

33.00

ARTICLE XXXIII

LANDSCAPE STANDARDS

33.10 INTENT.

It is the intent of this chapter to require buffer zones and landscape screening to reduce the negative impacts between incompatible land uses and to provide for landscaping within parking lots. In addition, it is intended to help sustain a pleasing gateway - corridor to the Grand Traverse region consistent with the natural features of the region that attract tourism and support land values. It is further intended to preserve and enhance the aesthetic qualities, character, privacy and land values of the township.

33.20 BUFFER ZONES REQUIRED.

- A. A buffer shall be required on the subject parcel between zoning districts as indicated in Table 33-1.
- B. A buffer shall be required on the subject parcel even if the adjacent parcel is unimproved land.
- C. When any developed parcel requiring a buffer zone changes to a more intense land use or a special land use approval and/or site plan review is required, the buffer shall comply with the buffer zone matrix (Table 33-1) and buffer zone development standards (Section 33.3.0).
- D. If existing conditions are such that a parcel cannot comply with the buffer zone standards (Table 33-1 and Section 33.3.0), then the zoning administrator shall determine the character of the buffer based on the following criteria:
 - 1. Traffic impacts.
 - 2. Increased building and parking lot coverage.
 - 3. Increased outdoor sales, display or manufacturing area.
 - 4. Physical characteristics of the site and surrounding area such as topography, vegetation, etc.
 - 5. Visual, noise and air pollution levels.
 - 6. Health, safety and welfare of the township.
 - 7. Additional dwelling units and resulting density (residential development).

- E. If two zoning districts requiring a buffer zone are separated by a thoroughfare, the design of the buffer zone shall be determined by the Zoning Administrator based on the criteria contained in Section 33.20, D, 1-7.

**TABLE 33-1
LANDSCAPE - BUFFER MATRIX**

ADJOINING ZONE									
Subject Zone		A-1	RC-1	R-1	R-2	R-3	C-1	N	
	RC-1								
	A-1								
	R-1								
	R-2								
	R-3			10'					
	C-1		10'	30'	10'	10'	10' SHARED		
	N		30'	30'	30'	30'	30'		

33.30 BUFFER ZONE DEVELOPMENT STANDARDS.

Required buffer zones shall comply with the following standards:

- (1) Buffer Zone Thirty (30) Feet (see Fig. 33-1).
 - (a) 30 ft. minimum width.
 - (b) The equivalent of 1 canopy tree per linear ft. or fraction of buffer zone length.
 - (c) 6 ft. high continuous obscuring screen comprised of plant material, berming, screen walls or fences or any combination of these elements.
 - (d) If berming is used for all or part of the buffer zone, all required plant material shall be placed on the top and side slope facing the exterior of the site.
 - (e) If a screen wall or fence is used for all or part of the buffer zone then:

1. The equivalent of 4 shrubs are required per 20 linear feet of wall or fence with at least 50 percent being 24" high at time of planting.
 2. All required plants shall be placed on the side facing the exterior.
- (f) All areas outside of planting beds shall be covered with grass or other living ground cover.
- (g) All applicable standards in Section 33.70.
- (2) Buffer Zone Ten (10) feet (see Fig. 33.2).
- (a) 10 ft. minimum width.
- (b) The equivalent of 1 canopy tree per 30 linear feet or fraction of buffer zone length.

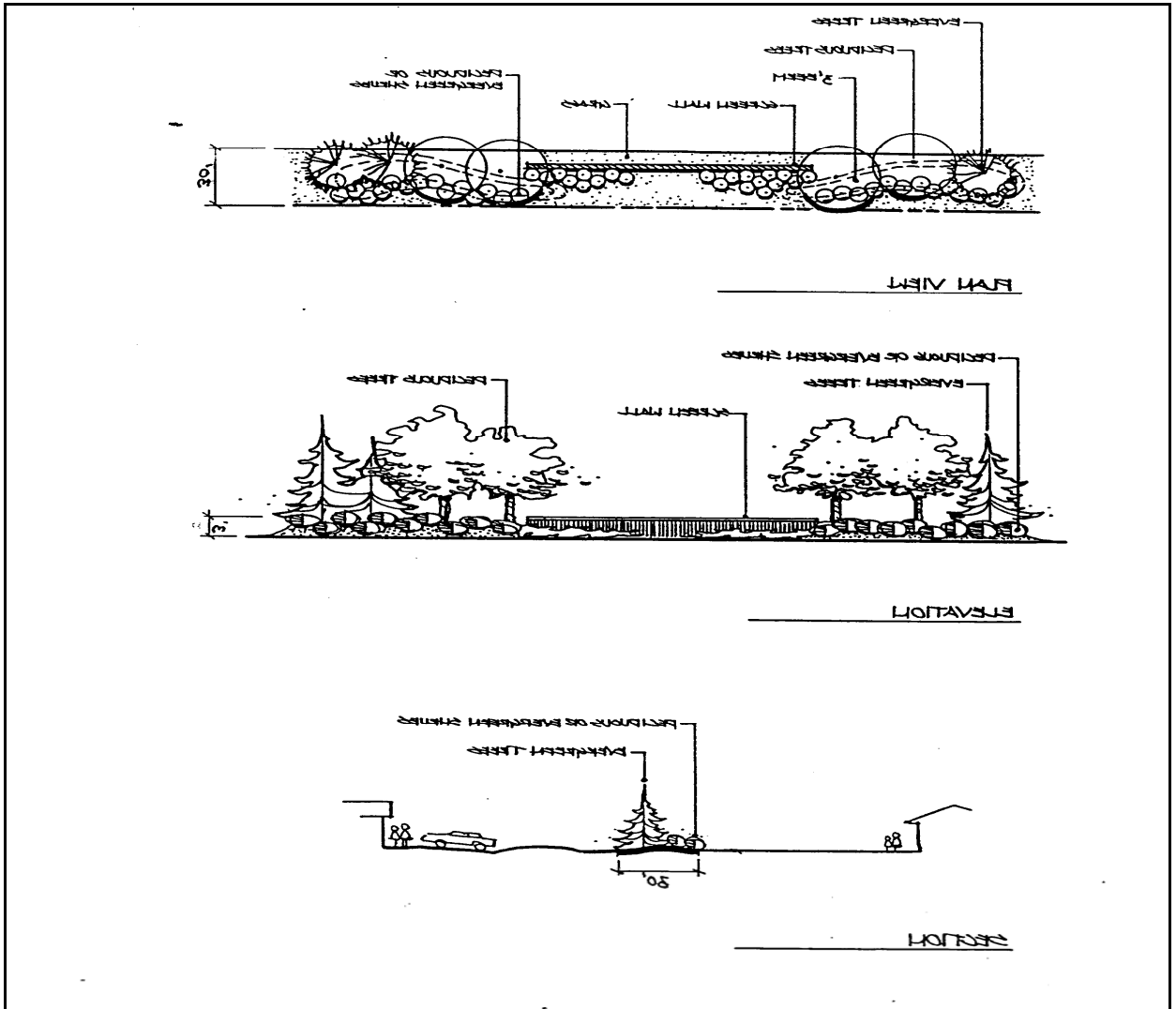


FIGURE 33 - 1

(Whitewater Township Zoning Ordinance)

- (c) 6 ft. high continuous obscuring screen comprised of plant material, berming, screen walls or fences or any combination of these elements.
- (d) If berming is used for all or part of the buffer zone, then:
 - 1. All required plant material shall be placed on the top and side slope facing the exterior.
 - 2. The minimum buffer width shall be increased to accommodate a side slope of 3 to 1.
- (e) If a screen wall or fence is used for all or part of the buffer zone then:
 - 1. The equivalent of 4 shrubs are required per 20 linear ft. of wall with at least 50 percent being 24" high at time of planting.
 - 2. All required plants shall be placed on the side facing the exterior.
- (f) All areas outside of planting beds shall be covered with grass or other living ground cover.
- (g) All applicable standards in Section 33.70.

33.40 OFF-STREET PARKING AREAS (see Fig.33.3).

A. Off-street parking areas containing 6 or more parking spaces shall be provided with landscaping in accordance with the following:

6 through 100 spaces: 1 canopy tree and 100 sq. ft. of landscaped area per 6 spaces.

101 through 200 spaces: 1 canopy tree and 100 sq. ft. of landscaped area per 8 spaces.

201+ spaces: 1 canopy tree and 100 sq. ft. of landscaped area per 10 spaces.

B. In no case shall any buffer zones or greenbelts required in Sections 33.2.0, 33.3.0 and 33.5.0 be considered as part of the off-street parking landscape area.



FIGURE 33 - 3

33.50 OFF-STREET PARKING LANDSCAPE DEVELOPMENT
STANDARDS.

A. Required parking lot landscape areas shall comply with the following standards:

- 1.** The minimum size of a landscaped area shall be 60 sq. ft. and at least 6 ft. wide.
- 2.** All landscaped areas shall be covered by grass, shredded bark, stone or a living ground cover.
- 3.** All landscaped areas shall contain at least 1 canopy tree. The tree shall be located so as not to be damaged by any surrounding vehicle (see Fig. 33.4).
- 4.** The Zoning Administrator shall approve the location of required off-street parking landscaping using the following criteria:
 - a.** Landscaping shall be installed such that, when mature, it does not obscure traffic signs, fire hydrants, lighting, drainage patterns on site or adjacent properties, or obstruct vision for reasons of safety, ingress or egress.
 - b.** Trees shall be installed in such a manner that parked motor vehicles are shaded whenever possible.
 - c.** Landscaping shall be dispersed throughout the parking lot in order to break up large expanses of impervious surfaces.
 - d.** At least 50 percent of the required trees shall be installed in the interior of the parking area and 50 percent on the perimeter. The interior shall be considered as any point 10 ft. from the outside boundary of the parking area.
- 5.** All landscaped areas shall be protected by a raised standard or rolled concrete curb.
- 6.** Where any parking area, with the exception of parking serving single-family or two-family dwellings, abuts or faces a thoroughfare, a 3 ft. high continuous obscuring screen shall be required between the parking area and the road R.O.W. The screen may be comprised of plant material, berming, or any combination of these elements, in compliance with the following requirements:
 - a.** If a berm is used for all or part of the screen, all required plant material shall be placed on the side facing the thoroughfare.

b. If plant material is used for all or part of the screen, it shall be 24" high at time of initial planting and at least 36" high within one (1) year of initial planting.

c. Minimum width for screen area shall be 8 ft. A berm will require a width sufficient to accommodate a side slope of 3 to 1.

7. All applicable requirements of Section 33.70 shall be complied with.

33.60 GREENBELTS.

- A. Greenbelts shall be required where any developed parcel abuts or faces a public thoroughfare in the C-1 and N districts.
- B. If a buffer zone is required along a thoroughfare, then the greenbelt requirement shall be waived.
- C. In no case shall off-street parking lot landscaping required in sections 33.30 and 33.40 be considered as part of any greenbelt requirement.

33.70 GREENBELT DEVELOPMENT STANDARDS (see Fig. 33-5).

- A. All greenbelts shall comply with the following standards:
 - 1. One canopy tree for every 40 linear ft. or fraction of frontage abutting a public thoroughfare.
 - 2. All greenbelts shall be covered by grass.
 - 3. The width of the greenbelt shall correspond to the required front setback requirements for off-street parking areas contained in 34.30, C, 4.
 - 4. All applicable standards in Section 33.70.

33.80 GENERAL LANDSCAPE DEVELOPMENT STANDARDS.

A. Minimum Plant Material Standards:

1. All plant material shall be hardy to Grand Traverse County, free of disease and insects and conform to the standards of the American Association of Nurserymen. A list of recommended plants are available from the Zoning Administrator.
2. All plant materials shall be installed in such a manner so as not to alter drainage patterns on site or adjacent properties or obstruct vision for reasons of safety, ingress or egress.
3. All plant material shall be planted in a manner so as to not cause damage to utility lines (above and below ground) and public roadways.
4. Minimum plant sizes at time of installation (see Figs. 33-6 and 33-7):

Deciduous Canopy Trees:	2 1/2" caliper
Deciduous Ornamental Trees:	2" caliper
Evergreen Tree:	6' height
Deciduous Shrub:	2' height
Upright Evergreen Shrub:	2" height
Spreading Evergreen Shrub:	18" - 24" spread

5. Existing plant material which complies with the standards and intent of the Ordinance, as determined by the Zoning Administrator, shall be credited toward meeting the landscape requirements.
6. The plant material shall achieve its horizontal and vertical screening effect within 4 years of initial installation.
7. The overall landscape plan shall not contain more than 33 percent of any plant species.

8. The following trees are not permitted as they split easily; their wood is brittle and breaks easily; their roots clog drains and sewers; and they are unusually susceptible to disease or insect pests:

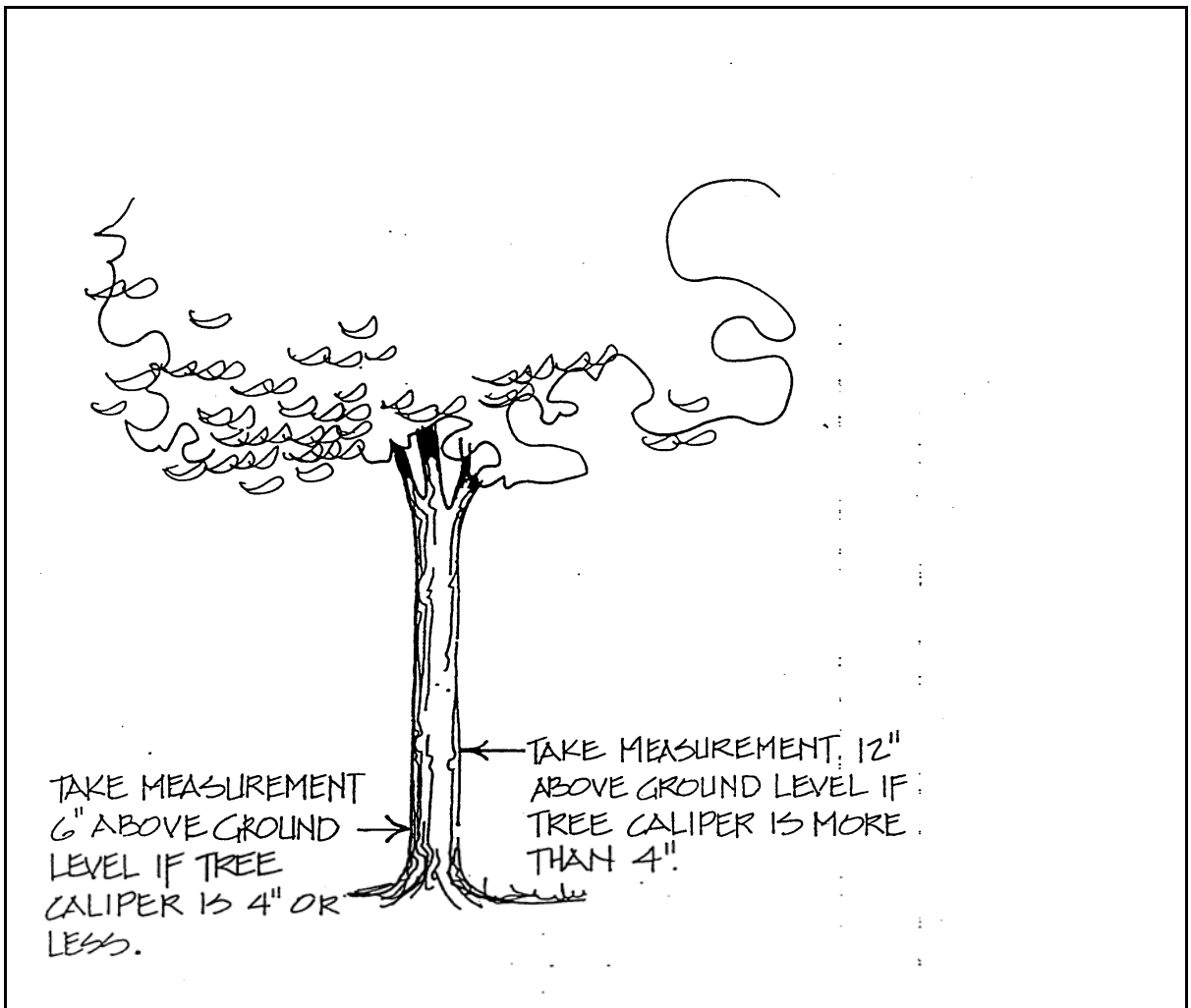


FIGURE 33 - 6
TREE CALIPER MEASUREMENTS

<u>COMMON NAME</u>	<u>HORTICULTURAL NAME</u>
Boxelder	Acer Negundo

(Whitewater Township Zoning Ordinance)

Ginkgo	Ginkgo Biloba (female only)
Honey Locust	Gleditsia Triacanthos (with thorns)
Mulberry	Morus Species
Poplars	Populus Species
Black Locust	Robinia Spoecies
Willows	Salix Species
American Elm	Ulmus Americana
Siberian Elm	U. Pumila
Slippery Elm: Red Elm	U. Rubra
Chinese Elm	U. Parvifola

(excluding White Oak and Black Walnut)

Minimum Standard for Berms:

- (1) Berms shall be constructed so as to maintain a side slope not to exceed a 1' rise to a 3' run ratio (see Fig. 33-8).
- (2) Berm areas not containing planting beds shall be covered with grass or living groundcover maintained in a healthy growing condition.
- (3) Berms shall be constructed in such a manner so as not to alter drainage patterns on site or adjacent properties or obstruct vision for reasons of safety, ingress or egress.
- (4) If a berm is constructed with a retaining wall or by terracing, the earthen slope shall face the exterior of the site (see Fig. 33-8).

Minimum Standards for Screen Walls and Fences:

- (1) All screen walls and fences shall be constructed with new, durable, weather resistant and easily maintainable materials. Chain link and barbed wire fences are not permitted.

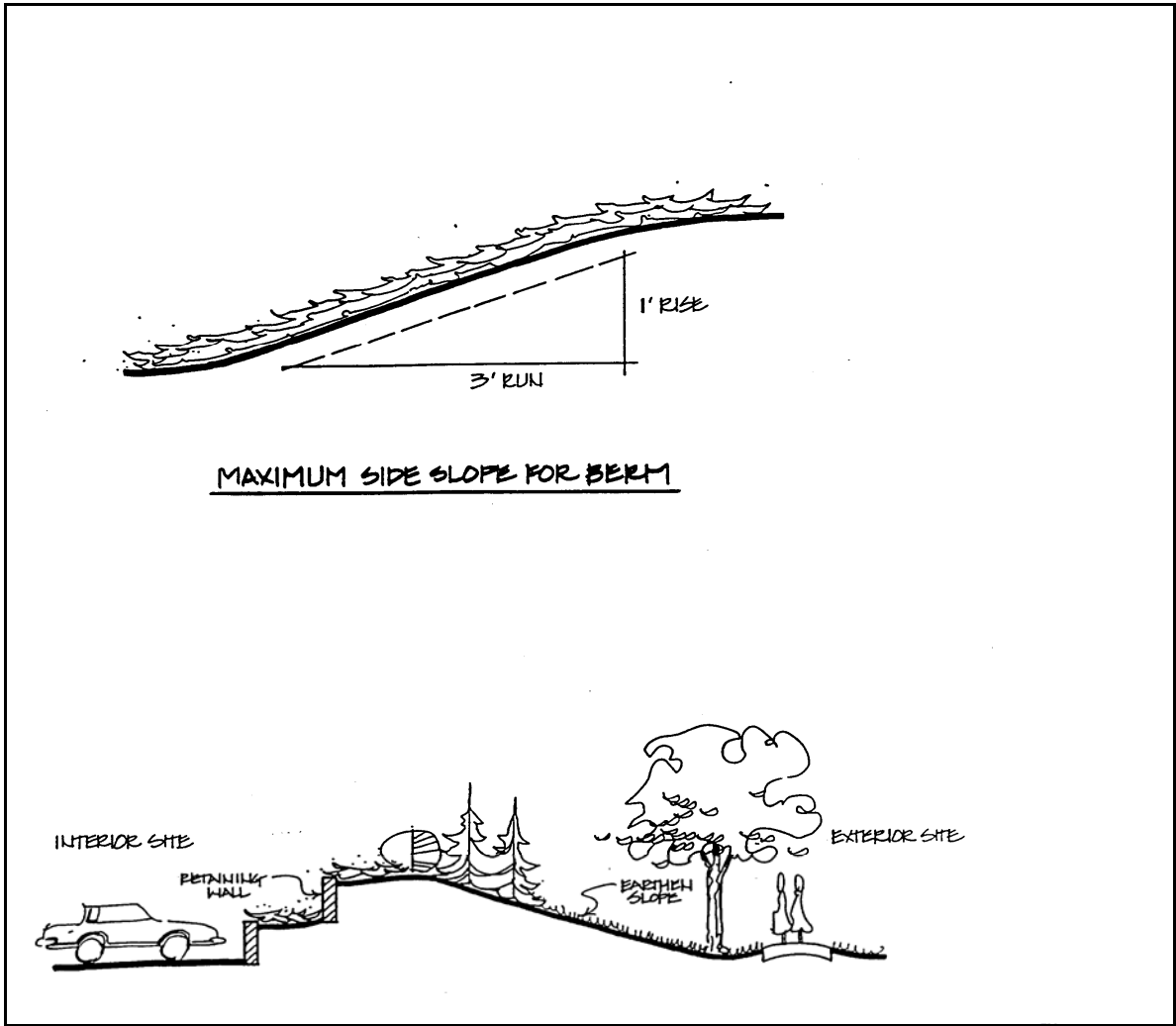


FIGURE 33 - 8
BERM WITH RETAINING WALLS

(2) The wall or fence may be constructed with openings that do not exceed 20 percent of the wall surface. The openings shall not reduce the intended obscuring effect of the wall.

(3) Screen walls or fences shall not be constructed so as to alter drainage on site or adjacent properties or obstruct vision for reasons of ingress or egress.

Detention/retention areas shall be permitted within buffer zones provided they do not hamper the screening intent of the buffer or jeopardize the survival of the plant materials.

Solid waste dumpsters may be installed in buffer zones provided they contain a continuous opaque screen at least 6' high. The screen may be comprised of berming, plant material, screen walls or fences, or any combination of these elements which are harmonious to the building design.

F. Requirements for Projects Developed in Phases: If a project is constructed in phases, the landscape screen may also be constructed in phases. The Zoning Administrator shall determine the extent of each phase on:

1. Adjacent land uses.
2. Distance between land uses.
3. Operational characteristic both on and off site.
4. Building heights.
5. Physical characteristics of the site such as topography, existing vegetation, etc.

G. Landscape Screening Waiver: Should the Zoning Administrator determine, upon inspection, that adequate landscaping screen on a site already exists or that such landscaping screen shall not be required, the applicable zoning ordinance provisions may be waived in whole or in part. Criteria which shall be used when considering a landscaping screen waiver shall include, but shall not be limited to:

1. Topography variations.
2. Existence of natural vegetation.
3. Existing and proposed building placement.
4. Sight distances.
5. Adjacent land uses.
6. Existence of floodplain and poor soils areas.

H. Installation and Maintenance Provisions:

1. The Zoning Administrator shall mandate a financial guarantee of a sufficient amount to insure the installation of all required landscaping.
2. All landscaping shall be maintained in a healthy, neat and orderly state free from refuse and debris. Any dead or diseased plants shall be replaced.