

## SECTION 00735 - EMULSIFIED ASPHALT CONCRETE PAVEMENT

*(Follow all instructions and make all edits with "Track Changes" turned on. If there are no instructions [purple text] above a subsection, paragraph, sentence, or bullet, then include it in the project. Delete all purple text before preparing the final document. All other modifications to this Section will require ODOT Technical Resource and State Specifications Engineer approval.)*

Comply with Section 00735 of the Standard Specifications modified as follows:

**00735.05 Precrushing and Prepaving Conferences** - Replace this subsection, except for the subsection number and title, with the following:

**(a) Precrushing Conference** - Meet with the Engineer at a mutually agreed time, to discuss methods of accomplishing all phases of the crushing Work, including supervisory personnel of the Contractor and any Subcontractors who are involved in Aggregate crushing of EAC Aggregates. This includes the Crusher Supervisor and the Contractor's CAqT.

**(b) Prepaving Conference** - Meet with the Engineer at a mutually agreed time to discuss methods of accomplishing all phases of the paving Work, and including supervisory personnel of the Contractor, including the CAT-I and any Subcontractors who are involved in the paving Work.

**00735.10(a) General** - Replace the paragraph that begins "Scalp the Rock ..." with the following paragraph:

Scalp the Rock material used to produce Aggregates on a 3/4-inch sieve covering the entire screen deck (after it has passed through the primary crusher if quarry Rock is used). The material remaining may be accepted for use by visual inspection. The Engineer may perform verification testing of the gradation. Furnish Material meeting the following:

**00735.10(b) Soundness** - Replace this subsection, except for the subsection number and title, with the following:

Furnish Coarse and Fine Aggregate with a weighted loss not exceeding 12 percent when subjected to five cycles of the soundness test using sodium sulfate solution according to AASHTO T 104.

**00735.10(c) Durability** - Replace the paragraph that begins "Provide EAC ..." with the following paragraph:

Furnish EAC Aggregates meeting the following durability requirements:

**00735.10(e) Harmful Substances** - Replace the paragraph that begins "Provide EAC ..." with the following paragraph:

Furnish EAC Aggregates meeting the following harmful substances requirements:

**00735.10(f) Grading** - Replace the paragraph that begins "Perform sieve analysis ..." with the following paragraph:

Perform sieve analysis according to AASHTO T 27 and AASHTO T 11. Provide grading of EAC Aggregate according to the following:

Replace the paragraph that begins "If the Aggregates ..." with the following paragraph:

If the Aggregates are produced in two or more separate sizes, meet the above grading requirements for the gradation of the blended sizes.

**00735.11 Emulsified Asphalt** - Replace the paragraph that begins "Obtain Emulsified Asphalt ..." with the following paragraph:

Obtain Emulsified Asphalt samples according to AASHTO R 66 and Section 00165. Samples are tested at the ODOT Materials Laboratory, or other laboratory as designated by the Agency, within 30 Calendar Days from the Day the sample was taken.

**00735.13 Job Mix Formula** - Replace the paragraph that begins "Provide a mixture ..." with the following paragraph:

Furnish a mixture comprised of Aggregate and Emulsified Asphalt in the proportions established in the job mix formula (JMF). Furnish an Emulsified Asphalt content between 5.0 and 8.0 percent, by weight, of the total Aggregate. Vary the proportions of materials as directed.

Replace the paragraph that begins "The CMDT shall ..." with the following paragraph:

The CMDT has the responsibility to prepare, sign and submit a JMF and samples to the Engineer for each mixture required at least 10 Calendar Days prior to anticipated use in EAC, and according to the latest copy of the ODOT *Contractor Mix Design Guidelines for Asphalt Concrete*.

**00735.15(c) Preproduced Aggregate** - Replace this subsection, except for the subsection number and title, with the following:

Compliance of Aggregates produced and stockpiled before the Award of this Contract is determined by either of the following methods:

- Continuing production records meeting the requirements of 00735.10, 00735.14, and 00735.15.
- Sampling according to AASHTO R 90 and Section 00165 and meeting the requirements of 00735.10, 00735.14, and 00735.15.

**00735.16 Acceptance of Aggregate** - Replace this subsection, except for the subsection number and title, with the following:

The Contractor's quality control tests are used for acceptance of EAC Aggregates if verified by the Quality Assurance Program. The Agency will perform Aggregate production quality assurance according to the following.

**(a) ODOT Administered Projects** - Quality assurance testing on ODOT administered projects is performed according to Section 00165.

**(b) Projects Administered by Other Agencies** - The quantity of quality assurance testing on projects administered by other Agencies is at the discretion of the Agency or as designated in the Special Provisions.

**00735.17(b) Laboratory Requirements** - Replace this subsection, except for the subsection number and title, with the following:

Provide and maintain an ODOT certified laboratory at the plant site provided with the necessary Equipment and supplies for performing Contractor quality control testing.

Provide an on-site laboratory and operational prior to the beginning of EAC production. Provide laboratory Equipment meeting the requirements of the test methods identified in the Specifications.

Calibrate all testing Equipment according to the required test methods. The Engineer may inspect measuring and testing devices to confirm both calibration and condition.

**00735.17(c) Plant Calibration** - Replace this subsection, except for the subsection number and title, with the following:

Calibrate the plant according to ODOT TM 322. Witness and document the plant calibration by a CAT-I. Do not begin production until calibration tests indicate that the specified proportions can be obtained.

**00735.18 Acceptance of EAC Mixture** - Replace this subsection, except for the subsection number and title, with the following:

The Contractor's quality control tests are used for acceptance of EAC mixture if verified by the Quality Assurance Program. The Agency will perform EAC mixture production quality assurance according to the following:

**(a) ODOT Administered Projects** - Quality assurance testing on ODOT administered projects is performed according to Section 00165.

**(b) Projects Administered by Other Agencies** - The amount of quality assurance testing on projects administered by other Agencies is at the discretion of the Agency or as designated in the Special Provisions.

**00735.21 Hauling Equipment** - Replace the paragraph that begins "Provide hauling vehicles ..." with the following paragraph:

Provide hauling vehicles in good operating condition with tight, clean, metal beds and a cover. Equip beds of hauling vehicles with a positive system to prevent Materials from leaking onto the surfaces that the hauling vehicle travels over. If leakage occurs, remove any spilled material and repair any damage according to 00170.85.

**00735.22(a) Power and Support** - Replace this subsection, except for the subsection number and title, with the following:

Self-contained, self-propelled, supported on tracks or wheels, that does not contact the mixture being placed.

**00735.22(b) Augers and Screed** - Replace the paragraph that begins "Equipped with augers ..." with the following paragraph:

Equipped with augers and a screed or strike-off assembly, heated if necessary, that:

**00735.22(c) Control System** - Replace the paragraph that begins "Equipped with ..." with the following paragraph:

Equipped with a paver control system that:

**00735.40 Season and Weather Limitations** - Replace the title of this subsection with "Weather Limitations".

Replace the paragraph that begins "Place EAC from May 1 to August 31..." with the following paragraph:

Place EAC from May 1 to August 31, inclusive, when the Pavement temperature is 60 °F or above. Limitations for EAC will not supersede limitations for Emulsified Asphalt chip seals on the Project.

**00735.42 Preparation of Underlying Surfaces** — Add the following paragraph to the end of this subsection:

Remove existing pavement markers, recessed markers, and pavement legends before paving. Remove pavement lines, bars, and pavement legends as shown or directed and according to 00225.45.

**00735.43(b) Moisture** - Replace the paragraph that begins "At the time..." with the following paragraph:

At the time it is mixed with the Emulsified Asphalt, furnish Aggregate with a moisture content adequate to allow distribution of the emulsion, but not so great that moisture or emulsion runs from the mixture. Provide special processing necessary to attain an acceptable moisture content at no additional cost to the Agency.

**00735.43(b)(2) Moisture Problems** - Replace this subsection, except for the subsection number and title, with the following:

If there are unresolved moisture problems, the maximum allowable moisture is the saturated surface dry (SSD) moisture content for the Aggregate submitted for the JMF, as determined by AASHTO T 84 and AASHTO T 85.

**00735.44 Control of Grade** - Replace the paragraph that begins "Where this method ..." with the following paragraph:

Where this method is impractical, manual control of grade for the paver is allowed when approved.

**00735.45(a) Hauling** - Replace the paragraph that begins "The EAC will be ..." with the following paragraph:

The EAC is rejected before placing if it is found to be:

Replace the paragraph that begins "No more EAC ..." with the following paragraph:

No more EAC is accepted until corrective action has been taken.

~~(Use the following subsection 45(b) on projects that allow alternate methods of depositing EAC on the road. Obtain the methods from the Designer.)~~

**00735.45(b) Depositing** - Replace the bullet that begins "Be self-supporting ..." with the following bullet:

- Be self-supporting, not exert any vertical load on the paving machine, or cause vibrations or other motions that could have a detrimental effect on the riding quality of the completed Pavement.

~~(Use the following subsection 45(b) two paragraphs on projects that allow alternate methods of depositing EAC on the road. Obtain the methods from the Designer.)~~

Add the following to the end of this subsection:

The following alternate methods of depositing EAC may be used:

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**00735.46(b) Rolling** - Replace the paragraph that begins "Compact the EAC ..." with the following paragraph:

Compact the EAC with rollers meeting the requirements of 00735.23. Provide sufficient rollers of type and weight to compact the mixture while it is in a workable condition. Operate rollers at a uniform speed not more than 3 mph, with the drive roll or wheels nearest the paver.

**00735.48 Longitudinal Joints** - Replace the paragraph that begins "Bond, compact and ..." with the following paragraph:

Bond, compact and finish the new EAC at longitudinal joints equal to the EAC against where it is placed.

**00735.48(a) Location** - Replace the paragraph that begins "Place EAC in Panel ..." with the following paragraph:

Place EAC in Panel widths that hold the number of longitudinal joints to a minimum. Offset the longitudinal joints in one Panel by at least 6 inches from the longitudinal joints in the Panel immediately below.

**00735.48(b) Drop-Offs** - Replace the bullet that begins "Construct, maintain, remove ..." with the following bullet:

- Construct, maintain, remove, and dispose of the temporary wedge at no additional cost to the Agency. EAC for the temporary wedge is paid for at the Contract unit price.

**00735.49(a)(2) Temporary End Panel** - Replace the bullet that begins "For wedges that will be under traffic for less than ..." with the following bullet:

- For wedges that are under traffic for less than 24 hours, construct the wedge length is 8 feet (1V:50H taper rate).

Replace the bullet that begins "For wedges that will be under traffic for 24 hours ..." with the following bullet:

- For wedges that are under traffic for 24 hours or longer, construct the wedge length is 25 feet (1V:160H taper rate).

**00735.49(a)(4) Excess EAC** - Replace this subsection, except for the subsection number and title, with the following:

After completing a temporary end Panel as specified, dispose of the unused remainder of EAC as directed. Payment is made for the entire load of EAC, but is limited to one load only per joint per Panel.

**00735.60 Correction of Defects** - Replace the paragraph that begins "Correct all defects ..." with the following paragraph:

Correct all defects in Material and Work, as directed, at no additional cost to the Agency. Defects include segregation of Materials, non-uniform texture and fouled surfaces preventing full bond between successive spreads of mixture. No adjustment in Contract Time is made for corrective work.

**00735.70 Pavement Smoothness** - Replace this subsection, except for the subsection number and title, with the following:

Provide a 12-foot straightedge or a 12-foot rolling straightedge and test as specified. Additional testing may be required. Mark areas not meeting the surface tolerance.

Perform Pavement smoothness testing immediately after initial brooming of choke Aggregate.

(a) Single Course Construction - Test with the 12-foot straightedge parallel to and perpendicular to the centerline, as directed. Do not vary the Pavement surface by more than 1/4 inch.

(b) Multiple Course Construction - Test the surface of the Course where the wearing Course is placed according to 00735.70(a).

Test the wearing Course of EAC with the rolling straightedge in the designated wheel path of a 0.1-mile strip of each travel lane per mile, where directed, and on each transverse joint throughout the Project. Operate the rolling straightedge parallel to the centerline. Do not vary the surface by more than 0.015 foot.

Also test the wearing Course of EAC with a 12-foot straightedge placed perpendicular to the centerline at least once within the above-mentioned 0.1-mile strip. Do not vary the surface by more than 1/4 inch.

If the 0.1-mile testing strip meets the Specifications, no further testing of the mile represented by the testing strip is required, except at the transverse joints. If any part of the testing strip does not meet the Specifications, test both wheel paths of the entire mile.

**00735.90 Payment** - Replace the paragraph that begins "Payment will be payment ..." with the following paragraph:

Payment will be payment in full for furnishing and placing all Materials, and for providing all Equipment, labor, and Incidentals necessary to complete the Work as specified.