SECTION 32 14 16 BRICK UNIT PAVING

SPEC WRITER NOTE: Delete text between // _____ // not applicable to project. Edit remaining text to suit project.

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Brick pavers set in mortar on a rigid base.

1.2 RELATED REQUIREMENTS

SPEC WRITER NOTE: Update and retain references only when specified elsewhere in this section.

A. Color and Texture of // Mortar // Brick //: Section 09 06 00, SCHEDULE FOR FINISHES.

1.3 APPLICABLE PUBLICATIONS

- A. Comply with references to extent specified in this section.
- B. ASTM International (ASTM):
 - 1. C144-11 Aggregate for Masonry Mortar.
 - 2. C150/C150M-16 Portland Cement.
 - 3. C207-06(2011) Hydrated Lime for Masonry Purposes.
 - 4. C270-14a- Mortar for Unit Masonry.
 - 5. C902-15 Pedestrian and Light Traffic Paving Brick.

1.4 SUBMITTALS

- A. Submittal Procedures: Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Submittal Drawings:
 - 1. Show brick paving layout and patterns.
 - 2. Show special brick shapes.
- C. Manufacturer's Literature and Data:
 - 1. Description of each product.
- D. Samples:
 - 1. Brick: Full size of each type and color.
 - a. Minimum five individual samples to show full color and texture range.
 - 2. Mortar: Samples of brick with mortar joints of each color.

1.5 QUALITY ASSURANCE

SPEC WRITER NOTE: Verify mockup location and size are shown on drawings. Otherwise, specify size and location.

A. Mockups: Provide mockup of size indicated on drawings to confirm paving materials and pattern and to establish workmanship quality.

1.6 DELIVERY

- A. Deliver products in manufacturer's original sealed packaging.
- B. Mark packaging, legibly. Indicate manufacturer's name or brand, type, color, production run number, and manufacture date.
- C. Before installation, return or dispose of products within distorted, damaged, or opened packaging.

1.7 STORAGE AND HANDLING

- A. Store masonry materials under waterproof covers on planking clear of ground.
- B. Protect products from damage during handling and construction operations.

1.8 FIELD CONDITIONS

- A. Environment:
 - 1. Product Temperature: Minimum 4 degrees C (40 degrees F) for minimum 48 hours before installation.

1.9 WARRANTY

SPEC WRITER NOTE: Always retain construction warranty. FAR includes Contractor's one year labor and material warranty.

A. Construction Warranty: FAR clause 52.246-21, "Warranty of Construction."

PART 2 - PRODUCTS

2.1 SYSTEM PERFORMANCE

- A. Design brick complying with specified performance:
 - 1. Slip Resistance: ASTM C902.

2.2 PRODUCTS - GENERAL

A. Basis of Design: Section 09 06 00, SCHEDULE FOR FINISHES.

B. Provide each paving system component from one manufacturer and from one production run.

2.3 BRICK

SPEC WRITER NOTE: Class SX, Type 1 pavers are suitable for freeze-thaw exposure and are abrasion resistant for use in public spaces.

A. Paving Brick: ASTM C902; Class SX, Type I.

SPEC WRITER NOTE: Application PS is intended for general use. For more exacting tolerances, specify Application PX pavers which have tighter dimensional tolerances and allow consistently narrow joints between pavers.

1. Manufacturing Tolerances: // Application PS // Application PX //.

2.4 MORTAR

- A. ASTM C270, Type S, cement-lime proportion specification mix. Admixtures and Type N lime are not acceptable.
- B. Hydrated Lime: ASTM C207 Type S.
- C. Sand: ASTM C144.
- D. Portland Cement: ASTM C150/C150M.
- E. Coloring Pigments: Pure mineral pigments, lime proof and non-fading; added to mortar by the manufacturer. Job colored mortar is not acceptable.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Examine and verify substrate suitability for product installation.
 - 1. Verify substrate depth accommodates brick paving installation thickness.
- B. Protect existing construction and completed work from damage.
 - 1. Prevent damage from contact with mortar.
- C. Clean substrates. Remove contaminants capable of affecting subsequently installed product's performance.

3.2 INSTALLATION - GENERAL

A. Install products according to manufacturer's instructions and approved submittal drawings.

3.3 BRICK INSTALLATION

- A. Do not use bricks with chips, cracks, discoloration, or other visible defects.
- B. Layout brick paving according to pattern indicated on drawings.
- C. Installation with Portland Cement Mortar:
 - 1. Install brick in full bed joint. Remove excess mortar. Strike joints flush with top surface of brick and tool slightly concave.
 - 2. Cure mortar by maintaining damp condition for seven days.
- D. Installation Tolerances:
 - 1. Finished surface true to plane within 1 mm in 1000 mm (1/8 inch in 10 feet), non-cumulative.
 - 2. Joint width deviation maximum 25 percent of dimension indicated.

3.4 CLEANING

- A. Remove excess mortar before fully set.
- B. Clean exposed brick and mortar surfaces. Remove contaminants and stains.

3.5 PROTECTION

- A. Protect brick paving from traffic and construction operations.
- B. Cover brick paving with reinforced kraft paper, and plywood or hardboard.
- C. Remove protective materials immediately before acceptance.
- D. Repair damage.

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