



---

# PRELIMINARIES – L2 HANGAR ROOF REPAIRS

---

NCC3631M

## Contents

A10 Project particulars .....	0
A11 Tender and contract documents .....	1
A12 The site/ existing buildings .....	2
A13 Description of the work.....	5
A20 JCT design and build contract (DB) .....	6
A30 Tendering/ subletting/ supply .....	11
A31 Provision, content and use of documents .....	14
A32 Management of the works .....	19
A33 Quality standards/ control .....	24
A34 Security/ safety/ protection .....	31
A35 Specific limitations on method/ sequence/ timing .....	39
A36 Facilities/ temporary work/ services .....	40
A37 Operation/ maintenance of the finished works .....	43
A40 Contractor's general cost items: management and staff .....	50
A41 Contractor's general cost items: site accommodation .....	51
A42 Contractor's general cost items: services and facilities .....	52
A43 Contractor's general cost items: mechanical plant .....	54
A44 Contractor's general cost items: temporary works .....	55
A50 Work/ products by/ on behalf of the employer .....	56
A54 Provisional work/ items .....	57

# A10

## Project particulars

### Clauses

#### 110 The Project

1. **Name:** L2 Hangar Roof Works
2. **Nature:** The purpose of the project is to remove the existing coating to the roof and gully area, then apply a water proof membrane
3. **Location:** Science and Innovation Park "The Park"  
Red Barn Lane  
Wroughton  
Wiltshire  
SN4 9LT
4. **Timescale for construction work:** TBC

#### 120 Employer (client)

1. **Name:** Science Museum Group
2. **Address:** Exhibition Road  
South Kensington  
London  
SW7 2DD
3. **Contact:** Daniel Sumblar
4. **Email:** danile.sumblar@sciencemuseum.ac.uk

#### 130 Principal contractor (CDM)

1. **Name:** TBC
2. **Address:**
3. **Contact:**
4. **Telephone:**
5. **Email:**

#### 150 Principal designer (Design Stage)

1. **Name:** T M Ventham Practice
2. **Address:** 184 Kellaway Avenue  
Bristol  
BS6 7YL
3. **Contact:** Darren Ventham
4. **Email:** darrenv@tmventham.com

#### 170 Structural Engineer

5. **Name:** T M Ventham Practice
6. **Address:** 184 Kellaway Avenue  
Bristol  
BS6 7YL
7. **Contact:** Darren Ventham
8. **Email:** darrenv@tmventham.com

Ω End of Section

# A11

## Tender and contract documents

### Clauses

#### 100 Tender Documentation hierarchy

#### 110Tender Drawings

1. The tender drawings are: Refer to Appendix C of the Tender Documents.

Ω End of Section

## A12

### The site/ existing buildings

#### Clauses

#### 110 The site

1. **Description:** L2 hangar roof works is a remedial project at the Science and Innovation Park (The Park) at Wroughton. A 545-acre storage facility for the Science Museum Group.

#### 120 Existing buildings on/ adjacent to the site

1. **Description:** The Principal Contractor should be aware that the project is located adjacent to hangars L1 & The Welcome building. L2 sits adjacent to the main site entrance and is situated in the centre of a one-way system used by all who access the park. See Constraints Drawing in Section D of the tender documents. L2 annex buildings are in poor condition and should in no way be walked on as means of access.

#### 140 Existing utilities and services

1. **Drawings:** (Information shown is indicative only): Refer to Section D of the Tender Documents.
2. **Other information:** The Principal Contractor is to carry out such investigations as may be necessary to locate existing services. The Principal Contractor is to ensure that no works take place until a services survey report has been prepared, or until they are satisfied that they are in possession of adequate information concerning the location of existing services. The Principal Contractor is to note that the location of all services may not be correctly shown on drawings. They are to ensure that the ground and structure is appropriately scanned and surveyed prior to the commencement of excavation or intrusive works.

#### 180 Health and safety file

1. **Availability for inspection:** The health and safety file for the site/ building may be seen by appointment during normal office hours at: TBC.
2. **Arrangements for inspection:** Contact the Employer as specified in Section A10

#### 200 Access to the site

1. **Description:** Site is accessed off the A4361. L2 is located at the beginning of site, opposite the main entrance. L1 is also located at the beginning of site, opposite the main entrance. Access to both hangars is via a one-way system, which is depicted on the Constraints Drawing, Section D. This should be adhered to at all times.
2. **Limitations:** The Principal Contractor should note that they will be required to share access with staff and visitors. The site remains fully operational throughout the works and the adjacent roads and buildings will be in regular use.
3. **Limitations:** The Principal Contractor should note that the buildings contain a large number of objects from the SMG Collection held in perpetuity for the nation. Appropriate protection to the collection will be installed by others and must be in place prior to any works commencing on site and method statements agreed for works directly adjacent including roofing works above.
4. **Limitations:** The Contractor is to be responsible for forming safe, adequate and secure access needed to complete the works including liaising with all relevant parties, and as such the Contractor is to visit site and make such other enquiries (e.g. with local authorities) they deem necessary to make themselves fully aware of all such conditions.
5. **The Principal Contractor must take all reasonable steps to ensure that staff and visitors are not able to access the construction site.**
6. **Requirement:** The Principal Contractor will be required to maintain safe access to the internal areas of the hangar, as well as the pedestrian fire exit alongside the doors being replaced

A12

The site/ existing buildings

Page 2 of 58

throughout the works as shown on site Constraints Drawings located in Appendix D of the tender documents.

7. Requirement: The Principal Contractor must allow for providing site inductions to key SMG staff and term maintenance staff requiring access to the working area during the works. SMG to provide 2 weeks-notice of access. Please refer to schedule of access requirements included in Appendix D.
8. Requirement: Emergency access outside of contractor working hours. Contractor out-of-hours contact details to be provided prior to site set-up. Our sites are busy, occupied, publicly accessed sites outside of standard working hours. Principal Contractor must be available to respond to emergency issues outside of the Contractor's standard working hours.
9. The Principal Contractor must ensure external compound boundary fencing is sufficient to protect the staff and visitors from the construction activities.
10. Refer to site constraints and logistics drawing in Appendix D. The contractor is to adhere to all constraints and requirements set out in these documents and is deemed to have allowed for them within the tender response.
11. Refer to Pre-Construction Information, Appendix D in the tender documents for details of the known existing services on site. The contractor should identify and protect these and any services serving adjoining properties throughout the contract period and fully indemnify the client in this regard. All damage shall be immediately made good at the contractor's expense. No claim for delay to the works arising from any damage to the above will be permitted.
12. Concurrent working: The contractor is advised that the following construction works, as indicated on the site constraints drawing Appendix D, are taking place on site concurrently:
  - a. L2 – Hangar door works
  - b. Internal collection remediation works.
13. Deliveries schedule: a weekly deliveries schedule must be provided to the client project manager by 11am on Friday scheduling out all known deliveries for the subsequent week. If additional deliveries are expected, these must be notified ASAP. Deliveries without prior notice for the contractor may not be admitted entry.
14. Deliveries must be directed to arrive at Science and Innovation Park, Red Barn Gate, Wroughton, SN4 9LT and should be noted with the name of the Contractor and Contractor's Project Manager's name and phone number.
15. Limitations: There must be no deliveries between the following peak staff/visitor entry and exit times.
  - a. 08.00-09.00
  - b. 16.00-17.00

## 210 Parking

Restrictions on parking of the Contractor's and employees' vehicles: Parking areas are outlined in the Constraint's Drawings Appendix D. No additional parking is available.

It is recommended that Contractor vehicles are be EURO 6 compliant.

## 220 Use of the site

1. **General:** Do not use the site for any purpose other than carrying out the Works.
2. **Limitations:** The Principal Contractor is to note that the main entrance will remain in use during the works (note, there are works proposed to the main entrance). The L2 hangar will remain operational during these works. The Principal Contractor must ensure that access to the construction site is restricted and ensure that members of the public, visitors and staff are not exposed to construction activities. They should produce a risk assessment and method statement outlining their method of working in relation to this hazard. Any works that take place outside the demarcated construction site may require a work permit from SMG.

## **230 Surrounding land/ building uses**

1. **General:** Adjacent or nearby uses or activities are as follows:
  - 1.1. Storage facilities.
  - 1.2. Office/ welfare spaces
  - 1.3. Farmland
  - 1.4. Temporary security hut

Ω End of Section

## A13

### Description of the work

#### Clauses

#### **110 Preparatory work by others**

1. ~~Details:~~ Movement of SMG and third-party objects and installation of protective scaffold to protect the internal objects once the doors have been removed.
2. ~~Timescale:~~ Prior to Principal Contractor start on site.

#### **120 The works**

1. ~~Description:~~ The project comprises the following scope:

Removing of existing L2 hangar roof coating and replacing with new water proof membrane.

#### **130 Work by others concurrent with the Contract**

1. ~~Description:~~ There will be other contractors on site during the works. The Principal Contractor is to coordinate works should any other contractors be working on site concurrently.
2. There will be other construction sites at L2 and The Park during the works, the Roof works will be near the main entrance for The Park. The Principal Contractor must therefore be cognizant of this and make arrangements to ensure that deliveries and sub-contractors for other sites at The Park are directed away from the construction site as appropriate.
2. Construction works on site will all use the main Red Barn Gate entrance and will include, but are not limited to:
  - 2.1. Door contractors working on hangars L2
  - 2.2. Collection remediations contractors working in L2
  - 2.3. Roofing and downpipe work to D3
  - 2.4. Term maintenance contractor undertaken minor works across site
  - 2.5. Works to the electrical infrastructure on site

#### **140 Completion work by others**

1. ~~Description:~~ NA

Ω End of Section



## A20

# JCT design and build contract (DB)

### Clauses

#### JCT design and build contract

- The Contract: JCT Minor Works Building Contract with Contractor's Design (DB), 2024 Edition.
- Requirement: Allow for the obligations, liabilities and services described.
- Contract: Will be executed as a deed.
- Contract Amendments : Refer to JCT MW wD Schedule of Amendments included in Section B of the Tender Documents.

### The recitals

#### First - The Works

- Comprise: NA

#### Fifth - Division of the works into sections

- The Fifth Recital will not be deleted.

### Articles

#### 3 - Employer's Agent

- Employer's Agent: See clause A10/140.

#### 5 - Principal Designer

- Principal designer: See clause A10/150.

#### 6 - Principal Contractor

- Principal contractor: See clause A10/130.

#### 9 - Legal proceedings

- Amendments: None

### Contract particulars

#### Fourth recital and clause 4.5 - Construction industry scheme (CIS)

- Employer at the Base Date is a 'contractor' for the purposes of the CIS.

#### Fifth Recital - Description of Sections

- Description of Sections
  - NA

#### Sixth Recital - Framework agreement

- Framework agreement: Does not apply

#### Seventh Recital and Part 1 of Schedule 2 - Supplemental provisions - Part 1

- Named subcontractors: Supplemental Provision 1 Applies.
- Valuation of changes - Contractor's estimates: Supplemental Provision 2 does not apply.

- Loss and expense - Contractor's estimates: Supplemental Provision 3 does not apply.

## **Seventh Recital and Part 2 of Schedule 2 - Supplemental provisions - Part 2**

- Acceleration quotation: Supplemental Provision 4 does not apply.
- Collaborative working: Supplemental Provision 5 applies.
- Health and safety: Supplemental Provision 6 applies.
- Cost savings and value improvements: Supplemental Provision 7 applies.
- Sustainable developments and environmental considerations: Supplemental Provision 8 applies.
- Performance indicators and monitoring: Supplemental Provision 9 does not apply.
- Notification and negotiation of disputes: Supplemental Provision 10 applies.
- Where Supplemental Provision 10 applies, the respective nominees of the parties are
  - Employer's nominee: TBC
  - Contractor's nominee: TO BE COMPLETED BY CONTRACTOR
- Or such replacement as each party may notify to the other from time to time.

## **Article 4 - Employer's Requirements, Contractor's Proposals, Contract Sum Analysis**

- Employer's Requirements: Refer to Sections C and D of the Tender Documents
- Contractor's Proposals: TO BE COMPLETED BY CONTRACTOR
- Contract Sum Analysis: Refer to Pricing Document in Section B of the Tender Documents
- Specific Requirements: N/A

## **Article 8 - Arbitration**

- Article 8 and clauses 9.3 to 9.8 (arbitration) apply.

## **Clause 1.1 - Base Date**

- Base Date: 10<sup>th</sup> March 2025

## **Clause 1.1 - Date for completion of the Works**

- Date for completion of the Works (where completion by sections does not apply): 31<sup>st</sup> August 2025
- Practical Completion (PC). This will only be certified when all works have been successfully demonstrated ("proved") and the O&M Manual received.

## **Clause 1.1 - Dates for completion of Sections**

- Dates for completion of sections
  - NA
- Employer
  - Name: Science Museum Group
  - Address: Exhibition Road  
South Kensington  
London  
SW7 2DD
  - Contact: Daniel Sumbler
  - Email: Daniel.sumbler@sciencemuseum.ac.uk
- Contractor

- Address: TO BE COMPLETED BY CONTRACTOR
- Fax Number: TO BE COMPLETED BY CONTRACTOR

### **Clause 2.3 - Date of possession of the site**

- Dates of Possession of site: 25<sup>th</sup> April 2025

### **Clause 2.4 - Deferment of possession of the site**

- Clause 2.4 applies.
- Where clause 2.4 applies, maximum period of deferment is 6 weeks
- Limit of Contractor's liability for loss of use: Unlimited.

### **Clause 2.29.2 - Liquidated damages**

- Damages
- Practical Completion: £2,000 per week or part thereof.

Note, concurrent delays will result in the total of the weekly LADs being deducted,

### **Clause 2.35 - Rectification period**

- Period from the date of Practical Completion
  - 12 months

### **Clause 4.2, 4.12 and 4.13 - Fluctuations Provision**

- Fluctuations provision: No Fluctuations Provision applies

### **Clause 4.6 - Advance payment and advance payment bond**

- Advance payment: Clause 4.6 does not apply.

### **Clause 4.7 - Method of payment - Alternative B**

- Payment: Periodically, in accordance with Alternative B.

### **Clause 4.7.2 - Interim Payments - Interim Valuation Dates**

- The first Interim Valuation Date is: one month after start on site and thereafter the same date in each month or the nearest Business Day in that month.

### **Clause 4.17 - Contractor's retention bond**

- Clause 4.17 does not apply.

### **Clause 4.18.1 - Retention percentage**

- Retention: 3 per cent.

### **Clause 6.4.1 - Contractor's Public Liability Insurance: Injury to persons or property**

- Insurance cover for any one occurrence or series of occurrences arising out of one event: £1,000,000

### **Clause 6.5.1 - Insurance - liability of Employer**

- Minimum amount of indemnity for any one occurrence or series of occurrences arising out of one event: £5,000,000

### **Clause 6.7 and schedule 3 - Works Insurance - insurance options applicable**

- Schedule 3
  - Insurance option A applies.
  - Percentage to cover professional fees: 15 per cent
- Where Insurance Option A applies, annual renewal date (as supplied by the Contractor): TO BE COMPLETED BY CONTRACTOR

### **Clause 6.15 - Professional Indemnity insurance**

- Level of cover: Amount of indemnity required:
  - relates to claims or series of claims arising out of one event.
  - and is £1,000,000.
- Cover for pollution and contamination claims: is not required
- Expiry of required period of Professional Indemnity Insurance: 12 years

### **Clause 7.4 - Third Party Rights and Collateral Warranties**

- Details: As set out in the following documents: a Collateral Warranty will be required for any subcontractor undertaking design activities.

### **Clause 8.9.2 - Period of suspension (termination by Contractor)**

- Period of suspension: Two months

### **Clauses 8.11.1.1 to 8.11.1.6 - Period of suspension (termination by either Party)**

- Period of suspension: Two months

### **Clause 9.2.1 - Adjudication**

- The Adjudicator is: TBC
- Nominating body: Where no Adjudicator is named or where the named Adjudicator is unwilling or unable to act (whenever that is established): The Royal Institution of Chartered Surveyors.

### **Clause 9.4.1 - Arbitration**

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

## **The conditions - No Amendments**

### **Section 1: Definitions and Interpretation**

#### **1.5 - Reckoning periods of days**

- Amendments: None

#### **1.11 - Applicable law**

Amendments: None

**Section 2: Carrying out the Works - No Amendments**

**Section 3: Control of the Works - No Amendments**

**Section 4: Payment - No Amendments**

**Section 5: Changes - No Amendments**

**Section 6: Injury, Damage and Insurance - No Amendments**

**Section 7: Assignment, Third Party Rights and Collateral Warranties - No Amendments**

**Section 8: Termination - No Amendments**

**Section 9: Settlement of Disputes - No Amendments**

**Project bank account - No Amendments**

**Execution**

**Execution**

The contract: Will be executed as a deed.

Ω End of Section

## A30

### Tendering/ subletting/ supply

#### Main contract tendering

#### 110 Scope

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

#### 150 Design Responsibilities

1. The design responsibility for the complete works rests with the Design and Build Contractor and encompasses liability for all pre and post tender design. The drawing and design information issued with the accompanying documents are for the purpose of assisting in clarifying these requirements and do not attract a design responsibility by the Employer. The Contractor may vary the details provided that the Employer's Requirements are not compromised and the variations remain in accordance with the Conditions of Contract and any changes are agreed with the Employer prior to being implemented.
2. Any design information issued with a change in the Employer's Requirements will be for the purpose of assisting in clarifying that change and will not attract a design responsibility

#### 170 Acceptance of tender

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

#### Pricing/ submission of documents

#### 210 Preliminaries in the specification

1. The Preliminaries/ General conditions sections (A10-A56 inclusive) have been prepared in accordance with the tender documents and pre-construction information.

#### 220 Pricing of preliminaries

1. **Abbreviations:** The following have been used:
  - 1.1. F = Fixed charge item.
  - 1.2. TR = Time related charge item.

#### 310 Tender

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

#### 440 Contract sum analysis

1. **Content of the Analysis:** A breakdown of the Contract Sum into at least the following categories: Refer to Pricing Document in Appendix B of the Tender Documents.
2. **Form:** As per the Pricing Document included within Appendix B of the Tender Documents.
3. **Fully priced copy:** Submit with tender.

## 520 Contractor's proposals

1. **Submit:** a compliant tender. If any alternative proposals are considered appropriate, Principal Contractor to submit with tender for consideration should you be identified as the preferred bidder.
2. Any Contractor's proposals post-tender must be issued for approval via the technical submission process. Note: these may not be accepted by the client team.

## 540 Quality control resources

1. **Statement:** Describe the organisation and resources to control the quality of the Works, including the work of subcontractors.
2. **QA staff:** Identify in the statement the number and type of staff responsible for quality control, with details of their qualifications and duties.
3. **Submit:** With tender.

## 570 Outline construction phase health and safety plan

1. **Content:** Submit the following information within one week of request:
  - 1.1. Method statements on how risks from hazards identified in the pre-construction information and other hazards identified by the contractor will be addressed.
  - 1.2. Details of the management structure and responsibilities.
  - 1.3. Arrangements for issuing health and safety directions.
  - 1.4. Procedures for informing other contractors and employees of health and safety hazards.
  - 1.5. Selection procedures for ensuring competency of other contractors, the self-employed and designers.
  - 1.6. Procedures for communications between the project team, other contractors and site operatives.
  - 1.7. Arrangements for cooperation and coordination between contractors.
  - 1.8. Procedures for carrying out risk assessment and for managing and controlling the risk.
  - 1.9. Emergency procedures including those for fire prevention and escape.
  - 1.10. Arrangements for ensuring that all accidents, illness and dangerous occurrences are recorded.
  - 1.11. Arrangements for welfare facilities.
  - 1.12. Procedures for ensuring that all persons on site have received relevant health and safety information and training.
  - 1.13. Arrangements for consulting with and taking the views of people on site.
  - 1.14. Arrangements for preparing site rules and drawing them to the attention of those affected and ensuring their compliance.
  - 1.15. Monitoring procedures to ensure compliance with site rules, selection and management procedures, health and safety standards and statutory requirements.
  - 1.16. Review procedures to obtain feedback.

## 599 Freedom of Information Act

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

## Subletting/ supply

### 630 Domestic subcontracts

1. **General:** Comply with the Construction Industry Board 'Code of Practice for the selection of subcontractors'.
2. **Details:** Provide details of all subcontractors and the work for which they will be responsible.
3. **Submit:** within one week of request.

Ω End of Section



## A31

### Provision, content and use of documents

#### Definitions and interpretations

##### 110 Definitions

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

##### 120 Communication

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

##### 130 Products

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

##### 135 Site equipment

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

##### 140 Drawings

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

##### 145 Contractor's choice

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

##### 150 Contractor's Design

1. **Meaning:** Design to be carried out or completed by the Contractor and supported by appropriate contractual arrangements, to correspond with specified requirements.

##### 155 Submit proposals

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

##### 160 Terms used in specification

1. **Remove:** Disconnect, dismantle as necessary and take out the designated products or work and associated accessories, fixings, supports, linings and bedding materials. Dispose of unwanted materials. Excludes removal and disposal of associated pipework, wiring, ductwork or other services.

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

## **170 Manufacturer and product reference**

1. **Definition:** When used in this combination:
  - 1.1. **Manufacturer:** the person or legal entity under whose name or trademark the particular product, component or system is marketed
  - 1.2. **Product reference:** the proprietary brand name and/ or identifier by which the particular product, component or system is described.
2. **Currency:** References are to the particular product as specified in the manufacturer's technical literature current on the date of the invitation to tender.

## **200 Substitution of products**

1. **Products:** If an alternative product to that specified is proposed, obtain approval before ordering the product. Note that the client is not obliged to accept any alternative proposed by the contractor but will reasonably consider alternatives where originally specified produces are unavailable.

## **220 Referenced documents**

1. **Conflicts:** Specification prevails over referenced documents.

## **230 Equivalent products**

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

## **240 Substitution of standards**

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

## **250 Currency of documents and information**

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

## **260 Sizes**

1. **General dimensions:** Products are specified by their co-ordinating sizes.

## **Documents provided by contractor/ subcontractors/ suppliers**

## **510 Changes/ amendments to Employer's Requirements**

1. **Contractor's changes to Employer's Requirements:** Support request for substitution or variation with all relevant information.
2. **Employer's amendments to Employer's Requirements:** If considered to involve a variation, which has not already been acknowledged as a variation, notify without delay (maximum period 7 days), and do not proceed until instructed. Claims for extra cost, if made after the variation has been carried out, may not be allowed.
3. **Submit:** one copy

## **600 Contractor's Design information**

1. **Master programme:** Make reasonable allowance for completing design/ production information, submission (including information relevant to the CDM Regulations), comment, inspection, amendment, resubmission and reinspection.
2. **Information required:** TBC
  - 2.1. **Format:** Electronic in pdf
  - 2.2. **Number of copies:** One copy
3. **Submit:** Within one week of request.

## 615 Technical Submissions

1. An agreed technical submission schedule and proposed dates for information to be issued is a pre-requisite to payment of the first interim application being paid. This is to ensure sufficient internal resources and technical advisor can be allocated for reviewing information during the project lifecycle can be allocated
2. The Contractor is to provide technical submissions on the following but not limited to:
  - Detailed roller shutter design
  - Electrical design
  - External materials
  - Internal finishes and colours
  - Security detailed design and key suiting
3. Submission: The Contractor is to provide technical submissions to the Client. Contractor to ensure all technical submissions are compliant with the specification prior to issuing to the client team for review, particularly noting any elements highlighted in section A31 200 which must not be subject to any design development or supplier changes. 2-week client review period. prior to placing of any orders and must make any submissions such that they this will not have any impact on the programme for the works. Where confirmation/acceptance of the submission is not returned to the Principal Contractor within this time period, the submission is deemed to be accepted.

## 620 As-built drawings and information

1. **General:** Provide the following drawings/ information:
  - 1.1. Roofing membrane specifications
  - 1.2. All as-built information in PDF and DWG form
  - 1.3. Completed SMG Asset register template in SFG20 format. Template included in Section E
2. All warranty and guarantee information including but not limited to:
  - 2.1 Sub-consultant collateral warranties
  - 2.2 Warranty tracker setting out start and end dates of each warranty and location within the O&M
- 3 Submit: At least two weeks before date for completion.

## 640 Maintenance instructions and guarantees

1. **Components and equipment:** Obtain or retain copies, register with manufacturer and hand over on or before completion of the Works.
2. The contractor must complete the SMG asset register template included in Section E of the Tender Documents as part of the handover documentation.
3. **Information location:** In Building Manual.
4. **Emergency call out services:** Provide telephone numbers for use after completion.
5. Extent of cover.

## Document/ data interchange

### 850 Electronic data interchange (EDI)

1. **Data:** Types and classes of communication: Drawings and emails but not formal 'Notices'.
2. **Parties:** Between: the Employer, Employer's Agent and Employer's retained design team.
3. **Requirements:** All documents to be in pdf format except where otherwise agreed.

Ω End of Section



## A32 Management of the works

### Generally

#### 110 Supervision

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

#### 115 Considerate Constructors Scheme

1. **Registration:** Before starting work, register the site and pay the appropriate fee.
2. **Contact**
  - 2.1. **Address:** Considerate Constructors Scheme Office, PO Box 75, Great Amwell, Ware, Hertfordshire, SG12 0YX.
  - 2.2. **Tel:** 01920 485959.
  - 2.3. **Fax:** 01920 485958.
  - 2.4. **Free phone:** 0800 7831423.
  - 2.5. **Web:** [www.ccscheme.org.uk](http://www.ccscheme.org.uk).
  - 2.6. **E mail:** [enquiries@ccscheme.org.uk](mailto:enquiries@ccscheme.org.uk).
3. **Standard:** Comply with the scheme's Code of Considerate Practice.
  - 3.1. **Minimum compliance level:** Achieve a score of 40 (forty) or above and a minimum score of 7 to be achieved in each section

#### 120 Insurance

1. **Documentary evidence:** Before starting work on site submit details, and/ or policies and receipts for the insurances required by the Conditions of Contract. The cover will be required to be maintained until expiration of 12 years from the date of completion.
2. Responsibility for insuring the works rests with the Principal Contractor until completion.
3. The Contractor will be required to have the following Insurance cover for each and every occurrence or series of occurrences arising from one event.
  - Public liability Insurance: £1m
  - Employer liability insurance: £5m
  - Contractors All risk insurance: £1m
  - Professional Indemnity Insurance: £1m
4. Responsibility for insuring the existing building (L2) during the works rests with the employer. Insurance of the works associated with the project rests with the Principal Contractor.

#### 130 Insurance claims

1. **Notice:** If any event occurs which may give rise to any claim or proceeding in respect of loss or damage to the Works or injury or damage to persons or property arising out of the Works, immediately give notice to the employer/ client, the person administering the Contract on their behalf and the Insurers.
2. **Failure to notify:** Indemnify the employer/ client against any loss, which may be caused by failure to give such notice.

## 140 Climatic conditions

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

## 150 Ownership

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

## 170 Planning Approval

1. NA

## 180 Building Regulations Approval

1. NA

## 188 Hazards in the collection

2. The SMG collection holds a number of hazards including: asbestos; chemicals; mould; Industrial dyes; Implosion hazards, explosives; Nitrates; oils – PCB's (polychlorinated biphenyls); heavy metals; Flammable liquids; Flammable solids; Unknown plastics, radioactive materials, magnets etc.
3. The Principal Contractor will be responsible for ensuring sufficient programme allowance and costs are included for undertaking works ensuing the following safe working procedures are undertaken:
4. Those with Pacemakers/ICDs should not enter, without discussion with the client, the L2 hangar due to objects with magnetic fields.
5. Refer to the site constraints drawing included in Section D of the Tender Documents.
6. Contractor to stop works immediately if there are any concerns about any Collection based risks and alert the Client Project Manager.

## 190 Condition Surveys

The Contractor is to undertake a detailed condition survey of the entrance road to L2 and surround areas of site compound prior to commencement of works on site. This survey is to be checked and approved by the client/ Employer's Agent prior to any construction works starting on site. This survey is required as evidence of the existing condition of the entrance and access roads and in the event of any damage to the entrance and access roads, will be used to determine whether the damage is due to construction works.

## Programme/ progress

### 210 Programme

1. **Master programme:** When requested and before starting work on site, submit in an approved form a master programme for the works, which must include details of:
  - 1.1. Design, production information and proposals provided by the contractor/ subcontractors/ suppliers, including inspection and checking (see section A31).
  - 1.2. Planning and mobilisation by the contractor.
  - 1.3. Earliest and latest start and finish dates for each activity and identification of all critical activities.
  - 1.4. Running in, adjustment, commissioning and testing of all engineering services and installations

- 1.5. Work resulting from instructions issued in regard to the expenditure of provisional sums (see section A54)
- 1.6. Work by or on behalf of the employer and concurrent with the contract (see section A50). The nature and scope of which, the relationship with preceding and following work and any relevant limitations are suitably defined in the contract documents.
2. **Exclusions:** Where and to the extent that the programme implications for work which is not so defined are impossible to assess, exclude it and confirm this when submitting the programme.
3. **Submit:** one copy in Microsoft project and in PDF format.

## **240 Notice of commencement of work**

1. **Part of the work:** Any construction work
2. **Notice period (minimum):** two weeks

## **250 Monitoring**

1. **Progress:** Record on a copy of the programme kept on site.
2. **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.
3. **Key Performance Indicators**
  - 3.1. **Details:** To be agreed in consultation with the Principal Contractor at the works Pre-Start Meeting.
  - 3.2. **Performance:** Record progress against each KPI.
  - 3.3. **Corrective action:** If performance falls below target, submit proposals as soon as possible.

## **260 Site meetings**

1. **General:** Site meetings will be held to review progress and other matters arising from administration of the Contract.
2. **Frequency:** Monthly Formal Progress Meeting
3. **Location:** S+IP Main Offices/Engineering Building
4. **Attendees:** Attend meetings and inform subcontractors and suppliers when their presence is required.
5. **Chairperson (who will also take and distribute minutes):** Science Museum Group

## **265 Contractors Progress Report**

1. Principal contractor to submit a progress report at least two working days prior to the formal monthly progress meeting
2. Contents to include an update on the master programme, key risks and issues, technical submission tracker review Requests for information, update on variations and contractual matters, design report, Monthly H&S report, any other matters arising.

## **266 Health and Safety Report**

1. **General:** The Principal Contractor shall submit Monthly Health and Safety Reports, which shall be provided by a Health and Safety Advisor (either independent or from a separate part of the Principal Contractor's organisation), which shall be provided with the Contractor's Progress Report for each site meeting

Client's H&S advisor to be invited to attend the H&S site visit/audit. 5 working days notice required.

Report Content: The Health and Safety Report must include:

- Date inspection undertaken
- A statement on the progress of the Works at time of Report.



- A Statement on the Welfare Facilities provided
- Details of any matters materially affecting the Health and Safety of the Site.
- Details of any actions that need to be undertaken to rectify any Health and Safety issues identified.
- Any requirements/ recommendations that need to be addressed

## 280 Photographs

1. Number of locations: Minimum of 5
2. Frequency of intervals: Monthly
3. Image format: jpeg or pdf
4. Number of images from each location: Three
5. Other requirements: Photographs required for all opening and closing works.

## 290 Notice of completion

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

## 310 Extensions of Time

Refer to JCT Minor works 2024 and the Schedule Amendments included within Tender Documents.

## Control of cost

### 410 Cash flow forecast

1. 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.

### 440 Measurement

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

### 450 Variations

1. Early warnings of potential variations, delays, changes or issues are to be issued by the Principal Contractor, via the Employer's Agent's Change Control Process (details to be presented at the Works Pre-Start Meeting) within 7 days of them becoming known to the Principal Contractor.
2. These will be tracked and monitored via this process until such time as they are mitigated, resolved or instructed into the Building Contract.
3. The contractor should not proceed with placing any orders or manufacturing until the variation has been instructed. No claims will be accepted should the contractor proceed at risk and the instruction is not implemented.

### 460 Interim payments

1. Application by Contractor: If made under Conditions of Contract clause 4.13 include details of amounts considered due together with all supporting information.

### 475 Listed products stored off site

1. Evidence of Title: Submit reasonable proof that the property in 'listed items' is vested in the Contractor.

2. Include for products purchased from a supplier
  - 2.1. A copy of the contract of sale and a written statement from the supplier that any conditions of the sale relating to the passing of property have been fulfilled and the products are not subject to any encumbrance or charge.
3. Include for products purchased from a supplier by a subcontractor or manufactured or assembled by any subcontractor
  - 3.1. Copies of the subcontract with the subcontractor and a written statement from the subcontractor that any conditions relating to the passing of property have been fulfilled.

#### **485 Public Communications**

1. The Contractor and their supply chain must not publish any communications about the project in any public forum without written confirmation from SMG. This includes any social media posts. A minimum of 2 weeks-notice must be provided.

Ω End of Section

## A33

### Quality standards/ control

#### Standards of products and executions

##### 120 Workmanship skills

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

##### 130 Quality of products

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

##### 135 Quality of execution

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

##### 140 Evidence of Compliance

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

##### 150 Inspections

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

- 1.5. Any associated conditions.

## 160 Related work

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

## 170 Manufacturer's recommendations/ instructions

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

## 180 Water for the works

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

## Samples/ approvals

### 210 Samples

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

### 220 Approval of products

1. **Submissions, samples, inspections and tests:** Undertake or arrange to suit the Works programme.
2. **Approval:** Relates to a sample of the product and not to the product as used in the Works. Do not confirm orders or use the product until approval of the sample has been obtained.
3. Note the process for technical submissions and sample approval. 2 weeks review period required by the client.
4. Note: any alternative products must be approved by the client team even if the contractor considers the product to be equal. Alternative products must be equal AND approved.
5. Requirement: in addition to other material samples to be offered for approval, please provide 5no. Render samples with varying texture and colour options for approval
6. Note: Sufficient time to be allowed for agreeing key coloured elements such as the glazing bars, external feature columns, floor colours and feature wall colour
7. **Complying sample:** Retain in good, clean condition on site. Remove when no longer required.

### 230 Approval of execution

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

### Accuracy/ setting out generally

#### 320 Setting out

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

#### 330 Appearance and fit

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

#### 350 Levels of structural floors

1. Maximum tolerances for designed levels to be
  - 1.1. Floors to be self-finished, and floors to receive sheet or tile finishes directly bedded in adhesive: +/- 10 mm.
  - 1.2. Floors to receive dry board/ panel construction with little or no tolerance on thickness: +/- 10 mm.
  - 1.3. Floors to receive mastic asphalt flooring/ underlays directly: +/- 10 mm.
  - 1.4. Floors to receive mastic asphalt flooring/ underlays laid on mastic asphalt levelling coat(s): +/- 15 mm.
  - 1.5. Floors to receive fully bonded screeds/ toppings/ beds: +/- 15 mm.
  - 1.6. Floors to receive unbonded or floating screeds/ beds: +/- 20 mm.

#### 360 Record drawings

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

### Services generally

#### 410 Services regulations

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

#### 420 Water regulations/ byelaws notification

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

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

#### **430 Water regulations/ byelaws contractor's certificate**

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

#### **435 Electrical installation certificate**

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

#### **440 Gas, oil and solid fuel appliance installation certificate**

1. **Before the completion date stated in the Contract:** Submit a certificate stating:
  - 1.1. The address of the premises.
  - 1.2. A brief description of the new installation and/ or work carried out to an existing installation.
  - 1.3. Any special recommendations or instructions for the safe use and operation of appliances and flues.
  - 1.4. The Contractor's name and address.
  - 1.5. A statement that the installation complies with the appropriate safety, installation and use regulations.
  - 1.6. The name, qualification and signature of the competent person responsible for checking compliance.
  - 1.7. The date on which the installation was checked.
2. **Certificate location:**

#### **450 Mechanical and electrical services**

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

#### **Supervision/ inspection/ defective work**

##### **510 Supervision**

1. **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.
2. **Evidence:** Submit, including details of the person proposed, their relevant skills training and knowledge; practical experience; qualifications; membership or registration with professional bodies; employment history, work related assessments and management structure.
3. **Submittal date:** TBC
4. **Replacement:** Give maximum possible notice before changing person in charge or site agent.

## 520 Coordination of engineering services

1. **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.
2. **Evidence:** Submit when requested CVs or other documentary evidence relating to the staff concerned.

## 530 Overtime working

1. **Notice:** Prior to overtime being worked, submit details of times, types and locations of work to be done.
  - 1.1. **Minimum period of notice:** One week
2. **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

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

## 550 Access for inspection

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

## 560 Tests and inspections

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

## 610 Proposals for rectification of defective products/ executions

1. **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.
2. **Acceptability:** Such proposals may be unacceptable and contrary instructions may be issued.

## 620 Measures to establish acceptability

1. **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:
  - 1.1. Will be at the expense of the Contractor.
  - 1.2. Will not be considered as grounds for revision of the completion date.

## 630 Quality control

1. **Procedures:** Establish and maintain to ensure that the Works, including the work of subcontractors, comply with specified requirements.
2. **Records:** Maintain full records, keep copies on site for inspection, and submit copies on request.

### 3. Content of records

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

## Work at or after completion

### 710 Work before completion

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

### 720 Security at completion

1. **General:** Leave the Works secure with, where appropriate, all accesses closed and locked.
2. **Keys:** Account for and adequately label all keys, and hand over together with an itemized schedule, retaining duplicate schedule signed as a receipt.
3. **Locks:** All doors to be supplied with Euro-cylinders
4. **Keys:** 3no keys to be provided for each lock. Keys to be labelled

### 730 Making good defects

1. **Remedial work:** Arrange access with Employer's Agent.
2. **Rectification:** Give reasonable notice for access to the various parts of the Works.
3. **Completion:** Notify when remedial works have been completed.
4. Defects identified during the defects liability period response times:

Priority Rating	Work type	Attend and make safe	Temporary fix / Resolved
Urgent – Immediate response Very High Priority	Matters giving rise to an immediate risk to Health & Safety, Security or Business Critical systems – <b>ONLY within core hours</b>	Immediate Attendance	1 hour
P1 – High Priority	Matters giving rise to a high risk to Health & Safety, Security or Business Critical systems. Require action within an hour before	1 hour	4 hours



	causing major disruption to users/ business		
P2 – Medium Priority	Matters of less imperative nature that prevent or restrict the client from conducting normal operations.	24 hours	48 hours
P3 – Low Priority	Matters of routine nature (e.g. non-urgent labour request) that do not impinge upon the client's business operations or a request for improvement	5 days (to acknowledge)	As required

Ω End of Section

## A34

### Security/ safety/ protection

#### Security, health and safety

##### 110 Pre-construction information

1. **Location:** Integral with the project Preliminaries, including but not restricted to the following sections (See also Section D of the tender documents):
  - 1.1. **Description of project:** Sections A10 and A11.
  - 1.2. **Client's consideration and management requirements:** Sections A12, A13 and A36.
  - 1.3. **Environmental restrictions and on-site risks:** Section A12, A35 and A34.
  - 1.4. **Significant design and construction hazards:** Section A34.
  - 1.5. **The health and safety file:** Section A37.

##### 120 Execution hazards

1. **Common hazards:** Not listed. Control by good management and site practice.
2. **Significant hazards:** The design of the project includes the following:
  - 2.1. **Hazard:** Not listed. Control by good management and site practice.
  - 2.2. **Precautions assumed:** Responsibility of the contractor to take the necessary precautions.
  - 2.3. **Specification reference:** Pre-Construction Information – Section D
  - 2.4. **Drawing reference:** Constraints Drawing – Section D

##### 130 Product hazards

1. **Hazardous substances:** Site personnel levels must not exceed occupational exposure standards and maximum exposure limits stated in the current version of HSE document EH40: 'Workplace Exposure Limits'.

##### 140 Construction phase health and safety plan

1. **Submission:** Present to the employer/ client no later than one week before the proposed date for start of construction works.
2. **Confirmation:** Do not start construction work until the Principal Designer (Design Stage) and the employer has confirmed in writing that the construction phase health and safety plan includes the procedures and arrangements required by the CDM Regulations.
3. **Content:** Develop the plan from, and draw on, the outline construction phase health and safety plan, clause A30/570, and the pre-tender health and safety plan/ pre-construction information.
1. Attend a "preparedness workshop" with SMG's H&S, Estates, and Project management team before works commence to ensure all existing information has been issued, proposed site boundaries are confirmed and any other access or H&S issues are agreed prior to commencement,

##### 150 Security

1. **Protection:** Safeguard the site, the Works, products, materials, and any existing buildings affected by the Works from damage and theft.
2. **Access:** Take all reasonable precautions to prevent unauthorized access to the site, the Works and adjoining property.
3. **Security Risk Assessment:** TBA
4. **Security for the site works area and boundary** is the responsibility of the Principal Contractor

## 160 Stability

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

## 170 Occupied premises

1. **Extent:** Existing buildings will be occupied and/ or used during the contract as follows: throughout the contract period.
2. **Works:** Carry out without undue inconvenience and nuisance and without danger to occupants and users. Risk and Method statements will be required 2 weeks in advance of access into occupied areas for review by the client team. Contractor may need to be accompanied by a member of client staff when working within L2.
3. **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 authorized in advance.

## 175 Working near Collection items

1. Museum collection objects must not be touched or moved.
2. **Protection:** Internal scaffold protection will be installed prior to contract commencement.
3. Should any damage occur no matter how insignificant, or the contractor suspects there may be an issue with an object beneath its protection, this must be reported to the SMG Project Manager for escalation to Collections Care Manager immediately.

## 180 SMG Permits and specific safety requirements

1. SMG require a permit to work system for certain operations which are considered to pose a specific high risk and therefore require more formalised arrangements for health and safety. A written safe working procedure is required from the Contractor for the following operations/works on or within
  - 1.1. SMG's Confined spaces, i.e. sewage works, tank rooms etc.
  - 1.2. Hot work within an occupied building even if the contractor has a designated CDM site within the building, i.e. welding, burning, roof felting etc.
  - 1.3. Working at Height
  - 1.4. Electrical connections
  - 1.5. Fire alarm isolations
2. Works relating to these works must not take place until the work permit has been issued. Contractors to note this can take up to 10 working days.
3. Contractors engaged in demolition, steel erection, roofing and cladding or works involving the use of pesticides/wood treatments, or asbestos within an SMG occupied building must submit a written method statement which clearly defines a safe system of work in respect of the operation being carried out.
4. Gas appliances or systems may only be worked on by persons registered with the Gas Safe Register and competent to work in accordance with the Gas Safety [Installation and Use] Regulations 1998.
5. Construction plant operators must hold a current and valid Certificate of Training Achievement [CTA] for the appropriate plant they will operate e.g. cranes [mobile, crawler etc], hoists, excavators etc. These certificates must have been issued by the Construction Industry Training Board who is the administering body.
6. Scaffolding must only be erected, altered, checked or dismantled by competent persons, holding the appropriate valid certificate of training i.e. CITB Basic, Advanced Scaffolder's Card. This must be presented to the SMG Project Manager 10 days prior to commencing works

A34

7. Under the Control of Substances Hazardous to Health Regulations 2002 [COSHH], Contractors must submit for approval, risk assessments, to the Contractor Manager for substances covered by these regulations in order that he/she may be assured that no third party will be endangered by their use.
8. It is the responsibility of the Contractor to dispose of any waste materials, substances etc. arising from their undertakings in a manner which will conform to the Environmental Protection Act, 1990, the Control of Pollution Act 1974, and regulations made there under. Contractors therefore must not dispose of any waste material within SMG premises without the prior consent of the Contract Manager.
9. All electrical contractors must be NICEIC approved.

## **200 Mobile telephones and portable electronic equipment**

1. **Restrictions on use**
  - 1.1. No radios to be used on site.

## **210 Safety provisions for site visits**

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

## **220 Working precautions/ restrictions**

1. **Hazardous areas:** Operatives must take precautions as follows:
  - 1.1. **Work area:** Refer to Pre-Construction Information in Appendix D of the Tender Documents.
  - 1.2. **Precautions:** Refer to Pre-Construction Information in Appendix D of the Tender Documents.
2. **Permit to work:** Operatives must comply with procedures in the following areas:
  - 2.1. **Work area:** Refer to Pre-Construction Information in Appendix D of the Tender Documents.
  - 2.2. **Procedures:** Refer to Pre-Construction Information in Appendix D of the Tender Documents.

## **Protect against the following**

### **310 Explosives**

1. **Use:** Not permitted.

### **320 Noise consent by local authority**

1. **Consent:** Granted by the local authority under Part III of the Control of Pollution Act relating to the works providing the following conditions are met:
  - 1.1. Contractor to comply with the local authority.

### **330 Noise and vibration**

1. **Standard:** Comply with the recommendations of BS 5228-1 (noise), in particular clause 7.3, to minimize noise levels during the execution of the Works. Main works area only
2. **Standard:** Comply with the recommendations of BS 5228-2 (vibration). Main works area only
3. **Equipment:** Fit compressors, percussion tools and vehicles with effective silencers of a type recommended by manufacturers of the compressors, tools or vehicles.
4. **Testing of systems** which may result in high noise levels must be notified to the Clint Project Manager with 2 weeks-notice, so works can be postponed in the hangar if required.

5. Noise levels from the Works: Maximum level: 87 dB(A) when measured at the site boundary closest to areas occupied by the public or SMG staff. Contractor to allow for appropriate working methods to meet this requirement.
6. Contractor to allow for appropriate working methods to meet these requirement including vibrations caused by contractor vehicular and plant movement as well as the works themselves. If monitoring indicates readings exceed this level, Contractor to stop works and escalate to the Project Manager.
7. All Power tools to be 110V or battery powered.
8. No radios or other audio equipment to be used in the site area

### 340 Pollution

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

### 350 Pesticides

1. **Use:** Not permitted.

### 360 Nuisance

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

### 370 Asbestos containing materials

1. The Principal Contractor is responsible for removal of *all* asbestos noted within the Asbestos demolition survey included in Section D of the Tender Documents.

Whilst the contractor is responsible for familiarising themselves with the detail of the R&D survey, they are advised that the R&D survey has not identified any ACMs in relation to the doors.

2. Should any additional unknown asbestos be identified which is not within the Asbestos demolition survey, this is a client-retained risk.
3. **Duty:** Report immediately any suspected materials discovered during execution of the works.
  - 3.1. Do not disturb.
  - 3.2. Agree methods for safe removal or encapsulation.

### 371 Dangerous or hazardous substances

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

### 380 Fire prevention

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

### 390 Smoking on-site

1. **Smoking on-site:** Smoking or vaping is **not permitted** anywhere on SMG premises. This includes external spaces and within contractor vehicles parked in Contractor compounds withing SMG premises.

#### **400 Burning on-site**

1. **Burning on-site:** Not permitted.

#### **410 Moisture**

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

#### **420 Infected timber/ Contaminated materials**

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

#### **430 Waste**

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

#### **440 Electromagnetic interference**

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

#### **450 Laser equipment**

1. **Construction laser equipment:** Install, use and store in accordance with BS EN 60825-1 and the manufacturer's instructions.
2. **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.
3. **Class 3R and Class 3B laser equipment:** Do not use without approval and subject to submission of a method statement on its safe use.

#### **460 Powder actuated fixing systems**

1. **Use:** Not permitted.

#### **470 Invasive species**

1. **General:** Prevent the spread of species (e.g. plants or animals) that may adversely affect the site or works economically, environmentally or ecologically.
2. **Special precautions:** N/A
3. **Duty:** Report immediately any suspected invasive species discovered during execution of the works.
  - 3.1. Do not disturb.

3.2. Agree methods for safe eradication or removal.

**Protect the following**

**510 Existing services**

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

**520 Roads and footpaths**

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

**530 Existing topsoil/ subsoil**

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

**540 Retained trees/ shrubs/ grassed areas**

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

**555 Wildlife species and habitats**

1. **General:** Safeguard the following: N/A.
2. **Protected habitats and species:** Upon discovery immediately advise. Do not proceed until instruction is received.
3. **Education:** Ensure that employees and visitors to the site receive suitable instruction and awareness training.

## 560 Existing features

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

## 570 Existing work

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

## 580 Building interiors

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

## 600 Existing furniture, fittings and equipment

1. **Protection:** Prevent damage or move as necessary to enable the Works to be executed. Reinstall in original positions. This excludes Museum collection objects - **these must not be touched or moved. If in doubt discuss with the client.**
2. **Extent:** Before work in each room starts, the following will be removed:
  - 2.1. TBC.

## 625 Adjoining property restrictions

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

## 630 Existing structures

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

## 640 Materials for recycling/ reuse

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

Ω End of Section





## A35

### Specific limitations on method/ sequence/ timing

#### Clauses

#### 110 Scope

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

#### 130 Method/ sequence of work

1. **Specific Limitations:** Include the following in the programme:
  - 1.1. Include a full programme showing sectional completions and the critical path for each section.

#### 160 Use or disposal of materials

1. **Specific limitations: Waste** – Contractor to provide monthly report for all waste streams and skip data. This is a statutory requirements on all works over £300K. This data will be used for SMG's sustainability reporting. The following data is required:

Weight of waste (tonnes or kg)

Assign volume of waste to each relevant waste disposal stream:

- o Landfill
- o Energy from Waste
- o Mixed Recycling
- o Wood Recycling
- o Metal Recycling
- o Glass Recycling
- o Hazardous Waste
- o ICT / WEEE

#### **Wood –**

Where timber products are being used, this must be purchased in accordance with UK timber procurement policy. Only timber and timber products originating either from independently verified legal and sustainable sources or from a licensed Forest Law Enforcement Governance and Trade (FLEGT) partner can be purchased. Recycled timber is also accepted (TPAN April 2010 for further detail).

**Vehicles** – it is recommended that vehicles are EURO 6 compliant

#### 170 Working Hours

1. **Specific limitations:** between the hours and 8am and 5pm

Ω End of Section

## **A36**

### **Facilities/ temporary work/ services**

#### **Generally**

#### **110 Spoil heaps, temporary works and services**

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

#### **Accommodation**

#### **260 Sanitary accommodation**

1. **Requirement:** Provide sanitary accommodation for the Employer/ 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. Porta cabin welfare will be provided – contractor is responsible for maintaining/cleaning and any damage

#### **290 Parking**

1. Parking is to be within the construction demise. Where this is insufficient, the Contractor is to confirm numbers of additional parking spaces required and the times/dates required for review by the client.

#### **Temporary works**

#### **310 Roads**

1. **Permanent roads, hard standings and footpaths on the site:** The following may be used, subject to clause A34/520:
  - 1.1. **Details:** Refer to Pre-Construction Information included in Section 2 of the Tender Documents.
  - 1.2. **Restrictions on use:** Refer to Pre-Construction Information included in Section 2 of the Tender Documents.
  - 1.3. **Protective or remedial measures:** Refer to Pre-Construction Information included in Section 2 of the Tender Documents.

#### **320 Temporary works**

1. Employer's specific requirements: Provide: Screens, fencing, scaffolding as necessary to.

#### **330 Temporary protection to existing trees/ vegetation**

1. NA

#### **340 Name boards/ advertisements**

1. **Name boards/ advertisements:** Not permitted.

## Services and facilities

### 410 Lighting

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

### 420 Lighting and power

1. **Supply:** There is no power or lighting supply available. The Principal Contractor is responsible for providing power to site.
2. **Continuity:** No responsibility will be accepted for the consequences of failure or restriction in supply.

### 425 Gas

1. **Supply:** There is no gas supply available.
  - 1.1. **Metering:** Metered by the Contractor and charged to the Contractor
  - 1.2. **Source:** TBC.
  - 1.3. **Location of supply point:** TBC.
  - 1.4. **Conditions/ Restrictions:** TBC.
2. **Continuity:** No liability will be accepted for the consequences of failure or restriction in supply.

### 430 Water

1. **Supply:** There is no water supply available. The Principal Contractor is responsible for providing water to site.
2. **Continuity:** No responsibility will be accepted for the consequences of failure or restriction in supply.

### 440 Telephones

1. **Temporary on site telephone:** Provide as soon as practicable after the start on site for joint use by the Contractor and Subcontractors and pay all charges.
2. **Responses:** Make arrangements (e.g. an external bell) to ensure that incoming calls are answered promptly.

### 470 E-mail and internet facility

1. **General:** As soon as practicable after the start on site provide a suitable e-mail facility on site, with a separate dedicated telephone line, for the use of the Contractor, Subcontractors and other members of the project team.
2. **Use on behalf of Employer:** Allow for the cost of a reasonable number of transmissions made by other members of the project team.
3. **Peripherals:** TBC.

### 480 Photocopier

1. **General:** Provide reasonably unrestricted access to and reasonably limited free use of an on site photocopier, which may be located in the Contractor's own site offices.

### 510 Temperature and humidity

1. **Levels required by the Employer:** Maintain the following:
  - 1.1. - Levels of temperature and humidity conducive to those works that are temperature and /or humidity sensitive.

## **520 Use of permanent heating system**

1. Permanent heating installation:

## **530 Beneficial use of installed systems**

1. **Permanent systems:** Unless specific permission is given by the Employer and installer, do not use for any purpose other than running in, testing and commissioning.
2. **Other uses:** If permission is given for any other use of a system before the Works are accepted as complete, enter into a separate written agreement recording details of the terms and conditions of use.

## **540 Meter readings**

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

## **550 Thermometers**

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

## **570 Personal protective equipment**

1. **General:** Provide for the sole use of other members of the project team, in sizes to be specified:
  - 1.1. Safety helmets to BS EN 397, neither damaged nor time-expired. Number required: 10.
  - 1.2. High-visibility waistcoats to BS EN ISO 20471 Class 2. Number required: 10.
  - 1.3. Safety boots with steel insole and toecap to BS EN ISO 20345. Pairs required: 10.
  - 1.4. Disposable respirators to BS EN 149.FFP1S.
  - 1.5. Eye protection to BS EN ISO 16321-1 and BS EN ISO 16321-3.
  - 1.6. Ear protection - muffs to BS EN 352-1, plugs to BS EN 352-2
  - 1.7. Hand protection - to BS EN 388, 407, 420 or 511, as appropriate.

Ω End of Section

## A37

# Operation/ maintenance of the finished works

## Generally

### 110The building manual

1. **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 as well as ensuring detailed understanding, efficient and safe operation and maintenance.
2. **Scope**
  - 2.1. **Part 1: General:** content as clause 120.
  - 2.2. **Part 2: Fabric:** content as clause 130.
  - 2.3. **Part 3: Services:** content as clause 140.
  - 2.4. **Part 4: The Health and Safety File:** content as clause 150.
  - 2.5. **Part 5: Building User Guide:** content as clause 151.
3. **Responsibility:**

An outline template for the Building Manuals must be provided 4 weeks in advance of Completion for the Client team to approve format and layout. 2-week client review period

A 'draft' set of the Manuals and Files shall be submitted for approval to the Principal Designer/ CDM Consultant at least 2 weeks before the Completion date. 2-week Client review period. Amend in the light of any comments and resubmit. If there are significant number of clients queries an additional review may be required 3 weeks prior to Completion

Final version to be submitted 2 weeks prior to Completion.

It will be a contractual undertaking that the Practical Completion Certificate will not be issued until appropriate numbers of copies of the approved Manuals and Files have been handed to and accepted as being to the required standard by the Principal Designer/ CDM Consultant and SMG Maintenance contractor confirms all information required to maintain the building has been included in the manuals.

The signed off final manuals are a pre-requisite to Practical Completion being given. A completed Building Manual reviewed and accepted by The Employer's Agent (within input from the client team) (2 week review period required). The accepted building manual is to be produced by the contractor and must be complete no later than Practical Completion. This is a pre-requisite to Practical Completion being given.
4. **Information provided by others: Details:** Please refer to the Pre-Construction Information.
5. **Compilation**
  - 5.1. Prepare all information for contractor designed or performance specified work including as-built drawings.
  - 5.2. Obtain or prepare all other information to be included in the manual.
6. **Final copies of the manual**
  - 6.1. **Number of copies:** One.
  - 6.2. **Format:** pdf.
  - 6.3. **Latest date for submission:** 4 weeks before the date for completion stated in the contract.
  - 6.4. Only information relevant to the project must be included in the files. If the contractor includes supplier/product information that is not relevant to the specific products provided as part of the works, the files will not be approved, and an updated version will be required for submission. For example, if a full lighting brochure is included rather than the details for the specific light fittings installed, the manual will be rejected.

- 6.5. Maximum File path length for any document issued as part of the as-builts and Manuals should be 150 characters. This is to ensure documents can be saved onto our servers. This includes the name of the file and its parent folders. Naming of files must be clear to enable easy identification for the life of the building
7. As-built drawings and schedules
  - 7.1. Number of copies: One.
  - 7.2. Format: Electronic. PDF and DWG, schedules in Excel.
  - 7.3. Requirement: all drawings and schedule must be marked as “as-built” or “as installed”, It is the contractor’s responsibility to manage that either directly or via the designers and supply chain. Documents labelled as “for construction” will not be accepted.
  - 7.4. Completed SMG Asset register template in SFG20 format. Template included in [insert location in tender]
  - 7.5. File naming restrictions: Maximum File path length for any document issued as part of the as-builts and Manuals should be 150 characters. This is to ensure documents can be saved onto our servers. This includes the name of the file and its parent folders. Naming of files must be clear to enable easy identification for the life of the building
  - 7.6. Requirement: it is vital that ALL works are included as an as-built

## **115 The Health and Safety File**

1. Responsibility: the contractor
2. Content: Obtain and provide the following information: TBC.
3. Format: Electronic
4. Delivery to: the Client By (date): 2 weeks prior to Practical Completion
5. Practical Completion. A completed Health and Safety File reviewed and accepted by the client team (2 week review period) is a pre-requisite to Practical Completion being given.
6. It will be a contractual undertaking that the Practical Completion Certificate will not be issued until appropriate numbers of copies of the approved H&S file have been accepted as being to the required standard by the Principal Designer/ CDM Consultant and SMG

## **120 Content of the building manual part 1: General**

1. Content: Obtain and Provide the following, including all relevant details not included in other parts of the manual:
2. Index: list the constituent parts of the manual, together with their location in the document.
3. The Works
  - 3.1. Description of the buildings, systems and facilities.
  - 3.2. Ownership and tenancy, where relevant
  - 3.3. Health and Safety information – other than that specifically required by the Construction (Design and Management) Regulations.
4. The Contract
  - 4.1. Names and addresses and contact details of all significant consultants, contractors, subcontractors, suppliers and manufacturers.
  - 4.2. Overall design criteria.
  - 4.3. Environmental performance requirements
  - 4.4. Relevant authorities, consents and approvals.
  - 4.5. Third party certification, such as those made by “competent” persons in accordance with the Building Regulations
5. Operational requirements and constraints of a general nature

- 5.1. Maintenance contracts and contractors.
- 5.2. 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.
- 5.3. Emergency procedures and contact details in case of emergency.
- 5.4. Other specific requirements: N/A.
6. Description and location of other key documents.
7. **Timescale for completion:** Prior to Practical Completion. Note requirement for Client review and acceptance as a pre-requisite to Practical Completion.

### **130 Content of the building manual part 2: Building fabric**

1. **Content:** Obtain and Provide the following, including all relevant details not included in other parts of the manual:
2. Detailed design criteria, including
  - 2.1. Floor and roof loadings.
  - 2.2. Durability of individual components and elements.
  - 2.3. Loading restrictions.
  - 2.4. Insulation values.
  - 2.5. Fire ratings.
  - 2.6. Other relevant performance requirements.
3. Construction of the building
  - 3.1. A detailed description of methods and materials used.
  - 3.2. As-built drawings recording the construction, together with an index.
  - 3.3. Information and guidance concerning repair, renovation or demolition/ deconstruction.
4. Periodic building maintenance guide chart.
5. Inspection reports.
6. Manufacturer's instructions index, including relevant COSHH data sheets and recommendations for cleaning, repair and maintenance of components.
7. Fixtures, fittings and components schedule and index.
8. Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.
9. Test certificates and reports required in the specification or in accordance with legislation, including
  - 9.1. Air permeability.
  - 9.2. Resistance to passage of sound.
  - 9.3. Continuity of insulation.
  - 9.4. Electricity safety.
10. Other specific requirements: N/A.
11. **Timescale for completion:** Prior to Practical Completion. Note requirement for Client review and acceptance as a pre-requisite to Practical Completion.

### **140 Content of the building manual part 3: Building services**

1. **Content:** Obtain and Provide the following, including all relevant details not included in other parts of the manual:
2. Detailed design criteria and description of the systems, including
  - 2.1. Services capacity, loadings and restrictions
  - 2.2. Services instructions.



- 2.3. Services log sheets.
- 2.4. Manufacturers' instruction manuals and leaflets index.
- 2.5. Fixtures, fittings and component schedule index.
3. Detailed description of methods and materials used.
4. As-built drawings for each system recording the construction, together with an index, including
  - 4.1. Diagrammatic drawings indicating principal items of plant, equipment and fittings
  - 4.2. Record drawings showing overall installation
  - 4.3. Schedules of plant, equipment, valves, etc. describing location, design performance and unique identification cross referenced to the record drawings.
  - 4.4. Identification of services – a legend for colour coded services.
5. Product details, including for each item of plant and equipment
  - 5.1. Name, address and contact details of the manufacturer.
  - 5.2. Catalogue number or reference
  - 5.3. Manufacturer's technical literature, including detailed operating and maintenance instructions.
  - 5.4. Information and guidance concerning dismantling, repair, renovation or decommissioning.
6. Operation: A description of the operation of each system, including:
  - 6.1. Starting up, operation and shutting down
  - 6.2. Control sequences
  - 6.3. Procedures for seasonal changeover
  - 6.4. Procedures for diagnostics, troubleshooting and fault-finding.
7. Guarantees, warranties and maintenance agreements – obtain from manufacturers, suppliers and subcontractors.
8. Commissioning records and test certificates list for each item of plant, equipment, valves, etc. used in the installations – including but not limited to:
  - 8.1. IEE Electrical test and inspection certificates
  - 8.2. CCTV System Test Certificates
  - 8.3. Emergency Lighting test certificates
  - 8.4. Security alarm test certificates
  - 8.5. Fire Alarm test certificates
  - 8.6. Standby generator systems test certificates
  - 8.7. Lightning protection test certificate
  - 8.8. BMS test certificate & Commissioning data
  - 8.9. Manufacturers test certificates for electrical equipment
  - 8.10. Specialists test certificates for specialist equipment
  - 8.11. Chlorination certificates
  - 8.12. HVAC installations test Certificates and Commissioning data
  - 8.13. Fire appliance test certificates
  - 8.14. Water main pressure test
  - 8.15. Soil & waste installation and testing
  - 8.16. Fire stopping
  - 8.17. Any other sustainability/energy approvals
  - 8.18. Concrete testing – slump, crush
  - 8.19. Suspension points for objects/plant/equipment and certificates

- 8.20. Cleaning specification for all finishes, including method statement for cleaning, specialist installation
- 8.21. Method statement for replacing specialist items
- 8.22. Details in compliance with COSHH
- 8.23. Details of the pest proofing specification
- 8.24. All commissioning test certs
- 9. **Equipment settings:** Schedules of fixed and variable equipment settings established during commissioning.
- 10. **Preventative maintenance:** Recommendations for frequency and procedures to be adopted to ensure efficient operation of the systems
- 11. **Lubrication:** Schedules of all lubricated items
- 12. **Consumables:** A list of all consumable items and their source.
- 13. **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.
- 14. Emergency procedures for all systems, significant items of plant and equipment.
- 15. Annual maintenance summary chart.
- 16. **Other specific requirements:** N/A.
- 17. **Timescale for completion:** Prior to Practical Completion. Note requirement for Client review and acceptance as a pre-requisite to Practical Completion.

#### **150 Content of the building manual part 4: the Health and Safety File**

- 1. **Content:** obtain and provide the following, including all relevant details not included in other parts of the manual, including:
  - 1.1. residual hazards and how they have been dealt with
  - 1.2. hazardous materials used
  - 1.3. information regarding the removal or dismantling of installed plant and equipment
  - 1.4. health and safety information about equipment provided for cleaning or maintaining the structure;
  - 1.5. the nature, location and markings of significant services,
  - 1.6. information and as-built drawings of the structure, its plant and equipment
  - 1.7. N/A.
- 2. Information prepared by others: Details: by Practical Completion.
- 3. **Timescale for completion:** Prior to Practical Completion. Note requirement for Client review and acceptance as a pre-requisite to Practical Completion.
- 4. **Submit to:** the Client and Employer's Agent minimum of 2 weeks prior to Practical Completion

#### **151 Content of the building manual part 5: the building user guide**

- 1. **Content:** Obtain and provide the following:
  - 1.1. Building services information.
  - 1.2. Emergency information.
  - 1.3. Energy & environmental strategy.
  - 1.4. Water use.
  - 1.5. Transport facilities.
  - 1.6. Materials & waste policy.
  - 1.7. Re-fit/ re-arrangement considerations.
  - 1.8. Reporting provision.

- 1.9. Training.
- 1.10. Links & references.
- 2. Other specific requirements: N/A.
- 3. **Timescale for completion:** Prior to Practical Completion. Note requirement for Client review and acceptance as a pre-requisite to Practical Completion.

## **160 Presentation of building manual**

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

## **190 Maintenance service**

- 1. **Scope:** Provide a comprehensive maintenance service for the following items of plant and equipment. Include all planned preventative maintenance, as set out within the maintenance schedule, and replacement of all consumable items.
- 2. MEP maintenance.
  - 2.1 **Terms** 12 months
    - 2.1.1. **Commencement:** At start of defects liability period
    - 2.2. Requirement: undertake all MEP maintenance and servicing during the defects liability period. This includes the required serving at 12 months
    - 2.3. 2.4 Exception: Client team will undertake the following activities during the defects liability period:
      - 2.3.1. Fire alarm – weekly call point tests
      - 2.3.2. Emergency light – monthly and annual operational testing
      - 2.3.3. Access control - monthly operational tests
      - 2.3.4. Water temp testing
      - 2.3.5. Generator – weekly and monthly 'run-ups'
      - 2.3.6. If any faults are identified during this routine testing, these will be escalated to the principal Contractor to rectify
- 3. Soft Landscaping maintenance
  - 3.1 Terms: 12 months
  - 3.2 Commencement: At start of defects liability period
  - 3.3 Note: Contractor will also be responsible for watering during the defects liability period
  - 3.4 Any plants or trees which die during the defects liability period must be replaced in the correct planting season. An appropriate level of retention may be withheld if the planting season does not coincide with the end of the defects period until the works are complete.
  - 3.5 Note: retention will not be released until all maintenance records are provided confirming compliance with warranties and guarantees are provided and approved by the Employer's Agent.

## **210 Information for commissioning of services**

- 1. **General:** Submit relevant drawings and preliminary performance data to enable the building user's staff to familiarise themselves with the installation.
- 2. **Time of submission:** At commencement of commissioning.

3. Requirement: Seasonal Commissioning required during the defects period. Report to be issued at each session
4. Seasonal commissioning in line with BSRIA guidance. BG44/2013 BSRIA

## 220 Training

1. **Objective:** Before Completion, explain and demonstrate to designated maintenance staff the purpose, function and operation of the installations including items and procedures listed in the Building Manual.
2. Level of training:
  - 2.1. Familiarisation sessions with the user group – allow 1 days
  - 2.2. Familiarisation and training security staff – allow 1 day
  - 2.3. Compliance testing training required prior to Practical Completion – allow 1 days
  - 2.4. Familiarisation: ensure SMG Estates term maintenance contractor is invited to witness servicing during the Defects Liability Period. Notification to SMG 2 weeks prior to attendance on site. Witnessing to be grouped and delivered in full day blocks to make best use of attendee's time
3. Time allowance: Include a minimum of two days.

## 230 Spare parts

1. **General:** Before Completion submit a priced schedule of spare parts that the Contractor recommends should be obtained and kept in stock for maintenance of the services installations.
2. **Content:** Include in the priced schedule for:
  - 2.1. Manufacturers' current prices, including packaging and delivery to site.
  - 2.2. Checking receipts, marking and numbering in accordance with the schedule of spare parts.
  - 2.3. Referencing to the plant and equipment list in Part 3 of the Building Manual.
  - 2.4. Painting, greasing, etc. and packing to prevent deterioration during storage.
3. **Quantity:** Contractor to allow for the following quantities of spares at the end of the defects liability period (i.e for use by the client after maintenance responsibility has transferred from the contractor back to the client, NOT for use during the defects liability period):
  - 3.1. Light bulbs – 4no. Spare bulbs for each light fitting type
  - 3.2. 4no. Spare of each type of filters for any mechanical plant
  - 3.3. Floor finishes/carpet tiles – whole pieces/tiles left over from construction.
4. **Latest date for submission:** Two weeks before completion

## 250 Tools

1. **General:** Provide tools and portable indicating instruments for the operation and maintenance of all services plant and equipment (except any installed under Named Subcontracts) together with suitable means of identifying, storing and securing.
2. **Quantity:** Two complete sets.
3. **Time of submission:** At completion.

Ω End of Section

## A40

### Contractor's general cost items: management and staff

#### Clauses

#### 110 Management and staff

1. **Cost-significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

Ω End of Section

## A41

### Contractor's general cost items: site accommodation

#### Clauses

##### 110 Site accommodation

1. **Details:** Site accommodation required: See section A36.
2. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

Ω End of Section

## A42

### Contractor's general cost items: services and facilities

#### Clauses

##### 110 Power

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 120 Lighting

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 130 Fuels

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 140 Water

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 150 Telephone and administration

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 160 Safety, health and welfare

1. See clause A34/210.
2. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 170 Storage of materials

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 180 Rubbish disposal

1. See clause A34/430.
2. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 200 Drying out

1. See clause A34/410.
2. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 210 Protection of work in all sections

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

##### 220 Security

1. See clause A34/150.

2. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

### **230 Maintain public and private roads**

1. See clause A34/520.
2. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

### **240 Small plant and tools**

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

Ω End of Section



## A43

### Contractor's general cost items: mechanical plant

#### Clauses

#### 110 Cranes

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 120 Hoists

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 140 Transport

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 160 Concrete plant

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 180 Paving and surfacing plant

1. **Cost significant items:** Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 200 Additional mechanical plant

1. **Cost significant items:** TO BE COMPLETED BY CONTRACTOR

Ω End of Section

## A44

### Contractor's general cost items: temporary works

#### Clauses

#### 110 Temporary roads

1. Cost significant items: NA

#### 120 Temporary walkways

1. Cost significant items: NA

#### 130 Access scaffolding

1. Cost significant items: Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 140 Support scaffolding and propping

1. Cost significant items: Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 150 Hoardings, fans, fencing, etc.

1. Cost significant items: Please refer to the Pricing Document contained within Appendix B of the Tender Documents.

#### 160 Hardstanding

1. Cost significant items: NA

#### 170 Traffic regulations

1. Cost significant items: NA

#### 200 Additional temporary works

1. Cost significant items: TO BE COMPLETED BY CONTRACTOR

Contractor to allow for all temporary works required to undertake the works.

Ω End of Section

## A50

### Work/ products by/ on behalf of the employer

#### Clauses

#### 120 Products provided by/ on behalf of employer

1. **General:** Details of such products are given in the work sections, for fixing as part of the contract. Use for no other purpose than the Works.
2. **Handling:** Accept delivery, check against receipts and take into appropriate storage.
3. **Surplus products:** Keep safe and obtain instructions.
4. For items supplied by the client refer to the Pricing Document included in Appendix B of the Tender Documents.

Ω End of Section

## A54 Provisional work/ items

### Clauses

#### **110 Provisional sums for defined work, for use with SMM7/ NRM2**

Item: Refer to Pricing Document in Appendix B of the Tender Documents.

#### **115 Provisional Sums:**

Refer to Pricing Document in Appendix B of the Tender Documents.

Allow for general attendance.

#### **210 Provisional sums for undefined work, for use with SMM7/ NRM2**

Item: Refer to Pricing Document in Appendix B of the Tender Documents.

Ω End of Section



Specification created using NBS Chorus