

LANDSCAPE GUIDELINES

Companion to the City of Saskatoon
Zoning Bylaw No. 7800



City of
Saskatoon

Community Services Department

May, 2004



Table of Contents

Sections

1.0	The Purpose of Landscape Development	1
2.0	Where Landscape Development Regulations Apply	1
3.0	The Application Process	2
4.0	How to Prepare a Landscaping Plan	3
5.0	Landscape Design Guidelines	3
5.1	Trees, Shrubs and Other Plant Materials	3
5.2	Hard Landscaping	4
5.3	Screening and Buffering	4
5.4	Lighting	5
5.5	Landscape Maintenance	5
5.6	Construction Guidelines	5
6.0	Creating a Safer City Through Landscape Design Considerations	6

Appendices

#1	Definitions	9
#2	Example of a Landscaping Plan	10
#3	Suggested List of Tree and Shrub Species	11
#4	Minimum Setback Requirements for Plant Material	12
#5	Screening Options for Parking Areas	13
#6	Landscape Development Options for Residential Areas	14
#7	Landscape Development Options for Commercial Areas	15
#8	Landscape Development Options for Institutional Areas	16
#9	Landscape Development Options for Industrial Areas	17





1.0 The Purpose of Landscape Development

- 1.1 The City of Saskatoon recognizes the importance landscape development has on the environment and the visual attractiveness of our City. Effective landscaping will:
- Promote the development of an attractive and safe urban environment;
 - Promote environmental conservation;
 - Improve the compatibility of adjacent land uses;
 - Protect and enhance the urban forest;
 - Protect and improve property values; and
 - Promote economic development through the provision of an aesthetically pleasing community.
- 1.2 The Landscape Guidelines Booklet contains the technical information necessary to meet the City's landscape development objectives and requirements, as provided in the **Zoning Bylaw No. 7800**. The Landscape Guidelines Booklet will also aid in landscaping design by illustrating options for development, and by providing a catalogue of plant materials appropriate for our climate.

2.0 Where Landscape Development Regulations Apply

- 2.1 Landscaping is required for all development sites as indicated on the Summary of Landscaping Requirements, provided below. This summary has been prepared only as a reference source, and the Zoning Bylaw should be consulted for the legal landscaping requirements.

Summary of Landscape Development Requirements

Zoning District	Front Yard	Side Yard Adjacent To Street	Yard Adjacent To Other "R" Sites
R1, R1A	4.5m	All	N/A
R2, R2A, RM1	4.5m	All	N/A
RMTN, RM2	4.5m	All	1.5m
RM3, RM4, RM5	4.5m	All	1.5m
M1, M2, M4	3.0m	All	1.5m
M3	4.5m	All	1.5m
B1A	2.0m	2.0m	Fencing Required
B1	2.0m	2.0m	1.5m
B2, B3, B4	3.0m	1.5m	1.5m
B5A	3.0m*	1.5m*	N/A
B5, B6	N/A	N/A	N/A
* Required for Vehicle Related Uses			
IL1, IL2	4.5m	1.5m	1.5m **
IB ***	6.0m	3.0m	3.0m **
IH	4.5m	1.5m	3.0m **
** Also Required where adjacent to Commercial and Institutional Districts			
*** Additional Requirements for Parking Areas			
MX1	6.0m	N/A	1.5m
AM****	3.0m	3.0m	N/A

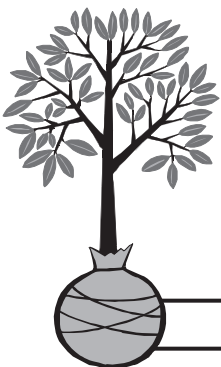
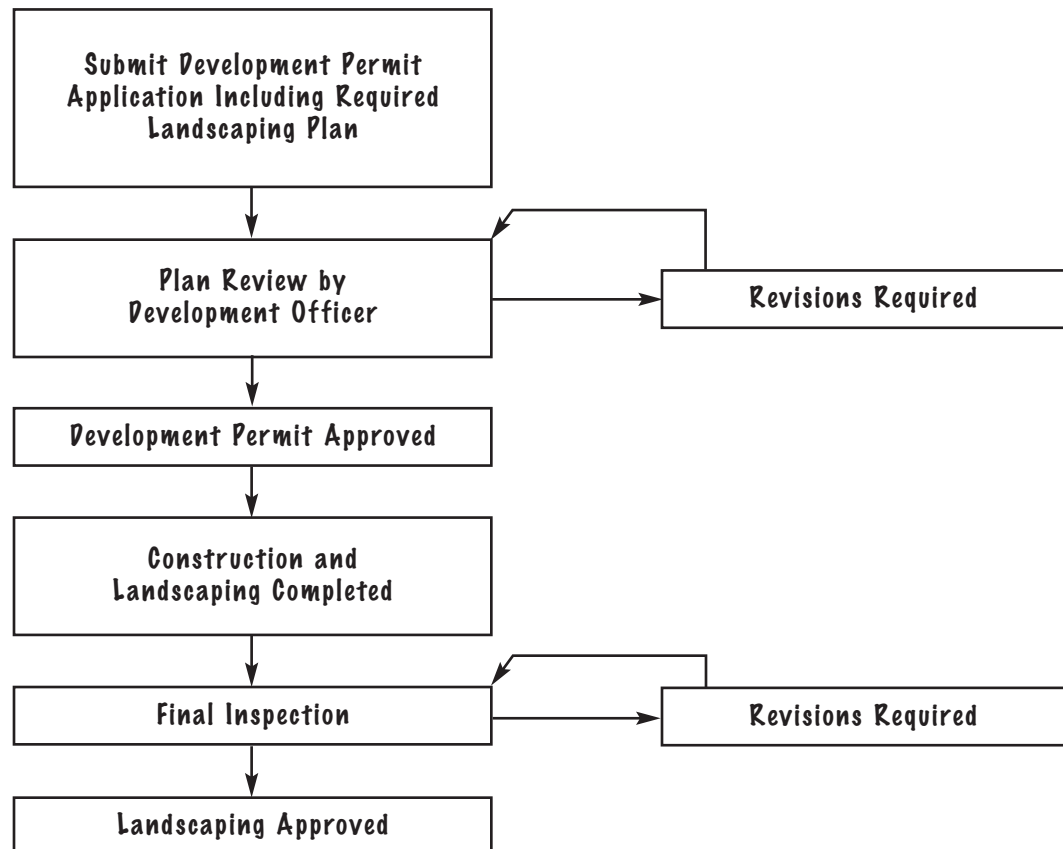
**** Additional Rear Yard Landscaping Requirements Apply





3.0 The Application Process

- 3.1 A development permit must be obtained prior to construction, where any existing use of a building or structure is significantly enlarged, undergoes a significant increase in capacity or is changed to a new use. As part of the development permit application, three copies of a landscaping plan must be submitted for review by the Development Officer. The development permit will not be issued until the landscaping plan has been approved. Landscaping plans are not required for one and two unit dwellings.
- 3.2 The Development Officer shall not approve an application for a development permit in the event that:
- A required landscaping plan has not been submitted; or
 - The required landscaping plan does not in the opinion of the Development Officer, provide for an adequate or suitable degree of soft or hard landscaping necessary to enhance the visual amenity of the site or provide a visual screen where required by the Zoning Bylaw.
- 3.3 The landscaping approval process is outlined below:





4.0 How to Prepare a Landscaping Plan

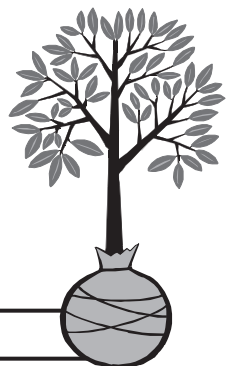
- 4.1 A landscaping plan must contain the following information:
- a) A legend that includes the site address, legal description of the site, the owner's name, the scale, a north arrow, and the date.
 - b) All property lines with dimensions, including adjacent walkways, curbs, roads and/or laneways.
 - c) All underground utilities including water/sewer/gas lines (if not already shown on an accompanying plan).
 - d) All surface utilities including fire hydrants, catch basins/manholes.
 - e) All buildings and structures, including patios, decks and recreation facilities.
 - f) All parking areas with drainage direction shown, loading areas and garbage pick-up areas including all access and entrance points.
 - g) All fences, retaining walls, and exterior lighting.
 - h) All vegetation (trees, shrubs, grass areas) to be provided, including a plant list identifying type, size and quantity of each and a calculation of the tree/shrub ratio as it relates to the required landscaping area.
 - i) All irrigation systems (manual or automatic) and/or the locations of outside spigots/hose bibs.
 - j) All other plans or details pertaining to the proposed development site, including a detailed existing site conditions plan, detailed drainage plan with spot elevations, etc. as may be requested by the Development Officer.
- 4.2 Please refer to Appendix #2 for an Example of a Landscaping Plan.

5.0 Landscape Design Guidelines

The Zoning Bylaw specifies the regulations for all landscape development. The Zoning Bylaw should be referred to prior to any landscape development. Landscape Development Options for residential, commercial, institutional, and industrial sites are provided in the Appendices, attached to this Booklet. Guidelines in *italics* indicate they are a requirement of the Zoning Bylaw. All other guidelines are recommendations intended to improve the quality of the landscape development.

5.1 Trees, Shrubs and Other Plant Materials

- a) *All plant materials shall be a species capable of healthy growth in Saskatoon and shall conform to the standards of the Canadian Nursery Trades Association for nursery stock.* See Appendix #3 for a list of tree and shrub species appropriate for Saskatoon's climate.
- b) Trees, shrubs and other plant material should be selected based on their suitability to the site.
- c) *All trees provided for planting shall be a minimum 45mm caliper for deciduous trees and 1800mm in height for coniferous trees.*





- d) *All shrubs provided for planting shall be a minimum height or spread of 450mm.*
- e) Mulch should be provided in all shrub beds, and in the area immediately adjacent to, but not within 100 mm of tree trunks, in order to suppress weed growth and to minimize moisture evaporation. Mulch should consist of peat moss, bark chips, wood shavings or other similar organic material, and should be provided at an average depth of 50 mm in irrigated areas, and 100 mm in non-irrigated areas.
- f) The placement of trees within the required landscaping area shall be at the discretion of the Development Officer. Appendix #4 identifies the Minimum Setback Requirements for Plant Material. The following should be considered when determining the placement of plant materials:
 - i) *One (1) tree for every 6 linear metres along required frontages, and one (1) tree for every 9 linear metres along required flankages;*
 - ii) One (1) shrub per 10 square metres of required landscaping area;
 - iii) Trees should be planted in a straight line at regular intervals not less than one (1) metre from the front or side property lines adjacent to a street in order to maintain a consistent and high standard of streetscape amenity;
 - iv) Trees should be planted within the balance of required landscape areas in order to provide a mixture of species, colour and seasonal foliage. This is particularly important in residential areas;
 - v) When providing plant material in the vicinity of busy roadways, salt tolerable plant material should be considered;
 - vi) At the approval of the Development Officer additional shrubs may be planted in lieu of trees at the ratio of 10 shrubs per tree; and
 - vii) Trees must provide appropriate setbacks from utilities and other obstacles.

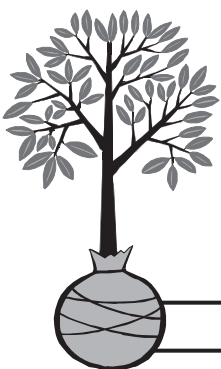
5.2 Hard Landscaping

- a) *Hard landscaping consists of concrete, unit pavers, brick pavers, or quarry tile, but does not include gravel, shale or asphalt.*
- b) The amount of hard landscaping provided shall not exceed 25% of the required landscaping area.

5.3 Screening and Buffering

The intent of screening and buffering is to provide a means of separation between uses or development. Screening or buffering is meant to mitigate or reduce the incompatibility between different land uses through the use of landscaping or other features. The degree or intensity of the screening or buffering is dependent on the level of incompatibility between the adjacent uses. See Appendix #5 for Examples of Screening for Parking Areas.

- a) Screening may include the use of such materials as: decorative fencing or walls, shrubs, trees and other plant materials. Soft landscaping should be provided in conjunction with fences or walls to provide a more visually appealing development.





- b) Shrub planting beds, fencing, berming or a combination thereof, should be selectively arranged to provide for the screening of off-street parking facilities as viewed from the street or as may be specifically required.
- c) Screening is required for garbage pick-up areas and parking lots within any commercial and industrial districts.
- d) *Fences and walls must not exceed 1.0 metre in height in the front yard of properties, and should be visually permeable. A 2.0 metre fence is permitted in dwelling groups, provided the fence is located 3.0 metres from the front property line.*
- e) *Where commercial and industrial uses are adjacent to residential areas, an opaque fence or wall must be provided along the rear lot line. Please refer to the Zoning Bylaw for required fence heights for each zoning district.*

5.4 Lighting

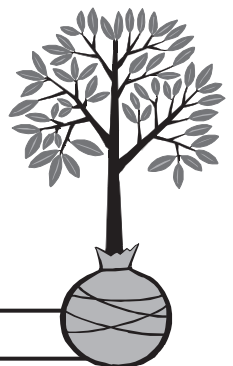
- a) Full-spectrum light provides more realistic colors at night, and also reduces glare, which ensures good visibility.
- b) Lower mounting heights and close spacing will provide improved light distribution, particularly for pedestrians.
- c) On-site lighting should be located, oriented and shielded to avoid negatively affecting adjacent properties.

5.5 Landscape Maintenance

- a) *All areas set aside for plant materials and turf shall be provided with an underground sprinkler irrigation system or other adequate means of irrigation, with at least one outside spigot for each principal building.*
- b) *All required and approved landscaping features, including screens and buffers, shall be suitably maintained by the property owner in a neat and tidy condition, at all times, including adjacent boulevard areas where applicable.*
- c) All vegetation should be watered, fertilized, pruned, weed free and otherwise cared for in such a manner as to sustain plant life, promote growth and provide an attractive appearance at all times.
- d) Dead plant material should be replaced in a timely manner and diseased materials shall be promptly treated or replaced before contamination of other plant material in the vicinity.

5.6 Construction Guidelines

- a) *In order to provide for flexible site design in commercial, industrial, and institutional zoning districts, a reduction in the overall area to be landscaped may be permitted, subject to approval by the Development Officer, where:*
 - i) *more intensive landscaping is provided;*
 - ii) *the landscaping includes the adjacent boulevard, with the exception of 2.7 metres adjacent to the curb; and*
 - iii) *at least 1.5 metres of private land is landscaped.*





If boulevard space is not available, or if the boulevard is not suitable for landscaping, the full landscaping requirement shall apply.

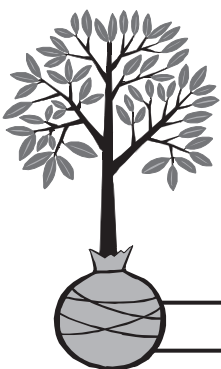
- b) *In the event that a public boulevard is considered part of the landscaping requirement, the property owner must agree in writing to maintain the entire landscape strip, including the full width of the boulevard.*
- c) *Continuous raised or pre-cast curbing of not less than 150mm in height shall be placed along the perimeter of any landscaped area abutting a driveway or off-street parking or loading facility.*
- d) *Landscaped areas required to be provided within any front or side yard shall not be used for any purpose except for signs or structures otherwise permitted or driveways leading to a parking or loading facility.*
- e) *All required landscaping features shall be completed in accordance with the approved landscaping plan by the end of the growing season in which occupancy or partial occupancy or use of the building or site has taken place. When occupancy or partial occupancy or use of a building or site has taken place after the end of the growing season, all required and approved landscaping features shall be completed by June 1st of the following growing season. For the purposes of this section, "growing season" means from May 1st to September 15th of the same calendar year.*
- f) *The City of Saskatoon diligently enforces the minimum landscaping requirements contained in the Zoning Bylaw. A site inspection will be performed on every property to ensure compliance with these requirements.*

6.0 Creating a Safer City Through Landscaping Design Considerations

6.1 The main principle of Crime Prevention Through Environmental Design (CPTED) is that proper design and effective use of the physical environment will reduce the incidence and fear of crime, which thereby improves quality of life and the local business environment. The primary goal is to reduce the opportunity for specific crimes to occur through appropriate site design. For more information on CPTED, please contact the Community Services Department.

CPTED and other safety considerations that should be incorporated into landscape design include the following:

- a) Ensure parking and pedestrian areas have adequate illumination, and ensure there are no dark spaces or shadows.
- b) Parking areas should be visible from windows and doors.
- c) Provide for clear site lines by constructing fences and walls in front yards that are visually permeable, unless otherwise required in the Zoning Bylaw.
- d) Open spaces and pedestrian areas should be clearly visible from public streets and surrounding buildings, and should have unobstructed site lines.





- e) Landscape elements, particularly trees and shrubs, should be located and maintained so they do not block light, windows, doors and walkways, and do not create hiding places.
- f) Ensure signs do not impede site lines or create entrapment areas. Illuminated signs should be considered to aid in nighttime visibility.
- g) Locating deciduous trees instead of evergreens along streets will improve the natural surveillance of the site, and will minimize entrapment areas.
- h) Develop and maintain all areas to a high standard. Poorly maintained sites will appear uncared for and thereby less secure.
- i) Grassed areas and groundcover plants, including perennial and annual flowers, should be considered for areas within 2 metres of the edge of sidewalks and other areas requiring visual surveillance.
- j) Garbage, recycling and storage areas should be suitably screened, but care should be taken to avoid creating blind spots or hiding spaces.





Appendix #1 - Definitions

Boulevard means that portion of a right-of-way that extends from the edge of the street to the property line of the adjacent property, not including the sidewalk.

Development Officer is a person appointed by the City to administer the Zoning Bylaw.

Development Permit means a document authorizing a development issued pursuant to the Zoning Bylaw.

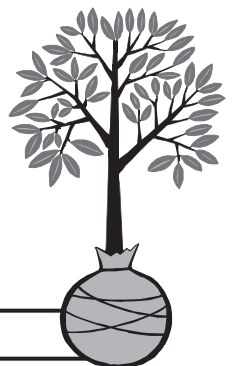
Intensive Landscaping means the planting ratio of trees and shrubs per linear metre must be at least 25% greater than the Zoning Bylaw requirement.

Landscaping means the provision of any horticultural and other related compatible features or materials designed to enhance the visual amenity of a site or to provide a visual screen consisting of any combination of the following elements:

- a) Soft landscaping consisting of vegetation such as trees, shrubs, vines, hedges, flowers, grass and ground cover; and
- b) Hard landscaping that consists of concrete, unit pavers, brick pavers, or quarry tile, but does not include gravel, shale or asphalt.

Landscaping Area means the area as identified in the Zoning Bylaw that is to be developed by the proponent of an application for a Development Permit.

Landscaping Plan shall mean a legible drawing of suitable size identifying all of the proposed landscape development required and shown in context with any proposed development for which a Development Permit is applied.





Appendix #2 - Example of a Landscaping Plan

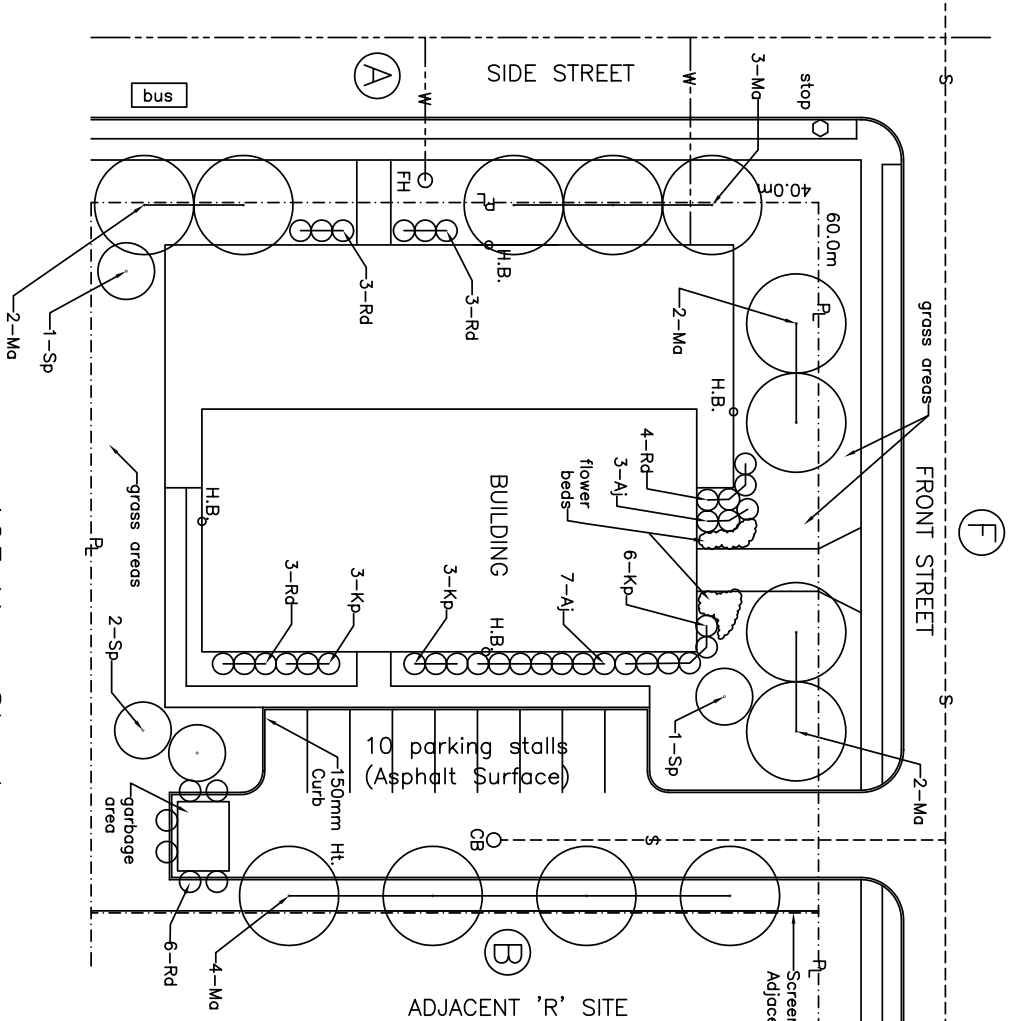
Refer to section 4.0 – How to Prepare a Landscaping Plan

Owner Name
XYZ DEVELOPMENTS

Development Site Description
123 Your Street
LOT 14, BLOCK F – NUTANA

Date
February, 2004

SCALE
1:100



PLANT LIST

Key	Type	Size	Qty.
Ma	Manitoba Ash	45mm cal.	13
Sp	Scots Pine	1.8M ht.	4
Rd	Red Osier Dogwood	450mm ht.	19
Kp	Kath. Dykes Potentilla	450mm ht.	12
Aj	Arcadia Juniper	450mm sp.	10

Flower Beds

LANDSCAPE AREA CALCULATIONS

Front Yard
3.0m Width x 60.0m Property Line = 180 sq.m.

Side Yard A
1.5m Width x 40m Property Line = 60 sq.m.

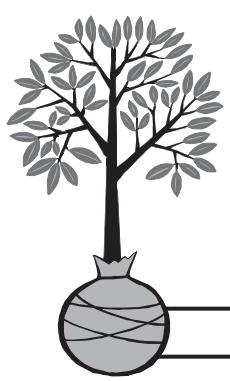
Side Yard B
1.5m Width x 40m Property Line = 60 sq.m.

① Front Yard ② Side Yard A ③ Side Yard B

Total Landscape Area = 300 sq.m.
300 sq.m./ 30 trees per = 10 trees required
300 sq.m./ 10 shrubs per = 30 shrubs required

LEGEND

- R- property line
- S- sewer line
- W- water line
- G- gas line
- OFH fire hydrant
- OCB catch basin
- h.B. hose bib





Appendix #3 - Suggested List of Tree and Shrub Species

Provided by the City of Saskatoon Infrastructure Services Department, Parks Branch

Common Name	Botanical Name	Spacing	Shape, Color, Mature Height
Deciduous Trees (seasonal)			
Black Ash	Fraxinus 'Nigra'	7.0m	oval shape, light green color, 8m ht.
Mancana Ash	Fraxinus 'Mancana'	7.0m	oval shape, green color, 10m ht.
American Elm	Ulmus Americana	7.0m	high head, green color, 25m ht.
Basswood	Tilia Americana	7.0m	low head, dark green color, 15m ht.
Deciduous Shrubs (seasonal)			
Amur Maple	Acer Ginnala	4.0m	low head, good fall color, 5.0m ht.
Silver Buffalo Berry	Shepherdia Argenta	2.5m	ball shape, silver green color, 2.5m ht.
Red Osier Dogwood	Cornus Sericea	1.5m	mound like, red stems, 2.0m ht.
Siberian Coral Dogwood	Cornus Alba 'Siberica'	1.5m	upright, bright red stems, 1.5m ht.
Silver Leaf Dogwood	Cornus Alba 'Argenteo Marginata'	1.5m	upright, white-green color, 1.5m ht.
Sweetberry Honeysuckle	Lonicera Caerulea	1.5m	round, yellow-white flowers, 1.5m ht.
Golden Flowered Currant	Ribes Aureum	1.5m	dense foliage, gold color, 1.2m ht.
Adelaide Hoodless Rose	Rosa Arkansana 'Adelaide'	1.5m	sprawling, deep red flowers, 1.0m ht.
Sandcherry	Prunus Pumila	1.5m	spreading, grey-green color, 500mm ht.
Katherine Dykes Potentilla	Potentilla Fruiticosa 'Katherine Dykes'	1.0m	arching growth, yellow flowers, 1.0m ht.
Three Lobed Spirea	Spiraea Trilobata	1.0m	ball shape, white flowers, 1.0m ht.
Coniferous Trees (year round)			
Black Hills Spruce	Picea Glauca Densata	4.0m	narrow pyramid, dark green color, 15m ht.
Scots Pine	Pinus Sylvestris	4.0m	5-7cm needles, blue green color, 15m ht.
Coniferous Shrubs (year round)			
Arcadia Juniper	Juniperus Arcadia	1.5m	spreading, green color, 500mm ht.
Compact Mugo Pine	Pinus Mugo 'Compacta'	1.0m	round, dark green color, 1.0m ht.

Note: There are many other appropriate plant materials available. Contact your local nursery or landscape contractor.



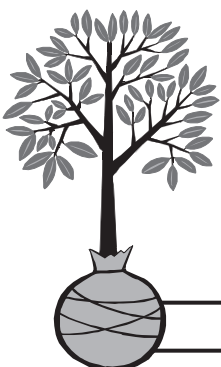


Appendix #4 - Minimum Setback Requirements for Plant Material

Provided by the City of Saskatoon Infrastructure Services Department, Parks Branch
Refer to section 5.0 – Landscape Design Guidelines

Type of Utility	Setback
Overhead Utility Lines (120-240 voltage) Street light power and traffic control lines	0.60m
Sidewalk and Pathways	1.00m
Local Road Curb Faces, Access Driveways	1.50m
Buried High Voltage Power Lines, Overhead Power Lines and Utility Pedestals, Telephone, Gas Distribution Lines and Cable (SaskPower, SaskTel, SaskEnergy and Shaw Cable)	2.00m
Arterial and Collector Road Curb Faces, Roadway Signs (except stop/yield signs)	2.00m
Fibre Optic Lines, Electrical Transformers, Water and Sewer, Fire Hydrants Manhole Covers, Street Lights, Traffic Lights Bus Stop Signs (sides and backs) - where tree is more than 3.0m from curb face	3.00m
Street Corners, Stop and Yield Signs (front face)	7.00m
Gas Transmission Lines (TransGas)	10.00m
Railway Signs, Bus Stop Signs (front face) - where tree is less than 3.0m from curb face	12.00m

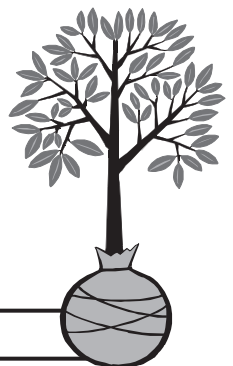
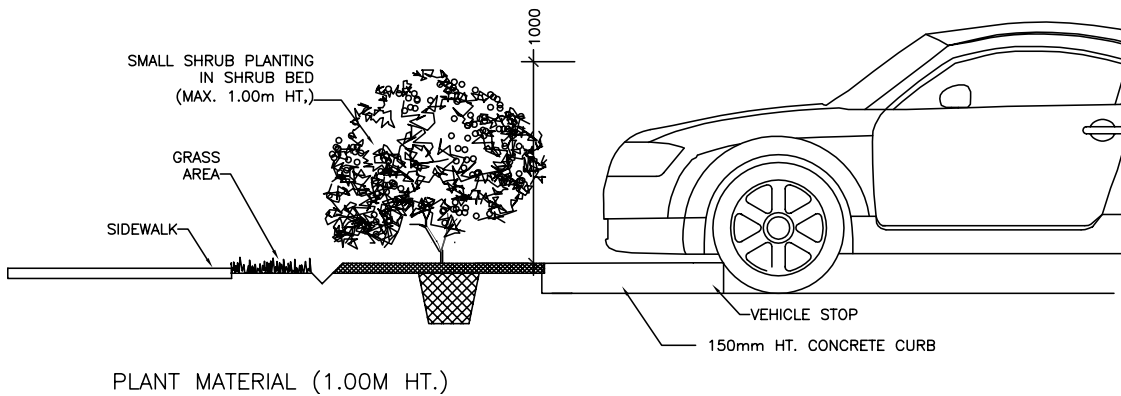
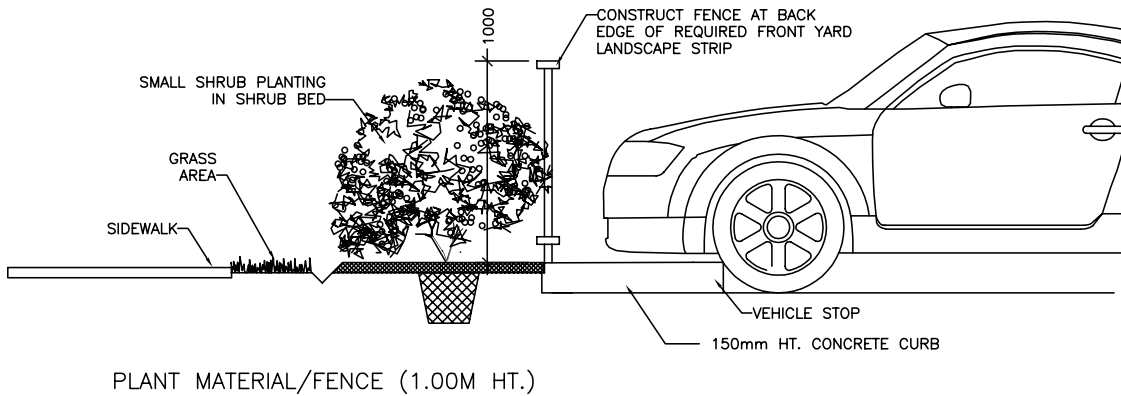
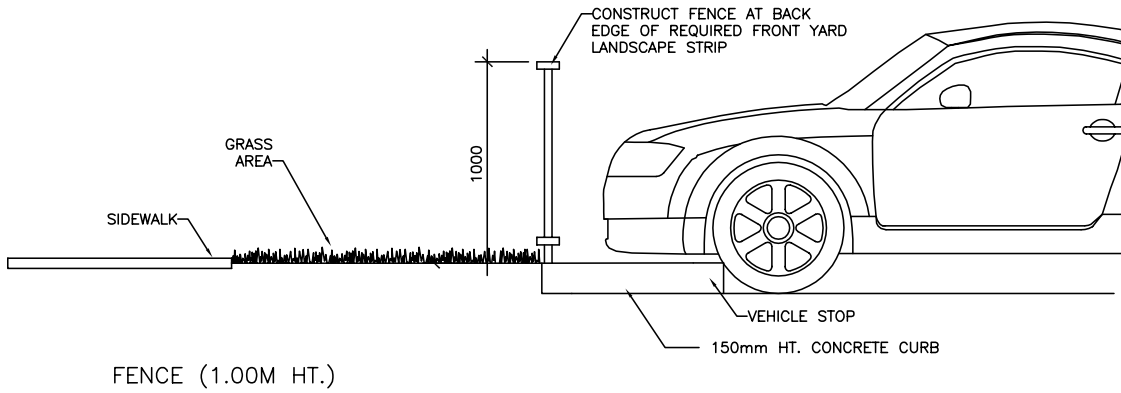
Note: All underground utilities within 5.0m of a proposed planting site must be located and flagged.





Appendix #5 - Screening Options for Parking Areas

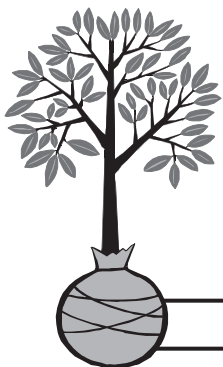
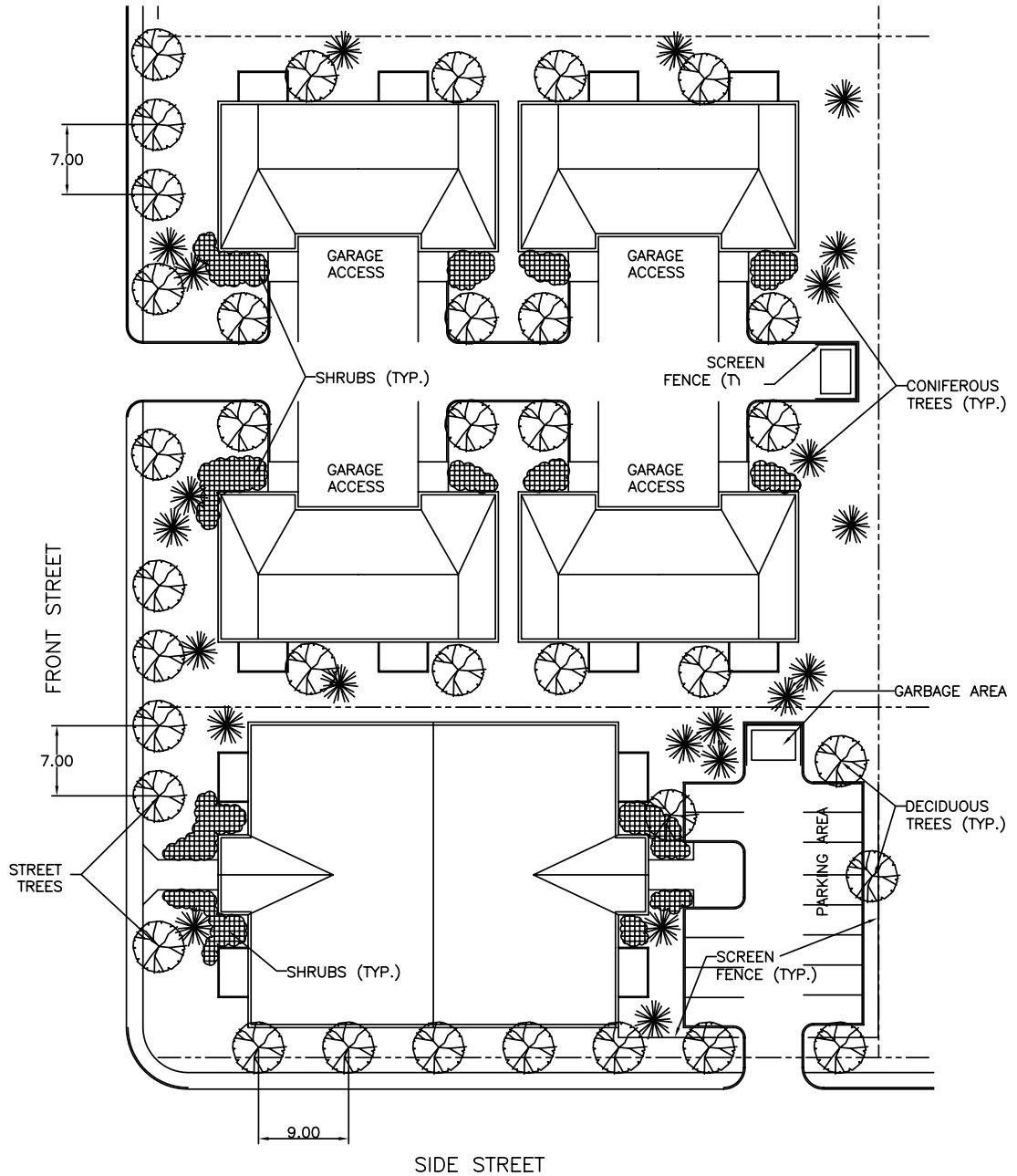
Refer to section 5.3 Screening and Buffering











Appendix #6 - Landscape Development Options for Residential Areas

Information only - As all development sites vary, proposed landscape development will vary. Refer to Appendix #3 - Suggested List of Tree and Shrub Species.

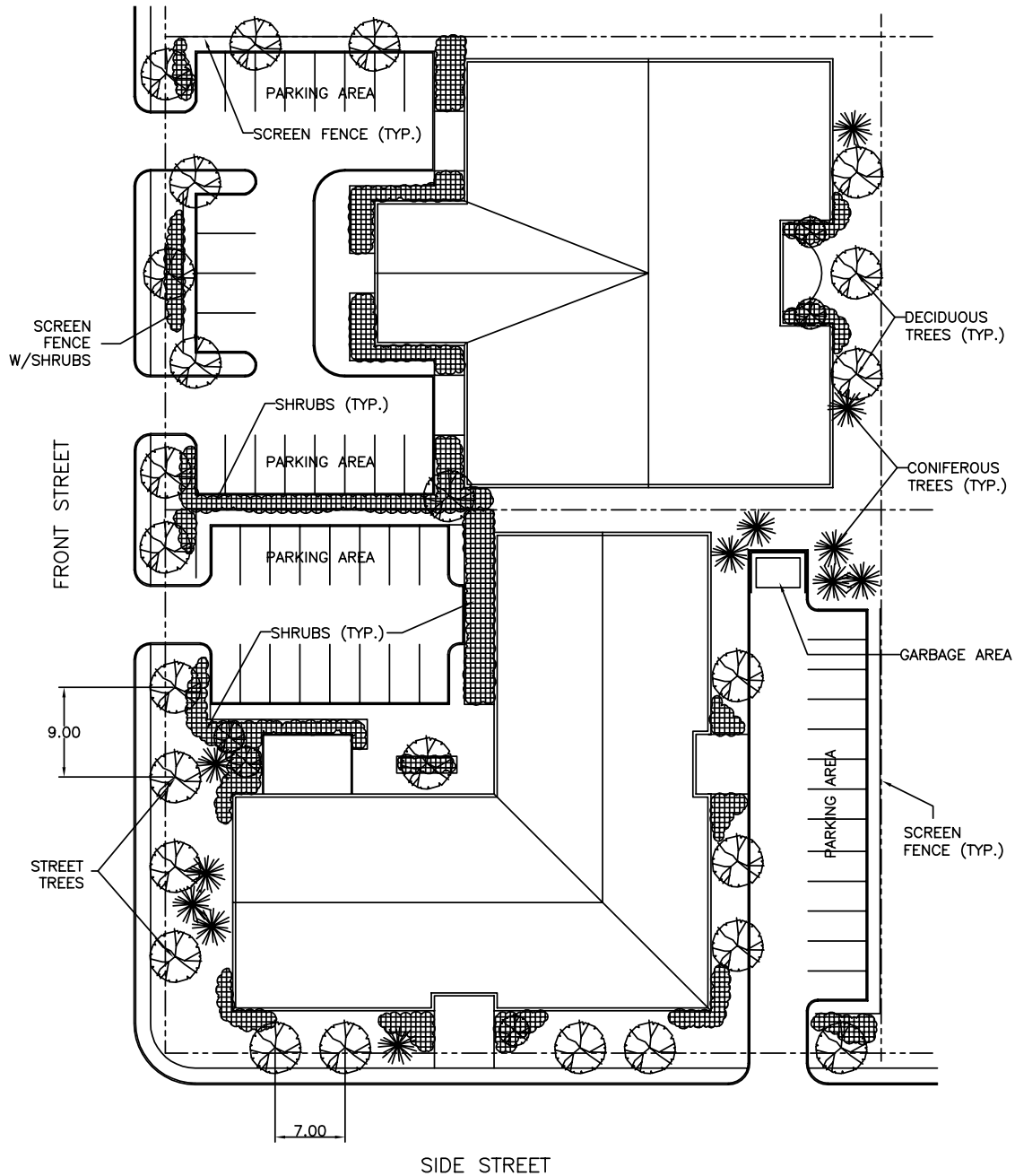








-  DECIDUOUS TREES (TYP.)
7.0M - 9.0M SPACING
 -  CONIFEROUS TREES (TYP.)
4.0M SPACING
 -  SHRUB PLANTINGS (TYP.)
IN PLANT BEDS
-
-  PROPERTY LINE (TYP.)
 -  150mm HT. CURB (TYP.)
 -  SCREEN FENCE (TYP.)



Appendix #7 - Landscape Development Options for Commercial Areas

Information only - As all development sites vary, proposed landscape development will vary. Refer to Appendix #3 - Suggested List of Tree and Shrub Species.



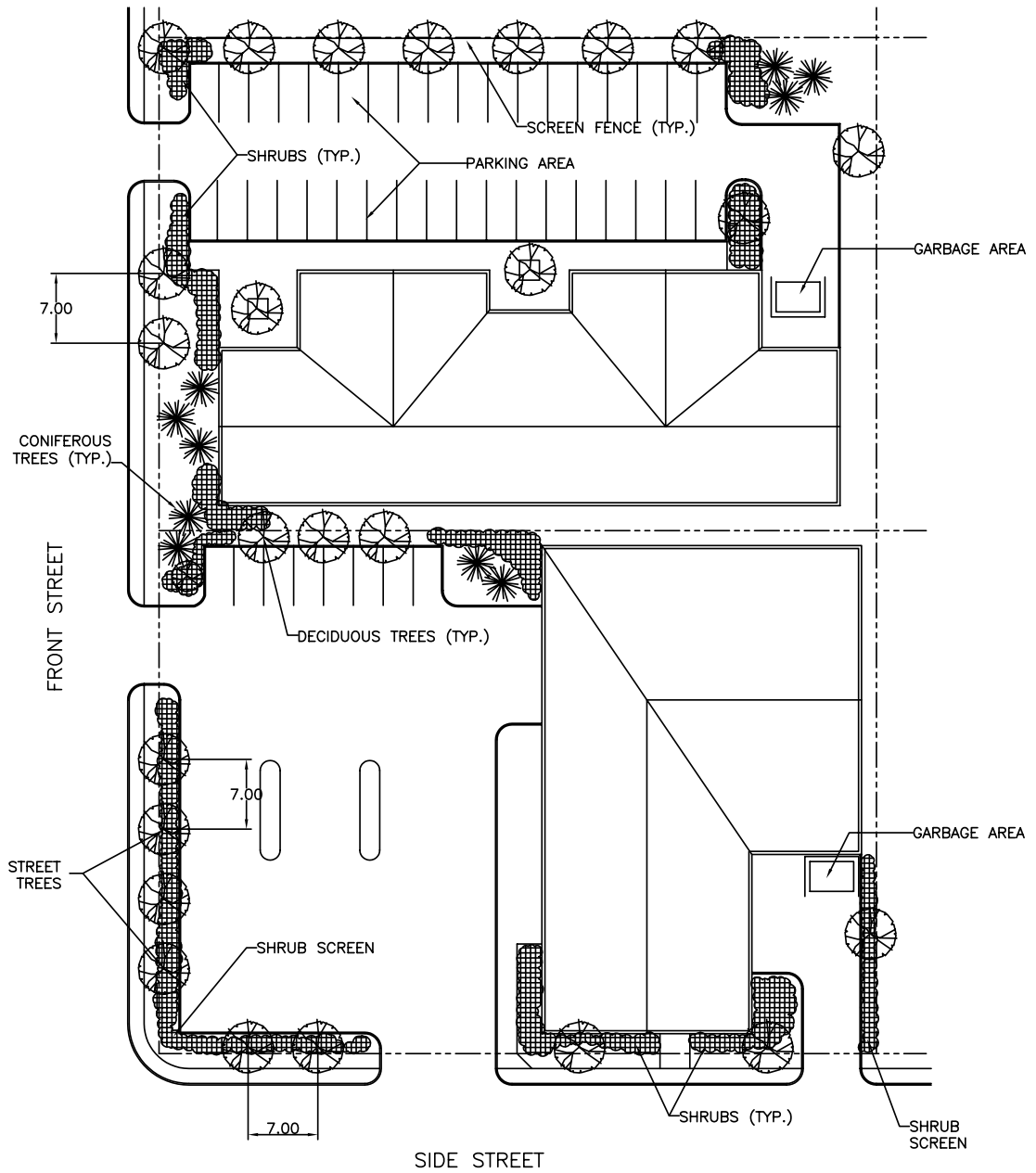
-  DECIDUOUS TREES (TYP.)
7.0M - 9.0M SPACING
 -  CONIFEROUS TREES (TYP.)
4.0M SPACING
 -  SHRUB PLANTINGS (TYP.)
IN PLANT BEDS
-
-  PROPERTY LINE (TYP.)
 -  150mm HT. CURB (TYP.)
 -  SCREEN FENCE (TYP.)









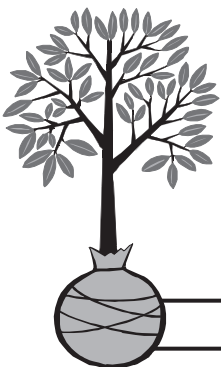


Appendix #8 - Landscape Development Options for Institutional Areas

Information only - As all development sites vary, proposed landscape development will vary. Refer to Appendix #3 - Suggested List of Tree and Shrub Species.



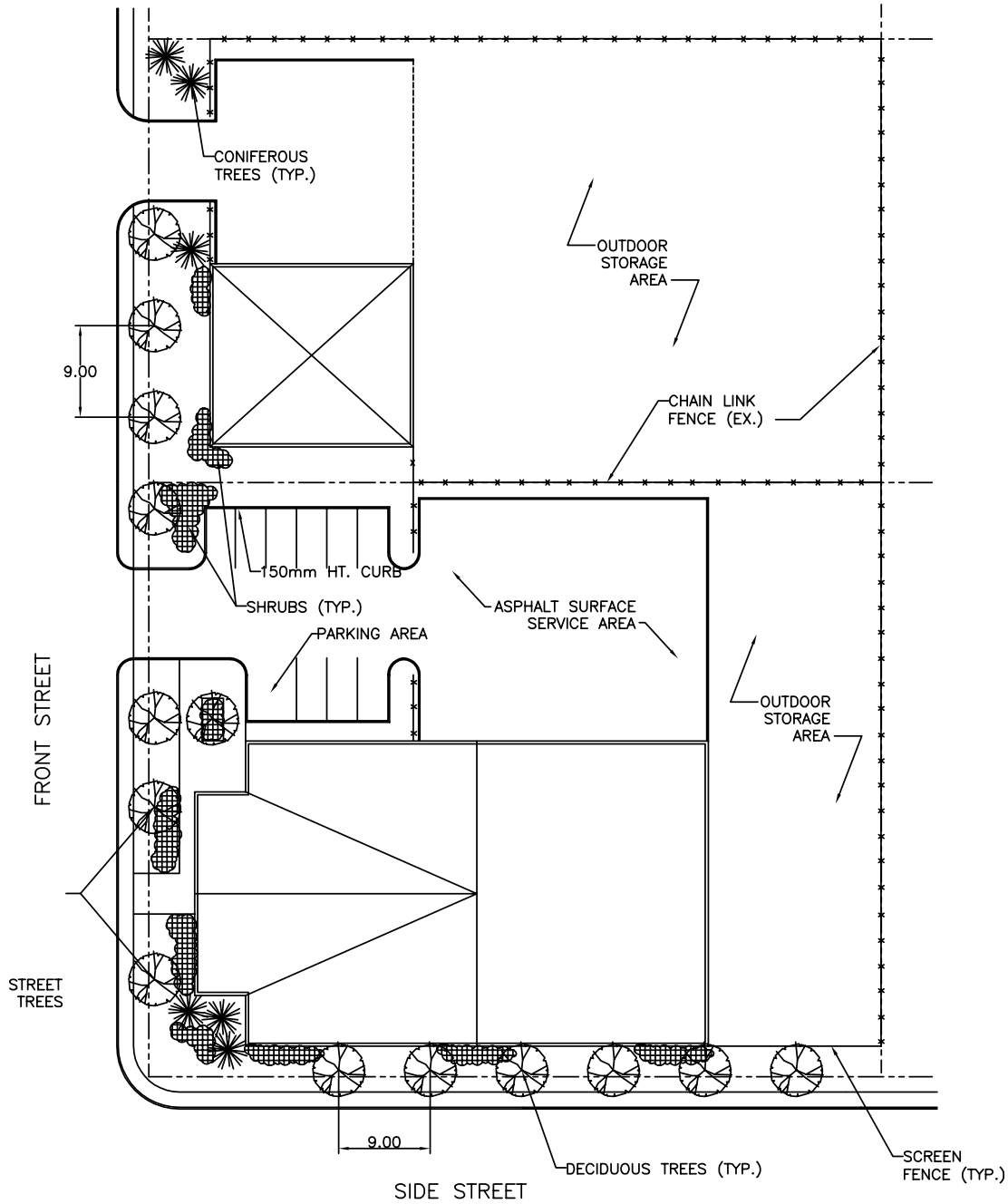
-  DECIDUOUS TREES (TYP.)
7.0M - 9.0M SPACING
-  CONIFEROUS TREES (TYP.)
4.0M SPACING
-  SHRUB PLANTINGS (TYP.)
IN PLANT BEDS
-  PROPERTY LINE (TYP.)
-  150mm HT. CURB (TYP.)
-  SCREEN FENCE (TYP.)











Appendix #9 - Landscape Development Options for Industrial Areas

Information only – As all development sites vary, proposed landscape development will vary. Refer to Appendix #3 – Suggested List of Tree and Shrub Species.



- | | | | | | |
|---|---|---|---|--|---|
|  | DECIDUOUS TREES (TYP.)
7.0M – 9.0M SPACING |  | CONIFEROUS TREES (TYP.)
4.0M SPACING |  | SHRUB PLANTINGS (TYP.)
IN PLANT BEDS |
|  | PROPERTY LINE (TYP.) |  | 150mm HT. CURB (TYP.) |  | SCREEN FENCE (TYP.) |



