



STATE OF MAINE
DEPARTMENT OF TRANSPORTATION
16 STATE HOUSE STATION
AUGUSTA, MAINE 04333-0016

Janet T. Mills
GOVERNOR

Bruce A. Van Note
COMMISSIONER

May 6, 2025
Subject: Cyclical Paving
WIN: 025707.00
Location: **Greenville, Greenville,
Monson, & Shirley
Amendment No. 3**

Dear Sir/Ms.:

The following questions have been received:

Question: Regarding item 205.412 Reconstruction of Existing Shoulder, is the contractor required to meet the requirements of Section 703.06a Aggregate Type B for this material?

Response: Material meeting the requirements of Section 703.06 c. - Aggregate for Subbase, Type D may be used in the lower 20" for Item 205.412 Reconstruction of Existing Shoulder. A minimum of 5" of material below the millings shall meet the requirements of Section 703.06a Aggregate for Base, Type B.

Looking at the new CIPR Guardrail cross section included in Addendum 1:

Question: Will the 4' section of existing HMA where the current Guardrail is located need to be Milled/Removed after the Guardrail is removed?

Response: The intent is to CIPR through the guardrail section at a consistent 4' width. If the existing guardrail is currently set in pavement and the Department determines that the pavement is in adequate condition, the remaining pavement will be clean and prepped for the HMA shim layer after CIPR operations.

Question: If the existing HMA needs to be removed how will that be paid?

Response: In guardrail sections, if the Department determines that the existing pavement must be removed, removal will be paid under Item 202.20241 Removing Pavement Surface – 4 Foot Drum (Hourly).

Question: In the note pertaining to this cross section it shows there being a 2" shim in the 4' section where the new Guardrail will be installed, how will the grading of this 4' section of shoulder be paid?

Response: Grading of the shoulder beyond 16' from centerline shown on Typical 3 will be paid under the appropriate rental items.

Question: The Department provided a cationic emulsion mix design for this project. What mix design criteria would need to be met for the Department to approve the use of Foamed PG58-28 as an alternate binder? If the mix design results of a cold mix produced with Foamed PG58-28 and a reduced cement content of 0.5% meet mix design requirements, would the Department approve a mix design with Foamed PG58-28 and reduced cement content?

Response: Please see section 311.02 of the CIPR Special Provision for design criteria utilizing a foamed asphalt design.

Question: The spec currently requires a minimum temperature of 347 degrees F for Foamed PG58-28. What are the minimum criteria for the half-life and expansion ratio of the Foamed PG58-28? If the contractor conducts foaming tests on the PG58-28 binder as part of the mix design process and the material shows improved half-life and expansion ratio at temps lower than 347 degrees, would the Department allow the contractor to operate at that lower temperature?

Response: The Department will require a minimum temperature of 347 degrees for the Foamed Asphalt Process.

Question: If the contractor were to use a Multi-Unit Cold In-Place Recycling train that utilized a full-lane mill with downcutting drum that transferred RAP to a closed-loop crushing and screening system (insuring 100% of the RAP meets project specifications) and then blend the RAP with Foamed Asphalt or Emulsion in a pug mill and place the cold mix on the ground in a windrow which is then picked up with a pick-up machine and placed by a paver be an acceptable means to produce and place cold mix for this project?

Response: The Department would consider the use a closed-loop crushing and screening system if the Contractor can demonstrate that the process properly resizes the RAP particle sizes to be a maximum of 2" minus throughout the recycling process.

The Contractor will still be responsible for making slope and grade corrections with the use of a multi-plex and/or automatic grade ski for both recycling (milling) and placement (paving) operations during the CIPR process.

Question: If this is an acceptable means of producing and placing cold mix:

- 1.) Would the Department consider removing the forward speed limitation in 311.041 from the spec?
- 2.) Section 311.047 Placement Equipment. Since 100% of the RAP will be sized per specification on the crusher pug mill platform, would the Department consider removing the requirement to provide a screening unit on the Placement Equipment and the need for a 12-ton surge hopper insert?

Response: 1. If the Contractor can demonstrate that their milling/resizing operation can adequately resize the RAP to a maximum particle size of 2" and continuously meet the density requirements of the Specification, the Department may consider modifying the forward speed requirements.

2. If the Contractor can demonstrate that their milling/resizing operation can adequately resize the RAP to a maximum particle size of 2" the Department may consider closed-loop crushing unit as the screening unit. If the Contractor can demonstrate that the pickup machine can continuously feed the paver, allow for the slope/grade corrections required during the CIPR process and limits segregation of the material, the Department may consider the removal of the hopper insert.

Question: The Department has developed a cationic emulsion mix design for this project. What grade/type of emulsion was used for the mix design? What mix design criteria were used for this project and would the Department be able to provide mix design results to the contractor?

Response: Please see section 311.031 Asphalts. The Contractor may option to utilize CSS-1, CSS-1H, or CMS-2 to meet the requirements of the Department provided mix design.

Question: Engineered emulsions can provide benefits for both the contractor and the Department by increasing the stability of cold mix and accelerating the cure of a freshly placed CIR mat. If the contractor were to obtain samples from the roadway and perform their own mix design with an engineered emulsion and show that the use of an engineered emulsion improved performance of the cold mix, would the Department allow the use of an Engineered Emulsion as an alternate binder on this project?

Response: The Department is not prepared to provide an answer to this question without more detail. The Contractor may elect to obtain samples from the roadway, with splits of those samples provided to the Department, and proposing alternative emulsion type usage to the Department for Department approval. The Department would require the Contractor supply the type of emulsion and / or additives being proposed so independent tests can be performed on the split samples to compare against the Departments original mix design.

Question: With this project carrying over multiple construction seasons and being subjected to freeze-thaw cycles, if any surface HMA is placed in 2025, will the warranty start from the time placed in the 2025 construction season, or will the one-year warranty start once the project is completed?

Response: The standard specification states that the one year warranty period begins at the date of Physical Work Complete. The Department is typically considerate of damage caused by winter maintenance activities or extreme weather related damage. The Department would, however, perform ride quality data collection on any travelway surface completed in 2025 prior to winter suspension.

Consider these changes and information prior to submitting your bid on **May 7, 2025**.

Sincerely,

Kevin Hanlon for

George M. A. Macdougall P.E.
Contracts & Specifications Engineer