

## **SECTION – 04840 OLD MILL BRICK PANEL SYSTEM**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES:**

- A. Field assembled insulated brick panels installed on concrete, block, metal or wood framing.

#### **1.2 REFERENCES:**

- A. ASTM A525 – Steel Sheet Zinc-Coated (Galvanized) by the Hot-Dip Process
- B. ASTM C79 – Gypsum Sheathing Board
- C. ASTM C1088-88 –Thin Brick Solid Masonry Units Made From Clay or Shale type TBS, TBX, TBA
- D. ASTM C578 – Preformed, Block-Type Cellular Polystyrene Thermal Insulation
- E. ASTM E330 – Structural Performance of Exterior Windows Curtain Walls, and Doors by Uniform Static Air Pressure Difference

#### **1.3 SUBMITTALS:**

- A. PRODUCT DATA – In accordance with the Submittal Schedule, submit:
  - 1. Complete materials list of all items proposed to be furnished and installed under this section
  - 2. Submit manufacturer's product data indicating brick selections, trim pieces, and insulation backer
  - 3. Manufacturer's specifications and other data required to demonstrate compliance with specified requirements
  - 4. Sufficient other data to demonstrate compliance with the specified requirements
- B. The manufacturer's recommended installation procedure when approved by the architect will become the basis for inspecting and accepting or rejecting actual installation procedures used on the work.
- C. Samples
  - 1. Indicate anchorage and joint details, and relation to adjacent work
- D. Manufacturer's installation instructions

#### **1.4 DELIVERY, STORAGE AND HANDLING:**

- A. Deliver brick, panels, accessories and loose trim in manufacturer's original packaging
- B. Store all brick, panels, accessories, grout, and trim off the ground covered with waterproof covering to protect from weather and condensation.

#### **1.5 WARRANTY:**

Old Mill Brick, Inc. warrants its OLD MILL panel to be free from defects in material and manufacturer's workmanship for a period of 5 years from date of owner purchase when such OLD MILL panel is installed and maintained in accordance with manufacturer's specifications. Old Mill system must be properly installed in accordance with Old Mills specifications by a certified Old Mill installer.

This warranty is subject to the following terms and conditions:

Any claims arising hereunder must be submitted in writing within the warranty period and within 10 days of discovery of the defect upon which the claim is based. This claim must be accompanied by owner's proof of full payment and purchase date. After manufacturer's determination of valid claim, the defective material will be replaced.

The manufacturer makes no expressed or implied warranties including, but not limited to merchantability or fitness for use or purpose except those expressly set forth herein. No agent, distributor, salesman, wholesale or retail dealer has the authority to bind the manufacturer to any warranty, representation or concession except those expressly set forth herein. The manufacturer shall not be liable for any incidental or consequential damages resulting from use of its product.

**This warranty does not cover defects from faulty installation, or improper storage, movement of structure, misuse, abuse, fire, flood, acts of God or other causes beyond manufacturer's control.**

## **PART 2 - PRODUCTS**

### 2.1 SYSTEM:

- A. Manufacturer: Old Mill Brick, Inc. (Phone: 888-264-6455)

### 2.2 MATERIALS:

- A. Brick
  - 1. ASTM C1088-88 grade SW type FBS
  - 2. Special shapes, corners, trim pieces and loose brick slabs
- B. Insulation board
  - 1. Old Mill expanded polystyrene board ASTM C578, type 1
  - 2. Preformed foam panels 48" x 48", 1"-4" thickness, shaped from a single monolithic sheet of expanded polystyrene to receive thin brick pieces.
  - 3. R-Value 5.0/inch k-factor 0 20 BTU at 75 Degrees Fahrenheit
  - 4. Density 1.5/lbs. per cu. ft.
  - 5. Compressive strength: 25 psi
- C. Adhesive
  - 1. Old Mill Brick Adhesive
- D. Grouting Mortar
  - Old Mill Brick Grout Type S

### 2.3 ANCHORAGE MATERIALS:

- A. Starter angles
  - 1. 023 GA aluminum drip edge starter with 2" vertical leg
- B. Fasteners
  - 1. Old Mill Plastic 2" washer

- C. Steel stud framing
  - 1. #10 steel self-drilling, self-tapping, cadmium plated screws
  - 2. Length required to penetrate stud flange with 3 exposed threads
- D. Wood framing
  - 1. Length required to penetrate 1" into wood framing

#### 2.4 MISCELLANEOUS ACCESSORIES:

- A. Cleaning compound ProSoCo SureKlean
  - 2. No. 101 Lime Solvent for red and dark brick
  - 3. No. 600 Detergent for tan and pink brick
  - 4. Vana-Trol for White, gray or brown brick and brick subject to metallic staining.
- B. Drip flashing 24 ga. galvanized with finish as selected by designer
- C. Sealants
  - 1. Sealant shall be a high performance, low modulus, non-sag elastomer (e.g. Sonolastic<sup>®</sup> NP 1)
- D. Water Barrier: Tyvek<sup>®</sup>, Senershield<sup>®</sup>-R roll-on barrier or equivalent approved by Old Mill

### PART 3 - EXECUTION

#### 3.1 EXAMINATION:

- A. Verify that substrate is sound, smooth and without projections that will interfere with installation of panels
- B. Beginning of installation means acceptance of existing conditions

#### 3.2 PREPARATION:

- A. Existing structure installation
  - 1. Inspect existing walls for deterioration. Repair as necessary
  - 2. Exterior, Fur out starter angle and clips as required on irregular surfaces to maintain true plane
  - 3. Exterior, Remove existing trim, gutters and downspouts behind which panels are to be installed

#### 3.3 FOAM PANEL EXTERIOR INSTALLATION:

- A. General
  - 1. Exterior, Apply a moisture barrier over entire area to be bricked
  - 2. Starter flashing may follow any rise or fall in grade if desired, necessitating cutting bottom panels to fit sloped starter flashing.
  - 3. Panels Must start 6" above grade
  - 4. Start panels at least 2 inches above concrete or asphalt paving surface to prevent damage from frost heaving

## B. Starter flashing

1. Install starter flashing so that bottom edge is on marked line
2. Install flashing with nail flange up, fasten at 16" O.C. or less with appropriate fasteners for concrete, CMU, metal or wood stud framing
3. Install starter flashing over all windows, doors and other openings.

## C. Panel Installation

1. Begin panel installation at an outside corner
2. Panels must overlap where they meet at outside corners
3. At inside corners position panel so as to accommodate a backer rod and sealant
4. Do not install panels below grade
5. Use a utility knife to cut panels where necessary
6. Where panels abut wall openings, maintain a 1/4" clearance between the panels and the flashings
7. Offset successive vertical rows of panels at least 16"

## D. Panel attachment

1. Nail able sheathing (brick, block, concrete, etc.) Attach foam panel to sheathing with Old Mill plastic 2" washer using screws at least 1" longer than the thickness of the panel. These fasteners should be installed every 16" horizontally and 8" vertically. Care must be taken to assure that the fastener is firmly seated on the brick spacer and fastened so that the outer surface of the fastener is flush with the outer surface of the panel.
2. (\*Senershield<sup>®</sup>-R barrier) Begin by applying a 1/16" skin coat of Senershield<sup>®</sup>-R. Immediately embed runs of Standard Mesh by using a trowel and working from the center and moving outward, press the mesh into the wet Senershield<sup>®</sup>-R barrier. Lap runs of mesh at least 2-1/2". After a minimum of 20 minutes, double back with a second pass and apply an additional 1/16" of Senershield<sup>®</sup>-R barrier. All joints and gaps should be covered with mesh and Senershield<sup>®</sup>-R barrier onto the concrete. Allow curing for a minimum of 18 hours protected from precipitation and freezing conditions. Old Mill panel may be applied after 18 hours.

\*Refer to Senergy (BASF) Company for Senershield<sup>®</sup>-R specifications

## E. Brick Layout / Installation

1. Apply a 3/8" bead of Old Mill adhesive horizontally at the upper portion of the brick track. Do not leave adhesive to set more than 10 minutes before brick application
2. Run a single course of brick horizontally along the top brick track of the panel. If this area includes an outside corner, begin with a corner brick there and move inward.
3. Make certain to maintain the proper spacing between bricks. Head joint size ideally 3/8" in width, may vary between 1/4" and 5/8" so as to avoid using cut brick less than 3" length.

4. After the initial course is in place and properly spaced, make a plumb line down the wall in line with the edge of every fourth brick. This will be a reference for every other course of brick. For the courses without a line, the bricks should be centered on the head joints directly above and below them.
5. Successive rows of brick can now be applied. Working from the top of the wall area down, apply a 3/8" bead of adhesive horizontally Using cement bag to the upper portion of each brick track and place the bricks firmly into place. As walls are often not perfectly plumb, head joints may need to be varied in order to adjust for such differences. Soldier or rowlock courses can be used, as either decorative details or to avoid using small brick slices above or below wall openings. To achieve this vertical application of brick, peel off the necessary number of brick spacers (2 for soldier course, 1 for row lock) Apply 3/8" beads of adhesive horizontally, two inches apart, to the panel and then apply bricks.

#### F. Grout installation

1. Colored grout – Add mortar colorant to water before adding pre-mixed grout
2. Thoroughly mix Old Mill type S grout with water according to mixing instructions on the bag, to a smooth consistency to facilitate application with grout bag or grout pump. Allow 10 minute slake time and remix
3. Apply grout mix over filling joints. Avoid gaps
4. Tool joints when grout has attained a firm, pliable consistency with min 1" diameter round jointer
5. Depth of grout joint shall not exceed 1/8" below face of brick

#### G. Exterior Control Joints / Expansion Joints

1. Vertical control joints are required to be placed in walls at 20' increments. These joints should be constructed as follows: Panels should be cut at the point at which the joint will be placed. The joint width should be 3/8". Place a backer rod into this area and fill area with sealant.
2. Horizontal control joints should be placed at every floor level. This is to allow for the settling and shrinkage of the structure.

#### H. Cleaning

1. Brush grout joint with stiff bristle deck brush using diagonal strokes, when grout becomes stiff, to remove excess grout from brick faces and joints
2. Clean brick as required, after grout is cured, in accordance with cleaning compound manufacturer's instruction
3. Rinse brick promptly and thoroughly with clean water
4. Use appropriate cleaning solution 24 to 72 hours after grouting

END OF SECTION