
LANDSCAPE MAINTENANCE

1.0 GENERAL

1.1 Related Work

- .1 Coordinate the requirements of this section with all other sections.
 - .1 Section 02212 Topsoil
 - .2 Section 02810 Irrigation
 - .3 Section 02933 Seeding
 - .4 Section02950 Plant Material

1.2 Quality Control

- .1 Approval from **City of Prince Albert, Public Works** is required for labour, materials and equipment necessary to maintain new landscape components.
 - .1 Submit the following to City of Prince Albert, Public Works, Project Manager, at time of CCC:
 - .1 Contact name of Contractors maintenance supervisor.
 - .2 Copy of current pesticide applicators license (Sask.) for applicable personnel.
 - .3 Landscape Maintenance Schedule.
 - .4 List of Maintenance Equipment.
 - .2 Initiate and Maintain a Maintenance Log for the Project, indicating all maintenance Work performed in a chronological order. Include notes on labour, equipment, and products used and the work performed.
 - .3 Submit maintenance log to the City of Prince Albert, Public Works, at the completion of the maintenance period.

1.3 Measurement and Payment

- .1 The Lump Sum and Unit prices submitted are for supply of all labour and equipment and materials as specified or required to complete the Work as intended.
- .2 The prices submitted to be full compensation for supplying (if applicable), hauling, installing, cleaning and placing in service the Work as specified and detailed, together with all incidental Work.
- .3 Measurement for Payments to be calculated on the basis of a percentage of completion of the Lump Sum and Unit prices for the applicable item of Work or at Unit rates of Force Account Rates as entered on the Tender Form.

LANDSCAPE MAINTENANCE

- .4 Landscape Maintenance prior to Construction Completion Certificate (CCC) (lump sum) is for the period between April 15 to October 15 and will be paid at the time of Construction Completion.
- .5 Landscape Maintenance after Construction Completion (month) is for the maintenance period only - April 15 to October 15 (6 months) within one calendar year from the date of Construction Completion Certificate (CCC).

1.4 Inspections

- .1 Notify City of Prince Albert, Public Works for inspection of:
 - .1 Spring Start-up.
 - .2 Winterization.
 - .3 Plant material removed or replaced before or during Warranty Period.
 - .4 End of Maintenance.
- .2 City of Prince Albert, Public Works will inspect the project site regularly to review maintenance, including a review of the Maintenance Log.

1.5 Vandalism

- .1 Contractor is not responsible for repair or replacement of items damaged or altered as a result of vandalism or other acts that are outside the control of the Contractor.

2.0 PRODUCTS

2.1 Equipment and Tools

- .1 Maintenance equipment and tools requirements; suitable for Work performed, in good working order and approved, including but not limited to:
 - .1 Portable irrigation systems, tank trucks, hoses etc.
 - .2 Mowers and other landscape maintenance equipment.
 - .3 Weed and pest control equipment.

2.2 Materials

- .1 Products and materials must be suitable for the Work performed, including but not limited to:
 - .1 Products or Materials as specified in relevant sections.
 - .2 Weed and pest control products.

LANDSCAPE MAINTENANCE

3.0 EXECUTION

3.1 Ongoing Maintenance and Establishment

- .1 Provide labour, materials and equipment necessary to maintain all existing and new landscape components within the project site.
- .2 Provide labour, materials and equipment necessary to establish all new turf and plant material.
- .3 Irrigation:
 - .1 Winterize and energize as required.
 - .2 Adjust grades around components to maintain designed elevations.
 - .3 Repairs or adjust as required to maintain a functional system.
 - .4 Balance and adjust irrigation system to meet design specifications of overall operation and coverage.
 - .5 Follow designated water window restrictions see drawings.
- .4 Turf areas (seeded):
 - .1 Maintain design grades and layout. Topdress and overseed as needed.
 - .2 Maintain drainage patterns. Re-grade and overseed to eliminate ponding water and erosion.
 - .3 Remove contaminants from the surface.
 - .4 Remove garbage and debris.
 - .5 Provided weed control as required.
 - .6 Provide rodent, and pest control as required.
 - .7 Established turf areas are fully germinated, mature stands of turf without bare patches, with a grass composition reflective of the seed mix used.
- .5 Plant material:
 - .1 Remove weeds and vegetation including rocks in mulch areas. Do not damage Plant Material roots.
 - .2 Maintain grades and layout. Add mulch if required to maintain specified depths.

LANDSCAPE MAINTENANCE

- .3 Maintain clean edge on planting beds. Naturalized beds do not require edging.
- .4 Correct settlement and erosion damage.
- .5 Remove contaminants from the surface.
- .6 Remove all garbage and debris.
- .7 Maintain plant material staking and supports.
- .8 Remove and replace plant material as directed.
- .9 Provide rodent, pest and weed control as required.

3.2 Spring Start Up

- .1 Obtain approval for start of seasonal maintenance requirements.
 - .1 Perform spring start-up of irrigation system as per Section 02810.
 - .2 Remove and dispose of weeds, branches, stones, refuse and other debris within project area.
 - .3 Inspect the site and record all damages to site.
 - .4 Remove blockages in the storm sewer system. Dewater the site if necessary.

3.3 Winterization

- .1 Obtain approval for end of seasonal maintenance requirements.
 - .1 Perform winterization of irrigation system as per Section 02810.
 - .2 Remove and dispose of weeds, branches, stones, refuse and other debris within project area.
 - .3 Ensure all turf areas and plant materials have received final watering and all other maintenance requirements for the season.
 - .1 One watering cycle must be completed in October after temperatures fall below freezing to ensure adequate moisture in root zone at freeze-up.

LANDSCAPE MAINTENANCE

3.4 Watering

- .1 Water all areas for establishment using new irrigation system, temporary irrigation system as provided by the Contractor, or other method ensuring that compaction is not caused during watering procedures.
- .2 Monitor watering to ensure:
 - .1 Over watering is not acceptable. Saturated soils do not promote healthy establishment and growth.
 - .2 Areas are not eroded, and materials do not contaminate adjacent areas or properties due to erosion.
 - .3 Adjacent properties are not otherwise adversely impacted by irrigation operations.
- .3 Seeded areas:
 - .1 From time of seeding to 90% germination:
 - .1 Apply light, frequent watering to supplement rainfall to guarantee continuous 19 mm moisture penetration.
 - .2 From 90% germination to establishment:
 - .1 Apply water to supplement rainfall to guarantee 25 mm of water per week.

3.5 Turf Mowing

- .1 Mowing of turf areas is not approved until the turf is well established and approaching mowing height tolerances as follows:
 - .1 Irrigated turf areas 100 mm (4.0") high.
 - .1 Mow to height of 63 mm (2.5").
- .2 Mow all turf areas using equipment suitable for the work.
 - .1 Cut no more than 30% of grass blade in one mowing.
 - .2 Do each operation continuously and complete within a reasonable time period.
 - .3 Remove clippings that smother turf within 24 hours of mowing.
 - .4 Trim turf around all vertical objects (e.g. light posts).

LANDSCAPE MAINTENANCE

- .3 If height of turf is greater than acceptable heights identified in 3.5.1, the City of Prince Albert, Public Works to request that the Contractor mow turf areas within two (2) days.
 - .1 If Contractor fails to meet this request, the City of Prince Albert, Public Works to mow the turf at Contractor expense.

3.6 Turf Fertilization

- .1 Once per season, apply approved fertilizer to all turf areas, at rate of 100kg per hectare, or as per recommendations of soils test analysis results. Apply within the period from mid May to late June.

3.7 Turf Topdressing / Re-Seeding

- .1 Top-dress and re-seed turf areas not growing vigorously:
 - .1 Mow turf adjacent to areas to be re-seeded to a height as per 3.5.1.
 - .2 Rake thoroughly, removing loose and dead turf, stones and debris.
 - .3 Spread clean topsoil to a depth of 12 mm, filling in low areas and bare spots.
 - .4 Mix topsoil and seed thoroughly.
 - .5 Water to ensure contact between seed and soil.

3.8 Plant Material Watering

- .1 Water all plant materials using new irrigation system or temporary / portable irrigation system (provided by the Contractor), preventing erosion and compaction during watering. Repair all damage.
 - .1 Ensure adequate moisture in root zone at freeze-up.
- .2 Watering requirements of all plant materials depend on plant species, soil type, sun, temperature, winds, rainfall, and plant location.
- .3 Water shrubs weekly to maintain top 200-300mm depth of soil moist at all times.
- .4 Water trees every seven to fourteen days depending on the moisture level of the soil and environmental conditions.
 - .1 Water slowly to ensure water does not create run off from root zone and ensure saturation of top 300mm of in the tree well.

LANDSCAPE MAINTENANCE

- .2 Water trees a minimum of eight times during the growing season with the following amounts of water as per tree caliper:
 - .1 30 - 50mm: 90 litres (20 gallons)/tree
 - .2 51 - 75mm: 120 litres (30 gallons)/tree
 - .3 76 - 85mm: 190 litres (50 gallons)/tree

3.9 Plant Material Pruning

- .1 Perform pruning requirements in accordance with Section 02950 Plant Material for trees and shrubs.
 - .1 Extent of pruning:
 - .1 Remove tree branches overhanging pathways and sidewalks to a minimum 3.0 metres from the ground.
 - .2 Remove tree branches overhanging play areas and roads to a minimum 4.5 metres from the ground.
 - .3 Remove tree branches within 2.0 metres of all structures.

3.10 Use of Pesticides

- .1 All pesticides must be applied by a licensed Pesticide Applicator.
- .2 Submit requests for use of pesticides to the City of Prince Albert, Public Works or Consultant for review and approval prior to use.
- .3 Protect plant material within or adjacent to the application area(s).

3.11 Plant Material Removal and Replacements

- .1 During warranty period, the project site is not to contain dead or diseased plant material at any time. Remove and replace dead or diseased plant material as required within a reasonable time. All replacements are required noted in a maintenance log.
- .2 Remove and replace seed that shows growth failure, deterioration or is dead.

3.12 End of Landscape Maintenance

- .1 Request End of Landscape Maintenance inspection in writing and:
 - .1 Mow all turf areas, edge all planting areas and water all plant materials as required within 48 hours prior to the confirmed date of inspection.
 - .2 Remove tree supports, ties and guy wires.
- .2 Fill post holes and repair adjacent surfaces.

END OF SECTION