

Missouri DOT

1) Briefly summarize your current pavement smoothness requirements.

MoDOT uses the California-type profilograph to measure pavement smoothness. The contractor is required to have their equipment calibrated annually on a test section selected by MoDOT. The contractor's device needs to be within 2.0 inches per mile from the standard profile index produced by a MoDOT profilograph. Tests are conducted in the center of the lane. Profilographing is not required for the following:

- (a) Bridge decks, bridge approach slabs and concrete approach pavements.
- (b) Pavement on horizontal curves with centerline radius of curve less than 1000 feet (300 m) and pavement within the super-elevation transition of such curves.
- (c) Pavement on vertical curves having a "K" value less than 90 and a length less than 500 feet (150 m).
- (d) Pavement width transitions.
- (e) Fifty feet (15 m) in direction of travel on each side of utility appurtenances such as manholes and valve boxes.
- (f) Fifty feet (15 m) in direction of travel on each side of intersecting routes with special grade transition.
- (g) Shoulder areas.
- (h) Any lane which abuts an existing lane not constructed under the same contract.
- (i) Interruptions designated by the engineer which provide independently placed sections shorter than 50 feet (15 m). Interruptions designated by the contractor's operations shall be in accordance with Sec 502.8.5.12.
- (j) The last 15 feet (5 m) of any section where the prime contractor is not responsible for the adjoining surface.
- (k) The first or last 12.5 feet (4 m) of a pavement section adjoining any above exception area.

Payment is based on the following tables:

Table I - 45 mph or greater

Profile Index, Inches Per Mile (mm/km)	Percent of Contract Price
10.0 (158) or less	105
10.1 - 15.0 (159 - 237)	103
15.1 - 25.0 (238 - 395)	100
25.1 (396) or greater	100a
After correction to 25.0 inches per mile (395 mm/km) or less.	

Table II - Under 45 mph

Profile Index, Inches Per Mile (mm/km)	Percent of Contract Price
20 (316) or less	103
20.1 - 45.0 (317 - 711)	100
45.1 (712) or greater	100b

After correction to 45.0 inches per mile (711 mm/km) or less.

2) Do the requirements apply to both PCC and HMA?

The requirements do apply to PCCP and HMA.

3) Are you considering changes in the future? (Next 2 to 3 years)

Yes, MoDOT is planning to change how we measure pavement smoothness.

4) If yes, what indices are you considering using?

MoDOT is considering the IRI for measuring pavement smoothness. A job special provision (JSP) has been developed. The JSP has been placed into a couple of projects to monitor how the specification work. Payment is based on the following tables:

Table I - 45 mph or greater

International Roughness Index, Inches Per Mile	Percent of Contract Price
40 or less	105
40.1 - 54	103
54.1 - 80	100
80.1 or greater	100a

After correction to 80 inches per mile or less.

Table II - Under 45 mph

International Roughness Index, Inches Per Mile	Percent of Contract Price
67 or less	103
67.1 - 134	100
134.1 or greater	100b

After correction to 134 inches per mile or less.