

SECTION 257 RIPRAP DITCH

257.01 Description. This work consists of constructing and maintaining trapezoidal riprap ditches with supporting toe walls to convey concentrated flow without damage from erosion and where grassed ditches would be inadequate due to a high flow velocity. Riprap ditches shall be constructed as shown on Standard Construction Detail, Riprap Ditch, at the locations shown on the Plans, and as directed by the Engineer.

MATERIALS.

257.02 Pins. Pins shall be steel, 18" (450 mm) long, 3/16" (4.7 mm) in diameter, and have a head or steel washer that is 12" (38 mm) in diameter.

257.03 Riprap. Riprap shall be the type indicated on the Plans and shall conform to the requirements of [Section 712](#).

257.04 Seed. Seed shall conform to the requirements of [Section 734](#).

257.05 Mulch. Mulch shall conform to the requirements of [Section 735](#).

257.06 Stone. Stone for bedding shall be Delaware No. 57 conforming to the requirements of [Section 813](#).

257.07 Geotextile. Geotextile shall conform to the requirements of [Section 827](#).

CONSTRUCTION METHODS.

257.08 Construction of Riprap Ditch. The Contractor shall excavate the riprap ditch according to the dimensions shown on the Plans. All debris shall be removed from the ditch. The ditch sides and bottom shall be smooth so that the geotextile rests flush with the ditch at all points of contact. The width of the geotextile shall be sufficient to cover the total width of the ditch and completely line the toe walls without any longitudinal joints. The geotextile shall be placed flat, loose, and without wrinkles against all surfaces. The geotextile shall be secured in place with pins as shown on the Standard Construction Details.

After placement of the geotextile and pins on the ditch banks, stone bedding, if required, and riprap in the ditch, the Contractor shall backfill, grade, compact, and restore the ditch banks and any other area affected by the construction of the riprap ditch to the original or plan contours. The restored areas shall be stabilized with seed and mulch.

The Contractor shall not perform any grading of the ditch after placement of the riprap.

257.09 Maintenance of Riprap Ditch. Throughout the Project construction period, the Contractor shall maintain the original dimensions and function of the riprap ditch.

257.10 Method of Measurement. The quantity of riprap ditch will be measured as the actual number of cubic yards (cubic meters) of riprap ditch excavated and accepted. The quantity of riprap will be measured as the actual number of tons (metric tons) placed and accepted. The quantity of stone will be measured as the actual number of tons (metric tons) placed and accepted.

257.11 Basis of Payment. The quantity of riprap ditch will be paid for at the Contract unit price per cubic yard (cubic meter). Price and payment will constitute full compensation for furnishing and placing all material, except for riprap and, if required, stone bedding; for excavating the riprap ditch; for restoring the ditch banks

and any area affected by the construction of the riprap ditch, including backfilling, compacting, grading, seeding, and mulching; and for all labor, equipment, tools, and incidentals required to complete the work.

The quantity of riprap will be paid for according to [Section 712](#). The quantity of stone bedding will be paid for according to instructions in the Special Provisions.

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