

State of Illinois
Department Of Transportation

**CONSTRUCTION INSPECTOR'S CHECKLIST
FOR
HOT- MIX ASPHALT (HMA) PAVEMENT (FULL DEPTH)**

While its use is not required, this checklist has been prepared to provide the field inspector a summary of easy-to-read, step-by-step requirements relative to the proper construction of Hot-Mix Asphalt Pavement (Full Depth). The following questions are based on and referenced to information found in the Standard Specifications, Construction Manual, and current policy memorandums and letters.

Have you reviewed the contract Special Provisions, Supplemental Specifications and Plans? _____

1. GENERAL

Is the HMA Pavement (Full-Depth) being constructed according to the applicable portions of Section 406 of the Standard Specifications? Review the applicable requirements in the Construction Inspector's Checklist for HMA Binder and Surface Course. _____

2. SUBGRADE

Is the subgrade prepared according to Section 301 of the Standard Specifications except Articles 301.05 and 301.06 will not apply? (Art. 407.05) _____

If a lime modified soil layer is specified, is it constructed in accordance with Section 302 of the Standard Specifications? _____

a. The lime-modified soil layer shall be compacted to not less than 95% of the standard dry density. The in place density of the completed subgrade will be tested at least every 1500 ft (450 m). _____

b. The surface of the lime-modified soil shall be brought to true shape and correct elevation according to Article 301.07. _____

c. Trimmings from the lime treated subgrade shall be removed prior to placement of the binder course. (Art. 407.06) _____

3. PLACEMENT

Is the HMA binder and surface courses placed according to Article 406.06 and the following? _____

The compacted thickness of the initial lift of binder course shall be 4 inches (100 mm) thick. _____

Succeeding binder lifts shall be the minimums specified in Article 406.06(d) but no more than 4 inches (100 mm) thick when compacted. _____

The compacted lift thickness of the layers of binder excluding the top lift may be increased to 6 inches (150 mm) if a vibratory roller is used for breakdown, and the required density is obtained. _____

Longitudinal joints shall be constructed in accordance with Article 406.06(g). _____

Each lift of compacted HMA mixture shall be clean when the next lift is placed. _____

A light fog of prime coat shall be applied between lifts of HMA, when directed by the Engineer. _____

a. The application rate shall be 0.02 gal./square yard (0.1 L/m²) _____

4. HAULING ON PARTIALLY COMPLETED PAVEMENT

Are trucks only permitted on partially completed pavement only to deliver bituminous mixture to the paver, except that hauling on partially completed segments will be permitted according to the following table. (Art. 407.08) _____

Load Limit Restrictions		
	Type of Hauling Traffic	
Total Lift Thickness in (mm)	Below 85°F (30°C)	85°F (30°C) & above
4-7 inches (100-180 mm)*	Unloaded	None
7-9.5 inches (180-240 mm)*	Legally Loaded	Unloaded
Greater than 9.5 inches (240 mm)**	Legally Loaded	Legally Loaded

* With the last lift having cooled a minimum of 24 hours.

** With the last lift having cooled a minimum of 12 hours.

A traffic pattern shall be established that prevents “tracking” of vehicles one directly behind the other. _____

Crossovers shall be used to transfer haul trucks between roadways. _____

a. Spaced not less than 1000 ft (300 m) apart. _____

b. Constructed of a material that prevents tracking dust or mud on the completed HMA layers. _____

c. Constructed, maintained and removed at the contractor’s expense. _____

5. PIPE UNDERDRAINS

Placement of underdrains, when specified, should be in accordance with Section 601 of the Standard Specifications and Standard 601001. _____

Construction of underdrains shall not be started until at least 9.5 in (240 mm) of bituminous concrete binder is placed. (Art. 407.07) _____

Material excavated from the underdrain trench shall not be deposited or windrowed on any portion of the full-depth pavement. (Art. 407.07) _____

6. SURFACE TESTS

The finished surface of the pavement shall be tested using a California Profilograph or a 16 ft (5 m) straightedge. (Art. 407.09)

16 ft (5 m) straightedge will be used on the following pavement surfaces:

- a. Locations listed in the following Table shall be tested in the wheel path with the 16 ft (5 m) straightedge set to the tolerance specified. _____

Location	Tolerance
Ramps, Loops and Climbing Lanes	$\frac{1}{4}$ in (6 mm)
Mainline Gaps \leq 0.1 mile (160 m)	$\frac{1}{4}$ in (6 mm)
Bridge Approaches	$\frac{1}{4}$ in (6 mm)
Side Roads & Side Streets $>$ 600 ft (180 m) in length	$\frac{1}{4}$ in (6 mm)
50 ft (15 m) from Bridge Approaches, Wideflange Beam Terminal Joint, Existing Pavement or Mainline Gaps	$\frac{1}{4}$ in (6 mm)
All curves \leq 1000 ft (300 m) radius including SE transitions	$\frac{3}{8}$ in (10 mm)
Acceleration Deceleration Lanes	$\frac{3}{8}$ in (10 mm)
Side Streets \leq 600 ft (180 m) in length	$\frac{3}{8}$ in (10 mm)
Turn Lanes, Storage Lanes and Crossovers, Etc.	$\frac{3}{8}$ in (10 mm)
Intersections	$\frac{3}{8}$ in (10 mm)

- b. Mainline pavements with less than or equal to 40 mph (70 km/h) will be tested in the wheel paths with a 16 ft (5 m) straightedge set to a $\frac{3}{16}$ in (5 mm) tolerance. _____

- c. Mainline pavements with greater than 40 mph (70 km/h) with a net project length of less than 1 mile (1600 m) will be tested in the wheel path with a 16 ft (5 m) straightedge set to a $\frac{3}{16}$ in (5 mm) tolerance. _____

- d. All surface variations that exceed the above tolerance shall be removed with an approved grinding device consisting of multiple saws. _____

- e. The contractor will furnish and provide jobsite transportation for the 16 ft (5 m) straightedge. _____

Profilograph – All mainline pavement shall be tested with a California Profilograph, except the mainline pavement previously specified for testing with a 16 ft (5 m) straightedge. _____

a. The Profile Index and Price Adjustments will be determined in accordance with Article 407.09(b)(1). _____

b. Corrective work will be in accordance with Article 407.09(b)(2). _____

7. THICKNESS TESTS

Is the determination of the pavement thickness performed in accordance with Article 407.10? _____

8. DOCUMENTATION OF FINAL QUANTITIES

HMA Pavement (Full-Depth) will be paid for at the contract unit price per square yard (square meter) of the type and thickness specified.

a. Contract Quantities – The requirements for the use of contract quantities shall conform to Article 202.07(a). Form [BC 981](#), Agreement on Accuracy of Plan Quantities, must be signed and on file prior to starting work. (See [Documentation Section](#) of the Construction Manual). _____

b. Measured Quantities – Pavement will be measured in place and the quantity for payment shall be computed in square yards (square meters). The maximum width for payment shall be the top width of the HMA course as shown on the plans. (Art. 407.11(b)) _____

Light fog tack coat of prime, when required between lifts, shall be paid according to Article 109.04. _____

If the contract requires the contractor to furnish a profilograph, all costs associated with maintenance and jobsite transportation will be paid for at the lump sum price for FURNISH PROFILOGRAPH. (Art. 407.12) _____

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