

**ITEM 0102601**

**GALVANIZED DOWEL**

**DESCRIPTION**

This item shall consist of 5/8" diameter by 24" long steel dowel. This material shall be furnished and placed in accordance with these specifications or as ordered by the Engineer.

**REFERENCED ITEMS**

None

**REQUIRED SUBMITTALS**

Material Certificate of Compliance:

Submit 5 copies of material certificate of compliance for dowels and grout in accordance with the contract general requirements.

**MATERIALS**

Dowels shall conform to the requirements of ASTM A615/A for plain bars and shall be grade 60. The dowels shall be hot dipped galvanized in accordance with AASHTO M232m/m.

Grout shall be non-shrink, non-staining and shall consist of a mixture of hydraulic cement, water, fine aggregates, and expansive mixture approved by the Engineer. The grout mix shall conform to the following requirements:

1. The grout mix shall have an unrestrained volumetric expansion of not less than 3% or more than 8%;
2. The grout mix shall have a minimum seven (7) day compressive strength of 3,000p.s.i. when tested by methods conforming to the requirements of ASTM C-109-02.
3. The water content of the grout shall be kept as low as possible for proper grouting. However, it shall not exceed five (5) gallons per sack of cement.

With the approval of the Engineer, the Contractor may substitute a non-shrink-premixed mortar, provided the Contractor submits samples of the grout mix for testing and approval.

**CONSTRUCTION METHODS**

This item shall apply only where new concrete sidewalk slabs or driveway and wheelchair ramps are constructed adjacent to an existing concrete slab. A 3/4" +/- 1/16" diameter hole must be drilled into the existing concrete and the dowel set 12" into the existing concrete.

The length of the dowel to be embedded in the new slab shall be dipped or painted with hot 60-70 penetration asphalt cement, viscosity Grade AC-20, conforming to the requirements of AASHTO M20-70. The length of dowel to be embedded in the existing slab shall remain uncoated. If the diameter of the drilled hole into the existing concrete exceeds 13/16", the dowel is to be set and grouted 12" into the existing concrete.

Dowels shall be spaced 24" on center and located 12" from the edge of a concrete slab.

**METHOD OF MEASUREMENT**

This work will be measured for payment by the total number of dowels complete in place and accepted and shall include all expansion joint material used under this item.

**BASIS OF PAYMENT**

Payment will be made at the contract unit price each for "GALVANIZED DOWEL" complete in place, which price shall include the furnishing and placing the materials, all equipment, tools and labor necessary thereto.

<b><u>PAY ITEM</u></b>	<b><u>DESCRIPTION</u></b>	<b><u>PAY UNIT</u></b>
0102601	Galvanized Dowel	EA