Section 2214. Pavement Scarification

2214.01 DESCRIPTION.

A. Scarify asphalt or PCC pavement to improve surface profile and cross section in preparation for resurfacing.

B. For this specification, scarifying refers to removal of a pavement surface according to the contract documents using cold planning equipment.

2214.02 MATERIALS.

None.

2214.03 CONSTRUCTION.

A. Equipment.

1. Use scarifying equipment that is:
- Wide enough so no more than two passes will be necessary in each traffic lane, and
- Suitable for the method of operation.

2. Except for very short or irregular sections, use equipment controlled automatically by a two point control with a minimum distance between control points of 15 feet (4.5 m).

3. Use a rotary broom described in Article 2001.14 to clean the surface.

4. When complete removal of asphalt material to an underlying PCC surface is intended, the contract documents may allow this removal by other methods and equipment.

B. Pavement Scarification.

1. The contract documents will show the intended depth of scarification and/or the taper or cross section. Scarify the surface as required. Make scarification cuts in straight lines.

2. Continue scarification across bridges only if required in the contract documents.

3. Immediately remove scarification debris from the pavement surface and handle as specified in the contract documents

4. Use water to minimize airborne dust particles.

5. Promptly sweep the scarified surface with a rotary broom before opening to public traffic.

6. For resurfacing:

a. Scarify the entire area designated and leave a surface with a smooth profile. For extremely irregular areas or where channeling, corner breaks, or settlements have occurred, occasional skips will be allowed. However, at least 95% of each 100 feet (30 m) of traffic lane (or equivalent) must have a newly scarified surface.

b. When a cross section of the scarified surface is shown in the contract documents, scarify the surface accordingly. Control scarifying operations to provide a surface that is true within a nominal tolerance of 1/4 inch (5 mm), and 1/4 inch (5 mm) at longitudinal joints where adjacent passes meet. The profile may be inspected by checking with a 10 foot (3 m) surface checker placed parallel to the center line. Correct variations greater than 1/4 inch (5 mm).

c. When asphalt material is salvaged for recycling, comply with the following additional requirements:

1) Scarify the pavement to the depth designated. This is an approximate depth which may be adjusted to assure adequate salvaged material. When wire mesh is present in the asphalt pavement, as indicated in the contract documents, scarify without disturbing the wire mesh, unless complete removal of wire mesh is specifically indicated.

2) Perform scarification in a manner that minimizes aggregate degradation.

3) Furnish a scale meeting the requirements of Article 2001.07. Weigh the scarified and salvaged material. Determine the quantity stockpiled as directed by the Engineer.
4) Stockpile salvaged material according to Article 2303.02.
5) When Blading and Shaping of Shoulder Material is not required, blade the existing shoulder material away from the pavement edge, if necessary to provide for safety and drainage. This material may be placed on the foreslope. This work is incidental, and no separate payment will be made.

C. Blading and Shaping of Shoulder Material.

1. At the locations shown in the contract documents, blade the existing shoulder material away from the pavement. Store the material in a windrow on the outer portion of the shoulder area. Make provisions for drainage through the windrow, satisfactory to the Engineer. Complete this before or in conjunction with removal of HMA surface in that area.

2. After the overlay is completed or as it progresses, return the windrowed aggregate adjacent to the pavement. Some additional granular surfacing of the shoulder material is anticipated. Shaping and compaction as specified for granular surfacing of shoulders will be required. Moistening may be required. If the total thickness of the combination of materials exceeds approximately 3 inches (80 mm), separately compact the material returned from the windrow. The finish rolling will only be required on the final surface.

~~3. Place barricades, as described in Article 1107.09, B, 5, along the windrowed material.~~

D. Limitations.

1. Ensure persons and vehicles are protected from injury or damage that might occur during the construction period. During construction, provide the traffic control required by the contract documents. Apply Articles 1107.08, 1107.09, and 1108.03.

2. Keep the road open to traffic unless otherwise indicated. Do not allow equipment to extend into an open lane, except as allowed by the traffic control requirements in the contract documents.

3. Remove foamed material in existing pressure relief joints prior to removal of the HMA surface. Remove this material from the project location according to Article 1104.08.

4. Scarify to full lane width, with a runout at the end, before the lane is opened to public traffic.

5. Plan and complete scarification so no vertical drop-off at the center line or lane line is left overnight. Where an overnight drop-off results from unforeseen conditions, sign the approaches with a ROAD WORK AHEAD sign. Mark the drop-off with vertical panels. Place the panels at 150 foot (45 meter) intervals in rural areas and at 50 foot (15 m) intervals in urban areas. Use a minimum of three vertical panels at each drop-off location.

6. When resurfacing is part of the contract, sign the approaches to scarified areas on Primary Roads with ROUGH ROAD signs. Repeat the signs for traffic that may enter within the scarified area from intersecting public roads. Erect, move (if appropriate), and maintain these signs until the scarified areas are covered with new mixture.

7. Preliminary scarifying may be done to obtain representative samples. Patch these areas after scarifying. Patching should be done daily. Complete patching necessary to bring the scarified surface to the tolerance specified within 2 working days of the scarifying operation. Additional patching may be necessary to maintain this temporary surface.

8. Perform scarification following full-depth patching.

9. Commence HMA or PCC placement operations within 10 working days after completion of the scarification operation. Once started, continue placement operations each working day until the scarified surface is completely covered. Failure to comply with these requirements will result in the assessment of a price adjustment equal to the liquidated damages stated in the contract documents. Repair damage to the scarified surface during the time period for which liquidated damages are being assessed.

10. When HMA resurfacing is part of the contract, cover all scarified surfaces with at least one full lift of HMA prior to winter shutdown. Leave no vertical edges or fillets.

11. Take additional precautions necessary for safety during the operation. The Contractor shall hold the Contracting Authority harmless of damage or loss resulting from an accident, during the scarifying operation, caused by failure to fulfill the obligations as outlined in these requirements.

2214.04 METHOD OF MEASUREMENT.

A. Pavement Scarification.

1. **Measurement by Weight (Mass).**
   Tons (megagrams) determined by the Engineer from the quantity of scale weights (mass) of the material salvaged.

2. **Measurement by Area.**
   Square yards (square meters) shown in the contract documents.

B. Blading and Shaping Shoulder Material.
Stations (meters) shown in the contract documents along each edge of the pavement.

2214.05 BASIS OF PAYMENT.
Payment will be the contract unit price as indicated below. Payments are full compensation for furnishing materials, (including water), equipment, and labor necessary to complete the work according to the contract documents including salvaging, stockpiling, and removal of excess material and debris according to Article 1104.08. Payment for scarifying will not include areas scarified to obtain preliminary samples, but patching of these areas will be included with patching for payment.

A. Pavement Scarification.

1. **Measurement by Weight (Mass).**
   Per ton (megagram).

2. **Measurement by Area.**
   Per square yards (square meters).

B. Blading and Shaping Shoulder Material.
Per station (meter).