

PART 1 - GENERAL

- 1.1 GENERAL .1 This section specifies the requirements for rip rap material to protect the side slopes beneath the new wharf, as noted on the drawings (running from the retaining wall to the outside face of the wharf).
- 1.2 SUBMITTALS .1 Submit to Departmental Representative for approval, 4 weeks before blasting, details of proposed blasting operations showing types and quantities of explosives, loading charges and patterns, type of blasting caps, blasting techniques, blast protection measures, time of blasting and other pertinent details. Submit subsequent changes to Departmental Representative before proceeding.
- 1.3 REGULATORY REQUIREMENTS .1 Comply with municipal, provincial and national codes and regulations relating to project.
- 1.4 MEASUREMENT FOR PAYMENT .1 Rip Rap: Supply and installation of rip rap will be measured in cubic metre (m3) of material supplied and installed in the work.

PART 2 - PRODUCTS

- 2.1 ROCK MATERIAL .1 Hard, angular rock free from cracks, seams and other defects which may impair durability.
- .2 Relative density, 2.65 minimum.
- .3 Absorption, 1.5 to 2.0% maximum as determined by ASTM C127 test procedure.
- .4 Durability, less than 35% abrasion Wear, ASTM C535 test procedure.
- .5 Sulphate Soundness Determination maximum 12% by ASTM C88.

Wharf Reconstruction (Phase II)  
Grand Bank, NL

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- 2.2 RIP RAP
- .1 New rip rap to be hard, dense with relative density (formally specific gravity) not less than 2.65, durable quarry stone, free from seams, cracks or other structural defects, to meet following size distribution for use intended.
  - .2 Rip-rap stone to be well graded, sizes as indicated on drawings (0.8 to 1 tonne).
  - .3 Supply rock spalls to fill open joints.
  - .4 Field stones of appropriate sizes are acceptable for hand placed rip-rap.

PART 3 - EXECUTION

- 3.1 GENERAL
- .1 Take precautions not to damage existing properties during hauling of rock materials. Damage to existing roads or other private or public properties will be repaired at the Contractor's expense.
- 3.2 PREPARATION
- .1 Haul roads: construct and maintain haul roads.
- 3.3 RIP RAP
- .1 Place rip-rap as indicated or as designated by Departmental Representative.
  - .2 Fine grade area to be rip-rapped to uniform, even surface. Fill depressions with suitable material and compact to provide firm bed. Toe-in outside face to provide stability.
  - .3 Place stones in manner approved by Departmental Representative to secure surface and create a stable mass. Place larger stones at bottom of slopes.
  - .4 Finish surface evenly, free of large openings and neat in appearance.