

## 1.0 GENERAL

### 1.1 Related Work

- 1.1.1 Section 02210 - Site Grading – Rough
- 1.1.2 Section 02212 - Planting Soil and Finish Grading

### 1.2 Measure for Payment

- 1.2.1 Rip-rap without cement mortar will be measured in square metres in place.

## 2.0 PRODUCTS

### 2.1 Stone

- 2.1.1 Hard, durable quarry stone, free from seams, cracks or other structural defects, to meet following size distribution for use intended:

- .1 Stones shall be between 300 mm and 600 mm in diameter.
- .2 Not more than 10% of the total volume of stones shall be less than 400 mm in diameter.
- .3 Not more than 50% of the total volume of stones shall be more than 500 mm in diameter.

### 2.2 Landscape Fabric

- 2.2.1 Non-woven, polyester geotextile such as Mirafi 140 NL or approved equal.

## 3.0 EXECUTION

### 3.1 Placing

- 3.1.1 Where rip-rap is to be placed on slopes, excavate a trench at the toe of slope (except where the toe of the slope is under water) in accordance with dimensions indicated, or as directed by the Consultant.
- 3.1.2 Fine grade area to be rip-rapped to a uniform even surface. Fill depressions with suitable material and compact to provide firm bed.
- 3.1.3 Place landscape fabric on prepared surface. Place rip-rap on fabric carefully to avoid puncturing fabric. Do not drive vehicles directly on landscape fabric.
- 3.1.4 Place rip-rap in accordance with thickness and details indicated, or as directed by Consultant.
- 3.1.5 Place stones in approved manner to secure surface and a stable mass. Place larger stones at bottom of slopes.
- 3.1.6 Hand placing:

- .1 Use large stones for lower courses and as headers for subsequent courses.
- .2 Place boulders so that the bottom one-third of the bottom course of boulders is below grade.
- .3 Stagger vertical joints and fill voids with rock spalls or cobbles.
- .4 Finished surface to be even, free of large openings and neat in appearance.