KANSAS DEPARTMENT OF TRANSPORTATION
SPECIAL PROVISION TO THE
STANDARD SPECIFICATIONS, 2007 EDITION

SECTION 503

PORTLAND CEMENT CONCRETE PAVEMENT SMOOTHNESS

Page 500-33, add the following to subsection 503.3b.:

Provide a self-propelled grinding machine specifically designed to grind and texture portland cement concrete pavement using diamond blades mounted on a multi-blade arbor.

For bump grinding or continuous grinding of segments that are one or more parallel driving lanes and less than a mile in length, the arbor must contain enough blades to provide at least a 24 inch wide cutting head and provide 55 to 60 evenly spaced grooves per foot.

For all other conditions, the arbor must contain enough blades to provide at least a 36 inch wide cutting head and provide 55 to 60 evenly spaced grooves per foot.

Do not use equipment that causes excessive ravels, aggregate fractures or spalls. Use equipment that provides a flat plane surface without crown and a uniform texture for the full width of the lane. Grind a nominal depth of 3/16 inch. Transverse grooving is not required.

Use vacuum equipment or other continuous methods to remove grinding slurry and residue. Do not allow the grinding slurry to flow across lanes being used by traffic.

Bush hammers or other impact devices will not be permitted.

Page 500-34, add the following after TABLE 503-1 (and associated TABLE information) in subsection 503.3:

After the profilograph traces have been evaluated, make corrections according to **TABLE 503-4**.

TABLE 503-4: GRINDING REQUIREMENTS	
Condition	**Action***
Greater than 25% (132 feet) of the 0.1 mi. section requires correction	Continuously grind the 0.1 mi. section.**
Greater than 25% (1320 feet) of 1.0 mi. segment require correction	Continuously grind the 1.0 mi. segment.
Greater than 25% of the project requires correction	Continuously grind the entire project.

* Continuously grinding requires a minimum of 98% of the pavement be ground.

**If the skip length between areas to be ground (either within a 0.1 mi. section or between 0.1 mi. sections) is less than either grind length, combine the grinds so the area between is also ground. This additional ground area (area between) will apply to the computation of the 25% of the 0.1 mi. section.

If the Contractor elects or is required by **TABLE 503-4** to continuously grind the entire project, the following apply:

- the areas excluded in **subsection 503.3a.** are not required to be ground;
- at intersections constructed with multiple transitions for drainage (especially in urban areas), if smoothness meets **SECTION 503**, the intersection is not required to be ground; and
- when transitioning from a ground area to an unground area, feather the grinding a uniform distance throughout the project.

Grind and texture the entire surface of the pavement in the longitudinal direction. Provide positive lateral drainage by maintaining a constant cross slope between grinding passes in each lane.

Maintain a uniform transverse slope that matches the existing cross slope to the extent possible with no depressions or humps greater than 1/4 inch in 12 feet when tested with a string line or straightedge. Do not exceed by more than 1/16 inch the vertical alignment between adjacent passes of the cutting head. Begin and end grinding lines normal to the direction of vehicle travel. Grind the surface so corrugations are parallel to the pavement edge with ridges 1/16 inch, ±1/32 inch higher than the valleys of the corrugations.

Page 500-34, delete the first paragraph in subsection 503.4 and replace with the following:

Pay adjustments will be based on the initial average profile index determined for the "sections" prior to performing any corrective work, unless the surface of the entire project is continuously ground.
If the Contractor elects or is required by **TABLE 503-4** to continuously grind the entire project, pay adjustments will be based on the average profile index determined after all grinding is performed.

If the Contractor elects to remove and replace the sections, the Contractor will be paid the price adjustment that corresponds to the initial average profile index obtained on the pavement sections after replacement.

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