

## SECTION 38

### RECYCLED ASPHALT PAVEMENT (RAP)

#### 38.1 DESCRIPTION

- A. General:** This work consists of furnishing Recycled Asphalt Pavement (RAP) for use in mix designs to construct asphalt concrete pavement using a hot mix asphalt (HMA). RAP may be included up to a maximum of 15 percent of the total weight of mixture. No other recycled materials will be allowed. HMA shall conform to the Standard Specifications for Asphalt Concrete – Class E (Section 32).

The use of RAP is only allowed in the bottom lift of any pavement section.

**B. Related Work:**

Section 31	Asphalt Concrete – General
Section 32	Asphalt Concrete – Class E
Section 115	Aggregates for Asphalt Concrete
Section 118	Asphalt Material
Section 203	Submittals

#### 38.2 MATERIALS

- A. Submittals:** The supplier shall furnish a job mix formula for approval prior to the Preconstruction Conference. All job mix designs shall have a laboratory designation corresponding to the type of asphalt concrete mix. Designation should include binder type and percent of RAP in the mix. An example designation is “PG64-22 10% RAP”. This designation should be printed on all weigh tickets corresponding to the mix design used.

Certificates of compliance from the refiner will be required on the performance graded asphalt binder. The Engineer may accept the mixture on the basis of the job mix formula, certificates of compliance and visual inspection or may test the mixture for specification compliance. All production processes and materials supplied on this contract shall be subject to inspection by the Engineer. Materials not meeting specification will be rejected and replaced at the supplier’s expense.

- B. Aggregate:** RAP shall conform to the requirements specified in this document.

RAP used in asphalt concrete production shall conform to the following gradation (ASTM C136 and AASHTO T27):

Sieve Size	Percent Passing
1 ½ inch	100
1 inch	95 – 100
¾ inch	84 – 100
½ inch	70 – 100
No. 4	38 – 75
No. 200	2 – 15

The supplier is required to run daily production control samples on the aggregate material. All production control test results shall be made available to the City upon request.

- C. Testing:** Representative RAP samples shall be sent into the laboratory designated by the Engineer for material classification, as requested by the Engineer. The cost for this testing shall be borne by the City. The laboratory shall provide the following information for RAP: Asphalt Binder Content, gradation, and Gmm (Maximum Specified Gravity). RAP stockpiles containing concrete chunks, grass, dirt, wood, metal, coal tar, or other foreign or environmentally restricted materials shall not be used.

### 38.3 CONSTRUCTION REQUIREMENTS

Construction will be as prescribed in Section 31, Asphalt Concrete – General.

### 38.4 METHOD OF MEASUREMENT

**Hot Mix Asphalt with RAP:** Hot Mix Asphalt with RAP will be measured to the nearest one-tenth (0.1) ton, material weight. The mixture of mineral aggregate and asphalt binder will be weighed after mixing, and no deduction will be made for the weight of the asphalt binder included in the mixture.

### 38.5 BASIS OF PAYMENT

Hot Mix Asphalt with RAP will be paid for at the contract unit price per ton, complete, in place, subject to deductions noted in Section 31. Contractor shall provide the Engineer with valid weigh tickets for HMA, furnished and installed. Weigh tickets shall be delivered to the Engineer within 48 hours of placement. Tickets delivered after 48 hours will not be valid and will not be paid for. No additional payment will be made for Recycled Asphalt Pavement.

**END OF SECTION**