

OPEN GRADED CRACK RELIEF LAYER.**(REV 5-4-16)**

The following new Section is added after Section 339.

**SECTION 340
OPEN GRADED CRACK RELIEF LAYER**

340-1 Description.

Construct an open graded crack relief layer with the type of mixture specified herein. Meet the requirements of Section 320 for plant and equipment. Meet the general construction requirements of Section 330, including the provision for Quality Control Plans and Quality Control Systems as specified in 6-8.

340-2 Materials.

Meet the material requirements specified in Division III. Specific references are as follows:

Superpave Asphalt Binder	916-1
Coarse Aggregate.....	Section 901
Fine Aggregate.....	Section 902

Reclaimed asphalt pavement (RAP) may be used as a mixture component provided the requirements of 334-2.3 are met.

Use a PG 67-22 asphalt binder unless otherwise approved by the Engineer.

340-3 Composition of the Mixture and Mixture Design.

3.1 Composition of the Mixture: Compose the mixture of a blend of asphalt binder, coarse and fine aggregate, and RAP material to meet the criteria defined below. Use a liquid anti-strip additive, from the Department's Approved Product List, at a rate of 0.5% by weight of the asphalt binder.

3.2 Mixture Design: The job mix formula shall meet the following limits for gradation.

Sieve Size	Percent Passing	
	Minimum	Maximum
3/4 inch	100	--
1/2 inch	60	75
3/8 inch	27	45
#4	10	16
#8	7	12
#30	5	10
#200	3.5	6.5

The Department will design the open graded crack relief mixture. Furnish the materials and all appropriate information (source, gradation, etc.) as specified in 334-3.2.7. The Department will have two weeks to design the mix. The Department will establish the design binder content for the mix within the range of 4.0 to 5.5 percent by weight of mix.

340-4. Construction.

Meet the requirements of Section 330 with the following exceptions:

340-4.1 Tack coat: Apply a tack coat at a target application rate of 0.08 gallons per square yard. Control the application rate as described in 300-8.4.

340-4.2 Thickness: Place the open graded crack relief layer such that the compacted thickness is 1.0 inch. For construction purposes, the target thickness will be converted to spread rate based on the combined aggregate bulk specific gravity of the asphalt mix being used as shown in the following equation:

$$\text{Spread rate (lbs/yd}^2\text{)} = t \times G_{sb} \times 40.5$$

Where: t = Thickness (in.)

G_{sb} = Combined aggregate bulk specific gravity from the verified mix

design.

Control the spread rate of the layer to within plus or minus 5% of the target spread rate.

340-4.3 Compaction: Compact the mixture in accordance with 337-7 or as approved by the Engineer.

340-4.4 Temperatures: Meet the temperature requirements of Table 330-1.

340-5 Process Control.

Assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are met at all times. Perform any tests necessary at the plant and roadway for process control purposes. At a minimum, test the mixture for asphalt binder content per FM 5-563 and gradation per FM 1-T 030. Test the mixture at least once per day's production. Maintain the asphalt binder content and gradation within the limits provided in Table 337-2. The Engineer will not use these test results in the acceptance payment decision.

340-6 Acceptance.

The Engineer will accept the mixture based on visual inspection. The mixture will be inspected for texture, segregation, bleeding, fat spots, raveling, delamination, tearing and slippage areas. Remove and replace any areas determined to be unacceptable to the Engineer.

340-7 Method of Measurement.

For the work specified under this Section (including the pertinent provisions of Sections 320 and 330), the quantity to be paid for will be the weight of the mixture, in tons. The pay quantity will be based on the quantity placed on the project, limited to 105% of the adjusted plan quantity for the pay item.

Prepare and submit a Certification of Quantities to the Engineer in accordance with 9-2.1.2.

340-8 Basis of Payment.

Price and payment will be full compensation for all work specified in this Section.

Payment will be made under:

906-340- 1 Open Graded Crack Relief Layer, each ton.