

SECTION 321218 – BITUMINOUS PAVEMENT PATCHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. Provide all labor, materials, and equipment as necessary to complete all work as indicated on the Drawings and specified herein.
- B. This section includes bituminous pavement patching.
- C. Related sections include the following:
 - 1. Division 02 Section 024113-SITE DEMOLITION
 - 2. Division 31 Section 312300-EARTHWORK
 - 3. Division 32 Section 321723-PAVEMENT MARKING

1.3 PROJECT CONDITIONS

- A. Weather and seasonal limitations shall not exceed those specified in MDOT 2012 Standard Specification for Construction.

PART 2 - PRODUCTS

2.1 SUBBASE COURSE

- A. See Division 31 Section 312300-EARTHWORK

2.2 BASE COURSE

- A. Not used.

2.3 LEVELING COURSE

- A. An approved commercial bituminous mixture from a local bituminous mixture producer. Design air voids shall be designed at not more than 3 percent. Provide the Engineer with a copy of the mixture design or a signed Job Mix Formula (JMF) from the producer.

2.4 SURFACE COURSE

- A. An approved commercial bituminous mixture from a local bituminous mixture producer. Design air voids shall be designed at not more than 3 percent. Provide the Engineer with a copy of the mixture design or a signed JMF (Job Mixture Formula) from the producer.

2.5 ASPHALT EMULSION

- A. Conform to MDOT 2012 Specification Section 904.03, Table 904-4 for Asphalt Emulsion SS-1h.

2.6 ASPHALT CEMENT

- A. Conform to MDOT 2012 Specification for Asphalt Cement PG 64-22 or as approved by the Engineer.

2.7 TRAFFIC PAINT

- A. See Division 32 Section "Pavement Markings."

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prepare subbase according to MDOT 2012 Specification-Division 5, and Project requirements.
- B. Where entire pavement thickness is to be completely removed, cut existing pavement neatly with a saw. Cut edges straight and smooth allowing for a full-depth pavement patch.
- C. When possible, proof roll subgrade and subbase layers to check for unstable areas and areas requiring additional compaction. Perform test rolling as directed by the Engineer.
- D. Notify Project Representative of unsatisfactory conditions. Do not begin patching work until deficient subgrade and subbase areas have been corrected, tested, and approved by the Engineer.
- E. Required Grades for Barrier Free Parking Areas:
 - 1. In areas designated on the Drawings as a barrier free parking space, either so noted or with a uniform barrier free graphic symbol, the slope of the parking space and adjacent access aisle shall not exceed 2 percent (1/4-inch per foot) in any direction.
 - 2. Should this provision conflict with the Drawings, inform the Project Representative so that the necessary revision(s) can be made.

3.2 INSTALLATION

- A. General: Place bituminous pavement and bond coat over approved subbase or existing pavement according to MDOT 2012 Specification, Division 5.
- B. Pavement Thickness and Type: Over the subbase, place 3-inch hot mix asphalt leveling course with a maximum air void content of 3 percent, and 2-inch bituminous surface course with a maximum air void content of 3 percent. If the existing surrounding pavement is thicker than 5 inches, match existing depth. Place bituminous pavement in 2 layers with a tack coat between each layer. The surface of completed patch shall be true to the line and grade of the surrounding pavement, and shall not pond water.

- C. Compaction: The bituminous mixture shall be placed as uniformly as possible and compacted, with the compaction equipment approved by the Engineer. The goal is to compact the mixture to the maximum achievable density as determined by the Engineer.
- D. Tack Coat: Uniformly apply a coat of SS-1h at a rate of 0.10 to 0.15 gallon per square yard over the entire surface of each bituminous course, except the last one, and to the sides of the existing pavement that were saw cut.
- E. Protection: After final rolling, protect pavement of vehicular traffic until the surface has cooled sufficiently to prevent surface deformation.

END OF SECTION 321218