ASPHALT STABILIZATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

Asphalt Stabilization - for existing unpaved roadways

1.02 DESCRIPTION OF WORK

Asphalt stabilization shall consist of a mixture of emulsified asphalt, imported mineral aggregate, and existing roadway material; properly proportioned, mechanically mixed, spread evenly on the surface specified, compacted in place and fog sealed as specified herein to the thickness width and crown specified in the plans and as directed by the Engineer or his designated representative

1.03 SUBMITTALS

Follow the General Provisions (Requirements) and Covenants.

1.04 SUBSTITUTIONS

Follow the General Provisions (Requirements) and Covenants.

1.05 DELIVERY, STORAGE, AND HANDLING

Follow the General Provisions (Requirements) and Covenants.

1.06 SCHEDULING AND CONFLICTS

Follow the General Provisions (Requirements) and Covenants.

1.07 RESTRICTIONS ON OPERATIONS

Asphalt stabilization shall not be applied during rainfall, when excessive moisture content exists, when the air temperature is below 50^{o} F, or during night conditions.

1.08 MEASUREMENT FOR PAYMENT

The asphalt stabilization shall be measured and paid by the square yards of work computed, and accepted in place by the Engineer or authorized representative.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Asphalt Emulsion: The emulsified asphalt shall conform to specification requirements for slow setting cationic emulsified asphalt; CSS-1 as per and ASTM D 2397-85.

B. Aggregate: Shall be as required by the Engineer and may be pitrun gravel, crushed stone, or reclaimed material.

C. Material Source: Source of all materials shall be selected prior to the time the materials are required for use in the work. Samples of material shall be furnished by the contractor as directed by the Engineer or authorized representative during the progress of the work.

2.02 EQUIPMENT

All equipment, tools and machines used in the performance of this work shall be maintained in a satisfactory working condition at all times.

A. Motor Grader: A motor grader shall be utilized. Motor graders shall include attachments for scarifying, shaping, ditching, grading and sloping. Basic motor grader shall not weigh less than 22,000 pounds.

B. Asphalt Distributor: A truck mounted asphalt distributor is required. The tank shall be insulated and range in capacity from 500 to 1,500 gallons. The truck mounted asphalt distributor shall have a circulating system, spray bar (fully circulating), and calibration controls.

C. Pug-Mill Mixer: Road reclaiming machine or similar tractor mounted or towed mechanical mixers shall be used for blending, emulsion and roadway aggregates.

D. Rollers: A vibratory type roller compactor, minimum static weight 10,000 lb., and minimum dynamic force of 15,000 lb. is recommended. Rollers must be capable of compacting a six (6) inch lift of blended asphalt stabilized material to a minimum density of 95% standard Proctor.

PART 3 - EXECUTION

3.01 RESHAPING DITCHES

A. Remove excess and undesirable material from side ditches and properly dispose of material

B. Shape earth side ditches as shown on typical cross section. Excess material excavated from ditch shall not be placed on the roadway but wasted off of the roadway

3.02 PREPARE / PLACE BASE MATERIAL

A. Reclaim present surface material by pulverizing the existing roadway surface to a minimum depth of 4 inches or the depth specified by the Engineer for the full length and width of the designated roadway.

B. Spread the imported aggregate as uniformly as possible on center 15 feet of roadway at the rate of 10 pounds per square foot for the full length of designated roadway.

3.03 APPLICATION AND MIXING OF ASPHALT EMULSION

A. Asphalt emulsion should be incorporated with a pulvi-mixer, road reclaimer, or similar machine, capable of thoroughly mixing and/or incorporating the emulsion in a single pass or

B. Alternately, a distributor truck may be used to apply the asphalt emulsion. Half of the required emulsion should be applied. The material should then be thoroughly blade mixed to incorporate the material. Once the emulsion is worked into the material, it will be windrowed and the second half of the emulsion will be applied and incorporated as noted above.

C. Adjust application rate to obtain a minimum of 3% residual asphalt.

3.04 GRADE AND COMPACT MATERIAL

A. Blended material shall be bladed on the roadway to form a uniform mat over the typical final design cross section.

B. Final cross section and smoothness shall be obtained by compaction with a sheepsfoot and subsequent rolling with vibratory and pneumatic roller and alternating final blade shaping. Rolling shall be applied so as to acquire final density, minimum 95% standard Proctor. Roadway shall be then opened to traffic.

3.05 FOG SEAL

After a minimum of 48 hours, the roadway shall be reclosed and a fog seal shall be applied to the finished surface with an asphalt distributor and shall consist of the specified asphalt emulsion diluted with 3 parts water to 1 part emulsion and spread at the rate of 0.15 gallons per square yard. Fog seal shall be blotted with sand prior to reopening of the roadway to prevent tracking of the asphalt emulsion.

END OF SECTION