SECTION 32 92 19

SEEDING, WEED CONTROL & EROSION CONTROL
Last Updated: March 3, 2014

Part 1 GENERAL

1.1 SECTION INCLUDES

A. Requirements regarding seeding, weed control and erosion control on DISTRICT lands or interest in lands.

1.2 GENERAL

A. Native grasses, sod, landscape fabrics (weed control), and erosion control blankets are generally approved on DISTRICT lands or interest in lands.
B. Installation of the aforementioned items on DISTRICT lands or interest in lands shall be as per License Agreement or Contract Document requirements.

Part 2 PRODUCTS

2.1 NATIVE GRASS SEED MIXTURES

A. Seed shall conform with applicable City, County, State, and Federal regulations. Seed shall be mixed by dealer. The CONTRACTOR or Licensee shall furnish proposed seed mix to DISTRICT for approval prior to installation.
B. Grass seed shall be fresh, clean, new-crop seed.
C. Seed mix shall contain grasses which do not exceed 2 feet in height when fully mature.
D. Grasses shall be of a drought tolerant type where possible.
E. A typical seed grass mixture is a follows:
    1. Thickspike Wheat Grass 30%; Sheep Fescue 20%; Indian Ricegrass 30%; Streambank Wheatgrass 20%.

2.2 SOD

A. Details of sod type and installation shall be defined during License Agreement process.
B. Typical sod types include:
    1. Tall Dwarf Fescue (Turf Type)
    2. K 31 Kentucky Bluegrass Blend
    3. Or Equal as approved by DISTRICT

2.3 WEED CONTROL

A. Landscape fabric for the purposes of weed control shall be Woven Weed Restrictor Plus or equal.
B. The CONTRACTOR or Licensee shall submit a fabric sample measuring a minimum of one foot by one foot for approval by the DISTRICT. The landscape fabric shall meet at a minimum the following properties.

Fabric Properties		Test Method
1.	Unit weight	4.7 oz. Per Sq. Yd. ASTM-D3776
2.	Puncture Strength	50 pounds ASTM-D751
3.	Mullen Burst Strength	250 ASTM-D3786
4.	Thickness (mils)	28 ..... ASTM-1777
5.	Trap Tear	40 pounds ASTM-D4533
6.	Water Flow Rate (gpm/ft^2)	7 ..... ASTM-D4491
7.	Construction (epi x ppi)	22 x 10.5
8.	UV Resistance (%)	70% ..... ASTM D4365
9.	Tensile strength (lbs)	125 x 90
10.	Material	Polypropylene

2.4 EROSION CONTROL BLANKET

A. Erosion Control Blanket shall be SC150 (straw/coconut fiber) as manufactured by **North American Green**; CS2 (straw/coconut fiber) as manufactured by **BonTerra America**, or DISTRICT-approved equivalent.

B. Erosion control blanket shall be machine-produced mat consisting of 70% agricultural straw and 30% coconut fiber.

C. The blanket shall be of consistent thickness with the straw and coconut fiber evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with polypropylene netting having an approximate 5/8"x5/8" mesh containing ultraviolet additives to resist breakdown, and on the bottom with a polypropylene netting with an approximate 1/2"x1/2" mesh. The blanket shall be sewn together with cotton, biodegradable or photodegradable thread.

D. Erosion control blanket shall meet the following minimum requirements.

Straw	70% weed free straw, 0.35 lb./sq. yd. (0.19 kg/m^2)
Coconut Fiber	30% 0.15 lb./sq. yd. (.08 kg/m^2)
Netting	One side lightweight photodegradable
	One side heavyweight photodegradable
Roll Width	6.5 feet (2 meters)
Roll Length	83.3 feet (25.4 meters)
Roll Weight	30 lbs.± 10% (13.6 kg)
Roll Area	60 sq. yds. (50m^2)

E. Anchorage devices shall be of the proper length as recommended by the manufacturer for specific soil conditions.

Part 3 EXECUTION

3.1 GENERAL

A. The landscape work shall not be performed at any time when it may be subject to damage by climatic conditions.

B. The CONTRACTOR or Licensee shall provide temporary fencing, barricades, covering, or other protections to preserve existing landscaping items indicated to remain and to protect the adjacent properties and other structures when they may be damaged by the landscape work.

C. The CONTRACTOR or Licensee shall protect structures, sidewalks, pavements, existing irrigation system, and other facilities that are subject to damage during landscape work. Open excavations shall be provided with barricades and warning lights which conform to the requirements of governing authorities and the State's OSHA safety requirements from dusk to dawn each day and when needed for safety.

3.2 SOIL PREPARATION

A. The landscape work shall not proceed until after walks, curbs, pavings, edging, and irrigation systems are in place. WORK under the Contract shall be completed to a point where the landscape areas will not be disturbed. The subgrade shall be free of waste materials of all kinds.

B. During grading, waste materials in the planting areas such as weeds, rocks 3-inches and larger, building materials, concrete rubble, wires, cans, glass, lumber, masonry, sticks, etc., shall be removed from the Site. All weeds shall be dug out by the roots.

C. Fertilizers, soil additives, seed, etc. subject to moisture damage shall be kept dry in a weatherproof storage place.

D. After removal of waste materials, the planting and sod area subgrade shall be scarified and pulverized to a depth of not less than 6 inches, and all surface irregularities below the cover of topsoil shall be removed.

E. Finish grading shall consist of:

1. Final contouring of the planting areas.
2. Removal of 6 inches of hardpan material and placement of 4 inches of imported, amended topsoil over all areas to be planted, deeded or sodded unless indicated otherwise.
3. Placing all soil additives and fertilizers.
4. Tilling of planting areas.
5. After tilling, bringing areas to uniform grades by floating and/or hand raking.
6. Making minor adjustment of finish grades as directed by the ENGINEER.
7. Removing waste materials such as stones, roots, weeds or other undesirable foreign material and raking, disking, dragging, and smoothing soil ready for planting.
8. Finished grades shall be one inch below the top of curbs, sills and walkways in all areas for seed, one and a half inches for sod and 3 inches for areas with mulch or groundcover.
9. Finished grades shall be smoothed to eliminate puddling or standing water.

F. Surface drainage shall be provided as indicated by shaping the surfaces to facilitate the natural run-off of water. Low spots and pockets shall be

filled with topsoil and graded to drain properly.

G. Finish grade of all planting areas shall be 1-1/2 inches below finish grade of adjacent pavement of any kind.

3.3 GENERAL SEEDING

A. Weather Conditions: Fertilizing, seeding, or mulching operations will not be permitted when wind velocities exceed 5 miles per hour or when the ground is frozen, unduly wet, or otherwise not in a tillable condition. Seeding shall not be conducted when temperatures exceed 80°F. In general, seeding shall take place between October 15 and December 15, or as approved by the DISTRICT.

B. Seeding surface shall be raked smooth prior to seeding.

C. Soil Preparation: The ground to be seeded shall be graded in conformance with the Drawings and shall be loose and reasonably free of rocks greater than 2 inch by 2 inch by 2 inch in size, roots, and other material which will interfere with the work.

D. Method of seeding shall be Hydroseeding or equal approved by DISTRICT.