

INDIANA DEPARTMENT OF TRANSPORTATION



INTER-DEPARTMENT COMMUNICATION
Standards/Roadway Engineering – Room N642



Writer's Direct Line
317-233-2273

September 14, 2006

DESIGN MEMORANDUM No. 06-09 TECHNICAL ADVISORY

TO: All Design, Operations, and District Personnel, and Consultants

FROM: /s/ Richard L. VanCleave
Richard L. VanCleave
Design Policy Engineer
Office of Roadway Engineering Services

SUBJECT: Linear Grading

REVISES: *Indiana Design Manual* Section 17-2.06

EFFECTIVE: January 10, 2007, Letting

Where linear grading is being considered, the measurement for payment will be based on the length of roadway per linear foot (meter) measured along the centerline actually constructed to the lines and grades shown in the typical cross section. Measurement will be made once per centerline per area. Typical cross sections should be separated.

The pay-quantity limits should be measured along the roadway centerline, with deductions for bridges, etc. For example, a divided-roadway project length is 25,000 lft, and includes two bridges with a combined length of 600 lft. Linear grading is to be done in the median and beyond the outside shoulders. The linear-grading pay length would be 24,400 lft. The plans should indicate what work is to be included in the linear grading pay item, both by typical section and in estimated quantities per area of linear grading, i.e., cubic yards (cubic meters) of common excavation.

The pay unit for linear grading has been changed from station or mile (kilometer) to linear foot (meter). The new pay item code number is 203-08607.

Recurring Special Provision 203-R-260, dated 4-12-06, and attached hereto, should be called for beginning with the January 10, 2007, letting. Beginning with the September 6, 2007, letting, the recurring special provision will be incorporated into the INDOT *Standard Specifications*, and will then no longer be required to be called for in a specific contract.

RVC:ys
Attachment

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LINEAR GRADING

The Standard Specifications are revised as follows:

SECTION 203, AFTER LINE 157, INSERT AS FOLLOWS:

203.08.1 Linear Grading

Linear grading shall consist of:

- (a) *earth wedging at the outside edge of a shoulder once the pavement has been resurfaced, widened, or replaced.*
- (b) *earth wedging behind guardrail to obtain the required earth backup for the posts.*
- (c) *median earth filling required for paving and placement of concrete median barrier.*

These types of earthwork will not require benching.

SECTION 203, BEGIN LINE 945, DELETE AND INSERT AS FOLLOWS:

(c) Measurement on a Linear Basis

~~When either or both the plans and contract provides for a pay item for linear grading, the measurement for payment will be based on the length of roadway actually constructed to the lines, grades, and typical cross sections specified. All classes of excavation involved, including required borrow, will not be measured for payment, but will be considered as included in the pay item for linear grading per mile (kilometer). Linear grading will be measured by the linear foot (meter). Measurement will be made once along each survey centerline for all linear grading completed on the line. Deductions will be made for bridges. Classes of excavation, except for required borrow, involved in linear grading will not be measured.~~

SECTION 203, BEGIN LINE 1040, INSERT AS FOLLOWS:

Items. Linear grading will be paid for at the contract unit price per linear foot (meter).

SECTION 203, LINE 1147, DELETE AND INSERT AS FOLLOWS:

Linear Grading**STA LFT (m)**

SECTION 203, AFTER LINE 1193, INSERT AS FOLLOWS:

The cost of all classes of excavation, except required borrow, within the limits of linear grading shall be included in the cost of linear grading.