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| Version | Date | Description of Revisions |
| 1 | August 30, 2006 | Approved final document. |
| 2 | October 16, 2007 | Minor revisions by Legal Services. |
| 3 | November 13, 2009 | Modified ‘Related Section’ |
| 4 | June 5, 2012 | Addition of References and Replacement Parts sections on this page |
| 5 | June 29, 2012 | Reformatted to Remove White Space |
| 6 | August 7, 2013 | New Format |
| 7 | November 18, 2013 | AV review – note: recommendation to retire this specification. |
| 8 | February 17, 2015 | Designer note that Compost Seeding is preferred method for establishing groundcover. Spec to be retained in the event that Compost Seeding is unsuitable for site. |
| 9 | April 2, 2015 | AAM addressed Legal Comments-1st Review |
| 10 | June 16, 2015 | AAM addressed Legal Comments-2nd Review |
| 12 | September 10, 2015 | Updated, Finalized Specification – Reference eDOCS #5972161 v5 (AAM) |
| 13 | March 31, 2020 | 1.3.3 added  3.2.4 revised (BM) |

NOTE:

This is a CONTROLLED Document. Any documents appearing in paper form are not controlled and should be checked against the on-line file version prior to use.

**Notice:** This Document hardcopy must be used for reference purpose only.

**The on-line copy is the current version of the document.**

*[****Note to Consultant****:  Section 02934 Compost seeding is the Region’s preferred methodology for seed application. However, alternatives may be considered on a site specific basis and in consultation with the Region’s Environmental Specialists.]*

# GEneral

## *[Note to Designer: Specification Section 02934 - Compost Seeding is the Region’s preferred method for establishment of Groundcover. This specification is maintained in the event that Specification Section 02934 - Compost Seeding cannot be used.]*

## Related Sections

### *[Under "Related Sections", identify other Sections that are related to, and/or dependent on, the work results or information specified elsewhere. The list should be limited to Sections with specific information that the reader might expect to find in this Section, but is specified elsewhere. For example, if hardware for aluminum entrances is specified in the aluminum entrance Section, a cross-reference would be appropriate in the finish hardware Section. The purpose of this cross-referencing is for information only, to aid in finding those other requirements—not to define the scope of the Section.*

### *Cross-referencing here may also be used to coordinate assemblies or systems whose components may span multiple Sections and which must meet certain performance requirements as an assembly or system.*

### *Contractor is responsible for coordination of the Work.*

### *This Section is to be completed/updated during the design development by the Consultant. If it is not applicable to the section for the specific project it may be deleted.]*

### *[List Sections specifying installation of products supplied but not installed under this Section and indicate specific items.]*

### .1 Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Execution requirements for ...[item]... specified under this Section.

### *[List Sections specifying products installed but not supplied under this Section and indicate specific items.]*

### .2 Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: Product requirements for ...[item]... for installation under this Section.

### *[List Sections specifying related requirements.]*

### .3 Section [\_\_\_\_\_\_ – \_\_\_\_\_\_\_\_\_\_\_\_]: [Optional short phrase indicating relationship].

## Measurement and Payment

*[Choose one of the following payment language provisions that best suits the individual project.*

*If this Section is not specifically referenced by an item in the Bid Form, please use the following language:*

### The work of this Section will not be measured separately for payment. All costs associated with the work of this Section shall be included in the Contract Price.

*OR If this Section is specifically referenced in the Bid Form, use the following language and identify the relevant item in the Bid Form:*

### All costs associated with the work of this Section shall be included in the price(s) for Item No(s). \_\_\_ in the Bid Form.

*If the work of this Section is to be measured and paid for by several different methods, please amend the standard wording given above to reflect the different methods of measurement and payment.*]

## Product Data

### Submit Product data in accordance with Section 01300 – Submittals.

### Provide Product data for:

#### Seed.

#### Mulch.

#### Tackifier.

#### Fertilizer.

### A valid Certificate of Seed Analysis from a seed testing laboratory shall be provided in advance to the Consultant 24 hours prior to any seeding operations for all seed mixtures.

### Submit the following in writing to the Consultant a minimum of 5 Working Days prior to commencing the work of this Specification Section:

#### Volume capacity of the hydraulic seeder in litres.

#### Amount of material to be used per tank based on volume.

#### Number of tank loads required per hectare to apply the specified slurry mixture per hectare.

## Scheduling

### Schedule hydraulic seeding to coincide with preparation of the soil surface.

### Schedule hydraulic seeding using grass mixtures and mixtures containing Crownvetch seeds and Trefoil seeds between the dates recommended by the Ontario Ministry of Agriculture, Food and Rural Affairs.

# PRODUCTS

## Materials

### Seed: "Canada pedigreed grade" in accordance with the Seeds Act, R.S.C. 1985, c. S-8 and Seeds Regulations, C.R.C., C. 1400.

#### Grass mixture:

##### 45% Creeping Red Fescue

##### 15% Tall Fescue

##### 15% Hard Fescue

##### 5% Chewing Fescue

##### 20% Perennial Ryegrass

#### Legume mixture: "Certified", "Specialty Seed", "Canada No. 1 " in accordance with the Seeds Act and Seeds Regulations.

### Mulch: specially manufactured for use in hydraulic seeding equipment, non-toxic, water activated, green colouring, free of germination and growth inhibiting factors, and with the following properties:

#### Type I mulch:

##### Made from wood cellulose fibre.

##### Organic matter content: 95% plus or minus 0.5%.

##### Value of pH: 6.0.

##### Potential water absorption: 900%.

#### Type II mulch:

##### Made from newsprint, raw cotton fibre and straw, processed to produce fibre lengths a minimum of 15 mm and a maximum of 25 mm. Greater proportions of ingredients are to be straw.

### Tackifier: water dilutable, liquid dispersion.

### Water: free of impurities that would inhibit germination and growth.

### Fertilizer:

#### In accordance with the Fertilizers Act, R.S.C. 1985, c. F-10 and Fertilizers Regulations, C.R.C., C.666.

#### Complete synthetic, slow release with 35% of nitrogen content in water insoluble form.

### Inoculants: inoculant containers shall be tagged with an expiry date.

# EXECUTION

## Workmanship

### Do not spray onto structures, signs, guiderails, fences, plant material, utilities and any areas other than the surfaces intended.

### Clean up immediately, any material sprayed where not intended, to the satisfaction of the Consultant.

### Do not perform the Work under adverse field conditions such as wind speeds over 10 km/h, frozen ground or ground covered with snow, ice or standing water.

### Protect seeded areas from trespass until plants are established.

### Seeding and Mulching shall conform to the conditions in OPSS Table 2 Section 572.0709 unless otherwise specified in the Contract Documents.

## Preparation of Surfaces

### Fine grade areas shall be seeded so that they are free of humps and hollows. Ensure that the areas are free of deleterious and refuse materials.

### Cultivate areas identified as requiring cultivation to a depth of 25 mm.

### Ensure that areas which are to be seeded are moist to a depth of 150 mm before seeding.

### Obtain the Consultant’s approval of the grade and topsoil depth before commencing seeding work. A minimum 150 mm topsoil depth is required for an area to be hydraulic seeded.

## Fertilizing Program

### Fertilize prior to fine grading incorporating fertilizer equally distributed.

### Fertilize during establishment and warranty periods following a program satisfactory to the Consultant.

## Preparation of Slurry

### Measure quantities of materials by weight or weight calibrated volume measurement satisfactory to the Consultant. Supply equipment required for the Work.

### Charge the required water into the seeder. Add material into the hydraulic seeder under agitation. Pulverize mulch and charge it slowly into the seeder.

### After all other material is in the seeder and well mixed, charge the tackifier into the seeder and mix thoroughly to complete the slurry.

## Slurry Application

### Hydraulic seeding equipment:

#### The agitation system for the slurry shall be capable of operating during the charging of the tank and during seeding, consisting of recirculation of slurry and/or mechanical agitation method.

#### Capable of seeding by 50 mm hand operated hoses and appropriate nozzles.

#### The tank volume shall be certified by a certifying authority and identified by the authorities’ "Volume Certification Plate".

### Slurry mixture applied per hectare unless shown otherwise on the Contract Drawings:

#### Seed: Grass Legume mixture [350] kg.

#### Mulch: Type [I] [II] [2000]kg.

#### Tackifier: [230] kg.

#### Water: Minimum [30,000] L.

#### Fertilizer: [300] kg, ratio [8:32:16].

#### Fertilizer [250] kg, ratio [0:46:0] *[Project Designer to determine mixture and application rates]*

### Apply slurry uniformly, at the optimum angle of application for adherence to the surfaces and germination of seed.

#### Using the correct nozzle for the application.

#### Using hoses for surfaces which are difficult to reach and to control application.

### Blend the application 300 mm into the adjacent grass areas or sodded areas or previous applications to form uniform surfaces.

### Re-apply where the application is not uniform.

### Remove slurry from items and areas not designated to be sprayed.

### Protect seeded areas from trespass satisfactory to the Consultant.

### Remove protection devices as directed by the Consultant.

## Maintenance During Establishment Period

### Perform the following operations from the time of seed application until acceptance by the Consultant:

### Grass Mixture:

#### Repair and reseed dead or bare spots to allow for establishment of seed prior to acceptance.

#### Mow grass to 50 mm whenever it reaches a height of 70 mm. Remove clippings which will smother grass as directed by the Consultant.

#### Fertilize seeded areas after the first cutting in accordance with the fertilizing program. Spread half of required amount of fertilizer in one direction and the remainder at right angles. Apply sufficient water.

#### Control weeds by mechanical or chemical means utilizing acceptable integrated pest management practices.

#### Water seeded areas to maintain the optimum soil moisture level for germination and continued growth of grass. Control watering to prevent washouts.

### Legume Mixture:

#### Repair minor dead and bare spots as determined by the Consultant to allow for the establishment of seed prior to acceptance by the Region.

#### Water seeded areas to maintain the optimum soil moisture level for germination and continued growth. Control watering to prevent washouts.

#### Fertilizer Program

##### Fertilize during establishment and warranty periods.

## Acceptance

### Seeded areas will be accepted by the Consultant provided that:

#### Plants are uniformly established.

#### Seeded areas are free of rutted, eroded, bare or dead spots.

#### Areas have been mown at least twice.

#### Areas have been fertilized.

### Areas seeded in the fall will achieve final acceptance on May 15th of the following spring, provided that all acceptance conditions are fulfilled to the satisfaction of the Region.

## Maintenance During Warranty Period

### Perform the following operations from the time of acceptance until the end of the warranty period:

#### Repair and reseed dead or bare spots to the satisfaction of the Consultant.

**END OF SECTION**