

ITEM 24616.11 M -- VEGETATED ROCK GABIONS

DESCRIPTION

Vegetated rock gabions shall consist of branch cuttings and gabions. The branch cuttings shall be installed in between horizontal layers of gabions. Under this item the Contractor shall furnish and install vegetated rock gabions in accordance with the contract documents.

MATERIALS

Branch cuttings shall be from freshly cut dormant plants harvested from the site or nursery grown. No leaf buds shall have initiated growth beyond 6 mm and the cambium layer shall be moist, green, and healthy. All plant material shall be maintained in a continuously cool, covered, and moist state. All plant material shall be in good condition when installed. Live plant material shall be installed within 48 hours of harvest.

Live branch cuttings shall range from 12 to 25 mm in diameter. Length of the cuttings shall vary according to the size of the gabions and the depth of the cut in the embankment. See contract documents for plant species, size, and planting season specifications. Plant material substitutions shall be approved by the Engineer prior to delivery to the project.

Vegetative plantings, additional soil bioengineering techniques or other erosion control methods, if specified, shall be in accordance with the item specified.

Backfill material used shall meet the requirements of Item "Select Clean Fill".

Water shall meet the requirements of § 712-01.

Gabions shall be as specified in § 712-15 except that the gabions and backfill shall be further specified as follows:

1. Gabions shall meet the requirements of § 712-15.B, P.V.C. Coated Galvanized Gabions.
2. Gabion filling shall consist of approximately 70% stone filling conforming to the provisions of § 712-15, Gabions and 30% Select Clean Fill Material as specified, unless stated elsewhere in the contract documents.
3. All exposed vertical surfaces of the gabions shall be lined with a rolled erosion control product meeting the requirements of § 713-07, Class II, Type B or Type C.

CONSTRUCTION DETAILS

Gabions shall be installed in accordance with § 620-3.07 Gabions and as specified in the contract documents except that the gabions shall be further specified as follows:

The 70% stone filling shall be placed into the gabion. The remaining 30% of Select Clean Fill

ITEM 24616.11 M -- VEGETATED ROCK GABIONS

Material shall be placed on the stone layer and worked into the layers such that all voids are filled and tamped prior to closing the gabion.

A layer of backfill material shall be spread over the top of the first row of completed gabions to a thickness of 25 mm. This layer shall be raked to remove rocks larger than 15 mm. Live branch cuttings shall be placed on top of the backfill layer in a layers one or two branches thick. An additional 25 mm layer of backfill shall be spread on the live branch cuttings prior to the placement of the successive row of gabions. The cuttings shall be placed perpendicular to the slope and with the growing tips slightly protruding from the front of the gabion wall. A minimum of 300 mm of each cutting shall be in contact with backfill material. Some of the basal ends of the live branch cuttings in each layer shall reach the undisturbed soil at the back of the gabion wall.

When the Engineer determines that any area within the installation has failed, for any reason, to produce approximately 75% vegetative growth after a suitable period of time, the Contractor shall rectify all work required by the specification until the vegetative growth is established at no additional cost to the State.

METHOD OF MEASUREMENT

The quantity to be measured shall be the number of cubic meters of vegetated gabions satisfactorily installed and accepted in accordance with the contract documents.

BASIS OF PAYMENT

The unit price per cubic meter shall include the cost of furnishing all labor, materials, and equipment necessary to complete the work, including excavation and watering.

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

Vegetative plantings, additional soil bioengineering techniques or other erosion control methods, if specified, shall be paid for under separate items.

Excavation, as required, shall be paid for under Item "Unclassified Excavation and Disposal".