

## **L20 Doors/ shutters/ hatches**

To be read with Preliminaries/ General conditions.

### **20 TIMBER PROCUREMENT**

- Timber (including timber for wood based products): Obtained from well managed forests/ 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, or
  - Evidence that suppliers have adopted and are implementing a formal environmental purchasing policy for timber and wood based products.

### **50 SCOPE OF WORKS**

- This section of the Specification, when read in conjunction with the Design Drawings, provides particular requirements with respect to the following:  
Doors:
  - Overhauled existing Ground Level solid entrance door
  - Overhauled existing Lower Ground Level solid entrance door in Lightwell
  - Overhauled relocated existing Lower Ground Floor solid entrance door in lightwell
  - New external glazed panelled external entrance door at Ground Level
  - New ledged and braced hardwood doors to external vaults
  - New hardwood louvered plantroom doors to Lightwell
  - Non-Fire rated internal panelled doorsets
  - Fire rated internal panelled doorsets
  - Non-fire rated pocket doorsets
  - Fire rated pocket doors
- Ensure that all interfaces are co-ordinated before commencement.

## **FIRE**

### **60 DOORS AND DOOR FRAMES GENERALLY**

- The door assemblies, including the installation method within door openings, are to comply with the following fire rating requirements:
  - Door assemblies within openings, including ironmongery (refer to Section P21), are to achieve the fire rating indicated on the Door and Ironmongery Schedule and be independently tested to the relevant parts of BS 476 or assessed under the TRADA Quality Assurance Services Ltd. Fire Resisting Doors and Doorsets Quality Assurance Scheme. Doors to be marked with an identifying label and plug, in accordance with the scheme. Copies of test certificates or assessments to be provided for inspection.
- Provide the Architect with copies of test certificates prior to manufacture.
- All finishes to satisfy Class 0 surface spread of flame in accordance with the requirements of the Building Regulations and the requirements of the Building Control Officer.
- Fire doors and frames including fire seals and all associated materials and installations are to comply with the requirements of BS 8214.
- Provide independently certified evidence that all specified variants of components comply with specified performance requirements.

### **65 OPENING PRESSURE**

- The maximum opening pressures required to open fire rated or non-fire rated doors on disabled access routes to be in accordance with the requirements of BS 8300.

## **STRENGTH REQUIREMENTS**

### **70 STRENGTH OF DOOR FRAMES**

- Ensure that the works, including ironmongery, meet the 'medium duty' category as defined in DD 171 or an equivalent international standard.
- Provide evidence to demonstrate that the works, including ironmongery, have been tested to meet the minimum acceptance criteria given in DD 171 for the following:
  - Slamming shut impact.
  - Slamming open impact.
  - Heavy body impact.
  - Hard body impact.
  - Torsion.
  - Download deformation.
  - Closure against obstruction.
  - Resistance to jarring and vibration.
  - Abusive forces on door handles.
- Glass in doors:
  - Comply with BS 6262.
  - Impact performance to achieve Class A to BS 6206 or European equivalent class 1B1 to BS EN 12600

## **ENVIRONMENTAL**

### **80 THERMAL PERFORMANCE REQUIREMENTS NEW GLAZED EXTERNAL DOOR**

- Avoid cold bridging in any area of the system. The maximum thermal permitted transmittance (U-value) for the various types to be as follows:
  - Unit installations: 1.5 W/m<sup>2</sup>K or better.
- No cold bridging is to occur through the framing elements of the works. The average Uvalue to comply with the above requirements.
- Submit thermal calculations for the various components and the average thermal performance.
- Thermal movements are not to result in audible noise.

## **SECURITY**

### **90 SECURITY TO EXTERANL DOORSET**

- PAS 24:2012 Enhanced security performance required to all LGF and GF external doors

## **GENERAL**

### **115 FIRE RESISTING DOORS/ DOOR ASSEMBLIES/ DOORSETS**

- Door products: As defined in BS EN 12519.
- Evidence of fire performance: Provide certified evidence, in the form of a product conformity certificate, directly relevant fire test report or engineering assessment, that each door/ door assembly/ doorset supplied will comply with the specified requirements for fire or smoke resistance if tested to BS 476-22, BS EN 1634-1 or BS EN 1634-3. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
- Components and assemblies will be marked to the relevant product standard and/ or third party certification rating.

120 NON FIRE RESISTING DOORS/ DOOR ASSEMBLIES/ DOORSETS

- Provide certified evidence, in the form of a product conformity certificate or engineering assessment, that each door/ doorset/ assembly supplied will comply with the specified requirements to BS EN 14351-1. Such certification must cover door and frame materials, glass and glazing materials and their installation, essential and ancillary ironmongery, hinges and seals.
- Components and assemblies will be marked to the relevant product standard and/ or third party certification rating.

150 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 doors from Ground to third floors.

**PRODUCTS**

**DOOR TYPES**

205 OVERHAUL EXISTING EXTERNAL MAIN ENTRANCE DOOR DOOR REF: DG-10 - GROUND FLOOR - DOOR TYPE ED-01

- Drawing reference: 14113-20-202, 14113-31-400 and 14113-31-900 External Door Schedule
- Contractor: Submit proposals
- Species:
  - All timbers Fsc and Pefc accredited.
  - All timbers to be treated with low odour clear preservative.
- Finish: All new works to be finished to match existing finishes.
- Glazing: Existing glazing to over panel to be maintained and reputty as required
- Ironmongery: New ironmongery to be fitted as per ironmongery schedule
- Method:
  - Overhaul existing timber entrance doors.
    - Carefully remove existing door leafs as set aside
    - carefully remove all existing ironmongery from doors and frame.
    - Remove excessive paint build up where it impeded operation
    - Repair rot up to 100 cubic cm
    - Rout small grooves into leafs to insert carriers and seals
    - Repair existing frame carrying all necessary timber repairs.
    - Fill small areas of rot with two part filler.
    - install new ironmongery as per schedule
    - Fit brush pile draught proofing system
    - fit overhauled door into existing frame.
    - Realign the door leafs.
  - Draught proofing system performance:
    - Air permeability - BS EN 12207 Class 3 and BS 6375 (600 Pa)
    - Air permeability reduced to 0.4 air-changes per hour
    - Weather fin pile manufactured to EN 29009 and designed to BS 7386:1990.
    - Sound insulation: Falls within the 6 to 10dB noise reduction range.
  - Other requirements:
    - Making good to plaster, stucco and decoration to be by main contractor
    - Sealing around the frame and the removal or replacing of any putty to be by main contractor.
    - New ironmongery includes motorised locking system - door leafs to be drilled for cable route.
    - Concealed door loop required.
    - Existing stone steps to be replaced with new stone steps to match existing as Q25:312

206 OVERHAUL EXISTING EXTERNAL ENTRANCE DOOR DOOR REF: DLG-01 - LOWER GROUND FLOOR - DOOR TYPE ED-04

- Drawing reference: 14113-20-201, 14113-31-401, 14113-31-600 + 601 and 14113-31-900 External Door Schedule
- Contractor: Submit proposals
- Species:
  - All timbers Fsc and Pefc accredited.
  - All timbers to be treated with low odour clear preservative.
- Finish: All new works to be finished to match existing finishes.
- Ironmongery: New ironmongery to be fitted as per ironmongery schedule
- Method:
- Overhaul existing timber entrance door.
  - Carefully remove existing door leaf as set aside.
  - carefully remove all existing ironmongery from door and frame.
  - Remove excessive paint build up where it impeded operation
  - Existing cill to be removed and replaced with new natural stone cill - refer to F30:---
  - Repair rot up to 100 cubic cm
  - Rout small grooves into leafs to insert carriers and seals
  - Repair existing frame carrying all necessary timber repairs.
  - Fill small areas of rot with two part filler.
  - install new ironmongery as per schedule
  - Fit brush pile draught proofing system
  - fit overhauled door into existing frame.
  - Realign the door leafs.
- Draught proofing system performance:
  - Air permeability - BS EN 12207 Class 3 and BS 6375 (600 Pa)
  - Air permeability reduced to 0.4 air-changes per hour
  - Weather fin pile manufactured to EN 29009 and designed to BS 7386:1990.
  - Sound insulation: Falls within the 6 to 10dB noise reduction range.
- Other requirements:
  - Making good to plaster, stucco and decoration to be by main contractor
  - Installation of new natural stone cill (F30:722) to be by main contractor.
  - Sealing around the frame and the removal or replacing of any putty to be by main contractor.
  - Security: PAS 24:2012 Enhanced Security performance.

207 OVERHAUL EXISTING EXTERNAL ENTRANCE DOOR DOOR REF: DLG-15 - LOWER GROUND FLOOR - DOOR TYPE - ED03

DOOR AND FRAME TO BE REUSED IN RELOCATED STRUCTURAL OPENING.

- Drawing reference: 14113-20-201, 14113-31-401, 14113-31-600+601 and 14113-31-900 External Door Schedule
- Contractor: Submit proposals
- Species:
  - All timbers Fsc and Pefc accredited.
  - All timbers to be treated with low odour clear preservative.
- Finish: All new works to be finished to match existing finishes.
- Ironmongery: New ironmongery to be fitted as per ironmongery schedule
- Method:
- Overhaul existing timber entrance door.
  - Carefully remove existing door leaf, frame and over panel as set aside for reuse.
  - Remove existing cill and clear away.
  - carefully remove all existing ironmongery from door and frame.
  - Remove existing glazing from over panel.
  - Reglaze over panel with toughened safety glass
  - Remove excessive paint build up where it impeded operation
  - Repair rot up to 100 cubic cm
  - Rout small grooves into leafs to insert carriers and seals
  - Repair existing frame carrying all necessary timber repairs.
  - Fill small areas of rot with two part filler.
  - install new ironmongery as per schedule
  - Fit brush pile draught proofing system
  - fit overhauled door and frame into newly prepared opening.
  - Realign the door leaf.
- Draught proofing system performance:
  - Air permeability - BS EN 12207 Class 3 and BS 6375 (600 Pa)
  - Air permeability reduced to 0.4 air-changes per hour
  - Weather fin pile manufactured to EN 29009 and designed to BS 7386:1990.
  - Sound insulation: Falls within the 6 to 10dB noise reduction range.
- Other requirements:
  - Preparation of new opening to receive relocated door to be by main contractor
  - Installation of new natural stone cill (F30:722) to be by main contractor.
  - Making good to plaster stucco and decoration to be by main contractor
  - Sealing around the frame and the removal or replacing of any putty to be by main contractor.
  - Security: PAS 24:2012 Enhanced Security performance.

220 EXTERNAL DOORS - FRAMED, LEDGED AND BRACED TO UNDER PAVEMENT VAULTS - DOOR TYPE ED-09

- Drawing reference: 14113-20-201, 14113-31-402, 14113-31-601 and External Door Schedule 14113-31-900
- Manufacturer: Contractors Choice
  - Product reference: Submit proposals
- Wood species: Hardwood.
- Preservative treatment: Required.
- Moisture content on delivery: 13-19%.
- Finish as delivered: Full paint system, as section M60.
- Ironmongery: As per ironmongery schedule
- Other requirements:
  - Site dimensions to be taken prior to manufacture
  - Door and frame to be installed over new natural stone cill - refer to F30:722

- 251 WOOD DOORS NEW EXTERNAL DOOR - DOOR TYPE - ED-02
- Drawing reference: 14113-20-202, 14113-31-400, 14113-31-600 and External Door Schedule 14113-31-900
  - Manufacturer: Atkey & Company Ltd Period Architectural Joinery, Unit 2A, Cheddar Business Park, Wedmore Road, Cheddar, Somerset. BS27 3EB
    - Contact name: Michael Costello
    - Tel: 01934 806883
    - Email: michael@atkeyandco.com
    - www.atkeyandco.com .
    - Product reference: Bespoke panelled and glazed external door with opening glazed over panel.
  - Wood species: Hardwood.
  - Preservative treatment: Required.
  - Finish as delivered: Full factory finish to match existing external doors.
  - Glazing/ Infill details: Clear double glazing .
    - Manifestation: Not applicable.
    - Beading: External.
  - Thermal performance (U-value maximum): 1.8 W/m<sup>2</sup>K .
  - Ironmongery: As per ironmongery schedule
  - Other requirements: Refer to Architects drawings for door and over panel configuration
    - Security: minimum LPS 1175/PAS 24 level
    - Installation of new natural stone cill (F30:722) to be by main contractor. .
- 252 WOOD FLUSH DOORS NEW EXTERNAL DOOR - DOOR REF - DR-01
- Drawing reference: 14113-20-204 and External Door Schedule 14113-31-900
  - Manufacturer: Atkey & Company Ltd Period Architectural Joinery, Unit 2A, Cheddar Business Park, Wedmore Road, Cheddar, Somerset. BS27 3EB
    - Contact name: Michael Costello
    - Tel: 01934 806883
    - Email: michael@atkeyandco.com
    - www.atkeyandco.com .
    - Product reference: Bespoke Flush External Door.
  - Wood species: Hardwood.
  - Preservative treatment: Required.
  - Finish as delivered: Full factory finish to match existing external doors.
  - Glazing/ Infill details: Not applicable.
    - Manifestation: Not applicable.
    - Beading: External.
  - Thermal performance (U-value maximum): 1.8 W/m<sup>2</sup>K .
  - Ironmongery: As per ironmongery schedule
  - Other requirements: Door is built into Roof level lead lined Access Cabin and to be fully coordinated with lead details .