

**ITEM 208.3101 09 - MEDIA FILTER DRAIN MIX**

**DESCRIPTION**

This work shall consist of furnishing and installing Media Filter Drain Mix in accordance with the contract documents and as directed by the Engineer.

**MATERIALS**

**MEDIA FILTER DRAIN MIX** shall be a well blended mixture of screened gravel, dolomite, gypsum, and perlite. Components of the Media Filter Drain Mix are defined below:

**A. SCREENED GRAVEL**

Screened Gravel shall meet the material designation 703-0203 from §703-02 and conform to the following requirements:

<b><u>Sieve Size</u></b>	<b><u>Percent Passing (by weight)</u></b>
12.5 mm	100
9.5 mm	90-100
4.75 mm	30-56
2.00 mm	0-10
75 µm	0-1.5
% fracture, by weight, min.	75

The fracture requirement shall be at least two fractured faces and will apply to material retained on the 4.75 mm sieve.

The finished product shall be clean, uniform in quality, and free from wood, bark, roots, and other deleterious materials.

Aggregate for Media Filter Drain Mix shall be free from adherent coatings.

**B. PERLITE**

Perlite material shall be horticultural grade. Perlite shall be graded within the following limits:

<b><u>Sieve Size</u></b>	<b><u>Percent Passing (by weight)</u></b>
4.75 mm	100%
1.00 mm	0-30%
600 µm	0-10%

Norlite® and Solite® are acceptable substitutes for perlite.

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**C. DOLOMITE**

Dolomite (calcium magnesium carbonate) material shall be agricultural grade. Dolomite shall be graded within the following limits:

<b><u>Sieve Size</u></b>	<b><u>Percent Passing (by weight)</u></b>
2.36 mm	100%
1.18 mm	0%

**D. GYPSUM**

Gypsum (hydrated calcium sulfate) material shall be noncalcined, agricultural grade. Gypsum shall be graded within the following limits:

<b><u>Sieve Size</u></b>	<b><u>Percent Passing (by weight)</u></b>
2.36 mm	100%
1.18 mm	0%

Media Filter Drain Mix shall be mixed in the following proportions:

<b>MEDIA FILTER DRAIN MIX</b>
3.0 CM of screened gravel
1.0 CM of Perlite per 3.0 CM of screened gravel
6.0 kg of Dolomite per CM of perlite
1.0 kg of Gypsum per CM of perlite

Mixing and transportation of Media Filter Drain Mix must occur in a manner that ensures the materials are thoroughly blended prior to placement and that separation does not occur during transportation or construction operations.

Acceptance of Media Filter Drain Mix will be based upon a material certification that the material conforms to the above requirements. At least 14 calendar days prior to placement of the Media Filter Drain Mix, the Contractor/Supplier shall provide to the Engineer copies of testing results of the screened gravel gradation, perlite gradation, dolomite gradation, gypsum gradation, and total Media Filter Drain Mix design ratios. These tests shall be paid for under the Media Filter Drain Mix item.

**CONSTRUCTION DETAILS**

Media Filter Drain Mix shall be installed at the locations and to the depths) as shown in the contract documents. Media Filter Drain Mix shall be loosely compacted (tamped lightly with a dozer or backhoe bucket). No other materials or substances shall be mixed or dumped within the Media Filter Drain Mix area. Upon installation, no construction vehicles or heavy equipment shall drive over the area of the Media Filter Drain Mix.

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At least 14 calendar days prior to placement of the Media Filter Drain Mix, the Contractor shall submit to the Engineer for approval the method of placement and evidence that the proposed method will maintain the desired mixed ratios. The Media Filter Drain Mix shall not be placed until the Engineer has approved the method of placement.

**METHOD OF MEASUREMENT**

This work will be measured by the number of cubic meters of Media Filter Drain Mix installed as computed from payment lines shown in the contract documents.

**BASIS OF PAYMENT**

The unit price bid per cubic meter of Media Filter Drain Mix shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work, including certification and testing.