SUDAS Revision Submittal Form

Status Date:	As of 11/3/2026	**Topic:**	Pavement smoothness
Manual:	Specifications	**Manual Location:**	Sections 7010, 3.07, D and 7020, 3.05

Requested Revision:

Section 7010 (PCC Pavement)

3.07 QUALITY CONTROL (Continued)

D. Pavement Smoothness: Evaluate pavement smoothness for all PCC pavement and overlay surfaces. ~~Perform smoothness testing~~ Straightedge verification will be performed within 7 calendar days of the completion of the paving. Conduct profilograph verification testing within 7 days of the Contractor supplying the Engineer with the certified profilogram results.

1. **Straightedge:** The Engineer will check PCC pavement surfaces with a 10 foot straightedge placed parallel to the centerline. Areas showing high spots of more than 1/4 of an inch in 10 feet will be marked. Complete surface corrections according to the following procedures to an elevation where the area or spot will not show surface deviations in excess of 1/8 inch when tested with a 10 foot straightedge.
   a. Complete surface corrections by diamond grinding, placing a PCC overlay, or replacement.
   b. Use grinding and texturing equipment complying with Iowa DOT Section 2532. Use a minimum 36 inch wide cutting head, unless a 24 inch cutting head is necessary due space limitations.
   c. Perform surface correction parallel to lane lines or edge lines as directed by the Engineer. Make each pass parallel to the previous pass. Ensure the ground surface is of a uniform texture.
   d. Do not allow adjacent passes to overlap more than 1 inch or have a vertical difference of 1/8 inch as measured from bottom of groove to bottom of groove.
   e. Begin and end smoothness corrections at lines normal to the pavement lanes lines or edge lines within any one corrected area. Proceed from the centerline or lane line toward the pavement edge to maintain pavement cross slope.

   Surface corrections will be completed at the direction of the Engineer with no additional cost to the Contracting Authority.

2. **Profilograph:**
   a. If specified in the contract documents, evaluate pavement smoothness for all travel lanes pavement surfaces with a profilograph.
   b. Provide and operate an Ames or California type profilograph to produce a profilogram of the surface tested, according to Iowa DOT Materials I.M. 341 (exclude the Iowa DOT's restriction to be used only for internal information or for testing and evaluation under Section 2428).
      i. Determine profile index using 0.2 inch blanking band according to Iowa DOT Materials I.M. 341.
      ii. Reduce profilograph using computer reduction software. Hand reductions will not be allowed.
      iii. Submit final electronic profilograph trace files and reduction reports to the Engineer.
   c. Evaluate according to the smoothness requirements of Table 7010.04 and make surface corrections and price reductions. Surface corrections will be completed at no additional cost to the Contracting Authority. No incentive for pavement smoothness will be made.

Table 7010.04: Smoothness Adjustment/Correction

Segment Index (inch/mile)	Pay Factor
0 - 22.0	100%
22.1 - 30.0	97%
30.1 and over	Grind as directed by Engineer

d. Prior to testing, coordinate with the Engineer to schedule and witness the testing.
e. Perform testing and provide the Engineer with the profilogram results. Ensure testing and evaluation are done by trained and certified personnel. Ensure the evaluation is certified according to Iowa DOT Materials I.M. 341.
f. The Engineer reserves the right to perform verification testing to validate the contractor's certified quality control testing. If the Engineer does not perform verification or their results validate the Contractor's test results, the Contractor's results will be used for acceptance. Disputes between Contractor's and the Engineer's test results will be resolved according to Iowa DOT Materials I.M. 341. The Engineer may test the entire project length if it is determined the Contractor certified results are inaccurate, and the Contractor will be charged for the cost of this testing.
g. Smoothness measurements will be suspended for structures and through intersections.
h. Acceptance will be based on profile index values and reduced according to Iowa DOT Materials I.M. 341.
i. When profiling testing is specified, pavement acceptance will be based on profile index and localized roughness requirements. MRI and ALR requirements do not apply unless specifically required in the contract documents.

3. Inertial Profilers:

a. If specified in the contract documents or approved by the Engineer, an inertial profiler can be used to measure smoothness. Comply with Iowa DOT Section 2317 and Materials I.M. 341~~, Appendix A~~ to measure pavement smoothness with an inertial profiler and start appropriate corrective measures, if necessary; the engineer will determine the corrective measures to be taken. No incentive for pavement smoothness will be made.
b. Evaluate according to the smoothness requirements of Table 7010.0~~4~~5 and make surface corrections and/or price reductions. Surface corrections will be completed with no additional cost to the Contracting Authority. No incentive for pavement smoothness will be made.
c. Smoothness measurements will be suspended for structures and through intersections.

Table 7010.0~~4~~05: Smoothness Adjustment/Correction

Segment Speed	ALR in 25 Foot Continuous Mean International Roughness Index (MRI) (inches per mile)	Pay Factor
Greater than 45 mph	< 200	100%
	200 to 250	-$15.00/foot/lane or grind[1]
	≥ 250	Grind[1]
Less than or equal to 45 mph	< 250	100%
	250 to 300	-$15.00/foot/lane or grind[2]
	≥ 300	Grind[2]

[1] Correct to below 200 inches per mile
[2] Correct to below 250 inches per mile

3.05 PAVEMENT SMOOTHNESS

Evaluate pavement smoothness for all asphalt pavement and overlay surfaces. ~~Perform smoothness testing~~ Straightedge verification will be performed within 7 calendar days of the completion of the paving. Conduct profilograph verification testing within 7 days of the Contractor supplying the Engineer with the certified profilogram results.

A. Straightedge: The Engineer will check asphalt pavement surfaces with a 10 foot straightedge placed parallel to the centerline. Areas showing high spots of more than 1/4 of an inch in 10 feet will be marked. Complete surface corrections according to the following procedures to an elevation where the area or spot will not show surface deviations in excess of 1/8 inch when tested with a 10 foot straightedge.

1. Complete surface corrections by diamond grinding, placing an asphalt overlay per Section 7021, replacing the area per Section 7040, or inlaying the area.

2. For diamond grinding, perform the same work and use the same equipment as specified in Section 7010, 3.07, C. After diamond grinding, cover the surface with a slurry seal complying with Section 7070.

3. If the surface is corrected by overlay, replacement, or inlay, begin and end the surface correction with a transverse saw cut normal to the pavement lane lines or edge lines within any one area. Ensure the profile of the surface is smooth with no bumps or dips at the beginning or end of the correction. Correction must be a minimum of the entire lane width.

Surface corrections will be completed at the direction of the Engineer with no additional cost to the Contracting Authority.

B. Profilograph:

1. If specified in the contract documents, evaluate pavement smoothness for all travel lanes with a profilograph.

2. Provide and operate an Ames or California type profilograph to produce a profilogram of the surface tested, according to Iowa DOT Material I.M. 341.
   i. Determine profile index using 0.2 inch blanking band according to Iowa DOT Materials I.M. 341.
   ii. Reduce profilograph using computer reduction software. Hand reductions will not be allowed.
   iii. Submit final electronic profilograph trace files and reduction reports to the Engineer.

3. Evaluate according to the smoothness requirements of Table 7020.04 and make surface corrections and price reductions. Surface corrections will be completed at no additional cost to the Contracting Authority. No incentive for pavement smoothness will be made.

Table 7020.04: Smoothness Adjustment/Correction

Segment Index (inch/mile)	Pay Factor
0 - 22.0	100%
22.1 - 30.0	97%
30.1 and over	Grind as directed by Engineer

4. Prior to testing, coordinate with the Engineer to schedule and witness the testing.

5. Perform testing and provide the Engineer with the profilogram results. Ensure testing and evaluation are done by trained and certified personnel. Ensure the evaluation is certified according to Iowa DOT Materials I.M. 341.

6. The Engineer reserves the right to perform verification testing to validate the contractor's certified quality control testing. If the Engineer does not perform verification or their results validate the Contractor's test results, the Contractor's results will be used for acceptance. Disputes between Contractor's and the Engineer's test results will be resolved according to Iowa DOT Materials I.M. 341. The Engineer may test the entire project length if it is determined the Contractor certified results are inaccurate, and the Contractor will be charged for the cost of this testing.

7. Smoothness measurements will be suspended for structures and through intersections.

8. Acceptance will be based on profile index values and reduced according to Iowa DOT Materials I.M. 341.

9. When profiling testing is specified, pavement acceptance will be based on profile index and localized roughness requirements. MRI and ALR requirements do not apply unless specifically required in the contract documents.

C. Inertial Profilers:

1. If specified in the contract documents, comply with Iowa DOT Section 2317 and Materials I.M. 341~~, Appendix A~~ to measure pavement smoothness with an inertial profiler and start appropriate corrective measures, if necessary; the engineer will determine the corrective measures to be taken. No incentive for pavement smoothness will be made.

2. Evaluate according to the smoothness requirements of Table 7020.04 and make surface corrections and/or price reductions. Surface corrections will be completed with no additional cost to the Contracting Authority. No incentive for pavement smoothness will be made.

3. Smoothness measurements will be suspended for structures and through intersections.

Table 7020.~~04~~05: Smoothness Adjustment/Correction

Segment Speed	**ALR in 25 Foot Continuous Mean International Roughness Index (MRI)** (inches per mile)	**Pay Factor**
Greater than 45 mph	< 200	100%
	200 to 250	-$15.00/foot/lane or correct[1]
	≥ 250	Correct[1]
Less than or equal to 45 mph	< 250	100%
	250 to 300	-$15.00/foot/lane or correct[2]
	≥ 300	Correct[2]

[1] Correct to below 200 inches per mile
[2] Correct to below 250 inches per mile

Reason for Revision: Added language requiring smoothness testing to be completed within 7 days of completion. Allowed the use of Ames or California Profilograph in addition to the inertial profiler, if required by the contract documents.

Comments: None.

Region:	☒ Central	☐ East	☐ West
Comments:	None.		
Action:	☐ Deferred	☐ Not Approved	☒ Approved
Region:	☐ Central	☒ East	☐ West
Comments:	Delete the first proposed sentence ("Perform smoothness testing within 7 calendar days of the completion of the paving"); applies to both sections. *Note - see corrected language in green above*.		
Action:	☐ Deferred	☐ Not Approved	☒ Approved
Region:	☐ Central	☐ East	☒ West
Comments:	Agreed with East Region suggestion.		
Action:	☐ Deferred	☐ Not Approved	☒ Approved

Final Regional Action Summary: All 3 regions approved; see comments above. *Note - some concerns arose after the meetings; see proposed revisions in green above.*

Board of Directors Action: