

1 Make the following Section a part of the Standard Specifications:

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3 **“SECTION 410 – STAMPED TEXTURED CEMENT CONCRETE**

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5 **410.01 Description.** This section describes construction of the stamped  
6 textured cement concrete sidewalk, roundabout center and splitter islands.

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8 **410.02 Materials.**

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10 Structural Concrete 601

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12 Aggregate for Untreated Base 703.06

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14 Joint Filler 705.01

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16 Welded Wire Fabric Reinforcement 709.01(C)

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18 Dry-Shake Colored Hardener shall be a cementitious material containing special  
19 hard aggregates, formulated as a high opacity color hardening material for the top  
20 surface of freshly placed concrete substrates and shall be highly UV-resistant.  
21 Hardener shall be factory proportioned, mixed and packaged, ready to use and  
22 comply with ASTM C 979. Color shall be Red Brick.

23  
24 Colored Release Agent shall be a UV stable, pigmented powder formulated for use  
25 with the colored hardener selected and designed to prevent freshly placed  
26 concrete from adhering to concrete texturing mats/tools. Color shall be Red Brick.

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28 Sealer shall be compatible with the color system used and comply with ASTM C  
29 309.

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31 **(A) Submittals.** In addition to submittals required by Section 106 –  
32 Material Restrictions and Requirements, Product Data and Certificate of  
33 Compliance shall be submitted for Dry Shake Colored Hardener, Colored  
34 Release Agent, Texturing Tools, Curing Compound and Sealer.

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36 **410.03 Construction.** The Contractor shall stamp the textured cement concrete  
37 areas as indicated on the plans. The stamped concrete shall be a two color system  
38 with a base color hardener and a release color. Color shall be a red brick hardener  
39 with a Red Brick release. Color hardener and release shall be applied and installed  
40 in accordance with the manufacturer’s written recommendations. The stamp  
41 pattern shall be Herringbone pattern or approved equal.

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43 **(A) Quality Control.** The Contractor shall provide a job-site sample to  
44 be approved by the Engineer prior to placing stamped textured cement  
45 concrete. The sample shall be a minimum of six feet by six feet, completed  
46 panel including stamp pattern, colored concrete and sealer. Construct  
47 mock-up panel using materials, processes, and techniques required for the

work, including curing procedures. Incorporate representative control, construction, and joints according to Project requirements. The installer for the work should construct the mock-up. Obtain acceptance of the Mock-up by the Engineer prior to commencement of the work. Mock-up shall be protected from damage and remain until completion of the work or until directed by the Engineer to demolish or remove the mock-up panel from the site.

**(B) Excavating.** Excavate the required depth, remove unsuitable material, and compact subgrade to firm, even surface in accordance with Subsection 203.03(A)(4) – Subexcavation.

**(C) Forms.** Use full-depth wood or metal forms that are straight, free of warp and of sufficient strength to resist pressure of concrete without springing. Brace and stake forms to remain in both horizontal and vertical alignment until removal.

**(D) Bed Course.** Use aggregate for untreated base conforming to subsection 703.06 – Aggregate for Untreated Base, as bed course material. Place bed course material in accordance with contract documents and as indicated in Section 304 – Aggregate Base Course.

**(E) Reinforcement.** Provide reinforcement, in accordance with Section 602 – Reinforcing Steel, as specified.

**(F) Placing Concrete.** Concrete thickness shall be in accordance with construction plans and shall be constructed using Class A as specified in Section 601 – Structural Concrete. The slump of the concrete shall not exceed 3-½ inches, or as recommended by the color manufacturer, whichever is greater. Moisten aggregate and forms to saturated, surface dry condition immediately before placing concrete. Placing concrete islands and sidewalk thickness in accordance with plans and Section 503 – Concrete Structures. Following placement, screeding and floating of the concrete, color hardener shall be applied to the concrete in accordance with manufacturer instructions.

After 4 days of curing or according to the manufacturer's instructions, the color release shall be pressure washed and allowed to dry completely. When the textured concrete is dry, the Contractor shall apply a sealer to the concrete in accordance with the manufacturer's directions.

**(G) Finishing.** Finish concrete in accordance with Subsection 503.03(M)(3)(b) – Sidewalks and Median Strips. Use edging tool with ¼-inch radius to finish the outside edges of islands and sidewalks. Finish islands and sidewalks as plane surface to grades and slopes indicated in plans, or with 2-percent (allowable construction tolerance of plus or minus 0.4 percent maximum) cross slope towards roadway if not otherwise

indicated. Test surface of concrete sidewalk with 10-foot straightedge. Correct any deviation in excess of ¼ inch.

**(H) Joints.** Install joints as indicated on plans. Match Joints with curb or pavement joints where applicable.

**(1) Expansion Joints.** Use ½-inch-thick preformed expansion joint filler at fixed structures, such as buildings, bridges, or walls, and at curb returns. Extend preformed expansion joint filler from bottom of sidewalk to approximately ¼ inch below top of sidewalk.

**(2) Weakened-Plane Joints.** Divide sidewalk between expansion or construction joints into sections approximately 5 feet in length by providing transverse, weakened-plane joints. Provide transverse, weakened-plane joints when time period between consecutive concrete placements is more than 45 minutes.

Where sidewalks are more than 7 feet in width, provide longitudinal, weakened-plane joints to obtain secure uniform blocks that are approximately square.

Provide weakened-plane joints where corners of drop inlets project into sidewalk. Form weakened-plane joints to 1-inch minimum depth and approximately 1/8-inch width using scoring tool, saw, or other means acceptable to the Engineer.

**(3) Construction Joints.** Form construction joints around appurtenances such as manholes and utility poles extending through entire sidewalk. Provide 1/4-inch-thick preformed expansion joint filler for full depth of joints.

**(4) Roundabout Island Joints.** Transverse construction joints and transverse contraction joints shall be placed perpendicular or radial to the back of curb. Joint spacing shall be a maximum of 15 feet apart and equally spaced along the length of the texture cement concrete.

**(I) Curing.** Cure concrete for at least 96 hours in accordance with Subsection 503.03(L)(1) – Water Curing or as required in the color manufacturer's written installation instructions and approved by the Engineer. Protect concrete from pedestrian traffic for 96 hours and from vehicular traffic for seven days.

(J) **Backfilling.** After concrete has set, fill remaining excavated areas with material acceptable to the Engineer. Place and tamp fill in lifts up to 6 inches in depth.

**410.04 Measurement.** The Engineer will measure the stamped textured cement concrete sidewalk, roundabout center and splitter islands by the square yard of finished surface.

**410.05 Payment.** The Engineer will pay for the accepted quantities of the stamped textured cement concrete sidewalk, roundabout center and splitter islands at the contract unit price per square yard complete in place as shown in the proposal.

Payment will be full compensation for work prescribed in this section and contract documents.

The Engineer will pay for following pay item when included in proposal schedule:

Pay Item	Pay Unit
4-Inch Stamped Textured Cement Concrete (Splitter Islands)	Square Yard
8-Inch Stamped Textured Cement Concrete (Truck Apron)	Square Yard

The Engineer will pay for excavation of unsuitable material and backfill with material acceptable to the Engineer under Section 203 – Excavation and Embankment. If no pay item exists, refer to Subsection 104.02 – Changes.

The pay unit price per square yard for “Stamped Textured Cement Concrete” shall include all costs for the labor, materials and tools necessary to construct the “Stamped Textured Cement Concrete” including all preparation of the subgrade, all joints, sawcutting, any special forming around manhole lids or other utility features shown in the plans or as required to complete the work. No measurement for the job-site samples will be made and all costs in preparing and providing test samples shall be included in the unit contract cost for “Stamped Textured Cement Concrete” that is permanently placed.”

**END OF SECTION 410**