ABIR Architects Ltd

RIBA
Chartered Practice

Specification and Pricing Document

Demolition of the existing public toilets, construction of new building comprising 8 No. gender neutral accessible toilets and a cafe/restaurant (shell and core) and the creation of a bin store.

Issue Date
February 2022

FOR
Seaford Town Council

Project Reference
0639.SPD.001

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CONTENTS:

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1. PRELIMINARIES

A10 PROJECT PARTICULARS

110 THE PROJECT
- Name: Martello Tower Café and Toilets
- Nature: Demolition of existing public toilets and erection of new single storey café and accessible toilets including Changes Places toilet and erection of bin store.
- Location: Public Conveniences Esplanade, Seaford (east of Martello Tower)
- Length of contract: approximately 6 months (TBA)

120 EMPLOYER (CLIENT)

- Name: Seaford Town Council
- Address: 37 Church Street, Seaford, BN25 1HG
- Contact: Tony Jackson
- Telephone: 07519 121454
- Email: tony.jackson@seafordtowncouncilk.gov.uk

130 PRINCIPAL CONTRACTOR (CDM 2015)
- Name: The main contractor

132 PRINCIPAL CONTRACTOR (SWMP)
- Name: The main contractor

A10/140 CONTRACT ADMINISTRATOR
- As A10/200

150 PRINCIPAL DESIGNER
- As A10/200

160 QUANTITY SURVEYOR
- Name: Cheesman Consulting
- Contact: Stephen Cheesman
- Telephone: 07717 580293
- Email: stephen@cheesmanconsulting.com

A10/200 ARCHITECT
- Name: ABIR Architects Ltd
- Contact: Giles Ings/Matthew Boynton
- Address: 1 Beta House, St Johns Road, Hove, East Sussex, BN3 2FX
- Telephone: 01273 724384
- Email: giles@abirarchitects.co.uk

A10/200 ENVIRONMENTAL DESIGNER

- Name: Delta Green
  Contact: James Porter/Adam Chamberlain
  Telephone: 01273086186
  Email: james.porter@deltagreen.co.uk adam.chamberlain@deltagreen.co.uk

A10/200 STRUCTURAL ENGINEER

- Name: IE Structural Engineers
- Contact: Ian Reeve
  Telephone: 01273 470066/07977157395
  Email : ian@ingsengineering.co.uk

A11 TENDER AND CONTRACT DOCUMENTS

110 TENDER DRAWINGS AND DOCUMENTS

- The tender drawings are:
  - ABIR Architects Drawings – See drawing issue sheet
  - Delta Green – See document/drawing issue sheet
  - IE Structural Engineers – See document/drawing issue sheet

  - Appendix A - Asbestos Management Report
  - Appendix B – Changing Places fit out quote.
  - Appendix C – Geotechnical Report
  - Appendix D – Pre Construction Information (CDM2015 Regulations)

  0639 Contract Sum Analysis for Electronic Completion.

  The Contract Sum Analysis document mirrors this Specification and Pricing Document and should be completed electronically in the Excel format and submitted with the Form of Tender.
  A separate pricing document has been produced by Delta Green for Mechanical, Electrical, Plumbing and Environmental works. Once Delta Green's pricing documents have been completed, please extract total figures and include under the appropriate section in this document and then the Excel Contract Sum Analysis document.

  FORM OF TENDER

120 CONTRACT DRAWINGS
- The contract drawings/documents: Will be the tender drawings/documents in A11/110.
- Exceptions: None.

160 PRECONSTRUCTION INFORMATION
- Format: Preconstruction information is described in these preliminaries in Section A34. It refers to information given elsewhere in the preliminaries and other tender documents.

A12 THE SITE/ EXISTING BUILDINGS

110 THE SITE

- Description: The site is generally the footprint of the Public Conveniences located on the Esplanade, Seaford (east of Martello Tower) and immediate adjacent area.

120 EXISTING BUILDINGS AND AREAS ADJACENT TO THE SITE

- Description: The Martello Tower located to the west of the site is a Grade II Listed building. There is a small single storey structure to the east of the site containing a lifeguard equipment storage area and concession outlet that will remain open during the programme of work. To the south is the pedestrian promenade and beach and to the north the esplanade road and parking areas. The pedestrian path is to be temporarily diverted as part of this contract.

140 EXISTING UTILITIES AND SERVICES

- Drawings: (Information shown is indicative only): Refer to information provided by Environmental Consultant named in clause A10/200
- The Contractor is to establish the exact position and depth of all mains/services which may be affected by the works at the start of the contract and report any finding to the person named in clause A10/140 and make safe, disconnect and remove as required.
- The Contractor shall take all reasonable precautions to avoid damage to any existing services which he may meet in carrying out the Works and must adequately protect and support them. If any damage occurs to the existing services by the Contractor, notwithstanding any precautions the Contractor has taken as provided by the foregoing clauses, then the Contractor shall make good such damage at his own expense.
- Any temporary disconnection or isolation of services, which may be necessary, must be agreed with the person named in clause A10/140 prior to any disconnection or isolation being made. All existing underground and above ground services requiring temporary or permanent diversion should have their new location agreed with the person named in clause A10/140.
- Contractor to allow for all costs, administration and management of all necessary Local Authority, Utility and Highway licences (including but not limited to scaffold, hoarding, work within highway limits, road closure, etc) to enable the Works. All such licences and approvals to be sought in a timely order so as not to impact the programme of works.

160 SOILS AND GROUND WATER

- Information: Refer to information produced by Structural Engineer named under clause A10/200 and the Geotechnical Report in Appendix C.

170 SITE INVESTIGATION

- Report: Geotechnical Report has been provided– Refer to information produced by Structural Engineer named under clause A10/200. The Structural Engineers foundation design has assumed reasonable ground conditions. However, should the contractor find the ground/areas of ground not in accordance with the assumption made by the Structural Engineer he must inform the person named in clause A10/200 immediately.

180 HEALTH AND SAFETY FILE

- For health and safety information please refer to the Pre-Construction Information - Refer to Appendix D.

190 PLANNING REQUIREMENTS

- Contractor to comply with planning permissions LW/21/0710.

200 ACCESS TO THE SITE

- Description: The access to the sites will only be permitted from the Esplanade road via the existing vehicle access.
- Limitations:

No other access points into the site are allowed.

– The Contractor is to be aware that the site is adjacent to a general public highway and parking areas and a public promenade and must ensure compliance with all requirements as stipulated by the County Council and the Local Authority.

– The Contractor is to allow for all necessary warning signage and direction arrows.

– Contractor to allow (cost and programme) for all road closures, licences, etc.

Caution is to be exercised when approaching and leaving the site. Keep approaches to the site and the compound free and unobstructed for emergency, delivery vehicles and access to neighbouring public areas and adjacent buildings. The width of the approach road is limited and turning of large vehicles difficult.

210 PARKING

- Restrictions on parking of the Contractor's and employees' vehicles: Parking adjacent the site may be possible by agreement with person named in clause A10/140. The unrestricted safe use by the public of pedestrian and vehicular access routes, hard standing and promenade must be segregated from contractors' compounds and areas of work at all times.

220 USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.

230 SURROUNDING LAND/ BUILDING USES

- General: Adjacent or nearby uses or activities are as follows: The Martello Tower located to the west of the site is a Grade II Listed building. There is a small single storey structure to the east of the site containing a lifeguard equipment storage area and concession outlet that will remain open during the programme of work. To the south is the pedestrian promenade and beach and to the north the esplanade road and parking areas. The pedestrian path is to be temporarily diverted as part of this contract.
-

240 HEALTH AND SAFETY HAZARDS

- General: The site should be cleared of all unfitted items before taking possession. However the following hazards are or may be present:
  - As noted in the Pre Construction Information pack - Refer to Appendix D.
- Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representatives. 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. No claim by the Contractor for compensation on the grounds of lack of information of such matters will be entertained by the Employer.
- Arrangements for visit: Tendering Contractors must confirm, via email to the person named at A10/120, when they wish to attend. The Employer will enable site visits for prospective Tendering Contractors and all Contractors are encouraged to visit the site before submitting their tender return.

A13 DESCRIPTION OF THE WORKS

110 PREPARATORY WORK BY OTHERS
- Description: Removal of unfitted items by Employer before possession.

120 THE WORKS
- Description: Demolition of existing public toilets and erection of new single storey café/restaurant (shell and core) and gender neutral accessible toilets including Changes Places toilet and a bin store.

130 WORK BY OTHERS CONCURRENT WITH THE CONTRACT
- Description: None

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A20 JCT MINOR WORKS BUILDING CONTRACT 2016

152 JCT MINOR WORKS BUILDING CONTRACT WITH CONTRACTOR'S DESIGN 2016
- The contract: JCT Minor Works Building Contract with Contractors Design, 2016 Edition.

- Requirement: Allow for the obligations, liabilities and services described.

RECITALS

First
THE WORKS

Comprise: Demolition of existing public toilets and erection of new single storey café/restaurant (shell and core) and gender neutral accessible toilets including Changes Places toilet and a bin store.

- Documents showing and describing the work: The detailed drawings, documents and annotations as noted in A11/110.

Second
CONTRACTORS DESIGN ELEMENTS

- - All steel fabrication and connection items and galvanising requirements
- - Mechanical, Plumbing and Electrical elements and systems (including electrical installation, lighting, power, mechanical ventilation, hot and cold water)

Third
CONTRACT DRAWINGS

- The contract drawings: As listed in clause A11/120 and this scope of works document.

A20 JCT MINOR WORKS CONTRACT with contractor's design 2016 THE ARTICLES

3
ARCHITECT/ CONTRACT ADMINISTRATOR
- Architect/ Contract Administrator: See clause A10/200 and A10/140.

4
PRINCIPAL DESIGNER
- Principal Designer: See clause A10/150.

5
PRINCIPAL CONTRACTOR
- Principal Contractor: See clause A10/130.

CONTRACT PARTICULARS

Fifth Recital and Schedule 2
BASE DATE
The base date is 31at January 2022

Fifth Recital and clause 4.2
CONSTRUCTION INDUSTRY SCHEME (CIS)
- Employer at the Base Date is not a 'contractor' for the purposes of the CIS.

Sixth Recital
CDM REGULATIONS The project **is** notifiable.

Seventh Recital
FRAMEWORK AGREEMENT
- Framework agreement: Does not apply.

Eighth Recital and Schedule 3 SUPPLEMENTAL PROVISIONS

- - Collaborative working: Supplemental Provision 1 Applies
- - Health and safety: Supplemental Provision 2 Applies
- - Cost savings and value improvements: Supplemental Provision 3 Applies
- - Sustainable development and environmental conditions: Supplemental Provision 4 Applies.
- - Performance indicators and monitoring: Supplemental Provision does not Apply
- - Notification and negotiation of disputes: Supplemental Provision 6 Applies.
- - Where Supplemental Provision 6 applies, the respective nominees of the Parties are:
    - - Employer's nominee: Seaford Town Council
    - - Contractor's nominee: To be completed by the Contractor.
    - - or such replacement as each Party may notify to the other from time to time.

Article 7

ARBITRATION

- Article 7 and schedule 1 apply

Clause 2.3
DATE FOR COMMENCEMENT OF THE WORKS - Date for commencement of the Works: TBC

Clause 2.2
DATE FOR COMPLETION - TBC

Clause 2.8
LIQIDATED DAMAGES
- Liquidated damages to be £500 per week or part thereof.

Clause 2.10
RECTIFICATION PERIOD
- Rectification period be 12 months

Clause 4.3
INTERIM PAYMENTS
- 1st interim payment to be one month after commencement and then at intervals of 1 month thereafter.

Clause 4.3
PAYMENTS DUE PRIOR TO PRACTICAL COMPLETION - Payments due prior to practical completion 95%.

Clause 4.3
PAYMENTS BECOMING DUE ON OR AFTER PRACTICAL COMPLETION - Payments becoming due on or after practical completion 97.5%.

Clause 4.3 and 4.8
FLUCTUATIONS PROVISION
- No fluctuation provision applies.

Clause 4.8.1
SUPPLY OF DOCUMENTATION FOR COMPUTATION OF AMOUNT FINALLY TO BE CERTIFIED - Supply of documentation to be no longer than 3 months from date of practical completion.

Clause 5.3
CONTRACTORS PUBLIC LIABILITY INSURANCE
- To be not less than £5,000,000 for any one occurrence or series of occurrences arising out of one event.

Clause 5.4A, 5.4B and 5.4C
INSURANCE OF THE WORKS etc
- Insurance of the works shall be as clause 5.4A (works insurance by Contractor in joint names).

Clause 5.4A and 5.4B
PERCENTAGE TO COVER PROFESSIONAL FEES
- Percentage to cover professional fees shall be 15% .

Clause 7.2
ADJUDICATION
- The Adjudicator shall be appointed by the RIBA.

Schedule 1 (Paragraph 2.1)
ARBITRATION
- The arbitrator shall be appointed by the RIBA.

EXECUTION
- The Contract: Will be executed under hand.

A30 TENDERING/ SUBLETTING/ SUPPLY

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 JCT Tendering Practice Note 2012.
- Errors: Alternative 2 is to apply. Where errors are found in the priced tender documents the tenderer will be given details of the errors and afforded an opportunity of confirming or withdrawing his tender. If the tenderer elects to amend his tender figure he should either amend the original tender by confirming the alterations in a letter.

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 180 days.
- Date for possession/ commencement: See section A20.

PRICING/ SUBMISSION OF DOCUMENTS

210 PRELIMINARIES IN THE SPECIFICATION
- Measurement rules: Preliminaries/ General Conditions must not be relied on as having been prepared in accordance with NRM2.

220 PRICING OF PRELIMINARIES
- Charges: If the Contractor requires interim payments to include fixed and time related charges for specific items in the Preliminaries, those charges must be clearly shown against the items.

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: within one week of request.

310 TENDER
- General: Tenders must include for all work shown, implied or described in the tender documents (includes design drawings) as a whole or clearly apparent as being necessary for the complete and proper execution of

the Works. If there is a discrepancy or conflict within the tender documentation this should be reported to the person named in A10/200 prior to submitting tender.

A30 TENDERING/ SUBLETTING/ SUPPLY

350 PC AND PROVISIONAL SUMS

PC and Provisional sums are included in the pricing document, priced to exclude profit, attendance and percentage adjustments.

- PC Sum Definition: The allowance for supply of materials only to be provided by the contractor.
- With regard PC Sums, the Contractor shall agree with the contract administrator both the cost and quantity of supply prior to expenditure. This will include agreement on the appropriate quantity of wastage expected to be incurred.

440 CONTRACT SUM ANALYSIS

- Content of the Analysis: A breakdown of the Contract Sum into at least the following categories - As per the priced Excel document included in the tender documentation.
- Form: As per the priced Excel document included in the tender documentation.

460 ANALYSIS OF THE CONTRACTOR'S DESIGNED PORTION

- Supply: Steel fabrication drawings (allow 2 weeks for comment by Structural Engineer) and specification as required.
- Note: Contractors Design Elements requirements contained within the Mechanical & Public Health Building Services Specification.
- Note: Contractors Design Elements requirements contained within the Electrical Services Specification.

480 PROGRAMME

- Programme of work: Prepare a summary showing the sequence and timing of the principal parts of the Works and periods for planning and design. Itemise any work which is excluded.
- Submit: With tender.

500 TENDER STAGE METHOD STATEMENTS

- Method statements: Prepare, describing how and when the following is to be carried out:
- Site Logistics
- Highway/Neighbourly issues
- Sequencing, excavation and construction of foundation structures
- Protection/security to site and compound areas
- Delivery and placement/fixing of large material elements
- Submit: With 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.

A30 TENDERING/ SUBLETTING/ SUPPLY

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: within one week of request.

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 co-operation and co-ordination 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.
- Confirm procedures for highway management and construction (including delivery) traffic.

A30 TENDERING/ SUBLETTING/ SUPPLY

SUBLETTING/ SUPPLY

630 DOMESTIC SUB-CONTRACTS

- General: Comply with the Construction Industry Board 'Code of Practice for the selection of sub-contractors'.
- List: Provide details of all sub-contractors and the work for which they will be responsible.
- Submit: Within 1 week of request.

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 (email) 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 6/2009 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.

150 CONTRACTOR'S DESIGN
- Meaning: Design to be carried out or completed by the Contractor and supported by appropriate contractual arrangements, to correspond with specified requirements.

155 SUBMIT PROPOSALS
- Meaning: Submit information in response to specified requirements.

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 or 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.

A31 PROVISION, CONTENT AND USE OF DOCUMENTS

- 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.

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.

A31 PROVISION, CONTENT AND USE OF DOCUMENTS

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
- Currency: References to published documents are to the editions, including amendments and revisions, current on the date of the Invitation to Tender.

260 SIZES
- General dimensions: Products are specified by their co-ordinating sizes.
- Timber: Cross section dimensions shown on drawings or structural calculations 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 EMPLOYER

410 ADDITIONAL COPIES OF THE DRAWINGS/ DOCUMENTS
- Additional copies: Will not be issued in paper form - PDF copies only.

440 DIMENSIONS
- Scaled dimensions: Do not rely on - ask if in doubt.

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.

470 DIVERGENCE FROM THE STATUTORY REQUIREMENTS
- Divergence: Between the drawings or specification and the requirements of the Building Regulations, other Statutes, statutory undertakers and other regulatory authorities.
- Action: Inform immediately.

DOCUMENTS PROVIDED BY CONTRACTOR/ SUB-CONTRACTORS/ SUPPLIERS

510 CHANGES/ AMENDMENTS TO EMPLOYER'S REQUIREMENTS
- Contractor's changes to Employer's Requirements: Support request for substitution or variation with all relevant information.
- Employer's amendments to Employer's Requirements: If considered to involve a variation, which has not already been acknowledged as a variation, notify without delay (maximum period 7 days), and do not proceed until instructed. Claims for extra cost, if made after the variation has been carried out, may not be allowed.
- Submit: One copy when requested.

A31 PROVISION, CONTENT AND USE OF DOCUMENTS

600 CONTRACTOR'S DESIGN INFORMATION
- General: Complete the design and detailing of parts of the Works as specified.
- Provide:
  - Production information based on the drawings, specification and other information.
  - Liaison to ensure coordination of the work with related building elements and services.

  - Master programme: Make reasonable allowance for completing design/ production information, submission (including information relevant to CDM Regulations) comment, inspection, amendment, resubmission and re-inspection.
- Information required: design drawings and specifications.
  - Format: electronic in portable document format (pdf).
  - Number of copies: 1.
- Submit: Within one week of request.

610 PRODUCTION INFORMATION
- Contractor/ Domestic sub-contractor provide:
- Submit:
  - For comment and make any necessary amendments.
  - Sufficient copies of final version for distribution to all affected parties.

620 AS BUILT DRAWINGS AND INFORMATION
- Contractor designed work: Provide drawings/ information:
  - as required.
- Submit: At least two weeks before date for practical completion.

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 Standards.

640 MAINTENANCE INSTRUCTIONS, GUARANTEES AND WARRANTIES
- Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works. Contractor to provide copies (or originals) of guarantees and warranties as required to the employer in the handover package.
- Information location: In the Building Manual.
- Emergency call out services: Provide telephone numbers for use after completion. Extent of cover: 12 months after PC.
-

DOCUMENT/ DATA INTERCHANGE

850 ELECTRONIC DATA INTERCHANGE (EDI)

- Data: Types and classes of communication: Electronic communication is generally acceptable for the following items but confirmation of receipt is required:
  - Contract notices & certificates - requests & awards
  - Payment certificates
  - Instructions
  - Drawing issues
- In addition, electronic communications should adhere to the following constraints:
  - All written communication should be accessible via "Microsoft" Standard Office Suite software.
  - All drawn and scanned documentation should be able to be viewed via an Adobe Reader. e.g. converted to a Portable Document Format (pdf)
  - Drawings upon request should be made available in either in AutoCAD 2020 DWG format for PC use or a comparable format available for Apple Macintosh users.
- Documentation sent via email should be limited to a maximum file size of 10mb in one issue. Larger documentation should in preference be forwarded via We Transfer.

A32 MANAGEMENT OF THE WORKS

GENERALLY

110 SUPERVISION

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

120 INSURANCE

- Documentary evidence: Submit details before starting work on site and/ or policies and receipts for the insurances required by the Conditions of Contract. Employers Liability Insurance to be min £10,000,000.

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

210 PROGRAMME

- Master programme: When requested (provide and issue updated programme 2 days before formal site meetings) and before starting work on site, submit in an approved form a master programme for the Works, which must include details of:
  - Design, production information and proposals provided by the Contractor/ Sub-contractors/ Suppliers, including inspection and checking (see section A31).
  - Planning and mobilization by the Contractor.
  - Earliest and latest start and finish dates for each activity and identification of all critical activities.
  - Key dates for critical Design Team and Employers decisions.

A32 MANAGEMENT OF THE WORKS

  - 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 (see section A54).
  - Work by or on behalf of the Employer and concurrent with the Contract (see section A50). The nature and scope of which, the relationship with preceding and following work and any relevant limitations are suitably defined in the Contract Documents.
- Exclusions: Where and to the extent that the programme implications for work which is not so defined are impossible to assess, the Contractor should exclude it and confirm this when submitting the programme.
- Submit: When requested.

230 SUBMISSION OF PROGRAMME

- Further information: Submission of the programme will not relieve the Contractor of the responsibility to advise of the need for further drawings or details or instructions in accordance with the Contract.

240 COMMENCEMENT OF WORK

- Notice: Before the proposed date for commencement of work on site give minimum notice of two weeks.

250 MONITORING

- Progress: Record on a copy of the programme kept on site.
- Avoiding delays: If any circumstances arise which may affect the progress of the Works submit proposals or take other action as appropriate to minimize any delay and to recover any lost time.

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 sub-contractors and suppliers when their presence is required.
- Chairperson (who will also take and distribute minutes): Person named in clause A10/140.

265 CONTRACTOR'S PROGRESS REPORT

- General: Submit a progress report at least 3 days before the site meeting.
- Content: Notwithstanding the Contractor's obligations under the Contract the report must include:
  - A progress statement by reference to the master programme for the Works.
  - Details of any matters materially affecting the regular progress of the Works.
  - Subcontractors' and suppliers' progress reports.
  - Any requirements for further drawings or details or instructions.

270 CONTRACTOR'S SITE MEETINGS
- General: Hold meetings with appropriate subcontractors and suppliers shortly before main site meetings to facilitate accurate reporting of progress.

285 EARLY POSSESSION/ TAKE OVER OF PARTS OF THE WORKS BY THE EMPLOYER
- Possession/ take over of parts of the Works: As completed, provided all necessary access, services and other associated facilities are also complete.

A32 MANAGEMENT OF THE WORKS

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): 3 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

410 CASH FLOW FORECAST
- Submission: Before starting work on site submit a forecast showing the gross valuation of the Works at the date of each Interim Certificate throughout the Contract period and based upon the programme for the Works.

420 REMOVAL/ REPLACEMENT OF EXISTING WORK
- Extent and location: Agree before commencement.
- Execution: Carry out in ways that minimise 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.
- Include:
  - A detailed breakdown of the cost, including any allowance for direct loss and expense.
  - Details of any additional resources required.
  - Details of any adjustments to be made to the programme for the Works.
  - Any other information as is reasonably necessary to fully assess the implications of issuing such an instruction.
- Inability to comply: Inform immediately if it is not possible to comply with any of the above requirements.

440 MEASUREMENT
- Covered work: Give notice before covering work required to be measured.

460 INTERIM VALUATIONS
- Applications: Include details of amounts requested under the Contract together with all necessary supporting information.
- Submission: At least seven days before established dates.

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.

A32 MANAGEMENT OF THE WORKS

475 LISTED PRODUCTS STORED OFF SITE
- Evidence of Title: Submit reasonable proof that the property in 'listed items' is vested in the Contractor.
- Include for products purchased from a supplier:
  - A copy of the contract of sale and a written statement from the supplier that any conditions of the sale relating to the passing of property have been fulfilled and the products are not subject to any encumbrance or charge.
- Include for products purchased from a supplier by a sub-contractor or manufactured or assembled by any sub-contractor:
  - Copies of the sub-contract with the sub-contractor and a written statement from the sub-contractor that any conditions relating to the passing of property have been fulfilled.

480 LABOUR AND EQUIPMENT RETURNS
- Records: Maintain for verification at the beginning of each week in respect of each of the previous seven days.
- Records must show:
  - The number and description of craftsmen, labourers and other persons directly or indirectly employed on or in connection with the Works or Services, including those employed by sub-contractors.
  - The number, type and capacity of all mechanical, electrical and power-operated equipment employed in connection with the Works or Services.

A33 QUALITY STANDARDS/ CONTROL

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 in 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: Not defective, 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.

A33 QUALITY STANDARDS/ CONTROL

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

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

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.

A33 QUALITY STANDARDS/ CONTROL

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

320 SETTING OUT
- General: Submit details of methods and equipment to be used in setting out the Works.
- Levels and dimensions: Check and record the results on a copy of drawings. Notify discrepancies and obtain instructions before proceeding.
- Inform: When complete and before commencing construction.

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.

340 CRITICAL DIMENSIONS
- Critical dimensions: Set out and construct the Works to ensure compliance with the tolerances stated.
- Location: Detailed on drawings.

350 LEVELS OF STRUCTURAL FLOORS
- Maximum tolerances for designed levels to be:
  - Floors to be self-finished, and floors to receive sheet or tile finishes directly bedded in adhesive: +/- 10 mm.
  - Floors to receive dry board/ panel construction with little or no tolerance on thickness: +/- 10 mm.
  - Floors to receive fully bonded screeds/ toppings/ beds: +/- 15 mm.
  - Floors to receive unbonded or floating screeds/ beds: +/- 20 mm.

360 RECORD DRAWINGS
- Site setting out drawing: Record details of all grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the contract and hand over on completion.

SERVICES GENERALLY

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

A33 QUALITY STANDARDS/ CONTROL

420 WATER REGULATIONS/ BYELAWS NOTIFICATION
- Requirements: Notify Water Undertaker of any work carried out to or which affects new or existing services and submit any required plans, diagrams and details.
- Consent: Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

430 WATER REGULATIONS/ BYELAWS CONTRACTOR'S CERTIFICATE
- On completion of the work: Submit (copy where also required to the Water Undertaker) a certificate including:
  - The address of the premises.
  - A brief description of the new installation and/ or work carried out to an existing installation.
  - The Contractor's name and address.
  - A statement that the installation complies with the relevant Water Regulations or Byelaws.
  - The name and signature of the individual responsible for checking compliance.
  - The date on which the installation was checked.

435 ELECTRICAL INSTALLATION CERTIFICATE
- Submit: When relevant electrical work is completed.
- Original certificate: To be lodged in the Building Manual.

440 GAS APPLIANCE INSTALLATION CERTIFICATE
- Before the completion date stated in the contract: Submit certificates stating:
  - The address of the premises.
  - A brief description of the new installation and/ or work carried out to an existing installation.
  - Any special recommendations or instructions for the safe use and operation of appliances and flues.
  - The Contractor's name and address.
  - A statement that the installation complies with the appropriate safety, installation and use regulations.
    - Water – Plumbing Register
    - Electrical – Registered Competent Person Scheme

- The name, qualification and signature of the competent person responsible for checking compliance.
- The date on which the installation was checked.

- Certificates location: To be lodged in the Building Manual.

450 MECHANICAL AND ELECTRICAL SERVICES
- Final tests and commissioning: Carry out so that services are in full working order at completion of the Works.
- Building Regulations approval notice: Copy to be lodged in the Building Manual.

SUPERVISION/ INSPECTION/ DEFECTIVE WORK

510 SUPERVISION
- General: In addition to the constant management and supervision of the Works provided by the Contractor's person in charge, all significant types of work must be under the close control of competent trade supervisors to ensure maintenance of satisfactory quality and progress.
- Replacement: Give maximum possible notice before changing person in charge or site agent.

A33 QUALITY STANDARDS/ CONTROL

520 COORDINATION OF ENGINEERING SERVICES
- Suitability: Site organisation staff must include one or more persons with appropriate knowledge and experience of mechanical and electrical engineering services to ensure compatibility between engineering and the Works generally.
- Evidence: Submit when requested CVs or other documentary evidence relating to the staff concerned.

530 OVERTIME WORKING
- Generally, overtime will not be permitted at cost to the contract.
- Notice: Prior to overtime being worked, submit details of times, types and locations of work to be done.
  - Minimum period of notice: 1 week.
- 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.

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.

550 ACCESS FOR INSPECTION
- Removal: Before removing scaffolding or other facilities for access, give notice of not less than 2 weeks.

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 PROPOSALS FOR RECTIFICATION OF DEFECTIVE PRODUCTS/ EXECUTIONS

- Proposals: Immediately any execution 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.

620 MEASURES TO ESTABLISH ACCEPTABILITY
- General: Wherever inspection or testing shows that the work, materials or goods are not in accordance with the contract and measures (e.g. testing, opening up, experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures:
  - Will be at the expense of the Contractor.
  - Will not be considered as grounds for revision to the completion date.

630 QUALITY CONTROL
- Procedures: Establish and maintain to ensure that the Works, including the work of sub-contractors, comply with specified requirements.
- Records: Maintain full records, keep copies on site for inspection, and submit copies on request.
- Content of records:
  - Identification of the element, item, batch or lot including location in the Works.
  - Nature and dates of inspections, tests and approvals.
  - Nature and extent of nonconforming work found.
  - Details of corrective action.

A33 QUALITY STANDARDS/ CONTROL

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 (3No. sets min.) 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 person named in clause A10/140 .
- Rectification: Give reasonable notice for access to the various parts of the Works.
- Completion: Notify when remedial works have been completed.

A34 SECURITY/ SAFETY/ PROTECTION

SECURITY, HEALTH AND SAFETY

110 PRECONSTRUCTION INFORMATION
- Location: Integral with the project Preliminaries, including but not restricted to the following sections:
  - Description of project: Sections A10 and A11.
  - Client's consideration and management requirements: Sections A12, A13 and A36.
  - Environmental restrictions and on-site risks: Section A12, A35 and A34.
  - Significant design and construction hazards: Section A34.
  - The Health and Safety File: Section A37.

120 EXECUTION HAZARDS
- Common hazards: Not listed. Control by good management and site practice.

130 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.

140 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN
- Submission: Present to the Employer/ Client via the Principal Designer, no later than 2 weeks before commencement of work on site.
- Confirmation: Do not start construction work until the Employer, via the Principal Designer, has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by 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: None.

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.

200 MOBILE TELEPHONES AND PORTABLE ELECTRONIC EQUIPMENT
- Restrictions on use:
  - Do not use while driving, operating machinery or on scaffolding.

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: Visitors to site will bring their own.

A34 SECURITY/ SAFETY/ PROTECTION

PROTECT AGAINST THE FOLLOWING

310 EXPLOSIVES
- Use: Not permitted.

330 NOISE CONTROL
- Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
- Noise levels from the Works: to be kept to lowest level reasonably practicable.
- 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 drills and other noisy appliances without prior consent.
  - Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

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: none.

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 the Construction Confederation and The Fire Protection Association (The 'Joint Fire Code').

390 SMOKING, ALCOHOL AND DRUGS ON SITE

- Smoking, Alcohol and Drugs on or adjacent the site: Not permitted.

A34 SECURITY/ SAFETY/ PROTECTION

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 / shrinkage.

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 particle, toxins and other micro organisms one with in 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.

450 LASER EQUIPMENT
- Construction laser equipment: Install, use and store in accordance with BS EN 60825-1 and the manufacturer's instructions.
- Class 1 or Class 2 laser equipment: Ensure laser beam is not set at eye level and is terminated at the end of its useful path.
- Class 3A and Class 3B laser equipment: Do not use without approval and subject to submission of a method statement on its safe use.

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 species discovered during execution of the Works.
  - Do not disturb.
  - Agree methods for safe eradication or removal.

A34 SECURITY/ SAFETY/ PROTECTION

PROTECT THE FOLLOWING

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 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.

A34 SECURITY/ SAFETY/ PROTECTION

555 WILD LIFE SPECIES AND HABITATS
- General: Safeguard the following: any protected species identified during the works.
- 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 neighbouring buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.
- Special requirements: none.

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 overstressing of completed work when removing supports.
- Adjacent structures: Monitor and immediately report excessive movement.
- Standard: Comply with BS 5975 and BS EN 12812.

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.

A35 SPECIFIC LIMITATIONS ON METHOD/ SEQUENCE/ TIMING

110 SCOPE
- General: The limitations described in this section are supplementary to limitations described or implicit in information given in other sections or on the drawings.

130 METHOD/ SEQUENCE OF WORK
- Specific Limitations: Include the following in the programme:
  - Date at which existing building will be demolished and period of noisy work.
  - Date at which foul drainage will be affected.
  - Date at which electrical supply will be affected.
  - Date at which water supply will be affected.

140 SCAFFOLDING
- Scaffolding: Make available to sub-contractors and others at all times.
- Scaffolding Security: Provide alarm

160 USE OR DISPOSAL OF MATERIALS
- Specific limitations: None.

170 WORKING HOURS
- Specific limitations: Working hours are:
- Monday to Fridays: 0800-1800 hours

- Saturdays: 0800-1300 hours (no noisy work)
- No work will be permitted on Sundays or Public Holidays without the prior consent of the person named in clause A10/140.

A36 FACILITIES/ TEMPORARY WORKS/ SERVICES

GENERALLY

110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES
- Location: Give notice 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 8 people.

260 SANITARY ACCOMMODATION
- Requirement: Provide sanitary accommodation for the Employer, and other members of the consultant team, either separate or shared with the Contractor's supervisory staff. Maintain in clean condition and provide all consumables.

TEMPORARY WORKS

A36 FACILITIES/ TEMPORARY WORKS/ SERVICES

SERVICES AND FACILITIES

410 LIGHTING
- Finishing work and inspection: Provide temporary lighting, the intensity and direction of which closely resembles that delivered by the permanent installation.

420 LIGHTING AND POWER
- Supply: Temporary electricity supply (installation and charges paid for by the Principal Contractor) initially, from new mains metered connection that may be left as occupiers provision at completion to be used for the Works as follows:
  - Metering: Usage to be paid by the Principal Contractor.
  - Point of supply: To be agreed.
  - Available capacity: To be agreed.
  - Frequency: 50 Hz.
  - Phase: To be agreed.
  - Current: Alternating.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply. At completion provide the Employer with meter reading.

430 WATER

- Supply: Temporary water supply (installation and charges paid for by the Principal Contractor) initially, from new mains metered connection that may be left as residential provision at completion to be used for the Works as follows:
  - Metering: Usage be paid for by the Principal Contractor.
  - Source: Mains supply.
  - Location of supply point: To be agreed.
  - Conditions/ Restrictions: To be agreed.
- Continuity: The Employer will not be responsible for the consequences of failure or restriction in supply. At completion provide the Employer with meter reading.

440 MOBILE TELEPHONES

- Direct communication: As soon as practicable after the start on site:
  - provide the Contractor's person in charge with a mobile telephone.
  - pay all charges reasonably incurred.

520 USE OF PERMANENT HEATING SYSTEM

- Permanent heating installation: May be used for drying out the Works/ services and controlling temperature and humidity levels.
- Installation: If used:
  - Take responsibility for operation, maintenance and remedial work.
  - Arrange supervision by and indemnification of the appropriate sub-contractors.
  - Pay costs arising.

540 METER READINGS

- Charges for service supplies: Where to be apportioned ensure that:
  - Meter readings are taken by relevant authority at possession and/ or completion as appropriate.
  - Copies of readings are supplied to interested parties.

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.

560 SURVEYING EQUIPMENT

- General: Provide on site and maintain in accurate condition.

570 PERSONAL PROTECTIVE EQUIPMENT

- General: It is now assumed that all visitors to the sites will arrive with their own compliant personal protective equipment, however, provide the following for visitors use:
  - Safety helmets to BS EN 397, neither damaged nor time expired. Number required: 2.
  - High visibility waistcoats to BS EN 471 Class 2. Number required: 2.
  - Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: 0.

A37 OPERATION/ MAINTENANCE OF THE FINISHED WORKS

GENERALLY

110 THE BUILDING MANUAL

- Purpose: The Manual is to be a comprehensive information source and guide for owners and users of the completed Works. It should provide an overview of the main design principles and describe key components and systems to enable proper understanding, efficient and safe operation and maintenance.
- Scope:
  - Part 1: Building User Guide: [Content as clause 120].
  - Part 2: The Health and Safety File: [prepared in draft and supplied by the Principal Contractor]. [Content as clause 150].
- Responsibility: The Building Manual is to be produced by the Contractor and must be complete no later than two weeks before date for completion of the works.
- Information provided by others: Details: As built drawings from design consultants listed in section A10.
- Compilation:
  - Prepare all information for Contractor designed or performance specified work including as-built drawings.
  - Obtain or prepare all other information to be included in the Manual.
- Reviewing the Manual: Submit a complete draft. Amend in the light of any comments and resubmit. Do not proceed with production of the final copies until authorised.
- Final copies of the Manual:
  - Number of copies: one hard copy and one electronic copy.
  - Format: Hard copy in bound paper form at least A4 size with drawings at A0/A1/A3 folded to A4 size, electronic copy in pdf format on memory stick or via We Transfer as agreed.
  - Latest date for submission: before two weeks of the completion date stated in the contract.
- As-built drawings and schedules:
  - Number of copies: One hard copy and one electronic copy.
  - Format: A0/A1/A3 drawings folded to A4 size, plus copy of drawings in pdf format stored on memory stick or via We Transfer as agreed.

115 THE HEALTH AND SAFETY FILE

- Responsibility: PC.
- Content: Obtain and Provide the following information: as required by the Contract Administrator.
- Format: as required by the Contract Administrator.
- Delivery to: Contract Administrator. By (date): 2 weeks before the date for completion stated in the contract.

120 CONTENT OF THE BUILDING MANUAL PART 1: THE BUILDING USER GUIDE

- Content: Obtain and provide the following:
  - Manufacturer's technical literature, including detailed operating and maintenance instructions.
  - Emergency information including location of meters and shut off valves.
  - Periodic building maintenance guide chart
  - Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and sub-contractors
    - Test certificates and reports required in the specification or in accordance with legislation, including:
      - Electricity, Water and Gas safety
    - Building Control Completion Certificate
- Other specific requirements: To be a brief separate document in pdf format to allow multiple reproduction for owners and users of the new dwelling, explaining in summary the systems in the building and their operation.
- Timescale for completion: To be completed two weeks before the date for completion.

150 CONTENT OF THE BUILDING MANUAL PART 2: THE HEALTH AND SAFETY FILE
- Content: obtain and provide the following, including all relevant details not included in other parts of the manual, including:
  - Residual hazards and how they have been dealt with.
  - Hazardous materials used.
  - Information regarding the removal or dismantling of installed plant and equipment.
  - Health and safety information about equipment provided for cleaning or maintaining the structure.
  - The nature, location and markings of significant services.
  - Information and as-built drawings of the structure, its plant and equipment.
- Information prepared by others: Details: as appropriate.
- Timescale for completion: To be completed two weeks before the date for completion.
- Submit to: Contract Administrator.

160 PRESENTATION OF BUILDING MANUAL
- Format: A4 size, plastics covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover titled.
- Selected drawings needed to illustrate or locate items mentioned in the Manual: Where larger than A4, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.
- As-built drawings: The main sets may form annexes to the Manual.

A40 CONTRACTOR'S GENERAL COST ITEMS: MANAGEMENT AND STAFF

110 MANAGEMENT AND STAFF
- Cost significant items: Contractor to list.

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: Contractor to list.

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: Contractor to list.

A43 CONTRACTOR'S GENERAL COST ITEMS: MECHANICAL PLANT

110 MECHANICAL PLANT
- Cost significant items: Contractor to list.

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: Contractor to list.

A53 WORK BY STATUTORY AUTHORITIES/ UNDERTAKERS

120 WORK BY STATUTORY UNDERTAKERS

- Included within Mechanical, Electrical and Plumbing pricing document.

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Unit 01, Beta House, St John's Road, Hove, BN3 2FX, United Kingdom
44 (0)1273 724 384
Company No 06877117 VAT No 971 4147 17

Giles Ings RIBA
Matthew Richardson RIBA
ABIR/PCA/b

A90 PRELIMINARIES/GENERAL CONDITIONS BREAKDOWN

100 The Contractor must provide hereunder costs for everything in the foregoing Preliminaries/General conditions for which he has not allowed in his rates and prices for work in the Schedule of Works:

Preliminaries/General Conditions	Notes	Cost
Item A12 A13 A20 A30 A31 A32 A33 A34 A35 A36 A37 A40 A41 A42 A43 A44 A53	Included elsewhere	
	Total Carried Forward	£

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Matthew Richardson RIBA

SCHEDULE OF WORKS

2. DEMOLITION/SITE CLEARANCE

GENERAL
The following specifications and schedule of works are to be read in conjunction with the contract drawings and specifications provided.

DESK STUDY/ SURVEY:
Scope: Before starting deconstruction/ demolition work, examine available information, and carry out a survey of:
- the structure or structures to be deconstructed/ demolished,
- the site on which the structure or structures stand, and
- the surrounding area.

Report and method statements: Submit, describing:
- Form, condition and details of the structure or structures, the site, and the surrounding area.
- Type, location and condition of features of historical, archaeological, geological or ecological importance.
- Type, location and condition of adjoining or surrounding premises that might be adversely affected by removal of the structure or structures, or by noise, vibration and/ or dust generated during deconstruction/ demolition.
- Identity and location of services above and below ground, including those required for the Contractor's use, and arrangements for their disconnection and adaptation.
- Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
- Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
- Proposed programme of work, including sequence and methods of deconstruction/ demolition.
- Arrangements for protection of personnel and the general public, including exclusion of unauthorised persons.
- Arrangements for control of site transport and traffic.
- Special requirements: Provide method statements for safe sequential removal of existing retaining structures and temporary works to prevent collapse of retained soils.

Format of report: As required.

EXTENT OF DECONSTRUCTION/ DEMOLITION/ EXCAVATION:
General: Subject to retention requirements specified elsewhere and indicated on drawings, deconstruct/ demolish structures down to: Suitable level to allow unhindered reconstruction/construction of proposed works.

GROUNDWORKS:
Old foundations, slabs and the like: Existing foundations to be reused in accordance with the Structural Engineers details and specification. Break out in limited locations and to the extents stated.
Contaminated material: Remove and carry out remediation required by the Enforcing Authority.

BENCH MARKS:
Unrecorded bench marks and other survey information: Give notice when found. Do not remove marks or destroy the fabric on which they are found.

FEATURES TO BE RETAINED:
General: Refer to Contract drawings.

SERVICES AFFECTED BY DECONSTRUCTION / DEMOLITION:

SERVICES REGULATIONS:
Work carried out to or affecting new and/ or existing services: Carry out in accordance with the byelaws and / or regulations of the relevant Statutory Authority. Refer to Mechanical, Plumbing and Electrical Specification documents.

LOCATION OF SERVICES:
Services affected by deconstruction/ demolition/excavation work (if any): Locate and mark positions.
Mains services marking: Arrange with the appropriate authorities for services to be located and marked.
- Marking standard: In accordance with National Joint Utilities Group 'Guidelines on the positioning and colour coding of underground utilities' apparatus'.

- Refer to Mechanical and Electrical Specification document.

SERVICES DISCONNECTION ARRANGED BY CONTRACTOR:
General: Arrange with the appropriate authorities for disconnection of all existing redundant services and removal of fittings and equipment owned by those authorities prior to starting deconstruction/ demolition as required to complete the works. Refer to Mechanical, Plumbing and Electrical Specification documents.

SERVICES DISCONNECTION ARRANGED BY EMPLOYER:
Refer to Mechanical, Plumbing and Electrical Specification documents.

SERVICES DISCONNECTION ARRANGED BY EMPLOYER AND CONTRACTOR:
Refer to Mechanical, Plumbing and Electrical Specification documents.

DISCONNECTION OF DRAINS:
General: Locate, disconnect and seal disused foul and surface water drains.
Sealing: Permanent, and within the site.

LIVE FOUL AND SURFACE WATER DRAINS:
Drains and associated manholes, inspection chambers, gullies, vent pipes and fittings:
- Protect; maintain normal flow during deconstruction/ demolition/excavation.
- Make good any damage arising from deconstruction/ demolition/excavation work.
- Leave clean and in working order at completion of deconstruction/ demolition work.

Other requirements: Refer to Structural Engineers Drawings and specifications.

SERVICE BYPASS CONNECTIONS:
General: Provide as necessary to maintain continuity of services to adjacent occupied properties. Minimum notice to adjoining owners and all affected occupiers: 72 hours, if shutdown is necessary during changeover.

SERVICES TO BE RETAINED:
Damage to services: Give notice, and notify relevant service authorities and/ or owner/ occupier regarding damage arising from deconstruction/ demolition/excavation.
Repairs to services: Complete as directed, and to the satisfaction of the service authority or owner.

DECONSTRUCTION/ DEMOLITION WORK/ EXCAVATION:

WORKMANSHIP:
Standard: Demolish structures in accordance with BS 6187.
Operatives:
- Appropriately skilled and experienced for the type of work.
- Holding, or in training to obtain, relevant CITB Certificates of Competence.

Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of deconstruction/ demolition to be used.

GAS OR VAPOUR RISKS:
Precautions: Prevent fire and/ or explosion caused by gas and/ or vapour from tanks, pipes, etc.

DUST CONTROL:
General: Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.

HEALTH HAZARDS:
Precautions: Protect site operatives and general public from hazards associated with vibration, dangerous fumes and dust arising during the course of the Works.

ADJOINING PROPERTIES:
Temporary support and protection: Provide. Maintain and alter, as necessary, as work proceeds. Do not leave unnecessary or unstable projections.

Defects: Report immediately on discovery.
Damage: Minimise. Repair promptly to ensure safety, stability, weather protection and security.
Support to foundations: Do not disturb.

STRUCTURES TO BE RETAINED:
Extent: Existing foundations and foul drainage system (externally).

PARTLY DEMOLISHED STRUCTURES:
General: Leave in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
Temporary works: Prevent overloading due to debris.
Access: Prevent access by unauthorised persons.

DANGEROUS OPENINGS:
General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
Access: Prevent access by unauthorised persons.

ASBESTOS-CONTAINING MATERIALS – KNOWN OCCURRENCES:
General: Materials containing asbestos are not known to be present in the area of works affecting the host property. Refer to survey report – Appendix A. If additional sources are found report to persons in section A10 140:
Removal: TBA if found to be present.

ASBESTOS-CONTAINING MATERIALS – UNKNOWN OCCURRENCES:
Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction/ demolition/excavation work. Avoid disturbing such materials.
Removal: Submit statutory risk assessments and details of proposed methods for safe removal.

UNFORESEEN HAZARDS:
Discovery: Give notice immediately when hazards such as unrecorded voids, tanks, chemicals, are discovered during deconstruction/ demolition/excavation.
Removal: Submit details of proposed methods for filling, removal, etc.

OPEN VOIDS, ETC:
Temporary support: Leave adequate temporary support and guarding to excavations.
Safety: Make excavations safe and secure with suitable propping etc.

SITE SURFACE AT COMPLETION:
Levels: Grade the disturbed areas adjacent the site works and make good to match existing finishes to follow the levels of adjacent areas.

SITE CONDITION AT COMPLETION:
Debris: Clear away and leave the site in a clean and tidy condition.
Other requirements: Maintain security fencing around area of work until morning of occupation by tenants or first opening of public toilets.

MATERIALS ARISING:

CONTRACTOR'S PROPERTY:
Components and materials arising from the deconstruction/ demolition work/ excavation: Property of the Contractor except where otherwise stated.
Action: Remove from site as work proceeds where not to be reused or recycled for site use.

EMPLOYER'S PROPERTY:
Components and materials to remain the property of the Employer: Water filling station (to be refitted on new building).

RECYCLED MATERIALS:
Materials arising from deconstruction/ demolition work/ excavation: Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.

Evidence of compliance: Submit full details and supporting documentation.
- Verification: Allow adequate time in programme for verification of compliance.

PRICING:

2.1: Carefully demolish and remove existing building, structure (down to existing foundations), finishes and fixed items ready for new construction

£ .....

2.2: Carefully disconnect, remove make safe and adapt as necessary existing foul and surface water drainage systems

£ .....

2.3: Carefully remove pavement to north of existing building to a depth ready to receive new concrete pavement.

£ .....

TOTAL SECTION 2

£ .....

3. GENERAL STRUCTURAL REQUIREMENTS / EXCAVATIONS

GENERAL
The following specifications and schedule of works are to be read in conjunction with the contract drawings and specifications provided.

EXECUTION:

EXECUTION GENERALLY:
Standard: Report conflict between specification and the designated codes of practice and the standards referenced therein before ordering affected materials or executing affected work.
Inspection levels: Contact and arrange (in good time), inspection of all structural works before covering up or infilling, by the Structural Engineer named in A10/200 and the Building Control officer.
Quality control: Test new drainage installation before covering up.
Tolerances: Notwithstanding tolerances specified elsewhere, do not exceed requirements for compliance with the designated code.

GEOTECHNICAL WORK:
The contractor is to make himself aware and allow for any recommendations made in the Geotechnical Report and Structural Calculations prior to undertaking excavations for foundations ground bearing slabs, drainage and service trenches.

STABILITY DURING EXECUTION:
Permanent bracing system: N/A.
- Vertical: N/A.
- Horizontal: N/A.

Temporary bracing/ restraints: N/A.
- Special requirements: See Structural Engineers calculations and details.

Design loads: Structure has been designed for the completed state.
- Magnitude:

Before loading structure: Take into account: Recommended curing times.
- Reduction in strength due to immaturity of elements.
- Reduction in loadbearing capacity due to partial completion of continuous elements.

RESTRICTIONS ON USE OF GROUND SURFACE BEHIND NEW CONCRETE/BLOCKWORK UPSTANDS:
Do not allow traffic loading or mechanical compaction of surrounding surfaces until the retaining structures have cured sufficiently.

CONDITION SURVEY OF EXISTING SUB STRUCTURES:
Before starting work: Survey structure. Record and take photographs of damaged or defective areas.
- Items to be recorded: Location, extent and magnitude of cracks, spalling, indications of movement, previous repairs, modifications and other irregularities of the slab and foundation.

MONITORING OF GROUND CONDITIONS DURING CONSTRUCTION:
Purpose: To identify differences between actual ground conditions and those assumed in the design.
Requirements: As assumed in the structural engineers design report.
- Sampling and testing: None required

Inspect and record: Sequence, nature and soil types revealed in excavations and formations.
Immediately notify: Variations from the assumed ground conditions or shortfall in test requirements.
Special requirements: To be agreed with Structural Engineer

MONITORING OF ADJACENT BUILDINGS/ STRUCTURES:
Application: Neighbouring lifeguard and concessions structure.
Requirement: Visually inspect building for signs of movement, cracking or other indications of distress.
Period of inspection: During demolition/adaptation stages and structural works
Frequency of inspection: Daily
Record: Date and time of inspections.
Action: If movement cracking or other signs of distress are noted contact the Structural Engineer named in A10/200.

MOVEMENT MONITORING:
Application: If required by Structural Engineer named in A10/200.
Survey points: Agree number and location of survey points and record initial positions to enable monitoring of:
- Movements:

Method: TBA
- Accuracy of reading: TBA

Special requirements: TBA

CRACK MONITORING OF EXISTING BUILDINGS/ STRUCTURES:
Application: N/A.
Survey points: N/A
Method of measuring crack widths: N/A
New or extending cracks: N/A.

FREQUENCY OF MONITORING:
Initial readings: Agree and record
Frequency of readings: Daily
Increase frequency of readings if:
- Movements accelerate.
- Trend of movements changes unexpectedly.

Additional readings: Twice daily
- A single set: Immediately following
- Increase frequency of readings:

Period of monitoring:

PRICING:

3.1: Allow for excavation to reduced levels ready for installation of new slab and foundations.

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3.2: Allow for excavations to allow for laying of new below ground surface water drainage, foul drainage and incoming services.

£ .....

3.3 Allow for excavation to reduce levels ready for new concrete slab below bin store and forming post bases.

£ .....

3.4 Allow for excavations forming bases to bollards and safety guarding (doors).

£ .....

TOTAL SECTION 3

£ .....

4. INSITU CEMENT FREE CONCRETE CONSTRUCTION AND GROUND FLOOR CONSTRUCTION

GENERAL
The following specifications and schedule of works are to be read in conjunction with Contract drawings and specifications provided. Please review and allow for all works specified in the Structural Engineers Calculations and details.

ALKALI – ACTIVATED CEMENTITIOUS MATERIAL AND CONCRETE SPECIFICATION:
Concrete generally: To PAS 8820:2016.

DESIGNATED CONCRETE:
Supplier/specifyer: DB Group 'Cemfree'. sales@dbgholdings.com DB Group, Wellington Way, Bourn Airfield, Cambridge. CB23 2TQ
Designation: As specified by structural engineer
Fibres: Not required.
Aggregates:
- Size (maximum): As specified by supplier and Structural Engineer.
- Coarse recycled aggregates: As specified by supplier and Structural Engineer.
- Additional aggregate requirements: As specified by supplier and Structural Engineer.

Special requirements for cement/ combinations As specified by supplier and Structural Engineer.
Consistence class As specified by supplier and Structural Engineer.
Chloride class: As specified by supplier and Structural Engineer.
Admixtures: As specified by supplier and Structural Engineer.
Additional mix requirements: As specified by supplier and Structural Engineer.

BASIC DESIGNATED CONCRETE:
Designation: As specified by supplier and Structural Engineer.
Coarse recycled aggregates: As specified by supplier and Structural Engineer.
Consistence class: As specified by supplier and Structural Engineer.
Additional requirements: Submit proposals.

CRACK CONTROL REINFORCEMENT:
Type to BS 4483
Installation: Place centrally in depth of bed. Lap not less than 100 mm and securely tie together with steel wire.
Corners: Avoid a four layer build at corners.

SUBSTITUTION OF STANDARDIZED PRESCRIBED FOR DESIGNATED CONCRETE:
General: Conform to BS 8500-2, clause 8.
Substitution: In accordance with BS 8500-1, table A.7.
- Proposals: Submit for each substitution, stating reasons.

Site mixing: Conform to BS 8000-2.1, subsections 2, 3 and 4.
- Restrictions:

PROPERTIES OF FRESH CONCRETE:

Adjustments to suit construction process: Determine with concrete producer. Maintain conformity to the specification.

PREMATURE WATER LOSS:
Requirement: Prevent water loss from concrete laid on absorbent substrates.
- Underlay: Polyethylene sheet 250 micrometres thick.
- Installation: Lap edges 150 mm.

PLACING AND COMPACTING:
Surfaces to receive concrete: Clean, with no debris, tying wire clippings, fastenings or free water.
Timing: Place as soon as practicable after mixing and while sufficiently plastic for full compaction.
Temperature limitations for concrete: 30°C (maximum) and 5°C (minimum). Do not place against frozen or frost covered surfaces.
Compaction: Fully compact to full depth to remove entrapped air especially around reinforcement, cast-in accessories, into corners of formwork and at joints. Continue until air bubbles cease to appear on the top surface.
- Methods of compaction: To suit consistence class and use of concrete.

CURING AND PROTECTING:
Evaporation from surfaces of concrete: Prevent throughout curing period.
- Surfaces covered by formwork: Retain formwork in position and, where necessary to satisfy curing period, cover surfaces immediately after striking.
- Top surfaces: Cover immediately after placing and compacting. Replace cover immediately after any finishing operations.
Curing periods:
- Surfaces which in the finished building will be exposed to the elements, and wearing surfaces of floors and pavements: 10 days (minimum).
- Other structural concrete surfaces: 5 days (minimum).
Protection: Protect concrete from shock, indentation and physical damage and overtopping of sea defences for a period of not less than 10 days.

PRICING:

4.1: Form in-situ reinforced concrete (cement free) extended ground slabs/foundations and upstands below internal and external walls and doors. Swing door threshold upstands to have 15mm max sloping top. Provide horizontal course grain softwood shuttering to external upstands. Allow for all services and drainage penetrations.

£ .....

4.2: Provide compacted MOT type 1 sub base material below new slabs and above all slabs to build up level ready for insulation and screed.

£ .....

4.3: Provide in-situ cement free concrete base on compacted MOT below threshold drains. **£** .....

4.4: Provide in-situ cement free concrete backfill to drainage and slab bases, inspection chambers and gullies. **£** .....

4.5: Provide in-situ cement free concrete screeds with fibre reinforcement and power floated finish (ready to receive Micro Topping finish – specified elsewhere). Note: Screeds to each space to be laid independently to allow for differing external ground levels.

£ .....

4.6: Provide thermal floor insulation slabs below concrete floor screeds and vertically at perimeter junction with external concrete upstands.

£ .....

4.7: Provide horizontal and vertical DPM's to in-situ concrete slabs and below thermal insulation on 35mm sand blinding.

£ .....

4.8: Provide cement free concrete foundation base, 450mm minimum depth and 600x 600 wide to bollards and safety barriers (doors) and fix bollards and safety barriers in position.

£ .....

4.9: Provide cement free concrete foundation base and surround for posts forming bin store enclosure.

£ .....

4.10: Provide 150mm deep A142 reinforced cement free concrete replacement pavement on MOT type 1 and dropped kerb to suit new arrangement.

£ .....

TOTAL SECTION 4

£ .....

5. STRUCTURAL METAL MEMBERS:

FABRICATION OF STEEL MEMBERS:
Cuts and holes: Accurate and neat.
Welding: Metal arc method to BS EN 1011-2.
Welded joints: Fully fused, with mechanical properties not less than those of the parent metal.
Site welding: Obtain approval
Joints: Location and layout of fastenings as drawing:

EXECUTION: Provide all temporary supports required for safe execution. Before manufacturing commences, the contractor is to check all critical dimensions on site and obtain from their steelwork fabricator, accurate fabrication drawings for all steelwork and fixings and connections**.**

INSTALLATION: Accuracy: Members positioned true to line and level using, if necessary, steel packs of sufficient area to allow full transfer of loads to bearing surfaces.
Fixing: Use washers under bolt heads and nuts.
Tapered washers: Provide under bolt heads and nuts bearing on sloping surfaces. Match taper to slope angle and align correctly.

BONDED ANCHORS:
Holes: Clean and free from dust at time of installing anchor.
Permeable sleeves: Use in conditions where otherwise the loss of bonding agent would be unacceptably high.
Other requirements:

SHOP PRIMING:
Preparation: To BS EN ISO 12944-4. Remove fins, burrs, sharp edges and weld spatter and clean out crevices.
Surface finish:
Prepared surfaces: Keep in a dry atmosphere and apply first coating without delay.
Priming: Suitable for intumescent coating applied on site or galvanising.
Number of coats: As required
Dry film thickness (minimum):As required
Application: To BS EN ISO 12944-7.
Other requirements:

GALVANISING FOR ALL STEELWORK:
Preparation: To BS EN ISO 12944-4. Remove fins, burrs, sharp edges and weld spatter and clean out crevices.
Surface finish: Hot dip galvanizing to EN ISO1461 and ASTM A1063/A1063M -17 and to be Marine Grade.
Prepared surfaces: Keep in a dry atmosphere and apply first coating without delay.
Application: Strictly in accordance with Galvanizers Association recommendations.

INTUMESCENT COATINGS:
Preparation: Remove fins, burrs, sharp edges and weld spatter and clean out crevices.
Surface finish: Nullifire S708 Water-based Intumescent Basecoat to achieve 60 mins fire resistance
Prepared surfaces: Keep in a dry atmosphere and apply first coating without delay to all surfaces.
Priming:
Primer: As recommended by Nullifire
Number of coats: To achieve 60 minutes fire protection
Dry film thickness (minimum): As recommended by Nullifire
Application: To BS EN 16623:2015.
Other requirements: Steel structure supporting walls must have 60 minutes intumescent fire protection. Steelwork only supporting roof structure need not have intumescent fire protection coating.

PRICING:

5.1: In good time, obtain fabrication drawings for comment by the Structural Engineer and CA before fabrication. Supply and install complete galvanized steel structure, security shutter support structure and canopy support structure as specified or implied as shown in Architect's and Structural Engineer's drawings and calculations.

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5.2: Provide intumescent coating to steel members to achieve certified 60 minutes fire resistance.

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TOTAL SECTION 5 **£** .....

6. CARPENTRY / TIMBER FRAMING / FIRST FIXING

GENERAL
The following specifications and schedule of works are to be read in conjunction with Contract drawings and specifications provided.

TIMBER PROCUREMENT:
Timber (including timber for wood based products): Obtained from well-managed forests/ plantations in accordance with:
- The laws governing forest management in the producer country or countries.
- International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).

Documentation: Provide either:
- Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied, or
- Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.

STRENGTH GRADING OF TIMBER:
Grader: A company currently registered under a third party quality assurance scheme operated by a certification body approved by the UK Timber Grading Committee.

GRADING AND MARKING OF SOFTWOOD:
Timber of a target/ finished thickness less than 100 mm and not specified for wet exposure: Graded at an average moisture content not exceeding 20% with no reading being in excess of 24% and clearly marked as 'DRY' or 'KD' (kiln dried).
Timber graded undried (green) and specified for installation at higher moisture contents: Clearly marked as 'WET' or 'GRN'.

Structural timber members cut from large graded sections: Regraded to approval and marked accordingly. Timber to be in accordance with BS EN335 and BS EN 350.

WORKMANSHIP GENERALLY:
Selection, fixing, construction and treatment to be in strict accordance with TRADA recommendations and best practice.

CROSS SECTION DIMENSIONS OF STRUCTURAL SOFTWOOD AND HARDWOOD:
Dimensions: Dimensions in this specification and shown on drawings are target sizes as defined in BS EN 336.
Tolerances: The tolerance indicators (T1) and (T2) specify the maximum permitted deviations from target sizes as stated in BS EN 336, clause 4.3:
- Tolerance class 1 (T1) for sawn surfaces.
- Tolerance class 2 (T2) for further processed surfaces.

CROSS SECTION DIMENSIONS OF NONSTRUCTURAL SOFTWOOD:
Dimensions: Dimensions in this specification and shown on drawings are finished sizes.
Maximum permitted deviations from finished sizes: As stated in BS EN 1313-1:
- Clause 6 for sawn sections.
- Clause NA.2 for further processed sections.

WARPING OF TIMBER:
Bow, spring, twist and cup: Not greater than the limits set down in BS 4978 or BS EN 14081-1 for softwood, or BS 5756 for hardwood.

SELECTION AND USE OF TIMBER :
Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

NOTCHES, HOLES AND JOINTS IN TIMBER:
Notches and holes: Position in relation to knots or other defects such that the strength of members will not be reduced.
Scarf joints, finger joints and splice plates: Do not use without approval.

PROCESSING TREATED TIMBER:
Cutting and machining: Carry out as much as possible before treatment.
Extensively processed timber: Retreat timber sawn lengthways, thickness, planed, ploughed, etc.
Surfaces exposed by minor cutting/ drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer. Preservation of timber framing in accordance with BS 8417.

MOISTURE CONTENT:
Moisture content of wood and wood based products at time of installation: Not more than:
- Covered in generally unheated spaces: 24%.
- Covered in generally heated spaces: 20%.
- Internal in continuously heated spaces: 20%.

PROTECTION:
Generally: Keep timber dry and do not overstress, distort or disfigure sections or components during transit, storage, lifting, erection or fixing.
Timber and components: Store under cover, clear of the ground and with good ventilation. Support on regularly spaced, level bearers on a dry, firm base. Open pile to ensure free movement of air through the stack.

EXPOSED END GRAIN:
Components: Seal exposed end grain of the following before delivery to site:

PAINTED FINISHES:
Structural timber to be painted: Primed as specified before delivery to site.

CLEAR FINISHES:
Structural timber to be clear finished: Keep clean and apply first coat of specified finish before delivery to site.

EXPOSED TIMBER:
Planed structural timber exposed to view in completed work: Prevent damage to and marking of surfaces and arrises.

JOINTING/FIXING GENERALLY:
Generally: Where not specified precisely, select methods of jointing and fixing and types, sizes and spacings of fasteners in compliance with BS EN 912.

FRAMING ANCHORS:
Fasteners: Galvanized or sherardized square twist nails.
- Size: Not less than size recommended by anchor manufacturer.

Fixing: Secure using not less than the number of nails recommended by anchor manufacturer.

BOLT/ SCREW ASSEMBLIES:
Nuts and washers: Material grade and finish to suit bolts.
Washer dimensions: Diameter/ side length of washers in contact with timber faces to be minimum 3 times bolt diameter, with a thickness not less than 0.25 times bolt diameter.

BOLTED JOINTS:
Bolt spacings (minimum): To BS 5268-2, table 81.
Holes for bolts: Located accurately and drilled to diameters as close as practical to the nominal bolt diameter and not more than 2 mm larger.
Washers: Placed under bolt heads and nuts that would otherwise bear directly on timber. Use spring washers in locations which will be hidden or inaccessible in the completed building.
Bolt tightening: So that washers just bite the surface of the timber. Ensure that at least one complete thread protrudes from the nut.
- Checking: At agreed regular intervals up to Completion. Tighten as necessary.

ANTICORROSION FINISHES FOR FASTENERS:
Galvanizing: To BS 7371-6, with internal threads tapped and lightly oiled following treatment.
Sherardizing: To BS 7371-8, Class 1.
Zinc plating: To BS EN ISO 4042 and passivated.

ERECTION AND INSTALLATION:

EXPANSION ANCHORS:
Spacing/ edge distance (minimum):
- Obtain instructions if specified spacing or edge distance cannot be achieved.

Installation holes: Drilled to diameter and depth recommended by manufacturer. Clean and free from dust.
Installation/ tightening: To manufacturer's instructions.

HAMMER-IN FASTENERS:
Spacing/ edge distance (minimum):
- Obtain instructions if specified spacing or edge distance cannot be achieved.

Installation holes: Drilled to diameter and depth recommended by manufacturer. Clean and free from dust.

STRUCTURAL PLYWOOD SHEATING:
External sheathing: 18mm WBP Plywood
Internal sheathing (toilets and plant space): 12mm WBP Plywood
In accordance with BS 5268 and EN 636-3S

PRICING:

6.1: Supply, erect and fix on dpc's, treated timber studs, noggins, joists, firings, plates and sheathing board to form internal and external walls, roofs, eaves and external seating frame.

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6.2: Provide 4 No. decorated MDF shelves inside cupboard within Changing Places WC.

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TOTAL SECTION 6 **£** .....

7. INTERNAL WALL AND CEILING LININGS (CAFÉ/KITCHEN/CHANGING PLACES)

GENERAL
The following specifications and schedule of works are to be read in conjunction with Contract drawings and specifications provided.

INSTALLATION:

ADDITIONAL SUPPORTS:
Framing: Accurately position and securely fix to give full support to:
- Partition heads running parallel with, but offset from main structural supports.
- Fixtures, fittings and service outlets. Mark framing positions clearly and accurately on linings.
- Board edges and lining perimeters, as recommended by board manufacturer to suit type and performance of lining.

NEW WET LAID BASES:
Dpcs: Install under full width of partitions/ freestanding wall linings.
- Material: Bituminous sheet or plastics.

LININGS GENERALLY:
General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
Cutting boards: Neatly and accurately without damaging facing.
Cut edges: Minimize and position at internal angles wherever possible.
Fixings boards: Securely and firmly to suitably prepared and accurately levelled backgrounds.
Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

PLYWOOD LININGS

Hardwood Birch faced (one sided) Grade B (I) for Humid Use General EN 636-2G
Size: 18 x 2440 x 1220 mm (9 plies)
Plywood to be CE marked according to BS EN 13986

WALLS AND CEILINGS FIXING SEQUENCE:
Sequence: Fix boards to ceilings before installing lined walls and partitions.
Orientation of boards to walls: Horizontally, starting with whole board at base.
Orientation of boards to ceilings: Length north- south.
Allow 8mm parallel shadow gaps between all boards and floor finish.

FIXING
Centres: Maximum 450mm vertically and horizontally.
Positioning: Countersunk to suit depth of fixing, inset 20mm from edges, plumb and horizontal, same for each board throughout.

Fixing: Accu Black Stainless Steel (A2) 8mm Torx Countersunk OEA
Length: 140mm minimum -to allow for depth of insulation.

THERMAL INSULATION
Location: Internal lining to external walls forming thermal envelope to Café, Kitchen, Plant and Changing Places WC
Manufacturer: Kingspan.
Product: 2No boards of 50mm Kooltherm K112. One layer fitted tightly between studs (no gap to exceed 1mm) and one layer over. All boards to be sealed at abutments with Kingspan aluminium reflective foil tape.

ACOUSTIC INSULATION
Location: Tightly fitted between both studwork skins forming wall between Café kitchen and Changing Places WC.
Manufacturer: Rockwool
Product: 50mm RWA45 acoustic insulation slabs.

FIRE RESISTANT MEMBRANE BEHIND PLYWOOD BOARDS
Location: Behind plywood wall and ceiling boards in café, kitchen and Changing Places WC.
Requirement: To obscure insulation vapour control layer visible between board shadow gaps.
Manufacturer: Novia Ltd.
Product: Novia FR Breather Membrane (black)

FIRE RETARDANT TREATMENT TO PLYWOOD FINISHES (CEILINGS AND WALLS)
Location: Required on all 18mm plywood internal walls and ceilings to achieve 30-minutes fire protection, in accordance with BS476 Part 22 1987:
Product: 42 HW CLEAR COATING SYSTEM
Manufacturer: Envirograf Intumescent Systems
Application: Two Coats HW02N CLEAR INTUMESCENT @ 8SQM per litre per coat and One Coat HW EXCEL CLEAR TOPCOAT (SATIN) @10SQM per litre. Ensure exposed ply faces are prepared for decoration before application. Preparation and application in strict accordance with manufacturers Data Sheets.

PRICING:

7.1: Supply and install all internal Birch faced plywood wall finishes to Café, Kitchen on black breather membrane.

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7.2: Supply and install all internal Birch faced plywood ceiling finishes to Café, Kitchen, Changing Places WC and 7 No. toilets on black breather membrane.

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7.3: Supply and install all thermal insulation between and over studs forming thermal envelope.

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7.4: Supply and install all acoustic insulation within double stud partition between kitchen and Changing Places WC.

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7.5: Prepare and apply fire retardant surface finish to all Birch faced plywood.

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7.6: Supply and install 18mm WBP plywood to Changing Places and 7No. WC's ready for fixing of stainless steel and Whiterock wall finishes.

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7.7: Supply and install 12.5mm Gyproc Soundblock moisture resistant plasterboard to wall type 4

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TOTAL SECTION 7 **£** .....

8. EXTERNAL WINDOWS & DOORS

GENERAL
The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided.

EVIDENCE OF PERFORMANCE:
Certification: Contractor will provide independently certified evidence that all incorporated components comply with specified performance requirements.

SITE DIMENSIONS:
Procedure: Before starting work on designated items the contractor shall be responsible for taking site dimensions, record on shop drawings and use to ensure accurate fabrication.
Designated items: External windows and doors.

PROTECTION OF COMPONENTS:
General: Do not deliver to site components that cannot be installed immediately or placed in clean, dry floored and covered storage.
Stored components: Stack vertical or near vertical on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.

BUILDING IN:
General: Not permitted unless indicated on drawings.
- Brace and protect components to prevent distortion and damage during construction of adjacent structure.

WINDOW INSTALLATION GENERALLY:
Installation: Into prepared openings.
Gap between frame edge and surrounding construction: As manufacturers recommendations.
- Minimum: As window/door manufactures recommendations
- Maximum: As window/door manufactures recommendations

Distortion: Install windows without twist or diagonal racking.

WINDOW/SLIDING DOORS:
Manufacturer: IQ Glazing/Siegaer
Installer: IQ Glazing.
Guarantees: 10 Years on installation and systems.

FIXING OF COMPOSITE FRAMES:
Standard: As recommended by manufacturer.
Fasteners: As recommended by manufacturer.
- Spacing: When not predrilled or specified otherwise, position fasteners not more than 150 mm from ends of each jamb, adjacent to each hanging point of opening lights, and at maximum 600 mm centres.

SEALANT JOINTS:
Sealant: As specified and installed by IQ Glazing
- Manufacturer: Tremco
  Product reference: Compriband TP600
- Colour: Black
- Application: Around windows and sliding doors.

TIMBER WC, CHANGING PLACES, PLANT AND SERVING HATCH DOORS
Purpose made solid hardwood doors and rebated hardwood frames.
Stainless Steel 316 Ironmongery (hinges, locks, handles, kickplates, signage)

PRICING:

8.1: Provide in good time for comment by CA, window and door fabrication drawings/details from IQ Glazing, supply and fit 2 No sliding glazed doors and sliding window, test and commission.

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8.2: Allow provisional sum of £10,000 for design, preparation of shop drawings for comment by CA, manufacture and installation of all hardwood swing doors and frames including ironmongery and factory applied decoration (13 No. internal and external doors including serving hatch).

£10,000

8.3: Allow for overheads, attendance and profit for item 8.2.

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8.4: Supply and fit DL99 900 x 900 mm roof access hatch by Staka in Grey externally and white internally. Provide and securely fix internally to access hatch upstands 2 No. stainless steel ladder eyebolts.

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TOTAL SECTION 8 **£** .....

9. ROOF CLADDING

GENERAL
The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided.

FLAT ROOFS
Product: Topseal Double Top Warm Roof GRP roofing system
Installation: System installed in strict accordance with manufactures recommendations and instructions by approved Topseal installer.
Guarantee requirements: 40 year Guarantee with additional Guarantee Protection Certificate (cost 1.5% of product contract value).
Colour: Dark grey
Components: Flashings, corners and upstands etc all installed by approved installer.
Decking: 18mm OSB3 T&G
Insulation: 100mm Kingspan Thermaroof TR26 on Dupont AirGuard vapor control layer.
Ceiling Finish (RT1): 18mm Birch faced plywood.
Ceiling Finish (RT1*): 12.5mm British Gypsum decorated moisture resistant plasterboard and 3mm skim coat plaster finish

PARAPET COPING/FASCIA's
Product: Alumasc Skyline System
Material: Powder coated aluminium coping.
Colour: Grey
Thickness: 3mm
Width: To suit site dimensions
Decking: GRP flat roofing system on OSB3 boarding:
Fixings: Alumasc bracket with EDPM
Installation: System installed in strict accordance with manufactures recommendations and instructions

PRICING:

9.1: Provide and fix by accredited installer (obtain 40 year Guarantee with additional Guarantee Protection Certificate) GRP flat roofing systems including decking, timber bearing plates for PV panels, ASHP and ventilation equipment fixings and insulation to form RT1, RT1* and RT2 canopy roofs and to parapet/roof/roof access upstands.

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9.2: Provide and fix powder coated aluminium parapet copings and fascia to eaves and canopy. **£** .....

TOTAL SECTION 9 **£** .....

10. EXTERNAL TIMBER CLADDING

GENERAL
The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided.

CLADDING BOARDS:
Species: English (homegrown) Larch
Supplier: English Woodlands Timber, Cocking Sawmills, Cocking, Midhurst, GU29 0HS
Finish: Fresh sawn
Spacing: 8-10mm
Finished size: 120mm x 25mm x 6m
Fixings: Countersunk 316 stainless steel screws at max 600mm vertical c/s (to suit battens behind) with 2No fixings/batten. All fixings to align vertically and horizontally.
Treatment: Brush applied or dipped Holtz HR Prof fire retardant (surface spread of flame) min application of 1 litre per 3.5m2 to all faces before fixing.

MEMBRANE BEHIND EXTERNAL CLADDING:
Type: Class B Fire rated black façade membrane – Ampatop B
Manufacturer: Back to Earth
Fixed: Horizontally
Lap: Minimum 100mm horizontally lap, taped with black UV resistance tape.

COUNTER BATTENS
Material: BS 5534 Graded 25x50mm soft wood pressure treated with Tanalith E
Fitted: Horizontally and vertically at 450mm maximum centres
Treatment: Brush applied or dipped Holtz HR Prof fire retardant (surface spread of flame) min application of 1 litre per 3.5m2 to all faces before fixing.

BREATHER MEMBRANE OVER EXTERNAL SHEATHING BOARD
Material: Novia FR Breather membrane.
Fitted: In strict accordance with manufacturers instructions and recommendations.

SAMPLE PANEL:
General: Construct on site, representative sample panel of the following: Minimum 1sqm corner detail of timber cladding on membrane and counter battens including fire retardant treatment to Larch for approval.

PRICING:

10.1: Prepare sample panel of external cladding for approval, minimum 2 weeks before main order deadline.

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10.2: Supply and fit fire treated external timber cladding, membranes and counter battens to external walls.

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10.3: Supply and fix external timber cladding directly fixed to softwood framing to form external bench seating area (omit fly mesh). Apply fire retardant treatment to softwood framing (400 c/s). Lightly sand bench seat boards and back rest to mid height to remove splinters.

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TOTAL SECTION 10 **£** .....

11. FLOOR FINISHES

GENERAL
The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided.

SUITABILITY OF BACKGROUNDS/ BASES:
Background/ base tolerances: To permit specified flatness/ regularity of finished surfaces given the permissible minimum and maximum thickness of bedding.
New background drying times (minimum):

FALLS IN THE BASES:
General: Give notice if falls are inadequate.

SAMPLES:
General: Submit representative samples of the following: Micro topping cement floor finish and Altro vinyl sheet flooring for approval by CA.

PREPARATION:

SMOOTHING UNDERLAYMENT:
Type: Recommended by adhesive manufacturer.
Condition: Allow to dry before laying Vinal.

FLOOR FINISHES:
Changing Places WC: 2mm Altro Tarkett. Aquarius Safetred Aqua with white coved skirting.

Café, Kitchen and WC's: 3mm slip resistant Micro Topping Cement by The Micro Cement Company (Lewes)
Colour: Smoke

PRICING:

11.1: Prepare, supply and lay Micro Topping Cement floor finish to Café, Kitchen and WC's:-

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11.2 Supply and lay vinyl floor and coved skirting to Changing Places WC from full colour range .

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TOTAL SECTION 11 **£** .....

12. RAINWATER DRAINAGE SYSTEMS

GENERAL

The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided.

SYSTEM PERFORMANCE: Rainwater to be collected from flat roofs, drainage channels and integral drainage channels (to sliding doors) and to discharge onto beach shingle min 5m away from building via 100/150mm diameter drainage channel, inspection chambers and perforated pipe.

DESIGN:
Surface water collection system to be as described and specified on Structural Engineers drawings and specification.
Type: Drainage channels set in Gen 3 Concrete haunching.
Manufacturer: ACO Multidrain MD 150mm
Grating: Removable multidrain, healguard slotted galvanised steel
Drainage pipes: 100/150mm upvc by Marley
Fall : Minimum 1:100
Inspection chambers: By Marley
Downpipes: 3 No. Powder coated 86 x 106 mm HSP/V30 by Alumasc. Allow full RAL colour range. Internal to be100mm diameter upvc by Marley.
Flat roof outlets: 4 No. 100mm Aco rainwater vertical roof outlet with vertical screw and dome grates

COLLECTION AND DISTRIBUTION OF RAINWATER:
General: Complete, and without leakage or noise nuisance.

DESIGN PARAMETERS - GENERAL:
Roof and gutter construction and finish:
Design rate of rainfall: As BS EN 12056-3, National Annex NB.2.
- Category:

Design life of building: 50 years

EXECUTION:

PREPARATION:
Work to be completed before commencing work specified in this section:
- Below ground drainage. Alternatively, make temporary arrangements for dispersal of rainwater without damage or disfigurement of the building fabric and surroundings.
- Painting of surfaces which will be concealed or inaccessible.

INSTALLATION GENERALLY:
Plastics pipes: Do not bend.
Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
Protection:
- Fit purpose made temporary caps to prevent ingress of debris.
- Fit access covers, cleaning eyes and blanking plates as the work proceeds.

FIXING PIPEWORK:
Pipework: Fix securely, plumb and/ or true to line.
Branches and low gradient sections: Fix with uniform and adequate falls to drain efficiently.
Externally socketed pipes and fittings: Fix with sockets facing upstream.
Additional supports: Provide as necessary to support junctions and changes in direction.
Vertical pipes:
- Provide a loadbearing support at least at every storey level.
- Tighten fixings as work proceeds so that every storey is self supporting.

FIXING VERTICAL PIPEWORK:
Bracket fixings: Supplied by Polypipe to suit system
Distance between bracket fixing centres (maximum): As Polypipe recommendations for severe whether location.

FIXING LOW GRADIENT PIPEWORK:
Bracket fixings: Supplied by Polypipe to suit system
Distance between bracket fixing centres (maximum):As Polypipe recommendations for severe whether location.

JOINTING PIPEWORK AND GUTTERS:
General: Joint with materials and fittings that will make effective and durable connections.
Jointing differing pipework and gutter systems: Use adaptors intended for the purpose.
Cut ends of pipes and gutters: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
Junctions: Form with fittings intended for the purpose.
Jointing material: Strike off flush. Do not allow it to project into bore of pipes and fittings.
Surplus flux, solvent jointing materials and cement: Remove.

COMPLETION:

GUTTER TEST:
Preparation: Temporarily block all outlets.
Testing: Fill gutters to overflow level and after 5 minutes closely inspect for leakage.

BELOW GROUND SURFACE WATER DRAINAGE SYSTEM
Manufacturer: Marley
System: Solid Wall
Pipe Diameter: 110mm
Standards: BS 5955: Part 6 'Installation of PVCu pipework for gravity drains and sewers'
Accessories: By Marley
Installation: In strict accordance with manufacturers recommendations and instructions.
Testing: To BS EN 1610 'Construction and testing of drains and sewers'.

SOAKAWAY SYSTEM
Manufacturer: Wavin
System: AquaCell ECO including geotextile wrapping
Installation: As manufactures recommendations and instructions and as specified on Structural Engineers details

SELECTED FILL FOR BACKFILLING:
Selected fill: As-dug material, free from vegetable matter, rubbish, frozen soil and material retained on a 40 mm sieve.
- Compaction: By hand in 100 mm layers.

LOWER PART OF TRENCH - GENERAL:
Trench up to 300 mm above crown of pipe: Vertical sides, width as small as practicable.
- Width (minimum): External diameter of pipe plus 300 mm.

TYPE OF SUBSOIL:
General: Where type of subsoil at level of crown of pipe differs from that stated for the type of bedding, surround or support, give notice.

FORMATION FOR BEDDINGS:
Timing: Excavate to formation immediately before laying beddings or pipes.
Mud, rock projections, boulders and hard spots: Remove. Replace with consolidated bedding material.
Local soft spots: Harden by tamping in bedding material.
Inspection of excavated formations: Give notice.

CLASS D BED:
Type of subsoil:
Trench: Excavate slightly shallower than final levels.
- Trimming: By hand to accurate gradients. Replace overdig with compacted soil.
Pipes: Rest uniformly on barrels, adjust to line and gradient. Do not use hard packings under pipes.
Initial testing before backfilling:
Backfilling:
- Material: Protective cushion of selected fill.
- Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS F BEDDING:
Type of subsoil:
Granular material:
- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10 or 10/20.
- Pipe sizes DN 375-500: Size 10/20.
- Pipe sizes DN 600 and above: Size 10/20 or 20/40.
Bedding:
- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 50 mm for sleeve jointed pipes, 100 mm for socket jointed pipes. Where trench bottom is uneven, increase thickness by 100 mm.
Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before backfilling:
Backfilling:
- Material: Protective cushion of selected fill.
- Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS N BEDDING:
Type of subsoil:
Granular material:
- Size: 0/4 or 0/10.
Bedding:
- Material:
- Compaction: Over full width of trench.
- Thickness (minimum): 50 mm for sleeve jointed pipes, 100 mm for socket jointed pipes. Where trench bottom is uneven, increase thickness by 100 mm.
Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before backfilling:
Backfilling:
- Material: Protective cushion of selected fill.
- Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS O SUPPORT:
Type of subsoil:
Granular material:
- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10 or 10/20.
Bedding:
- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.
Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before placing support:
Support:
- Material: Granular.
- Depth: To slightly above crown of pipe.

- Compaction: By hand.

Backfilling:

- Material and depth: Protective cushion of selected fill to 300 mm above crown of pipe; or
- Additional granular material, to 100 mm above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS P SUPPORT:

Type of subsoil:

Granular material:

- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10, 10/20 or 4/20.

Bedding:

- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.

Initial testing before placing support:

Support:

- Material: Granular.
- Depth: To slightly above crown of pipe.
- Compaction: By hand.

Backfilling:

- Material and depth:
  Protective cushion of selected fill to 300 mm above crown of pipe; or
  Additional granular material, to 100 mm above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS Q SURROUND:

Type of subsoil:

Granular material:

- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10, 10/20 or 4/20.

Bedding:

- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.

Initial testing before placing support:

Surround:

- Material: Granular.
- Depth (minimum): To 75 mm above crown of pipe.
- Compaction: By hand.

Flexible filler:

- Material:
- Laying: Continuously over completed surround before laying protection slabs.

Protection slabs:

- Material:
  Type: Reinforced.
- Thickness:
- Reinforcement:
- Minimum bearing: 300 mm.

Backfilling: Soil or topsoil, as appropriate.

CLASS W SURROUND:

Type of subsoil:

Timing: Excavate trench after hardcore has been laid and compacted.

Granular material:

- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10 or 10/20.

Bedding:

- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before placing surround:
Surround:
- Material: Granular.
- Depth: To 100 mm above crown of pipe.
- Compaction: By hand.

Backfilling:
- Material: Hardcore as section D20, or granular.
- Depth: Up to slab formation.
- Compaction: In 300 mm (maximum) thick layers.

CLASS Y SURROUND :
Type of subsoil:
Timing: Excavate trench after hardcore has been laid and compacted.
Blinding:
- Material: Concrete (general).
- Thickness (minimum): 25 mm.
- Width: Full width of trench.
- Allow to set before proceeding.

Pipes:
- Temporary support: Folding wedges of compressible board. Prevent flotation.
- Clearance under pipes (minimum): 100 mm.
- Adjust pipes to line and gradient.

Initial testing before placing surround:
Surround, cast integrally with slab:
- Material: Concrete of same mix as slab.
- Width (minimum): External diameter of pipe plus 200 mm.

Extent of surround: To within 150 mm of nearest flexible joint.

CLASS Z SURROUND :
Type of subsoil:
Blinding:
- Material: Concrete (general).
- Thickness (minimum): 25 mm.
- Width: Full width of trench.
- Allow to set before proceeding.

Pipes:
- Temporary support: Folding wedges of compressible board. Prevent flotation.
- Clearance under pipes (minimum): 100 mm.
- Adjust pipes to line and gradient.

Initial testing before placing surround:
Surround:
- Material:
- Depth: To 150 mm above crown of pipe.
- Width: Full width of trench.

Vertical construction joints:
- Location: At face of flexible pipe joints.
- Material: 18 mm thick compressible board precut to profile of pipe.
- Socketed pipes: Fill gaps between spigots and sockets with resilient material to prevent entry of concrete.

CONCRETE SURROUND FOR PIPE RUNS NEAR FOUNDATIONS:
Class Z surround: Provide in locations where bottom of trench is lower than bottom of foundation and as follows (horizontal clear distance between nearest edges of foundations and pipe trenches):
- Trenches less than 1 m from foundations: Top of concrete surround not lower than bottom of foundation.
- Trenches more than 1 m from foundations: Top of concrete surround not lower than D mm below bottom of foundation, where D

mm is horizontal distance of trench from foundation, less 150 mm.

LAYING PIPELINES :
Laying pipes: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.
Ingress of debris: Seal exposed ends during construction.
Timing: Minimize time between laying and testing.

JOINTING PIPELINES:
Connections: Durable, effective and free from leakage.
Junctions, including to differing pipework systems: With adaptors intended for the purpose.
Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
Allowance for movement: Provide and maintain appropriate clearance at ends of spigots as fixing and jointing proceeds.
Jointing material: Do not allow to project into bore of pipes and fittings.

BACKDROP PIPES OUTSIDE MANHOLE WALLS:
Excavation beneath backdrop pipe: Backfill.
- Material:

Pipe encasement:.
- Material:
- Thickness (minimum): 150 mm.

INSTALLING FLEXIBLE COUPLINGS:
Ends of pipes to be joined: Cut cleanly and square.
Outer surfaces of pipes to be joined: Clean and smooth. Where necessary, e.g. on concrete or iron pipes, smooth out mould lines and/ or apply a cement grout over the sealing area.
Clamping bands: Tighten carefully to make gastight and watertight seals.

INITIAL TESTING OF PIPELINES:
Before testing:
- Cement mortar jointing: Leave 24 h.
- Solvent welded pipelines: Leave 1 h.

Method: Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610.

BACKFILLING TO PIPELINES:
Backfilling above top of surround or protective cushion: Material excavated from trench, compacted in layers 300 mm (maximum) thick.
Heavy compactors: Do not use before there is 600 mm (total) of material over pipes.

LAYING WARNING MARKER TAPES:
Installation: During backfilling, lay continuously over pipelines.
Depth: 300-400 mm.
- Pipelines deeper than 2 m: Lay an additional tape 600 mm above the top of the pipeline.

INSTALLING ACCESS POINTS AND GULLIES:
Taken from Marley Solid Wall range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.
- Compaction: By hand in 100 mm layers.

Setting out relative to adjacent construction features: Square and tightly jointed.
Permissible deviation in level of external covers and gratings: +0 to -6 mm.
Raising pieces (clay and concrete units): Joint with 1:3 cement:sand mortar.
Exposed openings: Fit purpose made temporary caps. Protect from site traffic.

INSTALLING RODDING POINTS:
Taken from Marley Solid Wall range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.
Permissible deviation in level of external covers and gratings: +0 to -6 mm.

INSTALLING INSPECTION CHAMBERS - PLASTICS:
Taken from Marley Solid Wall range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.

INSTALLING CONCRETE MANHOLES:
Taken from Marley Solid Wall range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details. Covers to be recessed type to allow for continuation of surrounding surface finishes.

LAYING CONVENTIONAL CHANNELS, BRANCHES AND BENCHING:
Main channel: Bed solid in 1:3 cement:sand mortar.
- Branches: Connect to channel, preferably at half pipe level, so that discharge flows smoothly in direction of main flow.
- Branches greater than nominal size 150 mm: Connect the branch soffit level with the main drain soffit.
- Connecting angles more than 45° to direction of flow: Use three-quarter section channel bends.

Taken from Osma range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.

LAYING PREFORMED PLASTICS CHANNELS, BRANCHES AND BENCHING:
Main channel: Bed solid in 1:3 cement:sand mortar.
- Branches: Connect to channel, preferably at half pipe level, so that discharge flows smoothly in direction of main flow.
- Connecting angles more than 45° to direction of flow: Use three-quarter section channel bends.

Bedding: 1:3 cement:sand mortar. Use clips or ensure adequate mechanical key.
Taken from Osma range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.

INSTALLING ACCESS COVERS AND FRAMES:
Bedding and haunching of frames: Continuously.
- Top of haunching: 30 mm below surrounding surfaces.

Horizontal positioning of frames:
- Centred over openings.
- Square with joints in surrounding paving.

Vertical positioning of frames:
- Level; or
- Marry in with levels of surrounding paving.

Permissible deviation in level of external covers and frames: +0 to -6 mm.
Covers to be recessed type to allow for continuation of surrounding surface finishes and loading capabilities suitable for location .

EXPOSED OPENINGS IN INSPECTION CHAMBERS, ACCESS POINTS, FITTINGS AND EQUIPMENT:
General: Fit purpose made temporary caps. Protect from site traffic.

COMPLETION:

REMOVAL OF DEBRIS AND CLEANING:
Preparation: Lift covers to manholes, inspection chambers and access points. Remove mortar droppings, debris and loose wrappings.
- Timing: Before cleaning, final testing, CCTV inspection immediately before handover.

Cleaning: Thoroughly flush pipelines with water to remove silt and check for blockages. Rod pipelines between access points if there is any indication that they may be obstructed.
Washings and detritus: Do not discharge into sewers or watercourses.
Covers: Securely replace after cleaning and testing.

TEMPORARY MEASURES:
Water used to stabilize tanks and the like during installation: Drain.

TESTING AND INSPECTION:
Dates for testing and inspection: Give notice.
- Period of notice: 2 weeks

PRICING:

12.1: Supply and install all below ground drainage works for rainwater drainage system including inspection chambers, Aco drains and any associated items to render the system wholly functional in accordance with Building Standards requirements and Structural Engineer's drawings and specification.

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12.2: Supply and install all above ground drainage for rainwater drainage system including outlets and downpipes and any associated items to render the system wholly functional in accordance with Building Standards requirements and Structural Engineer's drawings and specification.

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12.3: Provide thermal insulation to RWP where located internally.

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12.4: Allow for testing complete system at completion.

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12.5: Backfill drainage trenches in suitable MOT type material and make good surface finishes to match existing.

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TOTAL SECTION 12 **£.....**

13. BELOW GROUND FOUL DRAINAGE SYSTEMS

GENERAL

The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided.
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BELOW GROUND DRAINAGE SYSTEMS:
Manufacturer: Marley
System: Solid Wall
Pipe Diameter: 150 mm
Standards: BS 5955: Part 6 'Installation of PVCu pipework for gravity drains and sewers'
Accessories: By Marley
Installation: In strict accordance with manufacturers recommendations and instructions.
Testing: To BS EN 1610 'Construction and testing of drains and sewers'.

EXECUTION:
To the satisfaction of Southern Water, Building Control and Structural Engineer

STRIPPING OUT:
Extent of stripping out: See Structural Engineers drawings
Exposed ends of existing drainage to be abandoned: Seal with concrete (general).

EXISTING DRAINS:
Setting out: Before starting work, check invert levels and positions of existing drains, sewers, inspection chambers and manholes against drawings. Report discrepancies.
Protection: Protect existing drains to be retained and maintain normal operation if in use.

EXCAVATED MATERIAL:
Turf, topsoil, hardcore, etc: Set aside for use in reinstatement.

SELECTED FILL FOR BACKFILLING:
Selected fill: As-dug material, free from vegetable matter, rubbish, frozen soil and material retained on a 40 mm sieve.
- Compaction: By hand in 100 mm layers.

LOWER PART OF TRENCH - GENERAL:
Trench up to 300 mm above crown of pipe: Vertical sides, width as small as practicable.
- Width (minimum): External diameter of pipe plus 300 mm.

TYPE OF SUBSOIL:
General: Where type of subsoil at level of crown of pipe differs from that stated for the type of bedding, surround or support, give notice.

FORMATION FOR BEDDINGS:
Timing: Excavate to formation immediately before laying beddings or pipes.
Mud, rock projections, boulders and hard spots: Remove. Replace with consolidated bedding material.
Local soft spots: Harden by tamping in bedding material.
Inspection of excavated formations: Give notice.

CLASS D BED:
Type of subsoil:
Trench: Excavate slightly shallower than final levels.
- Trimming: By hand to accurate gradients. Replace overdig with compacted soil.

Pipes: Rest uniformly on barrels, adjust to line and gradient. Do not use hard packings under pipes.
Initial testing before backfilling:
Backfilling:
- Material: Protective cushion of selected fill.
- Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS F BEDDING:
Type of subsoil:
Granular material:
- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10 or 10/20.
- Pipe sizes DN 375-500: Size 10/20.
- Pipe sizes DN 600 and above: Size 10/20 or 20/40.

Bedding:
- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 50 mm for sleeve jointed pipes, 100 mm for socket jointed pipes. Where trench bottom is uneven, increase thickness by 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before backfilling:
Backfilling:
- Material: Protective cushion of selected fill.
- Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS N BEDDING:
Type of subsoil:
Granular material:
- Size: 0/4 or 0/10.

Bedding:
- Material:
- Compaction: Over full width of trench.
- Thickness (minimum): 50 mm for sleeve jointed pipes, 100 mm for socket jointed pipes. Where trench bottom is uneven, increase

thickness by 100 mm.
Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before backfilling:
Backfilling:
- Material: Protective cushion of selected fill.
- Depth: 150 mm (250 mm for adoptable sewers) above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS O SUPPORT:
Type of subsoil:
Granular material:
- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10 or 10/20.

Bedding:
- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before placing support:
Support:
- Material: Granular.
- Depth: To slightly above crown of pipe.
- Compaction: By hand.

Backfilling:
- Material and depth: Protective cushion of selected fill to 300 mm above crown of pipe; or
- Additional granular material, to 100 mm above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS P SUPPORT:
Type of subsoil:
Granular material:
- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10, 10/20 or 4/20.

Bedding:
- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before placing support:
Support:
- Material: Granular.
- Depth: To slightly above crown of pipe.
- Compaction: By hand.

Backfilling:
- Material and depth:
  Protective cushion of selected fill to 300 mm above crown of pipe; or
  Additional granular material, to 100 mm above crown of pipe.
- Compaction: By hand in 100 mm layers.

CLASS Q SURROUND:
Type of subsoil:
Granular material:
- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10, 10/20 or 4/20.

Bedding:
- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before placing support:

Surround:
- Material: Granular.
- Depth (minimum): To 75 mm above crown of pipe.
- Compaction: By hand.

Flexible filler:
- Material:
- Laying: Continuously over completed surround before laying protection slabs.

Protection slabs:
- Material:
  Type: Reinforced.
- Thickness:
- Reinforcement:
- Minimum bearing: 300 mm.

Backfilling: Soil or topsoil, as appropriate.

CLASS W SURROUND:

Type of subsoil:
Timing: Excavate trench after hardcore has been laid and compacted.
Granular material:
- Pipe sizes DN 100 and DN 150: Size 4/10.
- Pipe sizes DN 225 and DN 300: Size 4/10 or 10/20.

Bedding:
- Material: Granular, compacted over full width of trench.
- Thickness (minimum): 100 mm.

Pipes: Dig slightly into bedding, rest uniformly on barrels and adjust to line and gradient.
Initial testing before placing surround:
Surround:
- Material: Granular.
- Depth: To 100 mm above crown of pipe.
- Compaction: By hand.

Backfilling:
- Material: Hardcore as section D20, or granular.
- Depth: Up to slab formation.
- Compaction: In 300 mm (maximum) thick layers.

CLASS Y SURROUND :

Type of subsoil:
Timing: Excavate trench after hardcore has been laid and compacted.
Blinding:
- Material: Concrete (general).
- Thickness (minimum): 25 mm.
- Width: Full width of trench.
- Allow to set before proceeding.

Pipes:
- Temporary support: Folding wedges of compressible board. Prevent flotation.
- Clearance under pipes (minimum): 100 mm.
- Adjust pipes to line and gradient.

Initial testing before placing surround:
Surround, cast integrally with slab:
- Material: Concrete of same mix as slab.
- Width (minimum): External diameter of pipe plus 200 mm.

Extent of surround: To within 150 mm of nearest flexible joint.

CLASS Z SURROUND :

Type of subsoil:
Blinding:
- Material: Concrete (general).
- Thickness (minimum): 25 mm.

- Width: Full width of trench.
- Allow to set before proceeding.

Pipes:
- Temporary support: Folding wedges of compressible board. Prevent flotation.
- Clearance under pipes (minimum): 100 mm.
- Adjust pipes to line and gradient.

Initial testing before placing surround:

Surround:
- Material:
- Depth: To 150 mm above crown of pipe.
- Width: Full width of trench.

Vertical construction joints:
- Location: At face of flexible pipe joints.
- Material: 18 mm thick compressible board precut to profile of pipe.
- Socketed pipes: Fill gaps between spigots and sockets with resilient material to prevent entry of concrete.

CONCRETE SURROUND FOR PIPE RUNS NEAR FOUNDATIONS:

Class Z surround: Provide in locations where bottom of trench is lower than bottom of foundation and as follows (horizontal clear distance between nearest edges of foundations and pipe trenches):
- Trenches less than 1 m from foundations: Top of concrete surround not lower than bottom of foundation.
- Trenches more than 1 m from foundations: Top of concrete surround not lower than D mm below bottom of foundation, where D mm is horizontal distance of trench from foundation, less 150 mm.

LAYING PIPELINES :

Laying pipes: To true line and regular gradient on even bed for full length of barrel with sockets (if any) facing up the gradient.

Ingress of debris: Seal exposed ends during construction.

Timing: Minimize time between laying and testing.

JOINTING PIPELINES:

Connections: Durable, effective and free from leakage.

Junctions, including to differing pipework systems: With adaptors intended for the purpose.

Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.

Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.

Allowance for movement: Provide and maintain appropriate clearance at ends of spigots as fixing and jointing proceeds.

Jointing material: Do not allow to project into bore of pipes and fittings.

PIPELINES PASSING THROUGH STRUCTURES:

Pipelines that must be cast in or fixed to structures (including manholes, catchpits and inspection chambers): Provide 600 mm long rocker pipes adjacent to the external face of the structure (or both faces where appropriate, e.g. walls to footings), with flexible joints at both ends.
- Distance to rocker pipe from structure (maximum):150 mm.

Provision for movement for pipelines that need not be cast in or fixed to structures (e.g. walls to footings):
- Rocker pipes as specified above; or
- Openings in the structures to give 50 mm minimum clearance around the pipeline. Closely fit a rigid sheet to each side of opening to prevent ingress of fill or vermin.

BENDS AT BASE OF SOIL STACKS:

Type:
- Radius to centreline of pipe (minimum):

Height of invert of horizontal drain at base of stack below centreline of lowest branch pipe (minimum):

Bedding: Do not impair flexibility of pipe couplings.
- Material: Concrete (general).

BACKDROP PIPES OUTSIDE MANHOLE WALLS:

Excavation beneath backdrop pipe: Backfill.
- Material:

Pipe encasement:.
- Material:
- Thickness (minimum): 150 mm.

INSTALLING FLEXIBLE COUPLINGS:
Ends of pipes to be joined: Cut cleanly and square.
Outer surfaces of pipes to be joined: Clean and smooth. Where necessary, e.g. on concrete or iron pipes, smooth out mould lines and/ or apply a cement grout over the sealing area.
Clamping bands: Tighten carefully to make gastight and watertight seals.

INITIAL TESTING OF PIPELINES:
Before testing:
- Cement mortar jointing: Leave 24 h.
- Solvent welded pipelines: Leave 1 h.

Method: Block open ends of pipelines to be tested and pressurise. Air test short lengths to BS EN 1610.

BACKFILLING TO PIPELINES:
Backfilling above top of surround or protective cushion: Material excavated from trench, compacted in layers 300 mm (maximum) thick.
Heavy compactors: Do not use before there is 600 mm (total) of material over pipes.

LAYING WARNING MARKER TAPES:
Installation: During backfilling, lay continuously over pipelines.
Depth: 300-400 mm.
- Pipelines deeper than 2 m: Lay an additional tape 600 mm above the top of the pipeline.

INSTALLING ACCESS POINTS AND GULLIES:
Taken from Marley/Hepworth range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.
- Compaction: By hand in 100 mm layers.

Setting out relative to adjacent construction features: Square and tightly jointed.
Permissible deviation in level of external covers and gratings: +0 to -6 mm.
Raising pieces (clay and concrete units): Joint with 1:3 cement:sand mortar.
Exposed openings: Fit purpose made temporary caps. Protect from site traffic.

INSTALLING RODDING POINTS:
Taken from Marley/Hepworth range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.
Permissible deviation in level of external covers and gratings: +0 to -6 mm.

INSTALLING INSPECTION CHAMBERS - PLASTICS:
Taken from Marley/Hepworth range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.

INSTALLING CONCRETE MANHOLES:
Taken from Marley/Hepworth range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details. Covers to be recessed type to allow for continuation of surrounding surface finishes.

LAYING CONVENTIONAL CHANNELS, BRANCHES AND BENCHING:
Main channel: Bed solid in 1:3 cement:sand mortar.
- Branches: Connect to channel, preferably at half pipe level, so that discharge flows smoothly in direction of main flow.
- Branches greater than nominal size 150 mm: Connect the branch soffit level with the main drain soffit.
- Connecting angles more than 45° to direction of flow: Use three-quarter section channel bends.

Taken from Marley/Hepworth range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.

LAYING PREFORMED PLASTICS CHANNELS, BRANCHES AND BENCHING:
Main channel: Bed solid in 1:3 cement:sand mortar.
- Branches: Connect to channel, preferably at half pipe level, so that discharge flows smoothly in direction of main flow.
- Connecting angles more than 45° to direction of flow: Use three-quarter section channel bends.

Bedding: 1:3 cement:sand mortar. Use clips or ensure adequate mechanical key.
Taken from Marley/Hepworth range of below ground drainage products, installed, bedded and fitted in accordance with manufactures details and recommendations and in accordance with structural engineers details.

INSTALLING ACCESS COVERS AND FRAMES:
Bedding and haunching of frames: Continuously.
- Top of haunching: 30 mm below surrounding surfaces.

Horizontal positioning of frames:
- Centred over openings.
- Square with joints in surrounding paving.

Vertical positioning of frames:
- Level; or
- Marry in with levels of surrounding paving.

Permissible deviation in level of external covers and frames: +0 to -6 mm.
Covers to be recessed type to allow for continuation of surrounding surface finishes and loading capabilities suitable for location .

EXPOSED OPENINGS IN INSPECTION CHAMBERS, ACCESS POINTS, FITTINGS AND EQUIPMENT:
General: Fit purpose made temporary caps. Protect from site traffic.

COMPLETION:

REMOVAL OF DEBRIS AND CLEANING:
Preparation: Lift covers to manholes, inspection chambers and access points. Remove mortar droppings, debris and loose wrappings.
- Timing: Before cleaning, final testing, undertake CCTV inspection immediately before handover.

Cleaning: Thoroughly flush pipelines with water to remove silt and check for blockages. Rod pipelines between access points if there is any indication that they may be obstructed.
Washings and detritus: Do not discharge into sewers or watercourses.
Covers: Securely replace after cleaning and testing.

TEMPORARY MEASURES:
Water used to stabilize tanks and the like during installation: Drain.

TESTING AND INSPECTION:
Dates for testing and inspection: Give notice.
- Period of notice: 2 weeks

FINAL TESTING OF PRIVATE GRAVITY DRAINS AND SEWERS UP TO DN 300:
Before testing:
- Cement mortar jointing: Leave 24 h.
- Solvent welded pipelines: Leave 1 h.

Standard: To Building Regulations.
Method: To satisfaction of BCO and Southern Water

WATER TESTING OF MANHOLES AND INSPECTION CHAMBERS:
Timing: Before backfilling.
Standard:
- Exfiltration: To BS EN 1610.
  Method: Testing with water (method W).
- Infiltration: No identifiable flow of water penetrating the chamber.

PRICING:

13.1: Supply, install and test all below ground pipe runs, allow for forming new connections, inspection chambers, channel drains, trapped gullies and rodding points as IE engineer's specification and drawings, include for any and all fixings, fittings, sealants and brackets as necessary.

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13.2: Allow for backfilling all drainage excavations in appropriate material once drainage laid and tested and lay new surfaces over.

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13.3 Allow £1,800 Provisional Sum for relining existing foul drainage pipes. **£** 1,800

TOTAL SECTION 13 **£** .....

14. ABOVE GROUND FOUL WATER DRAINAGE SYSTEMS

GENERAL

The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided. Refer to Delta Green's Public Health Building Services Specification and pricing document.

ABOVE GROUND FOUL DRAINAGE SYSTEM:
Sanitary and floor drainage outlets: BY Marley
Waste pipework: By Marley
Discharge stack and branch pipework: By Marley
Accessories: By Marley
Disposal: by Marley

DESIGN:
Design: Complete the design of the above ground foul drainage system.
Standards: To BS EN 12056-1 and BS EN 12056-2, and in accordance with BS EN 12056-2 National Annexes NA-NG.
- System type to BS EN 12056-2: System III.

Proposals: Submit drawings, technical information, calculations and manufacturers' literature to the CA prior to installation.

COLLECTION AND DISTRIBUTION OF FOUL WATER:
General: Quick, quiet and complete, self-cleansing in normal use, without blockage, crossflow, backfall, leakage, odours, noise nuisance or risk to health.
Pressure fluctuations in pipework (maximum): ±38 mm water gauge.
Water seal retained in traps (minimum): 25 mm.

EXECUTION:

INSTALLATION GENERALLY:
Standard: To BS EN 12056-5.
Components: From the same manufacturer for each type of pipework.
Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
Plastics pipes: Do not bend.
Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
Concealed or inaccessible surfaces: Decorate before starting work specified in this section.
Protection:
- Purpose made temporary caps: Fit to prevent ingress of debris.
- Access covers, cleaning eyes and blanking plates: Fit as the work proceeds.

PIPE ROUTES:
General: The shortest practical, with as few bends as possible.

- Bends in wet portion of soil stacks: Not permitted.
- Routes shown indicatively on drawings: Submit proposals before commencing work.

FIXING PIPEWORK:
Pipework: Fix securely plumb and/ or true to line. Fix discharge stack pipes at or close below socket collar or coupling.
Branches and low gradient sections: Fix with uniform and adequate falls to drain efficiently.
Externally socketed pipes and fittings: Fix with sockets facing upstream.
Additional supports: Provide as necessary to support junctions and changes in direction.
Vertical pipes: Provide a load bearing support not less than every storey level. Tighten fixings as work proceeds so that every storey is self supporting.
Wall and floor penetrations: Isolate pipework from structure, e.g. with pipe sleeves.
- Masking plates: Fix at penetrations if visible in the finished work.

Expansion joint sockets: Fix rigidly to the building.
Fixings: Allow the pipe to slide.

FIXING VERTICAL PIPEWORK :
Bracket fixings: As recommended by Marley
Distance between bracket fixing centres (maximum): As maximum recommended by Marley

FIXING LOW GRADIENT PIPEWORK :
Bracket fixings: As recommended by Marley
Distance between bracket fixing centres (maximum): As maximum recommended by Marley

JOINTING PIPEWORK - GENERALLY:
General: Joint with materials, fittings and techniques that will make effective and durable connections.
Jointing differing pipework systems: With adaptors intended for the purpose.
Cut ends of pipes: Clean and square. Remove burrs and swarf. Chamfer pipe ends before inserting into ring seal sockets.
Jointing or mating surfaces: Clean and, where necessary, lubricate immediately before assembly.
Junctions: Form with fittings intended for the purpose.
Jointing material: Do not allow it to project into bore of pipes and fittings.
Surplus flux, solvent jointing materials and cement: Remove from joints.

JOINTING PIPEWORK - ABS, MUPVC, PVC-C AND PVC-U:
Jointing: Strictly as recommended by manufacturer.

IDENTIFICATION OF INTERNAL FOUL DRAINAGE PIPEWORK:
Markings: To BS 1710.
- Type: Neat lettering in capitals
- Wording: What serving and location (e.g., bathroom waste first floor)

Type: Integral lettering on pipe wall, self-adhesive bands or identification clips.
Locations: At 500 mm centres, junctions and both sides of slabs, valves, appliances, bulkheads and wall penetrations.

DISCHARGE AND VENTILATING STACKS:
Terminations: Perforated cover or cage that does not restrict airflow.
- Material: By Marley fitted with lead sleeve and flashing or suitable tile vent to match main roofing material.

INSTALLING AIR ADMITTANCE VALVES:
Position: Vertical, above flood level of highest appliance served and clear of insulation materials (other than the manufacturer's insulating cover).
Connection to discharge stack: Allow removal for rodding, e.g. ring seal.
Roof spaces and other unheated locations: Fit manufacturer's insulating cover.

COMPLETION:

PIPEWORK AIRTIGHTNESS TEST:
Preparation:
- Open ends of pipework: Temporarily seal using plugs.

- Test apparatus: Connect a 'U' tube water gauge and air pump to pipework via a plug or through trap of an appliance.
Testing: Pump air into pipework until gauge registers 38 mm.
Required performance: Pressure of 38 mm is to be maintained without loss for at least three minutes.

PREHANDOVER CHECKS:
Temporary caps: Remove.
Permanent blanking caps, access covers, rodding eyes, floor gratings and the like: Secure complete with fixings.

PRICING:

14.1: Supply, install and test new foul water pipe runs, allow for forming connections and rodding points as specification and indicated in indicative layouts on drawings, include for any and all fixings, fittings, sealants and brackets as necessary to render the system wholly functional in accordance with Building Standards requirements and Delta Green's drawings, specification and Architect's drawings.

£ .....

14.2: Allow provisional sum of £1,200 for provision of access hatches for maintenance of pipework **£** 1,200

TOTAL SECTION 14 **£** .....

15. SANITARY APPLIANCES AND FITTINGS

GENERAL

The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided. Refer to Delta Green's Mechanical and Public Health Building Services Specification and pricing document and Closomat supply quote.

SANITARYWARE, CISTERNS, TAPS, WASTES ETC

Refer to Architects drawings and specification.

EXECUTION
INSTALLATION GENERALLY
Assembly and fixing:
Fasteners: Non-ferrous or stainless steel.
Supply and discharge pipework: Fix before appliances.
Fixing: Fix appliances securely to structure
Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes being jointed or bedded.
Appliances:
On completion: Components and accessories working correctly with no leaks.

NOGGINGS AND BEARERS
Noggings, bearers, and 12mm plywood etc. to support sanitary appliances and fittings
- Position accurately. Fix securely.

STAINLESS STEEL WALL FINISHES TO WC's
Material: 2 mm brushed polished 316 stainless steel sheet – 2.5m high
Fixings: Fix before sanitaryware and grab bars etc. Provide SS perimeter screw fixings at 600mm c/s with ss domed caps.
Adhesive: Sikaflex 221. Applied continuously around sheet perimeter and as required to securely fix sheets without bulges and air pockets.

Setting out: Set out and dry fix stainless steel sheets, grab rails and sanitary appliances to one wc for approval by CA before completing.

WALL FINISH TO CHANGING PLACES WC
To be Altro Whiterock Chameleon
Colour: Slip Stream (blue)
Installation: Fit in strict accordance with manufactures recommendations and instructions.
Adhesive: As recommended by Altro undertaken in strict accordance with manufacturers instructions.
Setting out: Set out and dry fix Altro sheets, grab rails and sanitary appliances for approval by CA before completing. No horizontal joins will be permitted.

INSTALLING WC PANS
Floor mounted pans: Screw fix and fit cover caps over screw heads. Do not use mortar or other beddings. Seal around base with mastic.
Seat and cover: Stable when raised.

INSTALLING CISTERNS
Cistern operating components: Obtain from cistern manufacturer.
- Float operated valve: Matched to pressure of water supply.
Overflow pipe: Fixed to falls and located to give visible warning of discharge.
Location: TBA, where not shown on drawings.

INSTALLING TAPS
Fixing: Secure against twisting.
Seal with appliance: Watertight.
Positioning: Hot tap to left of cold tap as viewed by user of appliance.

INSTALLING WASTES AND OVERFLOWS
Bedding: Waterproof jointing compound.
Fixing: With resilient washer between appliance and back nut.

SEALANT BEDDING AND POINTING
Pointing: Joints between appliances and splash backs, walls and floors.

COMPLIANCE WITH PART G WATER CALCULATIONS
Refer to water efficiency calculations prior to ordering sanitaryware, taps and fittings etc and confirm with the CA that sanitaryware, taps and fittings etc specified above are in compliance with water efficiency calculations prior to ordering.

NAPPY/BABY CHANGING TABLES
To be The Cambrino CAMB22VS in stainless steel.

PRICING:

15.1: Supply and fit all sanitary appliances to 7No. toilets, include for all support frames, cisterns, taps, wastes, sealants, fittings and fixings as necessary to render all items wholly functional.

£ .....

15.2: Allow provisional sum of £23,000 for the order, supply and installation of sanitaryware and all fixtures and fittings for Changing Places toilet facility as quote by Closomat Ltd.

£ 23,000

15.3: Allow for attendance and all builders work in connection with placing, connecting, installing and testing all fixtures and fittings to Changing Places WC facility.

£ .....

15.4: Supply and fit 2No. nappy changing tables, include for all support frames, sealants, fittings and fixings as necessary to render both items wholly functional.

£ .....

15.5 Supply and fix stainless steel wall coverings to 7No. toilets at 2.5m high (approximately 200mm gap between ss and ceiling).

£ .....

15.6 Supply and fix Altro wall coverings to Changing Places WC including adhesive and joining pieces.

£ .....

15.7: Reconnect, fit and commission reclaimed water filling station.

£ .....

15.8: Supply, fit and commission 8 No. electric hand dryers as specified on Architects drawings.

£ .....

15.9: Allow provisional sum of £600 for supply of dark blue grab rails to ambient and accessible wc.

£ 600

15.10: Allow for fitting grab rails as indicated and specified on Architects drawings to ambient and accessible wc.

£ .....

15.11: Allow provision sum of £350 for supply of stainless steel toilet door signage.

£ 350

15.12: Allow for fitting stainless steel toilet door signage.

£.....

TOTAL SECTION 15 **£** .....

16. SPACE HEATING SYSTEMS / HOT WATER / COLD WATER/ VENTILATION

GENERAL

The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided. Refer to Delta Green's Mechanical/Electrical and Public Health Building Services Specification/drawings and pricing document.

PRICING:

16.1: Allow for completion of the detailed design, supply, fit and testing of the space heating, hot and cold water provision, mechanical ventilation and air source heat pump to render the systems wholly functional.

£ .....

TOTAL SECTION 16

£ .....

17. ELECTRICAL SYSTEMS

GENERAL

The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided. Refer to Delta Green's Electrical Services Specification.

PRICING:

17.1: Allow for completion of the detailed design, testing and installation of lighting and power system, photovoltaic panels, smoke, CO2 and heat detection as per indicative layout drawings, specification and manufacturers details including for any and all fixings, fittings, ducting, light fittings, cabling and all other items to render the system wholly functional.

£ .....

TOTAL SECTION 17 **£** .....

18. EXTERNAL WORKS

GENERAL

The following specifications and schedule of works are to be read in conjunction with contract drawings and specifications provided.

BOLLARDS
Marshalls Monoscape Bridgeford Smooth Grey PCC Bollards 1370h 270 base dia, 150 top dia

PEDESTRIAN SAFETY BARRIERS:
General: Dimensions 900mm long, 900mm finished height (350mm min below ground) with 150mm2 galvanised base plates.
Material: Marine grade galvanised tubular steel.

SECURITY SHUTTERS:
Manufacturer: NGF industrial doors.
Material: Marine grade galvanised steel.
Operation: Motorised electrically operated by external key or keypad.

PRICING:

18.1: Supply concrete bollards (installation allowed elsewhere). **£** .....

18.2: Supply galvanised safety barriers (installation allowed elsewhere). **£** .....

18.3: Complete detailed design, supply and fit 3No. marine grade galvanised roller security shutters including control, guides etc to render the whole system fully functional.

£ .....

18.4: Allow for works to extend tarmac footpath and adapt kerb line. **£** .....

18.5: Allow for supply and fit of purpose made treated softwood, vertical hit and miss (double sided) enclosure and gates to form bin store. Frame to be constructed in 150mm x 150mm square treated softwood.

£ .....

18.6: Allow provision sum of £5,000 for supply, laying, adaption and maintenance of temporary pedestrian path diverting public around site compound.

£ .....

TOTAL SECTION 18 **£** .....

15. COST BREAKDOWN

01. PRELIMINARIES	**£** .....
02. DEMOLITION / SITE CLEARANCE	**£** .....
03. GENERAL STRUCTURAL REQUIREMENTS / EXCAVATIONS	**£** .....
04. INSITU & PRECAST CONCRETE CONSTRUCTION	**£** .....
05. STRUCTURAL METAL MEMBERS	**£** .....
06. CARPENTRY / TIMBER FRAMING / FIRST FIX	**£** .....
07. INTERNAL WALLS AND CEILING LININGS	**£** .....
08. EXTERNAL WINDOWS / DOORS/HATCH	**£** .....
09. ROOF CLADDING	**£** .....
10. EXTERNAL TIMBER CLADDING	**£** .....
11. FLOOR FINISHES	**£** .....
12. RAINWATER DRAINAGE SYSTEM	**£** .....
13. BELOW GROUND FOUL DRAINAGE SYSTEM	**£** .....
14. ABOVE GROUND FOUL DRAINAGE SYSTEM	**£** .....
15. SANITARY APPLIANCES / FITTINGS	**£** .....
16. HEATING SYSTEM / HOT WATER / COLD WATER /VENTILATION	**£** .....
17. ELECTRICAL SYSTEMS	**£** .....
18. EXTERNAL WORKS	**£** .....
TOTAL SCHEDULE OF WORKS	**£** .....
T**OTAL PRELIMINARIES CARRIED FORWARD A90-100 (PAGE 38**)	**£** .....
TOTAL TO FORM OF TENDER	**£** .....

Form of Tender is provided as a separate document. Please complete and submit with tender return.

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Giles Ings RIBA
Matthew Richardson RIBA
ABIR/PCA/b

APPENDIX

DOCUMENTATION

Please refer to separate documents sent with this tender

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