

## **PART I - GENERAL**

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|--|----|--|---|---------------|
| <u>1.1 Related Work</u>                            | .1 | Rough Grading  | : | Section 02211 |
|  | .2 | Topsoil and Finish Grading   | : | Section 02212 |
|  | .3 | Hydraulic Seeding  | : | Section 02934 |
| <u>1.2 Scope of Work</u>                           | .1 | This section applies to all areas that are intended to be fine graded and seeded. Areas to be seeded, such as greenbelts, will be identified on the approved working drawings. |   |               |
|  | .2 | Coordinate work in this section with work in all other sections.   |   |               |
| <u>1.3 Product Delivery,<br/>Storage, Handling</u> | .1 | Deliver and store grass seed in original containers showing:   |   |               |
|  | .1 | Analysis of seed mixture   |   |               |
|  | .2 | Percentage of pure seed  |   |               |
|  | .3 | Year of production   |   |               |
|  | .4 | Net mass   |   |               |
|  | .5 | Date when tagged and location  |   |               |
|  | .6 | Percentage germination   |   |               |
|  | .7 | Name and address of distributor  |   |               |
| <u>1.4 Quality Assurance</u>                       | .1 | Contractor   |   |               |
|  | .1 | The contractor shall supervise all work in this section including implementation and all maintenance until acceptance of the works by the City.                                |   |               |
|  | .2 | The contractor shall obtain approvals for suppliers, sub-contractors, and materials to be used in this section of work.  |   |               |
|  | .3 | The contractor / sub-contractor implemented works in this section shall meet the standards of "Landscape Ontario" and shall be approved by the Community Services Department.  |   |               |
|  | .2 | Suppliers  |   |               |
|  | .1 | The seed supplier shall meet the standards and   |   |               |

requirements of the Federal Government of Canada Seeds Act and Regulations.

- .2 Obtain approval of seed source by the Community Services representative and consultant a minimum of 7 days prior to delivery of product to site.
- .3 When proposed source of seed is approved, use no other source without written authorization from the Community Services representative.

#### 1.4 Guarantee

- .1 The contractor shall guarantee all material and workmanship for a period of two years from the date of Preliminary Acceptance by the City.

### **PART II - PRODUCTS**

#### 2.1 Materials

- .1 Grass Seed: Certified Canada No. 1 Grade to Government of Canada Seeds Regulations, and having minimum germination of 95% and minimum purity of 97%. Seed supplied shall be the best quality and approved by the consultant and the City. Seeds shall be furnished on the job in their original sealed packages bearing the brand name of the producer or distributor. Only seeds harvested the preceding season will be accepted. The seed mix, rate of application, and the supplier will be identified on the approved working drawings.
- .2 Water: Potable, free of impurities that would inhibit germination. Contractor is responsible for supplying all water required by the work in this section.
- .3 Fertilizer: Complete synthetic, slow release fertilizer with maximum 10% water soluble nitrogen, ratio 1:2:2, or as required by topsoil testing, and to be applied as specified by the manufacturer/supplier prior to seeding and one month after germination.
- .4 Mulch: Shall be an oat or wheat straw mulch or wood fibre mulch, dry and weed free, including mulch adhesive and applied immediately after the seeding operation.

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- .5 Tackifier: Water dilutable liquid dispersion containing the tackifier emulsion per supplier's recommendations.
  - .6 Sediment Control: To be as per City standards and installed as required by the consultant and City.

### **PART III - EXECUTION**

#### **3.1 Workmanship**

- .1 Ensure site is well drained.
- .2 Clean up soil or debris spilled onto pavement immediately. Dispose of deleterious materials off site.

#### **3.2 Preparation of Surfaces**

- .1 Cultivate areas to be seeded to 150 mm depth. Fine grade seeding bed to be free of humps and hollows, free of rocks larger than 25 mm in diameter, and all deleterious and refuse material.
- .2 Obtain City's/consultant's approval of topsoil grade, depth and condition before starting seeding.

#### **3.3 Seeding**

- .1 Sow during calm weather (winds less than 10 km/hr) using mechanical equipment, to the approval of the City. Seed at a rate as per supplier's recommendations. Sow half of required amount of seed in one direction and remainder at off-set angles or to overlap in the same direction to make 2 passes. Incorporate seed into soil to a minimum depth of 5 mm simultaneously or within one hour after seeding operation. Mix carefully with light chain harrow or wire rakes and roll area immediately afterward with water ballast type lawn or agricultural type roller.
- .2 If conditions are dry, water with fine spray to allow germination, but avoid washing out of seed. Apply enough water to ensure percolation to minimum 50 mm depth.
- .3 Reseed at 2 week intervals where germination has failed.
- .4 Protect seeded areas against damage using a method approved by the Community Services representative. Remove this protection after seeded areas have been accepted by the Community Services representative.

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- 3.4 Mulching
- .1 All areas must be mechanically seeded prior to the mulch application. Seed and mulch must be applied on the same day.
  - .2 Apply mulch by blower or by using a hydraulic mulcher as per supplier's recommendations.
  - .3 The straw mulch blower shall be capable of applying straw and tackifier simultaneously to form a uniform cohesive mat.
- 3.5 Sediment Control
- .1 Install sediment control fence to the manufacturer's specifications along the bottom edge of slopes to be topsoiled and seeded, as indicated on the drawings.
- 3.6 Maintenance
- .1 Ensure maintenance equipment is suitable to the Community Services representative.
  - .2 Keep soil moist during germination period and adequately water seeded areas until Preliminary Acceptance by the City.
  - .3 Apply water to ensure moisture penetration of 75 mm to 100 mm. Control watering to prevent wash-outs.
  - .4 Cut grass when it reaches height of 60 mm and cut to height of 40 mm to 50 mm. (Remove clippings which exceed 10 mm in depth).
  - .5 Maintain grassed areas free of pests and diseases.
  - .6 Fertilize seeded areas one month after germination. Spread evenly and water in well. Postpone fertilizing until next spring if application falls within four week period prior to expected end of growing season.
- 3.7 Acceptance
- .1 Prior to the park works being eligible to receive Preliminary Acceptance by the City, the seeded areas shall meet the following criteria:
    - .1 Seeded areas are properly established;
    - .2 Turf is free of eroded, bare or dead spots and 98% free of weeds;

- .3 No surface soil is visible when grass has been cut to height of 40 mm;
- .4 Seeded areas have been cut at least twice.
- .2 If after one full growing season, the seeding does not meet the above requirements, additional seeding shall be required to the satisfaction of the City representative.

**END OF SECTION 02933**