



SECTION 207

LINEAR GRADING

207.1 Description. This work shall consist of grading work necessary to bring the roadway to the required grade and cross section within reasonable tolerances. The work shall also include the following:

(a) Construction of all inlet and outlet ditches and ditch blocks within the linear grading limits unless otherwise provided for in the contract.

(b) Construction of entrances and approaches.

(c) Breaking up and satisfactory removal or incorporation into the roadway of all gravel, macadam or bituminous surfaces.

(d) Compaction of the roadway subgrade within linear grading limits.

207.1.1 Linear Grading, Class 1, shall consist of grading where the topography is such that the excavation necessary to bring the roadway to the designated cross section will approximately complete the nearby embankments with a minimum of drifting, and where it is not necessary to control the finished grade line for purposes other than to obtain minimum cover over culverts.

207.1.2 Linear Grading, Class 2, shall consist of grading where it is necessary to excavate and haul material approximately 200 feet to bring the roadway to the desired grade and may involve work on high banks and side hills.

207.1.3 The class of linear grading designated on the plans will apply only to those sections that have been specifically indicated as such on the plans and will not be subject to change unless approved by the engineer.

207.2 Construction Requirements.

207.2.1 The roadway shall be brought to the required grade and cross section within reasonable tolerances by backsloping, ditching, removing stone and boulders from the roadbed surface, or any other work necessary, including drifting and hauling of any excavated material. A reasonable tolerance in alignment will be defined as a maximum gradual deviation of 2 feet, free of sharp breaks, to take advantage of favorable topography. Gradual deviation in alignment will be permitted, if necessary to center an existing drainage structure that is to be used in place. A reasonable tolerance in grade will be defined as a final grade that is uniform in appearance, free of sharp breaks or humps, and within 6 inches of plan grade.

207.2.2 Stumps, roots, rubbish or any other deleterious material shall not be placed in embankments. Where an embankment less than 2 feet high is to be constructed, all vegetative matter shall be cut and removed from the surface upon which the embankment is to be placed. The cut-over surface shall be thoroughly broken. All ditches, including inlet and outlet ditches, shall be cut to grades that will properly drain. The required cross section for inlet and outlet ditches leading to or from structures shall be of a width no less than the width of the floor or the diameter of the structure being served. Finishing operations shall continue until

the roadbed is free from sharp breaks in alignment and grade, and until the roadbed has been shaped to the required cross section. Material considered unsuitable for the subgrade shall be disposed of on nearby slopes or as otherwise directed by the engineer.

207.2.3 If obliteration of existing roadways or temporary construction is designated in the contract to be performed on a linear grading basis, such obliteration shall include all operations necessary to fill the ditches and blend the old roadbed with the natural ground to provide a pleasing appearance.

207.2.4 Any subgrade upon which a paved surface is to be placed shall be compacted in accordance with [Sec 203.5](#).

207.3 Method of Measurement. Measurement of Linear Grading, Class 1 and Class 2, will be made to the nearest 1/10 station.

207.3.1 Unless otherwise in accordance with the contract, measurement and payment for entrances and approaches will be made as Linear Grading, Class 1. Entrances and approaches will be measured along the centerline of each facility, regardless of the width to be constructed, beginning at the shoulder line of the road that is being entered and extending to the point of zero cut or embankment of the entrance or approach. Measurement will be made to the nearest 10 feet for each facility and totaled to the nearest 100 feet.

207.3.2 If material is encountered that may be classified as other than Class A Excavation as described in [Sec 203.2.1](#), the limits of linear grading will not be underrun. Material classified as other than Class A Excavation will be measured and paid for per cubic yard in accordance with [Sec 203.8](#). Where undergrading is necessary, backfilling of the undergraded area will be considered as a part of the linear grading operation.

207.4 Basis of Payment. The accepted quantities of linear grading will be paid for at the contract unit price for each of the pay items included in the contract, and will be considered as full compensation for all labor, equipment, material or other construction involved to complete the described work. Removal of concrete pavement and concrete base course will be paid for in accordance with [Sec 202.30.3](#). The earthwork for obliteration, including bituminous surfacing, will be included as linear grading.