

ASPHALTIC CONCRETE TYPE SLX

Asphaltic Concrete, Type SLX shall meet all of the requirements of Asphaltic Concrete, Type SPR, listed in Chapter 6 and these Special Provisions, with the following exceptions:

1. Material Characteristics:

- a. The type of PG Binder used shall be PG Binder 64-34 with 0.7% of an approved amine-based WMA additive.
- b. Reclaimed Asphalt Pavement (RAP) will be added to the mix at a minimum of 20% and a maximum of 35%. The RAP must be fractionated/processed prior to use, to a sizing such that the combined hot mix meets the required gradation. The mat cannot exhibit any visual defects or cold spots from RAP conglomeration.
- c. The mix shall contain a minimum of 20% Crushed Rock Chips (with a minimum of 45% retained on the #4 sieve and a maximum of 5% passing the #200 sieve).
- d. The Asphaltic Concrete shall have a minimum Fine Aggregate Angularity (FAA) of 43.0 on the combined aggregate blend. There is no requirement for Coarse Aggregate Angularity (CAA).
- e. Asphaltic Concrete Type SLX shall use the gradation band listed below.

Gradation Control Points for Type SLX

English Sieve (Metric)	Control Points (percent passing)	
	Minimum	Maximum
1/2 inch (12.5 mm)	98.0	100.0
3/8 inch (9.5 mm)	93.0	100.0
No. 4 (4.75 mm)	70.0	87.0
No. 8 (2.36 mm)	45.0	65.0
No. 16 (1.18 mm)	25.0	41.0
No. 30 (600 µm)	15.0	31.0
No. 50 (300 µm)	10.0	21.0
No. 100 (150 µm)	---	---
*No. 200 (75 µm)	4.0	10.0

* Dust to binder ratio is the ratio of the percentage by weight of aggregate finer than the No. 200 (75 µm) sieve to the asphalt content expressed as a percent by weight of total mix. The dust to binder ratio shall be between 0.70 and 1.70.

2. Design Criteria:

- a. The optimum binder content shall be the binder content that produces 2.0 to 4.0 percent air voids at 50 gyrations, with a minimum content of 5.3%.
- b. The Voids in the Mineral Aggregate (VMA) shall be a minimum of 16% ± 1% (mix design only).

3. Placing and Finishing:

- a. Asphaltic Concrete shall be placed only when the ambient temperature is at least 40°F (4°C) and rising.
- b. The asphaltic concrete temperature shall be 285° F (154°C) or above measured in the truck just prior to placement. Exceptions to this requirement are that the PG Binder Supplier recommended maximum temperature requirement shall not be exceeded.
- c. The Contractor will use steel wheel compactors only. Rubber tire rollers will not be allowed.

4. Asphaltic Concrete Density:

Regardless of layer thickness, Asphaltic Concrete Type SLX will be monitored for density.

An initial rolling pattern test strip shall be completed to determine the rolling pattern that will target a minimum of 92.5% density. The Contractor shall monitor the density through a combination of rolling pattern and field testing as deemed necessary by the Engineer.

Basis of Payment:

Asphaltic concrete shall be paid for on a lot basis, as described above, at the contract unit price bid per ton for ASPHALTIC CONCRETE, TYPE SLX and subject to the payment tables for production in Chapter 6. The amount of asphaltic concrete to be paid for shall be the net weight of the material actually incorporated into the work. Such payment shall be full compensation for all mixing, hauling, tack coats, spreading, compacting to required density, materials, equipment, tools, labor, and incidentals necessary to construct the asphaltic concrete course to the required thickness or as directed by the City's Project Manager.