

## Division 9: Asphalt concrete Surface Court

**9.01 SCOPE:** Construction of a Asphalt Concrete Surface Course shall consist of one layer placed on a properly compacted base course inclusive of a tack coat in accordance with these Specifications and in close conformity with the alignment and grades shown on the construction plans or established by the Engineer.

**9.02 MATERIALS:** Asphalt Concrete Surface Course shall consist of a combination of mineral aggregates and asphalt materials mixed mechanically in a plant. Asphalt concrete materials shall meet the following requirements:

- A. Shall be in conformance with Division 7.02 A through D of these Specifications.
- B. Asphalt Concrete Surface Course will be as per the type and location shown on the construction plans and shall conform with the following provisions:
  - 1. Asphalt Concrete Surface Course types currently suitable for use within the City are as follows:
    - a. Type SM-1 Asphalt Concrete shall consist of siliceous fine aggregate, granite, slag, gravel screenings or combination thereof combined with asphalt cement.  
  
At least 20 percent Grading A sand shall be used conforming to VDOT Section 202 of the Specifications.
    - b. Type SM-2A, SM-2B and SM-2C Asphalt Concrete shall consist of crushed stone, crushed slag, or crushed gravel and fine aggregate, slag or stone screenings, or a combination thereof combined with asphalt cement.  
  
For mixtures SM-2B and SM-2C at least 10 percent sand conforming to VDOT Section 202 of the Specifications for Grading A, F, G or a combination thereof shall be used. Natural sand shall not exceed 20%.  
  
No more than 5 percent of the aggregate retained on the No. 4 sieve and no more than 20 percent of aggregate passing the No. 4 sieve may be polish susceptible.
    - c. Type SM-3A, SM-3B and SM-3C Asphalt Concrete shall consist of crushed stone, crushed slag or crushed gravel and fine aggregate, slag, or crushed screenings, or combination thereof combined with asphalt cement.  
For mixtures SM-3B and SM-3C at least 10 percent sand conforming to VDOT Section 202 of the Specifications of Grading A, F, G or a combination thereof shall be used. Natural sand shall not exceed 20%.  
  
No more than 5 percent of the aggregate retained on the No. 4 sieve shall be polish susceptible. All material passing the No. 4 sieve may be polish susceptible.
  - 2. Whenever the amount of aggregate passing the No. 200 sieve exceeds five percent (5%), minimum of fifteen percent (15%) siliceous sand (Minimum Grading B) may be required to be added to the mix.

Type	Percentage by Weight Passing Square Mesh Sieves											Mix Temp. (at Plant)
	2	1½	1	¾	½	3/8	No. 4	No. 8	No. 30	No. 50	No.200	
SM-1					100	94-100	65-85		20-40	9-25	4-8	210°-300°F
SM-2 A-B-C				100	97-100	82-94	48-62		18-24	4-7	4-7	210°-300°F
SM-3 A-B-C			100	97-100	72-86		40-59		14-24		3-6	210°-300°F

**9.03 EXECUTION:** Asphalt Concrete Surface Course shall consist of one course placed on a prepared base in accordance with the applicable division of these Specifications for said base, and in addition shall meet the provisions of Division 7.03 A-C of these Specifications for asphalt concrete. Surface tolerances shall not exceed 1/4 inch when tested with a ten foot straight edge placed at any two contacts with the surface. All humps or depressions exceeding the specified tolerance shall be corrected or the defective work removed and replaced with new material by the Contractor.

**9.04 MEASUREMENT AND PAYMENT:** Costs of all materials, labor, and equipment as well as incidental expenses shall be included in the unit price for furnishing placing, and compacting the asphalt concrete surface material and shall be measured and paid for as follows:

- A. Asphalt concrete will be measured in tons of the type specified, complete in-place. Net weight information will be furnished in the form of individual weight. Tickets provided with each vehicle load.
- B. Each vehicle used to transport asphalt material shall be inspected when it is reported empty and the quantity of asphalt material remaining therein, if any, shall be gaged and agreed upon as to quantity by representatives of the City and Contractor. All asphalt material remaining shall be deducted from the vehicle net weight ticket.
- C. Payment will be made at the unit price per ton for each type as specified in the Unit Price Table.
- D. Maintenance of temporary or final surfaces shall be done by the contractor at no additional cost to the City. This includes all adjustments necessary to meet the surface tolerances specified under 9.03 above.