Mayport Design Guides

Mayport Village and the Mayport Waterfront Partnership Study Area

City of Jacksonville, Florida

June 30, 1999
<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>History of Mayport</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>4</td>
</tr>
<tr>
<td>Methodology</td>
<td>4</td>
</tr>
<tr>
<td>Visual Survey and Analysis</td>
<td>9</td>
</tr>
<tr>
<td>Overall Visual Character</td>
<td>9</td>
</tr>
<tr>
<td>Architectural Character</td>
<td>11</td>
</tr>
<tr>
<td>Vehicular &amp; Pedestrian Circulation</td>
<td>13</td>
</tr>
<tr>
<td>Recreational Opportunities</td>
<td>15</td>
</tr>
<tr>
<td>Landscaping</td>
<td>17</td>
</tr>
<tr>
<td>Utilities</td>
<td>18</td>
</tr>
<tr>
<td>Site Furnishings / Signage</td>
<td>19</td>
</tr>
<tr>
<td>Visual Theme</td>
<td>23</td>
</tr>
<tr>
<td>Town Center to Little Jetties Park</td>
<td>23</td>
</tr>
<tr>
<td>Mayport Village</td>
<td>24</td>
</tr>
<tr>
<td>Design Guides</td>
<td>33</td>
</tr>
<tr>
<td>Architecture</td>
<td>33</td>
</tr>
<tr>
<td>Vehicular Circulation &amp; Parking</td>
<td>37</td>
</tr>
<tr>
<td>Pedestrian &amp; Bicycle Circulation</td>
<td>41</td>
</tr>
<tr>
<td>Landscape Planting</td>
<td>43</td>
</tr>
<tr>
<td>Signage</td>
<td>53</td>
</tr>
<tr>
<td>Lighting</td>
<td>59</td>
</tr>
<tr>
<td>Site Furnishings</td>
<td>63</td>
</tr>
<tr>
<td>Utilities</td>
<td>69</td>
</tr>
<tr>
<td>Implementation Plan</td>
<td>73</td>
</tr>
<tr>
<td>Improvement Project 1</td>
<td>74</td>
</tr>
<tr>
<td>Improvement Project 2</td>
<td>76</td>
</tr>
<tr>
<td>Improvement Project 3</td>
<td>78</td>
</tr>
<tr>
<td>Improvement Project Cost Estimates</td>
<td>80</td>
</tr>
<tr>
<td>City of Jacksonville Landscape &amp; Tree Protection Ordinance</td>
<td>83</td>
</tr>
<tr>
<td>for the Mayport Village Overlay</td>
<td></td>
</tr>
<tr>
<td>Vendor Information</td>
<td>106</td>
</tr>
</tbody>
</table>
List of Figures

Figure 1 - Study Structure ................................................................................................................... 6
Figure 2. Mayport & Jacksonville Location Map ............................................................................... 6
Figure 3. Visual Survey Map. ........................................................................................................... 20
Figures 4 & 5. Proposed repetitive elements placed along the approaches to Mayport Village ........ 27
Figure 6. Visual Theme Summary Map............................................................................................29
Figure 7. City of Jacksonville’s Land Use Regulations / Zoning Code - Parking Requirements ......... 38
Figure 8. Plant Suitability Matrix: Ground Covers. ....................................................................... 46
Figure 9. Plant Suitability Matrix: Small / Medium Shrubs. .......................................................... 47
Figure 10. Plant Suitability Matrix: Large Shrubs. ........................................................................ 48
Figure 11. Plant Suitability Matrix: Ornamental / Shade Trees ....................................................... 49
Figure 12. Plant Suitability Matrix: Palm Trees ............................................................................. 50
Figure 13. Improvement Project locations. ....................................................................................... 73
Figure 14. Showing the proposed changes to the area immediately north of the U.S. Coast Guard Station. ........................................................................................................................................ 75
Figure 15. This public parking/picnic area near Minorcan Way can be built as an example of what can be accomplished in Mayport. .................................................................................................... 77
Figure 16. Proposed street ends at Roxie Street and Ferris Street. .................................................. 79
History of Mayport

Joe 'Beanie' Andreu was stopped by a tourist somewhere between the city septic tank (located where Captain Fred Torrible once rocked on his porch and watched river traffic go by) and the highly visible dumpsters near where Miss Jean Gavagan's palm trees and coral vines welcomed strangers for more than half a century.

A woman asked, 'Can you tell me where I can find the quaint little village of Mayport?'

'Don't move an inch,' Beanie cautioned her. 'Lady, you are right up to your knees in the quaint little village of Mayport.'

Mayport Village is a current piece of the City of Jacksonville with a very distinct, yet ill-recorded history. Much of its history is recounted through folk tales and current residents' memories as told by parents, grandparents, and older members of the community. The development of the cities of Atlantic Beach, Neptune Beach, and Jacksonville, as well as that of the Mayport Naval Base starting in the 1940's has obliterated much of the area at the mouth of the St. Johns River originally known as Mayport. It is interesting that seemingly more information can be found about the original settlers of the area, the Timucuan Indians, than can be found about those that followed after the Timucuans.

From the time of the Timucuans, preceding Jean Ribault's discovery of the River of May on May 1, 1562, until Florida's becoming a possession of the United States in 1822, the area now known as Mayport changed from French, Spanish, and American hands several times through warfare and treaty.

From 1822 until the 1940's, the area developed and prospered as fishing, piloting, and vacation communities known as Hazzard, Pablo, Burnside Beach, Mayport Mills, Coquina, Wonderwood, and East Mayport. Sites of most of these vanished communities are within the boundaries of the Mayport Naval Station while others lie inside the fences Kathryn Abby Hanna Park.

Over the years, Mayport has had several lighthouses to guide the fishermen, pilots, and commercial cargo ships that plied the St. Johns River towards Jacksonville. The first one was built in 1830 near the mouth
of the river near what was then Ribault Bay. This lighthouse was abandoned three years later as it was too close to the water, and replaced in 1835 with another, about a mile up the river. Old pictures of Mayport Mills show two lighthouses towering over the village.

Because of poor visibility created by the shifting sand dunes which defined the Mayport area, and erosion problems encountered by the replacement lighthouse, another one was built in 1858 to a height of 85-feet. This lighthouse served through the Civil War, when its light was shot out by Confederate sympathizers, until 1929 when the St. Johns Lightship replaced it. The 1858 lighthouse is now on the Mayport Naval Station property and is closed to the public.

In 1909, Mayport was incorporated as a city. Like most cities, including Jacksonville, whose primary structures were built of wood, fires shaped the history of their development. On May 14, 1917, fire destroyed a good bit of Mayport by burning fourteen buildings, including two hotels. “The fire seems to have ended the “City of Mayport”, for no other reference to it as a municipality has been found.”

Much of the architectural character of the village, save for the “ghost house”, the former Captain W. J. King residence on Ocean Street, was destroyed by the fire.

In the 1920’s, Mayport was a popular vacation destination reached only by ship or train. During the Great Depression, life in Mayport was slightly less hard than in other parts of the country because of its reliance on industry produced by the sea, rather than man. “In small communities
bound by ties of blood and years of common interests, the bad times were less devastating. Mayport was such a place. Where beans and rice, savory pilau (per’lo) or fish and grits were long-time basic fare, the tightened belts of the time of nationwide famine were less noticeable. Residents of small communities along the St. Johns River could count their many blessings: rivers and creeks provided shrimp, fish and oysters, crabs and clams. Rabbits and squirrels from marshes and woodlands became red meat on the tables of this little village and ‘possums and ‘coons were part of the staple diet in some homes. Ducks, in season and out, even the migratory robins, simmered on the cast-iron stoves over which frugal housewives presided. More than one such cook would remark that the duck “sure looked and tasted funny” after a young hunter with an adventurous appetite brought home the well-cleaned carcass of a heron or crane, necks and legs removed for camouflage.”

Electricity came to Mayport in 1937, a mixed blessing to some. The giant Live Oaks in East Mayport were sacrificed for progress, and the way of life of the village Mayport started to blend in with that of Jacksonville.

World War II brought the Navy to Ribault Bay, which is now the carrier basin for Mayport Naval Station. The Navy took control of most of the previous communities except for what was once known as Mayport Mills (now Mayport). After the war, veterans came to Mayport to work in the growing shrimping industry based on Mayport’s docks. During the late forties, the single road leading into what was left of Mayport was relocated by the expanding naval station to its present site, and became Highway A1A. The ferry crossing to the previous Pilot Town was placed, and was serviced by the ferries Manadnock and Reliance starting in 1950.

Starting in 1964, the Coast Guard built its station on 700-feet of river front just north of the Little Jetties, displacing more of the shrinking shrimping and fishing fleet. On October 1, 1968, Mayport again became an incorporated city, remaining so until annexation by the City of Jacksonville. In 1971, demolition began on twenty-seven homes and businesses left behind by fishermen who had left because of the changing economy. The goal of the demolition was to make room for future improvements aimed at developing Mayport as a fishing village and tourist attraction. Ironically,
many of those demolished buildings may have been used to house the attractions sought after to help Mayport prosper again.

The “Mayport and All That Jazz” festival was first held on October 19, 1980 and was attended by forty thousand people. The second jazz festival the following year was attended by over seventy thousand people, and exceeded Mayport’s ability to host the event. Each Jazz Festival since then has been held in Jacksonville.

Purpose

The purpose of these design guidelines is to provide developers, architects, property owners, landscape architects, and other design professionals with clear and concise guidance on the concepts and standards for present and future (re)development efforts. In order to enhance Mayport’s man–made and natural environments in a cohesive manner, the primary emphasis of these design guidelines will be the on the improvement of the overall visual quality and appearance of Mayport Village, and the surrounding Waterfront Partnership Study Area. Through careful study and coordination of the functional relationships of the various elements comprising the community, conflicts which deter from the everyday experiences of life in and around Mayport Village can be avoided. Improvements in those functional relationships often result in strongly positive perceptions of the visual environment, and that is the goal of this document.

By identifying the various components of the “streetscape” of Mayport, standardizing such components through the use of design guidelines simplifies the work and the decision making processes of those interested in improving Mayport’s visual environment, and produce efficiencies in the construction and administrative processes.

The goals for this Design Guide are as follows:

- To provide guidance for the improvement and enhancement of the quality of life for the residents and employees of Mayport
- To provide guidance for the provision of an orderly and aesthetically pleasing image for all Mayport’s residents, employees, and visitors
- To provide reinforcement of a positive image to the surrounding community and neighborhoods by demonstrating a commitment to pride and good stewardship of the environment
- To supplement the City of Jacksonville’s Master Plan, and related studies, and to serve as more effective tools for improving the visual appearance and overall functioning of the village of Mayport
- To provide a coordinated design theme for the designers of new projects and improvements to existing facilities, and to create a harmonious, cohesive environment
- To provide guidance and recommendations for priorities that can be implemented through dedicated programs, special projects, maintenance projects, grants, and “Self-Help” programs.
Methodology

The methodologies employed in preparing this design guideline consist of two major groups of skills, Analysis and Design. The structure for this study can be found in Figure 1.

**Analysis:** A General Background study and Visual Survey and Analysis was conducted through the use of:
- The review of preliminary findings with Mayport Waterfront Partnership as conducted through the Visioning Sessions;
- Existing site improvement maps, building lists, and project lists;
- On-site visual inspection of existing street and waterfront conditions;
- Previous and on-going Mayport studies by others; and
- Interviews with the residents and workers of Mayport and surrounding communities, and various City, State and Government Agencies.

This information was compiled into a format of full color and black and white photos, character sketches, detailed maps, and text for use in determining a proper and useful Visual Theme.

**Design:** These findings were then utilized to prepare a Visual Theme, from which the Design Guides, and further, the Implementation Plan would be generated. An explanation of the above elements is as follows:

- **Visual Theme** - This plan identifies the conceptual Master Plan for Mayport village and the surrounding areas, and identifies significant focal points, areas for improvement, major project locations, and a consistent “theme” for each of the proposed projects.
- **Design Guides** - Each of the major components studied in the visual analysis are provided with a list of “themed” design elements which should be used in all improvements to strengthen the overall visual concept for the community. These design components are Architecture, Vehicular/Pedestrian Circulation, Landscaping, Lighting, Signage, Site Furnishings, and Utilities.
- **Implementation Plan** - This chapter utilizes the conceptual plan set forth in the Visual Theme, and the design elements defined in the Design Guides to establish specific improvement opportunities and projects for the community. Additionally, a prioritized list of potential projects is provided, and itemized cost estimates in 1999 dollars are included to establish a baseline for future improvements and materials purchases.
General Background

Visual Survey & Analysis

Visual Theme

Design Guides

Implementation Plan

Figure 1 - Study Structure

Figure 2 - Mayport & Jacksonville Location Map

Mayport Waterfront Partnership Study Area.
Visual Survey and Analysis
Visual Survey and Analysis

The purpose of the visual analysis section of this document is to analyze the existing conditions within the Mayport community, and the adjacent approach areas, make recommendations for improvement, and to help develop a design approach for the future cohesive redevelopment of the entire area.

Areas of analysis in this section include:

- **Overall Visual Character**
- **Architectural Character**
- **Vehicular and Pedestrian Circulation**
- **Recreational Opportunities**
- **Landscaping**
- **Utilities**
- **Site Furnishings / Signage**

Overall Visual Character

**Town Center to Mayport Road**

The existing visual character of the southernmost leg of the study area has changed significantly with the landscaping of the medians along Atlantic Boulevard. Greenscape of Jacksonville, Inc. recently planted large palms and additional landscaping in the medians, and the effect has been that Atlantic Boulevard is a significantly more attractive thoroughfare. On-going improvements in the “Town Center” area of Atlantic and Neptune Beaches continue to attract locals and visitors alike. This area is now being used as a model for neighborhood redevelopment.

The existing streetscape north and south of the medians is set, with little visual improvement possible unless significant changes occur in the two straddling cities’ zoning codes. Development along Atlantic Boulevard is complete, except for minor periodic property improvements, and neither Atlantic Beach to the north, nor Neptune Beach to the south have much in the way of landscape or signing ordinances which could substantially control the overall appearance of the street.
Mayport Road (Florida A1A) north of Atlantic Boulevard is the southern approach to Mayport from the south, and is heavily used by residents of Atlantic Beach, and workers at Mayport Naval Station. As such, it is highly commercialized, and has been for decades.

The majority of the businesses along Mayport Road cater to the sailors at the naval station, and consist mainly of used auto lots, pawn shops, fast food restaurants, convenience stores, and mechanics’ shops. These establishments’ customers typically are low income, and the exteriors reflect the lack of available funds for property improvements. Many look run-down, and need paint, stucco repairs, landscaping improvements, and regular upkeep. Utilities are all above ground, creating an overhead maze, and landscaping, where present, is poorly maintained. Signage is a mix of large neon-lit advertisements and small hand-painted business identification placards.

Upon turning off Mayport Road, to Florida A1A towards the village, the scenery changes from heavy commercialism to a residential mix of trailer homes and apartment complexes. Most residential units are tucked well off the street and are screened by existing vegetation. The few commercial establishments along this approach to Mayport echo those along Mayport Road in that they are run-down looking, and are in need regular maintenance. The area surrounding Helen Cooper Floyd Park is natural, and consists of marsh and St. Johns River views. Plans are currently under way for improvements to the park, and this document will assume that considerable visual progress will be made to the entrance and the overall appeal of the park.

Approximately half of the Mayport Road / A1A approach to Mayport village is within the Jacksonville city limits. This is important in that Jacksonville’s zoning requirements are applicable in those areas, and offer hope for improvement as each property undergoes periodic refurbishment, and is thereby required to conform to those requirements. Those businesses within Atlantic Beach city limits are under no similar requirements.

Mayport Village

Much like Mayport Road, the main approach to and through the village, Ocean Street, is heavily commercialized. These businesses, ranging from fisheries and processing
plants, charter fishing boat docks, restaurants, and convenience stores are the life blood of the residents of Mayport. Efforts to visually enhance the area should not negatively impact the function of these businesses, rather they should highlight and promote them.

Ocean Street businesses are set very close to the road because of the shallow lots and the need for waterfront access via docks and walkways. This arrangement makes for a narrow view down the street's length, typical of older communities. However, on-site parking requires that the cars at each business are often parked very close to the travel lanes and are hap-hazardly organized. This results in a poorly defined edge between parking and street. Tailored boats, miscellaneous refuse, chain-linked fencing, and hand painted signs further clutter the streetscape.

The Mayport waterfront is typical of a working fishing village, with docks, boats, and ramps. This waterfront is a large part of the appeal of the village and should be heavily featured in any effort to promote and enhance the area. There are, however, elements of this waterfront which should be modified to better serve the residents of Mayport. General upkeep and refuse disposal would be a major improvement to the visual aspect of the village, as many of the other elements of the waterfront are unalterable.

The architecture along the residential streets of Mayport are typical of a small bedroom-type community, with a mix of one and two-story houses, and small community facilities such as churches, lodges, and accessory buildings. Inconsistent use of fencing, parking, and refuse containment are the major visual obstacles to overcome.

Architectural Character

Town Center to Mayport Road
Mayport Road to Helen Cooper
Floyd Park

The dramatic growth of the city of Jacksonville has spread to the Beaches area. This urban sprawl has consumed these isolated towns and lead to the homogenization of the architectural character throughout the region. The commercial buildings bordering Mayport Road have now become the prominent feature in this area. These buildings lack a cohesive architectural character, with little design quality and consistency.
in scale. Conflicts exist with pedestrian crossings and traffic. The potential for a pleasing architectural expression related to human and pedestrian scale is lost. This condition further contaminates the bordering residential areas through the lack of appropriate landscape buffers. The street design, with its lack of shade trees, signage control, and monotonous repetition of similar buildings serve to bisect the surrounding community and misses the opportunity to provide a unifying civic feature. Mayport Village has now become a small destination point at the end of this road, rather than maintaining its separate identity as a historic piece of Northeast Florida. Instead, it is now a part of a much larger, yet ill-defined Beaches neighborhood.

This entire area lacks a unifying element and is absent of any civic structures, open spaces or parks. There is no communion and relationship with the surrounding natural environment.

**Mayport Village**

Few of the original buildings remain today in Mayport Village, and only sketchy records of their details are available. Nevertheless, it is clearly evident that the urban fabric of Mayport has changed architecturally through the years, compounded by the dramatic reduction in the Village’s size by the infringement of the Navy in the early 1940’s. Few prominent landmark buildings remain, and instead have been replaced with trailers and metal industrial buildings. There is no sense of a civic town center today, and no clear definition between private dwellings and public structures. These modern structures do not relate to the scale of the community because their chain-link fenced yards and ill-defined parking areas contrast sharply with the style provided by the few remaining historical structures.

Mayport’s early history of a being a vital fishing community and tourist destination brought many visitors, and small hotels therefore became a part of its original architectural heritage. Its buildings were simple structures, constructed mainly of wood - some painted, many weathered by the constant sun, abundant rainfall, and sea breezes. The dominant architectural styles embraced elements of “carpenter gothic” and the “shingle style” prevalent in the South and along the Atlantic seaboard. The larger structures, such as the hotels, featured columned verandas around each side on two levels, an adaptation of the vernacular of early American colonial plantation buildings in the South. There were present in all of the
adaptations of these styles a coastal influence to provide shade from the sun, and an openness to allow cooling breezes to flow through.

**Vehicular & Pedestrian Circulation**

**Town Center to Mayport Road**

Vehicular traffic through this area is straight-forward, as there is but one street, Atlantic Boulevard, providing access to the area. Intersecting streets into both Atlantic and Neptune Beaches sufficiently serve the transportation needs of this popular area. From Town Center to Mayport Road, Atlantic Boulevard provides the required traffic capacity. The Florida Department of Transportation will begin construction of a fly-over from the eastbound Atlantic Boulevard Intracoastal bridge to northbound Florida A1A, and an accompanying westbound Atlantic intersection improvement in late 1999, which should significantly improve the flow of traffic through this very busy intersection.

Parking in the Town Center activity area is at a premium, and on weekend nights is extremely hard to find. Spaces are provided in privately owned lots, and in angled on-street locations. These spaces are hard to access from the opposite direction, and require turning around in the roundabout at the end of Atlantic Boulevard. A proposed improvement to Atlantic Boulevard between 3rd Street (A1A) and the ocean will provide approximately fifty additional spaces. Parking along the remainder of Atlantic Boulevard is on privately owned lots serving each business, and is sufficient for the needs.

Bicycle traffic is well-provided for in Town Center, with a number of racks provided by the business owners, and dedicated bicycle lanes along the main streets of the area. Bicycle traffic along Atlantic Boulevard is virtually nonexistent due to the heavy traffic and lack of bicycle lanes, and therefore, few provisions are made for bicycle parking.

Pedestrian traffic is well-served by sidewalks. These sidewalks are well separated from the travel lanes, and are in a fairly good state of repair. Several bus stops occur along Atlantic Boulevard, and all have benches, although more shelters could be provided for protection against inclement weather.

Popular Town Center straddles Atlantic and Neptune Beaches.
Mayport Road to Helen Cooper
Floyd Park

Again, one main artery serves the vast majority of vehicular traffic through this area. Intersecting streets provide access to the residential areas of Atlantic Beach, but since most of the local businesses have a presence on Mayport Road, and because Mayport Naval Station is accessible only via Mayport Road, this road is heavily traveled. The construction of Wonderwood Expressway through the northern half of this project area is expected to relieve some of the traffic along Mayport Road, as well as providing another hurricane evacuation route from the area, but construction is not due for completion for several years. Additional future improvements to the general flow of traffic are not expected in the near future. Traffic within each multi-family complex along A1A is internal, with only one or two driveways connecting to A1A.

Parking for the businesses along Mayport Road is accommodated in private lots, and serves them well. Parking for the various multi-family complexes along A1A is self-contained and is well screened from view along A1A.

Bicycle transportation is not well served in this area. The heavy traffic along Mayport Road, the lack of dedicated bike lanes, and the distance from the Naval Station to most of the more popular business destinations hampers most of the bicycle traffic. The pavement along A1A from the Mayport Road/A1A split is wide, and able to carry a dedicated bike lane, although there are none present. Past the residential complexes, however, the pavement narrows, and bicycling becomes dangerous due to the high speeds encountered on the way to the village.

Pedestrian circulation along Mayport Road is provided by sidewalks along both sides of the street. Bus stops are provided with benches, and in some cases, shelters. Sidewalks are nonexistent from the Mayport middle school crosswalk to Helen Cooper Floyd Park.

Mayport Village

All vehicular traffic north of Wonderwood Drive is via Florida A1A (becoming Ocean Street within Mayport) until the ferry slip. Once in the village, several intersecting side streets lead to the residential area of Mayport. Broad Street at the ferry slip takes visitors and residents past the lighthouse and into the heart of the neighborhood. All major businesses and their service accesses are located on Ocean Street. This situation makes for a very congested area, especially with the large semi-trailer trucks picking
up and delivery fishing products and supplies. Add to this the ferry traffic at fifteen-minute intervals, and the casino boat traffic, and Ocean Street becomes an extremely heavily used thoroughfare. Access to the Marine Center and the public boat ramp north of the ferry slip runs around the ferry parking, and on busy days when the ferry parking is full, this passage may be blocked. Several of the residential feeder streets are two-way feeding off Ocean Street, but ending short of the through connection with Ribault Park Street, requiring the residents to use Ocean for access to their homes. A potential loop road, comprised of Washington (Minorcan Way) and Ribault Park streets, is blocked at the end of Washington, and does not allow through traffic.

Bicycle transportation is not provided for in the village area. The heavy traffic on Ocean Street, the lack of separation between parking and the travel lanes, and the narrowness of the street itself discourages most bicycle transportation. The close proximity of the homes to the businesses, however, would seem to encourage the use of bicycles over cars as a means of commuting, and the potential for biking as a tourist activity calls for greater attention be paid to the need for bike lanes or separate paths.

Pedestrian circulation within Mayport is provided by sidewalks along one side of the majority of streets. As noted above, since most businesses are in close proximity to the homes of the people who work or shop there, walking is an important means of travel within the village. Additionally, successful efforts to attract visitors to Mayport will increase the needs for safe walking throughout the village. A paved connection from the village to Helen Cooper Floyd Park would benefit walkers and bikers alike in accessing popular fishing and gathering spots.

Recreational Opportunities

Town Center to Mayport Road

Within the Town Center area of the study are many passive recreational opportunities. The area is well-known for its restaurants and accompanying nightlife, and is generating a reputation for having many interesting specialty shops. The end of Atlantic Boulevard is a highly used beach access, with a renovated life guard station which emulates a lighthouse. West of Town Center along Atlantic Boulevard, many shopping opportunities serve mainly the residents of Atlantic and Neptune Beaches.

Mayport Road to Helen Cooper Floyd Park

Since Mayport Road primarily serves the basic everyday needs of the residents of Atlantic Beach and Mayport Naval Station, there are few recreational opportunities in this section of the study. Just south of the naval
station entrance, on (Old) Mayport Road, is the entrance to Kathryn Abbey Hanna Park, a city of Jacksonville-owned park with bike trails, fishing, camping, and beach access activities. This park is very popular, but is not often perceived as being as part of the study area, rather, it typically is a “beaches” park. The Naval Station itself provides some recreational opportunities for the general public in the forms of free tours of Navy ships currently docked at the base. These tours are subject to availability and security issues.

The major recreational feature of this section is Helen Cooper Floyd Park, which serves mainly the many local fishing enthusiasts, as it separates Chicopit Bay from the St. Johns River. As of this writing, the park is awaiting design improvements which will include parking, signage, picnicking facilities, and lighting. The surrounding marsh and river environment is beautiful and popular, and is a major attribute to the approach to Mayport.

**Mayport Village**

Mayport is historically a fishing village, and as such, it should be expected that fishing would be a major part of the recreational opportunities afforded to both the residents and the visitors of Mayport. As evidence of this, several charter fishing operations run from the docks of Mayport, and the boat ramp north of the ferry slip is one of the more heavily used ramps in the City. Additionally, a casino boat docks in Mayport which takes gamblers out to sea twice a day. There are efforts to restore the historic lighthouse to a paid admission attraction (it is currently controlled by the U.S. Navy, but a move off Navy property is being discussed. This document will not address the issue of the move, but only its potential as a tourist draw). The Kingsley Plantation, Fort George Island, Talbot Islands State Parks, and the Timucuan National Preserve Area are all across the river, and the St. Johns River ferry itself is viewed by travelers on A1A as a unique experience on their trips.

Many well-known seafood restaurants make Mayport their home, and the potential to attract visitors to them and to a highly accessible waterfront environment exists and should be explored.

Mayport was the original home of what is now called the Jacksonville Jazz Festival. This musical event is world-renowned for its (previously) free admission, and its world-class artists. The event outgrew Mayport, and has since been replaced by the Mayport Seafood Festival, held in mid-March every year. This event continues to grow in popularity, and all the elements of this study should seek to address ways to accommodate this expected growth.
Landscaping

Town Center to Mayport Road

As is the case with all the related components in the Town Center end of this study area, the quality of the landscaping far exceeds that of the rest of this area. The recent improvements to Town Center have focused mainly on parking and landscaping, with additional improvements planned for the two blocks north and south immediately adjacent to Atlantic Boulevard on each of the intersecting streets.

As is mentioned in the overall visual quality assessment, the newly planted Medjool palms in the median of Atlantic Boulevard greatly improve the overall look of the landscaping in this area. The stores along Atlantic Boulevard leave a great deal to be desired in their landscape attempts, but reflect the minimal requirements of each of the neighboring cities. Neither Atlantic Beach nor Neptune Beach have a landscape ordinance as strong as that of Jacksonville, and businesses typically install only the minimum required landscaping.

Mayport Road to Helen Cooper Floyd Park

One of the main weaknesses of this study area is its lack of landscaping. Very few businesses have installed landscaping on their property, and those that have are primarily located within the City of Jacksonville limits, and are in response to the fairly strong landscape ordinance. Those businesses within the Atlantic Beach city limits are severely lacking in their efforts to beautify the area.

The areas along A1A near Helen Cooper Floyd Park benefit in large part to the existing natural vegetation, and efforts to preserve it. The vegetation serves as a buffer to the multi-family complexes behind it. The relatively few commercial establishments along this road may eventually be required to upgrade their landscaping as future property improvements likely will trip the City’s threshold for compliance with the landscape ordinance. Planned improvements to Helen Cooper Floyd Park will likely include landscape enhancements.

Mayport Village

Landscaping as an enhancement within Mayport is primarily limited to the private residences in the village. The lack of organized parking lots, the shallow properties, and the working waterfront aspect of Mayport all
Contribute significantly to the lack of landscaping in the area. Landscaping typically is used as a means of defining and separating individual entities, and has been noted, that separation, particularly between parking and Ocean Street, is not present in Mayport.

Efforts by Hornblower Marine to improve the aesthetics of the parking lots through landscaping of the two ferry slips have recently been completed, and have greatly enhanced the area. Continued efforts by businesses and residents would considerably aid in the redevelopment of Mayport.

Utilities

Town Center to Mayport Road

All utilities in this area are complete and mostly above ground, with no future improvement expected. Drainage improvements, however, are expected with the continued construction of additional parking spaces in Town Center on Atlantic Boulevard east of A1A.

Mayport Road to Helen Cooper

Floyd Park

Similarly, utilities along Mayport Road and A1A are above ground and complete, with no future expansion or improvements expected. The construction of the Atlantic Boulevard/A1A flyover at the Intracoastal bridge may result in the improvement of infrastructure and utilities in the immediate area of construction, but are not likely to affect the area as a whole. The City of Jacksonville is currently making sewer line improvements within Mayport Village, but the effects of those improvements will not be felt here.

Mayport Village

Most utilities are overhead, creating an unsightly appearance down Ocean Street. The Jacksonville Electric Authority is currently upgrading water supply and sewer infrastructure, and is poised to begin a construction effort which will place the electric utility underground, thereby eliminating a great deal of the visual overhead clutter. Growth within the village is stable, and accordingly, other infrastructure improvement is expected to be minimal in the near future.
Site Furnishings / Signage

**Town Center to Mayport Road**

Town Center is well equipped to handle the needs of its patrons. Benches, bike racks, ATMs, information disbursement areas, and refuse collection points are all present and in complementary numbers to the people using them. Signage is consistent throughout the area, and is in scale with each other and in relation to the use.

The remainder of Atlantic Boulevard is adequately appointed with furnishings and signage. The various businesses signs are quite varied in size and style, but as a whole are not obtrusive to the overall streetscape.

**Mayport Road to Helen Cooper**

**Floyd Park**

Because of the heavy traffic along Mayport Road and A1A, pedestrian traffic is minor, and accordingly, not well accommodated with site furnishings. Bus stops and benches are few, and refuse containers are hard to find within the public right-of-way. Telephones are available at the many gas stations and convenience stores. Signage along Mayport Road is very poor, with many signs way out of scale with those around them and in proportion to the business they advertise.

**Mayport Village**

Again, because of the lack of separation between the businesses along Ocean Street and the street itself, no room is provided for the site furnishings which would add to the charm of this small fishing village. Garbage is strewn about because of the lack of refuse containers, and fencing used to define storage areas or private yards is inappropriate for the use. Chain link fencing along Ocean Street is unattractive and should be discouraged. The village suffers from a large variety of signs placed in close proximity to each other, and of varying quality. Hand painted signs proliferate, and contribute to the overall run-down appearance of the village.

Examples of fencing which should be discouraged (above), and encouraged (below) for the residences and businesses of Mayport.
Figure 3. Visual Survey Map.
Visual Theme

This chapter shall serve to establish a **Visual Theme** for the future of Mayport Village and the remainder of the study area. The theme is set forth as a unifying motif upon which existing assets can be reinforced, and as a framework for the (re)development of existing and future facilities. These unifying visual themes have been developed from the preceding analysis. They seek to capitalize on the positive elements, and remedy the negative elements previously discussed.

This theme should be responsive to the function and intensity of use by the residents of, and visitors to, Mayport. Accordingly, areas which are purely work oriented, and to which access is or should be restricted, should be considered as to their impact on more accessible and visible activity areas. Conversely, the highly public areas which are likely to receive considerable traffic will be addressed as to how they interact with the private areas of the study.

The first two areas of the study, analyzed separately in the preceding chapter, are the areas stretching from the Town Center redevelopment area on Atlantic Boulevard east and then north into Atlantic Beach along Mayport Road, and finally ending at the Helen Cooper Floyd Park site. For the purposes of this **Visual Theme**, these two areas will be addressed collectively, as their proposed solutions are similar.

The remainder of this section will address the **Visual Theme** for the 60+ acres which make up the village of Mayport. This is the area which will realize the greatest benefit from the proposed projects and solutions of this effort. Mayport is also the foundation for the theme, both because of its history, and because of its potential for the future.

---

**Town Center to Helen Cooper Floyd Park**

**Visual Theme:** “Continue the Progress”

**Function of the Area:** Commercial and Industrial Businesses

This area of the study is well established both in architectural character, and in the visual character of the streetscape. There are few, if any, structures or parcels of land where the recommendations of this document are likely to have a dramatic impact on the overall aesthetics of the area.

The buildings are a mix of functional structures serving speed and convenience to a local community where fast service is more of an asset than is a pleasing visual experience. At the time most of these businesses were permitted and constructed, landscape and signage controls were not in place. As a result, parking areas blend right into the sidewalks, and subsequently, into the
travel lanes, and signs advertising the businesses are large, obtrusive, and out of scale for the community.

The **Visual Theme** for this area should be to gradually separate the building and their associated parking lots from the streets serving them. This can best be accomplished by the following:

- Install adequate landscaped buffers along Mayport Road and Florida A1A. These buffers should be at least 5' in width (10' within Jacksonville city limits), and contain trees and hedges to visually separate the parking lots from the streets.

- Reduce both the number and size of signs along the two thoroughfares. The size of each sign should be consistent with those around it. The number of signs allowed to each business should be regulated by the amount of property frontage. In no case shall there be more than two signs along any one street right-of-way. Ideally, each sign would be held back from the right-of-way line, so as to allow unobstructed views down each roadway.

- Where possible, improve under-utilized right-of-way areas by landscaping them. Greenscape of Jacksonville recently dramatically improved the streetscape along Atlantic Boulevard by planting large Medjool palm trees, ornamental shrubs, and flowering perennials.

- Install a repetitive element, such as banners advertising Mayport as a tourist destination or upcoming cultural events, along Atlantic Boulevard, Mayport Road, and A1A. These banners could be placed on existing overhead power poles at a spacing determined by the speeds encountered along each road. The element should be consistent in color, size, and message throughout (Figures 4 & 5).

### Mayport Village

**Visual Theme:** "The Good ol' Days"

**Function of the Area:** Fishing, Tourism, and Industrial Businesses

Mayport Village is an area rich in history and potential. Its history, often documented only through folk tales and a spotty photographic record, is its best hope for the future. Much of the Mayport area, formerly known by its many tiny communities such as Wonderwood Estates, Mayport Mills, East Mayport, and Hazzard, was consumed by the Navy's Mayport Naval Station starting in the 1940's. Its architectural vernacular, its beautiful coastal hammock and row of sand dunes, and its small town flavor were paved over by the ever-growing base.

Prior to the Navy's establishment here, Mayport was reveling in its heyday during the 1920's and 30's. The area's hotels were full of vacationers and boat pilots, roads finally served the former island from Jacksonville's beaches, railroads ran daily, the fishing industry was in full swing, and electricity was making it way toward the village.
This was the flavor of Mayport, and this document recommends that future development efforts be directed towards restoring and updating that flavor.

The **Visual Theme** for Mayport village should reflect the character of the village prior to the Navy’s presence here. This can best be accomplished by the following:

- **Rehabilitate existing buildings,** where appropriate, to reflect the architectural vernacular established during the early part of this century. *(NOTE: Rehabilitation of buildings fifty years or older as determined by the Historic Site Survey in Mayport (1999) must follow the Historic Preservation Guidelines for the Mayport Village (1999), which are based on the Secretary of the Interior’s standards for rehabilitation.)* This character may best be described as “Coastal Vernacular”. Existing structures along Ocean Street and new buildings should be the target for this architectural style. Peripheral buildings, such as private homes, and those used for large industrial uses, or those not easily seen from the Ocean Street, should be encouraged to update portions of their facades, such as entry areas, to reflect the theme.

- **Create a visually pleasing pedestrian/bicycle link** from the lighthouse down Broad Street to the ferry slip, and down Ocean Street to the Helen Cooper Floyd Park site. This would encourage not only tourist activity at both ends of the village, but would also facilitate bicycle or other means of commuting for the residents of Mayport. This link would include bicycle racks, special paving and crosswalks, and benches.

- **Install an historic sign** at the entrance to the village. This sign should be replicated at the ferry slip entry to the village as well. Create a signage theme which can be carried throughout the village as existing signs need replacement or upgrading. Encourage existing businesses to replace their old, hand painted signs with new ones which are appropriately scaled, situated at eye-level (ground or facade-mounted), and reflect the **Visual Theme** as established above.

- **Coordinate with the Jacksonville Electric Authority** during its current improvement efforts to install period light poles and fixtures rather than the standard contemporary poles and fixtures.

- **Negotiate with the owner of the property at the immediate south end of Ocean Street, before the curve,** for a small parcel of land to be developed as a Mayport educational / recreational facility. This area could accommodate parking for 8 - 10 vehicles (or more parking if providing for charter fishing traffic), a small picnic area, and historical plaques or photographs under a covered pavilion or gazebo. A small fishing pier could be provided as well.
• Include in the Planning Department’s overlay zoning a revised landscape ordinance for Mayport Village. This ordinance will replace the current City of Jacksonville’s landscape code with one which is equally effective and attractive, yet cognizant of the space limitations present along the existing and proposed Ocean Street. As is currently written, the Jacksonville landscape code would render most of the businesses’ properties useless if a strict application of the code were applied when required. Encourage the property owners to upgrade their existing landscapes to comply with the new overlay landscape code prior to its being required. A relatively minor expenditure on landscaping along the “main drag” of the village by each property owner would have a major impact on the streetscape as one enters Mayport.

• Encourage the owners of the residences along Ocean, Broad, Ribault Park, and Minorcan Way to upgrade or maintain their current landscapes. A landscape code does not exist in Jacksonville for single family home owners, but it should be stressed that these streets have particular importance in the revitalization efforts of Mayport.

• Organize parking for the businesses along Ocean Street. The current situation finds cars parked very near the travel lane which block pedestrian traffic, or sight lines for cars entering or exiting the main street. These parking areas, while not necessarily having to be paved, could be refurbished either with asphalt dressing, crushed limerock and shell, brick, or concrete. Other materials, such as shredded asphalt shingles or tires, gravel, or grass, should be discouraged. A consistent look along Ocean is desirous, and limiting the number of paving materials would be a benefit to the community. Additionally, where room permits, angled, on-street parking should be considered. This not only reduces the size and necessity of off-street parking lots, but harkens back to small-town America, a reminder of what Mayport used to be.

• Open “view corridors” off Ocean Street toward the river. These corridors can occur on currently vacant waterfront lots, or be through occupied properties. The opening of these corridors can most easily be accomplished through the removal of debris and obstructing, unused structures such as fences and gasoline or oil tanks, and/or by the limbing up of existing trees by qualified personnel. Ultimately, acquiring easements through unused portions of these waterfront properties would perpetually preserve these “view corridors”, and enable visitors and tourists to easily access the refurbished waterfront on paved and landscaped pathways. Additionally, open public access to the river by using the existing street ends at Henry, Pearl, Roxie, and Ferris Streets. These public accesses may contain limited parking, paved paths, seating, and access to the proposed boardwalk.

• Lastly, construct a waterfront boardwalk connecting each business and restaurant along it. This boardwalk would weave around existing buildings, and connect with existing docks, providing
an uninterrupted path between the proposed park at the south end of Ocean Street, past the ferry slip, and ending at the City boat ramp. This boardwalk, though a major undertaking, would bring tourists and residents close to the water, itself a major draw for the area. It could encompass fishing piers and cleaning stations, covered overlooks, and decks connected to the local waterfront restaurants. Access to private working docks could be controlled by locked gates. These Visual Theme recommendations are exhibited in Figure 6.
These Design Guides have been developed for the Mayport Waterfront Partnership for the purpose of coordinating the design of future projects within the study areas - Atlantic Boulevard, Mayport Road, and Mayport Village. Consideration has been given to the function of each of the study areas, existing priorities, visual assets and liabilities, and the likelihood of future funding sources for each proposed improvement or development. Each of these, along with the historical influences of the Mayport Village of the past, have had an influence in establishing a design theme, as previously defined in the Visual Theme section of this document.

The purpose of this section of the document is to direct physical improvements by influencing style, design, size, materials, and/or color of the improvements identified in the Visual Theme. Renovation and maintenance of existing facilities and properties, as well as new projects within the study area, should be guided by the suggestions contained herein. These guides should be used by architects, developers, landscape architects, and engineers when selected for projects.

The following section presents each of the major site elements, along with objectives for each element, and design guides to meet the itemized objectives. It is intended that these guides be used to direct a particular style, rather than requiring a specific product or color or material, although specifications are made as recommendations. This arrangement allows for flexibility in the design of each new project with respect to architecture, landscape architecture, space restrictions, and budgetary requirements, while still allowing each project to become a cohesive part of the entire theme previously established. Each architect or designer may feel free to give his/her project a unique flavor, and yet still actively participate in the rebirth of Mayport Village.

The site elements included in this section are:

- Architecture
- Vehicular Circulation and Parking
- Pedestrian & Bicycle Circulation
- Landscape Planting
- Signage
- Lighting
- Site Furnishings
- Utilities

Architecture

The initial image of the Mayport study area is primarily determined by the character of its buildings. It is vitally important that the treatment and architectural design process recognize how important this fact is to Mayport Village’s progress.
towards its desired goal - a renovated and pleasant fishing village, attractive to both its residents and visitors. Designs which merely satisfy functional requirements, yet ignore the style presented herein, will tend to detract from the overall visual quality strived for by the active participants in Mayport’s future. Design professionals should strive to create a sense of place, to be functional and yet be compatible with their surroundings. Budgets need not necessarily dictate a lack of style, or non-compatibility.

**Objectives**
- To provide building designs which relate to the natural features of the site
- To provide building design guidelines for new buildings and renovations or additions to existing structures, which will maintain design continuity with adjacent buildings
- Recognize the space constraints inherent to the Ocean Street commercial strip, especially waterfront, where the majority of the streetscape for Mayport Village will be established.

**Design Guides**

Based on the existing architectural character of Mayport Village, and the **Visual Theme**, guidelines outlining general architectural style, massing, form, materials, color and details have been prepared. These apply specifically to Mayport Village, but are appropriate to the other areas covered by this study, with slight deviations for style and materials.

**General Considerations**
- The siting and design of buildings should relate thematically to the landscape character and the climatic conditions found in the Mayport area
- Preserve open views of the river.
- Preserve, enhance and use existing natural features such as large canopy trees and significant views of the St. Johns River
- Buildings should be designed to reflect the vernacular of the area and buildings constructed during the 1920’s, 30’s, and 40’s. Obvious improvements in construction techniques will modify the style of new buildings slightly, but the basic design elements - horizontal siding, exposed rafter-tails, tin roofing, low roof pitches, simple ornamentation, full-width porches, and off-grade construction - should be incorporated where practical. *(NOTE: Rehabilitation of buildings fifty years or older as determined by the Historic Site Survey in Mayport (1999) must follow the Historic Preserv-"
Improper massing and scale of new structure adjacent to existing.

Proper massing and scale of new structure complements existing.

 Architectural Considerations

- The buildings’ exterior massing should relate favorably to existing adjacent structures. The ratio of width to height for front and side elevations should be considered.

- Buildings should be scaled in proportion to adjacent structures. Scale is expressed in a buildings’ facade where entrances and window openings are sized according to the size of the human body. In Mayport, most new structures should be designed on a much smaller scale than would be a building in downtown Jacksonville. New buildings in Mayport will be viewed at a much closer range, and therefore, its mass should be readily and entirely viewed from this close distance. Large or tall buildings will look “out of place” in the Mayport Village setting.

- Heights of new or renovated buildings will be controlled by the zoning overlay for Mayport, but should not exceed two-stories for proper scale. Most existing structures do not exceed one-story, and where possible, new structures should match the heights of surrounding buildings.

- New structures should not block views of the river from Ocean Street.

- Radically different or contemporary styles of design should not be built in the Village.

Examples of incompatible architectural styles.

“American House Styles”, J.M. Baker, A.I.A.
• “Spanish”, “Mediterranean”, or other European design styles should be discouraged
• Use of stucco as a building material should be limited as a design element. Primary building materials (exterior finishes) should be wood, and materials designed to resemble wood, such as cementitious clapboard siding, vinyl siding, and wooden shingles

Architectural Details
• Roof lines should be simple. A variety of ridges and valleys would not be harmonious with the surrounding structures. Simple gable, hipped, and half-hip roofs should predominate

Correct (above) and incorrect (below) roof lines

• Roof pitches should not exceed 6:12, with lesser pitches preferred. Roofing materials should include fiberglass shingles (architectural and three-tabs), tin and painted standing seam metal roofs, and cedar or pressure treated pine shakes. Concrete tile and clay barrel roofing is not compatible with this area
• Roof overhangs should be between 16” and 36”, depending on the neighboring structures
• Wall openings, such as windows and doors, should be set in a rhythmic, repetitive pattern. Stack upstairs windows and doors over downstairs openings

Example of symmetrical balance and the use of repetitive elements

• Symmetrical balance should be favored over asymmetrical balance
• Double hung windows and transoms should predominate over casements, fixed glass, and/or glass block
• Window and door trim should be simple, with most trim being a simple 4” width around the opening. Stacked trim is discouraged, except to draw attention to a special feature of the architecture
“Gingerbread” and other ornate decorations should be discouraged, or limited in style and to the primary building entrance or porch area.

HVAC, service courts, and other utility areas should be placed to the rear of the property. Along the waterfront, these areas should be located on non-public sides of the property.

Hand rails on accessible ramps and porches should be of simple design. Handicap ramps should be designed or located in an inconspicuous fashion, yet easily accessible as per Americans with Disabilities Act requirements.

**Building Colors**

Exterior building color suggestions are made here for use in Mayport Village in order to allow new buildings to complement the existing structures, and to create continuity among all the buildings in the Village. Color suggestions are purposely broad to allow for a wide range of design, yet to restrain obviously flamboyant schemes which might detract from the overall visual cohesiveness of the community.

Base paint colors should fall within the white, beige, and gray hues prevalent in the existing community. Variations in these colors, when adjacent to similarly painted structures, are quite pleasing. Exact matching of a color used on a neighboring structure should be avoided, unless the newly painted structure is intended to be visually linked to the existing one.

Trim colors should be limited to complementary shades of white and black, and be used on window and door trim, cornerboards, fascias, and eaves.

Roof colors should be neutral. Overly dark colors absorb too much heat, creating cooling problems, and visually weigh the building down. Colors which are too light show dirt, tree litter, and mildew.

Accent colors can be where the building expresses itself with color, although these colors should complement the body color. Bright, vibrant colors such as neons, yellow-greens, and purples should be avoided, as should pastels. Greens, reds, and blues are appropriate colors to accent doors, focal pieces, and other interesting architectural features of a building.

**Vehicular Circulation & Parking**

The existing infrastructure of roadways and streets within the village is complete (with the exception of the on-going construction of Minorcan Way), and unlikely to be significantly altered. The other two areas within the study area are similarly complete. Mayport Road and Atlantic Boulevard are major thoroughfares, and will not change, except for the proposed fly-over at the A1A/Mayport Road interchange. The existing streets, particularly Ocean Street in the village, are hemmed in by existing construction on both
sides, contributing to a congested feeling, and yielding little in the way of options. The parking areas, however, offer the most room for improvement, and their upgrades can significantly enhance the streetscape of Mayport.

**Objectives**
- The visual impact of parking areas should be reduced through the use of proper size and location, organization, screening, landscaping, signage and lighting
- Angled, on-street parking, where possible, should be installed to remove the necessity for large, obtrusive off-street lots

**Design Guides**

**Size and area requirements**
- The number of spaces in any particular location will vary according to the use of the property. The City of Jacksonville’s zoning code minimums should not be exceeded
- Large lots should be avoided where possible. Where the City’s code requires a large number, the lot should be broken up with medians and trees to reduce its visual impact
- The City’s parking requirements allow for the use of 25% compact spaces. These spaces measure 8’ x 16’, rather than the standard 9’ x 18’, and should be utilized to the fullest extent possible
- Landscape minimums as per the City’s zoning code should be exceeded in the parking areas

**Location**
- Avoid locating lots so that pleasant views to and from the buildings are blocked. Views from Ocean Street toward the St. Johns River, especially, should be protected
Figure 7. City of Jacksonville’s Land Use Regulations / Zoning Code - Parking Layout Requirements
Design new lots to protect existing trees, leaving approximately one-foot of diameter of undisturbed earth for each inch of caliper. As a minimum, protect no less than 9' of ground (per side) around each existing tree or tree grouping.

- Provide a minimum of 4' of planting area between parking areas and the building they serve.

Shredded shingles and tires, gravel, and unpaved dirt and grass should be avoided as parking surfaces. Preferred paving materials include concrete, porous pavement (used to allow water to root zones where space limitations preclude landscaped islands), asphalt, concrete pavers, stamped (patterned and pigmented) concrete, bricks, and shell-rock.

**Layout and Materials**

- 90-degree parking is the most efficient layout when considering numbers and circulation. Where space (width) is limited, options include 45 and 60-degree parking. These two options do require additional length, however, to compensate for the reduced width.

- City landscape standards require landscaped islands. These islands, and those around preserved trees, serve to break up large expanses of pavement.

Use 90-degree parking layouts (above) where space is not limited, or where horizontal dimensions are restricted; use angled parking layouts (below) where widths are limited. Note the use of one-way traffic on the angled layout.

*Typical Ocean Street section after proposed improvements (looking north).*
Pedestrian & Bicycle Circulation

Due to the nature and size of Mayport Village and the surrounding study areas, a safe and effective walkway and bicycle path system is a very important element.

Objectives

• To provide a safe and efficient system for the movement of residents and visitors in and through the village

• To enhance the pedestrian experience through the use of paving, control structures, and landscaping

• To provide bicycle parking and storage at all restaurants, attractions, and tourist destinations

• Walkways and bike paths should form a continuous, unbroken network through the village

• To provide safe, short roadway crossings which are free of obstructions and are well lighted

• The pathways should be smooth, well drained, and level

• The system should offer exciting and interesting views, particularly of the river environment

Design Guides

Design and Location

• All pathways and space requirements shall be designed in accordance with the most recent edition of the City of Jacksonville’s “Land Use Regulations”, unless otherwise provided for in the Planning and Development Department’s zoning overlay for Mayport

• All pathways shall meet the minimum requirements as specified in the Americans with Disabilities Act guidelines, latest edition

• Walkways and bike paths should be located so as to provide convenient access to all areas of Mayport Village, yet minimize conflicts with automobiles and truck traffic.

Use visual and audible markings to separate vehicular and pedestrian traffic.

• Pathways parallel to the streets are most convenient, and acceptable here due to the relatively low volume of traffic.

• Provide pathways down both sides of Ocean Street, down at least one side on all other streets
• Pathways should be constructed with a slope gradient of 3% or less, and have a cross-slope of 1 ½ - 2% for proper drainage.

• Pedestrian crosswalks at intersections and mid-block locations should be clearly marked with different paving materials and/or color. Avoid mid-block crossings where possible.

• Crosswalks should be a minimum of 150% of the larger intersecting sidewalk width. (Example: where a 4' wide sidewalk is to cross to a 5' wide walk, the crossing should be a minimum of 7'-6" in width)

• Walkways should intersect with other walks with either a 3' radius or a 45° angle. Special paving treatment may be appropriate, if the intersection is at a key location.

• Walkways at building entrances should be wide enough to accommodate entering and exiting traffic and door swing.

• Bicycle racks should be placed near the entrance to the building or the activity, but out of the flow of pedestrian traffic.

**Materials**

• Except for pathways through recorded easements toward the river, all paths should be of hard, non-skid surfaces.

• All new or refurbished paths should be constructed of concrete, stamped and patterned concrete, brick, or concrete pavers. The design of each walkway should be consistent in the use of materials and its design along the entire length of the path. Where existing paths are present, connecting paths should match the existing material, except where different materials are used to delineate crossings. Where the existing path is in a severe state of disrepair and needs replacement. 

---

*Example of concrete pavers*
in the near future, a different material may be used if it is likely that the replacement path will match the new path in material selection.

- Soft pathways, such as grass or gravel, should be edged and contained with a long-lasting edging material. Such edging can be made of 1/8" thick steel staked in place, pressure treated lumber with a minimum size of 1x4, brick mortared in place, or concrete curbing. All such edging should be flush with the surrounding grade to minimize tripping hazards, and provide a hard edge for lawn and landscape maintenance.

**Landscape Planting**

Landscaping throughout the Mayport Waterfront Partnership Study Area is one of the weakest elements studied, yet has the potential to make a large visual impact for a relatively small amount of money. Landscape improvements can be done incrementally, and even small efforts can show a serious commitment to the betterment of the community.

**Objectives**

- To enhance the visual appearance of the Mayport study area through the proper use of plant materials

**Plant Materials**

- Trees, shrubs, ground covers, and turf comprise the plant palette available for the Mayport area. The number of varieties of plants used in a particular bedding area should be limited, so as to avoid a confusing array of plants. Generally, large masses of similar plants provide the most pleasing arrangement, with individual specimen plants scattered throughout for visual interest. A typical planting bed may consist of surrounding turf, one or two types of low ground cover, an intermediate arrangement of low shrubs, and a tree to provide height. Select plant varieties that are and will be suitable to the space - consider growth characteristics, mature size and growth requirements.

Recent landscape improvements at the FDOT ferry slips have significantly improved the visual appearance of both the Mayport Village and the Ft. George landings.

- To provide a landscape system which is effective in enhancing the visual environment, is suitable for the climate, is relatively low in maintenance requirements, and provides a variety of color, form, and texture.

**Design Guides**
Special considerations for the Mayport area are the sandy soil existing throughout, high wind, and high salt concentrations in the air and water. Plants should be selected for their tolerances to the above conditions. Generally, the Mayport area is considered zone 9B of the USDA’s guidelines based on average minimum temperatures of 10° - 20°F. Freezes are a concern for many tropical plants which are useful for abundant color, and for several large ornamental palm trees. These plants may be used as accents, with the knowledge that they may be severely damaged or destroyed by temperatures below freezing.

A palette of recommended plants for use in the Mayport study area is available in the Plant Suitability Matrix - Figures 8 - 12.

**Design and Use of Plant Materials**

With the exception of planting design for single family residential uses, all new installations are subject to review and approval by the City of Jacksonville’s Landscape Section, under the Building & Zoning Department. New projects, and those existing facilities undergoing improvements which equal or exceed a 50% increase in property value and/or structure size, are required to be in compliance with the most recent landscape ordinance, and must be designed by a person qualified to do so under the landscape ordinance (Registered Landscape Architect, Engineer, other registered professionals, or the property Owner). Proposed revisions to the current Landscape and Tree Protection Ordinance, applicable to Mayport only, can be found in the Implementation Plan section, and incorporated into the Mayport Zoning Overlay prepared by the City’s Planning and Development Department. Non-single family residential projects or improvements which do not exceed the 50% threshold are not required to comply with the quantity provisions of the ordinance, but must meet the quality standards set forth therein, and thus are subject to City review.

- Plant material may be used to define spaces between buildings and structures, delineate edges, and accent and enhance entry areas.

- Use plant material as an effective screen between incompatible uses or to block undesirable views.

- Provide plantings along walkways and bike paths to increase visual interest and to provide a pleasant environment.

- Large trees and tree masses can be used to increase the energy efficiency of buildings and structures by shading or moderating temperatures. Deciduous trees are best for this purpose when

Use salt tolerant Silverthorn to screen objectionable views.
planted in the correct location since they provide shade during the summer months, and allow warming sun rays to penetrate during the winter. These trees are best used on the southwest quadrant of a property, and placed only near enough to the structure to cast shade on the structure or windows

- Define pedestrian and vehicular circulation with plant material to control and direct flow, and enhance vehicular corridors
- Plant material with thorns or spikes may be used to form effective barriers, to shield and secure areas, and to restrain trespassers
- Avoid using plant material which requires excessive trimming
- Provide a minimum of three inches of mulch materials to minimize watering requirements and weeding. Acceptable mulches for this area include pine straw, pine bark and nuggets, shredded cypress, compost, and shredded eucalyptus or melalueca trees. River rock, gravel, shredded paper, or other types of mulching materials should be avoided, unless the entire design requires a unique mulch. Where possible, keep mulch away from direct contact with the stem or trunk of the shrub or tree to avoid disease and rot problems
- Slopes greater than 3:1 should be planted with a fast-growing ground cover to reduce hazardous mowing
- Avoid many small planting areas. Provide larger mass plantings
- Provide bed edgings where possible to keep invasive grasses from the bed.

Minimize Maintenance
The careful use and placement of plants may reduce maintenance, while improving the overall visual quality of Mayport

- Allow adequate space between plants and trees to accommodate lawn maintenance equipment
- Place shrubs so as to allow plants to grow into masses rather than individual shrubs requiring trimming

Use Spanish Bayonet to discourage trespassers.

Plastic edgings keep grass out of beds and reduce trimming requirements.
<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Evergreen</th>
<th>Deciduous</th>
<th>Massing</th>
<th>Security</th>
<th>Shade</th>
<th>Specimen/Focal Point</th>
<th>Ground Cover</th>
<th>Foundation/Background</th>
<th>Screening</th>
<th>Climbing/Vine</th>
<th>Fast</th>
<th>Medium</th>
<th>Slow</th>
<th>Drought</th>
<th>Salt</th>
<th>Native</th>
<th>Light</th>
<th>Mature Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ajuga reptans</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2'-12'</td>
</tr>
<tr>
<td>Aspidistra elatior</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20'-30'</td>
</tr>
<tr>
<td>Cyrtomium falcatum</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>18'-24'</td>
</tr>
<tr>
<td>Gelsemium sempervirens</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6'-10'</td>
</tr>
<tr>
<td>Hedera canariensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6'-10'</td>
</tr>
<tr>
<td>Hemerocallis spp.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12'-36'</td>
</tr>
<tr>
<td>Juniperus chinensis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12'-36'</td>
</tr>
<tr>
<td>Juniperus conferta</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12'-24'</td>
</tr>
<tr>
<td>Liriope muscari (various varieties)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6'-24'</td>
</tr>
<tr>
<td>Ophiopogon japonicus</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6'-12'</td>
</tr>
<tr>
<td>Setcreasea pallida</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>14'</td>
</tr>
<tr>
<td>Trachelospermum asiaticum ‘Minima’</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8'-12'</td>
</tr>
<tr>
<td>Trachelospermum jasminoides</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8'-12'</td>
</tr>
</tbody>
</table>

LEGEND:  L - Low, M - Moderate, H - High; S - Full Sun, PS - Partial Shade, SH - Shade
### Plant Suitability Matrix - Small / Medium Shrubs

**Figure -9**

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Plant Function</th>
<th>Growth Rate</th>
<th>Tolerant</th>
<th>Miscellaneous</th>
<th>Mature Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dwarf Chinese Holly</strong></td>
<td>Dwarf Chinese Holly</td>
<td>M</td>
<td>L</td>
<td>S/PS</td>
<td>24*-30*</td>
</tr>
<tr>
<td><strong>Dwarf Yaupon Holly</strong></td>
<td>Dwarf Yaupon Holly</td>
<td>H</td>
<td>H</td>
<td>S/SH</td>
<td>24*-30*</td>
</tr>
<tr>
<td><strong>Heavenly Bamboo</strong></td>
<td>Heavenly Bamboo</td>
<td>M</td>
<td>L</td>
<td>S/PS</td>
<td>24*-48*</td>
</tr>
<tr>
<td><strong>Indian Hawthorne</strong></td>
<td>Indian Hawthorne</td>
<td>H</td>
<td>H</td>
<td>S/PS</td>
<td>24*-30*</td>
</tr>
<tr>
<td><strong>Adams Needle</strong></td>
<td>Adams Needle</td>
<td>H</td>
<td>H</td>
<td>S/PS</td>
<td>24*-30*</td>
</tr>
<tr>
<td><strong>Japanese Barberry</strong></td>
<td>Japanese Barberry</td>
<td>M</td>
<td>M</td>
<td>S/PH</td>
<td>4'-6'</td>
</tr>
<tr>
<td><strong>Fatsia japonica</strong></td>
<td>Fatsia</td>
<td>L</td>
<td>M</td>
<td>PS/SH</td>
<td>3'-5'</td>
</tr>
<tr>
<td><strong>Dwarf Burford Holly</strong></td>
<td>Dwarf Burford Holly</td>
<td>H</td>
<td>L</td>
<td>S/PS</td>
<td>3'-5'</td>
</tr>
<tr>
<td><strong>Loropetalum chinensis</strong></td>
<td>Loropetalum</td>
<td>M</td>
<td>L</td>
<td>PH</td>
<td>5'-8'</td>
</tr>
<tr>
<td><strong>Sandankwa Viburnum</strong></td>
<td>Sandankwa Viburnum</td>
<td>H</td>
<td>L</td>
<td>S/SH</td>
<td>6'-8'</td>
</tr>
<tr>
<td><strong>Laurestinus</strong></td>
<td>Laurestinus</td>
<td>M</td>
<td>L</td>
<td>S</td>
<td>5'-7'</td>
</tr>
<tr>
<td><strong>Spanish Bay net</strong></td>
<td>Spanish Bay net</td>
<td>H</td>
<td>M</td>
<td>S</td>
<td>6'-8'</td>
</tr>
</tbody>
</table>

**Legend:**

- L - Low
- M - Moderate
- H - High
- S - Full Sun
- PS - Partial Shade
- SH - Shade

**Notes:**

- The table includes various shrubs suitable for small and medium-sized gardens, with specific notes on their growth rate, tolerance, and mature size.
- The table also provides an overview of their function in landscapes, such as foundation, background, specimen, and focal point.
# Plant Suitability Matrix - Large Shrubs

**Figure - 10**

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Plant Function</th>
<th>Evergreen</th>
<th>Deciduous</th>
<th>Massing</th>
<th>Security</th>
<th>Shade</th>
<th>Specimen/Focal Point</th>
<th>Screening</th>
<th>Foundation/Background</th>
<th>Climbing/Vine</th>
<th>Fast</th>
<th>Medium</th>
<th>Slow</th>
<th>Drought</th>
<th>Salt</th>
<th>Native</th>
<th>Light</th>
<th>Mature Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Callistemon rigidus</td>
<td>Bottlebrush</td>
<td>★</td>
<td></td>
<td>★</td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8'-10'</td>
</tr>
<tr>
<td>Cortaderia selloana</td>
<td>Pampass Grass</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6'-10'</td>
</tr>
<tr>
<td>Eleagnus pungens</td>
<td>Silverthorn</td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td>★</td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12'-15'</td>
</tr>
<tr>
<td>Fuchsia sellowiana</td>
<td>Pineapple Guava</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6'-10'</td>
</tr>
<tr>
<td>Ilex vomitoria ‘Pendula’</td>
<td>Weeping Yaupon Holly</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12'-15'</td>
</tr>
<tr>
<td>Ligustrum japonica</td>
<td>Japanese Privet</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12'-15'</td>
</tr>
<tr>
<td>Nerium oleander</td>
<td>Oleander</td>
<td>★</td>
<td>★</td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>12'-15'</td>
</tr>
<tr>
<td>Pittosporum tobira</td>
<td>Pittosporum</td>
<td>★</td>
<td>★</td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>9'-12'</td>
</tr>
<tr>
<td>Podocarpus macrophyllus</td>
<td>Yew Podocarpus</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15'-20'</td>
</tr>
<tr>
<td>Viburnum odoratissimum</td>
<td>Sweet Viburnum</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15'-20'</td>
</tr>
<tr>
<td>Yucca elephantipes</td>
<td>Spineless Yucca</td>
<td>★</td>
<td>★</td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15'-20'</td>
</tr>
</tbody>
</table>

**Legend:**
- L - Low
- M - Moderate
- H - High
- S - Full Sun
- PS - Partial Shade
- SH - Shade
# Mayport Design Guide

## Plant Suitability Matrix - Ornamental / Shade Trees

### Figure-11

<table>
<thead>
<tr>
<th>Plant Type</th>
<th>Deciduous</th>
<th>Evergreen</th>
<th>Massing</th>
<th>Security</th>
<th>Shade</th>
<th>Screening/Background</th>
<th>Foundation/Border</th>
<th>Growth Rate</th>
<th>Tolerant</th>
<th>Salt</th>
<th>Native</th>
<th>Light</th>
<th>Mature Size</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ORNAMENTAL</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eriobotrya japonica</td>
<td>Loquat</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M</td>
<td>M</td>
<td>S/PS</td>
<td>25'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ilex attenuata / opaca spp.</td>
<td>Holly Trees</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>M</td>
<td>M</td>
<td>★</td>
<td>S/SH</td>
<td>20'-40'</td>
<td></td>
</tr>
<tr>
<td>Koelreutia elegans</td>
<td>Goldenrain-Tree</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td>L</td>
<td>S/PS</td>
<td>40'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lagerstroemia indica</td>
<td>Crepe Myrtle</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>H</td>
<td>M</td>
<td>S/PS</td>
<td>15'-25'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ligustrum lucidum</td>
<td>Ligustrum Ratio Tree</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>H</td>
<td>M</td>
<td>S/PS</td>
<td>12'-20'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Myrica cerifera</td>
<td>Wax Myrtle</td>
<td>★</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td>H</td>
<td>★</td>
<td>S/SH</td>
<td>15'-25'</td>
<td></td>
</tr>
<tr>
<td>Parkinsonia aculeata</td>
<td>Jerusalem-Thorn</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td>L</td>
<td>S/PS</td>
<td>30'</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SHADE</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Magnolia grandiflora</td>
<td>Southern Magnolia</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>M</td>
<td>H</td>
<td>★</td>
<td>S/PH</td>
<td>60'-100'</td>
<td></td>
</tr>
<tr>
<td>Quercus laurifolia</td>
<td>Laurel Oak</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>M</td>
<td>H</td>
<td>★</td>
<td>S/SH</td>
<td>60'-100'</td>
<td></td>
</tr>
<tr>
<td>Quercus virginiana</td>
<td>Live Oak</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>H</td>
<td>H</td>
<td>★</td>
<td>S/PS</td>
<td>60'-100'</td>
<td></td>
</tr>
<tr>
<td>Pyrus calleryana 'Bradford'</td>
<td>Bradford Pear</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>★</td>
<td>M</td>
<td>L</td>
<td>S/PS</td>
<td>25'-40'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ulmus parvifolia 'Drake'</td>
<td>Drake Elm</td>
<td>★</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>H</td>
<td>L</td>
<td>S/SH</td>
<td>45'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**LEGEND:** L - Low, M - Moderate, H - High; S - Full Sun, PS - Partial Shade, SH - Shade
<table>
<thead>
<tr>
<th>Plant Name</th>
<th>Function</th>
<th>Leaf Shape</th>
<th>Plant Function</th>
<th>Growth Rate</th>
<th>Tolerant</th>
<th>Miscellaneous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butia capitata</td>
<td>Pindo Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>H</td>
<td>M</td>
<td>S/PS</td>
</tr>
<tr>
<td>Chamaerops humilis</td>
<td>European Fan Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>M</td>
<td>H</td>
<td>S/SH</td>
</tr>
<tr>
<td>Livistona chinensis (LY)</td>
<td>Chinese Fan Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>M</td>
<td>M</td>
<td>S/PS</td>
</tr>
<tr>
<td>Phoenix canariensis*(LY)</td>
<td>Canary Island Date Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>M</td>
<td>M</td>
<td>S/PS</td>
</tr>
<tr>
<td>Phoenix dactilifera*(LY)</td>
<td>Date Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>M</td>
<td>M</td>
<td>S/PS</td>
</tr>
<tr>
<td>Rhapis excelsa*</td>
<td>Lady Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>H</td>
<td>L</td>
<td>PS/SH</td>
</tr>
<tr>
<td>Sabal palmetto**</td>
<td>Cabbage Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>H</td>
<td>H</td>
<td>S/PS</td>
</tr>
<tr>
<td>Trachycarpus fortunei(LY)</td>
<td>Windmill Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>H</td>
<td>H</td>
<td>S/PH</td>
</tr>
<tr>
<td>Washingtonia robusta</td>
<td>Mexican Fan Palm</td>
<td>Fan</td>
<td>Feather</td>
<td>M</td>
<td>M</td>
<td>S/SH</td>
</tr>
</tbody>
</table>

**LEGEND:** L - Low, M - Moderate, H - High; S - Full Sun, PS - Partial Shade, SH - Shade; * - subject to damage at temperatures below 32°; ** - State tree of Florida; (LY) - moderately susceptible to Lethal Yellowing
• Place large foundation plantings a minimum of 3' - 3 ½' feet from the wall of a building to allow for air circulation and periodic maintenance of the building, including painting.

• Avoid, where possible, strips of sod less than a lawn mower’s width (21" - 22") wide. This reduces the requirement for a line trimmer, which may scalp the grass and promote pest and disease problems.

• Do not place large shrubs in front of low windows. This will reduce the necessity of severe pruning, which is detrimental to the plant.

Planting Details

Maintenance, “Xeriscaping”, & Irrigation

• Northeast Florida typically receives about 55" of rainfall per year. Irrigation systems, or hand watering, should seek to supplement rainfall shortages, not increase the landscape’s requirement for
In low rainfall periods, an irrigation system should place between ¾" - 1" of water per week, in slow, soaking sessions. Frequent, short waterings do not penetrate deep enough into the soil to stimulate healthy root growth, but only encourages roots to climb toward the surface for water, where they can be easily damaged or infested. Water only when needed to prevent wilting and disease. Over-watering can cause root rot, disease, and increased water demand. Automatic irrigation timers should be checked and adjusted regularly to ensure that the plant’s water requirements are being minimally provided for

- Mayport’s sandy soils will require more frequent watering than would a clayey soil. Water-holding soil additives may be mixed with backfill if desired.
- Local law requires a rainfall shut-off device on automatic irrigation systems to prevent watering during or shortly after a rain.

- Group plants with similar water requirements together so that only those areas with high water needs will be irrigated when necessary. Lawn areas should be placed on a separate automatic irrigation zone from shrub areas. Do not mix turf irrigation heads with shrub heads on the same zone, as they provide differing amounts of water.
- The use of native and drought tolerant plants will reduce the amount of water necessary to keep the landscape in good health.
- Slope paved areas to drain toward turf areas.
- Fertilize plants only as necessary to replenish nutrients. Applications should be made to promote steady growth through the growing season, but should be halted during the dormant period (winter) to prevent new growth from being harmed by low temperatures.
- Apply fertilizers and pesticides only as per manufacturers’ recommendations.
- Soils should be tested for organic content, water holding capacity, and pH prior to the addition of soil amendments.
- Turf areas should be cut to the proper height to reduce scalping and disease infestations. St. Augustine grasses should be cut from 3" - 4", and Bahia grasses should be cut from 3½" - 4½". No more than 1/3 of the leaf blade should be removed during a single cut. Make sure the mowers have sharp blades to make a clean cut.

Separate irrigation zones to water turf and other high water use areas (no color), moderate (light blue), and low (dark blue) water use areas according to each zones’ needs.
Prune large trees from the top down, removing approximately 1/3 of the upper canopy. Remove crossing limbs and branches, suckers, and branches which grow outside of the basic shape of the shrub or tree. Prune to maintain the plant’s form, to aid air circulation, and to help control insects and diseases.

When pruning to dramatically reduce the size of an existing shrub, do not remove more than 1/3 of the shrub during one growing season.

Signage

A sign’s principal function is to communicate information in a clear and concise manner. However, signs in the Mayport study area should be attractive and consistent in style and message. Signs in the study area should reflect the theme established in the Visual Theme, yet are bound by the requirements set forth in the City’s Land Use Regulations as to size, location, and message.

Objectives

- To establish a signage system throughout the study area that is visually attractive while conveying accurate and adequate information
- To establish a system that is flexible and coordinates with other site furnishings. It must be compliant with the City’s Sign Ordinance
Design Guides

- The signage system for Mayport should consist of the following types of signs:
  - Identification
  - Directional
  - Regulatory
  - Banners

Identification Signs
- Signs which name specific buildings or uses such as restaurants, tourist activities, or other businesses. These type of signs may also be used to identify entry into Mayport Village
- These signs should differ from other types of signs in both their size and mounting mechanism. These signs may be ground mounted on a substantial base, or wall mounted to the building being identified
- Identification signs should be externally lighted from a ground mounted fixture, or from one mounted in an otherwise inconspicuous location
- Portable, internally lighted, and neon signs should be avoided
- Signs should be located near the building’s primary entrance or associated parking area

Directional Signs
- Signs which guide motorists, bikers, and pedestrians to various locations around the Village
- These signs should be located at key decision points along the circulation pattern
- Should be of similar design to identification signs in mounting style and materials. The theme for the village should be carried forward with these types of signs
- No more than three separate pieces of information, or destinations, should be contained on one sign
- Signs should be positioned for high visibility and installed consistently in relation to the roadway, walkway or building being served
- Do not group directional signs together. Directional signs should be placed no closer than 100' apart to discourage a cluttered appearance

A combined use of identification and directional signage

An example of an identification sign mounted to a business
• Directional signs should not be placed more than 1000’ from the entity being served. Exceptions would include major activities such as the ferry, Coast Guard, the village itself, and occasional occurrences like the Seafood Festival.

• Signs should provide a hierarchy of information disseminated in terms of wording and size of the message. Such information should follow a sequence most beneficial to the intended audience.

Regulatory Signs
• These signs identify the “rules of the road”, and consist of street names, stop signs, and traffic control.

• Signs should conform to local and federal regulations in terms of location and message.

Banner Signs
• As outlined in the Visual Theme, banners should be used to provide a visually pleasing repetitive element along Atlantic Boulevard, Mayport Road, and A1A.

• Mount banners on existing power poles or, in areas with no above ground poles conveniently located near the roadway such as A1A near Little Jetties Park, on new ornamental poles permanently ground mounted. Mount at a height that is readily visible to automobile traffic, yet does not obstruct safe driving vision.

• Banners must comply with the sign ordinance.

• Banners mounted on existing poles, and those mounted on new poles, should be placed on approximate 150’ centers, and on both sides of the roadway directly opposite each other.

Design and Materials
• Identification signs which are not mounted to the face of its building should be ground mounted, and constructed as a single “blade” sign. That is, dimensional and shaped signs, such as wedges, cubes, pyramids, etc., should not be used. Both faces of the sign should contain the same message.

• The overall height of a ground mounted sign should not exceed the average eyesight level, or approximately 5’ above the surrounding grade.
• Mountings for ground mounted identification and directional signs should be limited to treated wood pilings, 4x4 and 6x6 pressure treated or painted lumber, brick or other masonry units, and decorative concrete, and should match the exterior architecture of the building being advertised.

• The messages carried on the identification and directional signs should be clear and concise, and limited to the name of the business, year founded (if desired), and the street number. Hours of operation and additional information should be posted near the front door.

• While the City of Jacksonville’s sign ordinance allows up to 24 square feet of image area for a commercial sign (verify with ordinance), signs in the Mayport area should be significantly smaller, due to the decreased traffic speeds through the Village. Additionally, these signs should be designed for the pedestrian traveller, rather than those in a vehicle, as the intent of this document is to make Mayport a walking environment. Pedestrian oriented signs are much smaller in scale, and should not block views along the sidewalks.

• In compliance with the City sign ordinance, signs may not be placed closer than 10’ to the right-of-way line. Signs located at this point should not exceed 10 square feet in image area. Signs located away from the right-of-way line should gradually increase in size, up to the allowed 24 square feet. This increase in size is a function of visibility, and should be carefully studied on-site prior to fabrication of the proposed sign.

• The area of each sign allotted to framing and display of the message should not exceed 20% of the image area. Therefore, the entire “sign” should not exceed 12 square feet at the right-of-way, and 29 square feet when located elsewhere on the property. Framing for each sign can vary widely, but for consistency throughout the village,
should be simple in design and shape, with logos or ornamentation limited to placement at the center-top and/or center-bottom

- Materials for the construction of the sign should be durable and long-lasting, yet complementary with the theme and nautical style of the village. Many high-tech materials, and concrete, can be fabricated to resemble routed and sand-blasted wood signs, yet are much more durable than is wood
- Colors for the signs should match those used on the buildings, and prevalent throughout the village. Brights and neon colors should be avoided
-Fonts used in the messages of signs should be clean, simple, and traditional in style. Fonts which look “antique”, “nautical”, “old-fashioned”, and reminiscent of the 20’s, 30’s, and 40’s should be favored over new and modern styles. Below are some examples of acceptable font choices. Scripts and Sans Serif fonts may be used, but should be limited to secondary information on each sign

This is an example of “Casablanca Antique”

This is an example of “Bosanova”

This is an example of “Gloucester Condensed”

This is an example of “Goudy Old Style”

This is an example of “Playbill”

This is an example of “Theatre Antoine”

- Letter heights should be no larger than 5” tall for capitals when used near the street, and 12” tall when used toward the rear of the property and on wall mounted signs
• Tracking (spaces between individual letters) and leading (spaces between lines of lettering) should be normal for each font selected.

Regulatory signs, while maintaining federal and state standards for message and design, should seek to complement nearby signs and architecture in their framing and mounting. For example, street signs and traffic signs may be mounted on ornamental or wooden posts, with framing around the sign to match.

- Banners should be brightly colored and provide information about upcoming events, or permanently direct traffic to Mayport Village.
- Banners and mountings should be of long-lasting, durable materials, able to withstand severe conditions such as high winds, sun, and rain. Heavy canvas, woven acrylic, fiberglass, and aluminum are materials which should be used on the banners and poles.

- Standard sizes for banners should be 18” wide by 36” tall, 30”x60”, and 30”x72”. This approximate proportion - from 2:1 - 3:1 - should be followed for all banners, with a minimum width dimension of 18”.
- All materials should be chosen to prevent fading, cracking, peeling, and tearing.
Lighting

Lighting has a significant impact on the nighttime visual character of the Mayport community. Exterior lighting, while primarily related to security, safety, and direction finding, can be used at the same time to provide visual interest through shadow casting, silhouettes, uplighting, and spot-lighting.

Objectives

- To provide adequate lighting appropriate to each type of use
- To create a unified lighting system of fixtures and standards throughout the Mayport study area that are consistent with the theme, and are appropriate to the space and function being served

Design Guides

Types of Lighting

- Walkway lighting should be provided by fixtures mounted at an average height of 10' - 15'
  - Recommended light levels for walkways should be 1 - 2 footcandles
- Bollard lights may be used in areas where low light levels are required, yet still provide definition to walkways, building entries, etc. These types of lights are generally have low wattage (50W - 100W), and are incandescent or fluorescent.
- Parking and roadway lighting should be provided by fixtures mounted at an average height of 20' - 30'
  - Recommended light levels for parking lots and roadways should be ½ footcandles in parking lots and 1½ - 2 footcandles along roadways
- Parking lot and roadway lighting are typically provided by mercury vapor or high pressure sodium fixtures
- Building entry lighting is generally provided by incandescent fixtures mounted at 5' - 8', and casting 5 footcandles over the entry area. Their purpose is equally split between function and aesthetics
• Signage lighting usually is ground or eave mounted, and aimed at the message portion of the sign. The light source should be incandescent, fluorescent, mercury vapor, or metal halide. High pressure sodium lighting should be avoided for signage lighting. Footcandle requirements for sign lighting is usually between 5 and 10.

• Landscape lighting fulfills a variety of aesthetic purposes, and is typically of metal halide, incandescent, fluorescent, halogen, or mercury vapor. High pressure sodium lighting should be avoided for landscape lighting. Fixtures can be hidden from view, or made of a material which is complementary to the landscape. Landscape lighting can be provided by standard line voltage (120v) or by low voltage (12v) systems.

Light Sources

• Metal halide lamps are recommended for use in people gathering areas. The lamp has good color rendition, and is not offensive to people. Average lamp life is 7500 - 20,000 hours (average lamp depends on many variables).

• Mercury vapor lamps are the least efficient type of HID (high intensity discharge) lamps from a wattage range standpoint, but yield a color rendition which is well-suited to landscape lighting. Average lamp life is 24,000 hours.

• Incandescent lighting has the shortest average lamp life (750 - 2000 hours), and should be used only in pedestrian areas where its warm color is an attribute. Easy access to this fixture should be maintained due to its relatively short lamp life.

• Fluorescent lamps are useful for illuminating signs because of their color renditions. Cold weather, however, may affect the starting of these lamps. Average lamp life is 7500 - 15,000 hours.

• Low voltage (halogen) lights are particularly useful in residential applications because of their ease of installation and variety of lamps, fixtures, and low cost. These systems may be installed by the Owner of the property by direct burial of lines, and by installing a transformer at a 120v receptacle. The transformer reduces the line voltage from 120v to 12v, an amount roughly equal to a child’s electric train set, making this type of lighting very safe. Drawbacks to this type of lighting are that the more lights added to a line from a transformer, the lower the light output is at the end of the line. The total wattage (or a percentage of it as specified by the manufacturer) of the transformer may not be exceeded by the total wattage of all the fixtures on the line.
Fixture Types

The selection of a light fixture relates closely to the function of the lighting. Light fixtures should be functional and capable of efficient light distribution patterns. The fixture should visually relate to the theme established for Mayport and the surrounding study areas in which they are used. All fixtures should be made of durable, salt resistant materials such as painted aluminum, high impact resins, bronze, or galvanized metals. Resistance to wind driven rain is important, as the wind in this area is frequently strong. Frosted or white glass should be favored over clear glass lenses because of the reduced cleaning requirements for those types of glass (dirt and salt spray).

- Walkway and other pedestrian area lighting should be of a smaller scale than that which is used for larger areas, such as parking lots or building lighting. Fixtures with a nautical theme, such as the Street Lighting Equipment Company (available from WJ Whatley, Inc.) model number 1040, with arm #RA26SL single fixture arm, or #RA26SLBA (single fixture with banner) should be selected. Additional specifications should be black color, and wattage appropriate to the use. Mounting height should be 10' - 15'.

- Parking and roadway lighting fixtures should be compatible with the fixtures selected for the walkways. The roadway fixtures, when provided by JEA, should be the ornamental types available at additional cost. Developer provided fixtures should match those selected for the walkway area, except mounted at the appropriate height, and accompanied by the correct lamp wattage.

- Bollard lighting is available in many different styles and types, but should be complementary to the predominant ornamental fixture style. An example of a bollard light well-suited to the Mayport community would be the Hadco 8" Rounded Lighthouse Bollard model #RL8, with a concrete shaft, and Black fixture. The lamp should be 70-100W, centered at 36" above the surrounding grade, and of a matching type with the walkway lighting (mercury vapor/mercury vapor, not mercury vapor/metal halide or sodium).

- Building/Entry light fixtures styles are widely variable, but should reflect the nautical theme to coordinate with the functional lighting fixtures described above, and complement the architectural style of the building. Light sources should be incandescent, and limited to 100W. Examples
of appropriate styles are the Hadco “Savannah” series 5300, the “Lancaster” series 5000, or the Whatley fixture identified above, in a smaller size (16” diameter). Each of these fixtures should be specified with a black finish and a wall mount arm.

- Landscape lighting fixtures are the most widely varied type of fixture, and include path lights, bullet lights, spots, floods, well lights, subterranean (inground), and down lights. Each type serves a different purpose, and can be mounted in a mixture of ways to achieve special effects such as silhouetting, moon-lighting, shadowing, uplighting, and spot lighting. For most applications, landscape lighting fixtures should be placed in inconspicuous areas, where the light source is hidden. Allow for plant growth in the fixture location. Aiming is important, so as to not blind oncoming pedestrian or vehicular traffic, while still allowing for the desired affect. Path lights, conversely, are highly visible fixtures, and should complement the landscape in their design. Black, “verde green”, bronze, and/or copper finishes should be used. Lamps can be incandescent, or matching with the area lighting, and not exceed 75W. Landscape lighting, in general, should not exceed 175W.

- Sign lights should cast a large, even light pattern in order to properly light the object. “Hot spots” should be avoided by selecting floods instead of spots. A spot light may be selected over a flood when the object being lighted is sufficiently small that its entire message is illuminated by an equally intense amount of light as generated by the spot. Suitable fixtures for this use include the Hadco WA3/WB3(HF) series of horizontal floods. Lamps should be 70W-175W mercury vapor or metal halide, and mounted in an inconspicuous location and aimed to avoid the blinding of oncoming traffic.

**Light Standards**

- Light poles for the selected fixtures should be constructed of a very durable material, and able to withstand the high wind, heat, and salt spray encountered in the Mayport environment. The design should be a straight, tapered pole with a simple base. A suitable light pole design is the
W.J. Whatley direct-burial fiberglass pole, model #357 Jamestown, in black finish. Fiberglass poles are very strong, and require little maintenance. Direct-burial poles reduce the installation costs by removing the need for a previously poured concrete anchor system.

- Pole spacing and mounting height should be properly designed for each area.

**Site Furnishings**

Site or street furnishings consist of utilitarian items such as benches, garbage receptacles, bike racks, fences, and information kiosks. They should fulfill their intended purpose, and positively contribute to the overall visual quality of Mayport Village.

**Objectives**

- To establish a coordinated system of street and site furnishings that positively contribute to the Mayport community
- To select elements which are durable, functional, and easily maintained by the property owners
- To provide flexibility in the design process, while achieving the coordinated look outlined in the Visual Theme

**Design Guides**

**Benches and Seating**

- Seating should be located in areas of high probable use. This includes bus stops, entry areas, plazas, and other waiting areas. They should be located to take advantage of desirable views
- Seating should be set back a minimum of 30" from adjacent sidewalks to provide ample leg room, and to not interfere with pedestrian traffic
- Seating surfaces should be designed to shed water, and be constructed of materials which do not retain heat
- Benches and movable seating should be painted in a color consistent with other site furnishings (black)
- Seating materials should be long lasting, and able to withstand the high heat, wind, and salt spray encountered in Mayport

- Recommended examples of seating types are the Wabash Valley “Rib Pattern Bench”, model #ER4520, 4' bench, the Smith &
Hawken “Gloucester” model #B496919 5’ teak bench, and the Forms+Surfaces model #AE3035 6’ backless bench in mahogany and black finish.

**Garbage Receptacles/Ash Tray Urns**

- Garbage receptacles/ash urns should be highly visible and easily accessible for effective litter control. Locate receptacles/urns conveniently and strategically along sidewalks, near major walkway intersections, building entries, vending machines, and recreation/picnic areas. Each grouping of benches or seating should have a receptacle/urn located within 20’ of it.
- Locate receptacles/urns to the side of walkways so as to not impede pedestrian traffic.
- Recommended styles of garbage receptacles include the Wabash Valley “Rib and Weave” model #LRR32I/FTL32, the Litchfield Industries, Inc. “Main Street Heavy Metal Litter” Series 5900, the Trystan “Fairway Series” model #FS-5 cedar receptacle, and the Forms+Surfaces model #AE3081 mahogany receptacle. Ash urn recommendations include the Wabash Valley model #AUR10, the Keystone Ridge “Harmony III” model #HIII-5 and the Forms+Surfaces model. Models which combine both functions should be considered in order to conserve space.

**Dumpsters**

- Dumpster containers should be screened from view on at least three sides by an opaque fence or wall of sufficient height to block views of the container.
- Use plant materials which have a mature height of at least 6’ to screen dumpster areas.
- Containers should not contain signage, graphics, or other design which increases attention to their location.
- Dumpster containers should be located adjacent to the truck loading or service area of the facility they serve, and should be located on a level concrete pad.

**Bicycle Racks**

- Bicycle racks should be located along major bicycle paths at high activity areas, such as picnic areas, view areas, building entries, and tourist destinations.
- Provide paving around bike storage areas.
- Allow approximately 35 square for each bicycle stored.
- City of Jacksonville Land Use Regulations require the provision of bike racks per each new
permitted use. Check with the City’s zoning code, Section §656.608, for the required number of spaces prior to specifying a storage system

- Bicycle racks should be permanently mounted to the ground and out of the way of pedestrian and vehicular traffic

- Bicycles may be mounted horizontally on the ground or vertically against a wall, with mounting hardware which allows the bike to be secured at the wheels and the frame

- New construction which requires drainage structures should take care to locate these structures out of the bicycle and pedestrian lanes.

**Unlighted Bollards**

- Unlighted bollards may be used to define pedestrian areas and to direct and exclude vehicular traffic

- Bollards may be made of painted metal, concrete, or marine grade pilings with heavy rope accents to reflect the nautical theme of Mayport

- Heights of bollards should not exceed 42".

- Bollards should be spaced so as to not allow automobiles and trucks to pass between them, typically 6’-7’ on-center, except in cases where emergency vehicles (fire and ambulance) or where frequent loading is required but pedestrian traffic is discouraged.

**Walls and Fences**

Walls and fences are a highly visible part of any community, and as such, their design has a significant impact on the visual quality of the area. Walls and fences are typically used to define property, provide security, or to limit access to non-public areas like loading zones.

**Types of Fencing**

There are several types of fencing which may be applicable to Mayport Village:

- Chain link

- Wood fencing can be found in many different styles and types of wood. Shadow box, open picket, two and three-rail, louvered panel, and
board are examples of common wood fencing types. Wood types are typically unpainted pressure treated, painted pine, cypress, cedar, and redwood.

- Ornamental metal can be found in a variety of styles, and are generally built of painted wrought iron or extruded aluminum. The spaces between pickets are restricted by the local Building Code, and should be strictly followed

General Design Requirements
Walls and fences should follow the criteria listed below

- Solid fences are best used adjacent or attached to the building as architectural extensions. The appropriate height for a solid fence is 5’ to 6’. Careful consideration should be given to coordination with the line, materials, and color of the architecture. Solid fences, while maintaining privacy, should remain open to desirable views. Types of solid fences include solid picket, board, louvered panel, shadow box, concrete block and masonry construction, and chain link with slats inserted (screened)

- Semi-transparent fences can occur either adjacent to the house or separate from it. The height for these fences can range from 3 ½’ - 6’.

Semi-transparent fences are less dependant on the architecture of the building than are solid fences. Types of semi-transparent fences include open picket, 1x2 wood screen, unscreened chain link, and ornamental metal

- Transparent fences maximum heights should be 3 ½’. These fences should be as unobtrusive as possible, and are typically used for small area definition. Types of transparent fencing include hedge, split rail and two and three-rail, ornamental metal, and wire mesh
• Walls and fences should be of appropriate design and material to fulfill their function while contributing to the theme of the area.

• Chain link fencing should generally be limited to uses such as security or recreational fencing. Chain link should be black or green vinyl-coated or painted. Chain link fencing should be discouraged in residential settings, or limited to backyard uses.

• Where chain link fencing is required, fencing should be set back from the property line far enough that landscape screening can be planted and maintained on the outside of the property. A minimum of 5' from the property line is generally sufficient for this purpose.

• Plant materials are preferable to either walls or fencing when screening parking lots, loading and storage areas, or similar functions from view along main streets or pedestrian areas. In areas where security is a concern, plants with spikes or thorns, such as Spanish Bayonet, can be used with much success.

• Walls and fences on adjacent properties should be of the same height, material, and color where possible.

• Wood, masonry, and ornamental steel or aluminum are generally the most harmonious materials for use in residential environments. Ornamental metal fencing should be painted black.

Planters

• Planters should visually coordinate with all the site furnishings in Mayport, in that they carry forth the nautical theme, are constructed of similar materials, and/or they are the same color as other elements.

• Use planters to define both pedestrian and vehicular circulation patterns in areas where such circulation is unclear.

• Planter size and shape should relate to the size limitations of the area in which they are being used.

• Planters should not be placed in the way of door swings at building entries, where they will impede traffic flow, or where they are not likely to be properly maintained.

• Planters should be used as an accessory feature of an area, and accent the surrounding ele-
Planter shapes should be round, square, or rectangular, and range in size from 18" square to 24"x60", and 18" - 48" diameter. Heights should range from 15" - 30"

Materials for planters should be long-lasting concrete, ornamental metal with plastic liners, fiberglass, or teak, pressure treated pine, mahogany, redwood, or painted wood

Planters should be provided with drain holes

Some planters are self-watering. Use of these planters will reduce maintenance requirements, and provide for a better looking, longer lasting accent

Examples of acceptable planters include the Wabash Valley “Rib Pattern” planters model #’s PR2418R - PR4830R, PR2418S - PR3620S, the Smith & Hawken teak planter model #’s B5947 & B504654, and the Planter Technology self-watering “SeaCrest” series model #’s ss2417 - ss5536

Miscellaneous

When trees are planted in or near a paved walkway, they should be placed in a tree grate to protect both the trees root zones and the surrounding pavement. Tree grates should comply with ADA (Americans with Disabilities Act) guides for slot openings. Generally, grates with slot openings of less than ½” should be acceptable. Materials should be painted cast iron grates and frames or painted cast aluminum with iron frames. Complementary tree guards may be used with the grates, when available. Grates should be round or square, have an expandable opening, and of a simple design. If uplighting is desired, specify a grate with light well openings. Examples include Neenah Foundry Company’s model #R-8707 180° square, and R-8834 180° round
• Kiosks are free standing information centers located in high pedestrian traffic areas, usually containing messages contained behind an aluminum frame with a glass door. Their design should replicate the other site furnishings.

• Colors used for all site furnishings should be consistent throughout the village. Black and dark green should be the predominant colors specified on furnishings, with white, dark blue, and light blue occasionally used as accents. Bright colors such as red and yellow should be avoided. Color schemes should not be mixed when used on the same property.

Utilities

Although utility systems throughout the Mayport study area are relatively complete and in place, new or upgraded systems should consider the following factors when under design:

• Overhead lines should be located to the rear of the building, and alignment along major roads should be avoided.

• Power transformers should be ground mounted and screened with plant material. They should be located near service areas and not building entries.
This page intentionally left blank
Implementation Plan

This chapter of the *Mayport Design Guides* seeks to develop a plan for the implementation of those ideas previously set forth in the *Visual Theme* chapter, and defined through the use of the elements described in the *Design Guides* chapter.

The combination of the two chapters listed above should generate a master plan which responds to the deficiencies noted earlier in the *Visual Survey and Analysis*. A master plan for the Mayport study area may be implemented in whole, or in part, and by one or several developers and/or municipalities, as funds become available.

This chapter has chosen three proposed projects to focus on (*Improvement Projects #1-3*), with similar projects aimed at improving the visual character of Mayport to be based on the selected models. They are presented as a proposed “Phase I”, although exact phasing depends on many factors, including JEA’s on-going infrastructure improvements, individual property owners’ willingness to respond, grant programs availability and requirements, and the City of Jacksonville’s *Mayport Village zoning overlay approval process*.

Additionally, this chapter provides the recommended revisions to the current *Landscape and Tree Protection Ordinance* for inclusion in the Mayport zoning overlay, site furnishings’ vendor addresses and contacts used in the preparation of this document, and approximate 1999 cost estimates for the three selected projects, as well as the individual site furnishings selected.

The suggestions in this document, when employed by qualified professionals and interested property owners, will produce projects which are attractive, functional, cost effective, and cohesive in its efforts to promote Mayport Village as a vibrant working and tourist oriented community.

The following three *Improvement Projects* to be addressed are located as shown in Figure 13:

**Improvement Project 1** - Community Park and Waterfront Nature Center;

**Improvement Project 2** - Ocean Street Picnic and Riverfront Access Park; and

**Improvement Project 3** - Typical Street-End River Access and Parking

![Figure 13. Improvement Project locations.](image)
Improvement Project 1

The primary objective of this project is to provide a learning area, combined with a picnic site, along a unique environmental setting.

Existing Conditions

1. The area of the proposed nature center and park is currently bordered on three sides by water - the St Johns River to the west, a small inlet with several docks in disrepair to the south, and a small marsh area to the north. The upland property to the east has recently (May 1999) been cleared, and is owned by Safe Harbor Seafood. Development plans for the property recently cleared is not known at this time.

2. The visual characteristic of this small peninsula is that of a neglected, trash strewn dock housing a fishing trawler.

3. Access to the site is made off Ocean Street just north of the U.S. Coast Guard Station, and is in line with the proposed bicycle trail from the lighthouse to the proposed Helen Cooper Floyd Park (Little Jetties Park).

4. Views along the river are superb, with the adjacent marsh providing a unique opportunity to inform school children and tourists of the river/estuarine environment by means of a nature center/kiosk.
Proposed Actions

1. Clean up debris around the site, remove hazardous materials, if present

2. Provide Owner-only access gate to the existing dock. This will allow the site to be used by the current fishermen, yet still provide access to the public

3. Build a small public dock, or renovate an existing one, so that small boats or canoes may be launched from the inlet off the river

4. Provide parking for 8 - 10 cars. Provide bicycle racks

5. Build a small gazebo/information kiosk over the marsh, with room for connection and access to the proposed “Riverwalk”

6. Provide picnic facilities along the upland area, with connections to the proposed bicycle path from the Lighthouse to Helen Cooper Floyd Park

Figure 14. Showing the proposed changes to the area immediately north of the U.S. Coast Guard Station. Project requires sale of property by current owner or a public access easement across it. Note proposed palm tree planting along Florida A1A from Mayport Road to Village entrance. This is the repetitive element recommended in the Visual Theme.
Improvement Project 2

The primary objective of this project is to clean up an underutilized riverfront setting, provide needed parking for the Post Office, and provide access to the river with a broad view of its beauty.

Existing Conditions

1. Currently used as a parking area for several of the adjacent businesses (Joe’s Seafood and Mat Roland’s Seafood). Parking is unorganized and scattered across the site
2. Lot is shallow, preventing new construction of significant or usable size. The existing small building on-site is currently underutilized
3. A sunken boat rests at the foot of a dock in serious disrepair. Access by boat to the river is severely limited by the existing docks
4. The adjacent U.S Post Office lacks adequate parking facilities
5. Site is directly across Ocean Street from the Mayport Waterfront Partnership Office and Police Stop Station, providing a potential improvement site within eyesight of the office most responsible for providing assistance for improvement within the Village
6. Drug trafficking occurs near this site
Proposed Actions

1. Provide landscaped parking areas for the existing adjacent businesses, Post Office, and visitors to the riverfront.

2. Convert the existing small building to a public restroom, vending building, or a Mayport information disbursement site.

3. Remove the existing sunken boat and repair the broken dock for use as an observation or fishing dock. This site would be a major entry point along the proposed “Riverwalk.”

4. Landscape the site and the Waterfront Partnership Office site as an example of what can be done in Mayport Village.

5. Construct the first segment of the new pedestrian walkway along the west side of Ocean Street. This walkway should be paved with stamped concrete or concrete pavers, and planted with Cabbage Palms in tree grates along the sidewalk.

6. Increased pedestrian activity in this area will force the drug trafficking to other parts, or cause it to disappear altogether.

7. Provide signage and lighting as a model for future projects in the Village.

Figure 15. This public parking/picnic area near Minorcan Way can be built as an example of what can be accomplished in Mayport. Elements include landscaping, streetscaping, lighting, and access to the proposed boardwalk.
Improvement Project 3

The primary objective of this project is to provide a model for the utilization of the existing street ends at Pearl, Roxie, and Ferris Streets as river access points, and as additional off-street parking areas.

**Existing Conditions**

1. The street end at Pearl Street is overgrown, has overhanging limbs which block views of the river from Ocean Street, and has debris ranging from unused boats to household appliances littering it

2. The paving ends at the edge of Ocean Street

3. Adjacent businesses have no screening around them, or they need to be repainted

4. The area feels congested, dirty, and dangerous
Proposed Actions

1. Clean up existing debris to the waterfront. Cut back overhanging limbs, weeds and other undergrowth. Remove boats and appliances.

2. Provide parallel or angled parking spaces for 5 - 8 vehicles (depending on available space) and landscape according to codes.

3. Provide pedestrian connections between Ocean Street and the waterfront. Separate pedestrian and vehicular traffic within the right-of-way through the use of bollards. Pedestrian paths should be paved with special pavement or contained shell rock.

4. Provide bicycle racks at the waterfront.

5. Provide lighting for nighttime use.

6. Allow for future connection to the proposed “Riverwalk”

7. Paint the facing sides of adjacent buildings a neutral color, or provide landscape screening to camouflage undesirable views.

Figure 16. Proposed street ends at Roxie Street (left) and Ferris Street (right) include parking, walkways, bike racks, landscaping, lighting, and future boardwalk access. The building near item #7 at left is the proposed Mayport Museum. Ocean Street is lined with a new sidewalk, palm trees, and decorative lighting on both sides.
Improvement Project Cost Estimates

The following cost estimates have been prepared for the previous improvement projects in order to provide developers and property owners with a basic scope of the projects and improvements contained herein. The costs are approximate for 1999, and are subject to change based on time of installation, availability, quantities, and other, unknown factors. Architects, Landscape Architects, Developers, and Owners should check with suppliers prior to developing a budget for proposed projects.

<table>
<thead>
<tr>
<th>Improvement Project #1</th>
<th>Unit Measure</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean-up and Debris Removal</td>
<td>Hours</td>
<td>40</td>
<td>12.5</td>
<td>500</td>
</tr>
<tr>
<td>Owner-only Access Gate</td>
<td>Each</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Construct Shell-rock Parking</td>
<td>SF</td>
<td>10</td>
<td>300</td>
<td>3000</td>
</tr>
<tr>
<td>Construct Shell-rock access drive</td>
<td>CY</td>
<td>250</td>
<td>25</td>
<td>6250</td>
</tr>
<tr>
<td>Fishing Pier/Canoe Launch</td>
<td>Each</td>
<td>1</td>
<td>3500</td>
<td>3500</td>
</tr>
<tr>
<td>Gazebo/Information Center</td>
<td>Each</td>
<td>1</td>
<td>35000</td>
<td>35000</td>
</tr>
<tr>
<td>Paved Bicycle Path</td>
<td>LF</td>
<td>650</td>
<td>8.5</td>
<td>5525</td>
</tr>
<tr>
<td>Palm Trees on-site</td>
<td>Each</td>
<td>13</td>
<td>175</td>
<td>2275</td>
</tr>
<tr>
<td>Palm Tree along A1A</td>
<td>Each</td>
<td>18</td>
<td>175</td>
<td>3150</td>
</tr>
<tr>
<td>Landscaping</td>
<td>SF</td>
<td>2400</td>
<td>2.25</td>
<td>5400</td>
</tr>
<tr>
<td>Irrigation allowance</td>
<td>Each</td>
<td>1</td>
<td>2500</td>
<td>2500</td>
</tr>
<tr>
<td>Post Lighting</td>
<td>Each</td>
<td>4</td>
<td>1850</td>
<td>7400</td>
</tr>
<tr>
<td>Signage (excludes Gazebo)</td>
<td>Each</td>
<td>2</td>
<td>500</td>
<td>1000</td>
</tr>
</tbody>
</table>

**TOTAL IMPROVEMENTS** 76000
## Improvement Project #2

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit Measure</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean-up and Debris Removal</td>
<td>Hours</td>
<td>25</td>
<td>12.5</td>
<td>312.5</td>
</tr>
<tr>
<td>New Concrete Sidewalk on west</td>
<td>LF</td>
<td>560</td>
<td>8.5</td>
<td>4760</td>
</tr>
<tr>
<td>Construct Shell-rock Parking</td>
<td>Each</td>
<td>42</td>
<td>300</td>
<td>12600</td>
</tr>
<tr>
<td>Construct Shell-rock access drive</td>
<td>CY</td>
<td>485</td>
<td>25</td>
<td>12125</td>
</tr>
<tr>
<td>Fishing Pier/Canoe Launch</td>
<td>Each</td>
<td>2</td>
<td>3500</td>
<td>7000</td>
</tr>
<tr>
<td>Gazebo/Picnic Shelter</td>
<td>Each</td>
<td>1</td>
<td>25000</td>
<td>25000</td>
</tr>
<tr>
<td>Paver Pedestrian Walkway</td>
<td>SF</td>
<td>2350</td>
<td>6</td>
<td>14100</td>
</tr>
<tr>
<td>Palm Trees on-site</td>
<td>Each</td>
<td>18</td>
<td>175</td>
<td>3150</td>
</tr>
<tr>
<td>Palm Tree along Ocean Street</td>
<td>Each</td>
<td>37</td>
<td>175</td>
<td>6475</td>
</tr>
<tr>
<td>Landscaping</td>
<td>SF</td>
<td>3200</td>
<td>2.25</td>
<td>7200</td>
</tr>
<tr>
<td>Irrigation allowance</td>
<td>Each</td>
<td>1</td>
<td>4500</td>
<td>4500</td>
</tr>
<tr>
<td>Post Lighting</td>
<td>Each</td>
<td>44</td>
<td>1850</td>
<td>81400</td>
</tr>
<tr>
<td>Benches</td>
<td>Each</td>
<td>6</td>
<td>525</td>
<td>3150</td>
</tr>
<tr>
<td>Garbage Receptacles</td>
<td>Each</td>
<td>3</td>
<td>325</td>
<td>975</td>
</tr>
<tr>
<td>Tree Grates near Post Office</td>
<td>Each</td>
<td>2</td>
<td>550</td>
<td>1100</td>
</tr>
<tr>
<td>Signage</td>
<td>Each</td>
<td>4</td>
<td>500</td>
<td>2000</td>
</tr>
<tr>
<td>Architecture/Land Acquisition</td>
<td>Each</td>
<td>N/I</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Boardwalk Construction</td>
<td>Each</td>
<td>N/I</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**TOTAL IMPROVEMENTS**  185847.5
# Improvement Project #3

<table>
<thead>
<tr>
<th>Item</th>
<th>Unit Measure</th>
<th>Quantity</th>
<th>Unit Cost</th>
<th>Extended Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clean-up and Debris Removal</td>
<td>Hours</td>
<td>55</td>
<td>12.5</td>
<td>687.5</td>
</tr>
<tr>
<td>New Concrete Sidewalk on west</td>
<td>LF</td>
<td>560</td>
<td>8.5</td>
<td>4760</td>
</tr>
<tr>
<td>Construct Shell-rock Parking</td>
<td>Each</td>
<td>29</td>
<td>300</td>
<td>8700</td>
</tr>
<tr>
<td>Construct Shell-rock access drive</td>
<td>CY</td>
<td>425</td>
<td>25</td>
<td>10625</td>
</tr>
<tr>
<td>Paver Pedestrian Walkway</td>
<td>SF</td>
<td>1216</td>
<td>6</td>
<td>7296</td>
</tr>
<tr>
<td>Concrete Pedestrian Walkway</td>
<td>SF</td>
<td>2125</td>
<td>6</td>
<td>12750</td>
</tr>
<tr>
<td>Palm Trees on-site</td>
<td>Each</td>
<td>32</td>
<td>175</td>
<td>5600</td>
</tr>
<tr>
<td>Palm Tree along Ocean Street</td>
<td>Each</td>
<td>34</td>
<td>175</td>
<td>5950</td>
</tr>
<tr>
<td>Landscaping</td>
<td>SF</td>
<td>4200</td>
<td>2.25</td>
<td>9450</td>
</tr>
<tr>
<td>Irrigation allowance</td>
<td>Each</td>
<td>1</td>
<td>3500</td>
<td>3500</td>
</tr>
<tr>
<td>Post Lighting</td>
<td>Each</td>
<td>53</td>
<td>1850</td>
<td>98050</td>
</tr>
<tr>
<td>Benches</td>
<td>Each</td>
<td>6</td>
<td>525</td>
<td>3150</td>
</tr>
<tr>
<td>Bike Racks</td>
<td>Each</td>
<td>5</td>
<td>310</td>
<td>1550</td>
</tr>
<tr>
<td>Garbage Receptacles</td>
<td>Each</td>
<td>6</td>
<td>325</td>
<td>1950</td>
</tr>
<tr>
<td>Signage</td>
<td>Each</td>
<td>6</td>
<td>500</td>
<td>3000</td>
</tr>
<tr>
<td>Architecture/Land Acquisition</td>
<td>Each</td>
<td>N/I</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Boardwalk Construction</td>
<td>Each</td>
<td>N/I</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

**TOTAL IMPROVEMENTS**  
177018.5

## Cost Estimate Notes

1. Cost estimates are for the project areas shown, and include only the image area.
2. Cost are **very** rough, and intended for preliminary information only.
3. Land acquisition, legal costs, design fees, and other associated costs are not included.
4. Not all items included in estimates are shown in the sketches.
5. Costs are 1999 prices from the manufacturers of items specified in the Design Guides.
6. Many of the parking solutions require shared access with adjacent property owners. Those costs are not calculated.
Part 12. Landscape and Tree Protection Regulations

656.1201 Short Title—Part 12 shall be known and may be cited as “the Landscape and Tree Protection Regulations.”

656.1202 Declaration of legislative intent and public policy. - It is the intent of these regulations to promote the health, safety and welfare of the current and future residents of the City by establishing minimum standards for the conservation of water, the protection of natural plant communities, the installation and continued maintenance of landscaping & and the protection of trees within the City in order to:

(a) improve the aesthetic appearance of commercial, governmental, industrial, and residential areas through the incorporation of landscaping into development in ways that harmonize and enhance the natural and manmade environment;

(b) improve environmental quality by recognizing the numerous beneficial effects of landscaping upon the environment, including:

(1) improving air and water quality through such natural processes as photosynthesis and mineral uptake;
(2) maintaining permeable land areas essential to surface water management and aquifer recharge;
(3) reducing and reversing air, noise, heat and chemical pollution through the biological filtering capacities of trees and other vegetation;
(4) promoting energy conservation through the creation of shade, thereby reducing heat gain in or on buildings or paved areas;
(5) reducing the temperature of the microclimate through the process of evapotranspiration; and
(6) encouraging the conservation of water through the use of site specific plants and various planting and maintenance techniques, and efficient watering systems;

(c) provide direct and important physical and psychological benefits to human beings through the use of landscaping to reduce noise and glare, and to break up the monotony and soften the harsher aspects of urban development;

(d) establish procedures and standards for the administration and enforcement of this part;

(e) promote creative site development concepts in order to promote water and energy conservation;

(f) increase and maintain the value of land by requiring a minimum amount of landscaping to be incorporated into development;

(g) preserve existing natural trees and vegetation and incorporate native plants, plant communities and ecosystems into landscape design where possible;
(h) promote the landscaping methods that provide for the preservation of existing plant communities, reestablishment of native plant communities, use of specific plant materials, use of pervious paving materials and other xeriscape concepts in order to promote water conservation;

(i) assist in public information, the education of its citizens, and the effective implementation of this part

656.1203 Definitions - For purposes of this part, in addition to the following terms or words, the definitions provided for in Part 15 shall apply. If the definitions contained in this section at any time conflict with the definitions contained in Part 15, the more restrictive definition(s) shall apply. As used in this part:

(a) annual consumptive use. means the yearly amount of water applied to the landscape.

(b) automatic controller means a mechanical or electronic timer, capable of operating valve stations to set the days and length of time of a water application.

(c) bona-fide agricultural practices means good faith commercial or domestic agricultural use of the land, any such determination of which shall be based upon, but not limited solely to, the following factors:

   (1) the length of time the land will be so utilized;

   (2) size of the land, as it relates to specific agricultural use;

   (3) whether such land is subject to a lease, and if so, the effective length, terms and conditions of the lease;

   (4) the intent of the landowner to sell or convert the land for or to nonagricultural purposes;

   (5) the proximity of the property to existing urban or metropolitan development;

   (6) the productivity of the land in its present use;

   (7) the relationship of the property to the Comprehensive Plan;

   (8) the classification placed upon such lands by the Property Appraiser pursuant to §193.461, Florida Statutes;

   (9) the current zoning classification of such land

(d) buffer yard or strip means a strip of land, identified on a site plan or by zoning ordinance requirement, established to protect one type of land use from another land use that may be incompatible. The area is landscaped, maintained and kept in open space.

(e) caliper means the trunk diameter of existing or planted tree. Caliper shall be measured six (6) inches above the ground for trees up to and including four (4) inches in caliper, and measured twelve (12) inches above the ground for trees exceeding four (4) inches in caliper. If the tree has a very enlarged irregular base, then the caliper measurement shall be taken up where the trunk has a more regular circumference, but in no case higher than 4-1/2 feet above the ground. If the tree forks between ground level and one (1) foot above ground level, then the tree shall be considered a mult-trunked tree.
Caliper for multi-trunked trees shall be determined by measuring each trunk immediately above the fork and adding the total caliper of the four largest trunks.

(f) cultivated landscape means planted areas that are frequently maintained by mowing, irrigating, pruning, fertilizing, etc.

(g) development any proposed material change in the use or character of the land, including, but not limited to, land clearing associated with new construction, the placement of any structure or site improvement on the land, or expansion of existing buildings.

(h) drip line means a vertical line extending from the outermost branches of a tree to the ground.

(i) ecosystem means a characteristic assemblage of plant and animal life with a specific physical environment, and all interactions among species and between species and their environment.

(j) emitter devices means devices which are used to control the applications of irrigation water. The term is primarily used to refer to the low flow rate devices used in micro-irrigation system.

(k) ground cover means a low-growing herbaceous or woody plant other than turf, not over two (2) feet high, used to cover the ground.

(l) hedge means a landscape barrier consisting of a continuous, dense planting of shrubs.

(m) infiltration rate means the rate of water entry into the soil expressed as a depth of water per unit of time (inches per hour).

(n) irrigation system means a permanent, artificial watering system designed to transport and distribute water to plants.

(o) landscaped area means the entire parcel less the building footprint, driveway, non-irrigated portions of parking lots, hardscapes such as decks and patios, and other non-porous areas. Water features are included in the calculation of the landscaped area.

(p) landscaping means any combination of living plants (such as grass, groundcover, shrubs, vines, hedges, or trees) and non-living landscape material (such as rocks, pebbles, sand, mulch, walls or fences).

(q) microirrigation (low volume) means the frequent application of small quantities of water directly on or below the soil surface, usually as discrete drops, tiny streams, or miniature sprays through emitters placed along the water delivery pipes (laterals). Microirrigation encompasses a number of methods or concepts including drip, subsurface bubbler, and spray irrigation.

(r) mulch means non-living organic materials customarily used in landscape design to retard erosion and retain moisture.

(s) native vegetation. See vegetation, native.

(t) naturally occurring existing plant communities. See vegetation, native.

(u) open space means all areas of natural plant communities or areas replanted with vegetation after construction, such as revegetated natural areas; tree, shrub, hedge or ground cover planting areas; and lawns, and all other areas required to be provided as natural ground and landscaping pursuant to the Zoning Code.

(v) perimeter landscaping means a continuous area or land which is required to be set aside along the
perimeter of a lot in which landscaping is used to provide a transition between and to reduce the environmental, aesthetic, and other impacts of one type of land use upon another.

(w) pervious paving materials means a porous asphaltic or concrete surface and a high-void aggregate base which allows for rapid infiltration and temporary rocks, pebbles, sand, mulch, walls or fences.

(x) plant community means a natural association of plants that are dominated by one or more prominent species, or a characteristic physical attribute.

(y) preserve areas means vegetative areas required to be preserve under the jurisdiction of the Florida Department of Environmental Regulation, St. Johns River Water Management District and/or the United States Army Corps of Engineers or other regulatory agencies.

(z) rain sensor means a low voltage electrical or mechanical component placed in the circuitry of an automatic lawn irrigation system which is designed to turn off a sprinkler controller when precipitation has reached a pre-set quantity.

(aa) runoff water means water which is not absorbed by the soil or landscape to which it is applied and flows from the area.

(bb) protected tree includes all of the following:

(1) private protected tree means any tree with a caliper of six (6) inches or more located on any lot within twenty (20) feet of a street right-of-way (including an approved private street or other access easement) or a tree with a caliper of eight (8) inches or more located within (10) feet of any other property line, or a tree with a caliper of twelve (12) inches or more located elsewhere on the lot

(2) public protected tree means any tree located on lands owned by the City, or other governmental agencies or authorities, or any land upon which easements are imposed for the benefit of the City, or other governmental agencies or authorities, or upon which other ownership control may be exerted by the City, or other governmental agencies or authorities, including rights-of-way, parks, public areas and easements for drainage, sewer, water and other public utilities, with:

(i) a caliper of six (6) inches or more located within a City or other governmental right-of-way, or

(ii) a caliper of six (6) inches or more and located on any lot within twenty (20) feet of a street right-of-way, or

(iii) a caliper of eight (8) inches or more located on any lot within ten (10) feet of any other property line, or

(iv) a caliper of twelve (12) inches or more located elsewhere on the lot

(3) Exceptional specimen tree means any tree which is determined by the Council to be of unique and intrinsic value to the general public because of its size, age, historic association, or ecological value or any tree designated a Florida State Champion, United States Champion or World Champion by the American Forestry Association. The Chief shall keep a record of all specimen trees so designated and their location.
(cc) scenic and historic corridors means any street right-of-way, including approved private streets, which is so designated by the Council, pursuant to the procedures hereinafter established and adopted by Council, as a result of its special historic, architectural, archaeological, aesthetic, or cultural interest and value to the citizens of Jacksonville. The Chief shall maintain a list which specifies the location and boundaries of all corridors so designated.

(dd) shrub means a self-supporting woody perennial plant characterized by multiple stems and branches continuous from the base naturally growing to a mature height between two (2) and twelve (12) feet.

(ee) site specific plant means a selection of plant material that is particularly well suited to withstand the physical growing conditions that are normal for a specific location.

(ff) soil texture means the classification of soil based on the percentage of sand, silt, and clay in the soil.

(gg) tree means a self-supporting woody plant having a single trunk or a multi-trunk of lower branches, growing to a mature height of at least twelve (12) feet in northeast Florida.

(hh) tree palm means an evergreen plant of the Palmaeae species cold hardy in northeast Florida having a single trunk and a terminal crown of large pinnate or fan-shaped leaves.

(ii) turf means continuous plant coverage consisting of grass species suited to growth in the City.

(jj) understory means assemblages of natural low-level woody, herbaceous, and ground cover species which exist in the area below the canopy of the trees.

(kk) vegetation, native means any plant species with a geographic distribution indigenous to all or part of the State.

(ll) water use zone means a grouping of sprays, sprinklers, or microirrigation emitters so that they can be operated simultaneously by the control of one valve according to the water requirements of the plants used.

(mm) xeriscape means a landscaping method that maximizes the conservation of water by the use of site-appropriate plants and an efficient watering system. The principles of xeriscape include planning and design, appropriate choice of plants, soil analysis which may include the use of solid waste compost, practical use of turf, efficient irrigation, appropriate use of mulches, and proper maintenance.

Subpart A - Tree Protection

656.1204 Applicability.-The provisions of Subpart A shall apply to all protected trees within the City, unless specifically exempted herein.

656.1205 Removal of protected trees prohibited; exceptions.-

(a) No person, organization, society, association or corporation, or any agent or representative thereof, directly or indirectly, shall cut down, remove, damage or destroy, or shall authorize the cutting down, removal, damage, or destruction of any protected tree, as
defined in §656.1203(bb), or shall commit any act or authorize the commission of any act which physically removes a protected tree or causes a tree to die, such as damage inflicted upon the root system by heavy machinery, chemicals or paving, changing the natural grade above the root system and tree damage permitting infection or pest infestation, without having first obtained a permit as herein provided.

(b) The following protected trees are exempted from the provisions of Subpart A:

1. any tree located on any property upon which either a single-family dwelling or a mobile home on an individual lot is located;
2. any tree located on property which is in use for bona fide agricultural purposes;
3. any tree of the palm family or the pine family located on that portion of a lot which is more than twenty (20) feet from a street right-of-way (including an approved private street or other access easement), or more than ten (10) feet from any other property line;
4. any tree located in botanical gardens or in state-approved or government nurseries and groves which are grown for sale or public purpose;
5. any tree that poses imminent danger to the public health, welfare or safety, and requires immediate removal without delay. In such instances, verbal authorization to remove a protected tree may be given by the Chief.
6. any tree located within a City drainage easement, a City drainage right-of-way and/or a City access way right-of-way, as defined in §744.101(b) (excluding road rights-of-way, or road easements requiring drainage) may be removed to the extent reasonably necessary for access to, or maintenance and/or construction of, the City’s drainage ditches and drainage-related facilities if:
   i. such drainage easement or drainage right-of-way or access way right-of-way was recorded, and such ditch or drainage-related facility was constructed, or under construction, prior to April 1, 1995, or
   ii. with respect to City drainage easements or drainage rights-of-way or access way right-of-way recorded on and after April 1, 1995, such tree did not exist, or did not meet the requirements of the definition of the “protected tree” at the time of recording,
7. Any tree located within or immediately adjacent to an existing or proposed street right-of-way and/or easement shown on a set of approved final construction plans for required improvements within or immediately adjacent to a platted single-family or mobile home subdivision pursuant to Chapter 654 (Code of Subdivision Regulations), may be removed during construction of such improvements.
8. During the period of an emergency such as a hurricane, flood or any other natural disaster, the requirements of this section may be temporarily waived by the Chief, so that private or public work to restore order in the City will in no way be hampered.

656.1206 Permit procedure and criteria for tree removal; relocation and replacement of protected trees.
(a) Permits for site clearing and the removal or relocation of a protected tree shall be obtained by filing an application with the Chief. Approval of the application and issuance of a permit by the Chief shall be required prior to any land clearing or grubbing, prior to any disturbance of the root system or site development, or prior to the occurrence of any changes to an existing developed site. The site shall be inspected to insure compliance with the approved site plan prior to any additional permits being issued. Applications for site clearing and tree removal or relocation shall include the following:

(1) A site plan, at a scale which clearly illustrates the requirements of this part, showing the lot configuration; the location and identification of existing and proposed improvements, if any, including structures, water retention areas, paving, grade changes, utilities, easements, and street rights-of-way or approved private streets; the location and identity by botanical or common name and caliper, of protected trees to be removed, relocated or retained and of preserved understory vegetation; and preserve areas. In areas where groups of trees are to remain and no soil is to be disturbed, the tree group may be identified by general species; and

(2) A statement explaining why the protected tree is proposed to be removed or relocated.

(b) An application for a permit for the removal or relocation of a protected tree shall be reviewed by the Chief and a decision shall be made thereon within ten (10) working days after receipt of such application; provided, however, that if the Chief determines that a comprehensive study of a development plan or public improvement program is needed to assure the protection of a significant number of trees, he shall refer the application to the Department for a detailed study and recommendation and shall advise the applicant of this action within the ten (10) day period hereinabove specified. The Department shall provide the Chief and the applicant with its report within ten (10) working days after referral of the application.

(c) The Chief may promulgate rules and regulations for the uniform application, enforcement and implementation of this part.

(d) Any person, organization, society, association, corporation or agent thereof who intends to trim, prune, cut, disturb roots, or to destroy or remove any tree from a public easement, public property or right of way shall obtain a permit from the Chief. All work shall be conducted in strict accordance with the National Arborist Association Pruning Standards for Shade Trees, the American National Standards for Tree Care Operations (ANSI #Z133.1), and any additional conditions of said permit.

(e) Any department or division of the City, any independent authority or agency of the City, and any provider or utility service may obtain an annual permit to trim or remove trees for maintenance purposes, for the installation of new facilities, or to maintain proper clearance on existing facilities upon the submission of an operational manual, procedures and/or standards for such work within the service area of the utility, which manual, procedures and/or standards shall be subject to the review and approval of the Chief. A separate annual permit shall be obtained for areas designed as scenic and historic corridors established pursuant to §656.1219, which permit shall include the procedures, standards and conditions
imposed by the Council, if any, in the ordinance designating the corridor. All work shall be conducted in strict accordance with the permit, provided, however, that the requirements of this section shall not restrict in any manner whatsoever or prohibit any provider of utility service from taking any action to trim or remove trees which is reasonably required in order to restore utility service. The permit holder shall make every reasonable effort to minimize the impact on the environment, including consideration of alternatives for the provision of service.

(f) The approval, conditional approval or denial by the Building and Zoning Inspection Division of an application for a tree removal permit, as required by this section, shall be based on the following criteria:

(1) the extent to which tree removal decreases aesthetic and environmental quality, land values and physical benefits to human beings;

(2) the necessity to remove trees which pose a safety hazard to pedestrian or vehicular traffic or threaten to cause disruption to public services;

(3) the necessity to remove trees which pose a safety hazard to buildings;

(4) the necessity to remove diseased trees or trees weakened by age, weather, storm, fire or acts of God or which are likely to cause injury or damage to people, buildings or other improvements on a lot or parcel of land;

(5) the extent to which tree removal is likely to result in damage to the property of other owners, public or private, including damage to lakes, ponds, streams or rivers through runoff or erosion;

(6) the proposed landscaping, including plans whereby the applicant has planted or will plant perennial vegetative cover to replace those trees which are proposed to be cleared;

(7) the topography of the land and the effect of tree removal on erosion, soil retention and the diversion or increased flow of surface water:

(8) the necessity to remove trees in order to construct proposed improvements to allow access around the proposed structure for construction equipment, access to the building site for construction equipment, or essential grade changes;

(9) the land use and natural vegetative ground coverage of surrounding property;

(10) the extent of any damage or hardship to the applicant resulting from a denial of the requested permit.

(11) the species and size of the tree proposed for removal;

(12) whether the tree to be removed is an exceptional specimen tree; and

(13) whether the tree is located within a scenic and historic corridor.

(14) areas to be converted to mitigated wetlands as required by Federal, State and local agencies which regulate wetlands.

(g) Any relocation of trees in compliance with this subpart shall be performed in accordance with accepted industry practices, including watering to insure survival of transplanted stock.
(h) Protected trees identified for removal on the site clearing of tree removal permit application shall be replaced with new planted trees, unprotected trees or transplanted tree. Protected live oaks (*Quercus virginiana*) removed shall be replaced only with live oaks. The total caliper inches of replacement live oaks shall equal the total caliper inches of protected live oaks removed; for other removed protected trees, the total caliper inches of replacement trees shall equal one-third (1/3) of the total caliper inches removed, unless otherwise approved by the Chief. When there is significant loss of mature tree canopy or specimen trees on a particular site, the size of replacement trees may be increased by up to twice the minimum caliper by the Chief in order to compensate for that loss. If multi-trunked trees are used as replacement trees, then the total caliper of the four largest trunks shall equal the replacement caliper. New palms may be used only to replace protected palms removed. Replacement species used shall be approved by the Chief. No replacement will be required for protected trees which are determined by the Chief to be dead or deteriorated as a result of age, insects, disease, storm, fire, lightning or other acts of nature.

1. New replacement trees shall meet the minimum standards for landscape materials established by §656.1211(e).

2. Existing trees, two (2) inch caliper or greater, which are not protected trees, but which are preserved or transplanted, may be utilized to satisfy tree replacement requirements, subject to the conditions stated in §656.1207 and §656.1213(b) and (d).

3. New, preserved non-protected, or transplanted live oaks used as replacement for removed protected live oaks shall be four (4) inch caliper or greater.

4. Existing protected trees which would otherwise be removed from the site because of development, may be utilized to satisfy tree replacement requirements if transplanted to a location on the site which meets the requirements of §656.1207 and §656.1313(b) and (d).

5. If protected tree removal is associated with new development, the name, size and location of all replacement trees shall be shown on the required landscape plan and such trees shall be installed prior to the final building inspection. Otherwise, the name, size and location of the required replacement trees shall be shown on the site plan required for site clearing or tree removal and such trees shall be installed within the time limit stated on the site clearing or tree removal permit.

6. Existing non-protected trees, transplanted trees and new trees used for replacement become protected trees.

7. Replacement trees shall be maintained pursuant to the requirements of §656.1212.

8. Replacement trees may be used to satisfy the tree requirements of Subpart B (Landscaping Requirements).

9. A tree used for replacement shall be at least ten (10) feet from any other tree planted, transplanted or preserved.

10. If the applicant demonstrates to the satisfaction of the Chief that the site cannot accommodate the total number of required replacement
trees as a result of insufficient planting area, the applicant shall provide a monetary contribution to the Tree Protection and Related Expenses Trust Fund. The amount of such contribution shall be determined as follows: For every two (2) caliper inches, or fraction thereof, of replacement trees which would otherwise be required, the contribution shall be equal to the retail value of a planted two (2) inch caliper nursery grown shade tree. The retail value shall be calculated by taking the average of the median current wholesale price, published by north Florida nurseries, for a container grown, and a balled and burlapped two (2) inch caliper laurel oak, multiplied by two (2). The retail value shall be recalculated and adjusted annually on October 1.

656.1207 Tree protection during development. - All protected trees, preserved understory vegetation, and trees retained for tree credit, pursuant to §656.1213, shall be protected from injury during any land clearing or construction in the following manner:

(a) Prior to any land clearing operations, tree limbs which interfere with construction shall be removed and temporary barriers shall be installed around all trees and other understory vegetation to remain within the limits of land clearing or construction and shall remain until the completion of the work. The temporary barrier shall be at least three (3) feet high, shall be placed at least six (6) feet away from the base of any tree, shall include at least 50 percent of the area under the dripline of any protected tree or trees retained for tree credit pursuant to §656.1213, and the barrier shall consist of either a wood fence with two by four (2x4) posts placed a maximum of eight (8) feet apart, with a two by four (2x4) minimum top rail, or a temporary wire mesh fence, or other similar barrier which will limit access to the protected area. Tree protection shall comply with the guidelines in the Tree Protection Guide for Builders and Developers by the Florida Division of Forestry and any other reasonable requirements deemed appropriate by the Chief to implement this part.

(b) No materials, trailers, equipment or chemicals shall be stored, operated, dumped, buried or burned within the protected areas. No attachment, wires (other than protective guy wires), signs or permits shall be attached to a protected tree.

(c) When removing branches from protected trees to clear for construction or pruning to restore the natural shape of the entire tree, the guidelines in the National Arborist Association Pruning Standards for Shade Trees and the American National Standards for Tree Care Operations (ANSI #Z133.1) shall be followed. Protected trees shall be pruned to remove dead or damaged limbs and to restore this natural shape and fertilized as necessary to compensate for any loss of roots and to stimulate root growth. Any damage to tree crowns or root systems shall be repaired immediately after damage occurs.

656.1208 Enforcement; violations and penalties; stopping work, correction of violations; assessment and recovery of civil penalties.-

(a) Notice of violations.- Whenever the Chief has evidence that a violation of any provision of this subpart has been or is being committed, he shall issue a written notice or order upon the violator by personal service or certified mail or, if these forms of service are ineffective, by posting a copy in a
conspicuous place on the premises where the violation has occurred or is occurring. The notice shall briefly set forth the general nature of the violation and specify the manner and a time within which the violation shall be corrected.

(b) Stopping work - Whenever, in the opinion of the Chief, by reason of a violation of any provision of this subpart, the continuance of work is contrary to the public welfare, he shall order, in writing, all further work to be stopped and may require suspension of all work until the violation is corrected.

(c) Correction of violation - A violation of this subpart shall be corrected as follows:

(1) By paying the permit fee due the City for the work, which permit fee shall be twice the amount of the regular permit fee specified in §320.412, which would have been due had the permit been obtained prior to commencing work, and by replacing the protected trees removed without a permit with new planted trees, unprotected trees or transplanted trees. The total caliper inches of the replacement trees shall equal the total caliper inches of the protected trees removed. A tree replanting plan showing how the damage caused to the site by the violation will be mitigated shall be subject to the review and approval of the Chief and the trees installed within the time limit stated on the permit. Replacement trees shall meet the requirements of §656.1206, except that the minimum caliper of the replacement tree shall be four (4) inches, and the plan shall meet the requirements of §656.1217, to the extent applicable; or

(2) By paying the permit fee due the City for the work, which permit fee shall be twice the amount of the regular permit fee specified in §320.412, which would have been due had the permit been obtained prior to commencing work, and by making a contribution to the Tree Protection and Related Expenses Trust Fund to compensate for each replacement tree which is not planted. The amount of such contribution shall be determined pursuant to the formula described in §656.1206(b)(10);

(3) If the site has been cleared and the trees have been removed from the site so that the Chief is unable to determine with reasonable certainty the number of protected trees removed in violation of this subpart, the violation shall be corrected by paying a civil fine of up to $50,000 per acre, or fraction thereof, of land cleared, which fine shall be assessed by the Chief. The contributions and fines assessed under this subsection shall be payable to the Tax Collector immediately within seven (7) days after assessment. All amounts received by the City pursuant to this subsection shall be deposited into the Tree Protection and Related Expenses Trust Fund established under §110.350. No work shall continue on the site until the tree replanting plan has been approved or the contribution or fine has been collected.

(d) Appeals - a person aggrieved by an administrative order, determination or decision by the Chief may appeal the order, determination or decision to the Planning Commission pursuant to the provisions of §656.134.

(e) Violation and penalties. - A person who violates any provision of this subpart, and fails to correct the violation as provided herein shall, upon conviction thereof, be guilty of a class D offense and punished accordingly. A separate offense shall be
deemed to have been committed for each tree removed, damaged, or destroyed contrary to the provisions of this subpart.

(f) Judicial remedy. - In addition to other remedies and notwithstanding the existence of an adequate remedy at law, the City may seek injunctive relief in the Circuit Court to enforce the provisions of this subpart. The City shall be entitled to reasonable attorney’s fees and costs, including appellate fees and costs in an action where the City is successful in obtaining affirmative relief.

Subpart B. Landscaping Requirements

656.1209 Applicability. - Subpart B shall be applicable to all new property development, as defined herein, or to the expansion or renovation of any existing development, including property in government use. When the total expansion or renovation of existing development is equal to 50 percent of the assessed value of the lot improvements according to the Property Appraiser or the total square footage of a structure is expanded to 50 percent or greater, as well as any cumulative expansions totaling 50 percent, then this Subpart B shall be applicable to existing development and the expansion. All property used for public right-of-way is specifically exempted from the provisions of this Subpart. No building permit shall be issued in violation of any of the provisions hereof. Landscape materials installed on non-single family property not required by Subpart B, shall meet all criteria of Subpart B except for plant size and quantity. Property located in any single family residential district (RR, RLD) or property used for agriculture or single family residential use in an agriculture (AGR) district is excluded from the requirements of §665–1214 and §656.1215.

656.1210 Landscaping requirements related to Comprehensive Plan policies. -

(a) The preservation of native habitat vegetation during land development activities is required, either through maintenance of natural vegetation on the Project site, or through the planting of native vegetation. If through planting, at least 25% of all plantings incorporated in an approved landscape plan for any project site shall consist of native vegetation suitable to that site, and at least 60% of all post-development vegetation shall be indigenous to the City.

(b) All new residential developments shall provide and maintain a perimeter conservation easement for the conservation and preservation of natural and native vegetation and habitation area. The width of this perimeter conservation easement shall be determined on a case-by-case basis, depending on site characteristics, but shall be a minimum of fifteen (15) feet. This area shall not be encroached upon unless approved the Planning Commission.

(c) All non-residential land uses except in the CCBD District shall provide a minimum of 10% of the lot in open space.

(d) All multiple family dwellings of one hundred (100) dwelling units or more shall be required to provide one hundred fifty (150) square feet of recreation open space per dwelling unit.
656.1211 Landscape design standards.

(a) All landscapes shall be designed to achieve water efficiency:

1. preserving existing plant communities;
2. reestablishing of native plant communities;
3. using plant materials that are appropriate for the site conditions;
4. grouping plant material with similar irrigation requirements; and
5. using pervious paving materials.

Existing plant communities should be preserved and native plant communities be reestablished wherever possible. Landscaped areas requiring irrigation shall be designed to group trees, shrubs, ground cover and turf together into water use zones. The water use zones are as follows:

High Water Use Zone - an area of the site limited to a maximum of fifty percent of the total landscaped area with plants and turf types which, within this area, are associated with moist soils and require supplemental water in addition to natural rainfall to survive. This zone includes non-drought-tolerant turfgrass varieties.

Moderate Water Use Zone - an area of the site with plants, including drought-tolerant turfgrass varieties, which survive on natural rainfall with supplemental water during seasonal dry periods.

Low Water Use Zone - an area of the site with plants which survive on natural rainfall without supplemental water. Because of the relatively high water requirements of turfgrass, no presently available varieties are included in this zone.

Plants with similar water and cultival (soil, climate, sun and light) requirements should be grouped together and irrigated according to their water requirements.

(b) Trees shall not be placed where they interfere with site drainage or where they shall require frequent pruning in order to avoid interference with overhead power lines. Unless otherwise provided in this section, a minimum number of trees shall be planted or preserved upon each site, pursuant to the following standards which are the minimum requirements for landscaping within the City.

1. Minimum tree planting requirements for all property upon which either a single family dwelling or a mobile home on an individual lot is located or to be located. One (1) tree shall be planted and/or preserved for every live thousand (5,000) square feet of lot area, or portion thereof, excluding therefrom preserve areas and water bodies. No more than fifteen (15) new trees shall be required to be planted and/or preserved on any lot.

2. Minimum tree planting requirements for all property other than property upon which either a single family dwelling or a mobile home on an individual lot is located.

   (i) One (1) tree shall be planted and/or preserved for every live thousand (5,000) square feet of lot area, or portion thereof, which is located in any residentially zoned district, AGR (Agriculture) District, PBF-2 (Public Buildings and Facilities) District, excepting public facilities, CRO
(Commercial Residential Office) District, CN (Commercial Neighborhood) District, CCG-1 (Commercial Community General) District, excluding therefrom preserve areas and water bodies.

(ii) One (1) tree shall be planted and/or preserved for every eight thousand (8000) square feet of lot area or portion thereof, excluding therefrom preserve areas and water bodies in all commercial districts, except as otherwise provided herein.

(iii) One (1) tree shall be planted and/or preserved for every ten thousand (10,000) square feet of lot area or portion thereof, excluding therefrom preserve areas and water bodies in any industrial district or Public Facilities PBF) District (except private facilities in each district).

(c) Trees, excluding palm trees, which are larger than the minimum size may be credited as indicated in Table 1. A minimum of twenty-five (25) percent of all required trees shall be shade trees.

(d) Trees required for vehicular use area landscaping may be used to fulfill the tree requirements of this section.

(e) Standards for landscape material.

(1) Quality of plants: All plant material shall be a minimum of Florida Number One as defined in the most current edition of the Grades and Standards for Nursery Plants, Part I and II, published by the Florida Department of Agriculture and Consumer Service.

(2) Appropriate plant selection: Plants shall be selected that are best suited to withstand the soil and physical growing conditions which are found in the microclimate of each particular location on a site. Plant species that are freeze- and drought-tolerant are preferred. Plants having similar water use shall be grouped in distinct water use zones. Protection and preservation of native species and natural areas is encouraged. Plant selection must prohibit invasive plant species and controlled plant species. Information regarding plants classified as prohibited, invasive, exotic, or controlled can be obtained from the Duval County Agricultural Extension Office, Florida Department of Natural Resources, and the Building and Zoning Inspection Division, Landscape Section.

(3) General criteria for trees: Trees shall be a species having an average mature crown spread of no less than fifteen (15) feet in northeast Florida. Trees having a mature crown spread of less than fifteen (15) feet, if grouped to create an equivalent fifteen (15) foot spread, may be substituted for the required tree. Single-trunk trees shall be a minimum of two (2) inch caliper and a minimum of ten (10) feet overall height. Multi-trunk trees shall be a minimum of three (3) trunks eight (8) feet high. Trees shall be planted in no less than sixteen (16) square feet of planting area, with a minimum dimension of four (4) feet on any side. Trees shall not be planted closer than two (2) feet from any pavement edge or right-of-way line, as measured from center of trunk. Architectural planters for trees shall be no less than four feet by four feet (4x4) in width and no less than twenty-four (24) inches deep. Credits for the use of trees larger than the minimum size will be calculated as indicated in Table 1. Fractional measurements shall be attributed to the next lowest category.

(i) Shade trees: Shade trees shall be a species having an average mature
crown spread of no less than twenty (20) feet; provided, trees having an average mature crown spread of less than twenty (20) feet may be grouped so as to create a total average mature crown spread of no less than twenty (20) feet and used in lieu of a shade tree. Shade trees shall be a minimum of two (2) inch caliper and ten (10) feet high. Shade trees shall be planted in no less than one hundred fifty (150) square feet of planting area, with a minimum dimension on any side of eight (8) feet. Shade trees shall not be planted closer than four (4) feet from any pavement edge or right-of-way line, as measured from center of trunk. Those species of trees whose roots are known to cause damage to pavement shall not be planted closer than six (6) feet to such pavement unless those trees are encased in a barrier which prevents their roots from growing under such pavement.

(ii) Palm trees: Palms shall be a minimum clear trunk height of eight (8) feet, measured from the ground level to the base of the palm fronds. Palms may be substituted for the required trees at the ratio of two (2) palms for each required tree or four (4) palms for each required shade tree. Each palm shall be planted in no less than sixteen (16) square feet of planting area, with a minimum dimension of four (4) feet.

(4) Criteria for shrubs, vines and ground covers. Hedges and shrubs used to form an opaque screen shall be no less than three (3) gallon container grown material or equivalent balled and burlapped material. All other shrubs, dwarf shrubs and groundcover shall be of a size and spaced in such a manner so as to provide 85 percent coverage within two (2) years after planting. Vines shall be evergreen and shall have a minimum of four (4) stems twelve (12) inches long immediately after planting.

(5) Lawn: lawn grass may be sodded, plugged, sprigged or seeded, except that solid sod shall be used on grass areas within street right-of-way disturbed by construction, in swales, on slopes of four to one (4:1) or greater, and on other areas subject to erosion. When permanent seed is sown during its dormant season, an annual winter grass shall also be sown for immediate effect and protection until permanent coverage is achieved.

(6) Mulch: A minimum two (2) inch layer of organic mulch, such as wood bark, dead leaves and pine straw, shall be applied and maintained in all tree, shrub, ground cover planting areas and bare preserved natural areas. Gravel mulch shall be used only in the bottoms of swales, catchment basins and retention areas.

(7) General clean-up: At the completion of the work, construction trash and debris shall be removed and disturbed areas shall be fine-graded and landscaped with shrubs, groundcover, grass or two (2) inches of mulch.

(8) Landscaping materials not required by Subpart B: Landscaping materials not required by Subpart B shall meet all criteria of Subpart B except for plant size and quality.
Table 1

Tree and Understory Vegetation Credits—Landscape Regulations

<table>
<thead>
<tr>
<th>Tree Credits for Existing Trees</th>
<th>Tree Credits for New Trees</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Trunk Caliper</td>
<td>No. of Trees Credited</td>
</tr>
<tr>
<td></td>
<td>Single Trunk Credited</td>
</tr>
<tr>
<td>2 inch and above</td>
<td>1</td>
</tr>
<tr>
<td>4 inch and above</td>
<td>2</td>
</tr>
<tr>
<td>6 inch and above</td>
<td>3</td>
</tr>
<tr>
<td>12 inch and above</td>
<td>4</td>
</tr>
<tr>
<td>18 inch and above</td>
<td>5</td>
</tr>
<tr>
<td>24 inch and above</td>
<td>6</td>
</tr>
<tr>
<td>30 inch and above</td>
<td>7</td>
</tr>
<tr>
<td>Multi-Trunk</td>
<td></td>
</tr>
<tr>
<td>Tree Height</td>
<td></td>
</tr>
<tr>
<td>8 feet</td>
<td>1</td>
</tr>
<tr>
<td>12 feet</td>
<td>2</td>
</tr>
</tbody>
</table>

Understory Vegetation Credits

<table>
<thead>
<tr>
<th>Area of Existing Understory</th>
<th>Landscape Area Credited</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 square foot</td>
<td>1 ½ square feet</td>
</tr>
</tbody>
</table>

656.1212 Maintenance and protection of landscaping.

(a) Maintenance - The property owner shall be responsible for the maintenance of all landscaped areas, which shall be maintained in good condition so as to present a healthy, neat and orderly appearance, free of refuse, debris and weeds. Failure to maintain required landscaped areas or to replace, within a reasonable period of time, required landscaping which is dead, irreparably damaged, or fails to meet the standards of this part, shall be deemed a violation of the Zoning Code.

(b) Irrigation. - Irrigation shall be designed to be consistent with water efficient landscaping design standards in order to manage and conserve water usage. Irrigation systems shall not be required for preserved plant communities that are maintained in their natural state and barricaded and not impacted by development. The location and technique for barricading of these areas shall be shown on the site clearing plan. Manual or controlled irrigation systems shall be required on a temporary basis during the reestablishment of native plant communities. Once the native plants are reestablished, the system may be removed or abandoned. Areas that are not preserved or reestablished native plant communities shall be designed to include an irrigation system. The irrigation system may consist of an underground system, drip system, quick coupling valves, or hose bibs located within seventy-five (75) feet of any landscaped area. If an automatic irrigation system is used it shall be designed to conserve water and to conform to the manufacturer’s design criteria. “Pop-up heads” shall be used in lawn areas. Shrub risers shall be set back at least two and one-half (2-1/2) feet from any edge of pavement. The Chief may waive the irrigation requirement where it can be shown that this requirement is not necessary in order to ensure proper irrigation of the area or that other natural or manmade sources of irrigation are sufficient to provide the required irrigation. Where necessary to prevent encroachment by parked or moving vehicles into landscaped areas, wheel stops or curbs shall be used, subject to the approval of the Chief. Paving, treating or covering a required landscaped area in a way that renders it impervious is prohibited.

(c) Tree pruning. - Required trees shall be allowed to develop into their natural habit of growth and shall not be topped, pleached or pruned into topiary, espalier or other unnatural shapes. Trees may
be pruned to maintain health and vigor by removal of
dead, weak, damaged or crowded limbs, diseased and
insect infested limbs, and branches which rub other
branches.

656.1213 Credit for existing trees and understory. -
Whenever the provisions of this subpart require trees
and other landscaping, such requirement may be
satisfied by the preservation of existing trees and
understory, as specified herein, provided all other
requirements are met:

(a) Existing trees, except palms, may be
used to satisfy any requirement for trees pursuant to
Table 1.

(b) Existing trees may be utilized to
satisfy any requirement for trees, subject to the
following conditions:

   (1) An area within the dripline of
   the tree or trees at least one (1) foot in diameter for
each inch of trunk diameter shall be preserved in its
natural state or covered with pervious landscape
material; provided, however, that the minimum area
preserved shall be at least one hundred fifty (150)
square feet for shade trees and at least twenty-five (25)
square feet for all other trees. Such area shall be
maintained at its original grade with no trenching or
cutting of arty roots and there shall be no storage of fill,
compaction of soil or any concrete, paint, chemicals or
other foreign substance in or on the soil;

   (2) The tree or trees shall not be
damaged from skinning, barking, bumping, and the
like;

   (3) The tree or trees shall be
healthy, free from disease, damage and active insect
infestation potentially lethal to the tree;

   (4) If the Chief determines that
the requirements relating to the damage or disease of
any tree have not been met, such tree may nonetheless
be utilized under this section upon certification from
the Urban Forester, Florida Department of Agriculture
and Consumer Services, Division of Forestry, satisfactory
to the Chief that such tree is healthy and has a
reasonably good chance of survival.

   (c) Preserved existing understory
vegetation may be utilized to fulfill the landscape area
requirement pursuant to Table 1, so long as at least 90
percent of the credited area is covered by natural
understory vegetation.

   (d) If, at any time within one (1) year after
all associated land alteration and construction
activities are completed, a tree or understory
vegetation for which credit was given according to
Table 1 is dead or irreparably damaged or unhealthy as
a result of these activities, then the tree or understory
vegetation shall be removed and replaced with a tree or
trees or such understory vegetation as would have
originally been required.

656.1214 Vehicular use area interior landscaping.-

(a) Vehicular use areas open to the
public: 10 percent of vehicular use areas (VUA’s) used
for off-street parking, employee parking, auto service
stations, out-door retail display and sale of motor
vehicles, service drives, and access drives within
property located in multi-family, residential, commercial,
industrial, and public facilities use zoning districts shall
be landscaped,
(b) Specialized vehicular use areas closed to the public: 5 percent of VUA’s used for storage areas for new, used or rental vehicles and boats; bus terminals; motor vehicle service facilities; motor freight terminals; and other transportation, warehousing and truck operations not generally open to the public shall be landscaped.

(c) Criteria for distribution: Landscape areas shall be distributed throughout the VUA in such a manner as to provide visual and climatic relief from broad expanses of pavement and at strategic points to channelize and define vehicular and pedestrian circulation. Landscape areas shall contain the following:

1. At least 25 percent of the landscaped areas shall be covered with shrubs; the remainder in shrubs, groundcover, mulch or grass, except that mulch shall cover no more than 25 percent of the landscape area. Plants shall be spaced so as to achieve 90 percent coverage of the landscape areas within two (2) years. Preserved existing understory vegetation may be used to fulfill the landscape area requirement so long as the vegetation meets the height and coverage requirement of the required landscaping;

2. Not less than one (1) tree for every four thousand (4,000) square feet, or fraction thereof, of the VUA at least 50 percent of the trees shall be shade trees. Trees shall be distributed so that all portions of the VUA are within a forty-five (45) foot radius of any tree.

(d) Each row of parking spaces shall be terminated by a landscape island with inside dimensions of not less than five (5) feet wide and seventeen (17) feet long, or thirty-five (35) feet long if a double row of parking. Each terminal island shall contain one (1) tree. Each side of the terminal island adjacent to a travel lane shall have a continuous six (6) inch high curb of concrete or other appropriate permanent material. Terminal islands will be credited toward the satisfaction of the landscape area requirements of this section.

(e) If it can be shown to the satisfaction of the Chief that the strict application of this section will seriously limit the function of the property, he may approve the location of the required interior landscape area near the perimeter of the VUA or adjacent to building on the property, so long as the landscape area is within twenty (20) feet of the perimeter of the VUA.

656.1215 Perimeter landscaping.

(a) Perimeter landscaping adjacent to streets. All VUA’s which are not entirely screened by an intervening building from any abutting dedicated public street or approved private street, to the extent such areas are not so screened, shall contain the following:

1. A landscape area of not less than five (5) square feet for each linear foot of VUA street frontage abutting the street right-of-way except for driveway.

2. A durable opaque landscape screen along at least 75 percent of the street frontage excluding driveways. Shrubs, walls, fences, earth mounds and preserved existing understory vegetation, or combination thereof, may be used so long as the screen is no less than three (3) feet high measured from the property line grade two (2) years after installation. Shrubs and preserved existing understory
vegetation shall be evergreen, a minimum of eighteen (18) inches in height and spaced so that 85 percent capacity is achieved within two (2) years. Walls or fences shall be no more than four (4) feet in height and of wood or masonry at least 85 percent opaque. Earth mounds shall not exceed a slope of three to one (3:1). No less than 25 percent of street side frontage of walls or fences shall be landscaped with shrubs or vines.

(3) No less than one (1) tree, located within twenty-five (25) feet of the street right-of-way, for each twenty-five (25) linear feet, or fraction thereof, of VUA street frontage. The trees may be clustered, but shall be no more than thirty-five (35) feet apart. At least 25 percent of the trees shall be shade trees. If an overhead power line abuts the street frontage, then the required trees reaching a mature height greater than twenty-five (25) feet shall be located at least fifteen (15) feet away from the power line;

(4) The remainder of the landscaped area shall be landscaped with trees, shrubs, groundcovers, grass, or mulch, except that mulch shall not exceed 25 percent of the total landscaped area;

(5) landscaped areas required by this section shall not be used to satisfy the interior landscape requirements. However, the gross area of the perimeter landscaping which exceeds the minimum requirements may be used to satisfy the interior landscape requirements.

(6) If a railroad or utility right-of-way separates the VUA from the public street or approved private street, the perimeter landscaping requirements of this section shall still apply.

(b) Perimeter landscaping adjacent to abutting properties: All vehicular areas which are not entirely screened by an intervening building from an abutting property, to the extent such areas are not screened, shall contain the following:

(1) A continuous landscape area at least five (5) feet wide between the VUAs and the abutting property, landscaped with shrubs, groundcovers, preserved existing vegetation, mulch and grass;

(2) No less than one (1) tree, located within twenty-five (25) feet of the outside edge of the VUA, for every thirty-three (33) linear feet, or fraction thereof, of the distance the VUA abuts the adjacent property. Trees may be clustered but shall be no more than fifty (50) feet apart. At least one-half (1/2) of the required number of trees shall be shade trees;

(3) A buffer wall between incompatible land uses as required by §656.1216, if applicable.

(4) If an alley separates the VUA from the abutting property, the perimeter landscaping requirements shall still apply.

(c) Existing landscape screen: if an existing landscape screen has been established on abutting property, then it may be used to satisfy the requirements of this section, so long as the existing landscape screen is abutting the common property line, and it meets all applicable standards of this subpart.

(d) Driveways to streets: The maximum width of any driveway not containing a landscaped island through the perimeter landscape area shall be twenty-four (24) feet. The maximum width of any
driveway containing a landscaped island through the perimeter landscape area shall be forty-eight (48) feet and the driveway shall contain a landscaped island which measures not less than eight (8) feet in width (from back of curb to back of curb) and eighteen (18) feet in length, surrounded by a six (6) inch continuous raised curb, or other alternative approved by the Chief. The maximum combined width of all driveways through the perimeter landscape area shall be no more than forty-eight (48) feet for properties with one hundred (100) feet or less of street frontage. For properties with more than one hundred (100) feet of street frontage, an additional one (1) foot of driveway through the perimeter landscape area may be constructed for each four (4) feet of street frontage in excess of one hundred (100) feet. In no event shall more than 50 percent of any street frontage be paved, nor shall the provisions of this section be applied to reduce the permitted driveway width to less than twenty-four (24) feet.

(e) Driveways to adjoining lots: Driveways may be permitted by the Chief to adjoining lots of compatible uses. The maximum number of driveways which may be allowed shall be determined by first calculating the total length of the VUA perimeter adjacent to property lines of compatible use, less the portion of the VUA separated from the common property line by a building and less the portion of the perimeter VUA separated from the compatible use by a jurisdictional wetland or waterbody and then applying the following criteria:

<table>
<thead>
<tr>
<th>Net Length of Perimeter VUA</th>
<th>Maximum Number of Driveways</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 - 149 feet</td>
<td>2</td>
</tr>
<tr>
<td>150 - 299 feet</td>
<td>3</td>
</tr>
<tr>
<td>300 - 599 feet</td>
<td>4</td>
</tr>
<tr>
<td>For each additional 500 feet</td>
<td>1 additional driveway</td>
</tr>
</tbody>
</table>

The maximum width of any driveway to an adjacent lot shall be twenty-four (24) feet. The area of the continuous five (5) feet wide perimeter landscape strip normally required where each driveway occurs shall be incorporated into the required perimeter landscape area to each side of the driveway.

(f) If a joint driveway easement is provided between adjacent property, then the required perimeter landscaping for each property shall be provided between the drive and any other vehicular use areas. That portion to the drive on each property shall be counted as part of the VUA of each property.

656.1216 Buffer standards relating to uncomplementary land uses and zones. —

(a) Where uncomplementary land uses or zoning districts are adjacent, without an intervening street, a buffer strip shall be required between the uses or zoning districts. Said buffer strip shall be at least ten (10) feet in width the entire length of all such common boundaries. The following shall constitute uncomplementary uses and zoning districts:

| (1) Multiple-family dwelling use or zoning districts (three (3) or more attached units) when adjacent to single-family dwelling(s) or lands zoned for single family dwellings. |
| (2) Office use or zoning districts, when adjacent to single-family or multiple-family |
dwellings, mobile home parks or subdivisions or lands zoned for single-family or multiple-family dwellings, mobile home parks or subdivisions.

(3) Mobile home park use or zoning districts, when adjacent to single-family dwellings, multiple-family dwellings and office uses, or lands zoned for single-family dwellings, multiple-family dwellings or mobile home dwellings or offices.

(4) Commercial and institutional uses or zoning districts, when adjacent to single-family dwellings, multiple-family dwellings or mobile home parks or mobile home subdivision uses or lands zoned for single-family dwellings, multiple-family dwellings or mobile home parks or mobile home subdivision.

(5) Industrial uses or zoning districts, when adjacent to any nonindustrial uses or zoning districts other than agricultural land uses or zoning districts.

(6) Utility sites such as transmission or relay towers, pumping stations, electrical substations, telephone equipment huts or other similar uses when adjacent to single-family dwellings, multiple-family dwellings, mobile homes, offices, institutional uses or zoning districts or adjacent to public or approved private streets.

(7) On property zoned for government use, the proposed government use most similar to the land uses or zoning districts specified above shall determine the buffer standards.

(b) Buffer material requirements shall be as follows:

(1) Tree count. - The total tree count required within the buffer strip shall be determined by using a ratio of one (1) tree for each twenty-five (25) linear feet of required buffer strip, or majority portion thereof, with a minimum of 50 percent of the trees being shade trees. Trees shall be spaced so as to allow mature growth of the trees, but spaced no greater than 40 feet on center.

(2) Ground cover. - Grass or other ground cover shall be planted on all areas of the buffer strip required by this section which are not occupied by other landscape material.

(3) Visual screen. - A visual screen running the entire length of common boundaries shall be installed within the buffer strip, except at permitted access ways. The visual screen may be a wood or masonry wall, landscaping, earth mounds or combination thereof so long as such strips shall provide at the time of installation a minimum of 85 percent opacity for that area between the finished grade level at the common boundary line and six (6) feet above said level and horizontally along the length of all common boundaries. Plants or preserved vegetation shall be evergreen, a minimum of 5 feet tall at the time of installation, and spaced so that 85 percent opacity is achieved within 2 years. Earth mounds shall not exceed a slope of 3 to 1 (3:1). If a visual screen, which satisfies all applicable standards, exists on adjacent property abutting the property line or exists between the proposed development on the site and the common property line, then it may be used to satisfy the visual screen requirements. Except for industrial uses or zones, whenever a preserve area or water body at least 100 feet wide when measured perpendicular to the property line separates the uncomplementary uses, then the visual screen height requirement shall be reduced to 3 feet and the buffer strip width shall be reduced to 5 feet, when measured
from the top of the lake bank or the jurisdictional wetland edge. If a plant is used for the visual screen, it shall be a minimum height of 24 inches at the time of installation.

(4) **Prevailing requirements.** - Whenever parcels of land fall subject to both the perimeter landscaping requirements and the uncompelementary land use buffer strip requirements of the section, the latter requirements shall prevail.

(5) **Hardship.** - If the Chief determines that the construction of a landscape buffer area required by this section would create a hardship for the existing structures or vehicular use areas, the Chief may approve a buffer area with a width no less than five (5) feet, provided such buffer area meets the visual screening requirements of this section.

c) The buffer strip shall not be used for principle or accessory uses and structures, vehicular use areas, dumpster pads, signs, equipment storage. Slopes within buffer strips shall not exceed four to one (4:1).

d) If a water body exists along the common property line between uncomplementary uses which is less than 100 feet wide when measured perpendicular to the property line then the buffer strip shall be established between the use and the water body. Preserve areas may be used as buffer strips, so long as the tree and visual screen requirements can be satisfied.

656.1217 Landscape plan required. —

(a) Prior to the issuance of any building permit or paving permit, a landscape plan shall be filed with, reviewed by, and approved by the Chief. The landscape plan shall be prepared by either the owner, if for minor work, or a licensed, registered landscape architect, bearing his seal, or shall be otherwise prepared by persons authorized to prepare landscape plans or drawings pursuant to Chapter 481, Part II (Landscape Architecture), Florida Statutes

(b) The landscape plan required hereunder shall be drawn to scale, including dimensions and distances and shall:

1) delineate the vehicular use areas, access aisles, driveways, and similar features;

2) include either as part of the landscape plan or as a separate irrigation plan the irrigation system design, the recommended precipitation rates, and annual consumptive uses of water use areas, and existing and proposed wells;

3) indicate the location of sprinklers or water outlets;

4) identify the water use zones and designate whether each such zone is a high, moderate or low water use zone;

5) indicate the location and identify by botanical or common name, the existing vegetation;

6) designate by name and location the plant material to be installed or preserved in accordance with the requirements of this part;

7) identify and describe the location and characteristics of all other landscape materials to be used;

8) show all landscape features, including areas of vegetation required to be preserved.
by law, in context with the location and outline of existing and proposed buildings and other improvements upon the site, if any:

(9) provide an analysis of the existing soil;

(10) include a tabulation clearly displaying the relevant statistical information necessary for the Chief to evaluate compliance with the provisions of this part. This includes gross acreage, square footage of preservation areas, number or trees to be planted or preserved, square footage of paved areas, and such other information as the Chief may require;

(11) contain such other information, as may be required by the Chief, to the extent such information is reasonable and necessary to a determination that the landscape plan meets the requirements of this part; and

(12) indicate all overhead and underground utilities located on the property and in the right-of-way adjacent to the property to which the landscape plan applies. This shall include overhead and underground electric service lines to all proposed buildings.

656.1218 Intersection visibility. - Where an accessway intersects with another accessway within a vehicular use area, where an accessway is located within a vehicular use area, or where an accessway intersects with a street right-of-way, cross visibility within the triangular areas described below shall be unobstructed at a level between two (2) and eight (8) feet above elevation of adjacent pavement. Only trees with trunks free of vegetation and limbs within the cross-visibility area, other landscaping, wall and earth mounds not exceeding a height of two (2) feet, utility poles, and traffic signs shall be allowed within the triangular area. No parking shall be allowed within the triangular area. The triangular areas are:

(a) The area of property on both sides of an accessway which intersects with another accessway within a vehicular use area. Two (2) sides at each triangle shall extend six (6) feet each way from the point of intersection, the third (3rd) side being a line connecting the ends of the other two (2) sides;

(b) The area of property on both sides of an accessway where the accessway intersects with a street right-of-way. Two (2) sides of each triangle shall extend ten (10) feet each way from the point of intersection, the third (3rd) side being a line connecting the ends of the other two (2) sides;

(c) The area of property located at the corner formed by the intersection of two (2) or more street rights-of-way. Two (2) sides of each triangle shall extend twenty-five (25) feet along the right-of-way lines, measured from their point of intersection, the third (3rd) side being a line connecting the ends of the other two (2) sides.

656.1219 Scenic and historic corridors. - Notwithstanding the provisions of this part, the Council may designate by ordinance, scenic and historic corridors which may establish conditions, procedures and/or standards on any street right-of-way including approved private streets in order to protect their special historic, architectural, archaeological, aesthetic or cultural interest. Upon designation of any scenic and historic corridor by Council, all plans, permits,
improvements including maintenance, etc., thereon shall be in strict accordance with the conditions, procedures and/or standards imposed by Council.

**656.1220 Modification to landscaping requirements.**

A modification to the landscaping requirements of this Subpart B may be permitted on a lot if the landscape plan has been approved by the Planning Commission in accordance with the site plan review procedures of §656.404. Modifications to the landscaping requirements of this Subpart B which are found not to be contrary to the public interest and without which, owing to special conditions, a literal enforcement of the landscape provisions would result in unnecessary and undue hardship may be permitted by the Planning Commission, provided that the landscape modification meets the spirit and intent of this subpart and is a relocation, not an overall reduction, of the landscape requirements within the property.

**656-1221 Education.**

To assist in public information, the education of its citizens, and the effective implementation of this ordinance, the City will coordinate its efforts with those of the St. Johns River Water Management District and the Duval County Agricultural Extension Service or other agencies. In conjunction with the agencies, the City will jointly sponsor workshops and/or short courses on the design principles and standards of water-efficient landscaping.

---

**Vendor Information**

The following is a listing of the vendors whose products are featured in this document. This information is provided as a reference tool for designers of projects which follow the recommendations contained herein. Addresses and phone numbers, when listed, is the most current information available, or is as printed on their literature. Prices, when provided, are the most current available as of the time of this printing (June 1999), and do not include shipping or installation costs.

**Landscape Planting**

The plants listed in the Plant Suitability Matrices, are, for the most part, widely available in the Jacksonville area from many nurseries. The plants mentioned are neither rare nor “trendy”, and as such, should be plentiful and reasonably priced.

The most common size specifications for landscape installations are 1-Gallon containers for Ground Cover plants, and should be planted no more than 18" on-center. All other shrubs should be specified as 3-Gallon, 7-Gallon, or 15-Gallon sizes, depending on impact desired immediately after planting.
Trees must meet City of Jacksonville minimum requirements when planted as part of a permitted landscape. This document recommends a minimum size of 4"-caliper / 12'-14' height x 6'-7' canopy spread for shade trees, 10'-12' height with a minimum of (3) 1 ½" trunks for multi-stemmed trees, and 8' clear trunk for ornamental palms and 14' clear trunk for street palms.

**Signage**

**BANNERS** - ASF Banners, Inc.

56 Winthrop Street
Concord, MA 01742-2008
Phone: (800) 378-3080
Fax: (888) 711-0399
www.asfbanners.com
Contact: Gregory J. Hill

Prices vary depending on size, quantity, and artwork (number of colors).

**Lighting**

**LIGHT POLES** - WJ Whatley, Inc. "Jamestown #357 fiberglass direct burial pole, various heights.

W.J. Whatley, Inc.
6980 East 54th Place
Commerce City, CO 80022

Phone: (303) 287-8053
Fax: (303) 286-7216
www.whatley.com

12' Direct-burial Pole - $531.
14' Direct-burial Pole - $556.

**OVERHEAD FIXTURE** - Street Lighting Equipment Corporation #1040 (available from W.J. Whatley above). Specified with 175W MH

Price is $727.50.

**OVERHEAD FIXTURE ARM** - Street Lighting Equipment Corporation #RA26SL (single fixture arm), and #RA26SLBA (single fixture w/banner)

Price for RA26SL is$375, and RA26SLBA is $695.

**BOLLARD LIGHT** - Hadco #RL8 concrete “Rounded Lighthouse Bollard” with “Limestone” finish. Specified with 70W MH lamp.

Hadco
100 Craftway P.O. Box 128
Littleton, PA 17340
Phone: (717) 359-7131
Fax: (717) 359-9289
www.hadcolighting.com

Contact: Bob Olive

Price is $490.

**BUILDING / ENTRY LIGHT** - Hadco “Savannah” model #B6124 with 100W Incand. Size is 27" height w/12" mounting arm.

Price is $125.

Hadco “Lancaster” model #B5057 with 60W Incand. Size is 23" height w/13" mounting arm.

Price is $85.

**LANDSCAPE LIGHTING** - Many styles and finishes are available from a variety of manufacturers, including Kim Lighting Co., Hadco, Greenlee, etc.

Prices vary depending on lamp, style, finish, and quantity.

Wabash Valley Manufacturing, Inc.
P.O. Box 5
505 East Main Street
Silver Lake, IN 46982
Phone: (800) 253-8619
Fax: (219) 352-2160
www.wabashvalley.com

Prices are $480 for 4' bench and $589 for 6' bench.

Smith & Hawken model #F496919 (5' Bench), #F496927 (6' Bench), and #F496935 (8' Bench).

Smith & Hawken Trade Sales Department
117 East Strawberry Drive
Mill Valley, CA 94941
Phone: (415) 389-8300
Fax: (415) 383-7243
www.SmithandHawken.com

Prices are $950/1195 Trade/Retail (5' Bench, $1125/1395 (6' Bench), and $1450/1795 (8' Bench).

**Site Furnishings**

**BENCHES** - Wabash Valley Manufacturing, Inc. model #ER4520 (4' Bench) and ER4525 (6' Bench).
Forms + Surfaces model#AE3035 6’ Backless bench.

Forms + Surfaces
6395 Cindy Lane
Carpinteria, CA 93013
Phone: (800) 451-0410
Fax: (805) 684-8620
www.forms-surfaces.com
Contact: Glen

Price is $1165.

GARBAGE RECEPTACLES / ASH URNS - Wabash Valley model #LRR32I/FTL32 32-Gallon Receptacle w/plastic lid.

Price is $219.00.

Litchfield Industries, Inc. “Main Street Heavy metal Litter” 32-Gallon Receptacle Series 5900.

Price is unavailable

Trystan Site Furnishings “Fairway Series” model#FS-5 cedar 24-Gallon Receptacle.

Trystan Site Furnishings
68 Swan Street
AYR, Ontario, Canada NOB 1EO
Phone: (519)632-7427
Fax: (519) 632-8271
Contact: Architectural Product Sales (561) 627-8553

Price is $476

Forms + Surfaces model #AE3081 Dome Top Receptacle w/ash urn.

Price is $1165 for Dome Top, and $865 without top (model #AE3080).

Wabash Valley AUR10 “Rib” Ash Urn.

Price is $88.

Keystone Ridge Designs, Inc.
P.O. Box 2008
670 Mercer Road
Butler, PA 16003-2008
Phone: (800) 284-8208
Fax: (724) 1253
www.keystoneridgedesigns.com

Price is $330.

**BICYCLE RACKS** - Bike Trac, Inc. “Little Parker” rack system.

Bike Trac, Inc.
R.F.D. 1, Box 247
Woodstock, VT 05091
Phone: (888) MODULES
Fax: (802) 457-3704

Price varies by quantity of bikes parked and method of mounting.


Madrax
2210 Pinehurst Drive
Middleton, WI 53562
Phone: (800) 448-7931
Fax: (608) 831-7623

Price for GNS-4 is $369, the WP158-7 is $229, the GS200 is $110, and the U238 is $89.

**PLANTERS** - Wabash Valley “Rib Pattern” Round and Square Planters. Many sizes are available, ranging from 24"Dia. x 18"H - 48"Dia. x 30"H for round planters, and 24"Sq. x 18"H - 36"Sq. x 30"H for square planters.

Prices range from $220 - $575.

Smith & Hawken model #F5947 (Square) and #F504654 (Rectangular) teak planters.

Prices are $300/375 for the square planter, and $425/535 for the rectangular planter.

Forms + Surfaces model #AE3085 24” Diameter planter.

Price is $765.
Planter Technology “Seacrest” series planters. Sizes available range from 24"W x 17"H - 55"W x 36"H.

Planter Technology
999 Independence Ave. #E
Mountain View, CA 94043-2302
Phone: (800) 542-2282
Fax: (415) 962-8875
www.plantertechnology.com
Contact: Chris

Prices range from $185 for the “ss2417” to $1239 for the “ss5536”. 

TREE GRATES - Neenah Foundry Company model
#R-8707-180°-Square 60° tree grate, and the
#R8834-180°-Round tree grate.

Neenah Foundry Company
Box 729, 2121 Brooks Avenue
Neenah, WI 54957
Phone: (414) 725-7000
Fax: (414) 729-3661

Pricing information unavailable.
This page intentionally left blank