8.70 INSPECTOR'S GUIDE - HMA PAVING & RESURFACING

Review all applicable plans, Specifications, Road Standards, Materials I.M.'s, and Construction Manual chapters. Prepare field books.

Check traffic control, work zone length, flaggers, signing, pilot car operations.

Check project quantities to insure accuracy.

Are job mix designs approved?

Obtain necessary inspection equipment and review sampling & testing procedures *(Materials I.M.'s 322, 323, & 337)* & frequencies *(Materials I.M. 204)*.

Locate and reference fixtures to be adjusted prior to placing final layer *(Specification 2303.03, C, 7)*.

Stake wedge courses *(Construction Manual 8.51)*.

Does equipment meet applicable requirements*?*

- Trucks *(Specification 2001.03)*
- Tampers *(Specification 2001.04)*
- Rollers *(Specification 2001.05)*
- Material Bins *(Specification 2001.06)*
- Weighing Equip. *(Specification 2001.07)*
- Distributors *(Specification 2001.12)*
- Spreaders *(Specification 2001.13)*
- Brooms *(Specification 2001.14)*
- Trenchers *(Specification 2001.18)*
- Pavers *(Specification 2001.19)*

Check paver screed for proper crown and excessive wear. Are automatic grade and slope controls operational *(Specification 2001.19)*?

Check frequency of vibratory rollers to assure a minimum of 35 impacts/m (10 impacts/foot) with a reed tachometer.

Is rubber-tired roller required? Verify 550 kpa (80 psi) contact pressure at legal axle load *(Specification 2001.05)*.

Are enough rollers in use to obtain required density and smooth out bumps, ridges, and marks in surface?

Are tarps or insulated truck boxes required? Check for improper use of cleaning solvents and release agents *(Specifications 2001.01, 2001.03, and 2303.03, C, 4, and Materials I.M. 491.15)*.

Check hand equipment. Lutes, rakes, and shovels should be of the type designed for use on HMA mixtures and heavy enough to do the job.

Check distributor spray bar height and nozzle angle. Is the distributor tank calibrated *(Specification 2001.12)*? Determine if correct type and rate of tack coat is being applied *(Specifications 2303.02E and 2303.03, C, 2)*.

Is the tack coat coverage continuous and uniform? Is the exposed vertical face (first side placed) of longitudinal joint properly tacked *(Specification 2303.03, C, 2)*? For a Notched Wedge Joint configuration, tack is also applied to the sloping "wedge" face.

Check each truckload of mix for proper weigh ticket *(Specification 2001.07)*.

Is existing surface properly cleaned, tacked and free of excess moisture *(Specifications 2212.03, B, 1, and 2303.03, C,)*?

Is mix being placed at correct temperature range? Check mixture temperature and existing road surface temperature *(Specifications 2303.03, C, 3, and 2303.03, C, 4, and Construction Manual 8.55)*.

Is paver hopper near full at all times? Check flow gates and augers. Lifting paver hopper wings should only occur when the hopper is relatively full and the mix in the wings is not excessively cool. Crusted mix in the hopper wings should be wasted.

Compare paver speed to plant output to reduce amount of stopping. Consistent speed results in more consistent pavement properties.

Check width, depth, and cross-slope, and compare to spread width typical and typical section as per plan.

Check and record yield based on megagrams (tons) of mix required compared to megagrams (tons) of mix used. (Recommend yield checks at 2-hour intervals)

Is guideline string accurately set and maintained *(Construction Manual 8.43)*?

Are transverse and longitudinal joints constructed properly *(Construction Manual 8.15, 8.43, and 8.44)*? Check transverse joints with a 10' straightedge; contractor must make necessary corrections with hand tools prior to compaction *(Specification 2303.03, C, 6)*.

Is surface texture uniform, dense, and free from irregularities, tearing, steel roller marks, check cracks, solvent spots, and segregation *(Specifications 2303.03, C, 4, and 2303.03, C, 5, and Construction Manual 2.53)*?

Check smoothness with straightedge when profilometer smoothness *(Specification 2316.02, A, 7)* is not required. Encourage profilometer use in these areas when possible.

Are temporary runouts and fillets in compliance with applicable standards, with appropriate dimensions for lift thickness?

Is Safety Edge, where required by contract documents, constructed with appropriate uniform slope angle at pavement edge *(Specification 2305.03, A, and Standard Road Plan PV-3)*?

If Safety Edge is not incorporated, is granular shoulder or temporary granular fillet in place prior to opening adjacent lane to traffic *(Specification 2121.03, C, 4)*? Is fillet placed without damaging edge of pavement? Blading existing aggregate up to form the fillet is not acceptable.

Direct and witness hot box (loose mix) samples *(Materials I.M. 322)* and tack sample *(Materials I.M. 323)*. Identify and secure verification samples for transport.

Determine and mark random core locations. Direct and witness core drilling by the contractor. Inspect and verify the validity of cores for testing (proper thickness & condition). Be sure core holes are properly filled in a timely manner. Take possession of cores, transport cores to field laboratory, and perform density testing *(Construction Manual Appendix 3-4)*. The core samples may be transported by the contractor with proper sample identification and tamper-proof security measures in place.

Timeliness of core sampling, transportation, and density testing is critical to the contractor's operations. Good communication between the inspector and the contractor is essential for success!

Think safety! Use proper equipment, wear protective clothing, and always be aware of contractor's equipment operations and other traffic conditions.

Do milled shoulder rumble strips conform to *Standard Road Plan PV-12*? Do milled centerline rumble strips conform to *Standard Road Plan PV-13*? Check rumble strip dimensions for depth, width, and alignment. Verify removal of milled material and, when specified, uniform application of asphalt emulsion (fog seal).

Additional Requirements for Interstate Projects
Is the rolling pattern established by the test strip maintained and documented *(Construction Manual 8.13)*? Are HMA properties determined to be acceptable prior to proceeding?

Do inside and outside shoulder tapers and maximum drop-off comply with plan details?

Additional Requirements for Full-Depth Paving
Has grade and alignment staking been completed and checked?

Is subgrade constructed according to plan, stable, and corrected to within tolerance *(Specification 2109)*? Check subgrade according to *Construction Manual 8.41*.

Are stringline offsets referenced to permanent stakes?

Additional Requirements for Winter Shutdown
Are all scarified surfaces covered with at least one full lift of HMA *(Specification 2214.03, D)*?

Are all cold in-place recycled surfaces covered with at least on full lift of HMA *(Specification 2318.03, J)*?

Are temporary runouts properly constructed, with length of runout appropriate for lift thickness, and located adjacent to one another *(Specification 2303.03, C, 6)*?

Has granular shoulder material been brought up to the pavement edge, at full shoulder width and design cross-slope *(Specification 2121.03, C, 4)*?

Has the contractor placed all required edgelines and symbols *(Specification 2527.03)*?