



MUNICIPAL DEVELOPMENT STANDARDS

SECTION 8 – LANDSCAPING AND FENCING

October 2020

Planning & Engineering

TABLE OF CONTENTS

SECTION	PAGE
8 Landscaping and Fencing	8-2
8.1 Landscaping Requirements	8-2
8.1.1 Grade, Loam, Seed or Sod	8-4
8.1.2 Planting of Trees and Shrubs	8-4
8.1.2.1 Planting Guidelines	8-4
8.1.2.2 Berms	8-6
8.1.2.3 Approved Tree Species	8-6
8.1.3 Park Amenities	8-7
8.1.3.1 Bollards and Gates	8-7
8.1.3.2 Site Furnishings	8-7
8.1.3.3 Walkway Systems	8-8
8.1.3.4 Playgrounds	8-8
8.1.3.5 Neighbourhood Entrance Features	8-9
8.1.4 Fencing	8-9
8.1.4.1 Wood Fencing	8-9
8.1.4.2 Chain Link Fencing	8-10
8.1.4.3 Wood Rail Fencing	8-10
8.1.5 Optional Amenities	8-10
8.1.6 Utility Corridors and Public/Municipal Utility Parcels	8-10
8.1.6.1 Utility Corridors	8-10
8.1.6.2 Public Utility Lots and Municipal Utility Parcels	8-11
8.2 Landscaping Plans	8-11
8.3 Rough Grading	8-11
8.4 Topsoil	8-11
8.5 Seeding	8-11
8.6 Hydroseeding	8-12
8.7 Sodding	8-13

8 LANDSCAPING AND FENCING

8.1 Landscaping Requirements

One of the responsibilities of developing land is the landscaping of boulevards, buffer strips, utility lots, walkways, medians, public service land and recreation land. Landscaping involves site preparation, establishment of a grass cover, plantings, and the installation of park furnishings and/or enhanced amenities.

This section covers the minimum landscaping requirements for a given piece of land, dependent upon its function and/or size, the contents of the complete landscaping package that is to be submitted to the City for review and approval, as well as approved materials, procedures and maintenance.

The areas to be landscaped are identified in the following documents:

- Area Structure Plan for the entire neighbourhood;
- Outline Plan for the phase of development; and
- Development Agreement for the stage being developed.

The land requirements for the various categories of parks are as follows:

- Regional Park – a site that is a minimum of 8 hectares in size, consolidated on two or more quarter sections, generally servicing two or more neighbourhoods;
- Community Park – a site that is a minimum of 4 hectares in size, consolidated on one or two quarter sections, generally servicing one or more neighbourhoods;
- Neighbourhood Park – a site that is a maximum of 4.0 hectares in size, consolidated on one or two quarter sections, servicing one neighbourhood;
- Parkette – a site that is 0.2 – 0.8 hectares in size, designed to accommodate a tot lot, active and/or passive recreational components and trail systems; and
- Linear Park – sites designed to accommodate active or passive recreation components, and trail systems. A linear parcel of land must have a minimum width of 10.0 m.

The provision of the enhanced amenities required by various classifications of parks is typically the responsibility of the City. Enhanced amenities include trail signs, park name signs, sporting facilities such as ball diamonds or soccer fields, and parking. The Landscape Architect will need to identify the location of these enhanced amenities within the landscaping plans. The landscaping requirements of each class of park space are summarized in Table 8.1, with the enhanced amenities that are typically the responsibility of the City to construct highlighted in blue.

Table 8.1 – Landscaping Requirements

Development Activity	Regional Park	Community Park	Neighbourhood Park	Parkette	Linear Park	Constructed SWMF	PUL/Utility Corridor
Size (hectares)	Minimum 8.0 ha	Minimum 4.0 ha	Maximum 4.0 ha	0.2 - 0.8 ha	Min. 10.0m width		
Grade/Loam	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Seed/Sod	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Trees	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Shrubs	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Fence	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bollards	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Benches	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Garbage Receptacles	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bike Rack	Yes	Yes	Yes	Yes	No	No	No
Picnic Tables	Yes	Yes	Yes	Yes	No	If Required	No
Trails / Walkways	Yes	Yes	Yes	Yes	Yes	Yes	If Required
SWMF Sign	If Required	If Required	If Required	If Required	If Required	Yes	If Required
Play Equipment, Age Signs	Yes	Yes	Yes	If Required	No	No	No
Trail Signs	Yes	Yes	Yes	Yes	Yes	Yes	No
Park Name Sign	Yes	Yes	Yes	Yes	No	No	No
Basketball / Sand Volleyball	If Required	If Required	If Required	No	No	No	No
Ball Diamonds	If Required	If Required	If Required	No	No	No	No
Soccer/Football Fields	If Required	If Required	No	No	No	No	No
Ice Rinks	If Required	If Required	If Required	No	No	No	No
Parking	If Required	If Required	If Required	No	No	If Required	No

8.1.1 Grade, Loam, Seed or Sod

These development activities consist of bringing the site to the specified design grades, placing and levelling topsoil, seeding or sodding to grass and establishing turf. The Developer is required to provide this for all public open space areas (e.g. parks, boulevards, medians, utility lots, buffer areas, roadway berms, walkways, etc.).

Only boulevard spaces between the curb and the property line of public open space areas will be the responsibility of the Developer. The property owner must landscape the boulevard area(s) between the curb and the property line(s) adjacent to their private property.

Establishment of turf is a requirement for the Final Acceptance Certificate for landscaping.

Further information concerning rough grading, topsoiling, seeding, hydroseeding and sodding can be found in Sections 8.3, 8.4, 8.5, 8.6 and 8.7 respectively.

8.1.2 Planting of Trees and Shrubs

These development activities consist of planting trees and shrubs in designated areas. The Developer is required, at a minimum, to provide these for all park spaces (boulevards, utility lots, walkways, buffer areas, and medians are excluded) as well as roadway berms where required. In general, all plant material must be of first grade quality, free from insects, disease and physical injury, must have a strong fibrous root system and must be structurally sound. All plant material must have straight stems, well and characteristically branched for the species. All plant material must conform to the standards set forth in the current edition of the Canadian Nursery Landscape Association's "Canadian Standards for Nursery Stock". The plant material must be hardy to Zone 2A, and the source of the plant material must be grown in Zones 2A, 2B or 3A of the Canadian Hardiness Map (1981-2010). Plants grown outside of these Zones must be approved by the City.

Plantings must be appropriately maintained by the Developer (e.g. watering, fertilizing, monitoring and spraying for pests and/or disease), until maintenance is assumed by the City. Appropriate maintenance to be determined by weather conditions, soil conditions, time of year and growing conditions of the plantings. At the time of inspection for Final Acceptance, the plant material must:

- Be planted and staked;
- Exhibit two (2) years of healthy growth to the satisfaction of the City.

Any plantings which are deemed by the City to not be in a state of healthy growth must be replaced by the Developer with a planting of the same size and species. If not available, the Developer may propose alternatives for the City's approval.

8.1.2.1 Planting Guidelines

Plantings must conform to the following guidelines:

- Deep rooting trees, such as poplars and willows, must not be planted within 8.0 m of any utility line, road, or lane;
- Shallow rooting trees or shrubs must be set back at least 3.0 m from deep utility lines (e.g. water, sanitary, or storm), and must be set back at least 1.0 m from shallow utilities (e.g. gas, power, telephone, or cable television), measured horizontally from the center of the tree to the edge of the nearest utility easement;
- Trees and shrubs must be set back at least:
 - 3.5 m from light standards;
 - 1.0 m from sidewalks;

- 3.5 m from hydrants, valves, service valves, manholes, catch basins, transformers, pedestals, or other surface utility equipment;
- 3.5 m from any stop or yield sign;
- 2.0m from any other traffic or regulatory sign;
- 9.0 m of the curb return of any intersection;
- 1.0 m from the edge of any collector road (boulevard or median), local road (boulevard or median), or lane;
- 3.0 m from the edge of any arterial roadway (boulevard or median);
- 1.8 m from fences;
- 1.5 m from driveways;
- The offset must be measured horizontally from the center of the tree to the face of curb for roads, or to the edge of gravel/pavement for lanes;
- For trees and shrubs, limit the excavation to be twice the size of the pot or ball size, to accommodate the root zone/planting area. The excavated areas must be backfilled with topsoil and prepared for tree and shrub planting. See Standard Drawings 9-302, 9-303 and 9-305;
- For trees planted within sidewalks, a vault as per Standard Drawing 9-304 and a grate as per Standard Drawing 9-300 will be required. The planting soil blend for backfill will consist of:
 - 50% screened topsoil;
 - 25% coarse, clean sand;
 - 15% organic matter (compost); and
 - Grade 1:5:1 fertilizer at a rate of 1.5 kg/m³.
- Shrubs will be mass planted within beds with spacing appropriate to the species. Minimum shrub height and spread at planting is 300 mm for deciduous species and 450 mm spread for coniferous species;
- No annual plantings are allowed in planting beds that will be maintained by the City after FAC, only perennials and bulbs;
- Plant material to have limited horizontal root growth, and non-sucker type roots to avoid encroachment into adjoining privately owned lands;
- Trees must be spaced a minimum of 6.0 m apart, and hedge plants must be spaced 1.0 m apart. Dependent upon the species and canopy, closer spacing may be permitted, upon review by the City;
- Mulch must be placed around the base of trees and in planting beds at the time of planting, to a diameter of 1 m, or the extents of the soil disturbed for planting, whichever is greater. This requirement is relaxed for approved boulevard plantings which will be maintained by private land owners. Mulch must conform with one of the following:
 - Bark chips varying in size from 25 mm to 100 mm in diameter, consisting of a mixture of coniferous and deciduous material;
 - Wood chips varying in size from 50 mm to 100 mm and 5 mm to 20 mm thick; or
 - Shredded wood varying in size from 25 mm to 100 mm in length;
- The use of filter fabric and edging within planting beds is not permitted due to issues with long term maintenance; and
- The planting requirements for Municipal Reserve lands are detailed in Table 8.2. Shrubs are to be planted at a rate of 5 shrubs per square metre.

Table 8.2 – Planting Requirements

Item	Quantity	
	Minimum	Maximum
Tree Planting	25 trees/ha	37 trees/ha
Tree Planting (Linear Parks)	20 trees/ha	30 trees/ha
Shrub Planting	50 m ² /ha	100 m ² /ha
Shrub Planting (Linear Parks)	30 m ² /ha	70 m ² /ha

8.1.2.2 Berms

Berms must have a side slope not steeper than 4:1, have a horizontal crest not less than 1.0 m wide, and be graded to the approved grades and cross sections. The bottom of all berms must transition into adjacent elevations. See Standard Drawing 9-301 for a typical berm cross-section.

8.1.2.3 Approved Tree Species

The following tables outline the tree species accepted by the City for planting within boulevards, parks, utility corridors, and Public Utility Lots and Municipal Utility Parcels. These lists are updated from time to time, and are available upon request. Evergreens should not be planted close to walkways, streets, or buildings because of their broad base that will become an obstruction as the tree matures. The City of Lloydminster no longer plants spruce or pine on residential boulevards for this reason.

If the Developer proposes to plant species that are not listed in Tables 8.3 and 8.4, the Developer must submit a list of the proposed species for approval by the City.

The Developer must provide trees and shrubs to the minimum standards included in Section 8.1.2. The minimum caliper of deciduous trees suitable for planting is 50 mm (2 in.), measured 350 mm above ground level. The minimum height of coniferous trees is 2.5 m. All mature deciduous trees along boulevards, trails and sidewalks must have a branching height of 2.5 m. Deciduous trees must have a 1.8 m minimum branching height at time of planting. Coniferous trees must have a minimum height of 1.8 m at time of planting.

Table 8.3 – Approved Tree Species for Boulevards

Common Name	Species
American Basswood (Linden)	<i>Tilia americana</i>
American Elm	<i>Ulmus americana</i> 'Brandon'
Amur Maple	<i>Acer tataricum</i> subsp. <i>ginnala</i>
Bur Oak	<i>Quercus macrocarpa</i>
Chokecherry	<i>Prunus virginiana</i> 'Schubert'
Crabapple	<i>Malus</i> 'Spring Snow'
Dropmore Linden	<i>Tilia xflavescens</i> 'Dropmore'
Green Ash‡	<i>Fraxinus pennsylvanica</i>
Japanese Tree Lilac	<i>Syringa reticulata</i> 'Ivory Silk'
Manchurian Ash	<i>Fraxinus mandshurica</i> 'Mancana'
Silver Maple	<i>Acer saccharinum</i>
Toba Hawthorn	<i>Crataegus xmordenensis</i> 'Toba'

‡Acceptable cultivars: 'Bergenson' , 'Heuver' (Foothills), 'Patmore', 'Rugby' (Prairie Spire), 'Summit'

Table 8.4 – Approved Tree Species for Parks/Utility Corridors/PULs

Common Name	Species
Amur Cherry	<i>Prunus maackii</i>
European Mountain Ash	<i>Sorbus aucuparia</i>
Laurel Leaf Willow	<i>Salix pentandra</i>
Mayday	<i>Prunus padus</i> var. <i>commutata</i>
Northwest Poplar	<i>Populus xjackii</i> 'Northwest'
Ohio Buckeye	<i>Aesculus glabra</i>
Paper Birch	<i>Betula papyrifera</i>
Siberian Elm	<i>Ulmus pumila</i>
Swedish Columnar Aspen	<i>Populus tremula</i> 'Erecta'
Crabapple	<i>Malus</i> x'Thunderchild'
Colorado Spruce	<i>Picea pungens</i>
Lodgepole Pine	<i>Pinus contorta</i> var. <i>latifolia</i>
Norway Spruce	<i>Picea abies</i>
Scots Pine	<i>Pinus sylvestris</i>
Siberian Larch	<i>Larix sibirica</i>
Swiss Stone Pine	<i>Pinus cembra</i>
White Spruce	<i>Picea glauca</i>

8.1.3 Park Amenities

This development activity consists of supplying and installing various park amenities, such as trails, bollards, fencing, and site furnishings. The Developer is required to provide these amenities for all areas identified in Table 8.1, or as identified in the Outline Plan for the neighbourhood. The City is responsible for the enhanced amenities highlighted in blue in Table 8.1.

8.1.3.1 Bollards and Gates

Municipal Reserve lots, and lots containing walkways connecting to them, must have bollards installed to prevent unauthorized vehicular traffic. These bollards must have a spacing of 1.2 m on centre, along the property line of the road right of way. Where the line of bollards crosses a 1.5 m walkway, a bollard must be placed on either side of it. Where the line of bollards crosses a 3.0 m multi-use trail, a gate must be installed, with a 1.2 m space provided between the end of the gate and the next bollard, or two gates may be used, with a 1.2 m space between the bars. See Standard Drawings 9-202, 9-203, 9-204 and 9-205. Wood rail fencing instead of bollards may be approved by the City for selected park or walkway areas.

8.1.3.2 Site Furnishings

The Developer must supply and install site furnishing at locations specified by these standards. All furnishings must conform to the City's specifications; see Standard Drawings 9-400, 9-401, 9-402 and 9-403. Site furnishings include, but are not limited to:

- Benches;
- Garbage receptacles;
- Dog waste bag dispensers (Practica dispenser, SKU 201/203); and
- Picnic tables.

Sections 8.1.3.3 and 8.1.3.4 describe the requirements for these amenities.

8.1.3.3 Walkway Systems

The typical walkway surfaces utilized within the City, as described in Section 3.15, are either 1.5 m wide and constructed of concrete, or 3.0 m wide and constructed of asphalt, and conforming to Standard Drawing 9-100. Within park spaces, the City may permit other walkway surfaces, upon review and approval. As part of this review process, the Developer must provide detail drawings illustrating the structure of the proposed surface, as well as any supporting documentation describing its performance. The City reserves the right to require extended warranty periods for these alternative surfaces in order to better evaluate their long-term performance.

Where the ecological profile has identified a unique or sensitive natural area which is to be incorporated in the Development, alternative ecologically friendly materials such as wood mulch may be used as the walkway surface material when approved by the City. See Standard Drawing 9-104.

Garbage receptacles and dog waste bag dispensers must be provided at entry and exit points and adjacent to benches, set back a minimum of 1.0 m from the trail. Benches must be placed at a maximum spacing of 500 m, or as site conditions and design intent allows, set back a minimum of 1.0 m from the trail. See Standard Drawing 9-103.

A root barrier is to be installed, at a minimum depth of 600 mm, where the trail is within 1.5 m of planting beds and/or native tree stands, as per Standard Drawing 9-101.

8.1.3.4 Playgrounds

Locations, extents, plans and construction of playgrounds are to be reviewed and approved by the City. A concept meeting with the Developer prior to submission of drawings may be required. All Developers who construct playgrounds on public lands must do so in accordance with the latest version of the CSA Standard Z-614 *Children's playspaces and equipment*, and adhere to the guidelines below:

- All playground apparatus must be metal and may contain plastic components, e.g., slides, panels and roofs, and must be purchased from an approved playground manufacturer or their sales representative;
- Playground equipment will be designed to accommodate separate age groups as determined by the most current CSA Standards;
- A retainer made of material approved by the City with a minimum 300 mm settled depth of playground sand is required. Approved retainer materials include wood, plastic and concrete. Alternative playground surfaces that conform to CSA standards may be considered;
- Swing sets are to be heavy duty to accommodate heavy usage as per the CSA standards, in its latest version. Proposed alternates are to be submitted for approval by the City;
- In addition to the CSA Standards, the City requires:
 - All encroachment zones to be outside the retained sand area;
 - Deck heights to be a maximum of 1.5 m. Where decks exceed 1.5 m, decks must be completely enclosed from top side of the deck to the underside of the roof;
 - Posts supporting roofs must be covered by the roofline. The protective surfacing zone for a swing structure must extend no less than 1.8 m from the further most part of the structure; and
 - Maximum top rail height of a swing set to be no greater than 2.4 m;
- All playgrounds will have signs in locations approved by the City identifying the following (refer to Standard Drawing 9-102):
 - Intended age for play structure; and
 - The City's safety contact number.
- Wheelchair accessibility is preferred;
- Playground sites must be fenced using either chain link or wood rail fencing along roadways to a minimum height of 1.2 m as opposed to using bollards;

- Playground sites must include one picnic table. Where the playground is in proximity to a trail, this may replace the requirement for a bench;
- Playground designs are to be submitted to the City as separate drawings, to a standard metric scale, A1 hard copies and electronically (PDF). Two and three dimensional drawings are to be supplied by manufacturer; and
- Quick link chain link fence or safety fence preventing access to the equipment is required until playground construction has been accepted by the City. “Keep Out – Construction Area” signs are to be visible at all times.

8.1.3.5 Neighbourhood Entrance Features

Neighbourhood entrance features must be placed on public road ROWs. A dedication of 1 m wide at the corner cut will be identified on the drawing submission. Entry features with power or water requirements are not permitted. Entry feature design drawings must be stamped by a structural engineer in good standing in the Province the park is in.

8.1.4 Fencing

Where fences separate public and private property, they are to be located 150 mm outside the property line (on City property). After construction is complete, an FAC will be issued, providing the fence has been installed in accordance with the Municipal Development Standards and is free from deficiencies. A maintenance period is not required. Fences installed to separate park spaces from the road right of way will follow the same warranty process as the rest of the landscaping.

Maintenance equipment gates are required at controlled access points to the road system to allow maintenance equipment in the park, see Standard Drawings 9-205 and 9-206.

Fences are to be constructed between private and public property as per the approved landscaping drawings unless otherwise approved by the City. Fencing heights will be a minimum of:

- 1.2 m chain link where private property is adjacent to park space; and
- 1.8 m single board wood screen fence where private property abuts public property other than parks.

Refer to Standard Drawings 9-200 and 9-201.

8.1.4.1 Wood Fencing

Consistent 1.8 m single board pressure treated wood screen fencing will be required adjacent to the following locations:

- Arterial roadways;
- City-owned lands other than parks (e.g. fire hall sites, PUL, MUP);
- Multifamily sites;
- Neighbourhood Commercial sites;
- Institutional sites; and
- Other areas as required by the City.

Stain must not be applied on locations identified above, see Standard Drawing 9-200.

Where determined by a noise impact assessment as described in Section 3.10, a 1.8 m double closed board noise attenuation screen fencing (or other approved fencing) and berm is required, see Standard Drawing 9-207.

8.1.4.2 Chain Link Fencing

Chain link fencing 1.2 m in height and gates must be installed where playgrounds, parks and school sites are adjacent to residential properties. Gates must be located approximately at the mid-point of each lot and must open inwards onto private property. See Standard Drawing 9-201.

8.1.4.3 Wood Rail Fencing

Wood rail fencing may be used as an alternative to chain link fencing to separate park spaces containing playgrounds from the road right of way. See Standard Drawing 9-208.

8.1.5 Optional Amenities

This development activity consists of supplying and installing optional amenities, such as ornamental structures, feature walls, water features, fountains or spray pools, and will be permitted at the discretion of the City. Optional amenities will only be considered if arrangements for long-term maintenance by the Developer are agreed to at the plan approval stage and agreements are established prior to Development Agreement approval. The Developer will be responsible for any and all capital costs of any permitted optional amenities.

8.1.6 Utility Corridors and Public/Municipal Utility Parcels

Utility Corridors, Public Utility Lots (PULs) and Municipal Utility Parcels (MUPs) have some similar landscaping requirements to park spaces, but require special consideration due to their intended function. No poplar or spruce species may be planted where overhead utilities are located. The distance from overhead utilities must be as per the requirements established by the respective utility authority. A letter of confirmation of the utility restrictions is to be submitted to the City for review. No poplar or willow species are permitted within 10 m of underground water and wastewater utilities. Where possible, landscape improvements and plant materials are suggested to have increased setbacks from underground utilities, in order to minimize the potential for future conflicts. Plant no closer than the following dimensions from these services, unless otherwise approved by the City:

- 1 m from power lines;
- 3.5 m from all power hardware;
- 1.8 m from water mains, water services and water valves;
- 2 m from sewer mains, manholes and services; and
- 1.5 m from gas and all other services.

In the event a minimum utility clearance of 1 m is not maintained from the edge of the excavation by the tree spade, the involved utility company must be contacted for approval and safety procedures, e.g. exposure by hand digging or hydrovac. The distance from intermediate and high-pressure pipelines must be as required by the crossing or ground disturbance agreements made with the pipeline authority.

The alignment of all trails/walkways placed in Utility Corridors, PULs or MUPs are to be determined at the ASP and Outline Plan Stages.

8.1.6.1 Utility Corridors

Utility corridors must be graded, topsoiled, seeded, fenced and planted in accordance with these Standards and approved landscape plans. All pipeline crossing and/or ground disturbance agreements must be in place prior to construction. Utility corridor landscape improvements may range from low maintenance naturalization to a more formal landscape design, depending upon the existing landscape character already established, or the new design intent.

The Developer must provide to the City written confirmation from the utility authority when landscaping in utility corridor is not recommended. Utility corridors that may be landscaped are to be planted following the densities described in Table 8.2, unless plantings are not permitted based on

the utility restrictions described above. Shrub groupings may be substituted at the rate of five shrubs per one tree. These calculations will be based on available space for planting.

Existing trees within or abutting the utility corridor must be conserved wherever possible.

8.1.6.2 Public Utility Lots and Municipal Utility Parcels

Where appropriate, Public Utility Lots (PULs) and Municipal Utility Parcels (MUPs) may provide access to park and recreation facilities through subdivisions. PULs and MUPs must be fenced, graded and seeded or sodded. Plantings are required where space and utilities allow, and will be reviewed on a site by site basis. PULs and MUPs 4 m wide are to have a 1.5 m concrete walk or an asphalt path 3.0 m wide.

Where the PUL or MUP provides access for maintenance to a stormwater management facility (SWMF), manholes, control structures, or other structures as required by the City, surfaces must be built to provide a minimum of 4 m travelled width, as well as adequate structure and turning space for maintenance vehicles. The City may consider integrating these surfaces into the trail network, where provided. See Section 5C.12 for further details concerning SWMF maintenance access, and Section 5C.8 for details of planting and grading requirements in and around SWMF.

Linear slopes within a PUL or MUP must not exceed 6% without approved erosion control. Overland drainage PULs and MUPs are required to be sodded/seeded and fenced on both sides. In areas with a naturalized character, bioswales are to be utilized wherever possible.

8.2 Landscaping Plans

Landscaping plans will include Layout Plans, Grading Plans, Planting Plans, and Detail Drawings. All plans must show clearly both existing and proposed development. Details of the requirements for landscaping plans can be found in Section 2.3.4.10.

8.3 Rough Grading

Preparation of the clay surface of landscaped areas must conform to the following:

- Rough grading must be carried out without damage to the root and branch systems of existing plant material that is to be retained or preserved;
- All sites requiring topsoil must be rough graded within the tolerance required for topsoil accommodation; and
- The maximum allowable slope for all new hills and berms is 4:1, unless otherwise approved by the City. 3:1 slopes will be acceptable on drainage side slopes, and possibly in areas of minimal pedestrian traffic.

8.4 Topsoil

Topsoil must be placed in conformance with the following:

- All topsoil must be free of stones larger than 25 mm in their largest dimension, debris, quack grass, restricted noxious weeds, any other plants and inorganic matter;
- Topsoil must be spread over the entire area to be seeded or sodded and must be applied to a compressed depth of 150 mm for seeded or hydroseeded areas, and 125 mm for sodded areas;
- Areas for planting beds will be excavated and filled with topsoil to a depth of 450 mm for perennial beds, and 650 mm for shrub beds below finished grade, and topsoil will be applied to a minimum compressed thickness of 100 mm above finished grade. See Standard Drawing 9-305; and
- Measured elevations must be within 50 mm of design elevations, without being uniformly high or low.

8.5 Seeding

Seeding must be carried out in conformance with the following:

- Generally, seeding will not be considered acceptable for patch work in an existing, established turfed area (e.g. if a developer, utility company or any third party disturbs an established turfed area, sodding, not seeding, will be considered the only acceptable remedial treatment);
- Grass seed must be certified Canada #1 Grade Seed, meeting the requirements of the Seed Act of Canada. Composition of the seed mixture must be:

Parks/Boulevards	Roadside	Storm Ponds
12% Annual Ryegrass	55% Red Fescue	30% Fowl Bluegrass
33% Creeping Red Fescue	30% Kentucky Bluegrass	20% Coated Tufted Hairgrass (50% Seed)
30% Hard Fescue	15% Annual Rye	10% Hairy Vetch
20% Kentucky Bluegrass		10% Sloughgrass
5% Perennial Ryegrass		10% Western Wheatgrass
		10% Northern Wheatgrass
		10% Awned Wheatgrass

Other seed mixtures may be used upon the approval of the City. Alternate mixes must be appropriate to the application proposed, using the specified mixes as a guideline. Seed must be capable of producing a minimum germination rate of 75% in a germination test;

- All areas to be seeded must be given a layer of topsoil as specified in Section 8.4. Before seeding, the topsoil surface must be brought to a firm, even but fine graded condition, without local depressions or elevations;
- The seeded area must be appropriately maintained by the Developer (e.g. watering, rolling, fertilizing, weed control, and cutting), until maintenance is assumed by the City;
- Appropriate maintenance to be determined by weather conditions, soil conditions, time of year and growing conditions of the seed;
- Prior to inspection for acceptance by the City, the grass must:
 - Be mowed to a minimum height of 50 mm;
 - Cover 100% of the area designated as being grassed;
 - Be well established with no thin areas with less than 75% growth larger than 3 m²;
 - Be free of weeds, bare and dead spots; and
 - Be in an overall healthy growing condition, satisfactory to the City.
- Where the grass growth is not satisfactory to the City, the Developer must remediate the dissatisfactory areas (e.g. top dress and/or scarify and re-seed, over-seed). The remediated areas will be reviewed after one growing season to assess whether sufficient germination and growth has taken place prior to acceptance by the City.

8.6 Hydroseeding

Hydroseeding must be carried out in conformance with the following:

- All areas to be seeded must be given a layer of topsoil as specified in Section 8.4. Before seeding, the topsoil surface must be brought to a firm, even but fine graded condition without local depressions or elevations;
- The seed type must be as specified in Section 8.5;
- The hydro-seeded area must be appropriately maintained by the Developer (e.g. watering, fertilizing, weed control, and cutting), until maintenance is assumed by the City;
- Appropriate maintenance to be determined by weather conditions, soil conditions, time of year and growing condition of the seed;
- Prior to inspection for acceptance by the City, the grass must:
 - Be mowed to a minimum height of 50 mm;
 - Cover 100% of the area designated as being grassed;
 - Be well established with no thin areas with less than 75% growth larger than 3 m²;
 - Be free of weeds, bare and dead spots; and
 - Be in an overall healthy growing condition satisfactory to the City.

- Where the grass growth is not satisfactory to the City, the Developer must remediate the dissatisfactory areas (e.g. top dress and/or scarify and re-seed, over-seed). The remediated areas will be reviewed after one growing season to assess whether sufficient germination and growth has taken place prior to acceptance by the City.

8.7 Sodding

Sodding must be done for all patch work and remedial work in areas of established turf, and must be carried out in conformance with the following:

- All areas to be sodded must be given a layer of topsoil as specified in Section 8.4;
- Sod to be installed for general use must be No. 1 Nursery Sod consisting of a uniform mixture in the following proportions, by weight: Kentucky Blue Grass Blend - 75%, Creeping Red Fescue - 25%;
- Sod must be laid evenly and in staggered rows. Sod must be laid at right angles to all slopes. On slopes sod is to be secured with pegs. Pegs must not protrude above the surface of the sod;
- The Developer will be responsible for appropriately maintaining the sodded areas (e.g. watering, rolling, fertilizing, weed control, and cutting), until maintenance is assumed by the City;
- Appropriate maintenance is to be determined by weather conditions, soil conditions, time of year and growing conditions of the sod;
- Prior to inspection for Final Acceptance, the grass must:
 - Be mowed to a minimum height of 50 mm;
 - Be well established over 100% of the sodded area with no thin areas with less than 75% growth larger than 3 m²;
 - Be free of weeds, bare and dead spots; and
 - Be in an overall healthy condition satisfactory to the City.
- Where the grass is not satisfactory to the City, the Developer must remediate the dissatisfactory areas (e.g. top dress and/or scarify and re-seed, over-seed). The remediated areas will be reviewed after one growing season to assess whether sufficient germination and growth has taken place prior to acceptance by the City.