

SECTION 04810 - UNIT MASONRY ASSEMBLIES**PART 1 - GENERAL****1.1 SECTION REQUIREMENTS**

- A. See Division 5 Section "Metal Fabrications" for furnishing steel lintels for unit masonry.
- B. Submittals:
 - 1. Samples for brick and colored mortar.
 - 2. Material Certificates: For each type of product indicated. Include statements of material properties indicating compliance with requirements.
- C. Comply with ACI 530.1/ASCE 6/TMS 602.
- D. Preconstruction Testing Service: Owner will engage a qualified independent testing agency to perform preconstruction testing required by authorities having jurisdiction.
- E. Sample Panels: Construct a sample wall panel approximately 72 inches (1200 mm) long by 72 inches (1200 mm) high of brick to demonstrate aesthetic effects and set quality standards for materials and execution.

PART 2 - PRODUCTS**2.1 MASONRY UNITS**

- A. Concrete Masonry Units: ASTM C 90; Weight Classification-See Structural Drawings.
 - 1. Special shapes for lintels, corners, jambs, sash, control joints, and other special conditions.
 - 2. Bullnose or square-edged units for outside corners as detailed.
- B. Face Brick: ASTM C 216, Grade SW, Type FBS.
 - 1. Products: Basis-of-Design:
 - a. To match existing.
 - 2. Size: 3-5/8 inches (92 mm) wide by 2-13/16 inches (71 mm) high by 7-5/8 inches (194 mm) long.
 - 3. Solid brick with exposed surfaces finished for ends of sills and caps.
 - 4. Special shapes for applications where shapes produced by sawing would result in sawed surfaces being exposed to view.
- D. Building (Common) Brick: ASTM C 62, Grade SW for use where brick is concealed.

2.2 MORTAR AND GROUT

- A. Mortar: ASTM C 270, proportion specification.

1. Masonry Cement: Basis-of-Design: Quikrete No 1125 commercial grade masonry cement: Type N.
2. Do not use calcium chloride in mortar.
3. For masonry below grade or in contact with earth, use Type M.
4. For reinforced masonry, use Type S.
5. For exterior, above-grade, load-bearing and non-load-bearing walls and parapet walls; for interior load-bearing walls; for interior non-load-bearing partitions, and for other applications where another type is not indicated, use Type N.
6. Colored Mortar: Use colored cement or cement-lime mix of color selected. Basis-of-Design is Lehigh Concrete Company.

B. Grout: ASTM C 476, with a slump of 8 to 11 inches (200 to 280 mm).

2.3 REINFORCEMENT, TIES, AND ANCHORS

A. Steel Reinforcing Bars: ASTM A 615/A 615M, Grade 60.

B. Joint Reinforcement: ASTM A 951.

1. Coating: Mill galvanized at interior walls and hot-dip galvanized at exterior walls.
2. Wire Diameter for Side Rods: W1.7 or 0.148 inch.
3. Wire Diameter for Cross Rods: W1.7 or 0.148 inch (3.8 mm).
4. For single-wythe masonry, provide either ladder design or truss design.

C. Veneer Anchors: Hot-dip galvanized steel (22ga. min.), two piece masonry veneer anchors that allow vertical or horizontal adjustment but resist tension and compression forces perpendicular to plane of wall, for attachment over sheathing to studs, and acceptable to authorities having jurisdiction. Max. vertical spacing: 16 inches. Minimum embed: 1 1/2" with minimum mortar cover of 5/8".

1. Basis-of-Design Products:

- a. Holmann & Barnard

2.4 EMBEDDED FLASHING MATERIALS

A. Rubberized Asphalt Sheet Flashing: Pliable and highly adhesive rubberized asphalt compound, 26 mils (0.7 mm) thick, bonded to a polyethylene film, 4 mils (0.1 mm) thick, to produce an overall thickness of 30 mils (0.8 mm).

2.5 MISCELLANEOUS MASONRY ACCESSORIES

A. Compressible Filler: Premolded strips complying with ASTM D 1056, Grade 2A1.

B. Weep Holes: Cotton or polyester rope, 1/4 to 3/8 inch (6 to 10 mm) in diameter, 24 inches (600 mm) long.

C. Amino-plast masonry foam. Basis-of-Design: Core-Fill 500 by Tailored Chemical Products, Inc.

D. Masonry Cleaner: Product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units.

- E. Extruded-Polystyrene Board Insulation: ASTM C 578, Type IV or X, with foil facing. Adhere to wall with foil facing towards interior using vapor barrier adhesive installed with a notched trowel.

PART 3 - EXECUTION

3.1 INSTALLATION, GENERAL

- A. Cut masonry units with saw. Install with cut surfaces and, where possible, cut edges concealed.
- B. Mix units for exposed unit masonry from several pallets or cubes as they are placed to produce uniform blend of colors and textures.
- C. Stopping and Resuming Work: Rack back units; do not tooth.
- D. Fill cores in hollow concrete masonry units with grout 24 inches (600 mm) under bearing plates, beams, lintels, posts, and similar items, unless otherwise indicated.
- E. Tool exposed joints slightly concave when thumbprint hard, unless otherwise indicated.
- F. Keep cavities clean of mortar droppings and other materials during construction.

3.2 LINTELS

- A. Install lintels where indicated.
- B. Minimum bearing of 8 inches (200 mm) at each jamb, unless otherwise indicated.

3.3 FLASHING AND WEEP HOLES

- A. Install embedded flashing and weep holes in masonry at shelf angles, lintels, ledges, other obstructions to the downward flow of water in the wall, and where indicated.
- B. Place through-wall flashing on sloping bed of mortar and cover with mortar. Seal penetrations in flashing before covering with mortar.
 - 1. Extend flashing 4 inches (100 mm) into masonry at each end and turn up 2 inches minimum (50 mm) to form a pan.
- C. Trim wicking material used in weep holes flush with outside face of wall after mortar has set.

3.4 CLEANING

- A. Clean masonry as work progresses. Remove mortar fins and smears before tooling joints.
- B. Final Cleaning: After mortar is thoroughly cured, clean exposed masonry.
 - 1. Wet wall surfaces with water before cleaner, then remove cleaner promptly by rinsing thoroughly with clear water.

2. Clean masonry with a cleaner applied according to manufacturer's written instructions.

END OF SECTION 04810