

**CITY OF SAN ANGELO**  
**ITEM 169**  
**SOIL RETENTION BLANKET**

**169.1 DESCRIPTION.**

This Item shall govern for providing and placing wood, straw or coconut fiber mat, synthetic mat, paper mat, jute mesh or other material as a soil retention blanket for erosion control on slopes or ditches or for short-term or long-term protection of seeded or sodded areas as shown on the Plans or as approved by the City.

**169.2 MATERIALS.**

(1) The soil retention blanket shall be one of the classes and types as shown on Plans or as listed below. Alternate materials may be used as approved by the City.

(a) **Class 1.** "Slope Protection"

- i. **Type A.** Slopes 3:1 or flatter - Clay soils
- ii. **Type B.** Slopes 3:1 or flatter - Sandy soils
- iii. **Type C.** Slopes steeper than 3:1 - Clay soils
- iv. **Type D.** Slopes steeper than 3:1 - Sandy soils

(b) **Class 2.** "Flexible Channel Liner"

- i. **Type E.** Short-term duration (Up to 2 years)  
Shear Stress ( $t_d$ ) < 1.0 lb./sq. ft.
- ii. **Type F.** Short-term duration (Up to 2 years)  
Shear Stress ( $t_d$ ) 1.0 to 2.0 lb./sq. ft.
- iii. **Type G.** Long-term duration (Longer than 2 years)  
Shear Stress ( $t_d$ ) > 2.0 to < 5.0 lb./sq. ft.
- iv. **Type H.** Long-term duration (Longer than 2 years)  
Shear Stress ( $t_d$ ) > or = to 5.0 lb./sq. ft.

(2) **Fasteners.** Fasteners shall conform to the requirements of the soil retention blanket manufacturer.

**169.3 CONSTRUCTION METHODS:**

**(1) General.** The soil retention blanket shall conform to the class and type shown on the Plans. The Contractor has the option of selecting an approved soil retention blanket conforming to the class and type shown on the Plans and according to the current approved material list.

**(2) Installation.** The soil retention blanket, whether installed as slope protection or as flexible channel liner in accordance with the approved materials list, shall be placed within 24 hours after seeding or sodding operations have been completed, or as approved by the City. Prior to placing the blanket, the area to be covered shall be relatively free of all rocks or clods over 1-1/2 inches in maximum dimension and all sticks or other foreign material which will prevent the close contact of the blanket with the soil. The area shall be smooth and free of ruts and other depressions. If as a result of rain, the prepared bed becomes crusted or eroded or if any eroded places, ruts or depressions exist for any reason, the Contractor shall be required to rework the soil until it is smooth and to re-seed or re-sod the area at the Contractor's expense.

Installation and anchorage of the soil retention blanket shall be in accordance with the manufacturer's recommendations.

**(3) Literature.** The Contractor shall submit one full set of manufacturer's literature and manufacturer's installation recommendations for the soil retention blanket selected in accordance with the approved material list.

**169.4 MEASUREMENT.**

This Item will be measured by the square yard of surface area covered.

**169.5 PAYMENT.**

The work performed and materials furnished in accordance with this Item and measured as provided under "Measurement" will be paid for at the unit price bid for "Soil Retention Blanket" of the class and type shown on the Plans. This price shall be full compensation for furnishing all materials, labor, tools, equipment and incidentals necessary to complete the work. Anchors, checks, terminals or junction slots, and wire staples or wood stakes will not be paid for directly but will be considered subsidiary to this Item.