

SECTION 283 RECLAIMED ASPHALT PAVEMENT BASE

283-1 Description.

Construct a base course composed of reclaimed asphalt pavement (RAP) material. Use RAP material as a base course only on paved shoulders, bike paths, or other non-traffic applications.

283-2 Materials.

Obtain the RAP material by either milling or crushing an existing asphalt pavement. Use material so that at least 97% (by weight) pass a 3 1/2 inch [90 mm] sieve and is graded uniformly down to dust.

When the RAP material is from a Department project and the composition of existing pavement is known, the Engineer may approve material on the basis of the composition. When the composition of obtained RAP is not known, the following procedure will be used for approval:

(1) Conduct a minimum of six extraction gradation analyses of the RAP material. Take samples at random locations in the stockpile. The average asphalt cement content of the six stockpile samples must be 4% or greater with no individual result below 3 1/2%.

(2) Request the Engineer to make a visual inspection of the stockpile of RAP material. Based on this visual inspection of the stockpiled material and the results of the Contractor's extraction gradation analyses, the Engineer will determine the suitability of the materials.

(3) The Engineer may require crushing of stockpiled material to meet the gradation criterion. Perform all crushing before the material is placed.

283-3 Spreading RAP Material.

283-3.1 Method of Spreading: Spread the RAP with a blade or device which strikes off the material uniformly to laying thickness and produces an even distribution of the RAP. The Contractor may also place the RAP material directly from the milling machine into the trench by a conveyor. When placing the RAP material by conveyor directly from the milling machine, obtain the Engineer's approval of the milling process.

283-3.2 Number of Courses: When the specified compacted thickness of the base is greater than 6 inches [150 mm], construct the base in two courses. Place the first course to a thickness of approximately one half the total thickness of the finished base, or sufficient additional thickness to bear the weight of construction equipment without disturbing the subgrade.

Except as might be permitted by the Engineer for special cases, conduct all RAP base construction operations for shoulders before placing the final pavement on the adjacent traveled roadway.

283-4 Compacting and Finishing Base.

283-4.1 General.

283-4.1.1 Single-Course Base: Construct as specified in 200-6.1.1.

283-4.1.2 Multiple-Course Base: Construct as specified in 200-6.1.2.

283-4.2 Moisture Content: Meet the requirements of 200-6.2. Ensure that the moisture content at the time of compaction is within 2% of optimum.

283-4.3 Density Requirements: After attaining the proper moisture content, compact the material to a density of not less than 95% of maximum density as determined by FM 1-T 180. Where the width of the base construction is not sufficient to permit use of standard base compaction equipment, perform compaction using vibratory compactors, trench rollers, or other special equipment which will provide the density requirements specified herein.

283-4.4 Density Tests: Meet the requirements of 200-7 with the exception of 200-7.2. Within the entire limits of the width and depth of the base, obtain a minimum density in any lot of 95% of the maximum density as determined by FM 1-T 180.

283-5 Testing Surface.

Test the surface in accordance with the requirements of 200-6.4.

283-6 Priming and Maintaining.

283-6.1 Priming: Apply the prime coat only when the base meets the specified density requirements and the moisture content in the top half of the base is within 2% of optimum. At the time of priming, ensure that the base is firm, unyielding, and in such condition that no undue distortion will occur. The Engineer will not allow priming if the surface is dry, dusty, or sloughing.

283-6.2 Maintaining: Meet the requirements of 200-8.2.