

K32 PANEL CUBICLES/ DUCT AND WALL LININGS/ SCREENS

To be read with Preliminaries/General conditions.

150 DUCT/ WALL LININGS – PANELS AND PROPRIETARY FRAMES

- Manufacturer: TBS Fabrications Ltd. 0161 775 1871
- Product reference: WC and urinal duct panelling.
- Panels:
 - Type: Solid grade laminate.
 - Colour/ Pattern/ Species: Marine Blue 7914 by Formica..
 - Edge treatment: sealed.
- Skirting: Coved ceramic tiles as M40

160 VANITY UNITS

Vanity unit with integrated wash hand basins

Manufacture: TBS Fabrications Ltd 0161 775 1871

Unit comprises:

Wash basin - ATA 4 set in Surell worktop by Formica Ltd.

Colour of worktop: Cobalt 2206.

Underhung sinks, 460 mm. dia. sealed at screw fixed to soffit of vanity unit worktop.

Colour of Basin: Arctic white.

Front panels: Formica Compact grade laminate; colour Blue 7914.

Taps; sensor operated taps by Robert Pearson & Company to be deck mounted brushed stainless steel automatic tap with sensor at water outlet end of spout.

210 SAMPLES

- General: Before placing orders submit representative samples of the following: SGL
- Delivered materials/ products: To match samples.

250 INSTALLATION

- Programming: Do not install cubicles or duct/ wall panels before building is weathertight, 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 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

To be read with Preliminaries/ General conditions.

TYPES OF CEILING SYSTEM

111 UNIT SUSPENDED CEILING SYSTEM

- Drawing references: 3716 PR 03
- Ceiling system manufacturer: Armstrong World Industries, Freephone 0800 371849, fax 01895 274287
- Product reference: Clip in 5mm Bevel Plain BP 9300 M6 With Security Holes and back coated Ref: BP 9300 M6G1 BF
- Grid form: Orcal UK Spring Tee Bar System
- Grid exposure: Concealed Grid
- Grid spacings: 600 x 600 mm.
- Access: Infill Units Fully Demountable with tool
- Ceiling module: 600 x 600 mm.
- Ceiling soffit above finished floor level: 2700mm.
- Colour: RAL 9003 Global White
- Components: all components to be finished to RAL 9003
 - Suspension system: As clause 217
 - Perimeter trim: As clause 219
 - Timber edge battens: As clause 218 (if required)
 - Infill units: As clause 221
 - Access units: REQUIRED
 - Insulation: As clause 226
 - Air plenum barriers: As clause 227 (if required)
 - Accessories: As clause 228
 - Other requirements: Security Clips BPC 1775 required and back coated
 - Replace 6no tiles with Perspex translucent panels (Class 3 fire spread) in locations indicated on drawing.

GENERAL/PERFORMANCE

203 DEFINITIONS

- Ceiling: Items collectively constituting the ceiling surface i.e. infill units/boards/stretched fabric, access units and grid.
- Ceiling system: Ceiling plus suspension system and integrated services fittings.

COMPONENTS

215 SAMPLES

- General: Submit representative samples of the following: ceiling tiles and grid.

217 SUSPENSION SYSTEM TO CEILING CLAUSE 110 Orcal UK Spring Tee Bar System

- Extent of system: Include hangers, fixings, main runners, cross members, primary channels, perimeter trims, splines, noggings, clips, bracing, bridging, etc., which are necessary to complete the ceiling system and achieve performance.
- Materials:
 - Top fixings: As recommended by ceiling contractor
 - Hangers: Orcal UK Spring Tee Bar System
 - Colour: Armstrong Global White

218 TIMBER EDGE BATTENS AROUND ENTIRE CEILING EDGE.

- Type: Planed softwood to BS EN 942, class J10.
 - Moisture content at time of fixing: 15% ± 2%.
 - Finished size: 50x50 mm.
 - Finish (apply before ceiling grid is installed): Matt black paint.

K40 Demountable suspended ceilings (continued)

- 220 PERIMETER TRIMS TO CEILING CLAUSE 111 Orcal Perimeter Trim
- Type: Orcal Perimeter Trim BPM215013
 - Fixings to perimeters: As recommended by ceiling contractor
 - Fixing centres (maximum): 450 mm
 - Colour: Armstrong Global White
- 222 INFILL UNITS TO CEILING CLAUSE 111 Armstrong Clip in 5mm Bevel Plain BP 9300 M6
With Security Holes and back coated
- Type: Steel Tiles
 - Form: Downwardly de-mountable tiles with tool
 - Sizes: 600 x 600 mm.
 - Finish: Polyester Powder Coated.
 - Colour: Armstrong Global White
- 227 AIR PLENUM BARRIERS _____.
- Material: Rigid or semirigid non porous sheets with smooth nondusting surfaces.
 - Fire spread rating: As for ceiling materials exposed within the ceiling void.
- 228 ACCESSORIES TO CEILING CLAUSE 111 Cut Tile Spring Wedges
- Types: Cut tiles to be held down using two wedges per tile Reference BPM 311081
- 229 ACCESSORIES TO CEILING CLAUSE 111 Installed with Security Clips
- Types: Tiles to be installed with Security Clips BP C1775

INSTALLATION

- 305 SETTING OUT
- General: Set out accurately, continuous, even, and jointed at regular intervals. Provide level soffits free from undulations, lipping and distortions in grid members.
 - Infill and access units, integrated services: Fit correctly and aligned.
 - Edge/perimeter infill units size (minimum): Half standard width or length.
 - Grid: Position to suit infill unit sizes. Allow for permitted deviations from nominal sizes.
 - Infill joints and exposed suspension members: Straight, aligned and parallel to walls. Where building elements and features to which the ceiling systems relate are not square, straight or level, give notice.
- 310 BRACING
- General: Secure, with additional bracing and stiffening as necessary 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: Remove and replace correctly using special tools and clean gloves, etc. as appropriate.
- 350 TOP FIXING
- Building structure: Verify suitability.
 - Concrete: Drill and insert suitable expanding anchors.
 - Aerated concrete: Fix through from the top of the concrete unit and provide a system of primary channels.
 - Structural steel: Drill, or use suitable proprietary clips/adaptors.
 - Metal roof decking: Fix to sides of 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.
 - Cartridge or powder activated methods: Do not use.
- 360 INSTALLING HANGERS
- Wire hangers: Straighten and tension before use.

K40 Demountable suspended ceilings (continued)

- Installation: Install vertical or near vertical without bends or kinks. Do not allow hangers to press against fittings, services, 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 required 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 rivet for top fixing.
- 370 INSTALLING TIMBER EDGE BATTENS
- Fixings:
 - Centres (maximum): 450 mm.
- 380 INSTALLING PERIMETER TRIMS
- Jointing: Neat and accurate, without lipping or twisting.
 - External and internal corners: Mitre joints.
 - For Internal corners overlap joints are acceptable
 - Intermediate butt joints: Minimize. Use longest available lengths of trim. Align adjacent lengths.
 - Fixing: Fix firmly to perimeter wall or other building structure.
- 382 EXPOSED GRIDS
- Main runners: Install level. Adjust with supporting hangers taut. Do not adjust by kinking or bending hangers.
 - Spliced joints: Stagger.
 - Wire hangers passing through main runners: Sharply bend and tightly wrap loops.
 - Angle/strap hangers: Do not rivet 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 to form a right angle with intersecting runner.
 - Cross tees: Flat and coplanar with flange of main runner 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.
- 384 CONCEALED GRIDS
- Primary support channels: Install level. Adjust level with supporting hangers taut. Do not level by kinking or bending hangers.
 - Wire hangers wrapped around primary channels: Wrap twice and tightly form loops.
 - Angle/strap hangers: Do not rivet for bottom fixing.
 - Splines: Locate between infill units to level adjacent units and to resist air movement at joints.
 - Spring-tee grids: Do not omit primary channel.
- 386 INSTALLING INFILL UNITS
- General:
 - Cut perimeter infill units: Trim to full 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 uniform, straight and aligned. Avoid dimension creep.
 - Infill units around recessed luminaires and similar openings: Prevent movement and displacement.
- 387 INSTALLING METAL INFILL UNITS

K40 Demountable suspended ceilings (continued)

- Sound absorbing pads: Fit to prevent upward air movement through infill units. Cut or fold pads in cut perimeter infill units to full unit size. Reseal cut pads.
 - Cut perimeter infill units: Firmly wedge into perimeter trim, or clip down.
 - Removal: Do not damage infill units. Use tools designed for the purpose.
- 389 UPSTANDS AND BULKHEADS
- Vertical ceiling systems: Support and brace to provide alignment and stability.
 - High upstands: Provide support at base of upstand.
- 390 OPENINGS IN CEILING MATERIALS
- Forming: Neat and accurate. 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: Match ceiling material.
 - Services outlets:
 - Supported by ceiling system: Provide additional hangers.
 - Independently supported: Provide flanges to support ceiling system.
- 396 CEILING MOUNTED LUMINAIRES
- Support: Submit proposals
 - Independently supported luminaires: Adjustable suspension to line and level of ceiling.
 - Ceiling supported luminaires: Modifications and/or extra support required: _____.
 - Surface mounted luminaires: Do not inhibit designed grid expansion in fire.
 - 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 place with lateral restraint.
 - Fire protecting/resisting ceiling systems: Luminaires must maintain protection integrity of ceiling system.
 - Access: Provide access for maintenance of luminaires.
- 397 TRUNKING
- Recessed trunking: Provide flanges for support of grid and infill units, unless mounted above grid flanges. Retain in place with lateral restraint.
- 398 MECHANICAL SERVICES
- Fan coil units:
 - Inlet and 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: Provide flanges for support of grid and infill units. Provide for displacement of ceiling grid. Retain in place with lateral restraint.
 - Grille/diffuser ceiling joints: Provide smudge rings and edge seals.
 - Smoke detectors and PA speakers:
 - Infill units: Scribe to suit.
 - Flexible connections: Required.
 - Sprinkler heads: Carefully set out and level.
- 400 INSTALLING INSULATION
- Fitting: Fit accurately and firmly with closely butted joints and no gaps.
 - Insulation within individual infill units: Fit closely. Secure to prevent displacement when infill units are installed or subsequently lifted. Reseal cut dustproof sleeving.
 - Width: Lay insulation in the widest practical widths to suit grid member spacings.

K40 Demountable suspended ceilings (continued)

- Services: Do not cover electrical cables not sized accordingly. Cut insulation carefully around electrical fittings, etc. Do not lay insulation over luminaires.
- Sloping and vertical areas of ceiling system: Fasten insulation to prevent displacement.

405 CEILING SYSTEMS INTENDED FOR FIRE PROTECTION

- Junctions of ceiling systems with perimeter abutments and service penetrations: Seal gaps with tightly packed mineral wool or intumescent sealant to prevent penetration of smoke and flame.
- Ceiling system/wall junctions: Maintain protective value of ceiling system.
 - Fixings and grounds: Noncombustible.
 - Metal trim: Provide for thermal expansion.
- Access and access panels: Maintain continuity of fire protection.

430 INSTALLING AIR PLENUM BARRIERS

- Fixing: Fix tightly and secure at perimeters and joints. Use methods recommended by the barrier manufacturer to ensure permanent stability.
- Edges and joints: Seal effectively to prevent air leakage.

COMPLETION

505 TOOLS

- Access tools: At Practical Completion supply one set :

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.

530 SPARES

- General: At Practical Completion supply the following: 10 spare tiles of each type.

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.

115 FIRE RESISTING DOORS/ DOORSETS/ ASSEMBLIES

- 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/ doorset/ assembly supplied will comply with the specified requirements for fire 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.

150 SITE DIMENSIONS

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

PRODUCTS**230 WOOD DOORSETS TO ENTRANCE DOORS TO MALE AND DISABLED TOILETS (REFER TO 3716 PR 03)**

- Manufacturer:
LS Group Ltd
Milnhay Road
Langley Mill
Nottingham
NG16 4AZ
Tel: 0870 240 0666
Fax: 0870 240 0777.
- Product reference: Designer range.
- Door leaf:
 - Facings: As required
 - Lippings: hardwood.

- Finish as delivered: Hyalux Natural to ash veneer.
- Frame and architraves: Cubith frame design
 - Finish as delivered: Hyalux Natural
- Preservative treatment: Not required.
- Glazing details: vision panels ref – Aperture VN4 .
- Ironmongery: Selected from Laidlaw Orbis Commercial range, satin stainless steel.
- Perimeter seals: smoke seals as required .
- Fixing: To manufacturers recommendations

231 UNDERCUT DOORS TO MALE AND FEMALE TOILET CUBICLES

- Manufacturer:
Howdens
Unit 1, Rockhead Business Park, Staden Lane
Buxton
United Kingdom
SK17 9RZ
Tel:01298 235 68
Fax:01298 235 92
- Product reference: DIF 15 Plywood
- Door leaf:
 - Facings: As required
 - Lippings: hardwood.
 - Finish as delivered: Primed for painting.
- Frame and architraves: Softwood
 - Finish as delivered: Primed for painting.
- Preservative treatment: Not required.
- Ironmongery: Rising but hinges, indicator bolts, coat hooks, kick plates.
- Perimeter seals: not required.
- Fixing: To manufacturers recommendations
- Undercut – minimum 125mm at bottom of leaf.

612 COLLAPSIBLE GATE TO MALE/ DIS TOILET ENTRANCE FROM PLATFORM

- Manufacturer:
Bolton Gate Company, Waterloo Street, Bolton BL1 2SP Tel: 01204
871001
Fax: 01204 871049 E-mail: sales@boltongate.co.uk Web:
www.boltongate.co.uk.

Clear opening: 920mm.

Gate Frame

Constructed from double channel rolled pickets 16mm wide x 2.5mm thick interconnected by 6mm thick galvanised steel solid lattice bars. Ball bearing pulleys are attached at the bottom and the pickets extended at the top between which the top track runs.

Leading Edge

The leading edge is formed from two channel pickets onto which the handles are fitted. Totally enclosed fabricated leading edges into which a lock can be mortised are available at extra cost.

Top Track

The top track is formed from a 12mm thick solid steel tee section 50 x 50mm overall.

Bottom Track

The bottom track is formed from a solid steel flat bar 16mm thick x 50mm high on which the bottom pulleys run. The track is folding or portable dependant on width / height ratio or practicality.

Finish

Galvanised.

Weight

Approximately 32 kgs per m².

Operation

Manual operation via bow handles attached to each leading edge.

Locks

Locking is by client's padlock.

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.

740 CORROSION PROTECTION

- Protective coating: Two coats of bitumen solution to BS 6949 or an approved mastic impregnated tape.
- Timing of application: Before fixing components.

760 BUILDING IN

- General: Not permitted unless indicated on drawings.

770 DAMP PROOF COURSES ASSOCIATED WITH BUILT IN WOOD FRAMES

- Method of fixing: To backs of frames using galvanized clout nails.

790 FIXING OF WOOD FRAMES

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

809 FIRE RESISTING/ SMOKE CONTROL DOORS/ DOORSETS

- Installation: By a firm currently registered under a third party accredited fire door installer scheme in accordance with instructions supplied with the product conformity certificate, test report or engineering assessment.

810 FIRE RESISTING/ SMOKE CONTROL DOORS/ DOORSETS

- Gaps between frames and supporting construction: Filled as necessary in accordance with requirements for certification and/ or door/ doorset manufacturer's instructions.
- 820 SEALANT JOINTS
- Sealant:
 - Manufacturer: Contractors choice.
 - Colour: To match surround .
 - Application: As section Z22 to prepared joints. Triangular fillets finished to a flat or slightly convex profile.
- 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.
- 840 FIXING IRONMONGERY TO FIRE RESISTING DOOR ASSEMBLIES
- General: All items fixed in accordance with door leaf manufacturer's recommendations ensuring that integrity of the assembly, as established by testing, is not compromised.
 - Holes for through fixings and components: Accurately cut.
 - Clearances: Not more than 8 mm unless protected by intumescent paste or similar.
 - Lock/ Latch cases for fire 60 doors requiring > 60 minutes integrity performance: Coated with intumescent paint or paste before installation.
- 850 LOCATION OF HINGES
- Primary hinges: Where not specified otherwise, positioned with centre lines 250 mm from top and bottom of door leaf.
 - Third hinge: Where specified, positioned mid frame.
 - Hinges for fire resisting doors: Positioned in accordance with door leaf manufacturer's recommendations.

M40 STONE/ CONCRETE/ QUARRY/ CERAMIC TILING/ MOSAIC

To be read with Preliminaries/ General conditions.

TYPES OF TILING/ MOSAIC**110 TILING TO TOILET WALLS**

- Manufacture : Caesars Ceramics
- Type : Series 900
- Size : 150 x 150 x 8.5mm
- Colour : White 966 with mid height tile Colour Blue Ral 5022.

111 TILING TO TOILET FLOORS

- Manufacture : Pilkington
- Type : Fully vitrified Dorset Woolliscroft
- Size : 300 x 300 x 9mm
- Colour : Grey Speckled

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.

215 FALLS IN THE BASES

- General: Give notice if falls are inadequate.

250 SAMPLES

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

PREPARATION**310 EXISTING BACKGROUNDS/ BASES GENERALLY**

- Efflorescence, laitance, dirt and other loose material: Remove.
- Deposits of oil, grease and other materials incompatible with the bedding: Remove.
- Tile, paint and other nonporous surfaces: Clean.
- Wet backgrounds: Dry before tiling.

320 EXISTING CONCRETE/ SCREEDS

- Loose or hollow portions: Cut out.

330 EXISTING PLASTER

- Defective areas: Remove plaster that is loose, soft, friable, badly cracked or affected by efflorescence. Cut back to straight horizontal and vertical edges.
 - Making good: Use plaster or nonshrinking filler.
- 340 EXISTING GLAZED BRICK
- Defective areas: Cut out.
- 350 EXISTING TILES
- Loose or hollow sounding tiles: Remove.
- 360 EXISTING PAINT
- Paint with unsatisfactory adhesion: Remove so as not to impair bedding adhesion.
- 370 NEW IN SITU CONCRETE
- Backgrounds/ bases to be tiled: Remove mould oil, surface retarders and other materials incompatible with bedding.
- 380 NEW PLASTER
- Plaster: Dry, solidly bedded, free from dust and friable matter.
 - Plaster primer: Apply if recommended by adhesive manufacturer.
- 390 PLASTERBOARD BACKGROUNDS
- Boards: Dry, securely fixed and rigid with no protruding fixings and face to receive decorative finish exposed.
- 450 PREPARING CONCRETE BASES FOR UNBONDED BEDDING - WITHOUT SEPARATING LAYER
- Surface finish: Smooth.
 - Surface preparation: Dampen lightly before laying mortar bed.
- 451 PREPARING CONCRETE BASES FOR UNBONDED BEDDING
- Separating layer: _____ .
 - Lap at joints: 100 mm.
- 460 SMOOTHING UNDERLAYMENT
- Type: Recommended by adhesive manufacturer.
 - Condition: Allow to dry before tiling.

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.
 - 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.
- 550 FLATNESS/ REGULARITY OF TILING
- Sudden irregularities: Not permitted.
 - Deviation of surface: Measure from underside of a 2 m straightedge placed anywhere on surface. The straightedge should not be obstructed by the tiles and no gap should be greater than 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.
- 570 MORTAR BEDDING
- Bedding mix:
 - Cement: Portland to BS EN 197-1 type CEM I/42.5.
 - Sand for walls: To BS 1199, type A.
 - Sand for floors: To BS EN 13139.
 - Grading designation: 0/4 (MP) category 1 fines and between 20%-66% passing a 0.5 sieve.
 - Batching: Select from:
 - Batch by weight.
 - Batch by volume: Permitted on the basis of previously established weight:volume relationships of the particular materials. Use accurate gauge boxes. Allow for bulking of damp sand.
 - Mixing: Mix materials thoroughly to uniform consistence. Use a suitable forced action mechanical mixer. Do not use a free fall type mixer.
 - Application: At normal temperatures use within two hours. Do not use after initial set. Do not retemper.
- 578 CRACK CONTROL REINFORCEMENT
- Type to BS 4483:.
 - Installation: Place centrally in depth of bed. Lap not less than 100 mm and securely tie together with steel wire.
 - Corners: Avoid a four layer build at corners.
- 590 COVED TILE SKIRTINGS
- Sequence: Bed solid to wall before laying floor tiles.
- 600 SIT-ON TILE SKIRTINGS
- Sequence: Bed solid to wall after laying floor tiles.
- 650 THIN BED ADHESIVE - RIBBED (WALLS)
- Application: Apply 3 mm floated coat of adhesive to dry background in areas of approximately 1 m². Trowel to ribbed profile.
 - Tiling: Press tiles firmly onto float coat.
- 651 THIN BED ADHESIVE - SOLID (WALLS)

- Application: Apply floated coat of adhesive to dry background in areas of about 1 m². Comb surface.
 - Tiling: Apply thin even coat of adhesive to backs of dry tiles. Press tiles firmly onto float coat.
 - Finished adhesive thickness (maximum): 3 mm.
- 660 THIN BED ADHESIVE - MESH BACKED MOSAIC (WALLS)
- Application: Apply 3 mm floated coat of adhesive to dry background. Comb surface.
 - Placing mosaic sheets: Hang in horizontal rows, working downwards. Stagger vertical joints. Prevent slippage of sheets. Lightly beat mosaics into adhesive.
 - Width, plane and alignment of joints between sheets: To match joints between mosaic tiles.
- 661 THIN BED ADHESIVE - PAPER FACED MOSAIC (WALLS)
- Application: Apply 3 mm floated coat of adhesive to dry background. Comb surface.
 - Preparing mosaic sheets: Pregrout. Remove surplus before fixing.
 - Placing mosaic sheets: Hang in horizontal rows, working downwards. Stagger vertical joints.
 - Width, plane and alignment of joints between sheets: To match joints between mosaic tiles.
 - Paper face: Before adhesive hardens completely, remove paper face. Complete grouting. Wash off glue from face of mosaic.
- 670 THICK BED ADHESIVE - SOLID (WALLS)
- Application: Apply floated coat of adhesive to dry background. Comb surface.
 - Tiling: Apply thin even coat of adhesive to backs of dry tiles. Press tiles firmly onto float coat.
 - Finished adhesive thickness: Within range recommended by manufacturer.
- 710 THICK BED ADHESIVE - SOLID (FLOORS)
- Application: Apply floated coat of adhesive to dry base and comb surface.
 - Tiling: Apply coat of adhesive to backs of tiles, filling depressions or keys. Press tiles firmly into position.
 - Finished adhesive thickness: Within range recommended by manufacturer.
- 730 SEMIDRY CEMENT:SAND BEDDING (FLOORS)
- Mortar bedding mix: 1:3.5-4 cement:sand.
 - Water content: A film of water must not form on surface of bed when fully compacted.
 - Preparation: Dampen base.
 - Laying: Lay suitably small working areas of screeded bed. Compact thoroughly to level.
 - Tiling: Within two hours and before bedding sets, evenly coat backs of tiles with a neat cement slurry. Beat tiles firmly into position.

MOVEMENT JOINTS/ GROUTING/ COMPLETION

- 875 GROUTING
- Sequence: Grout when bed/ adhesive has set sufficiently 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: _____ .
- 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

To be read with Preliminaries/ General conditions

TYPES OF COVERING**175 BARRIER MATTING TO ENTRANC/EXIT OF BOOKING HALL**

- Location: REFER TO 3716 PR 05
- Base: Levelling screed as required
- Fabricated underlay: None .
- Barrier Mat:
 - Manufacturer: Gradus Accessories, Park Green, Macclesfield, Cheeshire, SK11 7LZ, Tel: 01625 428922.
Product reference: Esplanade Plus (6000) 12mm Closed Construction (ESP12 CL 6). Closed hinge / construction (flexible pvc hinge) colour : black
Boulevard Wiper colour : galazy
 - Type: Aluminium base, PVC-u primary barrier mat
 - BS EN 1307 classification:
Category: Heavy Contract .
Level of use class: Heavy duty
 - Width: see plan drawing 3716 PR 05
 - Colour/ pattern: TBC .
- Carpet adhesive : Acrylic adhesive to manufacturer's recommendations
- Accessories:
 - Matwell frame (no need to be recessed, as adjacent tiling thickness will be at least 12mm including 10.8mm tile (see M40/114) and adhesive).
 - Floor / threshold trims as clause 740, including : Aluminium Gradus Divider bars between barrier matting system and new adjacent floor tiling (Gradus ref : ADB012)
- Other requirements: To be installed so that it can be easily removed in the future for maintenance / cleaning / replacement (i.e. edging strips all around).

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: Before placing orders 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.

430 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, Annex A or BS 8203, Annex A.
 - Locations for readings: In all corners, along edges, and at various points over area being tested.
- Commencement of laying coverings: Not until all readings show 75% relative humidity or less.

440 SUBSTRATES TO RECEIVE THIN COVERINGS

- Trowelled finishes: Uniform, smooth surface free from trowel marks and other blemishes. Abrade suitably to receive specified floor covering material.

460 SMOOTHING/ LEVELLING UNDERLAYMENT COMPOUND

- Type: _____ .
- Selection: As recommended by covering manufacturer.

470 EXISTING FLOOR COVERINGS REMOVED

- Substrate: Clear of covering and as much adhesive as possible. Skim with smoothing underlayment compound to give smooth, even surface.
- 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.
- 510 WOOD BLOCK FLOORING
- Substrate: Clean and free from wax with all blocks sound and securely bonded. Fill hollows with smoothing underlayment compound to give smooth, even surface.
 - Missing and loose blocks: Replace and reset in adhesive to match existing. Sand or plane to make level.
- 520 TIMBER BOARDING/ STRIP FLOORING
- Substrate: Boards securely fixed and acceptably level with no protruding fasteners. Plane, sand or apply smoothing underlayment compound to give a smooth, even surface.
- 530 PARTICLEBOARD FLOORING
- Substrate: Boards securely fixed, level and free from surface sealers and contaminants.
 - Gaps between boards: Not more than 1 mm.
 - Priming: As required by covering adhesive manufacturer.
 - Equilibrium moisture content at time of laying covering: As in service conditions.
- 535 PARTICLEBOARD FLOATING FLOORING
- Substrate: Boards securely fixed and free from surface sealers and contaminants.
 - Level: Sand to remove areas raised more than 1 mm.
 - Gaps between boards: Not more than 1 mm.
 - Priming: As required by covering adhesive manufacturer.
 - Equilibrium moisture content at time of laying covering: As in service conditions.
- 550 HARDBOARD UNDERLAY
- Standard: To BS EN 622-2.
 - Type: _____ .
 - Thickness: _____ .
 - Sheet size: _____ .
 - Substrate: Existing floor boards securely fixed and level with no gross irregularities or protruding fasteners.
 - Conditioning sheets: Prior to fixing.
 - Requirement: To restrict in situ expansion and prevent consequential disfigurement to floor coverings.
 - Laying sheets:
 - Uppermost face: _____ .
 - Cross joints: Staggered with none coincident with joints in base. Joint width: Butt jointed.
 - Fasteners: 25 mm ring shanked or twisted shank nails or divergent staples.
 - Location: Commence at centre of one side of each sheet, at 150 mm grid centres over area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
 - Placement: Not to project above sheet surface or through underside of base. Not deformed.
 - Underlay conditioned by wetting: Do not lay coverings until underlay is dry.
- 551 HARDBOARD UNDERLAY FOR ADHERED CARPET COVERINGS

- Standard: To BS EN 622-2.
- Type: _____ .
- Thickness: _____ .
- Sheet size: _____ .
- Substrate: Existing floor boards securely fixed and level with no gross irregularities or protruding fasteners.
- Conditioning sheets: Prior to fixing.
 - Requirement: To restrict in situ expansion and prevent consequential disfigurement to floor coverings.
- Laying sheets:
 - Uppermost face: _____ .
 - Cross joints: Staggered with none coincident with joints in base.
Joint width: 1-2 mm.
- Fasteners: 25 mm ring shanked or twisted shank nails or divergent staples.
 - Location: Commencing at centre of one side of each sheet, at 150 mm grid centres over area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
 - Placement: Not to project above sheet surface or through underside of base. Not deformed.
- Underlay conditioned by wetting: Do not lay coverings until underlay is dry.

560 PLYWOOD UNDERLAY

- Standard: An approved national standard.
- Bonding quality: To BS EN 314-2 class _____ .
- Appearance: To BS EN 635 class _____ .
- Finish: _____ .
- Thickness: _____ .
- Sheet size: _____ .
- Substrate: Existing floor boards securely fixed and acceptably level with no gross irregularities or protruding fasteners.
- Laying sheets: Stagger cross joints such that no joint within base and underlay is coincident and with a 0.5-1 mm gap between sheets.
- Fasteners: 25 mm ring shanked or twisted shank nails or divergent staples.
 - Location: Commencing at centre of one side of each sheet, at 150 mm grid centres over area of each sheet and at 100 mm centres along perimeter, set in 12 mm from edge.
 - Placement: Driven with heads set flush with surface, and not projecting through underside of base. Not deformed.

LAYING COVERINGS**610 SETTING OUT TILES**

- Method: Set out from centre of area/ room, so that wherever possible:
 - Tiles along opposite edges are of equal size.
 - Edge tiles are more than 50% of full tile width.

640 ADHESIVE FIXING GENERALLY

- Adhesive: Type to be as specified, recommended by covering/ underlay manufacturer or as approved.
- Primer: Use and type as recommended by adhesive manufacturer.
- Application: As necessary to achieve good bond.
- Finished surface irregularities: Trowel ridges and high spots caused by particles on the substrate not acceptable.

720 DOORWAYS

- Joint location: On centre line of door leaf.

740 EDGINGS/ COVER STRIPS

- Manufacturer: _____ .
 - Product reference: _____ .
- Material/ finish: _____ .
- Fixing: Secure (using matching fasteners where exposed to view) with edge of covering gripped.

750 STAIR NOSINGS/ TRIM

- Manufacturer: _____ .
 - Product reference: _____ .
- Material/ finish: _____ .
- Fixing: Secure, level with mitred joints. Adjusted to suit thickness of covering with continuous packing strips of hardboard or plywood. Nosings and packing strips bedded in gap-filling adhesive recommended by nosing manufacturer.
 - Screw fixing with matching plugs: _____ .

770 SKIRTINGS

- Types: _____ .
- Manufacturer: _____ .
 - Product reference: _____ .
- Fixing: Secure with top edge straight and parallel with floor.
 - Corners: Mitre joints.

780 TRAFFICKING AFTER LAYING

- Covering types: _____ .
- Traffic free period: _____ .

COMPLETION

820 FINISHING _____

- 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.

830 FINISHING RUBBER FLOORING

- Cleaning operations:
 - Wash floor with a cleaner recommended by covering manufacturer.
 - Wet vacuum or mop up residue.
 - Rinse with clean water. Wet vacuum or mop up and allow to dry.
- Final treatment: Follow recommendations of covering manufacture and spray buff with wetting agent or dry burnish.

840 FINISHING RUBBER FLOORING

- Cleaning operations:
 - Wash floor with a cleaner recommended by covering manufacturer.
 - Wet vacuum or mop up residue.
 - Rinse with clean water. Wet vacuum or mop up and allow to dry.

- Polishing: Apply two coats of buffable or semibuffable polish of a type recommended by covering manufacturer.
- 850 FINISHING CORK TILE FLOORING – POLISH FINISH
- Preparation: Lightly sand joints to remove any lipping. Match original finish.
 - Cleaning operations:
 - Remove dust and wash, using water containing a neutral detergent. Allow to dry.
 - Sealing: Apply a water based seal of a type and number of coats recommended by cork manufacturer. Allow each coat to dry. Dry burnish.
 - Emulsion polish: Two coats of a type recommended by cork manufacturer. Dry burnish each coat.
- 851 FINISHING CORK TILE FLOORING – POLYURETHANE FINISH
- Preparation: Lightly sand joints to remove any lipping. Match original finish.
 - Cleaning operations:
 - Remove dust and wash with water containing a neutral detergent. Allow to dry.
 - Polyurethane varnish: Apply a type and number of coats recommended by cork manufacturer. Allow each coat 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

To be read with Preliminaries/ General conditions.

COATING SYSTEMS

- 110 EMULSION (ACRYLIC EGGSHELL)
- Manufacturer: As Clause 210.
 - Product reference: Not applicable.
 - Surfaces: New and existing internal walls
 - Preparation: As Clauses 400, 440, 580 and 590.
 - Initial coats: To manufacturer's recommendation.
 - Finishing coats: To manufacturer's recommendation.
- 111 EMULSION (VINYL SILK)
- Manufacturer: As Clause 210.
 - Product reference: Not applicable.
 - Surfaces: New and existing internal ceilings.
 - Preparation: As Clauses 400, 440, 580 and 590.
 - Initial coats: To manufacturer's recommendation.
 - Finishing coats: To manufacturer's recommendation.
- 130 GLOSS PAINT
- Manufacturer: As Clause 210.
 - Product type: Solvent-based.
 - Surfaces: Internal woodwork
 - Preparation: As Clauses 400, 440, 461 and 471.
 - Initial coats: To manufacturer's recommendation.
 - Finishing coats: To manufacturer's recommendation.
- 140 PAINT FINISH TO EXPOSED STEELWORK (Refer to Appendix D)
- In accordance with NWR N1 specification and as provided by canopy manufacturer.

GENERAL

- 210 COATING MATERIALS
- Manufacturers: Obtain materials from any of the following: Crown, Johnstones, Dulux, Sikkens, Sadolins or equivalent..
 - Selected manufacturers: Submit names before commencement of coating work.
- 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.
- 240 SURFACES NOT TO BE COATED
- Stainless steel pins and fixings.

250 SURFACES TO BE CLEANED BUT NOT COATED

- N/A

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, 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.

420 FIXTURES AND FITTINGS

- Removal: Before commencing work remove: _____ .
- Replacement: Refurbish as necessary, refit when coating is dry.

425 IRONMONGERY

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

430 EXISTING IRONMONGERY

- Refurbishment: Remove old coating marks. Clean and polish.

440 PREVIOUSLY COATED SURFACES GENERALLY

- Preparation: In accordance with BS 6150, clause 11.5.
- Contaminated or hazardous surfaces: Give notice of:
 - Coatings suspected of containing lead.
 - Substrates suspected of containing asbestos or other hazardous materials.
- Suspected existing hazardous materials: Prepare risk assessments and method statements covering operations, disposal of waste, containment, and reoccupation, and obtain approval before commencing work.
- Significant rot, corrosion or other degradation of substrates.

- Removing coatings: Do not damage substrate and adjacent surfaces or adversely affect subsequent coatings.
 - Loose, flaking or otherwise defective areas: Carefully remove to a firm edge.
 - Alkali affected coatings: Completely remove.
 - Retained coatings:
 - Thoroughly clean to remove dirt, grease and contaminants.
 - Gloss coated surfaces: Provide key.
 - Partly removed coatings:
 - Additional preparatory coats: Apply to restore original coating thicknesses.
 - Junctions: Provide flush surface.
 - Completely stripped surfaces: Prepare as for uncoated surfaces.
- 456 PREVIOUSLY COATED SURFACES - BURNING OFF
- Risk assessment and method statement: Prepare, and obtain approval before commencing work.
 - Adjacent areas: Protect from excessive heat and falling scrapings.
 - Exposed resinous areas and knots: Apply two coats of knotting.
 - Removed coatings: Dispose of safely.
- 461 PREVIOUSLY COATED WOOD
- Degraded or weathered surface wood: Take back to provide suitable substrate.
 - Degraded substrate wood: Repair with sound material of same species.
 - Exposed resinous areas and knots: Apply two coats of knotting.
- 471 PREPRIMED WOOD
- Areas of defective primer: Take back to barewood 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.
- 490 PREVIOUSLY COATED STEEL
- Defective paintwork: Remove to leave a firm edge and clean bright metal.
 - Sound paintwork: Provide key for subsequent coats.
 - Corrosion and loose scale: Take back to bare metal.
 - Residual rust: Treat with a proprietary removal solution.
 - Bare metal: Apply primer as soon as possible.
 - Remaining areas: Degrease.
- 500 PREPRIMED STEEL
- Areas of defective primer, corrosion and loose scale: Take back to bare metal. Reprime as soon as possible.
- 511 GALVANIZED, SHERARDIZED AND ELECTROPLATED STEEL
- White rust: Remove.
 - Pretreatment: Apply one of the following:
 - 'T wash'/ mordant solution to blacken whole surface.
 - Etching primer recommended by coating system manufacturer.
- 521 UNCOATED STEEL - MANUAL CLEANING
- Oil and grease: Remove.
 - Corrosion, loose scale, welding slag and spatter: Remove.
 - Residual rust: Treat with a proprietary removal solution.

- Primer: Apply as soon as possible.
- 541 UNCOATED ALUMINIUM/ COPPER/ LEAD
- Surface corrosion: Remove, and lightly key surface.
 - Pretreatment: Etching primer, if recommended by coating system manufacturer.
- 552 UNCOATED PVC-U
- Dirt and grease: Remove. Do not abrade surface.
- 570 UNCOATED MASONRY/ RENDERING
- Loose and flaking material: remove.
- 580 UNCOATED PLASTER
- Nibs, trowel marks and plaster splashes: Scrape off.
 - Overtrowelled 'polished' areas: Key lightly.
- 590 UNCOATED PLASTERBOARD
- Depressions around fixings: Fill with stopper/ filler.
- 601 UNCOATED PLASTERBOARD - TO RECEIVE TEXTURED COATING
- Joints: Fill, tape and feather out with materials recommended by textured coating manufacturer.
- 611 WALL COVERINGS
- Retained wall coverings: Check that they are in good condition and well adhered to substrate.
 - Previously covered walls: Wash down to remove paper residues, adhesive and size.
- 622 ORGANIC GROWTHS
- Dead and loose growths and infected coatings: Scrape off and remove from site.
 - Treatment biocide: Apply appropriate solution to growth areas and surrounding surfaces.
 - Residual effect biocide: Apply appropriate solution to inhibit re-establishment of growths.
- 631 PREVIOUSLY PAINTED WINDOW 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.
- 640 EXTERNAL POINTING TO EXISTING FRAMES
- Defective sealant pointing: Remove.
 - Joint depth: Approximately half joint width; adjust with backing strip if necessary.
 - Sealant:
 - Manufacturer: _____ .
 - Product reference: _____ .
 - Preparation and application: As section Z22.
- 645 SEALING OF INTERNAL MOVEMENT JOINTS

- General: To junctions of walls and ceilings with architraves, skirtings and other trims.
- Sealant: Water based acrylic.
 - Manufacturer: _____ .
 - Product reference: _____ .
- Preparation and application: As section Z22.

651 EXISTING GUTTERS

- Dirt and debris: Remove from inside of gutters.
- Defective joints: Clean and seal with suitable jointing material.

APPLICATION

711 COATING GENERALLY

- Application: 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.

731 SITE COATING OF CONCEALED JOINERY SURFACES

- General: After priming, apply additional coatings to surfaces that will be concealed when fixed in place.
 - Components: _____ .
 - Additional coatings: _____ .

740 CONCEALED METAL SURFACES

- General: Apply additional coatings to surfaces that will be concealed when component is fixed in place.
 - Components: _____ .
 - Additional coatings: _____ .

751 STAINING WOOD

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

760 VARNISHING WOOD

- First coat: _____ .
 - Brush well in and lay off avoiding aeration.

- Subsequent coats: Rub down lightly along the grain between coats.

770 EXTERNAL DOORS

- Bottom edges: Prime and coat before hanging doors.

780 BEAD GLAZING TO COATED WOOD

- Before glazing: Apply first two coats to rebates and beads.

790 PUTTY GLAZING

- Setting: Allow putty to set for seven days.
- Sealing:
 - Within a further 14 days, seal with an oil based primer.
 - Fully protect putty with coating system as soon as it is sufficiently hard.
 - Extend finishing coats on to glass up to sight line.

N13 SANITARY APPLIANCES AND FITTINGS

To be read with Preliminaries/ General conditions.

PRODUCTS

300 WCS AND CISTERNS

- Manufacture: Twyford by Carbon Bathrooms Ltd
- Type: Back to wall "Galerie"
- Arrangement: Wall mounted pan with concealed low level cistern behind IPS duct wall.
- Flush: No touch sensor operation by Robert Pearson & Company.

311 WC EQUIPMENT PACKAGES (DOCUMENT M) TO DISABLED TOILETS

- Manufacture: Twyford by Carbon Bathrooms Ltd
- Type: Avalon
- Arrangement: DOC M Pack left or right handed
- Flush: No touch sensor operation by Robert Pearson & Company.

315 URINALS AND AUTOFLUSHING CISTERNS

- Manufacture: Twyford by Carbon Bathrooms Ltd
- Type: Spectrum
- Arrangement: Complete with automatic siphon, lid and supports/fixing for cistern to be mounted in IPS duct.
- Flush: Automatic sensor operated water saving urinal flush housed in ceiling by Robert Pearson & Company.
- Install 1 urinal at junior height 510mm from floor to lip of bowl.

335 WASH HAND BASINS TO TOILETS

- Vanity unit with integrated wash hand basins
- Manufacture: TBS Fabrications Ltd
- Unit comprises:
 - o Wash basin - ATA 4 set in Surell worktop by Formica Ltd.
 - o Colour of worktop: Cobalt 2206.
 - o Underhung sinks, 460 mm. dia. sealed at screw fixed to soffit of vanity unit worktop.
 - o Colour of Basin: Arctic white.
 - o Front panels: Formica Compact grade laminate; colour Blue 7914.
- Taps; sensor operated taps by Robert Pearson & Company to be deck mounted brushed stainless steel automatic tap with sensor at water outlet end of spout.

458 SOAP DISPENSERS (TO TOILETS 'A'/'B'/'C'/'D'/'E'/'F') Refer to Appendix A for further information

- Manufacturer: Armitage Venesta .
- Product reference: 0302018.
- Material: stainless steel.

462 TOILET PAPER HOLDERS

- Manufacturer: Armitage Venesta.
- Product reference: Stainless steel jumbo (0302003).

472 HAND DRIERS

- Standard: To BS EN 60335-2-23.
- Manufacture : Excel Dryer Inc
- Type : Xlerator
- Colour : White

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: Removed.

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.

660 INSTALLING SLAB URINALS

- Waterproofing of walls and floor (specified elsewhere): Completed before fixing urinal components.
- Gap between components: 3 mm.
- Space behind channels and slabs: Grout with 1:5 cement:sand grout.
- Pointing: Rake out joints to 10 mm depth. Point flush with waterproof jointing compound recommended by urinal manufacturer.

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.

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: for items listed in N13.
- Waste pipework: plastics.
- Discharge stack and branch pipework: Cast iron.
- Separate ventilating pipework: PVC-U .
- Disposal: To existing below ground drainage.

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.

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 _____
- Bracket fixings: _____ .
 - Distance between bracket fixing centres (maximum): _____ .
- 620 FIXING LOW GRADIENT PIPEWORK _____
- Bracket fixings: _____ .
 - Distance between bracket fixing centres (maximum): _____ .
- 625 JOINTING FLOOR CHANNELS
- Jointing: _____ .
- 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: _____ .
- 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.
- 685 IDENTIFICATION OF INTERNAL FOUL DRAINAGE PIPEWORK
- Markings: To BS 1710.
 - Type: _____ .
 - Wording: _____ .
 - Type: Integral lettering on pipe wall, self-adhesive bands or identification clips.
 - Locations: At 500 mm centres, junctions and both sides of slabs, valves, appliances, bulkheads and wall penetrations.
- 690 IDENTIFICATION OF INTERNAL GREY WATER DRAINAGE PIPEWORK
- Grey water: As defined in BS EN 12056-1, clause 3.1.

Q40 FENCING

To be read with Preliminaries/ General conditions.

FENCING SYSTEMS**310 CLOSE BOARDED FENCING**

- Manufacturer: Contractor's choice.
- Standard: To BS 1722-5, type BCR 165.
- Height: 1650mm.
- Wood: Sweet chestnut
 - Treatment: Alkaline Copper Quaternary.
 - Finish: Exterior wood stain (dark to match existing adjacent).
- Boards/ rails: Softwood feather edged boards on arris rails.
- Posts: Concrete.
- Centres of posts (maximum): 2.4m.
- Method of setting posts: In 450 sq x 750 deep holes 2/3 filled with concrete where possible. Adjacent track bed fixed to platform wall vertical face with 4no galv steel cleats resin anchored to masonry with through coach bolts to timber uprights
- Accessories: Gravel boards and trench cappings.
- Conformity: Submit manufacturer's and installer's certificates, to BS 1722-5.

EXECUTION**710 INSTALLATION GENERALLY**

- Set out and erect:
 - Alignment: Straight lines or smoothly flowing curves.
 - Tops of posts: Following profile of the ground.
 - Setting posts: Rigid, plumb and to specified depth, or greater where necessary to ensure adequate support.
 - Fixings: All components securely fixed.

715 COMPETENCE

- Operatives: Contractors must employ competent operatives.
- Qualifications: Submit certification of training and experience.

720 SETTING POSTS IN CONCRETE

- Standard: To BS 8500-2.
- Mix: Designated concrete not less than GEN1 or Standard prescribed concrete not less than ST2.
- Alternative mix for small quantities: 50 kg Portland cement to 150 kg fine aggregate to 250 kg 20 mm nominal maximum size coarse aggregate, medium workability.
- Admixtures: Do not use.
- Holes: Excavate neatly and with vertical sides.
- Filling: Position post/ strut and fill hole with concrete to not less than the specified depth, well rammed as filling proceeds and consolidated.
- Backfilling of holes not completely filled with concrete: Excavated material, well rammed and consolidated.

- Markings: To BS 1710:
 - Type: _____ .
 - Wording: _____ .
- Type: Integral lettering on pipe wall, self-adhesive bands or identification clips.
- Locations: At 500 mm centres, junctions and both sides of slabs, valves, appliances, bulkheads and wall penetrations.

695 DISCHARGE AND VENTILATING STACKS

- Terminations: Perforated cover or cage that does not restrict airflow.
- Material: _____ .

700 INSTALLING AIR ADMITTANCE VALVES

- Position: Vertical, above flood level of highest appliance served and clear of insulation materials (other than the manufacturer's insulating cover).
- Connection to discharge stack: Allow removal for rodding, e.g. ring seal.
- Roof spaces and other unheated locations: Fit manufacturer's insulating cover.

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.
- Permanent blanking caps, access covers, rodding eyes, floor gratings and the like: Secure complete with fixings.

920 SUBMITTALS

- Manufacturer's instructions for grease traps: Handover at completion.

760 NAILED WOOD RAILS

- Length (minimum): Two bays, with joints in adjacent rails staggered.
- Fixing: Nail each length of rail to each post with two 100 mm galvanized nails.
- Rails with split ends: Replace.

765 CLEFT WOOD RAILS

- Length (maximum): 3.05 m.
- Fixing: Rail end section shaped to adequately fill the post mortice. Nail each rail to each prick post with two galvanized nails.
- Rails with split ends: Replace.

766 ARRIS RAILS

- Fixing:
 - Rail end section: Shaped to adequately fill the post mortice or recess.
 - Recessed posts: Rails bolted to each post.
- Rails with split ends: Replace.

770 SITE CUTTING OF WOOD

- General: Kept to a minimum.
- Below or near ground level: Cutting prohibited.
- Treatment of surfaces exposed by minor cutting and drilling: Two flood coats of solution recommended for the purpose by main treatment solution manufacturer.