

**CHAPTER EIGHT
LANDSCAPING AND BUFFERING**

Section 800.00 Landscaping and Buffering

Section 800.01 Purpose

The purpose of these landscaping and buffering regulations shall be to minimize adverse visual impacts, noise, and light and air pollution between various uses, which abut one another by altering the areas of transition between the land uses. In addition, these regulations increase the desirability of living and working in Brimfield Township by improving the air quality and enhancing the visual character of residential neighborhoods and commercial and industrial districts by protecting public and private investments, and promoting high-quality development.

Section 800.02 Applicability

These regulations shall apply to all multi-family, commercial and industrial uses within the Township and specifically designated zoning districts.

Section 800.03 Approval Process

Landscaping and buffering shall be reviewed as part of the development review process.

Section 800.04 Alternative Methods of Compliance

Alternative materials and methods may be utilized if the alternative will equal these regulations in terms of quality, effectiveness, durability, hardness, and performance. Requests for alternative landscaping methods to meet the requirements of this Section for plantings may only be justified if one of the following applies:

- A. The site involves space limitations or unusually shaped parcels.
- B. Topography, soil, vegetation or other site conditions are such that full compliance is impossible or impractical.
- C. To preserve existing significant natural features.
- D. Due to a change of use of an existing site the required buffer yard is larger than can be provided.
- E. Safety considerations are involved.

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Section 800.05 Plant Substitutions

Due to the seasonal planting problems and lack of plant availability, approved landscape plans may require minor revisions. Such revisions to planting plans may only be justified if one of the following applies:

- A. There is no reduction in the quality of plant material.
- B. There is no significant change in the size or location of plant materials.
- C. Proposed plants are of the same general category, (i.e., shade, ornamental, or evergreen trees) and have the same general design characteristics (mature height, crown spread) as the materials being replaced.
- D. Proposed materials must be compatible with the area to ensure healthy tree growth.
- E. If these criteria are not fulfilled, changes to the approved plans must be resubmitted and reviewed by proper reviewing authority.

Section 800.06 Landscaping Plan Preparation

All landscaping plans shall enhance the physical environment and the developments aesthetic character.

Section 800.07 Landscaping Plan Submittal Requirements

The landscaping plan shall contain at a minimum, the following:

- A. Location, general type and quality of existing vegetation, including specimen trees.
- B. Existing vegetation to be saved.
- C. Methods and details for projecting existing vegetation during construction and the approved sediment control plan if available.
- D. Locations and labels for all proposed plants.
- E. Plant lists or schedules with the botanical and common name, quantity, and spacing, and size of all proposed landscape material at the time of planting.
- F. Location and description of other landscape improvements such as earth berms, walls, fences, screens, sculptures, fountains, street furniture, lights, and courts or paved areas.
- G. Planting and installation details as necessary to ensure conformance with all required standards.

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Section 800.08 Landscaping Minimum Site Requirements

A. Minimum area to be landscaped (exclusive of parking lot landscaping requirements) is as follows:

<u>Site Area</u>	<u>Landscape Area</u>
0 - 2 acres	10% of site area
2 - 4 acres	09% of site area
4 - 6 acres	08% of site area
6 - 10 acres	07% of site area
10 acres +	06% of site area

B. The landscaping shall be either continuous and/or comprised of scattered arrangements situated on the lot.

At a minimum, landscaping shall be located in the following locations on a site in such a manner as to minimize adverse impacts associated with the proposed use and enhance the aesthetic character of the site:

1. A minimum distance of five (5) feet deep along the property frontage abutting a public right-of-way.
2. A minimum distance of five (5) feet deep along each property line that abuts a residential use.

C. The landscaped area must be covered by living vegetation such as ground cover, shrubs, and trees.

1. Minimum size requirements for trees and shrubs shall be:

<u>Plant Type</u>	<u>Size at Planting</u>
Ornamental	1" to 1-1/2" caliper *
Deciduous	1" to 1-1/2" caliper *
Large Deciduous	1-1/2" to 2" caliper *
Evergreens (small)	3' tall
Evergreens (large)	5' tall

* Caliper measurements shall be taken six inches above grade for trees under four inches (4") in diameter and twelve inches (12") above grade for trees four inches (4") in diameter and larger.

Section 800.09 Fences

Fences may be used as an effective method of landscaping and screening in accordance with Section 510.06 Fences, Walls, Hedges.

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Section 800.10 Berming

Berming is an earthen mound that is designed to provide visual interest, screen undesirable views, and decrease noise. Berming may be used as an effective method of landscaping and screening in accordance with Section 510.06 Fences, Walls, Hedges and the following guidelines:

- A. The berm shall be located between the right-of-way and the building setback lines.
- B. Berming shall generally vary in height, width, and length to create a free-form naturalistic effect.
- C. The slope of a berm shall not exceed a 2.5:1 ratio.
- D. The design of berms shall include provisions for drainage that is tied into the entire system if necessary or applicable.
- E. Berms shall be planted with ground cover and other plant materials to prevent erosion.
- F. Berms and other plant materials used collectively shall be viewed as a unified element and must be in compliance with all provisions of this Resolution.

Section 800.11 General Requirements

- A. In cases where quality woodlands exist, preservation of these existing trees should be incorporated as part of the landscaping. Additional plant material should be used if needed to achieve an effective visual buffer.
- B. Landscaped screens shall be designed to complement other landscaping occurring naturally on the site, planted previously, or approved additions that are part of a site plan review. Wherever possible, existing vegetation and land form shall be used to create screens.
- C. Species and sizes of plant material shall be chosen to best accomplish an adequate screen, e.g., evergreens for visual year-round screening and deciduous trees for seasonal screening.
- D. When noise is likely to be a concern, the screen shall be of sufficient construction to be an effective noise buffer.
- E. Natural slope and existing vegetation may be substituted for some or all of the requirements above, provided that these features serve to screen the area from adjoining properties and roadways.
- F. All required landscaping and buffering shall be installed within eighteen (18) months following the issuance of a Certificate of Zoning Compliance.
- G. If weather conditions necessitate a delay in the installation of any landscaping or buffering, the applicant shall provide a schedule indicating the completion date for the approved landscaping in writing with the Township Zoning Inspector.

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H. Appendix A, Plant Guide for Landscaping and Buffering, of this Resolution contains a plant list to serve as a guide for the recommended plant materials. This list is based upon plants that are most likely to thrive in this climate and perform their intended function.

Section 800.12 Landscape Standards and Specifications

A. The following standards shall guide the number and placement of plantings for landscaping within the Township:

1. Shade Trees for Street Planting:

- a. Shade trees shall be planted along the side of the property that fronts along any road, public or private, to ensure protection from noise, glare, and visual incompatibility. In locations where healthy and mature shade trees exist, the requirements for new trees may be waived or modified.
- b. Such trees shall be spaced at intervals of no greater than forty (40) feet.
- c. Tree species shall be selected according to the following criteria:
 - 1. Cast moderate shade to dense shade in the summer.
 - 2. Survive at least thirty (30) years.
 - 3. Mature height of at least fifty (50) feet for large trees, thirty to fifty (30-50) feet for medium trees, and thirty (30) feet for small trees.
 - 4. Tolerant of pollution and direct or reflected heat.
 - 5. Requires little maintenance by being structurally sound and insect and disease resistant.
 - 6. Be able to survive with no irrigation after establishment.
 - 7. Be of native origin, provided the tree meets the above criteria.
- d. In storefront areas, the street trees shall consist of deciduous species that branch above eight (8) feet to facilitate viewing of storefronts and signage.

2. Perimeter/Buffer Landscaping and Screening

- a. Screening shall be used to protect adjoining properties from noise, glare, and uses, which are visually incompatible with neighboring uses. Screening is required:
 - 1. On sites which involve loading and unloading, (including storage of vehicles and boats), trash, or disposal areas.

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2. When noise not typically occurring in residential areas is expected to project onto nearby properties.
3. Where any commercial or industrial use abuts a residential use.
- b. The screen shall be capable of providing at least seventy-five (75) percent opacity within two (2) years of installation.
- c. Screening shall consist of trees and plants and may include masonry or wood fencing used with or without berms. Screening shall consist of a functional and a well designed combination of the following:
 1. Vegetative ground cover.
 2. Coniferous and deciduous shrubs.
 - a. Selected plant material will reach and maintain a height of at least five (5) feet at full growth.
 - b. Plants shall measure a minimum of three (3) feet in height at the time of planting and are expected to attain a height of five (5) feet in three (3) years.
 - c. Evergreen shrubs shall not normally be planted any closer than six (6) feet on center.
 - d. Shrubs shall not normally be planted any closer than six (6) feet to planted trees, nor within the drip line of existing protected trees.
 - e. For buffer areas, evergreen shrubs shall be provided at the following rates:

<u>Buffer Width</u>	<u>One Shrub Per</u>
20 feet or less	50 sq. ft. or buffer
21 to 30 feet	75 sq. ft. or buffer
31 to 50 feet	125 sq. ft. or buffer
Over 50 feet	200 sq. ft. or buffer

3. Coniferous and Deciduous Trees:
 - a. Trees shall be distributed along the entire length of any buffer area.
 - b. Trees shall be planted at the following rate:

<u>Buffer Width</u>	<u>One Tree Per</u>
20 feet or less	200 sq. ft. or buffer
21 to 30 feet	300 sq. ft. or buffer
31 to 50 feet	350 sq. ft. or buffer
Over 50 feet	400 sq. ft. or buffer

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3. Parking Lot Landscaping:

All commercial and industrial parking lots or parking lots used for residential multi-unit purposes of six (6) spaces or more shall be landscaped with native trees and shrubs. The purpose of the requirement is to provide protection from noise, glare, and pollutants, while providing shade and a partial visual screening of the activity on the lot.

a. Buffering and Screening

1. All parking lots and loading areas that abut a road right-of-way shall be landscaped in accordance to the requirements of Section 800.12.
2. Parking lots adjacent to residential properties require screening either through walls, opaque fences, berming, or landscape screening that will be at least six (6) feet in height and provide at least seventy-five (75) percent opacity within two (2) years of installation.
3. In cases where substantial grading is necessary that results in a parking lot lower in elevation than the surrounding or adjacent right-of-way, the resulting embankment must be planted with low shrubs and shade or ornamental trees.

b. Parking Lot Interior Landscaping

1. No less than ten (10) percent of the interior of parking areas shall be landscaped. This is necessary to break up the visual expansiveness of lots and to reduce glare and heat. Amounts greater than ten (10) percent interior landscaping may be necessary to effectively shade the parking lot, reduce the impact of noise and fumes as well as the visual impact of glare, headlights, and/or parking lot lights from the public right of way and from adjoining properties.

To achieve these objectives, the following shall be utilized at a minimum:

- a. Create planting islands to be located throughout the lot and planted with shade trees, low shrubs, and/or ground cover. These should be located at the ends of parking rows.
- b. Provide landscaped islands a minimum of nine (9) feet wide between every ten to fifteen (10-15) spaces that shall include shade trees. There shall be one shade tree planted and maintained on every island.
- c. All trees shall be no less than two inches (2") in diameter as measured twelve inches (12") above grade. Each tree shall be provided with at least forty (40) square feet of unpaved area around its trunk.

2. General Guidelines for All Parking Lots

- a. Use deciduous shade trees with ground cover or low shrubs as the primary landscape material within parking lots. Avoid tall shrubs or low branching trees that will restrict visibility.

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- b. For planted islands that are parallel to spaces, islands should be a minimum of nine (9) feet wide to allow doors to open.
 - c. For planted islands that are perpendicular to spaces, islands should be a minimum of eight (8) feet wide to allow for overhang of parked cars. If parking is only on one side of the island, an eight foot wide planted island is still required.
3. In large parking lots, separate pedestrian walkways are to be provided to allow safe movement within the lot. These walkways should generally be oriented perpendicular to and between parking bays. Adjacent to the walks, trees should be planted. These planting will aid in the identification of walkway locations within the lot and in providing erosion control and shade for the pedestrian.

Section 800.13 Enforcement and Maintenance

All plant material shall be installed within eighteen (18) months following the issuance of a Certificate of Zoning Compliance. The property owner shall ensure the proper maintenance of all plant material. If any plant material dies, the property owner must replace it. Failure to replace dead or diseased plants constitutes a zoning violation subject to the penalty provisions of this Resolution.

Section 800.14 Tree Preservation and Care During Construction

- A. Every effort shall be made during construction to preserve existing healthy trees and shrubs on the site.
- B. Preservation of trees and vegetation of special significance due to size, age, habitat, or historical significance is highly encouraged.
- C. A mature tree, tree mass, or woodland should remain on the site providing it does not pose any undue threat to the health, safety, and welfare by its location with respect to any proposed improvements to the site.
- D. Mature trees, tree masses, or woodlands which the applicant intends on saving shall be designated “Tree Save Area” on landscaping plans.
- E. All “tree save areas” shall be unmistakably delineated in the field so that it is obvious to all equipment operators and other construction personnel. A temporary physical barrier such as a snow fence shall be erected a minimum of one foot outside the drip line on all sides of individual trees, tree masses, or woodlands prior to major clearing or construction. The barrier shall be placed to prevent the disturbance to or compaction of soil inside the barrier, and shall remain until construction is complete. The barrier shall be shown on the landscape plan.
- F. The following practices are considered harmful in a “tree save area”:
 - 1. Grading or trenching.

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2. Placing backfill near trees.
 3. Driving or parking equipment in “tree save areas”.
 4. Dumping of trash.
 5. Storage of construction materials and supplies.
- G. Mature trees, tree masses, or woodlands which the applicant intends on removing shall be designated “To Be Removed” on landscaping plans.
- H. The applicant shall justify the removal of any mature trees, tree masses, and woodlands. The applicant must make evident that the vegetation removal is minimized by showing that no alternative site layouts are possible, and that no alternative clearing or grading plan would reduce the loss of mature trees, tree masses, and woodlands.
- I. Transplanting Existing Plant Material: Specimen trees or individual trees moved from woodlands or tree masses designated “To Be Removed” may be transplanted from one area of the site to another.
- J. Trees to be saved should be selected prior to siting the buildings, parking lots, and other site improvements. Factors to consider include: existing and proposed grading, age, condition and type of tree, location of site improvements, and utility connections.
- K. Grading should be done in a manner to avoid destruction and damage to trees and tree stands. Grading must take existing drainage patterns into consideration and the disruption of those patterns minimized.