



**CITY OF
SWIFT CURRENT**
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**SECTION 04025
PRIME, TACK AND FOG COATS**

DECEMBER 2015



CONSTRUCTION SPECIFICATIONS

SECTION: 04025

PRIME, TACK AND FOG COATS

Page 1

1	GENERAL	2
1.1	DESCRIPTION	2
1.2	RELATED SECTIONS	2
1.3	DEFINITIONS	2
2	PRODUCTS	3
2.1	PRIME COAT	3
2.2	TACK COAT	3
2.3	FOG COAT	3
2.4	SAND BLOTTER	3
3	EXECUTION	3
3.1	EQUIPMENT	3
3.2	PREPARATION	3
3.3	APPLICATION	4
4	MEASUREMENT AND PAYMENT	5
4.1	MEASUREMENT	5
4.2	PAYMENT	5

1 GENERAL

1.1 DESCRIPTION

1.1.1 This section includes the supply and installation of prime, tack and fog coats.

1.2 RELATED SECTIONS

- 12000 Flexible Guide Posts and Delineators
- 10000 Regulatory Roadway Signs
- 02010 Site Preparation and Grading
- 02015 Sub – Grade Preparation
- 03001 Aggregates General
- 03005 Granular Base Course
- 03010 Granular Sub – Base
- 03060 Geotextile and Rolled Erosion Control Devices
- 03070 Rip – Rap
- 04000 Asphalt Pavement Crack Routing and Sealing
- 04001 Asphalt Pavement Crack Sealing
- 04015 Asphalt Concrete
- 04070 Asphalt Concrete Pavement Milling
- 06010 Concrete Side walk, Curb and Gutter Construction
- 07000 Pavement Markings

1.3 DEFINITIONS

Prime Coat: Prime coat shall be the application of bituminous material to previously prepared granular base course, prior to placing bituminous surfacing materials.

Tack Coat: Tack coat shall be the application of bituminous material to a previously constructed paving surface of any type in preparation of placing bituminous surfacing materials, and against curb and gutter faces, manholes, valves and other appurtenances in the street to be paved.

Fog Coat: Fog coat shall be the application of bituminous material to seal small cracks and surface voids on surface materials. Fog coat shall only be required if, in the opinion of the Project Manager, the asphalt is open in texture.

2 PRODUCTS

2.1 PRIME COAT

2.1.1 The bituminous material for priming the base course shall be liquid asphalt. The asphalt types may vary from medium curing (MC) type MC-30 to MC-250; from slow setting (SS) type SS-1 to SS-1H or a special emulsified asphalt primer S.E.P. to suit the condition of the base.

2.2 TACK COAT

2.2.1 The bituminous material for tacking the existing asphalt surface shall be liquid asphalt. The asphalt types may vary from rapid curing (RC) type RC-30 to RC-250; from slow setting (SS) type SS-1 to SS-1H depending on conditions to suit the base. The SS emulsion shall be diluted by adding an equal amount of water prior to application.

2.3 FOG COAT

2.3.1 The bituminous material for sealing the surface course if specified shall be liquid asphalt. The asphalt types may be slow setting (SS) type SS-1 or medium curing (MC) type MC-30 depending on the surface material to be sealed.

2.4 SAND BLOTTER

2.4.1 The materials for sand cover shall consist of clean granular mineral material approved by the Project Manager, all of which shall pass a 5.0mm sieve.

3 EXECUTION

3.1 EQUIPMENT

3.1.1 Cleaning equipment shall consist of power brooms, flushers, and whatever hand scrapers may be necessary to remove all foreign material.

3.1.2 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 5 metres. 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 0.1 L/m.

3.1.3 Suitable means for accurately indicating the temperature of the asphaltic material shall be provided at all times. The thermometer well shall be so placed as not to be in contact with a heating tube.

3.1.4 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

3.2.1 Immediately prior to applying the asphalt primer, tack or fog 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.

3.2.2 All loose and foreign material shall be removed by light sweeping.

3.3 APPLICATION

3.3.1 The City's approval shall be obtained prior to applying asphalt prime, tack or fog coats. Surface shall be cleaned as required.

3.3.2 Upon the prepared surface the asphalt shall be applied uniformly at a rate of from 0.50 to 1.50 litres/square metre (L/m²) for asphalt primer, and at a rate of from 0.25 to 0.90 L/m² for tack coat. The asphalt primer, tack or fog coat shall be applied only when the surface is dry or slightly damp, unless otherwise allowed by the City, or only when the air temperature in the shade is above 10°C.

3.3.3 The application temperature of the asphalt primer, tack or fog coat shall be as follows:

Rapid Curing Asphalt:

RC-30	51 – 68°C
RC-70	74 – 88°C
RC-250	100 – 110°C

Medium Curing Asphalt:

MC-30	51 – 68°C
MC-70	74 – 88°C
MC-250	100 – 110°C

Emulsified Asphalt:

SS-1	20 – 50°C
SS-1H	20 – 50°C

Special Emulsified Primer Asphalt:

S.E.P.	15 – 50°C
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3.3.4 Measurement coat contact surfaces of curbs, gutters, headers, manholes and like structures with a thin uniform coat of asphalt material. Do not prime or tack 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.

3.3.5 Asphalt coat shall not be applied when air temperature is less than 5°C or when rain is forecast within 2 hours.

3.3.6 The Contractor shall maintain the primed surface until the surface course has been placed. Maintenance shall include spreading any additional sand and patching any breaks in the primed surface with additional asphaltic material.

3.3.7 The asphalt primer should preferably be entirely absorbed by the base course and therefore require no sand cover. If, however, the asphalt has not been completely

absorbed 24 hours after application, just sufficient sand shall be spread over the surface to blot up excess asphalt and prevent it from being picked up by any traffic.

3.3.8 Traffic shall not be permitted to travel on tack or fog coat until cured. The Contractor shall use flagmen, if required, and signage to control traffic until the tack or fog coat has cured.

3.3.9 Traffic shall not be permitted to travel on prime coat until 6 hours after application or until it has cured. After this period of time, excess asphalt material remaining on the surface shall be blotted by sand before traffic is permitted to travel on the surface.

4 MEASUREMENT AND PAYMENT

4.1 MEASUREMENT

4.1.1 Measurement shall be based on lineal meters (m) or square meters (m²) of actual work completed, as specified in the unit rate schedule of the contract.

4.2 PAYMENT

4.2.1 Payment shall be based on the measured quantity multiplied by the unit rate specified in the unit rate schedule of the contract.

4.2.2 Payment shall be compensation in full for transportation, supply of materials specified, equipment, tools and labour, and all other incidentals necessary to complete the work.

END OF SECTION