

SPECIFICATIONS FOR OVERSIZED SANDBAG RIP-RAP

1081. 1. DESCRIPTION

The work will consist of supplying gravel, mixing and placing cement and gravel in bags, placing filled sandbags as a protective covering along the side slopes and bases of river channels, around piers and abutment footings and wing walls, on slopes, around culvert inlets and outlets and on embankments or such other places as may be indicated on the plans or as designated by the Engineer in the field.

1081. 3. SUPPLY OF MATERIALS

3.1 Material to be supplied by the Minister at the sources of supply specified in the Special Provisions:

- (a) Cement
- (b) Sandbags (Oversized)

3.2 Material to be Supplied by the Contractor:

- (a) Pit-run gravel which shall consist of hard, strong particles free from elongated particles, earth, vegetable matter or other injurious substances. The maximum size of stone shall be 100 mm. Shale content shall not exceed 5%.
- (b) Clean water.

1081. 7. CONSTRUCTION METHODS

7.1 Preparation of Bed

The bed for rip-rap shall be shaped neatly and trimmed to the lines as shown on the plans or as staked by the Engineer in the field prior to the placing of any rip-rap.

7.2 Mixing and Placing

The mix shall consist of six parts gravel and one part cement by volume and the ingredients shall be mixed dry in a batch mixer with just enough water to produce a "no slump" mix. The mixing of each batch shall continue until the gravel is coated uniformly with cement. Sandbags shall be filled two-thirds full with the stiff mix or with approximately 60 kg of the material. The top portion of the bags shall be folded under the bottom surface of the bags.

7.3 Placing of Rip-Rap

The filled bags shall be hand placed with close, staggered joints. They shall be bedded firmly into the slopes and butted securely against adjoining bags. The bags shall be compacted thoroughly as construction progresses and the finished surface shall present an even and closed surface. The bags shall be wetted down with water after placing if the temperature is above 0° C and shall be protected from freezing for at least 72 h after being wetted down.

1081. 7. CONSTRUCTION METHODS

7.4 Thickness of Rip-Rap

Each sandbag shall have a minimum thickness of 300 mm. The total thickness of the rip-rap shall be as shown on the plans.

1081. 9. METHOD OF MEASUREMENT

Sandbag rip-rap will be measured on a volume basis. The volume to be paid for will be the number of cubic metres placed in the completed work as determined by multiplying the actual surface area by the minimum thickness as specified in these Specifications or as indicated on the plans. The dimensions shall not exceed those shown on the plans or established by the Engineer in the field.

1081. 11. BASIS OF PAYMENT

Placing sandbag rip-rap will be paid for at the Contract Unit Price per cubic metre for "Oversized Sandbag Rip-Rap", measured as specified herein, which price will be payment in full for performing all operations herein described and all other items incidental to the work included in these Specifications.