

## ITEM 617 RECONDITIONING SHOULDERS

### 617.01 Description

### 617.02 Materials

### 617.03 Prosecution

### 617.04 Shoulder Preparation

### 617.05 Furnishing and Compacting Additional Aggregate

### 617.06 Method of Measurement

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**617.01 Description.** This work consists of preparing the shoulder, and furnishing and compacting additional aggregate on the existing or prepared shoulder.

Use removed or excavated materials in the Work when the material conforms to the specifications; if not, then recycle or dispose of the material according to 105.16 and 105.19.

**617.02 Materials.** Furnish materials conforming to 703.18.

**617.03 Prosecution.** If reconditioning shoulders in connection with a resurfacing project and where traffic is maintained, place shoulder material along with the paving operations as rapidly as possible. Complete all shoulder reconditioning within 4 days following the placement of the surface course or any course that results in a drop-off of 2.0 inches (50 mm) or greater.

**617.04 Shoulder Preparation.** If shoulder preparation is specified, loosen the existing surface to a depth of 1 to 2 inches (25 to 50 mm). If the surface is an asphalt mix or seal, cut the surface along the edge of the pavement with a blade or disc to give a straight vertical edge. Reduce pieces of loosened material that exceed approximately 1 1/2 inches (38 mm) in size to at least this maximum size or consider these pieces unsuitable material. Remove and dispose of oversized or other unsuitable material that would interfere with placing of aggregate. Reshape the loosened material as necessary to conform to the requirements for placing aggregate.

**617.05 Furnishing and Compacting Additional Aggregate.** Spread aggregate with approved spreaders. Do not dump or store aggregate on the pavement. Remove spilled aggregate from the pavement as spreading progresses.

Perform the initial compaction of the material using crawler-type tractors, tamping rollers, trench rollers, suitable pneumatic tire equipment, or other suitable equipment. Use compaction equipment weighing at least 6 tons (5 metric tons) and use a minimum of four total passes. Perform final compaction of the surface of the shoulder using approved pneumatic tire equipment. Compact the aggregate immediately after the spreading operation to prevent loss of contained moisture and displacement of the material.

Apply water as directed by the Engineer when required to aid compaction and to prevent segregation of the material.

**617.06 Method of Measurement.** The City will measure Shoulder Preparation by the number of square yards (square meters).

The City will measure Compacted Aggregate, by the number of cubic yards (cubic meters) in place computed from the profile grade and typical sections.

The City will measure Water by the number of M gallons (cubic meters) according to 616.03.

If the plans provide for the use of aggregate in a variable width or depth course and the City cannot readily calculate the quantity from profile grade and typical sections, the City will measure the cubic yards (cubic meters) by converting from weight using the following conversion factors:

**TABLE 617.06-1**

<b>Material</b>	<b>Conversion Factor</b>	
Crushed stone	3800 lb/yd <sup>3</sup>	2250 kg/m <sup>3</sup>
Crushed gravel	3900 lb/yd <sup>3</sup>	2310 kg/m <sup>3</sup>
Crushed slag <sup>[1]</sup>		
less than 90 lb/ft <sup>3</sup> (1450 kg/m <sup>3</sup> )	3600 lb/yd <sup>3</sup>	2140 kg/m <sup>3</sup>
90 to 100 lb/ft <sup>3</sup> (1450 to 1600 kg/m <sup>3</sup> )	4000 lb/yd <sup>3</sup>	2375 kg/m <sup>3</sup>
more than 100 lb/ft <sup>3</sup> (1600 kg/m <sup>3</sup> )	4500 lb/yd <sup>3</sup>	2670 kg/m <sup>3</sup>
Recycled Portland Cement Concrete	3400 lb/yd <sup>3</sup>	2020 kg/m <sup>3</sup>
Recycled Asphalt Concrete Pavement	4000 lb/yd <sup>3</sup>	2375 kg/m <sup>3</sup>

[1] Based on average dry rodded weight of standard sizes of slag aggregates on record at the Laboratory. The conversion factors listed are the long gradation weights. These numbers are based on the dry rodded weights of No. 67, 57, or 8 gradation. The City will determine slag weights based on weights obtained from the original source.

The City will classify salvaged or mixed materials according to the material that makes up the majority of the mixture.

The moistures of the delivered material will be less than 2 percent above saturated surface dry condition or the payment will be based on the dry densities and dry weights.

Furnish freight bills or certified weigh bills according to Item 109.

**617.07 Basis of Payment.** The City will pay for accepted quantities at the contract prices as follows:

<b>Item</b>	<b>Unit</b>	<b>Description</b>
617	Square Yard (Square Meter)	Shoulder Preparation
617	Cubic Yard (Cubic Meter)	Compacted Aggregate
617	M Gallons (Cubic Meter)	Water