

ITEM 417.03000018 - ASPHALT MIXTURE WITH RECLAIMED ASPHALT PAVEMENT (RAP)

DESCRIPTION. This work consists of plant production asphalt mixture using greater than 40% reclaimed asphalt pavement (RAP). The greater than 40% RAP mixture can only be produced at a drum plant and can only be used for temporary pavements and temporary pavement crossovers less than 400 meters that will not be incorporated into a permanent pavement; and for shoulders, miscellaneous repairs, and pothole repairs.

MATERIALS

Recycling Agent. Use a recycling agent specifically designed as a rejuvenator meeting the requirements outlined in Section 702, 8. *Asphalt Recycling Agent*, in the Standard Specifications, Table 702-9 *Recycling Agent* or Table 702-10 *Emulsified Recycling Agent*. Keep all certified test results and documented quantities for each shipment of recycling agent on file at the production facility for the QAT to review. Acceptance of this material is based on a signed Manufacturer's Certification stating conformance to this specification. The use of any other grade of recycling agent or other product requires prior approval from the Director, Materials Bureau. A minimum 2-week notice is needed for this approval.

Mixture Design. Submit a mixture design for the appropriate mix type using greater than 40% RAP, in accordance with Materials Method (MM) 5.16 *Hot Mix Asphalt (HMA) Mixture Design and Mixture Verification Procedures* and meeting the requirements in the Standard Specification Sections 401 *Plant Production* and 402 *Hot Mix Asphalt (HMA) Pavements*.

Determine the dosage rate of the rejuvenator such that the penetration value, as tested in accordance with AASHTO T 49, of the PG binder recovered from the HMA with RAP mixture is at least 30% or more than the average of the penetration value from the extracted PG binder of the RAP itself. If not, then adjust the dosage rate of the rejuvenator needed to meet the required penetration value for the mix.

CONSTRUCTION DETAILS. §401-3 and §402-3, *Construction Details*, in the Standard Specifications, apply, except as modified below:

Quality Control. Provisions of Materials Procedure (MP) 401 *Quality Control and Quality Assurance Procedures for Hot Mix Asphalt (HMA) Production* apply, except as modified herein. Produce the RAP mixture at an approved drum mix plant designated with an "R" or "H" plant number meeting the plant equipment requirements as per Materials Procedure (MP) 417-02 *Drum Mix Plant Approval for Producing Hot Mix Asphalt (HMA) using 100% Reclaimed Asphalt Pavement (RAP)* and tested to meet specification for asphalt content (AC) and gradation. A RAP Control Plan will be required at the beginning of every season. The gradation of the mixture samples must be within the general limits and the asphalt content (AC) must be no less than the minimum for the mix type. Modify the production, if necessary, to meet these requirements during production.

Spreading and Finishing. Place the mixture such that the temperature of the mix behind the screed is between 135°C and 165°C. Maintain the temporary pavements and temporary pavement crossovers for the duration of the contract.

Compaction. Compact the recycled mixture in accordance with §402-3.07, D., *80 Series Compaction Method*, in the Standard Specifications.

METHOD OF MEASUREMENT. The provisions of §401-4 and §402-4, *Method of Measurement*, in the Standard Specifications and this specification, apply, except the Quality Adjustment Factor (QAF) is equal to 1.00.

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BASIS OF PAYMENT. The provisions of §402-5, *Basis of Payment*, in the Standard Specifications, apply, including the cost of recycling agent. Fuel and asphalt price adjustments do not apply.

Payment will be made under:

Item No.	Item	Pay Unit
417.03000018	Asphalt Mixture with Reclaimed Asphalt Pavement (RAP)	Metric Ton