



**TECHNICAL SPECIFICATION
FOR
TURFGRASS PLANTING**

Current as of 6-7-2019

1.0 GENERAL CONDITIONS

The requirements of the General Conditions of the Contract shall apply to all work of this Specification with the same force and effect as though repeated in full herein.

1.02 Description of work

1.021 Furnish soil amendments, installation seed and/or sod, and provide maintenance as necessary to provide a healthy and vigorous turf area.

1.022 The extent of sodding and/or seeding is shown on the plans.

1.03 Related work designated in other specifications

Irrigation System, Tree Planting, Hydromulch Seeding

1.04 Product delivery, storage, and handling

1.041 Deliver packaged material to site in original unopened containers with intact labels bearing manufacturer's guaranteed chemical analysis, name, trademark, and conformance to state law.

1.042 Store fertilizer and seed in weather proof locations.

1.043 Protect all materials before, during, and after installation. Sod shall be stored and maintained in a moist condition from the time of harvest until planted.

1.044 Remove from site, all materials which do not comply with the specified requirements.

1.045 In the event of damage, immediately make repairs and replacements as necessary, at no additional cost to the Owner.

1.05 Special provisions

1.051 *Maintenance* (General): Until final acceptance and a stand of grass is achieved, Contractor must maintain lawn by mowing, edging, watering, cultivating, weeding, spraying, cleaning, and replacing as necessary to keep grass in a vigorous, healthy condition.

1.052 *Watering*: As necessary to keep top two inches of soil moist. It shall be the responsibility of the Contractor to ensure proper operation of the existing irrigation system, and program a temporary watering schedule for grass establishment. If there is no irrigation system present, Contractor shall provide

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a means to irrigate, which may include a temporary irrigation system for the turf establishment as designated on plans.

- 1.053** *Weeding:* Remove weeds and foreign grass from newly established areas at least once a week. Herbicides may be used only when approved by Owner.

1.06 **Submittals**

- 1.061** Submit sources of grass sod and/or seed as specified on the plans, and provide certification that the specified grass types are available.

- 1.062** Submit a planting schedule indicating anticipated dates and locations. This may be submitted as part of the landscape and tree planting schedule.

1.07 **Quality assurance**

- 1.071** *Qualifications of Workmen:* Contractor shall provide an experienced full time supervisor who shall be present at all times during execution of this portion of the work, who shall be thoroughly familiar with the type of materials being installed and the proper methods for their installation, and who shall direct all work performed under this Specification.

- 1.072** *Equipment:* All equipment shall be suitable for the project and in good operational condition.

- 1.073** *Inspection:* Seed, fertilizer and other packaged materials shall be delivered to project in original and unopened containers, labeled to indicate product identification, manufacturer's name, address, weight, certified analysis and indication of conformance with state and federal laws, as applicable. Materials must be inspected and approved by Owner's Representative prior to use. Containers shall be stored protected from ground contact and from the elements.

- 1.074** *Standards:* All plants and planting material shall meet or exceed the specifications of Federal, State, and County laws requiring inspection for plant disease and insect control.

- 1.075** *Materials Lists:* Within 10 days after award of the Contract, Contractor shall submit a complete list of all materials proposed to be furnished and installed under this Specification, demonstrating complete conformance with the requirements specified.

- 1.076** *Certificates:* Deliver all certificates to the Owner.

1.08 Job conditions

Areas to be grassed may be under automatic irrigation. Locations of irrigation components shall be determined by the Contractor to prevent damage. Any damage to existing irrigation shall be repaired by the Contractor at his/her expense. All repairs must be inspected and approved by Owner. Refer to City of Plano Irrigation System Technical Specifications.

1.09 Guarantee

1.091 Dead or discolored sod shall be replaced by the Contractor. Seeded areas that have not established must be re-seeded by the Contractor until a complete cover of grass in a healthy and thriving condition is achieved.

1.092 It is the responsibility of the Contractor to repair any damage made during re-grassing.

2.0 MATERIALS

2.01 Grass sod

Grass sod shall be cut with a full $\frac{3}{4}$ " heavy clay soil covering no more than 24 hours prior to planting and be maintained in a moist condition from the time of harvest until planted. Grass sod shall have a healthy and dense root system and be free from noxious weeds. Sod which has become discolored will be rejected and removed from site. Grass sod types are as specified on the plans.

2.02 Grass seed

Grass seed shall be from previous season's crop meeting the Texas Seed Law, including testing and labeling for pure live seed (PLS = Purity x Germination). Furnish designated species, in labeled unopened bags or containers for inspection by Owner's representative. Seed shall be used within 12 months from the date of the season harvested.

2.03 Top Soil

When additional topsoil is needed, the Soil Texture Class shall be Loam, Sandy Clay Loam, or Sandy Loam in accordance with the USDA texture triangle. 100% of soil shall pass through a 0.375-inch ($\frac{3}{8}$ ") screen. Top soil should not contain admixtures of subsoil, refuse, or foreign materials. It shall be reasonably free from roots, hard clay, coarse gravel, stones larger than one inch in any dimension, weeds, tall grass, brush, sticks, stubble or other material which would be detrimental to the proper development of vegetative growth. Top soil should not be salvaged from job site unless it can be shown

to meet the standards set out in this specification. Refer to plans for depth and quantities.

2.04 Fertilizer

Provide a complete commercial 4:1:2 fertilizer, with a 50% slow release nitrogen source. Provide a copy of the manufacturer's guaranteed fertilizer analysis. If stored on site, protect fertilizer from the elements at all times.

2.05 Post-emergent herbicide

A product containing 41% Glyphosate shall be used only for weed removal during soil preparation prior to planting. Use at rates per manufacturer's recommendations for existing weeds found on site.

3.0 EXECUTION

3.01 General

3.011 Examine the areas and conditions under which work of this Specification will be performed. The Contractor shall receive the site at $\pm 0.10'$ of final grade unless otherwise specified on plans or contract documents. Correct conditions detrimental to the proper and timely completion of the work.

3.012 The Contractor shall inspect the site prior to commencing the work. Any problems or deficiencies shall be brought to the attention of the Owner's Representative and repaired by the installing Contractor prior to proceeding with grassing operations.

3.013 The Contractor shall inspect the irrigation system, if any, before beginning fine grading and then again before grassing to ensure proper working order.

3.02 Fine grading and seedbed preparation

3.021 Remove all debris including construction residues, rocks and tree stumps. Undesirable grasses and weeds shall be removed with post-emergent herbicide no less than 14 days prior to soil preparation and fine grading.

3.022 By using a drag float and hand grading, break up lumps and produce a smooth, even grade free from unsightly variations, ridges, ruts, depressions, and humps. Render soil loose and finely pulverized. Do not till soil.

3.023 Remove and dispose (off site) all rocks (including surface stones) and clods one inch or larger. Also, remove all sticks, roots, and other debris exposed during seed lawn area preparation.

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- 3.024** The Contractor shall ensure all final grade contours and slopes are maintained, allowing for positive drainage in all grass areas. Receive approval for fine grading from Owner's Representative before installing grass.
- 3.025** Leave all graded areas approximately ½" below finished paved surfaces at edges only.
- 3.026** Protect graded areas from traffic, compaction, and erosion. Keep areas free from trash and debris. Repair and re-establish grades in settled, eroded, or damaged areas.

3.03 Grass sodding

- 3.031** The Contractor shall flag locations of existing underground components or equipment, including sprinkler heads and valve boxes, in order to prevent damage.
- 3.032** Fertilize areas to be sodded at the rate of ½ to 1 lb. N per 1000 square feet, or label requirement.
- 3.033** Run irrigation system prior to planting. Place sod on moist, but not muddy, soil.
- 3.034** Lay sod with staggered joints and with seams tightly fitted together. Do not cover any existing sprinkler heads or valve boxes. When laying sod adjacent to existing turf, the Contractor shall maintain a smooth transition, with no overlap or visible edges. Water thoroughly after laying sod.
- 3.035** Sod shall be stapled on sloped areas where required as designated on plans.
- 3.036** Roll sod after laying with a 200 lb. hand roller. Roll in crossed directions. Repeat rolling operation two days after laying. Use of mechanical rollers must be approved by Owner's Representative.
- 3.037** Sod which is discolored or dehydrated will be rejected and replaced at no cost to the Owner.

3.04 Grass seeding

- 3.041** The Contractor shall flag locations of existing underground components or equipment, including sprinkler heads and valve boxes, in order to prevent damage.
- 3.042** On small sites, seed can be broadcast with a hand seeder or fertilizer spreader. Equipment such as grass drills or planters may be necessary for

larger sites. Use of such equipment must be approved by Owner's Representative.

- 3.043** Grass seed shall be uniformly distributed at recommended seeding rates. Immediately after seeding, the Contractor shall firm the soil with a roller and lightly water the site. Contractor shall set irrigation program to apply water in light, frequent applications. Contractor shall re-seed areas that have washed and have resulted in a non-uniform stand of grass.

3.05 Protection

No heavy equipment shall be moved over the planted turf areas unless the soil is again prepared, graded, leveled, and replanted. It will be the responsibility of the Contractor to protect all paving surfaces, curbs, utilities, plant materials, and any other existing improvements from damage. All damage shall be repaired or replaced at no cost to the Owner.

3.06 Performance

- 3.061** Establish dense areas of permanent grasses, free from lumps and depressions. Replant any part of the areas that fail to show uniform growth. In seeded areas, repair rills, bare areas, and washouts immediately and re-seed to maintain permanent cover.

- 3.062** The Contractor shall establish grass and maintain the sodded or seeded area, including watering, until a "Stand of Grass" is obtained. A "Stand of Grass" shall consist of 95% to 100% coverage and a minimum of 1½ inches in height. If a "Stand of Grass" has not been established within four weeks, re-sodding or re-seeding shall be required. Re-grading, re-sodding and re-seeding will be required in all washed areas and areas that do not grow.

- 3.063** Request final provisional acceptance of lawn when the above requirements have been met. Continue maintenance of all lawn areas until final acceptance is given by the Owner's Representative. Continued maintenance shall include mowing, edging, watering, fertilizing, and repair of eroded areas as required to keep grass in a healthy, thriving condition.

3.07 Cleanup

During work, keep premises neat and orderly including organization of storage areas. Remove daily, trash and debris resulting from preparation and planting as work progresses. Keep walk and driveway areas clean by sweeping or hosing. Leave site in a broom-clean condition. Excess material or debris brought onto the site or unearthed during grassing operations shall be removed and disposed off site.