

CHAPTER 20

Landscape and Greenbelt Provisions

Section 20.01 Title:

Landscape and Greenbelt Provisions

Section 20.02 Intent:

The intent of this Chapter is to assist development proposals in meeting desired landscaping objectives and to set forth minimum yet flexible standards for required landscape areas.

The objectives and primary functions of landscaping are both utilitarian and aesthetic. The utilitarian aspects and effects of good landscaping design includes:

1. The screening of lighted areas and unattractive features.
2. The prevention of glare from buildings, cars and other sources.
3. The control of air pollution by the absorption of noxious gases and the release of oxygen.
4. The reduction of noise and the stabilization of soils.
5. Decreased wind velocity and increased surface water retention.
6. The definition of access and circulation.

The aesthetic functional aspects and effects of good landscape design include:

1. The enhancement or the focusing of attention toward a feature (building, main entrance, sign, etc.)
2. The provision of visual relief from monotonous features such as building walls, large parking lots and streets.
3. The adding of natural color and the attraction of wildlife.

Section 20.03 Landscaping - General:

For all uses except single-family residential and agricultural, every site upon which a building or structure has been placed shall be landscaped in accordance with a plan and specifications approved by the Planning Commission. The entire site not devoted to floor area, parking, access ways or pedestrian use shall be appropriately landscaped with grass, canopy and coniferous trees, shrubs and ground cover. Expansion areas shall be placed in grass and kept weed free. Any areas which become disturbed for any reason shall be restored in accordance with the original landscape plan

unless approved otherwise in writing by the Planning Director.

1. Landscaping shall be installed within ninety (90) days of completion of the building or structure, or unless permitted in writing by the Planning Director at a later date.
2. All landscaping shall be hardy plant materials and maintained thereafter in a neat and orderly manner. Withered and/or dead plant materials shall be replaced within a reasonable period of time but no longer than one growing season.
3. Underground sprinkling systems shall be installed on private property where necessary to service landscaped areas and such areas shall be neatly maintained, including mowing, fertilizing and pruning.
4. Parking and loading areas shall be landscaped and/or fenced in such a manner as to interrupt or screen the areas from view.
5. For the purpose of this Chapter a corner lot is considered as having two front yards and the appropriate landscaping shall be provided for both.
6. The extensive use of cobble stones, crushed stones or other non-living material as a ground cover is discouraged.
7. Where appropriate, plantings should be grouped or clustered to provide the maximum visual effect.
8. The Planning Commission may require a readily available water supply with at least one outlet located within 150 feet of all plant material to be maintained. (New Section added by Ordinance #14 of 1989).

Section 20.04 Bufferyard Requirements:

1. When Bufferyard Requirements Apply - Bufferyard requirements shall apply to all new development within Cascade Township. The bufferyard requirements shall also apply to all expansions, renovations, or alterations which increase the size of an existing structure or building cumulatively by at least 20 percent of its gross floor area as of January 1, 1990.
2. The following table (Table 20-A) indicates the minimum bufferyard required between developments based upon zoning or road classification. In reading the table the following shall apply:
 - a. The left-hand column identifies the type of proposed development. If the proposed



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development is (or is proposed to be) a PUD the Planning Commission shall determine which bufferyard is required along abutting property

- b. The top column identifies the zoning district or road classification of the adjacent land use.
- c. The letter designations contained in Table 20-A refer to the requirements and standards contained in Section 20.04(3).

- 3. Bufferyard requirements are stated in terms of width of the bufferyard and the number of plant units required per one hundred (100) linear feet of bufferyard. The type and quantity of plant materials required by each bufferyard, and each bufferyard option are specified in this Section. (Section 20.04 substantially revised by Ordinance #14 of 1989)

Table 20-A: Adjacent Land Use: Bufferyard Requirements (Amended by Ord No 5 of 2010; 3/10/10)

Proposed Land Use	ARC	FP	R1	R2	B1	B2	O	ES	AC	I	TI	Arterial/Collector	Highway
ARC	N/A	N/A											
FP	N/A	N/A											
R1	N/A	N/A	N/A	N/A	A	B	A	B	B	B	B	A	B
R2	N/A	N/A	N/A	N/A	A	B	A	B	B	B	B	A	B
B1	E	N/A	F	F	C	C	D	C	D	C	C	C	B
B2	F	N/A	G	G	C	D	D	D	D	D	D	C	C
O	E	N/A	F	F	D	D	D	D	C	C	C	C	D
ES	E	N/A	G	G	C	D	D	D	C	D	D	C	C
AC	E	N/A	F	F	D	D	D	D	C	B	B	C	C
I	F	N/A	G	G	E	D	E	D	D	C	C	C	C
TI	F	N/A	G	G	E	D	D	D	D	C	C	C	C

N/A = Not Applicable

Table 20-B: Quantity of Plant Materials in Bufferyards Per 100 Linear Feet

Bufferyard Plant Type	A	B	C	D	E	F	G
Minimum Width of Bufferyard (ft)	10	10	20	25	30	35	40
Canopy Tree	1	2	2	3	4	5	6
Understory Tree	2	4	4	6	6	4	4
Shrubs	N/A	N/A	6	9	12	18	24
Evergreen/Conifer	N/A	2	N/A	N/A	2	7	10

N/A = Not Applicable



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Section 20.05 Bufferyard Design Requirements:

1. Minimum Plant Size: New plant materials shall meet the minimum plant size requirements contained in Table 20-C.

Table 20-C: Minimum Plant Size		
Plant Material Type	Planting in Bufferyard abutting Vacant Lands	All other Plantings
Canopy Tree Single Stem	1 ½" Caliper	2 ½" Caliper
Canopy Tree Multi-Stem clump	6 feet (height)	10 feet (height)
Understory Tree	4 feet (height)	1 ½" Caliper
Evergreen Tree	4 feet (height)	5 feet (height)
Shrub Deciduous	15 inches (height)	24 inches (height)
Shrub Evergreen	12 inches (height)	18 inches (height)

2. Berms- Undulating earthen berms not exceeding six (6) feet in height, as measured from average grade, and 3:1 slope may be permitted within a required bufferyard. Credit of up to 25 percent may be received against the required plantings through the use of berms three (3) feet in height or greater.
3. Use- A bufferyard may be used for passive recreation; it may contain pedestrian or bicycle pathways, provided that:
 - a. No plant material is eliminated;
 - b. The total bufferyard (width and length) is maintained; and
 - c. All other requirements of this Ordinance are met.
4. Stormwater Retention/Detention Facilities in Bufferyards - The Planning Director shall be authorized to allow stormwater retention/detention facilities to encroach into bufferyards a maximum of 30 percent of the bufferyard width, where it can be demonstrated that all planting requirements are met and the visual screen provided by the bufferyard will be fully achieved.
5. Location - All plantings for a bufferyard shall be planted within the required bufferyard.
6. Existing Plant Materials - Existing plant materials which satisfy the minimum size requirements set forth in

Section 20.05(A) above and all other requirements or specifications of this Chapter shall be credited toward satisfying the bufferyard requirements of the proposed use.

7. Maintenance of Plant Materials- All plant materials in bufferyards shall be maintained in a good condition so as to present a healthy, neat and orderly appearance. The owner, tenant of their agent shall insure that:
 - a. All plant growth in landscaped areas be controlled by pruning, trimming, or other suitable methods so that plant materials do not interfere with public utilities, restrict pedestrian or vehicular access, or other wise constitute a traffic hazard;
 - b. All planted areas be maintained in a relatively weed-free condition and clear of undergrowth; and
 - c. All plantings be fertilized and irrigated at such intervals as are necessary to promote optimum growth. (Section 20.05 substantially changed by Ordinance #14 of 1989).

Section 20.06 Required Bufferyards - Additional Planting Requirements:

For reasons of conflicting uses, unfavorable topography or other unique or extenuating physical circumstances the Planning Commission may increase required landscape plantings in any required greenstrip or greenbelt, if in its discretion any increase is found to be necessary to reasonably achieve stated utilitarian and aesthetic objectives.

Section 20.07 Required Bufferyards - Reductions and Substitutions of Plantings:

If a physical hardship exists or existing topography and vegetation are determined by the Planning Commission to provide equal or better landscape and buffering effect, the Planning Commission may approve modifications only to the planting requirements of Sections 20.04 and 20.05. The Planning Commission may require such alternate plantings and visual screens as hedges, fences, walls, and/or combination thereof which it deems necessary to ensure compliance with stated utilitarian and aesthetic objectives.



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Section 20.08 Greenspace within the Public Right-of-Way and Private Easements:

For the land area lying between the required greenstrip in the front yard of properties and the edge of pavement of a public or private street the following standards shall apply.

1. As a minimum grass or other living ground cover shall be neatly maintained and kept weed free by the owners of property abutting the public right-of-way or private easement.
2. Trees within a public right-of-way shall not be planted without the written consent of the Kent County Road Commission or the Michigan Department of Transportation.

4. Protection of Landscaping- Internal landscape areas shall be protected by the installation of a raised concrete curb or anchored landscape timbers around their border. The curb is intended to prevent motor vehicle infringement upon landscaped areas and to insure that the landscaping materials remain within a defined area.
5. Required Plantings- For each 180 square feet of required landscaped area one (1) canopy tree or two (2) evergreen/conifer trees.
6. Minimum Plant Size- All new plants required for internal landscaped areas shall meet the minimum size requirements set forth in Section 20.05(1) above. (Section 24.07 was substantially revised by Ordinance #14 of 1989).

Section 20.09 Parking Areas, Front Yard - Required Landscaping:

Landscaping shall be provided for in all internal areas of parking lots so as to provide visual and climatic relief from broad expanses of pavement. Landscape features installed in fulfillment of this requirement should be designed and situated to protect lighting fixtures and fire hydrants and to define access and circulation ways.

1. When Internal Landscaping Requirements Apply- The internal landscaping requirements contained herein apply to all new development within Cascade Township. New industrial development is exempt from the requirements contained in this Section. These requirements shall also apply to expansions which would require the development to increase its parking area by at least 20 percent of the total off-street parking requirements as required in Section 19.11.
2. Internal Landscaping Area Requirements - In order to reduce the visual impacts of parking lots and to enhance their appearance to surrounding land uses, the Township requires parking lots to be internally landscaped. Based upon the number of parking spaces within a parking lot a particular land use would have to set aside some of the land area within the parking lot for landscaping. The following table shows the amount of land area which must be set aside for landscaping.
3. Minimum Size - The minimum size of any internal landscaped area shall be 180 square feet, with a minimum width not less than 20 feet.

Table 20-D: Internal Landscaping Area Requirements for Parking Lots	
Number of parking spaces in lot	Square feet (sf) of land area per parking space
For parking lots containing less than 50 parking spaces	15 sf
For parking lots containing between 51 and 99 parking spaces	25 sf
For parking lots containing over 100 parking spaces	30 sf

Section 20.10 Credited Species:

The Planning Director shall hold on file a suggested planting list to accommodate various site situations.

Section 20.11 Uncredited Species:

The following Table 20-E enumerates species that are permitted but which will not be credited in required landscape areas due to their brittleness, susceptibility to disease and insects, excessive root structure, excessive litter, susceptibility to road salt damage and/or other undesirable characteristics.



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Table 20-E: Undesirable (Uncredited) Species	
Botanical Name	Common Name
Trees:	
Acer Negundo	Box Elder
Ailantus Altissima	Tree of Heaven
Betula Spp.	Birch
Catalpa Speciosa	Catalpa
Eleagnus Augustifolia	Russian Olive
Ginkgo Biloba (Female)	Female Ginkgo
Maclura Pomifera	Osage Orange
Morus Spp.	Mulberry
Populus Spp.	Cottonwood, Poplar, Aspen
Prunus Spp.	Cherry, Plum
Salix Spp.	Willow
Ulmus Spp.	Elm
Pinus Strobus	White Pine
Morus Spp.	Mulberry
Juglans Nigra	Black Walnut
Robina Spp.	Black Locus
Crateaeagus Spp.	Hawthorn
Aesculus Hippocastanum	Horsechestnut
Carya Spp.	Hickory
Acer Saccharinum	Silver Maple
A. Rubram	Red Maple
Gleditsia Triancanthos (with thorns)	Honey Locust
Ulmus Americana	American Elm
Ulmus Pumila	Siberian Elm
Ulmus Rubra	Slippery Elm; Red Elm
Rhododendron	Rhododendron
Yucca	Yucca
Ilex	Holly
Mahonia	Grape Holly
Azalea	Azalea
Arborvitae	Globe Arborvitae
Rhododendron	Rhododendron
Yucca	Yucca

Section 20.12 Residential Landscape Requirements:

For all residential uses where a lot or parcel of land has been disturbed or cleared for development, the disturbed area shall be finish graded and landscaped within the time specified below, except for driveways, walks, and required parking areas. Seeding or sodding shall be the minimum acceptable landscaping of any said lots or parcels of land. This minimum landscaping shall be installed not later than (1) one year after a Building Permit has been issued by the Building Inspector, and shall be reasonably maintained thereafter. After the period of one (1) year of occupancy, the Building Inspector may require the posting of a financial guarantee in an amount up to One Thousand Dollars (\$1,000.00) to assure installation of the landscaping and may extend the one year time limit if conditions warrant. (Section amended by Ordinance #1 of 1992)

Section 20.13 Outdoor Storage: (Added by Ord No 5 of 2010; 3/10/10)

1. In the TI district, all outdoor storage areas located less than one hundred (100) feet from any other district, shall be enclosed by a solid fence or wall, not less than eight (8) feet in height.
2. In the I district, all outdoor storage facilities for fuel, raw materials, ad products for every use, as enumerated ad limited herein, located less than one hundred (100) feet from any other district, shall be enclosed by a solid fence or wall, not less than eight (8) feet in height.



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