

## 400 FLEXIBLE PAVEMENT

### ITEM 409 - SEAL COAT

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**409.01 Description.** This work shall consist of the construction of a wearing surface composed of 1 or more applications of bituminous material and cover aggregate, in place and compacted, in accordance with these specifications and in reasonably close conformity with the lines shown on the plans or established by the Engineer.

**409.02 Bituminous Material.** Bituminous material, of the type and grade specified, shall conform to 702. When 2 or more grades of one type of bituminous material are specified in the contract the grade to be used shall be determined by the Engineer.

**409.03 Cover Aggregate Material.** The cover aggregate shall conform to 703.05. The sizes of aggregate shall be No. 6, No. 67, No. 8 or No. 9, as specified. The surface moisture of the cover aggregate shall not exceed that which will permit the proper coating and adhesion of the type of bituminous material specified, except that the bituminous material may be treated with some agent that will assist in obtaining sufficient coating to hold the aggregate in place, provided such treatment is approved by the Engineer. When a Contractor desires to use treated material, the agent shall comply with 712.08.

**409.04 Weather Limitations.** No bituminous material shall be applied when the temperature of the atmosphere is below 60° F (16° C) nor when the air temperature within the preceding 24 hours has been below 40° F (4° C). Emulsified asphalt 401.07 shall not be applied between October 1 and May 15 of the succeeding year except by permission of the Director. No bituminous material shall be applied while the surface is wet or when the humidity or impending weather conditions are such that proper curing may not be obtained. Emulsified asphalt may be applied to a damp surface with the Engineer's approval.

**409.05 Equipment.** Bituminous distributors shall conform to 407.03. Rollers shall be pneumatic tire conforming to 401.12. Tires shall be inflated to a pressure producing a minimum average contact pressure of 55 psi (380 kPa).

When pneumatic tire rollers are used on a seal coat with 405, they shall be used in conjunction with three-wheeled rollers conforming to 401.12.

Aggregate spreaders may be self-propelled or truck mounted and shall be equipped with hoppers, revolving cylinders and adjustments necessary to produce a uniform distribution of particles at the specified rate.

**409.06 Preparation of Surface.** The pavement shall be cleaned in accordance with 407.04.

**409.07 Protection of Curbs and Structures.** When bituminous material is being applied, the exposed surfaces of curbs, curb and gutter or other structures shall be protected from being marred or defaced.

**409.08 Applying Bituminous Material.** The bituminous material, heated to a temperature within the specified range, shall be applied by means of a pressure distributor. The material shall be applied with sufficient uniformity to prevent ridging or streaking in the completed surface. The rate of application specified in the contract may be adjusted with the approval of the Engineer when necessary to result in satisfactory embodiment and retention of the cover aggregate.

At the beginning and at the end of a contract section, the application shall be started and stopped on paper or other suitable material sufficiently wide enough to permit full application on the surface being treated. Transverse and longitudinal laps shall be made in such a manner that the texture of the finished surface will be uniform and continuous.

Prior to starting the application of bituminous material, sufficient cover aggregate shall be available for immediate application.

**409.09 Cover Aggregate.** Immediately following the application of the bituminous material, cover aggregate shall be applied uniformly without ridges or laps at the specified rate adjusted as directed by the Engineer to produce a minimum of excess loose particles. Spreading shall be accomplished in such manner that the tires of the truck or aggregate spreader at no time contact the uncovered and newly applied bituminous material. Deficiencies in the application of cover aggregate shall be corrected prior to rolling in a manner satisfactory to the Engineer.

Rolling shall begin immediately behind the spreader and shall consist of 4 complete coverages. When three-wheeled rollers are required they shall be used for at least the initial coverage. A roller coverage shall consist of 2 trips or passes over the same area. Rollers shall not be operated at speeds which cause pick up or dislodging of aggregate particles.

Following the completion of rolling, the Contractor shall protect the surface from traffic damage during the period of time required for the bituminous material to cure sufficiently to prevent dislodging of the aggregate particles by normal traffic. During this

period, deficiencies in cover aggregate shall be corrected by spreading additional aggregate or by light brooming as directed by the Engineer.

Excess cover aggregate shall be swept from the surface by means of rotary brooms soon after the bituminous material has cured sufficiently to prevent dislodging of the embedded aggregate particles.

**409.10 Method of Measurement.** The quantities will be the number of tons (metric tons) of aggregate and the actual number of gallons (liters) of bituminous material all in place, completed and accepted. All measurements of material shall be made in accordance with 109.

**409.11 Basis of Payment.** Payment for accepted quantities, complete in place, will be made at the contract price for:

<b>Item</b>	<b>Unit</b>	<b>Description</b>
409	Gallon (Liters)	Seal Coat Bituminous Material
409	Ton (Metric Ton)	Seal Coat Cover Aggregate