Selby College – Carbon Capture

Specification

Job No: 1293

09/05/2023

10architect

Revision T2

Rev	Date	Comments	Prep.by	Appr. by
T1	06/04/23	I106 – Preliminary Tender Issue	AP	ADS
T2	09/05/23	I108 – Updated Tender Issue	AP	ADS

Introduction

This specification identifies the key project components required to undertake the works. Please also refer to architectural drawings for further descriptive specifications.

Contents

Section C – Demolition

Section K – Linings and partitions

Section M – Surface Finishes

Section N – Furniture/ Equipment

Section P – Building Fabric Sundries

C

Demolition/ Alteration/ Renovation

C20

Demolition

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

C20 Demolition

5 SURVEY

- Scope: Before starting deconstruction/ demolition work, examine available information, and carry out a survey of:
  - the structure or structures to be deconstructed/ demolished, and
  - the services to be stripped out/ retained.
- Report and method statements: Submit, describing:
  - Identity and location of services above and below ground, including those required for the Contractor's use, and arrangements for their disconnection and removal.
  - Form and location of flammable, toxic or hazardous materials, including lead-based paint, and proposed methods for their removal and disposal.
  - Form and location of materials identified for reuse or recycling, and proposed methods for removal and temporary storage.
  - Proposed programme of work, including sequence and methods of deconstruction/ demolition.
  - Details of specific pre-weakening required.
  - Arrangements for protection of personnel and the general public, including exclusion of unauthorized persons.
  - Arrangements for control of site transport and traffic.

10 EXTENT OF DECONSTRUCTION/ DEMOLITION

- General: Refer to demolition plans on drawings 3120 and 3125.

20 FEATURES TO BE RETAINED

- General: Keep in place and protect the following: Items as noted on demolition drawing.

25 LOCATION OF SERVICES

- Services affected by the Works: Locate and mark positions.

32 DISCONNECTION OF DRAINS

- General: Locate, disconnect and seal disused foul and surface water drains.
- Sealing: Permanent, and within the site.

35 LIVE FOUL AND SURFACE WATER DRAINS

- General: Protect drains and fittings still in use. Keep free of debris and ensure normal flow during deconstruction/ demolition work.
- Damage: Make good damage arising from deconstruction/ demolition work. Leave clean and in working order at completion of deconstruction/ demolition work.

40 SERVICE BYPASS CONNECTIONS

- General: Provide as necessary to maintain continuity of services to occupied areas of the site on which the deconstruction/ demolition is taking place and to adjoining sites/ properties.
- Notice: Give adequate notice to adjoining owners and all affected occupiers if shutdown is necessary.

45 SERVICES TO BE RETAINED

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

50 WORKMANSHIP

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

55 SITE HAZARDS

- Precautions: Prevent fire and/ or explosion caused by gas and/ or vapour from tanks, pipes, etc.
- Dust: Reduce by periodically spraying with an appropriate wetting agent or contain.
  - Lead dust: Submit method statement for control, containment and clean-up regimes.
- Site operatives and general public: Protect from vibration, dangerous fumes and dust arising during the course of the Works.

65 STRUCTURES TO BE RETAINED

- Extent: Refer to demolition and builders work plans on drawings 3120 and 3125.
- Parts which are to be kept in place: Protect.
- Interface between retained structures and deconstruction/ demolition: Cut away and strip out with care to minimize making good.
- Ensure M&E services are retained in accordance with M&E Consultants' requirements.

70 PARTLY DECONSTRUCTED/ DEMOLISHED STRUCTURES

- General: Leave partly in a stable condition, with adequate temporary support at each stage to prevent risk of uncontrolled collapse. Make secure outside working hours.
- Temporary works: Prevent overloading due to debris.
- Access: Prevent access by unauthorized persons.

71 DANGEROUS OPENINGS

- General: Provide guarding at all times, including outside of working hours. Illuminate during hours of darkness.
- Access: Prevent access by unauthorized persons.

78 UNFORESEEN HAZARDS

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

85 SITE CONDITION AT COMPLETION

- Debris: Clear away and leave the site tidy on completion.

90 CONTRACTOR'S PROPERTY

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

91 EMPLOYER'S PROPERTY

- Components and materials to remain the property of the Employer: Elements for strip out and retention as noted on the Demolition Scope of Works on drawings 3120 and 3125.
- Protection: Maintain until these items are removed by the Employer or reused in the Works, or until the end of the Contract.

95 RECYCLED MATERIALS

- Materials arising from deconstruction/ demolition work: Can be recycled or reused elsewhere in the project, subject to compliance with the appropriate specification and in accordance with any site waste management plan.

K

Linings/Sheathing/Dry partitioning

K10

Plasterboard dry linings/ partitions/ ceilings

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23
T2	Updated Tender Information	09/05/23

New clauses:

K10/ 155A WALL LINING SYSTEM (METAL STUDS) – TO CONCEAL EXISTING DISTRIBUTION BOARDS, TRUNKING AND TRANSFORMERS

K10 Plasterboard dry linings/ partitions/ ceilings

To be read with Preliminaries/ General conditions.

TYPES OF DRY LINING

45 WALL LINING ON ADHESIVE

- Manufacturer: British Gypsum, East Leake, Loughborough, Leicestershire LE12 6HX Website: www.british-gypsum.com
- Tel: 0844 800 1991 Fax: 0844 561 8816
- E-Mail: bgtechnical.enquiries@bpb.com.
- Product reference: DriLyner Dab BASIC (D)
- Substrate: Existing blockwork walls.
- Adhesive method: Gyproc DriWall Adhesive.
- Linings: Gyproc WallBoard 12.5mm.
- Finishing: Tape and joint (to Decarbonisation Workshops)/ skim coat (to Decarbonisation Store)
  - Primer/ Sealer: In accordance with manufacturer's recommendations
  - Accessories: As required.

69 INSTALLING BEADS/ STOPS

- Cutting: Neatly using mitres at return angles.
- Fixing: Securely using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
- Finishing: After joint compounds/ plasters have been applied, remove surplus material while still wet from surfaces of beads exposed to view.

70 ADDITIONAL SUPPORTS

- Framing: Accurately position and securely fix to give full support to:
  - Partition heads running parallel with but offset from main structural supports.
  - Fixtures, fittings and services.
  - Board edges and lining perimeters.

127A METAL STUD PARTITION SYSTEM TYPE 1

- Manufacturer: British Gypsum, East Leake, Loughborough, Leicestershire LE12 6HX Website: www.british-gypsum.com
- Tel: 0844 800 1991 Fax: 0844 561 8816
- E-Mail: bgtechnical.enquiries@bpb.com.
- Product reference: Gypwall Classic A206015
- Nominal thickness (excluding finishes): 122mm.
- Performance criteria:
  Fire resistance to BS 476: Part 22: 30 minutes.
  Sound insulation: Rw 45dB.
- Partition duty to BS 5234: Parts 1 and 2: Severe.
- Maximum height based on limiting deflection of L/240 at 200Pa: 4600mm.
  Timber sole plate: 38mm (nominal) x channel width, if required.
- Framing:
  Studs: 70S 50 C Gypframe studs at 600mm centres.
  Lining: Two layers 12.5mm Wallboard sheet width 1200mm (ACTIVair option available), staggered joints, to both sides of framing. For 60min FR areas use one layer 15mm Gyproc FireLine board.

Finishing: 2-3mm skim and prepared to receive paint finish.
Other requirements:

- Gypframe 99 FC 50 for Medium weight fixtures. If a plywood pattress is required, Gypframe Service Support Plates should be used.
- Greater heights can be achieved by reducing stud centres, changing stud gauge or stud type. Please call our Technical helpline or consult Table 15 in the Robustness section of the White Book for further assistance.
- Note consideration needs to be given to the effect on acoustic performance as a result of changing stud centres or types. Shadow beads where Indicated on the drawings

155A WALL LINING SYSTEM (METAL STUDS) – TO CONCEAL EXISTING DISTRIBUTION BOARDS, TRUNKING AND TRANSFORMERS

- Manufacturer: British Gypsum, East Leake, Loughborough, Leicestershire LE12 6HX
  Website: www.british-gypsum.com Tel: 0844 800 1991 Fax: 0844 561 8816
  E-Mail: bgtechnical.enquiries@bpb.com
  Product reference: GypLyner IWL.
- Framing system: Gypframe 60 I 50 (min. 600mm centres), Gypframe Folded Edge Standard Floor & Ceiling Channels, Gypframe GFS1 Fixing Strap, Gypframe Deep Flange Floor & Ceiling Channels and Gypframe GA5 Internal Fixing Angle as recommended for the purpose by the board manufacturer.
- Head track to be fixed to underside of new cold rolled steel joists to Structural Engineer's specification. Structural Engineer to confirm required deflection allowance.
- Lining: Inner layer 12.5mm Gyproc WallBoard, Outer layer 12.5mm Gyproc WallBoard
  Fixing: As clause 590.
  Screws: 25mm British Gypsum Drywall Screws.
- Finishing: Taped seamless finish as clause 670.
- Access Panels: As K30/160A to M&E Engineer's specification. Note bespoke sizes may be required.

221B PLASTERBOARD SUSPENDED CEILING SYSTEM

Manufacturer: British Gypsum.

- Web: www.british-gypsum.com.
- Email: bgtechnical.enquiries@bpb.com.
- Product reference: MF suspended ceiling system
  Suspension system:
- Hanger type: [Gypframe MF8 strap hangers].
  Top fixings: [As manufacturers recommendations].
- Primary grid centres: [As manufacturers recommendations].
  Hanger centres: [As manufacturers recommendations].
- Secondary grid centres: [As manufacturers recommendations].
  Linings: [1 x 12.5 mm Gyproc Wallboard].
  Insulation: [N/A].
  Access Units: Gyptone BIG Access Panel Base 31, 12.5mm thick, size 510mm x 510mm, product reference: 5200428579.
  Finishing: [Skim coat plaster finish].
  Primer/ Sealer:
- Type: [1 coat of Gyproc Drywall Primer].

Other Requirement:

- Penetrations through ceiling to be kept to a minimum to maintain acoustic performance.

256A ENCASEMENT ON METAL FRAMING TO STRUCTURAL STEEL TO TREAT FLANKING

- Structural member(s): Steel Column or Beam (Size: Various)
  Manufacturer: British Gypsum, East Leake, Loughborough, Leicestershire LE12 6HX
  Website: www.british-gypsum.com Tel: 0844 800 1991 Fax: 0844 561 8816
  E-Mail: bgtechnical.enquiries@bpb.com
  Product reference: GypLyner ENCASE.
  Type: 3- or 4-sided Boxed casing as clause 491A or 491B.
- Fire protection of complete encasement assembly to BS 476: Part 21(550oC): 60 minutes.
- A/V (Hp/A)m-1 section factor: Up to 195.
  Framing system: Gypframe GL1 lining channels, GL3 channel connectors, GA2 angles, and GL10 framing clips as recommended for the purpose by the board manufacturer.
- Lining: Inner layer 15mm Gyproc FireLine, Outer layer 15mm Gyproc SoundBloc
  Fixing: As clause 590.
  Screws: 25mm British Gypsum Drywall Screws.
- Finishing: Taped seamless finish as clause 670.

256B ENCASEMENT ON METAL FRAMING TO STRUCTURAL STEEL NON-ACOUSTIC VARIATION

Structural member(s): Steel Column or Beam (Size: Various)
Manufacturer: British Gypsum, East Leake, Loughborough, Leicestershire LE12 6HX
Website: www.british-gypsum.com Tel: 0844 800 1991 Fax: 0844 561 8816
E-Mail: bgtechnical.enquiries@bpb.com
Product reference: GypLyner ENCASE.
Type: 3 or 4 sided Boxed casing as clause 491A or 491B.

- Fire protection of complete encasement assembly to BS 476: Part 21(550oC): 60 minutes.
- A/V (Hp/A)m-1 section factor: Up to 195.
  Framing system: Gypframe GL1 lining channels, GL3 channel connectors, GA2 angles, and GL10 framing clips as recommended for the purpose by the board manufacturer.
- Lining: One layer 15mm Gyproc FireLine.
  Fixing: As clause 591A.
  Screws: 25mm British Gypsum Drywall Screws.
- Finishing: Taped seamless finish as clause 670.
- Other requirements:
  Please Note: Before altering this specification check with the design team that any proposed changes will not jeopardise the project environmental assessment rating target (BREEAM, CfSH, LEED, etc.)

GENERAL/ PREPARATION

335 ADDITIONAL SUPPORTS

- Framing: Accurately position and securely fix to give full support to:
  - Partition heads running parallel with but offset from main structural supports.
  - Fixtures, fittings and service outlets. Mark framing positions clearly and accurately on linings.

  - Board edges and lining perimeters, as recommended by board manufacturer to suit type and performance of lining.

INSTALLATION

435 DRY LININGS GENERALLY

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

445 CEILINGS

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

455 METAL FRAMING FOR PARTITIONS/ WALL LININGS

- Setting out: Accurately aligned and plumb.
  - Frame/ Stud positions: Equal centres to suit specified linings, maintaining sequence across openings.
  - Additional studs: To support vertical edges of boards.
- Fixing centres at perimeters (maximum): 600 mm.
- Openings: Form accurately.
  - Doorsets: Use sleeved or boxed metal studs and/ or suitable timber framing to achieve strength grade requirements for framing assembly and adequately support weight of door.
  - Services penetrations: Allow for associated fire stopping.

465 STAGGERED STUD PARTITIONS

- Horizontal frame members (noggins, bearers, etc.) and boards: Fix between alternate studs and not touching adjacent offset studs.

475 METAL FURRINGS FOR WALL LININGS

- Setting out: Accurately aligned and plumb.
  - Vertical furring positions: Equal vertical centres to suit specified linings, maintaining sequence across openings. Position adjacent to angles and openings.
  - Additional vertical furrings: To support vertical edges of boards and at junctions with partitions.
  - Horizontal furring positions: To provide continuous support to edges of boards.
- Adhesive bedding to furrings:
  - Dabs: Length 200 mm (minimum). Located at ends of furrings and thereafter at 450 mm (maximum) centres.
  - Junctions with partitions: Continuous bed with no gaps across cavity.

485 SUSPENDED CEILING GRIDS

- Setting out: Accurately aligned and level.
  - Grid members and hangers: Centres to suit specified linings and imposed loads.
  - Additional grid members: Provide bracing and stiffening at upstands, partition heads, access hatches, etc.
- Fixing: Securely at perimeters, grid joints, top and bottom hanger fixings.

505 INSTALLING MINERAL WOOL INSULATION

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

510 SEALING GAPS AND AIR PATHS

- Location of sealant: To perimeter abutments and around openings.
  - Pressurized shafts and ducts: At board-to-board and board-to-metal frame junctions.
- Application: To clean, dry and dust free surfaces as a continuous bead with no gaps.
  - Gaps greater than 6 mm between floor and underside of plasterboard: After sealing, fill with jointing compound.

546 FIRE BARRIER

- Manufacturer: ROCKWOOL Ltd or equal.
  - Web: www.rockwool.co.uk.
  - Email: info@rockwool.com.
  - Product reference: Rockwool Cavity Barrier
- Material: Wired mineral wool.
- Form: Single layer of 50 mm Fire Barrier.
- Base fixing: Draped freely and turned back across ceiling.

555 FIRE STOPPING AT PERIMETERS OF DRY LINING SYSTEMS

- Material: Tightly packed mineral wool or intumescent mastic/ sealant.
- Application: To perimeter abutments to provide a complete barrier to smoke and flame.

560 JOINTS BETWEEN BOARDS

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

565 VERTICAL JOINTS

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

570 HORIZONTAL JOINTS

- Surfaces exposed to view: Horizontal joints not permitted. Seek instructions where height of partition/ lining exceeds maximum available length of board.
- Two layer boarding: Stagger joints between layers by at least 600 mm.

- Edges of boards: Support using additional framing.
  - Two layer boarding: Support edges of outer layer.

590 FIXING PLASTERBOARD TO METAL FRAMING/ FURRINGS

- Partitions/ Wall linings: Fix securely and firmly at the following centres (maximum):
  - Single layer boarding: To all framing at 300 mm centres. Reduce to 200 mm centres at external angles.
  - Multi-layer boarding: Face layer at 300 mm centres, and previous layers around perimeters at 300 mm centres.
- Ceilings: 230 mm. Reduce to 150 mm at board ends and at lining perimeters.
- Position of screws from edges of boards (minimum): 10 mm.
  - Screw heads: Set in a depression. Do not break paper or gypsum core.

595 DEFLECTION HEADS

- Fixing boards: Do not fix to head channels.
- Deflection heads to be provided to all partitions and IWL in accordance with SE's specification.

FINISHING

650 LEVEL OF DRY LINING ACROSS JOINTS

- Sudden irregularities: Not permitted.
- Joint deviations: Measure from faces of adjacent boards using methods and straightedges (450 mm long with feet/ pads) to BS 8212, clause 3.3.5.
  - Tapered edge joints:

    Permissible deviation (maximum) across joints when measured with feet resting on boards: 3 mm.
  - External angles:

    Permissible deviation (maximum) for both faces: 4 mm.
  - Internal angles:

    Permissible deviation (maximum) for both faces: 5 mm.

670 SEAMLESS JOINTING TO PLASTERBOARDS

- Cut edges of boards: Lightly sand to remove paper burrs.
- Filling and taping: Fill joints, gaps and internal angles with jointing compound and cover with continuous lengths of paper tape, fully bedded.
- Protection of edges/ corners: Reinforce external angles, stop ends, etc. with specified edge/ angle bead.
- Finishing: Apply jointing compound. Feather out each application beyond previous application to give a flush, smooth, seamless surface.
- Nail/ screw depressions: Fill with jointing compound to give a flush surface.
- Minor imperfections: Remove by light sanding.

680 SKIM COAT PLASTER FINISH

- Plaster type As recommended by board manufacturer.
  - Thickness: 2-3 mm.
- Joints: Fill and tape except where coincident with metal beads.
- Finish: Tight, matt, smooth surface with no hollows, abrupt changes of level or trowel marks.

692 RIGID BEADS/STOPS

- Internal: To BS EN 13658-1.

- External: To BS EN 13658-2.

695 INSTALLING BEADS/ STOPS

- Cutting: Neatly using mitres at return angles.
- Fixing: Securely using longest possible lengths, plumb, square and true to line and level, ensuring full contact of wings with substrate.
- Finishing: After joint compounds/ plasters have been applied, remove surplus material while still wet from surfaces of beads exposed to view.

K13

Rigid sheet fine linings and panelling

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

K13 Rigid sheet fine linings and panelling

To be read with Preliminaries/ General conditions.

TYPES OF LINING AND PANELLING

160A RISER DOOR SYSTEM

- Manufacturer: The Access Panel Company
  - Web: www.accesspanels.co.uk
  - Tel: 01724 853 090
  - Product reference: Premium Range Metal Door Access Panels
  - Size: TBA by M&E Consultant
  - Square drive operated lock with 'SLIK' invisible keyhole
  - Powder coated White RAL 9010
  - Picture Frame (PF)
  - Non FR

FABRICATION/ FIXING/ FINISHING

310 ACCURACY OF FABRICATION

- Site dimensions: Take as necessary before starting fabrication.
  - Discrepancies with drawings: Report without delay and obtain instructions before proceeding.
- Permissible deviations for panels:
  - Length: ± 1.5 mm.
  - Width: ± 1.5 mm.
  - Squareness (taking the longer of 2 sides at a corner as a baseline and measuring the deviation of the shorter side from the baseline perpendicular): ± 1.5 mm in 1 m.
  - Flatness (of panels with a core thickness of 12 mm and over, as delivered to site): ± 1 mm under a 600 mm straightedge.

350 FIXING LININGS AND PANELLING

- Setting out: Accurate, true to line and level, free from undulations and lipping, with lines and joints aligned, straight and parallel unless specified otherwise.
- Movement allowance: Adequate for future moisture and temperature movement of boards.
- Fixing of panels: Secure, to prevent pulling away, bowing, or other movement during use.
- Methods of fixing and fasteners: As section Z20 unless specified otherwise.
- Trims: Wherever possible, to be in unjointed lengths between angles or ends of runs.
  - Running joints: Where unavoidable, submit proposals for location and method of jointing.
  - Angle joints: Mitred, unless specified otherwise.

400 DOOR FRAMES

- Hardwood packing full width of frames between frames and reveals: To give even joints of specified width.
  - Position of packs: Where fixings tighten frame against structure.
- Positions of frames: Accurate, plumb, level, and aligned.
  - Fixing of frames: Secure to prevent pulling away, deflection, or other movement during use.

  - Fastener locations: 600 mm maximum centres with at least one fixing 150 mm from each end of jambs and one adjacent to each hanging point.

410 FIRE RESISTING FRAMES

- Gaps between frames and supporting construction: Filled as necessary in accordance with requirements for certification and/ or door/ doorset manufacturer's instructions.

K40

Demountable suspended ceilings

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

K40 Demountable suspended ceilings

To be read with Preliminaries/General conditions.

TYPES OF CEILING SYSTEM

115A CEILING SYSTEM

- Manufacturer: Saint Gobain
  www.saint-gobain.co.uk
  - Product reference: Gyprex Satinspar 600 – edge 15
- Tile:
  - Colour: White RAL 9010.
- Size: 600 x 600 mm.
- Grid:
  - Type: T15 grid system
  - Colour: White RAL 9010.
  - Accessories: hold down clips to the first 3No. rows adjacent to windows.
  - Trim: Connect Angle.

GENERAL/ PERFORMANCE

210A ENVIRONMENT

- Environmental classification to BS EN 13964: Class C.

COMPONENTS

240 SAMPLES

- General: Submit representative samples of the following: Panels for ceiling systems K40/115A.

245 STANDARDS

- Steel panels: To BS EN 10346.
- Aluminium sheet, strip and plate: To BS EN 485-1 and -2.
- Aluminium bars, tubes and sections: To relevant parts of BS EN 515, BS EN 573, BS EN 755 and BS EN 12020.

255A EDGE BATTENS To suspended ceilings as clause 115A

  - Material: Planed softwood to BS EN 942, class J10; moisture content at time of fixing: 15% ± 2%.
  - Finished size: 21 x 44 mm.
  - Finish (apply before ceiling grid is installed): Prime, undercoat and final coat of matt paint to visible surfaces.

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.

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.
- Spacings: As per manufacturers recommendations.

330 INSTALLING TIMBER EDGE BATTENS

- Fixing: Firmly to perimeter wall or other building structure.
  - Fasteners: Plugged and screwed to walls.
  - Fixing centres (maximum): 450 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.

385 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

- 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.

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.

421 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.

425 INSTALLING CAVITY FIRE BARRIERS

- Maximum ceiling void dimension in any direction: 20m.

- Fixing: Secure barrier at head and base using proprietary angle support system.
  - General: Fix barriers securely to channels or angles at abutments to building structure.
  - At perimeters and joints: Provide permanent stability and continuity with no gaps to form a complete barrier to smoke and flame.
- Joints: Form to preserve integrity in fire.
- Service penetrations: Cut barriers neatly to accommodate services. Fit fire resistant sleeves around flexible materials. Fill gaps around services to fire barrier manufacturer's recommendations to maintain barrier integrity. Adequately support services passing through the barrier.
- Ceiling systems intended for fire protection: Do not impair fire resisting performance of ceiling system.
- Ceiling systems not intended for fire protection: Do not mechanically interlink barriers with ceiling system.

500 ELECTRICAL CONTINUITY AND EARTH BONDING

- Inclusion in finished work: Required.

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.

530 SPARES

- General: At Completion supply the following: 2 No. boxes for ceiling system K40/115A.

K45

Suspended ceiling system alterations

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

K45 Suspended ceiling system alterations

12 EXISTING SUSPENDED CEILING SYSTEM

- Structure over: Composite floor slab.
- Ceiling type: 600 x 600mm lay-in grid.
  - Manufacturer: Not known.
    Product reference: Not known.

15A NEW CEILING TILES

- Manufacturer: Saint Gobain
  www.saint-gobain.co.uk
  - Product reference: Gyprex Satinspar 600 – edge 15
- Tile:
  - Colour: White RAL 9010.
- Size: 600 x 600 mm.

62 EXECUTION GENERALLY

- Designated ceiling system components: Remove carefully without affecting surrounding areas.
- Disposal of removed components: Recycle.
- Retained components: Do not distort or damage.
- Reuse of ceiling system components:
  - Condition: Undamaged, free from distortion, clean.
  - Units and boards: Match adjacent areas where appropriate.
- Cutting units, boards and components: Cut neatly and accurately. Maintain edge profiles.
  - Openings: Suit sizes and edge details of fittings.

65 SETTING OUT

- General: Maintain ceiling system accurately, continuous, even, and jointed at regular intervals. Provide level soffits free from undulations, lipping and distortions in grid members.
- Infill units, access units, integrated services: Fit and align correctly.
- Minimum size for edge and perimeter infill units: Half standard width or length where practicable.
- 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 or setting out lines.

67 INSTALLING SUSPENSION

- Fixing:
  - Angle or strap hangers: Do not rivet for top fixing.
  - Wire hangers: Tie securely at top with tight bends to loops to prevent vertical movement.
- Installation:
  - Alignment: Vertical or near vertical without bends or kinks.
  - Maintain straight, with suitable tension and without bends or kinks.
  - Do not allow hangers to press against fittings, services and insulation covering ducts and 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.

71 INTEGRATED SERVICES

- General: Position services accurately, support adequately. Align and level in relation to the ceiling. Alterations must not diminish performance of ceiling system.
- Reaction to fire rating of additional supporting material: Match ceiling material.
- Services outlets:
  - Supported by ceiling system: Provide additional hangers.
  - Independently supported: Provide flanges to support altered ceiling system.

73 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.
- Services: Do not cover electrical cables not sized accordingly. Cut insulation carefully around electrical fittings, etc. Do not lay insulation over luminaires.

74 INSTALLING CAVITY FIRE BARRIERS

- Fixing:
  - General: Fix firmly to channels or angles at abutments to building structure.
  - At perimeters and joints: Secure. Provide permanent stability and continuity with no gaps. Provide a complete barrier to smoke and flame.
- Joints: Form to preserve integrity in fire.
- Service penetrations: Cut and pack to maintain barrier integrity. Sleeve flexible materials. Adequately support services passing through the barrier.
  - Ceiling systems intended for fire protection: Do not impair fire resisting performance of ceiling system.
  - Ceiling systems not intended for fire protection: Do not mechanically interlink barriers with ceiling system.

M

Surface finishes

M10

Cement based levelling/ wearing screeds

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

M10 Cement based levelling/ wearing screeds

To be read with Preliminaries/General conditions.

TYPES OF SCREED

130C PROPRIETARY QUICK DRYING LEVELLING SCREEDS – REFURBISHMENT AREAS

• Substrate: Existing concrete slab.
• Screed manufacturer: Mapei UK.
  – Product reference: Ultraplan Renovation Screed.
• Screed construction: Partially bonded
  – Reinforcement for crack control: Not required.
• Thickness:
  – Minimum: 3mm.
  – Maximum: 40mm.
- Screed to be applied directly
• Flatness/ Surface regularity class: SR2.
• Finish: Trowelled, as clause 540.
- To receive: Sheet vinyl.
• Other requirements: None.
• Contractor to survey existing floors to determine requirement for levelling screed to take new vinyl flooring.

150 PROPRIETARY POLYMER-MODIFIED CEMENTITIOUS LEVELLING SCREEDS – REFURBISHMENT AREAS

• Substrate: Existing concrete slab.
• Screed manufacturer: Sika.
  – Product reference: Sikafloor -100 Level.
• Screed construction: Bonded using Sikafloor -01 Primer or Sikafloor -03 Primer.
  – Reinforcement for crack control: Not required.
• Thickness:
  – Minimum: 1mm.
  – Maximum: 10mm.
- Screed to be applied directly
• Flatness/ Surface regularity class: SR2.
• Finish: Trowelled, as clause 540.
- To receive: Sheet vinyl.
• Other requirements: None.
• Contractor to survey existing floors to determine requirement for levelling screed to take new vinyl flooring.

GENERALLY/ PREPARATION

205 DESIGN LIFE OF SCREEDS

- Duration: 50 years.
  - Subject to reasonable wear and tear.
- Location: Everywhere.
- Condition of use: Subject to correct loading and traffic usage throughout duration.

210 SUITABILITY OF SUBSTRATES

- General:

  - Suitable for specified levels and flatness/ regularity of finished surfaces. Consider permissible minimum and maximum thicknesses of screeds.
  - Sound and free from significant cracks and gaps.
- Concrete strength: In accordance with BS 8204-1, Table 2.
- Cleanliness: Remove plaster, debris and dirt.
- Moisture content: To suit screed type. New concrete slabs to receive fully or partially bonded construction must be dried out by exposure to the air for minimum six weeks.

220 PROPRIETARY LEVELLING/ WEARING SCREEDS

- General: Materials, mix proportions, mixing methods, minimum/ maximum thicknesses and workmanship must be in accordance with recommendations of screed manufacturer.
- Standard: To BS 8204-3.

250 CONDUITS UNDER FLOATING SCREEDS

- Haunching: Before laying insulation for floating screeds, haunch up in 1:4 cement:sand on both sides of conduits.

251 CONDUITS CAST INTO OR UNDER SCREEDS

- Reinforcement: Overlay with reinforcement selected from:
  - 500 mm wide strip of steel fabric to BS 4483, reference D49, or
  - Welded mesh manufactured in rolls from mild steel wire minimum 1.5 mm diameter to BS 1052, mesh size 50 x 50 mm.
- Placing reinforcement: Mid depth between top of conduit and the screed surface.
  - Width of reinforcement (minimum): 300 mm.
- Screed cover over conduit (minimum): 25 mm.

255 PIPE DUCTS/ TRUNKING

- Preformed access ducts: Before laying screed, fix securely to substrates and level accurately in relation to finished floor surface.

260 FULLY BONDED CONSTRUCTION

- Remove all contaminants from steel surfaces to receive bonding coat.
  • Surfaces / junctions to be suitable to accept screed and achieve a full bond over complete area.
  • Bonding coat: MBond epoxy primer by Flowcrete UK Ltd. Booth Lane Sandbach Cheshire. CW11 3QF Tel: 01270 753000.

BATCHING/ MIXING

302 CEMENTS

- Cement types: In accordance with BS 8204-1, clause 5.1.3.

305 AGGREGATES

- Sand: To BS EN 13139.
  - Grading limits: In accordance with BS 8204-1, Table B.1.
- Coarse aggregates for fine concrete levelling screeds:
  - Standard: To BS EN 12620.
  - Designation: 4/10.
- Lightweight aggregates: In accordance with BS 8204-1, Annex A.

330 MIXING

- Water content: Minimum necessary to achieve full compaction, low enough to prevent excessive water being brought to surface during compaction.
- Mixing: Mix materials thoroughly to uniform consistency. Mixes other than no-fines must be mixed in a suitable forced action mechanical mixer. Do not use a free fall drum type mixer.
- Consistency: Use while sufficiently plastic for full compaction.
- Ready-mixed retarded screed mortar: Use within working time and site temperatures recommended by manufacturer. Do not retemper.

335 IN SITU CRUSHING RESISTANCE (ISCR)

- Standards and category: In accordance with BS 8204-1, table 4.
  - Testing of bonded and unbonded screeds: To Annex D.
  - Testing of floating levelling screeds: To Annex E.

340 ADVERSE WEATHER

- Screeds surface temperature: Maintain above 5°C for a minimum of four days after laying.
- Hot weather: Prevent premature setting or drying out.

LAYING

345 LEVEL OF SCREED SURFACES

- Permissible deviation: (allowing for thickness of coverings) ±3 mm from datum.

355 FLATNESS/ SURFACE REGULARITY OF FLOOR SCREEDS

- Standard: In accordance with BS 8204-1, Table 5.
- Test: In accordance with BS 8204-1, Annex C.
- Sudden irregularities: Not permitted.

375 COMPACTION OF SCREEDS

- General: Compact thoroughly over entire area.

405 JOINTS IN LEVELLING SCREEDS GENERALLY

- Laying screeds: Lay continuously using 'wet screeds' between strips or bays. Minimize defined joints.
- Daywork joints: Form with vertical edge, in accordance with Manufacturers' recommendations.

406A BAY JOINTS IN LEVELLING SCREEDS

- Maximum length and area of bays as recommended by screed manufacturer.
  Location of bay joints: Coordinate with those required for substrate slab and floor covering.

428 HEATED SCREEDS

- Substrate slab: Irregularities not permitted.
- Screed bays, movement joints and other joints: Coordinate with heating circuits.
- Heating elements: Secure properly. Prevent displacement.
- Screed laying: Compact thoroughly around heating elements. Do not damage them.

440 CRACK INDUCING GROOVES IN LEVELLING SCREEDS

- Groove depth: At least half the depth of screed.
- Cutting grooves: Straight, vertical and accurately positioned. Select from the following:
  - Trowel cut as screed is laid.
  - Saw cut sufficiently early after laying to prevent random cracking.

460A MOVEMENT JOINT SYSTEM

- Manufacturer: Illbruck.
  - Web: www.tremco-illbruck.co.uk.
  - Email: uk.sales@tremco-illbruck.com.
  - Product reference: Interspan All-Metal Series ESF 10 AL
- Type: Contractor's choice to suit structural movement joint.
- Additional joint sealant: Contractor's choice.

FINISHING/CURING

530 SMOOTH FLOATED FINISH

- Finish: Even texture with no ridges or steps.

540 TROWELLED FINISH TO LEVELLING SCREEDS

- Floating: To an even texture with no ridges or steps.
- Trowelling: To a uniform, smooth but not polished surface, free from trowel marks and other blemishes, and suitable to receive specified flooring material.

650 CURING

- General: Prevent premature drying. Immediately after laying, protect surface from wind, draughts and strong sunlight. As soon as screed has set sufficiently, closely cover with polyethylene sheeting.
- Curing period (minimum): Keep polyethylene sheeting in position for: period recommended by screed manufacturer.
- Drying after curing: Allow screeds to dry gradually. Do not subject screeds to artificial drying conditions that will cause cracking or other shrinkage related problems.

M20

Plastered/ Rendered/ Roughcast coatings

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

M20 Plastered/ Rendered/ Roughcast coatings

To be read with Preliminaries/ General conditions.

TYPES OF COATING

210B THISTLE MULTI FINISH Final coat plaster

- Manufacturer: British Gypsum.
  - Web: www.british-gypsum.com.
  - Email: bgtechnical.enquiries@bpb.com.
  - Product reference: Thistle Multi Finish
  - Thickness: 2-3mm

210C THISTLE BROWNING Undercoat plaster to blockwork walls

- Manufacturer: British Gypsum.
  - Web: www.british-gypsum.com.
  - Email: bgtechnical.enquiries@bpb.com.
  - Product reference: Thistle Browning
  - Thickness: min.10mm

GENERAL

421 SCAFFOLDING

- General: Prevent putlog holes and other breaks in coatings.

MATERIALS AND MARKING OF MORTAR

438 CEMENTS FOR MORTARS

- Cement: To BS EN 197-1.
  - Types: Portland cement, CEM I.
    Portland slag cement, CEM II.
    Portland fly ash cement, CEM II.
  - Strength class: 32.5, 42.5 or 52.5.
- White cement: To BS EN 197-1.
  - Type: Portland cement, CEM1.
  - Strength class: 52.5.
- Sulfate resisting Portland cement: To BS EN 197-1.
  - Strength class: 42.5.
- Masonry cement: To BS EN 998-1 and Kitemarked.

440 SAND FOR CEMENT GAUGED MORTARS

- Standard: To BS EN 13139.
  - Grading: 0/2 or 0/4 (CP or MP); Category 2 fines.
- Colour and texture: Consistent. Obtain from one source.

445 PIGMENT FOR COLOURED MORTARS

- Standard: To BS EN 12878.

495 MIXING

- Render mortars (site prepared):
  - Batching: By volume. Use clean and accurate gauge boxes or buckets.
  - Mix proportions: Based on damp sand. Adjust for dry sand.

    - Lime: sand: Mix thoroughly. Allow to stand, without drying out, for at least 16 hours before using.
- Mixes: Of uniform consistence and free from lumps. Do not retemper or reconstitute mixes.
- Contamination: Prevent intermixing with other materials.

497 COLD WEATHER

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

PREPARING SUBSTRATES

510 SUITABILITY OF SUBSTRATES

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

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.

551 REMOVAL AND RENEWAL OF EXISTING PLASTER/ RENDER

- Location and extent: Agree, at least on a provisional basis, before work commences. Minimize extent of removal and renewal.

556 REMOVING DEFECTIVE EXISTING RENDER

- Render for removal: Detached, hollow, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.
- Removing defective render: Cut out to regular rectangular areas with straight edges.
    - Horizontal and vertical edges: Square cut or slightly undercut.
    - Bottom edges to external render: Do not undercut.
    - Render with imitation joints: Cut back to joint lines.
- Cracks:
    - Fine hairline cracking/ crazing: Leave.
    - Other cracks: Cut out to a width of 75 mm (minimum).
- Dust and loose material: Remove from exposed substrates and edges.

566 REMOVING DEFECTIVE EXISTING PLASTER

- Plaster for removal: Detached, soft, friable, badly cracked, affected by efflorescence or otherwise damaged.

  - Hollow, detached areas: Remove where area of detachment is more than 0.5m².
- Stained plaster: Submit proposals.
- Removing defective plaster. Cut back to a square, sound edge.
- Faults in substrate (structural deficiencies, damp, etc.): Submit proposals.
- Cracks:
  - Fine hairline cracking/ crazing: Leave.
  - Other cracks: Cut out to a width of 75 mm (minimum).
- Dust and loose material: Remove from exposed substrates and edges.

568 EXISTING DAMP AFFECTED PLASTER/ RENDER

- Plaster affected by rising damp: Remove to a height of 300 mm above highest point reached by damp or 1 m above dpc, whichever is higher.
- Perished and salt contaminated masonry:
  - Mortar joints: Rake out.
  - Masonry units: Submit proposals.
- Faults in substrate (structural deficiencies, additional sources of damp, etc.): Submit proposals.
- Drying out substrates: Establish drying conditions. Leave walls to dry for as long as possible before plastering.
- Dust and loose material: Remove from exposed substrates and edges.

BACKINGS/ BEADS/ JOINTS

600 ADDITIONAL FRAMING SUPPORTS FOR BACKINGS

- Framing: Accurately position and securely fix to give full support to fixtures, fittings and service outlets.
- Support board edges and perimeters: As recommended by board manufacturer to suit type and performance of board.

607 PROPRIETARY GYPSUM PLASTERBOARD BACKINGS

- Manufacturer: British Gypsum.
  - Product reference: Refer to K10.
- Exposed surface and edge profiles: Suitable to receive specified plaster finish.

612 JOINTS IN PLASTERBOARD BACKINGS

- Ceilings:
  - Bound edges: At right angles to supports and with ends staggered in adjacent rows.
  - Two layer boarding: Stagger joints between layers.
- Partitions/ walls:
  - Vertical joints: Centre on studs. Stagger joints on opposite sides of studs.

    Two layer boarding: Stagger joints between layers.
  - Horizontal joints:

    Two layer boarding: Stagger joints between layers by at least 600 mm. Support edges of outer layer.
- Joint widths (maximum): 3 mm.

630 BEADS/ STOPS FOR INTERNAL USE

- Material: Galvanized steel to BS EN 13658-1.

634A THISTLE BEADS

- Manufacturer: British Gypsum.
  - Web: www.british-gypsum.com.
  - Email: bgtechnical.enquiries@bpb.com.
  - Product reference: Thistle Plaster Angle Bead.
- :

640 BEADS/ STOPS GENERALLY

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

646 CRACK CONTROL AT JUNCTIONS BETWEEN DISSIMILAR SOLID SUBSTRATES

- Locations: Where defined movement joints are not required. Where dissimilar solid substrate materials are in same plane and rigidly bonded or tied together.
- Crack control materials:
  - Isolating layer: Building paper to BS 1521.
  - Metal lathing: Internally: Galvanized steel plain expanded metal with spacers.
- Installation: Fix metal lathing over isolating layer. Stagger fixings along both edges of lathing.
- Width of installation over single junctions:
  - Isolating layer: 150 mm.
  - Lathing: 300 mm.
- Width of installation across face of dissimilar substrate material (column, beam, etc. with face width not greater than 450 mm):
  - Isolating layer: 25 mm (minimum) beyond junctions with adjacent substrate.
  - Lathing: 100 mm (minimum) beyond edges of isolating layer.

650 MOVEMENT JOINTS GENERALLY

- Manufacturer: Contractor's choice.
  - Product reference: Submit proposals.
- Installation: Centred over joint in substrate.
  - Fixing: Stainless steel screws.

659 PLASTERBOARD JOINTS

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

673 PLASTERING OVER CONDUITS/ SERVICE CHASES

- General: Prevent cracking over conduits and other services.
- Services chased into substrate: Isolate from coating by covering with galvanized metal lathing, fixed at staggered centres along both edges.

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.

718 JUNCTION OF NEW PLASTERWORK WITH EXISTING

- New plasterwork: Finish flush with original face of existing plasterwork to form a seamless junction.

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.

742 THIN COAT PLASTER

- Preparation for plasters less than 2 mm thick: Fill holes, scratches and voids with finishing plaster.

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.

M50

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

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

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

To be read with Preliminaries/ General conditions.

TYPES OF COVERING

110A PVCu Linings to walls

- Location: To Decarbonisation Workshops.
- Substrate: 12.5mm WallBoard, taped and joint finish.
- Preparation: Porous surfaces to be thoroughly sealed with diluted PVA applied to the surface 12 hours prior to the installation. The sealer should be used in a diluted ratio of 1:10.
Alternatively use Altro Primer Seal Ref: AGCPNF/01
- Sheet: Extruded semi-rigid PVCu sheet, EU Grade
- Maximum service temp: 60°C
- Fire rating:
    - BS 476 Part 7 (1987) surface spread of flame - Class 1
    - BS 476 Part 6 (1989) fire propagation - Class 0*
      (*when fixed to a non-combustible substrate)
    - EN13501-1 B-s3, d0
- Manufacturer / Product reference:
    - Altro Whiterock™ White W103/W104
    - Altro Whiterock™ Satins W136/W137
      hygienic wall cladding by Altro Limited,
      telephone +44(0)1462 707600,
      fax +44 (0)1462 707515, email enquiries@altro.com

- Width: 1220 mm
- Length: 2500 (W103 and W136) or 3000mm (W104 and W137)
- Thickness: 2.5 mm
- Surface finish: Satin
- Colour: White and various for Satins
- Light reflectance values: 68-93 (ask for details)
- Adhesive: AltroFix™ W139
- Joints:
    - Set out sheet coverings so that joints are kept to a minimum.
    - Internal and external corners to be thermoformed onsite, limiting the number of joints required.
- Accessories: Altro Whiterock silicone sealant, Altro start and edge trims, joint sections and transition strips. In addition Contractor to allow for softwood architrave trims to extend depth of door and window architraves to match depth of cladding build up.
- Cleaning generally:
    - Remove all scrap, dust and dirt. Carefully remove adhesive and other marks from coverings and adjacent surfaces, using approved cleaning agents and methods.
    - When cleaning the Whiterock surface, the temperature should not exceed 60 degrees Centigrade.
    - Do not use cleaning materials of an abrasive nature
    Contact Altro for detailed cleaning instructions:
    Altro Limited, tel: +44(0)1462 707600, fax: +44 (0)1462 707515, email: enquiries@altro.com
- Finishing:
    - Protective film to be removed.
    - When dry, apply antistatic solution to all surfaces (Ref: A809).

150A SHEETING Vinyl Flooring

- Forbo Flooring UK Limited
  High Holborn Road
  Ripley, Derbyshire
  England, DE5 3NT

  Tel: 01773 744 121
  Email: info.flooring.uk@forbo.com
  Website: www.forbo-flooring.co.uk

  Products:

  Surestep Original:
  - 171422 Trout
  - 171032 Smoke
  - 172782 Seagreen

  Colour choice to be confirmed with Client.

195 FLOOR FINISH MATERIALS SPECIFICATION

- Minimum BRE 'Green Guide to Specification Online' rating: A.

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.

250 LAYOUT - ROLL MATERIALS

- Setting out of seams: Agree setting out for sheeting types M50/ 150A.

270 EXTRA MATERIAL

- Provision of extra material: At completion, hand to Employer extra material of each type of covering to extent of 20sqm.

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, Annexe A or BS 8203, Annexe 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.

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.

720 DOORWAYS

- Joint location: On centre line of door leaf.

740A EDGINGS AND COVER STRIPS

- Manufacturer: Gradus Accessories, Park Green, Macclesfield, Cheshire, SK11 7LZ.
  Tel: 01625 428922 Fax: 01625 433939
  Website: www.gradusworld.com Email: sales@gradusworld.com

  Material: Mill finish aluminium standard
  Application: Floor-to-floor

  For vInyl to vinyl thresholds use Gradus Joint Trim JT365.
  For vinyl to sub-floor thresholds use Gradus Feather Edge Trim TA25.
  For vinyl movement joints use Gradus Aluminium Movement Joints MJ301SF4.

770A COVED SKIRTINGS For locations refer to 10architect drawing 2210

Manufacturer: Polyflor Ltd.

  - Web: www.polyflor.com.
  - Email: info@polyflor.com.
  - Product reference:
    Coved former and capping seal
- Sit-on coved skirting MC8.
- Colour: tbc.

COMPLETION

820 FINISHING LINOLEUM FLOORING

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

825 FINISHING NON-TEXTILE ANTISTATIC 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 for not less than 24 hours before testing.

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	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

M60 Painting/clear finishing

To be read with Preliminaries/General conditions.

COATING SYSTEMS

120A SUPER DURABLE MATT – FOR INTERNAL WALLS & CEILINGS

- Manufacturer: Leyland Trade, part of PPG Architectural Coatings.
  - Web: www.leylandtrade.com
  - Product reference: Hardwearing Matt
- Colours: Refer to 10a drawings 3121 and 3126. Colour choices to be confirmed with client.

120B SATIN FINISH FOR INTERNAL DOORS, CASINGS, BASEBOARDS, CILL BOARDS & OTHER INTERNAL TIMBER

- Manufacturer: Johnstone's Trade.
  - Web: www.johnstonestrade.com
  - Product reference: Satin Finish, Colours: Refer to 10a drawings 3121 and 3126.
  - Primer: Universal Primer
  - Undercoat: Professional Undercoat

150A SATINWOOD FINISH TO INTERNAL EXPOSED TIMBER Skirting, Architraves, Door and Screen Frames

- Manufacturer: Dulux Trade, brand of AkzoNobel.
  - Web: www.duluxtrade.co.uk.
  - Email: project.support@akzonobel.com.
  - Product reference: Diamond Satinwood
- Colour: tbc.

150B SATINWOOD FINISH TO MDF Cill boards

- Manufacturer: Dulux Trade, brand of AkzoNobel.
  - Web: www.duluxtrade.co.uk.
  - Email: project.support@akzonobel.com.
  - Product reference: Diamond Satinwood
- Colour: tbc.

180A FLOOR COATING

- Manufacturer: Dulux Trade, brand of AkzoNobel.
  - Web: www.duluxtrade.co.uk.
  - Email: project.support@akzonobel.com.
  - Product reference: Floorshield
- System code: D8107 - Concrete flooring.
- Colour: tbc.

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.

320 INSPECTION BY COATING MANUFACTURERS

- General: Permit manufacturers to inspect work in progress and take samples of their materials from site if requested.

PREPARATION

400 PREPARATION GENERALLY

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

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.

560 UNCOATED CONCRETE

- Release agents: Remove.

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 stoppers/ fillers

645 SEALING OF INTERNAL MOVEMENT JOINTS

- General: To junctions of walls and ceilings with architraves, skirtings and other trims.
- Sealant: Water-borne acrylic.
  - Manufacturer: Contractor's choice.
    Product reference: Contractor's choice.
  - Preparation and application: As section Z22.

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.

720 PRIMING JOINERY

- Preservative treated timber: Retreat cut surfaces with two flood coats of a suitable preservative before priming.
- End grain: Coat liberally allow to soak in, and recoat.

730 WORKSHOP COATING OF CONCEALED JOINERY SURFACES

- General: Apply coatings to all surfaces of components.

751 STAINING WOOD

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

810 WATER REPELLENT

- Application: Liberally flood surface, giving complete and even coverage.

N

Furniture/Equipment

N10

General fixtures/ furnishings/ equipment

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

N10 General fixtures/ furnishings/ equipment

To be read with Preliminaries/General conditions.

PRODUCTS

110A PIPE BOXING OUT To exposed pipework

Pendock
Unit C1, Halesfield 19,
Telford, Shropshire,
TF7 4QT

Tel: 01952 580 590
Fax: 01952 587 805

Product ref: for pipe boxing MX 100x100

240A BLINDS

- Manufacturer: CBS Blinds Ltd
- 1 Fellgate, Morecombe, Lancashire, LA3 3PE.
  - Product reference: College Blind, electrically operated, heavy duty.
- Type: Vertical roller, fixed to window frame.
- Material: Mid grey (colour tbc) dense mesh fabric - 100% recyclable, flame retardant and manufactured to Greenguard Environmental Institute standards.
  - Finish/ Colour: refer to drawings 3121 and 3126.
- Operation: Electrically operated by heavy duty 240v motor installed in the fabric roller and controlled by wall mounted switch in each classroom, with 365 day timer module for year round operation.
  Size: As described on drawings 3120 and 3125.
- Accessories/ Other requirements: Stainless steel 3mm nylon coated side guide wires with springs to absorb impact.
  Material: Galvanised steel roller tube; powder coated in RAL 7016

EXECUTION

710 MOISTURE CONTENT OF WOOD AND WOOD-BASED BOARDS

- Standard: To BS EN 942
- Moisture content on delivery: 9-13%
- Temperature and humidity: During delivery, storage, fixing and to handover maintain conditions to suit specified moisture contents of timber components.

770 TRIMS

- Lengths: Wherever possible, unjointed between angles or ends of runs.
- Running joints: Where unavoidable, obtain approval of location and method of jointing.
- Angle joints: Mitred.

COMPLETION

910 GENERAL

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

920 APPLIANCES

- Test: Ensure that all functions and features work correctly.
- Documentation: Submit guarantees, instruction manuals, etc.

N15

Internal fire and safety signage systems

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

N15 Internal fire and safety signage systems

To be read with Preliminaries/ General Conditions.

GENERAL

110 FIRE SIGNAGE SYSTEMS FOR ESCAPE ROUTES

- System manufacturer: Contractor's choice.
  - Product reference: Submit proposals.
- Layout and dimensions: Submit proposals.
  - Language: English.
- Sign type: Submit proposals.
  - Manufacturing process: Manufacturer's standard.
- Supports/ Fixings: Wall & ceiling mounted, screw fixed.
- Accessories: Clip connectors to suspended ceiling grid.

SYSTEM PERFORMANCE

210 GENERAL REQUIREMENTS

- Signage system design:
  - Complete to: BS 559 and BS ISO 16069.
  - Comply with the requirements of: Fire Strategy Report.
- Proposals: Submit drawings, schedules, technical information, calculations and manufacturer's literature.

240 SIGNAGE SYSTEM SPECIFICATION

- Content: Signs including facing information, components, inserts, accessories and fixings necessary to complete the system.
- Geometric shapes, colours and layout: To BS ISO 3864-1.
- Escape route: In accordance with BS 5499-4 and BS ISO 16069.
- Safety meaning: In accordance with BS ISO 7010.
- Water safety: In accordance with BS ISO 20712-1.

270 FIRE REACTION OF FIRE SIGNAGE SYSTEM

- Non flammable surface:
  - Standard: Class 1 to BS 476-7.

280 DESIGN LIFE OF FIRE SIGNAGE SYSTEM

- Duration: 15 years.
  - Subject to reasonable wear and tear.
- Condition of use: Subject to regular maintenance.

290 SIGNAGE SAMPLES

- Sign type: Fire .
  - Action: Submit labelled samples.
  - Conformity: Retain samples on site for the duration of the contract or until instructed to remove.
  - Delivered products: To conform with labelled samples.

PRODUCTS

305 INTERNAL SIGNAGE PRODUCTS GENERALLY

- Standard: To BS 559.

- Colorimetric and photometric properties: To BS ISO 3864-4.

340 STAINLESS STEEL PLATE FOR ESCAPE ROUTE SIGNS

- Manufacturer: Contractor's choice.
  - Product reference: Submit proposals.
- Component thickness: 2 mm.
- Finish: Self-finished.
- Perimeters: Manufacturer's standard.

EXECUTION

610 FIXING SIGNS GENERALLY

- Installation: To BS 559.
  - Secure, plumb and level.
- Fasteners and adhesives: As section Z20.
- Strength of fasteners: Sufficient to support live and dead loads.
- Fasteners for external signs: Corrosion resistant material or with a corrosion resistant finish. Isolate dissimilar metals to avoid electrolytic corrosion.
- Fixings showing on surface of sign: Must not detract from the message being displayed.

COMPLETION

910 DOCUMENTATION

- Submit:
  - Manufacturer's maintenance instructions.
  - Guarantees, warranties, test certificates, record schedules and logbooks.

P

Building fabric sundries

Section Revision History

No.	Purpose	
T1	Tender Issue	06/04/23

This is the first revision stamp for this section. For all future revision stamps, details of all clauses amended at that revision will be included here.

P10

Sundry insulation/ proofing work

Contractor to ensure that at time of order, all insulation carries the latest BBA certification for Fire Performance.

P10 Sundry insulation/ proofing work

SUNDRY INSULATION/ PROOFING WORK

To be read with Preliminaries/ General conditions.

TYPES OF INSULATION

130A SOFT ACOUSTIC MINERAL GLASS ROLL

- Location: In partitions and SFS
- Manufacturer:
  - Saint Gobain
- Product reference: Isover APR 1200
- Insulation thickness: 50mm in partitions
- Fire Classification: A1
- Thermal Conductivity 0.034w/mK
- Compressive Stress : na

410A FIRE BARRIERS

- Manufacturer: ROCKWOOL Ltd or equal
  - Web: www.rockwool.co.uk.
  - Email: info@rockwool.com.
  - Product reference: Rockwool Cavity Barrier
- Material: Wired mineral wool.
- Form: To achieve Integrity and Insulation requirements.
- Base fixing: Rockwool angle system.

P12

Fire stopping systems

P12 Fire stopping systems

To be read with Preliminaries/ General conditions.

GENERAL

130 FIRE STOPPING SYSTEM TO INDIVIDUAL SERVICES PENETRATIONS COMPARTMENT WALLS

- Fire resistance: 10architect fire strategy drawing.
- Penetration seal: Pipe collar - concealed intumescent as clause 370.
  - Size: To match wall or floor thickness.
- Capping sealant: Two-part fire resisting polysulfide as clause 410.
  - Colour: White .

140 FIRE STOPPING SYSTEM TO MULTIPLE SERVICES PENETRATIONS GENERALLY

- Fire resistance: 10architect fire strategy drawing.
- Bulkhead barrier:
  - Material: Mineral wool intumescent coated rigid batts as clause 365.

    Thickness: as recommended by manufacturer to suit fire rating.

    Number of layers: as recommended by manufacturer to suit fire rating.
  - Framing: s recommended by manufacturer to suit fire rating.
  - Finish: Not applicable.
- Capping sealant: Two-part fire resisting polysulfide as clause 410.
  - Colour: White .

160 LINEAR GAP SEALING GENERALLY

- Fire resistance: Refer to fire strategy drawings.
- Gap width or height (nominal): 15 mm.
- Gap filler: Mineral wool.
- Capping sealant: Two-part fire resisting polysulfide as clause 410.
  - Colour: White .

SYSTEM PERFORMANCE

210 DESIGN

- Design: Complete the design of the fire stopping system.
- Proposals: Submit drawings, technical information, calculations and manufacturers' literature.

240 FIRE PERFORMANCE OF COMPARTMENT WALLS / FLOORS

- Resistance to fire: Refer to 10architect fire strategy drawings.
- Reaction to fire: In accordance with Building Regulations, Class 0.
- Smoke resistance:
  - Air leakage rate (maximum): 3 $m^3/m^2 \cdot hr$.

260 DESIGN LIFE

- Effective design life: 30 years.

PRODUCTS

305 PRODUCT CERTIFICATION

- Certification: For products specified generically, submit evidence of compliance with the specification.
- Acceptable evidence: Agrément certificate.

325A BOARDS - MINERAL BOUND LIGHTWEIGHT

- Manufacturer: PFC Corofil Fire Stop Products, or equal.
  - Web: www.pfc-corofil.com.
  - Email: sales@pfc-corofil.co.uk.
  - Product reference: Coated Panel System

335A INTUMESCENT FOAM

- Manufacturer: PFC Corofil Fire Stop Products, or equal.
  - Web: www.pfc-corofil.com.
  - Email: sales@pfc-corofil.co.uk.
  - Product reference: C25 Cable Firestop

338A SEALANT

- Manufacturer: PFC Corofil Fire Stop Products, or equal.
  - Web: www.pfc-corofil.com.
  - Email: sales@pfc-corofil.co.uk.
  - Product reference: High Expansion Sealant

340A INTUMESCENT MORTAR

- Manufacturer: PFC Corofil Fire Stop Products, or equal.
  - Web: www.pfc-corofil.com.
  - Email: sales@pfc-corofil.co.uk.
  - Product reference: Firestop Compound

360A TRAPEZOIDAL MINERAL WOOL RIGID BATTS TO UNDERSIDE OF ROOF

- Standard: To BS EN 13162.
- Manufacturer: pfc Corofil, or equal.
  - Product reference: C144 Profile Fire Blocks - to match profile of structural roof deck.
- Recycled content: Refer to manufacturer standard.

  Exposed ends to receive decorative coating manufacturer to supply details.

365A MINERAL WOOL RIGID BATTS – ABLATIVE COATED

- Manufacturer: ROCKWOOL Ltd, or equal.
  - Web: www.rockwool.co.uk.
  - Email: info@rockwool.com.
  - Product reference: Rockwool Firepro Ablative Coated Batt
- Dimensions: 1200 x 600 x 60 mm.
- Ancillary FirePro products: as recommended by system manufacturer.

370A PIPE COLLAR – CONCEALED INTUMESCENT

- Manufacturer: PFC Corofil Fire Stop Products, or equal.
  - Web: www.pfc-corofil.com.
  - Email: sales@pfc-corofil.co.uk.
  - Product reference: Firestop Collars

380A PIPE SLEEVES AND WRAPS

- Manufacturer: ROCKWOOL Ltd, or equal.
  - Web: www.rockwool.co.uk.
  - Email: info@rockwool.com.
  - Product reference: Rockwool Firepro Firestop Pipe Collars

- Dimensions: To suit pipes.

410A SEALANT TWO-PART FIRE RESISTING POLYSULFIDE:

- Manufacturer: Adshead Ratcliffe & Co Ltd, or equal.
  - Web: www.arbo.co.uk.
  - Email: arbo@arbo.co.uk.
  - Product reference: Arbokol 476
- Accessories: as recommended by sealant manufacturer.

EXECUTION

620 WORKMANSHIP GENERALLY

- Gaps: Seal gaps between building elements and services, to provide fire resistance and resist the passage of smoke.
- Adjacent surfaces: Prevent overrun of sealant or mortar on to finished surfaces.

640 INSTALLING BOARDING

- Position of boarding: Across face of opening.
- Framing: Provide framing to all edges of boarding.
- Bedding: Bed boarding on fire resisting adhesive/ sealant.
- Multiple board layers: Stagger joints between layers.
  - Joints: Seal with board adhesive.
- Fixing: as Z20 to suit substrate.
- Other requirements:
  - Countersink screw heads and fill
  - Finish joint sealant flush with boards; and
- Finish joint sealant flush with boards; rub down to receive paint finish.

650 INSTALLING FIRE STOP LAMINATE

- Fitting of strips: Compress strips and fit into gap so that, as they decompress, the strips wedge themselves in the void.
- Shrink wrapping: Do not remove.
- Joints:
  - Ends of strips: Fit intumescent 'end piece' at both ends of run of fire stop laminate.
  - Joints between strips: Fit two intumescent 'end pieces' at each butt joint.

660 APPLYING INTUMESCENT FOAM

- New joints: Remove builder's debris, mortar droppings, grease, and other contaminants.
- Old joints: Clean and remove existing sealant from each joint.
- Priming: Lightly moisten substrate with water.
- Application: Fill joint to approximately half its depth, and allow foam to expand to face of joint.
- Trimming: Trim excess foam to give a neat, flush appearance. Verify that fire resistance will not be affected.

710 INSTALLING MINERAL WOOL BATTS

- Installing batts: Fit tight into void between the penetrating services and the surrounding construction to form a solid bulkhead.
  - Brackets: as recommended by manufacturer.

    Bracket fixing: as recommended by manufacturer.

- Face of batts: Flush with the surface of wall, floor or soffit.
- Joints between batts: Close butt joints, seal with acoustic intumescent sealant.
- Gaps between services and bulkhead: Seal with fire resisting sealant.

730 FIXING PIPE COLLARS

- Collar fixing: As recommended by collar manufacturer.
- Gap around collar: Seal with gap filler and sealant.
- Length of wraps: Project 50 mm from each side of the element.

740 INSERTING SEALANT BACKING MATERIAL

- Preparation: Removed debris from service penetration.
- Installation: Build-in joint filler as the work proceeds.

745 APPLYING SEALANTS GENERALLY

- Application: As section Z22.

750 APPLYING CAPPING SEALANT

- Preparation: De-grease using cleaner recommended by sealant manufacturer.
- Priming: Primer recommended by sealant manufacturer.
- Depth of sealant: as recommended by sealant manufacturer to achieve rating.
- Temperature: Do not apply water based sealants when they could be damaged by frost.

COMPLETION

910 CLEANING

- Masking tapes: Remove.
- Cleaning: Clean off splashes and droppings. Wipe down finishes.

P20

Unframed isolated trims/ skirtings/ sundry items

P20 Unframed isolated trims/ skirtings/ sundry items

To be read with Preliminaries/ General conditions

210A SOFTWOOD INTERNAL SKIRTING BOARDS AND ARCHITRAVES

- Thickness: 20x100 mm tbc on site – size to match existing.
  Edges: Square with chamfer.
- Finish: Prepared and primed and painted as section M60 .
- Support/ Fixing: Fix to softwood grounds with lost head nails at 600 mm centres or with plugged hammer hit fixings. If required, they may be adhered to curtain walling.

EXECUTION

510 INSTALLATION GENERALLY

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