

Article 8. Landscaping and Tree Protection and Preservation Requirements

8.00.00 Intent

The City of Lake Helen recognizes the substantial economic, environmental and aesthetic benefits that a well-managed tree canopy provides the community, its residents and its visitors. It is the purpose of this Section to establish specific responsibilities within the City of Lake Helen's governmental structure to administer and implement the standards, techniques, methods and procedures necessary to protect and maintain the City's tree resources. Trees decrease urban noise, encourage tourism and economic growth, preserve community character and identity, provide habitat for wildlife, and shade pedestrian walkways. It is the purpose and intent to establish policies, regulations, and standards to ensure that the City of Lake Helen, its residents and its visitors will realize the full benefits of a healthy, well-managed urban forest. The provisions of this division are enacted to:

1. Promote the establishment and maintenance of the optimum sustainable amount of tree cover on public and private lands.
2. Establish and maintain diversity in tree species and age classes to provide a stable and sustainable urban forest.
3. Minimize the removal or loss of non-specimen specimen and heritage trees.
4. Require mitigation for the removal of non-specimen specimen and heritages trees on public and private property.
5. Establish procedures to designate and protect heritage trees of unique or intrinsic value to the community, as defined in this division.
6. Maintain City of Lake Helen trees in a healthy and non-hazardous condition through good management practices.
7. Minimize maintenance costs and damage to sidewalks, streets, and other infrastructure by planting tree species that are appropriate for existing site conditions and available growing space.
8. Maintaining permeable land areas essential to surface water management and aquifer recharge, including reduction in stormwater runoff
9. Preserve the community's character and quality of life well into the future.

Land shall not be cleared indiscriminately, but for a bona fide development or agricultural purpose. The amount of land cleared shall be the minimum necessary to accomplish a permitted development or agricultural activity. Clear cutting a development site shall not be permitted, and only that portion of the site required for ingress/egress, parking, loading, building footprint, waste management, utilities installation and stormwater management facilities shall be permitted.

8.01.00 Definitions

A Tree is as any woody, self-supporting plant characterized by having a single trunk of at least six inches (6") Diameter at Breast Height (DBH) or multi-stem trunk system with a combination of stem trunks of a least six inches (6") DBH and a well-developed crown at least fifteen (15) feet high as measured from its base. As utilized herein, a palm tree is considered a plant, not a tree, and the term when used is not synonymous with a tree.

A Protected Tree is any existing, healthy tree having a six (6) inch DBH, or greater and not identified on the most [recent Florida Exotic Pest Plant Council Invasive Plant list](#) (Category I or II).

Arborist means a professional in the area of tree biology, insect and disease diagnosis and treatment, and tree pruning. Arborists with Certified Arborist certification and Landscape Architects

who are Licensed Landscape Architects are the only professionals considered to be arborists as defined herein.

Boundary tree means a tree on adjacent property whose root save area intrudes across the property line of the site under consideration.

Buildable area means that area of the lot available for the construction of a dwelling and permissible accessory uses after having provided the required front, side, rear and any other special yards required the city code.

Canopy road means a city owned and maintained roadway where oaks and other large shade trees form an overhead canopy and such trees are able to maintain their historic, aesthetic, cultural, and environmental significance through a program of preservation, maintenance, and education.

Canopy road zone means the city right-of-way for those portions of roadways designated as canopy roads as well as those portions of city or private property within twenty-five feet (25') of the centerline of the roadway.

Cover area means that area which falls within the drip line of any tree.

Critical root zone means root save area, as defined below.

Destroy means any intentional or negligent act or lack of protection that is more likely than not to cause a tree to die within a period of five years. Such acts include, but are not limited to: performing grade changes (including lowering or filling the grade) that affect more than twenty percent (20%) of the root save area; trenching of roots; cutting, girdling or inflicting other severe mechanical injury to the trunk, roots or other vital sections of the tree; removing in excess of twenty percent (20%) of the live crown of the tree; inflicting damage upon the root system of a tree by the application of toxic substances, including solvents, oils, gasoline and diesel fuel; causing damage by the operation of heavy machinery; causing damage by the storage of materials; and/or deliberately or negligently burning or setting fire to a tree. In addition, topping, tipping, or any similar improper pruning practices will automatically be deemed as destruction of a tree.

Diameter at breast height (DBH) means the diameter of the main stem of a tree or the combined diameters of a multi-stemmed tree as measured 4.5 feet (54 inches) above the natural grade at the base. The top diameter of a stump less than 4.5 feet (54 inches) tall shall be considered the "DBH" of an illegally destroyed tree for the purpose of calculating recompense.

Disease means any fungal, bacterial, or viral infection that will result in the death of the tree, as determined by the responsible employee in the City Administrator or his/her designee. Disease shall also mean any fungal, bacterial or viral infection that has progressed to the point where treatment will not prevent the death of the tree, as determined by the City Administrator or his/her designee.

Established recompense value means the dollar value to the city of a tree on private or public property used for the purpose of calculating cash recompense for removal, loss or destruction. The established recompense value is the year's current purchase value per DBH of an oak tree multiplied by the number of DBH inches removed plus the current estimated fee of planting and maintenance for a replacement tree. This figure shall be set by Resolution by the City Commission.

Fair or better condition means that the tree has a relatively sound and solid root, trunk, and canopy structure, no major insect infestation or other pathological problem, and a life expectancy greater than fifteen (15) years as determined by the City Administrator or his/her designee.

Flush cutting means the removal of limbs by cutting immediately adjacent to the trunk, destroying the protective branch collar and exposing the trunk to decay organisms. Fully stocked means a site occupied by trees at a density of 1,000 inches DBH/acre (e.g., 40 trees averaging 25 inches DBH on a one-acre site).

Hardship means a unique or otherwise special existing condition that is not addressed by the ordinance.

Hazard tree means a tree with uncorrectable defects severe enough to pose present danger to people or buildings under normal conditions, as determined by the City Administrator or his/her designee.

Historic tree means a tree that has been designated by the city historic preservation board, upon application by the City Administrator or his/her designee or any other interested person, to be of notable historic value and interest because of its age, size or historic association, in accordance with the city arboricultural specifications and standards of practice. Such designation may occur only by resolution of the City Commission, and the City Clerk shall maintain a file with a complete listing of the location of each historic tree.

Illegally removed tree means any protected tree that is removed or destroyed without a permit, or in violation of permit conditions.

Impacted tree means a tree that will suffer injury or destruction of more than twenty percent (20%) but not more than thirty-three percent (33%) of its root save area.

Landscaped areas mean the area of a development site that contains, in addition to ground cover, a coordinated planting or preservation of trees, shrubs, and flowers.

Palm tree means any of numerous plants of the family Palmae, most species being tall, unbranched and surmounted with a crown of large pinnate or palmately cleft leaves. Most plants of the species grow to a height of between four (4) and forty (40) feet.

Preserved Tree means a tree which is protected from the impacts thereof during development, preserved, and remains a viable, healthy tree at the issuance of the Certificate of Occupancy.

Private property tree means, for purposes of this article, where reference is made to a tree being on "private property", the tree shall be deemed to be on private property where more than fifty percent (50%) of the flare of the tree, where the tree interfaces with the earth, is located on private property

Protected Tree means a tree with a DBH of six inches (6") or greater which shall not be removed without a permit unless otherwise exempted herein.

Replacement Tree means one (1) tree of a minimum of four (4) inches DBH which is planted to replace a tree found to be dead or beyond recovery, hazardous, or deteriorated; or one (1) tree of a minimum four (4) inches DBH replacing a removed tree with a DBH of 19 inches or under; or two (2) trees of a minimum of four (4) inches DBH replacing a removed tree having a DBH of 19 inches or greater.

Required yard area means the open space on a lot not occupied by a structure or any other impermeable surfaces.

Root save area means the area surrounding a tree that is essential to that tree's health and survival. For a free-standing tree with no apparent root restrictions the root save area shall consist of a circle having a radius of one foot for each one inch of diameter at breast height of the tree. Adjustments

to the root save area may be made by the City Administrator or his/her designee if justified by specific documented site conditions.

Saved tree means any tree that is to be protected and not destroyed or injured during construction as required by this article.

Structural root plate means the zone of rapid root taper that provides the tree stability against windthrow. The radius of the root plate is proportional to the stem diameter (DBH) of a tree. The table below provides examples of root plate radii for upright trees without restricted roots.

DBH (inches)	8	16	32	48
Root plate (feet)	5.5	8	10.5	12

Shade Tree means a self-supporting woody plant or species normally growing to a mature height of at least fifteen (15) feet and a mature spread of at least fifteen (15) feet.

Tipping means the cutting of a lateral limb in such manner as to leave a prominent stub extending beyond a branch node or the trunk.

Topping means the cutting of a leader trunk in such manner as to leave a prominent stub extending beyond the node (crotch) of another leader trunk or major branch that may become a leader trunk.

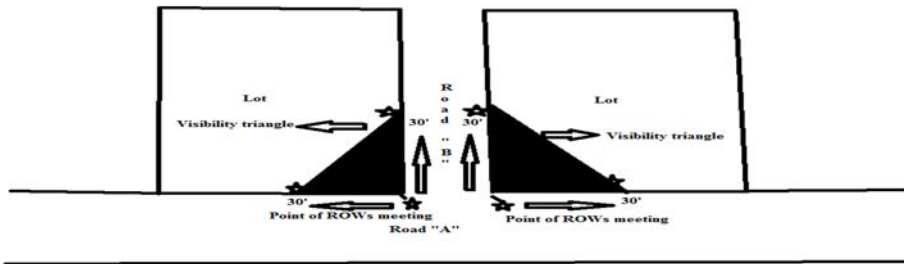
Tree replacement plan means a drawing depicting the location, size and species of existing trees and notes the existing tree requesting to be removed; indicates location, size and species of replacement trees on the lot; a table detailing, by species and DBH, the existing trees to be saved; and, by species and caliper, the replacement trees to be planted.

Landscape Plan means a drawing which depicts the planting of trees, shrubs, flowers, and ground cover on a site. It shall provide a table with information on the number, species, and size at planting of all tree, shrubs, and flora on the development site.

Tree structure means branch and trunk architecture that result in a canopy structure that resists failure. Trimming means cutting a stem to an indiscriminate length, as determined by the City Administrator or his/her designee. While trimming is unacceptable, pruning- the act of cutting stems at nodes- is permissible, unless otherwise restricted.

Vacant lot means a property of record that does not have a structure on it.

Visibility triangle means an area kept clear of visible obstructions where an adjacent road right-of-way meets an on-site road right-of-way or driveway meet to allow for adequate vehicular visibility. At such intersections, an area bounded by the first thirty (30) feet along each right-of-way line or driveway, projected where rounded and a diagonal line extending across the property and connecting the ends of such thirty (30) foot lines shall be provided, where any structures, signage, or landscaping between three (3) and six (6) feet in height shall be prohibited.



Xeriscape means a set of horticultural principles which promote quality landscapes and efficient use of water through the protection of existing vegetation, the use of appropriate plant material, the grouping of plants according to existing vegetation, the use of appropriate plant material, the grouping of plants according to similar water requirements and other similar techniques. “Xeriscape” is a registered trademark of the National Xeriscape Council.

8.02.00 Tree Removal

No person may cut, move, remove, damage or destroy any protected tree without obtaining a tree removal permit.

Tree removal permits are required for the removal of any tree, except as set forth below.

A. Exemption from permit, permit fee and replacement requirements:

1. Trees and landscaping specifically grown as landscape material for resale by duly approved and licensed plant nurseries and botanical gardens.
2. Damaged or hazardous trees during and for a one (1) month period, unless such period is extended by action of the city, following a declared disaster.
3. Minor maintenance activities including, but not limited to, removal of sucker growth, water sprouts, and overhanging branches on mature trees which do not affect the health or life of the tree and are where the removal of overhanging branches is not within a canopy road zone. All work shall be performed in compliance with the current ISA Arborist standards and best practices.
4. Removal of trees by the City on city owned land and within the city rights of way.
5. Trees having a diameter at breast height (DBH) of less than six inches (6”).
6. The removal of protected trees which fall or the removal of branches from said trees which have fallen due to acts of nature, including, but not limited to storms, fire, and natural decay.

B. Exemption from fee and replacement requirements:

A permit shall be required for removal of the following trees, however, removal of these shall be exempt from the permit fee and replacement plan requirements of this article as follows unless the removal of such tree results in the property not achieving the City’s minimum landscape standards as specified in Article 8.07.05 for Residential and Article 8.07.06 for Non-Residential and Mixed Use:

1. Removal of trees (thinning) within a forested area in order to reduce overcrowding and competition and to promote the health, growth, and resistance to stress may be permitted only when accompanied by written certification of the need to remove such

- tree(s) at the property owner's expense, from an ISA certified Arborist prior to authorizing such removal.
2. Major and minor maintenance of trees located adjacent to utility lines, except within a canopy road zone; and
 3. The tree prevents access to a lot and no feasible alternative access points exist.

8.02.01 Tree Removal Permit

The property owner or his/her designee shall apply for a tree removal permit prior to removal of any tree except as outlined in Article 8.02.00A. The applicant shall take reasonable measures to design and locate the proposed improvements so the number of protected trees to be removed is minimized. Authorization for removal of tree(s) shall be granted when one (1) or more of the following conditions exist:

- a. A permitted use of the site cannot reasonably be undertaken unless specific trees are removed or relocated.
- b. The tree is located in such proximity to an existing or proposed structure that the safety, utility, or structural integrity of the structure is materially impaired.
- c. The tree will interfere with the location or servicing of utility lines or services.
- d. The tree creates a physical or visual impairment to motor, bicycle, or pedestrian traffic.
- e. The tree is dead, diseased, or weakened and is likely to cause injury or damage to people, buildings, or other improvements.
- f. The tree would not be able to survive in its current location following construction despite all appropriate tree protections, as certified by an arborist.

8.02.02 Tree Removal Permit Application

The tree removal permit application shall include written statement indicating the reasons requiring removal or relocation of trees; a tabulation of the species, DBH, and height of the trees to be removed or relocated; an area map indicating the location of the trees to be removed or relocated; and any proposed or pre-existing structures or vehicle use areas. In addition, part of the application shall contain a signed acknowledgement by the applicant verifying that no protected trees will be removed as a part of the development project except as noted on the approved application. At the city's request, the applicant shall be required to provide information from an arborist to verify the trees' impact on a developable area or regarding the survivability of a tree proposed for removal near construction.

8.02.03 Tree Removal Permit Review Required Submittal Items

1. [Application](#)
2. [Recompense Calculation](#)
3. Tree Removal and Replacement Plan
 - a. Drawing depicts the location, size and species of existing trees and notes the existing tree requesting to be removed; indicates location, size and species of replacement trees on the lot; and a table detailing, by species and DBH, the existing trees to be saved.

- b. If the construction of buildings or structures is involved, depicted the location of all building/structures, as well as existing and proposed grading of the site.
- c. If grading is to be done without the construction of building/structures, provide existing and proposed grades.
- d. A detail of how trees to be saved are to be preserved from removal or the impacts of tree clearing or land grading work.

8.02.04 Timing of Tree Removal Permit

1. A Tree Removal Permit shall be submitted for review prior to the commencement of tree clearing or removal.
2. The city shall have 14 days to review a Tree Removal Permit and approve it, approve it with conditions, deny it, or request additional information.
3. Tree recompense fees shall be paid at the time of permit issuance.
4. A Tree Removal Permit may be transferred from one property owner to another. The new property owner must confirm that nothing has changed from the original approval, and must abide by any existing conditions.
5. A Tree Removal Permit is valid for one (1) year, unless the permit is extended beyond this following approval of the City Commission.

8.02.05 Protection of Trees to be Preserved

When developing land, all trees to be preserved shall be surrounded by a barricade of at least 4 ½ feet (54 inches) which shall extend outward to the outer limit of the tree's dripline. The barricade shall be made of wood, plastic, or similar materials, and shall be supported by wooden stakes driven into the ground to a depth which shall sustain the barricade in place during development activities. In the event that grading work is needed within the dripline of a protected tree during construction, grading shall not exceed three (3) inches. Any grading within the dripline shall utilize retaining walls or similar methods to protect the tree to be preserved from grading changes and/or root damage. The disposal of waste materials resulting from construction activity, including, but not limited to paint, oil, solvents, asphalt, concrete, wood, or mortar shall not be disposed of within the dripline of a protected tree.

When large groupings of protected trees located in close proximity are to be preserved, the protective measure may be changed to stakes fifty feet (50') on center, connected by string with bright color ribbons attached to the string.

8.02.06 Inspection

Prior to the issuance of a permit, the city shall conduct an on-site inspection to determine the accuracy of the depiction of trees to be removed and to ensure measures proposed to protect trees to be preserved are in place.

Tree Removal Permit Fees (permit, application and inspection fees) are set forth in the schedule of fees as adopted by Resolution set by the City Commission. No action shall be taken on an application until all applicable fees are paid.

Approval of paid recompense fee in lieu of tree replacement is determined by City Administrator or his/her designee. The applicant may be permitted to contribute recompense fee only if it is determined that there is no suitable way to balance the requested tree removal on site with required on-site replacement. Recompense fees may be used as outlined in 8.04.02.

8.03.00 Tree Replacement

All trees removed shall either be replaced or recompensed for as described below if the lot does not meet the requirements of 8.07.05 and 8.07.06. For each tree removed that is nineteen (19) inches or less DBH, one (1) replacement shade tree with a DBH of at least four (4) inches shall be provided. For each removed tree of more than nineteen (19) DBH, two (2) shade trees with a minimum of four (4) inches DBH shall be provided. Replacement trees shall be Florida Grade 1, and shall be maintained and warranted for survival for one (1) year. Trees which do not survive the one (1) year shall be replaced with similar trees, and must also be maintained/warranted for one (1) year from planting.

8.03.01 Off-Site Tree Replacement

Trees counting toward the required number of replacement trees that are not able to be planted on the subject property may be planted on other property(s) under ownership of the same person/entity as the subject property. The same maintenance/survivability standards of this article apply. The property owner, with city approval, may also plant required replacement trees on city property and/or right-of-way. A maintenance fee to recompense the city for these costs as established by the City Commission shall apply.

8.04.00 Tree Recompense

The difference between the number of trees required to replace destroyed or lost trees and the number of replacement trees planted on the property or mitigated elsewhere at the issuance of a Certificate of Occupancy. Recompense for the shortfall of replacement trees shall be calculated as follows, or as subsequently amended by the City Commission.

- As set by a Resolution of the City Commission, the set value per DBH of an oak tree multiplied by the number of DBH inches removed plus the current estimated fee of planting and maintenance for a replacement tree.

[RECOMPENSE CALCULATION \(CLICK HERE\)](#)

8.04.01 Conservation Easement

A Conservation Easement is the wooded lands or newly created wooded parkland afforested to one-hundred (100) DBH inches per acre that are perpetual in duration and accepted by the City shall receive a credit of \$20,000 per acre, prorated, credited against recompense fees. There shall be no cash refund.

8.04.02 Tree Recompense Fund Established

There is hereby created a Tree Recompense Trust Fund established. All funding received for recompense of removed trees shall be administered by the City Administrator or his/her designee

Disbursements from the Tree Recompense Trust Fund shall be made only for the following purposes:

1. Purchasing trees for planting and any associated costs in accordance with the city's tree planting program;
2. Educational purposes as determined appropriate by the City Commission;
3. Protection of trees;
4. Maintenance of trees.

Fees for the Tree Recompense Fund shall set by Resolution of the City Commission to reflect market conditions and may be modified from time to time. Fees are set forth in the schedule of fees as adopted by Resolution set by the City Commission. In establishing fees, the city shall consider the cost of material, labor, transportation, planting, watering, and mortality rate of replacement trees.

8.04.03 Illegal Recompense (known number and known diameter of trees)

1. A fine shall be imposed for the first violation of double the ordinary tree recompense fee. Subsequent violations may result in a fee of \$400 per caliper inch, plus the establish maintenance fee. After more than two (2) violations, the City Commission may consider revoking the right of the contractor to do work within the city limits.
2. The city may make either the property owner, the applicant, the contractor or any combination of these parties liable for the penalty for the illegal removal of a tree(s).
3. Any person who has illegally removed trees, or is liable for unpaid costs, fees, or fines, is subject to a Stop Work Order. This order shall prevent any further work under any permits previously approved for the site, until the violation is rectified.

8.05.00 Land Clearing Permit

The indiscriminate bulldozing or clearing of land within the City not done in connection with the improvement of said land shall be prohibited. The amount of land cleared shall be the minimum necessary to accomplish a permitted development or agricultural activity. Clear cutting a development site shall not be permitted. For phased development projects, clearing shall only be allowed for the phase approved and ready for development, and only for those areas outlined above. For subdivisions, land clearing shall be for infrastructure areas only. Individual lots within subdivisions shall be only cleared at the time of approval of a Building Permit. Where infrastructure cannot be constructed without the removal of trees within an individual lot, city permission shall be granted for the necessary tree removal on the lot on a tree by tree basis.

A land clearing permit is required for the removal of any underbrush other than that directly associated with a developed single-family home site or construction activities associated with a building permit already in effect, and land clearing necessary for surveying.

8.06.00 Appeal of Tree Preservation Decisions

Any person with a grievance as to a tree(s) being required to be preserved; the number of trees being required as replacement trees; tree recompense fees; or any other issues with the administration of tree preservation may request an appeal and/or interpretation by the City Commission as outlined in Article 15.

8.07.00 Landscaping Regulations:

8.07.01 Landscaping Regulations

It is the intent of the City of Lake Helen City Commission to promote the health, safety, and welfare for both current and future residents and visitors by establishing minimum standards for the installation and continued maintenance of landscaping within the City of Lake Helen, FL.

The importance of the installation and maintenance of landscaping:

1. Improves the aesthetic appearance of residential and commercial properties through the harmonizing of the built environment;
2. Improves environmental quality through the following scientifically-recognized benefits:

- a. Improving air and water quality through such recognized processes as photosynthesis and mineral uptake;
 - b. Maintaining permeable land areas essential to surface water and riverine management, as well as aquifer recharge;
 - c. Reducing and reversing air, noise, and other pollutants through the biological filtering capacities of trees and flora;
 - d. Conserving energy through the creation of shade by reducing the heating of buildings and paved surfaces; and
 - e. Reducing the temperature of the microclimate through the process of evapotranspiration;
3. Maintains and increases the value of land, thus becoming a capital asset;
 4. Provides direct and important physical and psychological benefits to humans through the reduction of noise and glare and the softening of the physiological impacts of urban development.

8.07.02 Relationship to Comprehensive Plan.

These regulations shall work towards implementing the goals, objectives, and policies of the Conservation element of the City of Lake Helen Comprehensive Plan.

City of Lake Helen Comprehensive Plan, Conservation Element.

1. Policy V1.2.10. **Florida Friendly Landscaping.** The City shall encourage the use and application of Florida-Friendly Landscaping and Florida-Friendly Yard practices to improve water quality and reduce the consumptive use of water. The City shall evaluate and adopt Florida-Friendly Landscaping regulations that, at a minimum, set standards for the use of native and drought tolerant species, removal of exotic plants, vegetative clearing and efficient irrigation to maximize conservation of water resources.
2. Policy V1.2.11. **Restrict landscape irrigation.** In order to conserve supplies of potable water, the City shall limit the use of potable water for landscape irrigation and require the use of Florida-Friendly Landscaping to the greatest extent practicable. High volume irrigation areas shall not exceed fifty percent (50%) of the landscaped area. Low or medium volume irrigation areas may be utilized in lieu of any high volume irrigated area.
3. Policy V1.2.12. **Irrigation Rain Sensors or Soil Moisture Sensors.** The City shall require irrigation rain sensors or soil moisture sensors with automatic cut-offs on all new irrigation systems in accordance with Florida Standard Building Code and Water Management District rules.
4. Policy VI.8.4. **Native Plant Species.** The City shall require the use of native plant species in the landscaping of new development projects and additions to existing projects and require the removal of exotic nuisance plants from the sites of new development.
5. Policy VI.8.5. **Educational Materials.** The City shall maintain and distribute a recommended native plant listing and other educational materials to increase public awareness of the need to utilize native plant species in the developed landscape and eliminate exotic nuisance plants from existing developed areas.

City of Lake Helen Comprehensive Plan, Conservation Element, Conserve Potable Water Supplies by:

- Promoting water reuse and reclamation, where appropriate, for landscape, farm irrigation, industrial use, and other appropriate applications;
- Encouraging the implementation of water revenue mechanisms that encourage the economical/conservational use of potable water supplies;
- The City shall require new development to use and/or preserve native or drought-tolerate vegetation for landscaping to the greatest extent feasible, and
- Distribute available educational materials that describe sources of water consumption and opportunities for conservation to the general public.

8.07.03 Landscaping Regulations Applicability

These landscaping regulations shall apply to any development or, in the case of non-residential development, to the intensification of building, site size, or land usage. The following shall be exempt from these landscaping regulations:

1. Commercial nurseries, as defined herein;
2. A bona-fide agricultural use, as defined by Florida Statutes.

8.07.04 Suspension of Landscaping Regulations

1. The installation of landscaping required for new development, redevelopment, or intensification of a use may be temporarily suspended by the City Commission:
 - (a) after a freeze, when landscape materials are not available or available in greatly reduced quantities;
 - (b) during a drought, when the use of water for the installation and maintenance of landscaping is restricted so as to make the survivability of landscaping highly unlikely, or the drought conditions themselves make the survivability of landscape materials unlikely;
 - (c) as part of a state of emergency for the City of Lake Helen as declared by the City Commission, Volusia County, State of Florida or United States Government.
2. Upon the lifting of the temporary suspension of landscaping regulations by the City Commission, the holder of the permit shall have one (1) month to plant the landscaping as would have required prior to the suspension. Failure to do so would result in enforcement actions being taken as outlined in this article.

8.07.05 Minimum Requirement for Residential Development

It is the intent of this section to provide minimum landscaping requirements for residential development. Existing plant materials, other than invasive species, may be counted toward meeting the landscaping requirements set forth in this section. Based on the number/DBH of trees removed at construction, the requirements below may be required to be exceeded. The maximum of the below required minimum or the required number of replacement trees shall prevail.

1. Single-family and Two-family Residential Development

New Single-family and two-family development shall submit a Landscape Plan (8.07.07) which includes, at a minimum:

 - a. One (1) shade tree for every 2,000 square feet of lot area or fraction thereof.

- b. At least two (2) trees shall be located in the front yard, unless this requirement is waived by the City Administrator or his/her designee due to front yard design constraints.
 - c. A minimum of three (3) shrubs shall be planted or preserved for every 2,500 square feet of lot area, excluding areas of landscaping required to be preserved by law.
 - d. The entire site, outside of the planting areas immediately surrounding the trees and shrubs, shall contain grass, ground cover, or other impervious materials such as stones, mulch, leaves, or other materials commonly accepted in xeriscaping principles.
 - e. For single-family homes being built on a lot or combination of lots three (3) acres or greater in size, trees shall be kept back a minimum of 30 feet from any residential structure in order to reduce the chance of the home being harmed from a wildfire.
2. Multi-family Residential Development

New Multi-family residential development sites shall submit a Landscape Plan (8.07.07) which includes, at a minimum:

- a. One (1) tree for every 2,000 square feet of planting area or fraction thereof;
- b. At least fifty percent (50%) of the trees shall be shade trees; and
- c. A minimum of three (3) shrubs shall be planted for every 2,500 square feet of lot area where the land for units is platted as lots. For multi-family developments not involving platted lots, ten (10) shrubs shall be planted or preserved per acre of the cumulative development site, excluding areas of vegetation required to be preserved by law.
- d. There shall be a planting area not less than ten (10) feet in width between an abutting right-of-way and parking areas. This landscaped area shall meet or exceed the requirements for the landscaping of the perimeter of parking areas in (8.07.17) of this article (8.07.11 and 8.07.12).
- e. All other permeable areas outside of the planting areas immediately surrounding the trees and shrubs shall contain grass or ground cover.

8.07.06 Minimum Requirements for Non-Residential and Mixed Use Development

1. Minimum Landscaped Area

At least twenty percent (20%) of the total gross land area of a development site shall remain pervious. Ten percent (10%) of the total land area of a development site shall be landscaped with trees, plants, and shrubs. New construction and landscaped areas shall be located on the site in such manner as to maximize preservation of existing trees with priority given to specimen trees. Planting areas which fulfill landscape design strategies located within public rights-of-way shall count towards the minimum planting area, if installed and paid for by the developer or property owner.

2. Minimum Tree Planting in addition to the requirements in this Article.

New Nonresidential development shall submit a Landscape Plan (8.07.07) which includes, at a minimum:

- a. One (1) shade tree for each 1,500 square feet of gross site area, or fraction thereof.
- b. At least fifty percent (50%) of the trees shall be shade trees; and

- c. Shrubs shall be planted at a ratio meeting or exceeding five (5) shrubs per every 2,500 square feet of building site.
- d. There shall be a planting area not less than ten (10) feet in width between an abutting right-of-way and parking areas. This landscaped area shall meet or exceed the requirements for the landscaping of the perimeter of parking areas in (8.07.17) of this article (8.07.11 and 8.07.12).
- e. The required landscaping islands within parking lots required under Article 8.07.08. Where sidewalks providing pedestrian access from roads not included within the development site to the project building(s) are required by the city for project approval or are voluntarily provided by the developer, the area within three (3) feet on either side of the sidewalk shall be landscaped. Where possible, this landscaping shall include shade trees.

8.07.07 Landscaping Plans

A landscaping plan shall be provided to demonstrate compliance with the standards of this Article and prepared in accordance with all applicable Florida Statutes. Landscaping plans shall utilize the principles for creating a Florida Friendly landscape; utilize native drought tolerant plant materials to conserve water; avoid invasive exotic species; reduce need for fertilizers; and establish integrated pest management to reduce or eliminate pesticide use. The use of plant material, site design techniques, and planting design techniques which enhance wildlife habitat benefits is strongly encouraged.

A landscape plan is like a floor plan for the property. Like a floor plan, a landscape design creates a visual representation of a site using scaled dimensions. Landscape plans include natural elements like flowers, trees, shrubs, and grass as well as man-made elements such as fences, walls, fountains, buildings, and accessory structures.

The landscape plan shall include the following elements:

1. The species, variety, quality and size of trees and plant material existing and proposed throughout the site. Existing vegetation shall be retained wherever possible and accurately shown on the landscaping plan.
 - a. Landscape areas shall have a minimum of two (2) living plant/shrub materials other than trees. The total of all landscape areas on a site shall include a minimum of three (3) living plant/shrub materials other than trees.
 - b. Tree Plantings shall consist of a minimum of seventy-five percent (75%) indigenous vegetation species.
 - c. Landscaping shall demonstrate compliance with water wise landscaping principles.
2. An irrigation plan, including water outlet locations.
 - a. Landscaped areas shall be provided with an irrigation system of sufficient capacity to maintain the landscaping in a healthy growing condition. All irrigation systems shall be designed, installed, and maintained in such a manner as not to be a nuisance to adjacent properties and uses and to the general public. Irrigation systems shall include moisture sensors.
 - b. Irrigation systems shall be designed to “Standards and Specifications for Turf and Landscape Irrigation Systems”, Florida Irrigation Society, Inc. and as subsequently amended.

- c. Xeriscape areas must have a readily available water supply to provide temporary irrigation until plantings are established or for extremely dry prolonged drought conditions.
 - d. Natural areas and native vegetation left undisturbed by development may be excluded from the irrigation system.
 - e. A note shall be included on the irrigation plan that the property owner shall be responsible for adjusting the timing and use of the irrigation system in conjunction with any watering restrictions imposed by the St. Johns River Water Management District (SJRWMD).
3. Location of all existing or proposed structures, improvements and site uses, including the location of parking lot drive aisles and parking spaces.
 4. The layout of the irrigation system and details of its design.
 5. The topography of the site, including existing and post-construction elevation.
 6. The scale of the drawing.
 7. The name, address, and telephone number of the applicant, as well as the registered landscape architect.
 8. For Non-Residential Sites:
 - a. Shall include a plan showing the location, size, description, and specifications of landscaping, grade of plantings, mulch specifications, landscape area protection structures (e.g., curbs and planters), number of interior parking spaces, perimeter and interior landscape area plantings, existing trees and planting areas.
 - b. Shall account for plant watering needs and group plants into "hydrozones." Hydrozones and their corresponding irrigation category shall be identified on the landscape plan.
 - c. Landscape Plans for non-residential and all projects larger than five (5) acres shall be prepared by a landscape architect. Landscape plans for residential projects may be prepared by any qualified person.

Trees identified as invasive exotic plants as listed within F.S. § 369.251, shall not be planted or utilized. Where nuisance species are present in numbers, up to thirty percent (30%) reduction in required replacement number may be obtained by eliminating the problem species from the site. Such a request shall be made in writing at the time of landscape plan submittal.

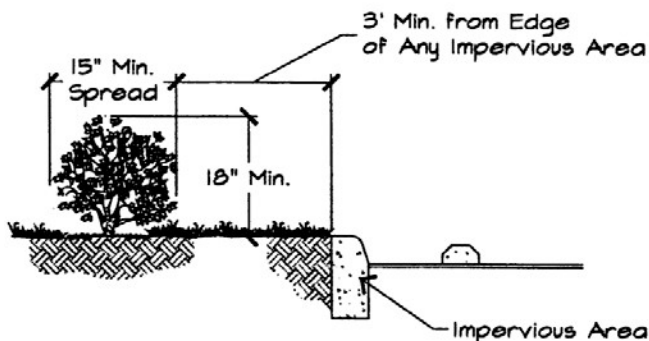
- a. As determined by the City Administrator or his/her designee and in lieu of site tree replacement, the applicant may be permitted to contribute cash to an arbor fund in an amount equal to the value in dollars of the replacement trees, including planting and maintenance, as prepared by a licensed arborist. The cash contribution to the arbor fund option shall only be available after the City Administrator or his/her designee has determined that it is not possible to plant or retain the required number of trees on site following removal of existing trees necessitated by construction.

8.07.08 General landscape requirements and material standards

1. Plant materials

- a. Trees, Shrubs, and groundcovers shall be selected by using the Florida-friendly Plant Database.
 - b. Plants identified as “prohibited” or “noxious weeds” species on the most recent Florida Exotic Pest Plant Council Invasive Plant list shall be removed as part of the site development process. Plants identified as “invasive” may be retained on a development site, but shall not count toward meeting landscaping and buffering requirements.
2. Minimum specifications for plant materials
- a. All plants used as part of any landscape plan shall be healthy, well proportioned, disease-free, pest-free, and hardy. All plant materials shall be a minimum of Florida Number One as defined in Grades and Standards Revised, Part II as published by the Florida Department of Agriculture and Consumer Services.
 - b. Shrubs shall be at least thirty-six (36) inches in height and have a minimum spread of at least fifteen (15) inches at the time of installation. For landscaping buffers abutting road right-of-ways, the required height of shrubs shall be measured from the height of the highest point of the adjoining road right-of-way. Shrubs shall be installed at least thirty-six (36) inches on center and may not be placed closer than three feet from the edge of any impervious area.

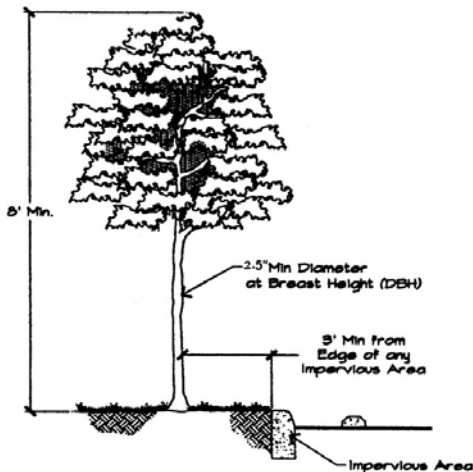
Example:



- c. Hedges shall be planted to create a continuous, unbroken, solid visual screen within one (1) year of planting allowing for full mature height and spread.
- d. All landscaped areas shall be sodded, covered with ground cover, or other materials permitted under 8.07.05 and 8.07.06. Grassed areas lacking trees, shrubs, or plants shall be consolidated and limited to those areas on the site which receive pedestrian traffic, provide for recreational use, provide cover for required drain fields or retention areas, or provide soil erosion control such as on slopes or in swales; and where grass is used as a design unifier or other similar practical use.
- e. Ground cover used in lieu of grass shall be planted so as to present a finished appearance and reasonably complete coverage within three (3) months of installation.
- f. Vines shall be a minimum of thirty (30) inches in height at planting and may be used in conjunction with fences, screens, or walls.

- g. Natural mulch shall be designed and installed in all planting areas to a depth of three (3) inches. The type of mulch shall be specified on the landscape plan. Mulches are typically wood bark chips, wood grindings, pine straw, nut shells, small gravel, and shredded landscape clippings. Mulch rings should extend to at least three (3) feet around freestanding trees and shrubs. All mulch should be renewed biannually.
- h. Retention of native and drought tolerant species is preferred. At least fifty percent (50%) of the required plants installed in landscaped buffers, landscaped parking areas, and for replacement shall be native species.
- i. At least fifty percent (50%) of the required trees installed in landscaped buffers other than landscaped parking areas, and to meet tree planting requirements shall be shade trees. Parking islands within parking areas shall contain at least one (1) shade tree. Existing trees, other than invasive or prohibited species, which are five (5) inches DBH or larger, and shrubs may be counted toward meeting the requirements for landscaped buffers, landscaped parking areas, and tree retention. Existing trees preserved and counted towards the requirements for landscape islands within parking lots shall contain at least one (1) shade tree.
- j. Trees shall be a minimum of two and a half (2.5) inches DBH and no less than eight (8) feet tall at the time of installation. Trees shall not be planted closer than three (3) feet from the edge of any impervious area. Planted trees must be a species with an average mature spread of at least twenty (20) feet, or they must be grouped so as to create a crown spread of at least twenty (20) feet. All trees shall be a Florida Grading Standards, Grade #1 or better.

Example:



- k. When more than three (3) trees are required to be planted, a mixture of trees as follows shall be provided: from four (4) to eight (8) trees, two (2) species provided; from nine (9) to thirty (30) trees required, three (3) tree species provided; from thirty-one (31) to sixty (60) trees required, 4 species provided; and for over sixty-one (61) trees required, five (5) species provided.
- l. Shade trees shall not be installed under any overhead utility line, over any buried utilities, or within a utility easement.

- m. Where underground utilities conflict with proposed plantings, tree placement shall be a minimum of ten feet from the underground utility and a root barrier of two (2) feet deep shall be installed.

3. Installation

- a. All required landscaping installed pursuant to this section shall be installed according to accepted horticultural practice.
- b. Trees may not need to be staked if appropriate canopy to root ratio is achieved. However, trees shall be guyed, braced, and/or staked at the time of planting to ensure establishment of the tree and erect growth, as specified by the landscape designer or architect and compliant with the ISA staking and guying guidelines. Nail staking or other methods that cause cosmetic or biological damage to the tree are prohibited. Trees shall be re-staked within twenty-four (24) hours in the event of a failure in the staking or guying. Stakes shall be removed not later than twelve (12) months after installation. All areas where trees are to be planted shall be excavated to the width and depth of the root ball with the upper twelve (12) inches excavated to at least three (3) times the width of the root ball prior to being backfilled with the required topsoil mix.
- c. Shade trees shall be provided with at least two hundred and fifty (250) square feet of planting area per tree.
- d. Understory trees shall be provided with at least one hundred (100) square feet of planting area.
- e. Landscaped areas shall be protected from vehicular encroachment by car stops, curbs, or other appropriate means.
- f. Trees shall be installed a minimum of three (3) feet from a paved area. A root barrier shall be required prior to installation of replacement trees.
- g. Landscaped areas shall be provided with an irrigation system of sufficient capacity to maintain the landscaping in a healthy growing condition. All irrigation systems shall be designed, installed, and maintained in such a manner as not to be a nuisance to adjacent properties and uses and to the general public. Irrigation systems shall include moisture sensors.
- h. Xeriscape areas must have a readily available water supply to provide temporary irrigation until plantings are established or for use during prolonged periods of drought.
- i. Natural areas and native vegetation left undisturbed by development may be excluded from the irrigation system.

8.07.09 Berms Standards within Required Landscape Buffers

1. All berms shall be a minimum of two (2) feet and a maximum of eight (8) feet in height.
2. No portion of any berm shall be within an easement or right-of-way.
3. Berms shall not be permitted between roadways and fire hydrants, or in any other place where they may prevent fire department access.
4. Berms shall not impede water flow to stormwater runoff facilities, nor shall they cause adverse drainage or flooding problems on adjoining properties.

5. The berm shall maintain side slopes of not less than four feet (4') horizontally for each one (1) foot vertically.
6. Berms shall not impede sight within the visibility triangle at the intersection of road right-of-ways with other roads or driveways.
7. Sod or similar ground cover shall be used to completely cover the berm so as to prevent erosion.
8. The only structures permitted on berms shall be wall and fences.
9. Berms to be built outside of the site plan or subdivision review process shall require a Building Permit.

8.07.10 General Landscaping Maintenance Requirements

1. All plantings shall be continually maintained in an attractive and healthy condition. Maintenance shall include, but not be limited to, watering, tilling, fertilizing and spraying, mowing, weeding, removal of litter and dead plant material, and necessary pruning and trimming.
2. Required plants that become diseased or die shall be replaced no later than three (3) months following the loss of the plant.
3. Replacement trees shall be maintained and warranted to survive for a period of one (1) year from installation. Trees which do not survive one (1) year must be replaced with new trees of the same size. New replacement trees shall comply with the same maintenance and replacement warranty as the original replacement tree(s), and the warranty period will restart at the date of planting.
4. All trees may be pruned to maintain shape and promote their shade-giving qualities and to remove diseased or dying portions in areas where falling limbs could be a hazard. The property owner is responsible for the maintenance of all required landscaping in a healthy, thriving condition. Trees shall be pruned only as necessary to promote healthy growth or to avoid power lines. Trees shall not be severely pruned or "hatracked," "lionstailed," or "topped" in order to permanently maintain growth at a reduced height. Pruning shall comply with current International Society of Arboriculture (ISA) standards. No more than 20% of the crown shall be removed within a one (1)-year period.
5. No attachment, wires (other than properly installed supportive wires), signs, or permits shall be nailed or otherwise fastened to any tree, and no equipment, materials or debris shall be placed within the protective barrier.
6. Fertilizers: It shall be the goal of each landscape plan to select plant materials capable of thriving without regular fertilizer application, with exception of palms which need quarterly fertilizer to avoid nutrient deficiencies.
7. Pesticides: It shall be the goal of each landscape plan to establish an Integrated Pest Management approach and reduce or eliminate the need for pesticide application.

8.07.11 Required landscaping in off-street parking areas

Landscaping is required in off-street parking areas to promote safe and efficient use of the facilities, conserve energy through the cooling effect of trees and vegetation and provide buffers between vehicular use areas so that potential negative impacts do not adversely affect activity in another area. Landscaping also aids in parking circulation by better directing access to proper

ingress and egress points, as well as the internal movement of vehicles and pedestrians to desired areas.

All off-street parking areas, except those which serve single-family and duplex structures, shall meet the following landscape requirements, along with all of the general landscape requirements outlined in this article. It is the intent of this section to promote vehicular and pedestrian safety; limit physical site access to established points of ingress and egress; delineate and buffer the bounds of abutting vehicular use areas so that distractions of movement, noise and glare from one area do not adversely affect the activity in another area; break up large expanses of pavement; and to reduce heat island effect within the vehicular use areas of a site.

All off-street parking lots with ten (10) or more required parking spaces and vehicular use areas (access driveways, service drives, and loading areas) are required to include landscaping. Required parking lot landscaping shall be in addition to requirements for protection of existing trees, except where preserved trees are part of required landscaping buffers.

1. A permit shall be required for development or redevelopment of any off-street parking area to serve an existing use, when it is not part of the original development or redevelopment building permit.
2. Parking areas that abut a public right-of-way shall include a minimum ten-foot wide landscaped buffer on the perimeter of the parking area that abuts any private or public street.
3. A minimum of one (1) landscaped island shall be provided for every ten (10) parking spaces. Each island shall contain a minimum of one shade (1) tree. Landscaped islands shall be a minimum of fifty (50) square feet in area.
4. Where a sidewalk is not provided, a minimum of five feet (5') of landscaping, consisting primarily of shrubbery, shall be provided along the front of any building which abuts a parking area.
5. Landscape areas shall have a minimum of two (2) living plant materials other than trees. The total of all landscape areas on a site shall include a minimum of three (3) living plant materials other than trees.
6. Interior planting areas shall be located to effectively accommodate stormwater runoff, as well as to provide shade in large expanses of paved areas. Use of swales, vegetated filter strips, and bioretention areas (rain gardens) shall be incorporated into the overall stormwater plan, grading plan, and landscape strategy for the entire parking area. Plant species should be selected based on their ability to tolerate urban stresses such as expected pollutant loadings, highly variable soil moisture conditions, ponding water fluctuations, and Soil pH and texture.
7. All right-of-way areas as well as any existing landscaping disturbed by construction shall be restored in a manner approved by the City.
8. If stabilized grass parking is utilized, the parking spaces shall be delineated with parking stops.
9. Landscape buffers shall be provided between the parking area and any residentially zoned properties which abut the parking area.
10. All landscaped areas serving the parking area shall be protected from encroachment by a barrier such as curbs, wheel stops, or similar devices.

- a) Curbs shall be designed to allow percolation of water to the root systems of the plants. Where existing trees are preserved, tree wells, tree islands, or a continuous curb shall be installed to protect the trunk and root system from damage. A drainage system shall be provided within the area defined by the drip line of the tree(s).
- b) Vehicle stops or other design features shall be used to prevent parked vehicles from overhanging more than two (2) feet into any landscape area.

11. All parking spaces adjacent to any structures shall be separated from that structure by a minimum five-foot wide landscape buffer. The landscape buffer may contain walkways, but in no instance shall the landscaped area within the buffer be less than fifty percent (50%) of the total buffer area.

In order to allow for flexibility and creativity in design standards, hedges may be replaced or interrupted in areas which provide for a decorative wall and berms and other creative landscape features, and landscape materials may be clustered so long as the parking area remains screened from the public right-of-way and adjacent private property.

8.07.12 Required Perimeter Landscaping in off-street parking areas

A landscaped area not less than ten (10) feet in width, exclusive of impervious area, using vertical layering of landscape materials shall be located around the perimeter of the parking lot in order to provide visual screening from the right-of-way or adjoining properties. Perimeter landscape area requirements shall not apply to shared vehicular access areas or to the portion of the perimeter areas where physical interconnections exist. When perimeter landscape areas are required on adjacent properties, the owners of such adjacent properties may agree to the installation of only one such landscape area on the adjacent boundary, as long as such agreement is binding on both property owners and their successors in the interest and is approved as part of the site plan review process.

- A. An access, not exceeding four feet (4') in width, may be provided through the buffer to an adjacent sidewalk, public street, or sidewalk.
- B. Trees within the perimeter landscaped area shall be determined using a ratio of one (1) tree for each twenty (20) linear feet of required landscape perimeter area, or major portion thereof, with no less than fifty percent (50%) of said trees being shade trees. Creative design and spacing is encouraged. Where creative design or spacing is utilized, other features such as fencing, walls, berms, or similar structures may be required to fill visual gaps and meet opacity standards.
- C. A visual screen is required within perimeter landscape areas, running the entire length of such areas excluding areas of ingress and egress. The visual screen may be provided using:
 - a. Shrubs or Ornamental Grasses. Shrubs or Ornamental Grasses shall be spaced a minimum of three feet to a maximum of six feet on center dependent on the inherent growth of the species. Creative design and spacing is encouraged.
 - b. Contoured berms or embankments. Contoured berms or embankments shall be a minimum of twenty-four (24) inches in height, measured from the adjacent parking surface level, at the time of planting and landscaped appropriately.
 - c. Plant material must be non-deciduous for full year round screening.
 - d. Where the adjacent right-of-way meets an on-site road right-of-way or driveway, an area bounded by the first thirty (30) feet along each right-of-way line or

driveway, projected where rounded and a diagonal line extending across the property and connecting the ends of such thirty (30) foot lines shall be provided, where visual obstructions from trees, plants, shrubs, and other landscaping materials of between three (3) and six (6) feet in height shall be prohibited.

- e. Perimeter landscaping for parking lots along road right-of-ways shall provide opacity of seventy percent (70%).

8.07.13 Sign Landscaping

All monument (ground) signs shall have shrubbery or flowers planted around the perimeter of the sign. Signs shall be located so as to provide both adequate visibility from the public rights-of-way utilizing visibility triangles and to preserve protected trees.

If a freestanding sign cannot be shifted to allow the required room for perimeter plantings between the sign and the parking area without obscuring visibility to the sign, then the City shall allow a five (5) foot radius from the base of the freestanding sign in which lower accent plantings are allowed in lieu of perimeter plantings.

8.07.14 Mechanical Equipment Screening Plantings

Structures such as dumpster enclosures, mechanical equipment, backflow preventers, wells, pumps, tanks, buffer walls, HVAC units, transformers, lift stations, utility cabinets, electrical panels, or cable television equipment shall be wholly enclosed within either a natural or manmade enclosure on three (3) sides, with an opaque gate on the access side, so as not to interfere with the ability to access said equipment and/or empty the dumpster. Said access gate shall remain closed when not in use. Screening shall, at a minimum, be at the same height as the equipment to be screened. Structural screening shall be architecturally integrated into the overall project design and shall be compatible, in terms of style, exterior construction materials, colors, and finish with the principle and accessory building(s). Landscaping may be substituted for structural screening if plantings are compatible with the landscape plan for the project and are of such size and maturity as to be able to provide a fully opaque screen at time of planting.

All commercial trash dumpsters shall have lids which shall remain closed at all times, except when being filled or dumped.

If natural plantings are substituted for structural screening plantings shall be compatible with the landscape plan for the project and be of such size and maturity as to be able to provide a fully opaque screen at time of planting.

All fencing or landscaping shall be between a minimum of six (6) feet high and a maximum height below the highest fence height allowed to provide complete screening of the area. All screen fencing and landscaping shall conform to all other applicable provisions of Article 4.

8.07.15 Perimeter Buffer Requirements

The use of properly landscaped and maintained perimeter buffer areas can reduce the potential incompatibility of adjacent land uses, maintain open space, protect established residential neighborhoods, and enhance community identity. In order to minimize negative effects between adjacent zoning districts, this section sets forth the minimum specifications when a landscaped perimeter buffer area is to be provided as set forth in Article 2. The separation of land uses and the provision of landscaping along public rights-of-way through a buffer are designed to minimize potential nuisances, and to enhance community beautification, while allowing proper vehicular visibility.

8.07.16 Development Standards

The types of development listed below shall provide a landscaped buffer between uses; submit a tree survey prepared by a licensed Florida surveyor or a tree inventory prepared by a certified arborist with an application for site plan approval; obtain a tree permit prior to receipt of a building permit, and submit a landscape plan with any application for a development order for the situations listed below. The required landscape plan shall demonstrate compliance with the standards of 08.07.07.

1. All new non-residential construction;
2. All development of regional impact;
3. All commercial redevelopment which results in an increased building footprint, reconfiguration of existing parking, parking lot expansions, or development of outparcels within an existing shopping center.
4. Any non-residential site with non-conforming landscaping which has ceased business for greater than six (6) months and wishes to recommence the non-residential use shall submit a landscaping plan showing conformance with the current landscaping regulations.

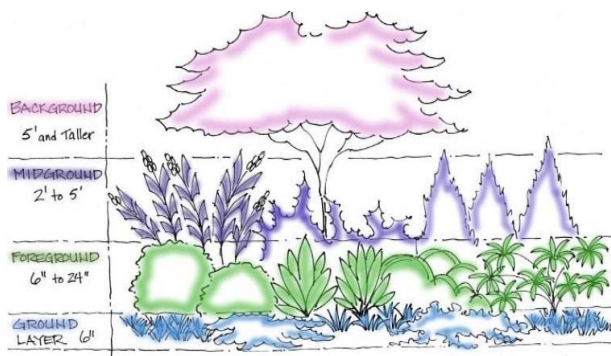
8.07.17 Minimum Landscape Required within Buffers

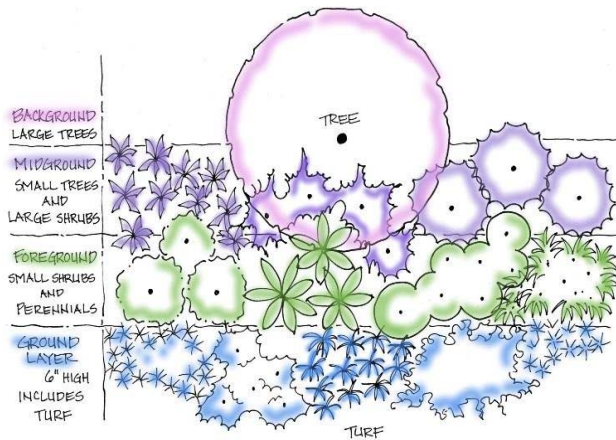
Minimum Landscape Required within Buffers per 100 Linear Feet of Property Line:

1. Two (2) shade trees
2. Four (4) understory trees
3. A solid masonry wall at least four feet (4') high or a continuous unbroken hedge, planted in a double-staggered row to form a solid visual screen within one (1) year of planting, planted on the outside of the wall facing the adjoining property.

Buffer plantings are required to create vertical layers of plant material in repeating patterns. The examples provided describe vertical layering of plants in the landscape through staggered heights, with low plants in the front interconnecting plant massing layers with taller plants in the back.

Examples:





Credit: Gail Hansen, University of Florida IFAS Extension, EP449

A fence or wall included in a buffer screen shall be constructed with the side of the fence or wall with the finished appearance facing the adjoining property(s) or rights-of-way. If a fence or wall is utilized, the landscaping must be placed between the wall and the adjacent property being buffered. The landscaping adjoining the wall shall be automatically irrigated to not become an unnoticed nuisance to the neighboring property.

An opening through a buffer area may be provided to facilitate pedestrian or vehicular traffic between developments.

At the intersection of off-site road(s) with on-site road(s) or driveway(s), perimeter buffers shall meet visibility triangle requirements (see illustration under Definitions).

Perimeter buffers along adjoining properties shall provide opacity of at least 70%.

Permitted use of buffer area:

- a. A buffer may be used for passive recreation and picnic facilities. It may contain pedestrian paths or bike trails, provided that the path or trail is not paved. These paths may cross a required continuous hedge provided that openings to allow such crossing points shall be a maximum of six (6) feet in width and shall be spaced not less than 100 feet apart.
- b. Ingress and egress to the proposed development and utilities may cross the buffer provided they minimize the amount of buffer devoted to this use. Ingress and egress shall not be subtracted from the linear dimensions used to determine the minimum amount of landscaping required.
- c. The buffer area may be included as part of the calculation of any required open space or as part of the required front, side, or rear yard.
- d. Identification signs as specifically allowable pursuant to Article 4
- e. Street, security, or similar accent lighting may be incorporated in to the buffer area, provided that measures are taken to shield light so as not to exceed city luminosity standards or otherwise negatively impact the adjoining property(s).

Prohibited use of buffer area:

- a. A buffer area shall not be used for any building, parking, storage, or loading area.

8.08.00 Historic And Specimen Trees

A historic tree is any live oak (*Quercus virginiana*) or bald cypress (*Taxodium distichum*) with a thirty-six (36) inch or greater DBH or other tree which is determined by the City, through a public hearing and with due notice to the property owner, to be of such unique and intrinsic value to the general public because of its size, age, historic association or ecological value as to justify this classification. The following species of trees with the minimum specified DBH are determined to be specimen trees:

Common Name	Botanical Name	DBH
Turkey Oak	<i>Quercus laevis</i>	12 inches
Live oaks	<i>Quercus virginiana</i>	18 inches
Longleaf Pine	<i>Pinus palustris</i>	12 inches
Maple	<i>Acer spp.</i>	18 inches
Sweet gum	<i>Liquidambar styraciflua</i>	18 inches
Hickory	<i>Carya spp.</i>	18 inches
Elm	<i>Ulmus spp.</i>	18 inches
Cedar Tree	<i>Cedrus</i>	18 inches
Loblolly Bay	<i>Gordonia lasianthus</i>	12 inches
Sweet Bay	<i>Magnolia virginiana</i>	12 inches
Red Bay	<i>Persea borbonia</i>	12 inches
Swamp Bay	<i>Persea palustris</i>	12 inches
Sycamore	<i>Platanus occidentalis</i>	18 inches
Magnolia	<i>Magnolia grandiflora</i>	12 inches

- A. No historic or specimen tree shall be removed without a finding by the appropriate city official that such removal is justified. Justification shall be documented by an arborist, and shall include evidence that the tree is a hazard or that not removing the tree so significantly interferes with the ability of the owner to develop the property, it is unreasonable.

8.08.01 Preservation of Historic or Specimen Trees As Grounds for Variance from Other Requirements of This Code

The preservation of any historic or specimen tree may be considered as a factor in rendering a decision upon an application for a variance from the literal application of other requirements of this Code.

8.09.00 Street Trees

1. No development shall be approved without reserving an easement authorizing the City to plant trees within five feet (5') of the required right-of-way boundary.
2. No street shall be accepted for dedication until such an easement is granted.
3. One street tree shall be required for every 40 linear feet of street frontage. All street trees are to be placed in a location in accordance with the requirement of the City Administrator or his/her designee in order to accommodate location of utilities.

4. Street trees shall be high quality shade trees and shall be planted in tree lawns with a minimum width of eight (8) feet, or within tree wells with minimum four-foot by four-foot surface openings.
5. Tree wells may be enclosed with pavers or other hardscape materials above the required rootzone volume. The landscape architect shall present a recommendation regarding the need for the installation of an aeration system necessary to conduit water and oxygen to the roots of trees within tree wells.
6. Where possible, street trees shall be planted between the street and the public sidewalk. Street trees may be planted between the sidewalk and adjacent buildings only where the location of existing or proposed utility lines along the street, or the clear zone requirements of the public works department or other maintaining agency, prevent the location of trees between the street and sidewalk. Where street trees are approved to be planted between the sidewalk and adjacent buildings, the trees may be located as close as five feet (5') away from building face.
7. The City Administrator or his/her designee, may require the adjustment of the prescribed build-to line in order to accommodate the required street trees and ensure that the trees will meet separation requirements from utility lines, buildings, and paved areas.
8. Consideration shall be given to the selection of trees, plants and planting site to avoid serious problems such as cracked sidewalks and power service interruptions.

8.10.00 Special Provisions for Protection of Canopy Roads

The City Commission may determine that certain trees providing a canopy over or a line along roadways within the city merit special protection. This is due to the historic, aesthetic, and environmental impacts large shade trees forming canopies over roadways can provide. It is the purpose of this section to describe the procedures for designating roadway sections and the additional protection afforded to these trees.

1. Designation of Roadways

Roads shall be nominated as tree-lined and canopy road protection areas by recommendation of the Planning & Land Development Regulation Commission (PLDRC) or any resident of the city. Designation shall be through a public hearing held by the City Commission on the recommendation of the Planning and Land Development Regulation Commission (PLDRC).

2. Allowable Uses

The uses permitted within the canopy road zone shall be all uses otherwise allowed in the underlying zoning district.

3. Development Standards

The following standards shall apply to development within the canopy tree zone:

- A. All structures, excluding fences, shall be set back a minimum of twenty-five feet (25') from the centerline of the roadway.
- B. Any structure over forty (40) feet in height shall be set back an additional one (1) foot in height for each foot above forty (40) feet.
- C. No clearing or trimming; flush cutting, or similar damaging practices, or removal of trees shall occur within the canopy road zone unless approved by the city as the only viable option for the preservation of the health, safety, or welfare of the public. Pruning of

- trees may be performed within the tree canopy zone following approval of the City Administrator or his/her designee.
- D. Where trees are removed, replacement trees shall be provided within the tree canopy zone of another portion of the same designated tree canopy road on a tree per tree basis. Where feasible, replacement trees shall be larger than the minimum size of tree permitted.
 - E. Where fences or work on existing fences are proposed, city approval shall be required to ensure that tree root systems within the canopy road zone are protected.
 - F. Where feasible, particularly for commercial development, cross access easements shall be utilized to limit the number of curb cuts along the canopy road.
 - G. When proposed development has access to another roadway, site access shall be from this roadway, unless determined by the city that the canopy road is the only viable access to the site.
 - H. There are no restrictions on the removal of trees within the road canopy zone which are considered to be noxious, including, but not limited to, Australian pines, Brazillian peppers, and the cajiput.

8.11.00 Establishment of Tree Protection and Maintenance Responsibilities

It shall be the responsibility of the City Administrator or his/her designee, to ensure that the tree resource protection standards established in Article 8 of the City of Lake Helen Code of Ordinances are administered and enforced. It shall be the responsibility of the City Administrator or his/her designee, as the City's Tree Protection Department, to prepare, annually update and implement a work plan for the care, preservation, pruning, planting, removal and replacement of trees within City rights-of-way and on City properties. It shall be the responsibility of the Planning and Land Development Regulation Commission and/or City Commission to ensure that the tree resource protection standards established in Article 8 of the Code of Ordinances are complied with through application of said Code provisions in the development review process.

8.12.00 Grading, Filling, and Excavating Permits

No person shall change, through modifying the grade, filling or excavating any land within the corporate limits of the City without having first obtained a permit from the City for such activity. Authorization for such work may be obtained through the issuance of a building permit for improvements on the property or through the issuance of a grading, filling, and excavating permit.

8.12.01 Burying of Material

The burying of rubbish, logs, lumber, building materials, underbrush, trash or other matter which would decompose or allow the land to settle is considered to be a change of the grade of land. No authorization or permit shall be issued for these activities except as authorized by these regulations.

8.12.02 Grading, Filling, and Excavating Standards and Procedures

Any person having secured a grading, filling, or excavation permit shall comply with the following procedures.

1. All development activity and non-residential development intensifying the site's usage shall be in strict conformity with the requirements of these regulations and any special conditions of the permit.

2. No authorization for a change of grade shall be issued when it is determined that such change will result in a hole or depression which will create a health or safety hazard through pooling of water, or will undermine and/or cause flooding property of others situated adjacent to the land involved.
3. No person shall change any grade to any greater extent than is allowed by the authorization or permit granted for such change.
4. Any authorized bulldozing, clearing or fill of lands which would loosen sand or topsoil and permit it to blow upon the land and premises of other residents of the City is hereby declared to be a nuisance. Such lands shall therefore, within thirty (30) days after completion of such bulldozing, be seeded or planted with shrubbery to minimize the tendency of the sand or topsoil to blow. During the bulldozing process and until the seeding and/or planting, turbidity screening shall be utilized to prevent sand, topsoil, or other debris from blowing onto adjoining properties, right-of-way, or bodies of water.
5. No less than twenty-four (24) hours prior to beginning the clearing operation, the permittee shall notify the City of the precise time at which any permitted operation will begin.
6. In addition to a city permit, the applicant shall obtain any federal or state permitting required from any environmental or other regulatory agency.

8.13.00 Variances from Landscaping Provisions

The City Commission may grant variances as outlined in Article 13.

Landscaping standards and provisions may be modified through the Planned Development process.

8.14.00 Enforcement

Enforcement of violations of this article will be handled through the Code Enforcement Department, with assistance as needed by the Public Works Department as well as the City Administrator or his/her designee as outlined in Article 15.