RTP Surveyors

Jan Halliday

Ruan Minor Village Hall

Prelims - Ruan Minor Village Hall

16-10-2023

Thermal improvements

Contents

A10
Project particulars

Clauses

110 The Project

1. Name: Ruan Minor Village Hall
2. Nature: Thermal Improvements
3. Location: Ruan Minor
4. Timescale for construction work: 3 months

120 Employer (client)

1. Name: Ruan Minor Village Hall Committee
2. Address: Ruan Minor Village Hall, Ruan Minor, Helston, TR12 7JN
3. Contact: Mr Dave Jane
4. Telephone: 07395276608
5. Email: davejane1960@gmail.com

140 Architect/ contract administrator

1. Name: Liam Mainstone acting on behalf of RTP Surveyors Ltd
2. Address: RTP Surveyors Ltd, Tremough Innovation Centre, Penryn, TR10 9TA
3. Contact: Liam Mainstone
4. Telephone: 07454644079
5. Email: liamm@rtpsurveyors.co.uk

150 Principal designer

1. Name: Liam Mainstone acting on behalf of RTP Surveyors Ltd
2. Address: RTP Surveyors Ltd, Tremough Innovation Centre, Penryn, TR10 9TA
3. Contact:

   Liam Mainstone
4. Telephone: 07454644079
5. Email: liamm@rtpsurveyors.co.uk

200 Consultants

1. Description: Structural Engineer
2. Name: JHA Consulting
3. Contact: John Harding BSc Hons CEng MIStructE
4. Address: Mount Agar, Old Carnon Hill, Carnon Downs, Truro, Cornwall, TR3 6LE
5. Telephone: 01872 858633
6. Email: john@jhaconsulting.co.uk

Ω End of Section

A11
Tender and contract documents

Clauses

110 Tender drawings

1. The tender drawings are: P230152-201 Location and Block Plans, P230152-301 Plan Building Regs, P230152-302 Elevations Building Regs, P230152-303 Reflected Ceiling Plan Building Regs, P230152-501 Construction Hazard Plan

120 Contract drawings

1. The contract drawings: The same as the tender drawings.

160 Pre-construction information

1. Format: The pre-construction information is described in these Preliminaries in section A34. It refers to information given elsewhere in the Preliminaries, specification, drawings and associated documents.

170 Fire Statement

1. Location: See section B05 'Whole project fire safety'

Ω End of Section

A12
The site/ existing buildings

Clauses

110 The site

1. Description: As shown on Drawing P230152-201 Location and Block Plans

140 Existing utilities and services

1. Drawings: (Information shown is indicative only): P230152-501 Construction Hazard Plan.

180 Health and safety file

1. Availability for inspection: The health and safety file for the site/ building may be seen by appointment during normal office hours at: RTP Surveyors, Tremough Innovation Centre, Penryn, TR10 9TA.
2. Arrangements for inspection: During normal office working hours.

200 Access to the site

1. Description: As detailed on P230152-501 Construction Hazard Plan
2. Limitations: As per the Local Authority guidance note 'Noise and Dust Control on Construction and Demolition Sites' April 2010.
3. Access for inspections: Provide access at reasonable times for both on-site and off-site work.

210 Parking

1. Restrictions on parking of the Contractor's and employees' vehicles: To the front elevation only.

220 Use of the site

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

240 Health and safety hazards

1. General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However, the following hazards are or may be present:
    1.1. ACMs as identified in the Asbestos Register. Additional ACMs may be present during the course of opening up. The relevant safety precautions and procedures must be adopted throughout the works.
2. Information: The accuracy and sufficiency of this information is not guaranteed. Ascertain if any additional information is required to ensure the safety of all persons and the works.
3. 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

1. Assessment: Ascertain the nature of the site, access thereto and all local conditions and restrictions likely to affect the execution of the Works.
2. Arrangements for visit: 24 hours notice to the Contract Administrator.

Ω End of Section

A13
Description of the work

Clauses

120 The works

1. Description: Internal thermal lining and dry lining to walls and ceiling including heating and ventilation provision.

Ω End of Section

A20
JCT minor works building contract with contractor's design (MWD)

Clauses

JCT minor works building contract with contractor's design

- The contract: JCT Minor Works Building Contract with Contractor's Design 2016 Edition.
- Requirement: Allow for the obligations, liabilities and services described.

The recitals

First - The Works and the Contract Administrator

- The work comprises: Thermal and ventilation improvements including electrical and fire alarm systems.
- Architect/ Contract Administrator: See clause A10/140.

Second - Contractor's designed portion

- The Works include the design and construction of
  - No. 2 air conditioning units with split ducting serving no. 4 recessed blowers.

Third - Contract documents

- Contract drawings: As listed in clause A11/120.
- Contract documents: The following have been prepared which show and describe the work to be done A specification and employer's requirements for the design and construction of the Contractor's designed portion.

Fourth - Priced documents

- Documents to be priced or provided by the Contractor: Contract specification

Articles

3 - Architect/ Contract Administrator

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

4 and 5 - Principal Designer/ Principal Contractor

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

Contract particulars

Fifth Recital and Schedule 2 - Base date

- Base date: 1/12/2023

Fifth Recital and clause 4.2 - Construction industry scheme (CIS)

- Employer at base date is not a 'contractor' for the purposes of the CIS.

Sixth Recital - CDM Regulations

- The project is not notifiable.

Seventh Recital - Framework agreement

- Framework agreement: Does not apply

Article 7 - Arbitration

- Article 7 and Schedule 1 apply.

Clause 2.3 - Commencement and Completion

- Works commencement date: No later than 12 weeks from the date for receipt of Tenders.
- Date for Completion: 12 weeks after commencement.

Clause 2.9 - Liquidated damages

- At the rate of £500 per calendar week or pro-rata thereto.

Clause 2.11 - Rectification period

- Period: Three months from the date of practical completion.

Clause 4.3 - Interim payments

- Interim Valuation Dates
  - The first Interim Valuation Date is: 4 weeks after the commencement date/
  - Thereafter at intervals of: 1 month
- Payments due prior to practical completion
  - Percentage of total value of the work etc.: 95 per cent
- Payments becoming due on or after practical completion
  - Percentage of the total amount to be paid: 97½ per cent

Clause 4.3 and 4.8 - Fluctuations provision

- The following fluctuations provision applies: No fluctuations provision applies

Clause 4.8.1 - Supply of documentation for computation of amount to be finally certified

- Period: Three months from the date of practical completion.

Clause 5.3 - Contractor's Public Liability insurance - injury to persons or property

- The required level of cover for any one occurrence or series of occurrences arising out of one event
  - Not less than: £5 million

Clauses 5.4A, 5.4B and 5.4C - Insurance of the works, etc. - alternative provisions

- Clause 5.4B applies.
- Where clause 5.4A or 5.4B applies, percentage to cover professional fees: 15 per cent

Clause 7.2 - Adjudication

- Nominating body: Royal Institution of Chartered Surveyors

Schedule 1 paragraph 2.1 - Arbitration

- Appointor of Arbitrator (and of any replacement): President or a Vice president of the: The Royal Institution of Chartered Surveyors.

The conditions - No Amendments

Section 1: Definitions and Interpretation - No Amendments

Section 2: Carrying out the Works - No Amendments

Section 3: Control of the Works - No Amendments

Section 4: Payment - No Amendments

Section 5: Injury, Damage and Insurance - No Amendments

Section 6: Termination - No Amendments

Section 7: Settlement of Disputes - No Amendments

Execution

Execution

- The contract: Will be executed under hand.

Contract guarantee bond

JCT public sector supplement

- Document: The JCT Public Sector Supplement 2011 - Fair Payment, Transparency and Building Information Modelling.
- Fair Payment provisions Apply.
- Transparency provisions Apply.

Ω End of Section

A30
Tendering/ subletting/ supply

Main contract tendering

110 Scope

1. General: These conditions are supplementary to those stated in the Invitation to Tender and on the form of tender.

145 Tendering procedure

1. General: In accordance with the principles of: NBS Guide to Tendering for Construction Projects - One stage.
2. Arithmetical errors: Pricing document is dominant.

145 Tendering procedure

1. Errors: Alternative 1 is to apply.

160 Exclusions

1. Inability to tender: Immediately inform if any parts of the work as defined in the tender documents cannot be tendered.
2. Relevant parts of the work: Define those parts, stating reasons for the inability to tender.

170 Acceptance of tender

1. 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.
2. Costs: No liability is accepted for any cost incurred in the preparation of any tender.

190 Period of validity

1. Period: After submission or lodgement, keep tender open for consideration (unless previously withdrawn) for not less than 3 months.
2. Date for possession/ commencement: See section A20.

Pricing/ submission of documents

210 Preliminaries in the specification

1. The Preliminaries/ General conditions sections (A10-A56 inclusive) must not be relied on as complying with SMM7/ NRM2.

250 Priced documents

1. Alterations: Do not alter or qualify the priced documents without written consent. Tenders containing unauthorised alterations or qualifications may be rejected.
2. Measurements: Where not stated, ascertain from the drawings.
3. Deemed included: Costs relating to items, which are not priced, will be deemed to have been included elsewhere in the tender.
4. Submit: With tender

310 Tender

1. General: Tenders must include for all work shown or described in the tender documents as a whole or clearly apparent as being necessary for the complete and proper execution of the Works.

440 Schedule of rates

1. Schedule of rates (unpriced): Included with the tender documents. The contractor may insert additional items. All items must be fully priced.
2. Fully priced copy
   2.1. Submittal date: with the tender

500 Tender stage method statements

1. Method statements: Prepare, describing how and when the following is to be carried out:
   1.1. Commissioning and testing of engineering installations.
2. Statements: Submit within one week of request.

510 Alternative method tenders

1. General: In addition to and at the same time as tendering for the Works as defined in the tender documents, alternative methods of construction/ installation may be submitted for consideration. Alternatives, which would involve significant changes to other work, may not be considered.
2. Alternative tenders: Such alternatives will be deemed to be alternative tenders and each must include a complete and precise statement of the effects on cost and programme.
3. Safety method statement: Carry out a health and safety risk assessment for each alternative and where appropriate provide a safety method statement suitable for incorporation in the Health and Safety Plan.
4. Full technical data: Submit for each alternative together with details of any consequential amendments to the design and/ or construction of other parts of the Works.
5. Submit: Within one week of request

515 Alternative time tenders

1. General: In addition to and at the same time as tendering based upon the date or period specified in section A20, an alternative tender based upon a different date for completion or period may be submitted.
2. Date for completion: If any such tender is accepted the date for completion inserted in the Contract will be the date stated in the alternative tender or determined from the period stated in the alternative tender.

520 Design documents

1. Scope: Include the following in the Contractor's Proposals:
   1.1. Technical information: Air conditioning units make and model and recessed blowers make and model with BTU calculations.
2. Submit: With tender.

530 Substitute products

1. 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.
2. Compliance: Substitutions accepted will be subject to the verification requirements of clause A31/200.

550 Health and safety information

1. Content: Describe the organization and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
2. Include

2.1. A copy of the health and safety policy document, including risk assessment procedures.

2.2. Accident and sickness records for the past five years.

2.3. Records of previous Health and Safety Executive enforcement action.

2.4. Records of training and training policy.

2.5. The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.

3. Submit: Within one week of request

570 Outline construction phase health and safety plan

1. Content: Submit the following information within one week of request:

1.1. Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.

1.2. Details of the management structure and responsibilities.

1.3. Arrangements for issuing health and safety directions.

1.4. Procedures for informing other contractors and employees of health and safety hazards.

1.5. Selection procedures for ensuring competency of other contractors, the self-employed and designers.

1.6. Procedures for communications between the project team, other contractors and site operatives.

1.7. Arrangements for cooperation and coordination between contractors.

1.8. Procedures for carrying out risk assessment and for managing and controlling the risk.

1.9. Emergency procedures including those for fire prevention and escape.

1.10. Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.

1.11. Arrangements for welfare facilities.

1.12. Procedures for ensuring that all persons on site have received relevant health and safety information and training.

1.13. Arrangements for consulting with and taking the views of people on site.

1.14. Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.

1.15. Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.

1.16. Review procedures to obtain feedback.

599 Freedom of Information Act

1. Records: Retain, make available for inspection and supply on request information reasonably required to allow response to requests made under the provisions of the Freedom of Information Act.
2. Determination: Submit requests received. Do not supply information to anyone other than the project participants without express written permission.
3. Confidentiality: Maintain at all times.

Subletting/ supply

640 'Listed' domestic subcontractors

1. General: The work listed below and described in the Contract Documents must be carried out by persons identified in a list as provided for in clause A30/645:

1.1. The work: Removal and replacement of fire alarm system including detection and sounders.

1.2. Enter into a contract with one of the following:

2. FALFIRE, Unit 11, Parkengue, Kernick Industrial Estate, Penryn, TR10 9EP.
3. E R Jenkin & Sons Ltd, 20h, Long Rock Industrial Estate, Longrock, Penzance, TR20 8HX.
4. Newquay Fire Protection Ltd, Treloggan Industrial Estate, Unit 24, Newquay, TR7 2SX.
5. Exco Fire & Safety Control Ltd, 46 St Gluvias St, Penryn, TR10 8BJ
6. Hollands & Long Ltd, Gilly Gabben Industrial Estate, Mawgan, Helston, TR12 6BL

640 'Listed' domestic subcontractors Type A

1. General: The work listed below and described in the Contract Documents must be carried out by persons identified in a list as provided for in clause A30/645:
   1.1. The work: Installation of air conditioning system with no. 2 external units on a split ducting system serving no.4 recessed blowers.
   1.2. Enter into a contract with one of the following:
2. Cornwall Cooling, Unit 4a Nancegollan Industrial Estate, Helston, TR13 0BN..
3. E R Jenkin & Sons Ltd, 20h, Long Rock Industrial Estate, Longrock, Penzance, TR20 8HX.
4. BS Air Truro Branch, Penstraze Business Park, Penstraze, Truro, TR4 8PN.

645 'Listed' domestic subcontractors

1. General: Contract Documents provide that certain work must be carried out by a person of the Contractor's choice selected from a list of not less than three persons given therein.
2. The selected person: Will become a subcontractor as provided for in the Contract Condition for Subletting.
3. Additions to lists
   3.1. The Employer or Employer's representative may, but only with the consent of the Contractor which shall not be unreasonably withheld, add additional person(s) to the list at any time prior to the execution of a binding subcontract agreement.
   3.2. The Contractor may, but only with consent, which will not be unreasonably withheld, add additional persons to the list and must, if requested, submit (in an approved form) evidence of the suitability of such additional person(s). Wherever possible, submissions for addition of person(s) must be made, and consent obtained, before return of the tender. When any submission for addition of person(s) is made with the tender the consequences, if any, to the tender price compared to the use of the listed persons are to be made clear or the tender will be treated as qualified.
4. Shortage of names: If at any time prior to execution of a binding subcontract agreement less than three persons named in the list (including any persons added as provided above) are able and willing to carry out the relevant work, give notice without delay. The Employer will then forthwith add the names of other persons as provided above so that the list comprises not less than three such persons, or confirm that no names will be added. If the Employer fails to do either within one week of the Contractor's notification the Contractor, who may subcontract in accordance with the Contract, must carry out the work.
5. Agreement: Before the start of work to which the list relates enter into a binding subcontract agreement and confirm that this has been done, giving the name of the selected subcontractor.

Ω End of Section

A31
Provision, content and use of documents

Definitions and interpretations

110 Definitions

1. Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated here or in the appropriate referenced document.

120 Communication

1. Definition: Includes advise, inform, submit, give notice, instruct, agree, confirm, seek, provide or obtain information, consent or instructions, or make arrangements.
2. Format: In writing to the person named in clause A10/140 unless specified otherwise.
3. Response: Do not proceed until response has been received.

130 Products

1. Definition: Materials, both manufactured and naturally occurring, and goods, including components, equipment and accessories, intended for the permanent incorporation in the Works.
2. Includes: Goods, plant, materials, site materials and things for incorporation into the Works.

135 Site equipment

1. Definition: Apparatus, appliances, machinery, vehicles or things of whatsoever nature required in or about the construction for the execution and completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
2. Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.
3. Excludes: Products and equipment or anything intended to form or forming part of the permanent works.

140 Drawings

1. Definitions: To BSRIA BG 6, 'A design framework for building services: Design activities and drawing definitions'.
2. CAD data: In accordance with ISO 19650.

145 Contractor's choice

1. Meaning: Selection delegated to the Contractor, but liability to remain with the specifier.

150 Contractor's Design

1. 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

1. Meaning: Submit information in response to specified requirements.

160 Terms used in specification

1. 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 removal and disposal of associated pipework, wiring, ductwork or other services.

2. Remediate: Action or measures taken to lessen, clean up, remove or mitigate the existence of hazardous materials; in accordance with standards, or requirements as may be set out by statutes, rules, regulations or specification.
3. Fix: Receive, unload, handle, store, protect, place and fasten in position; dispose of waste and surplus packaging. To include all labour, materials and site equipment for that purpose.
4. Supply and fix: As above, but including supply of products, components or systems to be fixed, together with everything necessary for their fixing. All products, components or systems are to be supplied and fixed unless stated otherwise.
5. Keep for reuse: Do not damage designated products or work. Clean off bedding and jointing materials. Stack neatly, protect adequately and store until required by the employer/ purchaser, or until required for use in the works as instructed.
6. Keep for recycling: As 'keep for reuse', but relates to a naturally occurring material rather than a manufactured product.
7. Make good: Execute local remedial work to designated work. Make secure, sound and neat. Excludes redecoration and/ or replacement.
8. Replace: Supply and fix new products matching those removed. Execute work to match original new state of that removed.
9. Repair: Execute remedial work to restore something to its original working state. Make secure, sound and neat. Excludes redecoration and/ or replacement.
10. Refix: Fix removed products.
11. Ease: Adjust moving parts of designated products, or work to achieve free movement and good fit in open and closed positions.
12. 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.
13. System: Equipment, accessories, controls, supports and ancillary items (including installation) necessary for that section of the work to function.

170 Manufacturer and product reference

1. Definition: When used in this combination:
    1.1. Manufacturer: the person or legal entity under whose name or trademark the particular product, component or system is marketed
    1.2. Product reference: the proprietary brand name and/ or identifier by which the particular product, component or system is described.
2. 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

1. Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
2. Reasons: Submit reasons for the proposed substitution.
3. Documentation: Submit relevant information, including:
    3.1. manufacturer and product reference;
    3.2. cost;
    3.3. availability;
    3.4. relevant standards;
    3.5. performance;
    3.6. function;
    3.7. compatibility of accessories;
    3.8. proposed revisions to drawings and specification;

3.9. compatibility with adjacent work;

3.10. appearance;

3.11. copy of warranty/ guarantee.

4. Alterations to adjacent work: If needed, advise scope, nature and cost.
5. Manufacturers' guarantees: If substitution is accepted, submit before ordering products.

210 Cross references

1. Accuracy: Check remainder of the annotation or item description against the terminology used in the section or clause referred to.
2. Related terminology: Where a numerical cross reference is not given, the relevant sections and clauses of the specification will apply.
3. Relevant clauses: Clauses in the referred to specification section dealing with general matters, ancillary products and execution also apply.
4. Discrepancy or ambiguity: Before proceeding, obtain clarification or instructions.

220 Referenced documents

1. Conflicts: Specification prevails over referenced documents.

230 Equivalent products

1. Inadvertent omission: Wherever products are specified by proprietary name the phrase 'or equivalent' is to be deemed included.

240 Substitution of standards

1. 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.
2. Before ordering: Submit notification of all such substitutions.
3. Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

250 Currency of documents and information

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

260 Sizes

1. General dimensions: Products are specified by their co-ordinating sizes.
2. Timber: Cross section dimensions shown on drawings are:

2.1. Target sizes as defined in BS EN 336 for structural softwood and hardwood sections.

2.2. Finished sizes for non-structural softwood or hardwood sawn and further processed sections.

Documents provided on behalf of the employer

410 Additional copies of drawings/ documents

1. Additional copies: Issued free of charge.

440 Dimensions

1. Scaled dimensions: Do not rely on.

450 Measured quantities

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

460 The specification

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

Documents provided by contractor/ subcontractors/ suppliers

600 Contractor's Design information

1. General: Complete the design and detailing of parts of the Works as specified.
2. Provide
   2.1. Production information based on the drawings, specification and other information.
   2.2. Liaison to ensure coordination of the work with related building elements and services.
3. Master programme: Make reasonable allowance for completing design/ production information, submission (including information relevant to the CDM Regulations), comment, inspection, amendment, resubmission and reinspection.
4. Information required: Contractor proposals including specification and BTU calculations.
   4.1. Format: Digital or hard copy
   4.2. Number of copies: 2 copies
5. Submit: Within one week of request.

620 As-built drawings and information

1. Contractor designed work: Provide drawings/ information:
   1.1. Internal wall and ceiling construction including insulation, suspended frame and plasterboard type. .
2. Submit: At least two weeks before date for completion.

630 Technical literature

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

640 Maintenance instructions and guarantees

1. Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
2. Information location: In Building Manual.
3. Emergency call out services: Provide telephone numbers for use after completion. Extent of cover: office hours only.

Ω End of Section

A32
Management of the works

Generally

110 Supervision

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

118 Vehicle safety requirements

1. Vehicle equipment: Ensure that all vehicles have the following:
   1.1. Audible alert to other road users to the planned movement of the vehicle when the vehicle's indicators are in operation.
   1.2. Prominent signage at the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.
   1.3. Properly adjusted class VI mirror/s or Fresnel lens to eliminate the near side blind spot.
   1.4. Side under run guards.
2. Driver training
   2.1. Drivers must be trained on vulnerable road user safety through an approved course and hold a current valid Certificate of Competence.
   2.2. Drivers must have a valid driving licence and be legally able to drive the vehicle.

120 Insurance

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

125 Professional Indemnity Insurance

1. Provide and maintain insurance in respect of Contractor Designed Works
   1.1. Level of cover: Relates to claims or series of claims arising out of one event
   1.2. Period of insurance for these purposes: one year
2. Amount of indemnity required: £ 5,000,000.
3. Limit of cover for pollution/ contamination claims (If none is stated, the required level of cover shall be the full amount of the indemnity cover stated): £ 5,000,000.
4. Expiry of required period of CDP Professional Indemnity insurance: six years
5. Documentary evidence: Submit details before starting work on site and/ or policies and receipts for the insurances required.
   5.1. Format: Digital or hard copy.

130 Insurance claims

1. 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/ client, the person administering the Contract on their behalf and the Insurers.
2. Failure to notify: Indemnify the employer/ client against any loss, which may be caused by failure to give such notice.

140 Climatic conditions

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

150 Ownership

1. 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

1. Master programme: Immediately when requested and before starting work on site submit in an approved form a master programme for the Works, which must include details of:
    1.1. Planning and mobilisation by the Contractor
    1.2. Subcontractor's work.
    1.3. Running in, adjustment, commissioning and testing of all engineering services and installations.
    1.4. Work resulting from instructions issued in regard to the expenditure of provisional sums.
    1.5. Work by others concurrent with the Contract.
2. Submit two copies.

245 Start of work on site

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

260 Site meetings

1. General: Site meetings will be held to review progress and other matters arising from administration of the Contract.
2. Frequency: Every two weeks
3. Location: On site.
4. Accommodation: Ensure availability at the time of such meetings.
5. Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.

280 Photographs

1. Number of locations: As required.
2. Frequency of intervals: Weekly
3. Image format: Digital - JPEG
4. Number of images from each location: As required.

290 Notice of completion

1. Requirement: Give notice of the anticipated dates of completion of the whole or parts of the Works.
2. Associated works: Ensure necessary access, services and facilities are complete.
3. Period of notice (minimum): Two weeks

310 Extensions of time

1. 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.
2. Details: As soon as possible submit:
   2.1. Relevant particulars of the expected effects, if appropriate, related to the concurrent causes.
   2.2. An estimate of the extent, if any, of the expected delay in the completion of the Works beyond the date for completion.
   2.3. All other relevant information required.

Control of cost

420 Removal/ replacement of existing work

1. Extent and location: Agree before commencement.
2. Execution: Carry out in ways that minimize the extent of work.

430 Proposed instructions

1. Estimates: If a proposed instruction requests an estimate of cost, submit without delay and in any case within seven days.

440 Measurement

1. Covered work: Give notice before covering work required to be measured.

450 Daywork vouchers

1. Before commencing work: Give reasonable notice to person countersigning daywork vouchers.
2. Content: Before delivery each voucher must be:
   2.1. Referenced to the instruction under which the work is authorised.
   2.2. Signed by the Contractor's person in charge as evidence that the operatives' names, the time daily spent by each and the equipment and products employed are correct.
3. Submit: By the end of the week in which the work has been executed.

470 Products not incorporated into the Works

1. 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.
2. Evidence: When requested, provide evidence of freedom of reservation of title.

Ω End of Section

A33
Quality standards/ control

Standards of products and executions

110 Incomplete documentation

1. General: Where and to the extent that products or work are not fully documented, they are to be:
   1.1. Of a kind and standard appropriate to the nature and character of that part of the Works where they will be used.
   1.2. Suitable for the purposes stated or reasonably to be inferred from the project documents.
2. 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

1. Operatives: Appropriately skilled and experienced for the type and quality of work.
2. Registration: With Construction Skills Certification Scheme.
3. Verification: When requested, operatives must produce evidence of skills/ qualifications.

130 Quality of products

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

135 Quality of execution

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

140 Evidence of Compliance

1. Proprietary products: Retain on site evidence that the proprietary product specified has been supplied.
2. Performance specification: Submit evidence of compliance, including test reports indicating:
   2.1. Properties tested.
   2.2. Pass/ fail criteria.
   2.3. Test methods and procedures.
   2.4. Test results.
   2.5. Identity of testing agency.
   2.6. Test dates and times.
   2.7. Identities of witnesses.
   2.8. Analysis of results.

150 Inspections

1. Products and executions: Inspection or any other action must not be taken as approval unless confirmed in writing referring to:
    1.1. Date of inspection.
    1.2. Part of the work inspected.
    1.3. Respects or characteristics which are approved.
    1.4. Extent and purpose of the approval.
    1.5. Any associated conditions.

160 Related work

1. 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:
    1.1. Appropriately complete.
    1.2. In accordance with the project documents.
    1.3. To a suitable standard.
    1.4. In a suitable condition to receive the new work.
2. Preparatory work: Ensure all necessary preparatory work has been carried out.

170 Manufacturer’s recommendations/ instructions

1. General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
2. Exceptions: Submit details of changes to recommendations or instructions.
3. Execution: Use ancillary products and accessories supplied or recommended by main product manufacturer.
4. Products: Comply with limitations, recommendations and requirements of relevant valid certificates.

180 Water for the works

1. Mains supply: Clean and uncontaminated.
2. Other: Do not use until:
    2.1. Evidence of suitability is provided.
    2.2. Tested to BS EN 1008 if instructed.

Samples/ approvals

210 Samples

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

220 Approval of products

1. Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
2. 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.
3. Complying sample: Retain in good, clean condition on site. Remove when no longer required.

230 Approval of execution

1. Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
2. 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.
3. Complying sample: Retain in good, clean condition on site. Remove when no longer required.

Accuracy/ setting out generally

320 Setting out

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

330 Appearance and fit

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

340 Critical dimensions

1. Critical dimensions: Set out and construct the Works to ensure compliance with the tolerances stated.

Services generally

410 Services regulations

1. New or existing services: Comply with the Byelaws or Regulations of the relevant Statutory Authority.

420 Water regulations/ byelaws notification

1. 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.
2. 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

1. On completion of the work: Submit (copy where also required to the Water Undertaker) a certificate including:
    1.1. The address of the premises.
    1.2. A brief description of the new installation and/ or work carried out to an existing installation.
    1.3. The Contractor's name and address.
    1.4. A statement that the installation complies with the relevant Water Regulations or Byelaws.
    1.5. The name and signature of the individual responsible for checking compliance.
    1.6. The date on which the installation was checked.

435 Electrical installation certificate

1. Submit: When relevant electrical work is completed.
2. Original certificate: To be lodged in the Building Manual.

445 Service runs

1. General: Provide adequate space and support for services, including unobstructed routes and fixings.
2. Ducts, chases and holes: Form during construction rather than cut.
3. Coordination with other works: Submit details of locations, types/ methods of fixing of services to fabric and identification of runs and fittings.

450 Mechanical and electrical services

1. Final tests and commissioning: Carry out so that services are in full working order at completion of the Works.
2. Building Regulations notice: Copy to be lodged in the Building Manual.

Supervision/ inspection/ defective work

525 Access

1. Extent: Provide at all reasonable times access to the Works and to other places of the Contractor or subcontractors where work is being prepared for the Contract.
2. Designate: Contract Administrator

540 Defects in existing work

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

560 Tests and inspections

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

580 Continuity of thermal insulation

1. Record and report: Confirm that work to new, renovated or upgraded thermal elements has been carried out to conform to specification. Include:
    1.1. The address of the premises.
    1.2. The Contractor's name and address.
    1.3. The name, qualification and signature of the competent person responsible for checking compliance.
    1.4. The date on which the installation was checked.
2. Submit: Before completion of the Works.
3. Copy: To be lodged in the building manual.

610 Defective products/ executions

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

Work at or after completion

710 Work before completion

1. General: Make good all damage consequent upon the Works.
2. Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed.
3. Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials.
4. Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.
5. COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.
6. 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.
7. 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

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

730 Making good defects

1. Remedial work: Arrange access with Contract Administrator.
2. Rectification: Give reasonable notice for access to the various parts of the Works.
3. Completion: Notify when remedial works have been completed.

Ω End of Section

A34
Security/ safety/ protection

Security, health and safety

120 Execution hazards

1. Common hazards: Not listed. Control by good management and site practice.
2. Significant hazards: The design of the project includes the following:
   2.1. Hazard: ACMs
   2.2. Precautions assumed: Adequate PPE.
   2.3. Specification reference: Refer to Asbestos Register attached as an appendix to Specification of Works
   2.4. Drawing reference: P230152-501 Construction Hazard Plan

130 Product hazards

1. 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'.
2. Common hazards: Not listed. Control by good management and site practice.
3. Significant hazards: Specified construction materials include the following:
   3.1. Hazard: ACMs
   3.2. Material: Roof fibre cement slates
   3.3. Specification reference: L-18511RV1

140 Construction phase health and safety plan

1. Submission: Present to the employer/ client no later than Not later than two weeks before commencement of work on-site..
2. Confirmation: Do not start construction work until the employer has confirmed in writing that the construction phase health and safety plan includes the procedures and arrangements required by the CDM Regulations.
3. 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/ pre-construction information.

150 Security

1. Protection: Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
2. Access: Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.

160 Stability

1. Responsibility: Maintain the stability and structural integrity of the works and adjacent structures during the contract.
2. Design loads: Obtain details, support as necessary and prevent overloading.

170 Occupied premises

1. Works: Carry out without undue inconvenience and nuisance and without danger to occupants and users.

190 Occupier's rules and regulations

1. Compliance: Conform to the occupier's rules and regulations affecting the site.

210 Safety provisions for site visits

1. Safety: Submit details in advance of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
2. Protective clothing and/ or equipment: Provide and maintain on site for visitors to the-site.

Protect against the following

330 Noise and vibration

1. Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimize noise levels during the execution of the Works.
2. Noise levels from the Works: Maximum level: 87 dB(A) when measured from within the boundaries of the property.
3. Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
4. Restrictions: Do not use:
   4.1. Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

340 Pollution

1. Prevention: Protect the site, the works and the general environment (including the atmosphere, land, streams and waterways) against pollution.
2. Contamination: If pollution occurs, report immediately, including to the appropriate authorities, and provide relevant information.

350 Pesticides

1. Use: Not permitted.

360 Nuisance

1. Duty: Prevent nuisance from smoke, dust, rubbish, vermin and other causes.
2. Surface water: Prevent hazardous build-up on-site, in excavations and to surrounding areas and roads.

370 Asbestos containing materials

1. Duty: Report immediately any suspected materials discovered during execution of the works.
   1.1. Do not disturb.
   1.2. Agree methods for safe removal or encapsulation.

371 Dangerous or hazardous substances

1. Duty: Report immediately suspected materials discovered during execution of the works.
   1.1. Do not disturb.
   1.2. Agree methods for safe removal or remediation.

375 Antiquities

1. Duty: Report immediately any fossils, antiquities and other objects of interest or value discovered during execution of the works.

2. Preservation: Keep objects in the exact position and condition in which they were found.

380 Fire prevention

1. Duty: Prevent personal injury or death, and damage to the Works or other property from fire.
2. Standard: Comply with Joint Code of Practice 'Fire Prevention on Construction Sites', published by Construction Industry Publications and The Fire Protection Association (The 'Joint Fire Code').

390 Smoking on-site

1. Smoking on-site: Not permitted.

400 Burning on-site

1. Burning on-site: Not permitted.

410 Moisture

1. Wetness or dampness: Prevent, where this may cause damage to the Works.
2. Drying out: Control humidity and the application of heat to prevent:
    2.1. Blistering and failure of adhesion.
    2.2. Damage due to trapped moisture.
    2.3. Excessive movement.

420 Infected timber/ Contaminated materials

1. Removal: Where instructed to remove material affected by fungal/ insect attack from the building, minimize the risk of infecting other parts of the building.
2. Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other microorganisms are within acceptable levels.

430 Waste

1. Waste: Includes rubbish, debris, spoil, containers and packaging, and surplus material requiring disposal.
2. Requirement: Minimize production and prevent accumulation of waste. Keep the site and works clean and tidy. Clean out voids and cavities in the construction before closing.
3. Disposal: Collect and store in suitable containers. Remove from site and dispose of in a safe and competent manner, as approved and directed by the waste regulation authority.
4. Recyclable material: Sort and dispose of at a materials recycling facility approved by the waste regulation authority.
5. Documentation: Retain on-site.

440 Electromagnetic interference

1. Duty: Prevent excessive electromagnetic disturbance to apparatus outside the site.

460 Powder actuated fixing systems

1. Use: Not permitted.

470 Invasive species

1. General: Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or works economically, environmentally or ecologically.
2. Duty: Report immediately any suspected invasive species discovered during execution of the works.
    2.1. Do not disturb.

2.2. Agree methods for safe eradication or removal.

Protect the following

510 Existing services

1. Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations.
2. 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.
3. Work adjacent to services
   3.1. Comply with service authority's/ statutory undertaker's recommendations.
   3.2. Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners.
4. Identifying services
   4.1. Below ground: Use signboards, giving type and depth;
   4.2. Overhead: Use headroom markers.
5. Damage to services: If any results from execution of the Works:
   5.1. Immediately give notice and notify appropriate service authority/ statutory undertaker.
   5.2. Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
   5.3. Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.
6. Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

520 Roads and footpaths

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

530 Existing topsoil/ subsoil

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

540 Retained trees/ shrubs/ grassed areas

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

550 Retained trees

1. Protected area: Unless agreed otherwise, do not:
   1.1. Dump spoil or rubbish, excavate or disturb topsoil, park vehicles or plant, store materials or place temporary accommodation within the root protection area.
   1.2. Sever roots exceeding 25 mm in diameter. If unintentionally severed, give notice and seek advice.

1.3. Change level of ground within an area 3 m beyond branch spread.

555 Wildlife species and habitats

1. Protected habitats and species: Upon discovery immediately advise. Do not proceed until instruction is received.
2. Education: Ensure that employees and visitors to the site receive suitable instruction and awareness training.

560 Existing features

1. Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works.

570 Existing work

1. Protection: Prevent damage to existing work, structures or other property during the course of the work.
2. Removal: Minimum amount necessary.
3. Replacement work: To match existing.

580 Building interiors

1. Protection: Prevent damage from exposure to the environment, including weather, flora, fauna, and other causes of material degradation during the course of the work.

600 Existing furniture, fittings and equipment

1. Protection: Prevent damage or move as necessary to enable the Works to be executed. Reinstate in original positions.
2. Extent: Before work in each room starts, the following will be removed:

610 Especially valuable/ vulnerable items

1. Protection: Ensure provision and maintenance of special protective measures to prevent damage to the following:
2. Method statement: Submit within one week of request describing special protection to be provided.

620 Adjoining property

1. Agreement: Access to and/ or use of the following has been agreed with adjacent owners:
2. Permission: Obtain as necessary from other owners if requiring to erect scaffolding on or otherwise use adjoining property.

625 Adjoining property restrictions

1. Precautions
   1.1. Prevent trespass of workpeople and take precautions to prevent damage to adjoining property.
   1.2. Pay all charges.
   1.3. Remove and make good on completion or when directed.
2. Damage: Bear cost of repairing damage arising from execution of the Works.

630 Existing structures

1. Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
2. Supports: During execution of the Works:

2.1. 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.

2.2. Do not remove until new work is strong enough to support existing structure.

2.3. Prevent overstressing of completed work when removing supports.

3. Adjacent structures: Monitor and immediately report excessive movement.

4. Standard: Comply with BS 5975 and BS EN 12812.

640 Materials for recycling/ reuse

1. Duty: Sort and prevent damage to stated products or materials, clean off bedding and jointing materials and other contaminants.

2. Storage: Stack neatly and protect until required by the Employer or for use in the Works as instructed.

Ω End of Section

A35
Specific limitations on method/ sequence/ timing

Clauses - No Amendments

Ω End of Section

A36
Facilities/ temporary work/ services

Generally

110 Spoil heaps, temporary works and services

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

Accommodation - No Amendments

Temporary works

310 Roads

1. Permanent roads, hard standings and footpaths on the site: The following may be used, subject to clause A34/520:
   1.1. Protective or remedial measures: Make good at completion.

340 Name boards/ advertisements

1. Name boards/ advertisements: Permitted.

Services and facilities

410 Lighting

1. 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

1. Supply: Electricity from the existing mains may be used for the Works as follows:
   1.1. Metering: Chargeable by coin operated meter.
   1.2. Point of supply: Within the property.
   1.3. Available capacity: To be determined.
   1.4. Frequency: 50 Hz.
   1.5. Phase: Single.
   1.6. Current: Alternating.
2. Continuity: No responsibility will be accepted for the consequences of failure or restriction in supply.

430 Water

1. Supply: The existing mains may be used for the Works as follows:
   1.1. Metering: Free of charge
   1.2. Source: Within the property.
2. Continuity: No responsibility will be accepted for the consequences of failure or restriction in supply.

440 Telephones

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

510 Temperature and humidity

1. Levels required by the Employer: Maintain the following:
   1.1. 50%RH at 15 degrees. .

520 Use of permanent heating system

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

540 Meter readings

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

550 Thermometers

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

570 Personal protective equipment

1. General: Provide for the sole use of other members of the project team, in sizes to be specified:
   1.1. Safety helmets to BS EN 397, neither damaged nor time-expired. Number required: As required.
   1.2. High-visibility waistcoats to BS EN ISO 20471 Class 1. Number required: as required.
   1.3. Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: As required.
   1.4. Disposable respirators to BS EN 149.FFP1S.
   1.5. Eye protection to BS EN ISO 16321-1 and BS EN ISO 16321-3.
   1.6. Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
   1.7. Hand protection - to BS EN 388, 407, 420 or 511, as appropriate.

Ω End of Section

A37
Operation/ maintenance of the finished works

Generally

110 The building manual

1. Responsibility: The Contractor
2. Content: Obtain and provide comprehensive information for owners and users of the completed Works. Include an overview of the main design principles and describe key components and systems within the finished Works, so affording a complete understanding of the Works, including all buildings and their systems to enable efficient and safe operation and maintenance.
3. Format: Digital or hard copy
4. Number of copies: 2 copies
5. Delivery to: Contract Administrator by (date) 2 weeks after completion.

115 The Health and Safety File

1. Responsibility: the contractor
2. Content: Obtain and provide the following information: *a record containing information relating to the project which is likely to be needed during any subsequent construction work to ensure the health and safety of any person*.
3. Format: Digital or hard copy.
4. Delivery to: Contract Administrator By (date): two weeks after completion.

155 Content of the building manual

1. General: Details of the property, the parties, fire safety strategy, operational requirements and constraints of a general nature.
2. Building fabric: Design criteria, maintenance details, product details, and environmental and trafficking conditions.
3. Building services: Description and operation of systems, diagrammatic drawings, record drawings, identification of services, product details, equipment settings, maintenance schedules, consumable items, spares and emergency procedures.
4. Documentation: Guarantees, warranties, maintenance agreements, test certificates and reports.

160 Presentation of building manual

1. Format: A4 size, plastics covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover titled.
2. 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.
3. As-built drawings: The main sets may form annexes to the Manual.

190 Maintenance service

1. Scope: Provide a comprehensive maintenance service for the following items of plant and equipment. Include all planned preventative maintenance, as set out within the maintenance schedule, and replacement of all consumable items.
   1.1. Air conditioning units and Fire alarm & detection.
2. Terms: To be confirmed.
3. Commencement: To be confirmed.
4. Duration: To be confirmed.

Ω End of Section

A40
Contractor's general cost items: management and staff

Clauses - No Amendments

Ω End of Section

A41
Contractor's general cost items: site accommodation

Clauses - No Amendments

Ω End of Section

A42
Contractor's general cost items: services and facilities

Clauses - No Amendments

Ω End of Section

A43
Contractor's general cost items: mechanical plant

Clauses - No Amendments

Ω End of Section

A44
Contractor's general cost items: temporary works

Clauses - No Amendments

Ω End of Section

A50
Work/ products by/ on behalf of the employer

Clauses

120 Products provided by/ on behalf of employer

1. General: Details of such products are given in the work sections, for fixing as part of the contract. Use for no other purpose than the Works.
2. Handling: Accept delivery, check against receipts and take into appropriate storage.
3. Surplus products: Keep safe and obtain instructions.

Ω End of Section

A53
Work by statutory authorities/ undertakers

Clauses

120 Work by statutory undertakers

1. Item: Electrical supply
2. Description of work: As required to accommodate Contractor's proposals for air conditioning units.
3. Allow for general attendance.

Ω End of Section

A54
Provisional work/ items

Clauses

590 Contingencies

1. Provisional sum: Include: 10% of contract sum.

Ω End of Section

A55
Dayworks

Clauses - No Amendments

Ω End of Section

Specification created using NBS Chorus

RTP Surveyors

Jan Halliday

Ruan Minor Village Hall

Thermal improvements

16-10-2023

Thermal improvements

Contents

C20
Demolition

To be read with preliminaries/ general conditions.

5 Desk study/ survey

1. Scope: Before starting deconstruction/ demolition work, examine available information, and carry out a survey of: The structure or structures to be deconstructed/ demolished.
2. Report and method statements: Submit, describing:
   - 2.1. Form, condition and details of the structure or structures, the site and the surrounding area.
     - 2.1.1. Extent: As drawing P230152 - 304 revA Sections Building Regs
   - 2.2. Type, location and condition of features of historical, archaeological, geological or ecological importance.
   - 2.3. 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 dust generated during deconstruction or demolition.
   - 2.4. Identity and location of services above and below ground, including those required for the contractor's use, and arrangements for their disconnection and removal.
   - 2.5. Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
   - 2.6. Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
   - 2.7. Proposed programme of work, including sequence and methods of deconstruction or demolition.
   - 2.8. Details of specific pre-weakening required.
   - 2.9. Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
   - 2.10. Arrangements for control of site transport and traffic.
3. Format of report: Digital or hard copy.

10 Extent of deconstruction/ demolition

1. General: Subject to retention requirements specified elsewhere, deconstruct/ demolish structures down to Levels indicated.

25 Location and marking of services

1. Services affected by deconstruction/ demolition work: Locate and mark positions
2. Mains services marking: Arrange with the appropriate authorities for services to be located and marked
   - 2.1. Marking standard: In accordance with Street Works UK publication 'Guidance on the Positioning and Colour Coding of Underground Utilities' Apparatus'.

30 Services disconnection arranged by contractor

1. General: As required. Contractor to arrange.
2. Arrange with the appropriate authorities and responsible private organizations for disconnection of services, and removal of fittings and equipment owned by those authorities prior to starting deconstruction or demolition

50 Workmanship

1. Standard: Demolish structures in accordance with BS 6187.

2. Operatives
   2.1. Appropriately skilled and experienced for the type of work.
   2.2. Holding, or in training to obtain, relevant Construction Skills certification of competence.
3. Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of deconstruction and demolition to be used.

55 Site hazards

1. Precautions: Prevent fire or explosion caused by gas and vapour from tanks, pipes, etc.
2. Dust: Minimize airborne dust by periodically spraying deconstruction and demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris
   2.1. Lead dust: Submit method statement for control, containment and clean-up regimes.
3. Site operatives and general public: Protect from health hazards associated with vibration, dangerous fumes and dust arising during the course of the works.

60 Adjoining property

1. Temporary support and protection: Provide. Maintain and alter, as necessary, as work proceeds. Do not leave unnecessary or unstable projections.
2. Defects: Report immediately on discovery.
3. Damage: Minimize disturbance. Repair promptly to ensure safety, stability, weather protection and security.
4. Support to foundations: Do not disturb.

71 Dangerous openings

1. General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
2. Access: Prevent access by unauthorized persons.

75 Asbestos-containing materials – known occurrences

1. General: Materials containing asbestos are known to be present in: Slate roof tiles.
2. Removal: By non-licensed contractor following statutory risk assessment
3. Timing: Before other works start in these locations

76 Asbestos-containing materials – unknown occurrences

1. Discovery: Give notice immediately of suspected asbestos-containing materials when discovered during deconstruction and demolition work. Avoid disturbing such materials.
2. Removal: Submit statutory risk assessments and details of proposed methods for safe removal.

78 Unforeseen hazards

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

85 Site condition at completion

1. Debris: Clear away and leave the site in a clean, tidy and secure condition.

91 Employer's property

1. Components and materials to remain the property of the employer: As required.

2. Protection: Maintain until these items are removed by the employer or reused in the works, or until the end of the contract

95 Recycled materials

1. Materials arising from deconstruction and demolition work: 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.
2. Evidence of compliance: Submit full details and supporting documentation.
   2.1. Verification: Allow adequate time in programme for verification of compliance.

Ω End of Section

F10
Brick/ block walling

Clauses

51 Basic workmanship

1. Bond where not specified: Half lap stretcher.
2. Mortar joints: Fill all vertical joints. Lay bricks, solid and cellular blocks on a full bed.
3. AAC block thin mortar adhesive and gypsum block adhesive joints: Fill vertical joints. Lay blocks on a full bed.
4. Clay block joints
   - 4.1. Thin layer mortar: Lay blocks on a full bed.
   - 4.2. Interlocking perpends: Butted.
5. Quoins and advance work: Rack back.
6. Locations for equal levelling of cavity wall leaves
   - 6.1. Every course containing vertical twist type ties or other rigid ties.
   - 6.2. Every third tie course for double triangle/ butterfly ties.
   - 6.3. Courses in which lintels are to be bedded.
7. Lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.2 m above any other part of work at any time.
8. Daily lift height (maximum) for walling using cement gauged or hydraulic lime mortar: 1.5 m for any one leaf.
9. Lift height (maximum) for walling using thin layer mortar: 1.3 m above any other part of work at any time.

55 Facework

1. Commencement of facework: Not less than 150 mm below finished level of adjoining ground or external works level.
2. Brick/ block selection: Do not use units with damaged faces or arrises.
3. Cut masonry units: Where cut faces or edges are exposed cut with table masonry saw.
4. Coursing brickwork and concrete blockwork: Evenly spaced using gauge rods. To produce satisfactory junctions and joints with built-in elements and components.

66 Fire stopping

1. Avoidance of fire and smoke penetration: Fit tightly between cavity barriers and masonry. Leave no gaps.

90 Cracked bricks in existing facework

1. Replacement: Prior to repointing adjacent cracked joints, cut out and replace with matching sound bricks to approval.
2. Jointing mortar: As section Z21.

91 Cracked joints in existing facework which is not to be repointed

1. Crack width determining need for joint remedial work: 2.0 mm
2. Preparation: Cut out joints to form a rectangular recess of 15-20 mm depth. Clean and dampen joints sufficiently to control suction.
3. Joint profile: To match existing.
4. Repointing mortar: As section Z21.

95 Repointing

1. Preparation: Cut out joints to form a rectangular recess of 15-20 mm depth. Clean and dampen joints sufficiently to control suction.
2. Mortar: As section Z21.

Ω End of Section

G20
Carpentry/ timber-framing/ first fixing

Clauses

2 Timber procurement

1. Timber (including timber for wood-based products): Obtained from well-managed forests/ plantations in accordance with:
   1.1. The laws governing forest management in the producer country or countries.
   1.2. International agreements such as the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).
2. Documentation: Provide either in accordance with chain of custody certification scheme requirements:
   2.1. Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied. or
   2.2. Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.
3. Chain of Custody Certification scheme: Submit proposals

5 Structural softwood

1. Grading standard: To the appropriate BS EN 14081-1-compliant standard.
   1.1. Grade: GS to BS 4978
2. Strength class to BS EN 338: C16
3. Treatment: Flame-retardant impregnation to NBS section Z12 and Wood Protection Association Commodity Specification FR2, Type INT1

10 Ungraded softwood

1. Quality of timber: Free from decay, insect attack (except pinhole borers) and with no knots wider than half the width of the section.
2. Surface finish: Planed all round
3. Treatment: None required

12 Wood trim

1. Standard: To BS 1186-3.

30 Selection and use of timber

1. Timber members damaged, crushed or split beyond the limits permitted by their grading: Do not use.

32 Notches, holes and joints in timber

1. Notches and holes: Position in relation to knots or other defects so that the strength of members will not be reduced.
2. Scarf joints, finger joints and splice plates: Do not use without approval.

35 Processing treated timber

1. Cutting and machining: Carry out as much as possible before treatment.
2. Extensively processed timber: Retreat timber sawn lengthways, thicknessed, planed, ploughed, etc.

3. Surfaces exposed by minor cutting/ drilling: Treat with two flood coats of a solution recommended by main treatment solution manufacturer.

40 Moisture content

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

43 Bolted joints

1. Bolt spacings (minimum): To BS EN 1995-1-1, section 8.5.
2. 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.
3. 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.
4. Bolt tightening: So that washers just bite the surface of the timber. Ensure that at least one complete thread protrudes from the nut.
   4.1. Checking: At agreed regular intervals. Tighten as necessary.

45 Framing anchors

1. Manufacturer: Simpson Strong Tie
2. Fasteners: Galvanized or sherardized square twist nails.
   2.1. Size: Not less than size recommended by anchor manufacturer.
3. Fixing: Secure using not less than the number of nails recommended by anchor manufacturer.

45 Framing anchors Type A

1. Manufacturer: Simpson Strong-Tie
   1.1. Contact details
      1.1.1. Address: Winchester Road
      Cardinal Point
      Tamworth
      Staffordshire
      B78 3HG
      1.1.2. Telephone: +44 (0)1827 255600
      1.1.3. Web: https://www.strongtie.co.uk/en-UK/product-lines
      1.1.4. Email: ndixon@strongtie.com
2. Fasteners: Galvanized or sherardized square twist nails.
   2.1. Size: Not less than size recommended by anchor manufacturer.
3. Fixing: Secure using not less than the number of nails recommended by anchor manufacturer.

50 Additional supports

1. Provision: Position and fix additional studs, noggings and/ or battens to support edges of sheet materials, and wall/ floor/ ceiling-mounted appliances, fixtures, etc. shown on drawings.
2. Material properties: Timber to be of adequate size and have the same treatment as adjacent timber supports.

55 Joists generally

1. Centres: Equal, and not exceeding designed spacing.

2. Bowed joists: Installed with positive camber.
3. End joists: Positioned about 50 mm from masonry walls.

60 Joists on hangers

1. Hangers: Bedded directly on and hard against supporting construction. Do not use packs or bed on mortar.
2. Joists: Cut to leave not more than 6 mm gap at each end. Rebated to lie flush with underside of hangers.
3. Fixing to hangers: A nail in every hole.

65 Joist hangers

1. Description: JOIST TO BEAM CONNECTIONS
2. Manufacturer: Simpson Strong Tie
3. Size: To suit joist, design load and crushing strength of supporting construction.

65 Annular nails Type A

1. Manufacturer: Simpson Strong-Tie
   1.1. Contact details
      1.1.1. Address: Winchester Road
      Cardinal Point
      Tamworth
      Staffordshire
      B78 3HG
      1.1.2. Telephone: +44 (0)1827 255600
      1.1.3. Web: https://www.strongtie.co.uk/en-UK/product-lines
      1.1.4. Email: ndixon@strongtie.com
2. Size: To suit joist, design load and crushing strength of supporting construction.

70 Trimming openings

1. Trimmers and trimming joists: Not less than 25 mm wider than general joists.

75 Trussed rafter installation

1. Erection: To Trussed Rafter Association site installation guide.
2. Trusses generally: Do not modify without approval.
3. Damaged trusses: Do not use.
4. Fixing: With truss clips. Bottom chords of standard trusses and rafters of raised tie trusses bearing fully on wall plates.
5. Bottom chords of standard trusses: Do not fix to internal walls until roofing is complete and cisterns are installed and filled.

97 Eaves soffit ventilators

1. Manufacturer: Contractor's choice
2. Colour: White
3. Airway: The equivalent of a continuous opening of not less than 10 mm for full length of eaves.

98 Eaves soffit ventilation

1. Soffit boards: Fixed to leave a continuous ventilation opening not less than 10 mm wide for full length of eaves.

2. Insect mesh: 3-4 mm mesh screen fixed across the opening to prevent large insect entry.

Ω End of Section

H62
Natural slating

To be read with preliminaries/ general conditions.

20 Removing existing slating

1. General: Carefully remove slates, battens, underlay, etc. with minimum disturbance of adjacent retained slating.
2. Undamaged slates: Set aside for reuse.

25 Underlay

1. Handling: Do not tear or puncture.
2. Laying: Maintain consistent tautness.
3. Vertical laps (minimum): 100 mm wide, coinciding with supports.
4. Fixing: Galvanized steel, copper or aluminium 20 x 3 mm extra large clout head nails.
5. Eaves: Where exposed, use an external grade (UV-resistant) underlay or a proprietary eaves support product.
6. Penetrations: Use proprietary underlay seals or cut underlay neatly.
7. Ventilation paths: Do not obstruct.

30 Battens/ Counterbattens

1. Timber: Sawn softwood.
   1.1. Standard: In accordance with BS 5534, Annex D.
   1.2. Moisture content at time of fixing and covering (maximum): 22%.
2. Preservative treatment: As section Z12 and Wood Protection Association Commodity Specification C8.

32 Batten fixing

1. Setting out: Align parallel to ridge in straight horizontal lines to gauge of slates. Align on adjacent areas.
2. Batten length (minimum): Sufficient to span over three supports.
3. Joints in length: Butt centrally on supports. Joints must not occur more than once in any group of four battens on one support.
4. Additional battens: Provide where unsupported laps in underlay occur between battens.

35 Slate fixing

1. General: Fix slating and accessories to make the whole sound and weathertight at earliest opportunity.
2. Setting out: To true lines and regular appearance. Lay slates with slightly open (maximum 5 mm) butt joints. Align tails.
3. Slate thickness: Consistent in any one course. Lay with thicker end as tail.
4. Ends of courses: Use extra wide slates to maintain bond and to ensure that cut slates are as large as possible. Do not use slates less than 150 mm wide.
5. Top course: Head-nail short course to maintain gauge.
6. Fixing: Centre nail each slate twice through countersunk holes 20-25 mm from side edges.
   6.1. Nails: Copper clout to BS 1202-2 or aluminium clout to BS 1202-3.
   6.2. Nail dimensions: Determine in accordance with BS 5534 to suit site exposure, withdrawal resistance and slate supplier's recommendations.

40 Mortar bedding/ Pointing

1. Mortar: As section Z21.
   1.1. Mix: In accordance with BS 5534, 1:3 cement:sand, with plasticizing admixtures permitted.
2. Weather: Do not use in wet or frosty conditions or when imminent.
3. Appearance: Finish neatly and remove residue.

42 Fire separating walls

1. Separating walls: Completely fill space between top of wall and underside of slates with mineral wool quilt to provide fire-stopping.
2. Boxed eaves: Completely seal air paths in plane of separating wall with wire reinforced mineral wool, not less than 50 mm thick, fixed to rafters and carefully cut to shape fire-resisting board and quilt to provide fire-stopping.

52 Bedded verges with bedded undercloak

1. Underlay: Carry 50 mm onto outer leaf of gable wall and bed on mortar.
2. Undercloak: Slates, sloping towards verge and projecting 38-50 mm beyond face of wall.
   2.1. Bedding: On mortar identical to that used in gable walling.
3. Slating battens: Carry onto undercloak and finish 100 mm from verge edge.
4. Verge slates: Bed flush with undercloak on 75 mm wide bed of mortar. Point with flush profile.

57 Mortar-bedded and mechanically fixed tile hips

1. Underlay: Lay courses over hip. Overlaps (minimum) 150 mm.
2. Roof slates: Cut and fix closely at hip.
3. Hip irons: Galvanized steel in accordance with BS 5534, clause 4.15.4. Fix to hip rafter or hip batten with not less than two zinc coated steel screws.
4. Hip tiles
   4.1. Manufacturer: Contractor's choice
   4.2. Bedding: On mortar, continuous to edges and solid to joints.
   4.3. Fixing: Secure all hip tiles to hip rafters or hip tile fixing battens with self-sealing non-ferrous through fixings.
   4.4. Bottom hip tiles: Shape neatly to align with corner of eaves and fill ends with mortar and slips of tile finished flush.

70 Side abutments

1. Underlay: Turn up not less than 100 mm at abutments.
2. Abutment slates: Cut as necessary. Fix close to abutments.
3. Soakers: Interleave and turn down over head of abutment slates.

75 Dry ventilated tile ridges

1. Underlay: Provide air gap at apex.
2. Dry ridge tiles
   2.1. Manufacturer: Contractor's choice

77 Mortar-bedded and mechanically fixed tile ridges

1. Underlay: Lay courses over ridge. Overlap (minimum) 150 mm.
2. Ridge tiles
   2.1. Manufacturer: Contractor's choice

2.2. Bedding: On mortar, continuous to edges and solid to joints.

2.3. Fixing: Secure all ridge tiles to ridge boards or ridge tile fixing battens with self-sealing non-ferrous fixings.

2.4. Gable end ridge tiles: Fill ends with mortar and slips of tiles finished flush.

3. Ridge terminals

3.1. Manufacturer: Contractor's choice

Ω End of Section

K10
Gypsum board dry linings/ partitions/ ceilings

To be read with preliminaries/ general conditions.

50 Suspended ceiling system on metal framing

1. Description: TO GROUND FLOOR
2. Standard: To BS EN 13964.
3. Evidence of compliance: Submit Declaration of Performance (DoP).
4. Ceiling system manufacturer: Contractor's choice
5. Ceiling
6. Suspension system
   6.1. Hangers: Type recommended by board manufacturer screwed to sides of joists
7. Fire performance
   7.1. Reaction to fire: To BS EN 13501-1, Class B-s3, d2 or better
   7.2. Fire resistance of complete ceiling lining assembly: To BS EN 13501-2, REI 30 or better
8. Linings: 12.5 mm plasterboard, Gyproc Sixto 63 or equally approved.
9. Insulation: Mineral wool to BS EN 13162.
   9.1. Thickness: 270mm

Installation

60 Ceilings

1. Sequence: Fix boards to ceilings before installing dry lined walls and partitions.
2. Orientation of boards: Fix with bound edges at right angles to supports and with ends staggered in adjacent rows.
3. Two layer boarding: Stagger joints between layers.

61 Metal framing for partitions/ wall linings

1. Setting out: Accurately aligned and plumb.
   1.1. Frame/ Stud positions: Equal centres to suit specified linings, maintaining sequence across openings.
   1.2. Additional studs: To support vertical edges of boards.
2. Fixing centres at perimeters (maximum): 600 mm.
3. Openings: Form accurately.
   3.1. Doorsets: Use sleeved or boxed metal studs and/ or suitable timber framing to achieve strength grade requirements for framing assembly and adequately support weight of door.
   3.2. Services penetrations: Allow for associated fire-stopping.

62 Metal furrings for wall linings

1. Setting out: Accurately aligned and plumb.
   1.1. Vertical furring positions: Equal vertical centres to suit specified linings, maintaining sequence across openings. Position adjacent to angles and openings.
   1.2. Additional vertical furrings: To support vertical edges of boards and at junctions with partitions.
   1.3. Horizontal furring positions: To provide continuous support to edges of boards.
2. Adhesive bedding to furrings

2.1. Dabs: Length 200 mm (minimum). Located at ends of furrings and thereafter at 450 mm (maximum) centres.

2.2. Junctions with partitions: Continuous bed with no gaps across cavity.

65 Dry lining generally

1. General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
2. Standard:
3. Gypsum plasterboard to BS EN 520.
4. Gypsum fibre board to BS EN 15283-2.
5. Evidence of compliance: Submit Declaration of Performance (DoP).
6. Cutting gypsum boards: Neatly and accurately without damaging core or tearing paper facing.
7. Cut edges: Minimize and position at internal angles wherever possible. Mask with bound edges of adjacent boards at external corners.
8. Two layer boarding: Stagger joints between layers.
9. Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

67 Skim coat plaster finish

1. Plaster type: As recommended by board manufacturer
   1.1. Thickness: 2-3 mm.
2. Joints: Fill and tape except where coincident with metal beads.
3. Finish: Tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks.

69 Installing beads/ stops

1. Cutting: Neatly using mitres at return angles.
2. Fixing: Securely using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
3. Finishing: After joint compounds/ plasters have been applied, remove surplus material while still wet from surfaces of beads exposed to view.

70 Additional supports

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

85 mineral wool insulation

1. Fitting insulation: Closely butted joints and no gaps. Use fasteners to prevent slumping or displacement.
2. Services
   2.1. Electrical cables overlaid by insulation: Size accordingly.
   2.2. Ceilings: Cut insulation around electrical fittings, etc.

87 Sealing gaps and air paths

1. Sealing: Apply sealant to perimeter abutments and around openings as a continuous bead with no gaps.

2. Application: To clean, dry and dust free surfaces as a continuous bead with no gaps.
    2.1. Gaps greater than 6mm between floor and underside of gypsum board: After sealing, fill with joint compound.

88 Fire-stopping at perimeters of dry lining systems

1. Material: Tightly packed mineral wool or intumescent mastic/ sealant.
2. Application: To perimeter abutments to provide a complete barrier to smoke and flame.

90 Seamless jointing

1. Cut edges of boards: Lightly sand to remove paper burrs.
2. Filling and taping: Fill joints, gaps and internal angles with jointing compound and cover with continuous lengths of tape, fully bedded.
3. Protection of edges/ corners: Reinforce external angles, stop ends, etc. with specified edge/ angle bead.
4. Finishing: Feather out jointing compound to give a flush, smooth, seamless surface.
5. Nail/ screw depressions and minor indents: Fill with jointing compound to give a flush surface.
6. Minor imperfections: Remove by light sanding.

91 Vertical joints

1. Joints: Centre on studs.
    1.1. Partitions: Stagger joints on opposite sides of studs.
    1.2. Two layer boarding: Stagger joints between layers.

92 Horizontal joints

1. Surfaces exposed to view: Horizontal joints not permitted. Seek instructions where height of partition/ lining exceeds maximum available length of board.
2. Two layer boarding: Stagger joints between layers by at least 600 mm.
3. Edges of boards: Support using additional framing.
    3.1. Two layer boarding: Support edges of outer layer.

93 Fixing gypsum board to metal framing/ Furrings

1. Partitions/ Wall linings: Fix securely and firmly at the following centres (maximum):
    1.1. Single layer boarding: To all framing at 300 mm centres. Reduce to 200 mm centres at external angles.
    1.2. Multi-layer boarding: Face layer at 300 mm centres, and previous layers around perimeters at 300 mm centres.
2. Ceilings: 230 mm. Reduce to 150 mm at board ends and at lining perimeters.
3. Position of screws from edges of boards (minimum): 10 mm.
    3.1. Screw heads: Set in a depression. Do not break paper or gypsum core.

94 Fixing gypsum board to timber

1. Fixing to timber: Securely at the following centres (maximum):
    1.1. Nails: 150 mm.
    1.2. Screws to partitions/ wall linings: 300 mm. Reduce to 200 mm at external angles.
    1.3. Screws to ceilings: 230 mm.
2. Position of nails/ screws from edges of boards (minimum)
    2.1. Bound edges: 10 mm.

2.2. Cut/ unbound edges: 13 mm.

3. Position of nails/ screws from edges of timber supports (minimum): 6 mm.

Finishing

97 Level of dry lining across joints

1. Sudden irregularities: Not permitted.
2. Joint deviations: Measure from faces of adjacent boards using methods and straightedges (450 mm long with feet/ pads) to BS 8212, clause 3.3.5.
   2.1. Tapered edge joints
      2.1.1. Permissible deviation (maximum) across joints when measured with feet resting on boards: 3 mm.
   2.2. External angles
      2.2.1. Permissible deviation (maximum) for both faces: 4 mm.
   2.3. Internal angles
      2.3.1. Permissible deviation (maximum) for both faces: 5 mm.

98 Repairs to existing gypsum board

1. Performance of repairs must match original specified performances.
2. Filling small areas with broken cores: Cut away paper facing, remove loose core material and fill with jointing compound.
   2.1. Finish: Flush, smooth surface suitable for redecoration.
3. Large patch repairs: Cut out damaged area and form neat hole with rectangular sides. Replace with matching gypsum board.
   3.1. Fixing: Use methods to suit type of dry lining, ensuring full support to all edges of existing and new gypsum board.
   3.2. Finishing: Fill joints, tape and apply jointing compound to give a flush, smooth surface suitable for redecoration.

Ω End of Section

K20
Timber board flooring/ sarking/ linings/ casings

To be read with preliminaries/ general conditions. - Not Used

Workmanship

41 Treated timber

1. Surfaces exposed by minor cutting and/ or drilling: Treat with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.

50 Fixing boards

1. Protection during and after installation: Keep boards dry, clean and undamaged.
2. Boards to be used internally: Do not install until building is weathertight.
3. Moisture content of timber supports at time of fixing boards: Not more than 18%.
4. Fixing: Fix boards securely to each support to give flat, true surface free from undulations, lipping, splits and protruding fasteners.
5. Timber movement: Position boards and fixings to prevent cupping, springing, excessive opening of joints and other defects.
6. Heading joints: Tightly butted, central over supports and at least two boards widths apart on any one support.
7. Edges: Plane off proud edges.
8. Exposed nail heads: Neatly punch below surface.

Ω End of Section

K45
Suspended ceiling system alterations

To be read with preliminaries/ general conditions. - Not Used

Products

30 Products generally

1. Ceiling systems and components: To BS EN 13964.

35 Suspension system

1. Description: - CONCEALED GRID TO CEILING TYPE
2. Scope: Include all hangers, fixings, main runners, cross members, primary channels, perimeter clips, splines, noggins, clips, bracing, bridging, etc. necessary to complete the ceiling and, where applicable, achieve specified performance.
3. Manufacturer: Gyproc
   3.1. Product reference: MF Channel or equally approved.
4. Grid

37 Boards

1. Description: - GYPSUM
2. Performance: Maintain acoustic performance
3. Manufacturer: Gyproc
   3.1. Product reference: Sixto 63 Acoustic board or equally approved.

41 Access units

1. Description: Contractors Choice, submit proposals

50 Insulation

1. Description: Mineral wool
2. Manufacturer: Rockwall
   2.1. Product reference: RWA45
3. Thickness: 270mm

Execution

62 Execution generally

1. Workmanship: In accordance with BS EN 13964, Annex A.
2. Designated ceiling system components: Remove carefully without affecting surrounding areas.
3. Disposal of removed components: Remove from site
4. Retained components: Do not distort or damage.
5. Reuse of ceiling system components
   5.1. Condition: Undamaged, free from distortion, clean.
   5.2. Units and boards: Match adjacent areas where appropriate.
6. Cutting units, boards and components: Cut neatly and accurately. Maintain edge profiles.
   6.1. Openings: Suit sizes and edge details of fittings.

65 Setting out

1. General: Maintain ceiling system accurately, continuous, even, and jointed at regular intervals. Provide level soffits free from undulations, lipping and distortions in grid members.
2. Infill units, access units, integrated services: Fit and align correctly.
3. Minimum size for edge and perimeter infill units: Half standard width or length where practicable.
4. Grid: Position to suit infill unit sizes. Allow for permitted deviations from nominal sizes.
5. Infill joints and exposed suspension members: Straight, aligned and parallel to walls or setting out lines. Where building elements and features to which the ceiling system relates are not square, straight or level, give notice.

67 Installing suspension

1. Fixing
   1.1. Angle or strap hangers: Do not rivet for top fixing.
   1.2. Wire hangers: Tie securely at top with tight bends to loops to prevent vertical movement.
2. Installation
   2.1. Alignment: Vertical or near vertical without bends or kinks.
   2.2. Maintain straight, with suitable tension and without bends or kinks.
   2.3. Do not allow hangers to press against fittings, services and insulation covering ducts and pipes.
3. Obstructions: Where obstructions prevent vertical installation, either:
   3.1. brace diagonal hangers against lateral movement; or
   3.2. hang ceiling system on an appropriate rigid sub-grid bridging across obstructions and supported to prevent lateral movement.
4. Extra hangers: Provide as required to carry additional loads.

68 Coordination with services

1. Preparation: Check existing position of services against proposed alterations.
2. Clashes between services and ceiling system: Give notice.
3. Coordination: Programme works to minimize impact.
4. Services disconnection: Give notice.

69 Luminaires

1. Independently support luminaires: Adjust suspension to line and level of ceiling as necessary.
2. Surface mounted luminaires: Do not inhibit designed grid expansion in fire.
3. Modular fluorescent recessed luminaires: Compatible with ceiling module. Extension boxes must not foul ceiling system.
4. Continuous recessed rows of luminaires: Provide flanges for support of grid and infill units, unless mounted above grid flanges. Retain in place with lateral restraint.
5. Fire protecting and resisting ceiling systems: Luminaires must maintain protection integrity of ceiling system.
6. Access: Provide access for maintenance of luminaires.

70 Mechanical services

1. Fan coil units
   1.1. Inlet and outlet grilles: Trim ceiling grid and infill units to suit.
   1.2. Void clearance beneath: Sufficient for ceiling system and fan coil components.
   1.3. Suspension and connections: Permit accurate setting out and levelling of fan coil units.

2. Air grilles and diffusers
   2.1. Linear air diffusers: Provide flanges for support of grid and infill units. Provide for displacement of ceiling grid. Retain in place with lateral restraint.
   2.2. Grille and diffuser ceiling joints: Provide smudge rings and edge seals.

71 Integrated services

1. General: Position services accurately, support adequately. Align and level in relation to the ceiling. Alterations must not diminish performance of ceiling system.
2. Reaction to fire rating of additional supporting material: Match ceiling material.
3. Services outlets
   3.1. Supported by ceiling system: Provide additional hangers.
   3.2. Independently supported: Provide flanges to support altered ceiling system.

72 Other services

1. Smoke detectors and PA speakers
   1.1. Infill units: Scribe to suit.
   1.2. Flexible connections: Required.
2. Sprinkler heads: Carefully set out and level.

73 Installing insulation

1. Fitting: Fit accurately and firmly with closely butted joints and no gaps.
2. Insulation within individual infill units: Fit closely. Secure to prevent displacement when infill units are installed or subsequently lifted. Reseal cut dustproof sleeving.
3. Width: Lay insulation in the widest practical widths to suit grid member spacings.
4. Services: Do not cover electrical cables not sized accordingly. Cut insulation carefully around electrical fittings, etc. Do not lay insulation over luminaires.
5. Sloping and vertical areas of ceiling system: Fasten insulation to prevent displacement.

74 Installing cavity fire barriers

1. Fixing
   1.1. General: Fix firmly to channels or angles at abutments to building structure.
   1.2. At perimeters and joints: Secure. Provide permanent stability and continuity with no gaps. Provide a complete barrier to smoke and flame.
2. Joints: Form to preserve integrity in fire.
3. Service penetrations: Cut and pack to maintain barrier integrity. Sleeve flexible materials. Adequately support services passing through the barrier.
   3.1. Ceiling systems intended for fire protection: Do not impair fire resisting performance of ceiling system.
   3.2. Ceiling systems not intended for fire protection: Do not mechanically interlink barriers with ceiling system.

77 Electrical continuity and earth bonding

1. Inclusion in finished work: Required

Completion

80 Documentation

1. Building manual and records: Update showing alterations made.

Ω End of Section

M20
Plastered/ rendered/ roughcast coatings

To be read with preliminaries/ general conditions.

50 Gypsum plaster skim coat on plasterboard

1. Plasterboard: 12.5 mm
    1.1. Preparation: Bonding agent recommended by plaster manufacturer
2. Plaster: Board finish/ plaster to BS EN 13279-1, class B.
    2.1. Manufacturer: Contractor's choice
    2.2. Thickness: 2-5 mm
    2.3. Finish: Smooth.

60 Cements for mortars

1. Cement: To BS EN 197-1.
    1.1. Types: Portland cement, CEM I.
2. Portland slag cement, CEM II.
3. Portland fly ash cement, CEM II.
    3.1. Strength class: 32.5, 42.5 or 52.5.
4. Sulfate resisting cement: To BS EN 197-1.

61 Lime for cement gauged mortars

1. Standard: To BS EN 459-1.
    1.1. Type: CL 90S.

62 Admixtures for cement gauged mortars

1. Suitable admixtures: Select from:
    1.1. Air entraining (plasticizing) admixtures: To BS EN 934-2 and compatible with other mortar constituents.
    1.2. Other admixtures: Submit proposals.
2. Prohibited admixtures: Calcium chloride and admixtures containing calcium chloride.

63 Sand for cement gauged mortars

1. Standard: To BS EN 13139.
    1.1. Grading: 0/2 or 0/4 (CP or MP); category 2 fines.
2. Colour and texture: Consistent. Obtain from one source.

65 Mixing

1. Render mortars (site-made)
    1.1. Batching: By volume using gauge boxes or buckets.
    1.2. Mix proportions: Based on damp sand. Adjust for dry sand.
    1.3. Lime:sand: Mix thoroughly. Allow to stand, without drying out, for at least 16 hours before using.
2. Mixes: Of uniform consistence and free from lumps.
3. Contamination: Prevent intermixing with other materials.

67 Cold weather

1. General: Do not use frozen materials or apply coatings on frozen or frost bound substrates.
2. Internal work: Take precautions to prevent damage to internal coatings when air temperature is below 3°C.
3. External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising.

71 Suitability of substrates

1. General: Suitable to receive coatings. Sound, free from contamination and loose areas.
2. Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
3. Tolerances: Permitting specified flatness/ regularity of finished coatings.
4. Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

74 Existing damp affected plaster/ render

1. Plaster affected by rising damp: Remove to a height of 300 mm above highest point reached by damp or 1 m above dpc, whichever is higher.
2. Perished and salt contaminated masonry
   2.1. Mortar joints: Rake out.
   2.2. Masonry units: Submit proposals.
3. Drying out substrates: Establish drying conditions.
4. Faults in substrate (structural deficiencies, additional sources of damp, etc.): Submit proposals.

79 Gypsum plasterboard backings

1. Type: To BS EN 520 Type A.
   1.1. Core density (minimum): 650 kg/m³.
2. Exposed surface and edge profiles: Suitable to receive specified plaster finish.

80 plasterboard backings

1. Fixings, accessories and installation methods: As recommended by board manufacturer.
2. Fixing: At the following centres (maximum):
   2.1. Nails: 150 mm.
   2.2. Screws to partitions/ walls: 300 mm. Reduce to 200 mm at external angles.
   2.3. Screws to ceilings: 230 mm.
3. Position of nails/ screws from edges of boards (minimum)
   3.1. Bound edges: 10 mm.
   3.2. Cut/ unbound edges: 13 mm.
4. Position of nails/ screws from edges of supports (minimum): 6 mm.
5. Nail/ screw heads: Set below surface. Do not break paper or gypsum core.
6. Additional framing supports
   6.1. Fixtures, fittings and service outlets: Accurately position to suit fasteners.
   6.2. Board edges and perimeters: To suit type and performance of board.
7. Joints
   7.1. Ceilings
      7.1.1. Bound edges: At right angles to supports and with ends staggered in adjacent rows.
      7.1.2. Two layer boarding: Stagger joints between layers.
   7.2. Partitions/ walls

7.2.1. Vertical joints: Centre on studs. Stagger joints on opposite sides of studs.

7.2.2. Two layer boarding: Stagger joints between layers.

7.2.3. Horizontal joints:

7.2.4. Two layer boarding: Stagger joints between layers by at least 600 mm. Support edges of outer layer.

7.3. Joint widths (maximum): 3 mm.

7.4. End joints: Stagger between rows.

7.5. Two layer boarding: Stagger joints between layers.

8. Joint reinforcement tape: Apply to joints and angles except where coincident with metal beads.

81 Beads/ stops for internal use

1. Standard: In accordance with BS EN 13914-2.
2. Material: Plastics/ PVC

82 Beads/ stops for external use

1. Standard: In accordance with BS EN 13914-1.
2. Materials: Stainless steel to BS EN 13658-2
3. Fixing: Secure and true to line and level.
   3.1. Beads/ stops to external render: Fix mechanically.

86 Crack control at junctions between dissimilar solid substrates

1. Locations: Where defined movement joints are not required. Where dissimilar solid substrate materials are in same plane and rigidly bonded or tied together.
2. Crack control materials
   2.1. Isolating layer: Building paper to BS 1521.
   2.2. Metal lathing: Externally: Stainless steel ribbed expanded metal
3. Installation: Fix metal lathing over isolating layer. Stagger fixings along both edges of lathing.
4. Width of installation over single junctions
   4.1. Isolating layer: 150 mm.
   4.2. Lathing: 300 mm.
5. Width of installation across face of dissimilar substrate material (column, beam, etc. with face width not greater than 450 mm)
   5.1. Isolating layer: 25 mm (minimum) beyond junctions with adjacent substrate.
   5.2. Lathing: 100 mm (minimum) beyond edges of isolating layer.

87 Application of coatings

1. General: Apply coatings firmly and achieve good adhesion.
2. Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
   2.1. Accuracy: Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
3. Drying out: Prevent excessively rapid or localized drying out.
4. Keying undercoats: Cross scratch plaster coatings and comb render coatings. Do not penetrate undercoat.

94 Flatness/ surface regularity

1. Sudden irregularities: Not permitted.

2. Deviation of plaster surface: Measure from underside of a straight edge placed anywhere on surface.
   2.1. Permissible deviation (maximum) for plaster not less than 13 mm thick: 3 mm in any consecutive length of 1800 mm.

95 Render final coat – dry dash

1. Coarse aggregate: To BS EN 12620. Well washed.
   1.1. Size: To match existing.
   1.2. Type: To match existing.
2. Application and finishing: Achieve firm adhesion and an even overall appearance.

Ω End of Section

M60
Painting/ clear finishing

To be read with preliminaries/ general conditions.

10 Emulsion paint

1. Description: TO INTERNAL PLASTERED SURFACES
2. Manufacturer: Contractor's choice
3. Surfaces: Walls and ceiling to main hall area.
   3.1. Preparation: Ensure surfaces are clean and dry
4. Undercoats: As recommended by manufacturer.
   4.1. Number of coats: No.1
5. Finishing coats: To be confirmed.
   5.1. Number of coats: No.2

12 Gloss paint

1. Description: TO INTERNAL EXPOSED SOFTWOOD
2. Manufacturer: Contractor's choice
3. Surfaces: Preprimed and sealed
   3.1. Preparation: Ensure surfaces are clean and dry
4. Initial coats: As recommended by manufacturer
5. Undercoats: As recommended by manufacturer
   5.1. Number of coats: No.1
6. Finishing coats: Full gloss
   6.1. Number of coats: No.2

14 Eggshell/ satin paint

1. Description: TO INTERNAL EXPOSED SOFTWOOD
2. Manufacturer: Contractor's choice
3. Surfaces: Previously decorated
   3.1. Preparation: Ensure surfaces are clean and dry
4. Undercoats: As recommended by manufacturer
   4.1. Number of coats: No.1
5. Finishing coats
   5.1. Number of coats: No.2

20 Coating materials

1. Selected manufacturers: Submit name before commencement of coating work.

22 Handling and storage

1. Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
2. Materials from more than one batch: Store separately. Allocate to distinct parts or areas of the work.

26 Surfaces to be cleaned but not coated

1. Projecting stone sills.
2. Suspected hazardous materials: submit method statement.

28 Protection

1. 'Wet paint' signs and barriers: Provide where necessary to protect other operatives and general public, and to prevent damage to freshly applied coatings.

30 Preparation generally

1. Standard: In accordance with BS 6150.
2. Refer to any pre-existing CDM Health and Safety File and CDM Construction Phase Plan where applicable.
3. Risk assessments and method statements for suspected hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
5. Substrates: Sufficiently dry in depth to suit coating.
6. Efflorescence salts, dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
7. Surface irregularities: Provide smooth finish.
8. Organic growths and infected coatings
    8.1. Remove with assistance of biocidal solution.
    8.2. Apply residual effect biocidal solution to inhibit regrowth.
9. Joints, cracks, holes and other depressions: Fill with stoppers/ fillers. Provide smooth finish.
10. Dust, particles and residues from preparation: Remove and dispose of safely.
11. Water-based stoppers and fillers
    11.1. Apply before priming unless recommended otherwise by manufacturer.
    11.2. If applied after priming: Patch prime.
12. Doors, opening windows and other moving parts
    12.1. Ease, if necessary, before coating.
    12.2. Prime resulting bare areas.

32 Previously coated surfaces generally

1. Preparation: In accordance with BS 6150.
2. Contaminated or hazardous surfaces: Give notice of:
    2.1. Coatings suspected of containing lead.
    2.2. Substrates suspected of containing asbestos or other hazardous materials.
    2.3. Significant rot, corrosion or other degradation of substrates.
3. Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
4. Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
5. Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
6. Alkali affected coatings: Completely remove.
7. Retained coatings
    7.1. Thoroughly clean.

7.2. Gloss-coated surfaces: Provide key.

8. Partly removed coatings
   8.1. Apply additional preparatory coats.
   8.2. Junctions: Provide flush surface.
9. Completely stripped surfaces: Prepare as for uncoated surfaces.

35 Fixtures and fittings

1. Risk assessment and method statement for hazardous materials: Prepare for operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
2. Removal: Before commencing work: Ironmongery, cover plates, grilles, wall clocks, and other surface mounted fixtures.
3. Replacement: Refurbish as necessary, refit when coating is dry.

37 Wood preparation

1. General: Provide smooth, even finish with lightly rounded arrises.
2. Degraded or weathered surface wood: Take back surface to provide suitable substrate.
3. Degraded substrate wood: Repair with sound material of same species.
4. Heads of fasteners: Countersink sufficient to hold stoppers/ fillers.
5. Resinous areas and knots: Apply two coats of knotting.
6. Defective primer: Take back to bare wood and reprime.

41 Masonry and rendering preparation

1. Loose and flaking material: Remove.

43 Plaster preparation

1. Nibs, trowel marks and plaster splashes: Scrape off.
2. Overtrowelled 'polished' areas: Provide suitable key.
3. Depressions around fixings: Fill with stopper/ filler.

45 Previously painted window frames

1. Paint encroaching beyond glass sight line: Remove.
2. Loose and defective putty: Remove.
3. Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.
4. Finishing
   4.1. Patch prime, reputty, as necessary and allow to harden.
   4.2. Seal and coat as soon as sufficiently hard.

50 External pointing to existing frames

1. Defective sealant pointing: Remove.
2. Joint depth: Approximately half joint width; adjust with backing strip if necessary.
3. Sealant
   3.1. Preparation and application: As section Z22.

52 Sealing of internal movement joints

1. General: To junctions of walls and ceilings with architraves, skirtings and other trims.
2. Sealant: Water-borne acrylic.

2.1. Preparation and application: As section Z22.

55 Existing gutters

1. Dirt and debris: Remove from inside of gutters.
2. Defective joints: Clean and seal with suitable jointing material.
3. Suspected hazardous materials: submit method statement.

61 Coating generally

1. Application: In accordance with BS 6150,
2. Conditions: Maintain suitable temperature, humidity and air quality.
3. Surfaces: Clean and dry at time of application.
4. Thinning and intermixing: Not permitted unless recommended by manufacturer.
5. Overpainting: Do not paint over intumescent strips or silicone mastics.
6. Priming coats: Apply as soon as possible on same day as preparation is completed.
7. Finish
   7.1. Even, smooth and of uniform colour.
   7.2. Free from brush marks, sags, runs and other defects.
   7.3. Cut in neatly.
8. Doors, opening windows and other moving parts: Ease before coating and between coats.

65 Concealed joinery surfaces

1. General: After priming, apply additional coatings to surfaces that will be concealed when component is fixed in place.

68 Staining wood

1. Primer: Apply, if recommended by stain manufacturer.
2. Application: Apply in flowing coats and brush out excess stain to produce uniform appearance.

69 Varnishing wood

1. First coat: Thin with white spirit
   1.1. Brush well in and lay off avoiding aeration.
2. Subsequent coats: Provide light key along the grain between coats.

70 External doors

1. Bottom edges: Prime and coat before hanging.

75 Bead glazing to coated wood

1. Before glazing: Apply first two coats to rebates and beads.

80 Linseed oil putty glazing

1. Setting: Allow putty to set for seven days.
2. Sealing
   2.1. Within a further 14 days, seal with a solvent-borne primer.
   2.2. Fully protect putty with coating system as soon as it is sufficiently hard.
   2.3. Extend finishing coats on to glass up to sight line.

Ω End of Section

P10
Sundry insulation/ proofing work

To be read with preliminaries/ general conditions.

5 Eaves roof ventilators for existing roofs

1. Manufacturer: Contractor's choice
2. Eaves free air space (minimum): As recommended in BRE Report 262.

10 Loft insulation

1. Manufacturer: Rockwool Ltd.
2. Material: Rock wool to BS EN 13162 Mineral wool to BS EN 13162
   - 2.1. Thickness: To achieve a U-value of 0.16 W/m²K
3. Installation requirements
   - 3.1. Standard: To BS 5803-5
   - 3.2. Location: Laid perpendicular over suspended ceiling.
   - 3.3. Insulation widths: Widest practical.
   - 3.4. Joints: Butted, no gaps.
   - 3.5. Insulation: Fitted neatly around rafter ends and extended over wall plates.
   - 3.6. Eaves ventilation: Unobstructed.
   - 3.7. Service holes: Sealed, debris removed before laying insulation.

10 Mineral wool slab insulation Type A

1. Manufacturer: ROCKWOOL Ltd
   - 1.1. Contact details
     - 1.1.1. Address: ROCKWOOL Ltd
       Wern Tarw
       Pencoed
       Bridgend
       United Kingdom
       CF35 6NY
     - 1.1.2. Telephone: +44 (0)1656 862621
     - 1.1.3. Web: https://www.rockwool.com/uk/
     - 1.1.4. Email: info@rockwool.com
   - 1.2. Product reference: Twinroll RWA45
2. Installation requirements
   - 2.1. Standard: To BS 5803-5
   - 2.2. Location: Laid perpendicular, above suspended ceiling.
   - 2.3. Insulation widths: Widest practical.
   - 2.4. Joints: Butted, no gaps.
   - 2.5. Insulation: Fitted neatly around rafter ends and extended over wall plates.
   - 2.6. Eaves ventilation: Unobstructed.
   - 2.7. Service holes: Sealed, debris removed before laying insulation.

15 Insulation fitted between rafters

1. Manufacturer: Contractor's choice

2. Material: Rigid slab
   2.1. Thickness: 100 mm
3. Installation requirements
   3.1. General: Insulation to be friction fitted between rafters with no gaps.
   3.2. Joints: Butted, no gaps.
   3.3. Fasteners: Used where necessary to retain insulation and/or prevent slumping.
   3.4. Vapour control facing (if specified): Fit insulation with facing on warm side. Staple overlap (if provided) to underside of rafters; tape joints between adjacent overlaps using vapour impermeable adhesive tape.
   3.5. Air space above insulation: 50mm minimum
   3.6. Eaves ventilation: Unobstructed

60 Air and vapour control layer

1. Description: TO TIMBER STUDS AND METAL FRAMING.
2. Manufacturer: Contractor's choice
3. Material: 500 gauge virgin polyethylene
4. Minimum vapour resistance: 250 MN s/g
5. Installation requirements
   5.1. Setting out: Joints minimized.
   5.2. Method of fixing: Double sided sealant tape to metal framing, Staples at 250 mm centres maximum along timber supports. Membrane not sagging
   5.3. Joints: At supports only, lapped 150 mm minimum.
   5.4. Openings: Membrane fixed to reveals.
   5.5. Joints and edges: Sealed with double sided tape with vapour resistivity not less than the air and vapour control layer.
   5.6. Penetrations: Sealed.

Ω End of Section

P20
Unframed isolated trims/ skirtings/ sundry items

To be read with preliminaries/ general conditions.

10 Softwood

1. Description: SKIRTINGS GENERALLY
2. Quality of wood and fixing: To BS 1186-3.
3. Moisture content at time of fixing: 9 -13%
4. Profile: To match existing
   4.1. Finished size: To match existing
5. Fixing: Contractor's choice.

80 Installation generally

1. Joinery workmanship: As section Z10.
2. Metal workmanship: As section Z11.
3. Methods of fixing and fasteners: As section Z20 where not specified.
4. Straight runs: To be in one piece, or in long lengths with as few joints as possible.
5. Running joints: Location and method of forming to be agreed where not detailed.
6. Joints at angles: Mitre, unless shown otherwise
7. Position and level: To be agreed where not detailed.

Ω End of Section

Q50
Site/ street furniture/ equipment

Gates, barriers and parking controls - Not Used

Site and street furniture - Not Used

Installation

530 Preservative treated timber

1. Surfaces exposed by minor cutting and drilling: Treated by immersion or with two flood coats of a solution recommended for the purpose by main treatment solution manufacturer.
2. Heavily worked sections: Re-treat.

540 Building in to masonry walls

1. Components being built in: Accurately positioned and securely supported. Set in mortar and pointed neatly to match adjacent walling.
2. Temporary support: Maintain for 48 hours (minimum) and prevent disturbance.

560 Site painting

1. Timing: Prepare surfaces and apply finishes as soon as possible after fixing.

Ω End of Section

R10
Rainwater drainage systems

To be read with preliminaries/ general conditions.

16 PVC-U gutters

1. Standard: To the relevant parts of BS EN 607 and BS EN 1462, Kitemark certified.
2. Manufacturer: Contractor's choice
3. Profile: To match existing.
4. Nominal size: To match existing.
5. Colour: To match existing.
6. Brackets: To match existing.
   - 6.1. Fixings: To match existing.
     - 6.1.1. Size: To match existing.

26 Proprietary rainwater outlets

1. Manufacturer: Contractor's choice
2. Outlet: Type and direction to suit pipework, with suitable adaptors and connections.

39 Insulation to internal pipelines

1. Material: Preformed flexible closed cell split tube
2. Thermal conductivity (maximum): 0.045 W/m·K
3. Manufacturer: Contractor's choice
4. Thickness: Submit proposals

50 Installation generally

1. Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
2. Discharge of rainwater: Complete, and without leakage or noise nuisance.
3. Components: Obtain from same manufacturer for each type of pipework and guttering.
4. Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
5. Fixings and fasteners: As section Z20.
6. Protection
   - 6.1. Fit purpose made temporary caps to prevent ingress of debris.
   - 6.2. Fit access covers, cleaning eyes and blanking plates as the work proceeds.

60 Gutters laid to fall

1. Setting out: To true line and even gradient to prevent ponding or backfall. Position high points of gutters as close as practical to the roof and low points not more than 50 mm below the roof.
2. Joints: Watertight.
3. Roofing underlay: Dressed into gutter.

65 Gutters laid level

1. Setting out: Level and as close as practical to roof.
2. Joints: Watertight.
3. Roofing underlay: Dressed into gutter.

70 Pipework

1. Fixing: Securely, plumb and/ or true to line with additional supports as necessary to support pipe collars, particularly at changes in direction.
2. Cut ends of pipes and gutters: Clean and square with burrs and swarf removed.

75 Fixing insulation to internal pipelines and gutters

1. Fixing: Secure and neat. Provide continuity at supports and leave no gaps. Fix split pipe insulation with the split on 'blind' side of pipeline.
   1.1. Method: Contractor's choice
2. Timing: Do not fit insulation until completion of pipe airtightness or leakage testing.

80 Internal pipework test –England,Wales,IrelandandNorthern Ireland

1. Preparation: Temporarily seal open ends of pipework with plugs.
2. Test apparatus: Connect a 'U' tube water gauge and air pump to pipework via a plug.
3. Testing: Pump air into pipework until gauge registers 38 mm.
4. Required performance
   4.1. Allow a period for temperature stabilization, after which the pressure of 38 mm is to be maintained without loss for not less than 3 minutes.

92 Gutter test

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

Ω End of Section

T90
Heating systems

General

110 Heating system

1. Description: Air conditioning system with split ducting serving 4 recessed blowers.
2. Heat source: Air source heat pumps, air-to-air
3. Flues: Submit design and cost proposals
4. Pipelines: Submit design and cost proposals
5. Valves: Submit design and cost proposals
6. Circulating pumps: Submit design and cost proposals
7. Insulation: Submit design and cost proposals
8. Heat emitters: Submit design and cost proposals
9. System control: Submit design and cost proposals
10. Completion: Documentation

System performance

210 Design of heating systems

1. Description: To the main hall area.
2. Design: Complete the design and detailing of the heating system.
3. Standards: To BS EN ISO 11855-1, -2, -3 and -5, and BS ISO 11855-6 and -7
4. Proposals: Submit drawings (showing equipment positions and pipeline routes and sizes), technical information, calculations and manufacturer's literature

220 Basic design temperatures

1. Room temperatures: Design the system to provide the following temperatures for the specified ventilation rates: 18 degrees celsius, for 1.5 air changes per hour.
2. External temperature: Submit proposals
3. Submittals: Provide BTU calculations and certification.

225 Thermal insulation of building fabric

1. Heat loss calculations: Base on the following maximum U-values:
    1.1. Walls: 0.16W/m2K
    1.2. Roofs: 0.16W/m2K

226 Thermal insulation of building fabric

1. Heat loss calculations: Base on U-values calculated from the fabric by the principal designer.
2. Submittals: Provide BTU calculations.

230 System operating parameters

1. Design flow temperature (maximum): Contractor's design.
2. Temperature difference across primary heating circuit (maximum): Contractor's design.
3. Temperature difference across primary hot water circuit (maximum): Contractor's design.

250 System control

1. Temperature and time control Fully automatic and independent.

Products

500 Air-to-air heat pumps

1. Description: To main hall area.
2. Standards: Contractor's design.
3. Type: Contractor's design.
4. Manufacturer: Contractor's design.
   4.1. Product reference: Contractor's design.
5. Output: Contractor's design.

Execution

610 Installation generally

1. Standard: To BS EN 14336
2. Performance: Free from leaks and the audible effects of expansion, vibration and water hammer
3. Fixing of equipment, components and accessories: Fix securely, parallel or perpendicular to the structure of the building
4. Preparation: Immediately before installing tanks and cisterns on a floor or platform, clear the surface completely of debris and projections
5. Corrosion resistance: In locations where moisture is present or may occur, use corrosion-resistant fittings/ fixings and avoid contact between dissimilar metals by use of suitable washers, gaskets, etc.

630 Pipeline installation

1. Appearance: Install pipes straight, and parallel or perpendicular to walls, floors, ceilings, and other building elements
2. Pipelines finish: Smooth, consistent bore, clean, free from defects, e.g. external scratching, toolmarks, distortion, wrinkling, and cracks
3. Concealment: Generally conceal pipelines within floor, ceiling and/ or roof voids
4. Access: Locate runs to facilitate installation of equipment, accessories and insulation and allow access for maintenance
5. Arrangement of hot and cold pipelines: Run hot pipelines above cold where routed together horizontally. Do not run cold water pipelines near to heating pipelines or through heated spaces
6. Electrical equipment: Install pipelines clear of electrical equipment. Do not run pipelines through electrical enclosures or above switch gear distribution boards or the like
7. Insulation allowance: Provide space around pipelines to fit insulation without compression

640 Pipeline fixing

1. Fixing: Secure and neat
2. Joints, bends and offsets: Minimize
3. Pipeline support: Prevent strain, e.g. from the operation of taps or valves
4. Drains and vents: Fix pipelines to falls. Fit draining taps at low points and vents at high points
5. Thermal expansion and contraction: Allow for thermal movement of pipelines. Isolate from structure. Prevent noise or abrasion of pipelines caused by movement. Sleeve pipelines passing through walls, floors or other building elements
6. Dirt, insects or rodents: Prevent ingress

650 Joints in copper pipelines

1. Preparation: Cut pipes square. Remove burrs
2. Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth
3. Bends: Do not use formed bends on exposed pipework, except for small offsets. Form changes of direction with radius fittings
4. Adaptors for connecting dissimilar materials: Purpose designed
5. Substrate and plastics pipes and fittings: Do not damage, e.g. by heat when forming soldered joints
6. Flux residue: Clean off

660 Joints in thermoplastics pipelines

1. Fittings and accessories for joints: Purpose designed
2. Preparation: Cut pipes square. Remove burrs
3. Joints: Neat, clean and fully sealed. Install pipe ends into joint fittings to full depth
4. Compression fittings: Do not overtighten

680 Installation of heat pumps generally

1. Standards: To BS EN 378-3 and BS EN 378-4
2. Fixing of equipment, components and accessories: Fix securely on purpose-made bases or supports
3. External units: Protect from high winds. Prevent snow from blocking air flow
4. Access: Provide for inspection and servicing of heat pumps and ancillary equipment
5. Refrigerant lines: Short and straight
6. Location of outdoor unit: Away from windows and adjacent buildings

Completion

810 Testing

1. Standard: To BS EN 14336
2. Notice (minimum): Three days
3. Preparation: Secure and clean pipework and equipment. Fit cistern/ tank covers
4. Leak testing: Start boiler and run the system until parts are at normal operating temperatures and then allow to cool to cold condition for a period of three hours
5. Pressure testing: For systems fed directly from the mains and systems downstream of a booster pump: At both hot and cold conditions, joints, fittings and components must be free from leaks and signs of physical distress when tested for at least one hour when applying a test pressure equal to 1.5 times the maximum pressure that the installation or relevant part is designed to be subjected to in operation For systems fed from storage: At both hot and cold conditions, joints, fittings and components must be free from leaks and signs of physical distress when tested for at least one hour when applying a test pressure equal to the pressure produced when the storage cistern is filled to its normal maximum operating level For inaccessible or buried pipelines: At both hot and cold conditions, joints, fittings and components must be free from leaks and signs of physical distress when tested for at least one hour when carrying out hydraulic pressure testing to twice the working pressure

820 Setting to work and commissioning

1. Equipment: Check and adjust operation of equipment, controls and safety devices
2. Outlets: Check operation of outlets for satisfactory rate of flow and temperature

840 Documentation

1. Manufacturers' operating and maintenance instructions: Submit for equipment and controls
2. System operating and maintenance instructions: Submit for the system as a whole giving optimum settings for controls
3. Record drawings: Submit drawings showing the location of circuits and operating controls

850 Labels

1. Valve labels: Provide labels on isolating and regulating valves on primary circuits, stating their function

Ω End of Section

U90
General ventilation

General

110 Ventilation for heating appliances

1. Description: To main hall area.
2. Ventilators: Submit proposals

System performance - Not Used

Products

330 Roof ridge air intake terminals

1. Description: To ridge line.
2. Manufacturer: Contractor's choice
   2.1. Product reference: Contractor's choice
3. Accessories: Contractor's choice

Execution

610 Passive stack ventilation systems

1. Installation: Install ductwork in runs that are as short and straight as possible, with smooth curvature to offsets.
2. Arrangement: Do not install ducts at more than 45° from vertical.
3. Air leakage: Prevent leakage where ducts enter rooms and around inlet grilles.

620 Installing ventilators for heat appliances

1. Free area: Do not fit with insect mesh, or any means of adjusting or restricting the opening.

660 Flexible ductwork

1. Installation: Fully extend without overstretching.
2. Support: Form smooth flowing curves without kinking, sagging or slumping.

670 Rigid ductwork generally

1. Joints: Seal. Provide a robust airtight installation.
2. Support: Do not distort ductwork or reduce cross-sectional area. Do not strain joints.
3. Falls: Fall away from fans, dampers and other in-line accessories.
4. Sleeves: Locate where ducts pass through building fabric. Bed solidly to the surrounding construction. Leave a gap of 10-20 mm between sleeve and duct and fill completely.
5. Fire-rated ductwork sleeves: Install in accordance with ASFP Blue book.

680 Installing condensate drains

1. Access: Provide for cleaning.
2. Outlet: Submit proposals

690 Site-applied insulation

1. Location: Fit insulation to ductwork in unheated spaces.

2. Installation: Fix securely. Leave no gaps. Make continuous.

Completion

910 Commissioning

1. Standard: In accordance with BS EN 14134.
2. Ventilation system: Balance airflow using methods recommended by the system manufacturer.
3. Operation: Examine ductwork for leakage. Test the operation of fans, equipment, controls and sensors. Verify correct operation. Submit report.

920 Operation and maintenance

1. Operating and maintenance instructions: Submit copies of manufacturers' operating and maintenance instructions for equipment and controls.
2. Documents: Include all test and fire certificates.
3. Tools: Supply tools for operation, maintenance and cleaning purposes, including keys for valves and vents.

Ω End of Section

V90
Electrical systems

General

110 Low-voltage supply

1. Nature of current: Alternating.
2. Phase: Single
3. Voltage: 230 V
4. Source: Existing

System performance

210 Design of low-voltage electrical installation generally

1. Design and detailing: Complete for the electrical installation.
2. Standards: In accordance with BS 7671 and the requirements of the electricity distributor.
3. Protective devices: Coordinate the selection and adjustment of protective device settings to achieve discrimination throughout the fault level range. Grade so that a fault on any outgoing branch circuit is cleared by the switching device installed in the faulted branch circuit without affecting the other outgoing branch circuits
4. Proposals: Submit design and cost proposals

235 Arrangement of particular circuits

1. Separation: Divide installation into separately controlled circuits.
    1.1. Separately controlled circuits: Air conditioning units.

240 Design of general lighting system

1. Purpose: To main hall area.
2. Design and detailing: Complete for the general lighting system.
3. Standard: To BS EN 12464-1
4. Room: Main hall
    4.1. Maintained average illuminance: Contractor's design.
    4.2. Glare index: Contractor's design.
    4.3. Controls: Contractor's design.
5. Maintenance: As required.

250 Design of emergency lighting system

1. Purpose: To main hall area.
2. Design and detailing: Complete for the emergency lighting system.
3. Standards
    3.1. Emergency escape lighting: In accordance with BS 5266-1.
    3.2. Escape route, open area, high risk task area and standby lighting: To BS EN 1838 and BS EN 50172.
4. System classification: Submit design and cost proposals
5. Method of testing: Submit design and cost proposals

280 Earthing and bonding design

1. Design: Complete the design of the earthing and bonding systems.
2. Earthing, main protective bonding, supplementary bonding and protective conductors: In accordance with BS 7671 and BS 7430
3. Requirements: Submit proposals

Products

455 Lighting switches

1. Standard: To BS EN 60669-1.
2. Poles: Contractor's choice
3. Plate
   - 3.1. Material: Contractor's choice
   - 3.2. Finish: Contractor's choice
   - 3.3. Insert colour: Contractor's choice

510 General purpose luminaires

1. Description: To main hall.
2. Manufacturer: Contractor's choice
3. Photometric performance: To BS EN 13032-1.

511 Lamps generally

1. Manufacturer: Contractor's choice
   - 1.1. Lamps of the same type and rating: Same manufacturer.
2. Standards
   - 2.1. Compact fluorescent lamps: To BS EN 60901 and BS EN 61199.
   - 2.2. High-pressure mercury lamps: To BS EN 60188 and BS EN 62035.
   - 2.3. High-pressure sodium lamps: To BS EN 62035.
   - 2.4. Light-emitting diodes (LEDs): To BS EN IEC 62031.
   - 2.5. Metal halide lamps: To BS EN 62035.
   - 2.6. Tubular fluorescent lamps
     - 2.6.1. Single-capped lamps: To BS EN 60901 and BS EN 61199.
     - 2.6.2. Double-capped lamps: To BS EN 60081 and BS EN 61195.
   - 2.7. Tungsten halogen lamps: To BS EN 60432-2 and BS EN 60357.

580 Earthing and bonding equipment

1. Earth electrodes: In accordance with BS 7430.
2. Electrode type: Contractor's choice
3. Earth clamps: To BS 951.

Execution

610 Electrical installation generally

1. Standard: In accordance with BS 7671.

615 Installing connection to incoming supply

1. Main switchboard/ distribution board: Connect to main incoming metering equipment.
2. Nature of connection: Liaise with the DNO to ensure the correct size, quantity and type of cable is provided for connection to their equipment.

670 Installing trunking/ ducting systems

1. Positioning: Accurate with respect to equipment served, and parallel with other services and where relevant, floor level and other building lines.
2. Access: Provide space encompassing cable trunking to permit access for installing and maintaining cables.
3. Jointing
   - 3.1. Number of joints: Minimize.
   - 3.2. Lengths of trunking/ ducting: Maximize.
   - 3.3. Steel systems: Mechanical couplings. Do not weld. Fit a copper link at each joint to ensure that satisfactory electrical continuity is maintained between the separate sections of trunking, equipment and accessories.
4. Movement: Fix securely. Restrain floor-mounted systems during screeding.
5. Junctions and changes of direction: Proprietary jointing units.
6. Internal fire barriers: Provide to maintain integrity of fire compartment.

680 Cable routes

1. Cables generally: Conceal wherever possible
   - 1.1. Concealed cable runs to wall switches and outlets: Align vertically or horizontally with the accessory.
2. Exposed cable runs: Submit proposals
   - 2.1. Orientation: Straight, vertical and/ or horizontal and parallel to walls.
3. Distance from other services running parallel: 150 mm minimum

685 Installing cables

1. General: Install cables neatly and securely. Protect against accidental damage, adverse environmental conditions, mechanical stress and deleterious substances.
2. Jointing: At equipment and terminal fittings only.
3. Cables passing through walls: Sleeve with conduit bushed at both ends
4. Cables surrounded or covered by thermal insulation: Derate accordingly
5. Cable guards: Fit where cables are vulnerable to mechanical damage

690 Installing cables in plaster

1. Protection: Cover with galvanized steel cable capping nailed to substrate

705 Installing armoured cable

1. Temperature: Do not start installation if cable or ambient temperature is below 0°C, or has been below 0°C during the previous 24 hours.

710 Installing PVC-sheathed cable

1. Temperature: Do not install cables if ambient temperature is below 5°C.

720 Installing electrical accessories and equipment

1. Location: Contractor's choice

2. Arrangement: Coordinate with other wall- or ceiling-mounted equipment.
3. Positioning: Accurately and square to vertical and horizontal axes.
4. Alignment: Align adjacent accessories on the same vertical or horizontal axis.
5. Mounting: Contractor's choice
6. Accessory face plates: Free from any traces of plaster, grout and paint or similar.

760 Equipment labelling

1. Electrical equipment: Install labels indicating purpose.
2. Voltage warning notices
   2.1. Location: Apply to equipment in a position where it can be seen prior to gaining access to live parts when the voltage within exceeds 230 V.
   2.2. Format: To BS EN ISO 7010, functional reference number, W012, includes warnings of the voltage present.
3. Distribution boards: Card circuit chart. Fit to the inside of each unit. Include typed information identifying the outgoing circuit references, their device rating, cable type, size, circuit location and details. Label each outgoing way corresponding to the circuit chart
4. Sub-main cables: Label at both ends with circuit reference using proprietary cable marker sleeves

Completion

830 Inspection and testing generally

1. Standard: In accordance with BS 7671.
2. Notice before commencing tests (minimum): 24 hours
3. Labels and signs: Fix securely before system is tested
4. Certificates: Submit
   4.1. Number of copies: Minimum of 2.

860 Inspection and testing of emergency lighting systems

1. Standard: In accordance with BS 5266-1.
2. Certificate of testing: Submit
   2.1. Standard: Submit proposals
   2.2. Number of copies: 2
3. System log book: To BS 5266-1.

890 Maintenance

1. Servicing and maintenance: Outline servicing and maintenance requirements.
   1.1. Duration: To be confirmed by contract administrator.

Ω End of Section

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