



## Iowa Department of Transportation

### SPECIAL PROVISIONS FOR REPLACING BRICK PAVERS ON CONCRETE BASE

Cedar County  
IMX-080-8(273)269--02-16

Effective Date  
April 15, 2014

THE STANDARD SPECIFICATIONS, SERIES 2012, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS.

#### **120173.01 DESCRIPTION.**

This work consists of furnishing all labor, material, and equipment required to re-install the concrete pavers, as specified herein and shown on the plans.

#### **120173.02 MATERIALS.**

##### **A. Brick Pavers.**

Reinstall brick pavers that were salvaged from the plaza area.

##### **B. Subslab – PC Concete**

Concrete shall meet the specifications for Section 2511.

##### **C. Aggregate Setting – Bed Materials.**

1. Sand for Leveling Course – Sound, Sharp, Washed, Natural Sand or Crushed Stone complying with Gradation Requirements in ASTM C 33 for Fine Aggregate (do not use mason sand).
2. Sand for Joints: Fine Sharp, Washed Natural Sand or Crushed Stone with 100% passing the No. 16 Sieve and no more than 10% passing the No. 200 Sieve.

#### **120173.03 CONSTRUCTION.**

##### **A. Submittals.**

Joint filler and leveling course sand gradation reports.

**B. Execution.**

1. Refer to the plans for the details, locations, elevations, and jointing requirements associated with the construction of the concrete paver sub-base. The sub-base shall comply with Section 2511 of the Standard Specifications.
2. Verify elevation difference between PCC sub-slab and adjacent finished roadway pavement to confirm PCC Pavers can be installed flush with bordering pavement.
3. Prior to construction of concrete base, confirm all dimensions of the actual pavers with the design pattern to confirm configuration, patterns, and dimensions of all material. Notify the Engineer if there are any conflicts between the salvaged material and the design. Inspect the PCC sub-slab to ensure surface is clean and built in conformance with the plans for measuring pigment and distribution throughout the concrete prior to placement. Provide a minimum of 7 days for the concrete base to cure.
4. Clean PCC sub-slab and remove any substrates that could impair sand leveling course installation. Sweep concrete substrates to remove dirt, dust, debris and loose particles.
5. Do not use pavers with chips or cracks that might be visible.
6. To install the setting bed over the surface of the concrete sub-base, place 3/4 inch deep control bars directly over the base. If grades must be adjusted, set wood chocks under depth control bars to provide proper grade. Set two bars parallel to each other to serve as guides for 2 inch by 6 inch striking board. The depth of the control bars must be set carefully to bring the pavers, when laid, to proper grade.
7. Place leveling sand between the parallel depth control bars. Pull setting bed material with the striking board over the bars several times. After each passage, low porous spots must be showered with fresh sand to produce smooth, firm, and even setting bed. As soon as this initial panel is completed, advance the first bar to the next position in readiness for striking the next panel. Carefully fill up any depressions that remain after removing the depth control bars and wood chocks.
8. The setting bed shall be adjusted so that when the bricks are placed, the top surface of the pavers will be at the required finished grade. Paver elevation should be approximately 1/8 inch above finished grade to allow for settling during vibration process.
9. Set pavers with a minimum joint width of 1/16 inch and a maximum of 1/8 inch, being careful not to disturb the leveling base. If pavers have spacer bars, place pavers hand tight against spacer bars. Use string lines to keep straight lines. Fill gaps between units that exceed 3/16 inch with pieces cut to fit from full-size unit pavers.
10. Vibrate pavers into leveling course with a low-amplitude plate vibrator capable of a 3500 to 5000 pound compaction force at 80 to 90 hertz. Use vibrator with neoprene mat on face of plate or other means as needed to prevent cracking and chipping of pavers. Perform at least three passes across paving with vibrators.
11. Compact pavers when there is sufficient surface to accommodate operation of vibrator.
12. Before ending each day's work and when rain interrupts work, cover pavers that have not been compacted and cover leveling course on which pavers have not placed with nonstaining plastic sheets to protect them from rain.

13. 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 filling.
14. Do not allow traffic on installed pavers until sand has been vibrated into joints.
15. Remove and replace unit pavers that are loose, chipped, broken, stained, or otherwise damaged or that do not match adjoining units. Use the salvaged pavers to match adjoining units and install in the same manner as original units, with same joint treatment and with no evidence of replacement.
16. Any remaining pavers shall become property of the Contracting Authority and delivered to a storage facility as directed by the Engineer.

**120173.04 METHOD OF MEASUREMENT.**

The Engineer will measure the square yard surface area of the Sidewalk, Special Pavers.

**120173.05 BASIS OF PAYMENT.**

Payment for Sidewalk, Special Pavers includes all labor, materials, equipment, and supervision required to remove existing pavers and reinstall concrete pavers. This shall also include sub-slab preparation, sand leveling bed, and joint filler.