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**BEDFORD
13527**

January 27, 2011

SPECIAL PROVISION

SECTION 670 – MISCELLANEOUS INCIDENTALS

ITEM 670.0531 – Wire Mesh for Rock Slopes (Rock Fall Protection Netting)

Description

1.1 This work shall consist of furnishing and installing wire mesh and accessories to existing rock slopes at locations and limits as shown on the plans or ordered.

Materials

2.1 Wire mesh shall be galvanized steel wire conforming to FSS QQ-W-461g, medium hardness, finish 5 and class 3 coating. The wire shall be approximately 0.12 inch (11 gage) in diameter with a minimum tensile value of 60,000 pounds per square inch (psi).

2.1.1 The wire mesh shall be hexagonal woven, triple twisted, steel wire mesh. The mesh shall present a uniform pattern and perimeter edges shall be securely selvage with a wire having at least the same strength as the wire used in the body of the mesh.

2.1.2 The size of the mesh openings shall not exceed four and one half inches in the longest dimension.

2.1.3 A tolerance limit of +/- 3% is permitted in the wire mesh dimensions of the manufacturer's sizes.

2.1.4 All tie wires and hog rings shall be composed of galvanized steel, approximately 0.148 inch (9 gage) in diameter.

Construction Requirements

3.1 Scaling. Scaling, blasting or mechanical methods to remove loose or potentially unstable rock shall be completed prior to the installation of the rock fall protective netting. The removal of loose or unstable rock shall be paid for and accomplished under the appropriate item(s).

3.1.1 Portions of the existing safety berm at the base of the rock slopes may be temporarily removed to allow for equipment placement during scaling and subsequent operations, but shall be replaced upon completion of that specific section at the expense of the Design-Builder.

3.2 Wire Mesh Placement

3.2.1 The wire mesh shall be installed in vertical strips, each lapped over the other by a minimum of 12 inches and connected to the adjacent strips by galvanized steel hog rings as shown on the detail sheets. In addition, the horizontal laps shall be threaded with galvanized steel tie wire. Typical and detail sheets are shown in a separate Wire Mesh Figure document.

3.2.2 Continuous weaving of galvanized steel tie wire shall be used to fasten the mesh to the 3/4 inch galvanized wire rope.

3.2.3 The wire mesh shall cover the entire rock slope, from the crest to 3 feet above the toe of the rock slope or 2 feet above the top of an installed toe berm. The gap at the bottom of the wire mesh is to allow rock fall to exit from behind the mesh and to avoid accumulation of debris that could tear or damage the wire mesh netting. The wire mesh shall be freely draped over the face and secured to the 3/4 inch galvanized wire rope with tie wires. Some stages in the installation of the mesh and the cables may take place simultaneously.

3.3 Landscaping and Curb Realignment. All areas disturbed by the Design-Builder's operation shall be repaired as required by the Engineer. This work will include, but not be limited to, reshaping of the safety berm, loaming, fertilizing, reseeding, and mulching of disturbed areas and realignment of any granite curbing disturbed.