

Section 210—Grading Complete

210.1 General Description

This work includes:

- Excavating of all materials including ditches, undesirable material (including removal and replacement), and borrow (if required)
- Hauling
- Forming embankments
- Constructing shoulders and subgrades
- Finishing, dressing, and disposing of undesirable or surplus material
- Clearing and grubbing according to Section 201 and Section 202 unless these items are established as Pay Items in the Contract
- Removing and disposing of miscellaneous roadway items, including but not limited to curbs, drainage structures, and pavements (unless established as separate contract items)

Ensure that the completed grading work conforms to the horizontal and vertical alignment and typical cross- sections shown on the Plans or as directed by the Engineer.

210.1.01 Definitions

General Provisions 101 through 150.

210.1.02 Related References

A. Standard Specifications

Section 109—Measurement and Payment

Section 201—Clearing and Grubbing Right-of-Way

Section 202—Random Clearing and Grubbing

Section 204—Channel Excavation

Section 205—Roadway Excavation

Section 206—Borrow Excavation

Section 207—Excavation and Backfill for Minor Structures

Section 208—Embankments

Section 209—Subgrade Construction

B. Referenced Documents

General Provisions 101 through 150.

210.1.03 Submittals

General Provisions 101 through 150.

210.2 Materials

Use materials required for grading construction that conform to the requirements of Section 204, Section 205, Section 206, Section 207, Section 208, and Section 209.

210.2.01 Delivery, Storage, and Handling

General Provisions 101 through 150.

210.3 Construction Requirements

210.3.01 Personnel

General Provisions 101 through 150.

210.3.02

210.3.02 Equipment

Use equipment approved by the Engineer that will not damage base, pavement, or other appurtenances to be retained.

210.3.03 Preparation

Before placing base material, finish the subgrade according to Subsection 209.3.05.E.

210.3.04 Fabrication

General Provisions 101 through 150.

210.3.05 Construction

Perform The Work according to the appropriate portions of Section 201, Section 202, Section 204, Section 205, Section 206, Section 207, Section 208, and Section 209 of the Specifications. Measurement and payment shall be according to the provisions of this Section. See Subsection 210.4 and Subsection 210.5, below.

210.3.06 Quality Acceptance

When the Engineer determines that the existing material in areas where fills are to be placed is undesirable, the Engineer may require the Contractor to remove the undesirable material and replace it with suitable material.

- Compact the replacement materials according to the applicable portions of Section 208.
- In cut areas, where the material below the template line is undesirable for subgrade or shoulders, undercut it to a depth established by the Engineer and replace it with suitable material.
- Compact the replacement materials as specified herein.

210.3.07 Contractor Warranty and Maintenance

General Provisions 101 through 150.

210.4 Measurement

A. Grading Complete

The Work under this Item is not measured separately for payment.

B. Grading Per Mile (Kilometer)

This Item is measured in linear miles (kilometers) along the centerline of the road or the median, including ramps where shown on the Plans.

C. Undercut Excavation

The amount of undercut excavation (when directed by the Engineer and not addressed in the Plans) measured for payment is the product of the length, width, and depth of excavation. Replacement material for undercut excavation is not measured for payment. There will be no separate payment for undercut excavation required by the Plans or rock excavation required under Subsection 205.3.

210.4.01 Limits

General Provisions 101 through 150.

210.5 Payment

A. Grading Complete

This Item completed and accepted will be paid for at the Lump Sum Price bid. Payment is full compensation for all work and materials specified in this Section.

B. Grading Per Mile (Kilometer)

This Item will be paid for at the Contract Unit Price per linear mile (kilometer) complete in place and accepted. This price is full compensation for furnishing the materials and performing the work specified in this Section.

C. Undercut Excavation

Undercutting areas not shown in the Plans when directed by the Engineer will be paid for at the rate of \$5.00 per cubic yard (\$6.50 per cubic meter) for quantities up to 750 yd³ (575 m³).

Quantities exceeding 750 yd³ (575 m³) will be considered Extra Work as defined in Subsection 109.05, and will be paid for accordingly. Payment is full compensation for excavating and disposing of undesirable material and supplying, placing, and compacting replacement material.

Payment will be made under:

Item No. 210	Grading complete	Per lump sum
Item No. 210	Grading per mile (kilometer)	Per mile (kilometer)
Item No. 210	Undercut excavation	Per cubic yard (meter)

210.5.01 Adjustments

General Provisions 101 through 150.

Section 211—Bridge Excavation and Backfill

211.1 General Description

This work includes the following responsibilities:

- Removing materials necessary for the construction of bridge footings and substructures
- Disposing of excess materials and required backfilling, including porous backfill
- Constructing and removing work bridges, cribs, cofferdams, and caissons
- Dewatering, draining, sheeting, and exploratory boring of foundations necessary to complete the work

Excavate and backfill concrete box culverts as specified in Section 207.

211.1.01 Definitions

Foundation: Material on which the footing of the substructure or seal rests.

211.1.02 Related References

A. Standard Specifications

Section 201—Clearing and Grubbing Right-of-Way

Section 207—Excavation and Backfill for Minor Structures

Section 500—Concrete Structures

Section 525—Cofferdams

Section 540—Removal of Existing Bridge

B. Referenced Documents

General Provisions 101 through 150.

211.2 Materials

211.2.01 Delivery, Storage, and Handling

A. Surplus Materials

Dispose of surplus, stockpiled, and excavated materials as directed by the Engineer. Materials may be spread neatly and smoothly on the right-of-way so as not to obstruct the channel of any existing or proposed waterway. Dispose of wasted materials according to Subsection 201.3.05.E.

211.3 Construction Requirements

211.3.01 Personnel

General Provisions 101 through 150.

211.3.02 Equipment

A. Cofferdams and Sheeting

Use necessary protection such as cofferdams and sheeting when working in or near excavations where the surrounding earth could fail and endanger personnel or damage the work.

Use cofferdams or sheeting to prevent undesirable changes in channels and slopes.