

## SECTION 02780 - UNIT PAVERS

### PART 1 - GENERAL

#### 1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

#### 1.02 SUMMARY

- A. This Section includes the following:
  - 1. Concrete pavers.
- B. Related Sections include the following:
  - 1. Division 2 Section "Earthwork" for compacted sub-grade and sub-base course, if any, under unit pavers.
  - 2. Division 3 Section "Cast-In-Place Concrete" for concrete base under unit pavers.
  - 3. Division 2 Section "Asphalt Paving" for asphalt base under unit pavers.

#### 1.03 SUBMITTALS

- A. General: Submit in accordance with Section 01330.
- B. Product Data: For the following:
  - 1. Concrete pavers.
  - 2. Edge restraints.

#### 1.04 QUALITY ASSURANCE

- A. Installer Qualifications: An experienced Installer who has completed unit paver installations similar in material, design, and extent to that indicated for this Project and whose work has resulted in construction with a record of successful in-service performance.
- B. Source Limitations: Obtain each type of unit paver, joint material, and setting material from one source with resources to provide materials and products of consistent quality in appearance and physical properties.

#### 1.05 DELIVERY, STORAGE, AND HANDLING

- A. Protect unit pavers and aggregate during storage and construction against soiling or contamination from earth and other materials.
  - 1. Cover pavers with plastic or use other packaging materials that will prevent rust marks from steel strapping.

#### 1.06 PROJECT CONDITIONS

- A. Cold-Weather Protection: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen subgrade or setting beds. Remove and replace unit paver work damaged by frost or freezing.

## 1.07 WARRANTY

- A. General: Special Warranties specified in this Section shall not deprive Owner of other rights owner may have under other provisions of Contract documents and will be in addition to and run concurrent with other warranties made by Contractor under requirements of Contract Documents.
- B. Special Warranty for Unit Pavers: Written warranty, signed by carpet manufacturer agreeing to replace paver units that show abnormal signs of erosion due to melting salts or signs of crumbling caused by freeze-thaw.
  - 1. Warranty Period: 30 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.01 UNIT PAVERS

- A. Concrete Pavers: Solid, rectangular paving units, made from normal-weight aggregates and granite aggregates.
  - 1. Color: Buff and Black.
  - 2. Size: 2-3/8-inches by 6 inches by variable
  - 3. Pattern: Single paver boarder course with modular pattern infill. All pavers to be installed and tumbled side up.
  - 4. Product: Semita Modular, Transpave; distributed by Madawaska Hardscape, Portland, ME; phone: (207)874-1995.
- B. Paver Edge Restraint System: Rigid vinyl edging for straight runs and flexible edging for radii. Use edging where no other pavement forms the edge. Edging shall be staked with 12" long x 3/8" diameter galvanized steel spikes spaced no greater than 3 feet o.c.
  - 1. Products
    - a. Pave Edge; Pave Tech, Inc.
    - b. Bric-Edge; Oly-Ola Sales, Inc.

### 2.02 ACCESSORIES

- A. Job-Built Concrete Edge Restraints: Comply with requirements in Division 3 Section "Cast-in-Place Concrete" for normal-weight, air-entrained, ready-mixed concrete with minimum 28-day compressive strength of 3000 psi.
  - 1. Uncoated Steel Reinforcing Bars: ASTM A 615/A 615M or ASTM A 996/A 996M, Grade 40.

### 2.03 AGGREGATE SETTING-BED MATERIALS

- A. Geotextile: Woven or nonwoven geotextile manufactured from polyester or polypropylene fibers, with a permeability rating 10 times greater than that of soil on which paving is founded and an apparent opening size small enough to prevent passage of fines into drainage holes.
- B. Sand: Sound, sharp, washed, natural sand or crushed stone complying with gradation requirements of ASTM C 33 for fine aggregate.
- C. Polymeric Sand; Techni-Seal or approved equal.

## PART 3 – EXECUTION

### 3.01 EXAMINATION

- A. Examine areas indicated to receive paving, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance. Proceed with installation only after unsatisfactory conditions have been corrected.

### 3.02 INSTALLATION, GENERAL

- A. Do not use unit pavers with chips, cracks, voids, discolorations, and other defects that might be visible or cause staining in finished work
- B. Mix pavers from several pallets or cubes, as they are placed, to produce uniform blend of colors and textures.
- C. Cut unit pavers with motor-driven masonry saw equipment to provide clean, sharp, unchipped edges. Cut units to provide pattern indicated and to fit adjoining work neatly. Use full units without cutting where possible. Hammer cutting is not acceptable.
- D. Joint Pattern: As indicated.
- E. Tolerances: Do not exceed **1/16-inch (1.6-mm)** unit-to-unit offset from flush (lippage) nor **1/8 inch in 24 inches (3 mm in 600 mm)** and **1/4 inch in 10 feet (6 mm in 3 m)** from level, or indicated slope, for finished surface of paving.
- F. Expansion and Control Joints: Provide joint filler at locations and of widths indicated. Install joint filler before setting pavers. Make top of joint filler flush with top of pavers.
- G. Provide edge restraints as indicated. Install before placing unit pavers.
  - 1. Comply with manufacturers written instructions.

### 3.03 AGGREGATE SETTING-BED PAVER APPLICATIONS

- A. Place geotextile over concrete drainage holes, (if required) or over prepared sub-base.
- B. Place leveling course and screed to required thickness, taking care that moisture content remains constant and density is loose and constant until pavers are set and compacted.
- C. Set pavers with tight joints being careful not to disturb leveling base. Use string lines to keep straight lines.
- D. Spread dry sand and fill joints immediately after vibrating pavers into leveling course. Vibrate pavers and add sand until joints are completely filled, then remove excess sand. Leave a slight surplus of sand on the surface for joint filing.
- E. Do not allow traffic on installed pavers until sand has been vibrated into joints.
- F. Repeat joint-filling process 30 days later.

3.04 REPAIR, CLEANING, AND PROTECTION

- A. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units as intended. Provide new units to match adjoining units and install in same manner as original units, with same joint treatment and with no evidence of replacement.

END OF SECTION 02780