

## SECTION 32 11 23 – AGGREGATE BASE COURSES

### PART 1 – GENERAL

#### 1.01 WORK INCLUDED

- A. Preparing and stabilizing sub-grade to receive a base or pavement.
- B. Placing and compacting base material.

#### 1.02 RELATED WORK

- A. Section 31 11 00 Clearing and Grubbing
- B. Section 31 23 00 Excavation and Fill
- C. Section 32 12 16 Asphalt Paving
- D. Section 32 13 13 Concrete Paving

#### 1.03 QUALITY ASSURANCE

- A. Perform work in accordance with Tennessee Department of Transportation Standard Specifications for Road and Bridge Construction, 1995 Edition.
- B. The Contractor shall provide material testing and inspection for quality control during paving operations.

#### 1.04 REFERENCE STANDARDS

- A. Graduation of stone materials will be performed in accordance with ASTM C136.

### PART 2 – PRODUCTS

#### 2.01 MATERIALS

- A. Mineral aggregate concrete base for asphaltic concrete pavement:
  - 1. Section 303, Grading "D", Pug Mill mix, State Highway Specifications.

### PART 3 – EXECUTION

#### 3.01 PREPARATION

- A. Verify compacted sub-grade is dry and has been approved to the work of this Section.
- B. Verify gradients and elevations of sub-grade are correct.
- C. Field Quality Control:
  - 1. Proof-roll sub-grades that have been exposed to weather.
  - 2. Remove materials identified by Testing Agency Personnel as being unsuitable. Backfill and compact such areas.

#### 3.02 PLACING BASE COURSE

- A. Perform aggregate blending by approved stationary or travel plant methods. Mixing in stockpiles or on roadway will not be acceptable.
- B. Spread base material uniformly over the area to produce required lines, grades and cross-section after compaction.
  - 1. Indicated thickness of 6 inches or less may be constructed in a single course.
  - 2. Spread and compact thickness greater than 6 inches in at least two courses.

- C. Level and contour surfaces to the elevations and gradients indicated.
- D. Compact each layer to at least 95% of the modified proctor maximum dry density.
- E. Perform 5 density tests for every 10,000 square yards. The Geotechnical Engineer may require more frequent testing.
- F. Adjust moisture content to achieve near optimum moisture content prior to compaction. If excess water is apparent, scarify aggregate and aerate to reduce the moisture content.
- G. Use mechanical hand tamping equipment in areas inaccessible to compaction equipment.

### **3.03 TOLERANCES**

- A. Flatness: Maximum variation of  $\frac{1}{4}$  inch measured with a 10 ft. straight edge.
- B. Scheduled compaction thickness: Within  $\frac{1}{4}$  inch.
- C. Variation from true elevation: Within  $\frac{1}{2}$  inch.

### **3.04 FINISHING AND MAINTENANCE**

- A. Finish surfaces by rolling with a smooth steel wheel roller. Water the surface and spread loose stones prior to rolling.
- B. Repair soft, yielding areas that develop in the final rolling.
- C. Maintain final surface in smooth and uniform condition until base course is covered by subsequent pavement construction.
- D. Protect surface from silting or erosion until placement of final pavement construction.
- E. Where areas are disturbed by traffic, weather or other means, grade and recompact as necessary.

END OF SECTION