



**SECTION 206**  
**GRADING OF CUTS**

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**206.01 DESCRIPTION**

This work shall include labour and materials required to carry out all excavation such as that required to complete road cuts, roadside ditches, bench excavation of cuts and sub-excavations and shall include hauling up to 1 km, handling and incorporation of all suitable materials into fill construction in accordance with Section 204 "Grading of Fill", and shall include the hauling up to 1 km, and handling of the unsuitable materials and the trimming of such unsuitable materials along the embankment slopes or elsewhere, all as directed by the Engineer.

The Contractor shall excavate cuts to the grade required by the Engineer.

The width and side slopes of all cuts together with roadside ditches shall be made true to the required cross sections and trimmed to the satisfaction of the Engineer.

No undercutting of slopes within the limits of the theoretical slope lines will be permitted by power shovels or other earth moving equipment unless all material above the theoretical slope lines is also removed.

Where the quantity of excavation exceeds that required to construct the fills as directed by the Engineer, the surplus shall be used to widen the fills or otherwise disposed of as directed by the Engineer.

**206.02 GENERAL REQUIREMENTS FOR OTHER MATERIAL CUTS**

Surface soil and vegetable mold shall be removed when so directed by the Engineer.

The Contractor shall remove stones larger than 150 mm in greatest dimension from the top 300 mm of sub-grade.

**206.03 GENERAL REQUIREMENTS FOR ROCK CUTS**

All rock cuts shall be excavated and mucked out fully to 300 mm below sub-grade.

In rock cuts where pockets which will not drain are formed below the sub-grade by blasting, the Contractor shall, at his own expense, provide drainage by ditching to a free outlet, as ordered, and then backfill and compact to 95% of Proctor Density both the pockets and the trench to an elevation 300 mm below sub-grade. Backfill material shall be broken rock or coarse gravel.

Back slopes shall be carefully scaled down and all rocks and fragments, liable to slide or roll down the slopes, removed to the satisfaction of the Engineer.

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### Over break

Over break shall be defined as that portion of rock which is excavated, displaced or loosened outside and beyond the slopes or grade as established by the Engineer, with the exception of such material which occurs as slides, regardless of whether any such over break is due to blasting, to the inherent character of any formation encountered, or to any other cause.

All over break as so defined shall be removed by the Contractor at his own expense, at the direction of the Engineer. Provided however, that if the Engineer approves, such over break may be used to replace material which would otherwise have to be borrowed. In which case payment to the Contractor for such over break used will be the contract price bid per cubic metre for material which would otherwise have to be borrowed.

Excepting that if in the opinion of the Engineer, the Contractor has exercised due care in the performance of his work, and due to circumstances beyond his control over break has occurred, over break within 500 mm of the lines of the theoretical cross section will be paid for as solid rock excavation.

### Large Blasts

The use of explosives in large blasts, as in seams, drifts, shafts, or pits, is prohibited unless on written authority of the Engineer.

The Contractor will be responsible for all damages to utility lines or to adjoining property caused by blasting or from any cause whatsoever resulting from any of his operations in connection with his work.

When the Department requires that a pole line be moved in order to safeguard it against damage from blasting operations, the Contractor will be required to pay fifty per cent of the labour cost. An estimate of costs will be obtained by the Department before any relocation or moving is done. This clause in no way relieves the Contractor from responsibility for damage.

### 206.04 CLASSIFICATION

Excavated materials will be classified in accordance with Section 205, Classification of Excavated Materials.

### 206.05 MEASUREMENT FOR PAYMENT

Volumes of all classes of excavation described in 206.04 Classification will be measured in excavation and computed in cubic metres rounded to the nearest whole number. Measurements shall be of the actual amount of material moved only, except as otherwise provided in this specification.

The quantity to be measured shall be the number of cubic metres of excavated material as shown on the cross section sheets between the original position of the ground lines as cross sectioned after grubbing operations have been completed (or when grubbing is to be removed as part of Other Material Excavation, or Unsuitable Material Excavation, the original position of the ground lies on top of the grubbing), and the completed and accepted excavation lines. The volume of this excavation is to be computed by the average end area method of computation or as wedges or pyramids, as the case may be, when terminating at grade points.

For boulders present in other material; the three maximum rectilinear dimensions of boulders, actually moved, will be measured and the volume of each so determined. Volumes of the boulders which are equal to, or greater than, zero decimal five cubic metres in volume will be included for payment as Solid Rock.

During excavation operations whenever the character of material changes from one type to another, as classified in Section 205, then the Contractor shall strip the area, within the slopes, of all overlying material, and notify the Engineer in order that proper measurements or cross

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sections may be made. No allowance will be made for material excavated before such measurements or cross sections have been made.

Where the Engineer instructs that cuts be widened for the purposes of providing borrow, then the demarcation between quantities measured as "Other Material" and "Other Material Borrow", or "Solid Rock" and "Quarried Rock", as the case may be, shall be the theoretical face of cut line given by the cross sections. For rock cuts widened to provide "Quarried Rock", there will be no overbreak allowed for in the measurement of "Solid Rock".

Large rock fragments which are too large to be incorporated into the fill shall be measured and their volumes subtracted from the cross section volumes. Calculations for volume of large rock fragments shall be the product of the three maximum rectilinear dimensions of the fragments.

### 206.06 BASIS OF PAYMENT

Payment shall be at the contract unit price per cubic metre for either "Solid Rock", "Other Material", or "Unsuitable Material", as the case may be, hauled 1 km or under, except as otherwise provided in Section 206.03, Overbreak.

However should the contract not include quantities for "Muskeg or Bog", then all required excavation of muskeg or bog will be paid for at the contract price for "Unsuitable Material". Should the contract not include quantities for "Unsuitable Material" then all required excavation for muskeg or bog will be paid for at the contract price for "Other Material".

Should the contract not include quantities for "Unsuitable Material" then all required excavation for unsuitable material will be paid for at the contract price for "Other Material".

Should the contract not include quantities for "Other Material", then all required excavation for Other Material will be paid for at the contract price for "Unsuitable Material".

Should the contract not include quantities for "Ditching Solid Rock", then all required excavation for Ditching Solid Rock will be paid for at the contract price for "Solid Rock", and vice versa.

Should the contract not include quantities for "Ditching Other Material", then all required excavation of Ditching Other Material will be paid for at the contract price for "Other Material", or vice versa.

Such payment shall be full compensation for all work herein described together with the labour and materials required for excavating, handling, hauling up to 1 km and placing and compacting in a fill as described in Section 204 "Grading of Fill", or placing and shaping up in a disposal area as required.

Where the Engineer requires that excavation material be hauled in excess of 1 km, additional payment for overhaul will be made in accordance with Section 215, "Overhaul on Excavated Materials".