



## **SECTION 250**

### **BACKHOE HOURS**

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##### **250.01 SCOPE**

This specification deals with excavation work and disposal or salvage work, usually of a relatively minor nature, where the basis of payment is backhoe machine hours.

##### **250.02 EQUIPMENT**

The equipment shall consist of a backhoe and at least two tandem axle dump trucks. Should the Engineer determine that additional trucks are required, then the additional trucks shall be compensated for at the Department's rental rates as specified in Division 10.

The backhoe shall have a horsepower rating of at least 135, and the bucket shall have a capacity of at least 0.75 m<sup>3</sup>.

For ditch clean out operations, a ditching bucket must be used. The bucket is to have a minimum capacity of 0.75m<sup>3</sup> and a minimum width of 1500mm.

Where a hydraulic breaker is required, it will have a minimum impact energy of 3390 Joules.

##### **250.03 DESCRIPTION**

Backhoe hours may be required to: excavate ditches in other material including grubbing and small brush, shape other material back slopes, excavate existing culverts or catch basins for disposal or salvage, excavate other material prior to installation of new culverts and extensions, and excavate such other non-solid rock materials as the Engineer may direct. Backhoe hours will not normally be required in connection with the excavation of solid rock. However, in those cases where small points of rock are encountered in the ditch, and their removal is required by the Engineer, the removal will be accomplished by using a hydraulic breaker attachment on the backhoe.

When excavating existing culverts or catch basins or when excavating for new culverts, the excavated other materials shall be stockpiled next to the excavation so that it may be used as backfill. In the case of work in connection with the salvage of culvert, the work shall proceed with caution so as not to damage the culvert to be salvaged.

For excavating an existing culvert, backhoe hours will only be used if there is no contract item for either Disposal of Culvert or Salvage of Culvert.

After the installation of a new culvert, the backfill shall be placed in lifts and compacted to at least 95% of Standard Proctor Density (ASTM D698-78).

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Waste materials; including surplus other material, condemned culverts and catch basins, unsuitable material, grubbing, and such other materials as the Engineer may direct, shall be loaded in trucks and hauled away and disposed of at an approved waste disposal area. The waste disposal area shall be provided by the Contractor at his own expense. The debris shall be covered with waste other material and graded and trimmed to slighty proportions.

### 250.04 MEASUREMENT FOR PAYMENT

Measurement for payment will be by the number of hours, rounded to the nearest quarter hour, that the backhoe actually worked excavating or backfilling, as required by the Engineer. Time spent traveling by the backhoe for the disposal of excavated materials, truck haulage time

by the two trucks to transport the excavated materials, and time spent grading and trimming the waste in the waste disposal area, will not be included in measurement for payment.

### 250.05 BASIS OF PAYMENT

Payment at the contract price for backhoe hours shall be compensation in full for all labour, materials and equipment use to: make a backhoe and two tandem trucks available, carry out required excavation, backfill and compact the excavation if required, load and provide all transportation of waste materials from the excavation to the waste disposal area, provide an approved waste disposal area, place waste materials in the waste disposal area, and grade and trim the waste materials to slighty proportions.

Should the Engineer determine that more than two tandem trucks are required, then the additional trucks shall be compensated for at the Department's rental rates as specified in Division 10.

For excavation of points of rock, payment for backhoe hours will include the hydraulic breaker in lieu of the two tandem trucks.