**Revision of Section 202**

**Removal Of Asphalt Mat (Planing)**

# Revise Section 202 of the Standard Specifications for this project as follows:

**Delete subsection 202.09, and replace it with the following:**

**202.09 Removal of Asphalt Mat (Planing).** Before beginning planing operations, the Contractor shall submit a planing plan and a Process Control Plan (PCP) for approval by the Engineer. The planing plan shall include at a minimum:

1. The number, types and sizes of planers to be used.
2. The width and location of each planing pass.
3. The number and types of brooms to be used and their locations with respect to the planers.
4. The proposed method for planing and wedging around existing structures such as manholes, valve boxes, and inlets.
5. The longitudinal and transverse typical sections for tie-ins at the end of the day.
6. If requested by the Engineer, a plan sheet showing the milling passes.

The PCP shall include as a minimum:

1. The schedule for replacing the cutting teeth.
2. The daily preventive maintenance schedule and checklist.
3. Proposed use of automatic grade controls.
4. The surface testing schedule for smoothness.
5. The process for filling distressed areas.
6. The schedule for testing macrotexture of the milled surface.
7. Corrective procedures if the milled surface does not meet the minimum macrotexture specification.
8. Corrective procedures if the milled surface does not meet the minimum transverse or longitudinal surface finish when measured with a 10 foot straightedge.

The Contractor shall not start the planing operation until the hot mix asphalt (HMA) mix design has been approved and a Form 43 has been signed by the Engineer.

The existing pavement shall be milled to the cross-slope as shown on the plans and shall have a surface finish that does not vary longitudinally or transversely more than ⅜ inch from a 10 foot straightedge. A 10 foot straightedge shall be supplied by the Contractor.

All milled surfaces shall be broomed with a pick-up broom, unless otherwise specified, before being opened to traffic. A sufficient number of brooms shall be used immediately after planing to remove all milled material remaining in the roadway.

If the Contractor fails to adequately clean the roadway, work shall cease until the Engineer has approved the Contractor’s revised written proposal to adequately clean the roadway.

The milled surface shall have a macrotexture equal to or less than 0.170 inches for single-lift overlays and 0.215 inches for multiple-lift overlays as tested per CP 77. Milled surfaces that do not meet these criteria shall require corrective action per the PCP. The Contractor shall be responsible for testing the macrotexture of the milled surface at the location directed by the Engineer per CP 77 at a stratified random frequency of one test per 10,000 square yards or a minimum of once per workday.

At the completion of each day’s work, longitudinal vertical edges greater than 1 inch shall be tapered. No transverse vertical edges will be allowed. Longitudinal milled surface tie-ins to existing pavement shall be tapered to not less than a 3:1 slope, transverse milled surface tie-ins to existing pavement shall be tapered to not less than a 50:1 slope. Transverse tapered joints may be tapered with the planing machine, a temporary asphalt ramp, or other methods approved by the Engineer. No longitudinal joint between the milled and existing surfaces shall fall between 1 to 5 feet of any lane line.

If the transverse joint is tapered with a temporary asphalt ramp, the milled surface at the joint shall be constructed as a butt joint the full depth of the lift of asphalt to be placed on the milled surface. The Contractor shall be responsible for maintaining this asphalt ramp until all corresponding HMA is placed. All work associated with this joint will not be paid for separately but shall be included in the cost of planing.

If the transverse joint is tapered with a planing machine, a butt joint shall be cut into the taper the full depth of the lift of asphalt to be placed on the milled surface before commencement of resurfacing. All work associated with this joint will not be paid for separately but shall be included in the cost of planing.

Other approved transverse joint tapers shall be maintained at the expense of the Contractor, and at a minimum shall incorporate a butt joint the full depth of the lift of asphalt to be placed on the milled surface before commencement of resurfacing.

Distressed or irregular areas identified in the planed surface by the Engineer shall be patched.

The roadway shall be left in a safe and usable condition at the end of each workday. The Contractor shall take appropriate measures to ensure that the milled surface does not trap or hold water. All required pavement markings removed by the planing shall be restored before the roadway is opened to traffic.

All milled surfaces to be overlaid with HMA shall be covered with new asphalt within ♦ working days. All areas on this project that are not overlaid within the specified working days will be assessed a lane rental fee of ▲ per occurrence for each day or fraction thereof and any required surface repairs shall be paid for by the Contractor.

All planing shall be completed full width and parallel to the travel lanes before resurfacing commences unless otherwise directed by the Engineer.

All material generated by the planing operation shall become the property of the Contractor unless otherwise noted in the Contract.

Each planer shall conform to the following:

The planer shall have sufficient power, traction and stability to maintain an accurate depth of cut. The propulsion and guidance system of the planer shall be maintained in such condition that the planer may be operated to straight and true lines.

The planer shall be capable of operating with automatic grade controls (contact or non-contact) on both sides of the machine using a 30 foot averaging system or other approved grade control systems. The use of such controls shall be described in the Contractor’s PCP.

The planer shall be capable of picking up the removed material in a single operation. A self-loading conveyor shall be an integral part of the planer. Windrows will not be allowed.

**Subsection 202.12 shall include the following:**

Macrotexture testing, macrotexture corrective actions, planers, brooms, and all other work necessary to complete the item, Removal of Asphalt Mat (Planing), will not be measured and paid for separately, but shall be included in the work.

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**Instructions** **to** **Designers** (delete instructions and symbols from final draft):

♦ Insert the number of working days the planed surface may be exposed to traffic and weather before placing the HMA overlay. Seven days is recommended.

▲ Insert the lane rental fee for the user cost due to reduced speed or extended lane closure. To download a copy of the User Cost software please use the attached link: [Download Area for User Cost Software](https://usercost.codot.gov)

Insert the following paragraph in the Project Special Provision for Force Account Items when this Revision of Section 202, Removal of Asphalt Mat (Planing) is used.

F/A Interim HMA Surface Repair - This work consists of placing and compacting a machine scratch course in locations as directed by the Engineer. The machine scratch course may be used once the Contractor meets all the specification requirements for the Revision of Section 202, Removal of Asphalt Mat (Planing) and irregularities such as, but not limited to, delamination and raveling exceeding 10 percent within any ½ mile segment that are encountered before the specified time of the overlay.

The Estimated Dollar Amount will be determined by the Region Materials Engineer and the Project Engineer.