DIVISION 300 - BASES

SECTION 301 - PLANT MIX ASPHALT CONCRETE BASE COURSE

301.01 Description. This work includes furnishing and placing one or more courses of plant mix asphalt concrete base course (ACB) on a prepared subgrade according to the contract.

301.02 Materials.

(A) General. Materials shall conform to the following:

Bituminous Material (Asphalt Cement, Grade AR 60)	702.01
Aggregate for Plant Mix Asphalt Concrete Base Course	703.03
Filler	703.15
Blending Sand	703.22
Hydrated Lime	712.03

The Contractor shall submit for review and acceptance, a job-mix formula for the mixture the Contractor plans to supply. The Contractor shall not start the work on the project nor will the Engineer accept mixtures until:

(1) the Contractor submits samples of the materials intended for use and

(2) the Engineer establishes an asphalt content.

The Contractor shall submit samples no less than fifteen (15) working days before the work begins.

(B) Plant Mix Asphalt Concrete Base Course (ACB). The ACB includes a mixture of aggregate, filler or blending sand or both if accepted, and bituminous material. The Contractor shall size, uniformly grade, and combine the several aggregate fractions in such proportions that the resulting mixture conforms to Subsection 703.03 - Aggregate for Plant Mix Asphalt Concrete Base Course. The resulting mixture shall be of optimum cohesion at an air void content of three (3) to six (6) percent. Also, the resulting mixture shall have a minimum stability of thirty-seven (37) when tested according to AASHTO T-246-82.

If requested by the Engineer, the Contractor shall submit for review a supporting data. The Contractor shall base the tests on AASHTO T 245. The following table shows the design criteria:

Number of compaction blows each end of specimen		75
Test Property	**Minimum**	**Maximum**
Stability, lb.	2000	--
Flow, 0.01 in.	8	16
Percent air void	3	6
Voids in Mineral Aggregate (VMA), %	13	-

The Contractor shall add between four (4) to (6) percent bituminous binder base on the dry weight of the aggregate, to the mixture as ordered by the Engineer.

301.03 Construction Requirements.

(A) General. Work in this section shall conform to Subsection 401.03 except as modified herein.

Brooming off shall conform to Section 310 - Brooming Off.

The Contractor shall apply tack coat to layers of the mixture for multiple lift construction. Tack coat shall conform to Section 407 - Bituminous Tack Coat.

The criteria on mat thickness shall be as follows:

(1) The Contractor shall spread and compact the mixture in one (1) layer where the required thickness is six (6) inches or less.

(2) The Contractor shall spread and compact the mixture in two (2) or more layers of approximately equal thickness where the required thickness is more than six (6) inches. The maximum compacted thickness of one (1) layer shall not exceed six (6) inches.

The Contractor shall compact the mixture immediately upon completion of spreading operations to a density of more than ninety-one (91) percent of the maximum theoretical specific gravity according to AASHTO T 209 modified by deletion of Section 8 supplemental procedure. The Contractor shall tamp places not accessible to the roller with mechanical tampers.

The combined thickness of the ACB and the asphaltic concrete pavement shall be within 0.02 foot of the planned thickness.

The Contractor shall cut samples from the compacted pavement within twenty-four (24) hours of lay down. The cut pavement samples shall be twelve (12) inches by twelve (12) inches or four (4) inch diameter cores minimum. The Contractor shall take samples of the mixture for the full

depth of the course at the location as ordered by the Engineer. The Contractor shall place and compact new material to conform with the surrounding area after taking samples. The Engineer will consider the cost of sampling and restoring the area incidental to recycled ACB.

(B) Plant Mix Asphalt Concrete Base Course (ACB). When the Contractor chooses to use a drier-drum mixing plant equipped with cold-feed control the Contractor shall separate aggregate for the plant mix asphalt concrete base into three (3) or more sizes.

301.04 Method of Measurement. The Engineer will measure ACB by the ton, cubic yard or square yard as specified in the proposal.

The Contractor shall weigh the quantity of ACB when measured by the ton according to Section 109 - Measurement and Payment.

The Engineer will measure the quantity of ACB when measured by the cubic yard or square yard in place according to dimensions shown in the contract or as ordered by the Engineer.

The Engineer will measure the furnishing and applying of bituminous tack coat under Section 407 - Bituminous Tack Coat if specified in the proposal.

301.05 Basis of Payment. The Engineer will pay for the accepted quantities of ACB at the contract unit price per ton, per square yard or per cubic yard. The unit price shall be full compensation for furnishing and installing the ACB, recycled ACB, or GCB; equipment, tools, labor and incidentals necessary to complete the work.

The Engineer will make payment under:

Pay Item	**Pay Unit**
Plant Mix Asphalt Concrete Base Course	Tons
Plant Mix Asphalt Concrete Base Course	Square Yard
Plant Mix Asphalt Concrete Base Course	Cubic Yard

If not shown in the proposal, the Engineer will not pay for the furnishing and applying of bituminous tack coat separately. The Engineer will consider bituminous tack coat incidental to the ACB.