

SECTION 32 12 16
ASPHALT PAVING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. This work shall cover the composition, mixing, placement, and the protection of hot asphalt concrete pavement and cold Milling. The hot asphalt concrete pavement shall consist of an asphalt surface course constructed in conformity with the lines, grades, thickness, and cross sections as shown. Each course shall be constructed to the depth, section, or elevation required by the drawings and shall be rolled, finished, and approved before the placement of the next course.
- B. The Contractor shall retain and reimburse a laboratory to perform said duties; or to obtain a certification from the authorized representative of the State; or to obtain certification from the asphalt paving producer. Certificate of compliance shall cover quality and gradation of aggregate base, quality and grades of asphalt course materials, and that the job-mixture meets or exceeds the State requirements.

1.4 ALIGNMENT AND GRADE CONTROL

The Contractor shall establish and control the asphalt milling, surface course, alignments, grades, elevations, and cross sections to achieve uniform overlay work so that new grades and alignment of the new asphalt surfaces match existing grades and alignment.

1.5 SUBMITTALS

- A. Provide the following information to COR prior to start of work:
- B. Data and Test Reports:
 - 1. Asphalt Surface Course: Aggregate source, gradation, soundness loss, percentage of wear, and other tests required by State Highway Department.
 - 3. Job-mix formula.
- C. Certifications:
 - 1. Asphalt tack coat material certificate of conformance to State Highway Department requirements.
 - 2. Asphalt cement certificate of conformance to State Highway Department requirements.
 - 3. Job-mix certification - Submit plant mix certification that mix equals or exceeds the State Highway Specification.

1.6 APPLICABLE PUBLICATIONS

- A. Minnesota Department of Transportation "Standard Specifications for Construction," 2016 Edition (MnDOT Spec.):
 2357.....Bituminous Tack Coat.

2360.....Plant Mixed Asphalt Pavement

PART 2 - PRODUCTS

2.1 GENERAL

- A. Asphalt concrete materials shall conform to the requirements of the following and other appropriate sections of the latest version of the State Highway Material Specifications, including amendments, addenda and errata. Where the term "Engineer" or "Commission" is referenced in the State Highway Specifications, it shall mean the VA Contracting Officer Representative (COR).

2.1 ASPHALT PAVEMENT

- A. Mixture Designation: SP 9.5 Wearing Course Mixture Type SPWEA340B
Conform to MnDOT Spec. 2360
- B. Conform to MnDOT Section 2360, except as modified herein:
 - 1. Scrap Asphalt Shingles are not allowed in wearing course pavements.
 - 2. Waste Incinerator Ash (WIA) will not be allowed in bituminous wearing course pavements.
- C. Bituminous Tack Coat:
 - 1. Bituminous Material: Conform to MnDOT Spec. 3151:
 - a. Emulsified Asphalt, CSS-1 or CSS-1h.
- E. Mixture Design: Conform to MnDOT Spec. 2360.
- F. Mixture Quality Management (Quality Control/Quality Assurance): Conform to MnDOT Spec. 2360.

PART 3 - EXECUTION

3.1 GENERAL

The Asphalt Concrete Paving equipment, weather limitations, job-mix formula, mixing, construction methods, compaction, finishing, tolerance, and protection shall conform to the requirements of the appropriate sections of the State Highway Specifications for the type of material specified.

3.2 MIXING ASPHALTIC CONCRETE MATERIALS

- A. Provide hot plant-mixed asphaltic concrete paving materials.
 - 1. Temperature leaving the plant: 290 degrees F minimum, 320 degrees F maximum.
 - 2. Temperature at time of placing: 280 degrees F minimum.

3.5 PLACEMENT OF ASPHALTIC CONCRETE PAVING

- A. Mill existing asphalt surfaces as required by contract documents. Remove and clean all loose materials from existing asphalt surface after milling has been completed.
- B. Apply the specified tack coat where required, and allow to dry in accordance with the manufacturer's recommendations.

C. Receipt of asphaltic concrete materials:

1. Do not accept material unless it is covered with a tarpaulin until unloaded, and unless the material has a temperature of not less than 280 degrees F.
2. Do not commence placement of asphaltic concrete materials when the atmospheric temperature is below 50 degrees F, not during fog, rain, or other unsuitable conditions.

D. Spreading:

1. Spread material in a manner that requires the least handling.
2. Where thickness of finished paving will be 3" or less, spread in one layer.

E. Rolling:

1. After the material has been spread to the proper depth, roll until the surface is hard, smooth, unyielding, and true to the thickness and elevations identified in the contract documents.
2. Roll in at least two directions until no roller marks are visible.
3. Finished paving smoothness tolerance:
 - a. No depressions which will retain standing water.
 - b. No deviation greater than 3mm in 1.8m (1/8" in six feet).

3.7 COLD MILLING

- A. Clean existing pavement surface of loose or deleterious material immediately before cold milling. Remove existing asphalt pavement to grades and cross sections indicated.
 1. Mill to a depth of 2 inches.

3.9 PROTECTION

Protect the asphaltic concrete paved areas from traffic until the sealer is set and cured and does not pick up under foot or wheeled traffic.

3.10 FINAL CLEAN-UP

Remove all debris, rubbish, and excess material from the work area.

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