

PART 1 - GENERAL

1.1 RELATED
SECTIONS

- .1 Section 31 22 13: General Earthwork and Rough Grading.
- .2 Section 32 91 19.13: Topsoil Placement and Grading.

1.2 MEASUREMENT AND
PAYMENT

- .1 Measure hydraulic seeding in square metres including grass mixture, fertilizer and mulch. Areas of blending into existing turf grass or overlaps will not be measured for payment.
- .2 Measurement for Erosion Control Blankets as shown on the Contract Drawings or otherwise directed by the Departmental Representative shall be based on the surface area in square metres placed.

1.3 REFERENCES

- .1 Canadian Nursery Landscape Association (CNLA)
 - .1 Canadian Standards for Nursery Stock, 8th Edition, 2006.
- .2 Ontario Provincial Standard Specifications (OPSS)
 - .1 OPSS 804 (formerly OPSS 572) - Construction Specification for Seed and Cover, Nov 2010.

1.4 SUBMITTALS

- .1 Product Data:
 - .1 Submit product data in accordance with Section 01 33 00.
 - .2 Provide product data for:
 - .1 Seed.
 - .2 Mulch.
 - .3 Tackifier.
 - .4 Fertilizer.
 - .5 Erosion Control Blanket.
 - .3 Submit in writing to Departmental Representative days prior to commencing work:
 - .1 Volume capacity of hydraulic seeder in litres.
 - .2 Amount of material to be used per tank based on volume.
 - .3 Number of tank loads required per hectare to apply specified slurry mixture per hectare.

1.5 QUALITY
ASSURANCE

- .1 Test Reports to be provided by the Contractor: certified test reports showing compliance with specified performance characteristics and physical properties to the satisfaction of the Departmental Representative.
- .2 Certificates to be provided by the Contractor: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements to the satisfaction of the Departmental Representative.
- .3 Pre-Installation Meetings: conduct pre-installation meeting to verify project requirements, installation instructions and warranty requirements.

1.6 SCHEDULING

- .1 Schedule hydraulic seeding to coincide with preparation of soil surface.
- .2 Schedule hydraulic seeding from May 15 to June 15.

1.7 WASTE
MANAGEMENT AND
DISPOSAL

- .1 Separate and recycle waste materials in accordance with Section 01 74 20.
- .2 Divert unused fertilizer from landfill to official hazardous material collections site approved by Departmental Representative.
- .3 Do not dispose of unused fertilizer into sewer systems, into lakes, streams, onto ground or in locations where it will pose health or environmental hazard.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Seed: "Canada pedigree grade" in accordance with Government of Canada Seeds Act and Regulations.
 - .1 Greenfield Mix by Pickseed or approved equal.
 - 30% Creeping Red Fescue
 - 27% Team Jr. Tall Fescue
 - 15% Aubisque Perennial Ryegrass
 - 10% Kentucky Bluegrass
 - 15% Richmond Timothy

(Cont'd)

3% Dutch White Clover

- .2 Seeding Rate: 125 kg/hectare
- .3 Nurse Crop: 10 kg/hectare
- .4 Mulch: specially manufactured for use in hydraulic seeding equipment, non-toxic, water activated, green colouring, free of germination and growth inhibiting factors with the following properties:
 - .1 Type I mulch:
 - .1 Made from wood cellulose fibre.
 - .2 Organic matter content: 95% plus or minus 0.5%.
 - .3 Value of pH: 6.0.
 - .4 Potential water absorption: 900%.
- .5 Tackifier: water dilutable, liquid dispersion.
- .6 Water: free of impurities that would inhibit germination and growth.
- .7 Fertilizer:
 - .1 To Canada "Fertilizers Act" and "Fertilizers Regulations".
 - .2 Complete synthetic, slow release with 35% of nitrogen content in water-insoluble form.
- .8 Erosion Control Blankets:
 - .1 In accordance with OPSS 804 (formerly OPSS 572) requirement.
 - .2 On all slopes 3:1 and steeper.

PART 3 - EXECUTION

3.1 WORKMANSHIP

- .1 Do not spray onto structures, signs, guide rails, fences, plant material, utilities and other than surfaces intended.
- .2 Clean-up immediately, any material sprayed where not intended, to satisfaction of Departmental Representative.
- .3 Do not perform work under adverse field conditions such as wind speeds over 10 km/h, frozen ground or ground covered with snow, ice or standing water.
- .4 Protect seeded areas from trespass until plants are established.

3.2 PREPARATION OF
SURFACES

- .1 Fine grade areas to be seeded free of humps and hollows. Ensure areas are free of deleterious and refuse materials.
- .2 Cultivated areas identified as requiring cultivation to depth of 25 mm.
- .3 Ensure areas to be seeded are moist to depth of 150 mm before seeding.
- .4 Obtain Departmental Representative approval of grade and topsoil depth before starting to seed.
- .5 Placement of topsoil to comply with Section 32 91 19.13.

3.3 FERTILIZING
PROGRAM

- .1 Supply and install 8-32-16 fertilizer at 350 kg per hectare in accordance with OPSS 804. Contractor to submit the application approach two weeks in advance of application for review and approval by the Departmental Representative.

3.4 PREPARATION OF
SLURRY

- .1 Measure quantities of materials by weight or weight-calibrated volume measurement satisfactory to Departmental Representative. Supply equipment required for this work.
- .2 Charge required water into seeder. Add material into hydraulic seeder under agitation. Pulverize mulch and charge slowly into seeder.
- .3 After all materials are in the seeder and well mixed, charge tackifier into seeder and mix thoroughly to complete slurry.

3.5 SLURRY
APPLICATION

- .1 Hydraulic seeding equipment:
 - .1 Slurry tank.
 - .2 Agitation system for slurry to be capable of operating during charging of tank and during seeding, consisting of recirculation of slurry and/or mechanical agitation method.
 - .3 Capable of seeding by 50 m hand operated hoses and appropriate nozzles.
 - .4 Tank volume to be certified by certifying authority and identified by authorities "Volume Certification Plate".

3.5 SLURRY
APPLICATION
(Cont'd)

- .2 Slurry mixture applied per hectare.
 - .1 Seed: Grass mixture 125 kg.
 - .2 Mulch: Type I, 1250 kg.
 - .3 Tackifier: 20 kg.
 - .4 Water: Minimum 30,000 L.
 - .5 Fertilizer: 350 kg, ratio 8-32-16.
- .3 Apply slurry uniformly, at optimum angle of application for adherence to surfaces and germination of seed.
 - .1 Using correct nozzle for application.
 - .2 Using hoses for surfaces difficult to reach and to control application.
- .4 Blend application 300 mm into adjacent grass areas, sodded areas and previous applications to form uniform surfaces.
- .5 Re-apply where application is not uniform.
- .6 Remove slurry from items and areas not designated to be sprayed.
- .7 Protect seeded areas from trespass satisfactory to Departmental Representative.
- .8 Remove protection devices as directed by Departmental Representative.

3.6 MAINTENANCE
DURING
ESTABLISHMENT
PERIOD

- .1 Perform following operations from time of seed application until acceptance by Departmental Representative.
- .2 Grass Mixture:
 - .1 Repair and reseed dead or bare spots to allow establishment of seed prior to acceptance.
 - .2 Fertilize seeded areas 10 weeks after germination provided plants have mature true leaves in accordance with fertilizing program. Spread half of required amount of fertilizer in one direction and remainder at right angles.
 - .3 Control weeds by mechanical or chemical means utilizing acceptable integrated pest management practices.

3.7 ACCEPTANCE

- .1 Seeded areas will be accepted by Departmental Representative provided that:
 - .1 Plants are uniformly established and seeded areas are free of rutted, eroded, bare or dead spots.
 - .2 Areas have been fertilized.
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3.7 ACCEPTANCE
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- .2 Areas seeded in fall will achieve final acceptance in following spring, one month after start of growing season provided acceptance conditions are fulfilled.

3.8 MAINTENANCE
DURING WARRANTY
PERIOD

- .1 Perform following operations from time of acceptance until end of warranty period:
 - .1 Repair and reseed dead or bare spots to satisfaction of Departmental Representative.
 - .2 Fertilize seeded areas in accordance with fertilizing program. Spread half of required amount of fertilizer in one direction and remainder at right angles.

3.9 CLEANING

- .1 Upon completion of installation, remove surplus materials, rubbish, tools and equipment barriers.