

Parking Text Amendment Request Narrative

In preparing the attached text amendment for landscape islands in parking lots, we researched the landscape regulations for four local municipalities and a fifth that seemed similar in nature to the current Pender County regulations. The four local municipalities are: Brunswick County, New Hanover County, Horry County and the City of Wilmington. The fifth municipality is the Town of Cary which includes consideration of perimeter trees and linear landscape which are addressed by your regulations.

Each municipality has different measures for interior landscaping and shading of parking areas. Some are similar and some measures are not. Below is a brief summary of each of the municipalities' requirements:

Brunswick County

- One 144 SF landscape island is required for every 20 spaces which must be located within 150' of every parking space.

New Hanover County

- No parking space shall be located more than 120' from a shade tree located in a 144 SF island. Interior landscaping shall be 8% of the total area used for parking, driveways, aisles, loading docks, etc.

Horry County

- No parking space shall be less than 50' from a shade tree in a 200 SF island. Vehicular use areas less than 3 acres shall have no more than 15 spaces between islands and areas greater than 3 acres shall not have more than 25 spaces between islands.

Wilmington

- No parking space shall be more than 120' from a 200 SF landscape island. Parking lot shading between 20% and 40% is required based on areas of shade assigned to each tree.

Town of Cary

- No more than 14 spaces between 300 SF islands. Upper story tree required for every seven parking spaces which can be evenly distributed throughout the parking area and perimeter. Linear planting strips are strongly encouraged rather than numerous small one tree islands.

We prepared parking island calculations for the three sets of plans submitted for major site plan review and we feel we meet the intent of the ordinance for reduction of heat island effect by providing the number of required islands. Our calculations are based on having an island for every ten spaces plus an island for multiples of twenty spaces in excess of eighty spaces. Please understand that our plans have island spacing of no more than 120' as we have suggested in the attached text amendment. We counted the double terminal islands as two islands for the purposes of these calculations:

Retail Site (Eight Extra Islands)

- $426 / 10$ spaces per required island = 43 spaces

- 346 spaces / 20 spaces per intermediate island = 18

Islands required = 61

Islands provided = 69.

Multifamily Site (Eight Extra Islands)

- 423 / 10 spaces per required island = 43 spaces

- 343 spaces / 20 spaces per intermediate island = 18

Islands required = 61

Islands provided = 69

Senior Living Site (One Additional Island Required)

- 290 / 10 spaces per required island = 29 spaces

- 210 spaces / 20 spaces per intermediate island = 11

Islands required = 40

Islands provided = 39

Our recommended text amendment is attached. We look forward to discussing this with you and appreciate your guidance.

Sincerely,

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Vice President

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The intent of the requested text amendment is to allow flexibility in the design of parking lots and the placement of tree islands while providing the number of shade trees as prescribed by the current UDO. The one hundred twenty foot spacing is consistent with the current UDO requirement as a maximum terminal island spacing.

Additionally, the proposed incorporation of a ten foot wide landscape strip will provide incentive to create a larger contiguous landscape area to benefit the growth of the trees; the better growth environment of the wider landscape strips should allow trees to prosper and provide more shade at an increased rate of growth. It is anticipated that the one hundred fifty foot island spacing will provide flexibility of design and better shade for larger parking fields. One hundred fifty feet is sufficient for either sixteen parking spaces plus pedestrian cross access or a cart corral, or twelve parking spaces plus two handicap accessible spaces with an accessibility aisle.

8.3.2 Interior Parking Areas

- A. Landscape islands shall be provided within parking areas, except parking garages, as described below to prevent excessively long, contiguous runs of parking spaces. These areas shall use control measures to prevent encroachment or damage to trees and vegetation.
- B. Light poles, fire hydrants, or other necessary features are permitted to be located within landscape islands and parking areas.
- C. Single row terminal landscape island requirements
 - 1) Single row parking terminals cannot extend more than ~~ten (10) contiguous parking spaces or more~~ than one-hundred and twenty (120) feet, ~~whichever is more restrictive.~~
 - 2) Each terminal island must include a minimum pervious area of three hundred (300) square feet with a minimum width of twelve (12) feet.
 - 3) Each single row terminal landscape island shall contain at least one (1) canopy tree.
 - 4) Required maximum two (2) foot high screening shrubs shall be utilized the entire length of the landscape island, or as limited by sight distances.
- D. Double row terminal landscape island requirements
 - 1) Double row parking terminals with head-to-head parking cannot extend more than ~~twenty (20) contiguous parking spaces, ten spaces by two rows (10 x 2), or extend more than one-hundred and twenty (120) feet, whichever is more restrictive.~~
 - 2) Each terminal island must include a minimum pervious area of six hundred (600) square feet and a minimum width of twelve (12) feet.
 - 3) Each double-row terminal landscape island shall contain at least two (2) canopy trees.
 - 4) Required maximum two (2) foot high screening shrubs shall be utilized the entire length of the landscape island, or as limited by sight distances.
- E. Intermediate landscape islands requirements
 - 1) Intermediate landscape islands shall be provided for any parking lot with eighty (80) or more parking spaces. Additional intermediate landscape islands shall be provided for every additional twenty (20) parking spaces in excess of eighty (80).
 - 2) Each intermediate landscape island shall have a minimum pervious area of three hundred (300) square feet and a minimum width of twelve (12) feet, and
 - 3) Each intermediate landscape island shall contain at least one (1) canopy tree.
- F. Required maximum two (2) foot high screening shrubs shall be utilized the entire length of the landscape island, or as limited by sight distances. Alternatively a minimum seven (7) foot wide landscape strip may be provided between head-to-head parking, which may count as the required intermediate landscape island for every three hundred square feet (300) of pervious area provided. If a landscape strip is used, ornamental landscape trees and shrubs shall be planted within the landscape strip on minimum thirty (30) foot centers. ~~With the incorporation of a 10' wide landscape strip between head to head parking, the strip may count as the required intermediate islands for every three hundred (300) feet of pervious area provided and terminal island spacing can be increased to one hundred fifty (150) feet.~~
- G. Limited Off-Street Paved Parking areas. Interior portions of off-street parking facilities, which are not specifically designed as parking spaces or maneuvering areas, shall not be paved for vehicle use.
- H. Parking Lot Trees and Substitutions. All trees in the parking lots shall be canopy trees, unless otherwise provided.

- 1) **Perimeter Trees and Spacing.** Canopy trees shall be planted an average of fifty (50) foot centers around the total perimeter of the parking lot and all vehicular service areas. Clustering may be utilized but spacing shall not exceed one-hundred and fifty (150) foot spacing. The canopy trees shall be planted between eight feet (8) and thirty (30) feet from the edge of pavement. Canopy trees within the landscape buffers may be used if they fall within thirty (30) feet from the edge of paving or vehicular service area as shown in Figure C – Perimeter Trees and Spacing. **Terminal islands can be counted toward the perimeter canopy tree requirement.**
- 2) **Pervious Parking.** Parking spaces provided in excess of the minimum required shall be constructed to use low impact design of excess parking facilities. Additional low impact design may be provided, if not otherwise prohibited by other provisions of the UDO, in the following areas:
 - a) Adjacent to parking lot landscape islands to allow for the percolation of water and the exchange of oxygen for the tree roots.
 - b) Grass paving or turf block areas may be utilized in low impact areas or infrequent use areas such as churches or the outlying parking areas of malls or other shopping areas.
- i. **Internal Access Roads.** Developments with internal access roads shall be required to plant one (1) canopy tree on each side of the road approximately every fifty (50) feet. Access roads immediately in front of commercial structures and other buildings do not have to meet the access road tree requirement but do have to meet other parking landscape requirements. Parking lot island canopy trees may be used to meet this requirement if they fall within thirty (30) feet from the edge of the pavement along the internal access road
- J. **Low Impact Development Features.** Parking lot islands are encouraged to use curb breaks and create swale or depression areas to allow for the percolation of rainwater and parking stormwater. Attention shall be given to the selection, placement and durability of landscape material within rain garden areas to ensure their long-term viability. Any proposed rain garden areas must comply with all stormwater requirements as deemed by the NC DWQ rules and regulations for Low Impact Design. Smaller rain gardens that serve as landscape islands shall adhere to all canopy and understory requirements for landscape islands.