

PART 1 - GENERAL

1.1 DESCRIPTION

- .1 This section specifies supply, placement and compaction of rock and gravel fill as required or as directed by Departmental Representative.

1.2 RELATED SECTIONS

- .1 Section 31 37 10 - Rip Rap.

1.3 MEASUREMENT FOR PAYMENT

- .1 Rock Fill: Supply, placement and compaction of rock fill will be measured by cubic metre (CMPM). The volume of material will be determined in place from measurements taken prior to and at completion of the work. Include the cost of all plant, labour, equipment, and materials required to complete the work as specified.
- .2 Gravel Fill: Supply, placement, and compaction of gravel fill will be measured by the cubic metre (CMPM). The volume of material will be determined in place from measurements taken prior to and at completion of the work. Include the cost of all plant, labour, equipment, and materials required to complete the work as specified.
- .3 Placement of dredged materials within the infill area shall be incidental to the dredging price of Section 35 20 23.

PART 2 - PRODUCTS

2.1 ROCK FILL

- .1 Rock fill will be of hard, durable, evenly graded blasted stone having a maximum diameter of 200 mm in major portion of fill and a maximum diameter of 100 mm in upper 500 mm of rock fill. Fill material will contain not more than 6 percent by weight passing the 25 mm sieve. Rock fill to be evenly graded within the limits specified.
- .2 Use of shale rock or slate will not be permitted.

2.2 GRAVEL FILL

- .1 Gravel fill will consist of hard, durable, particles of stone mixed with suitable binding material. It shall be free from flat, elongated particles and shall be well graded. When tested by means of laboratory sieves, it shall fulfill requirements as follows:

Sieve Size	% by Weight Passing
56 mm	100
16 mm	45-80
4.75 mm	25-55
1.25 mm	10-35
0.300 mm	5-15
0.075 mm	3-8

PART 3 - EXECUTION

3.1 PLACING ROCK FILL

- .1 Only rock and gravel fill material approved by Departmental Representative will be placed.
- .2 Material to be placed uniformly

across full cross section in the following layers:

- .1 200mm minus rock fill -
Placed in one (1) metre lifts and vibro-compacted to ensure proper settlement.
- .2 100mm minus rock fill -
Placed in 250mm lifts on top of the 200mm minus material using light manual compactors to ensure the 100mm minus material fills all open spaces on top of the 200mm minus material.
- .3 Gravel fill - Graded as specified. The first lift shall be from 400-500mm thick to protect geotextile. All subsequent lifts shall be from 250-300mm thick.
- .3 Use suitable earth moving and surface grading equipment to place and spread rock fill in continuous and uniform horizontal layers.
- .4 All side slopes to be one (1) vertical to one and one half (1.5) horizontal.

3.2 PLACING DREDGE MATERIAL

- .1 Only dredge material approved by the Departmental Representative will be placed within the infill area.
- .2 Material placed above the water mark shall be adequately drained to achieve suitable moisture content, then placed and compacted in 300 mm lifts. Vibro compacted to ensure proper settlement.

- .3 Use suitable earth moving equipment and surface grading equipment to place and spread dredge material fill in continuous and uniform horizontal layers.
- .4 Soft areas encountered with proof rolling, or visible unsuitable materials shall be removed and replaced with suitable material.