

**CEH Wallingford Washroom Refurbishment  
Links 3 & 5  
Preliminaries**

**April 2015**

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A NEC3 Engineering and Construction Contract (ECSC) Short

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**A**  
**NEC3 Engineering and Construction Contract (ECSC)**  
**Short Contract**

**A10  
PROJECT PARTICULARS**

110 THE PROJECT

- Name: Centre for Ecology & Hydrology
- Nature: CEH Wallingford Washroom Refurbishment (Links 3 & 5)
- Location: Maclean Building Benson Lane Crowmarsh Gifford  
Wallingford Oxfordshire OX10 8BB

120 EMPLOYER (CLIENT)

- Name: Centre for Ecology & Hydrology
- Address: Maclean Building Benson Lane Crowmarsh  
Gifford Wallingford Oxfordshire OX10 8BB

140 EMPLOYER'S DELEGATE

- Name: Centre for Ecology & Hydrology
- Address: Maclean Building Benson Lane Crowmarsh  
Gifford Wallingford Oxfordshire OX10 8BB
- Contact: Denise Dolton

## **A11 TENDER AND CONTRACT DOCUMENTS**

### 110 TENDER DOCUMENTS

- The tender documents are:

The Specification comprising of:

CEH Wallingford Washroom Refurbishment (Links 3 & 5) - Architectural Specification  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - M&E Services Specification  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) – Preliminaries  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - Designers Risk Assessment

The following drawings:

CEH Wallingford Washroom Refurbishment (Links 3 & 5) - ML (57)01 Ventilation  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - ML (56)01 Heating  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - ML (53)01 Water  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - ML (52)01 Drainage  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - EL (62, 63 & 68) 01 Electrical  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - Proposed Floor Plans  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - Proposed Elevations  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - Location Plan  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - Existing plans and demolitions  
CEH Wallingford Washroom Refurbishment (Links 3 & 5) - Building Layout

### 120 CONTRACT DRAWINGS

- The Contract Drawings: The same as the tender drawings.
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### 160 PRECONSTRUCTION INFORMATION

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

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## A12 THE SITE/ EXISTING BUILDINGS

### 110 THE SITE

- Description: The site is freehold & the original phases were constructed in 1974. The site covers 4.37ha and has a gross building area of 13,860m<sup>2</sup> consisting of two storey interlinking buildings and external glasshouses and support facilities. The site has been significantly extended in three stages: 1978, 1996 & 2010 together with an on-going programme of internal and external refurbishment.

### 120 EXISTING BUILDINGS ON/ ADJACENT TO THE SITE

- Description: The site is the CEH's headquarters near Wallingford, in the Thames Valley to the west of London. The site is located in the village of Crowmarsh Gifford which is a semi-rural area adjacent to the commercial enterprises of Howberry Park and the south Oxfordshire District Council Offices. There are other buildings on the site which include a purpose built laboratory building and scientific research facilities.

### 140 EXISTING UTILITIES AND SERVICES

- Drawings: (Information shown is indicative only): Refer to the Pre- Construction information.

The contractor should ensure his familiarity with the existing drainage layouts, as provided by the client.

- Other information: Contractor to check as works progress.

### 200 ACCESS TO THE SITE

- Description: Access is via a tarmac road off Benson Lane, Crowmarsh Gifford.
- Limitations: All deliveries are to be made during normal working hours.

### 210 PARKING

- Restrictions on parking of the Contractor's and employees' vehicles: Contractors compound and access to Links 3 and 5 are shown on the Location Plan.

### 220 USE OF THE SITE

- General: Do not use the site for any purpose other than carrying out the Works.
- Limitations: the undertaking of construction works in connection with the project.

### 230 SURROUNDING LAND/ BUILDING USES

- General: Adjacent or nearby uses or activities are as follows:
  - The surrounding land and adjacent buildings are mainly used for commercial, residential and agricultural purposes.

### 240 HEALTH AND SAFETY HAZARDS

- General: The nature and condition of the site/ building cannot be fully and certainly ascertained before it is opened up. However the following hazards are or may be present:
  - Refer to the Pre-construction information.
- Information: The accuracy and sufficiency of this information is not guaranteed by the Employer or the Employer's representative. Ascertain if any additional information is required to ensure the safety of all persons and the Works.
- Site staff: Draw to the attention of all personnel working on the site the nature of any possible contamination and the need to take appropriate precautionary measures.

**A13**  
**DESCRIPTION OF THE WORK**

110 PREPARATORY WORK BY OTHERS

- Works: Presently no other works outside of this contract are envisaged during the undertaking of the project.

120 THE WORKS

This project is to refurbish the existing staff and visitor washroom facilities with specific drivers for water and electrical saving devices and initiatives together with a functional and fit for purpose refurbishment of the spaces including sanitary ware, flooring, wall tiling, ceilings, lighting, doors etc

- Description: Dismantling & Disposal of existing fabric finishes and sanitary ware  
Fabrication, Assembly and installation of new finishes, partitions, units  
Associated internal and external builders work incl. Drainage  
Mechanical and Electrical works including plumbing, lighting & ventilation

## **A20 NEC3 ENGINEERING AND CONSTRUCTION SHORT CONTRACT**

### **NEC3 ENGINEERING AND CONSTRUCTION SHORT CONTRACT**

- The Conditions of Contract: The core clauses, conditions and secondary Options indicated, for the NEC3 Engineering and Construction Short Contract (April 2013).
- Housing Grants Construction and Regeneration Act 1996: does not apply.
- Requirement: Allow for the obligations, liabilities and services described therein against the headings listed:

### **CONTRACT DATA**

#### **THE EMPLOYER**

- See clause A10/120.

#### **THE WORKS**

- The Works: Summarised in clause A13/120 and defined in the description, drawings and specifications of the Works Information.

#### **THE SITE**

- The site: Described in clause A12/110 and detailed in Site Information.

#### **STARTING DATE**

- The starting date is: 13<sup>th</sup> July 2015.

#### **COMPLETION DATE**

- The completion date is: 21<sup>st</sup> August 2015.

#### **PERIOD FOR REPLY**

- The period for reply is: 4 weeks.

#### **DEFECTS DATE**

- The defects date is: 52 weeks after completion.

#### **DEFECTS CORRECTION PERIOD**

- The defects correction period is: two weeks.

#### **DELAY DAMAGES**

- The delay damages are £100 per day.

#### **ASSESSMENT DAY**

- The assessment day is the: 13<sup>th</sup> day of each month.

#### **RETENTION**

- The retention is: 5% (2.5% on practical completion)

**ADJUDICATOR**

- The Adjudicator is:
    - Name: The Vice President of the Royal Institution of Chartered Surveyors.
    - Address: RICS Contact Centre Surveyor Court Westwood Way Coventry CV4 8JE.
    - Tel: 0870 3331600.
- contactrics@rics.org .

**LIMITATION OF LIABILITY**

- The Contractor is not liable to the Employer for loss of or damage to the Employer's property in excess of: £5,000,000 for any one event.

**INSURANCE**

- The Employer provides this insurance:
  - N/A.

**INSURANCE COVER**

- The minimum amount of cover for the third insurance stated in the Insurance Table is:

£5,000,000.

- The minimum amount of cover for the fourth insurance stated in the Insurance Table is:

£10,000,000.

**ARBITRATION**

- If the tribunal is arbitration, the arbitration procedure is: Construction Industry Model Arbitration Rules (CIMAR).

**CLIENT**

- The Client: The Employer defined in clause A10/120.

**PRICE LIST**

**PRICE LIST**

- Pricing the Works: By Schedule of works.
- Basis for valuation of variations: A standard price book, see clause A10/A20.

**WORKS INFORMATION**

**2 – DRAWINGS**

- Drawings applicable to this contract:
  - Listed in clause A11/110.
- Refer to the pre construction information pack.

**3 - SPECIFICATIONS**

- The Specification documents:
  - Schedules of Work and reference documents including Preliminaries.
  - Preconstruction information see clause A11/160.

4 - CONSTRAINTS ON HOW THE CONTRACTOR PROVIDES THE WORKS

- Construction hazards: As clause A34/120.
- Material hazard: As clause A34/130.
- Choice of subcontractor for specific categories of work: Mechanical and Electrical contractors must be used.

All other operatives must be sufficiently trained and hold current CSCS Health and Safety training Cards.

- Considerate Constructors Scheme: As clause A32/115.
- Occupier's rules and regulations: As clause A34/190.
- Other constraints: Works must be programmed and managed to consider the presence of occupiers and public in and around the building and neighbouring properties.

5 - REQUIREMENTS FOR THE PROGRAMME

- Programme:
  - Submission: As clause A32/210.
  - Updating: As clause A32/250.

**SITE INFORMATION**

SITE INFORMATION

- Information: Listed in section A12 of the Preliminaries.
- Publicly available information: Below ground service record information.
- Other: Pre construction information.

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## **A30 TENDERING/ SUBLETTING/ SUPPLY**

### **MAIN CONTRACT TENDERING**

#### 110 SCOPE

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

#### 145 TENDERING PROCEDURE

- General: In accordance with the principles of NBS Guide to Tendering: for construction projects, this guide replaces the withdrawn NJCC codes of procedure. It sets down a procedure for managing tenders for construction work based on up-to-date legislation.

#### 160 EXCLUSIONS

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

#### 170 ACCEPTANCE OF TENDER

- Acceptance: No guarantee is offered that any tender will be recommended for acceptance or be accepted, or that reasons for non-acceptance will be given.
- Costs: No liability is accepted for any cost incurred in the preparation of any tender.

#### 180 CDM PLANNING PERIOD

- Minimum: 1 Month ending on the date of possession.

#### 190 PERIOD OF VALIDITY

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

### **PRICING/ SUBMISSION OF DOCUMENTS**

#### 210 PRELIMINARIES IN THE SPECIFICATION

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

#### 220 PRICING OF PRELIMINARIES

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

#### 250 PRICED DOCUMENTS

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

#### 310 TENDER

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

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#### 440 SCHEDULE OF RATES

- Schedule of rates (unpriced): Included with the tender documents. The Contractor may insert additional items. All items must be fully priced.
- Fully priced copy: Submit fully with tender.

#### 445 STANDARD PRICE BOOK

- Basis for valuation: A standard price book will be used:
  - The book: Spons Architects and Builders Price Book 2013.
  - Date of publication: September 2012.
- Percentage adjustments which, subject to agreement, the Contractor wishes to apply to the published rates: Submit details.

#### 480 PROGRAMME

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

#### 530 SUBSTITUTE PRODUCTS

- Details: If products of different manufacture to those specified are proposed, submit details with the tender giving reasons for each proposed substitution. Substitutions, which have not been notified at tender stage, may not be considered.
- Compliance: Substitutions accepted will be subject to the verification requirements of clause A31/200.

#### 550 HEALTH AND SAFETY INFORMATION

- Content: Describe the organisation and resources to safeguard the health and safety of operatives, including those of subcontractors, and of any person whom the Works may affect.
- Include:
  - A copy of the contractor's health and safety policy document, including risk assessment procedures.
  - Accident and sickness records for the past five years.
  - Records of previous Health and Safety Executive enforcement action.
  - Records of training and training policy.
  - The number and type of staff responsible for health and safety on this project with details of their qualifications and duties.
- Submit: Within One week of request.

#### 570 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Content:
  - Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
  - Details of the management structure and responsibilities.
  - Arrangements for issuing health and safety directions.
  - Procedures for informing other contractors and employees of health and safety hazards.
  - Selection procedures for ensuring competency of other contractors, the self-employed and designers.
  - Procedures for communications between the project team, other contractors and site operatives.
  - Arrangements for cooperation and coordination between contractors.
  - Procedures for carrying out risk assessment and for managing and controlling the risk

- .
- Emergency procedures including those for fire prevention and escape.
- Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
- Arrangements for welfare facilities.
- Procedures for ensuring that all persons on site have received relevant health and safety information and training.
- Arrangements for consulting with and taking the views of people on site.
- Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
- Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
- Review procedures to obtain feedback.

590 SITE WASTE MANAGEMENT PLAN

- Person responsible for developing the Plan: The Contractor.
- Content: Include details of:
  - Principal Contractor for the purposes of the regulations.
  - Location of the site.
  - Description of the project.
  - Estimated project cost.
  - Types and quantities of waste that will be generated.
  - Resource management options for these wastes including proposals for minimization/ reuse/ recycling.
  - The use of appropriate and licensed waste management contractors.
  - Record keeping procedures.
  - Waste auditing protocols.
- Submit with tender.

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## **A31 PROVISION, CONTENT AND USE OF DOCUMENTS**

### **DEFINITIONS AND INTERPRETATIONS**

#### **110 DEFINITIONS**

- Meaning: Terms, derived terms and synonyms used in the preliminaries/ general conditions and specification are as stated therein or in the appropriate British Standard or British Standard glossary.

#### **120 COMMUNICATION**

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

#### **130 PRODUCTS**

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

#### **135 SITE EQUIPMENT**

- Definition: All appliances or things of whatsoever nature required in or about the construction for completion of the Works but not materials or other things intended to form or forming part of the Permanent Works.
- Includes: Construction appliances, vehicles, consumables, tools, temporary works, scaffolding, cabins and other site facilities.

#### **160 TERMS USED IN SPECIFICATION**

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

- System: Equipment, accessories, controls, supports and ancillary items, including installation, necessary for that section of the work to function.

#### 170 MANUFACTURER AND PRODUCT REFERENCE

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

#### 200 SUBSTITUTION OF PRODUCTS

- Products: If an alternative product to that specified is proposed, obtain approval before ordering the product.
- Reasons: Submit reasons for the proposed substitution.
- Documentation: Submit relevant information, including:
  - manufacturer and product reference;
  - cost;
  - availability;
  - relevant standards;
  - performance;
  - function;
  - compatibility of accessories;
  - proposed revisions to drawings and specification;
  - compatibility with adjacent work;
  - appearance;
  - copy of warranty/ guarantee.
- Alterations to adjacent work: If needed, advise scope, nature and cost.
- Manufacturers' guarantees: If substitution is accepted, submit before ordering products.

#### 210 CROSS REFERENCES

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

#### 220 REFERENCED DOCUMENTS

- Conflicts: Specification prevails over referenced documents.

#### 230 EQUIVALENT PRODUCTS

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

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**240 SUBSTITUTION OF STANDARDS**

- Specification to British Standard or European Standard: Substitution may be proposed complying with a grade or category within a national standard of another Member State of the European Community or an international standard recognised in the UK.
- Before ordering: Submit notification of all such substitutions.
- Documentary evidence: Submit for verification when requested as detailed in clause A31/200. Any submitted foreign language documents must be accompanied by certified translations into English.

**250 CURRENCY OF DOCUMENTS**

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

**260 SIZES**

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

**DOCUMENTS PROVIDED ON BEHALF OF EMPLOYER****410 ADDITIONAL COPIES OF DRAWINGS/ DOCUMENTS**

- Copies: Two of each contract drawing and contract document will be issued free of charge (not counting any certified copies).
- Additional copies: Issued on request and charged to the Contractor.

**440 DIMENSIONS**

- Scaled dimensions: Do not rely on. All dimensions to be checked and confirmed on site.

**460 THE SPECIFICATION**

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

**DOCUMENTS PROVIDED BY CONTRACTOR/ SUBCONTRACTORS/ SUPPLIERS****510 DESIGN AND PRODUCTION INFORMATION**

- General: Complete the design and detailing of parts of the Works as specified.
  - Provide:
    - Production information based on the drawings, specification and other information.
    - Liaison to ensure coordination of the work with related building elements and services.
  - Master programme: Make reasonable allowance for completing design/ production information, submission, comment, inspection, amendment, resubmission and re-inspection.
  - Design/ production information: Submit two copies, one can be returned with comments. Ensure that any necessary amendments are made without delay.
  - Contractor's changes to Employer's Requirements: Support request for substitution or change with all relevant information.
  - Employer's amendments to Employer's Requirements: If considered to involve a change, which has not already been acknowledged as a change, notify without delay (maximum period 7 days), and do not proceed until instructed. Claims for extra cost, if made after it has been carried out, may not be allowed.
  - Final version of design/ production information: Submit one copy.
-

610 PRODUCTION INFORMATION

- Contractor/ Domestic subcontractor provide: TBA.
- Submit:
  - For comment and make any necessary amendments.
  - Sufficient copies of final version for distribution to all affected parties.

620 AS BUILT DRAWINGS AND INFORMATION

- Contractor designed work: Provide drawings/ information:
  - At least two weeks before the completion date.
- Submit: At least two weeks before date for completion.

630 TECHNICAL LITERATURE

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

640 MAINTENANCE INSTRUCTIONS AND GUARANTEES

- Components and equipment: Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
- Information location: In Building Manual.
- Emergency call out services: Provide telephone numbers for use after completion. Extent of cover: Twenty Four Hours Seven Days a week.

## **A32 MANAGEMENT OF THE WORKS**

### **GENERALLY**

#### **110 SUPERVISION**

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

#### **130 INSURANCE CLAIMS**

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

#### **140 CLIMATIC CONDITIONS**

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

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## PROGRAMME/ PROGRESS

### 210 PROGRAMME

- Master programme: Immediately when requested and before starting work on site submit in an approved form a master programme for the Works, which must include details of:

Work stages or elements of the construction as appropriate for the Works.

- Design and production information provided by the Contractor/Subcontractors/ Suppliers, including inspection and checking (see clause A31/560).

Planning and mobilisation by the Contractor.

- Earliest and latest start and finish dates for each activity and identify all critical activities.

Running in, adjustment, commissioning and testing of all engineering services and installations.

- Work by or on behalf of the Employer (see section A50) the nature and scope of which, the relationship with preceding and following work and any relevant limitations, are suitably defined in the Contract Documents.

- Exclusions: Where and to the extent that the programme implications for work which is not so defined are impossible to assess the Contractor should exclude it and confirm this when submitting the programme.

- Submit copies.

### 240 COMMENCEMENT OF WORK

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

### 250 MONITORING

- Progress: Record on a copy of the programme kept on site.

- Avoiding delays: If any circumstances arise which may affect the progress of the Works submit proposals or take other action as appropriate to minimize any delay and to recover any lost time.

- Weekly completion forecast: Submit on the last working day.

- Key Performance Indicators:

- Record progress against each of the KPIs. If performance against KPI falls short of target, submit proposals for remediation.

### 255 NOTIFICATION OF COMPENSATION EVENT

- Content: Notwithstanding the Contractor's obligations under the Contract written notice must also be given of all other causes which apply concurrently.

### 260 SITE MEETINGS

- General: Site meetings will be held to review progress and other matters arising from administration of the Contract.

- Frequency: Monthly.

- Location: On site.

- Accommodation: Ensure availability at the time of such meetings.

- Attendees: Attend meetings and inform subcontractors and suppliers when their presence is required.

- Chairperson (who will also take and distribute minutes): Employer delegate (A10/140).

## **CONTROL OF COST**

### **420 REMOVAL/ REPLACEMENT OF EXISTING WORK**

- Extent and location: Agree before commencement.
- Execution: Carry out in ways that minimise the extent of work.

### **430 QUOTATIONS FOR PROPOSED INSTRUCTIONS OR COMPENSATION EVENTS**

- Include:
  - A detailed breakdown of the cost including any allowance for direct loss and expense.
  - Details of any additional resources required.
  - Details of any adjustments to be made to the programme for the Works.
  - Any other information as is reasonably necessary to fully assess the implications of issuing such an instruction.
- Inability to comply: Inform immediately if it is not possible to comply with any of the above requirements.

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## **A33 QUALITY STANDARDS/CONTROL**

### **STANDARDS OF PRODUCTS AND EXECUTIONS**

#### **110 INCOMPLETE DOCUMENTATION**

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

#### **120 WORKMANSHIP SKILLS**

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

#### **130 QUALITY OF PRODUCTS**

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

#### **135 QUALITY OF EXECUTION**

- Generally: Fix, apply, install or lay products securely, accurately, plumb, neatly and in alignment.
- Colour batching: Do not use different colour batches where they can be seen together.
- Dimensions: Check on-site dimensions.
- Finished work: Not defective, e.g. not damaged, disfigured, dirty, faulty, or out of tolerance.
- Location and fixing of products: Adjust joints open to view so they are even and regular.

#### **140 COMPLIANCE**

- Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied.
- Compliance with performance specifications: Submit evidence of compliance, including test reports indicating:
  - Properties tested.
  - Pass/ fail criteria.
  - Test methods and procedures.
  - Test results.
  - Identity of testing agency.
  - Test dates and times.
  - Identities of witnesses.

Analysis of results.

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#### 150 INSPECTIONS

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

#### 160 RELATED WORK

- Details: Provide all trades with necessary details of related types of work. Before starting each new type or section of work ensure previous related work is:
  - Appropriately complete.
  - In accordance with the project documents.
  - To a suitable standard.
  - In a suitable condition to receive the new work.
- Preparatory work: Ensure all necessary preparatory work has been carried out.

#### 170 MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS

- General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender.
- Changes to recommendations or instructions: Submit details.
- Ancillary products and accessories: Use those supplied or recommended by main product manufacturer.
- Agrément certified products: Comply with limitations, recommendations and requirements of relevant valid certificates.

#### 180 WATER FOR THE WORKS

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

#### 220 APPROVAL OF PRODUCTS

- Submissions, samples, inspections and tests: Undertake or arrange to suit the Works programme.
- Approval: Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
- Complying sample: Retain in good, clean condition on site. Remove when no longer required.

#### 230 APPROVAL OF EXECUTION

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

#### 320 SETTING OUT

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

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### 330 APPEARANCE AND FIT

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

### 445 SERVICE RUNS

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

### 510 SUPERVISION

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

### 530 OVERTIME/OUT OF HOURS WORKING (INCLUDING WEEKENDS)

- Notice: Prior to being worked, submit details of times, types and locations of work to be done.
  - Minimum period of notice: Give maximum period of notice possible before changing person in charge or site agent.
- Concealed work: If executed during overtime for which notice has not been given, it may be required to be opened up for inspection and reinstated at the Contractor's expense.

### 540 DEFECTS IN EXISTING WORK

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

### 550 ACCESS FOR INSPECTION

- Removal: Before removing scaffolding or other facilities for access, give notice of not less than three days.

### 560 TESTS AND INSPECTIONS

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

### 580 CONTINUITY OF THERMAL INSULATION

- Record and report: Confirm that work to new, renovated or upgraded thermal elements has been carried out to conform to specification. Include:
    - The address of the premises.
    - The Contractor's name and address.
    - The name, qualification and signature of the competent person responsible for checking compliance.
-

- The date on which the installation was checked.
- Submit: Before completion of the Works.
- Copy: To be lodged in the Building Manual.

610 PROPOSALS FOR RECTIFICATION OF DEFECTIVE PRODUCTS/ EXECUTIONS

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

710 WORKS BEFORE COMPLETION

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

720 SECURITY AT COMPLETION

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

730 MAKING GOOD DEFECTS

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

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## **A34 SECURITY/ SAFETY/ PROTECTION**

### **SECURITY, HEALTH AND SAFETY**

#### 110 PRECONSTRUCTION INFORMATION

- Location: Integral with the project Preliminaries, including but not restricted to the following sections:

- Description of project: Sections A10 and A11.
- Client's consideration and management requirements: Sections A12, A13 and A36.
- Environmental restrictions and on-site risks: Section A12, A34 and A35.
- Significant design and construction hazards: Section A34.

The Health and Safety File: Section A37.

#### 140 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

- Submission: Present to the Employer/ Client no later than one week after appointment.
- 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 as required
- Content: Develop the plan from and draw on the Outline Construction Phase Health and Safety Plan, clause A30/570, and the Pre-tender Health and Safety Plan/ Preconstruction information.

#### 150 SECURITY

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

#### 160 STABILITY

- Responsibility: Maintain the stability and structural integrity of the Works and adjacent structures during the Contract.
- Design loads: Obtain details, support as necessary and prevent overloading.

#### 210 EMPLOYER'S REPRESENTATIVES SITE VISITS

- Safety: Submit details in advance, to the Employer or the person identified in clause A10/140, of safety provisions and procedures (including those relating to materials, which may be deleterious), which will require their compliance when visiting the site.
- Protective clothing and/ or equipment: Provide and maintain on site for the Employer and the person stated in clause A10/140 and other visitors to the site.

### **PROTECT AGAINST THE FOLLOWING**

#### 340 POLLUTION

- Prevention: Protect the site, the Works and the general environment including the atmosphere, land, streams and waterways against pollution.
- Contamination: If pollution occurs inform immediately, including to the appropriate Authorities and provide relevant information.

#### 350 PESTICIDES

- Use: Not permitted.

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### 360 NUISANCE

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

### 380 FIRE PREVENTION

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

### 390 SMOKING ON SITE

- Smoking on site: In designated area to be advised at induction/pre-start meeting.

### 400 BURNING ON SITE

- Burning on site: Not permitted.

### 410 MOISTURE

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

### 430 WASTE

- Includes: Rubbish, debris, spoil, containers and surplus material.
- Minimize: Keep the site and Works clean and tidy.
- Remove: Frequently and dispose off site in a safe and competent manner:
  - Non-hazardous material: In a manner approved by the Waste Regulation Authority.
  - Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.
- Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in.
- Waste transfer documentation: Retain on site.

### 450 LASER EQUIPMENT

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

**PROTECT THE FOLLOWING**

520 ROADS AND FOOTPATHS

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

530 EXISTING TOPSOIL/ SUBSOIL

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

580 BUILDING INTERIORS

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

630 EXISTING STRUCTURES

- Duty: Check proposed methods of work for effects on adjacent structures inside and outside the site boundary.
- Supports: During execution of the Works:
  - Provide and maintain all incidental shoring, strutting, needling and other supports as may be necessary to preserve stability of existing structures on the site or adjoining that may be endangered or affected by the Works.
  - Do not remove until new work is strong enough to support existing structure.
  - Prevent overstressing of completed work when removing supports.
- Adjacent structures: Monitor and immediately report excessive movement.
- Standard: Comply with BS 5975 and BS EN 12812.

**A35**

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

160 USE OR DISPOSAL OF MATERIALS

- Specific limitations: Store waste in contractors compound only. Cart away using a licensed waste carrier only.

170 WORKING HOURS

- Specific limitations: 07:30 to 18:00 (Adjustments by prior arrangement with employer)

Weekend working by prior arrangement with employer (minimum 5 days' notice required) See A33/530 for further detail)

**A36**  
**FACILITIES/ TEMPORARY WORK/ SERVICES**

110 SPOIL HEAPS, TEMPORARY WORKS AND SERVICES

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

210 ROOM FOR MEETINGS

- Facilities: The employer will provide accommodation for site meetings.

230 TEMPORARY ACCOMMODATION

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

320 TEMPORARY WORKS

- Employer's specific requirements: Provide: Secure site fencing and segregation.

340 NAME BOARDS/ ADVERTISEMENTS

- Name boards/ advertisements: Not permitted.

440 TELEPHONES

- Contractor to provide the ED with a list of all mobile phone numbers of site personnel and the landline of head office.

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## **A37 OPERATION/ MAINTENANCE OF THE FINISHED WORKS**

### **A37.1 SUBMISSION OF RECORD DOCUMENTS:**

To satisfy the provisions of the Health and Safety at Work Act the Employer will not accept handover of the installations until full and adequate information concerning the installations is in the possession of the ED.

The Contractor shall provide Record Documents - being part of the Works - prior, and as a prerequisite, to Practical Completion to the satisfaction of the ED. as follows:

- Submit draft Record Documents to the ED for comment prior to commissioning.
- Prepare two temporary Manuals with provisional record drawings and preliminary performance data available at commencement of commissioning to enable Employer's staff to familiarise themselves with the installation. These should be of the same format as the final Manuals with temporary insertions for items which cannot be finalised until the installations are commissioned and performance tested.
- Provide the ED with copies of the final Manual prior to Practical Completion. Number of weeks prior 2.
- The Manuals shall be prepared in draft as the Works progress, and shall make suitable arrangements where the Works are subject to Partial Possession, or Sectional Completion.
- Prepare Operating and Maintenance Manuals for the Works undertaken.

### **A37.2 RECORD DOCUMENTS:**

Provide

- Record Drawings and Schedules.
- Operating and Maintenance Manuals.
- Ensure record documents clearly record the arrangements of the various sections of the Works as actually installed and identify and locate all component parts.
- Ensure record documents set out the extent to which maintenance and servicing is required and how, in detail, it should be executed.
- Ensure record documents provide sufficient, readily accessible and proper information to enable spares and replacements to be ordered.

### **A37.3 RECORD DRAWINGS AND SCHEDULES:**

Prepare Record Drawings and Schedules to a scale not less than 1:50.

All record drawings shall be produced using the current version of AutoCAD, and be made available to the client in .dwg format stored on a CD.

Record Drawings and Schedules must include, but are not limited to:

- Location, including level if buried, of Utility Service connections, including those provided by the appropriate Authority, indicating points of origin and termination, size and material of service, pressure and/or other relevant information.
- Schematic drawings of each system indicating principal items of plant, equipment, zoning, means of isolation, etc. in sufficient detail to make it possible to comprehend the system operation and the inter-connections between various systems.
- Diagrammatic dimensioned plans and sections of each system or service showing sizes and locations of all ancillaries, plant, equipment controls, test points, and means of isolation etc. including any items forming an integral part of the engineering systems provided by others (such as plenum ceilings, builders' work shafts, chimneys etc.).

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#### A37.4 OPERATING AND MAINTENANCE MANUALS:

The operating and maintenance manuals must include:

- A full description of each of the systems installed, written to ensure that the Employer's staff fully understand the scope and facilities provided.
- A description of the mode of operation of all systems including services capacity and restrictions.
- A reduction of all record drawings together with an index. Reduced size A3
- The name, address and telephone number of the manufacturer of every item/equipment used together with catalogue list numbers.
- Manufacturer's technical literature for all items/equipment.
- A copy of all Test Certificates, Inspection and Test Records used in the installations.
- A copy of all manufacturers' guarantees or warranties, together with maintenance agreements offered by subcontractors and manufacturers.
- Copies of Insurance & Inspecting Authority Certificates and Reports.
- Detailed recommendations for the preventative maintenance frequency and procedures which should be adopted by the Employer to ensure the most efficient operation of the systems.
- Details of the disposal requirements for all items in the works.
- A list of recommended spares to be kept in stock by the Employer, being those items subject to wear or deterioration and which may involve the Employer in extended deliveries when replacements are required at some future date.
- A list of any special tools needed for maintenance cross referenced to the particular item for which required.
- Copies of relevant HSE/CIBSE/IET Guidance notes etc.
- Contractual and legal information including but not limited to details of local and public authority consents; details of design team, consultants, installation contractors and associated subcontractors; start date for installation, date of practical completion and expiry date for the defects liability period; details of warranties for plant and systems including expiry dates, addresses and telephone numbers.
- Wherever feasible, manufacturer's information should be sought and included within the Operating and Maintenance manual relating to items of equipment that may have been either refurbished, or reused, as part of the refurbishment works.

#### A37.5 PRESENTATION OF THE OPERATING AND MAINTENANCE MANUALS:

- Agree format and contents with the ED.
- Encase the Manuals in A4 size, plastic-covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover- titled. Fold drawings larger than A4 and include in the binder so that they may be unfolded without being detached from the rings.
- In addition to the hard copies, you are required to provide an electronic copy in PDF/DWF format on a CD.

#### A37.8 OBLIGATIONS DURING DEFECTS LIABILITY PERIOD:

Prepare and submit records of failures or malfunctions of any part of the Subcontract Works during the 12 months Defects Liability Period, together with details of remedial action taken, subsequent re- testing and the results.

Notify the Main Contractor of damage, failures or malfunctions to the Subcontract Works demonstrably caused by incorrect operation of the installations, vandalism or other actions by a third party.

Inform the ED, via the Main Contractor, in writing when all defects are finally rectified so that an inspection may be carried out prior to the issue of a Final Certificate.

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

110 SITE ACCOMMODATION

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

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

110 SERVICES AND FACILITIES

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

**1.2 NEC3 ECSC Contract Z Clauses**



Z Clauses



