

STATE

OF

TENNESSEE

(Rev. 10-17-23)
(Rev. 12-27-23)
(Rev. 8-28-24)

January 1, 2021

Supplemental Specifications – 300SS
of the
Standard Specifications for Road and Bridge Construction
January 1, 2021

Subsection 307.02, (pg. 242), 8-28-24; **Materials**; Revise Materials list:

Grading A, ACRL, AS, B, BM, BM2, C, **CM**, CS, or CW...**903.06**

Subsection 307.03.A, (pg. 243, 244), 8-28-24; **Composition of Mixtures, General**; Revise Table 307.03-01 and Table 307.03-2:

Table 307.03-1: Mixture Composition

Mixtures	Proportions of Total Mixture, Percent by Weight	
	Combined Mineral Aggregate, %	Asphalt Cement, % ⁽¹⁾
Grading AS and ACRL	96.3 - 97.7	2.3 - 3.7
Grading A	95.8 - 96.7	3.3 - 4.2
Grading B, BM, and BM2	93.8 - 95.8	4.2 - 6.2
Grading C, CM , and CW	93.8 - 95.8	4.2 - 6.2
Grading CS	92.3 - 94.7	5.3 - 7.7

(1) If the effective combined specific gravity of the aggregate exceeds 2.80, the Engineer may adjust the proportions specified.

Table 307.03-2: Mixture Design Properties

Mix (1)	Stability (minimum) lbf (2)	Design Void Content % (2)	Production Void Content, % (2)	VMA (minimum) % (2)	Dust- Asphalt Ratio (3)
307-B	2,000	4.0±0.2	3-5.5	11.5	0.6-1.5
307-BM	2,000	4.0±0.2	3-5.5	13.5	0.6-1.5
307-BM2	2,000	4.0±0.2	3-5.5	13.5	0.6-1.5
307-C	2,000	4.0±0.2	3-5.5	13.0	0.6-1.5
307-CM	2,000	4.0±0.2	3-5.5	13.0	0.6-1.5
307-CS	2,000	3.0±0.5	1-5	---	---
307-CW	1,500	4.0±0.2	3-5	13.0	0.6-1.5

- (1) To identify critical mixes and make appropriate adjustments, the mix design shall meet these design properties for the bitumen content range of Optimum Asphalt Cement ±0.25%.
- (2) Tested according to AASHTO T 245 with 75 blows with the hammer on each end of the test specimen, using a Marshall Mechanical Compactor.
- (3) The dust-asphalt ratio is the percent of the total aggregate sample that passes the No. 200 sieve, as determined by AASHTO T 11, divided by the percent asphalt in the total mix.

Subsection 307.03.B.1, (pg. 245), 12-27-23; Recycled Asphalt Pavement (RAP); Revise Table 307.03-3:

Table 307.03-3: Mixtures Using RAP

Mix Type	% RAP (Non- processed) (1)	Maximum % RAP (Processed) (2)	Maximum % RAP Processed & Fractionated (3)	Maximum Particle Size (inches)
307-ACRL	0	00	-	-
307-AS	0	10	10	-
307-A	15	20	35	1-1/2
307-B	15	30	35	1-1/2
307-BM	15	30	35	3/4
307-BM2	15	30	35	3/4
307-C	15	30	35	3/8
307-CW	15	30	35	1/2
307-CS	0	15	25	5/16

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- (1) “Non-processed” refers to RAP that has not been crushed and screened or otherwise sized prior to its use.
 - (2) “Processed” refers to RAP that has been crushed and screened or otherwise sized such that the maximum recycled material particle size is less than that listed in Table 307.03-3 prior to entering the dryer drum.
 - (3) “Fractionated” refers to RAP that has been processed over more than one screen, producing sources of various maximum particle sizes (e.g., ¾ to ½ inch, ½ inch to #4, etc.). The Contractor may use the larger percentages of fractionated RAP specified only if the stockpile meets the consistency requirements set forth in Departmental procedures for approval of asphalt mix designs.
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Subsection 307.03.B.1, (pg. 245), 8-28-24; Recycled Asphalt Pavement (RAP); Revise Table 307.03-03:

Table 307.03-3: Mixtures Using RAP

Mix Type	% RAP (Non-processed) ⁽¹⁾	Maximum % RAP (Processed) ⁽²⁾	Maximum % RAP Processed & Fractionated ⁽³⁾	Maximum Particle Size (inches)
307-ACRL	0	00	-	-
307-AS	0	10	10	-
307-A	15	20	35	1-1/2
307-B	15	30	35	1-1/2
307-BM	15	30	35	3/4
307-BM2	15	30	35	3/4
307-C	15	30	35	3/8
307-CM	15	30	35	1/2
307-CW	15	30	35	1/2
307-CS	0	15	25	5/16

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- (1) “Non-processed” refers to RAP that has not been crushed and screened or otherwise sized prior to its use.
 - (2) “Processed” refers to RAP that has been crushed and screened or otherwise sized such that the maximum recycled material particle size is less than that listed in Table 307.03-3 prior to entering the dryer drum.
 - (3) “Fractionated” refers to RAP that has been processed over more than one screen, producing sources of various maximum particle sizes (e.g., ¾ to 1/2 inch, 1/2 inch to #4, etc.). The Contractor may use the larger percentages of fractionated RAP specified only if the stockpile meets the consistency requirements set forth in Departmental procedures for approval of asphalt mix designs.
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Subsection 307.03.C, (pg. 248), **8-28-24; Anti-Strip Additive**; Revise 1st sentence:

Check asphaltic concrete mixtures (Grading A, AS, ACRL, B, BM,BM2, C, **CM**, CS, and CW) for stripping by the following methods:

Subsection 307.07, (pg. 250), **8-28-24; Thickness and Surface Requirement**; Revise Table 307.07-1:

Table 307.07-1: Maximum Surface Deviation

Mixture	Maximum Deviation (inches)
Grading A, ACRL, and AS	1/2
Grading B, BM, BM2, C, CM , CS, and CW	3/8

Revise 307.09, (pg. 251), 10-17-23; **Basis of Payment**; Revise Table 307.09-01:

Table 307.09-1: Asphalt Cement Content

Mix Type	Asphalt Content
307 A	4.0%
307 AS	3.5%
307 ACRL	3.5%
307 B	4.3%
307 BM	5.0%
307 BM2	5.0%
307 C	5.0%
307 CW	5.0%
307 CS	6.5%

Subsection 307.09, (pg. 251), 8-28-24; Basis of Payment; Revise Table 307.09-1:

Table 307.09-1: Asphalt Cement Content

Mix Type	Asphalt Content
307 A	4.0%
307 AS	3.5%
307 ACRL	3.5%
307 B	4.3%
307 BM	5.0%
307 BM2	5.0%
307 C	5.0%
307 CM	5.0%
307 CW	5.0%
307 CS	6.5%