

## SPECIFICATIONS

### Soil Stabilization

#### A. Description

This work shall consist of the preparation of a stabilized subbase course composed of underlying soils. The manufacture of the stabilized soil shall be done by the pulverizing and blending of the existing soils and the introduction of additives if called for in the Special Conditions. The process which results in a stabilized soil, shall be accomplished in accordance with these specifications and conform to the lines and grades shown on the plans or as established by the engineer.

#### B. Equipment

In general, the contractor has the option to utilize whatever equipment can effectively pulverize and blend the materials. The equipment to be used must also have the capability of introducing liquid additives uniformly and accurately.

#### C. Application and Mixing of Liquid Additives

Additives shall be uniformly distributed and mixed with the soils and any existing underlying material or imported material as specified. The mixing operation may be accomplished by using either the same machine used for the pulverizing operation or a separate machine designed for in-place continuous mixing approved by the engineer. Regardless of which method is used, a positive displacement variable speed pump and control system capable of metering the additive shall be used.

The mixing machine shall be equipped with a foot per minute instrument that is integral to the variable speed pump controller ensuring the additive can be added only when the machine is moving.

The metering system shall include a totalizer, so the amount of additive used during any given period can be read directly, and a gallons per minute gauge to indicate the instantaneous flow rate during the mixing operation.

The application rate of the additive will be expressed in terms of tons per square yard. This rate shall be based on the percent by weight of the total mixture as determined by the engineer and shown on the appropriate roadway section.

The mixing operation shall be completed in continuous segments. Each segment must be completed and compacted by the end of each day and opened to traffic.

**D. Construction Method**

The existing soils shall be pulverized and blended so the entire mass of material shall be uniformly graded and the new additive, if required, shall be uniformly dispersed throughout the processed material.

After the material has been processed, it shall be shaped, graded, and compacted to the lines, grades, and depth as shown on the plans and cross section. Water may be applied to ensure optimum moisture content at the time of mixing and compaction. The restored cross section shall be thoroughly compacted to not less than ninety-five percent of the maximum dry density or determined by ASHTO T99.

The completed stabilized base shall be tested for smoothness and accuracy of grade and if any portions are found to lack the required smoothness or accuracy such portions shall be reshaped and recompactd until the required smoothness and accuracy are obtained.

The Special Conditions will indicate the depth of soil to be stabilized and the rate of application of any additives specified.

**E. Payment**

Payment will be made under the following:

<u>ITEM NO.</u>	<u>PAY ITEM</u>	<u>PAY UNIT</u>
1	Pulverizing and preparation	Station or Square Yard
2	Mixing	Station or Square Yard
3	Additive (if applicable) Liquid Additives Mixing Water Dry Additives	Gallon M-Gallons Ton
4	Shaping, compaction and finishing	Station or Square Yard
5	Imported material	Ton or cubic yard

6	Mobilization	Lump sum
7	Surface treatment	Applicable unit

The price for the items listed above shall be full compensation for all costs incurred for material, labor, tools and equipment for each, complete and in-place.