

SECTION 02510
ASPHALT PAVING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This section covers the requirements for bituminous surface paving on roads.

PART 2 SUBMITTALS

- A. Contractor shall establish a mix gradation and the amount of bituminous material shall be submitted two (2) working days prior to surfacing for the approval by the City Engineer and shall meet the requirements of the gradation selected.
- B. Test Reports: Submit test reports as requested by City Engineer verifying compliance with specified standards.

PART 3 EXECUTION

3.01 ALL STREETS SHALL BE SURFACED IN ACCORDANCE WITH THE FOLLOWING:

- A. 8-inch minimum untreated base course over prepared and approved subgrade.
- B. 3-inch minimum compacted thickness plant mix asphalt surfacing on all local and collector streets.
- C. 4-inch minimum compacted thickness plant mix asphalt surfacing on all arterial streets.
- D. 2-lift minimum for plant mix asphalt surfacing when final compacted pavement thickness is greater than 3 inches.

3.02 BASE COURSE

- A. Base for all streets shall consist of select material, as specified in Section 02206.
- B. Base shall be laid in accordance with Section 02225.
- C. Surfaces shall be true to the established grade with thickness being not less than 1/4 inch from the required layer thickness and with the surface elevation varying not more than 3/8 inch in ten feet from the true profile and cross section.

3.03 BITUMINOUS SURFACE COURSE

- A. Base coarse shall be free of any contamination prior to laying surface coarse.
- B. The surface course shall consist of a mixture of mineral aggregate and binder.
- C. Gradation of aggregate shall conform to Section 02504.
- D. Regardless of the bituminous content there shall be between 3% and 5% voids in the mix.

- E. Performance graded asphalt (PG) selected for temperatures found at this locality should be used (PG-64-28 or better) for public streets per UDOT specifications. For small patches, AC-10 or AC-15 asphalt cement conforming to the requirements of ASTM D-445 may be used. 85-100 penetration asphalt cement conforming to the requirements of AASHTO M20-60 may be used when specifically approved by the City Engineer.
- F. The Contractor shall apply a tack coat to all existing asphalt or concrete edges and surfaces that will be in contact with the new bituminous surface course.
 - 1. Tack coat shall be SS-1 or 1-H.
- G. The bituminous surface course shall be mixed at a mixing plant and spread and compacted on the prepared base in conformance with the lines and dimensions shown on the plans and in accordance with these Specifications.
- H. All existing asphalt shall be saw cut to remove fractures, cracked or damaged asphalt.
 - 1. Asphalt shall be saw cut in straight lines.

3.04 CONSTRUCTION METHODS AND EQUIPMENT

- A. All asphalt will be laid using a lay down machine unless written approval by City Engineer.
- B. The methods employed in performing the work, all equipment, tools and machinery and other appliances used in handling the materials and executing the work shall be the responsibility of the Contractor.
- C. The Contractor shall make such changes in the methods employed and in the equipment used as are necessary whenever the bituminous being produced does not meet the specification herein established.

3.05 SPREADING

- A. The bituminous mixtures shall be spread with self-propelled mechanical spreading and conditioning equipment capable of distributing at least a 12-foot width.
- B. The City Engineer shall determine whether or not the bituminous surface course shall be spread in one or more courses.
- C. No surface course shall be placed less than 1 inch in thickness.
- D. The mixture shall be spread and struck off in such a manner that the finished surface shall result in a uniform smooth surface.
- E. The longitudinal joints in any succeeding courses shall be offset at least 6 inches transversely to avoid a vertical joint through more than one course.
- F. The temperature of the bituminous mix shall be between 250° F and 325° F when placing.

3.06 COMPACTION

- A. After the mixture has been spread, the surface shall be rolled in longitudinal direction commencing at the outside edge or lower side and preceding to the higher side.
- B. Each pass of the roller shall overlap the preceding pass at least one-half the width of the roller.

- C. Rolling shall continue until 95% of the laboratory density as determined in accordance with AASHTO Designation T-245 for the bituminous mixture being used has been obtained.
- D. Rolling operations shall be conducted in such a manner that shoving or distortion will not develop beneath the roller.
- E. Quality Control
 - 1. The surface of the pavement, after compaction, shall be uniform and true to the established crown and grade.
 - 2. When tested with a ten (10) foot straight edge placed parallel to the center line of the pavement, the surface of the pavement at any point shall not deviate from the lower edge of the straight edge by more than one-quarter of an inch.
 - 3. All high and low spots shall be remedied immediately by removing the wearing course material over the affected areas and replacing it with fresh, hot-wearing course and surface finish material and immediately compacting it to conform with surrounding area.
 - 4. The Developer/Contractor shall be responsible to test bituminous mixtures for compaction in accordance with Section 01450, TESTING AND PROCESS CONTROL.
 - 5. Traffic shall not be allowed to travel on new asphalt surface until pavement temperature has reached 120° F or lower.

3.07 WEATHER LIMITATIONS

- A. No bituminous surface shall be placed when the temperature of the air or road bed is 50° F or below, during rainy weather, when the base is wet or during other unfavorable weather conditions as determined by the City Engineer.
- B. The air temperature shall be measured in the shade.

3.08 FLAGGING

- A. Flaggers shall be required as directed to facilitate the safe control of traffic over highways and streets under construction at such locations as required and directed by the City Engineer.
- B. Flagging shall be performed by certified, trained, and properly equipped flaggers.
- C. All flagging shall be done as described in the Safety Orders covering flaggers of the Industrial Commission of Utah and in accordance with the MUTCD manual.

END OF SECTION