MassDOT COVID-19 Pandemic Temporary Guidelines for HMA and PCC Acceptance and Independent Assurance

Independent Assurance (IA)

1. Independent Assurance Sampling and Testing for Concrete and Soils:
   - Continue IA activities at the project site. Maintain proper social/physical distancing during IA sampling and testing until further notice.
2. Independent Assurance Sampling and Testing for Hot Mix Asphalt (at Plant):
   - Suspend all HMA IA sampling and testing performed at the Plant until further notice.

Concrete (PCC)

1. Precast Concrete Consultant Acceptance Inspection Company services will continue operating as usual (maintaining proper social/physical distancing practices), until further notice.
2. New PCC Mix Designs Requiring Trial Batch Testing (Ready Mix Producers Only):
   a. Suspend all Trial Batch Testing Requirements for Ready Mixed Producers until further notice.
   b. Allow for temporary mix design approval with the following language: MassDOT has temporarily suspended all ready-mixed concrete trial batch testing requirements on new mix designs until further notice. As a result, the following cement concrete mix designs shall be granted “Provisional” approval, contingent on MassDOT Acceptance testing performed at the project site, in lieu of trial batch testing requirements. PCC mix designs with conforming Acceptance test results shall be granted “full” approval for the duration of the annual approval cycle and will expire on April 1, 2021. “Provisional” approval of the following mix designs shall be rescinded if MassDOT Acceptance test results are not in conformance with the specifications requirements. Any changes will require new mix design submittals.
3. Cement Concrete Constituent Materials Verification Sampling and Testing Program performed by MassDOT Research and Materials Section (RMS):
   a. Cancel all remaining “Phase I” Verification Sampling and Testing requirements that were to be performed by RMS staff (Was scheduled to take place from January 1 through June 30, 2020).
   b. Begin “Phase II” Verification Sampling and Testing as scheduled (Tentatively scheduled to begin June 1 through December 1, 2020).
4. All other Verification Sampling and Testing Programs performed by RMS:
   a. Cancel all remaining Verification Sampling and Testing requirements that
were to be performed by MassDOT RMS staff
b. Resume Verification Sampling and Testing tentatively beginning in June 1 through December 1, 2020.

5. All MassDOT District Inspectors will no longer perform any inspection and testing at the concrete Producer’s plant prior to concrete shipment until further notice. Concrete Producers shall email [at time of loading] copies of the batch tickets to the MassDOT District Materials Engineer for each truck load delivered to the project site. All original tickets shall be stored by the Contractor until MassDOT is able to take possession of them. Concrete Acceptance sampling and testing at the project site (slump, air, temperature, and preparation of cylinders) will be performed by MassDOT District Inspectors (maintaining proper social/physical distancing practices).

**Hot Mix Asphalt (HMA)**

The following are temporary modifications to established MassDOT HMA policies as well as Sections 450 and M3.

1. **HMA Plant and Laboratory Prequalification** - For those plants that have not been inspected by MassDOT RMS in 2020:
   a. MassDOT RMS will send each HMA plant and laboratory the 2020 checklist used by RMS.
   b. The Contractor’s QC Manager will perform their own internal audit of the plant and laboratory.
   c. The Contractor will email a completed checklist and all Quality System documents to RMS.
   d. MassDOT RMS will perform a phone interview to go over the results of the audit. RMS will then notify NETTCP to provide an interim Laboratory Qualification.
   e. Once regular operations resume, the MassDOT RMS QA Unit will verify plants and laboratories for conformance with MassDOT specifications and requirements.

2. **HMA Mix Design Verification** – MassDOT District verification of HMA mix designs will be suspended until further notice:
   a. The Contractor will submit their mix designs with all required information on the HMA Mix Design Workbook.
   b. The Contractor will deliver aggregate samples to the MassDOT District laboratory to determine consensus properties. The District may also request binder samples if they are able to perform mix verification in their laboratory.
   c. The MassDOT District will complete the verification portion of the Mix Design Workbook using District aggregate results and the Contractor’s volumetric results.
   d. If a mix requires performance testing (i.e. Hamburgs, SCBs, or Beams) the Contractor will fabricate the samples, complete the fabrication checklists, and deliver the samples to MassDOT RMS for testing. The District will not be required to witness sample fabrication.
e. HMA Mix design submissions that meet MassDOT requirements will be approved (the approval letter will note that the mix design was not verified by the District) and the mixture approval is dependent on MassDOT HMA mix Acceptance testing during production.

3. Production HMA Testing – MassDOT Acceptance testing will be performed during HMA paving production and placement as follows:
   a. MassDOT Acceptance core samples from HMA pavement will continue to be obtained with assistance from Contractor QC staff on the project site while observed by MassDOT Inspector (maintaining proper social/physical distancing practices). The random location of each Acceptance core will be determined by MassDOT and provided to the Contractor immediately after compaction of the HMA pavement course to be sampled. All MassDOT Acceptance cores will be immediately submitted to the District Inspector for testing at the District laboratory.
   b. MassDOT Acceptance sampling and testing of HMA loose mix will be modified as such:
      i. ***MassDOT Acceptance sampling of HMA loose mix will be performed by the District Inspector at the HMA production facility in accordance with the “MassDOT Temporary HMA Loose Mix Acceptance Sampling Policy” found below.
      ii. Acceptance testing of HMA loose mix by MassDOT District Inspector at the HMA plant will be discontinued until further notice.
      iii. The day before paving, the Contractor will notify the MassDOT DME with the anticipated quantity of mix to be produced, the shipping start time, and the estimated tons to be shipped per hour. The DME will determine the random numbers for Acceptance sample locations and approximate time that the random number will be reached based on the estimated tons per hour to be shipped.
      iv. During HMA production the Contractor QC personnel will perform the following additional duties:
         1. Obtain a sample of binder from the in-line sample at the usual sampling frequency of one can per 12,000 tons of Superpave HMA mix.
         2. Collect all plant production slips and PG binder bill of lading for that day’s production.
         3. Contractor QC personnel will email the production slips, BOLs, and a copy of all QC test results to the District laboratory by the end of the production day.
         4. If the District laboratory is unable to accept delivery, the Contractor will store the binder samples and documentation at their facility. Once MassDOT Acceptance testing can resume, the District laboratory will obtain the samples, prioritize, and test them accordingly.
v. HMA Producers shall email copies of haul unit tickets or ticket summary to the MassDOT District Materials Engineer and Resident Engineer for each truck load delivered to the project site by the end of the production day. All original tickets shall be stored by the Contractor until MassDOT is able to take possession of them.

vi. MassDOT District laboratory will reheat boxed HMA loose mix Acceptance samples in their laboratory and perform testing as they normally would at the HMA plant. Laboratory Acceptance testing will be performed at:
   1. District 1 – in the District laboratory.
   2. District 2 – in the District laboratory.
   3. District 3 – in RMS HMA laboratory or District 2 laboratory.
   4. District 4 – in the District laboratory.
   5. District 5 – in the District laboratory.
   6. District 6 – in RMS HMA laboratory or Districts 4 or District 5 laboratory. Third party inspection companies under contract by MassDOT will not be allowed to perform HMA testing for District 6 since these companies may also perform Contractor QC HMA testing.

c. The Control Strip shall be modified as follows.
   i. Contractor is still required to place a Control Strip and perform QC sampling and testing in accordance with Section 450.
   ii. MassDOT District laboratories will only be required to test one Acceptance sample of HMA loose mix from the Control Strip.
   iii. Control Strip cores and Ride Quality testing (IRI) will continue per Section 450.

d. Ride Quality – Both Contractor QC staff and MassDOT Acceptance staff will continue performing Ride Quality testing per Section 450 as the situation permits.
MassDOT Temporary HMA Loose Mix Acceptance Sampling Policy

Sampling Equipment:
- Square ended shovel (side extensions recommended; if available)
- HMA mix thermometer (50 - 500 °F)
- 3 - HMA sample boxes per sample
- Non-stick wax paper (to line sample boxes when sampling mixtures with polymer modified or asphalt rubber binders)

Note: Sampling shovel shall be clean and free from any contaminants that may compromise the HMA sample. If cleaned or coated with release agent, allow excess to drain off and work back and forth through mix prior to sampling. The use of petroleum-based products to clean the sampling tools will not be permitted in accordance with Section 450.44.

In modification to Section 450.74C, the MassDOT Plant Technician may request that the Contractor’s QC Technician assist in the sampling process, where the Contractor’s safety policies allow.

Sampling Preparation & Procedure:
- Random sample locations shall be determined by tonnage.
- All random Contractor QC sample locations are to be determined by the Contractor’s QC staff prior to HMA production and placement.
- All random MassDOT Acceptance sample locations are to be determined by MassDOT prior to HMA production and placement.
- The Contractor shall not obtain “companion” samples for QC purposes at the location of any MassDOT Acceptance sample.
- Upon arrival at the HMA production facility, the MassDOT Plant Technician, while remaining in their vehicle, will notify the plant’s QC Manager that they are on the production facility’s property by phone or text and that they will be obtaining a sample.
- The MassDOT Plant Technician will advise the QC Manager of their random sample location.
  - The QC Technician will have the responsibility of getting the correct truck to the sample rack.
  - The QC Technician will coordinate with the haul unit driver to view the truck ticket, following proper social/physical distancing practices. The QC Technician will take a picture of the ticket and electronically forward it to the MassDOT Plant Technician.
  - The MassDOT Acceptance sample shall be obtained by the MassDOT Plant Technician, while adhering to current safety guidelines and maintaining proper social/physical distancing practices, as follows:
    - While the sample rack is clear of Contractor personnel, the MassDOT Plant Technician will obtain three sample boxes of mix out of the truck and transfer the boxes to their vehicle for transport to the District laboratory.
- The Contractor will wear all required PPE and clean all contact surfaces and tools prior to MassDOT Plant Technician obtaining their sample.
- The MassDOT Plant Technician will wear all required PPE and limit their presence to only the sample rack.

Sample Storage and Delivery

- The MassDOT Plant Technician will record the required Acceptance sample ID information on the front side of the sample boxes.
- All MassDOT Acceptance samples shall be secured immediately by the MassDOT Plant Technician and placed in the transport vehicle.
- The sample shall be transported by the MassDOT Plant Technician to the appropriate MassDOT laboratory.
- The sample shall be stored in a secure and dry location until and during transport to the laboratory.