# ORIGINATION FORM
## Proposed Revisions to the Specifications
(Please provide all information - incomplete forms will be returned)

**Date:** 12-20-2021

**Originator:** Rich Hewitt

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**Office:** State Construction Office

**Specification Section:** 200

**Article/Subarticle:** 7.2.2, 7.3.1.2, 7.4.4, 7.5

**Associated Section(s) Revisions:** 234, 334, 337, 339, 520

**Will the proposed revision require changes to:**

| Publication | Yes | No | Office Staff Contacted |
|---|---|---|---|
| Standard Plans Index | ○ | ◉ | Rick Jenkins |
| Traffic Engineering Manual | ○ | ◉ | Javier Ponce |
| FDOT Design Manual | ○ | ◉ | Gevin McDaniel |
| Construction Project Administration Manual | ○ | ◉ | Scott Arnold |
| Basis of Estimate/Pay Items | ○ | ◉ | Melissa Hollis & Ryan Gray |
| Structures Design Guidelines | ○ | ◉ | Ben Goldsberry |
| Approved Product List | ○ | ◉ | Karen Byram |
| Materials Manual | ○ | ◉ | Tim Counts |

**Will this revision necessitate any of the following:**

**Design Bulletin** ☐ **Construction Bulletin** ☐ **Estimates Bulletin** ☐ **Materials Bulletin** ☐

**Are all references to external publications current?** **Yes** ◉ **No** ○

**If not, what references need to be updated? (Please include changes in the redline document.)**

**Why does the existing language need to be changed?**

Address issues with additional asphalt needed when earthwork base elevation is low or placed at cross slope different than design cross slope.

**Summary of the changes:**

Establish cross slope measurement frequencies and tolerances. Establish elevation data collection frequency.

**Are these changes applicable to all Department jobs?** **Yes** ◉ **No** ○
**If not, what are the restrictions?**

Contact the State Specifications Office for assistance in completing this form.
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SECRETARY

**M E M O R A N D U M**

**DATE:** January 3, 2022

**TO:** Specification Review Distribution List

**FROM:** Daniel Strickland, P.E., State Specifications Engineer

**SUBJECT:** Proposed Specification: **2000702 Rock Base.**

In accordance with Specification Development Procedures, we are sending you a copy of a proposed specification change.

This change was proposed by Rich Hewitt from the State Construction Office to address issues with additional asphalt needed when earthwork base elevation is low or placed at cross slope different than design cross slope. The proposed specification is associated with the changes made to Section 234, 334, 337, 339, and 520.

Please share this proposal with others within your responsibility. Review comments are due within four weeks and should be sent to Mail Station 75 or online at http://fdotewp1.dot.state.fl.us/programmanagement/development/industryreview.aspx . Comments received after **January 31, 2022,** may not be considered. Your input is encouraged.

DS/ra

Attachment

**ROCK BASE**
**(REV 12-21-21)**

SUBARTICLE 200-7.2.2 is deleted and the following substituted:

**200-7.2.2 Frequency:** Conduct QC sampling and testing at a minimum frequency listed in the table below. The Engineer will perform Verification sampling and tests at a minimum frequency listed in the table below.

| Table 200-1<br>Mainline Pavement Lanes, Turn Lanes, Ramps, Parking Lots, Concrete Box Culverts and Retaining Wall Systems | | |
|---|---|---|
| Test Name | Quality Control | Verification |
| Modified Proctor Maximum Density | One per eight consecutive LOTs | One per 16 consecutive LOTs |
| Density | One per LOT | One per four LOTs |
| Roadway Surface and Cross Slope | ~~Ten~~One per LOT | ~~Witness~~One per two LOTs |
| Roadway Thickness | Three per LOT | Witness |

| Table 200-2<br>Shoulder-Only, Shared Use Path and Sidewalk Construction | | |
|---|---|---|
| Test Name | Quality Control | Verification |
| Modified Proctor Maximum Density | One per two LOTs | One per four LOTs |
| Density | One per LOT | One per two LOTs |
| Surface and Cross Slope | ~~Five per 500 feet~~One per LOT | ~~Witness~~One per two LOTs |
| Thickness | Three per 1000 consecutive feet | Witness |

SUBARTICLE 200-7.3.1.2 is deleted and the following substituted:

**200-7.3.1.2 Depth and Surface Testing Requirements:** Notify the Engineer a minimum of 24 hours before checking base depths and surface checking. Determine test locations including Stations and Offsets, using the Random Number generator approved by the Department. Do not perform depth and surface checks until the Engineer is present to witness. Enter test results into the Department's database. Perform thickness check on the finished base or granular subbase component of a composite base. Provide traffic control, coring/boring equipment, and an operator for the coring/boring equipment. Traffic control is to be provided in accordance with the standard maintenance of traffic requirements of the Contract.

The thickness is considered deficient, if the measured depth is over 1/2 inch less than the specified thickness. Correct all deficient areas of the completed base by scarifying and adding additional base material. As an exception, if authorized by the Department, such areas may be left in place without correction and with no payment.

~~Check the finished surface of the base course with a template cut to the required crown and with a 15 foot straightedge laid parallel to the centerline of the road. Correct all irregularities greater than 1/4 inch to the satisfaction of the Engineer by scarifying and removing or adding rock as required, and recompact the entire area as specified hereinbefore.~~

SUBARTICLE 200-7.4.4 is deleted and the following substituted:

**200-7.4.4 ~~Thickness and~~ Surface Testing Requirements:** Resolve deficiencies in accordance with 200-7.3.1.2.

SUBARTICLE 200-7.4 is expanded by the following new Subarticle:

**200-7.5 Cross Slope:** Construct base surface with cross slopes in compliance with the requirements of the Contract Documents. Furnish a level with a minimum length of 4 feet with a digital slope measuring device approved by the Engineer for the control of cross slope. Make this level or measuring device available at the jobsite at all times during base construction operations.

**200-7.5.1 Quality Control Requirements:** Measure the cross slope of the base surface by placing the measuring device perpendicular to the roadway centerline. Report the cross slope to the nearest 0.1%. Record all the measurements and submit to the Engineer for documentation. Measure the cross slope at a minimum frequency of one measurement per lot to ensure the cross slope is uniform and in compliance with the design cross slope. When the difference between the measured cross slope and the design cross slope exceeds ±0.2% for travel lanes (including turn lanes) or ±0.5% for shoulders, make all corrections in accordance with 200-7.5.3 to bring the cross slope into the acceptable range.

**200-7.5.2 Verification:** The Engineer will verify the Contractor's cross slope measurements by randomly taking one measurement every two lots. If the average cross slope of the ten random measurements varies more than the allowable tolerance from the design cross slope (±0.2% for travel lanes (including turn lanes) and ±0.5% for shoulders), make corrections in accordance with 200-7.5.3 to bring the cross slope into the acceptable range. A recheck of the cross slope will be made following any corrections or additional work performed on the base surface. This process will be repeated until the base cross slope meets the requirements of this specification.

The Engineer may waive the corrections specified above (at no reduction in payment) if:

1. the deficiencies are sufficiently separated so as not to affect the overall ride quality, traffic safety and surface drainage characteristics of the pavement and;
2. the Contractor agrees to use asphalt to fill in areas where the earthwork is low.

For intersections, tapers, crossovers, transitions at beginning and end of project and similar areas, adjust the cross slope to match the actual site conditions or as directed by the Engineer.

**200-7.5.3 Cross Slope Corrections:** Correct all cross slopes out of tolerance per 200-7.5.1 and 200-7.5.2 in accordance with 200-7.3.1.2.

**200-7.5.4 Elevation Data Collection:** Within curb and gutter areas and in widening areas, measure and record elevation of finished surface of base course every 500 feet by measuring elevation of base adjacent to curb and gutter, as well as at each lane edge location. Provide the elevation measurements to the Engineer.