

### **SPECIAL NOTE FOR SAND ASPHALT SURFACE**

This Special Note will apply when indicated on the plans or in the proposal. Section references herein are to the Department's 2008 Standard Specifications for Road and Bridge Construction.

**1.0 DESCRIPTION.** Construct a course of hot-mixed, hot-placed sand asphalt surface mixture upon a foundation of either new or existing pavements.

#### **2.0 MATERIALS.**

**2.1 Aggregates.** Conform to Subsection 403.02 and the following:

**2.1.1 Sand Asphalt Type I.** Provide a minimum of 50 percent sand from the Department's List of Class A Polish-Resistant Aggregate Sources. Provide fine aggregate or combination thereof that provides a minimum insoluble content of 50 percent according to KM 64-224. Ensure the remaining portion of sand conforms to Subsection 804.04.01.

**2.1.2 Sand Asphalt Type II.** Provide fine aggregate or combination thereof that provides a minimum insoluble content of 75 percent according to KM 64-224 and minimum uncompacted voids of 47 percent according to AASHTO T 304 (Method A).

**2.2 Asphalt Binder.** Provide the performance-graded (PG) binder specified in the Contract conforming to Section 806.

**2.3 Tack.** Conform to Section 806.

**3.0 CONSTRUCTION.** Conform to Section 403 except as provided herein and in the Contract.

**3.1 Weather Limitations.** In addition to the weather limitations specified in Section 403, do not place Sand Asphalt Type I or II between October 15 and May 1 without the Engineer's written permission.

**3.2 Surface Preparation.** Perform all leveling, wedging, and patching deemed necessary to repair an existing pavement to provide a uniform, stable, and even surface before placing the Sand Asphalt Type I or II. Construct the leveling and wedging to within  $\pm 1/4$  inch of the desired elevation as determined by a string-line measurement or a template. The leveling, wedging, and patching operations are particularly significant to the satisfactory performance of this type of surface mixture.

**3.3 Tack Coat.** Apply the tack coat according to Section 406.

**3.4 Mixture Preparation.** Submit the job-mix formula for Sand Asphalt Type I or II for approval according to Subsection 403.03.03 and Kentucky Method 64-421. Apply 100 gyrations with the Superpave gyratory compactor to determine the asphalt binder content (AC) and air-void content.

Use an AC between 6.0 and 10.0 percent by weight of the mixture. When using an absorptive aggregate, increase the AC as needed to compensate for asphalt binder absorption by the aggregate. Ensure Sand Asphalt Type I has between 3.0 and 10.0

percent air voids, and Sand Asphalt Type II has between 3.0 and 9.0 percent air voids, at the design AC. Do not deviate from the established AC by more than 0.5 percent or from the established fineness modulus by more than 0.2 points.

Test the mixture according to KM 64-405, KM 64-436, KM 64-437, KM 64-438, or AASHTO T 308 for AC; and KM 64-433 or KM 64-620 for gradation. Calculate the fineness modulus as defined in ASTM C 125.

Ensure the mixture conforms to the following gradation requirements:

<b>MIXTURE COMPOSITION LIMITS (Percent Passing by Weight)</b>		
Sieve Size	Sand Asphalt Type I	Sand Asphalt Type II
1/4 in.	100	100
No. 8	75-100	50-90
No. 16	60-90	25-65
No. 30	45-75	15-45
No. 50	15-45	5-30
No. 100	5-15	3-20
No. 200	2.0-6.0	2.0-6.0

Maintain the temperatures of the materials and mixture according to Subsection 401.03.01.

**3.5 Placement.** Prepare the Sand Asphalt Type I or II by combining the aggregate with PG binder in the approved percentages.

Place the Sand Asphalt Type I or II approximately 5/8 inch thick, 65 pounds per square yard. Surface all intersections, approaches, entrances, aprons, mailbox turnouts, and other incidental areas to be surfaced as a part of the work either before or after placing the Sand Asphalt Type I or II on the mainline.

Compact the mixture with tandem or pneumatic tired rollers weighing at least 5, but no more than 8 tons. Do not allow traffic on the compacted mixture until it has cooled sufficiently to withstand traffic without damage. Spray intersections and other areas that must be re-opened to traffic soon after the mixture has been compacted with water to hasten cooling. Do not place asphalt mixture on adjacent areas wetted by water until they have thoroughly dried.

**4.0 MEASUREMENT.** The Department will measure Sand Asphalt Type I or II in tons weighed according to Section 109.

**5.0 PAYMENT.** The Department will make payment for the completed and accepted quantities according to the Lot Pay Adjustment Schedule for Specialty Mixtures in Section 404 and under the following:

<u>Code</u>	<u>Pay Item</u>	<u>Pay Unit</u>
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00374	Asphalt Surface, Sand – Type II PG 64-22	Ton

January 1, 2008