

SECTION 02485

SEEDING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Preparation of sub grade to receive topsoil.
- B. Spreading topsoil.
- C. Seeding and fertilizing.
- D. Seed protection on slopes.
- E. Maintaining seeded areas until acceptance.
- F. Temporary seeding.

1.02 QUALITY ASSURANCE

- A. Supply the following submittals:
  - 1. Seed Label from proposed seed if other than specified.
  - 2. Analysis of existing topsoil including pH, P, K and organic material.
  - 3. Analysis of imported topsoil including same elements.

1.03 DELIVERY, STORAGE AND HANDLING

- A. Deliver grass seed in original containers showing analysis of seed mixture, percentage of pure seed, seed percentage germination, year of production, net weight, date of packaging and location of packaging. Damaged packages are not acceptable.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.04 TEMPORARY SEEDING

- A. Temporary seeding is to be applied to areas during construction to reduce damages from sediment and runoff and if lawn restoration falls between June 1 and August 15.

PART 2 PRODUCTS

2.01 GROWING MEDIA

- A. Existing Topsoil: Existing topsoil shall be stripped and stockpiled before excavation for later distribution. A minimum 4" of topsoil shall be distributed before seeding. If insufficient topsoil was stripped and stockpiled, then Contractor shall provide the balance needed to provide the minimum. Topsoil shall meet the following requirements: Natural, fertile agricultural soil capable of sustaining vigorous plant growth, not in frozen or muddy condition, containing not less than 6% organic matter, and corrected to pH value of 5.9 to 7.0. Free from subsoil, slag, clay, stones, lumps, live plants, roots, sticks, crabgrass, noxious weeds, and foreign matter.

## SOUTHWEST REGIONAL WATER DISTRICT

Existing topsoil to be verified by Contractor and Owner as to quantity and suitability before redistribution.

- B. Fertilizer: 12-18-12 starter commercial type with 50% of the elements derived from organic sources is slow release. Fertilizer shall be evenly spread at 200 lbs per acre.
- C. Fertilizer for temporary seeding: 12-12-12 and evenly spread at 200 lbs per acre.

### 2.02 SEED

- A. Seed Mixture. Permanent seeding for lawns: Team Mates Plus by the Lesco Company or approved equal that has 70% turf type tall fescue blend of three varieties, 20% of perennial rye blend of three varieties and 10% Kentucky blue grass of three varieties; free of noxious weeds. Even spread at a rate of 350 lbs per acre or 8-10 lbs per 1000 square feet with equipment designed for the broadcast of seed. Temporary seeding shall be done with Annual Rye grass at a rate of 200 lbs/ acre or 5 lbs per 1000 square feet.
- B. Seeding Dates: Permanent seeding may not be done between June 1 and August 15, unless Contractor provides supplemental watering to establish a good stand of grass. If the Contractor does not provide supplemental watering during this period, then temporary seeding should be done. Permanent seeding shall then follow commencing August 15.
- C. There will be no charge for water used by Contractor for watering grass.
- D. This seed specification is intended for lawns and road right-of-way. If restoration is to be done in farm fields or pastures, then a different seed mixture as approved by the Owner and by the individual property owner will be required.

### 2.03 ACCESSORIES

- A. Mulching Material: Oat or wheat straw, reasonably free from weeds, foreign matter detrimental to plant life, and in dry condition. Mulching shall also be applied to permanent and temporary seeding.
- B. Mulching Material for Hydroseeding: Wood or wood cellulose fiber free of growth or germination inhibiting ingredients.

## PART 3 EXECUTION

### 3.01 PREPARATION

- A. Protect existing underground improvements from damage. Temporary Seeding: Rough grade to +/- 2 inches removing all debris exceeding 2 inches in any dimension; apply the annual grass and straw at the specified rates. Permanent Seeding: Cultivate soil to 4 inch depth removing all stones, roots, debris larger than 1 inch in any direction. Rake out evenly smoothing out all lumps and depressions with a grade tolerance of +/- ¼ inch. If permanent seeding is installed following temporary seeding, then Contractor shall cultivate area 4" depth removing all stones, roots, debris larger than 1" in any direction. Rake out evenly smoothing out all lumps and depressions with a grade tolerance of +/- ¼ inch. Spread seed mix, fertilizer, then straw mulch. Lawn will not be accepted until a permanent stand of grass is established and meets the acceptance criteria.

## SOUTHWEST REGIONAL WATER DISTRICT

- B. Straw mulch. Straw of wheat or oats is preferred and shall provide a minimum 1" cover over the seeded and fertilized soil. No soil shall be visible through the straw cover. Hydroseeding is not recommended, but can be permitted in special situations with Owner approval of method and material to be used. Along road ways and other areas where straw could be displaced by wind or traffic, it is recommended to tactify straw with water and/or tactifier solution by spraying otop of straw. Straw blankets can also be used in lieu of tactifying straw.

### 3.02 SEED PROTECTION ON SLOPES AND HIGHLY EROSIIVE SOILS

- A. Cover seeded highly erosive soils and also seeded slopes where grade is 3:1 or greater with jute matting or with Owner-approved erosion control matting. Roll matting down over slopes without stretching or pulling. This includes areas that receive temporary seeding.
- B. Lay matting smoothly on soil surface, burying top end of each section in narrow 6 inches trench. Leave 12 inches overlap from top roll over bottom roll. Leave 4 inches overlap over adjacent section.
- C. Staple outside edges and overlaps at 36 inches intervals.
- D. Lightly dress slopes with topsoil to ensure close contact between matting and soil.
- E. In ditches, unroll matting in direction of flow. Overlap ends of strips 6 inches (150 mm) with upstream section on top.

### 3.03 MAINTENANCE PERIOD

- A. Maintenance Period: Until final acceptance.

### 3.04 MAINTENANCE

- A. Maintain surfaces and supply additional topsoil where necessary, including areas affected by erosion.
- B. Water to ensure uniform seed germination and to keep surface of soil damp.
- C. Apply water slowly so that surface of soil will not puddle and crust.
- D. After first mowing, water grass sufficient to moisten soil from 3 inches to 5 inches deep.
- E. After first mowing, fertilize newly seeded grass with a fertilizer of 30-10-10 or equivalent at a rate of 150 lbs per acre with 50% of the nitrogen in a slow release or organic form. Please advise SRWD representative on the date and time this is to be done, so that a site inspections can verify.
- F. Replant damaged grass areas showing root growth failure, deterioration, bar or thin spots, and eroded areas.
- G. Irrigation: If soil moisture is deficient, supply new seedlings with adequate water for plant growth until they are firmly established. This is especially true when seeding is done late in planting season, in abnormally dry or hot season, or on adverse sites.

3.05 RESTORATION

- A. Restore pavement, concrete, grassed areas, planted areas and all disturbed non-paved areas damaged during execution of all work.

3.06 ACCEPTANCE

- A. Seeded areas will be accepted at end of maintenance period when seeded areas are properly established and otherwise acceptable. There shall be no bare spots larger than 4 inches in any direction, and overall the lawn shall have a minimum cover of permanent grass species of turf type tall fescue, perennial ryegrass, and Kentucky bluegrass of 90%. Annual grass or broadleaf weeds does not constitute permanent grass cover. Areas unacceptable may require weed control measures and "Slit Seeding". Slit seeding shall be done with a piece of equipment that is designed specifically for that purpose with a slit spacing of not more than 3 inches, depth set at not less than ½", and the permanent seed mixture sown at a rate of 200 lbs per acre.

END OF SECTION