# Low Type Asphalt Requirements NJSP-21-01A

***Drafter’s Note: This provision shall be used only with approval from the Construction and Materials Division – Central Office.***

**1.0 Description**. The JSP provides a low type asphalt for mid volume roads.

**Delete Sec 401.3 and substitute the following:**

**401.3 Composition of Mixtures.** Aggregate sources shall be from the specific ledge or combination of ledges within a quarry, or processed aggregate from a particular product, as submitted in the mix design. The total aggregate prior to mixing with asphalt binder shall be in accordance with the following gradation requirements:

|  |  |
| --- | --- |
| **Sieve Size** | **Percent Passing by Weight** |
|  | **Base** | **BP-1** | **BP-2** | **BP-3** |
| 1 inch | 100 | 100 | 100 | 100 |
| 3/4 inch | 85-100 | 100 | 100 | 100 |
| 1/2 inch | 60-90 | 85-100 | 95-100 | 100 |
| 3/8 inch | --- | --- | --- | 100 |
| No. 4 | 35-65 | 50-70 | 60-90 | 90-100 |
| No. 8 | 25-50 | 30-55 | 40-70 | --- |
| No. 16 | --- | --- | --- | 30-60 |
| No. 30 | 10-35 | 10-30 | 15-35 | --- |
| No. 200 | 4-12 | 5-12 | 5-12 | 7-12 |

**Fine Aggregate Angularity.** Fine aggregate angularity (FAA) shall be measured on the fine portion of the blended aggregate. When tested in accordance with AASHTO T 304 Method A, aggregate particles passing the No. 8 sieve shall a minimum percent air voids in loosely compacted fine aggregate of 40.

**Delete Sec 401.4.4.1 and substitute the following:**

**401.4.4.1** Base, BP-1, BP-2 and BP-3 mixtures shall have the following properties, when tested in accordance with AASHTO T 245 or AASHTO T 312. The number of blows with a compaction hammer shall be 35 or the number of gyrations shall be 35 with the gyratory compactor. BP-1 and BP-2 mixtures shall have between 60 and 80 percent of the VMA filled with asphalt binder and dust to effective binder ratio of 0.8 to 1.6. BP-3 mixtures shall be compacted with the gyratory compactor to 35 gyrations and shall have a minimum 75 percent of the VMA filled with asphalt binder and dust to effective binder ratio of 0.9 to 2.0.

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| --- | --- | --- | --- |
| **Mix Type** | **Percent****Air Voids** | **AASHTO T 245Stability lb** | **Voids in Mineral****Aggregate****(VMA)b** |
| BB | 3.5 | 1500 | 13.0a |
| BP-1 | 3.5 | 1500 | 13.5 |
| BP-2 | 3.5 | 1500 | 14.0 |
| BP-3 | 3.5 | 1500 | 15.0 |

aBituminous base mixtures that would require 12.0 percent VMA following Asphalt Institute MS-2 will have a minimum 12.0 percent requirement.

bIf the effective virgin binder replacement from any combination of RAP and RAS is greater than 40 percent; then the minimum VMA required shall be increased by 0.5.

**Delete Sec 402.3 and substitute the following:**

**402.3 Composition of Mixture.**  Aggregate sources shall be from the specific ledge combination of ledges within a quarry, or processed aggregate from a particular product, as submitted in the mix design. The total aggregate prior to mixing with asphalt binder shall be in accordance with the following gradation requirements:

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| --- |
| **Plant Mix Bituminous Surface Leveling** |
| **Sieve Size** | **Percent Passing****by Weight** |
| 3/4 inch | 100 |
| 1/2 inch | 99-100 |
| 3/8 inch | 90-100 |
| No. 4 | 60-90 |
| No. 8 | 40-70 |
| No. 30 | 15-35 |
| No. 200 | 5-12 |

BP-3 in accordance with Sec 401.3 is an allowable substitution.

**Fine Aggregate Angularity.** Fine aggregate angularity (FAA) shall be measured on the fine portion of the blended aggregate. When tested in accordance with AASHTO T 304 Method A, aggregate particles passing the No. 8 sieve shall a minimum percent air voids in loosely compacted fine aggregate of 40.

**Delete Sec 402.3.1 and substitute the following:**

**402.3.1 Mixture Characteristics.** Bituminous surface leveling mixture shall have the following properties, when tested in accordance with AASHTO T245 or AASHTO T 312. The number of blows with a compaction hammer shall be 35 or the number of gyrations shall be 35 with the gyratory compactor. The mixture shall have a minimum voids filled with asphalt (VFA) of 75 percent. The dust to effective binder ratio shall be 0.8 to 1.6.

|  |  |  |
| --- | --- | --- |
| **Percent Air Voids** | **AASHTO T 245Stability lb** | **Voids in Mineral Aggregate (VMA)** |
| 3.5 | 1500 | 14.5 |