

ARTICLE 29

SCREENING AND LANDSCAPE REQUIREMENTS

SECTION 29.01. Purpose

Screening and land use buffers are necessary for the protection and enhancement of the environment and to ensure reasonable compatibility between land uses of differing intensity or impacts. Screening enhances the visual environment; preserves natural features; protects property values; alleviates the impact of noise, traffic, and more intensive land uses; and minimizes visual impacts of parking lots, loading areas and storage areas. Screening and buffering also contributes to a healthy development pattern and increases the level of privacy for residential uses in the Township.

The purpose of this section is to set minimum standards for the protection and enhancement of the environment through requirements for the design and use of landscaping. All landscaping shall conform to the following standards except as otherwise specified in this Ordinance. It is the intent of this Article that required screening and buffering elements shall be immediately effective in achieving the purpose of this Article, and shall maintain that effectiveness as the plant materials mature.

SECTION 29.02. Scope

Wherever landscaping is required by this Ordinance, all portions of the landscaped area shall be planted with grass, trees, ground cover, shrubbery or other suitable plant material, in accordance with the standards provided in this Section. Paved patios, terraces, sidewalks and similar site features may be incorporated with Planning Commission approval. Plastic and other nonorganic or nonliving plant material shall be prohibited from use. Stone, rock, gravel and similar materials may be used to augment, but shall not replace, live plant materials in a landscape plan.

The standards of this Article shall be considered the minimum necessary to achieve the purposes of this Article and Ordinance. No provision of this Article shall preclude a developer and the Township from agreeing to more extensive landscaping or screening. Where existing sites have been developed without adequate screening or buffering, the purposes of this Article shall be achieved through improvements that are in reasonable proportion to the scale and construction cost of proposed building improvements, expansions, or other site improvements.

SECTION 29.03. General Standards

The following standards shall apply to all landscaping and screening elements required by provisions of this Ordinance or determined necessary by the Planning Commission as part of site plan approval:

A. Design Standards

1. Visibility. Landscaping and screening materials shall be laid out in conformance to the requirements of Article 6 (Corner Clearance Areas), and shall not conflict with visibility for motorists or pedestrian access.

2. Plantings near utility lines and fire hydrants. Required plant materials and screening shall be arranged to avoid conflicts with underground and overhead utility lines and access to or visibility of fire hydrants. The anticipated height at maturity of trees planted near overhead utility lines shall not exceed the line height above grade.
3. Protection. Where pavement and landscape areas interface, concrete curbing or similar measures shall be provided to protect plants from vehicle encroachment.
4. Irrigation. To assist in maintaining plant materials in a healthy condition, all landscaped areas shall be provided with a permanent, operable, automatic, underground irrigation system, subject to the following:
 - a. The irrigation system shall be used to maintain plant and lawn health and vigor throughout the growing season.
 - b. The Planning Commission may approve an alternative form of irrigation for a particular site, or may waive this requirement upon determining that underground irrigation is not necessary for the type of proposed plant materials.
 - c. All automatic irrigation systems shall be designed to minimize water usage, and shall be manually shut off during water emergencies or water rationing periods.
 - d. Non-residential irrigation systems shall be separately metered.

B. Plant Material Standards

1. General. The following shall apply to all plant materials:
 - a. All plant material shall conform to size and description set forth in the current edition of "American Standard for Nursery Stock" sponsored by the American Association of Nurserymen, Inc. and approved by the American National Standards Institute, Inc. (ANSI Z60.1, 2004).
 - b. All plant material shall be true to name in conformance to the current edition of *Standardized Plant Names* established by the American Joint Committee on Horticultural Nomenclature, or other source accepted by the Township.
 - c. All plant material shall be northern nursery grown; hardy to the climate of Michigan; appropriate for the soil, climatic and environmental conditions; and resistant to disease and insect attack.
 - d. Artificial plant material shall be prohibited within required screening areas.
2. Groundcovers. The following shall apply to all groundcover materials:

Article 29 – Screening and Landscape Requirements

- a. Lawn areas shall be planted in species of grass normally grown as permanent lawns in Michigan. Grass may be sodded, terra-seeded, or slot-seeded on a 2-inch topsoil base (after settling and compaction), provided that adequate measures are taken to minimize soil erosion. Sod or seed shall be clean and free of weeds and noxious pests or disease.
 - b. The creative use of groundcover alternatives is encouraged. Groundcover used in lieu of grass shall be planted to present a finished appearance after one (1) complete growing season. Prairie grass and natural wildflower and grass mix may be used where appropriate.
 - c. Synthetic materials shall not be used as a permitted groundcover. Use of stone and gravel as a groundcover shall be limited to decorative accents within a planting bed, subject to Planning Commission approval.
3. **Mulch.** Planting beds shall present a finished appearance; with shredded hardwood bark mulch or similar natural material at a minimum depth of three (3) inches. Mulch used around trees and shrubs shall be a minimum of four (4) inches deep, and shall be pulled one (1) inch away from tree and shrub trunks. An effective edge treatment shall be provided to contain and prevent migration of the mulch.
4. **Topsoil.** A minimum two (2) inches of topsoil (after settling and compaction) shall be provided for all lawn areas and ground covers. A minimum four (4) inches of topsoil shall be provided for all planting beds.

C. Standards for Size and Variety of Plant Materials

To ensure adequate variety, and to avoid monotony and uniformity within a site, required plant materials shall not include more than approximately twenty five percent (25%) of any single plant species, subject to Planning Commission approval. Plant material shall comply with the following schedule for minimum sizes at planting:

Screening Materials	Minimum Size at Installation
Deciduous Shade Trees	2 ½ caliper-inches *
Evergreen Trees	7.0 feet overall height
Deciduous Ornamental Trees	1 ½ caliper-inches * or 6 feet overall height
Shrubs	24 inches in height or 30 inches in spread

* Caliper-inches measured six (6) inches above grade.

D. Existing Plant Materials

Healthy existing trees and other plant materials on a site may be used to satisfy specific screening standards of this Article, subject to Planning Commission approval and the following:

1. If deemed necessary by the Planning Director or Planning Commission, site plans shall show all existing trees which are located in the portions of the site that will be built upon or otherwise altered, and are six (6) inches or greater, diameter at breast height (dbh). Trees shall be labeled "To Be Removed" or "To Be Saved" on the site plan.
2. The Planning Commission may require Township inspection of existing plant materials prior to or as a condition of site plan approval to determine the health and desirability of such materials. Such inspections shall be performed by qualified Township staff or by a certified arborist or similar qualified consultant.
3. Where plant materials are to be saved, prior approval shall be obtained by the property owner from the Building Director prior to any delimiting, root pruning, or similar work.
4. Four (4) foot high orange safety fencing shall be placed at the drip-line of existing trees, and around the perimeter of other preserved plant materials, with details of protective measures noted on the site plan. No vehicle or other construction equipment shall be parked or stored within protected areas. Fencing shall be removed only after completion of construction.
5. In the event that healthy trees which are intended to meet the requirements of the Ordinance are cut down, damaged or destroyed during construction, the trees shall be replaced with the same species as the damaged or removed tree or with an approved substitute, in accordance with the following schedule. However, the Planning Director may approve an alternative species or ratio based on their evaluation of the site and building configuration, available planting space, and similar considerations:

Damaged Tree¹	Replacement Tree²	Replacement Ratio
Less than 6 inches	2 ½ to 3 inches	1 for 1
More than 6 inches	2 ½ to 3 inches	1 replacement tree for each 6 inches in caliper or fraction thereof of tree that is cut down, damaged or destroyed
¹ Caliper of existing trees measured at breast height. ² Caliper inches of replacement trees measures six (6) inches above grade.		

SECTION 29.04. Bufferyard Requirements

Bufferyards are intended to mitigate potentially negative impacts land uses may have on less intensive neighboring land uses or to obscure unsightly items or areas from view off of the site. A bufferyard is a designated unit of yard or open space together with any plant materials, barriers and screening designed to minimize negative impacts of adjacent land uses. Both the amount of land and the type and amount of landscaping specified are intended to minimize potential nuisances such as noise, glare, dirt, unsightly areas and similar impacts.

The bufferyard requirements are designed to be flexible. A single standard applied to all circumstances may not function as well and might impose unnecessary difficulties on development and lead to monotony. It is the intent of the following provisions to provide flexibility to the developer or property owner through the manipulation of four (4) basic elements: distance, plant material type, plant material density and structural or land forms.

Bufferyards shall be required as indicated in the following table. Such bufferyards shall be provided along site perimeters without road frontage, except to permit driveways or other necessary site improvements.

REQUIRED BUFFERYARD TYPE

Developing Zoning	Adjoining Zoning District												
	District	SF	R-2	RM	MHP	B-1	B-2	B-3	O	I	TLM	H	PRD
SF ¹	--	C ²	C ²	--	C ²	D ²	D ²	C ²	E	E	E	E	E
R-2	C ²	A	A	B	B	C	C	B	E	D	D	D	D
R-M	C ²	A	A	A	B	C	C	B	E	D	D	D	D
MHP	--	B	A	A	C ²	D	D	C	E	E	E	E	E
B-1	C ²	B	B	C ²	A	A	A	A	C	C	C	C	E
B-2	D ²	C	C	D	A	A	A	B	C	C	C	C	E
B-3	D ²	C	C	D	A	A	A	B	C	C	C	C	E
O	C ²	B	B	C	A	B	B	A	D	D	C	C	E
I	E	E	E	E	C	C	C	D	A	B	C	C	E
TLM	E	D	D	E	C	C	C	D	B	A	C	C	E
H	E	D	D	E	C	C	C	C	C	C	C	A	E
PRD	E	D	D	E	E	E	E	E	E	E	E	E	A

Table Notes:

1. Landscape requirements only apply to subdivision or condominium development in any single family residential zoning districts.
2. The Planning Commission may require a 6 foot tall decorative masonry screen wall in addition to the landscape requirements.
3. Where the rear yard of lots or units in a plat or condominium face a perimeter road, a minimum 8 foot tall opaque screen shall be provided along the entire length of frontage. Such screen may be provided by preserving existing vegetation and/or by additional plantings.

Buffer Yard Type Descriptions (see Table below for specific Buffer Yard Requirements :

- A. Intended to separate uses, within the same or different zoning classification, provide vegetation in densely developed areas, and to enhance the appearance of individual properties.
- B. Low density screening to partially block visual contact between zoning classifications.
- C. Medium density screen to partially block visual contact between zoning classifications and to create spatial separation.

- D. Medium-high density screen intended to substantially block visual contact between zoning classifications and create spatial separation. Must form an opaque screen to a height of 6 feet within 3 years of planting.
- E. High density screen intended to substantially block visual contact between zoning classifications and create spatial separation. Type E planting buffers reduce light and noise trespass that would otherwise intrude upon adjacent zoning classifications. Must form an opaque screen to a height of 8 feet within 3 years of planting.

BUFFER YARD REQUIREMENTS

	Buffer Yard Type				
	A	B	C	D	E
Buffer Yard Minimum Width	6	10	20	30	50
Buffer Yard Minimum Width (with wall ^a)	N/A	N/A	10	15	25
Deciduous Shade Trees (per 100 lineal feet)	2	2	2	2	2
Ornamental Trees (per 100 lineal feet)		1	1	1	1
Evergreen Trees (per 100 lineal feet)	1	1	2	3	4
Shrubs (per 100 lineal feet)	4	4	4	6	6
Berm Height ^b					6 ft.

Table Notes:

- a. All screen walls shall be six (6) feet in height, consist of brick or stone, and capped with a stone or concrete cap. The color and material shall be coordinated with the materials of the principal building.
- b. The berm requirement may be waived if existing vegetation that provides an equal or greater screen than would otherwise be provided is proposed to remain undisturbed.

SECTION 29.05. Standards for Specific Areas

The following standards are intended to address the specific screening and buffering needs of particular areas or portions of a site, in accordance with the purpose and objectives of this Article:

A. Parking Lot Landscaping and Perimeter Screening

The process of development of land with its alteration of the natural topography, vegetation and creation of impervious cover can have a negative effect on the ecological balance of an area by causing increases in air temperatures and accelerating the processes of runoff, erosion, and

Article 29 – Screening and Landscape Requirements

sedimentation. Recognizing that the preservation or installation of vegetative cover promotes the health, safety and general welfare by aiding in the stabilization of the environment’s ecological balance by contributing to the process of air purification, oxygen regeneration, ground water recharge and storm water runoff retardation while at the same time aiding in noise, glare and heat abatement the following requirements for the landscaping of parking and outdoor display areas are enacted.

All areas used for the display, residential storage, or parking of any type of vehicles, boats, trailers or similar items, whether self-propelled or not, shall incorporate and provide curbed tree planting spaces not less than eighty (80) square feet in area for each tree planting. Tree planting areas shall be evenly dispersed throughout the parking, display, or storage area. Parking lot landscaping and perimeter screening shall be subject to the following:

1. Perimeter screening. Parking lots shall be screened from all abutting residential uses, residential districts, and road rights-of-way as follows:

	Screening from Residential Uses or Districts	Screening from Road Rights- of-Way
Buffer Yard Minimum Width	10 ft.	10 ft.
Evergreen trees (per 100 lineal feet)	7	None required
Evergreen shrubs (per 100 lineal feet)	None required	20

2. Snow storage area. Adequate snow storage area shall be provided within the site. Plant materials in snow storage areas shall be hardy, salt-tolerant species characterized by low maintenance requirements.
3. Landscaping within parking lots. Planting islands shall be subject to the following (see Illustrations Section at the end of this Article):
 - a. For parking, display, or storage areas measuring greater than two thousand (2,000) square feet, interior planting areas shall be provided equal to not less than ten percent (10%) of the total parking, display, or storage area. Such plantings shall be evenly disbursed throughout the parking, display or storage area according to a plan approved by the Planning Commission.
 - b. Planting islands shall have a minimum width of ten (10) feet, and a minimum area of 360 square feet.
 - c. A minimum of one (1) deciduous shade tree or ornamental tree shall be provided for each planting island. Shrubs and/or live groundcover plantings shall be used to cover remaining areas of the island. Suitable groundcover plantings include, but are not limited to: perennials planted 24 inches on-center, ornamental grasses, and daylilies, but not including lawn.

- d. Planting islands shall be located at the ends of each parking row, unless otherwise approved by the Planning Commission. However, a landscape island shall be required within the interior of a parking row so that there shall not be more than 20 contiguous parking spaces within any parking row.
- e. All landscaping and perimeter screening, except designated snow storage areas, shall be protected from vehicle encroachment with concrete curbing or similar permanent means.
- f. All planting beds, lawn areas, rights-of-way, and parking lot islands shall be irrigated (except for bioswales). All lawn areas and rights-of-way shall be sodded.

B. Loading, Storage, and Service Area Screening

Loading, storage, and service areas, public utility and essential service uses and structures, ground equipment shelters, ground-mounted transformers, generators, and HVAC units, electric sub-stations, gas regulator stations, and similar facilities shall be screened from road rights-of-way and adjacent uses subject to review and approval of the Planning Director and the Planning Commission.

C. Detention and Retention Basin Screening

Where a detention or retention basin, or similar stormwater management facility is required, such facilities shall comply with the following:

- 1. To the extent possible, basin configurations shall be incorporated into the natural topography. Where this is not practical, the basin shall be shaped to emulate a naturally formed or free form depression. The basin edge shall consist of sculptured landforms to filter and soften views of the basin.
- 2. Basins shall be designed to avoid the need for perimeter fencing. Where such fencing is necessary, the location and design shall be subject to Planning Commission approval.
- 3. Basins shall be planted with a mixture of groundcover and wetland-based plantings.
- 4. A perimeter greenbelt buffer shall be provided in accordance with Article 29 and the following:
 - a. Required plantings:
 - i. Two (2) deciduous shade trees per 100 lineal feet.
 - ii. One (1) ornamental tree per 100 lineal feet.
 - iii. Four (4) evergreen trees per 100 lineal feet.

- iv. Six (6) shrubs per 100 lineal feet.
- b. Plantings shall be clustered around the basin to achieve a variety of plant materials and to replicate a natural environment.
- c. Trees shall be planted above the freeboard line of the basin. Any plantings proposed below the freeboard line shall be tolerant of wet or moist soil conditions. The location of plant materials shall take into consideration the need to provide access for routine basin maintenance.
- d. There shall be a 4 to 5 foot wide buffer planted at the water's edge around the entire basin to discourage geese. This buffer shall consist of plant material designed to achieve a height of at least three (3) feet at maturity, including native grasses, forbs, shrubs, and wildflower mix.

D. Building Fronts and Interior Landscaping

Interior landscaping areas, constituting at least fifteen (15%) percent of the total lot area, exclusive of the rights-of-way, required bufferyards, greenbelts and required parking lot landscaping, shall be provided in every non-residential or residential development excluding single family detached residential uses.

- 1. Interior Landscaping should be grouped near building entrances, along building foundations, along pedestrian walkways and along service areas in accordance with the following standards:
 - a. One deciduous or evergreen tree shall be required for every four hundred (400) square feet of required interior landscaping area. Upon approval of the Planning Commission, two (2) tree-like shrubs or two (2) ornamental trees may be substituted for each deciduous or evergreen tree.
 - b. One shrub shall be required every two hundred fifty (250) square feet of required interior landscaping area.
 - c. The interior landscaping area shall be curbed or edged and shall contain grass or groundcover as required in Article 29 (Ground Covers).

E. Rights-of-Way and Other Adjacent Public Open Space Areas

Public rights-of-way and other public open-space areas adjacent to required landscaped areas and development sites shall be landscaped in a manner that enhances the visual character of Township roads and minimizes adverse impacts of vehicular traffic on adjacent uses. Right-of-way landscaping shall be subject to the following:

- 1. **Street trees.** Street tree plantings shall be required for all development projects along the margins of road rights-of-ways in the Township, subject to the following (see illustration):

- a. Street trees shall consist of deciduous shade trees planted at a minimum concentration of one (1) street tree per 40 linear feet of right-of-way. Required trees may be planted at regular intervals or in groupings. A residential street shall contain two (2) deciduous trees per lot. One (1) tree planting may be located at each lot front with the balance located in random natural groupings along road right-of-ways.
 - b. Existing trees near or within road right-of-ways shall be preserved where feasible.
 - c. Permits may be required by the Road Commission for Oakland County or Michigan Department of Transportation for installation of street trees within rights-of-way under their jurisdiction. Where such plantings are not permitted within a road right-of-way, required street trees shall be planted within the front yard setback area, or at an alternative location approved by the Planning Commission.
2. **Groundcover plantings within road rights-of-way.** Road right-of-ways shall be planted with grass or other living ground cover.
 3. **Maintenance of right-of-way landscaping.** Right-of-way landscaping shall be maintained by the owner of the abutting lot(s).

G. Entrancesways

An identifying sign shall be erected and landscaping installed at each road access point or entrance to any type of residential development, mobile home park, office complex, commercial development, or similar planned development, containing more than two (2) buildings that are related in purpose. The landscaping shall consist of a mixture of sizes and species of trees and shrubs, so as to provide partial screening of the development from the road. The use of berms and plantings shall be arranged as a support system for the identifying sign. Any sign erected for this purpose shall not exceed six (6) feet in height and fifty (50) square feet in area, shall be constructed of permanent, durable materials and shall be designed so as to be compatible with the architecture of the surrounding development.

The Planning Commission may waive these requirements when it determines that the parcel size and configuration are such as to make the provisions of the landscaped area inappropriate due to such factors as size of the development, location off a long private road, or where all the lots face a major thoroughfare.

SECTION 29.06. Prohibited Plant Materials

The following trees are not considered desirable plant materials because of various problems and shall not be used, except where removal of existing trees would result in a loss of screening or buffering, or where noted below:

Species	Common Name
Acer negundo	Box Elder
Ulmus x	Elm varieties; except disease-resistant cultivars, such as ‘Regal’, ‘Pioneer’, ‘Homestead’, ‘Jacan’ and ‘Accolade’
Aesculus x	Horse Chestnut; except for use in greenbelts and transition zones between developed and un-developed areas of a site
Populus x	Poplar varieties
Elaeagnus x	Olive varieties
Salix x	Willow varieties; except in appropriate wetland ecosystems
Catalpa x	Catalpa varieties
Ailanthus altissima	Tree of Heaven
Ginkgo biloba	Ginkgo (female); male trees are acceptable
Robinia pseudoacacia	Black locust
Morus alba	Mulberry (white)
Acer saccharinum	Silver Maple
Fraxinus x	Ash varieties

SECTION 29.07. Installation

All screening shall be installed in a manner consistent with the standards of the American Association of Nurserymen, the approved site plan, and the following:

1. **Deadline for installation.** Installation of required screening and landscaping shall be completed prior to or at the time of completion of building construction, except when building construction is completed during the off-season when plants cannot be installed, in which case the owner shall provide a performance guarantee to ensure installation of required landscaping in the next planting season.

2. **Extension.** The Building Director may extend the deadline to allow installation of required plant materials by the end of the next planting season, upon determination that weather conditions, development phasing, or other factors would jeopardize required plant materials and prevent their installation by the deadline specified in this Section.

3. **Performance guarantee.** The Building Director may require submittal of a performance guarantee, per Article 1 (Fees and Performance Guarantees), in an amount equal to 125% of the estimated cost of installing required screening elements and plant materials. After installation has been completed, the Building Director or Planning Director shall conduct an inspection of the plant materials before the performance guarantee may be released. Ten percent (10%) of the total performance guarantee may be held by the Township for two (2) years from the date of completion, to insure appropriate maintenance and replacement, if necessary, of all screening elements and plant materials, as required by Article 29.

SECTION 29.08. Maintenance

All screening elements and plant materials shall be maintained in accordance with the approved site plan, and the following:

1. Maintenance procedures and frequencies to be followed shall be specified on the site plan, along with the manner in which the effectiveness, health, and intended functions of the screening elements and plant materials on the site will be ensured.
2. Plant materials shall be kept in a neat, orderly and healthy growing condition, free from weeds, debris, and refuse. Tree stakes, guy wires, and tree wrap shall be removed after one (1) year.
3. Pruning of plant materials shall be limited to the minimum necessary to ensure proper maturation of plants to achieve their intended purpose.
4. All required screening elements and plant materials shall be planted and maintained in accordance with an approved site plan. Failure to maintain required screening, including the removal and replacement of dead or diseased plant materials, shall be a violation of this Ordinance.
5. The replacement or removal of plant materials in a manner not consistent with an approved site plan shall be a violation of this Ordinance.
6. Adequate provisions shall be made to supply water to all required plant materials as necessary to ensure proper growth and development.
7. Lawn spraying and fertilizing must be done in accordance with Commerce Charter Township Code.

SECTION 29.09. Exceptions

The Planning Commission may reduce or waive the specific standards of this Article, upon determination that the screening and/or landscaping requirements and purposes of this Article have been satisfied by existing topography, vegetation or other means acceptable to the Planning Commission.

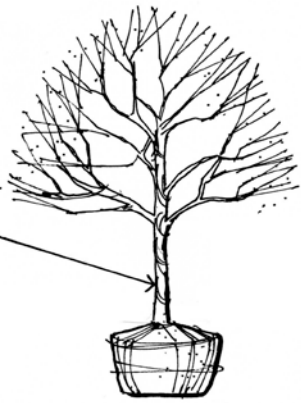
SECTION 29.10. Landscape Plans

In addition to the requirements specified in Article 35, Site Plan Review, landscape plans submitted for review in Commerce Township shall comply with the following requirements:

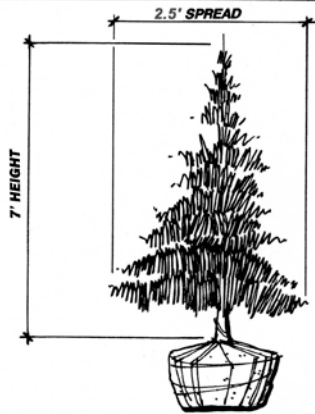
- A.** Landscape plans shall be prepared by a registered landscape architect.
- B.** For each plant species proposed, an informational profile shall be submitted, which shall identify the plant species and cultivar, provide a photograph, and include growth characteristics in order to determine the suitability of the plant for the selected location.

TREE CALIPER MEASUREMENTS
FOR NEW TREES ONLY

TAKE MEASUREMENT
6" ABOVE GROUND
LEVEL
MINIMUM: 2 1/2"

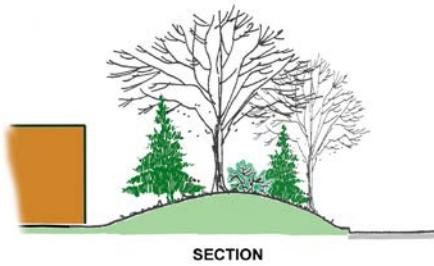


DECIDUOUS CANOPY TREE



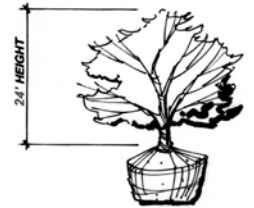
EVERGREEN TREE

Minimum Plant Sizes

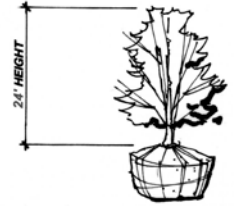


Berm

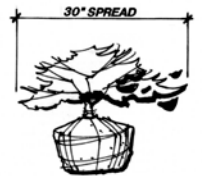
ILLUSTRATIONS



DECIDUOUS SHRUB

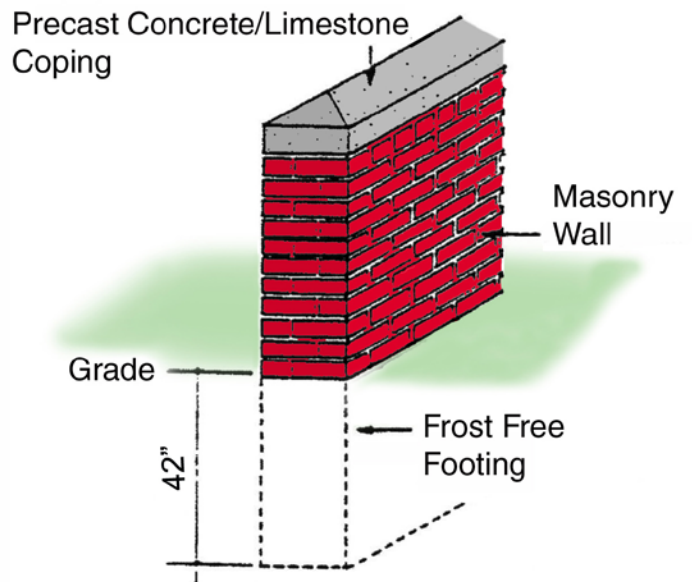


UPRIGHT EVERGREEN SHRUB



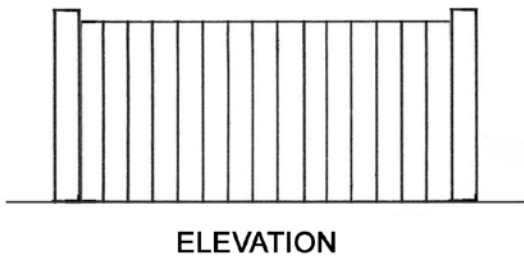
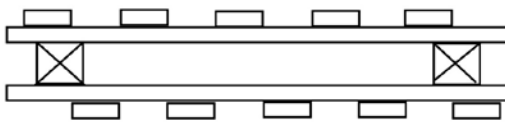
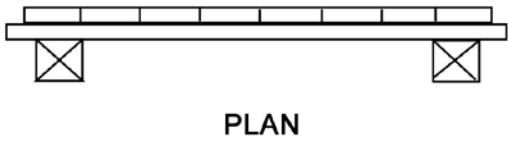
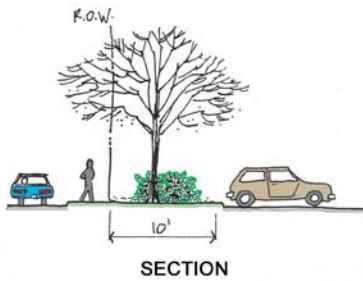
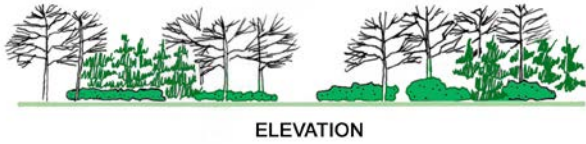
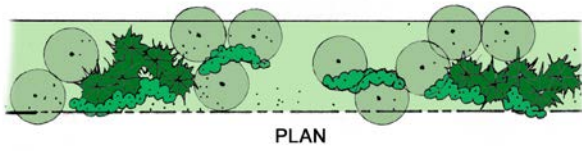
SPREADING EVERGREEN SHRUB

Minimum Plant Sizes



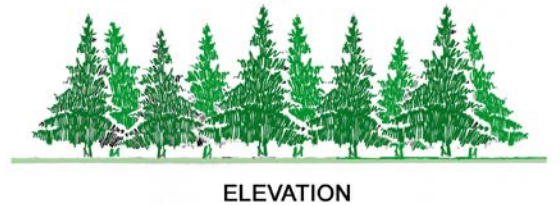
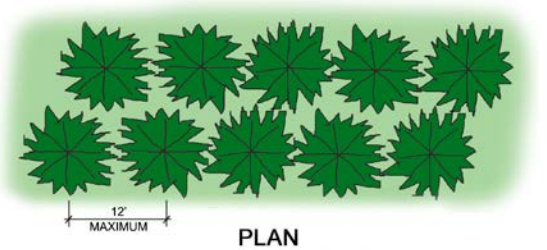
Screen Wall

ILLUSTRATIONS



Fence

Greenbelt
Buffer

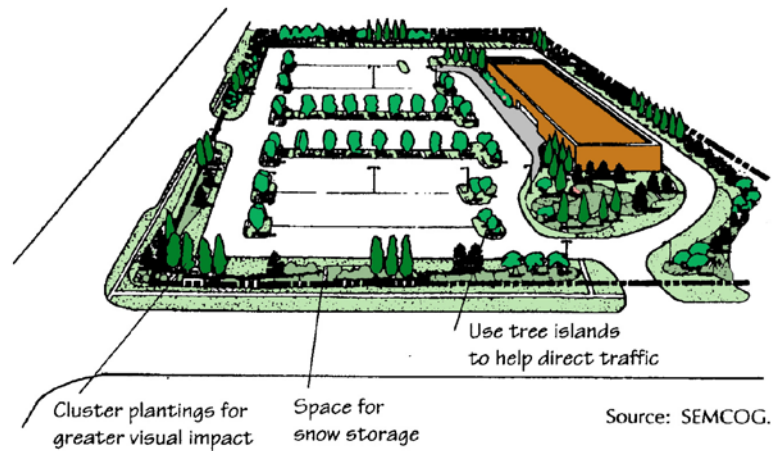
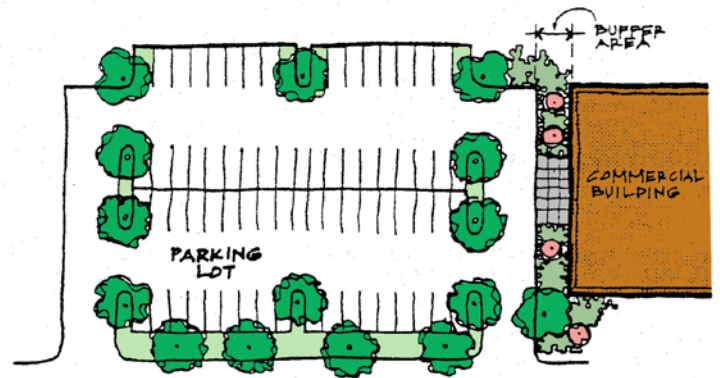


Evergreen Screen

ILLUSTRATIONS



Street Trees



Source: SEMCOG.

Landscaping Within Parking Lots