

SECTION 321216 - HOT-MIX ASPHALT PAVING

PART 1: GENERAL

1.1 Scope of Standard

- A. This standard provides general guidance concerning the specific preferences of the West Virginia University for hot-mix asphalt paving.
- B. Project conditions and requirements vary, thus precluding the absolute adherence to the items identified herein in all cases. However unless adequate written justification is provided, then it is expected that these guidelines will govern the design and specifications.

1.2 General Requirements

- A. WVU normally prefers not to have asphalt prime coat installed due to trucks trafficking the asphalt onto local roadways. Tack coat should be installed when doing asphalt overlays. The owner has the final decision on utilization of tack coat.
- B. Parking design/installation changes should be coordinated in the design stage.
- C. WVU Parking department will normally do the striping necessary in parking areas.
 - 1. Minimum parking space width = 9'
 - 2. Minimum parking space length = 18'
 - 3. Aisle widths:
 - a. Perpendicular parking, one-way traffic = 20'
 - b. Perpendicular parking, two-way traffic = 24'
 - c. Angle parking, one-way traffic = 15'
- D. Provide hot-mix asphalt paving according to materials and workmanship as specified below and other applicable requirements of standard specifications of DOT or the City of Morgantown.
- E. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp or if the following conditions are not met:

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1. Asphalt tack coat, Base Course, and Surface (Wearing) Course: Minimum surface temperature of 40 deg F and rising at time of placement.

1.3 Quality Assurance

- A. Manufacturer Qualifications: A qualified manufacturer.
 1. Manufacturer shall be a paving-mix manufacturer registered with and approved by the DOT.
- B. Regulatory Requirements: Comply with DOH, City and WVU design standards for asphalt paving work, as applicable.
- C. Pre-installation Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Project Management and Coordination." Review methods and procedures related to hot-mix asphalt paving including, but not limited to, the following:
 1. Review proposed sources of paving materials, including capabilities and location of plant that will manufacture hot-mix asphalt.
 2. Review condition of subgrade and preparatory work.
 3. Review requirements for protecting paving work, including restriction of traffic during installation period and for remainder of construction period.
 4. Review and finalize construction schedule and verify availability of materials, Installer's personnel, equipment, and facilities needed to make progress and avoid delays.

1.4 Submittals

- A. Job-Mix Designs: Certification, by authorities having jurisdiction, of approval of each job mix proposed for the Work. This may involve the DOT or the City of Morgantown as well as WVU.

PART 2: PRODUCTS

2.1 Asphalt Materials

- A. Tack coat as listed in current WVDOT specifications

2.2 Mixes

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- A. Hot-Mix Asphalt: Dense, hot-laid, hot-mix asphalt plant mixes approved by authorities having jurisdiction. WVU typically prefers:
 - 1. Base Course: WVDOH Base 2.
 - 2. Surface (Wearing) Course: WVDOH Wearing 1.

PART 3: EXECUTION

3.1 Materials

- A. Tack Coat: Apply uniformly to vertical surfaces abutting or projecting into new, hot-mix asphalt paving at a rate of 0.05 to 0.15 gal. /sq. yd.

3.2 Compaction

- A. Intermediate Rolling: Begin intermediate rolling immediately after breakdown rolling while hot-mix asphalt is still hot enough to achieve specified density. Continue rolling until hot-mix asphalt course has been uniformly compacted to the following density:
 - 1. Average Density: 96 percent of reference laboratory density according to AASHTO T 245, but not less than 94 percent nor greater than 100 percent.

3.3 Installation Tolerances

- A. Thickness: Compact each course to produce the thickness indicated within the following tolerances:
 - 1. Base Course: 1/2 inch plus, no minus.
 - 2. Surface Course: Plus 1/4 inch, no minus.
- B. Surface Smoothness: Compact each course to produce a surface smoothness within the following tolerances as determined by using a 10-foot straightedge applied transversely or longitudinally to paved areas:
 - 1. Base Course: 1/4 inch.
 - 2. Surface Course: 1/8 inch.

3.4 Asphalt Curbs

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A. Asphalt curbs are normally not preferred by WVU.

3.5 Field Quality Control

A. Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and to prepare test reports.

END OF SECTION 321216