

SECTION 207

BORROW

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207.01 SCOPE

This specification concerns borrow where the Department supplies the material source.

However, where the Contractor is required to supply the source of material, as in contract items such as, "Supply Rock Fill in Place" or "Supply Other Material Fill in Place", then the requirements are covered separately in Section 310.

207.02 DESCRIPTION

When sufficient quantities of material suitable for highway fills are not obtainable from the various excavations required for the construction of the highway, then the Owner's Representative will authorize the provision of borrow material to be obtained from borrow pits and/or quarries as the Owner's Representative requires.

This work shall include all materials and labour required to excavate borrow materials, hauling up to 1 kilometre, handling and incorporation of the materials into fill construction in accordance with Section 204.

Where borrow sites are necessary outside the right of way, approval of the Department of Industry, Energy and Technology is required.

207.02.01 Delays and Provision of Borrow Sites

Where borrow pits or quarries are located outside the limits of the right of way, they will be provided and paid for by the Department.

Before the Department directs the Contractor to obtain borrow from a particular area, the Department will make effort to determine the suitability of the material. However, if after borrow operations have begun, the Department determines the material is no longer suitable, the borrow area may no longer be used to obtain material.

In the event the Contractor is delayed while another borrow area is being obtained, the Department will not assume responsibility for the first 14 days of such a delay and the Contractor shall indemnify and save harmless the Minister from all suits and actions for damages resulting from the first 14 days of the delay.

207.02.02 Siting of Borrow Sites

Borrow pits and quarries shall be located and confined to such limits as the Owner's Representative may direct.

Where borrow sites are necessary outside the highway right of way, the borrow area shall be hidden from view from the highway as much as possible. A buffer strip of 200 metres shall be maintained between the highway right of way and the borrow area. Any trees within the buffer strip shall not be disturbed or damaged.

Upon completion of the borrow operation, the borrow area shall not be subject to flooding. The Contractor shall ensure that the borrow site is free draining and not subject to water ponding.

All access roads to the borrow area shall be bridged or culverted where watercourses are crossed.

207.02.03 Operation of Borrow Sites

The Contractor shall clear and grub the borrow area before excavation begins, without causing disturbance or damage to the surrounding trees.

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

All available topsoil or organic matter which overlies the borrow site shall be stockpiled without causing disturbance or damage to the surrounding trees.

Trees cut within the borrow area and not required for Departmental use will become the property of the Contractor.

Any unwatering necessary in the borrow area shall conform to the requirement of Section 180.

207.02.04 Abandonment and Rehabilitation

Before closure, the borrow site shall be trimmed and left neat and regular with side slopes conforming to the requirements set forth in the quarry permit issued by the Department of Industry, Energy and Technology or as directed by the Owner's Representative.

In all quarry operations, quarry faces shall be carefully scaled down and all rocks and fragments, liable to slide or roll down the slopes, removed to the satisfaction of the Owner's Representative.

Any available topsoil or organic material stockpiled previously shall be spread over the slopes to assist in revegetation. Where possible, borrow sites shall be hand seeded with a clover and hayseed mixture.

Waste material shall be disposed of in accordance with Division 8.

After completion of the operation or during periods of winter shutdown, the access road shall be ditched or barriers erected to prevent vehicular access unless instructed otherwise by the Owner's Representative. Earth barriers shall be graded and trimmed to sightly proportions.

207.03 PERMITS

Approval by the Department of Industry, Energy and Technology is required for the establishment of borrow sites outside of the highway right of way.

207.04 MATERIAL CLASSIFICATION

Borrow materials will be classified as either "Solid Rock", "Quarried Rock", "Other Material", or "Other Material Borrow" in accordance with Section 205.

207.05 MEASUREMENT FOR PAYMENT

Measurement for payment will only include measurement of quantities that are required by the Owner's Representative to complete the Work.

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

Payment by Volume

For borrow materials described in Section 207.04, that are to be paid for by the volume of borrow material, then such materials shall be measured in cubic metres rounded to the nearest whole number.

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, and the completed and accepted excavation lines. The volume of this excavation will 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.

Payment by Weight

For borrow materials, described in Section 207.04, that are to be paid for in terms of the number of tonnes, then such materials shall be weighed on scales. The weighing of materials shall be in accordance with the requirements of Section 501. Only loads certified by the Department personnel as being placed in the works shall be included in the measurement for payment. The weight shall be computed in tonnes, rounded to one decimal place.

207.06 BASIS OF PAYMENT

Where the contract includes quantities for "Quarried Rock", then all required excavation of solid rock from borrow areas will be paid for at the contract price for "Quarried Rock".

However, should the contract not include quantities for quarried rock, then all required excavation of solid rock from borrow areas will be paid for at the contract price for "Excavation Hauled 1 kilometre or Under, Solid Rock".

Where the contract includes quantities for "Other Material Borrow", then all required excavation of other material from borrow areas will be paid for at the contract price for "Other Material Borrow".

However, should the contract not include quantities for other material borrow, then all required excavation of other material from borrow areas will be paid for at the contract price for "Excavation Hauled 1 kilometre or Under, Other Material".

Payment shall be at the contract unit price per cubic metre, or per tonne, for either "Solid Rock", "Quarried Rock", "Other Material" or "Other Material Borrow", as the case may be, hauled 1 kilometre or under. Such payment shall be full compensation for all work herein described together with all materials, labour, and equipment use required to carry out excavating, handling, provision for weighing (if appropriate), hauling up to 1 kilometre and placing and compacting in a fill as described in Section 204.

However, clearing and grubbing shall be paid for separately in accordance with Section 201. Should the contract not include quantities for "Clearing and Grubbing", then all clearing and grubbing work will be paid for at the contract price for "Clearing" and "Grubbing", as appropriate.

Where the Owner's Representative requires that borrow material be hauled in excess of 1 kilometre, additional payment for overhaul will be made in accordance with Section 215.