

## **ITEM 10560.80 M - BRICK FACING**

### **DESCRIPTION**

Under this item, the Contractor shall furnish and install brick facing at existing or new concrete locations indicated on the Contract Plans, or where ordered by the Engineer.

### **MATERIALS**

All brick used in the work shall be new, sound and hard, burned throughout, true to size and uniform in quality.

Brick shall be as shown on the plans and comply with A.S.T.M. specifications designated C216 Grade SW. The Contractor shall submit six (6) samples of brick to be used, to the Engineer for approval. If the brick is used to repair or extend an existing wall, it shall match the existing brick facing as close as possible for color range, size, texture and pattern.

Mortar shall be as indicated in Subsection 560-2.06 "Mortar for concrete Masonry."

The material for dovetail anchor slots to be installed under this item shall be steel, 1.6mm thick, (conforming to ASTM A527 galvanized in accordance with Subsection 719-01, Type IV.

Anchors for anchoring brick facing to the concrete shall be stainless steel complying with A.S.T.M. A167, Type 301, 302 or 304, as indicated on the plans.

Stainless steel bolts supporting the brick anchors shall conform to A.S.T.M. A167, Type 301, 302, or 304. Holes in existing concrete shall be pre-drilled in accordance with the manufacturer's recommendations and bolts shall be attached to the concrete wall by means of chemically curing grouting materials, conforming to Subsection 701-07.

Portland cement-type 1 or 2	Subsection 701-01
Masonry cement	Subsection 701-02
Grout for anchor support	Subsection 701-07
Mortar sand	Subsection 703-03
Caulking compound for structures	Subsection 705-06
Pre-molded resilient joint fill	Subsection 705-07

### **CONSTRUCTION DETAILS**

A sample wall will be required as indicated in Subsection 560-3.03, except the wall shall be constructed with the approved brick. Where brick is installed to repair or extend an existing wall, no sample wall will be required.

Brick anchor dovetail slots in the existing concrete shall be cleaned before installing the new brick facing.

Brick facing shall be installed in a neat and workmanlike manner, true to line and grade and laid with bond matching the adjacent areas. Joints shall be 10mm wide, weather finish, or as shown on the plans. Where new brick facing abuts existing brick facing, new joints shall match existing joints in color, width and appearance. Bricks shall be wet when being installed and each brick shall be laid in mortar so as to form a full bed, with end and side joints in one operation. Anchoring brick facing to existing or new wall shall be in the manner indicated on the contract plans. The space between the brick and the wall shall be left empty. Prevent any mortar from falling into spaces between brick and concrete wall during construction.

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Brick facing shall not be installed when the ambient temperature is 5°C or below or when the brick units exhibit frost, except by written permission of the Engineer and subject to any conditions he may require. Newly installed brick facing shall be protected at the close of each day's work and whenever work ceases for any other cause, by covering with tar paper or other material, firmly anchored and satisfactory to the Engineer.

After the completion of adjacent work likely to soil the masonry, the brick masonry shall be thoroughly cleaned, removing all dirt, dust, mortar, stains, etc. The brick masonry shall be brushed while dry, with stiff fiber brush and the contractor shall clean the brick facing with a solution of 10% muriatic acid and water. The masonry shall be thoroughly wetted first and washed after application of the acid bath. The cleaning operation shall, in all cases, start at the top and proceed downward.

Where existing dovetail slots are in acceptable condition as determined by the Engineer, brick facing shall be bonded to the supporting concrete with stainless steel, corrugated steel anchors, every third course. The maximum horizontal spacing of the anchors shall not exceed 600mm in new construction. Alternately, where the existing dovetail slots are determined by the Engineer to be unusable, holes shall be drilled into concrete at each anchor location and stainless steel bolt inserted and secured during grout setting period. Following the setting period as specified by the grout manufacturer, the anchors shall be attached to protruding bolts. The placement and spacing of anchors shall be as indicated on the drawings, but shall not horizontally exceed 600mm and vertically maximum 3 brick courses.

## **METHOD OF MEASUREMENT**

Brick facing will be measured as the number of square meters installed (including joints within the brick facing) measured on the plane of all the exposed surfaces of the brick facing, incorporated in the work.

Brick facing installed below the finished grade of sidewalk, earth, etc., shall be considered as exposed when computing the payment area for this item.

An area of two and one-half square meters will be used as measurement for the complete accepted sample wall required by this specification.

## **BASIS OF PAYMENT**

The unit price bid per square meter shall include the cost of furnishing all labor, materials, (including anchors, ties, grout, bolts) and equipment necessary to complete the work. The payment shall also include the cost of removal and disposal of all constructed sample masonry panels when directed by the Engineer.

No payment will be made to the Contractor for the sample walls submitted as alternates to the specified wall or for any unapproved sample walls.

Progress payments will be made, at the unit price bid, for 75% of the quantity properly placed. The balance of the quantity will be paid for upon cleaning of the joints and exposed brick surfaces.