SECTION 02622

STABILIZED AGGREGATE BASE COURSE

02622.01 GENERAL

A. Description

Stabilized aggregate base course shall include, but not necessarily be limited to, furnishing one or more courses of aggregate, plant mixed with a stabilizing agent and placed on a prepared surface in accordance with the Contract Documents.

B. Related Work Included Elsewhere

1. Subgrade preparation; Section 02610.

2. Aggregate base and subbase courses; Section 02621.

C. Quality Assurance

1. Materials

   Quality assurance for stabilized aggregate base course materials shall be as specified in Section 02621.01.

2. Field Tests

   Moisture/density and thickness tolerance requirements shall be as specified in Section 02621.01.

D. Submittals

Submittals for stabilized aggregate base course materials shall be as specified in Section 02621.01.

02622.02 MATERIALS

A. Materials Furnished by the County

1. The County will not furnish any materials for stabilized aggregate base courses.

2. The Contractor may obtain water from the County's potable water system, for application to the base courses, in accordance with current County policies and procedures. The Contractor shall contact the Bureau of Utilities, Meter Section, for requirements.

B. Contractor's Options

The Contractor may use any of the stabilizing agents specified herein, unless otherwise noted.

C. Detailed Material Requirements

1. Aggregate

   Aggregate shall be as specified in Section 02621.02.

2. Portland Cement

   Portland cement, Type I or IA, shall be as specified in Section 02651.02.

3. Emulsified Asphalts

   Emulsified asphalts for stabilization, Grade AE-BM shall be as specified in Section 02611.02.

4. Bituminous Emulsion

   Bituminous emulsion for sealing shall be as specified in Section 02611.02.

5. Water

   Water, when not obtained from the County potable water system, shall be as specified in Section 02611.02.

02622.03 EXECUTION

The subgrade or foundation shall be properly prepared and compacted for at least 500 feet ahead of placing the base course material.

A. Temperature Requirements

No material shall be deposited upon a frozen subgrade or foundation, nor until the subgrade or foundation has been approved by the Engineer. No material shall be placed when the ambient temperature is at or below 32°F.

B. Stabilizing Agent Requirements

The quantity of stabilizing agent will be determined by the Engineer.

C. Handling and Transporting Mixtures

Mixed materials shall be handled and transported to minimize segregation and loss of moisture. On long hauls, or in very hot or windy weather when appreciable quantities of

moisture might be lost by evaporation, the Engineer may require that loads in transit be kept covered. Tests for moisture content will be made at the point of delivery.

D. Spreading Requirements

The material shall be uniformly spread over the surface and against previously formed earth shoulders, berms not less than 2.5 feet wide, or against concrete curbs or gutters. Shoulders or berms shall be built up to the elevation of the top of each uncompacted layer being placed, and the inside edges shall be made as straight and as nearly vertical as practical. Material shall be spread upon the subgrade, foundation or preceding layer in layers of uniform thickness to give the required compacted depth as indicated on the Plans or established by the Engineer. The material may be deposited on the subgrade, foundation or preceding layer by any method which will prevent segregation of the coarse and fine particles. String lines or iron pins, set to indicate the required depth, shall be used for the spreading of each layer of the base course.

E. Traffic Restrictions

If traffic, including construction equipment, is allowed to use the subgrade, foundations or preceding layer, it shall be distributed over the entire width of the course in such a manner as to aid in obtaining uniform and thorough compaction.

F. Compaction Requirements

Immediately after spreading, the material shall be compacted until the required density is obtained. Before and during compaction operations the moisture content of the material shall be maintained within plus or minus two percentage points of the optimum moisture for the material.

1. Density Requirements

   Required density as determined by AASHTO T 191 or T 238 shall be not less than 95% of the maximum dry density as determined by AASHTO T 180, Method D.

2. Compaction Operations

   Compaction operations shall begin at the sides of the course, overlap the shoulder or berm at least 1 foot, and progress toward the center, parallel to the center line of the roadway, except that on superelevated curves rolling shall begin at the low side of the superelevation and progress toward the high side. The compaction operation shall continue until all compaction marks are eliminated and the course is thoroughly and properly compacted. The development of a spongy condition during the rolling process may necessitate a delay in the rolling or a lapse of time to permit drying of the foundation or subgrade, or the complete removal and reconstruction of the base, including corrective treatment of the foundation or subgrade, all of which shall be done under the direction of the Engineer.

G. Bituminous Emulsion Seal Coat Requirements

When a bituminous emulsion seal coat is required for curing, it shall be applied within 48 hours. The finished base course shall be maintained in a moist state by application of water in the form of a light spray applied by a pressure distributor until the seal coat is applied. If directed by the Engineer, the surface shall be broomed with a rotary broom to remove all loose and extraneous material before the application of the seal coat. The seal coat shall be applied at the rate of 0.2 gallons per square yard with approved distributing equipment. The exact rate and temperature of application may be adjusted by the Engineer.

02622.04 METHODS OF MEASUREMENT

Measurement for stabilized aggregate base course will be made on the basis of the surface area of the mixed base course material acceptably placed to the specified compacted depth. Surface area measurements will be based on the nominal width of the base specified and actual lengths measured along the surface for each course of the specified thickness.

02622.05 BASIS OF PAYMENT

Payment for stabilized aggregate base course will be made at the price bid per square yard for the specified base, complete in place. The price bid shall include furnishing all labor, tools, equipment, materials, including chemicals, water, sealers, and incidentals necessary to complete the item as specified.

END OF SECTION