

Jon Matthews Architects Ltd

Home Arches

Architectural Specification

For Review

Rev 003

10-05-2022

Summary schedule

Home Arches
Architectural Specification

Title	Code	Clause
Signage		L30/592
Bespoke Anodised Aluminium Coping	ARM-111	H72/111
Escape Deck with Screen and Handrail	ARM-311	L35/111
Ventilation Grille	ARM-521	L10/651
Lighting Rig	ARM-801	N10/136
Cable Trays - Ductwork	ARM-805	N10/137
Internal Metal Handrail	BAL-331	L30/571
Concrete Common Blockwork - Cavity Wall	BLK-301	F10/265
Blue Glazed Brick	BRK-102	F10/115
Clay Facing Brickwork	BRK-251	F10/110
Metal Profiled Sheet Canopy	CAN-311	H31/110
Plywood Ceiling Lining	CLG-711	K13/121
Composite Wall System	CWS-101	F10/391
Internal Timber Single Pivot Doorset - DT - 01	DRS-111	L20/411
Internal Timber Single Pivot Doorset - DT - 02	DRS-112	L20/412
Internal Timber Single Pivot Doorset - DT - 03	DRS-113	L20/413
Internal Timber Single Pivot Stable Doorset - DT - 04	DRS-114	L20/414
Internal Timber Double Unequal Pivot Doorset - DT - 06	DRS-116	L20/416
Internal Timber Double Pivot Doorset - DT - 07	DRS-117	L20/417
Internal Timber Double Pivot Doorset - DT - 08	DRS-118	L20/418
Internal Timber Single Sliding Doorset - DT - 05	DRS-171	L20/415
External Metal Single Pivot Doorset	DRS-251	L20/508
External Metal Hinged Single Doorset - 45dB	DRS-253	L20/508
External Metal Hinged Double Doorset FD30 - 40dB	DRS-255	L20/511
External Metal Hinged Low Level Double Doorset(s)	DRS-261	L20/511
Integrated External Metal Glazed Hinged Doorset	DRS-301	H11/137
Flush Floor Service Box	DRS-611	L20/641
External Glass Walling System	EWS-111	H11/111
Capless Stick Built Curtainwall System with Integrated Doorset	EWS-117	H11/113
Timber / Aluminium Composite Window System	EWS-231	L10/251
Polyvinylchloride Sheet Cladding	EWS-411	H32/111
Resin Bonded Aggregate Surfacing	EXT-103	M12/121
Internal Drainage Channel to Engineer's Detail	EXT-811	Q10/183
Shelving in Cupboard	FIX-211	N10/160
Wall Mounted Shelving	FIX-213	N10/161
Bespoke Cupboard	FIX-611	N10/110
Mirror	FIX-721	N10/276
Vanity Top	FIX-811	N10/146
Work Bench	FIX-821	N10/170
Bespoke Bar Counter - Brew Bar	FIX-851	N10/126
Track Lighting System	FIX-903	N10/138
Pigeon Spikes	FIX-911	N16/111
Fabric Curtain with Concealed Track	FIX-953	N10/242
Automated Roller Blind and Track	FIX-955	N10/241
Recessed Floor Matt	FLF-111	N10/301
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Vinyl Sheet Floor Finish	FLF-411	M50/111
Carpet Tile Floor Finish	FLF-611	M50/131
Non-Slip Ceramic Tile Floor Finish	FLF-711	M40/111
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Sprung Floor System	FLF-911	K21/144
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Signage System	SGN-201	N15/111
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F10 Brick/ block walling

Types of walling

100 Design Compliance

1. Section to be read in conjunction with the A and Z Sections which form part of the Specification and Contract Conditions.
2. Design: Refer to and comply with A10.120 and A21.140.

109 ALT-111 Make Good Existing Viaduct

1. Make good and repair to existing viaduct in strict accordance with the Structural Condition Report, refer to Network rail details.

110 BRK-251 Clay Facing Brickwork

1. Clay facing brickwork, as the Design Drawings.
2. Bricks:
 - 2.1. Manufacturer: To be confirmed.
 - 2.2. Reference: To be confirmed.
 - 2.3. Manufacture method: Extruded.
 - 2.4. Nominal face size: 215mm x 102.5mm.
 - 2.5. Thickness: 65mm or as otherwise shown on the Design Drawings.
 - 2.6. Average compressive strength: Refer to the Structural Engineer's Documentation.
 - 2.7. Durability designation: F2.
 - 2.8. Active soluble salts content: S2.
 - 2.9. Colour and texture: To the acceptance of the Architect through sampling.
3. Bond: Stack bonded/ hit and miss/ Stretcher, or as shown on the Design Drawings.
4. Drips: Stainless steel drips.
5. Mortar:
 - 5.1. Type: Cement: Lime: Sand.
 - 5.2. Compressive strength: To be confirmed by the Structural Engineer.
 - 5.3. Colour: To be confirmed.
6. Joint profile: Raked joints.
7. Special shapes: The works shall include the provision of any standard and non-standard special bricks required to deliver the Architect's design intent.

115 BRK-102 Blue Glazed Brick

1. Smooth blue extruded, facing brickwork, as the Design Drawings.
2. Bricks:
 - 2.1. Manufacturer: Wienerberger or acceptable equivalent. To be confirmed.
 - 2.2. Reference: To be confirmed.
 - 2.3. Manufacture method: Extruded.
 - 2.4. Nominal face size: 215mm x 102.5mm.
 - 2.5. Thickness: 65mm or as otherwise shown on the Design Drawings.
 - 2.6. Average compressive strength: 7.5N/mm².
3. Bond: Stack bonded/ hit and miss/ Stretcher, or as shown on the Design Drawings.

4. **Drips:** Stainless steel drips.
5. **Mortar:**
 - 5.1. **Type:** Cement: Lime: Sand.
 - 5.2. **Compressive strength:** To be confirmed by the Structural Engineer.
 - 5.3. **Colour:** To be agreed through sampling.
6. **Joint profile:** Raked joints.
7. **Special shapes:** The works shall include the provision of any standard and non-standard special bricks required to deliver the Architect's design intent.

265 BLK-301 Concrete Common Blockwork - Cavity Wall

1. **Description:** Concrete common blockwork, as shown on the Design Drawings.
2. Concrete common blockwork cavity wall, as the Design Drawings.
3. **Blocks:**
 - 3.1. **Manufacturer:** To be confirmed.
 - 3.2. **Reference:** To be confirmed.
 - 3.3. **Type:** Load bearing solid concrete, common block units.
 - 3.4. **Nominal face size:** 440mm x 215mm.
 - 3.5. **Thickness:** 100mm, to be confirmed by the Structural Engineer.
 - 3.6. **Average compressive strength:** 7.5N/mm².
 - 3.7. **Density:** Approximately 1450kg/m³.
4. **Bond:** Stretcher, or as otherwise shown on the Design Drawings.
5. **Mortar:**
 - 5.1. **Type:** Cement: Lime: Sand.
 - 5.2. **Compressive strength:** To be confirmed by the Structural Engineer.
 - 5.3. **Colour:** Natural.
6. **Joint profile:** Flush.

391 CWS-101 Composite Wall System

1. **Description:** External composite wall system comprising a number of different system types.
2. External composite wall system comprising a number of different system types.
3. **Size and configuration:** Refer to the Design Drawings.
4. **Type:** Composite wall build-ups, starting from the external to the internal finishing system:
 - 4.1. Metal horizontal and/ vertical rails as required, refer to the Design Drawings.
 - 4.2. Polycarbonate sheeting (external facing): Refer to Type EWS-411.
 - 4.3. Insulation (within cavity): To meet the system performance requirements.
 - 4.4. Breather membrane (where required).
 - 4.5. Support framing.
 - 4.6. Linings/ facings (internal): Refer to Type LIN-503.
5. System buildup to include all suitable movement joints, seals/ fillers, intermediate layers/ membranes, cavity closers, and cavity barriers where required as the Design Drawings, to comply with the requirements of F30 and the Building Regulations.

Testing

400 Hard landscaping materials specification

1. **Minimum BRE 'Green Guide to Specification' online rating:** Refer to Section A.

410 Compressive strength of mortar for each walling type

1. Testing authority: A UKAS Accredited laboratory
2. Test method: To BS EN 1015-11.
3. Preliminary tests procedure: As follows:
 - 3.1. Specimens
 - 3.1.1. Number of specimens: 6.
 - 3.1.2. Type: 40 x 40 x 160 mm prism.
 - 3.1.3. Preparation: At least six weeks before walling commences.
 - 3.2. Specimen testing: Half of specimens at 7 days. Remainder at 28 days.
 - 3.2.1. Retarded mixes: Extend curing periods to include retardation period.
 - 3.3. Response to result: If mean compressive strength at 28 days is not within the range given below repeat tests with more suitable sand or next higher designation of mortar.
4. Site tests procedure: As follows.
 - 4.1. Number of specimens: Six per 150m² of walling or per storey whichever the more frequent.
 - 4.2. Specimen types: As preliminary test, but prepared during construction.
 - 4.3. Specimen testing: Half of specimens at 7 days. Remainder at 28 days.
 - 4.3.1. Retarded mixes: Extend curing periods to include retardation period.
5. Required test mean compressive strength at 28 days (N/mm²): To be agreed.
6. Results: Submit.

415 Fresh mortar cement content

1. Test method: BREMORTEST in accordance with Building Research Establishment Information Paper 8/89
2. Test specimens: Test mortar for the following wall types: F10/ all wall types .
3. Results: Submit.

Workmanship generally

430 Conditioning of clay bricks and blocks

1. Bricks and blocks delivered warm from manufacturing process: Do not use until cold.
2. Absorbent bricks in warm weather: Wet to reduce suction. Do not soak.

440 Conditioning of concrete blocks

1. Autoclaved concrete bricks/ blocks delivered warm from manufacturing process: Do not use.
2. Age of nonautoclaved concrete bricks/ blocks: Do not use until at least four weeks old.
3. Avoidance of suction in concrete bricks/ blocks: Do not wet.
 - 3.1. Use of water retaining mortar admixture: Submit details.

460 Mortar designations

1. Mix proportions: For a specified designation select a mix from the following:
 - 1.1. Designation (i) (BS EN 998-2 M12 equivalent)
 - 1.1.1. 1:0-¼:3 (Portland cement:lime:sand with or without air entraining additive).
 - 1.1.2. 1:3 (Portland cement:sand and air entraining additive).
 - 1.2. Designation (ii) (BS EN 998-2 class M6 equivalent)
 - 1.2.1. 1:½:4-5 (Portland cement:lime:sand with or without air entraining additive).

- 1.2.2.1:3 (masonry cement:sand containing Portland cement and lime in approximate ratio 1:1, and an air entraining additive).
- 1.2.3.1:2½-3½ (masonry cement:sand containing Portland cement and inorganic materials other than lime and air entraining additive).
- 1.2.4.1:3-4 (Portland cement:sand and air entraining additive).
- 1.3. Designation (iii) (BS EN 998-2 class M4 equivalent)
 - 1.3.1.1:1:5-6 (Portland cement:lime:sand with or without air entraining additive).
 - 1.3.2.1:3½-4 (masonry cement:sand containing Portland cement and lime in approximate ratio 1:1, and an air entraining additive).
 - 1.3.3.1:4-5 (masonry cement:sand containing Portland cement and inorganic materials other than lime and air entraining additive).
 - 1.3.4.1:5-6 (Portland cement:sand and air entraining additive).
- 1.4. Designation (iv) (BS EN 998-2 class M2 equivalent)
 - 1.4.1.1:2:8-9 (Portland cement:lime:sand with or without air entraining additive).
 - 1.4.2.1:4½ (masonry cement:sand containing Portland cement and lime in approximate ratio 1:1, and an air entraining additive).
 - 1.4.3.1:5½-6½ (masonry cement:sand containing Portland cement and inorganic materials other than lime and air entraining additive).
 - 1.4.4.1:7-8 (Portland cement:sand and air entraining additive).
- 2. **Batching:** Mix proportions by volume.
- 3. **Mortar type:** Continuous throughout any one type of masonry work.

500 Laying generally

- 1. **Mortar joints:** Fill vertical joints. Lay blocks on a full bed.
- 2. **AAC block thin mortar adhesive and gypsum block adhesive joints:** Fill vertical joints. Lay blocks on a full bed.
- 3. **Clay block joints**
 - 3.1. **Thin layer mortar:** Lay blocks on a full bed.
 - 3.2. **Interlocking perpends:** Butted.
- 4. **Bond where not specified:** Stack bonded, allowance for half lap at window in pod 2.
- 5. **Vertical joints in brick and concrete block facework:** Even widths.

520 Accuracy

- 1. **Courses:** Level and true to line.
- 2. **Faces, angles and features:** Plumb.
- 3. **Permissible deviations**
 - 3.1. **Position in plan of any point in**
- 4. **relation to the specified building**
- 5. **reference line and/ or point at**
- 6. **the same level ± 10 mm.**
 - 6.1. **Straightness in any 5 m length ± 5 mm.**
 - 6.2. **Verticality up to 3 m height ± 10 mm.**
 - 6.3. **Verticality up to 7 m height ± 14 mm.**
 - 6.4. **Overall thickness of walls ± 10 mm.**
 - 6.5. **Level of bed joints up to 5 m**
- 7. **(brick masonry) ± 11 mm.**

- 7.1. Level of bed joints up to 5 m
8. (block masonry) ± 13 mm.
9. Where the above tolerances and BS 8000: Part 0 tolerances would fail to meet the visual intent or fit purpose and dimensional criteria required by the works, tolerances shall be reduced. The visual finish of the brickwork is of great importance to the overall look and feel of this project, brickwork tolerances higher than those stated are expected, propose tolerances to the Architect and obtain acceptance prior to proceeding.

535 Height of lifts in walling using cement gauged or hydraulic lime mortar

1. Quoins and advance work: Rack back.
2. Lift height (maximum): 1.2 m above any other part of work at any time.
3. Daily lift height (maximum): 1.5 m for any one leaf.

540 Height of lifts in walling using thin layer mortar

1. Quoins and advance work: Rack back.
2. Lift height (maximum): 1.3 m above any other part of work at any time.

545 Levelling of separate leaves

1. Locations for equal levelling of cavity wall leaves:
 - 1.1. Every course containing vertical twist type ties or other rigid ties.
 - 1.2. Every third tie course for double triangle/ butterfly ties.
 - 1.3. Courses in which lintels are to be bedded.

560 Coursing brickwork

1. Gauge: Four brick courses including bed joints to 300 mm.

561 Coursing brickwork with existing

1. Gauge: Line up with existing brick courses.

580 Laying frogged bricks

1. Single frogged bricks: Frog uppermost.
2. Double frogged bricks: Larger frog uppermost.
3. Frog cavity: Fill with mortar.

585 Laying cellular bricks

1. Orientation: Cavities downward.

595 Lintels

1. Bearing: Ensure full length masonry units occur immediately under lintel ends.

610 Support of existing work

1. Joint above inserted lintel or masonry: Fully consolidated with semidry mortar to support existing structure.

615 Brickwork to receive asphalt dpc

1. Substrate: Mortar bed finished flush, smooth and level.

620 Block bonding new walls to existing

1. Pocket requirements: Formed as follows
 - 1.1. Width: Full thickness of new wall.
 - 1.2. Depth (minimum): 100mm.
 - 1.3. Vertical spacing
 - 1.3.1. Brick to brick: 4 courses high at 8 course centres.
 - 1.3.2. Block to block: Every other course.
2. Pocket joints: Fully filled with mortar.

635 Jointing

1. Profile: Consistent in appearance.

645 Accessible joints not exposed to view

1. Jointing: Struck flush as work proceeds.

665 Pointing

1. Joint preparation: Remove debris. Dampen surface.
2. Mortar: As Section Z21.

671 Fire stopping

1. Avoidance of fire and smoke penetration: Fit tightly between cavity barriers and masonry. Leave no gaps.

690 Adverse weather

1. General: Do not use frozen materials or lay on frozen surfaces.
2. Air temperature requirements: Do not lay bricks/ blocks:
 - 2.1. In cement gauged mortars when at or below 3°C and falling or unless it is at least 1°C and rising.
 - 2.2. In hydraulic lime:sand mortars when at or below 5°C and falling or below 3°C and rising, or as manufacturer's/ supplier's recommendations.
 - 2.3. In thin layer mortars when outside the limits set by the mortar manufacturer.
3. Temperature of walling during curing: Above freezing until hardened.
4. Newly erected walling: Protect at all times from:
 - 4.1. Rain and snow.
 - 4.2. Drying out too rapidly in hot conditions and in drying winds.

Additional requirements for facework

710 The term facework

1. Definition: Applicable in this specification to block walling finished fair.
 - 1.1. Painted facework: The only requirement to be waived is that relating to colour.

730 Concrete block samples

1. General: Before placing orders with suppliers submit for approval of appearance labelled samples of the following: Blocks as in clause F10 .
2. Selection of samples: Representative of the range in variation of appearance.

740 Finished masonry work reference panels

1. **General:** Before proceeding to construct the following walling types, construct panels as specified. Give notice when panels are dry.

745 Masonry sample panels

1. **Sampling frequency:** A panel for each type Specified and delivery of masonry unit.

750 Colour consistency of masonry units

1. **Colour range:** Submit proposals of methods taken to ensure that units are of consistent and even appearance within deliveries.
2. **Conformity:** Check each delivery for consistency of appearance with previous deliveries and with approved reference panels; do not use if variation is excessive.
3. **Finished work:** Free from patches, horizontal stripes and racking back marks.

760 Appearance

1. **Brick/ block selection:** Do not use units with damaged faces or arrises.
2. Allow for brick specials dependent on brick finish.
 - 2.1. All exposed faces to have a consistent finish.
3. **Cut masonry units:** Where cut faces or edges are exposed cut with table masonry saw.
4. **Quality control:** Lay masonry units to match relevant reference panels.
 - 4.1. **Setting out:** To produce satisfactory junctions and joints with built-in features and components.
 - 4.2. **Coursing:** Evenly spaced using gauge rods.
5. **Lifts:** Complete in one operation.
6. **Methods of protecting facework:** Submit proposals.

780 Ground level

1. **Commencement of facework:** Not less than 150 mm below finished level of adjoining ground or external works level.

790 Putlog scaffolding

1. **Use:** Not permitted in facework.

800 Toothed bond

1. **New and existing facework in same plane:** Bond together at every course to achieve continuity.

810 Fixing of brick slips

1. **Concrete substrate**
 - 1.1. **Preparation:** Remove laitance and expose aggregate.
 - 1.2. **Substrate surface:** Clean and free of loose material.
2. **Slips**
 - 2.1. **Preparation of slips:** Clean and free of loose material.
 - 2.2. **Slips:** Fully bonded.
3. **Movement joints in substrate:** Do not bridge.
4. **Pointing:** Allow adhesive bedding to set. Use same mortar as adjacent facework and finish to same profile.

830 Cleanliness

1. Facework: Keep clean.
2. Mortar on facework: Allow to dry before removing with stiff bristled brush.
3. Removal of marks and stains: Rubbing not permitted.

Ω End of Section

F30

Accessories/ sundry items for brick/ block/ stone walling

Cavities

100 Compliance

1. Section to be read in conjunction with the A and Z Sections which form part of the Specification and Contract Conditions.
2. Design: Refer to and comply with A10.120 and A21.140.
3. All accessories/ sundry items for brick/ block/ stone walling to be non-combustible.

105 Scope

1. All necessary masonry accessories required to complete the works to be proposed by the Contractor for the acceptance of the Architect and will achieve the required performance of interfacing masonry works and suit the conditions of service.
2. Provide samples of all exposed accessories to the Architect for acceptance in regard to the finish and colour requirements.

110 Concrete fill to base of cavity

1. Concrete generally: To BS EN 206 and BS 8500-2.
2. Concrete type:
 - 2.1. Workability: High.
3. Extent: Maintain 75 mm between top of fill and external ground level and a minimum of 225 mm between top of fill and ground level dpc.
4. Placement: Compact to eliminate voids.

120 Cleanliness

1. Cavity base and faces, ties, insulation and exposed dpcs: Free from mortar and debris.

130 Perpend joint weep holes

1. Form: Open perpend joint.
2. Locations: Through outer leaf immediately above base of cavity, at cavity trays, stepped dpcs and external openings. 75 mm above top of cavity fill at base of cavity.
3. Provision: At not greater than 1000 mm centres and not less than two over each opening.

131 Bed joint weep holes

1. Form: Open 10 mm diameter hole.
2. Locations: Through outer leaf immediately above base of cavity at cavity trays, stepped dpcs and external openings. 75 mm above top of cavity fill at base of cavity.
3. Provision: At not greater than 1000 mm centres and not less than two over each opening.

150 Full fill cavity insulation

1. Placement: Continuous and free of mortar and debris.

155 Partial fill cavity insulation

1. Placement: Secure against face of inner leaf.
 - 1.1. Residual cavity: Clear and unobstructed.
2. Joints between boards, at closures and penetrations: No gaps and free from mortar and debris.

160 Air bricks in external walling

1. Standard: To BS 493, class 1.
2. Placement: Built in with no gaps at joints.

165 Gratings/ ventilators in internal walling

1. Standard: To BS 493, class 2.
2. Placement: Built in with no gaps at joints.

171 Ventilation ducts in external walling

1. Placement: Across cavity, sloping away from inner leaf. Full mortar joints to seal cavity.
2. Protection from water penetration to inner leaf: Where barrier is not integral to duct, form stepped dpc cavity tray with stop ends above duct, extending 150 mm on each side.

Reinforcing/ fixing accessories

214 Cavity wall ties

1. Standard: To BS EN 845-1.

215 Cavity wall ties used with partial fill insulation

1. Standard: To BS EN 845-1.
2. Tie mounted insulation retaining clips: As recommended by the manufacturer.

218 Shear wall ties

1. Standard: To BS EN 845-1.

224 Individual brackets

1. Standard: To BS EN 845-1.

225 Fixing ties in masonry cavity walls

1. Embedment in mortar beds (minimum): 50 mm.
2. Placement: Sloping slightly downwards towards outer leaf, without bending. Drip centred in the cavity and pointing downwards.
3. Spacing: Staggered in alternate courses.
4. Provision of additional ties: Within 225 mm of reveals of unbonded openings and at the vertical reveals of unsupported masonry.

228 Fixing ties in masonry cavity walls with full fill cavity insulation

1. Embedment in mortar beds (minimum): 50 mm.
2. Placement: Sloping slightly downwards towards outer leaf, without bending. Drip centred in the cavity and pointing downwards.
3. Spacing: Staggered in alternate courses.
4. Provision of additional ties
 - 4.1. One row to support lowest row of insulation batts.
 - 4.1.1. Within 225 mm of reveals of unbonded openings and at the vertical reveals of unsupported masonry.

233 Fixing ties in masonry cavity walls with partial fill cavity insulation

1. Embedment in mortar beds (minimum): 50 mm.

2. **Placement:** Sloping slightly downwards towards outer leaf, without bending. Drip centred in the cavity and pointing downwards.
3. **Spacing:** Evenly space in non staggered horizontal and vertical rows.
4. **Provision of additional ties:** Within 225 mm of reveals of unbonded openings and at the vertical reveals of unsupported masonry.

236 Fixing ties in masonry cladding to timber frames

1. **Fixing ties to timber frame studs through sheathing:** Securely with 50 mm x 11 gauge stainless steel annular ringed shank nails.
2. **Embedment in mortar beds (minimum):** 50 mm.
3. **Placement:** Slope downwards away from timber frame, without bending.
4. **Spacing**
 - 4.1. **Horizontal centres:** To suit stud centres.
5. **Provision of additional ties:** Within 225 mm of reveals of openings and at no more than 300 mm centres vertically.

241 Wall starters/ connectors

1. **Standard:** To BS EN 845-1

245 Channel/ slot ties

1. **Standard:** To BS EN 845-1

248 Channel/ slot ties used with partial fill insulation

1. **Standard:** To BS EN 845-1
2. **Tie mounted insulation retaining clips:** As recommended by the manufacturer.

251 Wall head restraint slip ties

1. **Standard:** To BS EN 845-1

255 Wind posts

1. **Standard:** To BS EN 1090-1

260 Angle supports

1. **Standard:** To BS EN 1090-1

270 Meshwork joint reinforcement

1. **Standard:** To BS EN 845-3
2. **Width:** Approximately 40-50 mm less in width than wall or leaf.
3. **Placement:** Lay on an even bed of mortar in a continuous strip with full laps at angles. Keep back 20 mm from face of external work, 12 mm back from face of internal work and finish joint to normal thickness.

282 Slip ties

1. **Standard:** To BS EN 845-1.

290 Proprietary special fixings

1. **Standard:** To BS EN 1090-1
2. **Placement:** Fill pockets with bedding mortar, finish flush where exposed to view.

291 Special fixings

1. **Type:** Submit proposals.
2. **Material/ Finish:** To PD 6697, clause 5.3.2.
3. **Performance:** Of type, size, strength and number necessary to resist loads likely to occur during the life of the building, and prevent lateral displacement or pulling apart of construction.
4. **Placement:** Fill pockets with bedding mortar finished flush where exposed to view.

Flexible damp proof courses/ cavity trays

310 Damp proof courses – bitumen based

1. **Standard:** To BS EN 14967, BS 6398 and BS 743

340 Site formed flexible sheet cavity trays – bitumen based

1. **Standard:** To BS EN 14967, BS 6398 and BS 743

370 Preformed cavity trays

1. **Placement:** To provide a free draining and watertight installation.

380 Junction cloaks/ stop ends for preformed dpcs/ cavity trays

1. **Placement:** To provide a free draining and watertight installation. Seal laps with dpcs and/ or cavity trays.

385 Junction cloaks/ stop ends for preformed dpcs/ cavity trays

1. **Placement:** Seal laps with dpcs and/ or cavity trays.

390 Junction cloaks/ stop ends for site formed dpcs/ cavity tray

1. **Three dimensional changes in shape:** Form to provide a free draining and watertight installation. Seal laps.
2. **Alternative use of preformed junction cloaks/ stop ends:** Submit proposals.

Installation of dpcs/ cavity trays

415 Installation of horizontal dpcs

1. **Placement:** In continuous lengths on full even bed of fresh mortar, with 100 mm laps at joints and full laps at angles.
2. **Width:** At least full width of leaf unless otherwise specified. Edges of dpc not covered with mortar or projecting into cavity.
3. **Overlying construction:** Immediately cover with full even bed of mortar to receive next masonry course.
4. **Overall finished joint thickness:** As close to normal as practicable.

425 Installation of ground level dpcs

1. **Joint with damp proof membrane:** Continuous and effectively sealed.

435 Installation of stepped dpcs in external walls

1. **External walls on sloping ground:** Install dpcs not less than 150 mm above adjoining finished ground level.

445 Installation of sill dpcs

1. **Form and placement:** In one piece and turned up at back when sill is in contact with inner leaf.

455 Installation of coping/ capping dpcs

1. **Placement:** Bed in one operation to ensure maximum bond between masonry units, mortar and dpc.
2. **Dpcs crossing cavity:** Provide rigid support to prevent sagging.

465 Sealing of dpcs

1. **Overlaps and junctions:** Seal with Adhesive recommended by dpc manufacturer .

475 Installation of site formed cavity trays

1. **Requirements to prevent downward ingress of water**
 - 1.1. **Profiles:** To match those shown on drawings. Firmly secured.
 - 1.2. **Joint treatment:** Use continuous length wherever possible, otherwise lap at least 100 mm and seal to produce a free draining and watertight installation.
 - 1.3. **Horizontal cavity trays:** Support using cavity closer.
 - 1.4. **Sloping cavity trays:** Prevent sagging.
 - 1.5. **Cleanliness:** Free from debris and mortar droppings.

485 Installation of cavity trays over openings and other cavity bridgings

1. **Length:** To extend not less than 150 mm beyond ends of lintels/ bridgings.

495 Installation of gas resistant dpcs/ cavity trays

1. **Joint treatment:** Use continuous length wherever possible, otherwise lap at least 150 mm and seal to form a gas and watertight installation.
2. **Joint with damp proof membrane:** Overlap dpc/ cavity tray not less than 150 mm.

515 Dpc/ cavity tray leading edge in facework - flush

1. **Treatment at face of masonry:** Finish flush and clear of mortar.

525 Dpc/ cavity tray leading edge in facework – set back

1. **Treatment at face of masonry:** Set back 5mm from face of wall with recessed mortar joint to expose edge.

535 Dpc/ cavity tray leading edge in facework - projecting

1. **Treatment at face of masonry:** Projecting 5mm from face of wall.

560 Installation of vertical dpcs

1. **Form:** In one piece wherever possible.
 - 1.1. **Joints:** Upper part overlapping lower not less than 100 mm.

570 Installation of jamb dpcs at openings

1. **Joint with cavity tray/ lintel at head:** Full underlap.
2. **Joint with sill/ horizontal dpc at base:** Full overlap.
3. **Projection into cavity:** Not less than 25 mm.
4. **Relationship with frame:** In full contact.

580 Installation of jamb dpcs to built-in timber frames

1. Fixing: Securely fastened to back of frame.
 - 1.1. Fasteners: Galvanized clout nails or staples.

Joints

610 Movement joints with sealant

1. Locations: To be agreed with the Architect.
2. Joint preparation and sealant application: As Section Z22.
3. Filler:
 - 3.1. Thickness: To match design width of joint.
 - 3.2. Placement: Build in as work proceeds with no projections into cavities and to correct depth to receive sealant system.

615 Movement joints without sealant

1. Locations: To be agreed with the Architect.
2. Filler:
 - 2.1. Thickness: To match design width of joint.
 - 2.2. Placement: Build in as work proceeds filling the joint but without projecting into cavities.

616 Fire resisting movement joints without sealant

1. Fire resistant filler
 - 1.1. Placement: Compress and insert into place in open joint.
 - 1.2. Adhesives and accessories: Types recommended by filler manufacturer.

630 Unexposed contraction joints

1. Location: To be agreed with the Architect.
2. Formation: Close butt as work proceeds.

650 Pointing in flashings

1. Where within the existing arch, to be to Network Rail approved detail.
2. Joint preparation: Free of debris and lightly wetted.
3. Pointing mortar: As for adjacent walling.
4. Placement: Fill joint and finish flush.

660 Pinning up to soffits

1. Top joint of loadbearing walls: Fill and consolidate with mortar.

670 Head of non-loadbearing walls

1. Restraints:
 - 1.1. Fixing: Secure to soffit.
2. Joint filler:
 - 2.1. Placement: Full, no gaps.

Proprietary sills/ lintels/ copings/ dressings

720 Sills

1. Standard: To BS 5642-1.
2. Mortar for bedding/ jointing: Cement gauged as section Z21.
3. Joints: Flush.
4. Bedding one-piece sills: Leave bed joints open except under end bearings and masonry mullions. On completion, point to match adjacent work.

735 Precast concrete lintels

1. Standard: To BS EN 845-2.
2. Placement: Bed on mortar used for adjacent work.

745 Prestressed concrete lintels

1. Standard: To BS EN 845-2.
2. Placement: Bed on mortar used for adjacent work. Prop at not more than 1.2 m centres to prevent displacement during construction. Retain props in position for not less than 14 days or until mortar has matured, whichever is longer.

Miscellaneous items

840 Openings for frames

1. Formation: Use accurate, rigid templates to required size.

850 Wall plates

1. Placement: On full bed of mortar to correct horizontal level.

Ω End of Section