Community Tree Planting Plan

for

Myrtle Beach, South Carolina

2nd Edition

September 2001

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This Community Tree Planting Plan was developed for the City of Myrtle Beach as a guide for planting and preserving native trees on public and private property. The purpose of the Plan is to enhance the natural environment and quality of life in Myrtle Beach and the surrounding area.

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Table of Contents

A *Supplement to the Community Tree Planting Plan* that contains USDA Forest Service Fact Sheets that describe in detail the tree species recommended for planting is included as part of this Plan in a separate document.

Preface i
Executive Summary iv
1 Introduction 1
1.1 Plan Purpose 1
1.2 Community Goals 2
1.3 Plan Content 3
1.4 Plan Intent 4
1.5 How to Use This Plan 4
1.6 Plan Development Process 5
2 A View of Myrtle Beach's Community Forest Today 7
2.1 Overview 7
2.2 Existing Land Use and Forest Conditions 7
2.3 Common Tree Species 12
2.4 Vacant Planting Sites 14
3 Recommended Tree Species 15
3.1 Introduction 15
3.2 Tree Species Recommended for Planting 15
Table 3.1. Tree Species Recommended for Planting 16
3.3 Special Planting Needs, Site Situations, and Tree Characteristics 19
Table 3.2 Tree Species Characteristics 20
3.4 Tree Species Recommended for Preservation 29
Table 3.3 Tree Species Recommended for Preservation 30
3.5 Species Selection 30
4 Overview of the Forest Themes 32
4.1 Introduction 32
4.2 Forest Theme Locations 33
4.3 Forest Theme Composition 33
Table 4.1 Forest Theme Composition 34
4.4 Forest Theme Development 36
Table 4.2 Requirements and Characteristics Guiding Development of Themes 37
4.5 Species Diversity 38
4.6 Theme Boundaries 39
4.7 Park Plantings 39
4.8 Theme Location Maps 39
5 Forest Theme Descriptions 41
5.1 Introduction 41
5.2 Content of the Forest Theme Descriptions 41
5.3 Theme A: Maritime Evergreen Forest 41
Table A1. Species Composition of the Maritime Evergreen Forest 44
5.4 Theme B: Oak Forest 45
Table B1. Species Composition of the Oak Forest 47
5.5 Theme C: Magnolia Forest 48
Table C1. Species Composition of the Magnolia Forest 49
5.6 Theme D: Palmetto Forest 50
Table D1. Species Composition of the Palmetto Forest 52
5.7 Theme E: Holly Forest 53
Table E1. Species Composition of the Holly Forest 54

Table of Contents (cont'd.)

5.8 Theme F: Elm Forest 55
Table F1. Species Composition of the Elm Forest 57
5.9 Theme G: Southern Forest 58
Table G1. Species Composition of the Southern Forest 60
5.10 Theme H: Maple Forest 61
Table H1. Species Composition of the Maple Forest 62
5.11 Theme I: Cypress Swamp 63
Table I1. Species Composition of the Cypress Swamp 65
5.12 Theme J: River Birch Forest 66
Table J1. Species Composition of the River Birch Forest 68
5.13 Theme K: Redbud Forest 69
Table K1. Species Composition of the Redbud Forest 70
5.14 Theme L: Chestnut Oak Forest 71
Table L1. Species Composition of the Chestnut Oak Forest 72
5.15 Theme M: Dogwood Forest 73
Table M1. Species Composition of the Dogwood Forest 74
5.16 Theme N: Blackgum Forest 75
Table N1. Species Composition of the Blackgum Forest 76
5.17 Theme O: Red Oak Forest 77
Table O1. Species Composition of the Red Oak Forest 78
5.18 Theme P: Yaupon Forest 79
Table P1. Species Composition of the Yaupon Forest 81
5.19 Theme Q: Redcedar Forest 82
Table Q1. Species Composition of the Redcedar Forest 83
5.20 Theme R: Garden Forest 84
Table R1. Species Composition of the Garden Forest 85
5.21 Theme S: Business Park Forest 86
Table S1. Species Composition of the Business Park Forest 87
5.22 Theme T: Village Forest 88
Table T1. Species Composition of the Village Forest 89
5.23 Theme U: Urban Park Forest 90
Table U1. Species Composition of the Urban Park Forest 91
5.24 Theme V: Parkway Forest 92
Table V1. Species Composition of the Parkway Forest 94
5.25 Theme W: Flatwoods Forest 95
Table W1. Species Composition of the Flatwoods Forest 96
5.26 Theme X: Swamp Forest 97
Table X1. Species Composition of the Swamp Forest 98
5.27 Theme Y: Native Forest 99
Table Y1. Species Composition of the Native Forest 100
5.28 Theme Z: Pine Forest 101
Table Z1. Species Composition of the Pine Forest 102
5.29 Theme AA: Community Forest 104
Table AA1. Species Composition of the Community Forest 105
5.30 Theme BB: Commercial Forest 106
Table BB1. Species Composition of the Commercial Forest 107
5.31 Theme CC: Industrial Forest 108
Table CC1. Species Composition of the Industrial Forest 109
5.32 Theme DD: Planned Forest 110
Table DD1. Species Composition of the Planned Forest 111
5.33 Theme EE: Recreation Forest 112
Table EE1. Species Composition of the Recreation Forest 113

Table of Contents (cont'd.)

5.34 Theme FF: Residential Forest 114
Table FF1. Species Composition of the Residential Forest 115
5.35 Theme GG: Resort Forest 117
Table GG1. Species Composition of the Resort Forest 118
6 Community Tree Planting Program 119
6.1 Introduction 119
6.2 Tree Planting Needs 119
Table 6.1 Tree Planting Opportunities 121
6.3 Tree Establishment Guidelines 122
6.4 Tree Preservation Guidelines 128
6.5 Community Tree Planting Program Recommendations 129

PREFACE

This *Community Tree Planting Plan for Myrtle Beach* is an expanded and updated version of the first Plan completed in July 1998. This new version includes several key changes.

The area covered by the Plan has been substantially expanded to include area annexed by the City over the last 3 years, as well as some areas outside the City within the jurisdiction of Horry County. The Plan includes all property within the City Limits of Myrtle Beach as defined on the City's Zoning Map dated June 13, 2001. The Plan area now also includes the Myrtle Beach Air Force Redevelopment Area (South Park Village) which was excluded from the previous plan. It also includes the area between US Highway 17 Bypass and Carolina Bays Parkway (currently under construction), from US Highway 501 to the northeastern most City Limit boundaries. All of the County "out parcels" located within the City Limits are also now covered in the Plan.

There have been substantial additions to the Recommended Tree Species list. The most notable of these additions are the Southern pines—loblolly, longleaf, and slash. The addition of these trees represents a major improvement in the scope, diversity, and native character of the tree planting themes. Other additions include green ash, swamp dogwood, goldenraintree, loblolly-bay, purpleleaf plum, cherrybark oak, and Darlington oak. Three of these species have been moved from the list of trees to preserve to the list to plant. All of these trees have been added throughout all the themes, both existing and new, where appropriate.

There are 16 new tree planting themes, designed to meet the land use needs and match the site conditions of the additional areas. One of these themes, the "Parkway Forest Corridor", was designed for the many new parkways that are either planned or under construction in the area. This theme is unique in that it takes a linear form instead of a polygon form. However, there is a matching theme that is included as a polygon. The roads included in this theme are the Carolina Bays Parkway, Robert M. Grissom Parkway, Farrow Parkway, Howard Parkway, and US Highway 17 Bypass.

The Parkway Forest Corridor theme was designed to connect the various sections of the City and County, as well as the various planting themes, together. The planting of these areas should provide a cohesive and distinctive landscape for the daily commuter as well as the vacation traveler. The theme is superimposed over planting themes that are assigned to areas adjacent to the parkways.

Other minor changes have been made in the Plan, but the main focus remains tree planting. However, the Plan also addresses tree preservation within the City, an extremely important aspect of native forest conservation. The Plan recommends the planting of primarily native species, but includes recommendations for some exotic species, and also recommends the

preservation of specific native species. These planting and preservation recommendations apply to both public and private property.

The term "planting" as used throughout this Plan represents much more than the physical act of placing a tree in the ground--it represents the entire process of tree "establishment". Tree establishment includes selecting appropriate species, sites, and specific locations, selecting quality nursery stock, planting (installing) trees properly, and maintaining new trees regularly during the establishment period (the initial 3 years after planting).

The term "preservation" as used throughout this Plan represents the retention and active protection of existing trees, whether on a site scheduled for development or on an existing property. Tree preservation includes evaluating trees for condition, location, and suitability for preservation, planning for the tree protection area, installing tree protection structures (fencing), monitoring construction activities, and maintaining trees before, during, and after construction. The long-term protection and maintenance of a tree to maximize it's health, safety, and benefit is also considered preservation. Without these actions “preserved” trees will live a very short life after construction, and will become a liability for the property owner within 1 to 5 years.

The terms "species", "genus", and "cultivar" are used throughout this Plan to describe various taxonomic classes of trees. A tree species is a natural group of similar plants that can breed and produce offspring, such as red maple. The Latin name of a species is always italicized or underlined; for example *Acer rubrum*. A genus is a group of similar species, such as the maples, or *Acer*, with *rubrum* an example of the species name. A cultivar or variety is a variation of a species that has a distinct characteristic retained through breeding or cloning; for example, "Red Sunset" is a cultivar of red maple.

Only the common names of tree species are used in the text of this Plan, however both the common and Latin names are included in the tables of tree species recommended for planting and preservation. In all tables and lists the tree species appear in alphabetical order first by common name, with the genus name first. For example, "maple, red" will appear before "maple, Southern sugar", and "oak, laurel" will appear before "oak, willow". The maples will appear before the oaks, the oaks before the pines, and so forth.

Both "native" and "exotic" tree species are recommended in the Community Tree Planting Plan, although more natives are recommended than exotics. A native species commonly and naturally occurs within or very near the Myrtle Beach area. An exotic species commonly and naturally occurs outside of the Myrtle Beach area. Exotic species may naturally occur in other parts of South Carolina, the United States, or the world, but not in the Myrtle Beach area.

Trees are also characterized throughout the Plan by their size. The size refers to a tree’s height at maturity. Small trees are those that reach a height at maturity of less than 25 feet; medium trees are those that reach a height

between 25 and 50 feet at maturity; and large trees are those that reach a height of greater than 50 feet at maturity. Whenever tree size is mentioned in the Plan, it refers to the *mature* height of the tree.

This Plan applies to all property within the Plan Area, both public and private. On public property tree planting and preservation opportunities exist along the street rights-of-ways, in parks, around public buildings such as government offices and schools, and within other publicly owned properties. On private property tree planting and preservation opportunities exist on new residential, commercial, and industrial development sites, around existing developments, at places of worship and on other private institutional grounds, and within residential lawns.

The main component of the Plan is the description of the forest themes, or planting themes, developed from the list of tree species recommended for planting, itself an important component of the Plan. The term "forest theme" describes a group of species that are recommended for planting within defined areas in the City.

Technical Forestry Services would like to thank the Planning Department Staff for their input, guidance, and assistance during this project, especially Jack Walker, Director of Planning, Diane Moskow-McKenzie, Planner, and Allison Hardin, Planning Technician.

EXECUTIVE SUMMARY

The City of Myrtle Beach's Community Tree Planting Plan was developed as a guide for planting and preserving native trees on both public and private property. The Plan's purpose is to enhance the natural environment and quality of life in Myrtle Beach. It accomplishes this through the development of themes that serve as guidelines for the land development and the expenditures of tree preservation funds for public property.

The City of Myrtle Beach has an extensive and valuable community tree resource, which is dominated by many high quality species, including live oak, Southern red oak, longleaf, loblolly, and slash pines, Southern magnolia, American holly, yaupon holly, and cabbage palmetto. Today the community forest resource can be described by the following observations:

a. the vast majority of the City's community forest exists on private property;

b. public right-of-way plantings exist along a few main streets;

c. a high percentage of existing trees are native species;

d. the most common exotic species planted are Japanese black pine and crapemyrtle;

e. most of the remaining native trees are located in residential areas and in undeveloped, undisturbed native forests;

f. the heaviest tree canopy and highest tree density are located in residential areas and undeveloped, undisturbed native forest;

g. the lightest tree canopy and the lowest tree density are located in commercial areas;

h. light tree canopy and moderate tree density are found in transient accommodation areas;

i. the majority of the high priority tree planting needs exist within transient accommodations and commercial areas, especially between Kings Highway and Ocean Boulevard, between 29th Avenue South and 31st Avenue North;

j. the greatest opportunities for native tree preservation remain in the rapidly developing native forest remnants.

Information on native soils, vegetation, and wildlife, along with planning and zoning information, was used to select 66 tree species that are recommended for planting (and preservation) in Myrtle Beach. Of these 66 species, 53 are native, and 13 are exotic. An additional 29 native species are recommended for preservation.

Using the list of tree species recommended for planting, 33 planting, or "forest" themes were developed. The forest themes are groups of trees with similar site requirements and a variety of characteristics suitable to specific

areas in Myrtle Beach. The forest themes cover the City, and encompass both public and private property.

The themes include from 10 to 47 species each. The numbers of species per theme was affected primarily by special needs. A theme area with unfavorable site conditions and very specific needs, such as high salt and drought tolerance, had a low number of species. A theme area with favorable site conditions and no special needs had a much higher number of species. Since diversity was one goal, the themes with larger groups of appropriate species were not narrowed down further.

In addition to theme development and species recommendations, tree planting recommendations were made for public street rights-of-way between Kings Highway and Ocean Boulevard, from 29th Avenue South to 31st Avenue North. There are 268 vacant sites identified as high priority planting needs. These areas are mostly devoid of existing trees or canopy cover and site conditions are favorable for planting. The planting recommendations include 53 sites for large trees, 27 sites for medium trees, and 188 sites for small trees. Other opportunities for tree planting on the public rights-of-way in the remainder of the City are also listed in the Plan. Tree planting opportunities are not listed for the additional areas included in this updated version of the Plan.

This Community Tree Planting Plan contains considerable information on proper tree planting and preservation techniques as well as information on recommended species and forest themes. The Plan should be used as a guide for planting and preserving trees on both public and private property by City departments, the Community Appearance Board, developers, builders, landscape architects, engineers, neighborhood groups, and individual residents. While the species recommendations it contains are essentially timeless and will be useful in both the short- and long-term time periods, the Plan should be a working document, and reviewed and revised on a regular basis.

1 INTRODUCTION

1.1 Plan Purpose

This Community Tree Planting Plan was developed as a practical guide for selecting native trees for planting and preserving on public and private property within the City Limits of Myrtle Beach. The Plan's purpose is to enhance the community's natural environment and quality of life. More specifically, the City's Tree Protection Ordinance states that:

"The purpose of the Community Tree Planting Plan will be to develop tree themes for the area and to serve as guidelines for the expenditure of the tree preservation account funds for planting, maintenance, and the replacement of trees in the public right-of-ways."

Both the City of Myrtle Beach and Horry County have Tree Protection and Preservation Ordinances. The intent of the Myrtle Beach Tree Protection Ordinance as stated in section 903.1 is:

"…to promote the public health, safety and general welfare; to reduce noise, heat and glare; to reduce air pollution; to prevent soil erosion; to improve surface drainage and minimize flooding; to ensure that noise, glare and other distractions of movement on one area not adversely affect activity within other adjacent areas; to beautify and enhance improved and undeveloped land; to provide a protective physical and psychological barrier between pedestrians and traffic; to create special places that are inviting; to create a civic identity; to counteract the heat island effect; to encourage energy and water conservation; to protect the wildlife habitat and sensitive ecosystems; to enhance real estate and economic values; to ensure that excessive tree cutting does not reduce property values; to minimize the cost of construction and maintenance of drainage systems necessitated by the increased flow and diversion of surface waters; to encourage the proliferation and replacement of trees on public and private property; and to allow trees to attain their natural shape and size while growing to maturity…"

The Community Tree Planting Plan was designed to assist the community in meeting the intent of this ordinance.

Additional principles and objectives emphasized by the Project Team during the original development of this Plan were:

a. include primarily indigenous species, with a minor component of suitable exotic species;

b. use species selection to enhance the natural environment;

c. incorporate the community's vision, goals, and strategies;

d. do not include species that have hazardous, invasive, noxious, or unattractive characteristics;

e. consider the species native range, storm damage susceptibility, insect and disease susceptibility, and salt, drought, and flood tolerance;

f. enhance neo-tropical migrant bird species food supply and habitat, as well as other wildlife;

g. develop tree canopy corridor "views" on east-west avenues from Kings Highway to the ocean;

h. tie neighborhoods and differing land uses together;

i. provide a natural transition from one area to another using the themes;

j. provide planting suggestions for east-west oriented transportation corridors;

k. do not consider existing infrastructure to be a limiting factor in the inclusion of a species in a theme;

l. provide a list of current high priority planting needs.

1.2 Community Goals

The City of Myrtle Beach's Comprehensive Plan dated April 13, 1999 (amended September 2000) states in the Executive Summary the goals for Natural Resources:

"The natural environment will serve as a basic characteristic guiding future development in the region, recognizing that development must either avoid sensitive resources or manage valuable ones to ensure efficient growth and a high quality of life."

Further, in this section it is stated that:

"Growth and redevelopment will respect and rehabilitate the natural environment and foster its enjoyment by the public."

The citizens of Myrtle Beach, in their visioning and goal setting processes completed in 1997, also defined the following strategies related to trees to meet their community's goals:

a. develop a uniform streetscape in the "Superblock" and environs;

b. create communities designed, built, and maintained by resident-owners;

c. revitalize and develop the historic Carver Street district to showcase the cultural diversity of Myrtle Beach;

d. protect trees in all areas;

e. improve intergovernmental planning and coordination;

f. set aside more open space for public parks, green space, hiking, and bike paths;

g. provide safe, linking parks and bike paths;

h. facilitate pedestrian traffic;

i. develop a system for neighborhood groups to work together;

j. use environmental experts sensitive to the local ecosystems to design natural parks;

k. place all electrical lines underground within 5 years;

l. improve the quality of the drinking water;

m. preserve the integrity of the environment while building homes and businesses;

n. establish the monetary value of trees, recognizing them as natural resources--and establish an indigenous tree replacement or reforestation program;

o. develop more open, natural, green areas throughout the community;

p. protect water quality and preserve beaches, tidal pools, wetlands, swashes, marshes, and other waterways;

q. establish an intergovernmental/citizens recreational commission to create and coordinate a master park, recreation, and preservation plan.

The Community Tree Planting Plan for Myrtle Beach seeks to provide a means for City staff and citizens alike to meet these goals.

1.3 Plan Content

Two separate documents are included as part of *the Community Tree Planting Plan*. The main document is the Plan itself, designed as a guide to tree planting and preservation activities within the City. *A Supplement to the Community Tree Planting Plan* has also been prepared that contains USDA Forest Service Fact Sheets for species recommended in the Plan. It is available for review in the Planning Department and at Chapin Library.

The Community Tree Planting Plan contains the following information and tools:

a. introduction (this section)

b. view of Myrtle Beach's community forest today

c. recommended tree species--

table of tree species recommended for planting

table of tree species characteristics for trees recommended for planting

table of tree species recommended for preservation

d. overview of the forest themes--

table of forest theme composition by species

forest theme location maps, including a general location map of the entire Plan area and detailed theme location maps

e. forest theme descriptions--

table of species composition included in each theme description

tree planting recommendations for public property

table of tree planting opportunities

f. community tree planting program recommendations

g. tree establishment guidelines

h. tree preservation guidelines

i. appendices

j. forest theme coverage by street

k. tree planting recommendations for the downtown and southern areas of Myrtle Beach

l. references

1.4 Plan Intent

The intent of this Community Tree Planting Plan is to serve as a guide in tree selection, planting and preservation decision-making processes in Myrtle Beach. The Plan should be used to facilitate the following processes:

a. development of tree planting and preservation plans;

b. site plan approval*;*

c. development of annual tree planting plans for City property, including street rights-of-ways, parks, and public lawns;

d. development of neighborhood tree planting plans;

e. development of short- and long-term planting stock requirements.

The results and benefits that can be achieved using this Plan are:

f. comprehensive and coordinated tree planting programs;

g. better species to site match;

h. reduction in planting of undesirable and unsuitable species;

i. improvement in species diversity;

j. improvement in community "tree character";

k. increased community pride in the forest resource, knowledge about tree care, and involvement in tree-related activities and issues.

1.5 How to Use This Plan

When contemplating planting trees anywhere within the City, first evaluate the site conditions, including existing infrastructure, constraints to growth, and

amount of available growing space, and then consult the Community Tree Planting Plan to:

a. locate the planting theme applicable to the site;

b. review planting theme descriptions;

c. review species characteristics;

d. match the site conditions with species characteristics;

e. select species based on site conditions and special needs;

f. review tree planting guidelines.

When planning for tree preservation, first evaluate the current and expected site conditions in the area to be preserved, and then consult this Plan to:

g. locate the planting theme applicable to the planting site;

h. review planting theme descriptions;

i. select species and trees to be preserved;

j. review tree preservation guidelines.

Because most of the species recommended for planting in the Community Tree Planting Plan are native species, the Plan will remain as applicable in the future as it is today. However, it should be reviewed regularly and updated to incorporate new information and experiences gained in species performance. The City should maintain updated lists of species recommended for planting and preservation, and current forest theme composition lists.

1.6 Plan Development Process

The Plan development process consisted of several phases:

a. information gathering, including field data collection, research, and regular input from project team and Planning Department;

b. data analysis, summary of existing conditions, selection of recommended species, and development of forest planting themes;

c. defining details of forest themes, location maps, street and species lists;

d. development of final Plan document with descriptions of individual themes.

During the information gathering phase for the first edition of this Plan, a block-by-block inventory of existing infrastructure and trees was completed in south Myrtle Beach, between and including Ocean Boulevard and Kings Highway, from 1st Avenue South to 29th Avenue South. The purpose of this inventory was to identify high priority planting needs. Information was also collected on the type of pavement, curbing, right-of-way composition, presence of overhead utility lines, and existing tree species on public and

private property.

North of 1st Avenue South, in the area between and including Ocean Boulevard and Kings Highway between 1st Avenue South and 31st Avenue North, high priority planting needs only were identified. No additional information was collected on infrastructure. No information was collected on planting needs on private property anywhere within the City.

Outside of this detailed inventory area, throughout the remainder of Myrtle Beach and for the expanded Plan area, general observations were recorded on neighborhood character and land use type (commercial, residential, transient accommodations, etc.), canopy cover density, planting opportunities on the public street rights-of-way, and special planting needs.

Existing information on native soils, vegetation, wildlife, and information gathered on land use and existing trees was used to select tree species recommended for planting and preservation, along with zoning, land use, and existing trees. Information on tree species recommended in the City Tree Protection Ordinance and the Horry County Tree Preservation Ordinance was also considered in the selection of species. The primary species observed on private property are often included in the theme assigned to that area.

The species recommended for planting were then grouped into planting themes, based on common species characteristics and special area needs. The planting theme locations were mapped and their boundaries defined. The planting themes are referred to throughout the remainder of this Plan as "forest themes". Numerous tables and lists were developed to facilitate understanding and use of the Plan.

Forest theme location maps were developed using ArcView® geographic information software and digital shape files provided by the City's Planning Department. A digital copy of the map complete with the forest theme shape files has been provided to the City.

2 A VIEW OF MYRTLE BEACH'S COMMUNITY FOREST TODAY

2.1 Overview

The City of Myrtle Beach and surrounding region have a beautiful, extensive, and highly valuable community forest dominated by live oaks, cabbage palmettos, southern pines, and southern hardwoods. Much of the City is covered by longleaf pine and turkey oak forests, but species diversity is high throughout the entire area. All of the native trees strongly contribute to the City's character, attractiveness, and quality of life.

Canopy cover and tree density varies throughout the City with land use type, proximity to the ocean, and age of development. The majority of the community forest exists on private property. The quality of trees planted and preserved also varies by land use. Tree preservation efforts on commercial developments exhibit various levels of success. Crown dieback on both preserved and planted trees on commercial sites is common.

A small percentage of the community's trees exist along the public street rights-of-way. Street trees have not been planted extensively in Myrtle Beach. Where street trees are planted the species have been well chosen to enhance the area and complement the existing trees.

There are numerous small parks distributed throughout the City that are beautifully landscaped with trees that are well maintained. The landscaping around public buildings is also of high quality and well maintained.

2.2 Existing Land Use and Forest Conditions

The trees within Myrtle Beach exist within the broad land use categories listed below:

a. residential neighborhoods, including single and multi-family, and mobile homes, and some institutional and public facilities such as places of worship, day care centers, schools, etc.;

b. transient accommodations;

c. commercial areas, sometimes incorporating transient accommodations or trade, and sometimes including institutional and public facilities;

d. transportation corridors;

e. public parks and managed open space.

The site conditions, including type of hardscape, infrastructure, and amount and type of open space within these land use categories include:

a. streets, curbed and uncurbed, with and without medians, and with paved,

unpaved, or turf covered rights-of-way;

b. buildings and related facilities;

c. driveways;

d. parking lots;

e. other paved surfaces;

f. pedestrian corridors/sidewalks;

g. open soil;

h. turf and shrubbery;

i. trees.

The trees and forest areas can be characterized in the following ways:

a. native or exotic;

b. planted or natural;

c. open-grown or wooded;

d. public or private.

Tree densities throughout Myrtle Beach vary greatly from one land use type to another, and within a particular land use type. Densities are greatest in natural, undisturbed areas, and lowest in "built" areas. Many areas of natural undisturbed forest still remain, but by far the majority of the tree resource in Myrtle Beach is located in thinned and managed remnant native forest or stands of individual planted trees, or a mix of the two. The larger remnants of native forest that remain within the city limits are rapidly being developed.

The quality and quantity of trees, in terms of their health and as measured by their contributions to shading and cooling, stormwater retention, energy savings, wildlife value, and the community's character and beauty, varies greatly across the City. The quality and quantity is highest in the undisturbed areas, where many native trees are able to reach their potential for size, health, and benefits. The quality is also good in the residential areas, many of which still have a moderate to heavy native tree canopy.

The quality and quantity of the trees is lowest in the commercial areas, where there are few trees, low species diversity, and the trees are often in poor condition. A few residential areas have a very small amount of existing tree canopy. Transient areas have low species diversity, although the quality of the species planted there is relatively high.

The quality of trees planted along major transportation corridors is good, such as Oak Street (live oaks and honeylocust) and 21st Avenue North (live oaks) but few trees are planted on the public rights-of-way in much of the City. Kings Highway median has been planted extensively with crapemyrtles (and oleander).

Trees are most abundant in the parks, residential areas, around institutional

and public facilities, and in the native undisturbed forested areas. They are least abundant in the transient accommodation land use areas, and the commercial areas.

There has been a substantial increase in the amount of developed and developing land within the Plan area. Major subdivisions and Planned Unit Developments are currently underway throughout the area, from the Myrtle Beach Air Force Base Redevelopment Area (South Park Village) to the Grand Dunes project at the other end of the Plan area.

A more detailed description of the forest within each land use category follows.

2.2.1 Residential Neighborhoods

In all but a few of the residential neighborhoods throughout the City, many of the native trees have been retained, and additional trees planted. The result is in general a heavy tree canopy. Overall, the residential neighborhoods are characterized by:

a. abundant trees;

b. moderate to heavy canopy cover;

c. high ratio of native trees to exotics;

d. abundant growing space both above and below ground;

e. high percentage of mature trees;

f. some natural undisturbed forest remaining;

g. relatively low percentage of juvenile trees, especially native pines;

h. public rights-of-way with tree lawns with turf, generally 3 feet wide or greater, with or without sidewalks

i. overhead utility lines limiting growing space along at least one side of the public rights-of-way;

j. some pedestrian traffic;

k. light to heavy vehicular traffic.

2.2.2 Transient Accommodations

Areas dedicated to transient accommodations, service, and amusement are generally low in tree density, but the trees present are well placed and well maintained. The transient accommodations are, in general, characterized by:

a. low tree density;

b. light canopy cover;

c. high quality, well maintained landscape;

d. lack of growing space below ground for tree roots and above ground for

the tree trunk and crown (limbs and branches);

e. little natural undisturbed forest remaining;

f. dominance of built and artificial structures: buildings, concrete walls and fences, sidewalks, pavement, and other hardscape, overhead and underground utility lines, signs and other advertising, and other infrastructure;

g. no tree lawns; plantings located in small tree wells within the concrete (on Ocean Boulevard);

h. compacted soils, primarily due to parking along public street rights-of-way;

i. overhead utility lines limiting the growing space along the public rights-of-way;

j. parking areas, either covered parking decks or paved parking lots; many parking lots without adequate tree cover and shade;

k. regular and frequent pedestrian traffic;

l. heavy vehicular traffic.

2.2.3 Commercial Areas

The commercial areas are, in general, characterized by:

a. low tree density;

b. light tree canopy;

c. small amount of native undisturbed forest behind commercial buildings or as a buffer between adjacent properties;

d. lack of growing space below ground for tree roots and above ground for the tree trunk and crown;

e. compacted soils;

f. narrow tree lawns with turf, or no tree lawn;

g. dominance of built and artificial structures; buildings, concrete walls and fences, sidewalks, pavement, and other hardscape, overhead and underground utility lines, signs and other advertising, and other infrastructure;

h. parking areas, mostly paved parking lots; many parking lots without adequate tree cover;

i. some pedestrian traffic;

j. heavy vehicular traffic.

The amount of vegetation varies greatly from one property to another, but the above characterization can be seen in many locations on Kings Highway and in the Seaboard Street area, and in some areas along Ocean Boulevard.

The Broadway at the Beach area has been extensively planted with an excellent mix of species, including baldcypress, Southern magnolia, red maple, willow oak, Foster holly, and other species. This area has abundant growing space for trees which is fortunate because the above-mentioned trees are planted at a very high density.

At this location as at many others throughout the City (again, Kings Highway), where recent development has occurred (within the last five years) and existing trees were "saved", a high majority of the trees now show signs of decline. They have noticeable branch dieback within the crown, indicating that some root damage has been done. This root damage may have been in the form of soil compaction, soil backfill, surface root damage as occurs with grubbing and grading, and/or changes in the drainage (either wetter or drier than natural conditions). Turkey oak in particular shows a lot of damage and a sensitivity to construction damage.

2.2.4 Transportation Corridors

There are many transportation corridors that span several land use types and tie neighborhoods and other areas of the City together. Most of these corridors have some potential areas for planting.

In general, these areas area characterized by:

a. overhead utility lines on at least one side of the street;

b. tree lawns of varying width, mostly in turf;

c. high traffic and presumably pollutants;

d. bordered by abundant vegetation and trees on private property;

e. light pedestrian traffic;

f. heavy vehicular traffic.

The Parkways being developed throughout the area have wide rights-of-way with medians. There will be many opportunities to enhance the landscape along these parkways using trees and this Plan.

2.2.5 Public Parks and Managed Open Space

This land use category includes the public parks within Myrtle Beach, beach access areas, and golf courses.

Myrtle Beach has many small to medium-sized neighborhood parks scattered through the community. Some of these parks are small triangle-shaped parks located between the intersection of two or three streets, while others are larger. The parks have the following general characteristics:

a. well-landscaped;

b. very well-maintained;

c. good native species diversity;

d. include some promising exotic species;

e. include frequent pedestrian traffic and recreational activities;

f. light to heavy vehicular traffic.

The beach access areas are very attractive, natural spots located among the close and towering hotels. They often exist within or adjacent to parking areas. The species common in these areas include Japanese black pine, Southern redcedar, palmetto, waxmyrtle, and yaupon holly, as well as other shrubby and herbaceous species.

Also present within the City are several golf courses. These are characterized by:

a. heavy to moderate canopy cover with abundant native trees, especially pines;

b. a lot of greenspace and lack of paved surfaces;

c. constant pedestrian traffic;

d. constant vehicular traffic (golf carts);

e. soil compaction related to foot, cart, and equipment traffic.

2.2.6 Myrtle Beach Air Force Base Redevelopment Area

The Myrtle Beach AFB Redevelopment Area (South Park Village) presents some unique and groundbreaking opportunities for tree planting. With the complete redesign of the property within this area, there will be an opportunity to plan for trees and the space they need to grow. There will also be opportunities to design the streetscape and community forest to both preserve and enhance the existing native vegetation. The designs adopted for redevelopment provide opportunities for planting a variety of tree species and sizes, in plazas and promenades, in parks and along parkways, and on street rights-of-way as well as on individual private property parcels. Careful species selection and match to site conditions and growing space will insure a landscape that is functional and beautiful, and one that will remain that way for the long-term future.

2.3 Common Tree Species

Live oaks and palmettos are planted extensively throughout the City, and live oaks are preserved in many residential areas along the oceanfront. Along Ocean Boulevard North and South, the tropical-looking palmettos and majestic live oaks form the backdrop to the ocean setting. To thrive near the ocean trees must be tolerant of salt spray, so Southern waxmyrtle, yaupon holly, Japanese black pine, and Southern redcedars are common associates of the palmettos and live oaks in this area.

Turkey oaks and longleaf pine dominate the sandhills and many of the residential neighborhoods in Myrtle Beach. The glossy orange and red

leaves of the turkey oaks are a beautiful addition to the fall scenery. Southern magnolia is a favorite lawn tree, along with American holly. Oak and pine forests have been thinned but preserved around many homes, and include such species as: Southern red oak, laurel oak, and water oak; longleaf, loblolly, and slash pines; and Southern redcedar. Flowering dogwoods are also common on residential lawns.

Along Poinsett Drive, east of Kings Highway, there is a well-established planting of rows of Southern redcedars on both sides of the road. Both this street and Calhoun Road have wide tree lawns with abundant planting space.

Recent tree plantings were seen in several locations along the public street rights-of-way. Along the US Highway 501 corridor willow oaks have recently been extensively planted. At the interchange of US Highways 501 and 17 Bypass, an excellent combination of willow oaks, crapemyrtles, waxmyrtle, palmetto, sycamore, yellow poplar, yaupon holly, sweetgum, and Shumard oak have been planted. The 501 median is planted with crapemyrtles and palmettos.

Red maples and pin oaks are planted in the median along Robert M. Grissom Parkway near the new high school. Also noted near the entrance to the High School are a lot of trees with crown dieback, presumably due to construction damage or drainage changes.

In the Main Street, Broadway, Oak Street, and 8th Avenue North area honeylocusts and willow oaks have been recently planted, and complement the existing mature waxmyrtles and palmettos. In the streetscaped area of Broadway Street, in medians and in tree wells, crapemyrtles, live oaks, Bradford pears, Foster hollies, and river birch have been established. This is one of the very few areas within Myrtle Beach that Bradford pears are planted on the public street rights-of-way.

Oak Street has been planted with live oaks and honeylocust at its southern end. Live oaks have also been planted along Oak Street in front of the Myrtle Beach Convention Center. Trees preserved and planted at the convention center include sweetgum, palmetto, crapemyrtle, and loblolly pine, as well as live oaks. Live oaks also border 21st Avenue North from Oak Street to Kings Highway.

Crapemyrtles have also been planted extensively throughout the City. They are commonly found in medians, such as those along the US Highway 17 Bypass and along Kings Highway. They are also commonly planted in parking lot islands.

The crapemyrtles at City Hall were some of the most beautiful anywhere. They were very healthy looking and were expertly pruned, but have recently been topped. Their unique form and bark are well displayed in this location, but the improper pruning has reduced their value. Other trees at City Hall include well-established and maintained live oaks, waxmyrtles, and willow oaks.

The Seaboard Street right-of-way includes some willow oaks, pines, river birch, cottonwoods, and persimmons. Many of the street rights-of-way and property in this area are devoid of trees. Ditches are common along the streets in this area.

The existing native forests, those on development sites, and those remaining undisturbed, include many high quality species and individual specimen trees. The longleaf pine forests contain some very large, straight, and stately pines. On the wetter sites, swamp dogwood and swamp bay are common.

Where trees are preserved throughout the City, they commonly show signs of decline presumably due primarly to construction damage to tree roots. Tree species commonly preserved on commercial developments include turkey oak, water oak, laurel oak, blackgum, sweetgum, and red maple. Where trees are planted, they have often been planted on the wrong site in terms of matching the species' site needs, or in places without adequate growing space (large maturing trees in sidewalk tree wells). In some places, large maturing trees are planted beneath utility lines.

2.4 Vacant Planting Sites

Vacant tree planting sites on public property, along the street rights-of-way, were identified and high priority tree planting needs were determined during the initial stages of the Plan's development. There are a significant number of high priority planting needs in the southern and central areas of Myrtle Beach, between Kings Highway and Ocean Boulevard. A vacant planting site was considered to be a high priority planting need if the tree density on the surrounding private property was very light to light, and few to no street trees are present.

Additional general planting opportunities were identified in the remainder of the City. Both the high priority planting needs and general planting opportunities are addressed in Section 6 of this Plan.

3 RECOMMENDED TREE SPECIES

3.1 Introduction

There are 66 tree species recommended for planting in Myrtle Beach, including 53 native species and 13 exotic. The exotic species component accounts for 20% of the total number of species. An additional 29 species, all native, are recommended for preservation on sites where they naturally occur (see Section 3.4).

3.2 Tree Species Recommended for Planting

Species recommended for planting in Myrtle Beach are listed in Table 3.1 on the following pages. Both the species common and Latin names are included, along with the:

a. source; native or exotic;

b. mature tree size; small (S), medium (M), or large (L);

c. Protected Tree status (PT), as listed in the City's Tree Protection Ordinance; yes (X) or no (blank);

d. Landmark Tree status (LT), as listed in the City's Tree Protection Ordinance; yes (X) or no (blank);

e. USDA Forest Service Fact Sheet (FS#) reference number.

Fact sheets, if available, containing detailed information about recommended species are located in a separate document, the Supplement to the Community Tree Planting Plan.

The native pine species occurring in Myrtle Beach--longleaf pine, slash pine, and loblolly pine—are a dominant and very important component of the natural and planted urban forest. They are now included in the list of “Tree Species Recommended for Planting”. They should be planted regularly to maintain their presence and diversity in the native tree population. Very few juvenile or young pines were seen growing in neighborhoods or commercial areas. They are often present in undisturbed remnant forest stands and vacant lots. USDA Forest Service Fact Sheets are included in the Supplement for the three common southern pines found in the Myrtle Beach area.

Pines provide abundant wildlife food and habitat, as well as pollution reduction, interception of precipitation and reduction in stormwater flow, and oxygen production in the winter when deciduous species have dropped their leaves and are dormant. They are an important and dominant component of many of the natural plant associations in the City and their planting and preservation are encouraged.

Table 3.1. Tree Species Recommended for Planting

Species Common Name	Latin Name	Source	Size	PT	LT	FS#
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	L			266
Baccharis, Eastern	*Baccharis halmifolia*	Native	S			N/A
Baldcypress	*Taxodium distichum*	Native	L	X	X	620
Birch, River	*Betula nigra*	Native	M			94
Blackgum	*Nyssa sylvatica*	Native	L			422
Buckeye, Bottlebrush	*Aesculus parviflora*	Native	S			N/A
Buckeye, Red	*Aesculus pavia*	Native	S			64
Buttonbush, Common	*Cephalanthus occidentalis*	Native	S			N/A
Cabbage Palmetto	*Sabal palmetto*	Native	M			575
Chastetree	*Vitex agnus-castus*	Exotic	S			664
Crapemyrtle	*Lagerstroemia indica*	Exotic	S	X		342
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	M			671
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	S			N/A
Devilwood	*Osmanthus americanus*	Native	S			424
Dogwood, Flowering	*Cornus florida*	Native	M		X	185
Dogwood, Kousa	*Cornus kousa*	Exotic	S			191
Dogwood, Swamp	*Cornus stricta*	Native	S			N/A
Elm, Chinese	*Ulmus parvifolia*	Exotic	L			652
Elm, Winged	*Ulmus alata*	Native	L			648
Fringetree	*Chionanthus virginicus*	Native	S			161
Gallberry	*Ilex glabra*	Native	S			N/A
Goldenraintree	*Koelreutria paniculata*	Exotic	M			338
Hickory, Mockernut	*Carya tomentosa*	Native	L		X	N/A
Hickory, Pignut	*Carya glabra*	Native	L		X	121
Holly, American	*Ilex opaca*	Native	M		X	304
Holly, Dahoon	*Ilex cassine*	Native	S			299
Holly, Foster	*Ilex* x *attenuata*	Native	S			315
Holly, Yaupon	*Ilex vomitoria*	Native	S			311
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	L			279
Hophornbeam, American	*Ostrya virginiana*	Native	M			428
Hornbeam, American	*Carpinus caroliniana*	Native	M			120
Loblolly-Bay	*Gordonia lasianthus*	Native	M			283
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	S			375
Magnolia, Southern	*Magnolia grandiflora*	Native	L	X	X	371
Magnolia, Sweetbay	*Magnolia virginiana*	Native	M			384
Maple, Red	*Acer rubrum*	Native	L		X	41
Maple, Southern Sugar	*Acer barbatum*	Native	L			7
Maple, Trident	*Acer buergeranum*	Exotic	M			9
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	L			N/A
Oak, Darlington	*Quercus hemisphaerica*	Native	L			

Species Common Name	Latin Name	Source	Size	PT	LT	FS#
Oak, Laurel	*Quercus laurifolia*	Native	L		X	549
Oak, Live	*Quercus virginiana*	Native	L	X	X	564
Oak, Overcup	*Quercus lyrata*	Native	M			550
Oak, Shumard	*Quercus shumardii*	Native	L			561
Oak, Southern Red	*Quercus falcata*	Native	L			546
Oak, Swamp Chestnut	*Quercus michauxii*	Native	L			N/A
Oak, Willow	*Quercus phellos*	Native	L		X	556
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	M	X		480
Pine, Loblolly	*Pinus taeda*	Native	L	X		478
Pine, Longleaf	*Pinus palustris*	Native	L	X		469
Pine, Slash	*Pinus elliottii*	Native	L	X		463
Pistache, Chinese	*Pistacia chinensis*	Exotic	M			482
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	S			507
Poplar, Yellow	*Liriodendron tulipifera*	Native	L			363
Redbud, Eastern	*Cercis canadensis*	Native	M			145
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	S			147
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	S			153
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	S			N/A
Redcedar, Eastern	*Juniperus virginiana*	Native	M	X	X	327
Redcedar, Southern	*Juniperus silicicola*	Native	M	X	X	326
Sassafras	*Sassafras albidum*	Native	M			584
Serviceberry, Downy	*Amelanchier arborea*	Native	M			73
Sycamore	*Platanus occidentalis*	Native	L	X		484
Tupelo, Water	*Nyssa aquatica*	Native	L			N/A
Waxmyrtle, Southern	*Myrica cerifera*	Native	S	X		410
Witchhazel, Common	*Hamamelis virginiana*	Native	S			294

3.2.1 Native Species

Trees are listed as either "Native" or "Exotic" in the "Source" column of Table 3.1. One of the main goals of this Plan is to enhance the natural environment through the planting of native tree species. All tree species native to the Myrtle Beach area were considered as potential components of the planting themes at the start of the project. Then, trees having hazardous, invasive, noxious, or unattractive characteristics were excluded from this pool. Also excluded were trees with brittle wood (e.g., sweetgum) or with high insect or disease susceptibility (e.g., American elm). The remaining trees were evaluated for their wildlife value, especially as food and habitat for neo-tropical migratory bird species, and salt, drought, and shade tolerance.

All of the trees recommended for preservation are native species (see Section 3.4). Native trees growing in undisturbed (or even disturbed) locations are a very important part of the community forest. They add diversity and complexity to the forest. If undisturbed and healthy, naturally occurring trees can provide some benefits more effectively than single, planted trees, even if not the best specimens.

3.2.2 Exotic Species

The exotic species included in the list of trees recommended for planting were chosen to fill special needs and meet special site situations. In general, they are recommended for transient accommodation and commercial areas and other areas where commercial development will occur. These areas are often very tough sites, with poor soils and soil compaction, excessive heat including reflected heat from the pavement, low available moisture, and limited growing space. There are some proven exotics that can tolerate these tough conditions. In addition, most of the exotics included in the recommendations are generally available at tree nurseries and to the landscaper.

3.2.3 Tree Size

The size of a tree at maturity, some 30 to 50 years after planting, is one of the most important characteristics to consider when choosing which tree to plant at a specific location, unless there is an obvious excess of growing space above and below ground at the planting site. Tree size as measured by mature height is included for each tree in Table 3.1 in the "Size" column. The trees are categorized as:

S = Small; trees less than 25 feet in height at maturity.

M = Medium; trees between 25 and 50 feet in height at maturity.

L = Large; trees greater than 50 feet in height at maturity.

Plant only small trees directly beneath power lines.

3.3 Special Planting Needs, Site Situations, and Tree Characteristics

A variety of community needs, special planting needs and site situations, and species characteristics were considered in selecting recommended tree species for planting. Many of the community needs have already been discussed in Section 1.1, Plan Purpose and Section 1.2, Community Goals.

Table 3.2 lists the tree species recommended for planting and summarizes important species characteristics. This table is arranged alphabetically by species common name and for each species the following information is listed (codes in parentheses are column headings in the table):

a. salt tolerance (ST): none (N), low (L), moderate (M), high (H), or unknown (U);

b. drought tolerance (DT); low (L), moderate (M), or high (H);

c. light requirements (LR); semi-shade (SS), partial sun (PS), or full sun (FS);

d. construction tolerance (CT); good (G), moderate (M), or poor (P), combinations of these, or unknown (U);

e. wildlife value (WL); yes (X) or no (blank);

f. suitability as a canopy or shade tree (CS); yes (X) or no (blank);

g. suitability as a street tree (SR); yes (X) or no (blank);

h. potential for screening (SC); yes (X) or no (blank);

i. tolerance of urban conditions (UR); yes (X) or no (blank);

j. suitability for planting beneath utility lines (UT); yes (X) or no (blank);

k. suitability for parking lots (PL); yes (X) or no (blank);

l. suitability for tree wells (TW); yes (X) or no (blank);

m. potential for specimen quality (SP); yes (X) or no (blank);

n. presence of showy flowers (FL); yes (X) or no (blank);

o. presence of good fall colors (FC); yes (X) or no (blank);

p. potential for producing excessive litter (EL); yes (X) or no (blank).

These characteristics are discussed in further detail after Table 3.2.

Table 3.2 Tree Species Characteristics

	Salt Tolerance	Drought Tolerance	Light Requirement	Construction Tolerance	Wildlife Value	Canopy/ Shade Tree	Street Tree	Screen	Urban Conditions	Overhead Utility Lines	Parking Lots	Tree Wells	Specimen	Flowers	Fall Color	Excessive Litter
Species Common Name	**ST**	**DT**	**LR**	**CT**	**WL**	**CS**	**SR**	**SC**	**UR**	**UT**	**PL**	**TW**	**SP**	**FL**	**FC**	**EL**
Ash, Green	M	H	FS	G	X	X	X		X		X	X	X		X	
Baccharis, Eastern	H	M	FS	G				X	X	X				X		
Baldcypress	M	H	FS	G	X	X	X	X	X		X		X		X	
Birch, River	L	M	SS	MG			X	X					X			
Blackgum	M	L	PS	G	X	X	X								X	
Buckeye, Bottlebrush	U	L	SS	U	X					X				X		
Buckeye, Red	M	L	FS	M	X		X			X			X	X		
Buttonbush, Common	U	L	FS	G				X		X				X		
Cabbage Palmetto	H	H	PS	U	X	X	X		X		X	X	X			X
Chastetree	M	H	FS	U	X		X	X	X	X	X		X	X		
Crapemyrtle	N	H	FS	U	X		X	X	X	X	X	X	X	X	X	
Cypress, Leyland	M	M	FS	G				X								
Cyrilla, Swamp	L	L	SS	M	X			X		X				X		
Devilwood	H	L	PS	M	X		X			X			X	X		
Dogwood, Flowering	L	L	SS	P	X		X						X	X	X	
Dogwood, Kousa	M	M	PS	U	X		X	X		X			X	X	X	
Dogwood, Swamp	U	U	PS	U	X			X		X			X	X		
Elm, Chinese	M	H	PS	G		X	X		X		X	X	X			
Elm, Winged	M	M	PS	G		X	X		X							
Fringetree	N	L	PS	M	X					X			X	X		
Gallberry	U	L	SS	G	X			X		X				X		
Goldenraintree	M	H	FS	U			X	X	X	X	X	X		X		
Hickory, Mockernut	U	H	FS	M	X	X										
Hickory, Pignut	M	H	PS	MG	X	X										
Holly, American	H	H	PS	G	X		X	X	X		X	X	X	X		
Holly, Dahoon	M	L	SS	G	X		X	X	X	X			X	X		
Holly, Foster	L	M	PS	U	X		X	X	X	X		X	X	X		
Holly, Yaupon	H	H	PS	G	X		X	X	X	X	X	X	X	X		
Honeylocust, Thornless	H	H	FS	G			X		X		X	X				X
Hophornbeam, American	N	H	SS	M	X		X		X			X	X			
Hornbeam, American	N	M	SS	M	X		X					X				
Loblolly-Bay	N	M	PS	G									X	X		
Magnolia, Little Gem	M	H	SS	U	X		X	X		X			X	X		X
Magnolia, Southern	M	M	PS	M	X	X	X	X					X	X		X
Magnolia, Sweetbay	L	L	PS	G	X	X	X	X					X	X		
Maple, Red	L	L	FS	MG	X	X	X						X		X	
Maple, Southern Sugar	N	M	PS	M		X	X						X		X	
Maple, Trident	M	M	FS	U			X	X	X		X		X		X	
Oak, Cherrybark	M	H	FS	G	X	X	X						X			
Oak, Darlington	L	H	FS	M	X	X	X				X					
Oak, Laurel	L	M	PS	M	X	X	X									X
Oak, Live	H	H	FS	G	X	X	X		X		X		X			X
Oak, Overcup	N	M	PS	G	X	X	X									X
Oak, Shumard	M	H	FS	G	X	X	X		X		X				X	X

	Salt Tolerance	Drought Tolerance	Light Requirement	Construction Tolerance	Wildlife Value	Canopy/ Shade Tree	Street Tree	Screen	Urban Conditions	Overhead Utility Lines	Parking Lots	Tree Wells	Specimen	Flowers	Fall Color	Excessive Litter
Species Common Name	**ST**	**DT**	**LR**	**CT**	**WL**	**CS**	**SR**	**SC**	**UR**	**UT**	**PL**	**TW**	**SP**	**FL**	**FC**	**EL**
Oak, Southern Red	M	H	FS	MG	X	X	X						X		X	X
Oak, Swamp Chestnut	N	M	FS	G	X	X	X								X	X
Oak, Willow	H	H	FS	MG	X	X	X		X				X		X	X
Pine, Japanese Black	H	H	FS	U				X	X		X		X			
Pine, Loblolly	M	M	FS	MG	X	X		X	X		X		X			
Pine, Longleaf	H	H	FS	MG	X	X			X		X		X			
Pine, Slash	H	H	FS	G	X	X		X	X		X		X			
Pistache, Chinese	N	H	FS	U		X	X		X		X	X	X		X	
Plum, Purpleleaf	M	M	FS	U	X			X	X	X			X	X		
Poplar, Yellow	N	M	FS	PM	X	X									X	
Redbud, Eastern	N	M	SS	M	X		X						X	X	X	
Redbud, Forest Pansy	N	H	PS	U	X		X		X	X	X	X	X	X	X	
Redbud, Oklahoma	N	H	PS	U	X		X		X	X	X	X	X	X	X	
Redbud, Texas White	N	H	PS	U	X		X		X	X	X	X	X	X	X	
Redcedar, Eastern	H	H	PS	G	X		X	X	X		X		X	X		
Redcedar, Southern	H	H	PS	G	X		X	X	X		X		X	X		
Sassafras	N	H	FS	G	X			X	X				X	X	X	
Serviceberry, Downy	M	L	SS	M	X		X			X			X	X		
Sycamore	M	H	FS	MG		X			X							X
Tupelo, Water	U	L	PS	G	X	X	X								X	
Waxmyrtle, Southern	H	M	SS	G	X			X	X	X	X	X	X	X		
Witchhazel, Common	N	M	SS	M	X			X		X			X	X	X	

3.3.1 Salt Tolerance

Trees vary greatly in their tolerance to aerosol salt and soil salt. Trees that naturally occur in areas with high salt concentrations, near the beach, commonly have thick, glossy leaves that slow evapo-transpiration and provide protection from salts. For the Myrtle Beach area, this includes recommended species such as live oak, longleaf pine, slash pine, Japanese black pine (exotic), Southern and Eastern redcedar, cabbage palmetto, American holly, yaupon holly, Eastern baccharis, and waxmyrtle. All of these species are also evergreen.

The need for salt tolerance is especially important within 1 to 3 blocks of the oceanfront. At least moderately salt tolerant trees should be planted from that point westward toward and even beyond Kings Highway. Salt tolerance is included as a species characteristic in Table 3.2 in the ST column and is listed as High (H), Moderate (M), Low (L), None (N), or Unknown (U).

3.3.2 Drought Tolerance

Myrtle Beach's average maximum temperature in July is between 88° and 89° F. The average maximum January temperature is 57° F. Sandy soils dominate the area. The built environment and hardscape create massive amounts of heat reflection and radiation in the commercial and transient areas within the City.

The ability of a tree to withstand periods of low water and hot, dry weather is known as its drought tolerance. Drought tolerance is included in Table 3.2 in the DT column and is listed as High (H), Moderate (M), or Low (L). If a moderately tolerant species is planted on a very dry site, or a species with low tolerance is planted on a moderately dry site, supplemental irrigation should be provided.

Some large trees that are drought tolerant include live oak, Shumard oak, baldcypress (even though it grows naturally in wet areas!), green ash, longleaf pine, slash pine, and the hickories. Examples of medium-sized trees that are drought tolerant include Chinese elm, goldenraintree, Chinese pistache, Japanese black pine, American holly, sassafras, honeylocust, and cabbage palmetto. Small trees that can withstand drought conditions include chastetree, crapemyrtle, ‘Little Gem’ magnolia, yaupon holly, and the redbud cultivars ‘Forest Pansy’, ‘Oklahoma’, and ‘Texas White’. These small trees are good candidates along streets with overhead power lines.

3.3.3 Light Requirements

The general light requirements of a species, also known as shade tolerance, are included in Table 3.2 in the LR column. As forest communities mature from a pioneer to a climax forest, they go through a series of successional stages. Early successional stages usually include species that can tolerant and thrive in very sunny locations. Late successional stages include trees

that can grow and regenerate beneath a thick canopy of trees in the deep shade.

The light requirements included in the list are:

Full Sun (FS) - prefers a site in full sun; these species generally belong to early forest successional stages of plant communities; they frequently inhabit sunny locations such as openings in the forest canopy; examples include the pines, hickories, and oaks;

Part Sun (PS) - grows in either part sun or full sun; prefers afternoon shade; these trees generally belong to early or middle forest successional stages; they include dogwood, fringetree, Southern magnolia, redbuds, and redcedars;

Semi-Shade (SS) - prefers a partially shaded location; often these species are found growing along stream banks and in deep woods, and include serviceberry, river birch, American hornbeam and American hophornbeam.

3.3.4 Construction Tolerance

The ability for a tree to withstand construction activities and the resulting damage, such as trunk and limb wounds, severed roots, soil compaction, grading, and soil backfill, is important information especially during tree preservation planning. Ratings for species tolerance to construction impacts included in Table 3.2 were adapted from Nelda Matheny and James R. Clark's 1998 publication, Trees and Development, Appendix B, "Relative Tolerance of Selected Species to Development Impacts", pp. 165-179. The ratings are listed in the CT column in Table 3.2 as having poor (P), moderate (M), good (G), or unknown (U) construction tolerance.

Tree protection should be planned, budgeted, implemented and installed by a qualified person, then monitored and enforced. Once it occurs, tree damage never "heals"; its effect is permanent. Including information in this Plan on construction tolerance does not indicate that disregard for tree protection is condoned when a species has good construction tolerance. All species preserved should be aggressively protected so that their crown, trunk, and root systems remain undisturbed and undamaged.

For maintained sites and open-grown trees, root systems should be protected to a minimum distance of the dripline, or crown radius. For forested situations, the distance protected should be doubled, as much as 2 times the dripline, as the crown of trees growing in wooded areas or groups tends to be narrower than open-grown trees, and the root system extends as far or farther. One and one-half foot of protected distance for each inch of trunk diameter at breast height (4.5 feet above the ground) is also a good guideline.

The area of protection should be established early and before any soil disturbance or construction begins. Sturdy fencing should be used—orange polyethylene mesh fencing erected on 2” x 4” wooden posts, or even more

desirable, temporary chain link fencing. Signs should be placed on the fencing identifying the area within as a “tree protection zone”.

Of the tree species recommended for planting, the most construction impact tolerant species are the hickories, oaks, elms, baldcypress, redcedar, slash pine, hollies, sassafras, and waxmyrtle. Maples show moderate tolerance, except for Southern sugar maple, which has a poor or low tolerance. Flowering dogwood and yellow poplar also have a low tolerance to construction damage.

Of the tree species recommended trees for preservation, the most construction impact tolerant trees again include the oaks, although post, sand post, scarlet, turkey, and white oaks can be sensitive; bluejack and blackjack oaks are tolerant, and water oaks are moderately tolerant. Other construction impact tolerant native trees include pondcypress, redbay, persimmon, and Southern catalpa. Hazel alder is also tolerant and is able to fix nitrogen in the soil, thereby improving soil conditions. Like the oaks, sweetgum can be sensitive to construction damage, as are black walnut and black cherry.

3.3.5 Wildlife Value

To enhance wildlife values within Myrtle Beach's urban forest, species meeting the following characteristics are recommended:

a. diverse;

b. native;

c. belong to a variety of successional stages.

To enhance wildlife, especially neo-tropical migrant bird species, the community should plant and maintain abundant native trees, shrubs, and herbaceous vegetation, as well as those that belong to all successional stages of forest development. This includes trees that prefer full sun (pines) as well as those requiring shade. It is also important to plant trees of varying sizes, small-, medium-, and large-sized trees, and trees that typically exist as understory trees as well as canopy trees to enhance wildlife habitat.

The neo-tropical migrant bird species that have been visiting the area for thousands of years are dependent on the vegetation that was present here long before man's development. Try to duplicate the wild communities in the area. Within these communities the vegetation and particularly the insect populations are present that these birds depend on. A "random explosion of native vegetation" is often all that is necessary to provide for these needs.

It is important to preserve natural groupings of native trees, in lieu of isolated individual trees because their potential for survival is greater, as is their wildlife value. Pines in particular are susceptible to windthrow when preserved singularly.

Trees particularly good for wildlife food and habitat are identified in Table 3.2 in the WL column with an "X". These trees fall into one of several categories.

Some, such as chastetree, crapemyrtle, fringetree, red buckeye, the redbuds, serviceberry, and the magnolias produce flowers and nectar for birds, bees, and other pollen-feeding insects. Their advantage is that they are also very showy.

Some trees produce fruit or nuts that are eaten by a variety of birds and mammals. Those recommended include baldcypress, blackgum, flowering dogwood, the hollies (beautiful red berries in the fall), redbuds, redcedars, hickories, oaks, and pines. Acorns and pine seeds (cones) are a particularly important source of food for squirrels and other mammals. Many of these trees also provide excellent nesting habitat and shelter for wildlife.

3.3.6 Canopy, Shade, and Ocean Views

Wherever possible, where adequate above- and below-ground space permits, large maturing trees should be planted to maintain canopy cover across the City. Maintaining canopy cover provides the community with many benefits, not the least of which is reduced summer temperatures and energy costs. Any tree planted to produce shade can be considered a "canopy" tree, but this term most often refers to large maturing trees (trees greater than 50 feet in height at maturity) with wide, spreading crowns. Trees with potential for becoming canopy trees, producing shade, or creating corridor views are identified in Table 3.2 with an "X" in the CS column.

Both the Plan author and City Planners evaluated east-west avenues for view potential. The City evaluated other characteristics of community appearance and recorded more in-depth information on the view potential during their survey. The author included an additional 24 streets with views to the ocean. Streets with unobstructed views of the ocean are identified in the table of Forest Theme Coverage by Street, located in Appendix A, in the column titled "View". View streets are also shown on Theme Location Maps 1 through 16 located at the end of Section 4.

Canopy trees should be utilized to "frame" east-facing ocean views. To frame or enhance these views, the following strategy is recommended:

a. plant species with large, spreading canopies such as live oak, Southern red oak, willow oak, and Southern magnolia;

b. plant rows of other species to create corridors views, such as cabbage palmetto, Southern and Eastern redcedar, the pines, and baldcypress;

c. plant both sides of the street with the same or similar species;

d. encourage homeowners to plant on their side of the front property line, at approximately the same distance from the street in each yard.

Many of the streets with views are already appropriately planted and the framed view is present. In other cases, there may be a corridor view to the ocean, but additions could be made to the existing trees to enhance the view. And in some places, the view to the ocean is obstructed by dense vegetation

(in the northern sections of Ocean Boulevard) or by buildings (in the southern sections of Ocean Boulevard).

3.3.7 Street Trees

The trees suitable for planting along public street rights-of-way must be relatively low maintenance and not possess any characteristics that would create anything other than a safe environment for pedestrians and/or vehicles. This includes being able to reasonably maintain the tree to provide pedestrian and traffic sight clearance. Most evergreen trees and small, multi-stemmed shrubs will cause a reduction in sight clearance.

Street trees must also be planted where there will be adequate growing space for the mature size of the tree and where they will not interfere with overhead power distribution or transmission lines (now or in 50 years!). Street trees should be chosen that do not require frequent pruning or that have messy or hazardous fruiting habits or litter problems, especially if sidewalks are present.

Areas with sidewalks and pedestrian corridors will be enhanced through the following actions:

a. plant "tree form" trees only, and not multi-stemmed, thick or spreading trees or shrubs;

b. plant larger-sized planting stock with the crown raised to at least 5-6 feet;

c. do not plant trees that produce potentially hazardous seeds or nuts, such as acorns, sweetgum balls, pine cones, etc.;

d. prune trees regularly and early once planted.

Refer to Table 3.2 for trees suitable for street tree plantings if site conditions are good and adequate space is available in the right-of-way. They are identified with an "X" in the SR column.

3.3.8 Screen

The ability for trees to provide a screen, or buffer, against noise and visual pollution, is a more subtle, but still important, characteristic of recommended trees. Trees with evergreen leaves, thick leaves, a shrubby habit with multi-stemmed trunk, or thick foliage such as Southern redcedar, baldcypress, Leyland cypress, the hollies, Southern magnolia, Southern waxmyrtle, purpleleaf plum, and loblolly and slash pines are all excellent choices for developing a screen. Trees with screening potential are identified with an "X" in Table 3.2 in the SC column.

3.3.9 Urban Conditions, Parking Lots, and Tree Wells.

Trees growing in cities must often withstand some very harsh urban conditions that include air pollution, soil pollution, poor drainage, compacted soils, and drought. Drought tolerant species generally do very well in parking

lot islands and tree wells.

Within parking lots and associated tree islands:

a. plant species that tolerate drought conditions and reflected heat;

b. plant species with spreading crowns to provide shade;

c. provide irrigation;

d. do not plant species with heavy seed crops or potentially hazardous seeds or nuts (acorns from oaks, sweetgum “balls”, etc.);

e. raise tree crowns to avoid hazardous limbs for people and vehicles.

Trees that can withstand urban conditions are identified with an "X" in Table 3.2 in the UR column. They are much the same as trees that are drought tolerant (DT), thereby suitable for conditions in parking lots and tree wells. Trees that do well in parking lots are identified with an "X" in the PL column of Table 3.2. Trees suitable for planting in tree wells are identified with an "X" in the column labeled TW. Tree wells should be irrigated (unless drainage is a problem) to alleviate some of the effects of the harsh conditions found in most downtown areas where tree wells are common. These conditions include reflected heat, lack of moisture, lack of drainage, and pollution.

Several recommended species are excellent choices for urban conditions, parking lots, and tree wells (tree well size must be adequate to meet space needs of species). These include crapemyrtle, Chinese elm, Goldenraintree, American holly, yaupon holly, honeylocust, Shumard oak, Chinese pistache, the redbud cultivars ‘Forest Pansy’, ‘Oklahoma’, and ‘Texas White’, Eastern and Southern redcedar, sabal palmetto, and Southern waxmyrtle.

Native and exotic species suitable for urban conditions and parking lot islands, but not tree wells, include baldcypress, chastetree, trident maple, and Japanese black pine.

3.3.10 Planting Beneath Utility Lines

Planting trees beneath utility lines, especially power distribution or transmission lines, should only be done if there is adequate growing space and only a small-maturing variety, less than 20-25 feet in height, is planted.

Small trees on the list of recommended species can be planted beneath power lines if other site conditions permit. Medium trees should be planted no closer than 20 feet laterally to lines. Large trees should be planted no closer than 30 feet laterally to lines. Trees that are suitable for planting beneath power lines are identified in Table 3.2 with an "X" in the UT column. They include the redbud cultivars, small varieties of crapemyrtle, chastetree, Kousa dogwood, small hollies such as yaupon and Foster, Little Gem magnolia, purpleleaf plum, and waxmyrtle.

Flowering dogwood, Eastern redbud, and trident maple should not be planted beneath power distribution or transmission lines as they will eventually require

crown reduction pruning to maintain power line clearance.

3.3.11 Specimen Trees, Flowers, and Fall Color

Trees with the potential to become specimen trees and trees with showy flowers or outstanding fall color are identified in Table 3.2 with an "X" in the SP, FL, and FC columns, respectively.

The term "specimen" is somewhat arbitrary, but in this Plan means trees that have the potential for an unusual, attractive, or unique characteristic making them a higher value tree. These trees may have showy flowers, brilliant fall color, be of a very large size, or an unusual or rare species, have an interesting form, attractive bark, or unusual leaf texture. A specimen tree may be a massive, spreading live oak, or a small redbud with a graceful form and abundant pink flowers in the spring.

Trees with unusual or showy flowers include the magnolias, the dogwoods, chastetree, witchhazel, the redbuds, fringetree, purpleleaf plum, and downy serviceberry. Chastetree produces large, abundant blue flower spikes in early summer and often again in early fall. Witchhazel blooms in the fall, isolated in season from other flowering trees. Also included in this category are trees with showy berries, such as the hollies (only females produce the red berries), Southern redcedars (females produce blue berries), and waxmyrtle (blue berries).

Trees that have spectacular red and orange fall color include the maples, blackgum, Chinese pistache, crapemyrtle, and flowering dogwood. Trees with yellow fall color include the redbuds and some maples. Trident maple can have brilliant red fall color, or may turn a uniform yellow.

Turkey oak, although not a tree recommended for planting, provides a major contribution to the landscape in the fall when it turns brilliant shades of orange. Sassafras has exceptional fall color, and turns a brilliant salmon-orange. It has great potential in the Myrtle Beach landscape. Sassafras is commonly found growing in multi-stemmed clumps along fences and roadsides. It is difficult to establish, but very drought tolerant.

Southern red oak, Shumard oak, willow oak, and swamp chestnut oak turn colors variably in the fall, but can have very good color.

3.3.12 Excessive Litter Producing Trees

Trees with the potential to produce excessive amounts of litter or debris are identified in Table 3.2 in the EL column with an "X". These trees should not be planted in areas with heavy pedestrian traffic or near sewers or drains. Oaks produce heavy acorn crops every 3-5 years, which can be a hazard, especially in areas of frequent pedestrian traffic. The magnolias and sycamore produce large leaves that litter the ground in the fall and early spring. Sabal palmetto also produces litter in the form of seed and dead leaves (fronds). While the pines have substantial needle drop at times that

can accumulate, and pinecones can be abundant, they have not been characterized as having excessive litter. Pine straw and cones should be raked into mulch beds around the trees, with several pines included in a single mulch bed.

3.4 Tree Species Recommended for Preservation

Species recommended for preservation in Myrtle Beach are listed in Table 3.3, Tree Species Recommended for Preservation on the following pages. Species characteristics included in the table are mature tree size (Size) and construction tolerance (CT).

This list should be used during development site planning and in the site plan approval process. The native species on this list are important components of the natural ecosystem and urban forest. They have not been recommended for planting because of one or more of the following reasons:

a. are generally unavailable at nurseries;

b. do not occur in abundance in the native landscape;

c. have some specific problem that makes them unsuitable for planting.

The problems a species may have might be difficulty in establishment, insect and disease susceptibility, brittle wood, or messy fruiting habit. Examples include: sweetgum which has a messy fruiting habit and brittle wood, but excellent fall color; and white oak, which is difficult to establish, was not evident in the native landscape, but is an excellent long-lived canopy tree where it has been established. It would be best to preserve these trees in undisturbed, natural groupings to insure tree health and longevity. Isolated trees that are preserved are much more susceptible to windthrow than trees preserved in groups.

Several species that are found currently growing within Myrtle Beach have not been included on either list because of a specific problem, or their inclusion was considered unnecessary (i.e., enough other species are available to meet the City's need). Loquat is one example of this. While it is an attractive species and very salt tolerant, it is also very susceptible to fire blight and is a host for the Caribbean fruit fly. Pindo palm is another example. While it is planted relatively extensively in both transient accommodation areas and residential areas, the native palmetto is a more suitable species and should be promoted over non-native palms.

Table 3.3 Tree Species Recommended for Preservation

Species Common Name	Latin Name	Size	CT
Alder, Hazel	Alnus serrulata	S	G
Ash, White	Fraxinus americana	L	MG
Blackhaw, Rusty	Viburnum rufidulum	S	G
Catalpa, Southern	Catalpa bignonioides	M	G
Cherry, Black	Prunus serotina	L	PM
Cherry, Carolina Laurel	Prunus caroliniana	M	G
Cottonwood, Eastern	Populus deltoides	L	MG
Dogwood, Alternate-Leaf	Cornus alnifolia	S	M
Hickory, Sand	Carya pallida	L	M
Holly, Winterberry	Ilex verticillata	S	G
Oak, Blackjack	Quercus marilandica	M	G
Oak, Bluejack	Quercus incana	M	G
Oak, Post	Quercus michauxii	L	PG
Oak, Sand Post	Quercus margaretta	S	PG
Oak, Scarlet	Quercus coccinea	L	PMG
Oak, Turkey	Quercus laevis	M	PMG
Oak, Water	Quercus nigra	L	G
Oak, White	Quercus alba	L	PMG
Persimmon, Common	Diospyros virginiana	L	G
Pine, Pond	Pinus serotina	L	G
Pine, Spruce	Pinus glabra	M	G
Plum, Chickasaw	Prunus angustifolia	S	M
Pondcypress	Taxodium ascendens	L	G
Redbay	Persea borbonia	M	G
Sparkleberry, Tree	Vaccinium arboreum	S	M
Sumac, Winged	Rhus copallina	S	M
Sweetgum	Liquidambar styraciflua	L	PG
Walnut, Black	Juglans nigra	L	PM
Willow Variety	Salix spp.	M	MG

3.5 Species Selection

3.5.1 Species Selection at Time of Planting

More than a few of the tree species recommended for planting are generally unavailable as nursery stock. This limits the choice of species available for planting at a given time (especially when also limited by the particular forest theme of the area). To insure availability in the long-term, the City could consider developing a native tree nursery so that some of these hard to find species would be available for planting on a regular basis. Another option would be to contract the growing of these trees with an established wholesale tree nursery or greenhouse.

The following factors should be considered when selecting trees for specific planting sites:

a. micro-site, including soils, moisture, sun, and pollutants;

b. growing space;

c. utilities;

d. species availability;

e. cost;

f. pedestrian clearance;

g. traffic clearance.

Additional Tree Establishment Guidelines are included in Section 6.3.

3.5.2 Species Selection Prior to Construction

The species selected for planting at time of construction should match the native species in the area, as well as within the theme. The individual trees selected for preservation during construction should be good quality native tree species that are in good health and condition. They should be tolerant of soil disturbance, especially if they are not adequately protected.

The following best management practices are recommended for preservation of trees on construction sites:

a. preserve trees in groups rather than in isolation;

b. do not preserve trees in poor health or advanced decline;

c. install tree protection fencing to the dripline if open grown; otherwise, protect trees in an area out from the trunk with a radius equivalent to 1.5 times the trunk diameter measured at 4.5 feet above the ground;

d. mulch trees within the protection zone.

Additional Tree Preservation Guidelines are included in Section 6.4.

4 OVERVIEW OF THE FOREST THEMES

4.1 Introduction

Forest themes are groups of tree species recommended for planting in Myrtle Beach that meet specific site conditions and needs for a particular area within the City. A total of 33 forest themes have been developed using the 66 tree species recommended for planting. The Forest Themes are:

A	**Maritime Evergreen Forest**	**R**	**Garden Forest**
B	**Oak Forest**	**S**	**Business Forest**
C	**Magnolia Forest**	**T**	**Village Forest**
D	**Palmetto Forest**	**U**	**Urban Forest**
E	**Holly Forest**	**V**	**Parkway Forest**
F	**Elm Forest**	**W**	**Flatwoods Forest**
G	**Southern Forest**	**X**	**Swamp Forest**
H	**Maple Forest**	**Y**	**Native Forest**
I	**Cypress Forest**	**Z**	**Pine Forest**
J	**River Birch Forest**	**AA**	**Community Forest**
K	**Redbud Forest**	**BB**	**Commercial Forest**
L	**Chestnut Forest**	**CC**	**Industrial Forest**
M	**Dogwood Forest**	**DD**	**Planned Forest**
N	**Blackgum Forest**	**EE**	**Recreation Forest**
O	**Red Oak Forest**	**FF**	**Residential Forest**
P	**Yaupon Forest**	**GG**	**Resort Forest**
Q	**Redcedar Forest**		

The forest themes were located across the City using information on native soils, zoning districts and land use, existing native and exotic species, and special needs and site conditions. The number of species included in the forest themes varies from 10 to 47. While some themes have a large number of species included in them, in reality the available species for planting in those themes is probably much lower. However, all appropriate species are included, even if they are currently unavailable as nursery stock because species diversity is very important and more options rather than less seems appropriate.

4.2 Forest Theme Locations

An overview of the coverage of all forest themes is illustrated on Myrtle Beach Planting Themes General Location Map included at the end of this section. Detailed Theme Location Maps are also included at the end of this section and provide detailed information on the location of individual themes.

The themes are identified on the Theme Location Maps 1 through 16 by color. Both the themes' alphabetical codes and theme names are used interchangeably throughout the remainder of this Plan.

A table listing all streets within Myrtle Beach and the forest themes in which they occur, either wholly or in part, is included as Appendix A.

4.3 Forest Theme Composition

The composition of each theme is summarized in Table 4.1 Forest Theme Composition on the following pages. This table lists the tree species recommended for planting in Myrtle Beach and the themes in which each has been included.

Within the 33 forest themes, a total of 916 species recommendations were made. Of these recommendations, 163 are for exotic species, while 753 are for native species. The recommendations to include exotic species accounted for 18% of the total.

The species most commonly included in the themes are:

a. live oak (25 themes)

b. loblolly pine (25 themes)

c. Little Gem magnolia (24 themes)

d. American holly (23 themes)

e. red maple (23 themes)

f. Southern redcedar (23 themes)

g. baldcypress (21 themes)

h. yaupon holly (21 themes)

i. Southern magnolia (21 themes)

j. slash pine (21 themes)

k. Southern waxmyrtle (21 themes)

l. chastetree (20 themes)

Table 4.1 Forest Theme Composition

	Maritime Evergreen Forest	Oak Forest	Magnolia Forest	Palmetto Forest	Holly Forest	Elm Forest	Southern Forest	Maple Forest	Baldcypress Forest	River Birch Forest	Redbud Forest	Chestnut Oak Forest	Dogwood Forest	Blackgum Forest	Red Oak Forest	Yaupon Forest	Redcedar Forest	Garden Forest	Business Forest	Village Forest	Urban Forest	Parkway Forest	Flatwoods Forest	Swamp Forest	Native Forest	Pine Forest	Community Forest	Commercial Forest	Industrial Forest	Planned Foresst	Recreation Forest	Residental Forest	Resort Forest
Species Common Name	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**S**	**T**	**U**	**V**	**W**	**X**	**Y**	**Z**	**AA**	**BB**	**CC**	**DD**	**EE**	**FF**	**GG**
Ash, Green							X	X		X					X		X			X	X	X	X	X		X	X		X			X	X
Baccharis, Eastern	X							X		X						X							X			X							X
Baldcypress				X			X	X	X	X					X	X	X	X		X	X	X	X	X	X	X	X		X		X	X	X
Birch, River		X						X	X	X		X			X		X	X		X			X	X		X			X		X	X	X
Blackgum		X			X		X	X	X					X	X		X					X	X	X	X	X	X			X		X	
Buckeye, Bottlebrush								X	X	X				X	X											X							X
Buckeye, Red				X										X						X		X	X			X				X		X	X
Buttonbush, Common								X	X	X		X			X		X							X		X							X
Cabbage Palmetto	X		X	X					X	X	X					X				X	X	X		X	X	X	X	X			X	X	X
Chastetree	X					X			X	X		X				X		X	X	X	X	X		X	X		X	X	X	X	X	X	X
Crapemyrtle		X		X		X			X	X	X					X	X	X	X	X			X		X			X			X	X	X
Cypress, Leyland			X		X	X										X	X		X				X					X	X				
Cyrilla, Swamp		X						X	X	X				X	X									X		X				X			
Devilwood						X	X	X		X			X					X	X				X			X	X						
Dogwood, Flowering							X	X				X	X	X	X					X	X		X			X				X		X	
Dogwood, Kousa		X									X	X						X					X					X	X				
Dogwood, Swamp								X	X	X			X		X		X				X		X	X		X	X		X	X		X	
Elm, Chinese	X	X	X		X	X				X	X				X	X	X		X	X			X				X	X	X		X		
Elm, Winged			X	X	X	X							X						X	X			X			X						X	X	
Fringetree							X	X				X	X	X							X	X	X		X	X				X		X	X
Gallberry							X			X		X		X	X						X		X	X	X	X	X			X		X	X
Goldenraintree		X		X					X		X		X			X		X	X	X				X	X		X	X	X		X	X	X
Hickory, Mockernut						X						X						X	X			X				X						X	
Hickory, Pignut						X		X				X			X			X	X	X		X				X						X	
Holly, American		X		X	X	X	X		X	X		X		X		X	X	X	X	X	X	X	X	X	X	X			X	X		X	
Holly, Dahoon				X	X		X										X	X				X	X	X		X	X			X		X	
Holly, Foster		X					X		X		X									X			X		X			X	X		X		X
Holly, Yaupon	X	X	X		X	X				X				X		X	X	X	X	X			X			X	X	X	X	X	X	X	X
Honeylocust, Thornless						X			X	X	X		X									X					X		X				
Hophornbeam, American				X			X	X						X	X	X						X				X							
Hornbeam, American										X					X		X	X								X							
Loblolly-Bay							X	X						X						X		X	X	X		X	X			X		X	X
Magnolia, Little Gem		X	X	X	X	X	X		X		X		X	X			X	X	X	X	X	X	X		X			X	X	X	X	X	X

	Maritime Evergreen Forest	Oak Forest	Magnolia Forest	Palmetto Forest	Holly Forest	Elm Forest	Southern Forest	Maple Forest	Baldcypress Forest	River Birch Forest	Redbud Forest	Chestnut Oak Forest	Dogwood Forest	Blackgum Forest	Red Oak Forest	Yaupon Forest	Redcedar Forest	Garden Forest	Business Forest	Village Forest	Urban Forest	Parkway Forest	Flatwoods Forest	Swamp Forest	Native Forest	Pine Forest	Community Forest	Commercial Forest	Industrial Forest	Planned Foresst	Recreation Forest	Residental Forest	Resort Forest
Species Common Name	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**N**	**O**	**P**	**Q**	**R**	**S**	**T**	**U**	**V**	**W**	**X**	**Y**	**Z**	**AA**	**BB**	**CC**	**DD**	**EE**	**FF**	**GG**
Magnolia, Southern		X	X	X		X	X		X		X		X	X			X	X		X	X		X		X	X			X	X	X	X	X
Magnolia, Sweetbay					X							X		X	X		X			X		X	X	X	X	X				X		X	X
Maple, Red		X			X		X	X	X			X	X	X	X			X		X	X	X	X	X	X	X	X		X	X	X	X	X
Maple, Southern Sugar		X						X	X	X		X	X	X	X			X	X	X		X				X		X	X			X	
Maple, Trident						X				X					X	X		X	X								X	X			X		
Oak, Cherrybark							X	X				X		X							X			X	X	X	X		X	X	X	X	X
Oak, Darlington		X			X	X							X		X					X					X	X	X	X	X	X	X		X
Oak, Laurel		X			X		X						X		X			X				X		X		X	X	X		X			X
Oak, Live	X	X	X	X	X	X	X		X		X		X	X	X	X	X	X		X	X		X			X	X	X	X	X	X		X
Oak, Overcup										X					X		X							X	X	X							
Oak, Shumard								X	X	X						X			X	X								X	X			X	X
Oak, Southern Red						X	X			X		X	X		X	X			X		X	X		X	X	X	X		X	X		X	
Oak, Swamp Chestnut							X	X				X										X	X	X	X	X			X	X	X	X	
Oak, Willow								X	X	X	X			X		X		X		X			X			X		X	X	X	X	X	
Pine, Japanese Black	X		X		X	X										X			X									X					X
Pine, Loblolly		X		X	X		X	X		X	X	X	X	X	X			X		X	X	X	X		X	X	X	X	X	X	X	X	X
Pine, Longleaf	X		X			X					X					X	X		X			X				X	X			X			
Pine, Slash							X	X	X	X		X		X	X			X		X	X	X	X	X	X	X		X	X	X	X	X	X
Pistache, Chinese		X				X					X				X	X		X	X	X	X		X		X			X	X		X	X	
Plum, Purpleleaf							X					X		X				X		X	X	X					X		X			X	
Poplar, Yellow										X		X		X	X						X			X		X			X			X	
Redbud, Eastern		X							X			X			X			X		X	X	X		X	X	X	X			X		X	
Redbud, Forest Pansy		X		X		X					X		X			X	X	X		X	X	X		X	X		X			X		X	X
Redbud, Oklahoma		X		X		X					X					X	X	X	X		X				X			X			X		X
Redbud, Texas White		X		X		X					X					X	X	X	X				X		X			X			X		X
Redcedar, Eastern			X			X		X				X	X	X		X	X		X		X		X		X	X	X	X			X	X	X
Redcedar, Southern	X	X	X	X	X	X		X				X	X	X		X	X	X	X		X		X		X	X	X	X			X	X	X
Sassafras					X	X	X				X			X							X					X				X		X	
Serviceberry, Downy								X	X	X		X	X									X	X	X		X				X		X	X
Sycamore		X	X	X			X	X		X		X	X	X			X			X				X	X	X	X		X			X	
Tupelo, Water								X	X					X			X							X	X	X				X		X	X
Waxmyrtle, Southern	X	X	X	X	X	X			X	X	X					X	X	X	X				X		X	X	X	X			X	X	X
Witchhazel, Common			X		X	X	X	X		X			X					X			X	X					X					X	

4.4 Forest Theme Development

Table 4.2 below describes the primary and secondary requirements, and other desirable characteristics, used in developing the forest themes. Of utmost importance in including a species in a theme was it's ability to thrive in the conditions provided by the soils (including texture, composition, and moisture) in the theme area.

Existing infrastructure in the theme area along the public street rights-of-way did not limit the inclusion of a species in a particular theme. Because the location and type of hardscape and infrastructure may change over time, a variety of species are included within a theme to provide a suitable match for most types of infrastructure conditions.

The secondary requirements used to select potential species to be included in a theme are the species' salt and drought tolerances, appropriate match with existing vegetation, canopy position (size), successional stage and wildlife value, and other features that enhance the urban forest in a particular area. Other desirable characteristics further defined the species included in the theme.

One of the secondary requirements considered was the enhancement of the character of the community by highlighting a particular species or combination of species. In several themes one, two or three species are specifically recommended because they will further enhance the distinctive character already provided in that community by an abundance of a particular species of specimen quality, unique character, or mature size. Dogwoods included in Theme M are a good example of this (see Theme M description).

In other themes, the forest theme composition in terms of form, color, and leaf type is almost accidental. However, even in these cases, the native species included should naturally provide an aesthetically pleasing look. The citizens in each area, or in neighborhood groups, could be invited to assist the City in defining which tree species they would like to emphasize in their area. This would provide them with an opportunity for involvement and increased appreciation of urban trees.

The existing species were considered in determining theme composition, especially if they would normally have occurred in the area and are appropriate for the site conditions.

Table 4.2 Requirements and Characteristics Guiding Development of Themes

Primary Requirements	**Secondary Requirements**	**Desirable Characteristics**
Native to Local Area (soils, moisture, climate, etc.)	Canopy Position (a range of small, medium, or large maturing varieties)	Form (for creating views, for limited spaces, etc.)
Pest/Disease Resistant	Tolerances - Salt, Drought, Shade, Construction, Urban Conditions (for specific locations such as the beach front, parking areas, developments, high traffic areas, etc.)	Texture (both evergreen and deciduous, large and small leaved)
No High Maintenance Needs	Successional Stage (a range of stages, related to Shade Tolerance)	Color (flower color as well as seasonal color)
Compatible w/Ordinances	Match Existing Vegetation (both natural and planted, as appropriate)	Other Attractive Features (trunk shape or texture, growth habit, showy seed pods, etc.)
Species Diversity	Wildlife Value (food and habitat, especially for neo-tropical migrant bird species)	Match Existing Vegetation (both natural and planted, as appropriate)
Proven Exotic Species for Specific Site Conditions	Other Special Features (such as canopy potential for E-W street with views to ocean, species that enhance established neighborhood character, etc.)	

All of the species included within a theme have similar moisture requirements within a moderately small range. Species that require a lot of available water have not been included with species that require little available water. Baldcypress, crapemyrtle, and several species are very adaptable to a wide range of soils. These are included with species that seemingly have very different requirements, but because of their adaptability should grow well together in the same area. All of the species included with a theme can be planted in the same conditions and should perform equally well if growing space is abundant and other conditions are favorable.

While all species included within a theme should have similar moisture requirements, they do not need to have similar light requirements. Species have developed to thrive in a certain amount of light that varies from full sunlight, found in open areas or at the top of the tree canopy, to full shade, found beneath dense canopies. Available light can vary in an urban planting, especially in a group of trees, and for this reason a combination of both shade tolerant and intolerant species are included in each of the themes. This benefits wildlife, as they require trees of all successional stages for food and habitat. Successional stage is related to shade tolerance.

The inventory of the trees currently growing along the rights-of-way can help in determining the current percentage of each species included in the public component of the urban forest. However, the public urban forest is only a

small percentage of the total urban forest. To limit the planting of additional trees of a particular species, the percentage of that species of all trees growing on private property as well as those on public property would have to be taken into account. More information on species diversity follows.

4.5 Species Diversity

The Community Tree Planting Plan for Myrtle Beach promotes species diversity because it includes a wide range of species for a variety of conditions throughout the City. The application of the forest themes will also promote spatial diversity by encouraging the planting of a sizable variety of species common to many themes located across the City. In addition to species and spatial diversity, age diversity is important, i.e. the planting of trees on a regular basis over time so that trees of all ages (and sizes) are present on a site, within a neighborhood, and in the community. Species, spatial, age, and size diversity all increase a site's wildlife value and promote forest stability.

When making planting decisions, include as many species as possible in your plans. *As a general rule, plant no more than 10% of any one species at any one time, and limit the total number of trees of any one species on a site to no more than 10% of the total number of trees.* This rule is appropriate for all segments of the community, including the City, developers and builders, planners, engineers, landscape architects, landscape contractors, neighborhood groups, and individual residents*. No more than 10% of the community trees, public, private, or combined, should be composed of any one species.*

Another useful guideline in promoting species diversity is to first limit the percentage of any one genus of tree (maples, elms, oaks, etc.) to less than 30% of the total. Then limit the percentage of any one species (red maple, laurel oak, willow oak, etc.) to less than 30% of the genus. And finally, limit the percentage of any one cultivar to less than 30% of the species.

For example, if planting maples, limit the planting of maples to 30% or less of the total trees on a site. Then limit the planting of red maple to 30% or less of the maple plantings. And finally limit the planting of the cultivar "Red Sunset" red maple to 30% or less of the total red maple trees planted.

To promote age diversity, plant trees on a regular basis instead of planting all of your trees at one time. The latter will result in a situation in which all trees on a site mature at one time, requiring removal and replacement at about the same time. Planting regularly will encourage a stable and predictable tree planting and maintenance budget.

Size diversity is also important for enhancing wildlife values. Age diversity is somewhat related to age diversity, but also comes from trees that occupy different levels of the canopy that will provide a variety of habitats for small animals. Include small, understory species as well as intermediate and large overstory species. The addition of native shrubs and herbaceous vegetation

will further enhance the quality of the landscape.

4.6 Theme Boundaries

The theme boundaries were in most cases chosen to coincide with a land use boundary (as defined on the City's official Zoning Map), or a street centerline. In a few cases, lot lines are used.

In defining the specific boundaries of the themes, several factors were taken into account. While the primary considerations in determining the coverage of a theme were the natural soil type and associated natural vegetation, the coverage was then more exactly defined by existing zoning and land use boundaries. In most cases, a theme includes only one broad land use type, such as residential, transient accommodations, or commercial areas. However, transient accommodation areas are sometimes included with commercial areas. And in at least one case, transient accommodation areas are included with residential areas.

The streets used for theme boundaries are generally split down the middle; that is to say, one side of the street was included in one theme, while the other side was included in the adjacent theme. This is designed to help tie neighborhoods and different land uses together, and to provide a smooth transition between themes. In all cases, adjacent themes have several common species. In planting a street, transportation corridor, or other property that is also a boundary, species may be selected from one or the other theme, or from both.

To further encourage a smooth transition of the landscape between adjacent themes, species common to both areas should be planted in the "fringe" or edge areas of a forest theme location. In addition, some flexibility should be exercised in fringe areas of one theme to allow using species from an adjacent theme area that are not included in the first theme area. This will also help to create a smooth transition of the landscape between themes and land use areas.

4.7 Park Plantings

The parks located within a particular theme could be planted over time with many of the available varieties included within the theme. In essence a network of arboretums would be created that showcase the tree species recommended for planting in the forest theme. The species currently growing within the parks were considered in defining the species to be included in a theme, so there are already a number of theme species planted within the parks. In at least one case, a specific park theme was developed for a specific park, but this was not common.

4.8 Theme Location Maps

Following are seventeen (17) theme location maps, including one (1) general

location map and sixteen (16) detailed theme location maps.

Complete descriptions of each forest theme are presented in Section 5.

5 FOREST THEME DESCRIPTIONS

5.1 Introduction

The 33 forest themes that form the basis of this Community Tree Planting Plan are described in detail in this section. As you read through these descriptions, you may want to refer to Table 3.1 Tree Species Recommended for Planting, Table 3.2 Tree Species Characteristics, and Table 3.3 Tree Species Recommended for Preservation, all located in Section 3. You may as well want to refer to the Theme Location Maps and Table 4.1 Forest Theme Composition located in Section 4, and the table of Forest Theme Coverage by Street located in Appendix A. For detailed information on tree species, refer to the Supplement to the Plan.

5.2 Content of the Forest Theme Descriptions

In each forest theme description you will find information on:

a. theme coverage: general location, land use, and major streets included;

b. site conditions and special area needs: soil description, site conditions, special needs;

c. theme composition: total number of species, number of native species and the number of exotic species;

d. table of species composition.

The forest theme descriptions for Themes A through GG follow.

5.3 Theme A: Maritime Evergreen Forest

5.3.1 Theme Coverage

The Maritime Evergreen Forest theme covers the majority of the Ocean Boulevard corridor and the beach access areas from the southwestern to northeastern city limits. It includes portions of South Beach, Downtown, Center Beach, Oak Park, and Ocean Forest neighborhoods. The theme includes residential areas, both single- and multi-family, transient accommodations, and commercial areas.

Major streets included in this theme, either wholly or in part, are:

- ❒ Beach Drive
- ❒ Burchap Drive
- ❒ Cassandra Lane
- ❒ Hampton Circle
- ❒ Haskell Circle
- ❒ Ocean Boulevard North
- ❒ Ocean Boulevard South
- ❒ Porcher Drive
- ❒ Withers Alley
- ❒ Withers Drive
- ❒ Yaupon Drive
- ❒ 1st Avenue North through 30th Avenue North
- ❒ 34th Avenue North
- ❒ 37th Avenue North through 52nd Avenue North
- ❒ 64th Avenue North through 82nd Parkway
- ❒ 1st Avenue South
- ❒ 2nd Avenue South
- ❒ 4th Avenue South
- ❒ 6th Avenue South through 29th Avenue South

This theme is identified on Forest Theme Location Maps 4, 5, 10, 11, 12, and 14 as "A". Theme A shares a boundary with Themes F, P, and Q, although it's greatest shared boundary is with Theme C in the northern sections of the City.

5.3.2 Site Conditions and Special Area Needs

The soils in this area are very dry and sandy. The native soil is Newhan fine sand. It is underlain by fine sand, excessively drained, low in organic matter, with rapid permeability and low available water capacity. The depth to the water table is greater than 6 feet.

Native trees growing in the area are limited to those that can tolerate the dry sites as well as high salt concentrations in the air and soil. This results in lower than average species diversity.

Common native trees found in the area include live oak, longleaf pine, cabbage palmetto, Southern redcedar, Southern waxmyrtle, yaupon holly, and Eastern baccharis. Some commonly planted exotic tree species found in the area are Japanese black pine, loquat, and pindo palm. The beach access areas are well planted with a variety of salt and drought tolerant tree species, such as Japanese black pine, Southern waxmyrtle, and cabbage palmetto, and with a good mix of herbaceous plant material.

Another special need considered in the development of the theme for this area was species suitability for planting in parking lots and a tree's ability to withstand urban conditions. Urban conditions present in this area include droughty soils, dominance of hardscape and infrastructure, including pavement, concrete walls and fences, and overhead and underground utilities, reflected heat, air and soil pollution, and soil compaction.

The trees planted near the ocean must also be able to tolerate high winds, with salt spray, from the ocean. The natural vegetation growing within a couple of blocks of the beach, especially the live oaks and Southern redcedars, exhibits a wind-swept form as a result of the constant ocean "breezes".

Another need identified in this area is the enhancement of the ocean views looking east from Kings Highway to the Atlantic Ocean. Streets having unobstructed views of the ocean are identified in the "View" column in the table of Forest Theme Coverage by Street in Appendix A. Species with the potential to develop a closed canopy, frame the ocean view, or otherwise create a visual corridor are important components of the Maritime Evergreen Forest theme.

5.3.3 Theme Composition

There are 10 species included in this theme--7 native and 3 exotic. They are listed in Table A1 along with their source and size at maturity.

All but two of Theme A's species are also included with Theme C.

All of these species are suitable for planting on dry, sandy sites. All are moderately to highly salt tolerant. The majority of the species are evergreen trees, with the exceptions being Chinese elm and chastetree, two exotic species. While the number of species is low, overall they represent a broad

variety of leaf sizes, shapes, and textures from the small yaupon holly leaves to the large fan-shaped leaves of the cabbage palmetto. Longleaf pine is the pine of choice in this area.

Table A1. Species Composition of the Maritime Evergreen Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Baccharis, Eastern	*Baccharis halmifolia*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Oak, Live	*Quercus virginiana*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Medium
Pine, Longleaf	*Pinus palustris*	Native	Large
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.4 Theme B: Oak Forest

5.4.1 Theme Coverage

The Oak Forest theme includes the Oak Street corridor north of 29th Avenue North to the street's northern limits, the Pine Lakes neighborhood, the southwestern portions of Pine Lakes Golf Club, and all of 82nd Parkway. All of these areas are located west of Kings Highway. The theme coverage includes residential areas, both single- and multi-family, planned unit developments, medical facilities and office parks.

Major streets included in this theme, either wholly or in part, are:

- ❒ Calhoun Road
- ❒ Camellia Drive
- ❒ Country Club Drive
- ❒ Kings Highway North
- ❒ Fairway Park Drive (Pine Lake Drive)
- ❒ Longleaf Drive
- ❒ Oak Street North
- ❒ Old Little River Road
- ❒ Poinsett Road
- ❒ Sumter Drive
- ❒ US Highway 17 Bypass
- ❒ Woodside Drive
- ❒ 30th Avenue North through 38th Avenue North
- ❒ 44th Avenue North through 48th Avenue North
- ❒ 61st Avenue North
- ❒ 62nd Avenue North
- ❒ 65th Avenue North
- ❒ 67th Avenue North
- ❒ 76th Avenue North
- ❒ 79th Avenue North
- ❒ 82nd Parkway

This theme is identified on Theme Location Maps 10, 11, 12, 14, 15, and 16 as "B". Theme B shares a boundary primarily with Theme G to the west, but also to the east with Themes F and C.

5.4.2 Site Conditions and Special Area Needs

The soils are very dry and sandy. The native soil in this area is Lakeland sand. It is underlain by sand, excessively drained, low in organic matter, with very rapid permeability and low or very low available water capacity. The depth to the seasonal water table is greater than 6 feet.

Common native trees found in the area include longleaf pine and turkey oak, slash pine, water oak, red maple, blackgum, Southern redcedar, Southern magnolia, and American holly.

Because most of this area is residential there are few special needs other than matching site conditions and existing vegetation. The native forests are predominantly composed of longleaf pine and turkey oak and their common associates. While these species are not included on the list of tree species recommended for planting, they are recommended for preservation and are an important component of this theme. Natural regeneration may not be enough to provide abundant numbers of these species in the future, so although not on the list of trees for planting, they should be planted occasionally.

There is an opportunity to plant additional trees that will provide seasonal color beneath the existing trees within the median on 82nd Parkway. The medical office parks in this area should also be encouraged to plant larger trees in addition to the smaller, ornamental trees planted around these properties.

Planting opportunities exist along Poinsett and Calhoun Roads, within the Pine Lakes neighborhood. These streets are planted with rows of Southern redcedar and opportunities for planting additional trees exist.

5.4.3 Theme Composition

A total of 26 species are included in this theme, 19 native and 7 exotic. They are listed in Table B1 along with their source and size.

The oaks that dominate this theme include live oak and laurel oak; turkey and blackjack oak are native to this area and are included on the list to be preserved. Southern red oak has not been included for planting because it prefers soils with higher organic matter. The Southern sugar maple included with this theme is more drought tolerant than red maple. Longleaf pine is the pine of choice in this area.

All of the exotic species included in this theme, except for Kousa dogwood, are suitable for parking lots. Chinese pistache also provides brilliant red and orange fall color, while the redbuds will provide spring flower color (purple and white).

The 82nd Parkway median could be "underplanted" with some colorful native understory species, such as Eastern redbud and 'Little Gem' magnolia.

Of the redbud cultivars included in this theme, 'Forest Pansy' is especially

interesting with attractive, glossy, maroon leaves throughout the summer. Additional redbud cultivars 'Oklahoma' and 'Texas White' are also recommended. They, along with 'Forest Pansy', are smaller maturing varieties than the seedling variety. 'Little Gem' is a variety of Southern magnolia that remains small (less than 25 feet in height) at maturity; it has large, white blossoms throughout the summer.

Table B1. Species Composition of the Oak Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Dogwood, Kousa	*Cornus kousa*	Exotic	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Foster	*Ilex x attenuata*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* 'Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reniformis* 'Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reniformis* 'Texas White'	Exotic	Small
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.5 Theme C: Magnolia Forest

5.5.1 Theme Coverage

The Magnolia Forest theme encompasses residential areas in the Kings Highway to North Ocean Boulevard corridor north of 31st Avenue North, including the Oak Park and Ocean Forest neighborhoods. It also covers the residential area above 82nd Parkway west and east of Kings Road at the northeastern limits of the City. Both single and multi-family residential areas are included.

Major streets included in this theme, either wholly or in part, are:

- ❒ Calhoun Road
- ❒ Club Drive
- ❒ Hampton Circle
- ❒ Haskell Circle
- ❒ Highland Way North
- ❒ Highland Way South
- ❒ Kings Highway North
- ❒ Kings Road
- ❒ Ocean Boulevard North
- ❒ Poinsett Road
- ❒ Porcher Drive
- ❒ Springs Avenue
- ❒ Wildwood Trail
- ❒ 31st Avenue North through 48th Avenue North
- ❒ 50th Avenue North
- ❒ 64th Avenue North through 82nd Parkway

This theme is identified on Theme Location Maps 10, 11, 12, and 14 as "C". Theme C shares a lengthy boundary with Theme A and with Theme F.

5.5.2 Site Conditions and Special Area Needs

The soils are dry and sandy in the area. The native soil is predominantly Lakeland sand. It is underlain by sand, excessively drained, low in organic matter, with very rapid permeability and low or very low available water capacity. The depth to the seasonal water table is greater than 6 feet.

Because of the location, the trees included in this theme are required to have at least moderate salt tolerance. The native forests in this area, as in Theme

B, are composed primarily of longleaf pine and turkey oak and their common associates. These species should be preserved wherever and whenever possible.

Located in the area covered by this theme are numerous streets with unobstructed views east from Kings Highway to the Atlantic Ocean. The needs for this theme include canopy tree species that can frame the view and create a visual corridor on these streets.

Calhoun and Poinsett Roads are areas of special need. These streets have wide tree lawns that were planted years ago with rows of Southern redcedar. Vacant planting sites exist on these streets and there is a lot of opportunity for enhancement of the existing planting scheme.

5.5.3 Theme Composition

A total of 15 species are included within this theme, 12 native and 3 exotic. The need for moderate salt tolerance limited the number of species included. The species included with Theme C are listed in Table C1.

All but two of the species included in Theme A are included in C. All but three of the species included in Theme C are also included in Theme F.

The majority of the species in this theme are evergreen species. They include a wide range of leaf textures and sizes also. Some yellow fall color is provided by the sycamore, witchhazel, and winged elm. Turkey oak can have outstanding fall color as the leaves slowly turn red throughout the fall, and the longleaf pine provide year around greenery.

Table C1. Species Composition of the Magnolia Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Elm, Winged	*Ulmus alata*	Native	Large
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Medium
Pine, Longleaf	*Pinus palustris*	Native	Large
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.6 Theme D: Palmetto Forest

5.6.1 Theme Coverage

Areas covered by the Palmetto Forest theme include: the Kings Highway South corridor from 5th Street South to 29th Street South, the Carver Street area, the area west of Oak Street between 21st Avenue North and 27th Avenue North, including the Myrtle Beach Convention Center, and a small undeveloped portion of Kings Highway North near the northeastern City limits.

Major streets included in this theme, either wholly or in part, are:

- ❒ Carver Street
- ❒ Cove Drive
- ❒ Kings Highway North
- ❒ Kings Highway South
- ❒ Oak Street
- ❒ Oak Street North
- ❒ Ocean Boulevard South
- ❒ Rosemary Street
- ❒ Vereen Avenue
- ❒ 10th Avenue North
- ❒ 21st Avenue North
- ❒ 5th Avenue South through 17th Avenue South
- ❒ 19th Avenue South through 21st Avenue South
- ❒ 23rd Avenue South through 25th Avenue South
- ❒ 27th Avenue South
- ❒ 29th Avenue South

This theme is identified on Theme Location Maps 4, 5, 11, and 14 as "D". It shares common boundaries with a variety of other themes, including Themes B, C, E, F, G, L, O, P and Q.

5.6.2 Site Conditions and Special Area Needs

The soils are generally dry but with occasional wet periods. The predominant soils include Leon fine sand, Centenary fine sand, with a small component of Rutledge loamy sand. The Leon fine sand is underlain by fine sand, poorly drained, low in organic matter, with rapid permeability in the upper portions and moderate permeability in the lower portions. The seasonal high water table ranges from the surface to 1 foot below the surface, normally in June

through February.

Native trees in the area include slash, longleaf, and loblolly pines, baldcypress, and American holly. The most common trees growing around the Myrtle Beach Convention Center include sweetgum, crapemyrtle, loblolly pine, cabbage palmetto, and live oak. The Kings Highway South median has been extensively planted with crapemyrtles and oleander.

There is some need in this theme area for trees that tolerate urban conditions, including drought, reflected heat, and small growing spaces such as in tree wells and landscape strips.

Theme D includes some streets with unobstructed views east to the ocean. There was therefore a need to include some species in this theme that would enhance the development of a canopy covered corridor view to the ocean, and to include some species in common with other themes with corridor views. Streets having unobstructed views of the ocean are identified in the "View" column in the table of Forest Theme Coverage by Street in Appendix A.

Carver Street has a lot of opportunity for tree planting, as does the area just to the north of Carver, in Theme G.

5.6.3 Theme Composition

There are 19 species included in this theme, 15 native and 4 exotic. Loblolly pine has been included in this theme. In addition to the species included for planting, several dominant native species are important to preserve in this area. These include sweetgum, slash pine, and water oak. Cultivars or exotic species included in this theme are the redbud cultivars 'Forest Pansy', 'Oklahoma', and 'Texas White'. These species would be excellent for the Carver Street area, as would American hollies, Southern redcedars, and live oaks. A complete list of the species included in Theme D is located in Table D1, along with the species source and mature size.

Table D1. Species Composition of the Palmetto Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Baldcypress	*Taxodium distichum*	Native	Large
Buckeye, Red	*Aesculus pavia*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Elm, Winged	*Ulmus alata*	Native	Large
Goldenraintree	*Koetreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Redbud, Forest Pansy	*Cercis canadensis* 'Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reniformis* 'Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reniformis* 'Texas White'	Exotic	Small
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.7 Theme E: Holly Forest

5.7.1 Theme Coverage

The Holly Forest theme has been applied to a small undeveloped area on either side of Ocean Boulevard north of 82nd Parkway. It is zoned for transient accommodations.

The only street included in this theme is a portion of:

❒ Ocean Boulevard North

This theme is identified on Theme Location Map 14 as "E". Theme E borders short sections of Themes A, C, and D.

5.7.2 Site Conditions and Special Area Needs

The soils in the area are mesic, or somewhat moist, and are composed predominantly of Rutledge loamy sand, with components of Leon and Centenary fine sand. The Rutledge loamy sand is underlain by sand, is poorly drained, has moderate organic matter, with rapid permeability and low available water capacity.

No planting needs currently exist along the public street rights-of-way in the area. The understory has been cleared in the wooded areas to the east of Ocean Boulevard, but to the west the forest remains relatively undisturbed and natural. No other special needs exist in this area at this time. In the future, the need for trees with tolerances to urban conditions, drought, and salt may be important as the area is developed.

The native species include water oak, laurel oak, live oak, sweetgum, red maple, slash pine, loblolly pine, sassafras, American holly, blackgum, sweetbay, black cherry, Southern waxmyrtle, yaupon holly, gallberry, and tree sparkleberry.

5.7.3 Theme Composition

A total of 18 species are included within this theme, 15 native and 3 exotic. They are listed in Table E1, along with their source and mature size.

The need for moderate salt tolerance somewhat limited the species that are included in this theme, although some species with low salt tolerance have also been included. The majority of the species included in this theme are native species currently existing in the area, such as loblolly pine. Three native hollies are included in this theme--American, dahoon, and yaupon.

At this time the need for species tolerant to parking lot conditions is not necessary, but could become so in the future as the area is developed. For this reason, Chinese elm has been included in this theme.

Table E1. Species Composition of the Holly Forest

Common Name	Latin Name	Source	Tree Size
Blackgum	*Nyssa sylvatica*	Native	Large
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Elm, Winged	*Ulmus alata*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Maple, Red	*Acer rubrum*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Medium
Pine, Loblolly	*Pinus taeda*	Native	Large
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sassafras	*Sassafras albidum*	Native	Medium
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.8 Theme F: Elm Forest

5.8.1 Theme Coverage

The Elm Forest theme covers much of the Kings Highway corridor from about 3rd Avenue South to 82nd Parkway. In addition, it covers an area within the Myrtle Beach AFB Redevelopment Area (South Park Village). It excludes the downtown sections of Kings Highway around Main Street, Broadway, and Oak Street. Zoning districts and land use include commercial areas as well as combinations of transient accommodations with commercial areas.

Major streets included in this theme, either wholly or in part, are:

- ❒ Huger Street
- ❒ Jackson Street
- ❒ Kings Highway North
- ❒ Kings Highway South
- ❒ Lumber Street
- ❒ Oak Street North
- ❒ Ocean Boulevard South
- ❒ Shine Avenue
- ❒ Terminal Street
- ❒ Woodside Drive
- ❒ 2nd Avenue North through 8th Avenue North
- ❒ 10th Avenue North
- ❒ 12th Avenue North
- ❒ 13th Avenue North
- ❒ 16th Avenue North through 38th Avenue North
- ❒ 44th Avenue North through 48th Avenue North
- ❒ 52nd Avenue North
- ❒ 61st Avenue North through 65th Avenue North
- ❒ 67th Avenue North
- ❒ 68th Avenue North
- ❒ 70th Avenue North through 77th Avenue North
- ❒ 79th Avenue North
- ❒ 1st Avenue South through 3rd Avenue South

This theme is identified on Theme Location Maps 5, 10, 11, 12, and 14 as "F".

Theme F shares a boundary for short sections with Themes A, D, K, M, P, and O. Theme F shares a substantial portion of its boundary with Themes A, B, C, D, G, H, J, T, and V.

5.8.2 Site Conditions and Special Area Needs

The soils are dry and sandy. The native soil is Lakeland sand. It is underlain by sand, excessively drained, low in organic matter, with very rapid permeability and low or very low available water capacity. The depth to the seasonal water table is greater than 6 feet.

The area is still predominantly a native longleaf pine and turkey oak forest. Other common trees growing within this area are Southern magnolia, live oak, Southern redcedar, slash pine, American holly, red maple, and yaupon holly. Exotic trees noted in the area include Leyland cypress, pindo palm, and crapemyrtle.

Special needs for this area include trees suitable for parking lots, urban conditions, and small growing spaces, especially limited rooting zones as is found in landscape strips and tree wells.

An additional need for this area are trees that will creating a closed canopy view to the ocean. Much of the eastern border of Theme F coincides with Theme C. Its eastern border also coincides some with Theme A and Theme P. All of these themes, A, C, and P, include streets with unobstructed views east to the ocean. Some species common to all four themes are included in each theme to encourage planting of trees that create corridor views to the ocean.

An additional need along Kings Highway is for species that can tie together and blend the commercial areas with the adjacent residential areas.

5.8.3 Theme Composition

A total of 28 species are included within this theme, of which 18 are native and 10 are exotic. They are listed in Table F1, along with their source and mature size.

Three of the exotic species included in this theme--Chinese elm, trident maple, and chastetree--are very tolerant of heat and drought, well suited to the area's conditions, and are readily available to the landscaper. Chastetree prefers full sun and well drained soils. The redbuds included in this theme are also good candidates for planting in small spaces with droughty conditions. The Chinese pistache and trident maple are good candidates for medium-size sites in parking lots and other hot and droughty places. Where large planting areas exist, a better choice would be Southern red oak, live oak, or Southern magnolia. Chinese elm can become a large tree with adequate growing space and good site conditions.

There was a need in this area to include species that can blend with adjacent residential areas. Those selected include 'Little Gem' magnolia, Southern

magnolia, longleaf pine, Southern redcedar, live oak, American holly, Southern waxmyrtle, and Yaupon holly. Also, many parking lots in the Kings Highway corridor have low tree canopy and shade, and many opportunities for planting exist. This area also encompasses many streets with east facing ocean views. Some species suitable for creating a canopy effect over these streets are live oak, Southern red oak, Southern magnolia, and to some extent Southern or Eastern redcedar. Streets with views are identified in the table of Forest Theme Coverage by Street in Appendix A.

Table F1. Species Composition of the Elm Forest

Common Name	Latin Name	Source	Tree Size
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Devilwood	*Osmanthus americanus*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Elm, Winged	*Ulmus alata*	Native	Large
Hickory, Mockernut	*Carya tomentosa*	Native	Large
Hickory, Pignut	*Carya glabra*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Trident	*Acer buergeranum*	Exotic	Medium
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Medium
Pine, Longleaf	*Pinus palustris*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Forest Pansy	*Cercis canadensis* 'Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reniformis* 'Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reniformis* 'Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sassafras	*Sassafras albidum*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.9 Theme G: Southern Forest

5.9.1 Theme Coverage

The area covered by the Southern Forest theme is primarily west of Kings Highway and north of US Highway 501. The area east of Robert M. Grissom Parkway between 29th and 38th Avenues North is included which also includes several of the City's public schools. The western portion of Pine Lakes Golf Club, the Pines Lakes neighborhood, and the far southwestern portion of Broadway Street, near the City Limits, are also included. Theme G also includes the Dunbar Street neighborhood, adjacent to the Carver Street neighborhood and Theme D. The areas included are zoned for residential land use.

Major streets included in this theme, either wholly or in part, are:

- ❒ Broadway Street
- ❒ Calhoun Road
- ❒ Robert M. Grissom Parkway
- ❒ Dunbar Street
- ❒ Green Bay Trail
- ❒ Hemingway Street
- ❒ King Street
- ❒ Kings Highway North
- ❒ Oak Street North
- ❒ Old Little River Road
- ❒ US Highway 17 Bypass
- ❒ Vereen Avenue
- ❒ 10th Avenue North
- ❒ 21st Avenue North
- ❒ 29th Avenue North
- ❒ 33rd Avenue North through 35th Avenue North
- ❒ 38th Avenue North
- ❒ 48th Avenue North
- ❒ 62nd Avenue North
- ❒ 67th Avenue North
- ❒ 76th Avenue North

This theme is identified on Theme Location Maps 6, 10, 11, 12, 13, and 14 as

"G". It has boundaries in common with Themes D, H, and F, but primarily with Theme B on it's eastern edge in the Pine Lakes neighborhood.

5.9.2 Site Conditions and Special Area Needs

The soils in the area are moderately wet. The predominant soils in this area include Leon fine sand, Centenary fine sand, and Echaw sand. All of these soil types are underlain by sand. They are moderately well drained (Centenary and Echaw) to somewhat poorly drained (Leon) soils, low in organic matter, with rapid permeability and low available water capacity.

Native trees present in the area include water, laurel, Southern red, swamp chestnut, and live oaks, red maple, Southern magnolia, sycamore, river birch, sweetgum, Southern redcedar, American holly, blackgum, persimmon, Eastern baccharis, Southern waxmyrtle, and loblolly and slash pines. The native pines are an important component of the urban forest in this area, and efforts should be made to preserve and plant them whenever and wherever possible. Commonly planted exotic species include crapemyrtle, silver maple, Bradford pear, pindo palm, and weeping willow.

The Robert M. Grissom Parkway median has been planted with red maples and pin oaks. The "preserved" natural area around the high school on Robert M. Grissom Parkway shows signs of tree decline, presumably due to a change in soil moisture as a result of drainage. There is extensive crown dieback of large, mature trees. The schools should be encouraged to replant a variety of native species on their property to enhance the native tree diversity and to reestablish a native forest in the area while providing an educational opportunity for students. An arboretum focusing on native trees would be an excellent project for the schools to undertake.

There are a lot of vacant planting sites and planting opportunities along Dunbar and Spivey streets. Trees planted here should complement trees planted in Theme D along Carver Street.

5.9.3 Theme Composition

A total of 26 species are included within this theme, 25 native and 1 exotic. They are listed in Table G1.

Recommended species common to both Theme G (Dunbar and Spivey Streets) and Theme D (Carver Street) are baldcypress, Southern magnolia, live oak, sycamore, American holly, and Eastern hophornbeam.

Table G1. Species Composition of the Southern Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Blackgum	*Nyssa sylvatica*	Native	Large
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Foster	*Ilex x attenuata*	Native	Small
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Loblolly-bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Oak, Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Sassafras	*Sassafras albidum*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.10 Theme H: Maple Forest

5.10.1 Theme Coverage

The Maple Forest theme is located in three areas in the central section of the City, just north of US Highway 501, and portions of the AFB Redevelopment Area (South Park Village) adjacent to US Highway 17 Business and in the southwestern most section. This includes the Canal Street area, the area just west of Dunbar Street, and the residential area that includes Ocala and Oceola Streets. These areas are zoned for residential land use, mobile home developments, and planned unit developments.

Major streets included in this theme, either wholly or in part, are:

- ❒ Acline Street
- ❒ Canal Street
- ❒ Cherokee Street
- ❒ Greens Boulevard
- ❒ King Street
- ❒ Ocala Street
- ❒ Oceola Street
- ❒ Vereen Avenue
- ❒ 10th Avenue North
- ❒ 21st Avenue North

This theme is identified on Theme Location Maps 2, 3, 7, and 11 as "H". Theme H shares borders with Themes I, G, and J.

5.10.2 Site Conditions and Special Area Needs

The soils are generally wet and loamy. The native soils in this area are Brookman loam and Yauhannah fine sandy loam. These soils are underlain by clay and sandy clay loam. They are moderately to poorly drained, low to moderate in organic matter content, and have slow to moderate permeability and moderately high available water capacity.

The tree density in this area is low and there is a lot of potential for tree planting, especially on private property. No other special needs exist in this area.

5.10.3 Theme Composition

A total of 29 species, all able to tolerate wet sites, are included within this theme; no exotic species are included. Theme H species are listed in table H1.

Table H1. Species Composition of the Maple Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baccharis, Eastern	*Baccharis halmifolia*	Native	Small
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Bottlebrush	*Aesculus parviflora*	Native	Small
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Fringetree	*Chionanthus virginicus*	Native	Small
Hickory, Pignut	*Carya glabra*	Native	Large
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Loblolly-bay	*Gordonia lasianthus*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Tupelo, Water	*Nyssa aquatica*	Native	Large
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.11 Theme I: Cypress Swamp

5.11.1 Theme Coverage

The Cypress Swamp theme has been applied to a large area in the west central portions of Myrtle Beach, which includes Broadway at the Beach, the surrounding area between 21st and 29th Avenues North, and Robert M. Grissom Parkway to the US Highway 17 Bypass. It also includes the eastern section of Seaboard Street from 10th Avenue to 21st Avenue North. These areas are zoned as commercial and special activity, recreation, and entertainment districts. Theme I is also found in two residential subdivisions between US Highway 17 Bypass and the Intracoastal Waterway, on both sides of US Highway 501, and in highway commercial and light industrial County out parcels on either side of US Highway 501 between Cannon Road and Cedar Street.

Major streets included in this theme, either wholly or in part, are:

- ❒ Bridgewood Drive
- ❒ Causey Road
- ❒ Celebrity Circle
- ❒ Robert M. Grissom Parkway
- ❒ Folly Road
- ❒ Greens Boulevard
- ❒ Piedmont Avenue
- ❒ Rabon Road
- ❒ Seaboard Street
- ❒ US Highway 17 Bypass
- ❒ Waterside Drive
- ❒ Waterview Drive
- ❒ 21st Avenue North
- ❒ 29th Avenue North

This theme is identified on Theme Location Maps 6, 5, 7, 8, 10, and 11 as "I". Theme I borders Themes G and H.

5.11.2 Site Conditions and Special Area Needs

The soils are wet and loamy. The native soils in the area are Brookman and Meggett loam. Brookman loam is underlain by clay, and both are very poorly drained, low to moderate in organic matter, with slow permeability and a high available water capacity. Species that can withstand wet conditions and

intermittent flooding are included in this theme.

As mentioned earlier in Section 2.2, Broadway at the Beach has been extensively planted with baldcypress, willow oak, Southern magnolia, Foster holly, and red maple, all excellent choices. Blackgum or water tupelo would be a nice addition to the landscape. Smaller, understory tree species and pines, to add diversity, color, and wildlife value should be planted here.

The planting sites along many of the streets within this theme area have abundant growing and rooting space (although soils may be compacted, and roots of preserved trees may have been damaged during clearing, grading, and development). Trees with large canopies that have the potential to create corridor views are important components of the Cypress Swamp theme.

Because of the land use the area is frequented by many visitors as well as residents. The need to extend the "tropical" look of the beach to this area and include trees that provide a "southern" flavor was considered in the development of this theme.

5.11.3 Theme Composition

The Cypress Swamp theme includes 26 species, 22 native and 4 exotic. They are listed in Table I1 along with their source and mature size.

Southern magnolia, live oak, and cabbage palmetto are planted in this theme area. They are included in Theme I because they create a link with the eastern sections of Myrtle Beach and the beach areas, and because they help create a "southern" and "tropical" looking landscape, important to the tourist attractions in this area.

Table I1. Species Composition of the Cypress Swamp

Common Name	**Latin Name**	**Source**	**Tree Size**
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Bottlebrush	*Aesculus parviflora*	Native	Small
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Dogwood, Swamp	*Cornus stricta*	Native	Small
Goldenraintree	*Koetreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Foster	*Ilex x attenuata*	Native	Small
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Tupelo, Water	*Nyssa aquatica*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.12 Theme J: River Birch Forest

5.12.1 Theme Coverage

The main areas included in the River Birch Forest theme are the US Highway 501 corridor within the City Limits, 8th Avenue North above Broadway Street, the Seaboard Street commercial trade area south of 21st Street, and the southwestern section of Myrtle Beach AFB Redevelopment Area (South Park Village). The land use and zoning in this area consists of commercial trade, general commercial, and transient accommodation areas, and interim redevelopment.

Major streets included in this theme, either wholly or in part, are:

- ❒ Alder Street
- ❒ Broadway Street
- ❒ Cannon Road
- ❒ Cedar Street
- ❒ Cherokee Street
- ❒ Commerce Place
- ❒ Enterprise Avenue
- ❒ Executive Avenue
- ❒ Ocala Street
- ❒ Oceola Street
- ❒ Owens Drive
- ❒ Seaboard Street
- ❒ Stockholder Avenue
- ❒ US Highway 17 Bypass
- ❒ US Highway 501
- ❒ 3rd Avenue North
- ❒ 8th Avenue North
- ❒ 10th Avenue North
- ❒ 3rd Avenue South

This theme is identified on Theme Location Maps 1, 2, 3, 5, 6, and 7 as "J". Theme J shares common boundaries with Themes I, H, and L.

5.12.2 Site Conditions and Special Area Needs

The soils are wet and loamy. The native soils in this theme are primarily

Bladen fine sandy loam, with some Brookman loam, Meggett loam, Wahee fine sandy loam, and Centenary fine sand. The soils are underlain by sandy loam, clay loam, or clay. Drainage across the area is generally poor, and the soils are low in organic matter. Permeability is slow, and the available water capacity is high. Some of the area is ditched or has been drained.

Special needs in this area include trees that can withstand compacted soils, high traffic and pollution, and dry sites in some cases and very wet sites in other cases. Tree canopy cover in the area is light.

The US Highway 501 corridor and entranceway are planted with sycamore, sweetgum, willow oak, Shumard oak, cabbage palmetto, waxmyrtle, crapemyrtle, yellow poplar, and yaupon holly and in the future will be a beautifully forested corridor and entranceway to the City.

Other trees found growing within the area are river birch, Bradford pear, pin oak, persimmon, black cherry, swamp chestnut oak, Southern magnolia, water oak, Southern redcedar, and Southern red oak.

The Seaboard Street area contains numerous vacant planting sites, many of them with very harsh conditions. The streets are heavily traveled. They are also uncurbed. Ditches are common along the roadways. There is a lot of soil compaction from vehicles, including heavy equipment, driving or parking on the street rights-of-way. Some planting could be done between the ditch and fences, where trees would serve to screen the buildings from traffic. There are other isolated planting spaces available on the rights-of-way. There are abundant planting opportunities on private property on the lawns around commercial buildings. Active protection of existing and newly planted trees is essential in this area.

5.12.3 Theme Composition

A total of 31 species are included within this theme, 26 native and 5 exotic. They are listed below in Table J1, along with their source and mature size.

Several species that do well on compacted sites--baldcypress, Shumard oak, trident maple, chastetree, and yaupon holly--are included. Many areas back behind the ditches, in front of chain link fences, could be planted with multi-stemmed species such as the chastetree, Eastern baccharis, crapemyrtle, and Southern waxmyrtle. Both slash pine and loblolly pine would do well in this area.

Table J1. Species Composition of the River Birch Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baccharis, Eastern	*Baccharis halmifolia*	Native	Small
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Buckeye, Bottlebrush	*Aesculus parviflora*	Native	Small
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Gallberry	*Ilex glabra*	Native	Small
Holly, American	*Ilex opaca*	Native	Medium
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Hornbeam, American	*Carpinus caroliniana*	Native	Small
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Maple, Trident	*Acer buergeranum*	Exotic	Medium
Oak, Overcup	*Quercus lyrata*	Native	Medium
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.13 Theme K: Redbud Forest

5.13.1 Theme Coverage

The Redbud Forest theme covers primarily the downtown area around the intersection of Main Street, Broadway, Oak Street, and Kings Highway. This area is zoned commercial. There is also a small section northwest of US Highway 17 Business between 27th and 29th Streets South.

Major streets included in this theme, either wholly or in part, are:

- ❒ Alder Street
- ❒ Broadway Street
- ❒ Chester Street East
- ❒ Kings Highway North
- ❒ Main Street
- ❒ Oak Street North
- ❒ US Highway 501
- ❒ 3rd Avenue North through 13th Avenue North

This theme is identified on Theme Location Maps 4 and 5 as "K". It shares boundaries with Themes F, J, M, and P, but predominantly with F.

5.13.2 Site Conditions and Special Area Needs

The soils are very dry and sandy. The native soil in this area is Lakeland sand. It is underlain by sand, excessively drained, low in organic matter, with very rapid permeability and low or very low available water capacity. The depth to the seasonal water table is greater than 6 feet.

Much of this area has been "streetscaped"; trees are planted in tree wells and along the sidewalks in medians. The species planted include live oak, honeylocust, waxmyrtle, willow oak, and crapemyrtle.

Trees that tolerate urban conditions, including restricted rooting space, reflected heat, and drought are important additions to this theme. Trees planted in tree wells should have narrow crowns or must be suitable for pruning to raise the crown for pedestrian clearance. Trees with messy or hazardous fruiting habits should be avoided in tree wells where there is frequent pedestrian traffic.

Tree wells should be a minimum of 4 x 4 feet in size.

5.13.3 Theme Composition

There are 19 species included in the Redbud Forest, 11 native and 8 exotic. They are listed in Table K1, along with their source and mature size.

All but three of the species included in Theme K are also included in Theme F.

Species that allow pedestrian clearance are also are priority in this theme. Species that meet the above criteria include Chinese elm, Chinese pistache, crapemyrtle, Foster holly, goldenraintree, and the redbuds.

Table K1. Species Composition of the Redbud Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Dogwood, Kousa	*Cornus kousa*	Exotic	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, Foster	*Ilex x attenuata*	Native	Small
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Longleaf	*Pinus palustris*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Forest Pansy	*Cercis canadensis* 'Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reniformis* 'Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reniformis* 'Texas White'	Exotic	Small
Sassafras	*Sassafras albidum*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.14 Theme L: Chestnut Oak Forest

5.14.1 Theme Coverage

The Chestnut Oak Forest theme covers three areas: a small area in the southwest section of Myrtle Beach, north of Broadway Street at the city limits; a small area north of Broadway Street and just south of US Highway 501 in downtown; and a large area north of Kings Highway between 9th Avenue South and 17th Avenue South, with Broadway Street (S.C. Highway 15) as the northern limit more or less. It also includes an area west of the Myrtle Beach International Airport and south of the US Highway 17 Bypass, along either side of Shetland Avenue. The zoning within this theme is residential, both single- and multi-family, and mobile homes.

Major streets included in this theme, either wholly or in part, are:

- ❒ Alder Street
- ❒ Broadway Street
- ❒ Cannon Road
- ❒ Cedar Street
- ❒ Oak Street
- ❒ Owens Drive
- ❒ Pinner Place
- ❒ Scott Drive
- ❒ Shetland Avenue
- ❒ 3rd Avenue North through 5th Avenue North
- ❒ 9th Avenue South through 13th Avenue South
- ❒ 17th Avenue South

This theme is identified on Theme Location Maps 1, 4, 5, and 6 as "L". Theme L shares boundaries with Themes D, G, K, and especially N and O.

5.14.2 Site Conditions and Special Area Needs

The soils are wet and loamy. The native soils in this area include Wahee fine sandy loam, Bladen fine sandy loam, Ogeechee loamy fine sand, and Yemassee loamy fine sand. These soils are underlain by clay loam and sandy clay loam. They area all somewhat poorly to poorly drained, low in organic matter, have slow permeability and high available water capacity.

The area has light to moderate tree canopy cover. There are no special needs in this area, other than tolerance of wet sites. The conditions in this area should be very good for growth. Chestnut oak is one of the few "white" oaks (oaks are divided into red and white groups) growing in the area. It is a

beautiful, large shade tree.

5.14.3 Theme Composition

A total of 25 species are included within this theme, all native except for 3. They are listed in Table L1, along with their source and mature size.

The exotic species are included to provide more choices for small trees that could be planted beneath overhead utility lines.

Table L1. Species Composition of the Chestnut Oak Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Birch, River	*Betula nigra*	Native	Medium
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Chastetree	*Vitex agnus-castus*	Exotic	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Kousa	*Cornus kousa*	Exotic	Small
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Hickory, Mockernut	*Carya tomentosa*	Native	Large
Hickory, Pignut	*Carya glabra*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Plum, Purpleleaf	*Prunus cerasifera* ‘ Atropurpurea’		
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large

5.15 Theme M: Dogwood Forest

5.15.1 Theme Coverage

The Dogwood Forest theme includes an older, well established residential neighborhood with mature trees located just west of Kings Highway and south of Broadway Street in the Withers Swash area.

Major streets included in this theme, either wholly or in part, are:

- ❒ Collins Avenue
- ❒ Maple Street
- ❒ Myrtle Street North
- ❒ Oak Street
- ❒ Oak Street North
- ❒ Withers Swash Drive
- ❒ 2nd Avenue North through 6th Avenue North
- ❒ 1st Avenue South through 3rd Avenue South

This theme is identified on Theme Location Map 5 as "M". Theme M shares boundaries with Themes F, K, and O.

5.15.2 Site Conditions and Special Area Needs

The soils are generally dry and sandy. The predominant native soil in this area is Lakeland sand. It is underlain by sand, excessively drained, low in organic matter, with very rapid permeability and low or very low available water capacity. The depth to the seasonal water table is greater than 6 feet.

Mature dogwoods, live oaks, magnolia, water oaks, Southern red oak, Southern redcedar, and loblolly and slash pines dominant the existing forest in this neighborhood. The primary need in this area is to match and enhance the existing vegetation and preserve the character of the neighborhood. Tree canopy here is heavy.

5.15.3 Theme Composition

A total of 22 species, 20 native and 2 exotic, are included in this theme. They are listed in Table M1, along with their source and mature size.

A number of flowering understory species are included to enhance the understory of dogwoods already present. These species include swamp dogwood, downy serviceberry, witchhazel, fringetree, 'Little Gem' magnolia, and 'Forest Pansy' redbud.

Table M1. Species Composition of the Dogwood Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Winged	*Ulmus alata*	Native	Large
Fringetree	*Chionanthus virginicus*	Native	Small
Goldenraintree	*Koetreutria paniculata*	Exotic	Medium
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Redbud, Forest Pansy	*Cercis canadensis* 'Forest Pansy'	Native	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.16 Theme N: Blackgum Forest

5.16.1 Theme Coverage

The Blackgum Forest theme covers one area encompassing the Ramsey Acres and Stuart Square subdivisions. The Owens subdivision below Ramsey Drive is not included—it is included in Theme L. This theme is zoned for residential use, including single- and multi-family homes, mobile homes, and planned unit developments. The theme also applies to an adjacent commercial area.

Major streets included in this theme, either wholly or in part, are:

- ❒ Jennings Road
- ❒ Naylor Avenue
- ❒ Oak Drive
- ❒ Park Drive
- ❒ Pine Drive
- ❒ Ramsey Drive
- ❒ Stalvey Avenue

This theme is identified on Theme Location Maps 2, 5, and 6 as "N". It shares boundaries with Themes L and G.

5.16.2 Site Conditions and Special Area Needs

There are two somewhat different soils existing in this area, one wetter and one drier. The wetter soil is Yemassee loamy fine sand, which is somewhat poorly drained, low in organic matter, has moderate permeability and moderate available water capacity. The drier soil is Echaw sand which is moderately well drained, low in organic matter, has moderate permeability and low available water capacity.

The theme area has light to moderate tree canopy cover. A good variety of native trees currently exists here, including catalpa, yellow poplar, yaupon holly, flowering dogwood, sassafras, waxmyrtle, live oak, sweetgum, red maple, Southern redcedar, American holly, Southern magnolia, sweetbay, and sycamore.

There are a lot of planting opportunities in this area, especially on private property. There are no other special needs in this area.

5.16.3 Theme Composition

A total of 28 species are included within this theme, 27 of which are native, and only 1 is exotic. They are all somewhat tolerant of wet soil, including loblolly and slash pines. The species included in Theme N are listed in Table

N1, along with their source and mature size.

Table N1. Species Composition of the Blackgum Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Bottlebrush	*Aesculus parviflora*	Native	Small
Buckeye, Red	*Aesculus pavia*	Native	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Holly, American	*Ilex opaca*	Native	Medium
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Loblolly-bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sassafras	*Sassafras albidum*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Tupelo, Water	*Nyssa aquatica*	Native	Large

5.17 Theme O: Red Oak Forest

5.17.1 Theme Coverage

The Red Oak Forest theme covers areas one large area west of 3rd Avenue South and east of 9th Avenue South between Broadway Street and Kings Highway and to Ocean Boulevard between 3rd and 6th Avenues South. The area includes districts zoned for residential land use, both single- and multi-family homes, for mobile homes and mobile home transient accommodations, for combined transient accommodations and commercial areas, and business parks.

Major streets included in this theme, either wholly or in part, are:

- ❒ Broadway Street
- ❒ Cannon Road
- ❒ Charlotte Road
- ❒ Kings Highway South
- ❒ Oak Street
- ❒ Ocean Boulevard South
- ❒ Pridgeon Road
- ❒ Yaupon Drive
- ❒ 3rd Avenue South
- ❒ 5th Avenue South
- ❒ 6th Avenue South
- ❒ 9th Avenue South
- ❒ 9th Avenue North

This theme is identified on Theme Location Maps 4, 5, and 6 as "O". Theme O shares boundaries primarily with Theme L, but also with Themes A, D, F, J, and M.

5.17.2 Site Conditions and Special Area Needs

The soils are wet and loamy. The native soils include Bohicket silty clay loam, Bladen fine sandy loam, Eulonia loamy fine sand, and Wahee fine sandy loam. These soils are poor to moderately well (Eulonia) drained, have low organic matter, slow permeability, and moderate available water capacity.

The area has moderate tree cover. There are no limiting factors in this area, other than matching species with the soils.

5.17.3 Theme Composition

A total of 28 species are included in this theme, 26 native and 2 exotic. Table O1 lists all species included in the Red Oak Forest, along with their source and mature size.

The exotic species included should be restricted to the transient accommodation and commercial areas.

Table O1. Species Composition of the Red Oak Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Bottlebrush	*Aesculus parviflora*	Native	Small
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Gallberry	*Ilex glabra*	Native	Small
Hickory, Pignut	*Carya glabra*	Native	Large
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Hornbeam, American	*Carpinus caroliniana*	Native	Medium
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Maple, Trident	*Acer buergeranum*	Native	Medium
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Overcup	*Quercus lyrata*	Native	Medium
Oak, Southern Red	*Quercus falcata*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium

5.18 Theme P: Yaupon Forest

5.18.1 Theme Coverage

The Yaupon Forest theme includes two areas in the downtown and southern sections of Myrtle Beach. One area is located between Kings Highway North and Ocean Boulevard North, from 2nd Avenue South to 19th Avenue North. This area includes Yaupon and Withers Drive. The second area is located along and just north of Yaupon Drive, between 6th Avenue South and 17th Avenue South, but does not extend to Kings Highway. This theme includes transient accommodations, sometimes in combination with commercial areas.

Major streets included in this theme, either wholly or in part, are:

- ❒ Chester Street
- ❒ Chester Street East
- ❒ Flagg Street
- ❒ Ocean Boulevard North
- ❒ Ocean Boulevard South
- ❒ Withers Alley
- ❒ Withers Drive
- ❒ Yaupon Drive
- ❒ 1st Avenue North through 19th Avenue North
- ❒ 1st Avenue South
- ❒ 2nd Avenue South
- ❒ 6th Avenue South through 17th Avenue South

This theme is identified on Theme Location Maps 4, 5, and 11 as "P". Theme P shares boundaries primarily with Theme A, but also with Themes F and K, and very short sections with Themes O and Q.

5.18.2 Site Conditions and Special Area Needs

The soils are generally dry. The native soils in this area are Lakeland sand and Centenary fine sand. The Lakeland sand is underlain by sand, excessively drained, low in organic matter, with very rapid permeability and low or very low available water capacity. The depth to the seasonal water table is greater than 6 feet. The Centenary fine sand is moderately well drained, low in organic matter, with rapid permeability and low available water capacity.

Because of this area's proximity to the ocean, the species included in this theme need to be moderately salt tolerant.

This theme includes some streets with unobstructed views to the ocean from Kings Highway. Canopy trees that can create a visual corridor to the ocean are needed in this theme. These streets are identified in the table of Forest Theme Coverage by Street located in Appendix A.

Other requirements for the area are species suitable for parking lots, compacted soils, and other urban conditions. Many of the streets are uncurbed and the sandy soils in the rights-of-way are very compacted because of vehicle parking.

Enhancement of the existing tree species is also important. Existing trees include yaupon holly, live oak, Southern redcedar, longleaf pine, and turkey oak. Some nice yaupon holly specimens are growing in the area.

5.18.3 Theme Composition

A total of 25 species are included in the Yaupon Forest theme, 16 native and 9 exotic. Theme P species are listed in Table P1, along with their source and mature size.

Table P1. Species Composition of the Yaupon Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Baccharis, Eastern	*Baccharis halmifolia*	Native	Small
Baldcypress	*Taxodium distichum*	Native	Large
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Maple, Trident	*Acer buergeranum*	Native	Medium
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Medium
Pine, Longleaf	*Pinus palustris*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Forest Pansy	*Cercis canadensis* 'Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reniformis* 'Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reniformis* 'Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.19 Theme Q: Redcedar Forest

5.19.1 Theme Coverage

The Redcedar Forest theme covers one area in the southern section of Myrtle Beach, along Yaupon Drive and Rosemary Drive, from 17th Avenue South to 29th Avenue South. This includes residential areas, both single-family and planned unit developments, as well as transient accommodations.

Major streets included in this theme, either wholly or in part, are:

- ❒ Rosemary Street
- ❒ Yaupon Drive
- ❒ 17th Avenue South through 21st Avenue South
- ❒ 23rd Avenue South through 29th Avenue South

This theme is identified on Theme Location Maps 4 and 5 as "Q". It shares boundaries with Themes A, D, and a short section of P.

5.19.2 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. The native soil in this area is primarily Johnston loam. It is poorly drained, moderate in organic matter, has moderately rapid permeability, and the available water capacity is moderate to high. It is surrounded by Lakeland sand, described earlier, a drier, sandier soil.

The species included in this theme are required to have moderate salt tolerance. Some species are included that are tolerant of very wet sites. Other requirements included suitability for parking lots.

The existing trees are primarily yaupon holly, redcedar, and live oak.

This theme includes some streets with unobstructed views to the ocean from Kings Highway. Canopy trees that can create or enhance the visual corridor to the ocean are needed in this theme. Streets with potential corridor views are identified in the table of Forest Theme Coverage by Street located in Appendix A.

5.19.3 Theme Composition

A total of 27 species are included within this theme, 22 native and 5 exotic. Table Q1 contains a list of all species included in this theme, along with their source and mature size.

Table Q1. Species Composition of the Redcedar Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Hornbeam, American	*Carpinus caroliniana*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* 'Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Overcup	*Quercus lyrata*	Native	Medium
Pine, Longleaf	*Pinus palustris*	Native	Large
Redbud, Forest Pansy	*Cercis canadensis* 'Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reniformis* 'Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reniformis* 'Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Tupelo, Water	*Nyssa aquatica*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.20 Theme R: Garden Forest

The focus of the Garden Forest is on flowering trees and variety in leaf texture and tree size. The theme applies to primarily residential areas in both the City and the County. These areas include Seagate Village in the Myrtle Beach AFB Redevelopment Area (South Park Village), and the Northgate Road shopping center.

Major streets included in this theme, either wholly or in part, are:

- ❒ Juniper Drive
- ❒ Mallard Lake Road
- ❒ Northgate Road
- ❒ Pampas Drive
- ❒ Spruce Drive
- ❒ Swallow Avenue

This theme is identified on Theme Location Maps 1 and 3 as "R". It shares boundaries with Themes H, J, L, S, and T.

5.20.1 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. The native soil in this area is primarily Megget loam. It is poorly drained, low in organic matter, has slow permeability, and the available water capacity is high.

The existing native trees are primarily yaupon holly, live oak, willow oak, slash pine, and sweetgum. There are also abundant Bradford pears and crapemyrtles. The willow oaks are planted as street trees in Seagate Village. While the trees are well distributed, they are not abundant on residential properties and there is a need for additional canopy cover, as well as added color and interest in the landscape.

5.20.2 Theme Composition

A total of 30 species are included within this theme, 21 native and 9 exotic. There are many flowering trees included, including chastetree, crapemyrtle, Kousa dogwood, goldenraintree, magnolias, witchhazel, and the redbuds. Trees added for texture include baldcypress, Southern redcedar, the magnolias, river birch, and Chinese pistache. Many of these trees have good fall color, too. Table R1 contains a list of all species included in this theme, along with their source and mature size.

Table R1. Species Composition of the Garden Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Kousa	*Cornus kousa*	Exotic	Small
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Hornbeam, American	*Carpinus caroliniana*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Maple, Trident	*Acer buergeranum*	Exotic	Medium
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	Small
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.21 Theme S: Business Park Forest

The Business Park Forest theme covers one area in the southern section of Myrtle Beach with the Myrtle Beach AFB Redevelopment Area (South Park Village), along US Highway 17 Business and bordered on the northeast by the proposed Howard Parkway. The area is adjacent to Myrtle Beach State Park, and is zoned for business parks with a small adjacent area zoned as highway commercial. Major streets included in this theme, either wholly or in part, are:

- ❒ Splinter City Street
- ❒ US Highway 17 Business

This theme is identified on Theme Location Map 3 as "S". It shares boundaries with Themes H, R, and V.

5.21.1 Site Conditions and Special Area Needs

The soils are sandy--the native soil in this area is primarily Lakeland sand. It is excessively drained, low in organic matter, has rapid rapid permeability, and the available water capacity is low to very low.

The species included in this theme are required to tolerate droughty conditions. Other requirements included suitability for parking lots.

The existing trees are primarily blackjack oak, turkey oak, longleaf pine, with some slash pine.

5.21.2 Theme Composition

A total of 24 species are included within this theme, 14 native and 10 exotic. Drought tolerant trees such as hickories and the more drought tolerant species of pine, maples, oaks, and redbuds are included in this theme. Several drought and urban condition tolerant exotic species, including Chinese elm, Chinese pistache, and trident maple, are also included. Table S1 contains a list of all species included in this theme, along with their source and mature size.

Table S1. Species Composition of the Business Park Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Devilwood	*Osmanthus americanus*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Elm, Winged	*Ulmus alata*	Native	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Hickory, Mockernut	*Carya tomentosa*	Native	Large
Hickory, Pignut	*Carya glabra*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Maple, Trident	*Acer buergeranum*	Exotic	Medium
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Small
Pine, Longleaf	*Pinus palustris*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.22 Theme T: Village Forest

The Village Forest was created for the central business district and the parks, plazas, promenades, and riparian areas in the heart of the Myrtle Beach AFB Redevelopment Area (South Park Village). This theme borders Farrow Parkway, Howard Parkway, and Pampas Drive, which are overlain by the Parkway Forest theme, Theme V. Theme T includes mainly commercial areas that border these transportation corridors. Major streets included in this theme, either wholly or in part, are:

- ❒ Farrow Parkway
- ❒ Hemlock Avenue
- ❒ Howard Parkway
- ❒ Pampas Drive
- ❒ Phyllis Boulevard
- ❒ Swallow Avenue

This theme is identified on Theme Location Maps 2 and 3 as "T". It shares boundaries with Themes H, J, N, and R.

5.22.1 Site Conditions and Special Area Needs

The native soils in this area are primarily Yauhannah fine sandy loam and Yemassee loamy fine sand. They are moderately well drained to poorly drained, low in organic matter, with moderately rapid permeability, and the available water capacity is moderate.

The species for this theme were chosen to enhance the development of the character described in the Master Plan completed for this part of the Redevelopment area. There are a variety of site situations existing in and planned for this area and a variety of trees are required, including those that will create allees along streets and in parks, thrive in tree wells in plazas, and take root along the banks of riparian zones.

The existing trees include cabbage palmeto, winged elm, American holly, Southern magnolia, live oak, willow oak, persimmon, loblolly pine, slash pine, and swamp bay.

5.22.2 Theme Composition

A total of 32 species are included within this theme, 26 native and 6 exotic. Many of the tree species have the potential to create stately, specimen plants, such as baldcypress, magnolia, and Darlington, live, and willow oaks. Others are proven to tolerate life within tree wells, such as crapemyrtle, Chinese elm, goldenraintree, and Chinese pistache. Table T1 contains a list of all species included in this theme, along with their source and mature size.

Table T1. Species Composition of the Village Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Buckeye, Red	*Aesculus pavia*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Elm, Winged	*Ulmus alata*	Native	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Hickory, Pignut	*Carya glabra*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Foster	*Ilex* x *attenuata*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Sycamore	*Platanus occidentalis*	Native	Large

5.23 Theme U: Urban Park Forest

The Urban Park Forest theme includes the Whispering Pines Golf Course and one other urban park in the Myrtle Beach AFB Redevelopment Area (South Park Village), just west of the area's central downtown district. one area in the southern section of Myrtle Beach, along Yaupon Drive and Rosemary Drive, from 17th Avenue South to 29th Avenue South. This includes residential areas, both single-family and planned unit developments, as well as transient accommodations.

Major streets included in this theme, either wholly or in part, are:

- ❒ Broadway Street (SC Highway 15)
- ❒ Meyers Avenue
- ❒ 17th Avenue South

This theme is identified on Theme Location Maps 2, 3, and 4 as "U". It shares boundaries with Themes A, D, and a short section of P.

5.23.1 Site Conditions and Special Area Needs

The native soils in this area are primarily Bladen and Yemassee fine sandy loams. They are poorly drained, low in organic matter, have low to moderately rapid permeability, and the available water capacity is moderate to high. It is surrounded by Lakeland sand, described earlier, a drier, sandier soil.

There landscape in the areas included in this theme needs larger profile trees as well as smaller, decorative trees. The existing trees are primarily blackgum, cabbage palmetto, gallberry, Southern magnolia, swamp magnolia, red maple, live oak, willow oak, loblolly and slash pines, and waxmyrtle.

5.23.2 Theme Composition

A total of 27 species are included within this theme, 23 native and 4 exotic. Several large native oaks are included, as is yellow poplar, a large, fast-growing tree. Some more unusual flowering trees—swamp dogwood, sassafras and witch hazel--are also included. Purpleleaf plum is included for additional color with its maroon foliage. Table U1 contains a list of all species included in this theme, along with their source and mature size.

Table U1. Species Composition of the Urban Park Forest

Common Name	Latin Name	Source	Tree Size
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Holly, American	*Ilex opaca*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sassafras	*Sassafras albidum*	Native	Medium
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.24 Theme V: Parkway Forest

The Parkway Forest theme is unique in that it is takes two forms, both a line feature and a polygon feature. These are companion sub-themes of Theme V that includes the same species. The corridor, line version of the theme is applied to the rights-of-way of all of the main transportation corridors in the Plan area, both existing and planned, in the City and in the County.

Major streets included in the line version of this theme, either wholly or in part, are:

- ❒ Carolina Bays Parkway
- ❒ Farrow Parkway
- ❒ Robert M. Grissom Parkway
- ❒ Howard Parkway
- ❒ Pampas Drive
- ❒ US Highway 17 Bypass

This theme is identified on Theme Location Maps as a line. It shares boundaries with many themes across the entire Plan area.

The polygon sub-theme of the Parkway Forest theme focuses on presenting highlights of the rest of the Myrtle Beach community forest. The theme covers the Myrtle Beach International Airport and surrounding area, as well as two major intersections in the Plan area. This theme includes commercial areas as well as transportation corridors, and has a companion theme, BB, the Parkway Forest Corridor, that is applied to major parkways. See Theme BB for more information on this compantion theme.

Major streets included in this theme, either wholly or in part, are:

- ❒ Intersection of US Highway 501 and US Highway 17 Bypass
- ❒ US Highway 17 Bypass and Robert M. Grissom Parkway
- ❒ Airdrome Avenue

This theme is identified on Theme Location Maps 1, 2, 6, 7, 12, and 13 as "V". It shares boundaries with Themes H, I, N, O, U, W, BB, CC, and DD.

5.24.1 Site Conditions and Special Area Needs

The native soils along the theme line vary greatly, but many of the soils have been altered due to construction of the roadways.

Trees that have special characteristics, such as form, texture, or flowers, that will make them stand out from the backdrop of the forested buffer zones on either side of these roadways are needed throughout these road rights-of-way.

There are many varieties of existing trees along these roadways, in natural woodlands as well as in designed landscapes. The Southern pines, and many of the native oaks, are common throughout these areas and tie the roadways together.

The native soils in the larger sections of the Parkway Theme are are primarily Meggett loam and Yemassee fine sandy loam. They are poorly drained, low in organic matter, have slow to moderate permeability, and the available water capacity is moderate to high.

The airport area requires species with a low profile that can still contribute to the landscape. Trees that do well around impervious surfaces and in compacted soils are also needed in these areas.

There are few existing trees in these areas. Some trees have been planted around the US Highway 501 interchange with US Highway 17 Bypass.

5.24.2 Theme Composition

A total of 29 species are included within this theme, 26 native and 3 exotic. The species included in this theme are highlights of the native forests that surround the roadways—highlights which include green ash, baldcypress, cabbage palmetto, hickories, oaks, pines, redbuds, and downy serviceberry. Low profile trees include red buckeye, chastetree, fringetree, Little Gem magnolia, the redbuds, and downy serviceberry. Table V1 contains a list of all species included in this theme, along with their source and mature size.

Table V1. Species Composition of the Parkway Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Red	*Aesculus pavia*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Fringetree	*Chionanthus virginicus*	Native	Small
Hickory, Mockernut	*Carya tomentosa*	Native	Large
Hickory, Pignut	*Carya glabra*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Longleaf	*Pinus palustris*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.25 Theme W: Flatwoods Forest

The Flatwoods Forest includes a wide variety of native species that are either evergreen or produce white flowers, red flowers, and/or red fruit or berries. This theme covers an area east of the Myrtle Beach International Airport, including all four quadrants around the intersection of Harrelson Boulevard with Old Socastee Highway. A new shopping mall is scheduled for development in this area. The theme area includes commercial areas in the City and the County.

Major streets included in this theme, either wholly or in part, are:

- ❒ Robert M. Grissom Parkway (proposed)
- ❒ Harrelson Boulevard
- ❒ Old Socastee Highway

This theme is identified on Theme Location Maps 6 and 11 as "W". It shares boundaries with Themes I, V, BB, and CC.

5.25.1 Site Conditions and Special Area Needs

The many native soil types in this area tend to be wet. They include Brookman loam, Meggett loam, Wahee fine sandy loam, Yemassee loamy fine sand, and Yonges fine sandy loam. They are all poorly to very poorly drained, low to moderate in organic matter, with slow permeability, and the available water capacity is moderate to very high.

The City requested that the theme covering this area consist of a high percentage of evergreen trees. Trees that can withstand wet soils are also needed. Trees suitable for planting around the impervious surfaces that occur in commercial aeas are also important for inclusion in this theme.

The existing trees include green ash, baldcypress, river birch, blackgum, yaupon holly, swamp chestnut and willow oaks, redcedar, and waxmyrtle.

5.25.2 Theme Composition

A total of 36 species are included within this theme, 30 native and 6 exotic. Evergreen species include Leyland cypress, a variety of hollies, magnolias, live oak, loblolly and slash pines, and waxmyrtle. White flowering trees include devilwood, the dogwoods, fringetree, the magnolias, Texas White redbud, and downy serviceberry. Table W1 contains a list of all species included in this theme, along with their source and mature size.

Table W1. Species Composition of the Flatwoods Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baccharis, Eastern	*Baccharis halmifolia*	Native	Small
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Red	*Aesculus pavia*	Native	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Kousa	*Cornus kousa*	Exotic	Small
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Elm, Winged	*Ulmus alata*	Native	Large
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Foster	*Ilex* x *attenuata*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.26 Theme X: Swamp Forest

The Swamp Forest theme covers several naturally wet sites bordering US Highway 17 Bypass, 21st Avenue North, and Robert M. Grissom Parkway, in both the City and the County. The theme includes residential, resort, and commercial areas.

Major streets included in this theme, either wholly or in part, are:

- ❒ Robert M. Grissom Parkway
- ❒ Old Bryan Drive
- ❒ Yaupon Drive
- ❒ 17th Avenue South through 21st Avenue South
- ❒ 23rd Avenue South through 29th Avenue South

This theme is identified on Theme Location Maps 7, 10, 11, 12, and 13 as "X". It shares boundaries with Themes G, I, J, V, Y, BB, DD, EE, and FF.

5.26.1 Site Conditions and Special Area Needs

The soils are wet and loamy. The native soil in this area is primarily Brookman loam. It is very poorly drained, moderate in organic matter, has slow permeability, and the available water capacity is high to very high.

The species included in the theme should thrive in wet conditions, even to the point of being flood tolerant.

The existing trees are diverse and include green ash, baccharis, river birch, blackgum, cabbage palmetto, crapemyrtle, red maple, magnolia, live oak, swamp chestnut oak, loblolly pine, slash pine, yellow poplar, sycamore, and waxmyrtle.

5.26.2 Theme Composition

A total of 28 species are included within this theme, 26 native and 2 exotic. Included are relatively flood tolerant species such as baldcypress, river birch, blackgum, red maple, overcup oak, swamp chestnut oak, and water tupelo. Table X1 contains a list of all species included in this theme, along with their source and mature size.

Table X1. Species Composition of the Swamp Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Dogwood, Swamp	*Cornus stricta*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Overcup	*Quercus lyrata*	Native	Medium
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Tupelo, Water	*Nyssa aquatica*	Native	Large

5.27 Theme Y: Native Forest

The Native Forest theme covers three areas in the southern section of Myrtle Beach, along Yaupon Drive and Rosemary Drive, from 17th Avenue South to 29th Avenue South. This includes residential areas, commercial, and office professional, in both the City and the County.

Major streets included in this theme, either wholly or in part, are:

- ❒ Cobblestone Drive
- ❒ Oleader Drive
- ❒ 29th Avenue North
- ❒ 38th Avenue North
- ❒ 48th Avenue North

This theme is identified on Theme Location Maps 10, 11, and 12 as "Y". It shares boundaries with Themes B, D, G, I, X, and BB.

5.27.1 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. The native soils in this area are primarily Centenary fine sand and Leon fine sand. They are poorly to moderately well drained, low in organic matter, have rapid permeability, and the available water capacity is low. The soils have low nutrient holding capacity.

There are no outstanding special needs in this area except for the obvious species to site match. The existing trees include blackgum, cabbage palmetto, crapemyrtle, gallberry, Southern magnolia, red maple, laurel oak, Southern red oak, swamp chestnut oak, Southern redcedar, Sycamore, and waxmyrtle.

5.27.2 Theme Composition

A total of 31 species are included within this theme, 25 native and 6 exotic. While not all of these species are native, this theme does contain some of the less often planted native species in Myrtle Beach, but species that are common in the undisturbed woodlands. Table Y1 contains a list of all species included in this theme, along with their source and mature size.

Table Y1. Species Composition of the Native Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Baldcypress	*Taxodium distichum*	Native	Large
Blackgum	*Nyssa sylvatica*	Native	Large
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Foster	*Ilex* x *attenuata*	Native	Small
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Overcup	*Quercus lyrata*	Native	Medium
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Tupelo, Water	*Nyssa aquatica*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.28 Theme Z: Pine Forest

The Pine Forest covers many undeveloped areas of commercial forestry agriculture outside of the City limits. There are very few roads in this area, and the commercial forest land is surrounded by property zoned for Planned Unit Development. There are excellent opportunities for tree preservation, and where natural areas occur native species should be preserved in groups. These areas also represent opportunities to preserve native soil health even if developed. The majority of these aresa exist north of the Intracoastal Waterway, south and east of the Carolina Bays Parkway, generally between 29th Avenue North and 48th Avenue North.

As land use within this theme changes, each development should take on the theme characteristics consistent with other themes in the area for the specific land use being developed, i.e. for highway commercial Theme BB would also apply, for residential, Theme FF would also apply, etc.

Major streets included in this theme, either wholly or in part, are:

- ❒ Carolina Bays Parkway

This theme is identified on Theme Location Maps 7, 9, and 13 as "Z". It shares boundaries with Themes DD and FF.

5.28.1 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. There are numerous native soil types in this area, but they are primarily Brookman loam, Rutledge loamy sand, and Yonges fine sandy loam. They are poorly to very poorly drained, low to moderate in organic matter, with slow to moderately slow to rapid permeability, and the available water capacity varies from low to very high.

The existing trees are primarily loblolly pine, with other native tree species such as red maple, blackgum, and gallberry.

5.28.2 Theme Composition

A total of 47 species are included within this theme, all native. The majority of all native species growing in the area have been included in this theme provide ample opportunities to plant native trees as development occurs. Table Z1 contains a list of all species included in this theme, along with their source and mature size.

Table Z1. Species Composition of the Pine Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baccharis, Eastern	*Baccharis halmifolia*	Native	Small
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Red	*Aesculus pavia*	Native	Small
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Winged	*Ulmus alata*	Native	Large
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Hickory, Mockernut	*Carya tomentosa*	Native	Large
Hickory, Pignut	*Carya glabra*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Hophornbeam, American	*Ostrya virginiana*	Native	Medium
Hornbeam, American	*Carpinus caroliniana*	Native	Medium
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Overcup	*Quercus lyrata*	Native	Medium
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Longleaf	*Pinus palustris*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium

Common Name	**Latin Name**	**Source**	**Tree Size**
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sassafras	*Sassafras albidum*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Tupelo, Water	*Nyssa aquatica*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.29 Theme AA: Community Forest

The Community Forest theme was developed for the the very large area that makes up the Grand Dunes complex north and south of the Intracoastal Waterway, and includes other residential subdivisions in the area. Development is currently underway in the Grand Dunes Planned Unit Development, which includes several types of land use including residential, recreational, and resort.

Major streets included in this theme, either wholly or in part, are:

- ❒ Cliffwood Drive
- ❒ Grand Dunes Boulevard
- ❒ Toscana Drive

This theme is identified on Theme Location Maps 14, 15, and 16 as "AA". It shares boundaries with Themes B, G, BB, and GG.

5.29.1 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. The native soil in this area is primarily Leon fine sand and Witherbee sand. These are poorly drained soils , low in organic matter, with moderately rapid to rapid permeability, and the available water capacity is low.

The area has been extensively planted and there is a need to match the theme species with those planted, and of course with those native tree found in the area. Native trees found in the area include blackgum, swamp dogwood, gallberry, yaupon holly, red maple, southern red oak, loblolly pine, longleaf pine, redcedar, and sycamore. Planted species include cabbage palmetto, Chinese elm, red maple, Darlington oak, live oak, and Japanese flowering cherry.

5.29.2 Theme Composition

A total of 30 species are included within this theme, 25 native and 5 exotic. All of the species found planted on the site, except for Japanese flowering cherry, are included in this theme. Table AA1 contains a list of all species included in this theme, along with their source and mature size.

Table AA1. Species Composition of the Community Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Blackgum	*Nyssa sylvatica*	Native	Large
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Devilwood	*Osmanthus americanus*	Native	Small
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Gallberry	*Ilex glabra*	Native	Small
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Trident	*Acer buergeranum*	Exotic	Medium
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Longleaf	*Pinus palustris*	Native	Large
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.30 Theme BB: Commercial Forest

The Commercial Forest theme covers many smaller areas throughout the central and northern portions of the Plan area. These areas are always adjacent to major highways and the land use is commercial. Many of these areas are outside of the current City limits.

Major streets included in this theme, either wholly or in part, are:

- ❒ Church Street
- ❒ Robert M. Grissom Parkway
- ❒ Jason Boulevard
- ❒ Oak Forest Lane
- ❒ Seaboard Street
- ❒ US Highway 17 Bypass

This theme is identified on Theme Location Maps 6, 7, 8, 10, 12, 13, and 15 as "BB". It shares boundaries with many themes throughouth the Plan area, I, J, X, V, W, AA, DD, and EE.

5.30.1 Site Conditions and Special Area Needs

The soils vary in type but are Meggett loam. They are poorly drained, low in organic matter, has slow permeability, and the available water capacity is moderate to high.

The species included in this theme must be able to withstand urban conditions, which include impervious surfaces, small growing areas, reflective heat from pavement, and drought tolerance. Suitability for parking lots is also desirable. The existing trees include a variety of oaks, pines, and other native trees.

5.30.2 Theme Composition

A total of 27 species are included within this theme, 15 native and 12 exotic. Many of these species are exotic trees that have proven to be tolerant of drought and urban conditions, such as chastetree, crapemyrtle, Chinese elm, goldenraintree, honeylocust, Japanese black pine, and Chinese pistache. Table BB1 contains a list of all species included in this theme, along with their source and mature size.

Table BB1. Species Composition of the Commercial Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Dogwood, Kousa	*Cornus kousa*	Exotic	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, Foster	*Ilex* x *attenuata*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Maple, Trident	*Acer buergeranum*	Exotic	Medium
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Small
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.31 Theme CC: Industrial Forest

The Industrial Forest theme covers four areas in the center of the Plan area, primarily outside the City limits. These areas are zone light industrial, and also include some highway commercial zones.

Major streets included in this theme, either wholly or in part, are:

- ABC Drive
- Cannon Road
- Harrelson Boulevard
- Linen Drive
- Racepath Road

This theme is identified on Theme Location Maps 5, 6, 7, and 8 as "CC". It shares boundaries with many themes, but primarily with Themes J, W, AA, EE, FF, and GG.

5.31.1 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. The primary native soil in the area is Brookman loam. It is poorly drained, moderate in organic matter, has slow permeability, and the available water capacity is high to very high.

The areas available for trees range in this area from harsh sites surrounded by impervious surfaces with little growing space to sites with wide lawns with adequate to plentiful growing space.

The existing trees are a mix of native species that include red maple, loblolly pine, slash pine, sweetgum, and water tupelo.

5.31.2 Theme Composition

A total of 30 species are included within this theme, 22 native and 8 exotic. A variety of tree sizes are included to provide matches with various types of land use within the planned developments. Table CC1 contains a list of all species included in this theme, along with their source and mature size.

Table CC1. Species Composition of the Industrial Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Cypress, Leyland	*Cupressocyparis leylandii*	Exotic	Medium
Dogwood, Kousa	*Cornus kousa*	Exotic	Small
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, American	*Ilex opaca*	Native	Medium
Holly, Foster	*Ilex* x *attenuata*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Honeylocust, Thornless	*Gleditsia triacanthos*	Exotic	Large
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Sycamore	*Platanus occidentalis*	Native	Large

5.32 Theme DD: Planned Forest

The Planned Forest was developed for areas of Planned Unit Development within the central Plan area between the US Highway 17 Bypass and the Carolina Bays Parkway. Currently there are very few roads within this theme area, but the land is becoming residential with roadways planned or under construction.

Major streets included in this theme, either wholly or in part, are:

- ❒ Robert M. Grissom Parkway
- ❒ Wild Iris Drive

This theme is identified on Theme Location Maps 7, 10, and 13 as "DD". It shares boundaries with Themes G, X, Z, AA, FF, and GG.

5.32.1 Site Conditions and Special Area Needs

The soils tend to be sandy. The native soils in this area are primarily Echaw sand, Leon fine sand, and Lynn Haven sand. They are poorly to moderately well drained, low in organic matter, with moderate to moderately rapid permeability, and the available water capacity is low.

There are no special needs in this area. The existing trees are primarily gallberry, yaupon holly, swamp bay, red maple, live oak, Southern red oak, loblolly pine, longleaf pine, and slash pine.

5.32.2 Theme Composition

A total of 31 species are included within this theme, 30 native and 1 exotic. Table DD1 contains a list of all species included in this theme, along with their source and mature size.

Table DD1. Species Composition of the Planned Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Red	*Aesculus pavia*	Native	Small
Chastetree	*Vitex agnus-castus*	Exotic	Small
Cyrilla, Swamp	*Cyrilla racemiflora*	Native	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Longleaf	*Pinus palustris*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Sassafras	*Sassafras albidum*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Tupelo, Water	*Nyssa aquatica*	Native	Large

5.33 Theme EE: Recreation Forest

The Recreation Forest was designed to enhance visitor experiences in commercial amusement zones primarily focused outside of the City limits. Two small areas are covered by this theme in the central Plan area, just east of the Intracoastal Waterway and north of the US Highway 17 Bypass.

No major streets are as yet included in this theme.

This theme is identified on Theme Location Maps 7 and 10 as "EE". It shares boundaries with Themes I, X, Z, BB, and CC.

5.33.1 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. The native soils in this area are primarily Bladen fine sandy loam and Brookman loam. They are very poorly to poorly drained, moderate in organic matter, have slow to very slow permeability, and the available water capacity is high to very high.

The trees included in this theme should enhance visitor experiences in commercial amusement zones, which include some harsh conditions, including a high amount of impervious surfaces and commonly soil compaction. Shade is a priority in these areas. The existing trees include red maple, loblolly pine, slash pine, sweetgum, sycamore, and water tupelo.

5.33.2 Theme Composition

A total of 27 species are included within this theme, 19 native and 8 exotic. Flowering trees such as chastetree, crapemyrtle, goldenraintree, and Oklahoma and Texas White redbuds have been include for color in the landscape, and large shade trees including Southern magnolia, red maple, and Darlington, live, swamp chestnut, and willow oaks have been included. Table EE1 contains a list of all species included in this theme, along with their source and mature size.

Table EE1. Species Composition of the Recreation Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Elm, Chinese	*Ulmus parvifolia*	Exotic	Large
Elm, Winged	*Ulmus alata*	Native	Large
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, Foster	*Ilex* x *attenuata*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Maple, Red	*Acer rubrum*	Native	Large
Maple, Trident	*Acer buergeranum*	Exotic	Medium
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

5.34 Theme FF: Residential Forest

The Residential Forest theme covers several large areas between US Highway 17 Bypass and the Intracoastal Waterway, and between the Intracoastal Waterway and the Carolina Bays Parkway. These areas are all residential.

Major streets included in this theme, either wholly or in part, are:

- ❒ Arundel
- ❒ Brookgreen
- ❒ Landing Road
- ❒ Lighthouse Way
- ❒ Shipyard Drive
- ❒ Waterford

This theme is identified on Theme Location Maps 6, 7, 8, 9, 10, and 13 as "FF". It shares boundaries primarily with Themes C, X, BB, DD, and GG.

5.34.1 Site Conditions and Special Area Needs

The soils vary from sandy to loamy. The native soils in this area are primarily Bladen fine sandy loam, Brookman loam, Leon fine sand, Meggett loam, and Yauhannah fine sandy loam. They are mostly poorly drained, low to moderate in organic matter, with slow to moderate permeability, and the available water capacity varies from low to high.

The area has abundant planting spaces for trees and many native species that thrive in wetter sites should do well in this area. The existing trees are primarily blackgum, gallberry, American holly, red maple, slash pine, tree sparkleberry, winged sumac, sweetgum, waxmyrtle, and swamp bay.

5.34.2 Theme Composition

A total of 45 species are included within this theme, 40 native and 5 exotic. Because these are relatively large areas covered by this theme, a great diversity of species has been included. Table FF1 contains a list of all species included in this theme, along with their source and mature size.

Table FF1. Species Composition of the Residential Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Blackgum	*Nyssa sylvatica*	Native	Large
Buckeye, Red	*Aesculus pavia*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Dogwood, Flowering	*Cornus florida*	Native	Medium
Dogwood, Swamp	*Cornus stricta*	Native	Small
Elm, Winged	*Ulmus alata*	Native	Large
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Hickory, Mockernut	*Carya tomentosa*	Native	Large
Hickory, Pignut	*Carya glabra*	Native	Large
Holly, American	*Ilex opaca*	Native	Medium
Holly, Dahoon	*Ilex cassine*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Maple, Southern Sugar	*Acer barbatum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Oak, Southern Red	*Quercus falcata*	Native	Large
Oak, Swamp Chestnut	*Quercus michauxii*	Native	Large
Oak, Willow	*Quercus phellos*	Native	Large
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Pistache, Chinese	*Pistacia chinensis*	Exotic	Medium
Plum, Purpleleaf	*Prunus cerasifera* ‘Atropurpurea’	Exotic	Small
Poplar, Yellow	*Liriodendron tulipifera*	Native	Large
Redbud, Eastern	*Cercis canadensis*	Native	Medium
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Sassafras	*Sassafras albidum*	Native	Medium

Common Name	**Latin Name**	**Source**	**Tree Size**
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Sycamore	*Platanus occidentalis*	Native	Large
Tupelo, Water	*Nyssa aquatica*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small
Witchhazel, Common	*Hamamelis virginiana*	Native	Small

5.35 Theme GG: Resort Forest

The Resort Forest theme covers two main areas north of the Intracoastal Waterway. There are few streets within these areas, which are zoned as resort commercial and are located outside of the City limits.

There are no major streets included in this theme.

This theme is identified on Theme Location Maps 8, 9, 10, 12, and 13 as "GG". It shares boundaries with Themes AA, BB, CC, DD, and FF.

5.35.1 Site Conditions and Special Area Needs

The soils tend to be wet and loamy. The native soils in this area are primarily Bladen fine sandy loam, Leon fine sand, and Meggett loam. They are poorly drained, low in organic matter, with slow to moderate permeability, and the available water capacity varies from low to high.

The species included in this area should represent the native forest to visitors to the area. Typical species in the area are gallberry, red maple, loblolly and slash pines, and sycamore.

5.35.2 Theme Composition

A total of 36 species are included within this theme, 30 native and 6 exotic. While there are species included that are typical of the area, some exotics are included to provide additional color. Table GG1 contains a list of all species included in this theme, along with their source and mature size.

Table GG1. Species Composition of the Resort Forest

Common Name	**Latin Name**	**Source**	**Tree Size**
Ash, Green (Red)	*Fraxinus pennsylvanica*	Native	Large
Baccharis, Eastern	*Baccharis halmifolia*	Native	Small
Baldcypress	*Taxodium distichum*	Native	Large
Birch, River	*Betula nigra*	Native	Medium
Buckeye, Bottlebrush	*Aesculus parviflora*	Native	Small
Buckeye, Red	*Aesculus pavia*	Native	Small
Buttonbush, Common	*Cephalanthus occidentalis*	Native	Small
Cabbage Palmetto	*Sabal palmetto*	Native	Medium
Chastetree	*Vitex agnus-castus*	Exotic	Small
Crapemyrtle	*Lagerstroemia indica*	Exotic	Small
Fringetree	*Chionanthus virginicus*	Native	Small
Gallberry	*Ilex glabra*	Native	Small
Goldenraintree	*Koelreutria paniculata*	Exotic	Medium
Holly, Foster	*Ilex* x *attenuata*	Native	Small
Holly, Yaupon	*Ilex vomitoria*	Native	Small
Loblolly-Bay	*Gordonia lasianthus*	Native	Medium
Magnolia, Little Gem	*Magnolia grandiflora* `Little Gem'	Native	Small
Magnolia, Southern	*Magnolia grandiflora*	Native	Large
Magnolia, Sweetbay	*Magnolia virginiana*	Native	Medium
Maple, Red	*Acer rubrum*	Native	Large
Oak Cherrybark	*Quercus falcata* var. *pagodifolia*	Native	Large
Oak, Darlington	*Quercus hemisphaerica*	Native	Large
Oak, Laurel	*Quercus laurifolia*	Native	Large
Oak, Live	*Quercus virginiana*	Native	Large
Oak, Shumard	*Quercus shumardii*	Native	Large
Pine, Japanese Black	*Pinus thunbergiana*	Exotic	Small
Pine, Loblolly	*Pinus taeda*	Native	Large
Pine, Slash	*Pinus elliottii*	Native	Large
Redbud, Forest Pansy	*Cercis canadensis* `Forest Pansy'	Native	Small
Redbud, Oklahoma	*Cercis reneformis* `Oklahoma'	Exotic	Small
Redbud, Texas White	*Cercis reneformis* `Texas White'	Exotic	Small
Redcedar, Eastern	*Juniperus virginiana*	Native	Medium
Redcedar, Southern	*Juniperus silicicola*	Native	Medium
Serviceberry, Downy	*Amelanchier arborea*	Native	Medium
Tupelo, Water	*Nyssa aquatica*	Native	Large
Waxmyrtle, Southern	*Myrica cerifera*	Native	Small

6 COMMUNITY TREE PLANTING PROGRAM

6.1 Introduction

This Community Tree Planting Plan is a guide for planting and preserving native trees in Myrtle Beach. While it is just one approach to coordinating tree planting and preservation activities, its implementation will enhance the community's natural environment and quality of life. The Plan is designed to be used as a focal point in the community's tree planting program.

Over time, the Plan's implementation will create for Myrtle Beach a high quality, mostly native, and very attractive community forest that provides all of the benefits and effects desired by the City's residents. The Plan can be used by homeowners to develop ideas and plans for planting trees around their homes. It can be used by developers, landscape architects, builders, and engineers to plan for tree planting and preservation needs on residential, commercial, and industrial sites being developed, improved, or maintained. The Plan is also designed for use by the City in planning for and planting the public community forest. It can also be used by educators to teach important principles to students of all ages about trees and the natural environment.

All of the groups mentioned above share the community's vision for a Myrtle Beach that is "livable, prosperous, and connected to its roots". The Community Tree Planting Plan can help to achieve this vision by uniting the community in a coordinated effort to plant and preserve trees, by promoting the planting of native trees and the preservation of native forests, and by making Myrtle Beach an attractive, shady, and enjoyable place to live and visit.

The remainder of Section 6 contains information on tree planting needs and opportunities in Myrtle Beach, tree establishment and preservation guidelines, and recommendations for Myrtle Beach's community tree planting program.

6.2 Tree Planting Needs

Tree planting is an important part of a community's total tree management program. For every tree planted, however, there is a future cost. Money should be allocated annually by the "owner" of the new tree (whether the City, a private corporation, a small business or homeowner) for regular tree maintenance. Regular maintenance activities, such as pruning, mulching, fertilizing, protecting, and inspecting, are essential to preserving tree health and maximizing a tree's useful life. The longer a tree lives in good health, the greater benefits that the community realizes, and the lower the costs.

Tree planting needs and general tree planting opportunities on the public street rights-of-way in Myrtle Beach were identified during the development of this Plan. The locations of vacant tree planting sites were recorded during a

street inventory in the area of Kings Highway to Ocean Boulevard, between and including 29th Avenue South to 31st Avenue North. A more general survey of potential tree planting sites was completed in neighborhoods throughout the remainder of the City.

6.2.1 Tree Planting Recommendations

A list of Tree Planting Recommendations by Street was generated from the results of the street inventory. It is included in Appendix B. This table contains both high priority planting needs (areas with low tree density, few street trees, and little canopy cover) as well as low and moderate.

A total of 524 vacant sites on the public street rights-of-way were identified. About half of these—268—are considered to be high priority.

Of the high priority sites, 53 will accommodate large trees, 27 will accommodate medium trees, and 188 are suitable for small trees only. Of the 38 streets on which vacant sites were identified with a high priority planting need, the following streets had the greatest number of vacant sites:

a. Chester Street - 44 sites;

b. Flagg Street - 38 sites;

c. Withers Drive - 19 sites;

d. Yaupon Drive - 13 sites;

e. 1st Avenue North - 13 sites;

f. Mitchell Drive - 10 sites.

The remaining streets had less than 10 vacant planting sites identified.

6.2.2 Tree Planting Opportunities

During a general survey of other areas throughout the community during the development of the first edition of this plan, information was recorded on the location of some isolated tree planting opportunities. These opportunities are listed in Table 6.1 on the following page.

The tree planting opportunities identified here are not considered to be a high priority, except for those Seaboard Street. Seaboard Street has low tree density and a high priority need for screen, canopy, and shade trees. Opportunities for tree planting in the areas included in the 2nd edition of the Plan are scattered throughout those areas, and individual planting opportunities are not included in Table 6.1.

Table 6.1 Tree Planting Opportunities

Location	**Purpose/Comments**	**Size**
10th Avenue North, Dunbar Street to White Street, north side	Curbed	Small
10th Avenue North, north side	Overhead utilility lines; no curb	Small
10th Avenue North, White Street to Cherokee Street	Plant only where ditch isnot present	Small
26th Avenue North	Enhance ocean views with tree canopy	Large
38th Avenue North, north side, Kings Highway to Oak Street	Street trees	N/A
62nd Avenue North, south side	Street trees; curbed tree lawns with and without sidewalks	Small
76th Avenue North, Driftwood Drive to Briarwood Drive, north side	Street trees	Large
76th Avenue North, Kings Highway to Woodland Drive, south side	Street trees; utility line is nearby	Small or Medium
79th Avenue North, Briarwood Drive to Driftwood Drive	Street trees; 4 foot wide tree lawns	Medium
79th Avenue North, Driftwood Drive to Kings Highway, south side	Street trees; 4 foot wide tree lawns	Large
82nd Parkway Median	Enhance the understory	Small and Medium
Broadway Street and 8th Avenue North, Median	Shade	Large
Calhoun Road North	Street trees; wide tree lawns	Medium
Calhoun Road South	Street trees	Large
Carver Street	Street trees	Small, Medium, and Large
Dunbar Street, 10th Avenue North toSpivey Avenue, West side	Street trees	Small
Main Street, Oak Street, and 8th Avenue North Median	Shade	Large
Oak Street, 1st Avenue South to 3rd Avenue South, west side	Street trees; 3 foot wide tree lawns	Small
Oak Street, 2nd Avenue North to 4th Avenue North	Street trees	Large
Oak Street, 6th Avenue South to 7th Avenue South, east side	Street trees	Small
Poinsett Drive South	Street trees	Medium
Seaboard Street, east side	Street trees; no overhead utility lines	Large

Location	Purpose/Comments	Size
Seaboard Street south of 21st Avenue North, east side	Street trees; canopy trees; screening	Large
Seaboard Street south of 21st Avenue North, west side	Street trees; canopy trees; screening	Large
Woodland Drive	Street trees	Small, Medium, and Large
Spivey Avenue	Street trees	Small, Medium, and Large

6.3 Tree Establishment Guidelines

Tree establishment is an involved process and requires more time, thought, and planning than is often realized. The following guidelines are provided to serve as a checklist of reminders during the planning and planting processes.

6.3.1 General Guidelines

Plant no more than 10% of any one species.

Plant no more than 30% of any one genus (e. g., maple), and no more than 30% of one species within the genus (e. g., red maple), and no more than 30% of any one cultivar within the species (e.g., 'Red Sunset' red maple).

Per the City's landscape ordinance, plant no more than 15% of the total required planting with any species of pine trees (except for Japanese Black Pine).

Provide plenty of growing space, especially underground for the root systems; and overhead space, for the crown.

Do not plant on the right-of-way if trees (now or in the future) will reduce pedestrian, sight, or vehicular clearance; make sure to provide plenty of clearance for postal vehicles near mail boxes.

Plan for at least three years of initial maintenance (mulch, water, protection) after planting while the tree is becoming established.

A detailed set of tree establishment standards and guidelines that address the entire process follows.

6.3.2 Tree Establishment Standards and Guidelines

Tree establishment consists of a series of activities that includes site analysis, species selection, tree procurement, ordering and inspection, tree installation, and new tree care.

The selection, purchase, transportation, handling, planting, and maintenance of an urban tree is a labor intensive and expensive undertaking. If these

activities are done correctly, each newly planted tree's potential for survival and longevity, and future benefits and value to the community, will be maximized. Standards and guidelines for the various steps in the establishment of trees follow.

6.3.3 Planting Site Analysis

For a tree to maintain good health and to achieve its potential, it must have room to grow. When planting a tree along the street right-of-way, in parking lots, or around buildings, properly matching the species' *mature* size with the size of the planting site is the one of the most important factors that will affect the future health of the tree. The space available for tree growth is often limited either immediately or over time by the presence or installation of pavement, curbs, sidewalks, utility lines, light poles, buildings, or other structures. Give the tree space to begin with, and recognize that its need for space increases as it grow older and gets larger.

Standards for Planting Site Analysis

1. Trees will only be planted on sites with adequate growing space for the tree's roots, trunk, and crown.
2. No tree will be planted in a tree lawn less than 3 feet in width.
3. Only small-maturing trees will be planted beneath utility lines.

6.3.4 Species Selection

In addition to growing space requirements discussed above, each tree species has a specific set of environmental conditions that must be present on the site for the tree to grow and thrive. These environmental conditions include:

- ❒ Seasonal Climate
- ❒ Soil Structure
- ❒ Soil pH
- ❒ Soil Moisture
- ❒ Light
- ❒ Temperature

Many of these conditions were considered in selecting tree species for a Forest Theme. Each species has a tolerable as well as an optimal range for each environmental condition under which it is able to exist. If an environmental condition exists on a site that is outside of the tolerable range for a particular tree species, then that condition will be a limiting factor in the growth, development, or possibly even the survival of that tree.

Native tree species are preferred over exotic species because they are better adapted to the local climate and site conditions. Exotic species, however, can

be used effectively to meet certain site conditions that cannot be met by native species.

Standards for Species Selection

1. All trees planted will be suitable for the growing conditions existing on the site.
2. Tree species planted will conform to the Forest Theme designation for the area.
3. Invasive species will not be planted.

6.3.5 Tree Quality

Standards for Tree Quality

- ❒ Only high quality trees free from visible defects and having well-developed root systems will be planted.
- ❒ Cost will not be the determining factor in decisions on which trees are purchased if quality is substandard.

Trees that are container grown, balled and burlapped, or grown in root control bags are acceptable planting stock. All nursery stock ordered should meet the ANSI Z60.1-1990 American Standard for Nursery Stock published by the American Association of Nurserymen. In particular, trees that have been topped, top pruned, or had the leader pruned should not be accepted. Topped trees grow to have structural defects--usually forked co-dominant stems with included bark--that weaken the tree and increase its risk of failure as it matures.

Standards for Selecting Above Ground Tree Quality

The top portion of the tree should:

1. be healthy;
2. be vigorous;
3. have a normal habit of growth for the species;
4. have a straight trunk with no forks;
5. have no crossing branches or branches growing upward inside the crown;
6. have a good crown shape and color;
7. have limbs not lower than 4 feet above the ground depending on the species;
8. should be properly target pruned - not flush cut, trimmed, rounded-over, hedged, tipped, or topped;
9. be fully open grown;
10. have a single dominant leader with no side branches taller than the main leader; no forks or dead leaders;

11. have approximately two-thirds of its total height in living branches;
12. be free from disease and insect infestation;
13. be free of wound paint;
14. be free from mechanical injury;
15. be free from bruises and scrapes on the trunk or limbs;
16. be free from other objectionable features;
17. not have included bark;
18. not have codominant leaders.

Standards for Selecting Root System Quality

The tree's root system should:

1. be container grown or balled and burlapped (B&B);
2. if balled and burlapped, have at least the minimum diameter ball size for each diameter inch tree in accordance with ANSI standards;
3. have a minimum sized root ball of 24 inches;
4. have no large roots cut close to the root crown/stem base;
5. be healthy and vigorous;
6. not be cracked, dry, and the trunk should not be loose in the ball.

6.3.6 Tree Establishment

Tree Establishment includes site preparation, preparation of the planting hole, tree installation, and new tree maintenance. New tree maintenance will include mulch, protection from mower and weed trimmer damage, and supplemental irrigation during the establishment period (first 3 years after planting). Training pruning of newly planted trees will begin by no later than the third year of the establishment period.

Established tree maintenance will include mulch, protection from mower and weed trimmer damage, routine inspection, and pruning as necessary.

Tree maintenance practices will conform to the latest professionally accepted standards.

To insure a healthy start for a new tree and to maximize its chances for long-term survival, the following tree planting guidelines should be followed. These specifications are designed to insure rapid establishment of new trees. Trees planted correctly can be expected to grow twice as fast and should live at least twice as long as trees that are incorrectly planted. It is important to try to maintain conditions at the planting site that are as near to natural as possible.

Standards for Site Preparation

1. Get all necessary approvals, easements, and permits for planting.
2. Lay out planting sites.
3. Have all underground utilities marked.
4. Break up compacted soils by subsoiling, tilling, or harrowing.
5. Remove and replace any contaminated soils with good quality topsoil.
6. Collect soil samples following procedures outlined in Cooperative Extension Service guidelines and submit for analysis to CES.
7. Tree Transport and Storage--
8. Do not break or injure the tree's central leader or main stem.
9. Do not lift trees by the stem; lift only by straps, wire basket handles, or container and support root ball or container from underneath.
10. Cover trees during transport with a light to medium weight woven polyethylene tarp properly tied down over trees.
11. Keep tree roots moist; place in trench and cover with wet wood chips or other organic material if they will not be planted immediately.
12. Keep trees in a cool and shady place, protected from the sun and wind until ready to plant.
13. Plant trees within 3 days after delivery; trees may be stored up to 5 days if necessary as outlined above.

Standards for Preparation of the Planting Hole

1. Diameter of the planting hole should be at least twice the diameter of the root ball or container, for example: 18" root ball = 36" planting hole, 24" root ball = 48" planting hole, 32" root ball = 64" planting hole, etc.
2. In compacted soils, till or loosen the soil in a circle with a diameter up to 5 times the diameter of the root ball.
3. Sides of the planting hole should be sloped toward the tree.
4. Smooth sides should be roughened slightly to facilitate root penetration.
5. Depth of planting hole should be equal to the height of the root ball; do not plant trees deeper than ground level.
6. Soil in center of hole should remain undisturbed to eliminate settling of soil and sinking of root ball and tree.

Standards for Tree Installation

1. Place the tree in the planting hole using the nylon straps or wire basket handles; top of root ball should be even with the groundline.
2. Do not place fertilizer in the planting hole.
3. In wet or heavy soils, raise the top of the root ball to slightly above ground

level to aid in the spread of lateral roots.

4. Container grown trees should be tapped out of their containers carefully, and not pulled by the stem or trunk; cut containers if necessary.
5. Cut the encircling roots of container grown trees longitudinally in several places, approximately 1" deep.
6. Remove burlap from the root ball if possible, cutting the burlap off or down around all sides.
7. Remove all plastic, treated burlap, twine, wires, tags, rope, or other materials that may restrict root growth.
8. Remove wire basket; although it is preferable to remove wire baskets, they can remain around the root ball if you cut and remove the top two tiers of wire after the ball is set in the hole.
9. If burlap has been left in the planting hole, insure that no burlap or other material is exposed above the ground; exposed burlap will wick water out and away from the root ball.
10. Backfill hole with same material that was removed from the planting hole, breaking up all dirt clods.
11. After filling hole halfway with soil, water slowly to saturate and settle soil, and remove air pockets.
12. Fill hole to original grade, lightly pack soil, and water tree thoroughly.
13. On dry sites, form a basin of soil around the tree outside of the planting hole to hold water; remove basin after one year.

Standards for New Tree Maintenance

1. Remove plastic or paper trunk wrapping.
2. Remove any tags, twine, wires, flagging tape, or other materials from the trunk and branches.
3. Mulch trees with 3 inches of organic material such as pine straw, composted wood chips, shredded bark, or similar material in a radius around the tree trunk equal to at least the size of the planting hole; keep mulch at least 5 inches from the trunk.
4. Do not stake trees unless tree is incapable of supporting itself or if planted in sandy soils.
5. Remove stakes and guy wires after one year.
6. Prune dead, broken, or rubbing branches only during the first year after planting.
7. Water trees in an amount equal to at least 1" per week when adequate rainfall is lacking.
8. Do not fertilize until the tree has been planted at least one full year.

9. Trees, once established, will be maintained throughout their life.

6.4 Tree Preservation Guidelines

The successful preservation of existing trees on a site also requires a lot of time, thought, and planning. The following guidelines are provided as a checklist to be used throughout the tree preservation process. The guidelines are grouped by their general sequence in the tree preservation process—pre-construction, construction, and post-construction.

6.4.1 Pre-Construction

Standards for Pre-Construction Preservation

1. Evaluate plans and proposed construction activities and plan to minimize impact on trees.
2. Involve all workers on site in tree preservation.
3. Protect trees at least to the dripline, or edges of the tree's branches; this protects the critical root zone (area beneath the dripline); for forest grown trees, double this area (2 times the distance to the dripline).
4. Fertilize trees one year prior to the commencement of construction activities if soil test indicates a need.
5. Prune low hanging limbs that may interfere with truck and equipment movement; prune dead, diseased, dying, or structurally weak limbs.
6. Mulch around the trees beneath the dripline with 3-4 inches of organic mulch.
7. Install tree protection fencing with temporary chain link fencing or orange polyethylene mesh fencing and sturdy metal fence stakes, wooden fence posts, or wooden 2 x 4's placed every 4 feet around the tree at the dripline.
8. Install signs along fencing identifying the “tree protection zone”.
9. If drought conditions occur, provide irrigation equivalent to 1 to 2 inches of water per week.

6.4.2 The Construction Phase

Standards for Preservation During Construction

1. Prevent all vehicular traffic within the critical root zones; do not allow parking beneath the trees.
2. Do not store any construction materials beneath the trees.
3. If vehicular traffic must occur within the critical root zone, place temporary, raised pathways of 4" x 4" lumber and steel plates over the root zones of the trees. Lumber should be placed in a radial arrangement around the base of the trees.

4. Do not attach any signs, banners, or fencing to tree trunks.
5. Do not allow any equipment maintenance or washouts beneath the trees.
6. Tunnel instead of trench when installing utility lines within the tree's critical root zone.
7. Never place any fill dirt on top of the root systems of the trees; this will eliminate oxygen from reaching the roots and could kill tree roots, and the tree.

6.4.3 Post-Construction

Standards for Post-Construction Preservation

1. Assess tree condition and provide necessary maintenance.
2. Prune any broken branches on the tree.
3. Maintain mulch within the critical root zone.
4. Remove tree protection fencing.
5. Continue irrigation if drought conditions occur.
6. Vertically mulch compacted soils around trees.

6.5 Community Tree Planting Program Recommendations

The Community Tree Planting Plan for Myrtle Beach is summarized below in the form of a list of recommendations made throughout this Plan. In addition to these recommendations, it is also recommended that the City provide regular urban tree care education to residents, business owners, developers, builders, construction contractors, landscape architects, and landscaping contractors, and City employees. The Community Tree Planting Plan should be part of this education program. Provide copies of the Plan to City departments, the Community Appearance Commission, City schools, to the public library, and other places of public access for use by the many partners in tree planting within the City of Myrtle Beach. By providing urban tree education and forming or strengthening partnerships with all segments of the community, the City of Myrtle Beach will achieve its goals for its community forest.

1. Create a Community Tree Board to serve as a liaison between the City and the residents, to actively promote tree planting and care, and to implement the Community Tree Planting Plan.
2. Plant native trees to enhance the natural environment.
3. Plant recommended species in accordance with the applicable forest theme.
4. Do not plant more than 10% of any one species on any one site to maintain species diversity.

5. Maintain a stable community forest through species diversity, spatial diversity, age diversity, and size diversity.
6. Match the species to the site.
7. Plant only high quality trees.
8. Plant trees properly.
9. Plant only small trees beneath utility lines.
10. Maintain trees throughout their lives.
11. Don't plant trees that you are not committed to maintaining.
12. On City street rights-of-way, plant only trees that do not require frequent pruning for vehicular and pedestrian traffic clearance, or that have messy or hazardous fruiting habits.
13. Preserve native trees, preferably in groupings, whenever and wherever possible. Trees preserved in groupings are less subject to windthrow.
14. Tree protection should be planned, budgeted, implemented and installed by a qualified person, and then monitored and enforced.
15. Encourage the preservation and planting of native pine species.
16. The City should investigate growing trees in a nursery on a contract basis to insure an adequate supply of desirable native species; or, investigate the feasibility of creating a City tree nursery for the same purpose.
17. The City should investigate providing tree seedlings (free or at a reduced cost) and planting instructions to residents and neighborhoods to encourage the planting of recommended tree species within their forest theme.
18. The City should maintain updated lists of tree species recommended for planting and preservation.
19. The City should maintain a list of current tree planting needs on public property.
20. Develop a process updating the Plan on a regular basis, including the addition and deletion of species as necessary.

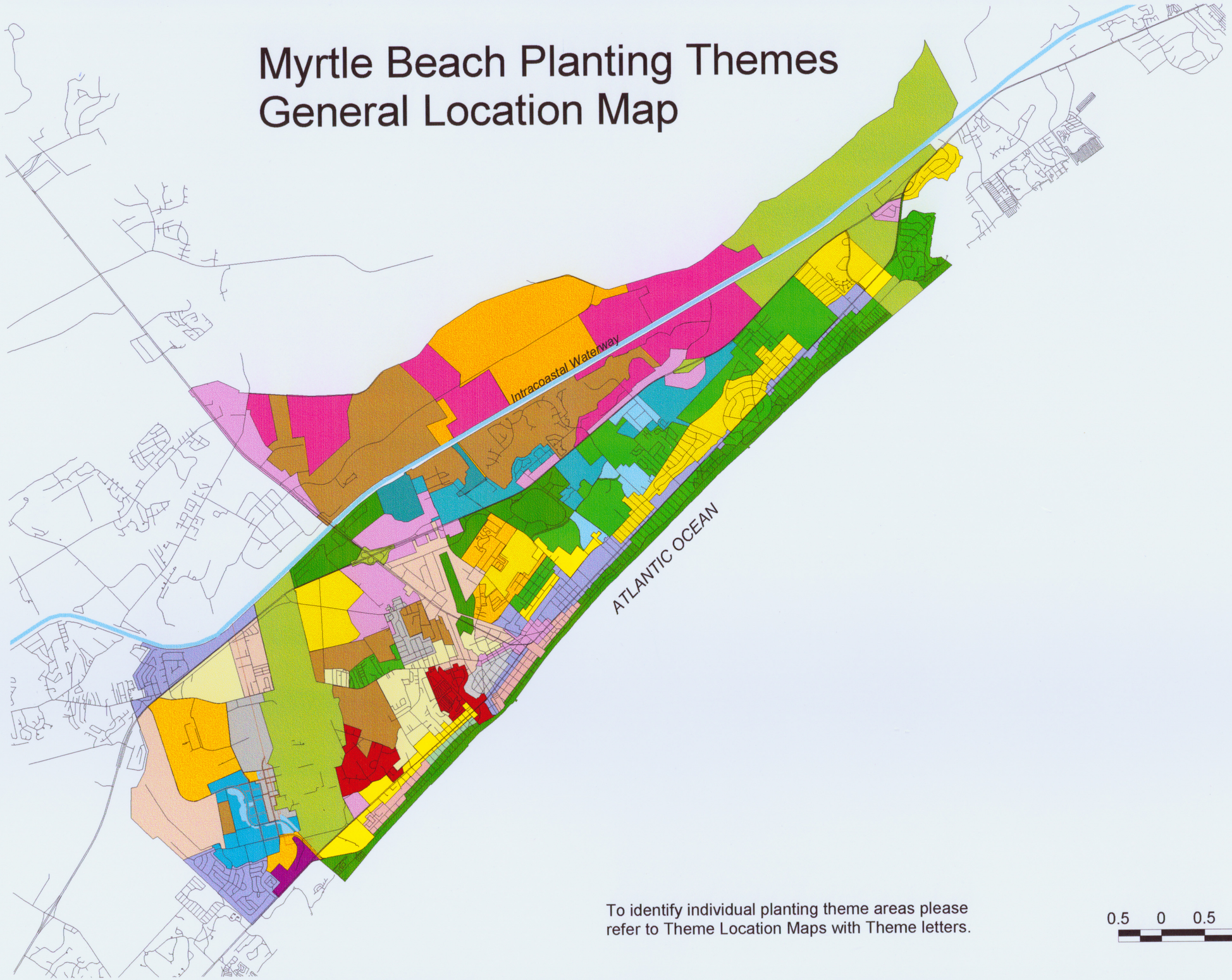
Appendices

A: Forest Theme Coverage by Street

B: Tree Planting Recommendations by Street

C: References

Myrtle Beach Planting Themes
General Location Map



Legend

- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
- F: Elm Forest
- G: Southern Forest
- H: Maple Forest
- I: Cypress Forest
- J: River Birch Forest
- K: Redbud Forest
- L: Chestnut Oak Forest
- M: Dogwood Forest
- N: Blackgum Forest
- O: Redoak Forest
- P: Yaupon Forest
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- X: Swamp Forest
- Y: Native Forest
- Z: Pine Forest
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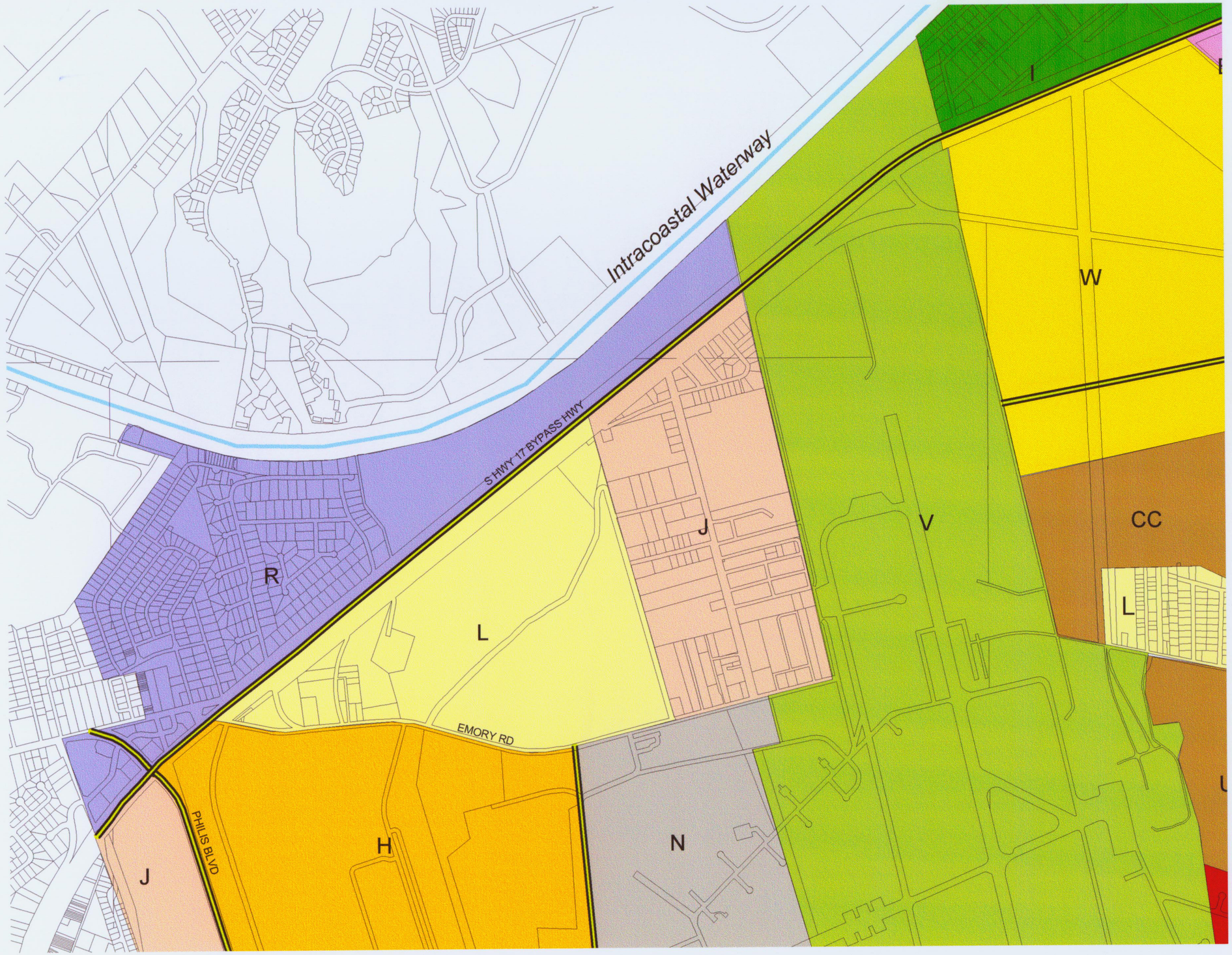
- BB: Commercial Forest
- CC: Industrial Forest
- DD: Planned Forest
- EE: Recreation Forest
- FF: Residential Forest
- GG: Resort Forest

To identify individual planting theme areas please refer to Theme Location Maps with Theme letters.

0.5 0 0.5 1 1.5 2 Miles

N W E S



Theme Location Map 1 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
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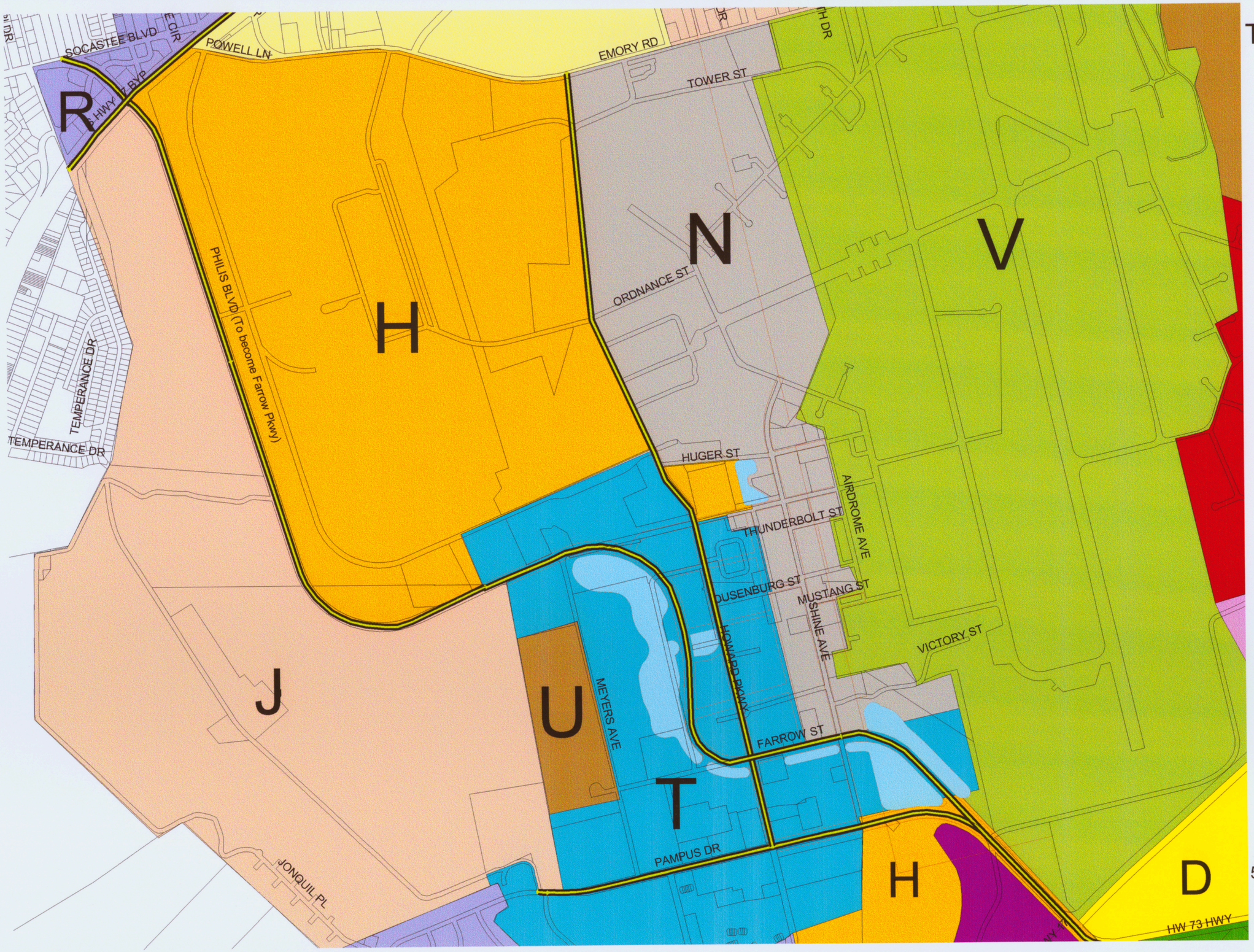
- EE: Recreation Forest
- FF: Residential Forest
- GG: Resort Forest

500 0 500 1000 Feet



Theme Location Map 2 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
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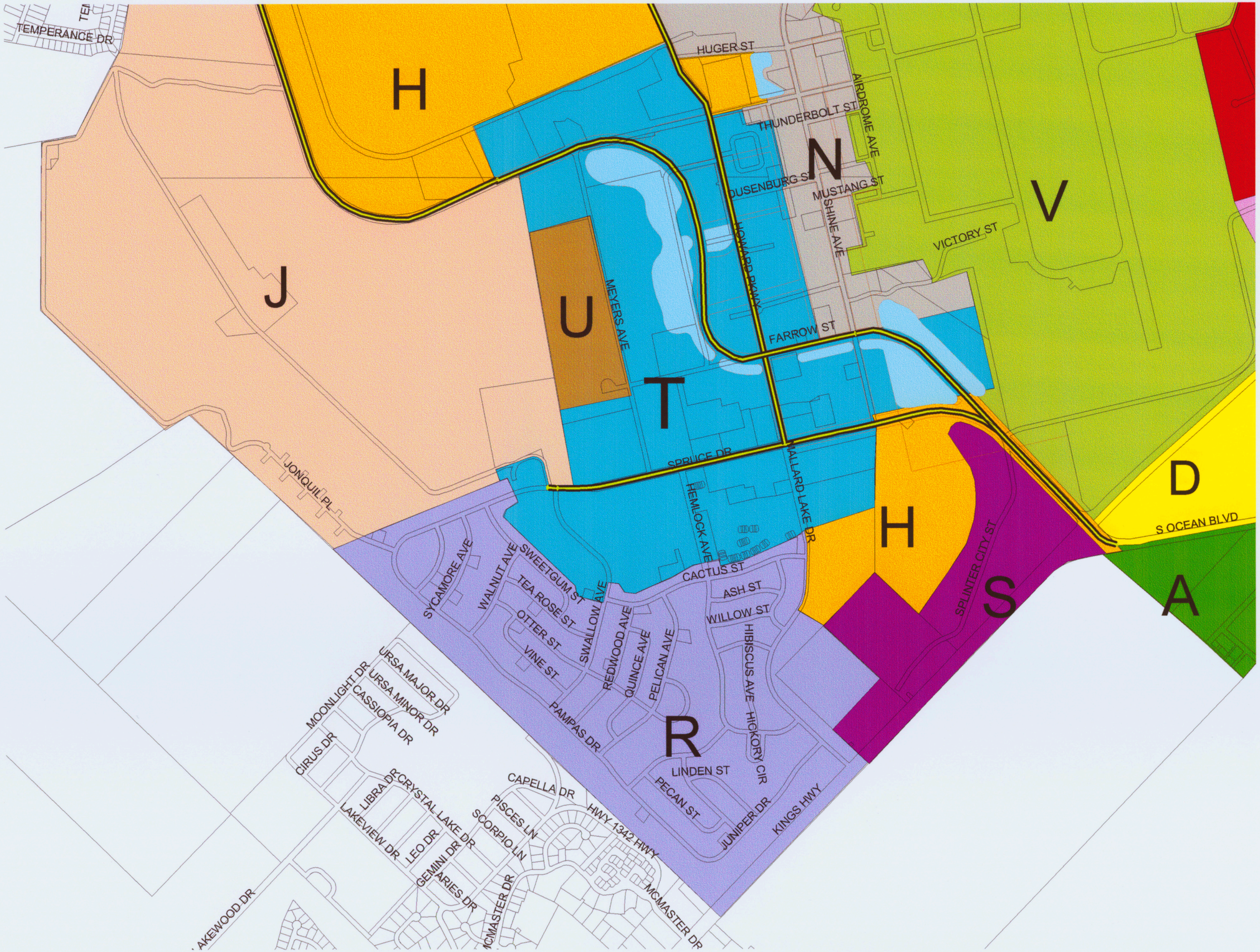
- CC: Industrial Forest
- DD: Planned Forest
- EE: Recreation Forest
- FF: Residential Forest
- GG: Resort Forest

500 0 500 1000 Feet



Theme Location Map 3 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
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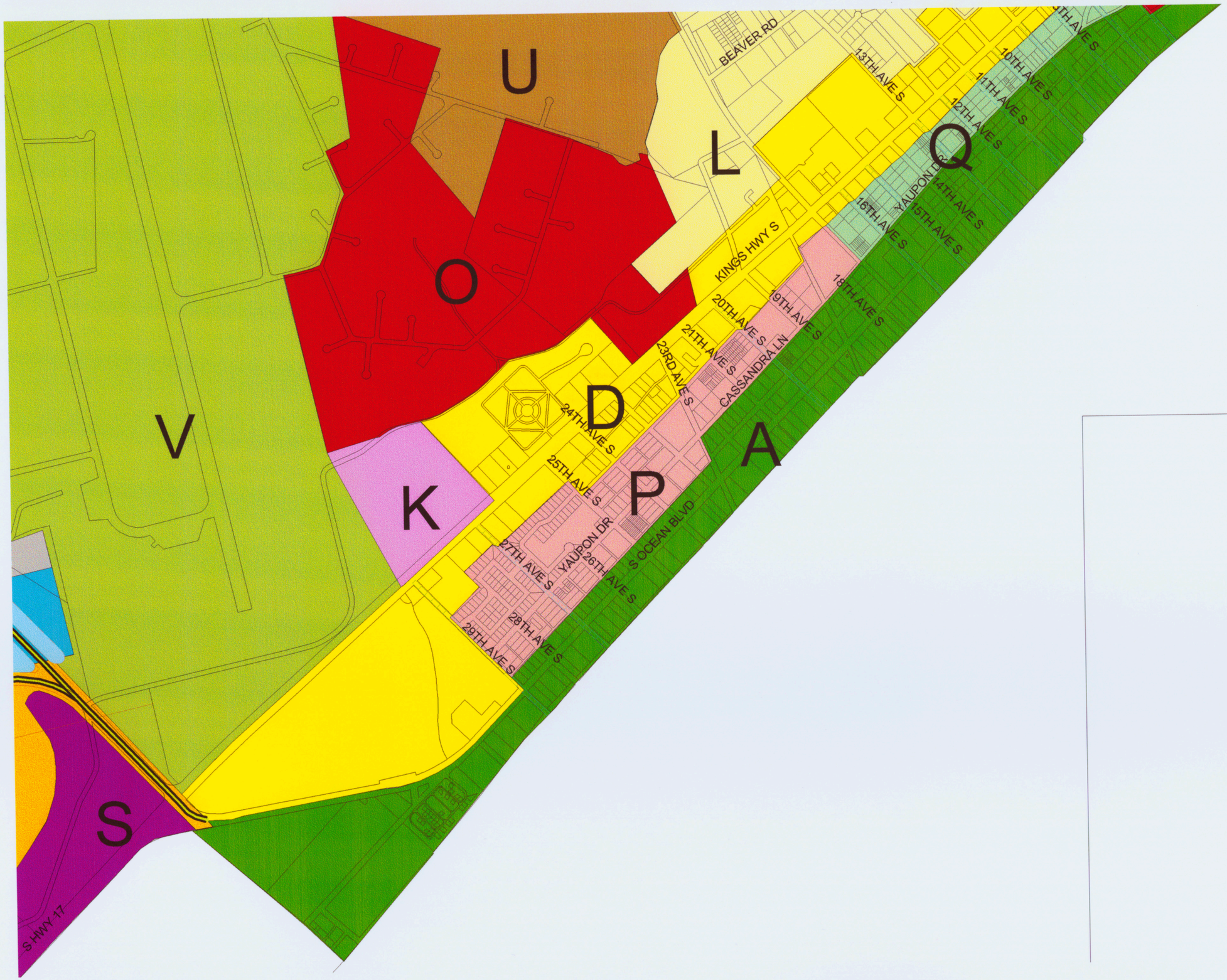
- FF: Residential Forest
- GG: Resort Forest

500 0 500 1000 Feet



Theme Location Map 4

Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
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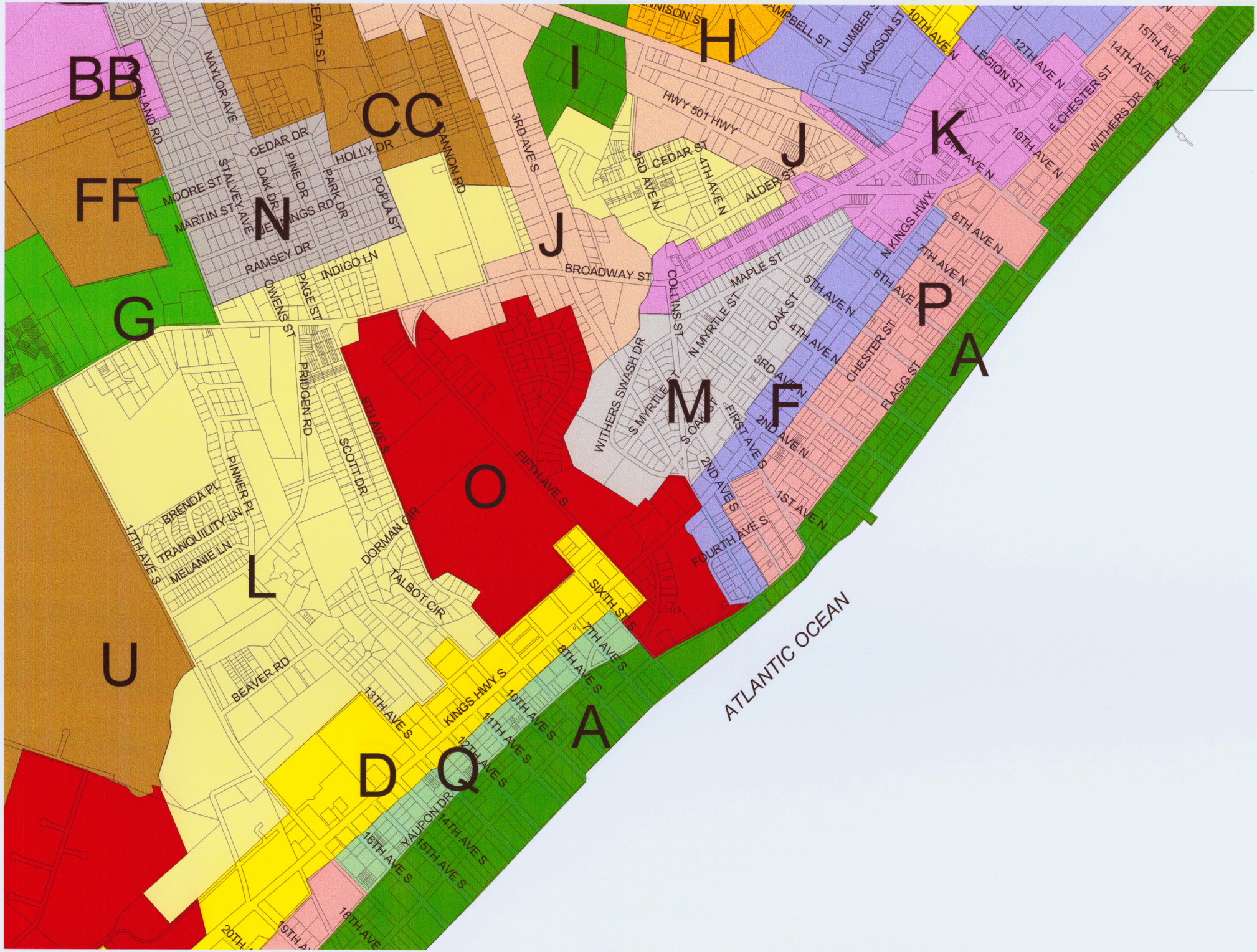
- AA: Community Forest
- BB: Commercial Forest
- CC: Industrial Forest
- DD: Planned Forest
- EE: Recreation Forest
- FF: Residential Forest
- GG: Resort Forest

500 0 500 1000 Feet



Theme Location Map 5

Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
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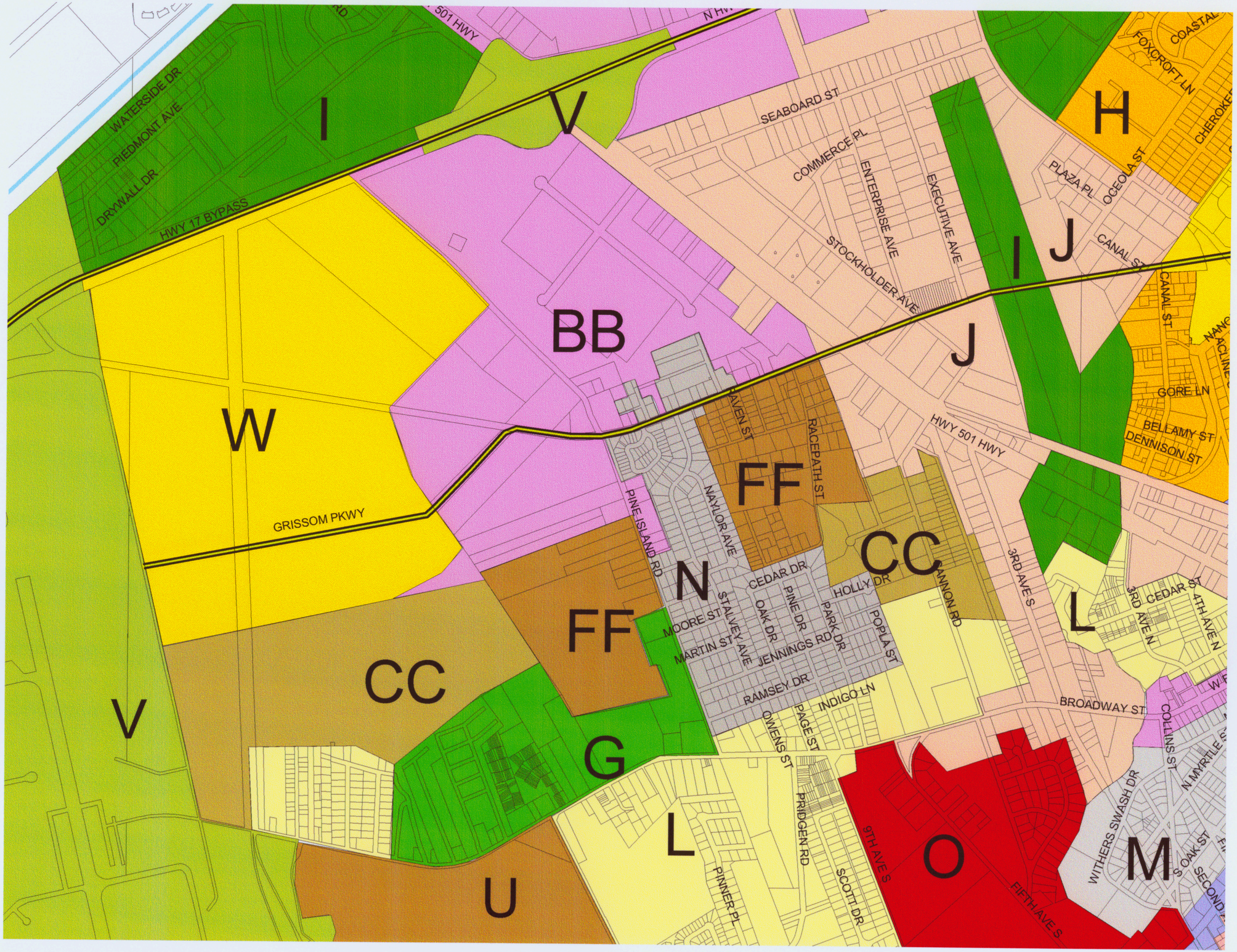
- FF: Residential Forest
- GG: Resort Forest

500 0 500 1000 Feet



Theme Location Map 6 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
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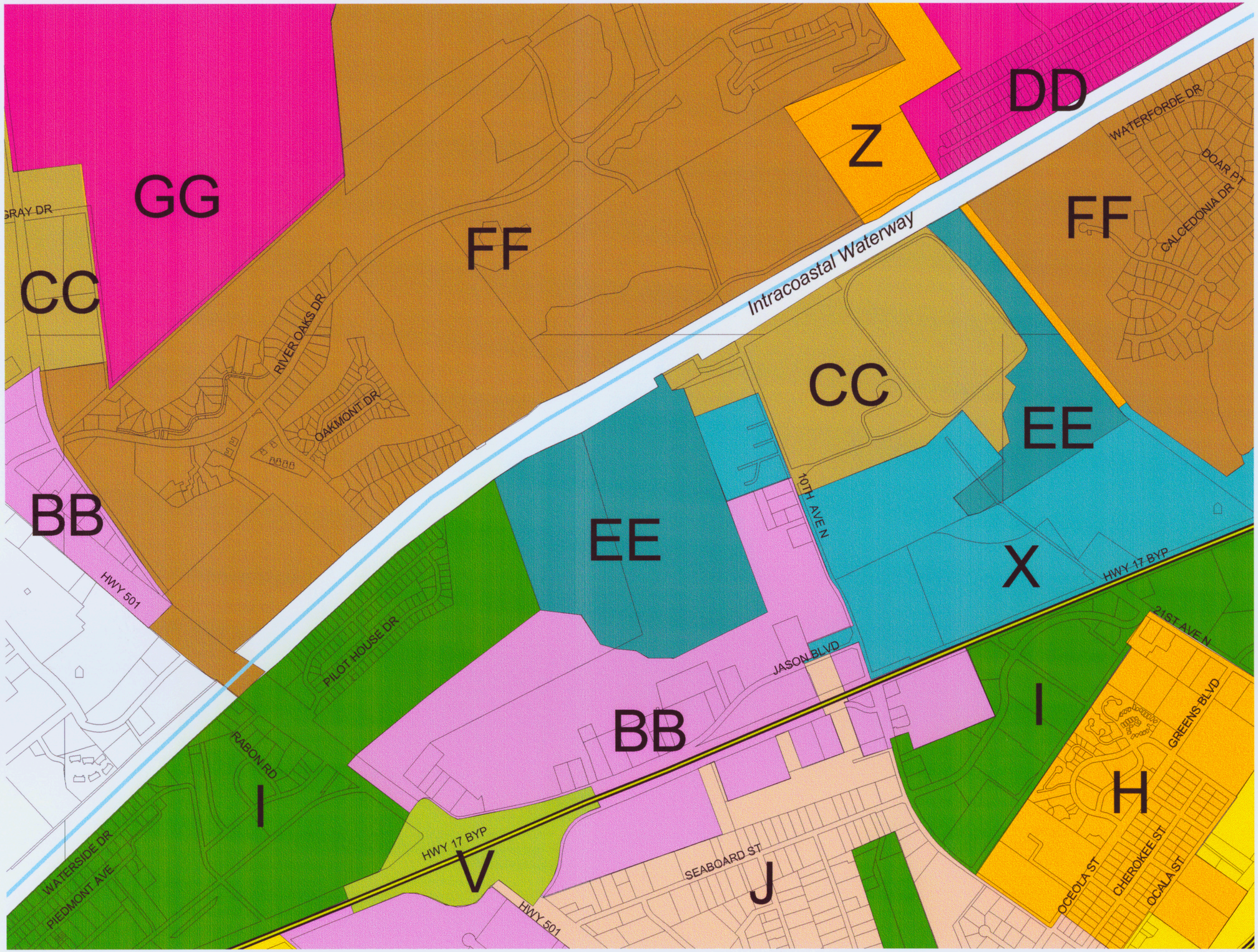
500 0 500 1000 Feet



Theme Location Map 7 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
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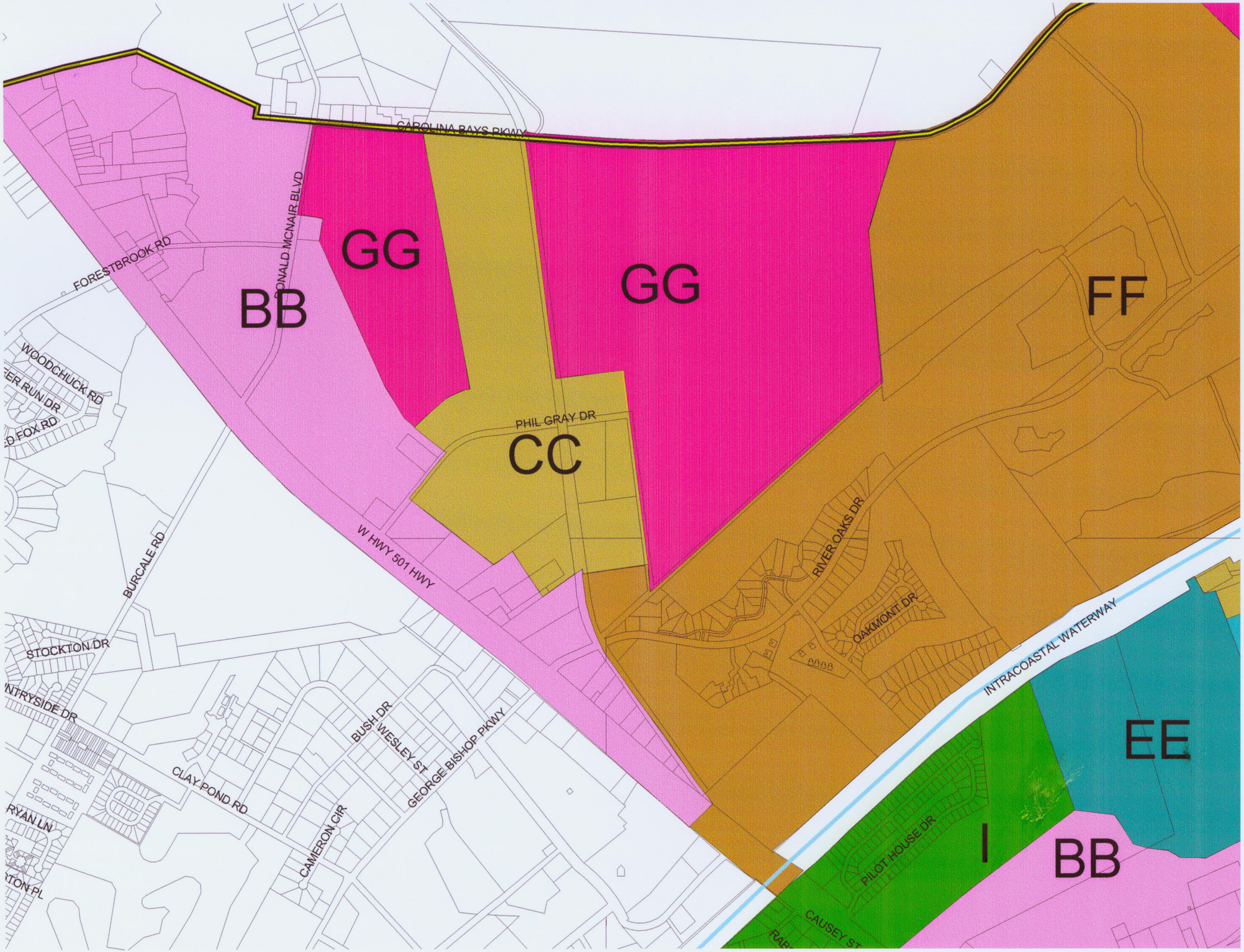
500 0 500 1000 Feet



Theme Location Map 8 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
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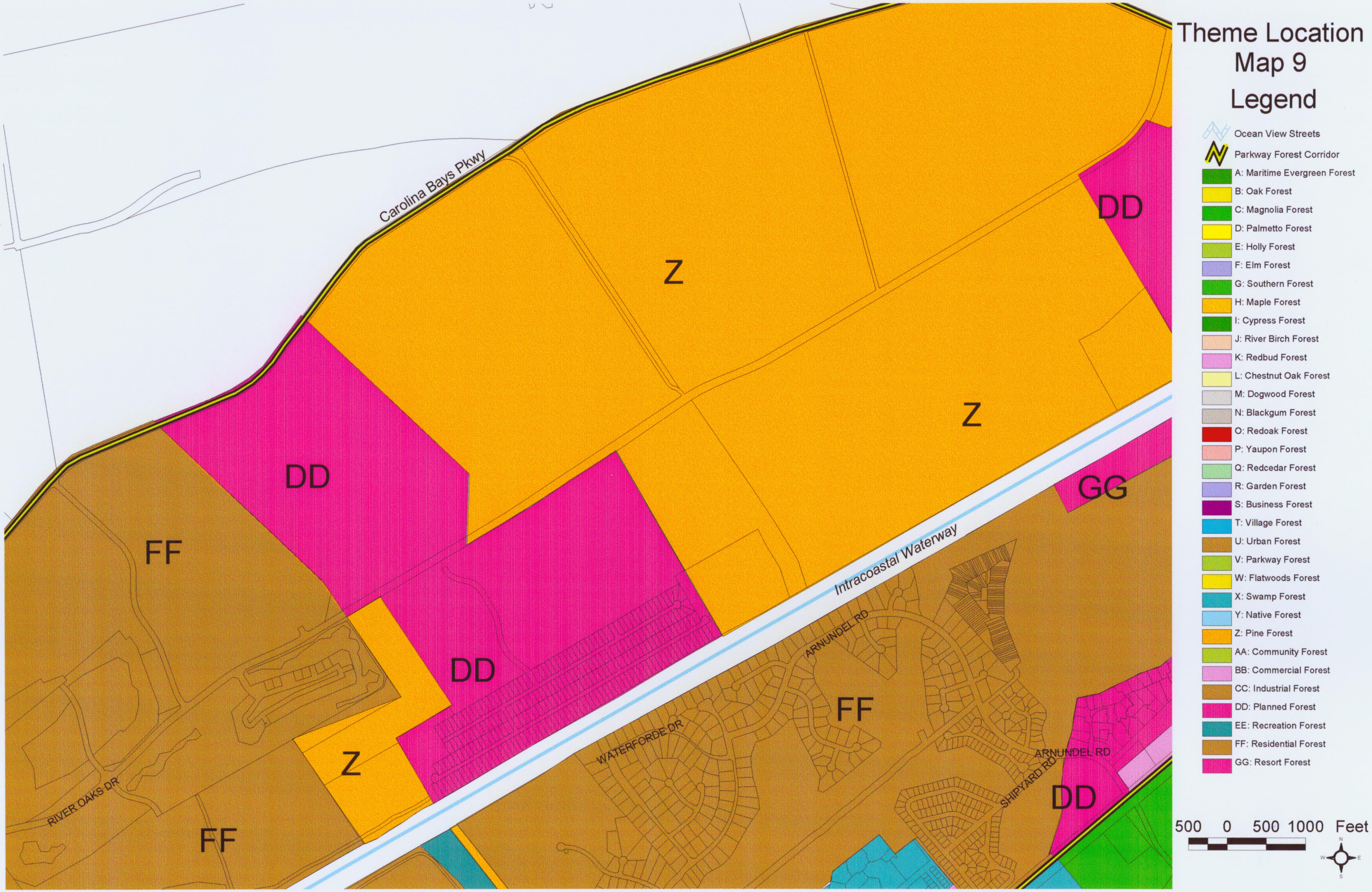
500 0 500 1000 Feet


Theme Location
Map 9
Legend
Ocean View Streets
Parkway Forest Corridor
A: Maritime Evergreen Forest
B: Oak Forest
C: Magnolia Forest
D: Palmetto Forest
E: Holly Forest
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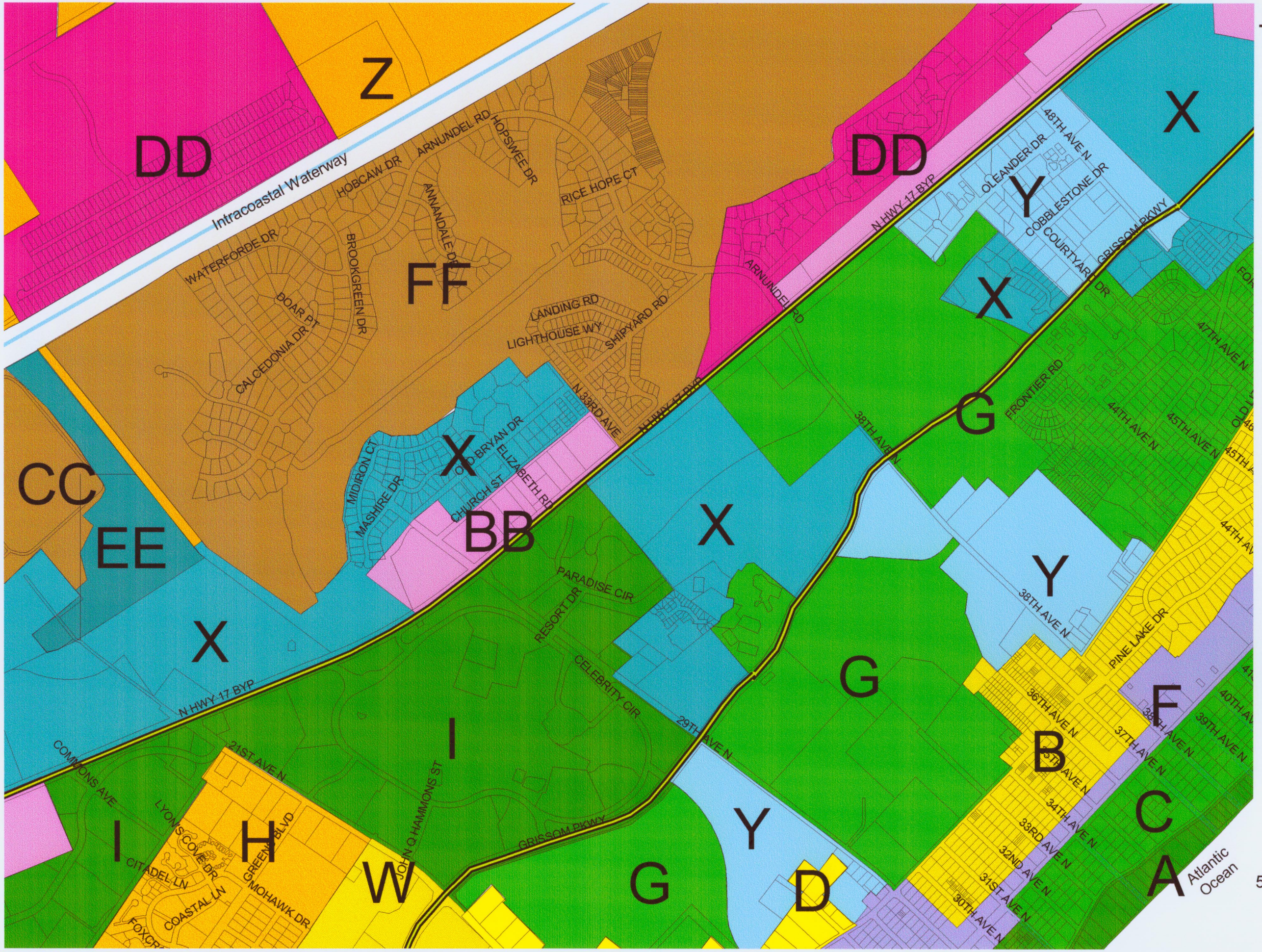
BB: Commercial Forest
CC: Industrial Forest
DD: Planned Forest
EE: Recreation Forest
FF: Residential Forest
GG: Resort Forest
500 0 500 1000 Feet
Carolina Bays Pkwy
Intracoastal Waterway
Z
DD
Z
DD
FF
DD
Z
FF
FF
GG
DD
ARNUNDEL RD
WATERFORDE DR
RIVER OAKS DR
SHIPYARD RD
ARNUNDEL RD



Theme Location Map 10 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
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- E: Holly Forest
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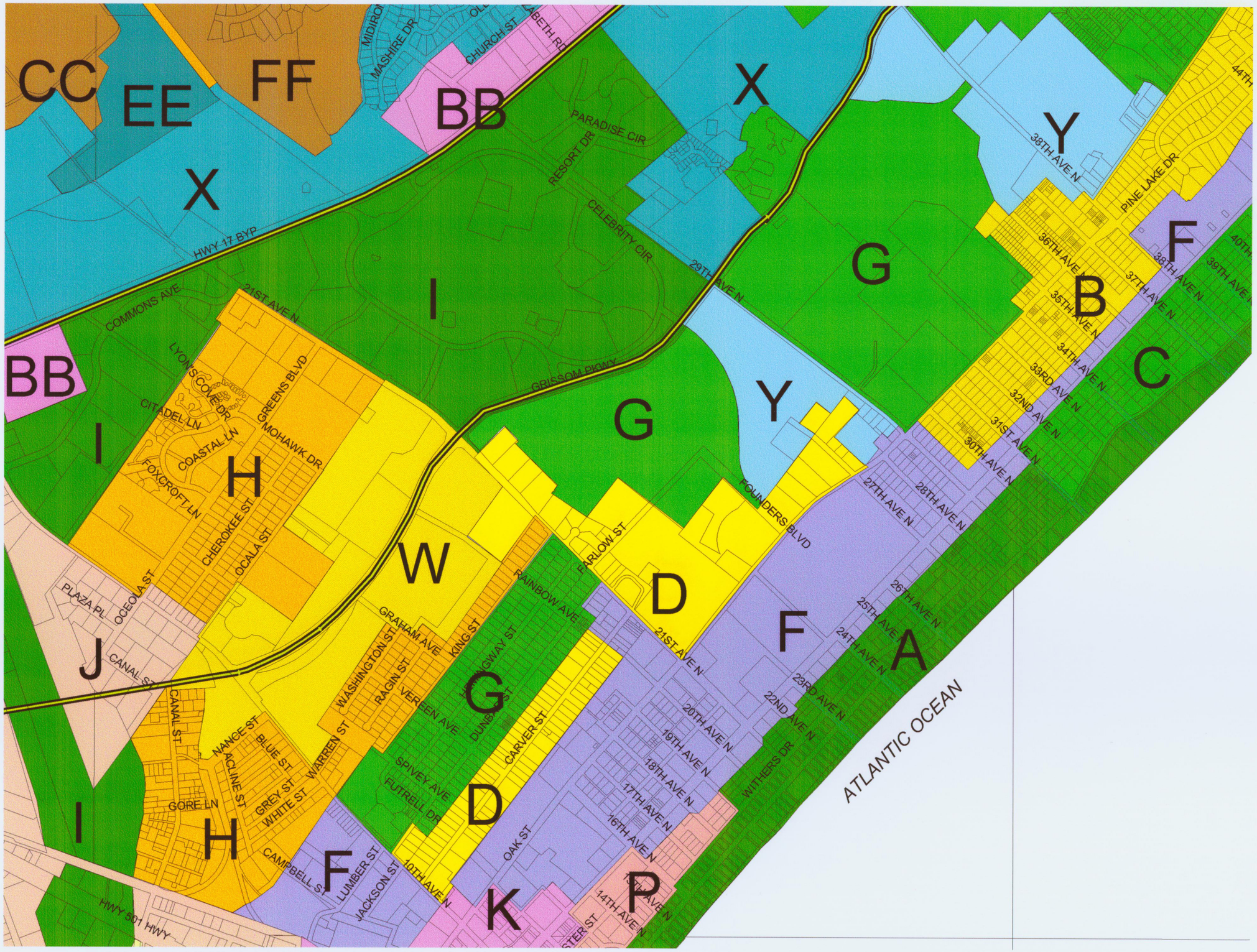
500 0 500 1000 Feet



Theme Location Map 11 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
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- E: Holly Forest
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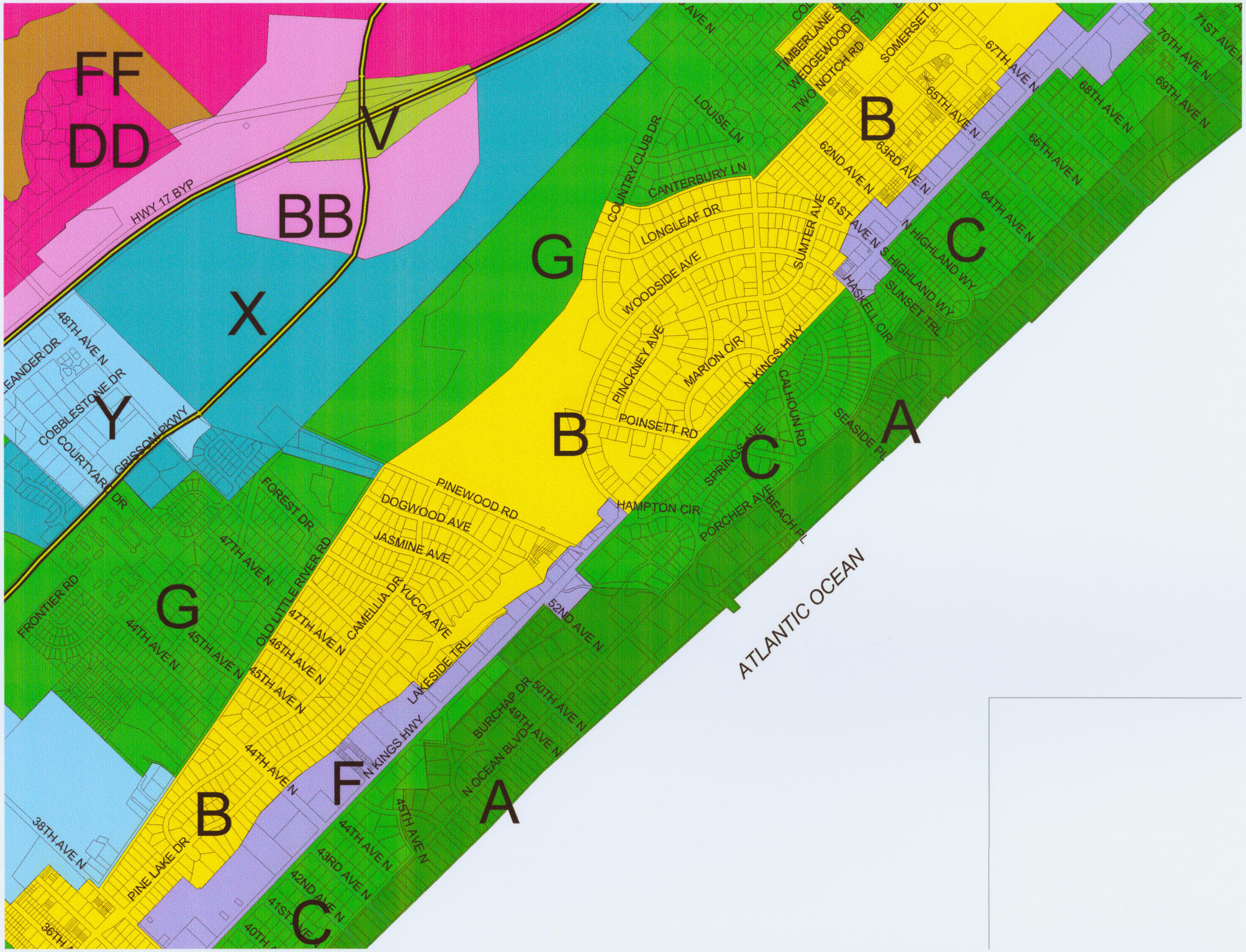
- GG: Resort Forest

500 0 500 1000 Feet



Theme Location Map 12 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
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- E: Holly Forest
- F: Elm Forest
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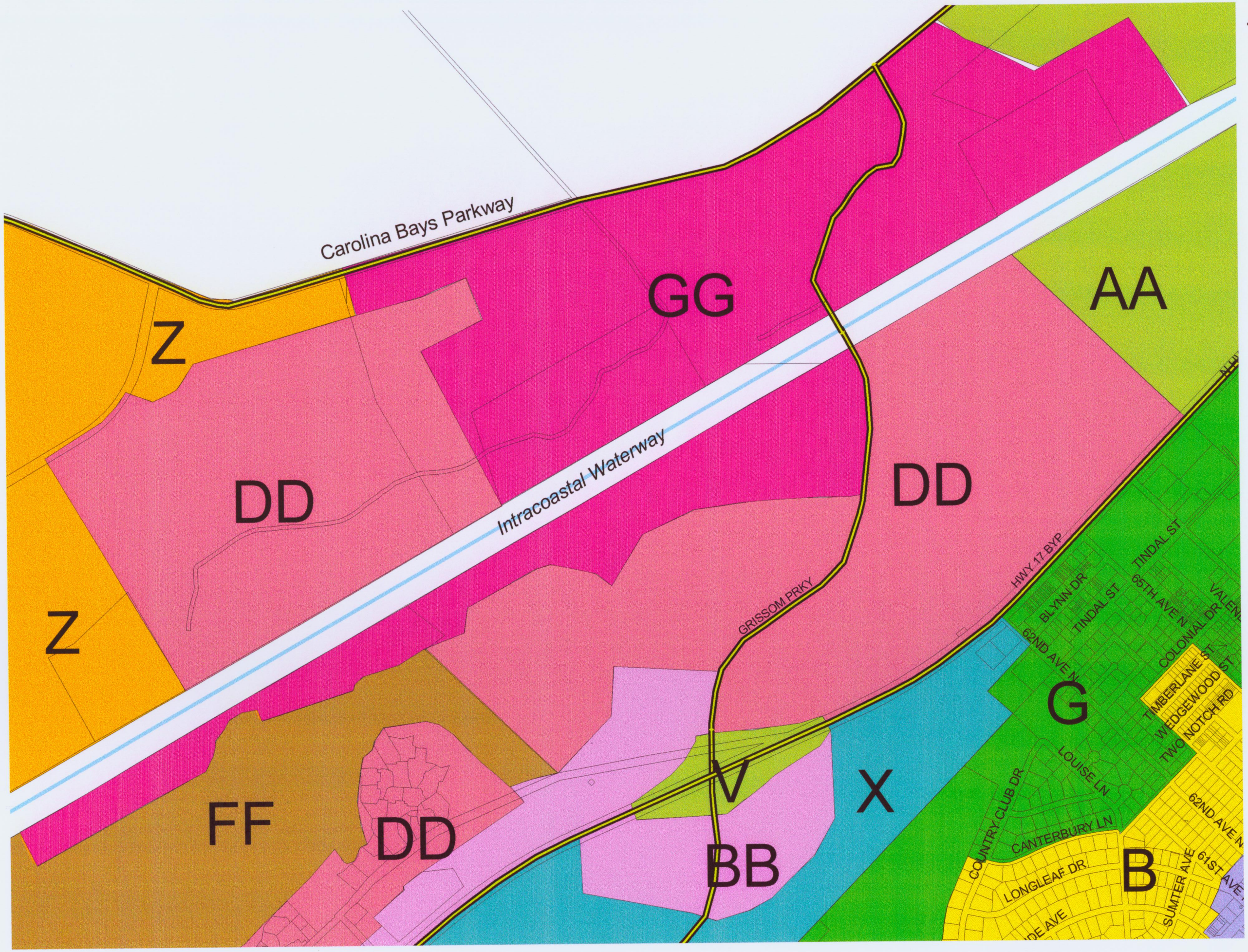
500 0 500 1000 Feet



Theme Location Map 13

Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
- D: Palmetto Forest
- E: Holly Forest
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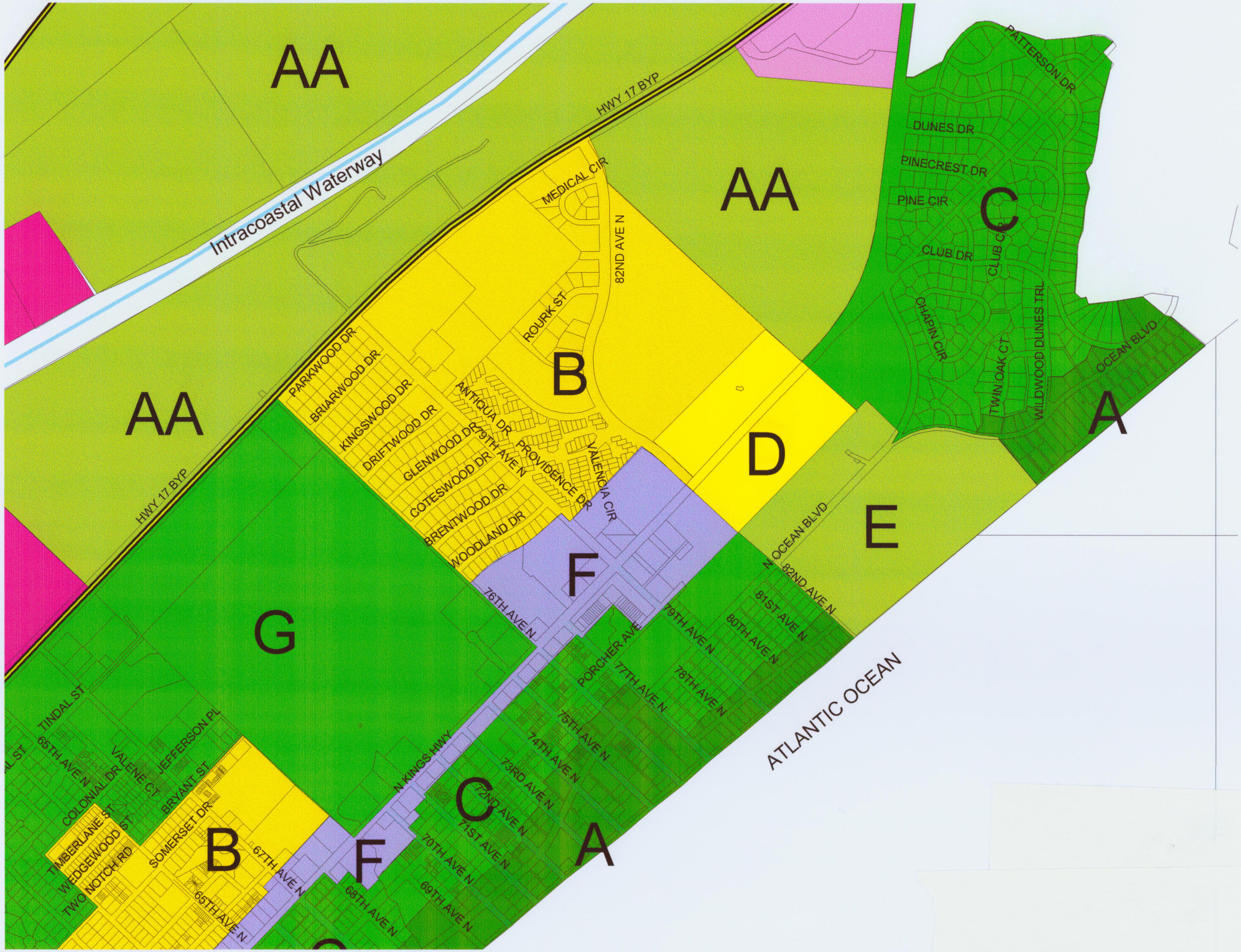
500 0 500 1000 Feet



Theme Location Map 14 Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
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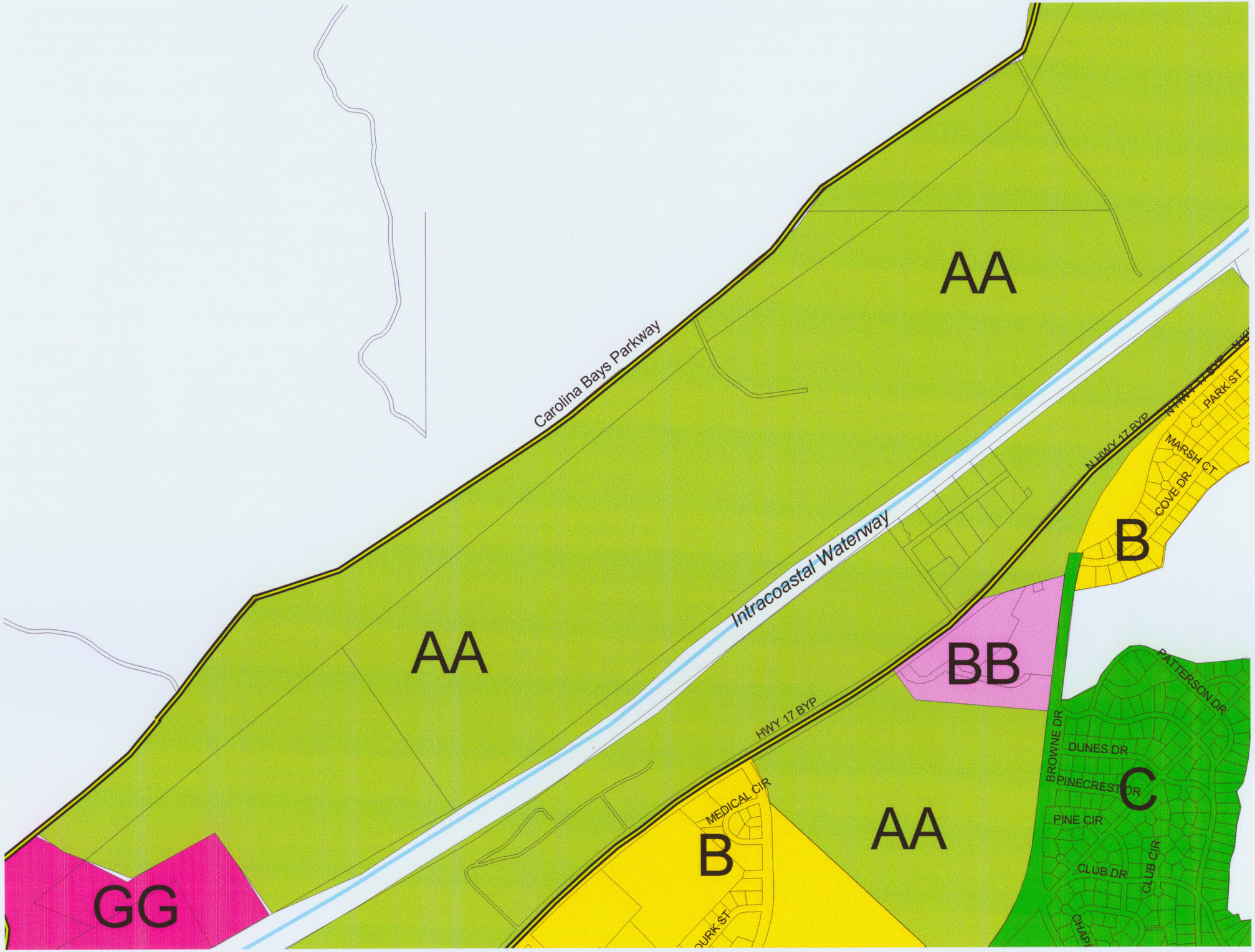
500 0 500 1000 Feet



Theme Location Map 15

Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
- C: Magnolia Forest
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500 0 500 1000 Feet

Theme Location Map 16

Legend

- Ocean View Streets
- Parkway Forest Corridor
- A: Maritime Evergreen Forest
- B: Oak Forest
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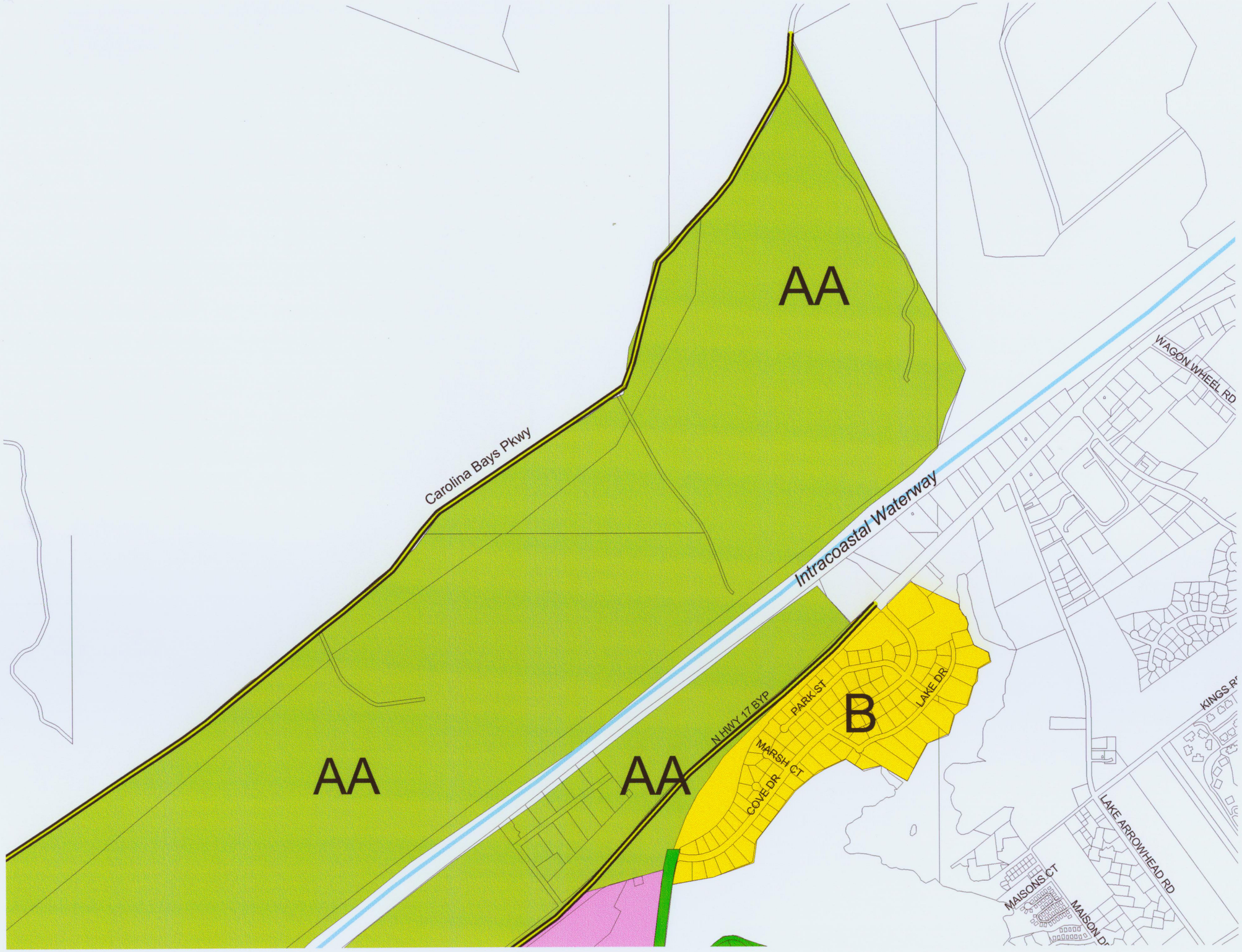

500 0 500 1000 Feet