

SECTION 02 78 40 CONCRETE PAVERS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The requirements for concrete pavers, set in mortar on a rigid base or on a compacted subbase, are specified in this section.

1.2 RELATED WORK

- A. Concrete Substrate: Section 03 30 53, CAST IN PLACE CONCRETE.
- B. See drawings for the specific paving patterns.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA AND SAMPLES.
- B. Samples:
 - 1. Two (2) individual samples of each paver type and each paver color showing typical variations in color and texture.
 - 2. Two bar samples of colored mortar.
- C. Test Samples: Five random pavers may be taken from the work site by the Resident Engineer for testing, to verify brick meets ASTM specifications.
- D. Prepare a mock set-up, in proximity to the Resident Engineer's trailer, of the Columbarium plaza paver pattern and the Committal shelter paver pattern for approval. Mock-ups shall be approximately 10'x10' showing a typical paver field and border segment. (Include concrete subbase, compacted subbase, sand, and subgrade per plan in the mock-ups).

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver masonry materials in original sealed containers marked with name of manufacturer and identification of contents.
- B. Store masonry materials under waterproof covers on planking clear of ground, and protect from handling damage, dirt, stain, water and wind.

1.5 APPLICABLE PUBLICATIONS

- A. Publications listed below form a part of specification to the extent referenced. The publications are referenced in text by basic designation only.
- B. American Society for Testing and Materials (ASTM):
 - C144-99..... Aggregate for Masonry Mortar
 - C150-00..... Portland Cemet
 - C270-01..... Mortar for Unit Masonry

C902-01..... Pedestrian and Light Traffic Paving Brick

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Concrete Pavers: ASTM Designation C936-82, 2-3/8" thick. Color and texture to match existing. Size specification, refer to plan. Existing pavers by True stone Corporation. (Brand name provided as a reference to the desired appearance of the paver product).
- B. Bedding and Joint Sand: ASTM C33.
- C. Portland Cement: ASTM C150
- D. Coloring Pigments: Pure mineral pigments, lime proof and non-fading; added to mortar by the manufacturer. Job colored mortar is not acceptable.
- E. Aggregates: Shall conform to ASTM Specifications C-33 for normal weight concrete aggregate.
- F. Subbase: 6" depth compacted shellrock. Compact to 95% Modified Proctor Density (ASTM D1557, Method D or AASHTO T180).

2.2 MORTAR

- A. ASTM C270, Type S. No admixtures permitted. Type N lime is not permitted.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Ensure that substrate is without voids or projections that would interfere with installation of concrete paver.

3.2 ALLOWABLE TOLERANCES

- A. Paved surface true to plane within 1/8 inch in 10 feet not cumulative.
- B. Joint with deviation not greater than 10 percent of dimension shown. Widths shall be 1/8 inch, no joint greater than 1/4" per ADA guidelines and Florida Building Code guidelines, Sand sweep all paver joints.
- C. Compact subbase under paver fields to 95% of Standard Proctor Density as specified by ASTM D698 or Modified Proctor Density (ASTM D1557). Monitor soil moisture content during compaction testing.

3.3 APPLICATION

- A. General: Do not use pavers with chips, cracks, discoloration, or other visible defects.
- B. For Compacted Subbase: Compact subgrade and subbase to 95% Proctor. Lay down sand setting course per plans and details. For areas where pavers are on a concrete subbase, install reinforced concrete slab. Slope slab for drainage.
- C. Paver units shall be laid in the approved pattern as noted or shown on the plans.

- D. The paver units shall be laid in such a manner that the desired pattern is maintained and the joints between the adjacent units are approximately 1/16" to 1/8".
- E. Cut pavers with a masonry saw to provide a clean vertical cut.
- F. maximum allowable 'cut' of a paver is 2/3 of the paver (a portion of a paver that is less than 1/3 of its original size shall not be used). Adjust and cut portions of adjacent pavers in a given paver field to meet this criteria and to meet the intent of the pattern/layout/design.
- G. Paver units shall be vibrated into the sand setting bed/laying course using a vibrator capable of 3,000 to 5,000 pounds compaction force with the surface clean and joints open.
- H. Installation with Portland Cement Mortar:
 - 1. Install paver on mortar bed – mortar joint. Remove excess mortar. Strike joints flush with top surface of paver and tool slightly concave.
 - 2. Cure mortar by maintaining in a damp condition for seven days.
- I. Upon completion, clean up all work areas, removing equipment and debris and surplus materials from the site.

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