

CEH Wallingford Washroom Refurbishment Links 3 & 5

April 2015

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K11

**Rigid sheet flooring/ sheathing/ decking/ sarking/
linings/ casings**

Section Revision History

No.	Purpose
0	Tender

K11 Rigid sheet flooring/ sheathing/ decking/ sarking/ linings/ casings

To be read with Preliminaries/ General Conditions.

TYPES OF FLOORING/ SHEATHING/ DECKING/ SARKING/ LINING/ CASINGS

485 WALL SHEATHING TO EXISTING FF BLOCKWORK WALLS

- Substrate: Softwood studs as section G20 at 400 mm centers.
 - Additional supports: as clause 930.
- Sheathing: Cement bonded particleboard to BS EN 634-2, class 1.
 - Manufacturer: James Hardie or similar approved.
Product reference: Hardiebacker Backing Board 500.
 - Thickness: 12mm - 1200 x 800mm.
 - Other requirements: none.
- Setting out: Long edges vertical and centered on supports.
 - Expansion gap between adjacent boards: as manufacturer's instructions.
- Fixing to supports:
 - Fasteners: ss wood screws into pilot holes.
 - Fixing centers (maximum):
Around board edges: 300 mm.
Along intermediate supports: 300 mm.
 - Fixing distance from edges (minimum): 12mm from bottom edge of board and 12mm mm from other edges.

WORKMANSHIP

910 INSTALLATION GENERALLY

- Timing: Building to be weather tight before fixing boards internally.
- Moisture content of timber supports (maximum): 18%.
- Joints between boards: Accurately aligned, of constant width and parallel to perimeter edges.
- Methods of fixing, and fasteners: As section Z20 where not specified otherwise.

930 ADDITIONAL SUPPORTS

- Additional studs, noggings/ dwangs (Scot) and battens:
 - Provision: In accordance with board manufacturer's recommendations and as follows:
Tongue and groove jointed rigid board areas: To all unsupported perimeter edges.
Butt jointed rigid board areas: To all unsupported edges.
 - Size: Not less than 50 mm wide and of adequate thickness.
 - Quality of timber: As for adjacent timber supports. Treatment (where required): As for adjacent timber supports.

940 BOARD MOISTURE CONTENT AND CONDITIONING

- Moisture content of boards at time of fixing: Appropriate to end use.
- Conditioning regime: Submit proposals.

960 **FIXING GENERALLY**

- Boards/ sheets: Fixed securely to each support without distortion and true to line and level.
- Fasteners: Evenly spaced in straight lines and, unless otherwise recommended by board manufacturer, in pairs across joints.
 - Distance from edge of board/ sheet: Sufficient to prevent damage.
- Surplus adhesive: Removed as the work proceeds.

990 **ACCESS PANELS**

- Size and position: Agree before boards are fixed.
- Additional noggings/ dwangs (Scot), battens, etc: Provide and fix as necessary.

K32
Panel cubicles/ duct and wall linings/ screens

Section Revision History

No.	Purpose
0	Tender

K32 Panel cubicles/ duct and wall linings/ screens

To be read with Preliminaries/ General Conditions.

120 PANEL CUBICLES TO TOILETS

- Manufacturer: ToiletCubicles.co.uk
Dunstable Laminates
47 Edward Street
Dunstable
Bedfordshire LU6 1HE
Tel: 01582 668973
Fax: 01582 608227
Email: sales@toiletcubicles.co.uk
Web: www.toiletcubicles.co.uk.
 - Product reference: VersiCube to match existing installed in Reception Toilets.
- Panels:
 - Height (overall): Manufacturer's standard.
 - Floor clearance: Manufacturer's standard.
 - Core material: MFC.
Thickness: 19 mm.
 - Facings: Decorative high pressure laminate (HPL).
Colour/ Pattern/ Species: Grey M003.
 - Edge treatment: Plastics lipping; colour to match panel.
 - Wall support: Manufacturer's standard.
- Pilasters:
 - Core material: MFC.
Thickness: 19mm.
 - Facings: Decorative high pressure laminate (HPL).
Colour/ Pattern/ Species: Grey M003.
 - Edge treatment: Plastics lipping; colour to match panel.
- Doors:
 - Height: Manufacturer's standard.
 - Core material: MFC.
Thickness: 19mm.
 - Facings: Decorative high pressure laminate (HPL).
Colour/ Pattern/ Species: Wood Grain N026.
 - Edge treatment: Plastics lipping; colour to match door panel.
 - Ironmongery: Manufacturer's standard.
Colour: Manufacturer's standard.
- Fittings:
 - Head rails: Manufacturer's standard.
 - Pedestals/ Shoes: Manufacturer's standard.
- Accessories: Coat hooks and Toilet roll holders.
- Other requirements: None.

150 DUCT/WALL LININGS – PANELS AND PROPRIETARY FRAMES TO TOILETS

- Manufacturer: ToiletCubicles.co.uk
Dunstable Laminates
47 Edward Street
Dunstable
Bedfordshire LU6 1HE
Tel: 01582 668973
Fax: 01582 608227
Email: sales@toiletcubicles.co.uk
Web: www.toiletcubicles.co.uk.
 - Product reference: VersiCube to match existing installed in Reception Toilets.
- Panels:
 - Type: Precut for WC pan/ cistern access, full height and Manufacturer's standard.
Width (coordinating): As cubicles.
 - Core material: MFC.
Thickness: 19mm.
 - Facings: Decorative high pressure laminate (HPL).
Colour/ Pattern/ Species: Wood Grain N026.
 - Edge treatment: Plastics lipping; colour to match panel.
 - Reaction to fire (minimum classification, finished panel): Manufacturer's standard.
- Fasteners: Manufacturer's standard.
- Framing/ Support:
 - Duct panels: sw framing as clause 180.
 - Wall panels: N/A.
- Flash gap panels: Decorative high pressure laminate (HPL); colour M003.
- Skirting: Manufacturer's standard.

180 DUCT PANEL SUPPORT FRAMING – SITE FABRICATED SOFTWOOD TO TOILETS

- Framing: Softwood, free from decay and active insect attack and with no knots wider than half the width of the section.
 - Finished size: 47 x 65* mm (*regularized).
 - Moisture content at time of fixing (maximum): 18%.
 - Spacing (centers): As panel manufacturer's recommendations.
 - Method of fixing: As panel manufacturer's recommendations.
- Treatment: None.

210 SAMPLES

- General: Before placing orders submit representative samples of the following: Panel and door material and colours.
- Delivered materials/ products: To match samples.

250 INSTALLATION

- Programming: Do not install cubicles or duct/ wall panels before building is weather tight, wet trades have finished their work, wall and floor finishes are complete, and the building is well dried out.
- Accuracy: Set out to ensure frames and/ or panels and doors are plumb, level and accurately aligned.
- Modifications: Do not cut, plane or sand prefinished components except where shown on drawings.
- Fixing: Secure components using methods and fasteners recommended by the cubicle/ panel manufacturer. Prevent pulling away, bowing or other distortions to frames, panels and doors.
- Moisture and thermal movement: Make adequate allowance for future movement.

K40
Demountable suspended ceilings

Section Revision History

No.	Purpose
0	Tender

K40 Demountable suspended ceilings

To be read with Preliminaries/General conditions.

TYPES OF CEILING SYSTEM

115 UNIT SUSPENDED CEILING SYSTEM TO TOILETS

- Ceiling system manufacturer: Armstrong Technical Sales
Armstrong World Industries Ltd.
Building Products Division
Armstrong House, 38 Market Square
Uxbridge UB8 1NG
United Kingdom
Phone: 0800 371849
Fax: +44 1895 274287
or equal approved
- .
 - Product reference: Ceramaguard 607M.
- Ceiling:
 - Infill units: Fine fissured mineral fibre tiles with square edge profile.
 - .
 - Ceiling module: 600 x 600 mm.
 - Soffit height above finished floor level: 2700mm to be checked on site. To align with window and door head.
- Grid:
 - Form: Interlocking.
 - Exposure: Exposed.
- Access: Infill units fully demountable.
- Suspension system: As clause 250.
- Perimeter trim: Timber edge battens as clause 255.
- Accessories: none.
- Integrated services fittings: none.
- Other requirements: None.

GENERAL/PERFORMANCE

210 ENVIRONMENT

- Environmental classification to BS EN 13964: Class A.

220 STRUCTURAL PERFORMANCE OF TOILET CEILING

- Loads: The ceiling system must safely support all anticipated loads, including services fittings:
 - Class: 1.
 - Additional loads/ pressures to be sustained by ceiling system: Luminaires, smoke detectors.Ceiling system subject to wind pressure: No.
- Deflection (maximum) between points of support:
 - Span under 1200 mm: Span/400.
 - Span 1200-1800 mm: Span/500.
 - Span over 1800 mm: Span/600.
- Test standard: To BS EN 13964.

COMPONENTS

240 SAMPLES

- General: Submit representative samples of the following: tile.

245 STANDARDS

- Components: To BS EN 10346.
 - Aluminum sheet, strip and plate: To BS EN 485.
 - Aluminum bars, tubes and sections: To relevant parts of BS EN 515, BS EN 573, BS EN 755 and BS EN 12020.

250 SUSPENSION SYSTEM FOR TOILET CEILING

- Manufacturer: Armstrong Technical Sales
Armstrong World Industries Ltd.
Building Products Division
Armstrong House, 38 Market Square
Uxbridge UB8 1NG
United Kingdom
Phone: 0800 371849
Fax: +44 1895 274287
or equal approved.
 - Product reference: T24.
- Extent of system: Include all hangers, fixings, main runners, cross members, primary channels, perimeter trims, splines, noggings, clips, bracing, bridging, etc. necessary to complete the ceiling system and achieve specified performance.
- Top fixings: appropriate for existing floor structure.
- Hangers: contractor's choice.
- Grid type: 24mm wide steel T section.
 - Finish: PPC.
 - Colour: white.

255 EDGE BATTEN TO CEILING PERIMETER

- Manufacturer: N/A.
 - Product reference: N/A.
- Material: Planed softwood to BS EN 942, class J10; moisture content at time of fixing: 15% \pm 2%.
 - Finished size: 21 x 44 mm.
 - Finish (apply before ceiling grid is installed): painted out with wall.

260 PERIMETER TRIM TO TOILET CEILING

- Type: 32 x 19 mm steel angle trim, colour and finish to match exposed grid.
- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Fixings:
 - Fasteners: BZP raised head screws.
 - Fixing centers (maximum): 450 mm.

EXECUTION

305 SETTING OUT

- General: Completed ceiling should present, over the whole of its surface exposed to the room below, a continuous and even surface, jointed (where applicable) at regular intervals.
- Infill and access units, integrated services: Fitted correctly and aligned.
- Edge/ perimeter infill units size (minimum): Half standard width or length.
- Corner infill units size (minimum): Half standard width and length.
- Grid: Position to suit infill unit sizes. Allow for permitted deviations from nominal sizes of infill unit.
- Infill joints and exposed suspension members: Straight, aligned and parallel to walls, unless specified otherwise.
- Suitability of construction: Give notice where building elements and features to which the ceiling systems relate are not square, straight or level.

310 BRACING

- General: Secure, with additional bracing and stiffening to give a stable ceiling system resistant to design loads and pressures.

315 PROTECTION

- Loading: Do not apply loads for which the suspension system is not designed.
- Ceiling materials: When necessary, remove and replace correctly using special tools and clean gloves, etc. as appropriate.

320 TOP FIXING

- Building structure: Verify suitability.
- Structural soffit: Concrete beam and block TBC on site.
 - Suitability to receive specified fixings: Evaluate and confirm.
- Fixing generally: In accordance with BS EN 13964.
- Fixing to:
 - Concrete: Drill and insert suitable expanding anchors.
 - Aerated concrete: Fix through from the top of concrete units and provide a system of primary support channels.
 - Structural steel: Drill, or use suitable proprietary clips/ adaptors.
 - Metal roof decking: Fix to sides of liner tray corrugations.
 - Timber: Fix to side of joists at least 50 mm from bottom edge. If ceiling system is intended for fire protection, fix into top third of joists.
 - Hollow structural members: Submit fixing proposals.

325 INSTALLING HANGERS

- Wire hangers: Straighten and tension before use.
- Installation: Install vertical or near vertical, without bends or kinks. Do not allow hangers to press against fittings, services, or insulation covering ducts/ pipes.
- Obstructions: Where obstructions prevent vertical installation, either brace diagonal hangers against lateral movement, or hang ceiling system on an appropriate rigid sub-grid bridging across obstructions and supported to prevent lateral movement.
- Extra hangers: Provide as necessary to carry additional loads.
- Fixing:
 - Wire hangers: Tie securely at top with tight bends to loops to prevent vertical movement.
 - Angle/ strap hangers: Do not use rivets for top fixing.
- Spacing's: 1200mm c/c.

330 INSTALLING TIMBER EDGE BATTENS

- Fixing: Firmly to perimeter wall or other building structure.
 - Fasteners: Plugged and screwed to walls.
 - Fixing centers (maximum): 600 mm.

335 INSTALLING PERIMETER TRIMS

- Jointing: Neat and accurate, without lipping or twisting.
 - External and internal corners: Miter joints generally. Overlap joints at internal corners are not acceptable.
 - Intermediate butt joints: Minimize. Use longest available lengths of trim. Align adjacent lengths.
- Fixing: Fix firmly to perimeter wall, edge battens or other building structure.
 - Fasteners: wood screws.
 - Fixing centers: 600 mm.

340 EXPOSED GRIDS

- Grid fixings: Wire hangers.
- Main runners: Install level. Do not kink or bend hangers.
 - Spliced joints: Stagger.
 - Wire hangers passing through main runners: Use sharp bends and tightly wrapped loops.
 - Angle/ strap hangers: Do not use rivets for bottom fixing.
 - Angular displacement of long axis of one runner in relation to next runner in line with it: Not visually apparent.
- Cross members supported by main runners or other cross members: Install perpendicular to intersecting runners.
- Cross tees: Flat and coplanar with flanges of main runners after panel insertion.
 - Cross tees over 600 mm long, cut and resting on perimeter trim: Provide an additional hanger.
- Holding down clips: Locate to manufacturer's recommendations.
 - Fire protecting/ resisting ceiling systems: Use clip type featured in the fire test/ assessment.

355 INSTALLING INFILL UNITS

- General:
 - Perimeter infill units: Trimmed, as necessary, to fully fill space between last grid member and perimeter trim. Prevent subsequent movement.
 - Deeply textured infill units: Minimize variations in apparent texture and colour. In particular, avoid patchiness.
- Concealed grids: Install infill units uniformly, straight and aligned. Avoid dimension creep.
 - Infill units around recessed luminaires and similar openings: Prevent movement and displacement.

390 OPENINGS IN CEILING MATERIALS

- General: Neat and accurate. To suit sizes and edge details of fittings. Do not distort ceiling system.

395 INTEGRATED SERVICES

- General: Position services accurately, support adequately. Align and level in relation to the ceiling and suspension system. Do not diminish performance of ceiling system.
- Small fittings: Support with rigid backing boards or other suitable means. Do not damage or distort the ceiling.
 - Surface spread of flame rating of additional supporting material: Not less than ceiling material.
- Services outlets:
 - Supported by ceiling system: Provide additional hangers.
 - Independently supported: Provide flanges to support ceiling system.

401 CEILING MOUNTED LUMINAIRES

- Support: by ceiling system.
 - Independently supported luminaires: Suspension adjusted to line and level of ceiling.
 - Ceiling supported luminaires: Modifications and/ or extra support required: To each luminaire.
- Surface mounted luminaires: Units installed so that in event of a fire the designed grid expansion provision is not affected.
- Modular fluorescent recessed luminaires: Compatible with ceiling module. Extension boxes must not foul ceiling system.
- Recessed rows of luminaires: Provide flanges for support of grid and infill units, unless mounted above grid flanges. Retain in position with lateral restraint.
- Fire protecting/ resisting ceiling systems: Luminaires must not diminish protection integrity of ceiling system.
- Access: Provide access for maintenance of luminaires.

411 MECHANICAL SERVICES

- Fan coil units:
 - Inlet/ Outlet grilles: Trim ceiling grid and infill units to suit.
 - Space beneath: Sufficient for ceiling system components.
 - Suspension and connections: Permit accurate setting out and levelling of fan coil units.
- Air grilles and diffusers:
 - Setting out: Accurate and level.
 - Linear air diffusers: Retain in place with lateral restraint. Provide flanges for support of grid and infill units.
 - Grille/ Diffuser ceiling joints: Provide smudge rings and edge seals.
- Smoke detectors and PA speakers:
 - Ceiling infill units: Scribe and trim to suit.
 - Independent suspension: Required.
 - Flexible connections: Required.
- Sprinkler heads: Carefully set out and level.

500 ELECTRICAL CONTINUITY AND EARTH BONDING

- Substantial conductive parts of the ceiling system: Electrically continuous and fully earth bonded to carry prospective earth fault currents.
 - Standard: To BS 7671.
- Sequence: Complete earth bonding as soon as possible after completion of each independent area of suspension system.
- Testing: After completion of the ceiling system, associated services and fittings, test conductive parts of suspension system required to carry earth fault current, or used as bonding connections. Give notice before testing.
 - Electrical continuity: Measure from various distant conductive points of ceiling system and to earth bar in distribution board serving the area.
 - Test current: Sufficient to indicate probable electrical performance under fault conditions.
 - Test instrument: Type providing a pulse of about 25 A at safe voltage for safe duration, and indicating resistance in ranges 0-2 ohms and 0-20 ohms.
 - Resistance of measuring conductors: Deduce from test instrument readings.
 - Test readings: Record and certify. Add results to resistance of other parts of the path forming the earth fault loop.

COMPLETION

520 USER INSTRUCTIONS

- Contents: Include the following:
 - Correct methods for removing and replacing infill units and other components.
 - Cleaning methods and materials.
 - Recommendations for redecoration.
 - Ceiling systems intended for fire protection: Limitations placed on subsequent alterations and maintenance procedures, to ensure that their fire performance is not impaired.
 - Maximum number, position and value of point loads that can be applied to ceiling system after installation.

L20
Doors/ shutters/ hatches
Revision 2

Section Revision History

No.	Purpose
0	Tender

L20 Doors/ shutters/ hatches

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.

112 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.
- Certification scheme: Forest Stewardship Council (FSA).
 - Other evidence: None.

120 NON FIRE RESISTING DOORS/ DOORSETS/ ASSEMBLIES

- Provide certified evidence, in the form of a product conformity certificate or engineering assessment, that each door/ door set/ 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.

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: doors.

PRODUCTS

230 WOOD FLUSH DOORS INTERNAL TO REPLACE EXISTING DOORS

- Manufacturer: Contractor's choice.
 - Product reference: to match existing HW veneered doors approximately 790 x 2040mm solid core.
- Facings: veneer to match existing doors.
- Lipping: HW to match existing doors.
- Preservative treatment: Not required.
- Finish as delivered: Full factory finish.
- Glazing/ Infill details: Acid etched obscured single glazing.
 - Manifestation: Not required.
 - Beading: to match lipping's.
- Other requirements: matching fixed over-panel approx. 790 x 570mm. Ironmongery as P21

330 WOOD DOOR FRAMESAND ARCHITRAVES TO MATCH EXISTING

- Materials: Generally to BS EN 942.
 - Species: Softwood as table NA1.
 - Appearance class: J40.
- Assembly:
 - Adhesive: PVAC to BS EN 204, Class D4.
 - Joinery workmanship: As section Z10.
- Preservative treatment: not required.
- Moisture content on delivery: 9-13%.
- Finish as delivered: Prepared and primed, as section M60 for paint finish on site.
- Perimeter seals: Not required.
- Fixing: Plugged and screwed as section Z20.

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: Stacked on level bearers, separated with spacers to prevent damage by and to projecting ironmongery, beads, etc.

730 PRIMING/ SEALING

- Wood surfaces inaccessible after installation: Primed or sealed as specified before fixing components.

750 FIXING DOORSETS

- Timing: After associated rooms have been made weather tight and the work of wet trades is finished and dried out.

790 FIXING OF WOOD FRAMES

- Spacing of fixings (frames not predrilled): Maximum 150 mm from ends of each jamb and at 600 mm maximum centers.

830 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.

850 LOCATION OF HINGES

- Primary hinges: Where not specified otherwise, positioned with center lines 250 mm from top and bottom of door leaf.
- Third hinge: Where specified, positioned on center line of door leaf.
- Hinges for fire resisting doors: Positioned in accordance with door leaf manufacturer's recommendations.

M20
Plastered/ Rendered/ Roughcast coatings

Section Revision History

No.	Purpose
0	Tender

M20 Plastered/ Rendered/ Roughcast coatings

To be read with Preliminaries/ General Conditions.

TYPES OF COATING

210 LIGHTWEIGHT GYPSUM PLASTER TO EXISTING WALLS

- Substrate: painted concrete blockwork.
 - Preparation: Bonding agent recommended by plaster manufacturer - Thistle Bond-it.
- Manufacturer: British Gypsum.
- Undercoats: To BS EN 13279-1.
 - Product reference: Thistle Bonding Coat.
 - Thickness (excluding dubbing out and keys): one coat - 11mm.
- Final coat: Finish plaster to BS EN 13279-1.
 - Product reference: Thistle Multi-Finish.
 - Thickness: 2-3 mm.
 - Finish: Smooth.
- Accessories: Beads and stops.

GENERAL

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.

527 RAKING OUT FOR KEY

- Joints in existing masonry: Rake out to a depth of 13 mm (minimum).
 - Dust and debris: Remove from joints.

531 ROUGHENING FOR KEY

- Substrates: Roughen thoroughly and evenly.
 - Depth of surface removal: Minimum necessary to provide an effective key.

541 BONDING AGENT APPLICATION

- General: Apply evenly to substrate to achieve effective bond of plaster/ render coat. Protect adjacent joinery and other surfaces.

BACKINGS/ BEADS/ JOINTS

634 BEADS/ STOPS FOR PLASTER

- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Material: Stainless steel.

640 BEADS/ STOPS GENERALLY

- Location: External angles and stop ends except where specified otherwise.
- Corners: Neat miters 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.

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 localized 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.

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.

M40
Stone/ concrete/ quarry/ ceramic tiling/ mosaic

Section Revision History

No.	Purpose
0	Tender

M40 Stone/ concrete/ quarry/ ceramic tiling/ mosaic

To be read with Preliminaries/ General Conditions.

TYPES OF TILING/ MOSAIC

110 TILING TOTOILET WALLS

- Tiles: porcelain.
 - Manufacturer/ Supplier: Bedrock Tiles Ltd – 01604 715321/ office@bedrock-tiles.com
- Product reference: Divine Collection.
 - Colour: BDAS 04.
 - Finish: Natural.
 - Size: 600 x 300mm.
 - Thickness: 9mm.
 - Slip potential:
 - Slip resistance value (SRV) (minimum)/ Pendulum test value (PTV) (minimum) to BS EN 13036-4 or BS EN 14231 (natural stone only): Not applicable.
 - Surface roughness (Rz) (minimum) to BS 1134: Not applicable.
 - SlipSTD class: Not applicable.
 - Recycled content: Not applicable.
- Background/ Base: fibre cement board.
 - Preparation: as clauses 210, 255, 310 and 471.
- Intermediate substrate: Not required.
- Bedding: thick bed adhesive - solid walls as clause 670.
 - Reinforcement: Not applicable.
 - Adhesive to BS EN 12004: Mapei Keraflex.
- Joint width: 3 mm minimum.
- Grout: Mapei ULTRACOLOR PLUS Rapid Setting Cement Based Grout.
 - Type/ classification: CG2WA.
 - Admixture: None.
- Movement joints: Fill Perimeter Joints with Mapei MAPESIL AC Silicone Sealant, Colour to Match Grout as clause: 815.
- Accessories: None.

GENERAL

210 SUITABILITY OF BACKGROUNDS/ BASES

- Background/ base tolerances: To permit specified flatness/ regularity of finished surfaces given the permissible minimum and maximum thickness of bedding.
- New background drying times (minimum):
 - Concrete walls: 6 weeks.
 - Brick/ block walls: 6 weeks.
 - Rendering: 2 weeks.
 - Gypsum plaster: 4 weeks.
- New base drying times (minimum):
 - Concrete slabs: 6 weeks.
 - Cement: sand screeds: 3 weeks.

250 SAMPLES

- General: Submit representative samples of the following:
wall tiles.

PREPARATION

400 BACKGROUNDSFIBRE CEMENT BOARD

- Boards: Dry, securely fixed and rigid with no protruding fixings.
- Surfaces to be tiled: Seal or prime if recommended by adhesive manufacturer.

FIXING

510 FIXING GENERALLY

- Colour/ shade: Unintended variations within tiles for use in each area/ room are not permitted.
 - Variegated tiles: Mix thoroughly.
- Adhesive: Compatible with background/ base. Prime if recommended by adhesive manufacturer.
- Use of admixtures with cementitious adhesives: Only admixtures approved by adhesive manufacturer.
- Cut tiles: Neat and accurate.
- Fixing: Provide adhesion over entire background/ base and tile backs.
- Final appearance: Before bedding material sets, make adjustments necessary to give true, regular appearance to tiles and joints when viewed under final lighting conditions.
- Surplus bedding material: Clean from joints and face of tiles without disturbing tiles.

530 SETTING OUT

- Joints: True to line, continuous and without steps.
 - Joints on walls: Horizontal, vertical and aligned round corners.
 - Joints in floors: Parallel to the main axis of the space or specified features.
- Cut tiles: Minimize number, maximize size and locate unobtrusively.
- Joints in adjoining floors and walls: Align.
- Joints in adjoining floors and skirtings: Align.
- Movement joints: Where locations are not indicated, submit proposals.
- Setting out of wall tiles: Drawing references: P0006.3006.
- Setting out of N/A: Submit proposals.

550 FLATNESS/ REGULARITY OF TILING/ MOSAICS

- Sudden irregularities: Not permitted.
- Deviation of surface: Measure from underside of a 2 m straightedge with 3 mm thick feet placed anywhere on surface. The straightedge should not be obstructed by the tiles and no gap should be greater than 6 mm, i.e. a tolerance of ± 3 mm.

560 LEVEL OF TILING ACROSS JOINTS

- Deviation (maximum) between tile surfaces either side of any type of joint:
 - 1 mm for joints less than 6 mm wide.
 - 2 mm for joints 6 mm or greater in width.

670 THICK BED ADHESIVESOLID WALLS:

Apply floated coat of adhesive to dry background comb the surface with the recommended solid bed trowel.

Fill any keys and apply even coat of adhesive over the entire back of each tile.

Press tiles onto bedding with twisting / sliding action to give finished bed thickness within the range recommended by the manufacturer.

780 CHECKING TILE ADHESION

As work proceeds and before the bedding has set, carefully remove random tiles as directed and in the presence of the CA to verify that there is specified adhesion.

Remove the initial adhesive, butter the removed tile with fresh adhesive and refix.

MOVEMENT JOINTS/ GROUTING/ COMPLETION

815 SEALANT MOVEMENT JOINTSTO WALL TILING

- Joints: Extend through tiles and bedding to base/ background. Centre over joints in base/ background.
 - Width: 6 mm.
- Sealant: Mapei MAPESIL AC.
 - Colour: TBC.
 - Preparation and application: As section Z22.

875 GROUTING

- Sequence: Grout when bed/adhesive has set sufficient to prevent disturbance of tiles.
- Joints: 6 mm deep (or depth of tile if less). Free from dust and debris.
- Grouting: Fill joints completely, tool to profile, clean off surface. Leave free from blemishes.
 - Profile: Flush.
- Polishing: When grout is hard, polish tiling with a dry cloth.

885 COLOURED GROUT

- Staining of tiles: Not permitted
- Evaluating risk of staining: Apply grout to a few tiles in a small trial area. If discoloration occurs apply a protective sealer to tiles and repeat trial.

M50

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

Section Revision History

No.	Purpose
0	Tender

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

To be read with Preliminaries/ General Conditions.

TYPES OF COVERING

150 SHEETING- LINOLEUM

- Location: toilets.
- Base: screed.
 - Preparation: Remove existing floor finish and make good screed.
- Fabricated underlay: none.
- Flooring roll: Linoleum to BS EN 548.
 - Manufacturer: Forbo Flooring Systems UK Ltd
www.forbo-flooring.co.uk
info.flooring.uk@forbo.com
T: +44 (0)800 093 5258
F: +44 (0)1592 643999
PO Box 1, Den Road, Kirkcaldy, Fife. KY1 2SB
 - Product reference: Forbo Marmoleum Marbled.
 - BS EN 685 class: 23, 34 & 41.
 - Slip potential:
Slip resistance value (SRV) (minimum)/ Pendulum test value (PTV) (minimum) to BS 7976: Not applicable.
Surface roughness (Rz) (minimum) to BS 1134: Not applicable.
 - Recycled content: NA.
 - Width: 2000 mm.
 - Thickness: 2.5mm.
 - Colour/ pattern: Marbled dark bistre 3236.
- Adhesive (and primer if recommended by manufacturer): As clause 640.
- Seam welding: Hot welding with complimentary coloured rod.
- Accessories: Marmoleum S Skirting 25 240 to match sheet flooring. Stainless steel edge trim at doorway.
- Finishing: clean as clause 830 - no additional sealant or polish required.
- Other requirements: 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.

220 SAMPLES

- Covering samples: Before placing orders, submit representative sample of each type.

251 LAYOUT - SEAMS IN ROLL MATERIALS

- Setting out: Minimise occurrences of seams and cross seams.
- Cross seams: Not permitted in following locations: none.

330 COMMENCEMENT

- Required condition of works prior to laying materials:
 - Building is weather tight 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.

PREPARING BASES

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.

460 SMOOTHING/LEVELLING UNDERLAYMENT COMPOUND

- Type: Submit proposals.
- Manufacturer: Submit proposals.
 - Product reference: Submit proposals.

470 BASES FROM WHICH EXISTING FLOOR COVERINGS HAVE BEEN REMOVED

- Substrate: Clear of covering and as much adhesive as possible. Skim with smoothing underlayment compound to give smooth, even surface.

LAYING COVERINGS

620 COLOUR CONSISTENCY

- Finished work in any one area/ room: Free from banding or patchiness.

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.

650 SEAMS

- Patterns: Matched.
- Joints: Tight without gaps.

680 SEAM WELDING COVERINGS

- Commencement: At least 24 hours after laying, or after adhesive has set.
- Joints: Neat, smooth, strongly bonded, flush with finished surface.

720 DOORWAYS

- Joint location: On center line of door leaf.

770 SKIRTINGS

- Types: linoleum.
- Manufacturer: Forbo Flooring Systems UK Ltd.
 - Product reference: Marmoflex S Skirting 25 240 to match sheet flooring clause 150.
- Fixing: Secure with top edge straight and parallel with floor.
 - Corners: Mitre joints.

780 TRAFFICKING AFTER LAYING

- Covering types: linoleum.
- Traffic free period: Until adhesive is set.

COMPLETION

821 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.

880 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

Section Revision History

No.	Purpose
0	Tender

M60 Painting/clear finishing

To be read with Preliminaries/General conditions.

COATING SYSTEMS

110 EMULSION PAINT TO INTERNAL PLASTERED SURFACES

- Manufacturer: Dulux.
 - Product reference: Trade Eco sure Matt.
- Surfaces: new plaster.
 - Preparation: none.
- Initial coats: none.
- - Number of coats: none.
- Undercoats: none.
 - Number of coats: none.
- Finishing coats: matt emulsion.
 - Number of coats: 2.

130 GLOSS PAINT TO INTERNAL EXPOSED SOFTWOOD

- Manufacturer: Dulux.
 - Product reference: Trade Eco sure Water-based Gloss.
- Surfaces: Preprimed and sealed.
 - Preparation: none.
- Initial coats: none.
 - Number of coats: none.
- Undercoats: Eco sure Water-based Undercoat.
 - Number of coats: 2.
- Finishing coats: Full gloss.
 - Number of coats: 2.

GENERALLY

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. Allocate to distinct parts or areas of the work.

220 COMPATIBILITY

- Coating materials selected by contractor:
 - Recommended by their manufacturers for the particular surface and conditions of exposure.
 - Compatible with each other.
 - Compatible with and not inhibiting performance of preservative/fire retardant pretreatments.

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.
- 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, to 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: Refurbishment as necessary; refit when coating is dry.

471 PREPRIMED WOOD

- Areas of defective primer: Take back to bare wood and reprime.

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.

580 UNCOATED PLASTER

- Nibs, trowel marks and plaster splashes: Scrape off.
- Over trowelled 'polished' areas: Key lightly.

631 PREVIOUSLY PAINTED WINDOWS FRAMES

- Paint encroaching beyond glass sight line: Remove.
- Loose and defective putty: Remove.
- Putty cavities and junctions between previously painted surfaces and glass: Clean thoroughly.
- Finishing:
 - Patch prime, reputty as necessary, and allow to harden.
 - Seal and coat as soon as sufficiently hard.

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.

N10
General fixtures/ furnishings/ equipment
Revision 1

Section Revision History

No.	Purpose
0	Tender

N10 General Fixtures/ furnishings/ equipment

To be read with Preliminaries/General conditions.

PRODUCTS

145 VANITY AND WASHROOM FURNITURE TO TOILETS

- Item: Vanity unit.
- Manufacturer: ToiletCubicles.co.uk
Dunstable Laminates
47 Edward Street
Dunstable
Bedfordshire LU6 1HE
Tel: 01582 668973
Fax: 01582 608227
Email: sales@toiletcubicles.co.uk
Web: www.toiletcubicles.co.uk.
 - Product reference: purpose made vanity unit.
- Dimensions: see drawings.
- Worktop: post formed HPL faced particle board.
 - Finish/ Colour: TBC.
 - Edges: HPL.
- Doors/ Drawers/ Shelves:
 - Material: Plastics laminate.
 - Finish/ Colour: TBC.
 - Exposed edges: Manufacturer's standard.
- Supports: Manufacturers standard.
- Other requirements: lift off access panels.

270 MIRRORS TO TOILETS

- Material: Class C safety glass to BS 6206 - 6mm thick.
- Quality: Free from tarnishing, discoloration, scratches and other defects visible in the designed viewing conditions. Reflection undistorted.
- Size: 1275 x 1325mm approx. to be site measured to fit recess in wall tiling.
- Backing: Aluminum foil to mirror. 6mm plywood backing adhered to fibre cement board lining to receive mirror.
- Edges: Smooth Square.
- Fixing: mirror adhesive to plywood backing.
- Installation: Accurately with sides vertical.

EXECUTION

N13
Sanitary appliances and fittings

Section Revision History

No.	Purpose
0	Tender

N13 Sanitary appliances and fittings

To be read with Preliminaries/ General Conditions.

PRODUCTS

300 WCS AND CISTERNS TO TOILETS

- WC standard: Not applicable.
- Type: Cantilevered back to wall, concealed cistern.
- Pan:
 - Standards: To BS EN 33 and BS EN 997.
 - Manufacturer: Ideal Standard
www.idealstandard.com
info@thebluebook.co.uk
T: +44 (0)870 122 8822
F: +44 (0)870 122 8282
Armitage, Old Road, Rugeley, Staffordshire. WS15 4BT
- Product reference: Concept Wall Mounted WC Suite E 7 8 5 0 (01).
 - Material: Vitreous china, white.
- Seat and cover:
 - Standard: To BS 1254.
 - Manufacturer: As Pan.
Product reference: E7917 (01).
 - Material: Plastics.
 - Finish/ Colour: White.
- Pan connector:
 - Standard: To BS 5627.
 - Manufacturer: As Pan.
Product reference: Contractor's choice.
 - Colour: To match pan.
- Cistern:
 - Standard: To BS 1125.
 - Manufacturer: As Pan.
Product reference: S3643 (67) with internal OF.
 - Material: Plastics.
 - Finish/ Colour: Not applicable.
- Flushing arrangement: Compact type float operated valve and siphon, to BS 1212-4 and float to BS 2456.
 - Manufacturer: As Pan.
Product reference: Contractor's choice.
 - Operating control: Push button, chrome plated - dual flush E 4 4 3 7 (AA).
 - Water supply connection: Side.
 - Flush volume: 4.5/3 L.
- Flush pipe: Concealed.
 - Manufacturer: As Pan.
Product reference: Contractor's choice.
 - Material: Plastics, white.
- Accessories: Concealed support frames E0060 (67).

335 WASH BASINS- SEMI INSET

- Manufacturer:
 - deal Standard
 - www.idealstandard.com
 - info@thebluebook.co.uk
 - T: +44 (0)870 122 8822
 - F: +44 (0)870 122 8282
 - Armitage, Old Road, Rugeley, Staffordshire. WS15 4BT.
 - Product reference: Contour 21 Extensions Range Profile 21 50cm semi-countertop basin S2492A2F.
- Size: 500 x 400 mm.
- Material: Vitreous china, white.
- Tap/ Chainstay/ Overflow holes:
 - One tap hole, center;
 - No chainstay hole; and
 - Overflow hole.
- Water supply fittings: Basin mixer tap.
 - Water supply temperature (maximum): 43°C.
 - Flow rate (maximum): 5 L/ min. at 3 bar.
 - Manufacturer: As Wash basin.
 - Product reference: Piccolo 21 Basin Mixer B8260AA.
 - Operation: Lever handles.
- Wastes: Grated.
 - Standards: To BS EN 274-1, -2 and -3.
 - Manufacturer: As Wash basin. Product reference: Contractor's choice.
 - Size: DN 30.
 - Material: Brass, chrome plated.
 - Tail: Unslotted.
- Traps: Bottle anti syphon.
 - 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.

580 SEALANT FOR POINTING

- Standard: To BS EN ISO 11600.
 - Class: F20 HM.
- Type: silicone.
- Manufacturer: Contractor's choice.
 - Product reference: Contractor's choice.
- Colour: white.

EXECUTION

610 INSTALLATION GENERALLY

- Assembly and fixing: Surfaces designed to fall 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.

613 COMPATIBILITY OF COMPONENTS

- General: Each sanitary assembly must consist of functionally compatible components, preferably obtained from a single manufacturer.
Exceptions: Wastes and traps.

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.

650 INSTALLING WC PANS

- Floor mounted pans: Screw fix and fit cover caps over screw heads. Do not use mortar or other beddings.
- Seat and cover: Stable when raised.

670 INSTALLING CISTERNS

- Cistern operating components: Obtain from cistern manufacturer.
 - Float operated valve: Matched to pressure of water supply.
- Overflow pipe: Fixed to falls and located to give visible warning of discharge.
 - Location: Agreed, 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.

P21
Door/ window ironmongery

Section Revision History

No.	Purpose
0	Tender

P21 Door/ window ironmongery

To be read with Preliminaries/ General Conditions.

PRE-TENDER

10 QUANTITIES AND LOCATIONS

- Quantities and locations of ironmongery are on the drawings.
- Fixing: As sections L10 and L20.

GENERAL

121 IRONMONGERY FROM SINGLE PROPRIETARY RANGE

- Manufacturer: Acorn Architectural Ironmongery Ltd
55 Clifton Road
Cambridge
CB1 7EF.
 - Product reference: Acorn 40 Series.
- Principal material/ finish: satin anodized aluminum.
- Items unavailable within selected range: Submit proposals.

140 SAMPLES

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

180 CATEGORY OF DUTY FOR DOOR IRONMONGERY

- Standard: To DD 171.
 - Category of duty of doors: Heavy duty.
- General: Durability of ironmongery components to be compatible with stated category of duty of each door leaf.
 - Exclusions: Ironmongery with specific duty or 'category of use' defined elsewhere.
Documentation: Before placing orders with suppliers submit documentation showing product compliance with stated category of duty.

DOOR HANGING DEVICES

310 SINGLE AXIS DOOR HINGES TO TOILET DOORS

- Standard: To BS EN 1935.
 - Hinges to doors on escape routes and fire/ smoke control doors: CE marked.
- Manufacturer: as clause 121.
 - Product reference: Contractor's choice.
- Type: Double washered butt 1.5 prs per door.
- Size: 102 x 67 mm.
- Material/ finish: Satin stainless steel, grade 1.4301 (304).
- Hinge grade: 6.
- Other requirements: None.

DOOR OPERATING DEVICES

410 OVERHEAD DOOR CLOSERSTO TOILET DOORS

- Standard: To BS EN 1154.
 - Door closing devices to fire/ smoke control doors: CE marked.
- Manufacturer: Briton.
 - Product reference: 2120B.
- Type: Face fixed to push side of door - application 66 .
- Power size: 2.
- Other functions: Back check.
- Casing finish: SAA.
- 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 FURNITURE

641 PULL HANDLESTO TOILET DOORS

- Standard: To BS 8424.
- Manufacturer: As clause 121.
 - Product reference: A4021.
- Shape: D handle.
- Diameter: 19 mm.
- Distance between centers: 225 mm.
- Material/ finish: Satin anodized aluminum.
- Mounting: Bolt through.
- Additional requirements: None.

670 PUSH PLATESTO TOILET DOORS

- Manufacturer: As clause 121.
 - Product reference: A4050.
- Size: 300 x 75 mm.
- Material/ finish: SAA.
- Mounting: Face fix.
- Additional requirements: Rounded edges and radiused corners.

690 KICK PLATESTO TOILET DOORS

- Manufacturer: As clause 121.
 - Product reference: Submit proposals.
- Size: 700 x 225 mm.
- Material/ finish: SAA.
- Mounting: Face fix.
- Additional requirements: Rounded edges and radiuses corners.

720 DOOR STOPS

- Manufacturer: As clause 121.
 - Product reference: Contractor's choice.
- Type: Wall mounted, face fixed, SAA finish, 75 mm projection.
- Usage: To doors opening against walls other than those fitted with closers with a back check facility.

725 TOILET SIGNAGETO TOILET DOORS

- Manufacturer: As clause 121.
 - Product reference: Male A4070/ Female A4071. .
- Size: 76 dia.
- Material/ finish: Satin anodized aluminum.
- Features: face fixed.