**Division 400** of the Standard Specifications for Highway Construction, Edition of 2014, is hereby amended as follows:

The fourth sentence of Paragraph 1 of **Subsection 404.01(b), Design Requirements,** is hereby deleted and the following substituted therefor:

The optimum asphalt content is the asphalt binder content at 4% Air Voids (AV).

The first bullet of Paragraph 1 is hereby deleted and the following substituted therefor:

* PG 64‑22 and PG 70‑22 mixes will be designed using 4% air voids;

The second sentence of Paragraph 2 of **Subsection 404.04, Quality Control of Asphalt Mixtures,** is hereby deleted and the following substituted therefor:

Adjustments to the accepted mix design to conform to actual production values without re‑design of the mixture shall be based on production of the mixture at a target value of 4.0% Air Voids (AV) in specimens and an asphalt binder content not less than that specified in the accepted mix design.

Table 405‑1 of **Subsection 405.03 Materials** is hereby deleted and the following substituted therefor:

|  |  |  |  |
| --- | --- | --- | --- |
| Table 405-1 | | | |
| Design Requirements for Asphalt Concrete Hot Mix Base Course  (1-1/2″ [37.5 mm]) | | | |
|  | Control Points | |  |
| Sieve (mm) | Percent Passing (%) | |  |
| 2″ (50.0) | 100 | |  |
| 1½″ (37.5) | 90 - 100 | |  |
| 1″ (25.0) | 90 max. | |  |
| No. 4 (4.75) | - | |  |
| No. 8 (2.36) | 15 - 41 | |  |
| No. 16 (1.18) | - | |  |
| No. 30 (0.60) | - | |  |
| No. 50 (0.30) | - | |  |
| No. 200 (0.075) | 0 - 6 | |  |
| Asphalt Binder Content | | Design Value | | |
| % Air Voids | | 4.0 | | |
| % VMA | | 11.5 – 13.0 | | |
| Minimum Water Sensitivity Ratio | | 80.0 | | |
| % Anti‑strip | | As Required | | |
| Fines to Asphalt Ratio\* | | 0.6 – 1.6 | | |
| Wheel Tracking Test (8000 cycles, 100 psi, 64ºC) | | Design Gyration Maximum Rut  75 & 115 0.315 in. (8.000 mm)  160 0.197 in. (5.000 mm)  205 0.197 in. (5.000 mm) | | |

\*Fines to asphalt ratio shall be defined as the percent materials passing the No. 200 (0.075 mm) sieve (expressed as a percent of total aggregate weight) divided by the effective asphalt binder content.

Table 406‑1 of **Subsection 406.04, Construction Requirements and Acceptance,** is hereby deleted and the following substituted therefor:

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 406-1** | | | |
| Design Requirements for Asphalt Concrete Hot Mix Binder Course  (1″ [25 mm]) | | | |
|  | Control Points | |  |
| Sieve (mm) | Percent Passing (%) | |  |
| 1½″ (37.5) | 100 | |  |
| 1″ (25.0) | 90 - 100 | |  |
| ¾″ (19.0) | 90 max. | |  |
| No. 4 (4.75) | - | |  |
| No. 8 (2.36) | 19 - 45 | |  |
| No. 16 (1.18) | - | |  |
| No. 30 (0.60) | - | |  |
| No. 50 (0.30) | - | |  |
| No. 200 (0.075) | 1 - 7 | |  |
| Asphalt Binder Content | | Design Value | |
| % Air Voids | | 4.0 | |
| % VMA | | 12.5 – 14.0 | |
| Minimum Water Sensitivity Ratio | | 80 | |
| % Anti‑strip | | As Required | |
| Fines to Asphalt Ratio\* | | 0.6 – 1.6 | |
| Wheel Tracking Test  (8000 cycles, 100 psi, 64ºC) | | Design Gyration Maximum Rut  75 & 115 0.315 in. (8.000 mm)  160 0.197 in. (5.000 mm)  205 0.197 in. (5.000 mm) | |

\*Fines to asphalt ratio shall be defined as the percent materials passing the No. 200 (0.075 mm) sieve (expressed as a percent of total aggregate weight) divided by the effective asphalt binder content.

Table 407‑1 and Table 407‑2 of **Subsection 407.04, Construction Requirements and Acceptance,** are hereby deleted and the following substituted therefor:

|  |  |  |  |
| --- | --- | --- | --- |
| **Table 407-1** | | | |
| Design Requirements for Asphalt Concrete Hot Mix Surface Course  (1/2″ [12.5 mm]) | | | |
|  | Control Points | |  |
| Sieve (mm) | Percent Passing (%) | |  |
| ¾″ (19.0) | 100 | |  |
| ½″ (12.5) | 90 - 100 | |  |
| 3/8″ (9.5) | 90 max. | |  |
| No. 8 (2.36) | 28 - 58 | |  |
| No. 16 (1.18) | - | |  |
| No. 30 (0.60) | - | |  |
| No. 50 (0.30) | - | |  |
| No. 200 (0.075) | 2 - 10 | |  |
| Asphalt Binder Content | | Design Value | |
| % Air Voids | | 4.0 | |
| % VMA | | 14.0– 16.0 | |
| Minimum Water Sensitivity Ratio | | 80.0 | |
| % Anti-strip | | As Required | |
| Fines to Asphalt Ratio\* | | 0.6 – 1.6 | |
| Wheel Tracking Test  (8000 cycles, 100 psi, 64ºC) | | Design Gyration Maximum Rut  75 & 115 0.315 in. (8.000 mm)  160 0.197 in. (5.000 mm)  205 0.197 in. (5.000 mm) | |

\*Fines to asphalt ratio shall be defined as the percent materials passing the No. 200 (0.075 mm) sieve (expressed as a percent of total aggregate weight) divided by the effective asphalt binder content.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Table 407-2** | | | | |
| Design Requirements for Asphalt Concrete Hot Mix Surface Course (3/8″ [9.5 mm]) | | | | |
|  | Control Points | | |  |
| Sieve (mm) | Percent Passing (%) | | |  |
| ½″ (12.5) | 100 | | |  |
| 3/8″ (9.5) | 90 - 100 | | |  |
| No. 4 (4.75) | 90 max. | | |  |
| No. 8 (2.36) | 32 - 67 | | |  |
| No. 16 (1.18) | - | | |  |
| No. 30 (0.60) | - | | |  |
| No. 50 (0.30) | - | | |  |
| No. 200 (0.075) | 2 - 10 | | |  |
| Asphalt Binder Content | | | Design Value | |
| % Air Voids | | | 4.0 | |
| % VMA | | | 15.0– 17.0 | |
| Minimum Water Sensitivity Ratio | | | 80.0 | |
| % Anti-strip | | | As Required | |
| Fines to Asphalt Ratio\* | | | 0.6 – 1.6 | |
| Wheel Tracking Test (8000 cycles, 100 psi, 64ºC) | | Design Gyration Maximum Rut  75 & 115 0.315 in. (8.000 mm.)  160 0.197 in. (5.000 mm)  205 0.197 in. (5.000 mm) | | |

\*Fines to asphalt ratio shall be defined as the percent materials passing the No. 200 (0.075 mm) sieve (expressed as a percent of total aggregate weight) divided by the effective asphalt binder content.