



WORKSHEET FOR SUPERPAVE ASPHALT CONCRETE MIX DESIGN AASHTO R 35

Project: _____ Date: _____
Contractor: _____ Nominal Maximum Aggregate Size, _____ :
Asphalt supplier: _____ Grade of asphalt: _____
Sources for: Aggregates: _____ Mineral filler: _____
Testing laboratory name: _____ Phone: _____
Testing performed by: _____
Testing reported by: _____

English Metric SUMMARY OF THE PROPOSED JOB-MIX-FORMULA

1. Number of gyrations ($N_{int}/N_{des}/N_{max}$)
2. Percent binder by mass of total mix (P_b)¹
3. Percent binder by mass of aggregate
4. Air voids (V_a) at N_{des}
5. Voids in mineral aggregate (VMA) at N_{des}
6. Voids filled with asphalt (VFA) at N_{des}
7. Maximum unit mass (G_{mm})
8. Effective specific gravity of aggregate (G_{se})
9. Dust-to-Binder Ratio (DP)
10. Specific gravity of binder (G_b)
11. Recommended plant mixing temperature,
(Attach Temperature Viscosity Curve)
12. Percent compaction at N_{max}
13. Hveem stabilometer value (If specified)
14. Moisture Susceptibility:
 - a. Dry strength,
 - b. Wet strength,
 - c. Index of Retained Strength, %

GRADATION TARGET VALUES AND ALLOWABLE DEVIATIONS			SPECIFIC GRAVITY AND ABSORPTION		
Sieve Sizes	Job Mix Formula Target Value ²	Allowable Deviation ³ %	Fine Aggregate (AASHTO T 84) Coarse Aggregate (AASHTO T 85) Combined Aggregate		
			Bulk SG (G_{sb})		
			Bulk SSD SG		
			Apparent SG (G_{sa})		
			Absorption	%	%

¹ Establish asphalt cement content (percent by mass of mix) to the nearest 0.01 percent.

² Establish target values to the nearest 0.1 percent as a part of the job mix formula.

³ Allowable deviations plus or minus from established target values.

WORKSHEET FOR A SUPERPAVE MIX DESIGN (Continued)

Material Stockpile	Stockpile Description	Blend Ratio
A		%
B		%
C		%
D		%
E		%
Total		%

Stockpile Gradation

Sieve Size	Stockpile A %	Stockpile B %	Stockpile C %	Stockpile D %	Stockpile E %	Blended Stockpile Gradation	Job Mix Formula Target Values	Specification Limits

Aggregate Properties

Property	Result	Specification	Property	Result	Specification
LA Abrasion, % - Grading AASHTO T 96			Fine aggregate angularity, AASHTO T 304 - method A		
Sodium Sulfate Soundness, % AASHTO T 104			Flat and elongated particles, ASTM D 4791 - 1: ratio		
Durability index (Coarse) AASHTO T 210			Sand Equivalent AASHTO T 176, Alt method #2, reference method		
Durability index (Fine) AASHTO T 210			Other:		
Fractured Faces, % - ASTM D 5821			Other:		

WORKSHEET FOR A SUPERPAVE MIX DESIGN (Continued)

Trial Number	1	AVG	2	AVG	3	AVG
% Asphalt by mass of total mix (P_b)						
Specimen height,						
Effective Binder Content (P_{be})						
Bulk specific gravity at N_{des} (G_{mb})						
% compaction at N_{int}						
% Air voids at N_{des} (V_A)						
Max. unit mass G_{mm}						
Voids in mineral aggregate (VMA) at N_{des}						
Voids filled with asphalt (VFA) at N_{des}						
Dust-to-Binder Ratio, (DP)						
Hveem Stabilometer value						

Trial Number	4	AVG	5	AVG	6	AVG
% Asphalt by mass of total mix (P_b)						
Specimen height,						
Effective Binder Content (P_{be})						
Bulk specific gravity at N_{des} (G_{mb})						
% compaction at N_{int}						
% Air voids at N_{des} (V_A)						
Max. unit mass G_{mm}						
Voids in mineral aggregate (VMA) at N_{des}						
Voids filled with asphalt (VFA) at N_{des}						
Dust-to-Binder ratio, (DP)						
Hveem Stabilometer value						

Test Results for Each of the Individual Moisture Susceptibility Test Specimens

Percent asphalt binder:

AASHTO T 283

Specimen Dia: 6 inch 4 inch

Antistrip, type, amount:

Freeze cycle: Yes No

Sample I.D.								Average
Height	Dry							
	Wet							
Bulk Specific Gravity	Dry							
	Wet							
Air Voids	Dry							
	Wet							
Strength	Dry							
	Wet							
Retained Strength, %								

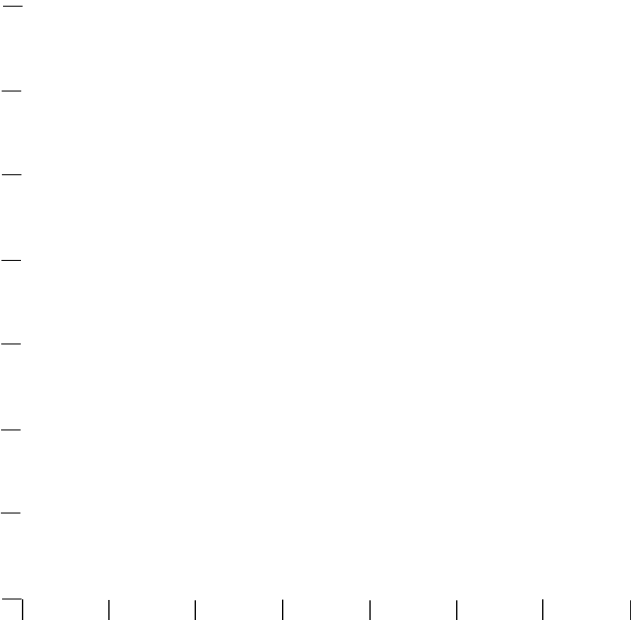
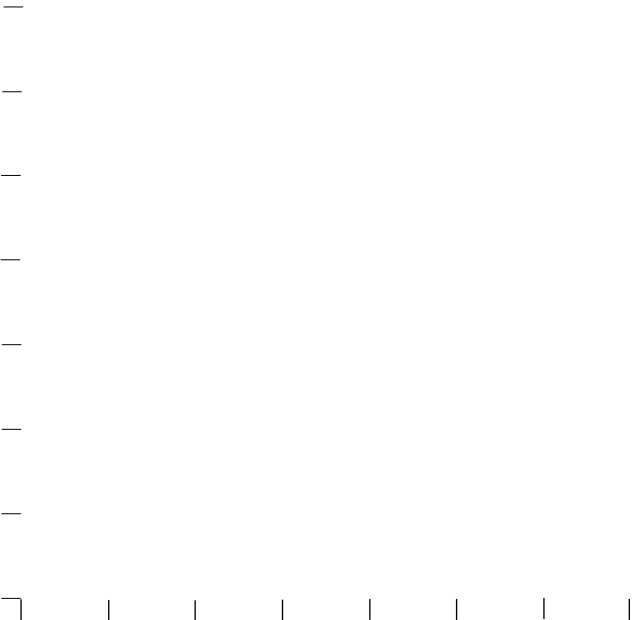
WORKSHEET FOR A SUPERPAVE MIX DESIGN (Continued)

Design Curves for Proposed Job Mix Formula (JMF)

AIR VOIDS (V_a)

UNIT MASS

% Air voids (V_a)



% Asphalt binder (P_b)

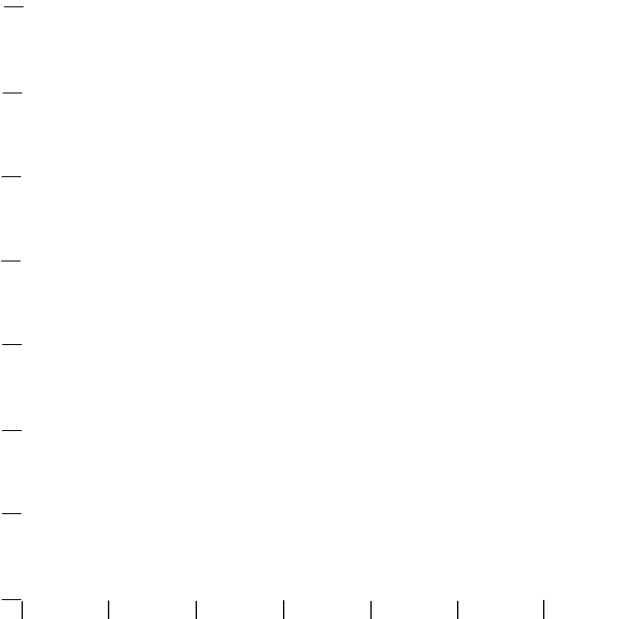
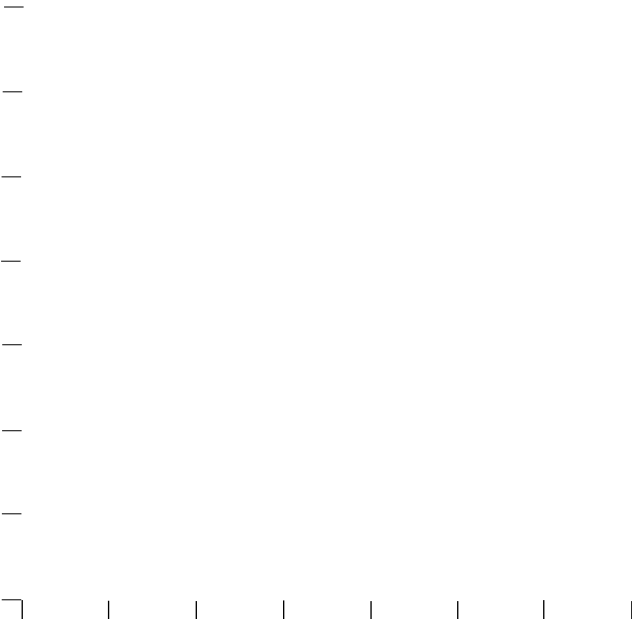
% Asphalt binder (P_b)

VFA

VMA

Voids filled with asphalt

Voids in mineral aggregate



% Asphalt binder (P_b)

% Asphalt binder (P_b)