SUBARTICLE 334-1.4.1 is deleted and the following substituted:

**334-1.4.1 Layer Thicknesses:** The allowable layer thicknesses for Type SP Asphalt Concrete mixtures are as follows:

- Type SP-9.5................................................. 1 to 1-1/2 inches
- Type SP-12.5............................................... 1-1/2 to 3 inches
- Type SP-19.0..................................................... 2 to 4 inches

In addition to the minimum and maximum thickness requirements, the following restrictions are placed on mixes when used as a structural course:

- Type SP-9.5 - Limited to the top two structural layers, two layers maximum.
- Type SP-9.5 - Do not use on Traffic Level D and E applications.
- Type SP-19.0 - Do not use in the final (top) structural layer below FC-5 mixtures. Type SP-19.0 mixtures are permissible in the layer directly below FC-9.5 and FC-12.5 mixtures. Do not use in the final (top) layer of shoulders.

SUBARTICLE 334-5.4.4 is deleted and the following substituted:

**334-5.4.4 Individual Test Tolerances for QC Testing:** Terminate the LOT if any of the following QC failures occur:

1. An individual test result of a sublot for air voids does not meet the requirements of Table 334-4,
2. The average sublot density does not meet the requirements of Table 334-4,
3. Two consecutive test results within the same LOT for gradation or asphalt binder content do not meet the requirements of Table 334-4,

When a LOT is terminated due to a QC failure, stop production of the mixture until the problem is resolved to the satisfaction of the QC Manager and/or Asphalt Plant Level II technician responsible for the decision to resume production after a QC failure, as identified in Section 105. In the event that it can be demonstrated that the problem can immediately be or already has been resolved, it will not be necessary to stop production. When a LOT is terminated, make all necessary changes to correct the problem. Do not resume production until appropriate corrections have been made. Prior to resuming production, inform the Engineer of the problem and corrections made to correct the problem. After resuming production, sample and test the material to verify that the changes have corrected the problem. Summarize this information and provide it to the Engineer prior to the end of the work shift when production resumes.

In the event that a QC failure is not addressed as defined above, the Engineer’s approval will be required prior to resuming production after any future QC failures.
Address any material represented by a failing test result, as defined above in this subarticle, in accordance with 334-5.9.5. Any LOT terminated under this subarticle will be limited to a maximum Pay Factor of 1.00 (as defined in 334-8.2) for all quality characteristics and will include all material placed up to the point when the LOT was terminated.

In the event that a $G_{mm}$ test result differs by more than 0.040 from the mix design $G_{mm}$, investigate the causes of the discrepancy and report the findings and proposed actions to the Engineer.

### Table 334-4
**Master Production Range**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Tolerance ¹(1)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Asphalt Binder Content (%)</td>
<td>Target ±0.55</td>
</tr>
<tr>
<td>Passing No. 200 Sieve (%)</td>
<td>Target ±1.50</td>
</tr>
<tr>
<td>Air Voids (%)</td>
<td>2.30 – 6.00</td>
</tr>
<tr>
<td>Density (minimum % $G_{mm}$)</td>
<td>89.50</td>
</tr>
</tbody>
</table>

¹(1) Tolerances for sample size of $n = 1$ from the verified mix design
²(2) Based on an average of 3-5 randomly located cores