

Agency: \_\_\_\_\_  
Date: \_\_\_\_\_

Project Number: \_\_\_\_\_  
Project Name: \_\_\_\_\_

**MGPEC**  
**Form # 9** (1/26/2012)

• **Mixture Design Requirements for  
Hot Mix Asphalt Pavements (HMA)**

• Project Special Provision Sheet for Hot Mix Asphalt Pavements (HMA)

This MGPEC Form #9 is a **mandatory part of the bid documents**, and shall be filled out by the AGENCY for each mix specified. The Contractor shall include a copy of this form with each Mix Design submittal after the contract is awarded.

Street Classification: \_\_\_\_\_ (examples: Residential, Collector, Arterial, Industrial, Parking Lot or actual name for Project)

→ Construction Application:     Top Lift     Intermediate Lift(s)     Bottom Lift  
    Patching     Other \_\_\_\_\_

→ Aggregate Gradation:     Grading ST (1.5" or less lifts, 3/8" NMPS)  
    Grading SX (2.5" or less lifts)  
    Grading S (2.5+ to 3.5" lifts)  
    Grading SG\*<sup>1</sup> (3.5" or thicker lifts)  
   SMA (Top lift only)     3/8"     1/2"     3/4"

\*<sup>1</sup>Note = Grading SG depends on approved texture of mix, Grading SG lower lift(s) only.

→ RAP Quantity, Maximum:     0%     20%     25%

Notes:    - A quality control plan for RAP will be required when RAP is used  
   - Top lift Maximum RAP content allowed is 20%

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→ Superpave Gyratory Mix Design Compaction Level, Recommended usage and Recommend binder(s):

Design Level	Recommended Traffic Levels	Recommended PG Binder(s)
<input type="checkbox"/> N <sub>design</sub> =50	Low volume	<input type="checkbox"/> PG 58-28 or <input type="checkbox"/> PG 64-22
<input type="checkbox"/> N <sub>design</sub> =75	0 to <3 million ESALs	<input type="checkbox"/> PG 64-22 or <input type="checkbox"/> PG 58-28
<input type="checkbox"/> N <sub>design</sub> =100	3 million to <30 million ESALs	<input type="checkbox"/> PG 64-22 or <input type="checkbox"/> PG 76-28

Notes:    - The binders are shown in order they should be considered.  
   - Polymer modified PG Binders are typically used in the top lift only  
   - PG 58-28 Binder recommended for residential developments with less than 2 million ESAL's

- Target job Mix Optimum Asphalt Content Selection, Choose target % as close to 4.0 as possible (3.5% to 4.5% air voids per MGPEC 2008)
- Target Job Mix optimum Binder content for SMA grading at 3.0% to 4.0% air voids

\*\*Warm mix asphalt (WMA) is allowed as an alternate to hot mix asphalt provided that all material requirements and specification standards are met and as approved by the Agency.

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A completed MGPEC Form #9 shall supplement the MGPEC Construction Specifications defining the contract specific requirements of Item 9: Hot Mix Asphalt Pavement (HMA). Refer to the Specifications for details.