

ITEM 358

ASPHALT CONCRETE SURFACE REHABILITATION

358.1. Description. Heat; scarify; if required, add asphalt, recycling agent, and fresh hot mix asphalt; mix; place; level; and compact recycled asphalt concrete.

358.2. Materials.

- A. Hot-Mix Asphalt.** If required, furnish fresh hot-mix asphalt of the gradation determined in Section 358.4.A, "Mixture Design." Use materials meeting the requirements of Article 340.2, "Materials," to produce the fresh hot-mix asphalt.
- B. Asphalt and Recycling Agent.** If required, furnish asphalt, recycling agent, or both according to the requirements of Section 358.4.A, "Mixture Design," and meeting requirements of Item 300, "Asphalt, Oils, and Emulsions."

358.3. Equipment.

- A. Processing Equipment.** Provide equipment for heating, scarifying, mixing, placing, and finishing that meets the following requirements.
- 1. Heating Mechanism.** Supply a heating mechanism, under a closed or shielded hood, capable of heating asphalt concrete pavement to a temperature that allows scarification to the desired depth without producing undesirable pollutants.
 - 2. Scarifier.** Provide scarifier sections capable of uniformly loosening the asphalt concrete pavement. When shown on the plans, furnish a scarifier with height adjustments to clear manholes or other obstructions.
 - 3. Gathering, Adding Materials, Mixing, Distributing, Spreading, and Finishing.** Provide equipment capable of:
 - gathering heated, scarified hot-mix asphalt concrete;
 - adding asphalt or recycling agent at the required rate;
 - adding fresh hot-mix asphalt at the required rate;
 - uniformly mixing all ingredients;
 - distributing the blended mixture over the width being processed; and
 - spreading and finishing to produce a smooth surface meeting the requirements of the typical cross section.
 - 4. Onboard Pug Mill.** If required on the plans, provide an onboard pug mill.
- B. Rollers.** Provide rollers meeting requirements of Article 210.2, "Equipment."
- C. Mobile Testing Laboratory.** If shown on the plans, furnish a mobile testing laboratory meeting the requirements of Tex-237-F and a Level 1A certified laboratory technician who is qualified under the Department's approved program. Perform tests necessary to control plant production. The Department will perform all acceptance testing.

358.4. Construction. Rehabilitate existing asphalt concrete pavement to meet the typical sections shown on the plans and the lines and grades established by the Engineer.

A. Mixture Design. Obtain a representative sample, to the depth specified, of the in-place asphalt concrete for rehabilitation. Using materials described in Article 358.2, “Materials,” provide a mixture design by weight in accordance with Tex-204-F, Part I, to restore the in-place asphalt concrete pavement to the mixture type and binder properties shown on the plans or as approved.

B. Heating, Scarifying, and Placement. Protect from heat damage all trees, shrubs, and other landscaping that is adjacent to the pavement. Before beginning heating and scarifying, remove all dirt and other debris from the pavement surface by blading, brooming, or other approved methods.

Heat, scarify, and rework pavement surface to the widths and depths shown on the plans. Control heating to ensure uniform heat penetration and to prevent differential softening of the pavement. Do not char the asphalt or break aggregate particles. Keep the temperature of material immediately behind the scarifier between 225°F and 325°F. Gather the scarified material and uniformly add asphalt, recycling agent, and fresh hot-mix asphalt to the scarified material in accordance with the mixture design developed in Section 358.4.A, “Mixture Design.” Mix all ingredients uniformly. Distribute the homogenous mixture over the width being processed. Spread and finish to produce a smooth surface according to the typical cross section.

When making a pass adjacent to a previously placed mat, locate the longitudinal joint at least 2 in. horizontally into the previously placed mat.

C. Compaction. Begin compaction before material temperature falls below 190°F, and complete all rolling before material temperature drops below 175°F. The Engineer may modify the temperature requirements if necessary for proper compaction.

Use at least 1 tandem roller, 1 pneumatic-tire roller, and 1 finish roller. Use other compaction equipment producing equivalent compaction as approved. Continue rolling until no further compaction can be obtained and all roller marks are eliminated. Use tamps to compact areas not accessible to rollers or in areas where rollers will not provide thorough compaction.

D. Ride Quality. Use Surface Test Type A to evaluate ride quality in accordance with Item 585, “Ride Quality for Pavement Surfaces,” unless otherwise shown on the plans.

358.5. Measurement. Asphalt concrete surface rehabilitation will be measured by the square yard.

358.6. Payment. Asphalt concrete surface rehabilitation will be paid for at the unit price bid for “Asphalt Concrete Surface Rehabilitation” of the depth specified. This price is full compensation for cleaning existing pavement; materials (including additional aggregate, new hot-mix asphalt, asphalt, and rejuvenating agent); heating, scarifying, mixing, relaying, rolling, and finishing; and equipment, labor, tools, and incidentals.

Pay adjustment for ride quality, when required, will be determined in accordance with Item 585, “Ride Quality for Pavement Surfaces.”