

ITEM 24616.13 M -- TREE REVETMENT

DESCRIPTION

A tree revetment consists of a whole tree, except rootwad, cabled to an earth anchor forming a semipermanent streambank protection. Under this item the Contractor shall furnish and install tree revetments in accordance with the contract documents.

MATERIALS

Trees shall be structurally sound, recently felled conifers with a minimum trunk diameter of 300 mm and a trunk length of 6.0 m or greater. They shall be of a species approved by the Engineer prior to installation.

Anchors shall consist of a commercially manufactured earth anchoring system specified elsewhere in the contract documents. Use of other materials or methods shall be approved by the Engineer prior to installation.

Galvanized cable shall be used to attach trees to the anchor and shall be a thickness stated in the contract documents. The cables shall be clamped together using two galvanized clamps at each connection. Additional cables shall also be used to attach tree revetments together when multiple tree revetments are specified.

CONSTRUCTION DETAILS

Installation shall begin downstream at the farthest point of the work area. An anchor, with galvanized cable attached, shall be installed according to the manufacturers specifications.

The tree shall be laid with the butt end orientated upstream. Branches shall be trimmed on the bank side prior to placement.

Each tree shall be secured to the stream bank by galvanized cable to two anchors. The first attached to the butt end of the tree and the second to the mid-section of the tree. The cable, where attached to the tree, shall be inserted through a drilled hole, wrapped at least one and one-half times around the main trunk, and then clamped using two galvanized clamps at each connection. The cable shall be secured such that the tree is held snug to the embankment.

Where multiple tree revetments are specified they shall overlap each other by 25%. At the point of tree overlap, the trees and shall be secured together with galvanized cable and clamps.

Minor excavation and backfill may be necessary to fit the tree revetments to some stream banks.

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METHOD OF MEASUREMENT

The quantity of tree revetments will be measured as shall be the number of tree revetments satisfactorily installed and accepted.

BASIS OF PAYMENT

The unit price bid per tree revetment shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work including excavation and backfill.

Backfill material used shall be paid for under Item "Select Clean Fill".