

Article 26: Landscaping, Screening and Land Use Buffers

Amendments:

ARTICLE XXVI

LANDSCAPING, SCREENING AND LAND USE BUFFERS

PURPOSE

The purpose of this Article is to:

1. Promote the public health, safety, and welfare by protecting the character, appearance and value of land and neighborhoods.
2. Protect the integrity of each land parcel by requiring buffering between non-contiguous land uses.
3. Enhance the appearance of commercial development, vehicular use areas, off-street parking and property abutting rights-of-way thereby reducing conditions that may lead to blighted conditions.
4. Improve and preserve the environmental quality and residential atmosphere of the Township through the judicious and thoughtful use of landscaping and buffering techniques.
5. Promote the use of landscape materials that present a finished and aesthetically pleasing appearance, and enhance the visual character of the site and the surrounding neighborhood.
6. Encourage the incorporation of pre-existing site conditions, such as existing vegetation or topography, into the design and placement of landscaping, where possible. Where this cannot be achieved, require replacement landscaping to mitigate the loss of substantial or significant vegetation to the maximum extent possible.
7. Moderate, buffer or filter the visual impact of buildings and parking lots from street rights-of-way and adjacent properties.
8. Implement Master Plan recommendations for enhanced landscaping at major and minor community entry points, or along major roads and key open space corridors.

SEC. 26.1 STATEMENT OF PRINCIPLES

Consideration by the Planning Commission of proposed landscape plans shall reflect the following basic principles:

1. Within reasonable limits, land uses can be made compatible through the proper treatment of perimeter areas, be they abutting other property or facing major or minor thoroughfares.

PURPOSE

SEC. 26.1

STATEMENT OF PRINCIPLES

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- 2. Quality of community development and growth can be enhanced by reasonable and comprehensive standards for buffering or screening through the use of plant material and other techniques.
- 3. Every property owner and/or developer has the responsibility to ensure that the use and treatment of the parcel in question does not adversely impact adjacent property and is consistent with community planning goals and the use of resources in accordance with their character and adaptability.

SEC. 26.2 APPOACH

The orientation of this Article is focused on the establishment of "Performance Standards", the specification of objectives and the identification of alternative methods (non-inclusive) of accomplishing the objectives. The standards of this Section are considered the minimum necessary to achieve the purposes of the ordinance. Flexibility is allowed, where determined appropriate by the Planning Commission, to encourage innovative and creative design and to reflect individual site conditions. The measure of performance will be based on:

- 1. Planning Commission determination that the site design is in accordance with the Purpose and Statement of Principles Sections of this Article.
- 2. Planning Commission determination that all landscaping, screening and buffering elements are in compliance with applicable provisions, design parameters and standards of this Article, as appropriate.

SEC. 26.3 SCOPE

- 1. The provisions of this Article shall apply to all parcels which are hereafter developed, altered or redeveloped within the statutory boundaries of the Charter Township of Plymouth, including changes in lot frontages caused by road widening or reconditioning. Such altered, developed or redeveloped parcels shall be required to comply with all applicable provisions of this Article, except as may be approved by the Planning Commission under extreme circumstances.
- 2. No development shall be approved unless development plans show landscaping consistent with this Article.

SEC. 26.4 EFFECTIVENESS

Landscaping, screening and buffering elements shall be effective in meeting the objectives of this Article at the time of installation of such elements, and shall maintain that effectiveness as the plant materials mature. The Planning Commission may require that additional plant materials be provided, as a temporary measure to supplement permanent plant materials to achieve immediate effectiveness. Supplemental plant materials shall be provided in accordance with the following:

| | | |
|--|------------------|----------------------|
| | SEC. 26.2 | APPOACH |
| | SEC. 26.3 | SCOPE |
| | SEC. 26.4 | EFFECTIVENESS |

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1. Supplemental plant materials shall be located and arranged in a manner that provides immediate screening or buffering without inhibiting the long-term growth potential of permanent plant materials.
2. Supplemental plant materials shall be clearly identified as such on the landscape plan and illustrated at their size at time of planting.
3. If appropriate for the particular installation, a schedule for the thinning or eventual removal of supplemental plant materials from a site shall be provided on the landscape plan. No changes to site landscaping shall occur without prior Township approval.
4. Based upon the schedule approved with the landscape plan, the Township may inspect and re-evaluate the effectiveness of the landscaping, screening or buffering to determine whether:
 - (a) The permanent plant materials have matured to the point that the supplemental plant materials may be thinned or removed.
 - (b) The supplemental plant materials should be retained permanently to ensure the continuing effectiveness of the screen or buffer.
5. Supplemental plant materials shall be thinned or removed from the site in accordance with the approved schedule, or upon determination by the Township that they are no longer necessary to achieve the objectives of this Article. The property owner shall be responsible for notifying the Township when required landscaping has matured and the supplemental landscaping can be removed.
6. Pruning shall comply with the provisions of Section 26.8 to ensure that the intended effectiveness is maintained.

SEC. 26.5 LANDSCAPE PLAN REVIEW

1. Landscape plans shall be required as part of the Site Plan Review and Subdivision Plat review processes. The landscape plan shall be submitted and approved or approved with conditions by the Planning Commission prior to Final Site Plan Approval, or prior to the Planning Commission recommendation on the Final Preliminary Plat to the Township Board.
2. For developments not subject to Site Plan approval by the Planning Commission, as defined in Section 29.4.2 of this Ordinance, a detailed landscape plan substantially conforming to the requirements of this Article shall be submitted to the Department of Building and Code Enforcement for review and approval by the Administrative Review Committee prior to issuance of a building permit.
3. All landscape plans shall include the following:
 - (a) Scale. The plan shall be drawn at a scale of not less than one inch equals twenty feet (1" = 20'). Enlargements shall be required to permit adequate evaluation of

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areas with extensive landscaping or unusual site features. Plants, other than supplemental plantings, shall be illustrated at their size at mid-maturity to facilitate evaluation of immediate effectiveness. For larger sites, an overall plan sheet shall be provided, in addition to the detail sheets, to show the relationship of the individual pages and the overall planting plan.

- (b) Seal. All landscape plans shall be signed and sealed by a registered landscape architect.
- (c) Landscape Schedule. A list of all proposed landscaping elements, including but not limited to trees, shrubs, perennials, grasses and other groundcover, and any existing vegetation used to satisfy requirements of this Article, shall be provided on the plan, with the quantity, botanical name, common name and size at installation.
- (d) Maintenance Plan. Landscape maintenance procedures shall be specified on the landscape plan, in accordance with Section 26.8 (Maintenance). The plan must also specify the proposed procedures for snow removal and storage.
- (e) Location and description of other landscape improvements, including but not limited to mulch, berms, walls, fences, paving etc. as necessary to allow the Planning Commission or the Administrative Review Committee to fully evaluate the landscape treatment proposed to ensure conformity with the spirit and intent of this Article.

SEC. 26.6 INSTALLATION

- 1. All landscaping shall be installed in a manner consistent with the standards of the American Association of Nurserymen and the approved landscape plan. This shall include quantity, size, type and location of plantings proposed:
 - (a) Major deviations in quantity, type, size and location of plant materials from the approved landscape plan shall be subject to review and approval in the same manner as provided in this Article for the approved landscape plan.
 - (b) Minor revisions or deviations from the approved landscape plan may be permitted after affirmative recommendation by the Township's designated expert that such changes are consistent with the spirit and intent of this Article and the previously approved landscape plan.
- 2. Installation of all landscaping, screening and buffering elements shown on the approved landscape plan shall be completed prior to issuance of a Certificate of Occupancy for the proposed development; subject to the following:
 - (a) If it is determined that the landscape materials would be jeopardized by weather conditions, a temporary Certificate of Occupancy may be issued, provided that the developer submits a completion date and cost estimate for the completion of the

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landscape plan, subject to review and approval by the Chief Building Official a cash deposit, certified check or irrevocable letter of credit in the amount of the Township-approved cost estimate to the Charter Township of Plymouth.

- (b) In no case shall the Department of Building and Code Enforcement issue a Certificate of Occupancy or a temporary Certificate of Occupancy without the aforementioned submission or completion of installation.
- (c) Failure of the developer to comply with the completion date shall result in forfeiture of the deposit to the Charter Township of Plymouth, but shall not release the developer from the obligation for installation and completion of the landscaping consistent with the approved plan. The Chief Building Official may grant one extension for sixty (60) days upon receipt of a written request from the developer, provided circumstances warrant such an extension.

SEC. 26.7 MATERIALS

1. Plant Material Standards

- (a) All plant material shall:
 - 1) 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)
 - 2) 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.
 - 3) Be a typical example of its species or variety, with normal growth habits and be, well-branched and densely foliated when in leaf.
 - 4) Be of sound health, vigorous and uniform in appearance with a well developed root system, and free from disease, insect pests, eggs or larvae.
 - 5) Be freshly dug and nursery grown.
 - 6) Be chosen according to soil, climatic conditions and environmental factors for the proposed development.
- (b) Trees shall have straight trunks with leaders intact, undamaged and uncut.
- (c) The following trees, because of various problems, are not considered to be desirable landscaping elements and therefore shall, in most cases, not be permitted. If it is demonstrated that such trees are, associated with an appropriate wetland or other ecosystem to be preserved, or where removal of existing trees

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would result in a substantial loss of screening or buffering of adjacent lands, uses or public rights-of-way the Commission may permit their use:

| SPECIES | COMMON NAME | NOTES |
|-----------------------------|-------------------|---|
| <i>Acer negundo</i> | Box Elder | |
| <i>Ulmus x</i> | Elm varieties | Except disease-resistant cultivars, such as 'Regal', 'Pioneer', 'Homestead', 'Jacan' and 'Accolade' |
| <i>Aesculus x</i> | Horse Chestnut | Restrict use to greenbelts and transition zones between developed and undeveloped areas of a site |
| <i>Populus x</i> | Poplar varieties | |
| <i>Elaeagnus x</i> | Olive varieties | |
| <i>Salix x</i> | Willow varieties | Restrict use to appropriate wetland ecosystems |
| <i>Catalpa x</i> | Catalpa varieties | |
| <i>Ailanthus altissima</i> | Tree of Heaven | |
| <i>Ginkgo biloba</i> | Ginkgo (female) | Male trees are acceptable |
| <i>Robinia pseudoacacia</i> | Black locust | |
| <i>Acer saccharinum</i> | Silver Maple | |
| <i>Fraxinus x</i> | Ash | Only varieties susceptible to Emerald Ash borer |

(d) Ground cover plantings shall be subject to the following:

- 1) Lawn areas shall be planted in species of grass normally grown as permanent lawns in southeast Michigan. Grass may be sodded or hydroseeded and mulched, except that solid sod shall be used in swales or other areas subject to erosion. Sod or seed shall be clean, free of weeds and noxious pests or disease.
- 2) The creative use of groundcover alternatives is encouraged. Groundcover used in lieu of grass in whole or part shall be planted in such a manner as to present a finished appearance that is reasonably complete after one complete growing season. Prairie grass and natural wildflower mix may be used where appropriate.

(e) Stone and synthetic materials shall not be used as a groundcover.

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- (f) 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 trunks. Pine bark mulch shall be prohibited. An effective edge treatment must be provided to minimize the migration of the mulch.
- (g) Hedges, where provided, shall be planted and maintained so as to form a continuous, unbroken, solid, visual screen within one full planting season. Where plants are to be used as a hedge for screening purposes, the maximum permitted spacing will be determined by the plant proposed.
- (h) Topsoil. A minimum four (4) inches of topsoil shall be provided for all lawn areas, ground covers and planting beds.
- (i) Artificial plant material shall be prohibited.
- (j) Landscaping shall be located and maintained in a manner that minimizes conflicts with overhead or underground utilities.
- (k) Existing vegetation to be preserved shall be protected during construction through the use of temporary fencing around the drip line.
- (l) Where pavement and landscape areas interface, adequate measures shall be taken to protect plants from vehicle encroachment.
- (m) Tree sizes are determined using the following two definitions: Caliper shall be defined as the diameter of the trunk of a tree at eighteen (18) inches above the ground. Diameter breast height (D.B.H.) is the diameter in inches of a tree measured at four and one-half (4½) feet above the existing grade.
- (n) Minimum sizes of plant materials:
 - 1) Deciduous shade trees: Shall be species having a trunk that can be maintained with over seven (7) foot clear stem. Deciduous trees shall have a minimum caliper of three (3) to three and one-half (3½) inches at the time of planting.
 - 2) Small deciduous ornamental trees: Ornamental trees shall have a minimum caliper of two (2) inches at time of planting, or six (6) feet height in clump form.
 - 3) Evergreen trees: Evergreen trees shall be a minimum of eight (8) feet in height at time of planting.
 - 4) Deciduous and Upright Evergreen Shrubs: Shall be a minimum of thirty (30) inches in height at the time of planting.

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- 5) Spreading Evergreen Shrubs and Dwarf Species Shrubs: Shall be a minimum of eighteen (18) to twenty-four (24) inches in height or five (5) gallon container size at time of planting.
- 6) Vines: Vines shall be a minimum of thirty (30) inches in length after one (1) growing season and may be used in conjunction with fences, screens, or walls to meet buffer requirements.

2. Variety of Plant Material Sizes at Installation

To ensure adequate variety, and to avoid monotony and uniformity within the site, the overall landscape plan shall comply with the following:

| LANDSCAPING MATERIALS | PERCENTAGE OF TOTAL | MINIMUM SIZE AT INSTALLATION |
|--|----------------------------|-------------------------------------|
| Deciduous Shade Trees | 50% | 3.0 – 3.5 inches caliper |
| | 30% | 3.5 – 4.0 inches caliper |
| | 20% | 4.0 inches caliper |
| Evergreen Trees | 50% | 8.0 feet high |
| | 30% | 10.0 feet high |
| | 20% | 12.0 feet high |
| Deciduous Ornamental Trees (Clump Form) | 50% | 6.0 feet high |
| | 50% | 8.0 feet high |
| Deciduous Ornamental Trees | 50% | 2.0 inches caliper |
| | 30% | 2.5 inches caliper |
| | 20% | 3.0 inches caliper |
| Deciduous Shrubs | 50% | 30.0 inches high |
| | 50% | 36.0 inches high |
| Upright Evergreen Shrub | 50% | 30.0 inches high |
| | 50% | 36.0 inches high |
| Spreading Evergreen Shrubs | 50% | 24.0 inch spread |
| | 50% | 30.0 inch spread |

3. Modifications

For specific landscape installations that require uniformity of plant size, such as hedges, mass plantings of shrubs as groundcover, and planted used as ornamental design accents, the Commission may approve variations in the above percentages. Also, for reforestation, wooded area infill, and other applications determined appropriate by the Planning Commission, small caliper, park-grade trees may be approved.

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SEC. 26.8 MAINTENANCE

The owner of the property shall be responsible for all maintenance of site landscaping, as follows:

1. Landscape maintenance procedures and frequencies to be followed shall be specified on the landscape plan, along with the manner in which the effectiveness, health and intended functions of the various landscape areas on the site will be ensured.
2. Landscaping shall be kept in a neat, orderly and healthy growing condition, free from debris and refuse.
3. Pruning shall be minimal at the time of installation, only to remove dead or diseased branches. Subsequent pruning shall assure proper maturation of plants to achieve their approved purpose.
4. All dead or diseased plant material shall be removed and replaced within six (6) months after it dies or in the next planting season, whichever occurs first. For purposes of this Section 26.8.4, the planting season for deciduous plants shall be between March 1 and June 1 and from October 1 until the prepared soil becomes frozen. The planting season for evergreen plants shall be between March 1 and June 1. Plant material installed to replace dead or diseased material shall be as close as practical to the size of the material it is intended to replace.
5. The approved landscape plan shall be considered a permanent record and integral part of the Site Plan Approval. Unless otherwise approved in accordance with the aforementioned procedures, any revisions to, or removal of, plant materials will place the parcel in non-conformity with the approved landscape plan, and shall be viewed as a violation of this Ordinance and the agreed upon terms of the Final Site Plan Approval.
6. The developer, at the time of submission of the final site plan shall demonstrate that adequate provisions have been made to supply water to all landscape areas. This shall be accomplished by installation of an underground irrigation system to provide water for the landscape areas specified on the landscape plan. The Commission shall have the authority to waive or modify this requirement, where the Commission determines that such action would be in accordance with the purpose and objectives of this Article.

SEC. 26.9 EXISTING NATURAL RESOURCES

1. The existence of significant natural resources, including but not limited to trees, ponds, water, steep slopes, and wetlands, shall be protected and reinforced with sufficient landscaping to protect their environmental quality and prevent deterioration. To adequately review the proposed development, a topographic survey shall be provided that identifies the following:

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- (a) Perimeters of areas of existing vegetation, such as tree-rows, hedgerows and woodlands, with notes describing the character of each area (i.e. “wooded wetland,” “oak-hickory,” etc.).
 - (b) When outside of wooded areas, the location, size, and name of all individual trees eight (8) inches D.B.H. or larger. Within wooded areas, all trees twenty-four (24) inches D.B.H. or larger shall be identified.
 - (c) All intermittent and perennial streams, floodplain and floodway limits, wetlands, steep slopes and soils with structural limitations (such as hydric or muck soils).
2. Where healthy trees exist on a site prior to development, expansion, redevelopment or change in use, landscape standards may be adjusted to allow for preservation of quality trees, in accordance with the purpose and objectives of this Article, and the following:
- (a) All existing trees and wooded areas to be preserved shall be delineated on the site by the applicant for field inspection by the Township to verify that the trees are of high quality and will fulfill the requirements of this Article.
 - (b) The landscape plan submission shall include a recent aerial photograph of the site upon which is delineated the wooded areas and individual trees. Points along the perimeter of all wooded areas and regularly spaced within wooded areas shall be marked on the aerial photo. Site photographs shall be submitted to establish the quality and general density of vegetation at each such point.
 - (c) All trees and wooded areas must be labeled “to be removed” or “to be saved” on the landscape plan. If existing plant material is to be saved, protective measures shall be implemented and described on the landscape plan. Such measures may include the installation of snow fencing and stakes at the dripline of each area to be saved. No vehicle or other construction equipment shall be parked or stored within the dripline of any tree or other plant material intended to be saved.
 - (d) Prior approval from the Township is required before any de-limbing, root pruning or other work is performed on preserved trees or wooded areas. No earthwork shall be permitted prior to field verification by the Township of the limits of areas to be preserved.
 - (e) If as a result of site conditions, a substantial quantity of trees or individual significant specimen trees must be removed as part of the landscape plan, then replacement trees shall be provided at a ratio of one (1) inch caliper for each four (4) inches D.B.H., or in an amount considered sufficient by the Planning Commission.
 - (f) In the event that healthy plant materials that are intended to be saved to meet the requirements of the Ordinance are cut down or otherwise damaged or destroyed during construction, said plant material shall be replaced in accordance with the

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following schedule, unless otherwise approved by the Township Planning Commission based upon the site and building configuration, available planting space, and similar considerations:

| REPLACEMENT TREE SPECIFICATIONS | |
|--|---|
| TYPE OF TREE | REPLACEMENT RATIO |
| Deciduous | One inch caliper for each inch D.B.H. of tree damaged |
| Evergreen | One foot for each foot in height of tree damaged |

- 1) Each replacement deciduous tree shall be a minimum of four inches caliper; larger trees may be permitted.
- 2) Each replacement evergreen tree shall be a minimum of eight feet in height; larger trees may be permitted.

SEC. 26.10 CHARACTER OF LANDSCAPING, SCREENING OR BUFFERING AREAS

The selection and placement of plant materials shall be such that the general maintenance and upkeep of the areas shall be low, so that the success of the planting area can be anticipated without placing undue hardship on the landowner or lessee.

1. Where landscape treatment is required for screening purposes, the Planning Commission shall insure that the plan proposed meets the following objectives:
 - (a) The proposed plan effectively forms a complete visual and physical separation between the two unlike land uses.
 - (b) The proposed plan effectively forms a transition zone between the unlike uses and affords sufficient protection and is compatible with the character of the adjacent residential area.
 - (c) The proposed plan effectively reduces the adverse effects of the proposed use, in particular, glare of headlights, lighting from parking areas, noise, unsightly areas such as trash pickup points and contrasting views such as parking areas and access drives.
2. When the landscape treatment is required as a buffer or green area, the Planning Commission shall insure that the plan proposed meets the following objectives:
 - (a) The proposed plan breaks up the area and the proposed plant material creates a partial visual separation.

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- (b) The proposed plan forms a transition zone which helps break up the visual pattern of paving areas.
- (c) The proposed plan, through the use of plant material, creates a ground and overhead area which consists of plant material which is more compatible with the general character of the Township, and with the residential districts in the Township.

SEC. 26.11 METHODS OF SCREENING

1. Solid Wall with Planting Strip

- (a) A solid wall, six (6) feet in height, constructed of brick shall be required. The solid wall shall be located at the property line.
- (b) A six to eight (6 - 8) foot wide planting strip shall be provided abutting the base on the interior side of the wall. The strip shall be planted with deciduous shade trees planted thirty-five (35) feet on center and a mixture of shrubs and perennials.
- (c) The Planning Commission shall have the authority to modify the wall height, material and location standards of this Section, provided that the alternative meets the screening objectives of this Article, and to require that the masonry materials, colors and wall design be consistent with adjacent building facades or adjacent existing walls.

2. Screening Mound or Berm

A screening mound or berm shall have a minimum height five (5) to six (6) feet with side slopes no steeper than 3:1 (three (3) feet horizontal to one (1) foot vertical). The top of all berms shall have a level horizontal area of at least three (3) feet in width. The mound or berm shall be designed and graded to blend with existing topography, shall be graded smooth, and shall be appropriately sodded, hydro-seeded and mulched, or planted. Deciduous shade and ornamental trees, evergreen trees and shrubs shall be planted along the berm area.

3. Evergreen Screen

Evergreen screening shall consist of evergreen trees with year-round screening characteristics that meet the objectives of this Article. Such trees shall be planted ten to fifteen (10 – 15) feet on center in two (2) staggered rows ten (10) feet apart.

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SEC. 26.12 AREAS REQUIRING SCREENING AND/OR BUFFERING

1. Non-residential Uses or Districts adjacent to Residential Use or District

- (a) Screening shall meet the aforementioned objectives of this Article and shall be accomplished by any of the following:
 - 1) A solid wall with planting strip.
 - 2) Screening mound or berm.
 - 3) Evergreen screen.
 - 4) A combination of the above.

2. Abutting Residential Uses, Districts or Developments

- (a) When the proposed development is a special land use or residential use, and is of a nature that requires substantial parking areas, access drives, mechanical unit locations, solid waste pickup points, concentrations of people for recreation (pools, tennis courts, etc.), or is of a significantly different scale or character than the abutting residential district or use, screening and/or buffering is required and shall be reviewed by the Planning Commission to insure that it that accomplishes the following objectives:
 - 1) The screen effectively forms a visual and physical separation between the residential use and the abutting use areas that are of a significantly different scale or character that would adversely affect the residential use.
 - 2) The buffer, when visual and physical separation is not a necessity, forms a sufficient transition zone between the two uses to afford sufficient protection of the adjacent residential district or use.
- (b) Screening or buffering shall meet the aforementioned objectives for this Section and Article and shall be accomplished by any of the following:
 - 1) A solid wall with planting strip.
 - 2) Screening mound or berm.
 - 3) Evergreen screen.
 - 4) A combination of the above methods, or an alternative the Commission determines would be best suited for the existing conditions, meets the objectives of this Article and results in reduction of the impacts of the proposed facilities on the adjacent properties.

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3. Off-Street Parking, Vehicular Use Areas and Service Areas

- (a) All off-street parking areas, vehicular use areas and service areas shall be screened or buffered in a manner that meets the aforementioned objectives of this Article and shall meet the following specific objectives:
 - 1) Off-street parking and vehicular use areas shall be buffered in a manner that separates the proposed facility from the public right-of-way, the view of the general public, and abutting existing or proposed public walks, and creates a scale more appropriate to the individual.
 - 2) Service areas shall be completely screened from adjacent residential areas and view from the public right-of-way.
 - 3) All screening or buffer areas shall be contained within the subject property.
- (b) Screening or buffering shall meet the aforementioned objectives of this Section and Article, and shall be accomplished by the following:
 - 1) A minimum ten (10) foot buffer area between off-street parking or vehicular use areas and the street setback line. The buffer area shall include deciduous trees, flowering trees and shrubs located in a manner to meet the aforementioned objectives.
 - 2) Service areas shall be screened by appropriate plant materials, and/or architectural materials, such as a decorative fence or wall, or a combination of both, to meet the screening objectives of this Section.
 - 3) The ten (10) foot buffer area shall be increased five (5) feet in width for each sixty (60) feet or part thereof which the parking area and/or vehicular use area exceeds sixty-five (65) feet when measured perpendicular to the street setback line up to a maximum buffer width of thirty (30) feet, in accordance with the following table:

| DEPTH OF PARKING/VEHICULAR USE AREA | WIDTH OF BUFFER |
|--|------------------------|
| Up to 65 ft. | 10 ft. |
| 66 – 120 ft. | 15 ft. |
| 121 – 180 ft. | 20 ft. |
| 181 – 240 ft. | 25 ft. |
| 241 ft. or greater | 30 ft. |

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4. Public Utilities and Communication Facilities

- (a) Communication facilities (not including buildings), public utility transformer stations, sub-stations and gas regulator stations shall be screened. The screen shall be reviewed by the Planning Commission to insure that it accomplishes the following objectives:
 - 1) The proposed screen effectively separates the facility from the public right-of-way and the view of the general public.
 - 2) The proposed screen effectively establishes some form of separation and human scale between the facility and abutting public walks.
- (b) Screening shall meet the aforementioned objectives and shall be accomplished by any the following:
 - 1) Screening mound or berm.
 - 2) Solid wall with planting screen.
 - 3) Fence with evergreen screen.
 - 4) A combination of the above.

5. Development Adjacent to a Major Thoroughfare or Expressway

- (a) Residential Development. Where a residential development abuts a major thoroughfare or expressway, a buffer area shall be provided between the thoroughfare and/or expressway and the proposed development, subject to the following:
 - 1) The buffer area shall include a combination of deciduous shade trees, evergreen trees, flowering and ornamental trees, and shrubs as deemed necessary by the Planning Commission to meet the objectives of this Article, and located in a manner to reduce the impact of said thoroughfare or expressway on the development.
 - 2) The plant materials used are hardy characterized by low maintenance requirements and suitable for severe conditions.
 - 3) The buffer area along a major thoroughfare shall be no less than twenty (20) feet wide, and may include berming to increase the effectiveness of the screening and buffering provided.

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- 4) The buffer area along an expressway shall be a minimum of sixty (60) feet wide, exclusive of any lot or condominium unit and exclusive of any road right-of-way. The expressway buffer area shall include the landscaping required above, and either a solid masonry noise wall or landscaped berm, each with a minimum height of twelve (12) feet above grade.
 - 5) The Commission shall have the authority to waive or modify this requirement, where the Commission determines that such action would be in accordance with the purpose and objectives of this Article.
- (b) Nonresidential Development. A buffer area shall be provided between an expressway and any industrial or other nonresidential development abutting the expressway. This buffer shall be provided in addition to all required screening for parking, loading, vehicle use and service areas, subject to the following:
- 1) The buffer area shall be a minimum of twenty (20) feet wide, exclusive of road right-of-way.
 - 2) The buffer area shall include a combination of trees, and shrubs as deemed necessary by the Planning Commission to meet the objectives of this Article, and located in a manner to enhance the appearance of said development from the road. A solid wall and/or berming may be included to improve the screening and buffering provided.
 - 3. The plant materials used are hardy, characterized by low maintenance requirements and suitable for severe conditions.
 - 4) The Commission shall have the authority to waive or modify this requirement, where the Commission determines that such action would be in accordance with the purpose and objectives of this Article.

SEC. 26.13 PLANTING ISLANDS FOR PARKING LOTS

- 1. Parking lots shall be broken up by the use of planting strips, islands or staggering of-trees. The location and design of the proposed planting strips and islands shall be reviewed by the Planning Commission to insure that the following objectives are accomplished:
 - (a) The planting islands are designed in a manner that will ensure proper protection of the plant material located within the island.
 - (b) The plant materials used are hardy, characterized by low maintenance requirements and suitable for severe conditions.
 - (c) The planting islands and proposed plantings will successfully create visual breaks within the large paving area, are in scale with the overall site.

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- (d) The planting islands clearly defines the egress/ingress points, the interior circulation system and fire lanes.

2. Planting island standards

- (a) Planting islands shall have a minimum width of ten (10) feet, and a minimum area of one hundred sixty (160) square feet. To improve maneuvering, the length of the islands shall be two (2) feet shorter than the adjacent parking spaces.
- (b) Planting islands shall be protected by curbing, and dimensions shall be shown on the landscape plan.
- (c) A minimum of one (1) deciduous shade tree shall be provided for each eighty (80) square feet of planting area within the island. Ornamental trees, shrubs, mulch or groundcover shall be used to cover all unplanted areas of the island.
- (d) Planting islands shall be provided with an automatic underground irrigation system, unless an alternate form of irrigation is approved by the Planning Commission.

SEC. 26.14 ISLAND TURNAROUNDS

Where, non-through streets are planned within a residential development, adequate provision must be made for landscape and maintenance of turnaround islands. Such provisions shall be included in the landscape plan with an indication of the date by which the work will be completed, how the landscaping will be maintained, proposed maintenance funding sources, and who will be responsible for long-term maintenance of the landscaping.

SEC. 26.15 STREET YARD LANDSCAPING

Street yard areas are hereby defined as the area between the curb or edge of pavement of a street and the street setback line, combined with any required setback area from the street setback line. Street yard landscaping shall be provided in addition to any required screening for parking, loading, vehicle use and service areas, subject to the following:

- 1. Street yard areas of sites that are developed, altered or redeveloped shall be landscaped in a manner that meets the objectives of this Article, and the following specific objectives:
 - (a) To enhance the visual character of streets and roads in the Township.
 - (b) To effectively minimize the adverse impacts of vehicular traffic on adjacent uses or districts.
 - (c) To satisfy applicable design guidelines or recommendations contained in the Master Plan.

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2. Street yard area landscaping within the street setback area shall be accomplished by the following:
 - (a) Street tree plantings shall consist of deciduous shade trees planted in one (1) or more rows at regular intervals, or in informal groupings, along the margins of street rights-of-way.
 - 1) Such trees shall be planted along the entire length of the site frontage, in an amount equal to a minimum of one (1) street tree per forty (40) feet of site frontage, as measured at the street setback line.
 - 2) Street trees shall be located in planting strips within the street right-of-way, or, if utilities or circumstances prevent planting within the right-of-way, shall be located directly adjacent to the right-of-way in a manner acceptable to the Planning Commission.
 - (b) The use of appropriate plant materials, including ornamental trees, shrubs and perennials, to meet the objectives of this Section.
 - (c) The location and type of street yard landscaping within the right-of-way must meet the standards of and be approved by the Wayne County Department of Public Services or the Michigan Department of Transportation.

3. Street yard area landscaping within any required setback area from the street right-of-way shall be accomplished by any of the following:
 - (a) Street trees.
 - (b) Screening mound or berm.
 - (c) Architectural materials, such as a decorative fence or low decorative wall, or a combination of both, to meet the objectives of this Section.
 - (d) Use of appropriate plant materials, including deciduous shade and ornamental trees, shrubs and perennials, to meet the objectives of this Section.
 - (e) A combination of the above.

SEC. 26.16 DETENTION AND RETENTION BASIN LANDSCAPING

Where a detention or retention basin, or similar stormwater management facility, is required, landscaping shall be provided, subject to the following:

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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.
2. The basin edge shall consist of sculptured landforms to filter and soften views of the basin.
3. Plantings shall replicate a natural environment. Deciduous shade and ornamental trees, shrubs, perennials, grasses and other groundcover shall be clustered around the basin to achieve a variety of plant materials.
4. 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.
5. Basins may be planted with a mixture of groundcover plantings native to southeast Michigan, such as native grasses or wildflowers, provided that such plantings present a finished appearance with minimal maintenance.
6. Basins shall be designed to avoid the need for perimeter fencing; however, if such fencing is required it shall be decorative, in the determination of the Planning Commission.

SEC. 26.17 EXCEPTIONS

1. Where buffering has been accomplished along adjacent perimeters by means of earlier development, the Planning Commission may waive the requirement for additional screening.
2. Within the intent of this Article, the Planning Commission may approve alternatives it determines to be necessary to accommodate peculiar circumstances or unforeseen problems, or to carry out the spirit, intent and purpose of this Article.
3. Where land is used, but not zoned or master planned for residential purposes, the Commission may substitute a lesser standard reflective of the temporary nature of the residential use.