

3. Other Mechanical Devices

Inaccessible or short sections of HMA may be placed with specialty equipment approved by the Engineer.

(d) Compaction Equipment

80 Compaction equipment shall be self-propelled, steel wheel or pneumatic tire types, in good condition, and capable of reversing direction without backlashing. All roller wheels shall be equipped with scrapers to keep the wheels clean, have water spraying devices on the wheels, and steering devices capable of accurately guiding the roller.

1. Tandem Roller

A roller having two axles and a minimum weight of 10 t.

2. Three Wheel Roller

A roller having three wheels with a minimum bearing of 300 lb/in. on the rear wheels. The crown of the wheels shall not exceed 2.5 in. in 18 ft.

90 A tandem roller which has a drive wheel bearing of no less than 300 lb/in. may be used in lieu of the three wheel roller.

3. Pneumatic Tire Roller

A pneumatic tire roller shall have a minimum rolling width of 5.5 ft. The roller shall be equipped with compaction tires, minimum size 7:50 by 15, exerting an average contact pressure from 50 to 90 psi uniformly over the pavement.

100 The wheels on at least one axle shall be fully oscillating vertically and mounted to prevent scuffing of the pavements during rolling or turning operations. Charts or tabulations showing the contact areas and pressures for the full range of tire inflation pressures and for the full range of tire loadings for each compactor shall be furnished to the Engineer.

4. Vibratory Roller

A vibratory roller shall have both drums equipped for vertical impact forces, a variable amplitude system, a speed control device, and have a minimum vibration frequency of 2,000 vibrations per minute. A reed tachometer shall be provided for verifying the frequency of vibrations.

110 5. Oscillatory Roller

An oscillatory roller shall have both drums equipped for horizontal and vertical shear forces or one drum equipped for horizontal and vertical shear force and the other drum equipped for a vertical impact force.

6. Trench Roller

A trench roller shall have a compaction wheel bearing of no less than 300 lb/in.

7. Specialty Roller/Compactor

120 Inaccessible or short sections of HMA may be compacted with specialty equipment approved by the Engineer.

(e) Miscellaneous Equipment

1. Aggregate Spreader

A spreader shall be a self-propelled, pneumatic tired, motorized unit with a front loading hopper and a transportation system for distributing the aggregates uniformly across the pavement.

2. Rotary Power Broom

130 A motorized, pneumatic tired unit with rotary bristle broom head.

(f) Smoothness Equipment

The inertial profiler shall be in accordance with ITM 917.

SECTION 410 – QC/QA HMA – SMA PAVEMENT

410.01 Description

This work shall consist of one course of QC/QA HMA – SMA mixture constructed on prepared foundations in accordance with 105.03.

410.02 Quality Control

10 The SMA mixture shall be supplied from a certified HMA plant in accordance with ITM 583, Certified Hot Mix Asphalt Producer Program. The QCP shall be modified to include the requirements for the SMA mixtures. The SMA shall be transported and placed according to the QCP prepared and submitted by the Contractor in accordance with ITM 803, Contractor Quality Control Plans for Hot Mix Asphalt Pavements. The QCP shall be submitted to the Engineer at least 15 days prior to commencing SMA paving operations.

When a safety edge is required for a project, the QCP shall identify the device or devices in accordance with 409.03(c) to be used for constructing the safety edge.

MATERIALS

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410.03 Materials

Materials shall be in accordance with the following:

Asphalt Materials

PG Binder, PG 76-22, PG 70-22	902.01(a)
Coarse Aggregates, Class AS	904.03
Fine Aggregates (sand, mineral filler)	904.02
Stabilizing Additives	AASHTO M 325