ITEM 407  TACK COAT

### 407.01 Description
This work consists of preparing and treating a paved surface with asphalt material, and cover aggregate if required.

### 407.02 Materials
Conform to the applicable requirements of 702 for the asphalt material and use one of the following types: 702.04 RS-1, SS-1, SS-1h, CRS-1, CSS-1, or CSS-1h; or 702.13.

Conform to 703.06 for cover aggregate.

### 407.03 Equipment
Provide adequate cleaning equipment, spreader boxes, and distributors.

Use distributors designed, equipped, maintained, and operated to apply asphalt material at the specified rate per square yard (square meter) with uniform pressure over the required width of application. Ensure that the distributor includes a tachometer, pressure gauges, accurate volume measuring devices, or a calibrated tank. Mount an accurate thermometer with a range covering the specified application temperature for asphalt material at approximately center height of the tank with the stem extending into the asphalt material. Ensure that the distributor has a full-circulating system with a spray bar that is adjustable laterally and vertically. Ensure that the spray bar will maintain a constant height above the pavement under variable load conditions. Supply each distributor with suitable charts showing truck and pump speeds and other pertinent application data necessary to obtain the required results.

Do not use equipment that cannot obtain the correct tack application.

### 407.04 Weather Limitations
Do not apply the asphalt material if the surface temperature is below the minimum placement temperature for the pavement course to be placed, as specified in 401.06.

### 407.05 Preparation of Surface
Ensure that the surface is thoroughly clean and dry to the Engineer’s acceptance before the asphalt material is applied. Remove material cleaned from the surface and dispose of it as the Engineer directs.

When tack material is being applied, protect the exposed surfaces of the curb and gutter and all structures from being marred or defaced.

### 407.06 Application of Asphalt Material
Uniformly apply the asphalt material with a distributor having clean nozzles functioning properly. Obtain the Engineer's approval for dilution with water, if desired to achieve a more uniform application. The City will not pay for diluted tack used without approval. Ensure any diluted asphalt material used for tack has a minimum viscosity of 20 seconds Saybolt Furol (702.04).
For irregular areas such as driveways and intersections, apply the asphalt material using a method the Engineer approves.

If paving asphalt concrete directly onto PCC or brick pavement, tack the pavement with rubberized asphalt emulsion conforming to 702.13.

Before placing a surface course onto an intermediate course, apply a tack coat on the intermediate course.

Apply the tack coat in a manner that offers the least inconvenience to traffic and that allows one-way traffic without pickup or tracking. Only apply the tack coat to areas that will be covered by a pavement course during the same day.

Obtain the Engineer's approval for the quantity, rate of application, temperature, and areas to be treated before application of the tack coat. The Engineer will determine the actual application in gallons per square yard (liters per square meter) by a check on the project. The application is considered satisfactory when the actual rate is within ±10 percent of the required rate and the material is applied uniformly with no visible evidence of streaking or ridging. The Engineer will require repairs to equipment when ridging, streaking, or other nonuniform coverage is observed, and a subsequent test strip to demonstrate proper application. If the application is not uniform and not corrected the total square yardage of non uniform application will be considered non specification material. The Engineer will determine the number of gallons (liters) for non-payment by using the approved rate of application times the total square yards (square meters) of non-uniform application.

407.07 Method of Measurement. The City will measure Tack Coat and Tack Coat for Intermediate Course by the number of gallons (liters) of undiluted asphalt material applied for each according to 109.

407.08 Basis of Payment. The cost of cover aggregate and water to dilute an emulsion is incidental to Tack Coat.

The City will not pay for non-uniformly applied materials as defined in 407.06.

The City will pay for accepted quantities at the contract prices as follows:

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>407</td>
<td>Gallon (Liter)</td>
<td>Tack Coat</td>
</tr>
<tr>
<td>407</td>
<td>Gallon (Liter)</td>
<td>Tack Coat for Intermediate Course</td>
</tr>
<tr>
<td>407</td>
<td>Tons (Metric Tons)</td>
<td>Cover Aggregate</td>
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</tbody>
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