

SPECIFICATIONS FOR CONSTRUCTING AN ASPHALT SURFACE TREATMENT

825. 1 SCOPE

These Specifications govern all operations necessary for and pertaining to the construction of an Asphalt Surface Treatment on a primed roadway surface.

825. 3 MATERIALS

3.1 Aggregate

Aggregate used for Asphalt Surface Treatment shall be Seal Coat Aggregate as specified in the Special Provisions.

3.2 Asphalt Products

The Department will supply the following emulsified asphalt products as required:

HF 150
HF 250

When the emulsified asphalt is transported to the job site storage by means of tank trucks, the Contractor shall perform the following at his own expense and to the satisfaction of the Engineer:

- a) Arrange with the supplying company the points of delivery and the time and quantity to be shipped. When requested, the Contractor shall supply the Engineer with a copy of orders and instructions respecting the shipment.
- b) Provide and maintain a storage area, and upon completion of the work, restore the area to a satisfactory condition.
- c) Provide suitable unloading facilities and storage facilities of sufficient capacity to store all asphalt products ordered to the job site. The Contractor will be responsible for unloading emulsified asphalt from the truck.
- d) Pay overtime standby charges for the Supplier's trucks except when the Supplier is responsible for the delay. Overtime standby is defined as the waiting period at the job site unloading point, after a free waiting time allowance of 2½ hours has been exceeded for unloading any delivery of ordered emulsified asphalt.
- e) Pay transportation charges on emulsified asphalt returned to the Supplier for all causes, except in the case of a Supplier making a faulty delivery.

The Contractor will be permitted to order a partial load of emulsified asphalt to complete the work.

825. 5 EQUIPMENT

5.1 Inspection of Equipment

Equipment required for this work shall be in satisfactory working condition and so maintained for the duration of the work.

The Contractor shall ensure as a minimum, the following equipment is on site before beginning any Asphalt Surface Treatment operation:

- one self-propelled steel roller, weighing 10 - 15 t;
- two self-propelled straight wheel rubber-tired rollers, each weighing a minimum of 10 t;
- one self-propelled roll-type chip spreader with a minimum width of 4 m;
- one distributor meeting requirements outlined in Specification No. 805; &
- one power broom.

Equipment shall be on the site and available for inspection, testing and approval before the work commences.

5.2 Aggregate Pressure Distributor

The distributor used in applying asphalt products shall be constructed and equipped to maintain a sufficient and uniform pressure the full length of the spray bar so as to uniformly and completely cover the road surface at rates approved by the Engineer.

It shall be equipped with:

- A heating unit capable of maintaining the asphalt product in the tank at the specified temperature;
- A thermometer so placed as to accurately measure the temperature of the asphalt product in the tank;
- A spray bar that can be adjusted in increments of 0.6 metres and capable of being raised or lowered;
- Spray nozzles, with quick-acting positive shutoff, of a design which will ensure a uniform fan-shaped spray;
- A hose and nozzle attachment to be used for spraying, by hand, areas inaccessible to the distributor spray bar; and
- A gauge to indicate volume of product in the distributor.

5.3 Aggregate Spreader

A roll-type spreader capable of applying aggregate at variable widths and at variable rates, shall be used to apply seal coat aggregate to the oiled surface.

825. 7 CONSTRUCTION METHODS

The Asphalt Surface Treatment shall be applied to the primed base at such locations and rates as are specified by the Engineer. The primed surface shall be cleaned prior to spraying the asphalt, using equipment that will leave the surface dry and free from dust, dirt and other unacceptable material.

825. 7.1 Applying Emulsified Asphalt

The emulsified asphalt shall be sprayed on the cleaned surface at a temperature range between 50 - 80°C and at a rate of 1.0 - 1.25 L/m². Asphalt shall not be sprayed wider than the width in which aggregate will be applied by the spreader on a single pass. Spraying of emulsion shall not exceed the distribution of Seal Coat Aggregate by more than 1 km at any time. As directed by the Engineer, separation of the distributor and the seal coat operation may be reduced depending on environmental conditions.

Emulsified asphalt shall only be applied when the primed surface is dry and the atmospheric temperature is not less than 5°C.

7.2 Applying Seal Coat Aggregate

Seal coat aggregate shall immediately be applied to the freshly oiled surface using a self-propelled roll-type chip spreader. Seal coat aggregate shall be applied at a rate of 75 t/lane km based on a 3.7 m wide lane.

Seal coat aggregate shall be rolled as follows:

- The self-propelled steel roller shall make a minimum of one pass over the entire area of application;
- The self-propelled rubber-tired rollers shall make a minimum of two passes over the entire area of application;
- The number of passes to complete the rolling process shall be as directed by the Engineer.

The Contractor shall prevent any unnecessary passage of traffic on the new seal until rolling of the aggregate is complete.

7.3 Sweeping

The entire finished Asphalt Surface Treatment shall be cleaned of any loose or unacceptable material to the satisfaction of the Engineer. The minimum time between the final rolling and the sweeping of the road surface shall be no less than 4 hours and may be as long as 8 hours. The decision to commence sweeping will be weather related and will be at the discretion of the Engineer.

825. 9 METHOD OF MEASUREMENT

"Asphalt Surface Treatment" will be measured for payment by the square metre based on measurements taken by the Engineer of the actual surface area constructed in the field.

825. 11 BASIS OF PAYMENT

The unit price per square metre for "Asphalt Surface Treatment" will be payment in full for applying Seal Coat Asphalt, placing and rolling Seal Coat Aggregate and for the performance of all operations necessary or incidental thereto.