Tranche 01 - Roof Refurbishment National Oceanography Centre, Southampton for UK Research & Innovation (UKRI)





Kendall Kingscott

3 GP Centre, Yeoman Road, Ringwood, Hants. BH24 3FF. T: 01425 472833 W: www.kendallkingscott.co.uk

Job No. 180572

# **Document Control Record**

Version	Date	Prepared by	Checked by
DRAFT (1)	29/10/2018	EQ	DF
2	07/11/2018	EQ	DF
3	14/03/2019	EQ	DF
4	12/04/2019	AS	AB





# Table of Contents

Section	Title	Page Ref
1	Scope	
2	Schedule of Works	
Appendices		
Appendix A	Pre-Construction Information	
Appendix B	Rekan Strategic Works Programme	
Appendix C	Kendall Kingscott Architectural Drawings	
Appendix D	Photon PVC Quotation & Layouts	
Appendix E	Euroclad Over Roofing Systems	
Appendix F	Giromax Liquid Roofing Systems	
Appendix G	Product Data Sheets	
Appendix H	Photographic Schedule	



1

#### WI 100 Description of Works

#### 110 THE WORKS

Description: The Works shall comprise the following:

- Removal of Photon PV Cells from Workshop, Stores and A10 Building
- Removal of Solar Thermal Panel from Workshop roof, servicing & repair-
- Liquid applied roof coating, roof light coating & gutter lining to A10 Building
- Removal of existing handrail and installation of reduced length of handrail to Workshops & Stores
- Removal and reinstatement of antenna to Workshops & Stores
- Over roofing of Workshop & Stores
- Liquid gutter lining to Workshop & Stores
- Reinstallation of PV Cells to Workshop & Stores (new layout)
- Reinstallation of PV Cells to A10 Building (existing layout)
- Reinstallation of Solar Thermal Panel to Workshop roof
- Rodding of down pipes & gutter clean / clearance to all buildings
- Cut edge corrosion repair to buildings listed below
- Liquid applied roof coating & gutter lining to buildings listed below

A1 Building - Lab & Cold Stores

A3 Building - Specimen Store

A4 Building - Lean to Storage

A5 Building - Chemical & Plant Store

A6 Building - Workshop

A9 Building - Electric & gas utility services

The Contractor is to include for all works necessary to complete the building in accordance with the drawings, Specifications included in WI 2000 and all applicable Statutory Requirements.

#### 120 THE CONTRACTOR'S MAIN RESPONSIBILITIES

- The Contractor carries out and completes the works in a good and workmanlike manner, using only materials which meet all relevant British and EU standards and the requirements of NOCS insurers. All materials are to be new (unless this contract states otherwise), and are sound and of good quality and which are consistent with the intended use of the works as stated in this contract or reasonably to be inferred given the nature of the works.
- 120.2 The works when completed must comply with all appropriate requirements of NOCS and ABP together with any relevant local or other relevant authority and all relevant statutory requirements.
- 120.3 The Contractor must not use prohibited plant and materials (or products), unless specifically instructed to by the Project Manager.

#### WI 200 General constraints on how the Contractor Provides the Works

#### 110 SCOPE

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

#### 120 METHOD/ SEQUENCE OF WORK

Specific Limitations: Include the following in the programme:

- Reference to the Specification must be made in respect of the limitations and restrictions imposed concerning specific areas of the Project, including out of hours working.



#### 130 SCAFFOLDING

Scaffolding: Make available to subcontractors and others in respect of the main contract and under the direction of the Principal Contractor at all times.

Allow for providing general scaffolding for the expeditious carrying out of the Works in proper sequence. Scaffolding shall be of an independent type designed specifically for the intended Works and use at NOC including any fans, gantries or the like and any adaptations during the course of the Works as necessary.

Putlog or single stanchion scaffolding will not be permitted,

The Contractor shall include in his risk assessment / method statement for the scaffold to be inspected every week throughout the course of the Works.

The Contractor is to be responsible for ascertaining the requirements of all Domestic subcontractors as regards scaffolding.

If the Contractor should strike any of his scaffolding before ascertaining whether it is required by the Client or the Project Mangager he must re-erect it if so required at his own expense

#### 140 USE OR DISPOSAL OF MATERIALS

Specific limitations: Agree the Site Waste Management Plan to include compliance with the requirements of ISO14001 and NOC policy to prevent waste contamination and waste entering the port authority area with the Project Manager. Please note that no skips are shared with NOC.

#### 150 WORKING HOURS

Specific limitations: The Contractor's normal working hours shall be restricted to 8.00am to 6.00pm Monday to Friday. Working outside these specified hours will require prior approval of the Project Manager and the Client.

The Contractor shall also comply with all local authority and other regulations..

#### 160 COMPLETION IN SECTIONS OR IN PARTS

General: Where the Client is to take over any Section or part of the Works and such Section or part will, after its Completion, depend for its adequate functioning on work located elsewhere on the site: Complete such other work in time to permit such take over to occur.

Remainder of the Works: During execution, ensure that completed or untouched Sections or parts of the Works have continuous and adequate provision of services, fire precautions, means of escape and safe access.

#### 170 OUT OF HOURS WORKING

The Contractor shall make due allowance for the completion of certain elements of the Works outside normal working hours to meet the required programme and minimise disruption.

No claims for additional costs in respect of the completion of the necessary works out of normal working hours or any associated supervision will be entertained.

## 360 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

Submission: Present to the Client no later than in sufficient time for thorough examination of the documents without causing delay to the commencement of work.

Confirmation: Do not start construction work until the Client has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by the CDM Regulations.

Content: Develop the plan from and draw on the Pre-construction information.



#### WI 300 Contractor's design

#### 110 PROHIBITED PLANT AND MATERIALS

Unless specifically instructed to use a named material and the Contractor has advised the Project Manager in writing that the material is prohibited under this clause, the Contractor does not use in relation to the works and does not authorise or approve the specification or use by others of any products or materials classified as Prohibited.'

Prohibited plant and materials are those not in conformity with relevant British or European Standards or Codes of Practice or which at the time of use are widely known to contractors or designers of the relevant discipline within the United Kingdom to be deleterious to health and safety or to the durability of buildings and/or other structures and/or finishes and/or plant and machinery or any parts of them in the particular circumstances in which they are used.

The Contractor notifies the Project Manager in writing as soon as they:

- considers that the Scope required them to do anything that could result in the use of any prohibited plant or materials, or
- becomes aware that it or any other person has specified, used, authorised or approved the specification or use by others of any prohibited plant or materials'

This clause does not create any additional duty for the Contractor to inspect or check the work of others if it is not required by this contract.

#### WI 400 Completion

#### 110 COMPLETION REQUIREMENTS

For Completion to be deemed to have occurred the following information must be present as applicable:

- Planning conditions signed off
- Building Regulations approval conditions signed off
- Building Control Completion Certificate received.
- Health & Safety File complete.
- Collateral warranties complete.
- Operation & Maintenance in respect of Mechanical and Electrical Installation complete.
- Electrical test certificate covering all circuits to BS 7671 complete
- Emergency lighting test and certification complete
- Lightning conductor and earthing test results
- Mechanical ventilation / air conditioning plants and installations complete
- Safety ring bolts / roof man-safe certificate provided
- Snagging lists for Building works, Mechanical and Electrical installation prepared
- Copies of any guarantees on materials and workmanship provided.



#### WI 500 Programme

#### 110 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:

- Design, production information and proposals provided by the Contractor / Subcontractors / Suppliers, including inspection and checking (see section WI 700).
- Planning and mobilisation by the Contractor.
- Earliest and latest start and finish dates for each activity and identify all critical activities and milestones.
- Running in, adjustment, commissioning and testing of all engineering services and installations
- Work by or on behalf of the Client and concurrent with the Contract (see section WI 900)
  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.
- Further information: Submission of programme will not relieve the Contractor of responsibility to advise of the need for further drawings or details or instructions in accordance with the contract.

Submit: with the tender...

#### 120 REVISED PROGRAMME

Format and content: Compatible with master programme.

Revised programme interval: Described in the contract data part one. Number of copies: 3Nr

#### 130 SUBMISSION OF PROGRAMME

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

#### 140 COMMENCEMENT OF WORK

Notice: No works will start on site or be instructed until a formal order has been received by the Main Contractor and the Contract has been executed. Before the proposed date for commencement of work on site give minimum notice of two weeks.

#### WI 600 Quality assurance

#### 110 QUALITY CONTROL RESOURCES

Statement: Describe the organisation and resources to control the quality of the Works, including the work of subcontractors.

QA staff: Identify in the statement the number and type of staff responsible for quality control, with details of their qualifications and duties.



Submit: Within one week of request. There will be strict enforcement of quality control. The Contractor will be required to initiate a stage inspection system and ensure schedules are completed prior to handover. The Main Contractor will allow inspection by the NOC client team members to visit site and carry out inspections regarding quality. All parties will carry out prehandover inspections and issue schedules of outstanding works to the Contractor. The Contractor is to ensure outstanding works are completed before handover

#### 120 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 reduce or impair the legal validity of the Contract nor release the Contractor from any obligations or liabilities under the Contract.

#### 130 PRODUCTS, MATERIALS, DESIGN AND WORKMANSHIP

All products, materials, design and workmanship shall be in accordance with the following where relevant and not limited to:-

- a) Current Codes of Practice published by BSI and the major trade organisations.
- b) Current BRE Digest and other authoritative documents prepared by the major government organisations e.g. TRADA.
- c) Any and all regulations made by any authority having jurisdiction over or in connection with the Works.
- d) HSE Regulations and Guidelines.
- e) Current guidelines and recommendations produced by the Chartered Institute of Building Services Engineers.
- f) Current IEE Regulations
- g) ICRCL Guidelines
- h) Highways works will be constructed to adoptable standards but will not be adopted by the County Authority and Highways Agency.
- i) Local Water Board requirements.
- i) Environmental Agency requirements.
- k) Gas Safety Regulations.
- I) British Waterways requirements.
- m) NHBC Standard requirements.
- n) Other Bodies (reference, project specific)



o) OFWAT, DWI, NRA, SWA, Local Authority Requirements and Scheme Development Standards, Fire Officer, Police Regulations and any other Statutory requirements

#### 140 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.

#### 150 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.

#### 160 QUALITY OF EXECUTION

Generally: Fix, apply, install or lay products in accordance with the manufacturer's instructions 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.

#### 170 SUSTAINABILITY

The Client has a policy to obtain material wherever possible from sustainable sources. The Contractor is to demonstrate commitment to the procurement of raw materials from certifiable sustainable sources such as timber labelled by the Forest Stewardship Council (FSC)

#### 180 COMPLIANCE

Compliance with proprietary specifications: Retain on site evidence that the proprietary product specified has been supplied. Make arrangements for manufacturers to inspect the materials and the works during the course of the Works. Arrange for a member of the NOC client team and the Project Manager to be present for the manufacturers inspection.

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.

#### 190 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.



#### 200 HOLES, CHASES ETC WITHIN THE STRUCTURE

The Contractor will be responsible for obtaining from his sub-contractors and suppliers all necessary information in connection with holes, chases, mortises and fixing of any description required in the structure, and will also be responsible for preparing working drawings showing all such information and obtaining the Engineers agreement of such drawings well in advance of the construction programme.

The CAD drawings should be made available to the NOC Client team and Project Manager for prior review a minimum of 5 days in advance of an inspection

It will also be the Contractor's responsibility to ensure full co-ordination with sub-contractors in the setting out of holes, chases, mortises and fixings.

#### 210 MANUFACTURER'S RECOMMENDATIONS/ INSTRUCTIONS

General: Comply with manufacturer's printed recommendations and instructions current on the date of the Invitation to tender. All product data sheets need to be included in the handover O&M documentation.

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.

#### 220 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.

#### 230 SAMPLES

Products or executions: Comply with all other specification requirements and in respect of the stated or implied characteristics either:

- To an express approval.
- To match a sample expressly approved as a standard for the purpose.

#### 240 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.

#### 250 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.

#### 260 ACCEPTANCE

Acceptance (and words derived there from) means the approval in writing of the Project Manager unless specified otherwise



#### 270 ACCURACY OF INSTRUMENTS

Accuracy in measurement: Use instruments and methods described in BS 5606, Appendix A.

Maintain calibration tests and certificates on site for inspection.

#### 280 SETTING OUT

Responsibility for setting out and the dimensions of the Works lies entirely with the Contractor. The Contractor will provide all labour and instruments and all incidentals for the purposes of setting out the Works.

#### 290 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.

#### 300 CRITICAL DIMENSIONS

Critical dimensions: Set out and construct the Works to ensure compliance with the tolerances stated. Location: Detailed on drawings All Kendall Kingscott drawings.

#### 310 RECORD DRAWINGS

Site setting out drawing: Record details of all grid lines, setting-out stations, benchmarks and profiles. Retain on site throughout the contract and hand over In CAD and pdf format for review prior to site inspections by the Project Manager and NOC Client team on completion.

#### 320 SERVICES REGULATIONS

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

## 330 WATER REGULATIONS/ BYELAWS NOTIFICATION

Requirements: Notify Water Undertaker of any work carried out to or which affects new or existing services and submit any required plans, diagrams and details.

Consent: Allow adequate time to receive Undertaker's consent before starting work. Inform immediately if consent is withheld or is granted subject to significant conditions.

Please note that no waste water can be discharged into drains or the open dock as per NOC policy and ABP port authority guidelines.

#### 340 ELECTRICAL INSTALLATION CERTIFICATE

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

#### 350 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.

#### 360 MECHANICAL AND ELECTRICAL SERVICES

Final tests and commissioning: Carry out so that services are in full working order at completion of the Works. All tests are to be witnessed by NOC Client team and Project Manager. Building Regulations notice: Copy to be lodged in the Building Manual.



#### 370 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. Any o ther person must have at least the equivalent skills and experience of the person first employed. Handover and suitable cover is to be maintained to ensure a transition with the Project Team, Main Contractor and Project Manager.

#### 380 COORDINATION OF ENGINEERING SERVICES

Suitability: Site organisation staff must include one or more persons with appropriate knowledge and experience of mechanical and electrical engineering services to ensure compatibility between engineering and the Works generally.

Evidence: Submit when requested CVs or other documentary evidence relating to the staff concerned.

#### 390 OVERTIME WORKING

Notice: Prior to overtime being worked, submit details of times, types and locations of work to be done.

- Minimum period of notice: Three days.

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.

#### 400 DEFECTS IN EXISTING WORK

Undocumented defects: When discovered, immediately give notice to the Project Manager and the NOC Client team.. 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.

#### 410 ACCESS FOR INSPECTION

Removal: Before removing scaffolding or other facilities for access, give notice of not less than one week.

#### 420 WORK BEFORE COMPLETION

General: Make good all damage consequent upon the Works.

Temporary markings, coverings and protective wrappings: Remove unless otherwise instructed. Cleaning: Clean the Works thoroughly inside and out, including all accessible ducts and voids. Remove all splashes, deposits, efflorescence, rubbish and surplus materials. Cleaning materials and methods: As recommended by manufacturers of products being cleaned, and must not damage or disfigure other materials or construction.

COSHH dated data sheets: Obtain for all materials used for cleaning and ensure they are used only as recommended by their manufacturers.

Minor faults: Touch up in newly painted work, carefully matching colour and brushing out edges. Repaint badly marked areas back to suitable breaks or junctions.

Moving parts of new work: Adjust, ease and lubricate as necessary to ensure easy and efficient operation, including doors, windows, drawers, ironmongery, appliances, valves and controls.

#### 430 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 Client with itemised schedule, retaining duplicate schedule signed by Client as a receipt.



#### 440 MAKING GOOD DEFECTS

Remedial work: Arrange access with Client.

Rectification: Give reasonable notice for access to the various parts of the Works. Completion: Notify when remedial works have been completed.

#### WI 700 Tests and inspections

#### 110 TESTS AND INSPECTIONS

Timing: Agree and record dates and times of tests and inspections to enable all affected parties to be represented.

Confirmation: Give notice at least three working days 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.

#### 130 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.

## 160 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.

# 170 MEASURES TO ESTABLISH ACCEPTABILITY

General: Wherever inspection or testing shows that the work, materials or goods are not in accordance with the contract and measures (e.g. testing, opening up, experimental making good) are taken to help in establishing whether or not the work is acceptable, such measures:

- Will be at the expense of the Contractor.
- Will not be considered as grounds for revision of the completion date.

#### 180 QUALITY CONTROL

Procedures: Establish and maintain to ensure that the Works, including the work of subcontractors, comply with specified requirements.

Records: Maintain full records, keep copies on site for inspection, and submit copies on request. Content of records:

- Identification of the element, item, batch or lot including location in the Works.
- Nature and dates of inspections, tests and approvals.
- Nature and extent of nonconforming work found.
- Details of corrective action.



#### WI 800 Management of the works

#### 110 SITE WASTE MANAGEMENT PLAN

Person responsible for developing the Plan: The Contractor. Content: Include details of:

- Principal Contractor for the purposes of the plan
- 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 minimisation/reuse/recycling.
- The use of appropriate and licensed waste management contractors.
- Record keeping procedures.
- Waste auditing protocols.

Additional requirements: The Site Waste Management Plan must be in accordance with NOC policies and procedures.

Submit with tender.

#### 120 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 CONSIDERATE CONSTRUCTORS SCHEME

Registration: Before starting work, register the site and pay the appropriate fee: Contact:

- Address: Considerate Constructors Scheme Office, PO Box 75, Great Amwell, Ware, Hertfordshire, SG12 0YX.- Tel. 01920 485959.- Fax. 01920 485958.- Free phone 0800 7831423- Web. <a href="mailto:www.ccscheme.org.uk">www.ccscheme.org.uk</a>- E mail. <a href="mailto:enquiries@ccscheme.org.uk">enquiries@ccscheme.org.uk</a>

Standard: Comply with the Scheme's Code of Considerate Practice.

- Minimum compliance level: Excellent.

#### 140 FREIGHT VEHICLE SAFETY REQUIREMENTS

Vehicle equipment: Ensure that all freight vehicles have the following:

- Audible alert to other road users to the planned movement of the vehicle when the vehicle's indicators are in operation.
- Prominent signage at the rear of the vehicle to warn cyclists of the dangers of passing the vehicle on the inside.
- Properly adjusted class VI mirror/s or Fresnel lens to eliminate the near side blind spot.
- Side under run guards.

Driver training: Drivers must be trained on vulnerable road user safety through an approved course and hold a current valid Certificate of Competence.

- Drivers must have a valid driving licence and be legally able to drive the vehicle. Registration Scheme membership: Submit evidence of registration with and accreditation to the Freight Operator Registration Scheme (FORS)

Level of accreditation: Gold.

Submittal date: An access plan regarding CDM and deliveries including entering and egressing a site with caution shall be submitted within one week of request.



#### 150 INSURANCE

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

#### 160 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 Client, the Project Manager and the Insurers.

Failure to notify: Indemnify the Client against any loss, which may be caused by failure to give such notice.

#### 170 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.

#### 180 OWNERSHIP

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

#### 190 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.

#### 200 PROJECT MANAGER'S SITE MEETINGS

The Project Manager will hold regular site meetings to review progress and other matters arising from the administration of the Contract.

Frequency: Every month.

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.

The Contractor shall table a report that addresses the following:-

- Overview of the progress of the Works
- Outstanding information required including dates when decisions are required
- Quality Control (Schedule of samples, inspections)
- Specific Consultants Reports
- Status of all third party requirements (e.g. Planning, Building Regulations, Utilities etc.) Status of all warranty documents
- Summary of contract variations
- All Health, Safety and Environmental aspects
- Programme indicating progress against critical path programme
- Procurement status of sub-contractor/materials showing required lead in times
- Notification of any delays, downtime and mitigating action being taken
- Forecasted completion dates
- Labour and plant record for month
- Resourcing and recruitment update
- NOC induction programme
- Copies of signed RAM's from all site staff
- Hold meetings with appropriate sub-contractors and suppliers shortly before main site meetings to facilitate accurate reporting of progress.

The Project Manager will chair site meetings, take and distribute minutes.



#### 210 CONTRACTOR'S PROGRESS REPORT

Content: Notwithstanding the Contractor's obligations under the Contract the report must include:

- A progress statement by reference to the master programme for the Works.
- Details of any matters materially affecting the regular progress of the Works.
- Subcontractors' and suppliers' progress reports.
- Any requirements for further drawings or details or instructions.

#### 220 CONTRACTOR'S SITE MEETINGS

General: Hold regular design team meetings with appropriate subcontractors and suppliers to review progress and other matters arising from the administration of the Contract. Notify the Client of such meetings and allow his representative to attend or provide minutes if requested meetings with appropriate subcontractors and suppliers shortly before main site meetings to facilitate accurate reporting of progress.

#### 240 EARLY TAKE OVER

Take over of parts of the works: As completed, provided all necessary access, services, and other associated facilities are also complete.

#### 250 NOTICE OF COMPLETION

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

#### 260 CASH FLOW FORECAST

Submission: Before starting work on site, submit a forecast showing the gross valuation of the Works at the date of each Interim Certificate throughout the Contract period. Base on the programme for the Works.

#### 270 REMOVAL/ REPLACEMENT OF EXISTING WORK

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

# 280 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.

#### 290 MEASUREMENT

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

#### 300 DAYWORK VOUCHERS

Before commencing work: Give reasonable notice to the Project Manager where countersigning of daywork vouchers is required.

Content: Before delivery each voucher must be:

- Referenced to the instruction under which the work is authorised.
- Signed by the Contractor's person in charge as evidence that the operatives' names, the time spent by each, the plant and materials shown are correct. Submit: To be accepted as a possible basis for the evaluation of variations the completed vouchers must be submitted to the Project Manager within one week of the relevant work being carried out.



#### 310 PAYMENT ASSESSMENTS

Application by Contractor: if made under clause 50.4 include details of amounts considered due, together with the following supporting information:

- At least three days before the established dates submit draft application for payment for review by the Project Manager in the format of the Activity Schedule plus list of Compensation Events. Provide supporting invoices as may reasonably be requested by the Project Manager.

#### 320 PRODUCTS NOT INCORPORATED INTO THE WORKS

Ownership: At the time of each valuation, supply details of those products not incorporated into the Works which are subject to any reservation of title inconsistent with passing of property as required by the Conditions of Contract, together with their respective values. Evidence: When requested, provide evidence of freedom of reservation of title.

#### 330 LABOUR AND EQUIPMENT RETURNS

Records: Provide for verification at the beginning of each week in respect of each of the previous seven days.

Records must show:

- The number and description of craftsmen, labourers and other persons directly or indirectly employed on or in connection with the Works or Services, including those employed by subcontractors.
- The number, type and capacity of all mechanical, electrical and power-operated equipment employed in connection with the Works or Services

#### 340 VANDALISM / THEFT

The Contractor is to make his own assessment of the risk as no liability in cost or time will be accepted by the Client.

#### 350 LIMIT DISTURBANCES

The Contractor shall ensure that the Works are carried out in such a manner as to limit as far as possible disturbances to adjacent buildings / property. Any correspondence with third parties shall be directed via the Project Manager and the NOC client team only.

The Contractor shall when so directed by the Project Manager deal quickly and efficiently with any complaints from the adjacent property occupants to the Project Manager or Client's appointed representative.

The Contractor is to allow for the Project Manager and Supervisor to make regular inspections of the Works as they proceed. The Contractor shall offer every reasonable facility for the performance of that duty giving advance notice of intended site operations. The role of the inspections is to assist the Contractor by early notification of the Client's quality standard requirement. It is the Contractors responsibility to monitor quality and inspect the Works as it proceeds and for carrying out snagging inspections, compiling snagging lists and the like.

#### 360 CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

Submission: Present to the Client in a timescale agreed at the Pre-Start Meeting and as a minimum in sufficient time for thorough examination of the documents without causing delay to the commencement of work.

Confirmation: Do not start construction work until the Client has confirmed in writing that the Construction Phase Health and Safety Plan includes the procedures and arrangements required by the CDM Regulations.

Content: Develop the plan from and draw on the Pre-Construction information.

#### 370 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 unauthorised access to the site, the Works and adjoining property.



Special requirements: The Contractor shall be responsible for managing requirements for passes and controlled access.

#### 380 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.

#### 390 OCCUPIED PREMISES

Extent: Existing buildings will be occupied and/ or used during the Contract as follows: As detailed in the Pre-Construction Information.

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

Overtime: If compliance with this clause requires certain operations to be carried out during overtime, and such overtime is not required for any other reason, the extra cost will be allowed, provided that such overtime is authorised in advance.

#### 400 ACCESS CONTROL

Controlled areas: Passes will be required for access to As detailed in the Pre-Construction Information.

Control type: Pass card.

Authorised persons: Submit a list of the names of all persons requiring access together with any other related information reasonably required.

Return of credentials: When requested or on completion of the work to which the controlled area relates.

#### 420 OCCUPIER'S RULES AND REGULATIONS

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

- Location: See the Pre-Construction Information.
- Arrangements for inspection: None.

#### 430 MOBILE TELEPHONES AND PORTABLE ELECTRONIC EQUIPMENT Restrictions on use:

- Restriction on camera phones to be confirmed by the School.

#### 440 CLIENT'S REPRESENTATIVES SITE VISITS

Safety: Submit details in advance, to the Client or the Project Manager, 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 Client and the Project Manager and other visitors to the site.

# 450 WORKING PRECAUTIONS/ RESTRICTIONS

Hazardous areas: Operatives must take precautions as follows:

- Work area: As detailed in the Pre-Construction Information.
- Precautions: As detailed in the Pre-Construction Information.

Permit to work: Operatives must comply with procedures in the following areas: - Work area: As detailed in the Pre-Construction Information.

- Procedures: As detailed in the Pre-Construction Information.

#### 460 EXPLOSIVES Use: Not permitted



#### 470 NOISE CONTROL

Standard: Comply with the recommendations of BS 5228-1, in particular clause 7.3, to minimise noise levels during the execution of the Works.

Equipment: Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles. Restrictions:

#### Do not use:

- Percussion tools and other noisy appliances without consent.
- Radios or other audio equipment or permit employees to use in ways or at times that may cause nuisance.

There may be occasions when the Client requires at short notice the Contractor to stop noisy or vibration inducing operations because of other activities taking place. The instruction to stop will come from the Project Manager.

#### 480 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.

#### 490 PESTICIDES

Use: Only where specified or approved, and then only suitable products listed on www.pesticides.gov.uk.

Restrictions: Work near water, drainage ditches or land drains must comply with the 'Guidelines for the use of herbicides on weeds in or near watercourses and lakes'. Containers: Comply with manufacturer's disposal recommendations. Remove from site immediately empty or no longer required.

Competence: Operatives must hold a BASIS Certificate of Competence, or work under supervision of a Certificate holder.

#### 500 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.

#### 510 ASBESTOS CONTAINING MATERIALS

Duty: Stop work immediately in the area and report any suspected materials discovered during execution of the Works.

- Do not disturb.
- Agree methods for safe removal or encapsulation.

#### 520 DANGEROUS OR HAZARDOUS SUBSTANCES

Duty: Stop work immediately in the area and report any suspected materials discovered during execution of the Works.

- Do not disturb.
- Agree methods for safe removal or remediation.

#### 530 FIRE PREVENTION

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

Fire escape routes must be kept unobstructed at all times. Common escape routes must be adequately marked.

Provide all necessary temporary signs.

The Contractor shall be responsible for keeping the fire alarm installation active in the site area outside of working hours. The Contractor shall comply with the requirements of the NOC hot works permit system.

#### 540 SMOKING ON SITE

Smoking on site: Not permitted.

#### 550 BURNING ON SITE

Burning on site: Not permitted.

#### 560 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.

#### 570 INFECTED TIMBER/ CONTAMINATED MATERIALS

Removal: Where instructed to remove material affected by fungal/ insect attack from the building, minimise the risk of infecting other parts of the building.

Testing: carry out and keep records of appropriate tests to demonstrate that hazards presented by concentrations of airborne particles, toxins and other micro organisms are within acceptable levels.

#### 580 WASTE

Includes: Rubbish, debris, spoil, surplus material, containers and packaging.

General: Minimise production. Prevent accumulations. Keep the site and Works clean and tidy. Ensure that any skips under your control are covered and no waste is allowed to be blown into neighbouring areas or into the dock.

Handling: Collect and store in suitable containers. Remove frequently and dispose off site in a safe and competent manner:

- Non-hazardous material: In a manner approved by the Waste Regulation Authority.
- Hazardous material: As directed by the Waste Regulation Authority and in accordance with relevant regulations.

Recyclable material: Sort and dispose at a Materials Recycling Facility approved by the Waste Regulation Authority.

Voids and cavities in the construction: Remove rubbish, dirt and residues before closing in. Waste transfer documentation: Retain on site.

#### 590 ELECTROMAGNETIC INTERFERENCE

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

#### 600 LASER FOUIPMENT

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.

POWER ACTUATED FIXING SYSTEMS Use: Not permitted.



#### 620 INVASIVE SPECIES

General: Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or Works economically, environmentally or ecologically.

Special precautions: None.

Duty: Report immediately any suspected invasive species discovered during execution of the Works.

- Do not disturb.
- Agree methods for safe eradication or removal.

#### 630 PROTECT THE WORKS

Allow the provision of all temporary watching, lighting, barriers etc, required for the protection of the Works and for the safety of the public and Contractor's workmen. Allow for taking all necessary steps to prevent the trespass of unauthorised persons on the site and the trespass of the Contractor's own workmen on adjoining property and for making good any damage and replacing anything that may be stolen or lost.

The Contractor will be responsible for protecting and safeguarding all work executed on, or materials delivered to the site and shall provide any necessary watchmen and lighting which may be required around the site for the protection of the Works, or public safety.

The Contractor's attention is particularly drawn to the increasing amount of vandalism and theft taking place on building sites and the fact that he will be held responsible for reinstating any work or materials affected by such acts.

#### 640 PROTECT WORK IN ALL SECTIONS

Adequately protect all types of work and all parts of the Works, including work carried out by others, throughout the Contract. Wherever work is of an especially vulnerable nature, is exposed to abnormal risks or severe adverse weather conditions provide special protection to ensure that damage does not occur.

#### 650 PROTECT EXISTING SERVICES

Confirmation: Notify all service authorities, statutory undertakers and/ or adjacent owners of proposed works not less than one week before commencing site operations. Identification: Before starting work, check and mark positions of utilities/ services. Where positions are not shown on drawings obtain relevant details from service authorities, statutory undertakers or other owners.

- Work adjacent to services:
- Comply with service authority's/ statutory undertaker's recommendations.
- Adequately protect, and prevent damage to services: Do not interfere with their operation without consent of service authorities/ statutory undertakers or other owners. Identifying services:
- Below ground: Use signboards, giving type and depth; Overhead: Use headroom markers. Damage to services: If any results from execution of the Works:
- Immediately give notice and notify appropriate service authority/ statutory undertaker.
- Make arrangements for the work to be made good without delay to the satisfaction of service authority/ statutory undertaker or other owner as appropriate.
- Any measures taken to deal with an emergency will not affect the extent of the Contractor's liability.

Marker tapes or protective covers: Replace, if disturbed during site operations, to service authority's/ statutory undertakers recommendations.

#### 660 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 Client, Local Authority or other owner.



#### 670 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.

#### 680 RETAINED TREES/ SHRUBS/ GRASSED AREAS

Protection: Preserve and prevent damage, except those not required.

Replacement: Mature trees and shrubs if uprooted, destroyed, or damaged beyond reasonable chance of survival in their original shape, as a consequence of the Contractor's negligence, must be replaced with those of a similar type and age at the Contractor's expense.

#### 710 EXISTING FEATURES

Protection: Prevent damage to existing buildings, fences, gates, walls, roads, paved areas and other site features, which are to remain in position during execution of the Works. Special requirements: None.

#### 720 EXISTING WORK

Protection: Prevent damage to existing work, structures or other property during the course of the work.

Removal: Minimum amount necessary. Replacement work: To match existing.

#### 730 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.

#### 740 EXISTING FURNITURE, FITTINGS AND EQUIPMENT

Protection: Prevent damage or move as necessary to enable the Works to be executed. Reinstate in original positions.

#### 750 ESPECIALLY VALUABLE/ VULNERABLE ITEMS

Protection: Ensure provision and maintenance of special protective measures to prevent damage to the following:

- Method statement: Submit within one week of request describing special protection to be provided.

#### 760 ADJOINING PROPERTY

Permission: Obtain as necessary from owners if requiring to erect scaffolding on or otherwise use adjoining property.

#### 770 ADJOINING PROPERTY RESTRICTIONS Precautions:

- Prevent trespass of workpeople and take precautions to prevent damage to adjoining property.
- Pay all charges.
- Remove and make good on completion or when directed.

Damage: Bear cost of repairing damage arising from execution of the Works.

#### 780 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
- $\ensuremath{\text{.-}}$  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.

#### 790 MATERIALS FOR RECYCLING/ REUSE

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

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

#### WI 900 Working with the Client and Others

#### 130 ELECTRONIC DATA INTERCHANGE (EDI)

Data: Types and classes of communication: email.

Parties: Between: Contractor, Project Manager, Supervisor and Client's. Requirements: Liaise and agree prior to commencement.

#### 140 THE BUILDING MANUAL

Purpose: The Manual is to be a comprehensive information source and guide for owners and users of the completed Works. It should provide an overview of the main design principles and describe key components and systems to enable proper understanding, efficient and safe operation and maintenance.

#### Scope:

- Part 1: General: Content as clause 160.
- Part 2: Fabric: Content as clause 170.
- Part 3: Services: Content as clause 180.
- Part 4: The Health and Safety File: Content as clause 190.
- Part 5: Building User Guide: Content as clause 200.

Responsibility: The Building Manual is to be produced by the Contractor and must be complete no later than one week before the date for submission of final copies. Information provided by others: Details: None.

#### Compilation:

- Prepare all information for Contractor designed or performance specified work including as-built drawings.
- Obtain or prepare all other information to be included in the Manual.

Reviewing the Manual: Submit a complete draft. Amend in the light of any comments and resubmit. Do not proceed with production of the final copies until authorised.

#### Final copies of the Manual:

- Number of copies: Two electronic and two hard copies.
- Format: Electronic design drawings should be both dwg and pdf format. Hard A4 ring binder with sheets folded to A4 size where required.
- Latest date for submission: Two weeks before the date for completion stated in the contract. Asbuilt drawings and schedules:
- Number of copies: Two electronic and two hard copies.
- Format: Electronic MS Word, dwg and pdf format. Hard Full size.

#### 150 HEALTH AND SAFETY INFORMATION

Content: Obtain and provide the following information: As required by the Principal Designer. Format: Two electronic and to hard copies.

Deliver to: The Principal Designer no later than: In sufficient time for a thorough examination of the information prior to the submission of the Health & Safety File but a minimum of three weeks before the Completion Date.



#### 160 CONTENT OF THE BUILDING MANUAL PART 1: GENERAL

Content: Obtain and Provide the following, including all relevant details not included in other parts of the manual:

Index: list the constituent parts of the manual, together with their location in the document. The Works:

- Description of the buildings and facilities.
- Ownership and tenancy, where relevant
- Health and Safety information other than that specifically required by the Construction (Design and Management) Regulations.

#### The Contract:

- Names and addresses and contact details of all significant consultants, contractors, s subcontractors, suppliers and manufacturers.
- Overall design criteria.
  - Environmental performance requirements
  - Relevant authorities, consents and approvals.
  - Third party certification, such as those made by competent persons in accordance with the Building Regulations Operational requirements and constraints of a general nature:
  - Maintenance contracts and contractors.
  - Fire safety strategy for the buildings and the site. Include drawings showing emergency escape and fire appliance routes, fire resisting doors location of emergency alarm and fire fighting systems, services, shut off valves switches, etc.
  - Emergency procedures and contact details in case of emergency.
  - Other specific requirements: None.

Description and location of other key documents.

Timescale for completion: Two weeks before the Completion Date stated in the Contract.

#### 170 CONTENT OF THE BUILDING MANUAL PART 2: BUILDING FABRIC

Content: Obtain and Provide the following, including all relevant details not included in other parts of the manual:

Detailed design criteria, including:

- Floor and roof loadings.
- Durability of individual components and elements.
- Loading restrictions.
- Insulation values.
- Fire ratings.
- Other relevant performance requirements.

Construction of the building:

- A detailed description of methods and materials used.
- As-built drawings recording the construction, together with an index.
- Information and guidance concerning repair, renovation or demolition/ deconstruction. Periodic building maintenance guide chart.

Inspection reports.

Manufacturer's instructions index, including relevant COSHH data sheets and recommendations for cleaning, repair and maintenance of components.

Fixtures, fittings and components schedule and index.

Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.

Test certificates and reports required in the specification or in accordance with legislation, including:

- Air permeability.
- Resistance to passage of sound.
- Continuity of insulation.
- Electricity and Gas safety.

Other specific requirements: None.

Timescale for completion: Two weeks before the Completion Date stated in the Contract.



#### 180 CONTENT OF THE BUILDING MANUAL PART 3: BUILDING SERVICES

Content: Obtain and Provide the following, including all relevant details not included in other parts of the manual:

Detailed design criteria and description of the systems, including:

- Services capacity, loadings and restrictions
- Services instructions.
- Services log sheets.
- Manufacturers' instruction manuals and leaflets index.
- Fixtures, fittings and component schedule index.

Detailed description of methods and materials used.

As-built drawings for each system recording the construction, together with an index, including:

- Diagrammatic drawings indicating principal items of plant, equipment and fittings
- Record drawings showing overall installation
- Schedules of plant, equipment, valves, etc. describing location, design performance and unique identification cross referenced to the record drawings.
- Identification of services a legend for colour coded services.

Product details, including for each item of plant and equipment:

- Name, address and contact details of the manufacturer.
- Catalogue number or reference
- Manufacturer's technical literature, including detailed operating and maintenance instructions.
- Information and guidance concerning dismantling, repair, renovation or decommissioning.

Operation: A description of the operation of each system, including:

- Starting up, operation and shutting down
- Control sequences
- Procedures for seasonal changeover
- Procedures for diagnostics, troubleshooting and faultfinding.

Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.

Commissioning records and test certificates list for each item of plant, equipment, valves, etc. used in the installations – including:

- Electrical circuit tests. Corrosion tests.
- Type tests.
- Work tests.
- Start and commissioning tests.

Equipment settings: Schedules of fixed and variable equipment settings established during commissioning.

Preventative maintenance: Recommendations for frequency and procedures to be adopted to ensure efficient operation of the systems

Lubrication: Schedules of all lubricated items

Consumables: A list of all consumable items and their source.

Spares: A list of recommended spares to be kept in stock, being those items subject to wear and tear or deterioration and which may involve an extended delivery time when replacements are required.

Emergency procedures for all systems, significant items of plant and equipment.

Annual maintenance summary chart.

Other specific requirements: None.

Timescale for completion: Two weeks before the Completion Date stated in the Contract

# 190 CONTENT OF THE BUILDING MANUAL PART 4: THE HEALTH AND SAFETY FILE Content: obtain and provide the following, including all relevant details not included in other parts of the manual, including:

- residual hazards and how they have been dealt with
- hazardous materials used
- information regarding the removal or dismantling of installed plant and equipment



- health and safety information about equipment provided for cleaning or maintaining the structure;
- the nature, location and markings of significant services,
- information and as-built drawings of the structure, its plant and equipment

Information prepared by others: Details: None.

Timescale for completion: In sufficient item for a thorough examination of the information prior to the submission of the Health & Safety File but a minimum of three weeks before the Completion Date. Submit to: the Principal Designer.

#### 200 CONTENT OF THE BUILDING MANUAL PART 5: THE BUILDING USER GUIDE

Content: Obtain and provide the following:

- Building services information. Emergency information.
- -Energy & environmental strategy. -Water use.
  - -Transport facilities.
- -Materials & waste policy.
- -Re-fit/ re-arrangement considerations. -Reporting provision.
- -Training.
- -Links & references.

Other specific requirements: None.

"Timescale for completion: Two weeks before the Completion Date stated in the Contract.

#### 210 PRESENTATION OF BUILDING MANUAL

Format: Electronic - MS Word, dwg and pdf format.

Hard - A4 size, plastics covered, loose leaf, four ring binders with hard covers, each indexed, divided and appropriately cover titled.

Selected drawings needed to illustrate or locate items mentioned in the Manual: Full size. Where larger than A4, to be folded and accommodated in the binders so that they may be unfolded without being detached from the rings.

As-built drawings: Full size. The main sets may form annexes to the Manual.

#### 220 INFORMATION FOR COMMISSIONING OF SERVICES

General: Submit relevant drawings and preliminary performance data to enable the building user's staff to familiarise themselves with the installation.

Time of submission: At commencement of commissioning.

#### WI 1000 Services and other things to be provided

#### 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.

#### 120 ROOM FOR MEETINGS

Facilities: Provide suitable temporary accommodation for site meetings, adequately heated and lit. The room may be part of the Contractor's own site offices.

Furniture and Equipment: Provide table and chairs for 10 people.

#### 130 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.



#### 140 SANITARY ACCOMMODATION

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

#### 150 WELFARE FACILITIES

Requirement: The Contractor is to include for complying with all current Codes, Regulations, Agreements and Statutes governing welfare facilities and relating to the building industry and in particular for the provision of the following:-

- Shelter from inclement weather
- Accommodation for clothing
- Accommodation for the provision of meals
- Drinking water
- Washing facilities
- First Aid.

#### 160 TEMPORARY WORKS ROADS

Permanent roads, hard standings and footpaths on the site: The following may be used, subject to clause WI 800/660:

- Details: See Kendall Kingscott drawing 150650 L(6)02.
- Restrictions on use: See Site Information.
- Protective or remedial measures: See Scope WI 800/660.

#### 170 NOT USED

# 190 NAME BOARDS/ ADVERTISEMENTS

General: Contractor's name boards will not be permitted. Advertisements will not be permitted.

#### 200 SERVICES AND FACILITIES LIGHTING

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

#### 210 LIGHTING AND POWER

Supply: Electricity from the Client's mains may be used for the Works as follows:

- Metering: Metered by the Contractor and charged to the Contractor.
- Point of supply: To be established on Site.
- Available capacity: To be established on Site.
- Frequency: 50 Hz.
- Phase: To be established on Site. Current: Alternating.

Continuity: The Client will not be responsible for the consequences of failure or restriction in supply.

#### 220 WATER

Supply: The Client's mains may be used for the Works as follows:

- Metering: Metered by the Contractor and charged to the Contractor. Source: To be established on Site.
- Location of supply point: To be established on Site.
- Conditions/ Restrictions: To be established on Site.

Continuity: The Client will not be responsible for the consequences of failure or restriction in supply.

# 230 MOBILE TELEPHONES

Direct communication: As soon as practicable after the start on site:



- provide the Contractor's person in charge with a mobile telephone. - pay all charges reasonably incurred.

#### 240 E-MAIL AND INTERNET FACILITY

General: As soon as practicable after the start on site provide a suitable e-mail facility on site for the use of the Contractor, Subcontractors and those acting on behalf of the Client.

Use on behalf of Client: Allow for the cost of a reasonable number of transmissions made by those acting on behalf of the Client.

Peripherals: Printing and scanning facilities to be provided.

#### 260 USE OF PERMANENT INSTALLATIONS

Unless specific permission is given, the permanent supply, disposal, mechanical, electrical, communications and transport installations may not be used for any purpose other than running in, testing or commissioning

#### 270 USE OF PERMANENT HEATING SYSTEM

Permanent heating installation: May be used for drying out the Works/ services and controlling temperature and humidity levels.

Installation: If used:

- Take responsibility for operation, maintenance and remedial work.
- Arrange supervision by and indemnification of the appropriate Subcontractors.
- Pay costs arising.

#### 280 BENEFICIAL USE OF INSTALLED SYSTEMS

Permanent systems: Unless specific permission is given by the Client and installer, do not use for any purpose other than running in, testing and commissioning.

Other uses: If permission is given for any other use of a system before the Works are accepted as complete, it must be subject to a separate written agreement between the parties and in accordance with the recommended procedures given in NJCC Guidance Note 10.

#### 290 METER READINGS

Charges for service supplies: Where to be apportioned ensure that:

- Meter readings are taken by relevant authority at possession and/ or completion as appropriate.
- Copies of readings are supplied to interested parties.

#### 300 THERMOMETERS

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

#### 310 SURVEYING EQUIPMENT

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

#### 320 PERSONAL PROTECTIVE EQUIPMENT

General: Provide for the sole use of those acting on behalf of the Client, in sizes to be specified:

- Safety helmets to BS EN 397, neither damaged nor time expired. Number required: 10Nr.
- High visibility waistcoats to BS EN ISO 20471 Class 2. Number required: 10Nr.
- Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: 5Nr. Disposable respirators to BS EN 149.FFP1S.
- Eye protection to BS EN 166.
- Ear protection muffs to BS EN 352-1, plugs to BS EN 352-2
- Hand protection to BS EN 388, 407, 420 or 511 as appropriate.

#### WI 1100 Health and safety

#### 110 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.

#### 120 OUTLINE CONSTRUCTION PHASE HEALTH AND SAFETY PLAN

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

- Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
- Details of the management structure and responsibilities.
- Arrangements for issuing health and safety directions.
- Procedures for informing other contractors and employees of health and safety hazards.
- Selection procedures for ensuring competency of other contractors, the self-employed and designers.
- Procedures for communications between the project team, other contractors and site operatives.
- Arrangements for cooperation and coordination between contractors.
- Procedures for carrying out risk assessment and for managing and controlling the risk.
- Emergency procedures including those for fire prevention and escape.
- Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
- Arrangements for welfare facilities.
- Procedures for ensuring that all persons on site have received relevant health and safety information and training.
- Arrangements for consulting with and taking the views of people on site.
- Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
- Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
- Review procedures to obtain feedback.



#### 110 DOMESTIC SUBCONTRACTS

General: Comply with the Construction Industry Board 'Code of Practice for the selection of subcontractors'.

List: Provide details of all subcontractors and the work for which they will be responsible.

Submit: Within one week of request.

#### 120 'LISTED' DOMESTIC SUBCONTRACTORS

General: The work listed below and described in the Scope must be carried out by persons identified in a list as provided for in clause WI 1200:130:

- The work: Removal, reinstatement and re-commissioning of photovoltaic panels
- Enter into a contract with: Photon Energy Jonathan bates jb@photonenergy.co.uk 0118 997 7470.
- The work: Supply and installation of Giromax products
- Enter into a contract with a Giromax approved installer.
- The work: Supply and installation of Euroclad products
- Enter into a contract with a Euroclad approved installer.

# WI 1600 Parent company guarantee (Option X4)

110 Not required.

#### WI 1700 Performance bond (Option X13)

110 Not required.

#### WI 2000 Client's work specifications and drawings

110 As set out in the attached Appendices:

Appendix A - Schedule of Works and associated drawings & appendices