PLACEMENT AND CONSTRUCTION OF ASPHALT EMULSION SLURRY SEAL COAT

332.1 DESCRIPTION:
The work covered by this specification consists of furnishing all labor, equipment, and materials necessary to perform all operations required for the application of an asphalt emulsion slurry surface.

NOTE: THESE SPECIFICATIONS DO NOT COVER THE APPLICATION OF COAL TAR SLURRY SEALS.

332.2 MATERIALS:
The asphalt emulsion material, mineral aggregate and mineral filler shall be as specified in Section 715.

332.3 EQUIPMENT:
332.3.1 General: When requested by the Engineer, descriptive information on the slurry seal mixing and applications equipment to be used will be submitted for approval no less than 7 days before the work starts.

332.3.2 Self Contained Slurry Machine: The mixing machine will be a continuous flow type. It will be capable of accurately delivering a predetermined proportion of pre-wetted aggregate, mineral filler, water and asphalt emulsion to the mixing chamber and discharging the thoroughly blended mixture on a continuous basis. The mixing machine will be equipped with a mineral filler feeder. The feeder will have an accurate metering device or method to introduce a predetermined proportion into the mixer. The filler will be introduced into the mixing chamber at the same time and location as the aggregate.

The mixing machine will be equipped with a water pressure system and fog-type spray bar, adequate for complete water fogging of the surface to be sealed.

The mixing machine will be mounted on a truck or other vehicle capable of producing evenly controlled low rates of speed throughout the operation to ensure the slurry is spread evenly and all cracks are filled.

332.3.3 Slurry Spreading Equipment: Attached to the mixer machine shall be a mechanical type squeegee spreader equipped with flexible material in contact with the surface to prevent loss of slurry from the distributor. It shall be maintained to prevent loss of slurry on varying grades and crown by adjustments to assure uniform spread. There shall be a steering device and a flexible strike-off. The spreader box shall have an adjustable width. The box shall be kept clean. Build-up of asphalt and aggregate on the box shall not be permitted. The use of burlap drags or other drags shall be approved by the Engineer.

332.3.4 Rollers: Rollers shall be approved by the Engineer.

332.3.5 Cleaning Equipment: Power brooms, pick-up brooms, air compressors, water flushing equipment, and hand brooms shall be suitable for cleaning the surface and cracks of the old surface.

332.3.6 Auxiliary Equipment: Hand squeegees, shovels, and other equipment shall be provided as necessary to perform the work.

332.4 PREPARATION OF THE SURFACE:
332.4.1 Immediately before applying the slurry, the area to be surfaced shall be cleaned of dirt, loose material, and other objectionable material. In urban areas, the surface shall be cleaned with a self-propelled pick-up sweeper. In rural areas, power brooms may be used. When necessary, cleaning shall be supplemented by hand brooms. Water flushing will not be permitted in areas where cracks are present in the pavement surface.

The slurry shall not be applied until an inspection of the surface has been made by the Engineer and he has determined that it is suitable.
332.2 Tack Coat: When specified, a tack coat shall be applied in accordance with Section 329 using the same type and grade of asphalt emulsion as specified for the slurry seal.

332.3 Water Fogging: When required by local conditions, the surface, directly ahead of the slurry box, shall be pre-wetted by fogging. The fogging shall be accomplished in such a manner that the entire surface is damp with no apparent flowing water or puddles.

332.5 WEATHER LIMITATIONS:

The slurry seal shall not be applied unless the pavement temperature is at least 45°F. and rising. The mixture shall not be applied during unsuitable weather.

332.6 PROTECTION OF UNCURED SURFACE:

Adequate methods such as barricades, flagmen, pilot cars, etc., shall be used to protect the uncured slurry surface from all types of traffic. Adequate means shall be provided by the Contractor to protect the uncured product. Any damage done to the product shall be repaired at the Contractor’s expense.

332.7 MIXING AND APPLICATION:

The mixing time shall not exceed four minutes. Excessive mixing will not be allowed. The resulting mixture shall have the desired consistency, when placed on the surface. If breaking, hardening, segregation, balling or lumping occurs during the mixing process, the batch will be discarded.

A sufficient amount of slurry shall be carried in all parts of the spreader at all times so that a complete coverage is obtained.

No streaks caused by oversized aggregate shall be left in the finished surface. Build-up on longitudinal and transverse joints will be kept to a minimum. Approved squeegees shall be used to spread slurry in areas nonaccessible to the slurry mixer.

332.8 ROLLING:

As soon as the asphalt slurry has been set sufficiently to prevent any material from being picked up, it shall be rolled until all ridges have been ironed out and a uniform surface is obtained.

332.9 MEASUREMENT:

Quantities and materials for this work will be paid for at the contract price per unit of measurement for each of the following pay items as indicated in the proposal.

(A) Bituminous tack coat if specified Ton (Diluted)
(B) Emulsified asphalt for slurry Ton (Undiluted)
(C) Aggregate for slurry Ton (Surface Dry)

- End of Section -