

**PART 1**      **GENERAL**

**1.1**            **RELATED SECTIONS**

- .1      Section 33 42 13 – Pipe Culverts.

**1.2**            **WASTE MANAGEMENT AND DISPOSAL**

- .1      Separate and recycle waste materials in accordance with Section 01 74 19 – Construction/ Demolition Waste Management and Disposal.
- .2      Collect and separate waste in accordance with Waste Management Plan.
- .3      Place materials defined as hazardous or toxic in designated containers.
- .4      Fold up metal banding, flatten and place in designated area for recycling.
- .5      Divert left over aggregate materials from landfill to local quarry for reuse as approved by Departmental Representative.

**PART 2**      **PRODUCTS**

**2.1**            **STONE**

- .1      Hard, dense, durable quarry stone, free from seams, cracks or other structural defects, to meet following size distribution for use intended:
  - .1      Hand placed rip-rap:
    - .1      Minimum size of individual stones 10 dm<sup>3</sup>.
    - .2      Not less than 75% of total volume of stones with individual volume of 25 dm<sup>3</sup> or more.
    - .3      Supply rock spalls or cobbles to fill open joints.

**PART 3**      **EXECUTION**

**3.1**            **PLACING**

- .1      Where rip-rap is to be placed on slopes, excavate trench at toe of slope to dimensions as indicated.
- .2      Fine grade area to be rip-rapped to uniform, even surface. Fill depressions with suitable material and compact to provide firm bed.
- .3      Place rip-rap to thickness and details as indicated.
- .4      Place stones in manner approved by Departmental Representative to secure surface and create a stable mass. Place larger stones at bottom of slopes.

- .5 Hand placing:
  - .1 Use larger stones for lower courses and as headers for subsequent courses.
  - .2 Stagger vertical joints and fill voids with rock spalls or cobbles.
  - .3 Finish surface evenly, free of large openings and neat in appearance.

**END OF SECTION**