

**SECTION 32 12 16**  
**ASPHALT PAVING**

**PART 1 GENERAL**

**1.01 RELATED DOCUMENTS**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

**1.02 SECTION INCLUDES**

- A. Aggregate base course.
- B. Bituminous concrete paving.

**1.03 RELATED REQUIREMENTS**

- A. Section 31 22 00 - Grading: Preparation of site for paving and base.
- B. Section 31 23 23 - Fill: Compacted subgrade for paving.

**1.04 REFERENCE STANDARDS**

- A. Arkansas Department of Transportation Standard Specifications for Highway Construction, Arkansas Department of Transportation, Latest Edition.
- B. AI MS-2 - Asphalt Mix Design Methods; 2015.
- C. AASHTO T 180: Standard Method of Test for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in) Drop.

**1.05 QUALITY ASSURANCE**

- A. Perform Work in accordance with State of Arkansas Highways standard.
- B. Mixing Plant: Complying with State of Arkansas Highways standard.
- C. Obtain materials from same source throughout.

**1.06 FIELD CONDITIONS**

- A. Do not place asphalt when ambient air or base surface temperature is less than 40 degrees F, or surface is wet or frozen.
- B. Place bitumen mixture when temperature is not more than 15 F degrees below bitumen supplier's bill of lading and not more than maximum specified temperature.

**PART 2 PRODUCTS**

**2.01 MATERIALS**

- A. Aggregate Base Course: Class 7 aggregate base course in accordance with AHTD Standard Specifications for materials and workmanship.
- B. Tack Coat: Homogeneous, medium curing, liquid asphalt.

**2.02 ASPHALT PAVING MIXES AND MIX DESIGN**

- A. Asphalt Concrete Hot Mix Surface Course: Type II or III asphalt surface course in accordance with AHTD Standard Specifications for materials and workmanship.
- B. Asphalt Concrete Hot Mix Binder Course: Type I asphalt binder course in accordance with AHTD Standard Specifications for materials and workmanship.
- C. Submit proposed mix design of each class of mix for review prior to beginning of work.

**2.03 SOURCE QUALITY CONTROL**

- A. Test mix design and samples in accordance with AI MS-2.

**PART 3 EXECUTION**

**3.01 EXAMINATION**

- A. Verify that compacted subgrade is dry and ready to support paving and imposed loads.

- B. Verify gradients and elevations of base are correct.

### **3.02 AGGREGATE BASE COURSE**

- A. Place on approved subgrade and compact base course in 8 inch maximum lifts to 98 percent of AASHTO T 180 maximum dry density per ArDOT criteria.

### **3.03 PREPARATION - TACK COAT**

- A. Apply tack coat in accordance with State of Arkansas Highways standards.
- B. Apply tack coat to contact surfaces of curbs, gutters and pavements.
- C. Coat surfaces of manhole frames with oil to prevent bond with asphalt pavement. Do not tack coat these surfaces.

### **3.04 PLACING ASPHALT PAVEMENT**

- A. Install Work in accordance with State of Arkansas Highways standards.
- B. Place asphalt within 24 hours of applying primer or tack coat.
- C. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.
- D. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.
- E. Finished surface, when checked with a 10 foot straight edge placed perpendicular to the direction of slope, shall show no variation more than 1/8 inch. Unacceptable areas shall be removed and replaced at no expense to the owner.
- F. Final pavement exhibiting surface defects such as poor texture, roller marks, honeycomb, cracking, rich marks, brown spots, bleeding, or waving shall be removed and replaced at no expense to the owner.

### **3.05 TOLERANCES**

- A. Flatness: Maximum variation of 1/4 inch measured with 10 foot straight edge.
- B. Compacted Thickness: Within 1/4 inch of specified or indicated thickness.
- C. Variation from True Elevation: Within 1/2 inch.

### **3.06 FIELD QUALITY CONTROL**

- A. An independent testing agency shall perform field quality test, as specified in Section 014533 - Special Inspections
- B. The contractor shall employ and pay for services of an independent testing agency to perform field quality control tests, as specified in Section 01 40 00.
- C. Evaluate aggregate base course compaction per AASHTO T 180. Frequency of tests: One for each 2500 sq. ft. of aggregate base course per lift.
- D. Provide field inspection and testing of asphalt paving. Take samples and perform tests in accordance with AI MS-2.

### **3.07 PROTECTION**

- A. Immediately after placement, protect pavement from mechanical injury for 14 days or until surface temperature is less than 140 degrees F.

**END OF SECTION**