

**CITY OF SAN ANGELO****ITEM 107****SEEDING FOR EROSION CONTROL****107.1 DESCRIPTION.**

Seeding for Erosion Control shall consist of preparing the areas, providing for sowing of seeds, mulching with straw, hay or cellulose fiber and other management practices for the cut slopes and for the bottom of the channel detention pond area, embankments, dikes, beams and the other areas as shown on the Plans or as directed by the City excluding the rock surface in accordance with these specifications.

**107.2 SEEDS.**

All seeds shall meet the requirements of the Texas Seed Law including the labeling requirements for showing pure live seed, name and type of seed.

The pure live seed mixture shall consist of the following seeds in the amount noted per acre of planting area.

Green Sprangletop	- 1.2 lbs.
Common Bermuda	- 8.0 lbs.
Klien	- 1.0 lbs.
Perennial Rye	- 2.0 lbs.

Fertilizer, if specified on the Plans, shall be delivered in bags or containers clearly labeled showing the analysis. The fertilizer, if requested by the City, will be subject to testing by the Texas Department of Agriculture in accordance with the Texas Fertilizer Law. A pelleted or granulated fertilizer shall be used which has the analysis shown on the Plans. The rate of application shall be as shown on the Plans.

Straw mulch shall be oat, wheat, or rice straw. Hay mulch shall be prairie grass, Bermuda grass or other acceptable hay. The mulch shall be free of noxious weeds and foreign materials. It shall be kept in a dry condition and shall not be molded or rooted.

**107.3 CONSTRUCTION METHODS.**

After the areas designated for seeding are cut to the lines, grades, cross sections and to the configurations shown on the Plans, the area shall be cultivated to a depth of at least four inches. The seed bed shall be cultivated sufficiently to reduce the soil to a state of good tilth for proper germination of the grass seeds. The cross-section and configuration previously established shall be maintained throughout the process of cultivation and any necessary reshaping shall be done prior to planting of the seeds.

The seed mixture shall be uniformly distributed over the areas shown on the Plans or where directed by the City by the mechanical equipment. Seed and fertilizer (if called on the Plans) may be distributed at the same time provided that each component is uniformly applied at the specified rate. After planting, the planted area shall be rolled with corrugated roller of the "cultipacker" type. All rolling of the slope areas shall be on the contours. For areas smaller than half an acre, sowing of seeds by hand will be permitted. If sown by hand, the seeds shall be sown in two (2) directions at right angles to each other. Upon completion of planting of the seeds, straw or hay mulch shall be spread uniformly over the seeded area at the rate of approximately one half (1/2) to two (2) tons of hay or two (2) to two and a half tons (2 1/2) of straw per acre. The Contractor in lieu of placing the mulch by hand may use a mulching machine to shoot the mulch over the seeded area. If permitted by the City, cellulose fiber may be used in place of straw or hay mulch. The application rate for cellulose fiber as mulch shall be a minimum of twenty five hundred (2,500) lbs. per acre of area with flat surface and minimum of three thousand (3,000) lbs. per acre of area with sloped surfaces (greater than 10 percent).

Water shall be free of industrial wastes and other objectionable material. Water source to be approved by the City.

The criterion for acceptance of the work under this Item is "Good Stand of Grass." The "Good Stand of Grass" is defined as a minimum of one-half (1/2) inch of well established live grass covering at least 75 percent of the area designated for seeding. If it is necessary, the bald spots in the seeded area shall be selectively reseeded at the direction of the City.

#### **107.4 METHOD OF MEASUREMENT.**

The work performed in accordance with the specifications described herein will be measured by the acres, complete in place.

#### **107.5 PAYMENT.**

The work performed, materials furnished and measured will be paid for at the unit price bid for "Seeding for Erosion Control" which shall be full compensation for furnishing all materials and for performing all operations necessary to complete the work in an acceptable manner.

If the Contractor were to fail to provide the requirements of this Item as specified herein, the Owner shall reserve the right to engage another Contractor to complete the work and the cost thereof shall be deducted from monies payable to the Contractor for this Item.