

SUPPLEMENTAL SPECIFICATION

AMENDMENT TO SECTION 401 – PLANT MIX PAVEMENTS - GENERAL

The purpose of this Supplemental Specification is to reduce the number of ESALS required for each design category, to require a minimum asphalt binder content for all mixes, require 50 gyration for 25 mm base courses, and adds more aggregate sizes into Table 1.

Amend 2.5.1 as follows:

2.5.1 When a new volumetric mix design is required, the Contractor shall use the Volumetric Mix Design Method in AASHTO Standard Practice R 35 to develop a mix that meets the associated design criteria. The Mix design shall follow the procedure detailed in AASHTO with the following exceptions: Amend Table 1 Superpave Gyrotory Compaction Effort to read as follows:

Design ESALs (Million)	N initial	N design	N max
$0 < 5$	6	50	75
≥ 5	7	75	115

Add the following:

Minimum Binder Content		
50 Gyration		75 Gyration
	$\frac{3}{8}$ in (9.5 mm)	6.0%
5.8%	$\frac{1}{2}$ in (12.5 mm)	5.5%
4.9%	$\frac{3}{4}$ in (19 mm)	4.6%
4.6%	1 in (25 mm)	4.3%

This required minimum asphalt content is based on the use of aggregate with a specific gravity of 2.65 to 2.70. The minimum asphalt content requirement may be adjusted when aggregate with a higher specific gravity is used, **or the minimum may be adjusted at the Engineer's discretion if it is believed to be in the best interest of the Department.**

Amend Table 3 in AASHTO M 323, referenced in AASHTO R 35, to read as follows:

Table 1 –Design Control Points*										
Standard	Nominal Maximum Aggregate Size									
Sieves	1 in (25 mm)		3/4 in (19 mm)		1/2 in (12.5 mm)		3/8 in (9.5 mm)		No. 4 (4.75 mm)	
	Max.	Min.	Max.	Min.	Max	Min.	Max.	Min.	Max.	Min.
In (mm)	Percentage by Weight Passing Criteria (Control Points)									
2 (50.0)										
1-1/2 (37.5)		100.0								
1 (25.0)	100.0	90.0		100.0						
3/4 (19.0)	90.0		100.0	90.0		100.0				
1/2 (12.5)			90.0		100.0	90.0		100.0		
3/8 (9.5)					90.0		100.0	90.0	100.0	99.0
No. 4 (4.75)							90.0		97.0	90.0
No. 8 (2.36)	45.0	19.0	42.0	32.0	52.0	42.0	56.0	46.0	75.0	65.0
No. 16 (1.18)									55.0	45.0
No.30 (0.600)									36.0	26.0
No. 50 (0.300)									30.0	20.0
No. 100 (0.150)									13.0	8.0
No. 200 (0.075)	7.0	1.0	8.0	2.0	10.0	2.0	10.0	2.0	8.0	4.0

All mix designs shall be submitted to the Department for verification and approval.

* Superpave designs will be accepted through the restricted zone, pending verification and approval by the Bureau of Materials & Research. The Contractor shall submit compaction data from trial blends at the optimum asphalt content and at 0.5% below and above the optimum asphalt content. The data shall include the temperature at which the HMA was aged.

Add 2.5.1.1 as follows:

2.5.1.1 All 25 mm base course mixes shall be designed using the 50 gyration N_{design} .