# SPECIAL NOTE FOR SAND SEAL 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.** Sand Seal Surface provides a thin wearing surface and water-proofing seal over large-aggregate base mixtures or other special applications.

**2.0 MATERIALS.**

**2.1 Aggregates.**

**2.1.1 Driving Lanes.** Ensure the mixture is not comprised of more than 50 percent limestone nor 25 percent natural or conglomerate sand by weight of the total aggregate. Provide 100-percent-crushed fine aggregate from the Department's List of Class A Polish-Resistant Aggregate Sources for the remainder of the mixture. The Engineer may revise the aggregate blends during production to achieve suitable lay-down and sealing characteristics.

**2.1.2 Shoulders.** The Department will allow a blend of limestone, natural, or conglomerate sands. Ensure the mixture is not comprised of more than 35 percent natural or conglomerate sand by weight of the total aggregate. The Engineer may revise the aggregate blends during production to achieve suitable lay-down and sealing characteristics.

**2.2 Asphalt Binder.**

**2.2.1 Driving Lanes.** Provide PG 76-22 asphalt binder conforming to Section 806.

**2.2.2 Shoulders.** Provide PG 64-22 asphalt binder conforming 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 Seal Surface between October 15 and May 1 without the Engineer's written permission.

**3.2 Mixture Preparation.** Submit the job-mix formula for Sand Seal Surface 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 the Sand Seal Surface has between 5.0 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, KM 64-620, or AASHTO T 11/T 27 for gradation.

Ensure the mixture conforms to the following gradation requirements:

| Sieve Size | Percent Passing |
|---|---|
| 1/4 in. | 100 |
| No. 8 | 50-90 |
| No. 16 | 25-65 |
| No. 30 | 15-45 |
| No. 50 | 5-30 |
| No. 100 | 3-20 |
| No. 200 | 2.0-6.0 |

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

**3.3 Placement and Compaction.** Furnish all necessary materials and construct a course of hot-mixed, hot-placed, Sand Seal Surface mixture upon a foundation of new or existing pavements at a compacted thickness of 0.5 inch, approximately 55 pounds per square yard. Ensure the surface is smooth, uniform seal, free of tears, open areas, etc. Since this mixture has practically no structural value, control of the in-place thickness is critical. The intent of this mixture application is to just fill the surface roughness of the underlying base. Excessive thickness may be subject to rutting.

Sufficiently compact the Sand Seal Surface to seat the mixture in the underlying base. 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 the Sand Seal Surface 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:

| Code | Pay Item | Pay Unit |
|---|---|---|
| ---- | Sand Seal Surface | Ton |

January 1, 2008