

**Specification of Works:
Refurbishment**

At:
7 Hurren Terrace, Southwold, IP18 6AX

On behalf of:
Southwold Town Council

Ref: **1910004**

Version: **A**

Date:
12th July 2021

Prepared by

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Section 1 - Preliminaries

SECTION 1 - PRELIMINARIES

Description of the Work	The works comprise of:- Refurbishment of all internal areas including creating a bin and cycle store to the ground floor lobby currently outside of the useable area. Creation of en suite facilities to top floor. Elements of contractor design including electrical installation, fire alarm installation, emergency lighting, above ground drainage and other mechanical electrical ventilation installations and alterations.
Project Particulars	The site is located at: 7 Hurren Terrace, Southwold IP18 6AX
The term "the Employer" will	Southwold Town Council Town Hall Market Place Southwold Town Council IP18 6EF
The term "Contract Administrator" shall mean:	North & Hawkins Building Consultancy 2 Redwell Street Norwich NR2 4SN
Form of Contract	<p>1.1 The form of contract that the Contractor will be required to enter into with the Employer shall be:- JCT Minor Works Building Contract with Contractors Design (MCD) (2016)</p> <p>1.2 Contractual Matters</p> <p>i. It is intended that these works will be contracted by way of a JCT Minor Works (Contractors Design) 2016. All Contract Terms apply.</p> <p>ii. Base Date: Not applicable</p> <p>iii. CDM Planning Period: 2 weeks</p> <p>iv. Date for Commencement / Completion of Works: Commencement September 2021. Completion by: 9 Weeks.</p> <p>v. Liquidated Damages: £200 per week or part thereof</p> <p>vi. Rectification Period: 12 months</p> <p>vii. Retention Percentages: 95% for Interim Valuations and 97½% after Practical Completion.</p> <p>viii. Adjudication clauses apply. Arbitration clauses do not apply</p> <p>ix. Insurances: Clause 5.4C applies - the Contractor shall maintain a Contractors All Risk Policy of not less than £1,000,000. The Contractor must provide evidence of suitable current Contractors All Risks, Public Liability and Employer's Liability insurance cover to a minimum level of £5 million. The Employer will insure the building.</p> <p>x. Contractors Design Portion:</p> <ul style="list-style-type: none"> • Electrical installation • Fire detection and alarm system installation • Emergency lighting • Above ground drainage • Plumbing and heating alterations

Contract Drawings	<p>1.3 This specification and the drawings will become contract documents. The Contractor must allow for carrying out all the works shown on the drawings whether referred to in the Specification or not and for costs arising out of compliance with the terms and conditions of the Contract:</p> <p>Contract Drawings:</p> <ul style="list-style-type: none"> •Ground floor plan 191004-001 •First floor plan 191004-002 •Second floor plan 191004-003
Dimensions	<p>1.5 Figured dimensions shall be followed in preference to dimensions scaled from the drawings but wherever possible dimensions shall be taken from the building. Before any works are commenced by sub-contractors or orders placed with suppliers, dimensions shall be checked on site by the Contractor and agreed with the Specialist irrespective of the comparable dimensions shown in the drawings. The Contractor shall be responsible for and shall entirely at his own risk amend any errors arising from his own inaccurate setting out.</p>
Discrepancies	<p>1.6 The whole of the works shall be carried out in accordance with the Contract Documents and no deviation shall be permitted therefrom unless prior written approval of the Contract Administrator has been obtained by the Contractor. The Contractor shall examine the Contract Documents for discrepancies and immediately draw the attention of the Contract Administrator thereto and obtain their instructions before proceeding with the work concerned.</p>
Contracts with Nominated & Named Sub-Contractors & Suppliers	<p>1.7 Where so instructed the Contractor shall enter into the appropriate sub-contract with all sub-contractors and suppliers in such a manner as to ensure compliance with the terms of the main contract.</p>
Supervision of Sub-Contractors	<p>1.8 The Contractor shall supervise all sub-contractors and administer all sub-contracts and be responsible for ensuring the satisfactory execution of all sub-contract works.</p>
Sub-Contractors' Requirements	<p>1.9 The Contractor shall be responsible for ascertaining from the various sub-contractors their requirements with regard to recesses, chases, holes etc., so that these can be formed correctly in the first instance and without alteration whether in the course of the Contractor's work or in the work of other sub-contractors and shall ensure that such information is made available to all concerned. Should the Contractor fail to obtain and make use of this information, or fail to make it available to other sub-contractors, he will be responsible for the cost of abortive works. The Contractor shall execute cutting away and making good for sub-contractors at times to suit the progress of their works.</p>
Construction (Design & Management) Regulations 2015	<p>1.1 All works undertaken under the Contract shall, where it applies, be in accordance with the Construction (Design & Management) Regulations 2015.</p>

	<p>On this occasion the full requirements of the Construction (Design & Management) Regulations 2015 will apply.</p> <p>The contractor will be the Principal Contractor as defined in the Regulations.</p> <p>The project is not Notifiable.</p> <p>The contractor is to further consider all health and safety implications to the works as set out in the appended Pre-Construction Information and to provide a Construction Phase Plan and all associated method statements of sufficient detail to the principal designer prior to the commencement of works on site.</p>
Insurance	<p>1.12 The Contractor, shall when required by the Contract Administrator, produce from time to time satisfactory evidence that the risks entailed in the execution of the Contract works are adequately covered by insurance. (Minimum cover £1,000,000).</p>
Contractor to Visit Site	<p>1.13 Before estimating, the Contractor is advised to visit the site and premises so as to be fully acquainted with the facilities for, and difficulties of, access.</p>
Access	<p>1.14 At Tender stage, the Contractor is to familiarise himself with the layout of the site and any inherent access restrictions. The Contractor will be responsible for ensuring that deliveries and collection, including non-waste materials can be accommodated. Where special provision is deemed necessary, the Contractor is to identify and detail these within the Tender return.</p>
Advertisements	<p>1.15 The Contractor shall not display any name or advertisement board without the previous consent in writing of the Employer, or the CA on his behalf.</p>
Person-in-Charge	<p>1.16 The Contractor shall constantly keep upon the works a competent person-in-charge and any instructions given to him by the Contract Administrator, or directions given to him by the Clerks of Works, shall be deemed to have been issued to the Contractor. The name of the person- in-charge shall be notified to the Contract Administrator prior to works commencing on site and he shall not be changed without the Contract Administrators approval.</p>
Temporary Telephone	<p>1.17 The person in charge will be provided with a site telephone and the contractor will be responsible for all costs incurred.</p>
Plant, Machinery & Tools	<p>1.18 The Contractor is to provide all tools, plant, temporary shoring and other items necessary for the proper and safe execution of the works and to comply with current regulations governing the execution of the works according to the true intent and meaning of this Specification and including plant, etc., for the execution of the works or sub-contractors (other than special trade plant provided by the Sub-Contractors).</p>

Scaffolding and Access Platforms	<p>1.19 The contractor is to provide, erect and maintain, alter and adapt as necessary, general scaffolding or staging, internally and externally, as necessary for the proper safe execution of the works, and allow subcontractors free use of the same. Such scaffolding and staging shall include independent, putlog or mobile scaffolds, hoists, ladder towers, access platforms, gantries, safety rails, barriers, brick guards, debris chutes and netting, and the like. If temporary roofs or side sheeting is required this will be specified in the schedule of works.</p> <p>If a scaffold is required to execute the proposed works. All scaffolding shall be erected and maintained in accordance with Construction, Health, Safety & Welfare 1996; Health & Safety at work 1974; Standard Code of Practice BS5973 & 1139 Standard Boards BS2482; Ladders, Trestles & Steps BS1129 & 2037. In addition, such structures shall also comply with other relevant directives and guidance notes issued by the Health & Safety Executive.</p> <p>All scaffolding to be supported on the ground level wherever possible and erected, maintained, adapted and dismantled by an approved scaffold contractor, who is NASC Member. Where scaffolding is required to the external perimeter of the building, this is to be an independent construction and at all times during the scaffold design and assembly, the contractor is reminded of the importance of preventing unauthorised access/ trespass to neighbouring premises.</p> <p>Obtain all permits and licences necessary and pay for the same.</p>
Temporary Water & Plumbing	<p>1.20 The whole of the water required for the works shall be clean and fresh and the Contractor shall be permitted to draw water from a local point as required in a method to be agreed with the CA. The contractor will execute any temporary plumbing where necessary and remove the same on completion at his own expense and pay all fees and charges in connection therewith.</p>
Lighting & Heating	<p>1.21 The Contractor is permitted to use site electricity where required and is to arrange for any artificial lighting or heating necessary and is to clear the same away on completion and pay all fees and charges in connection therewith. The method of connecting is to be agreed with the CA.</p>
Parking, Deliveries and Waste	<p>1.22 Parking is available on the street fronting the site. The contractor should not allow to have full access for parking and deliveries of the yard to the rear of 7 Hurren Terrace as this is subject to development and is unlikely to be available for the course of the works.</p> <p>Any waste kept on site is to be stored securely until it can be removed. Contractor to ensure that all materials and waste do not impede other nearby residential occupiers.</p>
Attendance	<p>1.23 The Contractor shall provide for attendance of trade upon trade, including (if applicable) Nominated Sub- Contractors, as may be necessary to complete the works.</p>

	1.24 The Contract Administrator and their representatives shall at all reasonable times have access to the works and to the workshops or other places where work is being undertaken for the contract works.
	1.25 The Contractor shall attend on the Contract Administrators and their representatives when they visit the site and give them all the assistance they require for inspecting, testing or measuring the works or parts thereof, or materials.
	1.26 The words "Allow for attendance" where hereinafter used in connection with the Sub-Contractors' works shall include the provision of all usual facilities for the execution of their works, the free use of all fixed scaffolding and plant, any light plant required, dry and secure storage accommodation, free use of water and electricity and the unloading, getting in and hoisting of materials and plant.
Protection of Works	1.27 The Contractor shall provide proper and adequate watching, lighting and protection of the works from the time of being placed in possession of the site, and shall at all times protect the premises, site and surrounding property, belonging to the Employer from damage or loss howsoever arising.
Site Security	1.28 The Contractor shall adequately secure the site at all times against unauthorised entry or occupation.
Weather Protection	1.29 The Contractor shall provide all necessary coverings, casing and other means adequately to protect the works from weather conditions unfavourable or otherwise and shall erect, maintain and remove the same from time to time as necessary and clear away on completion, making good where necessary. If the provision of adequate protection is not reasonably practicable the Contractor shall notify the Building Surveyors prior to works commencing. The Contractor shall rectify at his own cost any damage caused by the weather if such is due to his own ineffective temporary protection.
Keep Works Clean and Free From Damage	1.30 The Contractor shall at his own expense keep the Contract works, including the site/premises whereon the same are executed together with all goods and materials, clean and free from damage during the execution of the works and shall leave the site/premises clean and tidy on completion.
Public Highway & Pavements	1.31 The Contractor shall keep public highways and pavements free from obstruction by vehicles or rubbish/droppings and must move any obstruction and/or clear up any rubbish/droppings immediately they occur to the satisfaction of the Highway Authorities and the Building Surveyors and pay any charges incurred in making good to highways or pavements.
Playing of Audio Equipment	1.32 The Contractor shall ensure that no operatives on the site play radios or other audio equipment unless express consent given by the CA. The above residential property will be occupied during the works and accordingly the contractor is to ensure that access and parking areas generally are not impeded during the contract period.
Identity Tags	1.33 Not required.
Working Hours	1.34 The working hours are Monday – Friday 08:00 – 17:00, Saturday 08:00 - 14:00. Access to the site may be granted outside of these hours to allow the contractor to complete the works but no additional charges will be accepted.

Trespass	1.35 The Contractor shall prevent any trespass on adjoining owners' properties and prevent material, plant, rubbish, debris etc., collecting on adjoining properties or roadways or causing obstruction to access or escape routes on the premises being worked upon. If the execution of the works requires the Contractor or sub- contractor to enter upon adjoining property, the necessary permission must first be obtained by the Contractor and reasonable notice given to all persons likely to be affected by such works. The Contractor is to meet the cost incurred in rectifying any damage which may be caused. The Contractor is to give the Building Surveyors seven clear days' notice in writing prior to executing any work to or affecting adjoining property.
Quality of Workmanship	1.36 The whole of the work shall be carried out in a good and workmanlike manner to the satisfaction of the Contract Administrator.
Quality of Materials	1.37 All articles and materials shall be of the best quality suitable for the purpose specified and shall, unless otherwise specified, conform to the latest appropriate British Standard Specification (hereinafter referred to as BS) where such exists including current amendments. All materials or components specified to conform to BS shall be clearly marked with the BS number specified. In cases where marking is impracticable relevant delivery/advice notes shall include the BS number with which the materials or components comply. The names of the manufacturers and samples of materials shall be submitted to the Contract Administrator for their prior approval if so required by them.
Samples of Materials	1.38 The Contractor shall furnish, at his own cost any samples of materials, colours or workmanship called for by the Building Surveyors for their approval and if rejected further samples shall be submitted until the Contract Administrators approval is obtained. The Contract Administrator may reject any workmanship or materials which are not, in their opinion, up to the standard of the approved samples.
Interpretations	1.40 Where the words "selected", "as directed", "as required" or words of like effect are used in this Specification they mean the selection, direction or requirement of the Contract Administrator and similarly the words "approved", "satisfactory" or words of like import, mean "approved by" or "satisfactory to" the Contract Administrator and their approval must first be obtained before materials are ordered or the works to which the words refer are put in hand. 1.41 Wherever the words "necessary", "proper" or words of like import are used with respect to the extent, conduct or character of the work specified they mean that the said work shall be carried out to the extent, or conducted in a manner, or be of a character, which is "necessary" or "proper" in the opinion of the Contract Administrator.
Provisional Items. Prime Costs & Provisional Sum	1.42 The Contractor shall obtain written instructions from the Contractor Administrator before proceeding with any works described in the Specification as Provisional or expending any Prime Cost or Provisional Sums.

Asbestos	1.43 The contractor is to commission a pre refurbishment and demolition standard asbestos report for the entirety of the premises subject to these works. No works to proceed until such report is available and reviewed, with necessary removal / encapsulation works agreed.
Programme & Progress Schedules	1.44 The Contractor shall prepare and submit to the Contract Administrator within 14 days of the acceptance of his Tender a Master Programme for the whole of the works including the works of sub-contractors and give notice to all concerned with the conduct of the works with a view to ensuring that materials are supplied and works executed when required to comply with the Programme. The Contractor shall monitor the progress of the works and prepare and similarly circulate Progress Reports. Revisions and amendments to the Programme shall be made by the Contractor as required, to take account of any Contract Instructions or extensions of the date for completion, and copies of such revised and amended programmes shall immediately be provided to the Contract Administrator and circulated.
Site Records	1.44 None required.
Welfare & Safety	1.45 The Contractor shall ensure compliance with all welfare and safety measures required under the provisions of any enactment or regulations or the Working Rules of the Industry. 1.46 Due to limited site area, the contractor is permitted to use existing WC and hand wash facilities at the premises throughout the course of works. The replacement sanitary ware is installed towards the end of the contract and left in a clean, tidy, as new condition. Contractor is to provide alternative provision such welfare and safety facilities as are required if for any reason through programming of the works, the current facilities on site would not be available. If preferred, the contractor may utilise the ground floor area to be utilised as a bin store and bike store, to install temporary site welfare and safety facilities.
Extra Payments	1.47 The Contractor is to ensure that he receives a written order from the Contract Administrator in respect of any work for which he wishes to claim an extra payment, as no allowance will be made in the Interim or Final Accounts for additional works, without substantiation by such written order.
Overtime Working	1.48 No additional payments will be made.
Requests for Instructions/ Details	1.49 If the Contractor requires instructions/details from the Contract Administrator in order to maintain the continuity of the work he must request the same in writing at the earliest possible date so as to allow a sufficient period for the Contract Administrator to make any necessary enquiries and/or prepare designs. Seven clear working days is to be regarded as the minimum period of notice for such requests.
Dayworks	1.50 No dayworks will be accepted unless they are instructed on a written contract instruction.

Building Control	1.51 The tendering contractor must allow for costs for appointment of Local Authority or approved inspector to cover building control plan check and inspection fees and provision of a Completion Certificate. The relevant works would include improved fire precautions, electrical installation, replacement windows and above ground drainage (as well as below ground drainage subject to final design).
Project Specific Preliminaries	1.52 None

Section 2 - Workmanship Clauses

SECTION 2 - WORKMANSHIP CLAUSES

C20 Demolition

To be read with Preliminaries/ General conditions

120 EXTENT OF DECONSTRUCTION

- General: Subject to retention requirements specified elsewhere, remove floor coverings, textured ceiling coatings and all items affixed to walls, as described in Schedule of Works.

150 FEATURES TO BE RETAINED

- General: Keep in place and protect any items which are not to be removed or disposed of.

SERVICES AFFECTED BY DECONSTRUCTION/ DEMOLITION

210 SERVICES REGULATIONS

- Work carried out to or affecting new and/ or existing services: Carry out in accordance with the byelaws and/ or regulations of the relevant Statutory Authority.

220 LOCATION OF SERVICES

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

230 SERVICES DISCONNECTION ARRANGED BY CONTRACTOR

- General: Arrange with the appropriate authorities for disconnection of services and removal of fittings and equipment owned by those authorities prior to starting deconstruction/ demolition.
- **Timing: Do not start deconstruction/ demolition until disconnections are completed.**

240 DISCONNECTION OF DRAINS

- General: Locate, disconnect and seal foul water drain
- Sealing: Temporarily seal drain to protect FW drain run from foreign objects.

270 SERVICES TO BE RETAINED

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

DECONSTRUCTION/ DEMOLITION WORK

310 WORKMANSHIP

- Standard: Demolish in accordance with BS 6187.
- Operatives: Should be
- Appropriately skilled and experienced for the type of work.
- Holding, or in training to obtain, relevant CITB Certificates of Competence.
- Site staff responsible for supervision and control of work: Experienced in the assessment of risks involved and methods of deconstruction/ demolition to be used.

330 DUST CONTROL

- General: Reduce airborne dust by periodically spraying deconstruction/ demolition works with an appropriate wetting agent. Keep public roadways and footpaths clear of mud and debris.
- Lead dust: Submit method statement for control, containment and clean-up regimes.

340 HEALTH HAZARDS

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

391 ASBESTOS-CONTAINING MATERIALS – UNKNOWN OCCURRENCES

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

410 UNFORESEEN HAZARDS

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

MATERIALS ARISING

510 CONTRACTOR'S PROPERTY

- Components and materials arising from the deconstruction/ demolition work: Property of the Contractor except where otherwise provided.
- Action: Remove from site as work proceeds where not to be reused or recycled for site use.

520 RECYCLED MATERIALS

- Materials arising from deconstruction/ demolition work: Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.
- Evidence of compliance: Submit full details and supporting documentation.
- Verification: Allow adequate time in programme for verification of compliance.

K10 Gypsum board dry linings/ partitions/ ceilings

To be read with Preliminaries/ General conditions.

TYPES OF DRY LINING

245 CEILING LINING ON TIMBER To ground floor ceilings where damaged or

- Background: Joists at 450 mm centres.
- Metal resilient (acoustic) bars: Not required.
- Linings: 15 mm Fire Line board to ensure suitable fire separation between flats
- Fixings: Screws.
- Finishing: Seamless jointing.
- Primer/ Sealer: As recommended by board manufacturer for vapour control.
- Accessories: Metal beads/ stops recommended by board manufacturer .
- Other requirements: Fire stopping around service penetrations as section P12.

INSTALLATION

305 GYPSUM BOARDS GENERALLY

- Standard:
- Gypsum plasterboard to BS EN 520.
- Fibre reinforced gypsum board to BS EN 15283-2.
- Evidence of compliance: All sheets to be CE marked. Submit Declaration of Performance (DoP).

335 ADDITIONAL SUPPORTS

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

435 DRY LININGS GENERALLY

- General: Use fixing, jointing, sealing and finishing materials, components and installation methods recommended by board manufacturer.
- Cutting gypsum boards: Neatly and accurately without damaging core or tearing paper facing.
- Cut edges: Minimize and position at internal angles wherever possible. Mask with bound edges of adjacent boards at external corners.
- Fixings boards: Securely and firmly to suitably prepared and accurately levelled backgrounds.
- Finishing: Neatly to give flush, smooth, flat surfaces free from bowing and abrupt changes of level.

445 CEILINGS

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

505 INSTALLING MINERAL WOOL INSULATION

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

510 SEALING GAPS AND AIR PATHS

- Location of sealant: To perimeter abutments and around openings.
- Pressurized shafts and ducts: At board-to-board and board-to-metal frame junctions.

- Application: To clean, dry and dust free surfaces as a continuous bead with no gaps.

- Gaps greater than 6 mm between floor and underside of gypsum board: After sealing, fill with jointing compound.

560 JOINTS BETWEEN BOARDS

- Tapered edged gypsum boards:
- Bound edges: Lightly butted.
- Cut/ unbound edges: 3 mm gap.
- Square edged plasterboards: 3 mm gap.
- Square edged gypsum fibre boards: 5 mm gap.

565 VERTICAL JOINTS

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

570 HORIZONTAL JOINTS

- Surfaces exposed to view: Horizontal joints not permitted. Seek instructions where height of partition/ lining exceeds maximum available length of board.

- Two layer boarding: Stagger joints between layers by at least 600 mm.
- Edges of boards: Support using additional framing.
- Two layer boarding: Support edges of outer layer.

610 FIXING GYPSUM BOARD TO TIMBER

- Fixing to timber: Securely at the following centres (maximum):
- Nails: 150 mm.
- Screws to partitions/ wall linings: 300 mm. Reduce to 200 mm at external angles.
- Screws to ceilings: 230 mm.
- Position of nails/ screws from edges of boards (minimum):
- Bound edges: 10 mm.
- Cut/ unbound edges: 13 mm.
- Position of nails/ screws from edges of timber supports (minimum): 6 mm.

L20 Doors/ shutters/ hatches

10 TIMBER PROCUREMENT

- Timber (including timber for wood-based products): Obtained from well-managed forests and/ or plantations in accordance with:
 - The laws governing forest management in the producer country or countries.
 - International agreements such as the Convention on International Trade in Endangered Species of wild fauna and flora (CITES).
- Documentation: Provide either:
 - Documentary evidence (which has been or can be independently verified) regarding the provenance of all timber supplied.
 - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood-based products.

25 WOOD PANELLED DOORS WHERE EXISTING REMOVED AND DISPOSED OF

- Manufacturer: Jeld Wen
- * Product reference: Oregon 4

50 WOOD DOOR FRAMES WHERE EXISTING FRAMES REMOVED

- Manufacturer: Contractors Choice Generally to BS EN 942.
Product reference: Contractors Choice
- Species: Contractors choice
- Preservative treatment:
- Finish as delivered: Primed only
- Fixing: Plugged and screwed
- Spacing of fixings (frames not predrilled): Maximum 150 mm from ends of each jamb, adjacent to each hanging point and at 600 mm maximum centres.

85 FIXING IRONMONGERY GENERALLY

- Fasteners: Supplied by ironmongery manufacturer.
- Finish/ Corrosion resistance: To match ironmongery.
- Holes for components: No larger than required for satisfactory fit/ operation.
- Adjacent surfaces: Undamaged.
- Moving parts: Adjusted, lubricated and functioning correctly at completion.

L10 Windows/ Rooflights/ Screens/ Louvres

To be read with Preliminaries/ General conditions.

GENERAL

110 EVIDENCE OF PERFORMANCE

- Certification: Provide independently certified evidence that all incorporated components comply with specified performance requirements.

120 SITE DIMENSIONS

- Procedure: Before starting work on designated items take site dimensions, record on shop drawings and use to ensure accurate fabrication.
- Designated items: All windows & doors.

160 POTENTIAL FOR NATURAL VENTILATION

- Submit design plan and elevation drawings, and calculations confirming the following: Types of windows/ ventilators and total openable areas.

PRODUCTS

350 PVC-U WINDOWS

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Colour/ Texture: White.
- Thermal performance (U-value maximum): 1.6 W/m²K.
- Glazing details: -.
- Beading: Internal.
- Ironmongery/ Accessories:
- Locking handle;
- Restrictor; and
- Trickle ventilator.
- Fixing: Through frame fixing as clause 783.

440 PVC-U SUBFRAMES

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Thermal performance: -.
- Fire performance: -.
- Fixing: Use lugs and ties supplied by subframe manufacturer.

EXECUTION

710 PROTECTION OF COMPONENTS

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

730 PRIMING/ SEALING

- Wood surfaces inaccessible after installation: Prime or seal as specified before fixing components.

755 PVC-U WINDOW INSTALLATION

- Standard: In accordance with clause 783 and British Plastics Federation 'Code of practice for the survey and installation of windows and external doorsets'.

760 REPLACEMENT WINDOW INSTALLATION

- Standard: To BS 8213-4.

783 FIXING OF PVC-U FRAMES

- Standard: As section Z20.
- Fasteners: 25 x 3 x 150 mm galvanized carbon steel frame cramps.
- Spacing: When not predrilled or specified otherwise, position fasteners 150-250 mm from ends of each jamb, adjacent to each hanging point of opening lights, but no closer than 150 mm to a transom or mullion centre line, and at maximum 600 mm centres.

810 SEALANT JOINTS

- Sealant: Contractor's Choice
- Manufacturer: Contractor's choice.

Product reference: Contractor's choice.

- Colour: White.
- Application: As section Z22 to prepared joints. Finish triangular fillets to a flat or slightly convex profile.

820 IRONMONGERY

- Fixing: In accordance with any third party certification conditions applicable. Assemble and fix carefully and accurately using fasteners with matching finish supplied by ironmongery manufacturer. Do not damage ironmongery and adjacent surfaces.
- Checking/ Adjusting/ Lubricating: Carry out at completion and ensure correct functioning.

M20 Plastered/ Rendered/ Roughcast coatings

To be read with Preliminaries/ General conditions.

TYPES OF COATING

280 GYPSUM PLASTER SKIM COAT ON PLASTERBOARD

- Plasterboard: 12.5 mm.
- Preparation: Bonding agent recommended by plaster manufacturer.
- Plaster: Board finish/ finish plaster to BS EN 13279-1, class B.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Thickness: 5mm.
- Finish: Smooth.
- Accessories: Beads and stops .

497 COLD WEATHER

- General: Do not use frozen materials or apply coatings on frozen or frost bound substrates.
- External work: Avoid when air temperature is at or below 5°C and falling or below 3°C and rising. Maintain temperature of work above freezing until coatings have fully hardened.
- Internal work: Take precautions to enable internal coating work to proceed without damage when air temperature is below 3°C.

PREPARING SUBSTRATES

510 SUITABILITY OF SUBSTRATES

- Soundness: Free from loose areas and significant cracks and gaps.
- Cutting, chasing, making good, fixing of conduits and services outlets and the like: Completed.
- Tolerances: Permitting specified flatness/ regularity of finished coatings.
- Cleanliness: Free from dirt, dust, efflorescence and mould, and other contaminants incompatible with coatings.

566 REMOVING DEFECTIVE EXISTING PLASTER

- Plaster for removal: Detached, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
- Hollow, detached areas: Remove all existing plasterwork throughout.
- Stained plaster: Remove.
- Removing defective plaster. Cut back to a square, sound edge.
- Faults in background (structural deficiencies, damp, etc.): Submit proposals.
- Cracks:
 - Fine hairline cracking/ crazing: Leave.
 - Other cracks: Obtain instructions.
- Dust and loose material: Remove from exposed substrates and edges.

BACKINGS/ BEADS/ JOINTS

612 JOINTS IN PLASTERBOARD BACKINGS

- Ceilings:
- Bound edges: At right angles to supports and with ends staggered in adjacent rows.
- Two layer boarding: Stagger joints between layers.
- Partitions/ walls:
- Vertical joints: Centre on studs. Stagger joints on opposite sides of studs.
Two layer boarding: Stagger joints between layers.
- Horizontal joints:
Two layer boarding: Stagger joints between layers by at least 600 mm. Support edges of outer layer.
- Joint widths (maximum): 3 mm.

630 BEADS/ STOPS FOR INTERNAL USE

- Standard: In accordance with BS EN 13914-2.
- Material: Galvanized steel to BS EN 13658-1.

640 BEADS/ STOPS GENERALLY

- Location: External angles and stop ends, except where specified otherwise.
- Corners: Neat mitres at return angles.
- Fixing: Secure, using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
- Beads/ stops for external render: Fix mechanically.
- Finishing: After coatings have been applied remove surplus material, while still wet, from surfaces of beads/ stops exposed to view.

659 PLASTERBOARD JOINTS

- Joints and angles (except where coincident with metal beads): Reinforce with continuous lengths of jointing tape.

INTERNAL PLASTERING

710 APPLICATION GENERALLY

- Application of coatings: Firmly and in one continuous operation between angles and joints. Achieve good adhesion.
- Appearance of finished surfaces: Even and consistent. Free from rippling, hollows, ridges, cracks and crazing.
- Accuracy: Finish to a true plane, to correct line and level, with angles and corners to a right angle unless specified otherwise, and with walls and reveals plumb and square.
- Drying out: Prevent excessively rapid or localised drying out.

715 FLATNESS/ SURFACE REGULARITY

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

720 DUBBING OUT

- General: Correct substrate inaccuracies.
- New smooth, dense concrete and similar surfaces: Dubbing out prohibited unless total plaster thickness is within range recommended by plaster manufacturer.

- Thickness of any one coat (maximum): 10 mm.
- Mix: As undercoat.
- Application: Achieve firm bond. Allow each coat to set sufficiently before the next is applied. Cross scratch surface of each coat.

725 UNDERCOATS GENERALLY

- General: Rule to an even surface. Cross scratch to provide a key for the next coat.
- Undercoats on metal lathing: Work well into interstices to obtain maximum key.

- Undercoats gauged with Portland cement: Do not apply next coat until drying shrinkage is substantially complete.

777 SMOOTH FINISH

- Appearance: A tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks. Avoid water brush, excessive trowelling and over polishing.

778 WOOD FLOAT FINISH

- Appearance: An even overall texture. Finish with a dry wood float as soon as wet sheen has disappeared.

M50 Rubber/ plastics/ cork/ lino/ carpet tiling/ sheeting

To be read with Preliminaries/ General conditions.

TYPES OF COVERING

150A SHEETING

- Manufacturer: Altro.
- Web: www.altro.co.uk.
- Email: enquiries@altro.com.
- Product reference: Altro Everlay

155A SHEET FLOORING

- Manufacturer: Altro.
- Web: www.altro.co.uk.
- Email: enquiries@altro.com.
- Product reference: Altro Aquarius
- Colour: To be agreed.
- Surface finish/ treatment: None.

GENERAL REQUIREMENTS

210 WORKMANSHIP GENERALLY

- Base condition after preparation: Rigid, dry, sound, smooth and free from grease, dirt and other contaminants.
- Finished coverings: Accurately fitted, tightly jointed, securely bonded, smooth and free from air bubbles, rippling, adhesive marks and stains.

250 LAYOUT - ROLL MATERIALS

- Setting out of seams: Agree setting out for sheeting types M50/ - .

330 COMMENCEMENT

- Required condition of works prior to laying materials:
- Building is weathertight and well dried out.
- Wet trades have finished work.
- Paintwork is finished and dry.
- Conflicting overhead work is complete.
- Floor service outlets, duct covers and other fixtures around which materials are to be cut are fixed.
- Notification: Submit not less than 48 hours before commencing laying.

340 CONDITIONING

- Prior to laying: Condition materials by unpacking and separating in spaces where they are to be laid. Maintain resilient flooring rolls in an upright position. Unroll carpet and keep flat on a supporting surface.
- Conditioning time and temperature (minimum): As recommended by manufacturer with time extended by a factor of two for materials stored or transported at a temperature of less than 10°C immediately prior to laying.

350 ENVIRONMENT

- Temperature and humidity: Before, during and after laying, maintain approximately at levels which will prevail after building is occupied.
- Ventilation: Before during and after laying, maintain adequate provision.

360 FLOORS WITH UNDERFLOOR HEATING

- Commencement of laying: Not before a period of 48 hours after heating has been turned off.
- Post laying start up of heating system: Slowly return heating to its operative temperature not less than 48 hours after completing laying.

PREPARING BASES

410 NEW BASES

- Suitability of bases and conditions within any area: Commencement of laying of coverings will be taken as acceptance of suitability.

420 EXISTING BASES

- Notification: Before commencing work, confirm that existing bases will, after preparation, be suitable to receive coverings.
- Suitability of bases and conditions within any area: Commencement of laying of coverings will be taken as acceptance of suitability.

480 EXISTING FLOOR COVERINGS TO BE OVERLAID

- Substrate: Make good by local resticking and patching or filling with smoothing underlayment compound to give smooth, even surface.

LAYING COVERINGS

640 ADHESIVE FIXING GENERALLY

- Adhesive type: As specified, as recommended by covering/ underlay manufacturer or as approved.
- Primer: Type and usage as recommended by adhesive manufacturer.
- Application: As necessary to achieve good bond.
- Finished surface: Free from trowel ridges, high spots caused by particles on the substrate, and other irregularities.

720 DOORWAYS

- Joint location: On centre line of door leaf.

COMPLETION

820 FINISHING LINOLEUM FLOORING

- Cleaning operations:
 - Wash floor with water containing neutral (pH 6-9) detergent. If necessary, lightly scrub heavily soiled areas.
 - Rinse with clean water, removing surplus to prevent damage to adhesive. Allow to dry.
- Emulsion polish: Two coats of a type recommended by covering manufacturer.

880 WASTE

- Spare covering material: Retain suitable material for patching. On completion submit pieces for selection. Hand over selected pieces to Employer.

M51 Edge fixed carpeting

To be read with Preliminaries/ General conditions

TYPES OF CARPETING

110 CARPETING

- Location: To all areas apart from Kitchen, Hallway and Bathroom.
- Base: Ground floor slab
- Preparation: -.
- Fabricated underlay: GDU
- Interlay: n/a .
- Underlay to BS 5808 and BS EN 14499 :
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Type: Cellular rubber.
- Class: LD/U.
- Recycled content: None permitted.
- Carpet:
- Manufacturer: Submit proposals.
Product reference: Submit proposals.
- Type: Tufted .
- BS EN 1307 classification:
Level of use class: 21.
Luxury rating class: LC1.
Additional performance properties to BS EN 1307: None.
- Recycled content: None permitted.
- Colour/ pattern: To be confirmed .
- Width: 3660 mm.
- Method of seaming: To approval.
- Method of fixing: Carpet gripper.
- Methods of fixing at openings/ free edges: Carpet gripper at raised thresholds.

GENERAL/ PREPARATION

210 WORKMANSHIP GENERALLY

- Finished carpeting: Tightly seamed, accurately fitted, neatly and securely fixed, smooth and evenly tensioned.

250 CARPET LAYOUT - PRE-ORDER REQUIREMENTS

- Setting out: Agree seam locations and pattern.

290 CONDITIONING CARPET

- Requirements: As recommended by manufacturer.

310 CONDITION OF WORKS PRIOR TO LAYING

- General requirements:
- Building weathertight and well dried out.
- Wet trades complete.
- Paintwork complete and dry.
- Floor service outlets, duct covers and other fixtures around which carpet is to be cut, fixed.

315 NOTIFICATION OF COMMENCEMENT

- Give notice: Before laying is due to start.
- Period of notice (minimum): 48 hours.

320 ENVIRONMENT

- Temperature and humidity: Before, during and after laying, maintain approximately at levels which will prevail after building is occupied.

330 SUITABILITY OF BASES

- General: Commencement of laying carpeting will be taken as acceptance of suitability of bases.

340 NEW WET LAID BASES

- Base drying aids: Not used for at least four days prior to moisture content testing.

- Base moisture content test: Carry out in accordance with BS 5325, Annexe A.
- Locations for readings: In all corners, along edges, and at various points over area being tested.
- Commencement of laying carpeting: Not until all readings show 75% relative humidity or less.

350 TIMBER BOARDING/ STRIP FLOORING

- Substrate: Boards securely fixed and acceptably level with no protruding fasteners. Plane, sand or apply smoothing underlayment compound as necessary to give smooth, even surface.

360 EXISTING FLOOR COVERINGS TO BE OVERLAID

- Substrate: Make good by local rebedding, sanding or applying smoothing underlayment compound to give a secure, smooth, even surface. Allow to dry before laying carpeting.

LAYING CARPETING

470 LAYING CARPET GENERALLY

- Appearance of laid carpet: Pieces of the same carpet type capable of being seen together to be of consistent appearance with pile lying in the same direction.
- Carpet perimeter: Accurately and closely fitted leaving no gaps. Edges turned down and secured to grippers.
- Carpet tension: Even, and such that carpet lies flat and will not ruck, ripple or become slack.
- Doorways and recesses: Cut carpet in. Do not piece in without prior approval.

490 DOORWAYS

- Carpet joint: On centre line of door leaf.

510 EDGINGS AND COVER STRIPS

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Material/ finish: -.
- Fixing: Secure with edge of carpet firmly gripped. Use matching fasteners where exposed to view.

570 COMPLETION

- Debris: Remove stay tacks and cut away partly loose warp and face yarns.
- Surface irregularities and tension: Check and make necessary tension adjustments.

580 WASTE

- Spare covering material: Retain suitable material for patching. On completion submit pieces for selection. Hand over selected pieces to Employer.

M60 Painting/ clear finishing

To be read with Preliminaries/ General conditions.

COATING SYSTEMS

110A EMULSION PAINT To Internal Walls

- Manufacturer: Dulux Trade, brand of AkzoNobel.
- Web: www.duluxtrade.co.uk.
- Email: project.support@akzonobel.com.
- Product reference: Mouldshield Fungicidal Matt.
- System code: D81 - New plaster, render etc..
- Colour: Magnolia vinyl matt emulsion.

110B EMULSION PAINT To ceilings

- Manufacturer: Dulux Trade, brand of AkzoNobel.
- Web: www.duluxtrade.co.uk.
- Email: project.support@akzonobel.com.
- Product reference: Vinyl Silk
- System code: D153 - New plaster, render etc..
- Colour: White.

150A EGGSHELL/ SATIN PAINT To joinery

- Manufacturer: Dulux Trade, brand of AkzoNobel.
- Web: www.duluxtrade.co.uk.
- Email: project.support@akzonobel.com.
- Product reference: Satinwood
- System code: D1097 - Non-resinous softwood, hardwood etc..
- Colour: White.

150B EGGSHELL/ SATIN PAINT To Kitchen & Bathrooms

- Manufacturer: Dulux Trade, brand of AkzoNobel.
- Web: www.duluxtrade.co.uk.
- Email: project.support@akzonobel.com.
- Product reference: Mouldshield Fungicidal Eggshell
- System code: D73 - New plaster, render etc..
- Colour: To be confirmed.

GENERAL

215 HANDLING AND STORAGE

- Coating materials: Deliver in sealed containers, labelled clearly with brand name, type of material and manufacturer's batch number.
- Materials from more than one batch: Store separately.

280 PROTECTION

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

PREPARATION

400 PREPARATION GENERALLY

- Standard: In accordance with BS 6150.
- Refer to any pre-existing CDM Health and Safety File.
- Refer to CDM Construction Phase Plan where applicable.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment and reoccupation, and obtain approval before commencing work.
- Preparation materials: Types recommended by their manufacturers and the coating manufacturer for the situation and surfaces being prepared.
- Substrates: Sufficiently dry in depth to suit coating.
- Efflorescence salts: Remove.
- Dirt, grease and oil: Remove. Give notice if contamination of surfaces/ substrates has occurred.
- Surface irregularities: Remove.
- Joints, cracks, holes and other depressions: Fill flush with surface, provide smooth finish.

- Dust, particles and residues from preparation: Remove and dispose of safely.
- Water based stoppers and fillers:
 - Apply before priming unless recommended otherwise by manufacturer.
 - If applied after priming: Patch prime.
- Oil based stoppers and fillers: Apply after priming.
- Doors, opening windows and other moving parts:
 - Ease, if necessary, before coating.
- Prime resulting bare areas.

425 IRONMONGERY

- Removal: Before commencing work remove ironmongery from surfaces to be coated.
- Hinges: Remove.
- Replacement: Refurbish as necessary; refit when coating is dry.

471 PREPRIMED WOOD

- Areas of defective primer: Take back to bare timber.

481 UNCOATED WOOD

- General: Provide smooth, even finish with arrises and moulding edges lightly rounded or eased.
- Heads of fasteners: Countersink sufficient to hold stoppers/fillers.
- Resinous areas and knots: Apply two coats of knotting.

APPLICATION

711 COATING GENERALLY

- Application standard: In accordance with BS 6150, clause 9.
- Conditions: Maintain suitable temperature, humidity and air quality during application and drying.
- Surfaces: Clean and dry at time of application.
- Thinning and intermixing of coatings: Not permitted unless recommended by manufacturer.
- Overpainting: Do not paint over intumescent strips or silicone mastics.
- Priming coats:
 - Thickness: To suit surface porosity.
 - Application: As soon as possible on same day as preparation is completed.
- Finish:
 - Even, smooth and of uniform colour.
 - Free from brush marks, sags, runs and other defects.
 - Cut in neatly.
- Doors, opening windows and other moving parts: Ease before coating and between coats.

730 WORKSHOP COATING OF CONCEALED JOINERY SURFACES

- General: Apply coatings to all surfaces of components.

751 STAINING WOOD

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

N11 Domestic kitchen fittings, furnishings and equipment

To be read with Preliminaries/ General conditions.

PRODUCTS

310 FITTED BASE UNITS To Kitchen

- Standard: To BS 6222-2 and -3, and BS EN 14749.
- Manufacturer: Howdens.
- Product reference: Greenwich Shaker White.
- Structural performance: To BS 6222-2, test level G.
- Dimensions: To BS EN 1116.
- Surface finishes: To BS 6222-3.
- Doors and drawer fronts:
- Material: -.
- Finish and colour: Brilliant white.
- Edges: -.
- Other requirements: None.
- Side panels, plinths and shelves:
- Material: -.
- Finish and colour: Brilliant white.
- Edges: -.
- Accessories: Legs and plinths.

320 FITTED WALL UNITS To Kitchen

- Standard: To BS 6222-2 and -3, and BS EN 14749.
- Manufacturer: As above.
- Product reference: Greenwich Shaker White.
- Structural performance: To BS 6222-2, test level G.
- Dimensions: To BS EN 1116.
- Surface finishes: To BS 6222-3.
- Doors and drawer fronts:
- Material:
- Finish and colour: Brilliant white.
- Edges: -.
- Other requirements: -.
- Side panels and shelves:
- Material: -.
- Finish and colour: -.
- Edges: -.
- Accessories: -.

340 WORKTOPS TO PROPOSED KITCHEN UNITS

- Standard: To BS 6222-3.
- Manufacturer: Howdens.
- Product reference: Submit proposals.
- Material: Laminate covered particle board type.
- Dimensions: -.
- Exposed edges: Laminate type.
- Support: -.
- Other requirements: -.

350 SINKS, TAPS, TRAPS AND WASTES TO KITCHEN

- Sinks:
- Standard: To BS EN 13310.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Configuration: Sink and a half with double drainer.
- Overall size: 1000 x 600.
- Material: Stainless steel .
- Colour and finish: Brushed steel .
- Tap/ chainstay/ overflow holes: One tap hole, centre. and Overflow hole..
- Taps: Pillar.

- Manufacturer: Bristan.
Product reference: Refer to Schedule.
- Operation: Lever.
- Material: Chromed steel.
- Wastes: Plug and chain.
- Standard: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Size: To fit sink .
- Material: Chromed steel.
- Tail: Slotted.
- Traps: Tubular, P type.
- Standard: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Size: DN40.
- Material: Plastic.
- Depth of seal (minimum): 75 mm.
- Accessories: None.

390 SEALANT

- Standard: To BS EN ISO 11600, class F20 HM.
- Type: One part silicone.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Colour: White.

EXECUTION

610 MOISTURE CONTENT OF WOOD AND WOOD BASED BOARDS

- Control and monitoring:
Method statement: Submit.

620 INSTALLATION GENERALLY

- Fixings and adhesives: As section Z20.
- Services: As sections S90 and V90.

630 INSTALLING UNITS AND WORKTOPS

- General: Well fitting, stable and secure.

640 INSTALLING APPLIANCES

- Connections: Provide to electric, gas, and hot and cold water services.

650 INSTALLING SINKS, TAPS AND WASTES

- Water supply: To BS EN 806-2 and -4.
- Taps:
- Fixing: Secure, watertight seal with the appliance.
- Positioning: Hot tap to left of cold tap as viewed by the user of the appliance.
- Wastes:
- Bedding: Waterproof jointing compound.
- Fixing: With resilient washer between appliance and backnut.

660 SEALANT BEDDING AND POINTING

- Application: As section Z22.
- Bedding: Sink to top of worktop.
- Pointing: Between units and splash backs.

670 INSTALLING TRIMS AND MOULDINGS

- Lengths: Un-jointed between angles or ends of runs.
- Angle joints: Mitred.

COMPLETION

910 GENERAL

- Doors and drawers: Accurately aligned, not binding. Adjusted to ensure smooth operation.
- Ironmongery: Checked, adjusted and lubricated to ensure correct functioning.

920 APPLIANCE COMMISSIONING

- Appliance operation, functions and controls: Verify.
- Documentation: Submit guarantees, instruction manuals, etc
- End joints: Stagger between rows.
- Two layer boarding: Stagger joints between layers.
- Joint reinforcement tape: Apply to joints and angles except where coincident with metal beads.

N13 Sanitary appliances and fittings

To be read with Preliminaries/ General conditions.

PRODUCTS

300 WCS AND CISTERNS To bathroom & WC

- WC standard: To Defra WC suite performance specification or equivalent approved by relevant water company.
- Type: Close coupled cistern.
- Pan:
 - Standards: To BS EN 33 and BS EN 997, Class 2.
 - Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
 - Material: Vitreous china, white.
- Seat and cover:
 - Standard: To BS 1254.
 - Manufacturer: As Pan.
 - Product reference: Contractor's choice.
 - Material: Plastics.
 - Finish/ Colour: White.
 - Soft close: Required.
- Pan connector:
 - Standard: To BS 5627.
 - Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
 - Colour: To match pan.
- Cistern:
 - Standard: To BS EN 997, Class 2.
 - Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
 - Material: Vitreous china.
 - Finish/ Colour: To match pan.
 - Inlet valve: Cistern manufacturer's standard.
 - Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
 - Water supply connection: Bottom.
 - Flushing arrangement: Cistern manufacturer's standard.
 - Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
 - Operating control: Push button, chrome plated.
 - Flush volume: 4.5 L.
 - Flush pipe: Not required.
 - Manufacturer: Not applicable.
 - Product reference: Contractor's choice.
 - Material: Not applicable.
 - Accessories: None.

331 SINKS Kitchen

- Standard: To BS 1206.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Size: 1200 x 600 mm.
- Material: Stainless steel, satin.
- Configuration: Inset.
- Tap/ Chainstay/ Overflow holes: One tap hole, centre.
- Water supply fittings: Pillar taps.
- Water supply temperature (maximum): 43°C.
- Flow rate (maximum): 6 L/ min. at 3 bar.
- Manufacturer: As Sinks schedule.
 - Product reference: Contractor's choice.

- Wastes: Chain and plug.
- Standards: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Size: DN 40.
- Material: Plastics, self colour.
- Tail: Slotted.
- Traps: Bottle.
- Standards: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Submit proposals.
- Size: DN 40.
- Material: Plastics, self colour.
- Depth of seal (minimum): 75 mm.
- Accessories: None.

335 WASH BASINS To bathroom

- Standard: To BS EN 14688.
- Overflow class: CL15.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Size: As Wash basins schedule.
- Material: Vitreous china, white.
- Configuration: Pedestal.
- Tap/ Chainstay/ Overflow holes: One tap hole, centre.
- Water supply fittings: Basin mixer tap.
- Water supply temperature (maximum): 43°C.
- Flow rate (maximum): 6 L/ min. at 3 bar.
- Manufacturer: As Wash basins schedule.
Product reference: As Wash basins schedule.
- Operation: Lever handles.
- Wastes: Pop up.
- Standards: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Size: DN 30.
- Material: Plastics, self colour.
- Tail: As Wash basins schedule.
- Traps: Tubular, P type.
- Standards: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Size: DN 30.
- Material: Plastics, self colour.
- Depth of seal (minimum): 75 mm.
- Accessories: None.

355 BATHS – RECTANGULAR

- Standard: To BS EN 198.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Size: 1700 x 700 mm.
- Volume to overflow (maximum): Manufacturer's standard.
- Material: Cast acrylic, white.
- Tap/ Chainstay/ Overflow holes: Two tap holes.
- Water supply fittings: Bath mixer tap.
- Water supply temperature (maximum): 48°C.
- Flow rate (maximum): 6 L/ min. at 3 bar.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.

- Wastes: Combined pop up and overflow.
- Standards: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Size: DN 40.
- Material: Plastics, self colour.
- Tail: Unslotted.
- Traps: Tubular, S type.
- Standards: To BS EN 274-1, -2 and -3.
- Manufacturer: Contractor's choice.
Product reference: Contractor's choice.
- Size: DN 40.
- Material: Plastics, self colour.
- Depth of seal (minimum): 50 mm.
- Accessories: End panels.

438 MIRRORS To both WC & Bathroom

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Material: In accordance with Section 3.
- Finish/ Colour: In accordance with Section 3.

441 PAPER ROLL DISPENSERS

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Material: In accordance with Section 3.
- Width: In accordance with Section 3.
- Finish/ Colour: In accordance with Section 3.

466 TOWEL RAILS In accordance with Section 3

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Material:
- Finish/ Colour: TBC.

468 TOWEL RINGS To Bathroom

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Material: In accordance with Section 3.
- Finish/ Colour: In accordance with Section 3.

EXECUTION

610 INSTALLATION GENERALLY

- Assembly and fixing: Surfaces designed to falls to drain as intended.
- Fasteners: Nonferrous or stainless steel.
- Supply and discharge pipework: Fix before appliances.
- Fixing: Fix appliances securely to structure. Do not support on pipework.
- Jointing and bedding compounds: Recommended by manufacturers of appliances, accessories and pipes being jointed or bedded.
- Appliances: Do not use. Do not stand on appliances.
- On completion: Components and accessories working correctly with no leaks.
- Labels and stickers: Remove.

620 NOGGINGS AND BEARERS

- Noggings, bearers, etc. to support sanitary appliances and fittings: Position accurately. Fix securely.

630 TILED BACKGROUNDS OTHER THAN SPLASHBACKS

- Timing: Complete before fixing appliances.
- Fixing appliances: Do not overstress tiles.

670 INSTALLING CISTERNS

- Cistern operating components: Obtain from cistern manufacturer.
- Inlet and flushing valves: Match to pressure of water supply.
- Internal overflows: Into pan, to give visible warning of discharge.

- External overflows: Fix pipes to falls and locate to give visible warning of discharge.
Agree location where not shown on drawings.

710 INSTALLING TAPS

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

720 INSTALLING WASTES AND OVERFLOWS

- Bedding: Waterproof jointing compound.
- Fixing: With resilient washer between appliance and backnut.

755 SEALANT BEDDING AND POINTING

- Bedding: Bed sinks to top of worktops..
- Pointing: Joints between appliances and splashbacks..

P20 Unframed isolated trims/ skirtings/ sundry items

To be read with Preliminaries/General conditions

110 SOFTWOOD SKIRTINGS GENERALLY

- Quality of wood and fixing: To BS 1186-3.
- Species: Contractor's choice.
- Class: 1.
- Moisture content at time of fixing: 9-13%.
- Preservative treatment: Water-based microemulsion as section Z12, service life 30 years.

- Fire rating: Not applicable.
- Profile: ogee.
- Finished size: As schedule.
- Finish as delivered: Prepared and primed as M60.
- Fixing: Plugged, screwed and pelleted at 900mm centres.

200 MEDIUM DENSITY FIBREBOARD WINDOW SILL BOARDS

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Standard: To BS EN 622-5.
- Type: MDF.
- Formaldehyde class: To BS EN 622-1, Class E1.
- Fire rating: Not applicable.
- Thickness: 15 mm.
- Edges: Quarter rounded.
- Finish: Prepared and primed as section M60.
- Recycled content: 60% (minimum) to BS EN ISO 14021.
- Support/ Fixing: Fix to softwood grounds with lost head nails at 600 mm centres..

510 INSTALLATION GENERALLY

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

P21 Door/ window ironmongery

To be read with Preliminaries/ General conditions.

10 QUANTITIES AND LOCATIONS

- Quantities and locations of ironmongery are in schedule of works.
- Fixing: As sections L10 and L20.

GENERAL

121 IRONMONGERY FROM SINGLE PROPRIETARY RANGE

- Manufacturer: Dale in accordance with Work Schedule .
- Product reference: Submit proposals .
- Principal material/ finish: Polished and anodized aluminium, colour .
- Items unavailable within selected range: Submit proposals.

140 SAMPLES

- General: Before placing orders with suppliers submit labelled samples of the following: Door lever latch handles .
- Conformity: Retain samples on site for the duration of the contract. Ensure conformity of ironmongery as delivered with labelled samples.

DOOR HANGING DEVICES

320 DOOR HINGES To all doors

- Manufacturer: Dale .
- Product reference: Contractor's choice .
- Type: As schedule .
- Size: As schedule .
- Material/ finish: As schedule .
- Other requirements: None .

WINDOW HANGING DEVICES

DOOR OPERATING DEVICES

410 OVERHEAD DOOR CLOSERS To Kitchen

- Standard: To BS EN 1154.
- Door closing devices to fire/ smoke control doors: CE marked.
- Manufacturer: Contractor's choice .
- Product reference: Submit proposals .
- Type: Face fixed .
- Power size: 3 .
- Other functions: - .
- Casing finish: Anodized
- Operational adjustment:
- Variable power: Matched to size, weight and location of doors.
- Latched doors: Override latches and/ or door seals when fitted.
- Unlatched doors: Hold shut under normal working conditions.
- Closing against smoke seals of fire doors: Positive. No gaps.

DOOR SECURING DEVICES

510 THIEF RESISTANT DOOR LOCKS To external doors

- **Standard: To BS 3621 and Kitemarked.**
- Manufacturer: Contractor's choice .
- Product reference: Contractor's choice .
- Type: Hook bolt 5 lever mortice lock .
- Backset: 57 mm .
- Material/ finish: Stainless steel faceplate .
- Keying: Not master keyed .

540 DOOR LATCHES To all internal doors

- Standard: To BS EN 12209.
- Manufacturer: Dale .
- Product reference: Contractor's choice .
- Type: Horizontal case mortice latch .
- Backset: 44 mm .
- Material/ finish: As schedule .
- Latch spring strength: Select to prevent unsprung lever handles drooping.

582 DOOR BOLTS To bathroom & WC

- Standard: To BS EN 12051.
- Manufacturer: Dale .
- Product reference: Contractor's choice .
- Type: As schedule .
- Size: As schedule .
- **Material/ finish: As schedule .**
- Additional requirements: None .

DOOR FURNITURE

610 LEVER HANDLES To all internal doors

- Standard: To BS EN 1906.
- Manufacturer: Dale .
- Product reference: Contractor's choice .
- Style: As schedule .
- Size: As schedule .
- Material/ finish: Polished and anodized aluminium .
- Mounting: Rectangular sprung plate with hidden screw fixing .
- Additional requirements: None .

720 DOOR STOPS

- Manufacturer: Dale .
- Product reference: Submit proposals .
- Type: Floor mounted black rubber centre fixing .
- Usage: To doors opening against walls other than those fitted with closers with a back check facility .

730 LETTER PLATES To main entrance door

- Standard: To BS EN 13724.
- Manufacturer: Contractor's choice .
- Product reference: Contractor's choice .
- Operation: Outward opening gravity flap .
- Size: 254 x 76 mm .
- Material/ finish: As door furniture .
- Features: None .

735 INTERNAL LETTER FLAPS To main entrance door

- Manufacturer: Contractor's choice .
- Features: Opening restrictors to 1st floor & key locks to ground floor .

960 WEATHERSTRIP TO WINDOWS To all windows

- Manufacturer: Contractor's choice .
- Product reference: Contractor's choice .
- Type: Elastomeric wiping strip in metal carrier .
- Size: As manufacturer's recommendations .
- Material/ finish: Colour as window furniture .

P31 Holes, chases, covers and supports for services

To be read with Preliminaries/General conditions.

EXECUTION

650 HOLES, RECESSES AND CHASES IN MASONRY

- Locations: To maintain integrity of strength, stability and sound resistance of construction.
- Sizes: Minimum needed to accommodate services.
- Holes (maximum): 300 mm².
- Walls of hollow or cellular blocks: Do not chase.
- Walls of other materials:
- Vertical chases: No deeper than one third of single leaf thickness, excluding finishes.
- Horizontal or raking chases: No longer than 1 m. No deeper than one sixth of the single leaf thickness, excluding finishes.
- Chases and recesses: Do not set back to back. Offset by a clear distance at least equal to the wall thickness.
- Cutting: Do not cut until mortar is fully set. Cut carefully and neatly. Avoid spalling, cracking and other damage to surrounding structure.

670 NOTCHES AND HOLES IN STRUCTURAL TIMBER

- General: Avoid if possible.
- Sizes: Minimum needed to accommodate services.
- Position: Do not locate near knots or other defects.
- Notches and holes in the same joist: Minimum 100 mm apart horizontally.
- Notches in joists:
- Position: Locate at top. Form by sawing down to a drilled hole.
- Depth (maximum): 0.15 x joist depth.
- Distance from supports: Between 0.1 and 0.2 x span.
- Holes in joists:
- Position: Locate on neutral axis.
- Diameter (maximum): 0.25 x joist depth.
- Centres (minimum): 3 x diameter of largest hole.
- Distance from supports: Between 0.25 and 0.4 of span.
- Notches in roof rafters, struts and truss members: Not permitted.
- Holes in struts and columns: Locate on neutral axis.
- Diameter (maximum): 0.25 x minimum width of member.
- Centres (minimum): 3 x diameter of largest hole.
- Distance from ends: Between 0.25 and 0.4 of span.

R11 Above ground foul drainage systems

To be read with Preliminaries/ General conditions.

GENERAL

115 ABOVE GROUND FOUL DRAINAGE SYSTEM

- Sanitary and floor drainage outlets: Sanitary fittings as section N13.
- Waste pipework: MUPVC or PVC-C.
- Discharge stack and branch pipework: Polypropylene.
- Separate ventilating pipework: MUPVC or PVC-C.
- Accessories: Rodding eyes.
- Disposal: To below ground drainage as section R12.

SYSTEM PERFORMANCE

210 DESIGN

- Design: Complete the design of the above ground foul drainage system.
- Standards: To BS EN 12056-1 and BS EN 12056-2, and in accordance with BS EN 12056-2 National Annexes NA-NG.
- System type to BS EN 12056-2: System III.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

220 COLLECTION AND DISTRIBUTION OF FOUL WATER

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

PRODUCTS

350 MUPVC OR PVC-C PIPEWORK FOR WASTES

- Material and standard:
- MUPVC: To BS 5255 and Kitemark certified; or
- PVC-C: To BS EN 1566-1, and Kitemark certified.
 - Application area code: B.
 - Opening dimensions of access fittings, design of swept fittings, stand off dimensions of pipe and fitting brackets and requirements for adaptors and plugs: To BS 4514.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Nominal sizes: DN 32.
- Colour: White where exposed to vi.
- Brackets: Plastics pipe clips, black.
- Fixings: Stainless steel screws.
 - Size: 30 x 4 mm.
- Accessories: Access fittings.

365 PVC-U PIPEWORK - FOR DISCHARGE STACKS

- Standard: To BS EN 1329-1, Kitemark certified.
- Weather resistance, connectors to WC pans, opening dimensions of access fittings, design of swept fittings, stand off dimensions of pipe and fitting brackets and requirements for adaptors and plugs: To BS 4514.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Nominal size: DN 110.
- Colour: Black.
- Brackets: Plastics pipe clips, black.
- Fixings: Stainless steel screws.
 - Size: 40 x 5 mm.
- Accessories: Plastics cages.

EXECUTION

601 INSTALLATION GENERALLY

- Standard: To BS EN 12056-5.
- Components: From the same manufacturer for each type of pipework.

- Electrolytic corrosion: Avoid contact between dissimilar metals where corrosion may occur.
- Plastics and galvanized steel pipes: Do not bend.
- Allowance for thermal and building movement: Provide and maintain clearance as fixing and jointing proceeds.
- Concealed or inaccessible surfaces: Decorate before starting work specified in this section.
- Protection:
- Purpose made temporary caps: Fit to prevent ingress of debris.
- Access covers, cleaning eyes and blanking plates: Fit as the work proceeds.

605 PIPE ROUTES

- General: The shortest practical, with as few bends as possible.
- Bends in wet portion of soil stacks: Not permitted.
- Routes not shown on drawings: Submit proposals before commencing work.

610 FIXING PIPEWORK

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

615 FIXING VERTICAL PIPEWORK - PVC-U

- Bracket fixings: Plugged and screwed into masonry.
- Distance between bracket fixing centres (maximum): 1200 mm.

630 JOINTING PIPEWORK - GENERALLY

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

660 JOINTING PIPEWORK - ABS, MUPVC, PVC-C AND PVC-U

- Jointing: Solvent welded with lubricated ring seal joints at maximum 1800 mm spacing.

680 ELECTRICAL CONTINUITY

- Joints in metal pipes with flexible couplings: Make with clips (or suitable standard pipe couplings) supplied for earth bonding by pipework manufacturer to ensure electrical continuity.

COMPLETION

905 PIPEWORK AIRTIGHTNESS TEST

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

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

915 PREHANDOVER CHECKS

- Temporary caps: Remove.

V90 Electrical systems - domestic

To be read with Preliminaries/General conditions.

GENERAL

110 LOW VOLTAGE SUPPLY

- Nature of current: Alternating.
- Phase: Single.
- Voltage: 230 V.
- Source: Local electricity distribution company and Existing.
- Metering: Existing meter & supply.
- Accessories: none.

SYSTEM PERFORMANCE

210 DESIGN OF LOW VOLTAGE ELECTRICAL INSTALLATION GENERALLY

- Design and detailing: Complete for the electrical installation.
- Standards: In accordance with BS 7671 and the requirements of the Electricity Distributor.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

220 DESIGN OF LOW VOLTAGE INCOMING SUPPLY

- Design and detailing: Complete for the low voltage incoming supply.
- Spare capacity: 20% of connected electrical load.
- Proposals: Submit drawings showing equipment positions and routes, technical information and calculations.
 - Evidence of agreement with Electricity Distributor: Submit.
- General: Manage and liaise with the Electricity Distributor and determine:
 - Maximum demand of the installation.
 - Nature of the supply, its suitability for the installation and type of earthing arrangement.
 - Location of the incoming supply.
 - Space requirements and location of the cut-outs, switches, fuses and meters.
- Electricity Supplier: Existing supplier.
- Coordination: Liaise with the Electricity Supplier, complete an application for supply of electricity and manage installation of metering equipment

240 DESIGN OF GENERAL LIGHTING SYSTEM

- Purpose: Domestic use.
- Design and detailing: Complete for the general lighting system.
- Standard: To SLL 'Code for lighting'.
- Room: Contractor to provide design for each room .
- Maintained average illuminance: Contractor to provide design & lux levels.
- Glare index: As above.
- Controls: In accordance with switching on drawing. External light fitted with PIR & motion sensor.
- Maintenance: Submit proposals for the maintenance/ relamping regime.

265 DESIGN AND LIGHTING CALCULATIONS

- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.
- Lighting calculations:
 - Type: Computer generated point calculations.
 - Submit the following:
 - Luminaire layout drawings.
 - Luminaire photometric data including flux fraction ratios and polar intensity curves.
- Lamp technical information.
- Maintenance factor calculations, including proposals for luminaire maintenance and lamp replacement.
- Reflectance values used for all wall, ceiling and floor surfaces.
- Isolux contour plots for all relevant working planes, horizontal and vertical.

- Schedule of design and calculated maintained average illuminance values.
- Schedule of design and calculated uniformity values.

270 CONTROL OF EXTERNAL LUMINAIRES

- Individual control: Submit proposals.
- Group control: Movement detectors and Photoelectric control units.

275 SMALL POWER SYSTEM DESIGN

- Purpose: Demands of a dwelling.
- Small power outlets: Provide to serve the building and its equipment.
- Room: See drawing and min number of sockets etc included in specification.

- Outlets: Contractors design.
- Fixed equipment: Provide supplies.

280 EARTHING AND BONDING DESIGN

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

PRODUCTS

310 PRODUCTS GENERALLY

- Standard: In accordance with BS 7671.
- CE marking: Required.

320 DISTRIBUTION BOARDS

- Standards: To BS EN 61439-1 and BS EN 61439-3.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Third party certification: ASTA certified.
- Rated operational voltage (Ue): 250 V.
- Rated operational frequency: 50 Hz.
- Rating: 100 A.
- Number of phases: Single.
- Incoming devices: Contractor's choice.
- Number of outgoing ways: Submit proposals.
- Outgoing devices: Miniature circuit-breakers to BS EN 60898-1.
- Enclosure:
- Ingress protection to BS EN 60529: Submit proposals.
- Material: Metal.
- Accessories: Door lock with keys.

342 RIGID CONDUIT AND FITTINGS -

- Standards: To BS EN 61386-1 and BS EN 61386-21.
- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Resistance to compression: Contractor's choice.
- Resistance to impact: Contractor's choice.
- Transport, installation and application
- Lower temperature range (minimum): Contractor's choice.
- Upper temperature range (maximum): Contractor's choice.
- Resistance to bending: Rigid.
- Electrical characteristics: Contractor's choice.
- Resistance to external influences:
- Protection against ingress of solid objects (minimum): To BS EN 60529, IP3X.
- Protection against ingress of water (minimum): To BS EN 60529, IPX0.
- Resistance against corrosion: Contractor's choice.
- Tensile strength: Contractor's choice.
- Resistance to flame propagation: Contractor's choice.
- Suspended load capacity: Contractor's choice.
- Colour: white.
- Sizes: Contractor's choice.

- Accessories and fittings: Factory made by the conduit manufacturer of the same material type and finish as the conduit.

410 CABLES GENERALLY

- Approval: British Approvals Service for Cables (BASEC) certified.
- Cable sizes not stated: Submit proposals and calculations.

420 PROTECTIVE CONDUCTORS

- Type: Cable conductors with yellow/ green sheath.

430 ELECTRICAL ACCESSORIES

- Standards:
- Generally: To BS 5733.
- Switches: To BS EN 60669-1.
- Manufacturer: Contractor's choice .
- Product reference: Contractor's choice .
- Finish: White plastic .
- Mounting: Recessed.

510 LUMINAIRES To all areas

- Standard: To BS EN 60598-1.
- Approval: Kitemark certified.
- Manufacturer: Submit proposals.
- Product reference: Submit proposals.
- Material: Submit proposals.
- Colour: White.
- Mounting: Contractor's choice.
- Lamp: Low energy compact fluorescent.
- Wattage: Submit proposals.

511 LAMPS GENERALLY

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

515 LUMINAIRE SUPPORTING COUPLERS

- Standards: To BS 6972 and BS 7001.

560 EXTERNAL LUMINAIRES To front & rear elevation

- Standards: Floodlights to BS EN 60598-1 and BS EN 60598-2-5.
- Approval: Kitemark certified.
- Manufacturer: Submit proposals.
- Product reference: Contractor's choice.
- Mounting: Wall.
- Ingress protection to BS EN 60529: Submit proposals.
- Lamp: Light emitting diodes (LEDs).
- Wattage: Contractor's choice.
- Colour temperature: Contractor's choice.
- Spill lighting control: none.
- Material: Contractor's choice.
- Colour: Contractor's choice.

580 EARTHING AND BONDING EQUIPMENT

- Earth electrodes: In accordance with BS 7430.
- Electrode type: Submit proposals.
- Earth clamps: To BS 951.

596 MOVEMENT DETECTORS

- Manufacturer: Contractor's choice.
- Product reference: Contractor's choice.
- Features: Contractor's choice.

EXECUTION

610 ELECTRICAL INSTALLATION GENERALLY

- Standard: In accordance with BS 7671.

615 INSTALLING CONNECTION TO INCOMING SUPPLY

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

660 INSTALLING PVC CONDUIT AND FITTINGS

- Fixing:
 - Spacing of conduit saddles (maximum): 0.9 M on horizontal, 1.25 M on vertical. Reduce spacing in areas of high ambient temperature in accordance with manufacturer's instructions.
 - Fix boxes independently of conduit.
 - At fittings and changes of direction: Fit conduit saddles 150 mm either side.
 - Thermal expansion: Allow for expansion couplings in accordance with manufacturer's recommendations.
- Conduit drainage: Provide drainage outlets at lowest points.
- Location: Position vertically and horizontally in line with equipment served, and parallel with building lines. Locate where accessible.
- Jointing:
 - Number of joints: Minimize.
 - Lengths of conduit: Maximize.
 - Cut ends: Remove burrs.
 - Movement joints in structure: Manufactured expansion coupling.
 - Adhesive: Use water resistant solvent cement to form watertight joints. Use water resistant lubricant sealant at expansion couplers.
- Changes of direction: Circular conduit boxes.
- Connections to boxes, trunking, equipment and accessories: Use threaded adaptors.
- Mounting and support: Submit proposals .

680 CABLE ROUTES

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

685 INSTALLING CABLES

- General: Install cables neatly and securely. Protect against accidental damage, adverse environmental conditions, mechanical stress and deleterious substances.
- Timing: Do not start internal cabling until building enclosure provides permanently dry conditions.
- Jointing: At equipment and terminal fittings only.
- Cables passing through walls: Sleeve with conduit bushed at both ends.
- Cables surrounded or covered by thermal insulation: Derate accordingly.

690 INSTALLING CABLES IN PLASTER

- Protection: Cover with galvanized steel channel nailed to substrate.

695 INSTALLING CABLES IN VERTICAL TRUNKING/ DUCTS

- Support: Pin racks or cleats at each floor level or at 5 m vertical centres, whichever is less.
- Heat barrier centres (maximum): 5 m.

- Heat barriers: Required except where fire resisting barriers are not provided.

700 INSTALLING CABLES IN ACCESSIBLE ROOF SPACES

- Cables running across ceiling joists: Fix to timber battens which are secured to joists.

720 INSTALLING ELECTRICAL ACCESSORIES AND EQUIPMENT

- Location: Submit proposals.
- Arrangement: Coordinate with other wall or ceiling mounted equipment.
- Positioning: Accurately and square to vertical and horizontal axes.
- Alignment: Align adjacent accessories on the same vertical or horizontal axis.
- Mounting: Recessed.
- Mounting heights (finished floor level to underside of equipment/ accessory): 450mm for sockets (excl Kitchen) and 1000mm for switches etc.
- Accessory face plates: Free from any traces of plaster, grout and paint or similar.

730 INSTALLING MULTIGANG SWITCHES

- General: Connect switches so that there is a logical relationship with luminaire positions. Fit blanks to unused switch spaces.
- Segregation: Internally segregate each phase with phase barriers and warning plates.

735 INSTALLING LUMINAIRES

- Location: As drawing 2001
- Orientation: Parallel with ceiling.
- Supports: Adequate for weight of luminaire.

745 INSTALLING EXTERNAL LUMINAIRES

- Locations: Submit proposals.
- Seals: Check for particle ingress and clean.

760 EQUIPMENT LABELLING

- Electrical equipment: Install labels indicating purpose.
- Voltage warning notices:
 - Location: Apply to equipment in a position where it can be seen prior to gaining access to live parts when the voltage within exceeds 230 V.
 - Format: To BS EN ISO 7010, functional reference number, W012, include warnings of the voltage present.
- Distribution boards and consumer units: Card circuit chart within a reusable clear plastic cover. Fit to the inside of each unit. Include typed information identifying the outgoing circuit references, their device rating, cable type, size, circuit location and details. Label each outgoing way corresponding to the circuit chart.

- Sub-main cables: Label at both ends with circuit reference using proprietary cable marker sleeves.

765 ENGRAVING

- Metal and plastic accessories: Engrave, indicating their purpose.
- Emergency lighting test key switches: Describe their function.
- Multigang light switches: Describe the luminaire arrangement.

COMPLETION

810 FINAL FIX

- Accessory faceplates, luminaires and other equipment: Fit after completion of building painting.

820 CLEANING

- Electrical equipment: Clean immediately before handover.
- Equipment not supplied but installed and electrically connected: Clean immediately before handover.

830 INSPECTION AND TESTING GENERALLY

- Standard: In accordance with BS 7671.
- Notice before commencing tests (minimum): 24 hours.
- Labels and signs: Fix securely before system is tested.

- Certificates: Submit.
- Number of copies: 2 .

880 DOCUMENTATION

- Timing: Submit at practical completion.
- Contents:
 - Full technical description of each system installed.
 - Manufacturers' operating and maintenance instructions for fittings and apparatus including relamping instructions for luminaire types. Identify hazardous lamps that require specialist disposal.
 - Recommended frequency of testing and inspection, both for electrical safety and for matters such as the corrosion and security of lighting columns and luminaire fixings.
- Manufacturers' guarantees and warranties.
- As-installed drawings showing circuits and their ratings and locations of fittings and apparatus.
- List of normal consumable items.

890 MAINTENANCE

- Servicing and maintenance: Undertake.
- Duration: Until 12 months after Practical Completion.

Section 2 - Schedule of Works

SECTION 3 - SCHEDULE OF WORKS

£

FLAT REFURBISHMENT WORKS

1 STRIPPING OUT, PREPARATION AND DEMOLITION

- | | | |
|------|--|------------|
| 1.1 | To the whole premises, strip out electrical installation complete including all small power, other power distribution and lighting circuits and take back to the existing board. | |
| 1.2 | Strip back wallpaper finishes where present. | |
| 1.3 | Allow to carefully remove friable and damaged plaster finishes, particularly to the stairwell between ground and first floor level. For pricing purposes allow for 15 sq. m. to be removed back to the substrate. | |
| 1.4 | At second floor level strip out the existing WC and all associated water supply and waste pipework. | |
| 1.5 | At second floor level strip out cupboards to the rear right hand corner and cart away. | |
| 1.6 | Strip all radiators and above floor level pipework to the heating system complete taking back to the existing boiler within the kitchen. | |
| 1.7 | Remove all internal door leafs, frames and linings complete and cart away, including the glazed pane over the first floor front box room. | |
| 1.8 | Allow the provisional sum of £3,000 for asbestos works. Note requirement for contractor to commission a pre refurbishment and demolition survey prior to commencing works. | £ 3,000.00 |
| 1.9 | Strip out the existing kitchen units complete and cart away, including base units, worktops, wall units and wall tiling, etc. Cart away any white goods. Terminate services ready for extension to suit new kitchen. | |
| 1.10 | To the first floor bathroom and WC, remove all sanitaryware, above ground pipework and drainage and cart away. Remove all wall tiling. | |
| 1.11 | Main entrance external door to be removed complete including leaf, frame and lining, and cart away. | |
| 1.12 | To the ground floor proposed cycle and bin store, remove the current door between the room and what was the garage to the rear. Cart away leaf, frame and lining (to be infilled as included elsewhere). | |
| 1.13 | Generally remove all existing fixtures, fittings and chattels within the premises and cart away. | |
| 1.14 | Externally to the rear elevation, allow to remove all PVCu pipework serving the kitchen and top floor wash handbasin and cart away. Suitably cap off where connected to the surface water system. | |

2 REPAIRS AND ALTERATIONS

2.1	Following stripping back of wallpaper and other finishes, allow to reskim surfaces as directed by the CA. For pricing purposes allow for 50 sq. m. complete.		
2.2	Following removal of any damaged or friable plaster, allow to re-plaster in gypsum/carlite to finish flush with existing surfaces. Area as directed by CA. For pricing purposes allow 15 sq. m.		
2.3	At second floor level there is a pointed arch opening between the two rooms. This is to be made a conventional square opening ready to suit a new door as scheduled below. In preparation, allow to install a series of pre cast concrete lintels across the opening allowing for 200mm deep x 100mm wide units, with a minimum 150mm end bearing. Structural opening to suit new 838mm wide x 1981mm high door. Include here for cutting back masonry to the opening and leave ready for new door linings. Infill pointed arch above the new lintel necessary with masonry to match existing width and plaster ready for decoration.		
2.4	To the top floor ceiling, supply and fit new 15mm thick solid timber loft hatch, with insulated pillow fastened to the top surface. Prime ready for decoration to be included elsewhere.		
2.5	The contractor is to assess the sash windows to the front elevation complete and provide a schedule of recommended repairs, including costings based on labour and materials. Include here for survey and costed report.		
2.6	Contractor to allow provisional sum of £800 for repairs to sash windows as agreed with CA.	£	800.00
2.7	Allow the provisional sum of £800, for repairs/replacement to timber floorboards prior to laying new floor finishes.	£	800.00
2.8	Within the top floor, the en suite room is to receive new built in cupboards to the front part below the roof pitch. Contractor to design, supply and install new bespoke cupboards built of softwood studs and MDF swing doors. New cupboards to be 1m deep maximum (at floor level), reducing in depth due to the roof pitch. Include for all studwork, infill panelling, ironmongery including magnetic catches, doorknobs, hinges, etc. Include for shelving within the storage cupboard. Final design to be agreed with CA.		
2.9	Following agreed routing of all new services, allow for all above floor level exposed pipework and drainage to be boxed in with studwork and bevelled edged MDF. Leave primed ready for decoration.		
2.10	To the ground floor proposed bike and in store where the door to the former garage has been removed, allow to block up to match existing wall construction. Allow for 225mm thick solid brickwork and plastered internally.		
2.11	To the second floor open eaves areas, allow to gain access and remove nesting material and any other debris.		
2.12	Allow the provisional sum of £500 to reinstate/install insulation where found to be missing within the main roof eaves storage areas.	£	500.00

3.0 WINDOWS AND DOORS

- 3.1 To all existing PVCu framed double glazed windows other than those included for replacement as set out below, allow to thoroughly clean all frames, sills, reveals, casements, etc and lubricate moving parts. Replace all locks and provide 2no new keys for each opening casement.
- 3.2 The following existing UPVC framed windows are to be removed complete and replaced with new equivalent PVCu framed double glazed sealed unit windows of matching configuration, in accordance with current Building Regulations and with FENSA certificate to be provided:
- Second floor rear dormer window (proposed en suite).
 - To ground floor bike and bin store, remove existing external window and replace with new PVCu framed double glazed window, opening configuration to be confirmed.
- 3.3 To all existing secondary glazing, allow to overhaul and refurbish. Allow to dismantle/remove any sliding/moving sections, thoroughly clean, lubricate and reassemble. Report any defective elements to the CA.
- 3.4 Allow a provisional sum of £500 for repairs to secondary glazing installation. £ 500.00
- 3.5 To the first floor front box room, design, supply and install new secondary glazing to suit aperture size and opening configuration.
- 3.6 6no internal doors as shown on plans, supply and install new FD30S fire door sets, to be Certifire or BW Trada certified door sets, including new linings, frames, leafs and ironmongery. Doors are to protect the means of escape and so for clarity include the following:
- Second floor bedroom door at head of stairs.
 - First floor playroom/boxroom.
 - First floor front bedroom.
 - First floor lounge.
 - First floor rear bedroom.
 - Ground floor bike/bin store.
- All doors to be solid core, ply faced and primed ready for decoration.
- 3.7 All doors to include for 1½ pair of steel butt hinges, overhead closer and lever handles. All doors to include intumescent and cold smoke seals. All doors to include drop seals integral to the door leaf along the bottom edge to ensure that a gap no greater than 3mm is present when the door is in the closed position.
- 3.8 In addition to the above, specific doors to include the following:
Key locking with internal thumb turn egress to the following
- Bike/bin store.
 - 3no bedrooms
- 3.9 To the external main entrance door, supply and install new GRP composite door set. For pricing purposes allow for Jeld-wen Castle range, Cottage model. This model includes single rectangular vision panel. Install complete with multipoint lock and letter plate. Provide 6no keys for external door.

- 3.10 To second floor, new door opening between bedroom and en suite, to receive new 44mm thick solid core timber door (as per FD30S specification above, but without the door closer and intumescent and cold smoke seals. Install complete with bathroom indicator and thumb turn locking.
- 3.11 At second floor level, supply and fit 2no new eaves level doors into existing eaves storage. Allow for new doors to be 18mm MDF, moisture resistant, primed ready for decoration and to be lockable.

4.0 FITTING OUT

- | | | |
|------|---|------------|
| 4.1 | To second floor level within proposed en suite as shown, allow provisional sum of £2,500 for supply only of new en suite fittings including WC and cistern, wash handbasin and brassware, shower tray and enclosure and electric shower (9.5kw). | £ 2,500.00 |
| 4.2 | Allow for the installation of the above including extension/alteration of mains cold water feeds as necessary, design and installation of all waste including traps, branch pipework and connections. | |
| 4.3 | Provide hot water to the en suite wash handbasin via a new contractor designed below basin electric hot water heater. | |
| 4.4 | To first floor rear bathroom and WC, allow the provisional sum of £4,000 for replacement WC and cistern, wash handbasin, bath, mixer shower and associated vanity units and shelving. | £ 4,000.00 |
| 4.5 | Allow to install replacement fittings as above including all hot and cold pipework and above ground drainage including waste traps and connections. All waste to be connected to existing soil and vent pipe on rear elevation. | |
| 4.6 | Allow for contractor design of a replacement hot water cylinder within the cupboard within the bathroom. To be suitable for use with existing gas boiler and include electric immersion backup. | |
| 4.7 | Allow the provisional sum of £5,000 for supply only of new kitchen fittings including base units, worktops, wall units and built in hob and cooker with externally extracting cooker hood. Contractor to arrange for Howdens/Benchmark Kitchens to provide a layout proposal and costings for approval by the CA. | £ 5,000.00 |
| 4.8 | Allow for installation of the new fitted kitchen and appliances complete. | |
| 4.9 | To the second floor en suite and first floor rear bathroom, install/replace mechanical extract ventilation, to achieve no less than 15 l/s. To be operated via a lightswitch and include variable 15 minute overrun. Note that it is anticipated that the en suite extract would pass through the flat roof of the rear dormer. | |
| 4.10 | Allow to provide mastic sealant finish to all edges and abutments throughout kitchens and bathrooms. | |

5.0 LIGHTING AND POWER

- 5.1 Contractor is responsible for the design, installation and testing of the power and lighting installation complete. Allow for the following:
- To all bedrooms, allow for 1no pendant light fitting, central to the room and 2no. uplighters.
 - To the en suite, bathroom, kitchen and WC areas, allow for recessed LED spotlights with fire hoods over, to be suitably IP rated and switched. All to be designed to achieve minimum 250 lux at the working plain.
 - To all other areas including corridors, circulation space, lounge and the first floor box room, allow for recessed LED spotlights with fire hoods over, to be suitably switched and achieve 250 lux at the working plain.
 - To areas as directed by the CA, further uplighters to corridors. Allow for 6no.
- 5.2 Contractor to design new small power and data distribution throughout but to include the following:
- To the en suite and bathroom, 1no shaver point with pull cord light fitting over the wash handbasin, leaving space for a mirror, included elsewhere.
 - To each bedroom, 4no twin 13amp sockets.
 - To the lounge, 4no twin 13 amp sockets, television aerial point and 2no RJ45 points, cabled back to the existing BT incoming position.
 - To the first floor box room, 2no 13 amp twin sockets.
 - To the kitchen, 4no twin 13 amp sockets plus connections for washing machine/dryer, dishwasher, cooker.
 - To the corridor, 3no twin 13 amp sockets.
- 5.3 All new cabling to be concealed/chased in and made good prior to decoration. Switches and sockets to be MK logic or equivalent approved, recessed.

6.0 FINISHES

- 6.1 To the kitchen, allow for tiled splashback to wall perimeter, to be three courses high, 150x100mm metro tiles, with grey grout and white PVC trims.
- 6.2 Within the en suite, allow for the shower enclosure to be tiled, full height, within the bathroom, three edges of the bath to be tiled full height, to bathroom and en suite, tiled splashback to wash handbasin. All tiling as above specified.
- 6.3 Decorate/redecorate all ceilings and walls throughout, allowing to mist coat any new plaster prior and then a minimum of 2no top coats mid sheen emulsion paint, colours to be agreed.
- 6.4 Allow to decorate/redecorate all previously decorated internal joinery and newly installed joinery including doors. All bare timber to be primed prior to decoration. All joinery to be decorated within a minimum two coats satin finish paint, colours to be agreed.
- 6.5 To the ground floor bike and bin store, allow to redecorate the floor with 2no coats of garage floor paint, colour grey.
- 6.6 Within the bike and bin store, allow to decorate the walls and ceiling with two coats of masonry paint, colour white.

6.7	Externally, gain access to rear elevations and allow to rub down and redecorate the rear rendered gable panel to the bathroom with 2no coats of masonry paint.	
6.8	To the rear, allow to gain access to and rub down and redecorate soffits and fascias with 2no coats gloss/satin paint, colour to match existing.	
7.0	EXTERNALLY	
7.1	To the rear elevation, allow to remove the existing satellite dish and cart away including all cabling.	
7.2	Allow for the design of new foul waste pipework to discharge from the second floor en suite and connect to kitchen waste below. This currently discharges to a surface water system. The contractor is to identify the nearest/most appropriate foul waste inspection chamber. Include here for all above ground drainage only, including a new full height SVP.	
7.3	Allow the provisional sum of £1,000 for any excavation and below ground drainage required to connect to the nearest/most appropriate foul drain sewer.	£ 1,000.00
7.4	To all rear elevations, include to gain access and allow to rake out and repoint all exposed brickwork sections. Raking out to a depth twice the height of the joint to a square edge, to be cleaned and inspected by the CA. Repoint in approximately 3/1 sand/lime mortar mix.	
8.0	FLOOR FINISHES	
8.1	To all areas, allow to supply and lay new hardboard lining over existing floorboards.	
8.2	To the kitchen, bathroom, WC and en suite, allow for new sheet vinyl flooring. Allow the prime cost of £15/sq. m. for supply only of materials. Include here for supply and installation complete including threshold strips.	
8.3	To the ground floor entrance lobby and staircase up to the top step, supply and lay new hard wearing entrance barrier matting. Include for all accessories and adhesive, etc.	
8.4	To all other areas including the corridor, staircase to second floor, all bedrooms and lounge, supply and lay new underlay and carpet, allow prime cost of £40/sq. m. for supply only of both underlay and carpet. Allow here for the supply and installation complete including all necessary adhesive, gripper rods and accessories.	
9.0	FIRE ALARM, ETC INSTALLATION	
9.1	The contractor is to design, supply, install and commission a new L2 fire alarm and detection system to the premises throughout, including CO alarms as necessary. Contractor design to include layout showing all detectors and sounders, call points and control panel.	

9.2	Contractor is to design, supply, install and commission new non maintained emergency lighting system in accordance with BS 5266. Provide design to the CA for approval including specification of fittings, test points, etc.	
10	Project Contingency - To be expended on the instructions of the CA only.	£ 2,000.00
SUB TOTAL		

Form of Tender

*I/We:

carrying on business at:

.....

having examined the specification and manufacturers recommendations and literature, hereby tender and undertake to execute and complete the whole of the said Works in conformity with the aforementioned documentation for the sum of:

£..... (in figures)

.....(in words)

exclusive of VAT (or such other sum as may be ascertained in accordance with the Conditions of Contract).

Should My/Our tender be accepted, and if requested by the Employer, I/We agree to enter into the Articles of Agreement. Unless and until such an agreement is executed this Form of Tender and the acceptance hereof shall constitute a binding contract between us.

I/We agree that the insertion by me/us of any conditions qualifying this tender or any unauthorised alteration to any of the tender documents may cause the tender to be rejected and confirm that I/We have not inserted any conditions qualifying this tender or made any unauthorised alteration to any of the tender documents.

I/We certify that the details of this tender have not been communicated to any other person or adjusted in accordance with any agreement or arrangement with any other person, firm or company.

I/We also certify that I/We am/are not a party to a scheme or arrangement under which any other tenderer was reimbursed any part of his/her tender cost.

I/We confirm that the above sum includes all Provisional Sums and all Contingencies and agree that this tender shall remain open for acceptance by you and shall not be withdrawn for a period of **10 weeks** from the closing date for return of tenders.

I/We understand that you are not bound to accept the lowest or any tender you may receive, and you will not pay any expenses incurred by us in connection with the preparation and submission of this tender.

I/We hereby warrant and undertake to you in the terms set out in the Instructions to Tenders.

I/We certify that this is a bona fide Tender.

I/We undertake to complete and deliver the whole of the Works comprised in the Contract within **9 weeks** from the Date of Possession.

Contractor's Representative's Signature:

(Print Name in Full):

Position in Company/Firm (must be a director or secretary or another person authorised by the company to sign *):

.....

Name of Company/Firm:

.....

Address:

.....

.....

.....

Tel. No(s):

Email Contact:

Date