

1. GENERAL

1.1 RELATED WORK

- .1 Section 32 01 16 – Pavement Milling and Removals.
- .2 Section 32 11 23 – Granular Base.
- .3 Section 32 12 16 – Hot Mix Asphalt Pavement.

1.2 DEFINITIONS

- .1 Tack Coat:
 - .1 The application of bituminous material to a previously constructed paving surface of any type in preparation of placing bituminous surfacing materials to provide adhesion between the existing pavement and subsequent asphalt concrete course.
- .2 Prime Coat:
 - .1 The application of bituminous material to a previously prepared granular base course, preparatory to placing bituminous surfacing materials or asphaltic concrete base course designed to protect the base from the infiltration of water and provide adhesion between the base and the subsequent asphalt concrete course.

1.3 MEASUREMENT AND PAYMENT

- .1 Payment for prime coat will be made at the unit price per square metre of prime coat placed at the rate of application specified in each case, as specified within the Bid Forms. Payment shall include the supply of the prime coat materials, equipment and tools, labour, supervision, and all other tasks and incidentals necessary to perform the Work, including, where required, blotter sand. The unit price for the application of the prime coat shall also include the application to narrow surfaces such as gutters, manholes, valves and valve boxes, joints, and other asphalt or concrete edges.
- .2 Payment for tack coat will be made at the unit price per square metre of tack coat placed at the rate of application specified in each case, as specified within the Bid Forms. Payment shall include the supply of the tack coat materials, equipment and tools, labour, supervision, and all other tasks and incidentals necessary to perform the Work, including where required blotter sand. The unit price for the application of the tack coat shall also include the application to narrow surfaces such as gutters, manholes, valves and valve boxes, joints, and other asphalt or concrete edges.

2. PRODUCTS

2.1 MATERIALS

- .1 Prime Coat:
 - .1 Liquid asphalt shall be used for prime coat.
 - .2 The liquid asphalt shall be either cut back asphalt or an emulsion of a grade that will penetrate into the base but will leave a viscous asphalt in the pores of the treated surface.

- .3 The Contractor has the choice of SEP-1, SEP-2, or SS-1 for application through August 31 each season.
- .4 The Contractor has the choice of MC-30, SEP-1, SEP-2, or SS-1 for application after August 31 each season.
- .5 The Contractor shall supply sand used for the blotting of excess asphalt due to excess priming.
- .2 Tack Coats:
 - .1 Liquid asphalt shall be used for tack coat.
 - .2 The Contractor has the choice of SS-1 or MS-1 for application before August 31 each season.
 - .3 The Contractor has the choice of RC-30, RC-70, SS-1, or MS-1 for application after August 31 each season.
- .3 Sand Blotter:
 - .1 The materials for sand cover shall consist of clean granular mineral material reviewed by the Engineer, all of which shall pass a 5,000 sieve.

3. EXECUTION

3.1 EQUIPMENT

- .1 Cleaning equipment shall consist of power brooms, flushers, and whatever hand scrapers may be necessary to remove all foreign material.
- .2 The pressure distributor used for applying asphaltic material shall distribute the asphaltic material at an even temperature, uniformly on variable widths of surface up to 5m. Uniform spray without atomization shall be determined and controlled from 0.2 to 5.4 litres per minute (L/m) with uniform pressure, and with an allowable variation from any specified rate not exceeding 0.1L/m.
- .3 Suitable means for accurately indicating the temperature of the asphaltic material shall be provided at all times. The thermometer well shall be placed so as not to be in contact with a heating tube.
- .4 If provided with heating attachments the distributor shall be so equipped and operated that the asphaltic material shall be circulated or agitated throughout the entire heating process.

3.2 PREPARATION

- .1 Immediately prior to applying the asphalt prime or tack coat, the surface shall be brought to uniform cross-section by patching all depressions and defective areas using an approved patching material and by removing all bumps and irregularities.
- .2 All loose and foreign material shall be removed by light sweeping.

3.3 APPLICATION

- .1 Obtain the Engineer's approval of the existing surface before applying the asphalt (prime or tack) coat. Clean the surface as required.

- .2 Application shall be at a minimum rate of 1.1 litres per square metre or at a greater rate which will be absorbed by the base material in twenty-four (24) hours, not exceeding 2.0 litres per square metre. It shall be the Contractor's responsibility to choose the quantity and employ methods that will provide a continuously dense waterproof surface. Do not spray excessively to create ponding or streaking.
- .3 Coat contact surfaces of curbs, gutters, headers, manholes and like structures with a thin uniform coat of asphalt material. Do not apply to surfaces that will be visible when paving is complete. Work adjacent to the roadway shall be completely protected from the application operation by a suitable covering. Any unnecessary splashing of the concrete shall be cleaned.
- .4 Do not apply the asphalt coat when the air temperature is less than 5°C, when the surface is not dry, or when rain or fog is forecast.
- .5 Traffic shall not be permitted to travel on the coated surface until it is cured. The Contractor shall use flagmen, if required, and signage to control traffic until the coated surface has cured.
- .6 Where traffic must be accommodated, the Contractor shall apply the asphalt coat to only one half of the roadway at any time. The other half shall not be sprayed until the first has properly cured and all puddles and excess free asphalt have been blotted.
- .7 Areas missed by the distributor or are inaccessible to the distributor shall be treated using a hand sprayer.
- .8 The bituminous coat shall be maintained by the Contractor at its own expense including the cost of the required liquid asphalt. Any area of asphalt coat that has become fouled shall be repaired before asphalt concrete pavement is placed. Maintenance shall include spreading any additional sand and patching any breaks in the coated surface with additional asphaltic material.

END OF SECTION