

SECTION 32 93 23 – SODDING

PART 1 GENERAL

1.01 DESCRIPTION

- A. Provide sodded lawns as shown and specified. The work includes:
 - 1. Topsoil installation.
 - 2. Soil preparation.
 - 3. Sodding lawns.
 - 4. Maintenance.

1.02 RELATED WORK

- A. Section 32 84 00 IRRIGATION SYSTEM (design build by owner)
- B. Section 32 91 00 PLANT MATERIALS AND PLANTING
- C. Section 32 91 13 SOIL PREPARATION - TOPSOIL

1.03 QUALITY ASSURANCE

- A. Sod: Comply with American Sod Producers Association (ASPA) classes of sod materials.

1.04 SUBMITTALS

- A. Submit the following test reports to the Landscape Architect and Owner.
 - 1. Soil analysis including:
 - a. Chemical analysis to include:
 - pH factor
 - Soluble salts
 - Herbicide residue
 - b. Mechanical analysis (composition)
 - c. Percentage of organic content
 - d. Recommendations on type and quantity of additives required to establish satisfactory pH and bring supply of nutrients to satisfactory level for planting.
 - 2. All soil testing shall be done at the expense of the Contractor.
 - 3. If topsoil test results fail to meet the specifications, it shall be adjusted and retested, or another source secured, tested and submitted for approval.
 - 4. Current year copy of Virginia Crop Improvement Association (VCIA) recommendations for seed and sod types for Richmond Area.
- B. Certificate of crop purity from sod producer.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Cut, deliver, and install sod within a 24-hour period.
 - 1. Do not harvest or transport sod when moisture content may adversely affect sod survival.
 - 2. Protect sod from sun, wind, and dehydration prior to installation.
 - 3. Do not tear, stretch, or drop sod during handling and installation.

1.06 PROJECT CONDITIONS

- A. Work notification: Notify Landscape Architect at least forty-eight (48) hours prior to start of sodding operations.
- B. Protect existing utilities, paving, and other facilities from damage caused by sodding operations.
- C. Perform sodding work only after planting and other work affecting ground surface has been completed.
- D. Restrict traffic from lawn areas until grass is established. Erect signs and barriers as required.
- E. Provide hose and lawn watering equipment as required.

1.07 WARRANTY

- A. Provide a uniform stand of grass vigorously growing by watering, mowing, and maintaining lawn areas until final acceptance. Resod areas with specified materials, which fail to provide a uniform stand of grass until all affected areas are accepted by the Landscape Architect. Contractor shall guarantee and maintain the lawn until a final acceptance inspection has been completed and a Certificate of Acceptance is issued.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Sod: Nursery grown; types as called for on drawings or specifications. Provide well-rooted, healthy sod, free of weeds, diseases, nematodes and soil borne insects. Provide sod uniform in color, leaf texture, density and free of weeds, undesirable grasses, stones, roots, thatch, and extraneous material; viable and capable of growth and development when planted.
 - 1. Grass sod shall be well established mown lawn grass turf. The sod shall be a grass of Fescue blend, Jaguar III, Guardian, Shortstop, Monarch, Pixie and other category1 (VCIA) Virginia Crop Improvement Association fescue blended for Tidewater area). It shall be vigorous, well-rooted, healthy turf, free from disease, insect pests, weeds, other grasses, stones, and any other harmful or deleterious matter.
 - 2. Sod shall be machine stripped at a uniform soil thickness of approximately 1 inch (+ or - 1/4 inch). The minimum acceptable solid thickness shall be 3/4 inches. The measurement for thickness shall exclude top growth and thatch and shall be determined at the time of cutting in the field.

3. Sod shall be rolled or folded prior to lifting. Handling of sod shall be done in a manner that will prevent tearing, breaking, drying, or any other damage.
- B. Fertilizer:
1. Fertilizer shall be 13-25-12 at a rate according to manufacturer's and sod producers recommendation.
- C. Water: Free of substance harmful to sod growth. Hoses or other methods of transportation furnished by Contractor.
- D. Topsoil shall be furnished by the Landscape Contractor at his expense. Existing stockpiled (if available) topsoil can be used in planting areas by the contractor upon approval of landscape architect. Contractor shall test stockpiled topsoil and amend topsoil for pH, drainage capabilities and for organic qualities suited to provide organic topsoil. Soil testing shall be accomplished by a soil testing lab sponsored and run by the State (Commonwealth) of Virginia or other suitable lab on approval. The Contractor shall furnish sufficient topsoil to properly install all work as specified herein, and as shown on the drawings. If topsoil, meeting the stated requirements herein, is present on the site after herbicide application and tilling processes, then no additional topsoil will be required to be brought onto site. Topsoil furnished shall be a natural, fertile, friable soil, possessing characteristics of representative productive soils in the vicinity. It shall be obtained from naturally well-drained areas. It shall have a pH of between 6.0 and 6.8 and be free of toxic substances which may be harmful to plant growth. Topsoil shall be without admixture of subsoil and shall be cleaned and reasonably free from clay lumps, stones, stumps, roots, and similar substances two inches or more in diameter, debris, or other objects which might be a hindrance to planting operations. Soil to be from the Greenbrier region of Chesapeake, or Isle of Wight Materials, P.O. Box 216, Carrollton, Virginia 23314, or equal.
- E. Lime: All fine graded soiled areas to be sodded are to be limed with "Hi-Calcium Lime" at a rate of 12-15 lb. to 100 square feet, achieving a soil pH of 6.5 - 6.9. "Hi-Calcium lime" is available from: Necessary Trading Company, New Castle, Virginia 24127 (703) 864-5103. Lime to be "scratch raked" into surface of soil.

PART 3 EXECUTION

3.01 INSPECTION

- A. Examine finish surfaces, grades, topsoil quality, and depth.
Do not start sodding work until unsatisfactory conditions are corrected.
- B. Sod shall be installed in place on the site not more than twenty-four (24) hours after cutting.
- C. Soil Sterilants: No sod shall be placed on soil which has been treated with soil sterilants until sufficient time has elapsed to permit dissipation of toxic effects. The contractor shall assume full responsibility for any loss or damage to sod arising from improper use of such sterilants or due to his failure to allow sufficient time to permit dissipation of toxic effects, whether or not such sterilants are specified herein.

3.02 PREPARATION

- A. Limit preparation to areas which will be immediately planted.
- B. Loosen topsoil of lawn areas to be planted. Remove stones over 1" in any dimension and sticks, roots, rubbish, and extraneous matter.

- C. Grade lawn areas to smooth, free draining and even surface with a loose, uniformly fine texture. Roll and rake; remove ridges and fill depressions as required to drain.
- D. Apply fertilizer at the rate of 50 lbs. per 1,000 sq. ft. nitrogen per 1,000 sq. ft. or as per manufacturer's recommendation.
- E. Restore prepared areas to specified condition if eroded, settled, or otherwise disturbed after fine grading and prior to sodding.
- F. Three (3) applications of systemic herbicide ('Round-Up') shall be applied at 7-10 day intervals to all existing bermuda grass/weeds on site *prior* to fine grading and sodding. Herbicide shall be applied only when air temperature is above 60 degrees (Fahrenheit) and no less than 4 hours before a rain event or sundown.

3.03 INSTALLATION

- A. Sodding:
 - 1. Lay sod to form a solid mass with tightly-fitted joints. Butt ends and sides of sod strips. Do not overlay edges. Stagger strips to offset joints in adjacent courses. Remove excess sod to avoid smothering of adjacent grass. Provide sod pad top flush with adjacent curbs, sidewalks, drains, and seeded areas.
 - 2. Sod shall be laid parallel to the direction of the slope and in a manner which will permit joints to alternate. Sod to be rolled in with a "water weight" roller after laying.
 - 3. Sod pieces shall be fitted together tightly in that no joint is visible, and sod tamped firmly and evenly by hand. Sod shall be staked on all slopes greater than 3:1.
 - 4. Do not install sod on saturated or frozen soil.
 - 5. Water sod lightly with a fine spray immediately after laying.
 - 6. Roll with a water filled, commercial lawn roller to ensure contact with subgrade.
 - 7. Immediately following rolling, the sod shall be watered thoroughly.

3.04 MAINTENANCE

- A. Maintain sodded lawns until final acceptance of the project.
- B. Maintain sodded lawn areas, including watering, spot weeding, mowing, application of herbicides, fungicides, insecticides and resodding until a full, uniform stand of grass free of weed, undesirable species, disease, and insects is achieved and accepted by the Landscape Architect.
 - 1. FESCUE SOD: Mowing shall be accomplished in areas planted by Contractor when grass reaches a height of 3 ½ inches. Height of cutting shall be 2 to 2 ½ inches.
 - 2. Repair, rework, and resod all areas that have washed out or are eroded. Replace undesirable or dead areas with new sod.
 - 3. The contractor must perform all remedial work within five (5) days of

notification from the Owner's representative.

3.05 ACCEPTANCE

- A. Work will be inspected at completion of installation and accepted subject to compliance with specified materials and installation requirements.
- B. Inspection to determine acceptance of sodded lawns will be made by the Landscape Architect, upon Contractor's request. Provide notification at least two (2) working days before requested inspection date.
 - 1. Sodded areas will be acceptable provided all requirements including maintenance, have been complied with, and a healthy, even colored viable lawn is established, free of weeds, undesirable grass species, disease and insects.
- C. Upon acceptance, the Owner will assume lawn maintenance.

3.06 CLEANING

- A. Perform cleaning during installation of the work and upon completion of the work. Remove from site all excess materials, debris, and equipment. Repair damage resulting from sodding operations.

END OF SECTION