

1 General

1.1 RELATED WORK

.1 Coordinate the requirements of this section with all other sections, including but not limited to:

- .1 Section 02212 Topsoil
- .2 Section 02511 Crusher Dust
- .3 Section 02810 Irrigation
- .4 Section 02933 Seeding
- .5 Section 02938 Sodding
- .6 Section 02950 Plant Material

1.2 QUALITY CONTROL

.1 Approval from **City of Saskatoon, Parks Branch** is required for labour, materials and equipment necessary to maintain existing and new Landscape components.

.1 Submit the following to **City of Saskatoon, Parks Branch 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 Project, indicating all maintenance Work performed in a chronological order. Include notes on labour, equipment, and products used and work performed.

.3 Submit a copy of the maintenance log to the City of Saskatoon Parks Branch at the completion of each month of maintenance for review.

.4 Submit the completed maintenance log at the time of Final Acceptance.

1.3 INSPECTIONS

- .1 Notify **City of Saskatoon, Parks Branch** 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 Saskatoon, Parks Branch** will inspect the project site regularly to review Maintenance, including a review of the Maintenance Log.

1.4 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 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 Work performed, including but not limited to:
 - .1 Products or Materials as specified in relevant sections.
 - .2 Weed and pest control products.

3 Execution

3.1 STANDARD MAINTENANCE AND ESTABLISHMENT

- .1 Provide labour, materials and equipment necessary to maintain existing and new Landscape components within the project site.
- .2 Provide labour, materials and equipment necessary to establish new turf and plant material.
- .3 Crusher Dust, Granular surface areas and Infields:
 - .1 Remove weeds and vegetation, including roots.
 - .2 Maintain grades and layout. Add material and compact as required.
 - .3 Correct settlement and erosion damage.
 - .4 Eliminate ponding areas.
 - .5 Remove contaminants such as topsoil from the surface.
 - .6 Remove garbage and debris.
- .4 Unit Paving, Concrete and Asphalt surface areas:
 - .1 Remove weeds and vegetation, including roots.
 - .2 Keep surface clean.
 - .3 Remove garbage and debris.
 - .4 Maintain design grades. Repair any areas that have settling or heaved.
 - .5 Eliminate ponding areas.
- .5 Pipe culverts:
 - .1 Remove vegetation, debris and garbage from inside the culvert and grates.
 - .2 Ensure grates are in place and functional, including functioning locks.
- .6 Irrigation:
 - .1 Winterize and energize as required.
 - .2 Adjust grades around components to maintain designed grades.
 - .3 Repair or adjust as required to maintain functional system.

LANDSCAPE MAINTENANCE

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- .4 Balance and adjust irrigation system to meet design specifications of overall operation and coverage.
 - .5 Follow designed water window restrictions, see drawings.
 - .7 Timber and wood products and materials, including composites:
 - .1 Remove weeds and vegetation, including roots.
 - .2 Maintain grades and layout.
 - .3 Correct settlement.
 - .8 Site furniture, play equipment, metal products and materials:
 - .1 Remove garbage and debris.
 - .2 Ensure trash receptacles remain clean. Garbage accumulation is unacceptable.
 - .3 Replace garbage bags as needed.
 - .9 Play surfacing (Loose Fill material):
 - .1 Remove weeds and vegetation, including roots.
 - .2 Maintain grades and layout. Add material if required.
 - .3 Remove contaminants such as topsoil.
 - .4 Remove all garbage, hazards and debris.
 - .10 Play surfacing (Unitary Synthetic material):
 - .1 Keep surface free of contaminants, garbage, hazards and debris.
 - .11 Turf areas (seeded or sodded):
 - .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 Provide weed control as required.
 - .6 Provide rodent and pest control as required.

LANDSCAPE MAINTENANCE

- .7 Established seeded turf areas are fully germinated, mature stands of turf without bare patches, with grass composition reflective of seed mix used.
 - .12 Plant material:
 - .1 Remove weeds and unwanted vegetation, including roots in mulch areas. Remove suckers. Do not damage Plant Material roots.
 - .2 Maintain grades and layout.
 - .3 Maintain specified depth of mulch. Add mulch if required.
 - .4 Keep mulch back from the base of plant material as specified.
 - .5 Maintain a clean edge on planting beds.
 - .6 Correct settlement and erosion damage.
 - .7 Remove contaminants from the surface.
 - .8 Remove garbage and debris.
 - .9 Maintain plant material staking and supports.
 - .10 Provide rodent, pest and weed control.
 - .13 Storm Sewer Components:
 - .1 Maintain operational landscape drainage and storm sewer structures and pipe.
 - .2 Remove garbage and debris, including sediment from all structures impacted by sediment run-off from the site.
 - .3 Maintain sediment control products and structures.
 - .14 Temporary Structures:
 - .1 Remove any temporary structures at Final Acceptance.
- 3.2 SPRING START UP**
- .1 Obtain approval for start of seasonal maintenance requirements.
 - .1 Perform spring start-up of irrigation system per Section 02810.
 - .2 Remove and dispose of weeds, branches, stones, refuse and other debris within project area.
 - .3 Inspect the site and record 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 per Section 02810.
 - .2 Remove and dispose of weeds, branches, stones, refuse and other debris within project area.
 - .3 Ensure turf areas and plant materials have received final watering and other maintenance requirements for the season.
 - .1 One watering cycle is required in October after temperatures fall below freezing to ensure adequate moisture in root zone at freeze-up.

3.4 WATERING

- .1 Water areas for establishment using existing/new irrigation system, temporary irrigation system as provided by the Contractor, or other method ensuring that compaction is not caused during watering.
- .2 Monitor watering to ensure:
 - .1 Over watering is not acceptable. Saturated soils do not promote healthy establishment and growth:
 - .1 Turf areas and planting beds have very different watering needs.
 - .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 19mm moisture penetration.
 - .2 Prevent erosion of soil and seeds
 - .2 From 90% germination to establishment:
 - .1 Apply water to supplement rainfall to guarantee 25mm of water per week.

- .4 Sodded areas:
 - .1 From time of sodding:
 - .1 Apply sufficient water to guarantee moisture penetration of 75 to 100mm.
- .5 Plant Material
 - .1 Water plant materials using existing/new irrigation system or temporary / portable irrigation system (provided by the Contractor), preventing erosion and compaction during watering. Repair any damage.
 - .1 Ensure adequate moisture in root zone at freeze-up.
 - .2 Watering requirements of plant materials depend on plant species, soil type, sun, temperature, winds, rainfall and plant location.
 - .3 Water shrubs, vines and seedlings 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 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 soil in tree well.
 - .2 Water trees min of eight times during growing season with the following amounts of water per deciduous tree calliper/evergreen tree height:

Calliper (Deciduous)	Height (Conifers)	Amount of Water/tree
30 - 50mm	under 1200mm	90 litres (20 gallons)
51 - 75mm	1200-2000mm	120 litres (30 gallons)
76 - 85mm	+2000mm	190 litres (50 gallons)

3.5 TURF MOWING

- .1 Do not mow until turf is well established and approaching mowing height tolerances as follows:

Type of Turf	Mowing Height Tolerance	Mow to Height
Irrigated turf areas	100 mm (4.0")	76 mm (3.0")
Non-irrigated (dryland) turf areas	150 mm (6")	100 mm (4.0")
Naturalized turf areas	150mm (6").	100mm (4.0")

- .2 Minimum mowing frequency and extent:
 - .1 Irrigated turf: Mow once per week.

- .2 Dryland park turf: Mow every 21 days.
- .3 Non Irrigated road right of ways, ditches: Mow once per month.
- .4 Adjacent to new trees or beds in existing dryland turf areas: Mow a 1.0 metre buffer, once per month.
- .5 Naturalized areas:
 - .1 Until established: follow dryland park turf requirements.
 - .2 Established: once per season between September 15th and October 1st except the following areas or conditions where dryland cutting requirements followed:
 - .1 1.0m buffer on both sides of paths or sidewalks, around picnic areas, seating areas, trash receptacles, park signs, play areas, parking lots, lanes, planting beds and adjacent to irrigated turf areas and sports-fields.
 - .2 3.0m buffer (or as defined on the drawings) adjacent to neighbouring properties, buildings and street frontages.
 - .3 All areas as a means of weed control if necessary.
 - .6 Increase mowing frequency if growth rate exceeds normal conditions leading to excessive clipping accumulation.
 - .7 Refrain from mowing if the turf or soil is overly wet or saturated.
- .3 Mow 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 vertical objects (e.g. bollards, fences, signs and light posts).
- .4 If height of turf is greater than acceptable heights identified in 3.5.1, **City of Saskatoon, Parks Branch** to request Contractor mow turf areas within two (2) days.
 - .1 If Contractor fails to meet this request, **City of Saskatoon, Parks Branch** to mow turf at Contractor expense.

3.6 TURF FERTILIZATION

- .1 Once per season, apply approved fertilizer to turf areas, at rate of 100kg per hectare, or as recommended in 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 requiring re-seeding to a height per 3.5.1.
 - .2 Rake thoroughly, removing loose and dead turf, stones and debris.
 - .3 Spread clean topsoil to 12mm depth, 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 PRUNING

- .1 Contractor is banned from pruning of Elm trees during the annual pruning ban from April 1 to August 31.
- .2 Perform pruning requirements in accordance with Section 02950 Plant Material for new trees and shrubs.
 - .1 Extent of pruning:
 - .1 Remove tree branches overhanging pathways and sidewalks to a min. 3.0 metres from the ground.
 - .2 Remove tree branches overhanging play areas and roads to a min. 4.5 metres from the ground.
 - .3 Remove tree branches within 2.0 metres of all structures.
 - .2 Pruning of existing plant material is not permitted unless specified or authorized by **City of Saskatoon, Parks Branch**.

3.9 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 Saskatoon, Parks Branch** or Consultant for review and approval before use.
- .3 Protect plant material within or adjacent to the application area(s).

LANDSCAPE MAINTENANCE

- .4 Post signage in areas where pesticides are being applied, noting Contractor's name, product used and date of application.

3.10 PLANT MATERIAL REMOVAL AND REPLACEMENTS

- .1 During Warranty period the project site is not to contain dead, diseased or rejected plant material at any time. Remove and replace plant material by deficiency deadline. Note all replacements in the maintenance log and include location.
- .2 Remove and replace sod /seed showing growth failure, deterioration or is dead.

3.11 END OF LANDSCAPE MAINTENANCE

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

END OF SECTION