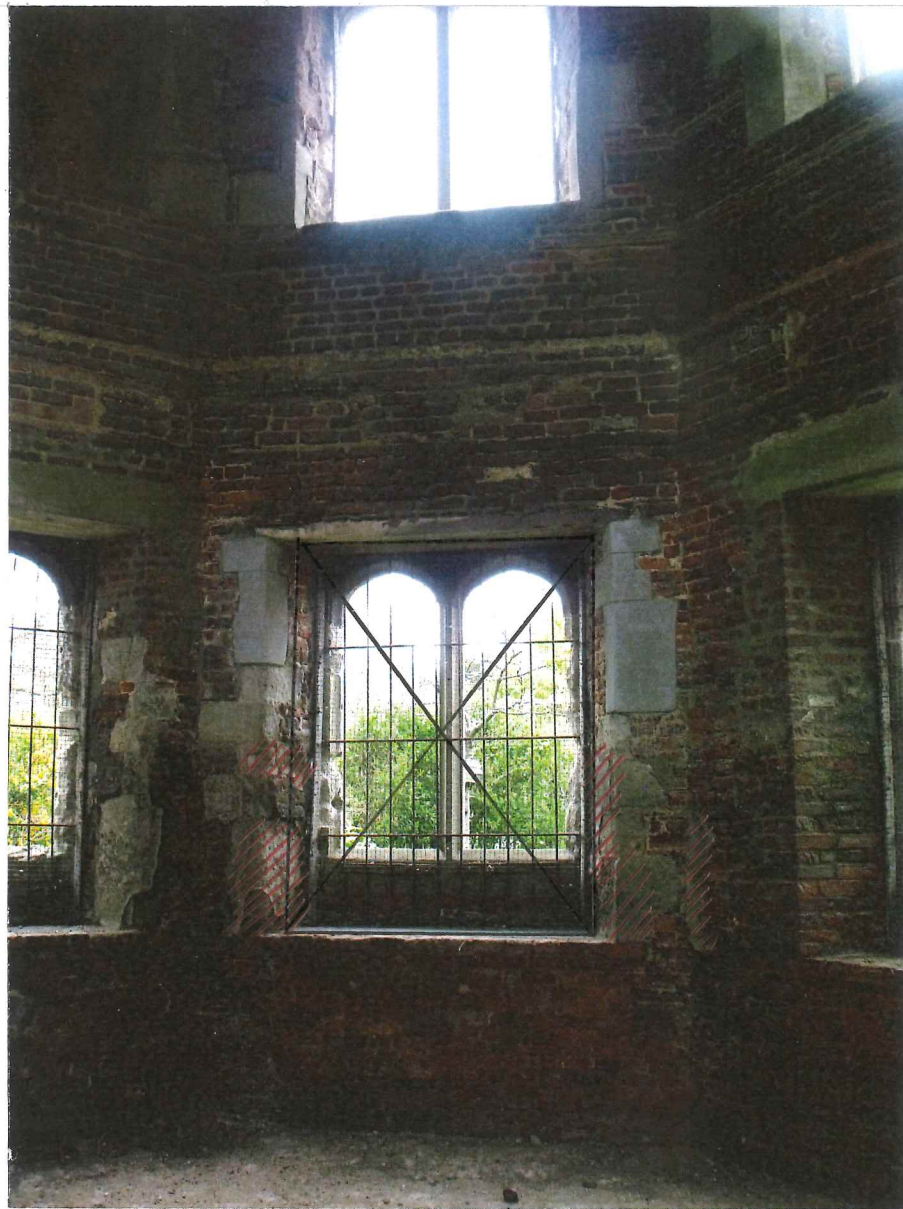
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867503

DRG. No.

03

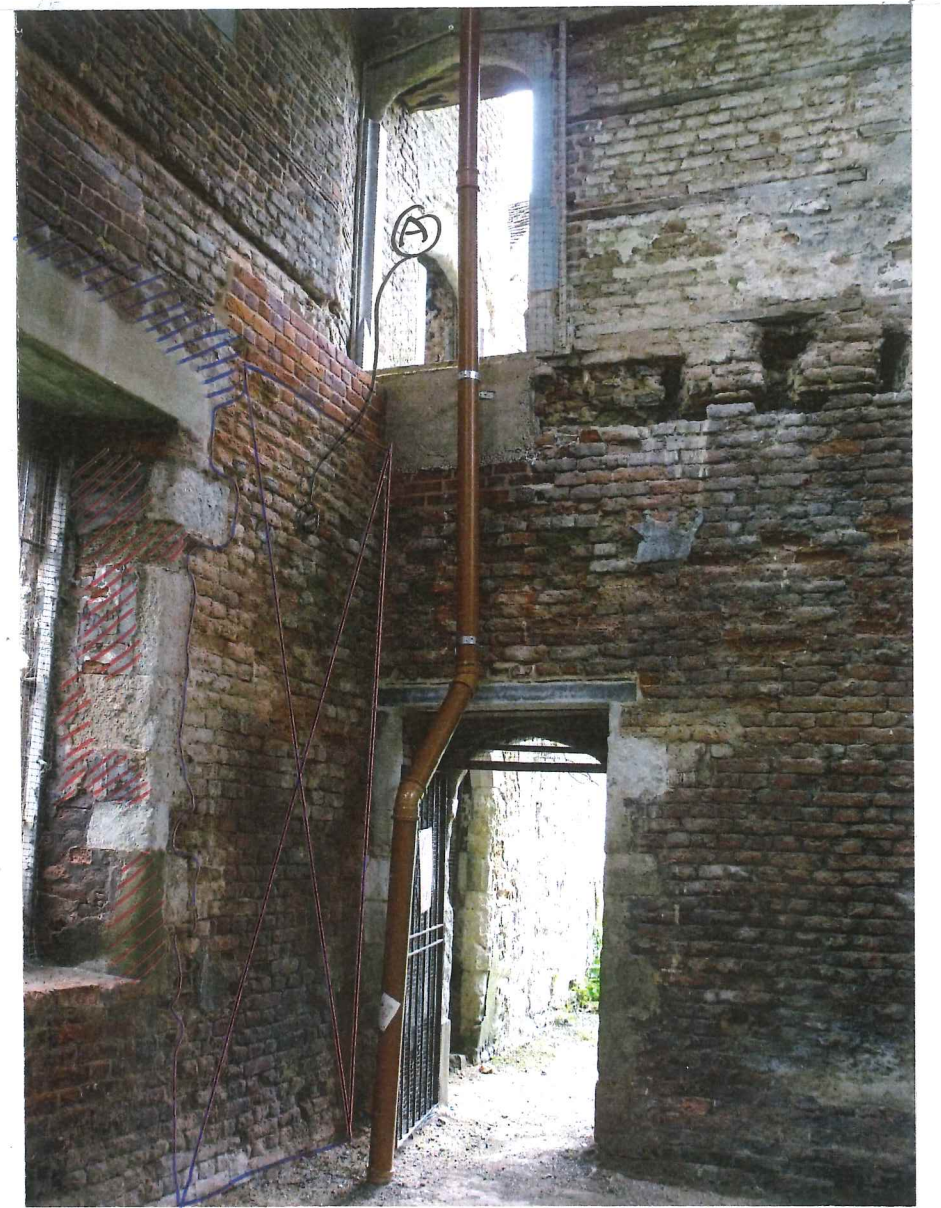
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NORTH EAST ELEVATION



EAST ELEVATION



EAST ELEVATION



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PROJECT

OTFORD ARCHBISHOPS PALACE
REPAIRS PHASE TWO

TITLE

INTERIOR
NORTH ELEVATION

DATE

05/16

DRAWN

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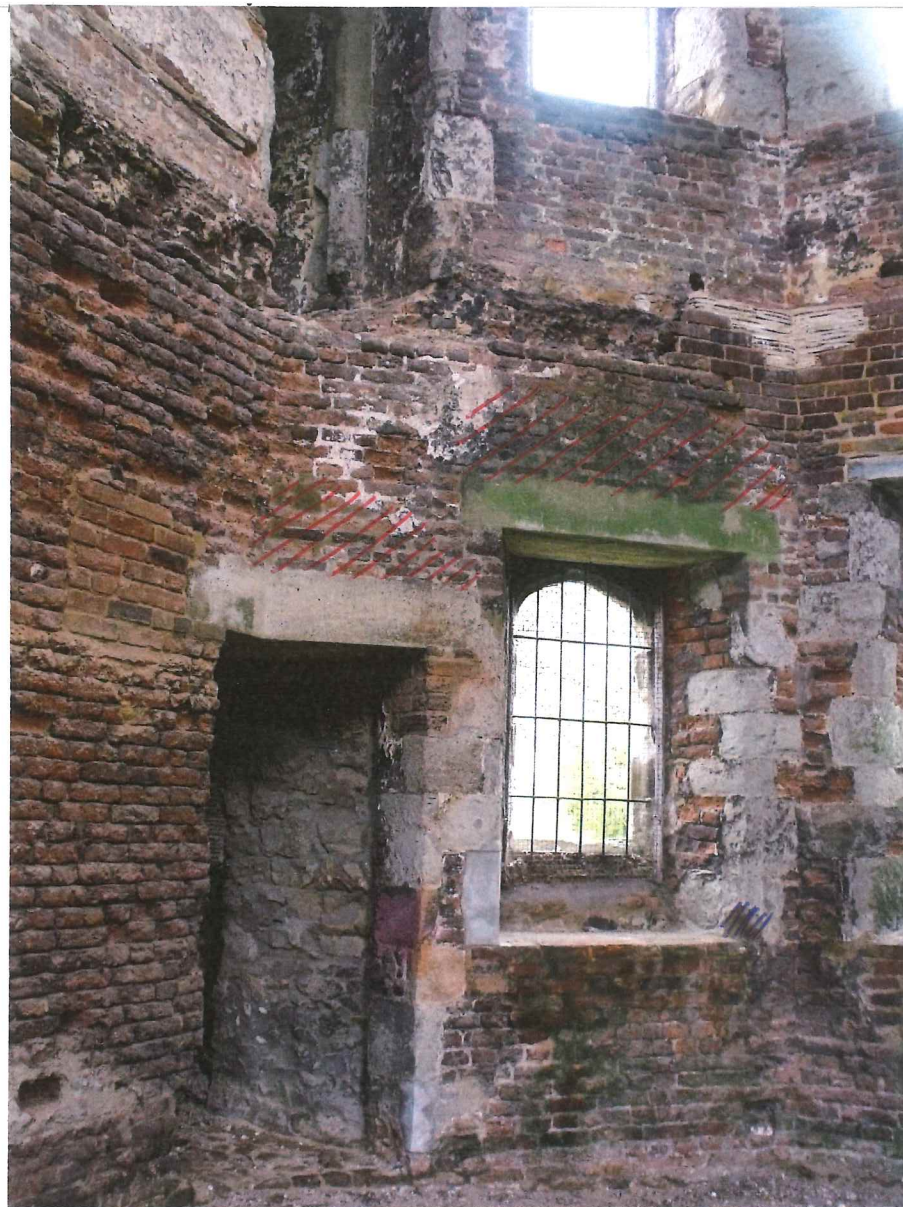
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06

REV



SOUTH WEST ELEVATION



WEST ELEVATION



NORTH WEST ELEVATION

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PROJECT

OTFORD ARCHBISHOPS PALACE
REPAIRS PHASE TWO

TITLE

INTERIOR
SHEET N° TWO

DATE

05/16

DRAWN

JB

SCALES

NTS

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05

REV



SOUTH WALL

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PROJECT

OTFORD ARCHBISHOPS PALACE
REPAIRS PHASE TWO

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INTERIOR
SOUTH WALL

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05/16

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SCALES

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PROJECT REF.

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DRG. No.

04

REV