

SP-097032
(New)



Iowa Department of Transportation

SPECIAL PROVISIONS

FOR

**INTEGRAL THIN VENEER BRICK
FOR STRUCTURAL CONCRETE**

**Greene County
STP-E-3800(601)--8V-37**

**Effective Date
July 19, 2011**

THE IOWA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS, SERIES 2009, ARE AMENDED BY THE FOLLOWING MODIFICATIONS AND ADDITIONS. THESE ARE SPECIAL PROVISIONS AND THEY SHALL PREVAIL OVER THOSE PUBLISHED IN THE STANDARD SPECIFICATIONS AND GENERAL SUPPLEMENTAL SPECIFICATIONS.

1.0 DESCRIPTION.

This specification describes the requirements for using integral thin veneer brick and a compatible form liner gasket system for installation within forms for vertical cast-in place structural concrete.

2.0 PRODUCTS.

A. Manufacturers.

1. Metro Brick by Ironrock Capital
2. Summitville Tile Company
3. Feldhaus Thin Brick
4. Endicott Clay Products Company
5. Other manufacturers submitted to the Iowa Department of Transportation Office of Bridges and Structures for review and approval

B. Thin Veneer Brick Units.

1. Exterior grade thin brick shall meet the requirements of ASTM C1088, Type TBX (Select).
2. Size: Normal (modular) 2 1/4 inches high by 7 5/8 inches wide by 9/16 inch to 3/4 inch thick.
3. Color and Texture: As indicated in the plans, and subject to approval of submitted samples. All thin veneer brick used in the Project shall be from a single production run to ensure color and texture uniformity.
4. Additional Furnish-Only Thin Bricks: Include 100 additional thin veneer brick units from the same production run as the furnished and installed units for future patching operations. Only full modular bricks, not corner bricks or half-bricks are required. Deliver materials in manufacturer's unopened packaging to a site as directed by the Engineer.

C. Accessories.

1. Epoxy grout in accordance with manufacturer's recommendations for the setting of patch bricks into defects and tie hole voids. Epoxy grout shall be non-leaching.
2. Other accessories as recommended by the manufacturer.

D. Quality Assurance.

1. Manufacturer Qualifications: Firm(s) experienced in manufacturing thin veneer brick form liner gaskets and thin veneer brick units similar to those indicated for this project and with a record of successful in-service performance, as well as sufficient production capacity to manufacture required units.
2. Source Limitations for Thin Veneer Brick Materials: Obtain thin veneer brick units through one source from a single manufacturer, and from a single production run for the entire Project to ensure color and texture uniformity.

E. Product Delivery, Storage and Handling.

1. Do not use damaged products. Do not install products not bearing product trade name and manufacturer's name.
2. Store all installation materials in manufacturer's unopened packaging in a dry storage area, with ambient temperature between 30°F and 120°F until installation. Protect all materials from exposure to sun, rain, dirt and dust until installation.
3. Do not top load or otherwise crush form liners in their packages.

3.0 EXECUTION.**3.01 SUBMITTALS.**

- A. The following shall be submitted to the Engineer for approval.
1. Product Data: Manufacturer's data sheets on each product to be used including:
 - a. Preparation instructions and recommendations.
 - b. Storage and handling requirements and recommendations.
 - c. Installation methods
 - d. Cleaning methods following form removal.
 - e. Patching methods.
 2. Shop Drawings: Submit elevation drawings and details that indicate:
 - a. Horizontal and vertical brick coursing.
 - b. Alignment of brick coursing to adjacent construction.
 - c. Corner details.
 - d. Construction joints.
 - e. Brick color and texture.
 - f. Special conditions.
 3. Selection Samples: For each finish product specified, two complete sets of samples, representative of full range of color and finish for each brick type.
 4. Verification Samples: For each finish product specified, two samples, representative of selected range of color and finish for each brick type. Include form liner sample and bond breaker sample applied to full size thin veneer brick, representing bond breaker to be used.

3.02 MOCK-UPS.

- A. Construct mock-ups meeting the following requirements:
1. Panel Mock-Up: Construct a 2.5 feet by 3.5 feet panel. No work shall proceed until approval of the mock-up by the Engineer. Rebuild mock-up as required to produce acceptable work.

3.03 INSTALLATION OF THIN VENEER BRICK UNITS.

- A. Clean brick pockets free of all foreign material prior to setting thin bricks.
- B. Install thin brick units in accordance with form liner gasket system manufacturer's written instructions and with guidance from manufacturer's on-site representative.
- C. If allowed by the manufacturer, glue may be used to aid in securing thin veneer bricks in place with the form liner gasket system. Use only approved glue as recommended by the manufacturer, and only with guidance from the manufacturer's on-site representative.

3.04 INSTALLATION TOLERANCES.

- A. Maximum variation in alignment of horizontal or vertical mortar joints: 1/4 inch in 10 feet, non-cumulative.
- B. Maximum offset in plane of adjacent form liner units: 1/16 inch.
- C. Maximum misalignment between adjacent form liner units: 3/64 inch.

3.05 METHOD OF MEASUREMENT.

Integral Thin Veneer Brick will be measured by the square foot of acceptable thin brick installed.

3.06 BASIS OF PAYMENT.

The accepted quantity for Integral Thin Veneer Brick will be paid for at the contract unit price per square foot. Payment for Integral Thin Veneer Brick as measured shall be full compensation for all materials, labor, tools, equipment, testing, inspection, services, accessories, and incidentals necessary to perform the work of this section. Payment for Integral Thin Veneer Brick shall also include the furnishing of additional thin brick units for future patching operations.