

## **ARTICLE 10. LIGHTING AND LANDSCAPING**

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### **10.1. GENERAL PROVISIONS**

#### **10.1.1. Purpose**

The purpose of regulating landscaping, lighting, and related site elements is to promote the general health, safety, and welfare of the community and reach the goals of the Garner Forward Comprehensive Plan by:

- A. Creating safe outdoor environments through the provision of lighting that does not disturb residents or pollute the night sky;
- B. Encouraging the use of accent lighting in creative placemaking;
- C. Regulating planting and planting materials to ensure sites contribute to the overall value of the Town;
- D. Promoting an attractive environment;
- E. Mitigating the environmental impacts of development;
- F. Achieving harmony between the natural landscape and manmade structures;
- G. Improving the appearance of the built environment;
- H. Protecting the natural resources of the community; and
- I. Conveying the importance of high-quality development to residents, visitors, businesses, and investors.

## **10.2. LIGHTING**

### **10.2.1. Purpose**

Outdoor lighting is regulated in the Town of Garner in the interest of creating a safe pedestrian environment at night, creating attractive streetscapes, reducing environmental light pollution, creating secure storage areas of outdoor goods, enhancing automobile and pedestrian safety along and in roadways, reducing conflicts between nonresidential and residential uses, and enhancing the architectural appearance of buildings and structures.

### **10.2.2. Applicability**

- A. The standards of this article are applicable for new development across all zoning districts, with the exception of the uses listed in Subsection B.
- B. The following uses shall be exempt from the standards of this section:
  - 1. Single-family residential dwellings.
  - 2. Lighting associated with permitted temporary uses.
  - 3. Seasonal holiday lighting and lighting associated with annual cultural or civic events.
  - 4. Sign illumination. (See Article 12: Signage)
  - 5. Airport runway and aviation safety lights.
  - 6. Lighting temporarily used by construction personnel or public safety officers.

### **10.2.3. Prohibited**

- A. High-intensity light beams such as searchlights, lasers, or strobes.
- B. Lights that flash, move, revolve, rotate, scintillate, blink, flicker, vary in intensity or color or use intermittent electrical pulsation.
- C. Dished or drop lenses or refractors which contain sources that are not incandescent.
- D. Light fixtures that imitate an official highway or traffic control light or sign.
- E. Light fixtures in the direct line of vision with any official traffic control light or sign.
- F. Privately-owned light fixtures located in the public right-of-way without permission.

### 10.2.4. Lighting Plan Review

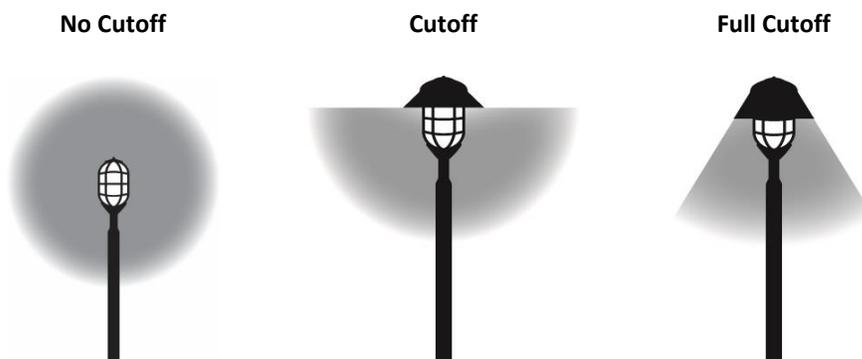
- A. All site plan submittals and common areas of subdivision plan submittals shall require a detailed exterior lighting plan. The lighting plan shall provide the following information:
1. Lighting fixture specifications including location, unit type (e.g. cutoff, non-cutoff, glare shields), lamp details (e.g. wattage), electrical load requirements, utility company involved, wiring method, light location, line location, and mounting height.
  2. Information indicating compliance with lot line footcandle (FC) maximums and illumination level requirements.
- B. Final Acceptance

Prior to receiving a certificate of occupancy, the owner, builder, or authorized agent shall submit a letter from the project's lighting engineer, lighting manufacturer, or authorized lighting contractor certifying that all installed lighting meets Town standards, adheres to all established conditions, and matches the approved plans.

### 10.2.5. General Exterior Site Lighting Standards

All lighting fixtures designed or placed to illuminate any portion of a site shall meet the following requirements:

- A. Unless otherwise expressly permitted, all exterior lighting fixtures shall either have a fixture cutoff classification of "Cutoff" or have zero uplight (no light at or above horizontal).



- B. Outdoor lighting fixtures shall be designed and mounted at heights no greater than:
1. 16 feet for pedestrian scale applications; and
  2. 35 feet for pole-mounted applications.
- C. Light fixtures shall not be located closer than 15 feet from any tree, as measured from the pole base to the tree trunk.
- D. Public, civic and institutional uses, commercial uses, and industrial uses that are adjacent to existing residential development shall dim all

Commentary:  
Mounting height is measured from the finished grade or surface and includes the total height of the fixture, pole, and any base or other supporting structure required to mount the lights.

exterior lighting to a level necessary for overnight security or emergency purposes and reduces lighting levels at residential lot lines to 0.0 FC by 10:00 p.m. or within one hour of closing, whichever occurs first. For the purposes of this paragraph, lighting "necessary for security or emergency purposes" shall be construed to mean the minimum amount of exterior lighting needed for the illumination of possible points of entry or exit into a structure, exterior walkways, outdoor storage areas and parking for nighttime employees. Lighting controlled by dimming timers or activated by motion sensor devices is encouraged. Signage lighting to identify a business that is currently open is exempt.

E. Lamp Types

1. Wherever possible, LED fixtures should be used.

2. Permitted Lamp Types

Only incandescent, fluorescent, metal halide, high-pressure sodium bulbs, induction lighting, or LED lamps may be used. The same lamp type must be used for the same or similar types of lighting on any one site throughout any master-planned development.

3. All street and site lighting utilizing an LED fixture shall adhere to the following:

- a. The Color Rendering Index (CRI) shall be a value of 70 or higher;
- b. The "white light" correlated color temperature shall be between 2,700 K and 4,200 K (degrees Kelvin); and
- c. The photometric design shall be in initial FC.

F. Lighting at Lot Lines

All exterior lighting shall be designed and located so that the maximum illumination measured in FC at ground level at a lot line shall not exceed the standards in the following table:

Type of Use Abutting Lot Line	Maximum Illumination Level at Lot Line (FC)
Residential – Single Family, Two-Family, Manufactured Home	0.2
Residential – Townhomes, Multifamily, Group Living	1.0
Commercial, Civic, or Mixed-Use	1.5
Industrial, Utility, Parking, when a standalone use	2.0

G. Illumination Levels

All site lighting shall be designed so that the level of illumination as measured in FC at any one point is within the specifications shown below.

Type of lighting	Light Level (FC)	
	Minimum at any point	Maximum at any point
Accent Lighting	0.0	5.0
Canopy Lighting	2.0	24
Multifamily Parking Lot	0.2	8.0
Nonresidential Parking Lot	0.2	12.0
Nonresidential and Multifamily Entrances	1.0	15.0
On-site walkways between building entrances, between parking and a building entrance in nonresidential and mixed-use buildings, bicycle parking areas	0.2	5.0
Vehicle Sales	0.5	24.0

10.2.6. Accent Lighting

Standards in this section apply to accent and architectural lighting. This type of outdoor lighting is employed in addition to required site lighting and is primarily decorative in nature. Examples of accent lighting include string or tube lighting, lighting on facades, and roof lighting – all less than 2,000 lumens.

- A. Any such lighting that qualifies as a sign under this UDO is subject to the standards set in Article 12: Signage.
- B. Light fixtures must be compatible in design to the overall structure.
- C. All lighting fixtures utilized to provide accent lighting shall be so designated on the site’s lighting plan.
- D. The illumination on any vertical surface shall not exceed 0.5 FC maintained and shall not spill over roof lines or building edges.
- E. Wall Fixtures  
Light must be shielded so light is directed onto building façade and glare and spillover are minimized.
- F. Exposed string outdoor lighting is permitted in mixed-use and industrial districts under the following standards:
  - 1. Exposed string lights is defined as low wattage white lights with individual bulb receptacle connected by electrical wires that are exposed to the outside surface of a plant or building feature; more

specifically, said lights shall be defined as a commercially available maximum 2.8-watt system, designed for exterior installation and use. Lights which blink or chase are not permitted.

2. The installation of such lights is limited to the lighting of:
  - a. Living landscape features (shrubs and trees) with bands that shall not puncture the plant;
  - b. Outside dining or plaza areas; and
  - c. Pedestrian entries and walkways.
3. Exposed string lighting or tube lighting that outlines architectural features of a building such as doors, windows, eaves, or rooflines is prohibited.
4. All such lighting is installed in accordance with applicable safety regulations.
5. All standards for illumination levels at property lines are met.

#### G. Roof Lighting

1. Application
  - a. An application for a permit authorizing a project utilizing roof lighting shall include a roof lighting plan containing sufficient information to determine whether the proposed roof lighting will meet the standards and intent of this section.
  - b. This section applies to lighting at the top of parapets or on the eaves of a pitched roof.
2. Standards
  - a. All bulbs or tubing shall be encased so that the bulb is not bare, and that direct glare is prevented.
  - b. Complete outlining of the roof is not permitted.
  - c. Lights shall not run along the highest peak of a roof line, except that perimeter lighting around the top of a flat roof is allowed.

#### 10.2.7. Pedestrian Light Fixtures

- A. Light poles illuminating pedestrian areas, which are provided in addition to street lighting:
  1. Shall not be higher than 16 feet above grade;
  2. Shall be placed a maximum of 100 feet apart; and
  3. Shall be subject to lot line illumination maximums.
- B. Pedestrian bollard lamps:
  1. Shall be mounted no higher than four feet above grade;

2. Shall not exceed 900 lumens for any single lamp; and
3. Shall provide at least 1.2 FC of illumination, but not exceed 2.0 FC.

### 10.2.8. Canopy Lighting

#### A. Vehicular Canopies and Gas Station/Convenience Store Aprons

Areas under a vehicular canopy and the approach to the canopy shall meet the following:

1. Lighting under vehicular canopies shall be designed so as not to create glare off site. Acceptable methods include one or more of the following:
  - a. Recessed fixture incorporating a lens cover that is either recessed or flush with the bottom surface of the vehicular canopy; or
  - b. Surface mounted fixture incorporating a flat lens that provides a fully shielded light distribution.
2. Lights shall not be mounted on the top or sides of the canopy, and the sides of the canopy shall not be externally illuminated.
3. Lighting levels shall meet the standards in this article.

### 10.2.9. Floodlights

The use of floodlights is permitted under the following conditions:

- A. In the rear of non-residential buildings that are not adjacent to residential uses or residentially zoned properties and are not visible from public or private roadways.
- B. The fixture shall be aimed down at least 60 degrees from vertical.
- C. Flood lights and display lights shall be positioned such that any such fixture with a side-to-side horizontal aiming tolerance not to exceed 15 degrees from perpendicular to the right-of-way.
- D. The main beam from the light source is not visible from adjacent properties or the public street right-of-way.
- E. Floodlights shall not be used to light any portion of an exterior between the hours of 10:00 p.m. and 6:00 a.m.

### 10.2.10. Sports and Recreational Lighting

Lighting for outdoor athletic uses or other private outdoor recreational uses may exceed illumination standards set forth in this section to meet the higher standards required for active recreation.

- A. Unless specifically permitted by a conditional zoning district, variance, or special use permit, fixtures must not exceed 35 feet in mounting height (this includes bases and/or other mounting structures).

- B. Fixtures must be fitted with the manufacturer's glare control package. If the manufacturer does not have a glare control package, the fixture specification must be changed to a manufacturer that offers a glare control package.
- C. Fixtures must be designed and aimed so that their beams fall within the primary playing area and the immediate surroundings, so that off-site direct illumination is significantly restricted. Spillover levels at the property line may not exceed footcandle standards enumerated in Section 10.2.5.F.
- D. Unless specifically permitted by a conditional zoning district, variance, or special use permit, area lighting shall be extinguished no later than 10:00 p.m.
- E. A minimum of a 15-foot wide, Type A buffer is required along any property line of the recreation facility when such lighting fixture is within 100 feet of a residential structure or the property line.
- F. Such lighting shall be indicated on the lighting plan at the time of site plan approval for new recreation facilities.

#### 10.2.11. Street Lighting

##### A. Purpose

These regulations establish street lighting requirements to enhance safety for pedestrians, cyclists, and drivers, including the reduction of unnecessary glare, enhancement of the public realm to allow activities without the need for natural light, and creation of unique streetscapes that encourage private investment.

##### B. Applicability

1. These regulations shall apply to all streets within the Town's municipal limits and any streets annexed after the effective date of this Ordinance.
2. The Town of Garner shall require street lighting installation for all site plans and subdivisions.

##### C. Installation

###### 1. NCDOT Streets

The developer shall be responsible for installing street lighting where existing NCDOT streets which abut and are directly accessed by the site or subdivision. Installation shall meet the following standards:

- a. Street lighting shall be installed along the entire street.
- b. Street lighting shall meet NCDOT standards. The developer shall procure the required encroachment agreements.

- c. The developer shall provide adequate easement and roadway corridor cross section grading required by Duke Energy Progress to accommodate the installation of non-breakaway poles.
2. All street lighting shall be installed in accordance with the following standards:
    - a. Electrical wiring shall be installed underground along all proposed and existing streets within and abutting the property.
    - b. Underground service installation shall comply with the established standards of Duke Energy Progress.
    - c. On residential streets, light fixtures shall be spaced at 180- to 220-foot intervals.
    - d. Along nonresidential streets, fixture placement shall adhere to the standards of the latest version of the Illuminating Engineering Society's, "American National Standard for Roadway Lighting" and/or specifications required by the Town Engineer.
    - e. A streetlight shall be provided at all street intersections.
    - f. Where sidewalks are existing or proposed on one, but not both, sides of the street, all street lighting shall be placed on the same side of the street as the sidewalk.

#### D. Financial Responsibility

##### 1. Initial Costs

The owner, developer, or subdivider shall be responsible for all street lighting preparation and installation costs. This includes all streets, regardless of federal-, state-, local-, or private-ownership status.

##### 2. Monthly Costs

- a. The Town shall pay maintenance, electricity, and pole rental costs charged by Duke Energy Progress for standard street lighting along public streets.
- b. Where nonstandard lighting is installed on public streets, the Town shall pay maintenance, electricity, and pole rental costs up to the standard street lighting amount, and the developer or HOA shall be responsible for paying the remainder.
- c. The developer or HOA is responsible for paying for all monthly costs on private streets.

#### E. Standard Street Lighting

Standard streetlight fixtures for Town streets shall be LED and shall comply with the following standards:

1. All fixtures on residential streets shall be 50- or 75-watt LED fixtures on Duke Energy Progress standard gray fiberglass poles 25 feet in height.
2. The Town Engineer may require 75- or 105-watt LED fixtures at select intersections.
3. Thoroughfare streets shall be typically 105-, 150-, or 215-watt LED on Duke Energy Progress standard gray fiberglass poles 30 feet in height. In any instance where a 280-watt LED fixture is proposed it shall be installed on Duke Energy Progress standard gray fiberglass poles 35 feet in height.

#### F. Nonstandard Street Lighting

A developer or HOA may request non-standard street lighting within a development provided:

1. Town of Garner staff approves the fixture types and locations.
2. Street lighting spacing shall be equal to a distance that is six times the exposed pole height. This distance may vary by no more or less than 10 feet.
3. For street lighting with a spacing interval less than 120 feet, the lights shall alternate on both sides of the street to avoid a "picket fence" appearance.
  - a. To prevent glare issues, clear lenses are not allowed on post lamps with globe fixtures.
  - b. Where post lamps are installed, globes with solid tops shall be used to eliminate vertical light pollution.
  - c. Where post lamps are installed, there shall be two lamps, each placed diagonally on opposite sides of the intersection.
4. The developer and/or HOA shall enter directly into a contract with Duke Energy Progress for the monthly maintenance, electricity, and pole rental costs. On public streets, the developer and/or HOA may request partial reimbursement for the monthly costs from the Town on an annual basis.
5. The Town will reimburse the billing on an annual basis based on copies of all bills paid to Duke Energy Progress. The reimbursement shall be equivalent to the cost of a standard street lighting system meeting Town minimum requirements. The Town Engineer will establish the inventory of said standard system prior to approval of the non-standard system.
6. Reimbursement shall become effective for the first billing cycle following the changeover date when the Town becomes responsible for the monthly electrical expense and pole rental costs charged by Duke Energy Progress. The Town will not reimburse any billing for

which the requesting party is responsible or for which the Town has not authorized Duke Energy Progress to bill. This includes any billing between the date when the system is energized and the date of the changeover billing. Reimbursement is only applicable for monthly maintenance, electricity, and pole rental billing.

7. The developer and/or HOA shall be responsible for any costs associated with deletion of non-standard street lights and any costs associated with installing the Town's standard street lights prior to the expiration of the 20-year contract with Duke Energy Progress. To ensure that sufficient funds are available for this purpose, the developer shall escrow funds with the Town in an amount sufficient to cover the cost for Duke Energy Progress to remove the non-standard system and install the Town's standard street lighting system. Said amount will be determined by the Town Engineer. The escrowed funds will be returned, with interest, to the HOA once the 20-year contract with Duke Energy Progress has expired.
  8. The developer shall include all responsibilities of the HOA pertaining to the non-standard street lighting in the development covenants. The developer shall inform all purchasers of property in the project of these same responsibilities.
  9. Non-standard lighting shall not be used on thoroughfares or NCDOT streets.
- G. Streetlight system layout, installation, and operation shall occur at such time as:
1. The layout and design of the streetlight system shall be submitted by Duke Energy Progress, through the developer, as part of the construction plan review and approval process for the development project.
  2. The installation of the lighting system shall be complete prior to the recording of the subdivision plat. In the event the street lighting has not been installed prior to plat approval, the developer may submit a performance guarantee in accordance with Section 8.1.1. of this UDO for the incomplete portion of the street lighting system. The amount of the performance guarantee will be determined by the Town Engineer.
  3. On public streets, once the subdivision plat is recorded and the associated street lighting system is placed into operation, the Town will be responsible for paying for the monthly electrical expense and pole rental costs charged by Duke Energy Progress. If the developer wishes to place the street lighting system into operation prior to plat recordation, then the developer will be responsible for paying for the monthly operational cost up until the time that plat recordation occurs.

4. The street lighting system must be in operation for a subdivision or phase of the subdivision prior to issuance of a Certificate of Occupancy for any dwelling or building in that subdivision or subdivision phase.
5. The street lighting system must be in operation for a site plan prior to the issuance of a Certificate of Occupancy for any building associated with that site plan unless approved by the Town Engineer.

#### **10.2.12. Nonconforming Fixtures**

- A. All outdoor lighting fixtures existing and legally installed and operative before the effective date of the ordinance codified in this title are subject to the standards for nonconforming site elements, Section 2.7.
- B. When a nonconforming fixture is replaced, the replacement shall meet the requirements of this article.

## 10.3. LANDSCAPING

### 10.3.1. Applicability

The provisions of this article shall apply to all developed or improved public and private land within the Town of Garner's planning jurisdiction.

- A. All new development sites shall meet the requirements of this section.
- B. Existing developments and properties shall comply with the standards of Article 2: Nonconformities.

### 10.3.2. Administrative Modifications

The Town Council recognizes that mathematical precision is not always necessary to achieve the objectives in this article and as such offers the following administrative modifications:

- A. Upon the applicant providing a revised landscaping plan, the Planning Director shall permit relocation of no more than 10 percent of the landscaping requirements and up to a 10 percent buffer width reduction. Reduction in buffer width does not include any reduction in the required number of plantings.
- B. Any deviation may only be allowed when all of the following are true:
  1. The objectives underlying these standards can be met without strict adherence to them;
  2. Peculiarities in the tract of land eliminate the value gained from strict adherence to the standards in this article; and
  3. The overall amount of planting materials is not diminished.

### 10.3.3. Landscape Plans

- A. A landscape plan prepared by a registered landscape architect is required for the following:
  1. Per Article 4: Review Procedures, any development requiring or modifying a site plan approval.
  2. Any nonresidential or mixed-use structure or site with an enclosed area greater than 1,000 square feet or a disturbed area greater than 2,500 square feet.
- B. Sites which do not meet the above criteria and are not single-family residential or duplex lots, must provide a landscape plan, but are not required to employ a registered landscape architect.
- C. Single-family residential and duplex lots must meet the criteria of this article but do not require a landscape plan.

Commentary:  
Landscape plans should be prepared with the appropriate mix of plant varieties and quantities necessary to meet the requirements of this UDO. In cases where overhead power or utility lines exist, selected landscape material located underneath said lines must be the appropriate plant type so as not to create future conflicts.

D. Landscape Plan Elements

All the following planting components shall be considered in the landscape plan for any site subject to this article:

1. Tree canopy cover;
2. Tree preservation (where required);
3. Buffers, yards, vehicular surface areas, foundation plantings, and street trees; and
4. Screening of service areas and objectionable views.

10.3.4. Plant Material Standards

- A. Except as otherwise specified in this article, plant materials must meet either the minimum height or caliper requirement at installation:

Plant Material	Minimum Height	Minimum Caliper
Canopy or Overstory Tree	8 feet	2.5 inches
Understory or Ornamental Tree	6 feet	2 inches
Shrub (not used for screening)	12 inches	n/a
Shrub (used for screening)	18 inches	n/a

- B. It is strongly recommended that dwarf shrubs be used around ground-mounted signage or for screening where the overall screening height need not be greater than three feet high.
- C. Species shall be selected from the North Carolina Extension Gardener Plant Toolbox maintained by the North Carolina State Extension that are hardy for the Garner locale and not identified as invasive or problematic.
- D. Up to 20 percent of the overall required understory tree plantings may be non-native ornamental trees to allow for accent coloring and decorative planting.
- E. Required site interior canopy trees (i.e., not street trees, buffer or perimeter plantings, or parking lot plantings) may be substituted for understory trees at a rate of one canopy tree to two understory trees. No more than 50 percent of the required site interior canopy trees may be substituted.
- F. Up to 100 percent of the required understory trees may be substituted with canopy trees on a one-for-one basis.
- G. Crape myrtles shall not count towards any required perimeter buffer or screening plantings. Only single-stem specimens may be considered for required street trees in constrained circumstances such as where overhead power lines are present.

Commentary:  
NC Extension Gardener  
Plant Toolbox is available  
[plants.ces.ncsu.edu](https://plants.ces.ncsu.edu).

### 10.3.5. Installation

In addition to the standards herein, all plant material installed must meet standards set by the most recent practices outlined by the AmericanHort's "American Standard for Nursery Stock," the Tree Care Industry Association's "ANSI A300," or best practices as prescribed by a licensed landscape architect.

Commentary:  
AmericanHort's "American Standard for Nursery Stock" is available at [www.AmericanHort.org](http://www.AmericanHort.org).  
The Tree Care Industry Association's "ANSI A300" is available at [www.TCIA.org](http://www.TCIA.org).

#### A. Depth and Soil

1. Trees shall be planted with a minimum depth of at least three feet of suitable soil. The minimum soil volume for canopy and understory trees is the volume of [the projected tree canopy area] x [2-foot depth]. This volume can be configured to suit existing conditions. Additional volume standards for vehicular surface area trees are described in this section.
2. Side walls of tree pit to be "scored" to release compaction, prevent glazing, and encourage lateral root growth and proper drainage.

#### B. Slope Stabilization

Slopes greater than 3:1 shall not be stabilized with turf grass and shall require the planting of groundcover to stabilize any disturbed soil.

#### C. Sight Triangle Clearance

No plantings shall interfere with the sight distance triangles required for safe traffic movements at driveway, parking drive aisle or street intersections (public or private).

#### D. Protection of Planting Areas

##### 1. Protection from Vehicular Traffic

Planting areas shall be permanently protected from damage by vehicular traffic by curbing, wheel stops and/or railroad ties. Wheel stops and/or railroad ties shall be used in parking areas where:

- a. Curbing has not been used or is less than six inches in height.
- b. Proposed new trees and shrubs are planted within five feet from adjacent curbing or edge of vehicular surface area paving, except when the plant is centered inside an interior or terminal parking lot island.

##### 2. Tree Fencing

- a. During the entire construction period, all protected trees shall be surrounded and protected by an orange Tensar geogrid fencing fabric or equivalent approved fencing. Tree protection fencing shall be installed a minimum of 10 feet from the trunk of any protected tree or drip line, whichever is greater. For any tree greater than 10 inches DBH, this distance shall be increased one foot for every one inch in DBH. Tree protection fencing shall be maintained until a final certificate of occupancy has been issued.

- b. Any trees or plants within the tree protection fencing that are not intended for preservation and/or have at least 33 percent of their drip line (measured along the circumference) outside of the tree protection fencing shall be removed in a way that does the least amount of damage to trees or plants planned for preservation.
- c. One sign shall be placed every 200 feet along fencing to read:

**TREE PROTECTION AREA – DO NOT ENTER.  
ÁREA DE PROTECCIÓN DE ÁRBOLES - NO ENTRAR.**

3. Soil Disturbance

There shall be no soil disturbance or compaction within areas designated for tree preservation and protection, and areas protected by tree protection fencing prior to or during construction. This includes no stockpiling of materials, no bore sampling, and other similar vehicular traffic. Failure to comply shall constitute a violation and result in a fine based on the Town’s fee schedule.

E. Bare Earth Prohibited

All bare earth or disturbed areas shall be stabilized from soil erosion immediately upon planting and shall be permanently maintained.

**10.3.6. Completion of Work and Performance Guarantees**

- A. A Certificate of Occupancy shall be issued only when all plantings have been installed and all the work shown on the approved landscape plan has been completed. Substantial changes in plantings shall be reviewed by the Town staff for compliance prior to the issuance of the Certificate of Occupancy.
- B. If adverse planting conditions prohibit installation or the Certificate of Occupancy is required prior to completion, the Planning Director will accept performance guarantee for 125 percent of the cost of the uncompleted work and issue a Temporary Certificate of Occupancy with date certain for completion at the next possible planting season.

**10.3.7. Maintenance Requirements**

- A. Owner/Agent Responsibility
  - 1. Owners are responsible for the upkeep of their property with a routine maintenance program. A proper program will reduce disease and insect problems, and involve weed control, pruning, and when necessary, supplementary watering.
  - 2. Vegetation planted as screening shall be allowed to grow and be maintained as a continuous hedge at designated screening heights.

B. Longevity

Planted vegetation must live for a minimum period of at least one year from the issuance of a Certificate of Occupancy. Failure of the owner to meet this standard constitutes a violation of this Ordinance. Associated penalties and fines shall apply in accordance with the Town of Garner fee schedule.

C. Replacement

The owner is responsible for maintaining all required plant material in good health for the duration of his or her ownership. Any dead, unhealthy, or missing plants must be replaced.

D. Loss Due to Catastrophe

Should an unusual cause or catastrophe result in the significant loss of required landscaping, the owner of the property shall submit a plan detailing his or her intent to replace lost material. Replacement planting may occur on a phased basis in alignment with typical planting seasons and practices. The length of the phasing period shall not exceed two years from the submittal of plans to the Town.

E. Excessive Pruning Prohibited

The owner is responsible for following accepted pruning practices for all required plant material and shall avoid excessive pruning of said material. Excessive pruning is defined as any of the following:

1. Removal of more than 25 percent of the crown or root system.
2. Failure to conform to standard pruning practices.
3. Cutting other than for hazard, utility, or maintenance pruning.
4. Failure to maintain appropriate dimensional standards specified in this article.

Illegally pruned trees shall be replaced with trees proportional to the size of the tree damaged with the minimum replacement size of three inches caliper in a 200 square foot planting bed required. Other penalties may still apply.

## **10.4. TREE PRESERVATION AND PROTECTION**

See Article 11 for information on tree preservation and protection measures including substitution of landscaping materials.

## **10.5. STREET TREES**

### **10.5.1. Purpose**

The Town of Garner requires street trees to provide intermittent visual relief from expanses of pavement and to contribute to the charm and aesthetic of the community.

### **10.5.2. Easements**

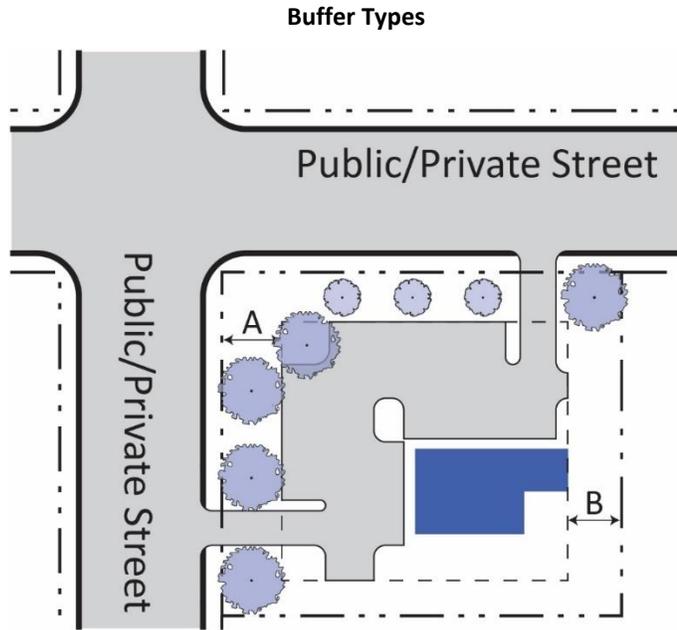
- A. All new developments and developments subject to compliance requirements in Article 2: Nonconformities shall provide one street tree easement along each public or private street frontage on the property.
- B. In the TBD, AC, and MF-2 districts, street trees may be located inside the right-of-way. These trees must be placed in a tree grate.
- C. Each easement shall be a minimum of eight feet wide.
- D. Each easement shall extend along the interior of the property and along the entire length of the respective street frontage.
- E. Where sidewalks exist or are required, easements shall be of sufficient width to ensure trees are planted no closer than 5 feet to the sidewalk. A note on all plans and final plats shall be added indicating “No street trees may be planted within 5 feet of sidewalks.”

### **10.5.3. Street Tree Specifications**

- A. All street trees shall reach at least 30 feet in height at maturity.
- B. Streets in residential zones must be planted with at least two different species.

### **10.5.4. Tree Location and Spacing**

- A. One street tree shall be installed at least every 40 feet (on center), or as close thereto as practicable.
- B. Where existing utilities or natural impediments preclude the installation of an overstory tree, the Planning Director may modify the spacing requirements to accommodate the obstructions.
- C. Where overhead wiring exists, understory trees shall be substituted for canopy trees. These understory trees shall be spaced a maximum of 30 feet (on center), or as close thereto as practicable, and the maximum height at maturity shall be no more than 30 feet tall.
- D. Street trees not permitted in a public right-of-way shall be at least five feet but no more than 10 feet from the edge of sidewalk pavement (or from the road right-of-way in the absence of an existing or planned sidewalk) and within the associated street tree easement. See the following Buffer Types graphic.



A = Street Tree Area

B = Perimeter Buffer

- E. Where street tree planting is required, the Planning Director shall have the authority to require maximum screening where significant grade differences exist.
- F. Street tree spacing, but not amount, shall be varied to accommodate major signage (monument or wall signs) and entrances.

**Street Tree Placement A**



**Street Tree Placement B**

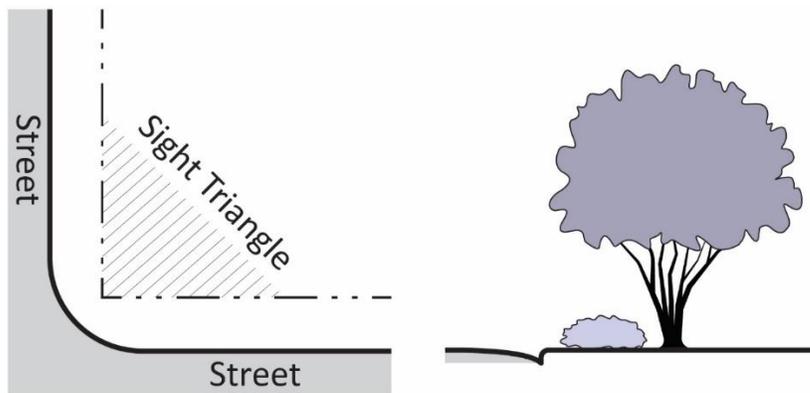


A. = Correct street tree placement; Trees accent the storefront, entranceway, and signage.

B. = Incorrect street tree placement, the trees obscure signage and entranceways.

- G. Sight distance triangles must be maintained at all intersections. Plantings must not create any visual obstruction between 30 inches and eight feet in height within this triangle. The Town of Garner Engineering Department staff may modify these requirements as necessary.

**Sight Distance Triangle**



- H. Street trees must be planted in tree pits of adequate size to accommodate the projected full size of the tree, as detailed in the soil requirements of Section 10.3.

### 10.5.5. Maintenance

- A. The HOA or property owners shall be responsible for maintaining the street trees, as described in Section 10.3.7.
- B. Failure to maintain the street trees in a manner that meets the requirements of this Ordinance shall constitute a violation. Associated

penalties and fines shall apply based on the Town of Garner's fee schedule.

- C. Developments with homeowners' associations (HOAs) shall incorporate provisions for street tree maintenance into the development's codes, covenants, and restrictions recorded with the Wake County Register of Deeds.
- D. All HOAs shall establish a maintenance agreement between the HOA and the Town of Garner. The agreement shall be recorded with the Wake County Register of Deeds, and the HOA shall provide a copy to the Town of Garner Planning Department.

#### **10.5.6. Modification Permitted in Industrial Subdivisions**

The landscaping requirements for industrial subdivision shall be met in a manner that enhances street appeal and maximizes screening of objectionable views. Up to 75 percent of the required plantings in the side and rear yard areas (not including vehicular surface area plantings) may be applied toward street yard areas for maximum street appeal. No reduction shall be allowed in side and rear yards where that yard is adjacent to existing residential uses or districts.

## 10.6. PERIMETER BUFFERS

### 10.6.1. Purpose

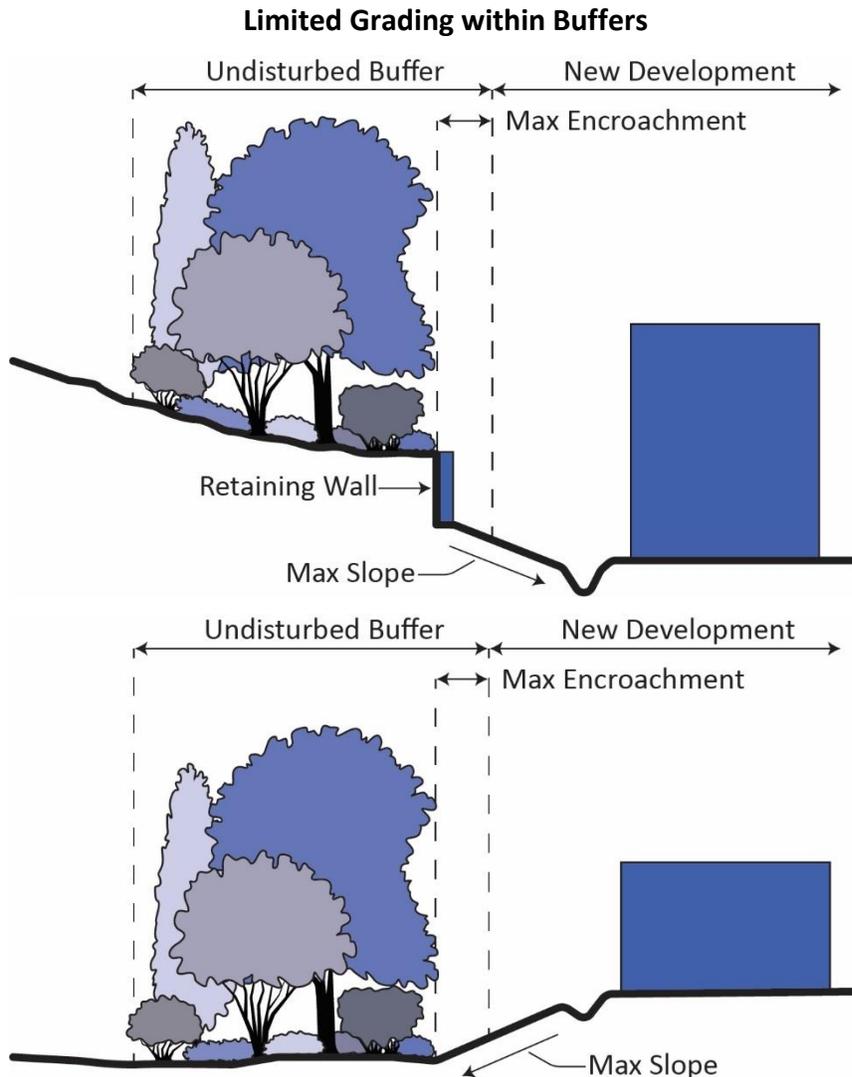
Perimeter buffers perform a dual role of providing both horizontal separation and vertical screening between different zoning districts.

### 10.6.2. Land Disturbance

Land disturbing activities are prohibited in perimeter buffers containing existing trees with a minimum four-inch caliper DBH or within the critical root zone of any retained significant or specimen trees, except as needed for road grading, stub outs, or connectivity to adjacent parcels or rights-of-way.

### 10.6.3. Limited Grading within Buffers

- A. Limited grading within designated perimeter buffers is only permitted in either of the following instances:



1. When designated perimeter buffers completely lack existing trees and vegetation

2. In perimeter buffers 35-feet wide or more and meeting the following standards:
  - a. Does not exceed 15 percent encroachment into the development side of the perimeter buffer.
  - b. The length of the grading encroachment does not exceed 15 percent of the affected perimeter buffer's total length.
- B. If retaining walls are used, grading shall not exceed a maximum slope ratio of 2.5:1.

#### **10.6.4. Existing Vegetation**

Existing vegetation can be used to meet all or part of the requirements, provided it meets the specified standards in this Ordinance. A Tree Inventory (see Article 11) may be required.

#### **10.6.5. Prohibited Plantings**

Bradford pear trees and any species listed as invasive by the North Carolina State Agricultural Extension may not be used to meet perimeter buffer requirements.

#### **10.6.6. Supplemental Planting**

- A. Supplemental planting may be necessary to supplement any existing, retained vegetation in order to achieve the requirements of this section.
- B. In general, perimeter buffer plantings should be evenly distributed or planted in intentional clusters evenly spaced along the buffer.
- C. Where supplemental planting is required in perimeter buffers, the Planning Director shall have the following authority:
  1. To specify the location, where practicable.
  2. To require maximum screening where significant grade differences or visibility from the right-of-way exist.
- D. Supplemental planting shall adhere to the following perimeter buffer planting requirements:
  1. Required planting shall use a mix of deciduous overstory trees, evergreen trees, deciduous understory trees, and evergreen shrubs to provide vertical screening.
  2. Monoculture plantings are not permitted.
  3. The mix shall be planted to create a 100% screening buffer within two years of planting, where screening is required.
- E. In calculating buffer planting requirements, areas occupied by driveways, sight distance triangles, or buildings shall be excluded.

**10.6.7. Design Requirements**

A. Perimeter Buffer Widths and Types

1. The following tables provide requirements for perimeter buffers between zoning districts. Identify the zoning districts for the proposed use and adjacent property. The required perimeter buffer width in feet and type are listed at the intersection of the respective row and column.
2. For single family residential, duplex, and townhome subdivisions of 12 lots or fewer, the maximum buffer required is 15' wide.

		Adjacent Base District Minimum Buffer Width (feet) and Type									
	Subject Property	RA, R2	R4	R8, MF-1	MF-2	RMH	NC	TBD, AC	CMU	LI	HI
Base District	RA, R2	15A	25B	25B	25C	25B	25A	25D	25C	25C	15D
	R4	25B	15A	25C	15D	25C	25B	35D	15D	15D	25D
	R8, MF-1	35B	45C	15A	15B	35A	25B	25C	15B	15B	15C
	MF-2	45C	45D	25B	15A	35B	25C	25B	15A	15A	15B
	RMH	35B	35C	35A	25B	15A	15B	45C	25B	25B	25C
	NC	25A	35B	15B	15C	25B	15A	15D	15C	15C	15D
	TBD, AC	25D	35D	15C	15B	25C	15D	0	15B	15B	25A
	CMU	45C	55D	35B	25A	35B	35C	15B	15A	15A	15B
	LI	45C	55D	35B	25A	35B	45C	25B	25A	15A	25B
	HI	55D	65D	55C	45B	55C	55D	55A	35B	35B	25A

B. Perimeter Buffer Plantings by Type

Buffer Type	Minimum Screening Height at Maturity (Feet)	Opacity <sup>1</sup>	Maximum Horizontal Openings at Maturity	Minimum Number per 100 Linear Feet				Additional Plantings (apply regular mathematical rounding rules to the nearest whole number)	
				15' Wide Buffer					25' – 65' Wide Buffer
				Canopy Trees (Min. 1 Evergreen)	Understory Trees	Large Evergreen Shrubs <sup>3</sup>	Medium and Small Shrubs <sup>3</sup> (Min. 40% Evergreen, Type D 100%)		
A	n/a	n/a	20 feet	2	2	1	5	25' (x 1.25) 35' (x 1.5) 45' (x 1.75) 55' (x 2.0) 65' (x 2.25)	
B	n/a	Semi-opaque	8 feet	3	3	2	9		
C	n/a	Semi-opaque	4 feet	4	3	3	13		
D	6	Opaque <sup>2</sup>	None	4	3	4	20		

Notes:

<sup>1</sup> Must reach the opacity level indicated within 2 years of planting. Additional plantings may be required beyond the minimum standards listed above.

<sup>2</sup> Any berms used to meet or compliment the opacity requirement may not have slopes steeper than 2½:1.

<sup>3</sup> A maximum of one large shrub may be substituted for two small- or medium-sized shrubs, and vice versa, per every 100 linear feet of perimeter buffer.

C. Perimeter Buffer Width Reductions

- Where a subject property is adjacent to a vacant property with existing vegetation at least 15 feet deep and sufficient to serve as a perimeter buffer, upon the owner of the subject property or authorized agent's request and concurrence by all involved property owners, the Planning Director shall reduce the subject property's required buffer width (and associated plantings) by 10 feet of width, although no resulting required buffer may ever be reduced to less than 15 feet or the planting standards required there.
- Where a minimum 6-foot tall, 100% opaque, privacy fence is installed, that section of the buffer may forego the planting of two-thirds of small or medium shrubs. Privacy fencing may be installed inside the perimeter buffer, but enough passage must be maintained to allow proper maintenance of landscaping.

D. Planting Standards for Perimeter Buffer Trees

All landscaping materials shall be evenly distributed throughout the perimeter buffer or planted in fairly regular, clustered groupings.

#### **10.6.8. Sight Line Drawings**

- A. If the proposed development is adjacent to a residential district, the Planning Director shall require the submission of sight line drawings with landscape plans. Elevations renderings or photosimulations showing the vegetative opacity at maturity are considered site line drawings for purposes of this Section.
- B. The Planning Director may require the submission of sight line drawings with landscape plans based on, but not limited to, the following criteria:
  - 1. Where existing vegetation or proposed vegetation and/or berming is inadequate;
  - 2. Where the first story finished floor elevation of the proposed development is located on a slope placing it at least six feet higher or lower than adjacent residential zoning or use;
  - 3. Where the proposed building volume is five or more times greater than adjacent residential building volume, and/or the height of the proposed building is three stories (or equivalent) or higher.
- C. Implications for site layout may include increased buffer width and standards, revision to building footprint dimension or location, revision to building orientation, and/or revision to location of site support structures (dumpster, accessory buildings).

## 10.7. VEHICULAR SURFACE AREAS

The purpose of this section is to provide visual relief from large expanses of pavement through the introduction of landscape plantings. Landscaping lessens the visual impact of parking areas while reducing heat, glare, noise, and pollution.

### 10.7.1. Perimeter Screening

- A. The perimeter of all off-street parking areas and other vehicular use areas adjacent to property zoned R8, R4, R2, RA, or MF-1 shall provide a minimum perimeter buffer as follows:
  - 1. AC and TBD districts: none.
  - 2. All other districts: minimum 15 feet wide, Class D.
- B. The perimeter of all parking areas and other vehicular use areas with frontage on or visibility from any portion of a public right-of-way or external pedestrian way shall be screened to a minimum height of three feet (within two years of planting) by either a landscaped berm, continuous landscaped hedge, decorative fence, decorative masonry wall, or any combination thereof. Plants shall be spaced accordingly to achieve this performance requirement.
- C. Any vegetative screen shall be maintained at a minimum height of three feet within two years of planting.
- D. Perimeter screening is not required for on-street parking.

### 10.7.2. Landscaping Islands

- A. These requirements shall apply to off-street parking lots except that a median island is not required for formalized on-street parking that is directly adjacent to sidewalks and planting strips meeting the landscaping requirement for Site Interior Landscaping Area, Section 10.8.
- B. General requirements
  - 1. Landscape islands shall be evenly distributed throughout the vehicular surface areas for maximum shade.
  - 2. No parking space shall be more than 65 feet from the trunk of a deciduous overstory tree.
  - 3. Trees are permitted to be planted in clusters provided that it exceeds all other planting requirements.
  - 4. Each island shall include a minimum of one canopy or overstory tree.
- C. Interior Islands
  - 1. An interior landscape island shall be provided at least every 12 parking spaces or 120 linear feet of pavement, whichever requires more islands.

2. Each island shall contain a minimum of 198 square feet of landscaped area with a minimum width of 11 feet inside the curb.
3. Interior islands may be consolidated or intervals may be expanded in order to preserve existing trees of greater than six inches diameter at breast height.

D. Terminal Islands

All parking rows shall terminate in a curbed landscaped island.

E. Median Islands

1. Median islands shall have a minimum width of eight feet inside the curb.
2. Median islands shall be sited between every six single parking rows and continuously along primary internal and external access drives.
3. Median intervals may be expanded in order to preserve existing trees of greater than six inches diameter at breast height.

F. Curbing

Landscape planting areas adjacent to vehicular surface areas and parking spaces shall be a minimum of ten feet in width. Unless a parking space contains a specified wheel stop, trees and shrubs shall be placed at least four feet from the edge of the curb/pavement.

## 10.8. SITE INTERIOR LANDSCAPING AREA

### 10.8.1. Purpose

The purpose of this Section is to provide guidance for the installation of plant materials on a property and to promote visual harmony across different sites.

### 10.8.2. Applicability

- A. The following standards apply to all properties within the Town. For single family and duplex lots, these standards only apply at initial construction and/or issuance of first Certificate of Occupancy.
- B. A property's site interior is the portion of the lot excepting perimeter buffers; street tree easements (also known as street tree buffers); vehicular surface areas, parking areas, and associated landscaping and landscape islands; stormwater ponds, conveyance systems, and associated required graded areas (such as for berms or stormwater retention); developed, active recreation spaces (such as formal sports fields or greenway trails); and/or permitted impervious surfaces.

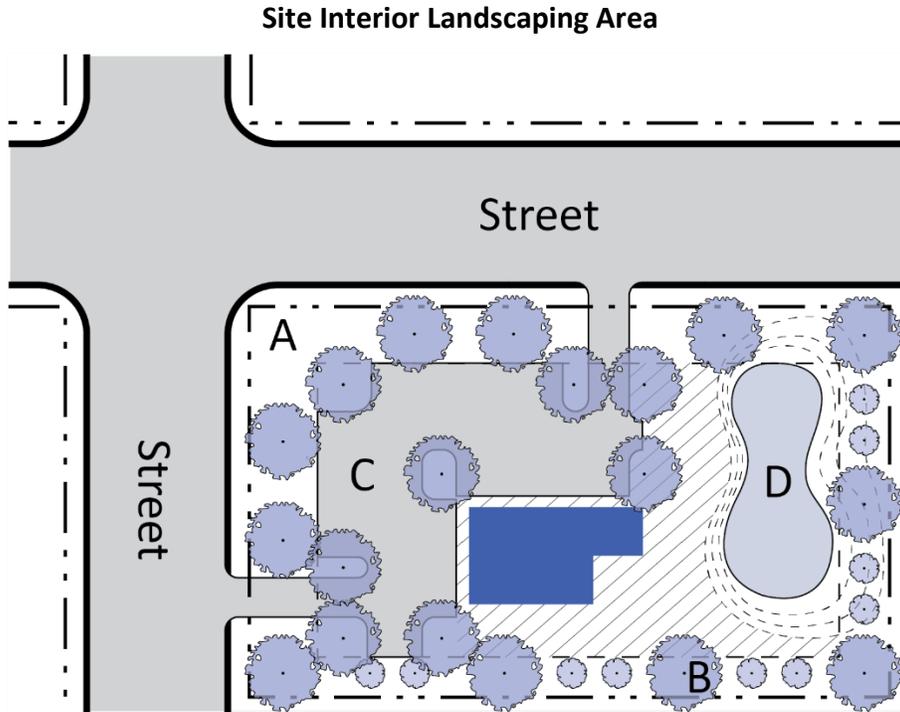
### 10.8.3. Distribution

- A. Plantings shall be evenly distributed, clustered, or staggered throughout the site to maximize aesthetic appeal, visual, and screening objectives, and to meet the environmental needs of certain species.
- B. Plantings should also be spaced so they respectfully enhance views of primary entrances and signage, although this shall not permit a reduction in planting materials.

### 10.8.4. Site Interior Landscaping Area Calculation

- A. The site interior landscaping area shall be calculated by subtracting the areas of the perimeter buffers; street tree easements; vehicular surface areas and associated landscaped islands; stormwater ponds, conveyance systems, and associated graded areas; active recreation spaces; and/or impervious surfaces from the total property area. Where perimeter buffers; street tree easements; vehicular surface areas and associated landscaped islands; stormwater ponds, conveyance systems, and associated graded areas; active recreation spaces; and/or impervious surfaces intersect or overlap, the smaller intersecting or overlapping feature shall not be included in the calculation.

Commentary:  
"Active recreation spaces" include, but are not limited to, playgrounds, sports fields and courts, swimming pools, and greenways and associated easements. See Article 8 for active space requirements.



A = Street Tree Area

B = Perimeter Buffer Area

C = Vehicular Surface Area and Associated Landscaping

D = Stormwater Pond and Associated Grading

Hatched Area = Site Interior Landscaping Area

### 10.8.5. Planting Requirements

- A. All yard areas, excluding decorative, landscaped areas (e.g. - patios, rock gardens, terraces), shall be appropriately graded, seeded, mulched, and/or planted to establish a permanent lawn or natural ground cover.

- B. The following table shows the minimum gross number of plantings of each type per 1,000 square feet of site interior landscaping area. Where the resulting number of plantings required results in a fraction or mixed number, the number of plantings shall be rounded down to the nearest whole number.

District	Planting Type (Minimum Number of Plantings Per 1,000 Square Feet of Site Interior Landscaping Area) <sup>1</sup>			
	Canopy Trees	Understory Trees	Large Shrubs <sup>2</sup>	Medium and Small Shrubs <sup>2</sup>
TBD, AC, MF-2	1	1	0	2
All Others	1	2	1	4

Notes:

<sup>1</sup> For multi-family structures on individual lots, the requirement applies to the gross site interior landscaping area for the entire development.

<sup>2</sup> A maximum of one large shrub may be substituted for two small- or medium-sized shrubs, and vice versa, per every 100 linear feet of perimeter buffer.

- C. When there is not enough room for a site interior landscaping area planting due to minimal setbacks or structure placement, any residual area shall have an appropriate year-round groundcover or landscaped area (e.g. rock garden, mulch, grass, annual, or perennial plantings, etc.) and, where permissible pursuant to G.S. §160D-702(b), the structure shall have a decorative architectural treatment, such as a toe foundation, decorative brick row, change of materials, or other appropriate architectural embellishment.

## 10.9. FOUNDATION PLANTING REQUIREMENTS

### 10.9.1. Applicability

These standards do not apply to the TBD, AC, MF-2, I-1, and I-2 districts.

### 10.9.2. Planting Requirements

- A. All retaining and foundation walls, including where primary structures meet the grade, shall be screened by a continuous planting of shrubs (minimum 75% evergreen) installed along the perimeter of the structure base.
- B. For structures up to 35 feet tall, final shrub height at maturity shall be a minimum of two feet.
- C. For structures over 35 feet tall, final shrub height at maturity shall be a minimum of five feet.
- D. Plantings shall be spaced far enough from any structure and any surrounding infrastructure (e.g. sidewalk or bicycle parking area) so that the plants have adequate room for growth and will not adversely impact their surroundings.
- E. When there is not enough room for a foundation planting due to minimal setbacks or structure placement, any residual area shall have an appropriate year-round groundcover or landscaped area (e.g. rock garden, mulch, grass, annual, or perennial plantings) and, where permissible pursuant to G.S. §160D-702(b), the structure's foundation shall have a decorative architectural treatment, such as a toe foundation, decorative brick row, change of materials, or other appropriate architectural embellishment.

## 10.10. SCREENING OF OBJECTIONABLE VIEWS

### 10.10.1. Fences and Walls

These provisions shall apply to all fences and decorative walls installed to meet screening requirements and to fences and walls accessory to properties visible from any street larger than a local street. Property owners or authorized designees shall be responsible for maintenance of fences and walls.

- A. A fence or decorative wall shall not be disfigured. This includes, but is not limited to, the presence of graffiti, cracks, peeling paint, or other material.
- B. Fences shall not have bent or broken supports.
- C. Fences shall be kept free of missing boards and gaps.
- D. Repairs shall be made using the same or similar material as was used on the original structure. This includes size, width, and other dimensional attributes.
- E. Chain link fences shall have black-coated vinyl covering.
- F. Barbed Wire Fencing Standards
  - 1. Barbed wire fencing shall only be permitted in conjunction with Utility uses as defined in Article 6.
  - 2. Barbed wired and associated fencing shall only be black in color.
  - 3. Barbed wire strands shall be strung straight between posts. The strands shall not be rolled.
- G. When portions of fences and decorative walls are removed or taken down with no intention to rebuild or replace, all portions of the fence must be removed. In cases where the fence or wall is part of the screening required for an approved development project, the fence or wall must be replaced consistent with the provisions for new installations.
- H. If a nonconforming fence or decorative wall is damaged and such damage is greater than 50 percent of the replacement value of the entire fence or wall, the entire fence or wall must be reconstructed to conform with the provisions regulating fences and walls.
- I. Fences shall be constructed such that exposed framing faces the interior yard and not visible from the street right-of-way.

### 10.10.2. Waste Collection Areas

- A. Trash container areas shall be located to minimize their visual impact from public rights-of-way, private streets, and adjacent residential districts or uses.

- B. All trash container areas shall be a minimum of 50 feet from any adjacent single-family residential district.
- C. Trash container areas shall be fully enclosed with fences or walls. The entire area shall be at least eight feet in height, fully block the view of the trash collection area, and include a gate with a self-latching mechanism. The enclosure shall be opaque, although an air gap under the walls up to 1 foot tall is permitted to allow water flow and enhance public safety.
- D. The area visible shall be consistent with the primary color and material of the principal building, except that EIFS shall not be permitted. Split face concrete block, brick, or stone shall be permitted as post materials, and brick, stone, or decorative, low-reflectivity aluminum paneling shall be permitted as wall materials.
- E. Plant material shall supplement the area and shall screen all parts of the dumpster wall foundation visible from a street, sidewalk or pedestrian path, pedestrian area, common area, parking area, or window. Planting material shall be small or dwarf evergreen shrubs.
- F. Standard trash container areas shall be a minimum of 12 feet across by 12 feet deep for a single dumpster and 24 feet wide for a double dumpster. A minimum six-inch thick reinforced concrete (3,000 psi) pad shall be at least 12 feet wide by 15 feet deep per container.
- G. Bollards shall be required at the rear of the area.
- H. Access to collection devices must be by internal driveways and parking areas within a site. No collection device may be accessed directly from a public street, and no backing movement from an internal collection device may encroach into a public right-of-way. Exemption of this condition for properties within the TBD and AC districts may be granted by the Planning Director.

### 10.10.3. Loading Areas

- A. All loading areas shall provide a minimum 100% opaque year-round screen of all loading and service areas from the adjacent public rights-of-way, private streets, open spaces intended for recreational use, and/or the first and second stories of residential districts and uses. The screen shall be maintained between 2½ and 4 feet in height.
- B. This screen shall consist of berms, walls, fences, plant material, or a combination thereof totaling eight feet in height at installation or completion of construction.
- C. Wall or fence materials shall be consistent with the primary structure.
- D. Where a service or loading area is located closer than 25 feet from a property line adjacent to a residential district, the minimum height of the plantings shall be six feet at installation.

#### 10.10.4. Utility Devices

- A. All utility devices and mechanical equipment outside of but visible from public rights-of-way or private streets shall be installed underground or screened with low branching evergreen shrubs at least 30-inches tall at installation. Screening material shall be planted at least ten feet from the access doors to allow for service and utility maintenance activities. This does not apply to electric meters mounted on the primary structure unless more than four are located together.
- B. Property owners shall be responsible for screening utilities located on their property.
- C. Other devices including air conditioning units, storage tanks, non-utility transformers, compactors, etc. shall be screened entirely from the public right-of-way and private streets. Accesses to these elements shall not face public rights-of-way or private streets.
- D. All roof-mounted elements shall be completely screened from public rights-of-way and/or adjacent properties.
- E. Screening is not required from adjacent properties past a point one floor higher than the structure on which the mechanical equipment exists or beyond the second floor of an adjacent property, whichever is higher.
- F. Any electric mechanical equipment necessary for signage shall be located on or inside the primary structure for which it advertises. If that is not possible, it shall be located in an underground box next to the signage.

Commentary:  
Utility devices include electric meters, electric boxes, traffic control boxes, backflow preventers, gas tanks, HVAC equipment, and aboveground gas storage tanks.

#### 10.10.5. Solar Farms

- A. Where a solar farm area is visible from a public right-of-way or private street, a staggered, double row of evergreen trees and/or shrubs shall be provided, in a minimum 20 foot wide buffer around the project site.
- B. All screening material shall be installed adjacent to and outside of security fencing surrounding the solar farm area and be at least six feet in height at planting with an expected minimum height of 10 feet at maturity.
- C. Required screening materials shall be planted no more than 10 feet apart on-center or at a lesser distance in order to achieve the screening objectives.

#### 10.10.6. Screening of Industrial or Utility Properties

- A. Fencing, walls, hedges, landscaping, berms, natural areas, or any combination thereof shall be provided to obscure uses or any portion of a use with potential external impacts.
- B. The following specific uses shall be completely screened from adjacent properties and from public rights-of-way:

1. Service entrances and utility facilities.
  2. Loading docks or spaces.
  3. Outdoor storage and any material stocks or equipment including motor vehicles, farm equipment, and construction equipment.
- C. No buffering or screening is required in side or rear yards between parcels zoned industrial.
- D. The minimum vegetative buffer between an industrial subdivision and vacant adjacent lots shall be at least 15-foot wide. If the perimeter buffer table in Section 10.6 requires a buffer width greater than 15-feet, the minimum width shall meet or exceed the standard in the table.

#### **10.10.7. Gas Operational Areas**

- A. Canopy/gas island operational areas shall be completely screened from first and second story views from adjoining residential uses year-round. Screening shall be at least eight feet in height. Any combination of landscaping, earthen berms, or fencing may be used.
- B. Buffers must be a minimum of 15-foot wide. If the perimeter buffer table in Section 10.6 requires a buffer width greater than 15-feet, the minimum width shall meet or exceed the standard in the table.