404-R-624 AGGREGATE FOR SEAL COAT

(Revised 10-20-16)

The Standard Specifications are revised as follows:

SECTION 404, BEGIN LINE 21, INSERT AS FOLLOWS:

404.04 Cover Aggregate

Aggregate shall be in accordance with the following requirements. When slag is used as an alternate to natural aggregate, adjustments will be made in accordance with 904.01, to compensate for differences in specific gravity.

Coarse Aggregates*, Class B or Higher Size No. 8, 9, 11, or-12, *SC 11, SC 12, or SC 16*......904 Fine Aggregate, Size No. 23 or 24......904 * Coarse aggregate type required shall be in accordance with 904.03(d)1 for ESAL Categories 2 or 3.

Rates of Application per sq yd Cover Aggregate Asphalt Type Application Aggregate, (see Note 1) Size No. and Course Material, lb Gal. at 60°F 1 or 1P 12 - 15 Single 23, 24 0.12 - 0.16 (see Note 2) 2 or 2P Single 12. SC 12 14 - 17 0.29 - 0.33 3 or 3P 11, SC 11, SC 16 16 - 20 Single 0.36 - 0.40 4 or 4P Single 28 - 32 9 0.63 - 0.68 16 - 19 Top: 12, SC 12 0.41 - 0.46 5 or 5P Double Bottom: 11, SC 11, SC 16 16 - 20 0.28 - 0.31 Top: 11, SC 11, SC 16 18 - 22 0.62 - 0.68 6 or 6P Double 28 - 32 Bottom: 9 0.42 - 0.46 Top: 11, SC 11, SC 16 18 - 22 0.62 - 0.68 7 or 7P Double Bottom: 8 28 - 32 0.42 - 0.46 Note 1 - AE-90S and SC aggregates shall be used for type P seal coats, except SC aggregate requirement will not apply to seal coat used on shoulders. Note 2 – HFRS-2 shall not be used with type 1 seal coat.

The types of seal coats shall be as follows:

Seal coat, SC, aggregates shall be 85% one face and 80% two face crushed. The Flakiness Index in accordance with ITM 224 shall be a maximum of 25%. Non SC aggregates shall have a minimum crushed particle percentage of 70%. Determination of crushed particles shall be made from the mass weight of material retained on the No. 4 (4.75 mm) sieve in accordance with ASTM D 5821.

SECTION 904, BEGIN LINE 250, INSERT AS FOLLOWS:

| (| (e) | Sizes | of | Coarse | Aggregates |
|---|-----|-------|-----|--------|---------------------|
| | | | UL. | Course | I I G G I C G U C D |

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|----------------|--|---|---------|---------|-----------------------------|-----------------------------|----------------------|-------|----|-------|--------------|--|
| | COARSE AGGREGATE SIZES (PERCENT PASSING) | | | | | | | | | | | |
| Sieve | COARSE GRADED | | | | | | | | | | DENSE GRADED | |
| Sizes | 2 | 5 | 8 | 9 | 11, SC 11 ⁽⁵⁾ | 12, SC 12 ⁽⁵⁾ | SC 16 ⁽⁵⁾ | 43(1) | 91 | 53(1) | 73(1) | |
| 4 in. (100 mm) | | | | | | | | | | | | |

| 3 1/2 in. (90 mm) | | | | | | | | | | | |
|--|--------|-------|-------|-------|-------|--------|--------|-------|-------|-------------------------|----------|
| 2 1/2 in. (63 mm) | 100 | | | | | | | | | | |
| 2 in. (50 mm) | 80-100 | | | | | | | | | | |
| 1 1/2 in. (37.5 mm) | | 100 | | | | | | 100 | | 100 | |
| 1 in. (25 mm) | 0-25 | 85-98 | 100 | | | | | 70-90 | 100 | 80-100 | 100 |
| 3/4 in. (19 mm) | 0-10 | 60-85 | 75-95 | 100 | | | | 50-70 | | 70-90 | 90-100 |
| 1/2 in. (12.5 mm) | 0-7 | 30-60 | 40-70 | 60-85 | 100 | 100 | 100 | 35-50 | | 55-80 | 60-90 |
| 3/8 in. (9.5 mm) | | 15-45 | 20-50 | 30-60 | 75-95 | 95-100 | 94-100 | | | | |
| No. 4 (4.75 mm) | | 0-15 | 0-15 | 0-15 | 10-30 | 50-80 | 15-45 | 20-40 | | 35-60 | 35-60 |
| No. 8 (2.36 mm) | | 0-10 | 0-10 | 0-10 | 0-10 | 0-35 | | 15-35 | | 25-50 | |
| No. 16 (1.18 mm) | | | | | | | 0-4 | | | | |
| No. 30 (600 µm) | | | | | | 0-4 | | 5-20 | | 12-30 | 12-30 |
| No. 200 (75 µm) ⁽²⁾ | | | | | | | | 0-6.0 | | 5.0-10.0 ⁽⁴⁾ | 5.0-12.0 |
| Decant (PCC) ⁽³⁾ | | 0-1.5 | 0-1.5 | 0-1.5 | 0-1.5 | 0-1.5 | | | 0-1.5 | | |
| Decant (Non-PCC) | 0-2.5 | 0-2.5 | 0-3.0 | 0-2.5 | 0-2.5 | 0-2.0 | | | 0-2.5 | | |
| Decant (SC) | | | | | 0-1.5 | 0-1.5 | 0-1.5 | | | | |
| Notes: (1) The liquid limit shall not exceed 25 (35 if slag) and the plasticity index shall not exceed 5. The liquid limit shall be determined in accordance | | | | | | | | | | | |

: (1) The liquid limit shall not exceed 25 (35 if slag) and the plasticity index shall not exceed 5. The liquid limit shall be determined in accordance with AASHTO T 89 and the plasticity index in accordance with AASHTO T 90.

(2) Includes the total amount passing the No. 200 (75 μ m) sieve as determined by AASHTO T 11 and T 27.

(3) Decant may be 0-2.5 for stone and slag.

(4) When slag is used for separation layers as defined in 302.01, the total amount passing the No. 200 (75 μ m) sieve shall be 10.0 to 12.0.

(5) Seal coat (SC) aggregates shall be 85% one face and 80% two face crushed. The Flakiness Index in accordance with ITM 224 shall be a maximum of 25%.