

RESPONSE TO COMMENTS RECEIVED FROM INDUSTRY REVIEW

Frank M. Kreis
FDOT District 3 Materials

Comment: 330-12.3 Cross Slope: Recommend adding "as directed by the Engineer" to the last sentence. Electronic transverse screed controls are not always warranted and can lead to an overrun in asphalt quantities.

Response: Agree. The last sentence of 330-12.3 will be changed to read as follows:

Utilize electronic transverse screed controls on the paving machine (*unless directed otherwise by the Engineer*) to obtain an accurate transverse slope of the pavement surface.

Comment: 330-12.4.1 General: Add the requirement to calibrate the rolling straightedge annually or every two years by the manufacturer.

Response: This suggestion will be investigated more thoroughly and if determined necessary, will be added to the test method at a later date.

Comment: 330-12.4.2 Test Method: Change the location of the operation of the rolling straightedge from "outside wheel path" to "centerlane" of each lane being tested.

Response: Since this change will impact the construction training qualification program, further discussions will be necessary with districts and Industry prior to adopting this suggestion.

Joe Meier
The Middlesex Corporation

The following comments do not necessarily address just the changes...but there are some things in existing spec we should take opportunity now to review.

Comment: 330-12.3.1: This calls for calculation to the nearest 0.01%...however, most smart levels do not read to this accuracy, they comfortably read to 0.1%.

Response: Agree. This is the existing language which has been in effect for several years now. The intent is if the cross slope is being calculated manually based on measurements, then it should be calculated to the nearest 0.01% and then rounded to a final result that is to the nearest 0.1%. A Smart level gives the final results and should be to the nearest 0.1%. To clarify, Subarticle 330-12.3.1 will be revised as follows:

330-12.3.1 Quality Control Requirements: Measure the cross slope of the pavement surface by placing the measuring device perpendicular to the roadway centerline. ~~Calculate the cross slope to the nearest 0.01% and round to the nearest 0.1%.~~ Report the cross slope to the nearest 0.1%. Record all the measurements on an approved form and submit to the Engineer for documentation.

Comment: This allows for tolerance of 0.2% for travel lanes...which is an extremely tight tolerance. We recognize the importance of slope to the FDOT, but the equipment and construction processes don't necessarily consistently allow for that level of accuracy in placement or in measuring. We recommend 0.4% tolerance for travel lanes...this still puts lane within design standards either way.

Response: Again, this is the existing language which has been in effect for several years now. The Department is not hearing concerns raised by Industry that the tolerances are too tight. However, we'll look into it further and if it is a problem, it'll be changed at a later date.

Comment: 330-12.4.5.2: There should be additional exception consideration for Ramps or Roadways of irregular geometry or configuration. Example: Circular ramps are not only in horizontal curvature, but they are typically also in extreme superelevated curves...these factors are often such that, by the geometrical design, they will not meet straight-edge requirements. There should be Engineer's discretion to exempt such pavements from the rolling straight-edge.

Response: Agree. The following language will be added to 330-12.4.5.2:

"In addition, the Engineer may also waive the straightedging requirements on ramps and superelevated sections where the geometrical orientation of the pavement results in an inaccurate measurement with the rolling straightedge."

Comment: 330-12.4.5.3: Straight-edging of intermediate layers, especially when project is pieced together is excessive. A widening project with 3 lifts of asphalt paving typically is paved with the bottom 2 lifts "puzzled" together due to Traffic Control and Phasing requirements. The top lift of structural is usually reserved to smooth everything out. The majority of FDOT construction is combination widening, reconstruction, and resurfacing and expecting each lift of pavement to meet straight-edge criteria is excessive, especially when we do not typically have control over the phasing as designed by the FDOT. This will also create an unnecessary step on milling/resurfacing project that requires placement of multiple lifts in the same night so lane closure can be re-opened. This could add an inordinate amount of time to straight-edge and then get Engineer interpretation as to any correction, before proceeding to next lift...all in same night during restricted lane closure hours. **We recommend this entire paragraph be stricken.** If FDOT has specific project that has such need and makes sense for such specification then we recommend it be added to project on individual basis as part of

that contract's Special Provisions. And even then, such spec should have a clause allowing Engineer discretion to waive intermediate straight-edging in areas not practical, based on individual project design and construction requirements.

Response: Please note that the correction requirement only applies to intermediate layers that are opened to traffic where the design speed is 50 mph or greater. The criteria is >3/8". Excessively rough high speed roadways that are opened to traffic can be a safety hazard – that's why we need the language in there.

Comment: 330-12.4.5.4: At the end of the 1st paragraph it should be added “, unless directed otherwise by the Engineer.” Again, the Engineer should have discretion to waive correction as appropriate.

Response: Historically the Department's philosophy has been to correct all deficiencies before the friction course gets placed. If the language was added, the spec would not get enforced.

Comment: 330-12.5.1.1: Option (a) should be modified to read “approximately 50 feet” instead of “minimum”. Option (a) should give Engineer discretion to reduce length of correction based on specific project conditions. An Option (c) should be added back, similar to previous spec, allowing “Other methods as approved by the Engineer”. The project personnel's hands should not be tied so restrictively...there will always be situations that the specifications can't address all possibilities and the Engineer should be given opportunity to make discretionary judgment.

Response: We need to get more feedback from the Department and Industry before we make any changes regarding length of corrections.

Comment: 330-12.5.1.2: The 50 feet distance should be flexible, allowing Engineer discretion to reduce as appropriate for project conditions.

Response: Again, we need to get more feedback from the Department and Industry before we make any changes regarding length of corrections.

Kim Smith
FDOT State Construction Office

Comments: Why not include the wording from the Special Provision that specifies that the acceptance testing for roadways with design speeds of 50 MPH and above? That Special Provision states that the Laser Profiler will be used in such acceptance testing. The criteria for application of this requirement is clear (design speed of 50 MPH and all interstates) such that its inclusion in the Standard Specs should not result in confusion. To the contrary - if we are always going to use the laser profiler for acceptance testing

in those instances, stating as much in the Standard Specs should reduce confusion and promote a clearer understanding of what the FDOT expects.

Response: We agree that it does need to be added, but it will be added at a later date once the laser profiler language gets clean up.

Tami Piascik

Comment: 330-12.3.1 Quality Control Requirements: Measure the cross slope of the pavement surface by placing the measuring device perpendicular to the roadway centerline. Calculate the cross slope to the nearest 0.01% and round to the nearest 0.1%. Record all the measurements on an approved form and submit to the Engineer "daily" for documentation.

If you are changing this spec, I plead with you to include the word "daily" after Engineer. We have a hard time getting the Contractor to submit this form on a daily basis. We are constantly referring the contractor/QC Manager to 105-5.2 where it states that all QC activity documents are to be available daily. It would help so much to have this word included.

Response: We feel your pain, but reporting requirements are addressed in Section 105. We're not supposed to repeat them in 330.

Gale Page

Comments: When ultimately 330-12.4.6 Laser Profile Acceptance is added, I believe the intent would be to have Contractor QC for the Friction Course just as it is required for final Structural Layer. As 330-12.4.5.5 is currently written it appears that wording would need to be added to 330-12.4.6 Laser Profile Acceptance to require the Contractor QC since the wording of 330-12.4.5.5 is acceptance.

Response: Agree. It will be added at a later date once the laser profiler language gets clean up.
