

Article 10: Landscaping Standards

10.01 PURPOSE

The purpose of landscaping, buffering and screening regulations are to:

- (A) Promote attractive development and preserve the appearance and character of the surrounding area using effective landscaping methods;
- (B) Eliminate or minimize conflicts between potentially incompatible, but otherwise permitted land uses on adjoining lots using a suitable combination of setbacks, natural buffers and physical barriers;
- (C) Prescribe standards for the installation and maintenance of trees, plantings, walls and fences;
- (D) To encourage the enhancement of the visual environment, ensure public safety, moderate the micro-climate; and
- (E) To protect surrounding property values.

10.02 APPLICABILITY

- (A) The requirements of this article shall apply to new development and any collective, substantial expansion or change in land use. Single-family and two-family dwellings shall be exempt from this article.
- (B) Substantial expansion or modification of the existing structures shall be defined based on the criteria established in [Table 10.02-1](#) below and shall be based on the expansion compared to the building or structure that existed on the effective date of this resolution.

When the Existing Structure is:	A Substantial Expansion is:
500-1,000 square feet	50% or greater
1,001-10,000 square feet	40% or greater
10,001-25,000 square feet	30% or greater
25,001-50,000 square feet	20% or greater
50,001 square feet and larger	10% or greater

- (C) Any collective expansion of 500 square feet or less shall be exempt from the requirements of this article. Collective expansion shall include the sum of all expansions of the original structure or building, regardless of when they occur.
- (D) When a new use is proposed for an existing building that has been vacant for six months or more, the standards of this article shall apply. However, [Section 10.05: Use and Application of Requirements](#) sets out how the standards of this article may be adjusted for those sites that are determined to be legally nonconforming as it relates to compliance with this article.
- (E) Where a vehicular use area is expanded, the landscaping requirements of [Section 10.07: Landscaping Requirements for Vehicular Use Areas](#) shall apply to the expanded area of the vehicular use area. If a vehicular use area is reconstructed, the applicant shall be required to comply with [Section 10.07: Landscaping Requirements for Vehicular Use Areas](#). For the purposes of this section, reconstructed shall not include pavement maintenance or restriping.
- (F) If a new structure is proposed for a site where such structure is required to be screened by [Section 10.08: Screening Requirements](#), the requirements of that section shall apply fully.

10.03 MATERIALS AND STANDARDS

The following identifies the standards for materials and elements of landscaping and screening required as part of this resolution.

- (A) **Plant Materials**
 - (1) All plant material shall be sound, healthy, live plants installed and maintained in accordance to acceptable nursery industry procedures.

- (2) All plant materials shall be installed immediately, or within nine months after an occupancy permit is issued for the applicable development. If plant materials cannot be immediately installed, the procedure in Section 10.03(E), shall be followed.
- (3) Where existing vegetation occurs outside of the right-of-way, in an area where landscaping or screening is required and such vegetation meets the minimum requirements of this article, such existing landscaping can be used to meet the requirements of this article.

(4) **Trees**

- (a) Evergreen trees shall be installed at a minimum height of six feet.
- (b) Shade trees shall be installed at a minimum Distance at Breast Height (DBH) caliper of two inches.
- (c) Ornamental and fastigate trees shall be installed at a minimum caliper of one and one-half (1½) inches.

(5) **Shrubs**

- (a) Where small shrubs are required, such shrubs shall be provided in a minimum of a one-gallon pot with the shrub having a minimum height of one foot when planted.
- (b) Where large shrubs are required, such shrubs shall be provided in a minimum of three-gallon pots with the shrub having a minimum height of three feet when planted.

(6) **Ground Cover**

- (a) Where landscaping or screening areas are required, any area that is not planted with trees or shrubs shall contain ground cover.
- (b) Grass is the default landscaping material for ground cover, although other alternative ground covers may be used, if approved as part of a site plan review. Such alternatives shall only be allowed for areas, such as landscaped islands, where physical conditions may warrant more tolerant ground cover.
- (c) In all cases, ground cover should be some form of natural, living vegetation. Small areas of decorative gravel or rock may also be utilized in the ground cover areas when approved as part of the site plan review.
- (d) Ground cover must be installed appropriate to the surface conditions of the area

(7) **Species Diversity**

To curtail the spread of disease or insect infestation in a plant species if a new development contains over 10 trees, the application should include diversity in plant choices.

- (8) Any trees, shrubs, or landscaping materials used to meet the standards of this article shall be required to meet the height and size standards of this section. Any trees, shrubs, or landscaping materials incorporated onto a site that exceeds amount required by this article may be of any size.

(B) **Fencing and Walls**

- (1) All fences used to meet the screening or buffering requirements of this article shall extend to within two inches of the ground grade.
- (2) All fencing or walls used for screening purposes shall not exceed eight feet in height in nonresidential districts and shall be constructed of a material with 100 percent opacity.
- (3) The finished face of fencing and wall materials must face the adjacent property. Materials and colors shall be similar or complementary to the primary building.
- (4) Acceptable fence or wall materials include weather resistant wood, PVC vinyl or other weatherproof composite material, brick, natural stone, split faced block, pre-cast stone or other similar material as approved by the township. Alternative materials may be approved by the Architectural Review Board. Chain link or similar wire mesh fencing is prohibited for screening purposes as required by this resolution.
- (5) All fencing shall be subject to all applicable standards of Section 7.05: [Fencing, Walls, Hedges, and Similar Structures](#), unless otherwise specifically stated in this article.

(C) Mounds and Berms

- (1) Earthen mounds and berms shall have a maximum slope of 3:1, (three feet of horizontal space is required for each one-foot vertical change in elevation).
- (2) The crest or top of the mound shall be rounded with elevation changes maintained one foot off the centerline of the mound.
- (3) Earthen mounds or berms shall be designed and constructed with variations in physical alignment throughout the length of the mound or berm.

(D) Location

When the subject property is adjacent to other common boundaries, landscape materials shall be entirely located on the subject property requiring the screening or landscaping.

(E) Delayed Planting

If plantings cannot be completed prior to building occupancy due to weather or other conditions that prevent planting, the township may require a financial guarantee in the amount of 120 percent of the estimated cost of landscaping and or screening required, including installation costs. The financial guarantee must be approved by the township's legal counsel prior to acceptance.

10.04 LANDSCAPING AND BUFFERING IN PUDS

Landscaping and buffering in PUDs shall be based on the proposed use of the individual lots and shall reflect the minimum requirements established in this article unless otherwise modified in the PUD approval process.

10.05 USE AND APPLICATION OF REQUIREMENTS

- (A)** When a proposed development is subject to the requirements of this article, the following shall be how to evaluate the landscaping and buffering required:
- (1) The applicant shall apply the landscape buffering requirements established in Section [10.06: Landscape Buffering Requirements](#) that sets out both planting buffers and vegetation required between various land uses.
 - (2) The applicant shall then incorporate the vehicular use landscaping established in Section [10.07: Landscaping Requirements for Vehicular Use Areas](#). If these standards overlap with any of the buffering requirements of Section [10.06: Landscape Buffering Requirements](#), then the vehicular use landscaping requirements of that section may count toward the buffering requirements.
 - (3) The applicant shall then apply any screening requirements for various structures and uses as established in Section [10.08: Screening Requirements](#). If these standards overlap with any of the buffering requirements of Section [10.06: Landscape Buffering Requirements](#), then the screening requirements of that section may count toward the buffering requirements.
- (B)** When a use is proposed to occupy an existing building and the lot on which the building is located is determined to be a legal nonconformity as it relates to compliance with this article, then the following shall apply.
- (1) The proposed site plan for the new use shall comply with the requirements of this article to the maximum extent practicable, as determined by the ARB during site plan review. The intent of this section is to prioritize landscaping and buffering along the street frontage and between the proposed use and adjacent residential uses.
 - (2) Where the applicant demonstrates the site cannot be redeveloped in a manner as to comply with this article without demolishing buildings, eliminating parking spaces that are required to meet [Article 11: Parking, Loading, and Circulation Standards](#), or reducing on-site stormwater controls, then the applicant may propose an alternative landscaping plan that incorporates the following:
 - (a) Maintaining any existing vegetation and planting strips as a buffer between land uses when required in Section [10.06: Landscape Buffering Requirements](#);
 - (b) Where such planting strips existing, incorporating additional vegetation to meet the minimum planting requirements for the required buffer to the maximum extent practicable; and
 - (c) Reduction or elimination of the landscaping requirements for vehicular use areas (See Section [10.07: Landscaping Requirements for Vehicular Use Areas](#).) in exchange for providing a minimum of three of the following features:

- (i) The provision of a planting strip or buffer along the public street with a minimum width of eight feet;
- (ii) The extension of landscape peninsulas that extend from any landscape planting strip along the street frontage instead of stand-alone landscaping islands within the vehicular use areas;
- (iii) The use of large shrubs that create a solid hedge along the street frontage;
- (iv) The incorporation of a sidewalk along the street frontage, maintained in good condition;
- (v) The incorporation of twice as many trees and shrubs as required for interior parking landscaping within any existing landscaped islands;
- (vi) Increase the buffer between adjacent residential uses that will allow the site to increase compliance with the requirements of Section 10.06: Landscape Buffering Requirements;
- (vii) The incorporation of ornamental fencing or alternative buffering approaches along the street frontage that meet or exceed the intent of the requirements of this article as approved by the ARB. See Figure 10.05-A.



Figure 10.05-A: The above images illustrate examples of street frontage buffering with the use of ornamental fencing and vegetation.

- (d) If the proposed site does not have extensive street frontage, the applicant can propose increased interior vehicular use area landscaping with a focus on providing protected walkways, defining drive aisles, or extending existing islands. Additionally, they may also propose increased buffering between adjacent residential uses.

10.06 LANDSCAPE BUFFERING REQUIREMENTS

Development subject to the requirements of this section shall provide buffering in accordance with this subsection.

(A) Buffer Types

- (1) Table 10.06-1 describes three different buffering standards in terms of opacity. Where a particular buffer type is required in Table 10.06-2, the requirements may be met with the combination of minimum buffer width and planting requirements specified in Table 10.06-1 on the following page.
- (2) The planting requirements established in Table 10.06-2 shall be provide for each 100 feet of lineal distance where the buffer is required. For distances of less than 100, the plantings shall be provided in proportion to the length of frontage or lot line where required.

TABLE 10.06-1: BUFFER TYPES

	Option 1: Buffer Width 35'	Option 2: Buffer Width 15'	Option 3: Buffer Width 5'
<p>Buffer Type A: Opaque This perimeter buffer functions as an opaque screen and prevents visual contact between uses and creates a strong impression of total separation.</p>	<ul style="list-style-type: none"> • 3 shade trees, 40' O.C. • 11 evergreen trees, 12' O.C. • 17 large shrubs¹, 5.5' O.C. 	<ul style="list-style-type: none"> • 2 shade trees, 40' O.C. • 6 evergreen trees, 12' O.C. • 14 small shrubs¹, 4' O.C. 	<ul style="list-style-type: none"> • 4 fastigate trees, 30' O.C. • 6' opaque fence or brick or stone wall
<p>Buffer Type B: Semi-Opaque This perimeter functions as a semi-opaque screen.</p>	<ul style="list-style-type: none"> • 3 shade trees, 40' O.C. • 6 evergreen trees, 12' O.C. • 13 large shrubs², 5.5' O.C. 	<ul style="list-style-type: none"> • 3 shade trees, 40' O.C. • 6 large shrubs², 5' O.C. • 22 small shrubs², 4' O.C. 	<ul style="list-style-type: none"> • Cluster of 2 ornamental or fastigate trees, 80' O.C. between clusters • 10 columnar evergreen shrubs², 4' O.C. • 10 small shrubs², 4' O.C.
<p>Buffer Type C: Light This buffer functions as an intermittent visual obstruction and creates the impression of spatial separation without eliminating visual contact between uses.</p>	<ul style="list-style-type: none"> • 2 shade trees and clusters of 2 ornamental trees, 40' O.C. between shade trees/clusters • 2 ornamental trees, 15' O.C. • 17 large shrubs³, 5.5' O.C. 	<ul style="list-style-type: none"> • 3 shade trees, 40' O.C. • 13 large shrubs³, 5.5' O.C. 	<ul style="list-style-type: none"> • 3 ornamental or fastigated trees, 40' O.C. • 14 small shrubs or mix of shrubs/perennials³, 4' O.C. or planted in clusters, 40' O.C. between clusters.
<p>Transparent Fence Example</p>	<p>Semi-Opaque Fence Example</p>	<p>Opaque Fence Example</p>	

¹: May substitute shrubs with 6-foot opaque fence or brick or stone wall
²: May substitute shrubs with 6-foot semi-opaque fence or brick or stone wall
³: May substitute shrubs with 4-foot transparent fence or 3-foot brick or stone wall segments
 O.C.: On Center; all On-Center dimensions are approximate

(B) Required Buffers

- (1) Table 10.06-2 specifies the type of landscape buffer that a new development shall provide between it and adjacent properties, based on the use of the development site and that of adjacent properties. The buffer type is indicated by a letter corresponding to one of the three buffer types depicted in Table 10.06-1.
- (2) A residential subdivision or the construction of a single-family or two-family dwelling shall not be required to install a buffer when adjacent to a different use.

- (3) When a basic buffer is required in the table below, a planting strip with a minimum of five feet in width shall be required between land uses. Trees and shrubs are not required but are encouraged. All areas of the buffer shall be, at a minimum, planted with ground cover.
- (4) When reviewing a site plan, the ARB may alter certain requirements on a case-by-case basis when a proposed alternative buffering will meet or exceed the intent of the requirements of this section.

TABLE 10.06-2: REQUIRED BUFFERS						
Adjacent to:		Any lot in an AG, R-1A, R-1B, or R-1C District	Any lot in an R-2 or R-3 District	Any Lot in an O or P-I District	Any Lot in a GB, RB, or NMB District	Any lot in an I District
Proposed Use:	Multi-Family Dwellings	Type C	Basic Buffer			
	Any Use under the Public and Institutional Use Classification in Table 4.07-1 located within a Residential Zoning District.	Type B	Type C	Basic Buffer		
	Any Use in the O or P-I District	Type B	Type B	Type C	Basic Buffer	
	Any use in the GB, RB, or NMB District	Type A	Type B	Type C	Basic Buffer	
	Any use in the I District	Type A	Type A	Type B	Type C	None

(C) Buffer Establishment

Once a site plan has been reviewed and a zoning certificate issues, the buffer may not be used, disturbed or altered for any purpose unless otherwise permitted by the Township.

(D) Location of Buffers

- (1) The landscape buffer shall be provided along the entire lot line between the two adjacent uses identified in [Table 10.06-2](#).
- (2) Buffers required by this section shall be located completely on the lot subject to the buffer requirement and only along the outer perimeter of the lot where it abuts another lot, and shall extend to the lot line or right-of-way line.
- (3) The only exceptions to paragraph (2) are:
 - (a) If a landscape buffer, required by this resolution, is established on the adjacent lot and is permanently protected as a buffer in accordance with the provisions of this resolution and cannot be removed or disturbed in the future; or
 - (b) If a unique characteristic of the lot (e.g., an existing stand of woods or existing vegetation that is not on the perimeter of the site) would create a better option to the required buffer type.

(E) Development within Required Buffers

The required buffer shall not contain any development, impervious surfaces, or site features that do not function to meet the standards of this section or that require removal of existing vegetation, except for the following features:

- (1) Fences or walls;
- (2) Sidewalks, trails, and other elements associated with passive recreation, if all required landscaping is provided;
- (3) Signs and light posts;
- (4) Driveways, access roads, and similar uses if they cross perpendicularly across a required buffer, are designed to limit disturbance of vegetation, and have a maximum width of 24 feet; or

- (5) Overhead and underground utilities required or allowed by the Township.

10.07 LANDSCAPING REQUIREMENTS FOR VEHICULAR USE AREAS

- (A) This section establishes the minimum standards by which vehicular use areas will be screened from adjacent public streets or from adjacent properties. In addition, this section delineates standards for landscaping within the interior of parking areas.
- (B) When reviewing a site plan, the ARB may alter certain requirements on a case-by-case basis when a proposed alternative landscaping will meet or exceed the intent of the requirements of this section.
- (C) Whenever required landscaping is adjacent to vehicular use areas, such screening shall be protected by bollards, wheel blocks, or curbing to avoid damage by vehicles.
- (D) **Perimeter Landscaping Required**
 - (1) The perimeter landscaping requirements of this section shall apply to all off- street vehicular use areas adjacent to a public street or to a lot line where the parking area contains five or more parking spaces.
 - (2) **Areas Adjacent to Public Streets**
 - (a) Vehicular use areas adjacent to public streets shall be separated from the edge of the right-of-way by a perimeter landscape strip no less than 12 feet in width, not including the sidewalk or any other paved area.
 - (b) The landscape strip shall be planted with one tree for each 50 linear feet or fraction thereof and shall include a hedge, wall, or other opaque durable landscape barrier, which will be at least two feet in height at maturity, along the entire length of the landscape strip. See [Figure 10.07-A](#). The landscape strip shall be covered with ground cover where not planted with trees or shrubs.



Figure 10.07-A: The above image illustrates an example the provision of a two-foot landscape barrier along the street right-of-way.

- (c) If the above two-foot landscape barrier is constructed of non-living materials, one shrub or vine shall be planted every 10 feet along the barrier.
 - (d) Perimeter landscape strips shall be continuous and unbroken except for driveways to access the parking area, sidewalks, or paved trails.
- (E) **Interior Parking Area Landscaping Required**
 - (1) The interior parking area landscaping requirements of this section shall apply to all off-street parking areas where the parking area contains 20 parking spaces or more.
 - (2) Such landscaping shall be in addition to landscaping adjacent to public streets and screening requirements as specified in this article.

- (3) There shall be a minimum of 10 square feet of interior landscaping areas for every parking space. The applicant shall not be required to count the parking spaces abutting a required landscaping area along the perimeter of the parking area.
- (4) The interior landscaping shall be located within landscaped islands that are separated from the perimeter landscaping required in Section 10.07(D) and shall be scattered throughout the parking area to break up large areas of pavement. Landscaped islands that are designed as extensions from the perimeter landscaping areas shall also be considered as interior parking area landscaping but shall not count as the perimeter landscaping area. See Figure 10.07-B.



Figure 10.07-B: The above images show different options for landscaped islands with the top image illustrating landscaped islands that run the full length of parking spaces. The bottom image illustrates a smaller landscaped island at the end of a parking bay.

- (5) Landscape islands shall have a minimum size of 100 square feet within a minimum dimension of five feet in any direction to provide a suitable living environment for the landscaping.
- (6) There shall be at least one tree and three shrubs in each landscaped island.
- (7) If an existing tree is to be used to meet the requirements of this subsection, the landscape island shall be equal in size to the tree's drip line area to protect the root system of the existing tree.

10.08 SCREENING REQUIREMENTS

(A) General Requirements

In addition to the other forms of required landscaping, screening shall be required to conceal specific areas of high visual or auditory impact or hazardous areas from adjacent, less intense uses and from views from public rights-of-way. Such areas shall be screened at all times, unless otherwise specified, regardless of adjacent uses, districts, or other proximate landscaping material.

(B) Screened Items

- (1) The following areas shall be screened in accordance with this section:
 - (a) Large waste receptacles (e.g., dumpsters and cardboard recycling containers) and refuse collection areas;
 - (b) Any use or activity where screening is required by a use-specific standards in Section 4.08: [Use-Specific Standards](#);
 - (c) Off-street loading areas;
 - (d) Pipes, conduit, and cables associated with the building or use;
 - (e) Outdoor service areas that are necessary to support common business operations (e.g., outdoor freezer or refrigeration units, storage units, etc.);
 - (f) Ground-level or façade-mounted mechanical equipment and utility structures; and
 - (g) Roof top equipment that is not otherwise hidden by the roofline, parapet wall, or other similar feature.
- (2) Screening shall not be required if any of the above items are not visible from adjacent rights-of-way or from adjacent residential lots.

- (3) All sides of the item shall be screened with the exception that one side of the item may be screened with a gate or other similar feature to allow access while screening the item when access is not necessary.

(C) Screening Methods

- (1) The following items are permitted for use as screening materials, and more than one method may be used on a lot or site.
- (a) Vegetative materials that provide a fully opaque screen to the minimum height necessary to fully screen the facility from off-site views (See [Figure 10.08-A.](#)); or
 - (b) An opaque fence or wall consistent with the standards for Buffer Type A in Section 10.06: Landscape Buffering Requirements; or
 - (c) Integration into the building design (e.g., false walls or other architectural screening). See [Figure 10.08-B.](#)
- (2) The required screening shall have a height sufficient enough to screen the applicable item(s) provided it is in accordance with any other applicable sections of this code including, but not limited to, Section 7.05: [Fencing, Walls, Hedges, and Similar Structures.](#)
- (3) o the maximum extent feasible, pipes, conduit, and cables should be located along the rear facade of buildings if conditions do not allow for them to be enclosed within the building itself. Pipes, conduit, and cables shall be located as far away from public view as practical and shall be painted a similar color as the building façade to further reduce visibility.



Figure 10.08-A: The above image illustrates a vegetative screen that hides HVAC equipment and a dumpster.



Figure 10.08-B: Use of a wall and fencing for screening that is architecturally compatible with the principal building.

(D) Configuration of Vegetative Materials

In cases where vegetative materials are used for screening in accordance with this subsection, the vegetative materials shall:

- (1) Be planted around the perimeter of the site feature to be screened in a manner that screens the site feature from all off-site views;
- (2) Be configured in two staggered rows or other arrangement that provides maximum screening;
- (3) Be upright, large evergreen shrubs or a hedge and be capable of reaching at least six feet in height within three years of planting; and
- (4) Be spaced no farther than necessary to create an opaque screen when the shrubs or trees are fully grown. In no case shall trees used for screening be spaced further than eight feet apart on center.

10.09 MAINTENANCE

- (A) All landscaping materials shall be installed and maintained according to accepted nursery industry procedures. The owner of the property shall be responsible for the continued property maintenance of all landscaping materials, and shall keep them in a proper, neat and orderly appearance, free from refuse, debris, and weeds at all times.
- (B) All unhealthy or dead plant material shall be replaced within one year, or by the next planting period, whichever comes first.
- (C) No plant material required by these regulations shall be removed for any reason unless replaced with like kind and size at the time of removal. If replaced with a like kind and size of material, no approvals shall be required.
- (D) Any changes to an approved landscaping plan shall require approval in the same manner as landscaping plan was original approved.
- (E) Violation of these provisions shall be subject to the enforcement provisions of [Article 14: Enforcement and Penalties](#).