

1.0 GENERAL

1.1 SEEDING PRODUCT DELIVERY, STORAGE AND HANDLING

- .1 Deliver grass seed, fertilizer, mulch and other materials in standard containers, clearly marked with contents, weight, analysis and name of supplier or manufacturer.
- .2 In case of grass seed show quantities of different types of seed mixture as well as the original seed lot number tag complete with supplier's name.

1.2 JOB CONDITIONS

Proceed with seeding operations only during favourable weather conditions and in accordance with good horticultural practice.

1.3 INSPECTION

- .1 Make all materials available for inspection, upon arrival on the site, or at source of supply when requested.
- .2 Give one (1) working day notice to the Project Manager when materials are available for inspection.
- .3 Arrange for an inspection by of the Project Manager of the finished topsoil preparation before proceeding with seeding.
- .4 Where a hydro-seeding method is used, notify the Project Manager one (1) working day before loading seeder and allow for an inspection by the Project Manager at location of loading operation. Also provide all identification labels from materials placed in hydro-seeder. Failure to notify the Project Manager before loading occurs could result in rejection of the seeding operation. The Project Manager reserves the right to waive loading inspection at his discretion.
- .5 Installation of seed prior to inspection by the Project Manager shall be the Contractor's responsibility. The Project Manager reserves the right to reject seed, after it has been installed, if seed does not conform to specifications.
- .6 Remove all rejected materials from site immediately.

1.4 **MATERIALS**

.1 **Grass Seed** - Certified Canada No. 1 seed, having a minimum purity of 97% and germination of 75%, meeting the requirements of the Seeds Act and mixed as specified below:

.1 **MIX A – Natural Area:** A coarse grass seed for restoration of natural areas where an irrigation system is not available, a grass mixture of:

- 23% Plains Rough Fescue
- 13% Blue Gramma
- 13% Porcupine Grass
- 10% Northern Wheatgrass (Walsh)
- 10% Western Wheatgrass (Elbee)
- 9% Indian Ricegrass
- 8% Sand Grass
- 8% Green Needle Grass
- 3% Oats
- 2% June Grass
- 1% Sand Dropseed

Apply seed at a rate of no less than 70 kg/ha.

.2 **MIX B – Previously Disturbed:** A coarse grass seed for restoration of natural areas that have been previously disturbed and where an irrigation system is not available, a grass mixture of:

- 45% Western Wheatgrass (Walsh)
- 45% Northern Wheatgrass (Elbee)
- 10% Fall Rye

Apply seed at a rate of no less than 70 kg/ha.

.3 **MIX C – Sandy Soil:** A coarse grass seed for restoration of natural areas where an irrigation system is not available and the soil is very sandy, a grass mixture of:

- 22% Western Wheatgrass (Walsh)
- 22% Northern Wheatgrass (Elbee)
- 20% Sheep Fescue
- 14% Junegrass
- 9% Indian Ricegrass
- 8% Sand Dropseed

5% Needle and Thread

Apply seed at a rate of no less than 70 kg/ha.

- .4 **MIX D – Sandy Soil (with Wildflowers):** A coarse grass seed for restoration of natural areas where an irrigation system is not available and the soil is very sandy (with wildflowers), a grass mixture of:

20% Western Wheatgrass (Walsh)
20% Northern Wheatgrass (Elbee)
20% Sheep Fescue
15% Junegrass
9% Indian Ricegrass
8% Sand Dropseed
5% Needle and Thread
3% Wild Flowers

Apply seed at a rate of no less than 70 kg/ha.

- .5 **MIX E – Short Growing:** A coarse grass seed for restoration of natural areas where an irrigation system is not available, a short, slow growing, drought tolerate grass mix:

40% Sheep Fescue
25% Sandbergs Bluegrass
25% Blue Grama
10% Junegrass

Apply seed at a rate of no less than 70 kg/ha.

- .2 Seed of the various species shall be furnished in a mixture in standard containers on each of which the following information shall be clearly shown:

- Supplier's name and address
- Lot Number
- Net Weight
- Names and percentages of individual seed species/cultivars.

- .3 Hydro Seeding

- .1 Mulch: Approved wood fibre mulch manufactured from whole wood chips and containing no growth or germination inhibiting factors. The following specifications shall apply:

Percent moisture content	10.0%;
Percent organic matter	99.2%;
Percent ash content	8.0%;
Ph	4.8
Water holding 1,000 gms/100 gms of fibre;	

Percent of moisture content is determined in accordance with the Canadian Pulp and Paper Association, Technical Section Standard A.2.

- .2 Tackifier: Acceptable colloidal polysaccharide tackifier, adhering to mulch ring manufacturing, non-toxic and without growth or germination inhibiting factors.
- .4 Topsoil shall be friable, neither heavy clay nor of very light sandy nature, consisting of approximately 45% sand, 35% silt, 20% clay and a pH value ranging from 6.5 to 7.5. Topsoil shall be free from subsoil, roots, vegetation, debris, toxic materials, and stones over 25mm (one inch) in diameter.

2.0 EXECUTION

2.1 PREPARATION

- .1 A minimum depth of 150 mm (6 inches) of topsoil shall be placed on all sites where the topsoil has been stripped. Provide a finished topsoil surface that is smooth and firm with a fine loose texture.
- .2 Scarify subgrade to 75 mm. Where area is severely compacted, scarify to 200 mm.
- .3 Surface of topsoil free of rocks over 25 mm in diameter, weeds and debris.
- .4 Ensure that finished grade meets flush and smooth with adjacent grades and surface structures such as curbs, manholes, sidewalks, etc.

2.2 INSTALLATION

- .1 Preferably do all seeding as weather permits, when wind speeds are minimal and site conditions are approved by Project Manager. Seeding to take place no later than October 30 of the current year unless a later seeding date is approved by the Project Manager. Dormant seeding is preferred.

- .2 The following means of applying seed is acceptable to the Owner:
 - .1 hydro-seeding
 - .2 mechanical or "Brillion" seeding
 - .3 drill seeding
- .3 Hand broadcasting of seed shall not be acceptable under any conditions except for isolated repair work.
- .4 Restore to pre-construction condition all hard surfacing, landscaping or facilities that has been damaged or disturbed in any way during the execution of the project, to the satisfaction of the Project Manager.
- .5 Upon completion of all seeding work, arrange for inspection by the Project Manager. Give timely notice for such inspection.
- .6 Protect all newly seeded areas as required.
- .7 Control Noxious Weeds as per municipal and provincial requirements for a period of 2 years.

2.3 MAINTENANCE

.1 GENERAL

Such maintenance shall include all measures necessary to maintain the work including but not limited to the activities noted in this section.

.2 EROSION

Remedy all damages, wash-outs and eroded areas resulting from weather, improper protection or of other causes.

.3 RESEEDING

Reseed all areas which show deterioration, bare spots no larger than 400 cm².

.4 WEED CONTROL

- .1 Seeded areas shall have less than five percent (5%) weed cover. Weeds prohibited by the Weed Control Bylaw (No. 2758) shall not be permitted.

.2 Control of noxious weeds as per municipal and provincial legislation.

.5 **MOWING**

Mow and trim all coarse grass seeded areas as required to control weed growth. Areas shall continue to be mowed and trimmed until the coarse grass is in a healthy, vigorous growing condition.

2.4 INSPECTION

Upon completion of the seeding and site clean up, the contractor shall contact the Project Manager and arrange for an inspection.

END OF SECTION