

# St. Johns County Scenic Historic ALA MASTER PLAN

Transportation Improvements and Park Design

Prepared for:

St. Johns County and the "Scenic and Historic A1A" Corridor Management Council

Prepared by:

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# Acknowledgements

The Corridor Master Plan is the compilation of efforts by local residents, local government staff, private non-profit organizations, and public officials. St. Johns County would like to give grateful acknowledgement to the individuals who contributed their time and expertise in development of the Master Plan.

A special thanks goes to the members of the "Scenic and Historic A1A" Corridor Management Council (CMC), a grassroots group of residents, community activists, private organizations, and public agencies, who worked diligently with the design team to develop the Corridor Master Plan.

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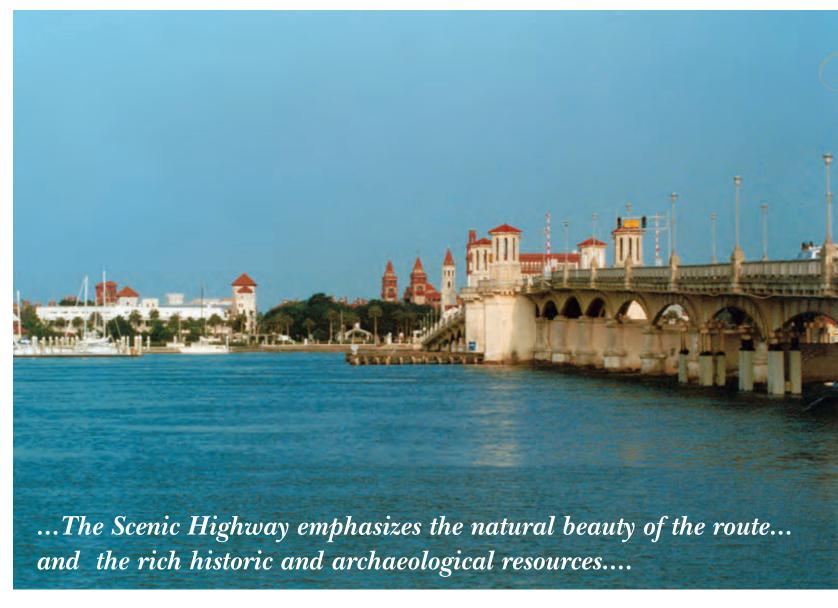
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<b>Table of Contents</b>	Page
1. Introduction	1
2. Transportation	5
Transportation Technical Report	5
Existing Conditions	6
Recommendations	8
3. Landscape Palette	22
4. Park Architecture	27
5. Parks	32
6. Statement of Probable Cost	50
List of Figures	Page
	- 33
Corridor Map	1
Project Elements	2
Existing Bicycle and Pedestrian Facilities	$\epsilon$
Existing Posted Speed	$\epsilon$
Existing Right-of-Way	7
Summary of Transportation Recommendations	8
Recommended Posted Speed Limits	G
Architectural and Structural Types	27
Sample 3-D Rendering of Park Architectural Style	28
Restroom Pavilion	29
Group Pavilion	30
Small Pavilion and Single Swing Shelter	31
Park Site Map	32
Southern Pull-off	32
Green Road Boat Ramp	34
206 Bridge	35
Crescent Beach Eroph Butlen Foot	36
Frank Butler East Frank Butler West	37 38
Windswept Park	39
3rd Street Plaza	40
8th Street Plaza	41
14th Street Plaza	42
16th Street Plaza	43
Pope Road Roundabout and Scenic Pull-off	44
Vilano Boat Ramp	45
Surfside Park	46
North Beach	47
South Ponte Vedra	48
Northern Gateway	49









"Scenic and Historic A1A" extends approximately 52 miles through St. Johns County, from Marineland to Ponte Vedra Beach. "Scenic and Historic A1A" abounds with white sandy beaches, recreational opportunites and history dating back before the birth of this country. The Scenic Highway emphasizes the natural beauty of the route, the unique characteristics of its surrounding communities, and the rich historic and archaeological resources located along the National Scenic Byway.

#### **Coastal Byway**

The Florida Department of Transportation (FDOT) designated "Scenic and Historic A1A" as a Florida Scenic Highway in January 2002. The corridor was designated as part of the 72-mile A1A Scenic and Historic Coastal Byway in June 2002, extending from the Volusia County/Flagler County line to the St. Johns County/Duval County line.









### **Purpose**

Through the Florida Scenic Highway designation process, the Corridor Advocacy Group developed a Corridor Management Plan (CMP) that identified projects and programs that would help preserve, protect, enhance, and maintain the resources located along "Scenic and Historic A1A". The Master Plan is the first step in implementing many of the projects identified in the Corridor Management Plan. The "Scenic and Historic A1A" Master Plan will play a role in telling the "Scenic and Historic A1A" grand story, through various corridor improvements that will inform the traveler and visually connect the resources along the corridor. The Master Plan will address park improvements, pedestrian and bicycle enhancements, signage, wayfinding/interpretive improvements, and traffic calming techniques.

The following project elements included in the Master Plan were identified in the Corridor Management Plan.

#### **Transportation Improvements**

The Master Plan includes an analysis of existing transportation facilities along the corridor. A detailed analysis of vehicular travel demands and future traffic volumes was conducted for South Anastasia Island (southern portion) of the corridor. To provide access to the many resources along the scenic highway, the Master Plan identifies opportunities to enhance or complete the pedestrian and bicycle system along the length of "Scenic and Historic A1A", with detailed cross-sections of conceptual landscaping proposed in areas where high pedestrian and bicycle activity occurs. Traffic calming measures were evaluated to improve safety or to enhance the pedestrian and bicycle experience, where appropriate.

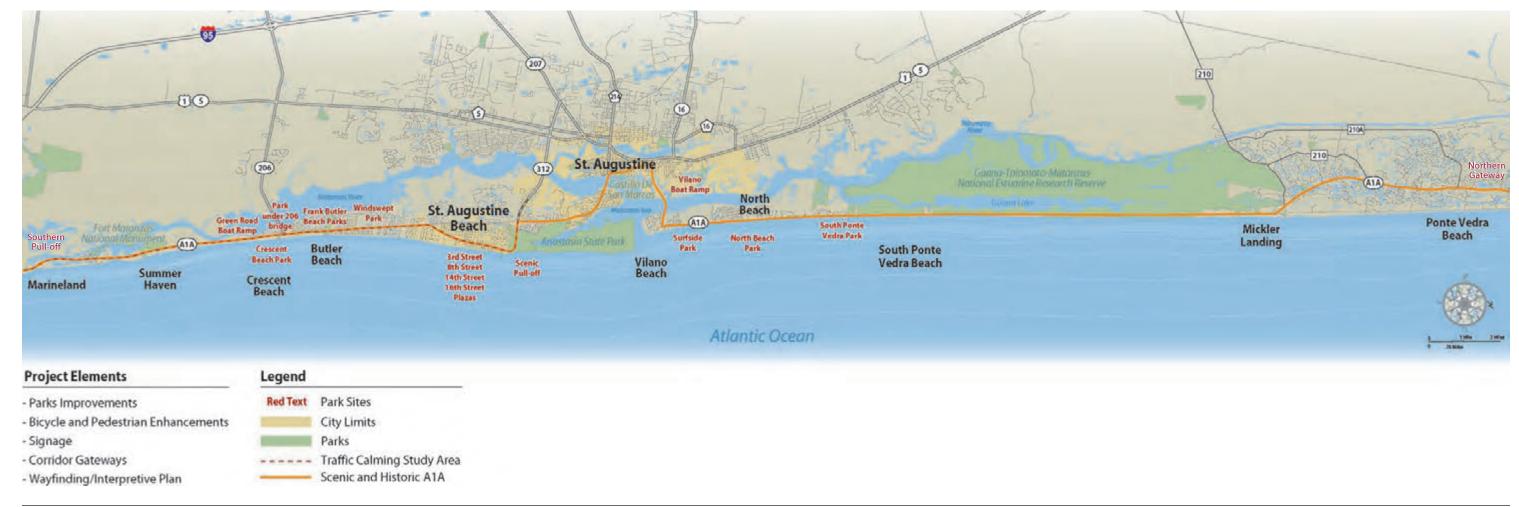
#### **Parks**

A site plan was prepared for existing and new parks located along "Scenic and Historic A1A" identified on the map below. The site plans were

designed to enhance the sites and to develop a cohesive theme to these public spaces along the corridor.

#### Signage, Wayfinding/Interpretive Improvements

The Wayfinding Master Plan includes information to assist the traveler in finding their destination and to provide a consistent "branding" to "Scenic and Historic A1A". The plan includes a corridor logo, a signage plan, historic markers and interpretive signs.



#### **Process**

# The design process began by understanding the community's goals.

The Design Team met with local government officials and the Corridor Management Council through a series of focus meeting.

After a comprehensive data collection effort, the design team held a series of Neighborhood Design Charrettes to engage the community in developing conceptual designs for various corridor improvements identified for each neighborhood.

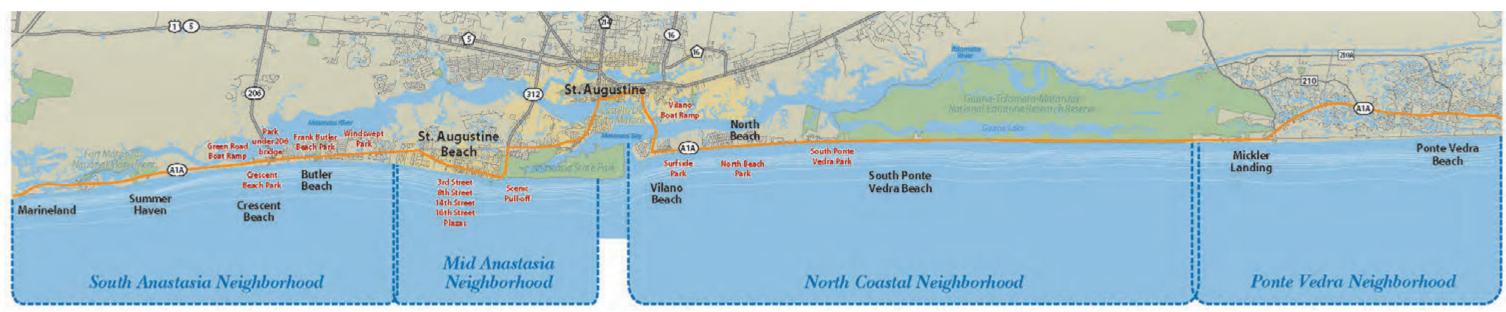


Visual Preference Summary Workshop

Upon completing the neighborhood design charrettes, reports outlining the preliminary recommendations reached through the charrette were posted to the project web site in order to obtain additional feedback. The preliminary concepts were revised based on the feedback obtained by the citizens and local government representatives.

#### **Project Schedule**

Month	Milestone
May 19, 2004	Kick-off meeting in St. Johns County
June 1, 2004	Local government workshops with the City of St. Augustine and the City of St. Augustine Beach
June 16, 2004	Corridor Management Council – Visual Preference Survey Workshop
June 28, 29, 30 & July 1, 2004	Corridor Design Charrette
October 5, 6, & 7, 2004	Ponte Vedra Charrette
November 16, 17, & 18, 2004	South Anastasia Island Charrette
December 7, 8, & 9, 2004	Mid-Anastasia Island Charrette
January 10, 11, & 12, 2005	North Coastal Charrette
March 4, 2005	Deadline for community comments of charrette concepts
March 29, 2005	City of St. Augustine Beach Workshop
April 8, 2005	South Anastasia Community Workshop
May 4, 2005	Board of County Commissioners Workshop
July 2005	Draft Final Master Plan Report
December 2005	Final Master Plan Report



The Master Plan presents designs that unify the corridor and educate travelers about the resources along the corridor.

# The Master Plan Report

The "Scenic and Historic A1A" Master Plan is organized into 5 volumes.

- Executive Summary
- Transportation Improvements and Park Design (this volume)
- Wayfinding Master Plan
- Appendix A Charrette Reports
- Appendix B Transportation Technical Report

# **Unifying Elements**

The goal of the Corridor Master Plan is to help tell the "Scenic and Historic A1A" grand story by identifying corridor improvements that will inform the traveler and visually connect the resources along the corridor. The unifying elements that help us reach the goals are as follows:

- Bicycle trail and pedestrian circulation system
- Signage and interactive art that tell the ecological story
- Parks that invite all travelers (ADA friendly)
- Parks, trails, and transportation systems that are safe for all users
- Corridor Logo
- Architecture
- Interactive Public Educational Art (IPEA)



#### Scenic & Historic A1A Coastal Byway Logo



This logo will appear on all written material that applies to the entire National Scenic Byway in Flagler and St. Johns County.

#### St. Johns County Logo



This logo will appear on signage along Scenic and Historic A1A through St. Johns County.

# **Transportation**

The Master Plan includes recommendations for enhancements to the pedestrian and bicycle system as well as traffic calming measures that improve safety and/or comfort of motorists, bicyclists, and pedestrians. These recommendations are based on an analysis of existing transportation facilities along the corridor and concerns voiced by residents through the design charrettes. A detailed analysis of vehicular travel demands and future traffic volumes were analyzed for the southern portion of the corridor. Recommendations from the **Appendix B - Transportation Technical Report** are summarized on the following pages.

# **Transportation Technical Report**

The Scenic and Historic A1A Master Plan: Appendix B - Traffic Technical Report is included as a separate support document. The Transportation Technical Report is organized into seven sections.

- **Section 1:** *Bicycle, Pedestrian, and Beach Access* analysis of the existing infrastructure to determine gaps in the bicycle and pedestrian network.
- **Section 2:** *Vehicular Safety* review of safety data along the entire corridor.
- **Section 3:** Work Program summary of programmed projects along "Scenic and Historic A1A" in St. Johns County.
- **Section 4:** *Speed Study* analysis of travel speeds at three locations in South Anastasia Island.
- **Section 5:** *Projected AADT* review of traffic conditions in the southern portion of SR A1A (from the Town of Marineland to SR 312) during typical annual average daily traffic conditions.
- **Section 6:** *Roundabouts* analysis of existing and projected LOS at the SR 206 and SR A1A intersection, the Pope Road and CR A1A intersection, and the SR A1A and Coastal Highway, Vilano intersection.
- **Section 7:** *Hurricane Evacuation* review of vehicular capacity demands on SR A1A during emergency disaster/hurricane evacuation periods.

# **Existing Conditions**

#### **Existing Bicycle and Pedestrian Facilities**

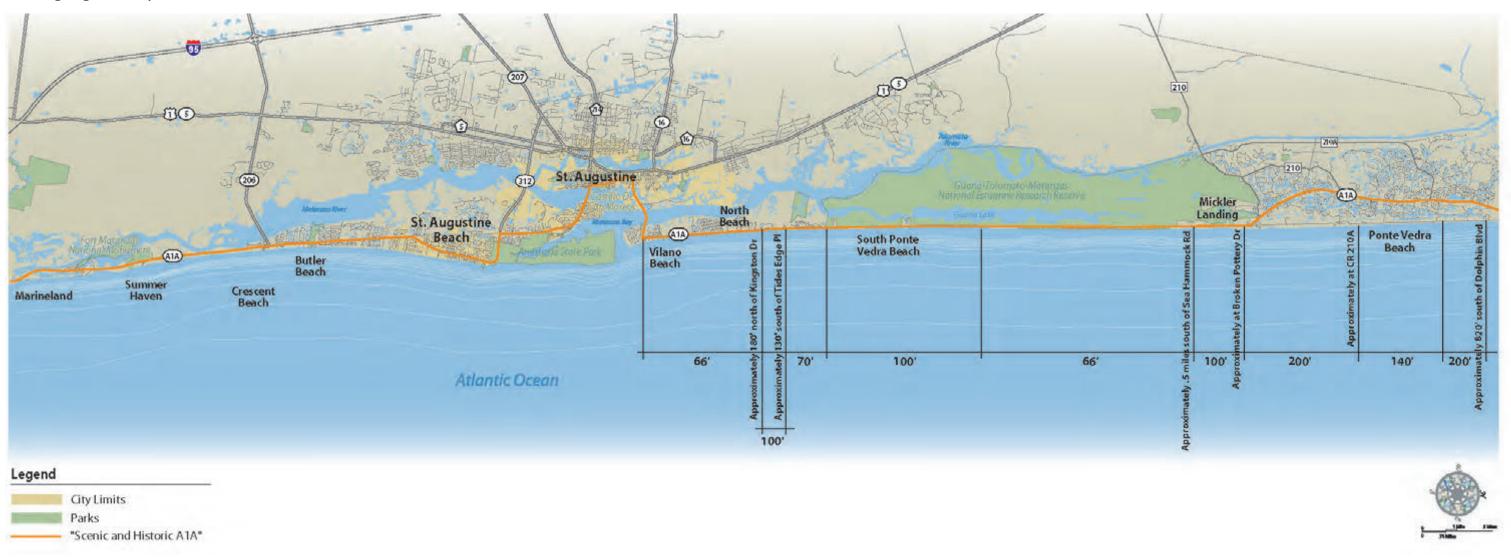


# **Existing Posted Speed**

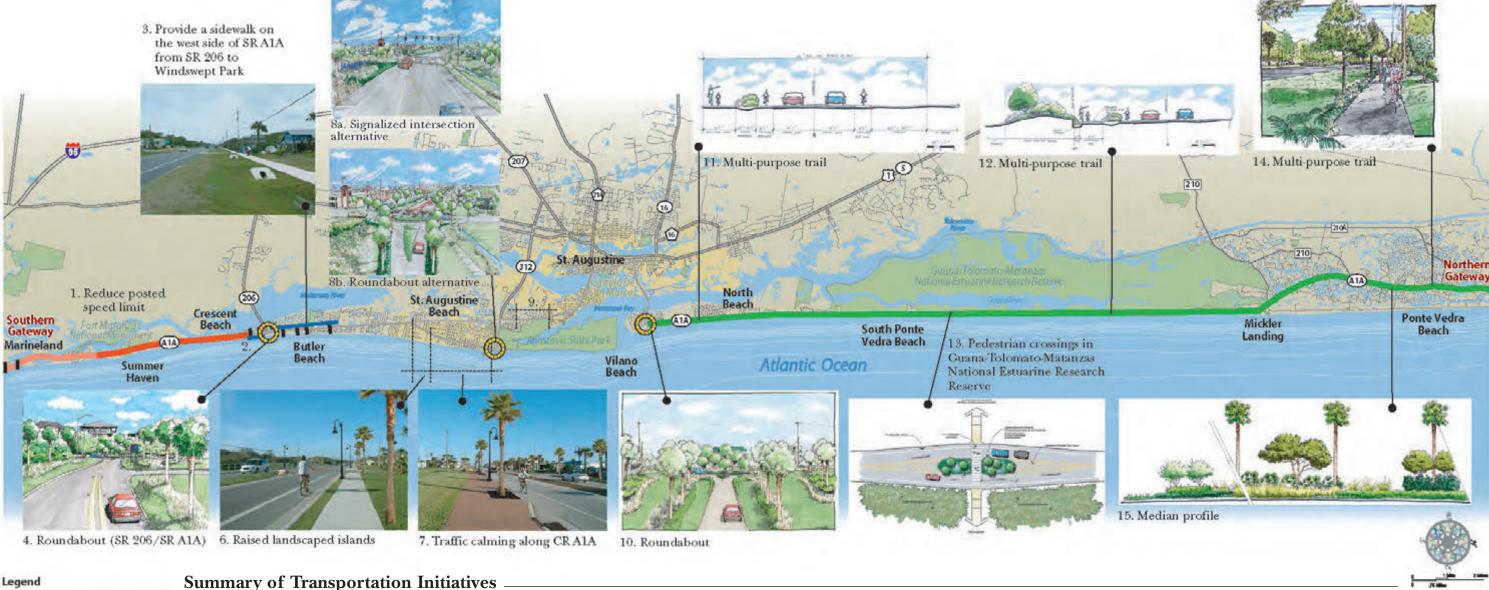


# **Existing Conditions**

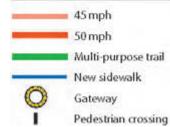
# **Existing Right-of-Way Widths**



#### Recommendations







- 1. Reduce the posted speed limit in South Anastasia Island from the Flagler/St. Johns County Line to Green Road.
- 2. Provide a sidewalk on the east side of SR A1A from Green Road to the SR A1A/SR 206 intersection.
- 3. Provide a sidewalk on the west side of SR A1A from the SR A1A/SR 206 intersection to Windswept Park.
- 4. Introduce a roundabout at SR 206/SR A1A intersection.
- 5. Provide pedestrian crossings at the following locations: the northern town limits of Marineland, the River to Sea Preserve, the SR A1A and Green Road intersection, the SR A1A and Cubbedge Road intersection, the SR A1A and Jellison Street intersection, the SR A1A and Treasure Beach Road intersection, the SR

- A1A and Mary Street intersection, and the SR A1A and Matanzas Avenue intersection.
- 6. Introduce some raised landscaped islands along CR A1A from SR A1A to F Street, within the City of St. Augustine Beach.
- 7. Provide some traffic calming measures and landscaping along CR A1A from F Street to Pope Road to enhance pedestrian safety and access to the beach.
- 8. Introduce a gateway at CR A1A and Pope Road.
- 9. Introduce some raised landscaped medians along SR A1A, from the SR A1A/SR 312 intersection to the City of St. Augustine City Limits.
- 10. Introduce a roundabout at SR A1A and Coastal Highway (SR A1A).

- 11. Introduce a multi-purpose trail within the SR A1A right-of-way (where possible) from the Vilano Town Center to the Guana-Tolomato-Matanzas National Estuarine Research Reserve.
- 12. Introduce a new multi-purpose trail running north-south parallel to the Guana-Tolomato-Matanzas National Estuarine Research Reserve within the SR A1A ROW. Maintain a landscaped buffer between the roadway and the trail. The trail may consider connecting to an existing north-south trail located within the Guana-Tolomato-Matanzas National Estuarine Research Reserve along the west side of the Guana Lake, extending from the dam to Mickler Road, during non-hunting season (February-September).
- 13. Introduce native landscaped pedestrian refuge safety islands at the existing pedestrian crossings for

- the Guana-Tolomato-Matanzas National Estuarine Research Reserve.
- 14. Introduce a multi-purpose trail from the northern limits of the Guana-Tolomato-Matanzas National Estuarine Research Reserve to the St. Johns County/Duval County line within the SR A1A ROW. In addition, introduce a signed bicycle lane on the shoulder from Mickler Road to the St. Johns County/Duval County Line.
- 15. Relandscape existing medians and shoulders in Ponte Vedra.
- 16. In coordination with other roadway im-provements or work within the ROW, relocate overhead utility lines underground where possible. If the main lines cannot be relocated, bury connections (service lines) that extend across the roadway.

#### **Recommendation 1:**

Reduce the posted speed limit in South Anastasia Island, from the Flagler/St. Johns County Line to Green Road.

To maintain consistency along the corridor, to balance the demand for regional travel with the need for local access, and to reduce the range of vehicle speeds, it is recommended that the speed limit for the area south of SR A1A/SR 206 and north of Ft. Matanzas National Park currently posted 55 mph be reduced to 50 mph. For consistency along the corridor and for the safety of fishermen accessing and using the Matanzas Bridge, it is recommended that the speed limit for the bridge be maintained at 45 mph and that the Summer Haven bridges be posted at 45 mph. Due to the proximity of the 45 mph zone north of the Town of Marineland and the speed limit from the northern limit of the Town of Marineland to north of the Matanzas Bridge be posted at 45 mph.

The table shows that reducing the posted speed limits to 50 mph between Green Road and the north boundary of Fort Matanzas, 35 mph posted speed around the SR 206 intersection, and 45 mph posted speed south of Green Road would have a minimal impact on overall travel time through the corridor.



#### Recommended posted speed limits

Z|**→Z** 

#### **Travel Speeds**

From the Flagler County/St. Johns County Line to Weff Road

Distance	9.3 Miles
Existing Travel Time - calculated based on posted speed limits <sup>1</sup>	11.5 Minutes
Existing Travel Time - calculated based on average travel speeds measured during speed study $^2$	12.4 Minutes
Existing Travel Time - driven <sup>3</sup>	13.4 Minutes
Travel time based on 50 mph posted speed between Green Road and the north boundary of Fort Matanzas, 35 mph posted speed around the SR 206 intersection, and 45 mph posted speed south of Green Road <sup>1</sup>	12.7 Minutes
Percent Change	
Calculated based on posted speed vs. proposed	10%
Calculated based on average travel speed vs. proposed	2%

- 1 Assumes free flow conditions and 22 second delay at SR 206 intersection
- 2 Speed study conducted in February, 2005 by study team
- 3 Average of two trips taken October 4, 2004 at 7:00 p.m. Driver slowed by cars driving below the posted speed limit.

#### **Recommendations 2 & 3:**

Provide sidewalks on the east side of SR A1A from Green Road to the SR A1A/SR 206 intersection and on the west side of SR A1A from the SR A1A/SR 206 intersection to Windswept Park.



**Existing A1A North of SR 206** 



After sidewalk installation



Z → Z

#### **Recommendation 4:**

Introduce a roundabout at SR 206 and SR A1A



SR A1A and SR 206 intersection, today

A roundabout at this location reduces average delay to the motorist in addition to enhancing safety and aesthetics at this important corridor gateway.



After roundabout installation

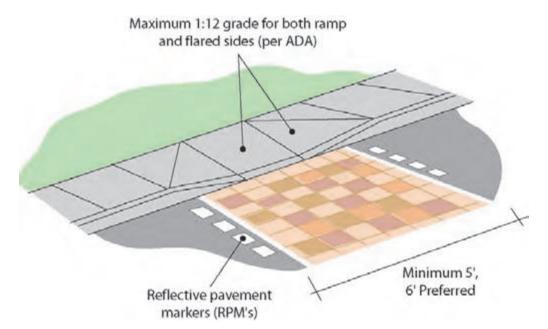
#### SR 206 and SR A1A Intersection 2004 and 2024 LOS

		ng Configuration (CS Analysis)	Proj	oosed Roundabout (AASidra)
PM Peak	LOS	Intersection Delay (Sec/Vehicle)	LOS	Control Delay (Average, Sec/Vehicle)
2004	С	22.1	A	7.5
2024	С	30.4	В	12.2

#### **Recommendation 5:**

Provide pedestrian crossings at the following locations: the northern town limits of Marineland, the River to Sea Preserve, the SR A1A and Green Road intersection, the SR A1A and Jellison Street intersection, the SR A1A and Matanzas Avenue intersection.



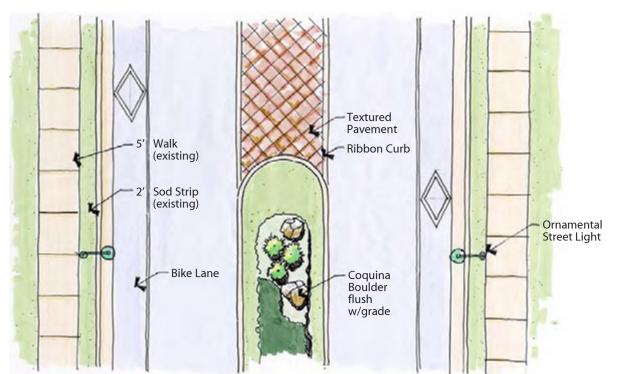


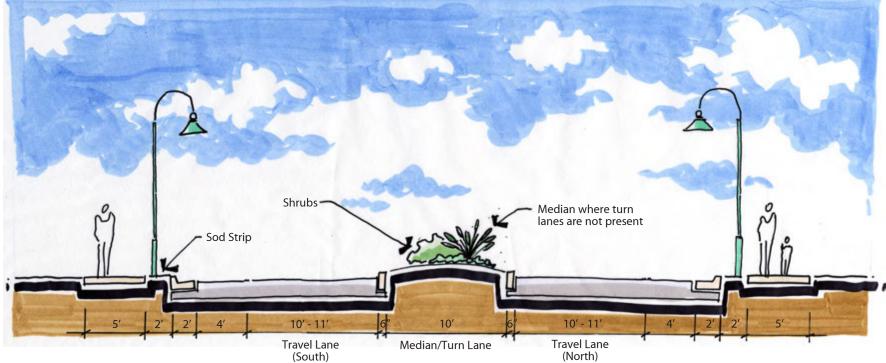
- Z S S
- At-grade pedestrian crossing shall be stamped asphalt or paved concrete. The crossing should be a different color than the surrounding roadway pavement.
- Provide reflective pavement markers on the approaches to the crossings.
- Supplement crossing with advance crosswalk warning signs.

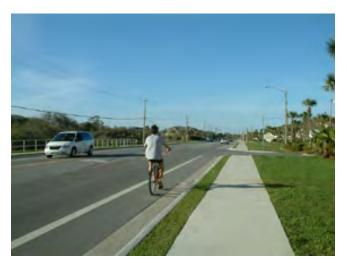
#### **Recommendation 6:**

Introduce some raised landscaped islands along CR A1A from SR A1A to F Street.

To break up the visual width of the road, short landscaped islands should be introduced between SR A1A/CR A1A and F Street/CR A1A in the St. Augustine Beach area. These islands should be sized and located so as not to restrict existing access points along CR A1A.







Existing CR A1A, South St. Augustine Beach

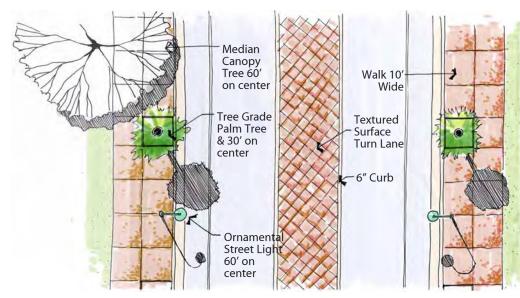


CR A1A with landscaped medians, ornamental street lighting, and street trees



#### **Recommendation 7:**

Provide some traffic calming measures and landscaping along CR A1A from F Street to Pope Road to enhance pedestrian safety and access to the beach.

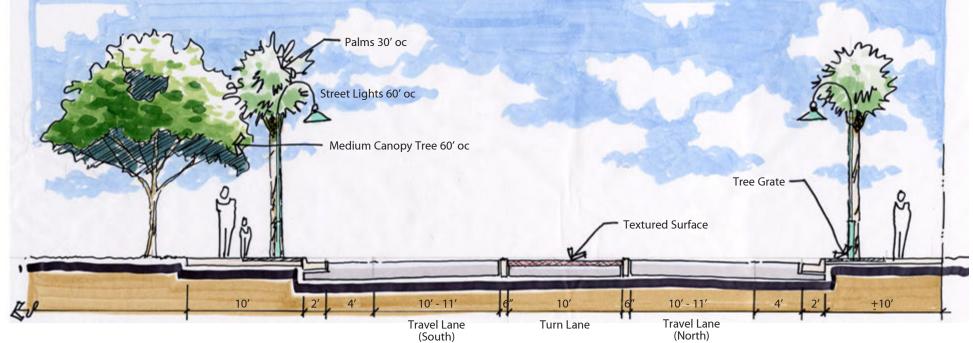


#### Roadway Restripping and Landscaping Plan

CR A1A, also known as Beach Boulevard, is the historic commercial center for the City of St. Augustine Beach. The roadway is home to the St. Johns County Pier Park and will soon be home to a new Community Center located in a renovated historic building. Hotels are located along the length of CR A1A.

This three-lane collector road currently creates a barrier from the residential neighborhood for pedestrians and bicyclists accessing the beach. Beach Boulevard provides pedestrian crosswalks at "A," 4th, 11th, 12th, and 16th Streets and at Pope Road. The Traffic Calming and Pedestrian/Bicycle Safety Report completed by Volkert and Associates, Inc. in June of 2004 for the City of St. Augustine Beach acknowledges the need to improve pedestrian safety at these crossings and recommends the installation of "In-Street Pedestrian Crossing" signs on Beach Boulevard. This is a valuable first step in alerting drivers to the presence of pedestrians and bicyclists.

The landscape and traffic calming measures recommended in this report are designed to further enhance pedestrian safety and comfort by reinforcing safe motorist behavior and improving the quality of the pedestrian experience, providing residents and visitors greater access to the beach. A roundabout is recommended at the intersection of CR A1A and Pope Road to reinforce the posted driving speed as travelers leave a high speed environment and enter the town. Raised or textured pedestrian crossings are recommended at locations that experience high pedestrian activity. Raised pedestrian crossings are also recommended where they facilitate the design of the plaza and provide appropriate spacing between vertical traffic calming measures. Four raised intersections are recommended, providing an average spacing of approximately 1170 feet between raised intersections.





Existing CR A1A, near pier park in St. Augustine Proposed flush median and streetscape treatment

asphalt or paved concrete for texture treatment along locations with high pedestrian activity. CR A1A. Use of other materials, such as brick, will require an interlocal agreement outlining funding sources for material, installation, and maintenance.



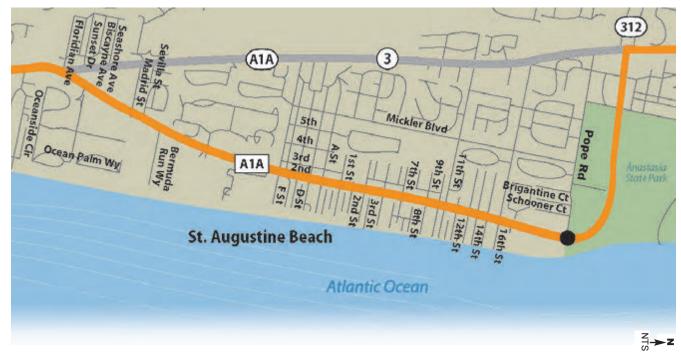
• St. Johns County has stated a preference for stamped • Textured and raised crossings are recommended at



#### **Recommendation 8:**

Introduce a gateway at CR A1A and Pope Road.

This gateway treatment will serve to announce the entrance to the City of St. Augustine Beach and reinforce the change in travel environment from high speed to slower speed through the commercial centers. Like the intersection of SR 206 in South Anastasia, this intersection is an important gateway location within the corridor. Two alternative gateway concepts are shown as Alternatives A and B.



#### Pope Road Pull-off Alternative A



#### Alternative A: Roundabout



**Before** 



After

# Alternative B: Signalized Intersection



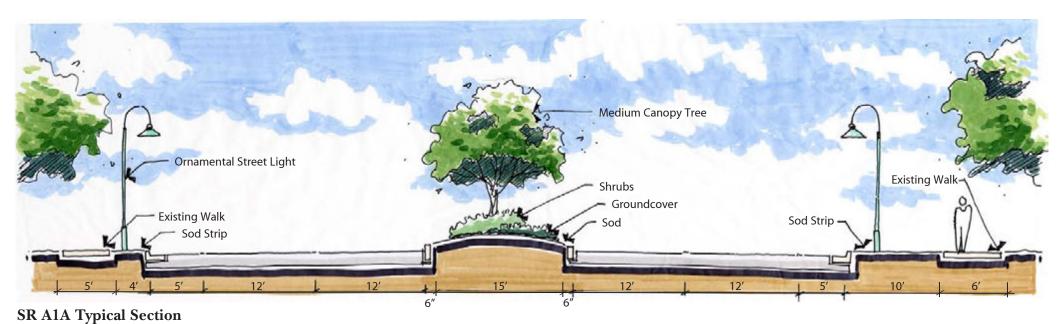
**Before** 

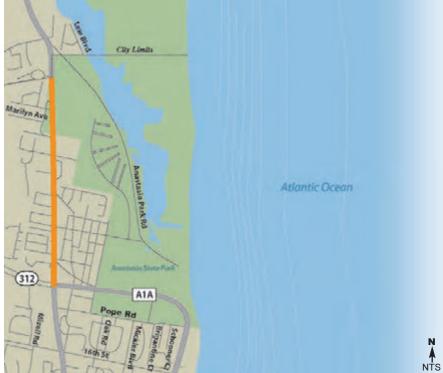


After

#### **Recommendation 9:**

Introduce some raised landscape medians along SR A1A, from SR A1A/SR 312 intersection to the City of St. Augustine Beach city limits.





#### **Recommendation 10:**

Introduce a roundabout at SR A1A and Coastal Highway (SR A1A) in Vilano Beach.



Existing, SR A1A looking east toward Vilano Beach Town Center

Similar to the analysis conducted for the SR 206 intersection, a roundabout at this location significantly reduces average delay per vehicle while enhancing safety and aesthetic aspects of this important gateway.



Same intersection with proposed roundabout

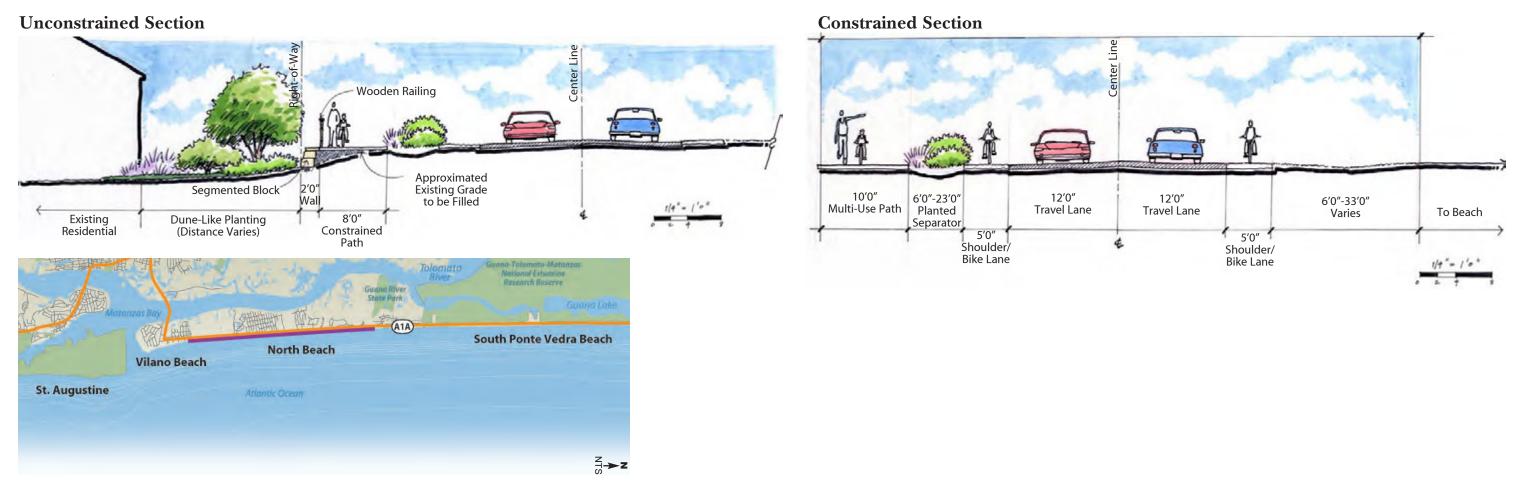


SR A1A and Coastal Highway Intersection 2004 and 2024 LOS

Six 11111 and Coustal Highway Intersection 2001 and 2021 200					
	Existing Configuration (HCS Analysis)		Proposed Roundabout (AASidra)		
PM Peak	LOS	Intersection Delay (Sec/Vehicle)	LOS	Control Delay (Average, Sec/Vehicle)	
2004	C	24.5	A	8.9	
2024	D	46.6	A	9.5	

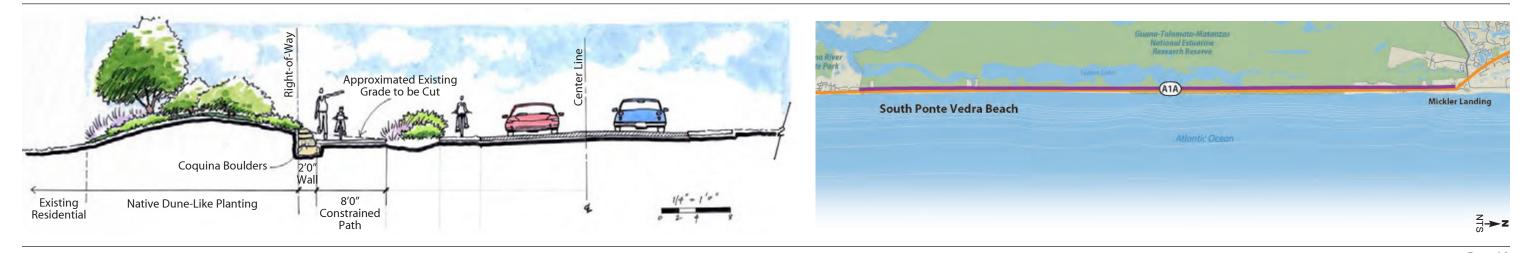
#### **Recommendation 11:**

Introduce a multi-purpose trail within the SR A1A right-of-way (where possible) from the Vilano Town Center to the Guana-Tolomato-Matanzas National Estuarine Research Reserve.



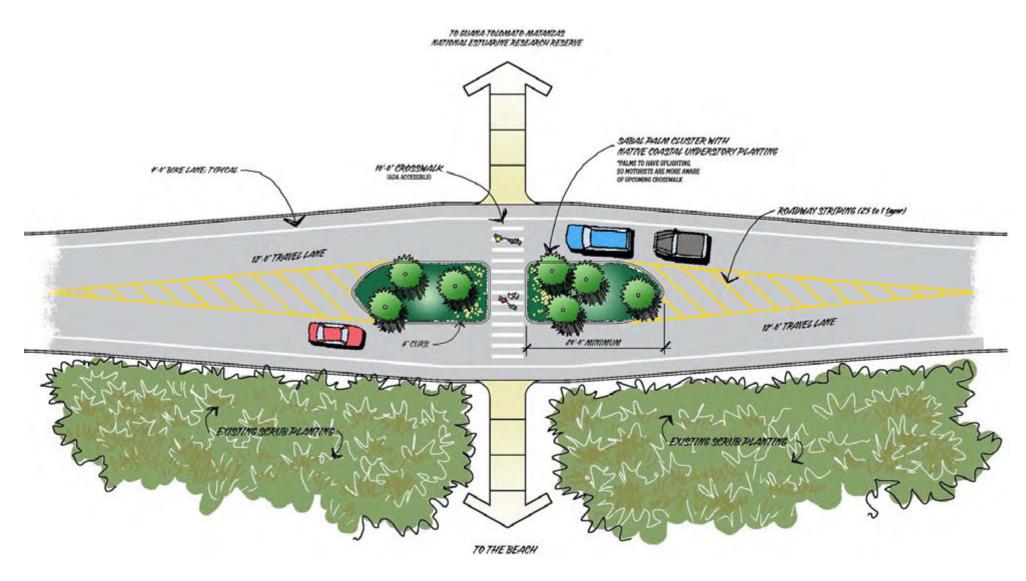
#### **Recommendation 12:**

Introduce a new multi-purpose trail running north-south parallel to the Guana-Tolomato-Matanzas National Estuarine Research Reserve within the SR A1A ROW. Maintain a landscaped buffer between the roadway and the trail. The trail may consider connecting to an existing north-south trail located within the Guana-Tolomato-Matanzas National Estuarine Research Reserve along the west side of the Guana Lake, extending from the dam to Mickler Road, during non-hunting season (February - September).



#### **Recommendation 13:**

Introduce native landscaped pedestrian refuge safety islands at the existing pedestrian crossings for the Guana-Tolomato-Matanzas National Estuarine Research Reserve.

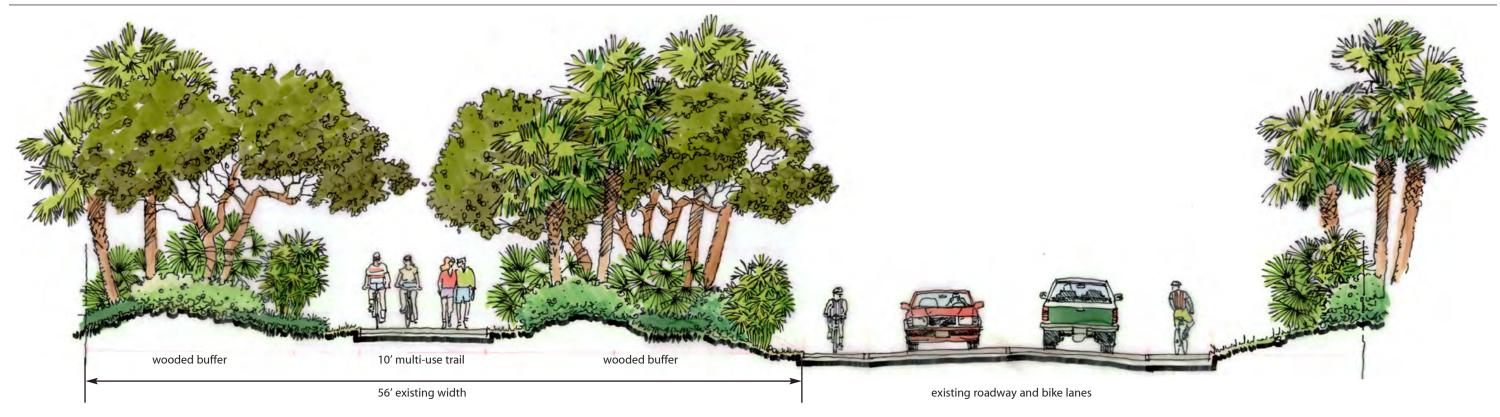


Four marked pedestrian crosswalks have been proposed for SR A1A in front of the Guana-Tolomato-Matanzas National Estuarine Research Reserve; these crosswalks are similar to those currently existing in the area. If additional traffic control is needed along SR A1A to meet future pedestrian volumes and provide safe and adequate pedestrian access to the Guana-Tolomato-Matanzas National Estuarine Research Reserve, it is recommended that an at-grade landscaped pedestrian refuge safety island be considered at one or more crosswalk locations.

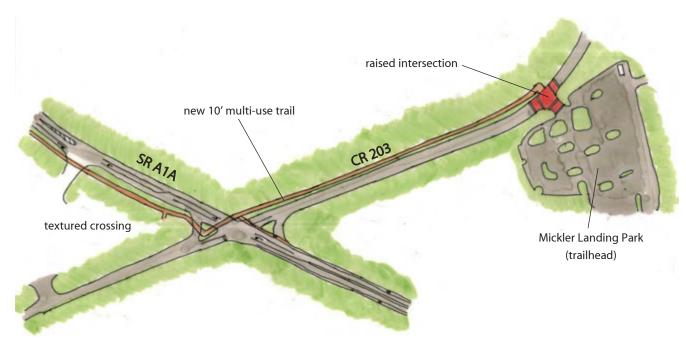


#### **Recommendation 14:**

Introduce a multi-purpose trail from the northern limits of the Guana-Tolomato-Matanzas National Estuarine Research Reserve to the St. Johns County/Duval County line within the SR A1A ROW. In addition, introduce a signed bicycle lane on the shoulder from Mickler Road to the St. Johns County/Duval County Line.



Proposed Typical Cross Section - from northern limits of the Guana-Tolomato-Matanzas National Estuarine Research Reserve to Fairfield Boulevard



**Proposed Trailhead at Mickler Landing** 

#### **Recommendation 14:** (continued)

Introduce a multi-purpose trail from the northern limits of the Guana-Tolomato-Matanzas National Estuarine Research Reserve to the St. Johns County/Duval County line within the SR A1A ROW. In addition, introduce a signed bicycle lane on the shoulder from Mickler Road to the St. Johns County/Duval County Line.





**Existing Conditions** 





Proposed widening of existing sidewalk on west side of SR A1A to 10 foot multi-use trail with landscaped buffer - four lane section north of Fairfield Boulevard to Duval County Line.

#### **Recommendation 15:**

Relandscape existing medians and shoulders in Ponte Vedra.



**Median Concept and Planting Zones** 

For plant selection and landscape details,

see Landscape section, pages 22 through 26.

#### **Recommendation 16:**

In coordination with other roadway improvements or work within the ROW, relocate overhead utility lines underground where possible. If the main lines cannot be relocated, bury connections (service lines) that extend across the roadway.



Existing, SR A1A in South Anastasia



Introduce sidewalk



Introduce sidewalk, bury utility lines crossing roadway



Introduce sidewalk, bury all utility lines in ROW



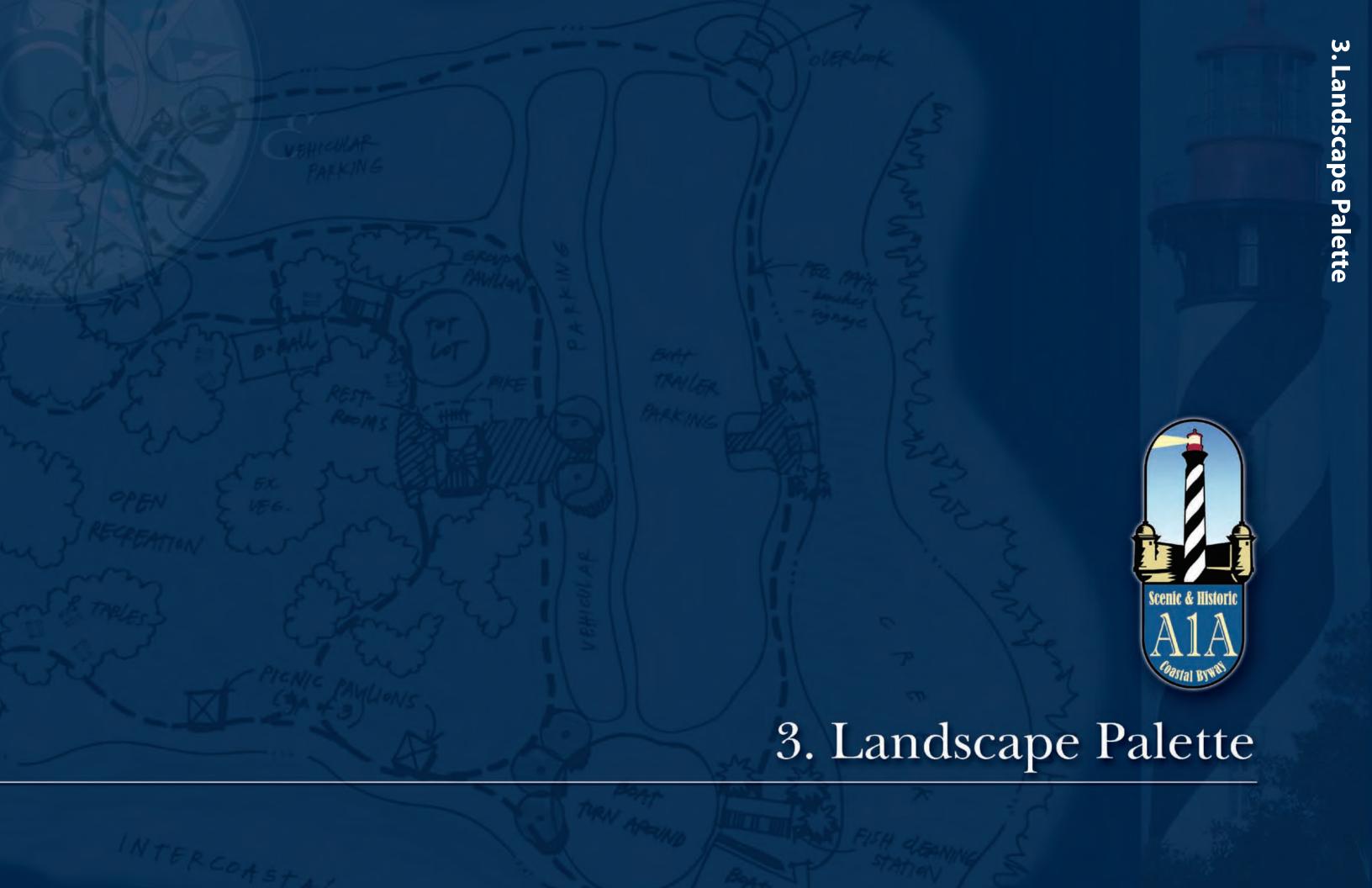
Existing, CR A1A in St. Augustine Beach



Introduce bike lane and pedestrian scale lighting and landscaping



Introduce bike lane and pedestrian scale lighting and landscaping, and bury all utility lines in ROW



# Landscape Palette

The landscape palette applies to new landscaping in the SR A1A ROW. The landscape palette provides an array of landscaping options that meet the principles outlined below. Specific plant types will be selected during final design of landscaping improvements.

The purpose of this section is to provide general guidelines for the landscape design and plant selection for the parks and rights-of-way within the corridor.

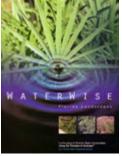
The landscape along the corridor should be designed to:

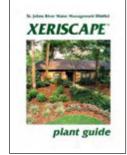
- Fit into the natural context of the surrounding vegetative communities.
- Provide for public safety by adhering to established safety guidelines for roadside planting.
- Provide for the public safety by adhering to CPTED (Crime Prevention Through Environmental Design) principles.
- Enhance and frame views to significant natural, historic, and cultural resources.
- Provide shade cover for pedestrian comfort.

The following plant palette should be used as a guide for the selection of plant materials along the corridor. The general theme of the planting is to utilize native materials in a naturalistic fashion. This approach will enhance the casual coastal environment and allow the landscape to appropriately fit into the unique context of the SR A1A corridor.

Plant selection should be based on the following criteria:

- 1. Native
- 2. Appropriate for plant hardiness zone (9a)
- 3. Drought tolerant (xeriscape)
- 4. Can not have low salt tolerance
- 5. Provide shade for trail





References used to select landscape palette

#### Xeriscape

The purpose of xeriscape is to match plants to site conditions to minimize use of additional resources, such as water, fertilizer, pesticides, and labor. The *St. Johns River Water Management District Xeriscape* and *Waterwise*, *Florida Landscapes* were used as references to select the landscape palette.

It should be noted that while xeriscape principles will minimize the need for irrigation in the long term, most plants require irrigation until they become established. The landscape palette presented on the following pages provides a broad list of appropriate plants to select from depending on availability, cost, maintenance needs, and local preference.





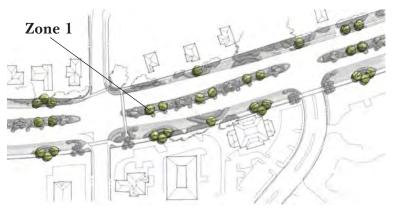






Here are some examples of the xeriscape: formal, naturalistic, and blended

# **Zone 1 - Large Shade Trees**



Large shade trees are generally the backbone of a planting design. These trees help to provide shade for pedestrians, as well as reducing the scale of large areas of pavement. It is critical that large shade trees are not planted in areas where they could create unsafe visibility for drivers and pedestrians.



Southern Red Cedar (Juniperus silicicola)



Slash Pine (Pinus elliottii)



Southern Magnolia (Magnolia grandiflora)



Cabbage Palm (Sabal palmetto)



Longleaf Pine (Pinus palustris)

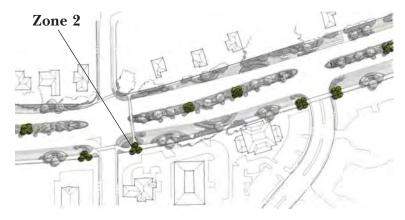


Bald Cypress (Taxodium distichum)



Live Oak (Quercus virginiana)

#### **Zone 2 - Medium Shade Trees**



Medium shade trees are often used where space is restricted for a large shade tree or where there is a desire to create additional species diversity in the landscape. These trees are often underutilized and can add a layer of visual interest to the surroundings.



Sand Live Oak (Quercus geminata)



River Birch (Betula nigra)

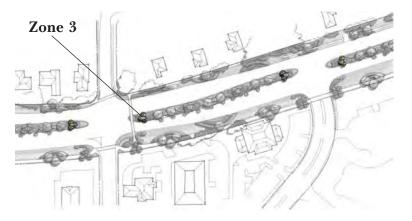


Winged Elm (Ulmus alata michx)



Close up of Winged Elm bark

# **Zone 3 - Small Ornamental Trees**



Small ornamental trees often provide variety to the landscape. Many Florida small trees provide food for birds and other wildlife, as well as seasonal color. Small trees are often used at median noses, under power lines, and to screen undesirable views from eye level.



**Holly Species** (Aquifoliaceae)



Crape Myrtle (Lagerstroemia indica)

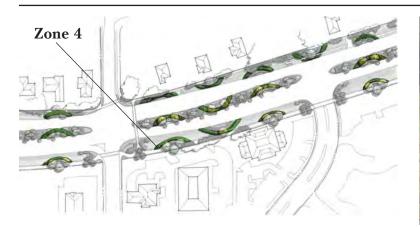


Little Gem Magnolia (Magnolia grandiflora)



Wax Myrtle (Myrica cerifera)

# **Zone 4 - Ornamental Grass/Large Shrubs**



Ornamental grasses and large shrubs should be used in areas where screening is desired, such as along parking lots or where a background planting is desirable in a layered landscape. An additional benefit is that these plants can also be utilized to provide color and textural contrast in the landscape.



Switchgrass (Panicum virgatum)



Saw Palmetto (Sereno repens)





Wax Myrtle, shrub form (Myrica cerifera)



American Beautyberry (Callicarpa americana)



Viburnum Species (Viburnum)

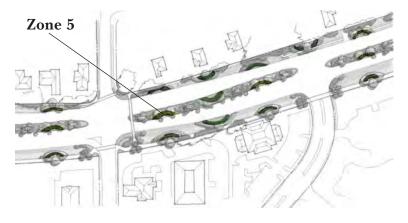


Sand Cordgrass (Spartina bakeri)



Fakahatchee Grass (Tripsacum dactyloides)

# **Zone 5 - Evergreens/Medium Shrubs**



Median shrubs are utilized in the landscape to provide foreground for large screening plant masses, as well as a large-scale groundcover in generous areas. Due to sight distance restrictions in many roadway settings, this smaller shrub is often used for shrub massing in medians.



Yaupon Holly (Ilex Vomitoria)

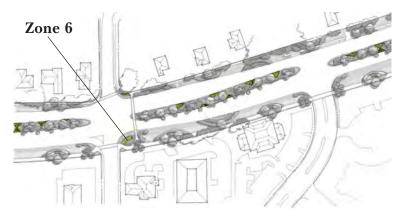


Dwarf Yaupon Holly (*Ilex Vomitoria nana*)



Walters Viburnum (Viburnum obovatum)
"Mrs. Schiller's Delight"

#### **Zone 6 - Groundcover**



Groundcovers are one of the most versatile plant types to utilize in the landscape. They are used as an alternative to high water-demand turf to provide color, and eliminate the need for mowing and maintenance in urban settings and in medians.



Bitter Panicgrass (Panicum amarum)



Coontie (Zamia pumila)



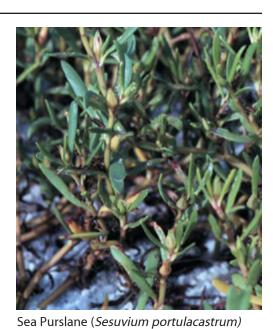
Gopher Apple (*Licania michauxii*)



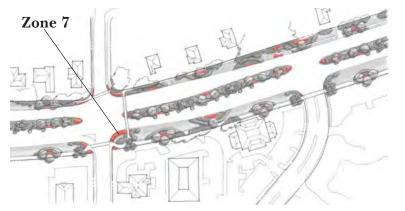
Muhly Grass (*Muhlenbergia capillaris*)



Sea Oats (*Uniola paniculata*)



# **Zone 7 - Flowers**





Mistflower (Conoclinium coelestinum)





Wild Petunia (Ruellia caroliniensis)



Wild flowers create a splash of color in the landscape and can be used in a variety of circumstances. It is important, however, to match the proper flowers to the proper maintenance and level of formality to a given area. Wild flowers can be

used to highlight and accent an area in an urban section or used as a woodland border or median planting in more naturalized areas.











Beach Sunflower (Helianthus debilis)

Seaside Goldenrod (Solidago sempervirens)

Wild Columbine (Aquilegia canadensis)

Butterfly Weed (Asclepias tuberosa)

Green Eyes (Berlandiera)















Stokes Aster (Stokesia laevis) S

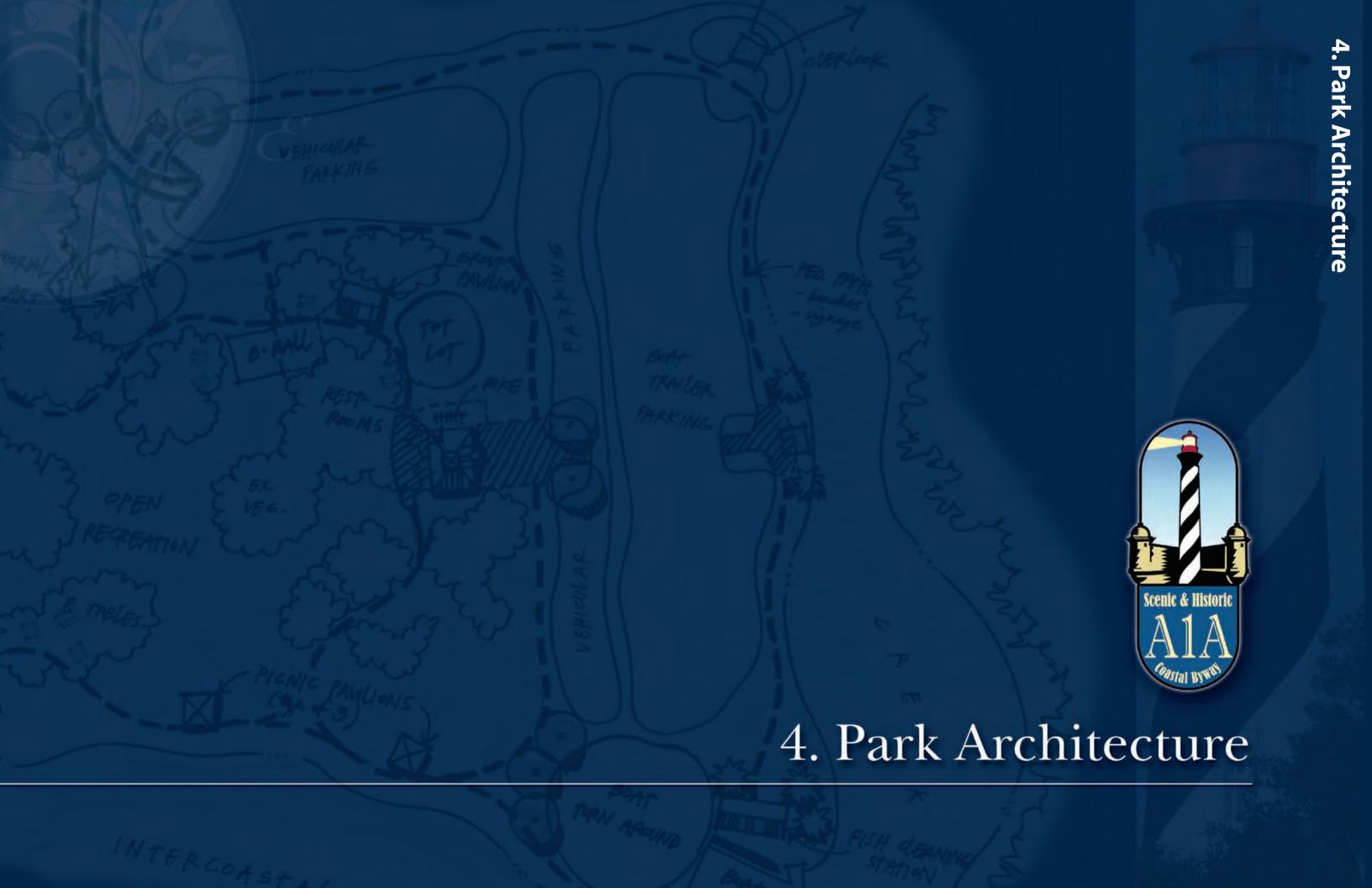
Spider Lily (Hymenocallis caroliniana)

Yarrow (Achillea millefolium)

Purple Coneflower (Echinacea purpurea)

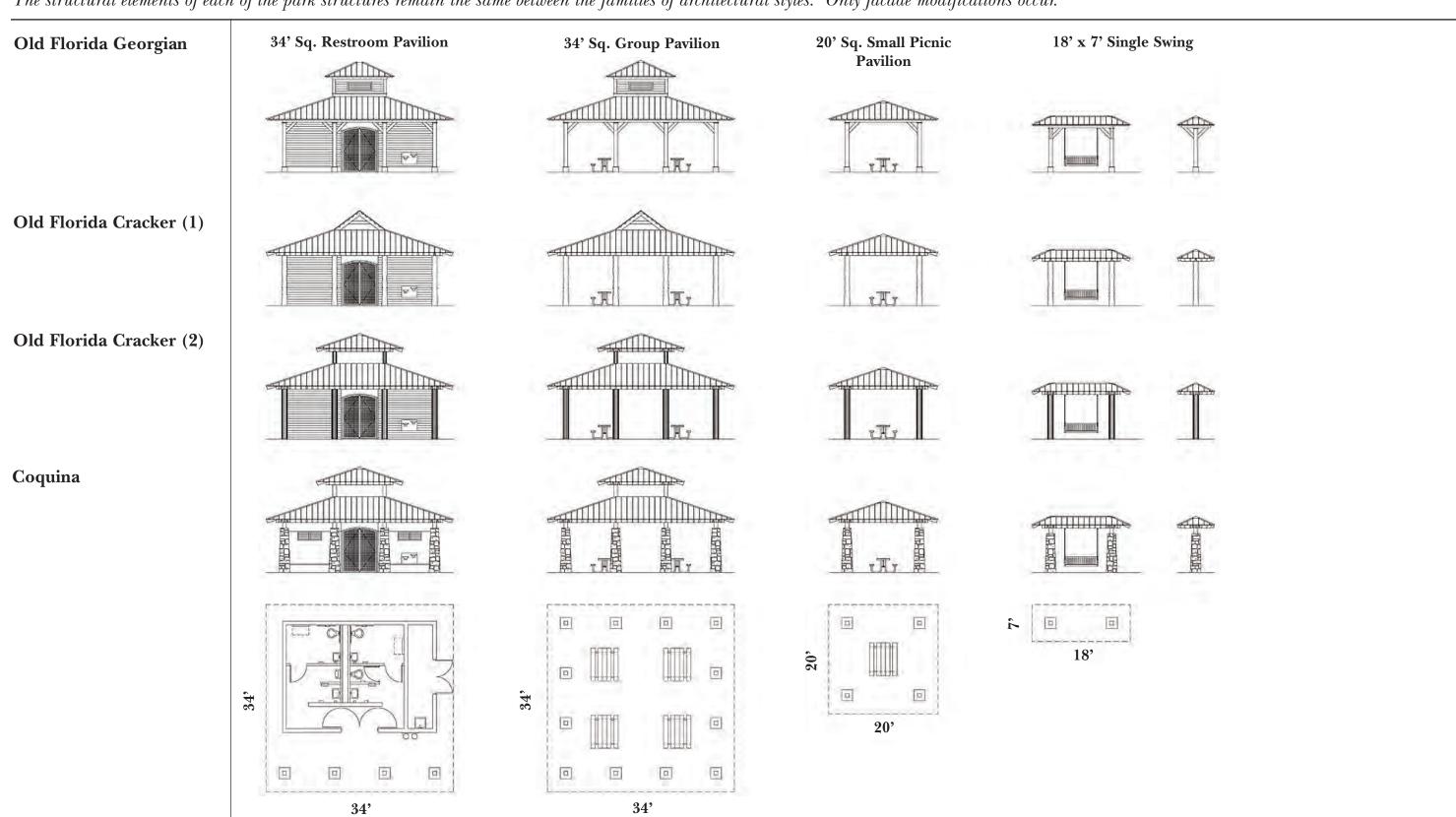
Blanket Flower (Gaillardia aristata)

Golden Aster (Chrysopsis villosa)



# **Architecture**

The structural elements of each of the park structures remain the same between the families of architectural styles. Only facade modifications occur.



# Sample 3-D Rendering of Park Architecture Types - Group Pavilion





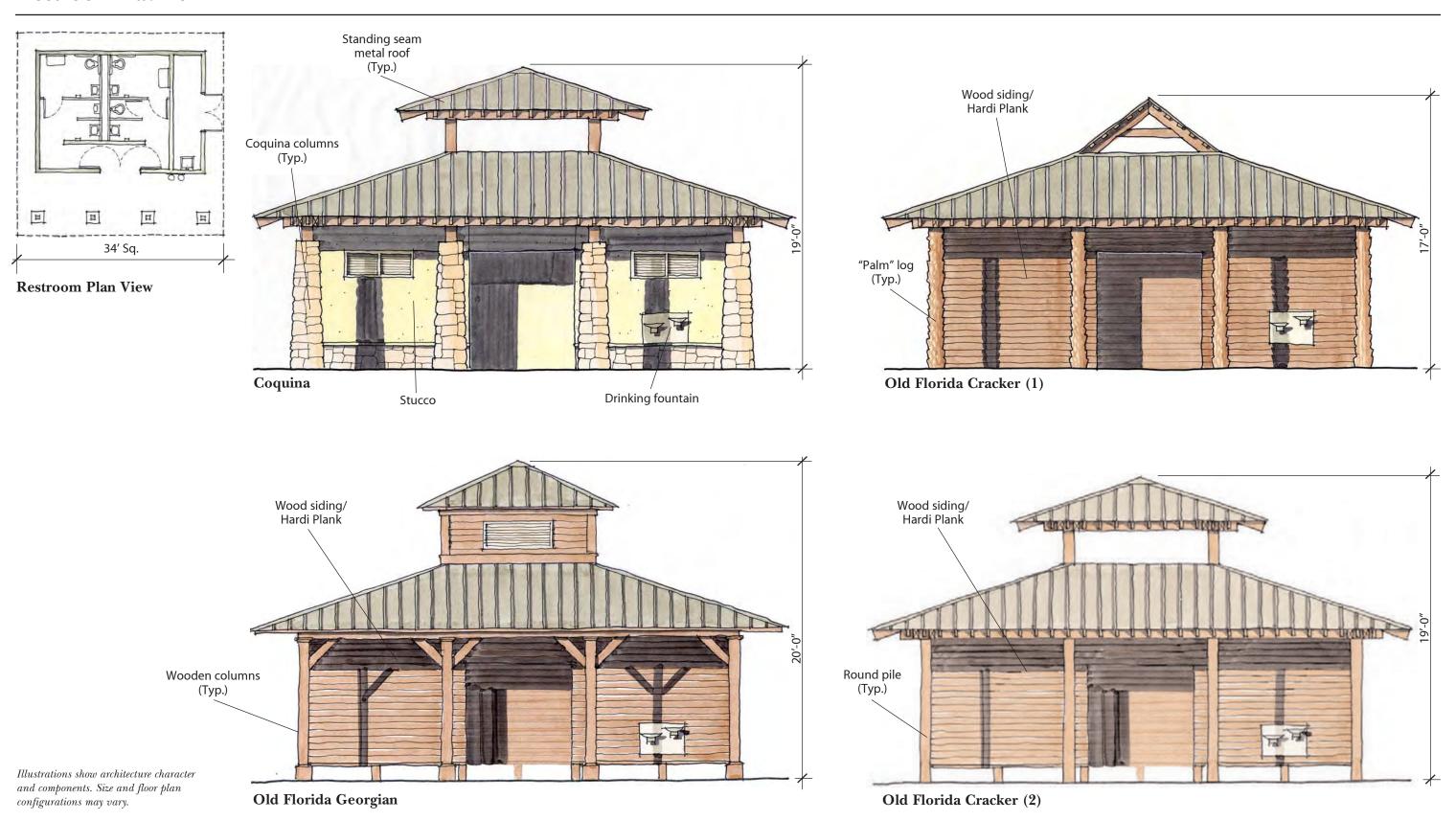
Old Florida Georgian



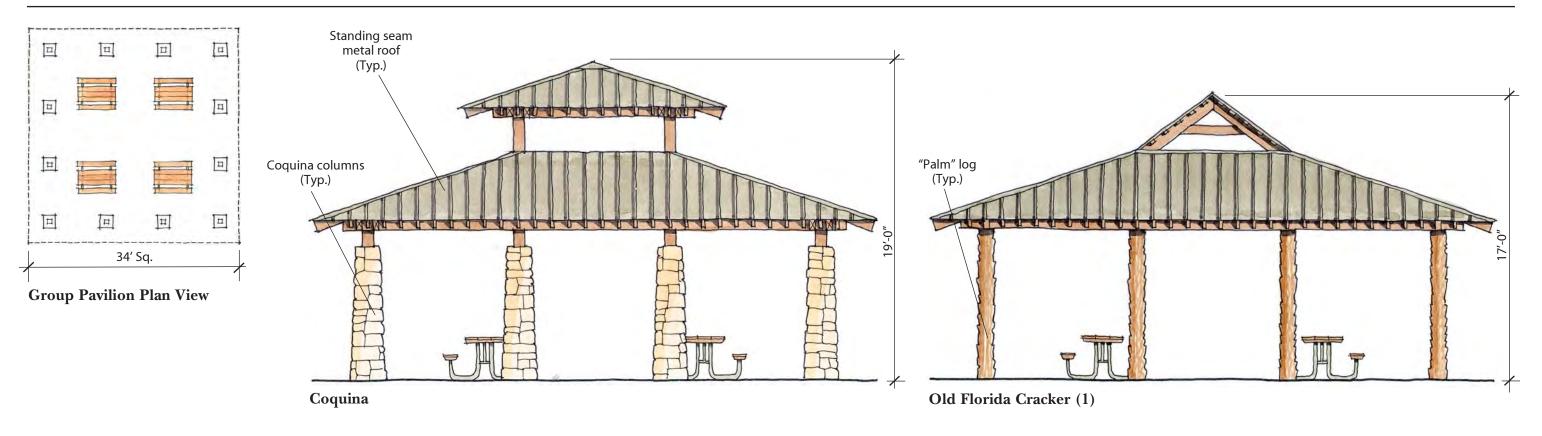


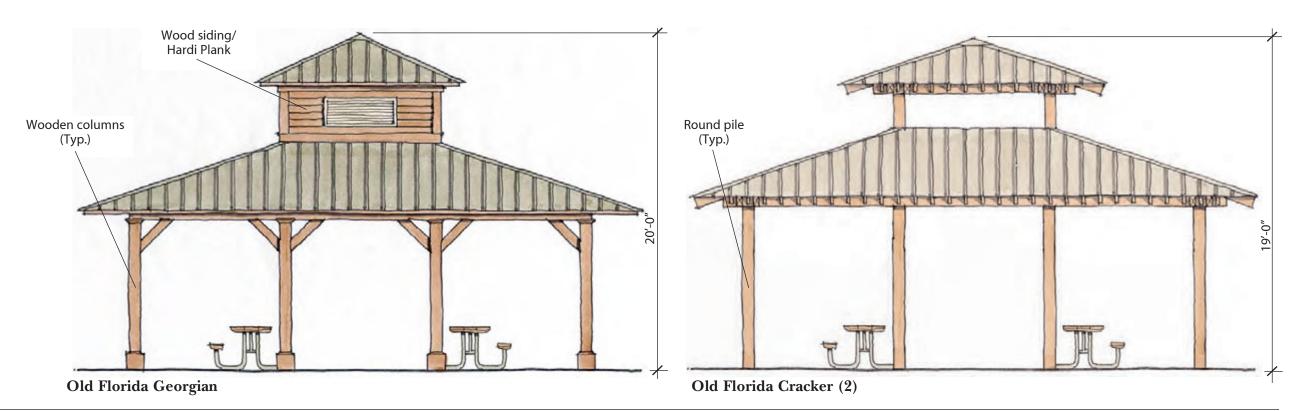
Old Florida Cracker (2)

# **Restroom Pavilion**



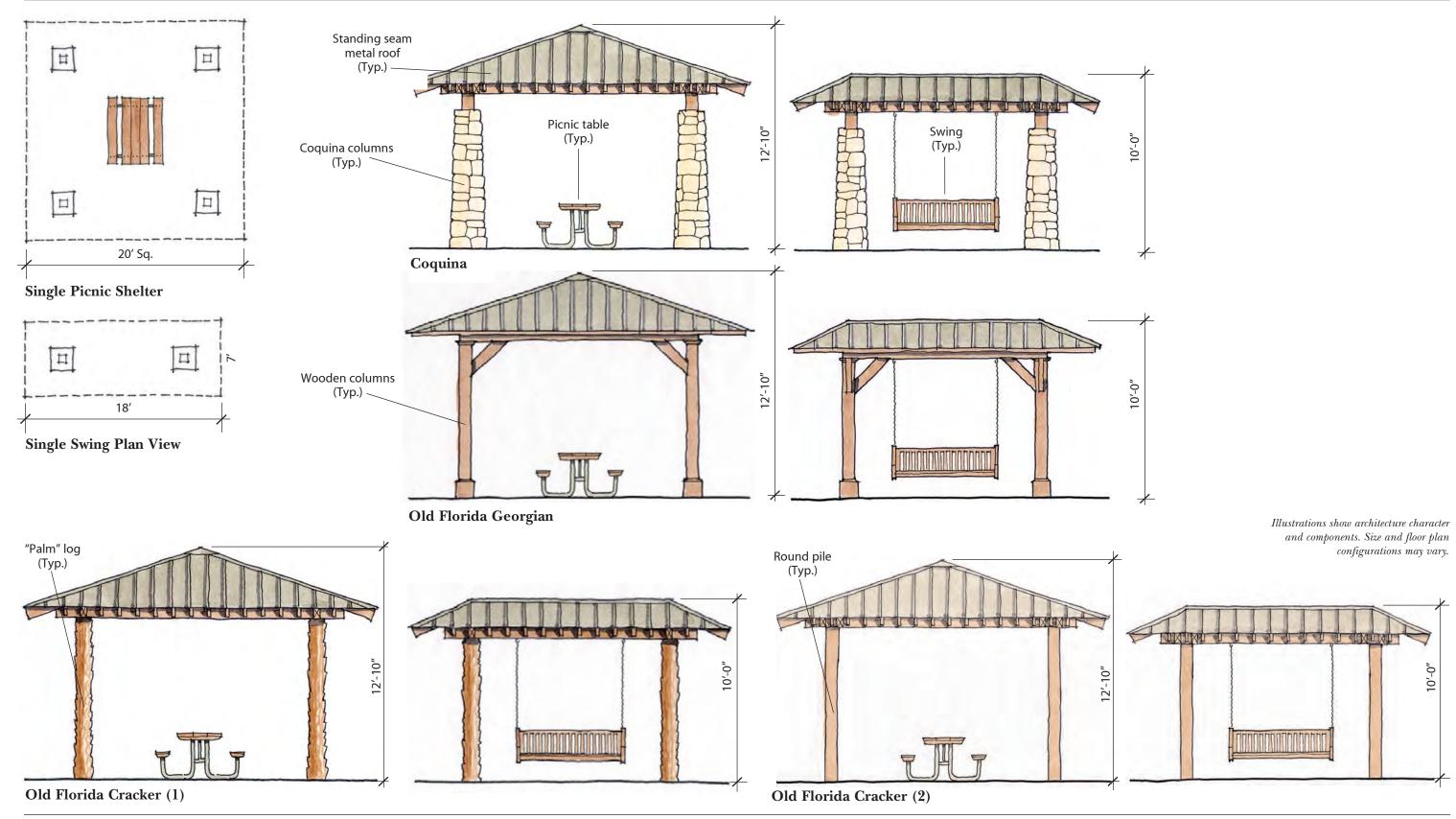
# **Group Pavilion**

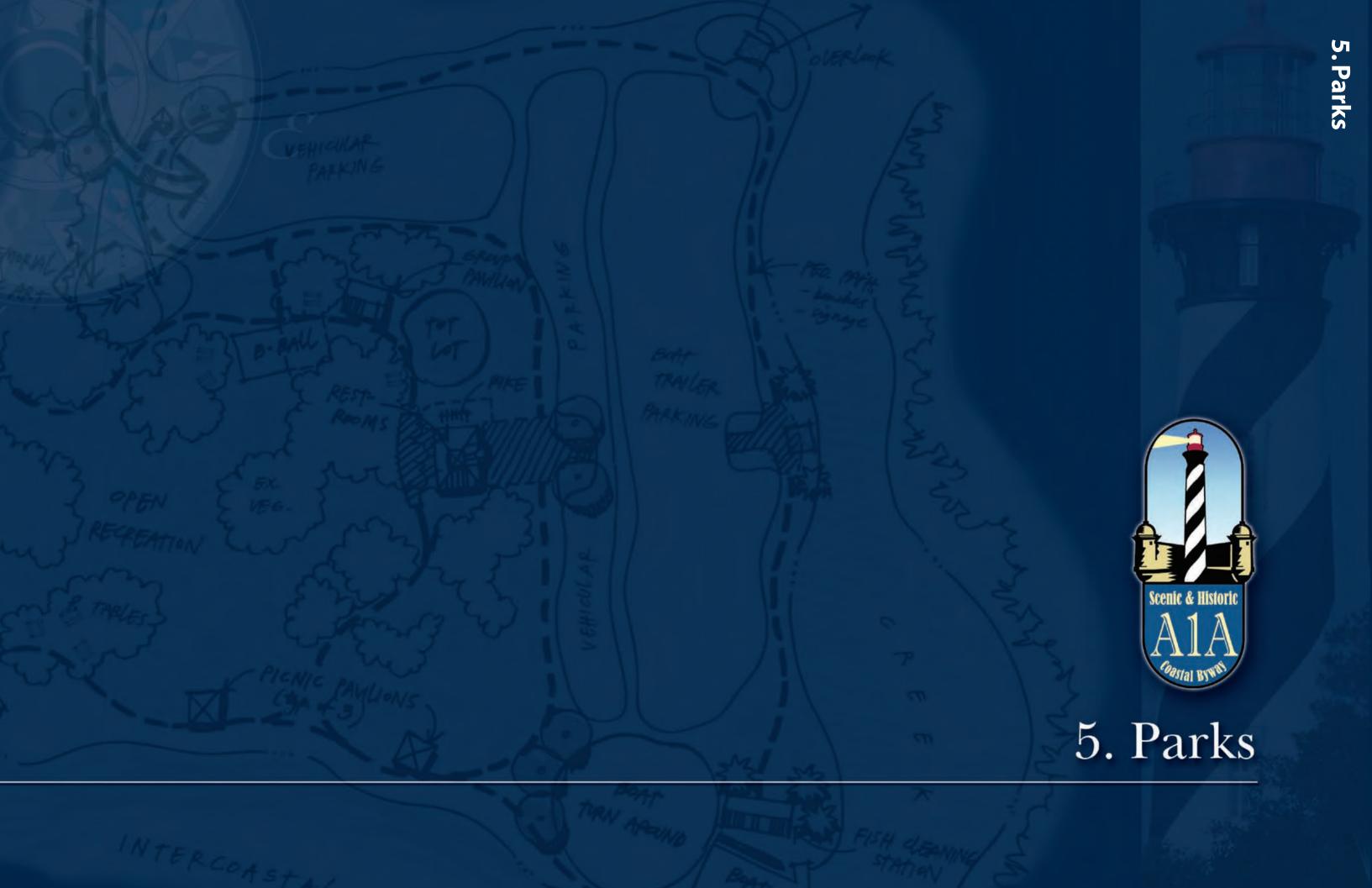




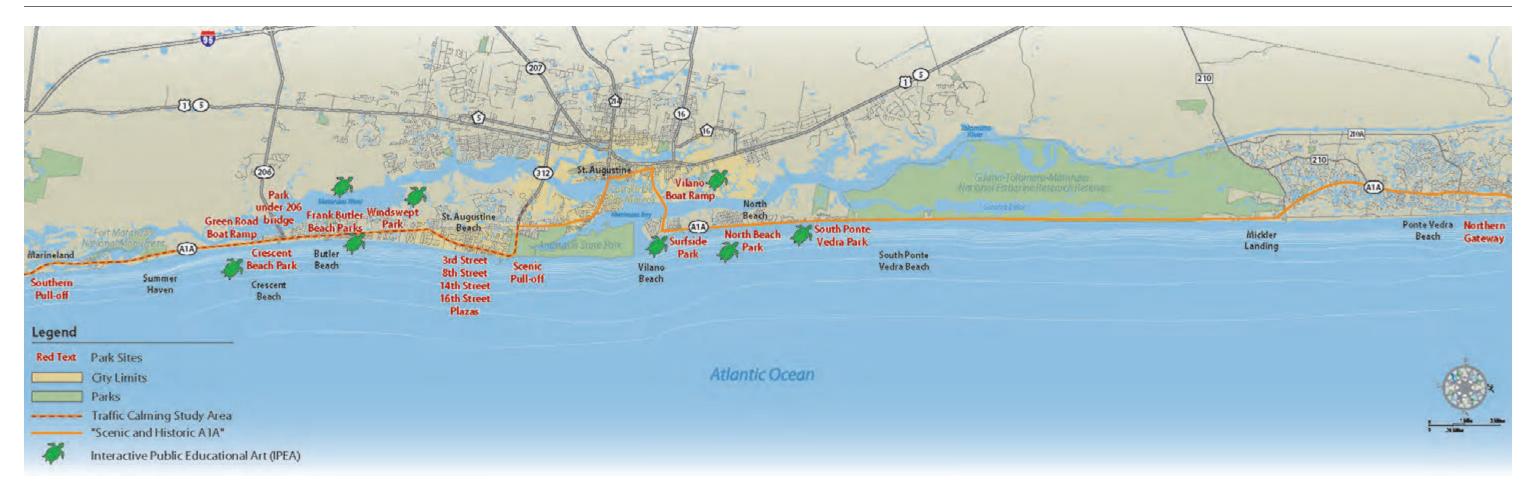
Illustrations show architecture character and components. Size and floor plan configurations may vary.

# **Small Pavilion and Single Swing**



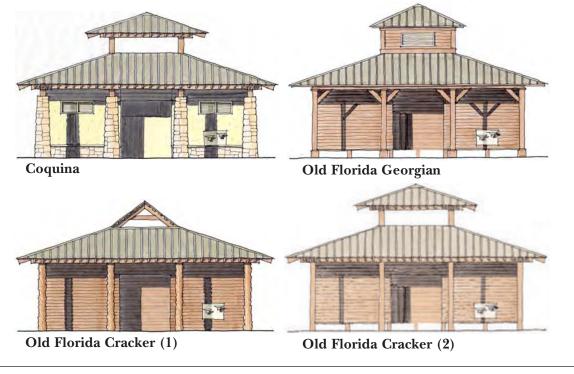


# Park Sites Map



#### Architecture

Four families of architectural style have been developed for the parks. The families share scale, materials, and a historic connection to the corridor. When detailed engineerings are completed for the parks, the community will be permitted to pick which architectural style best complement their neighborhood area.



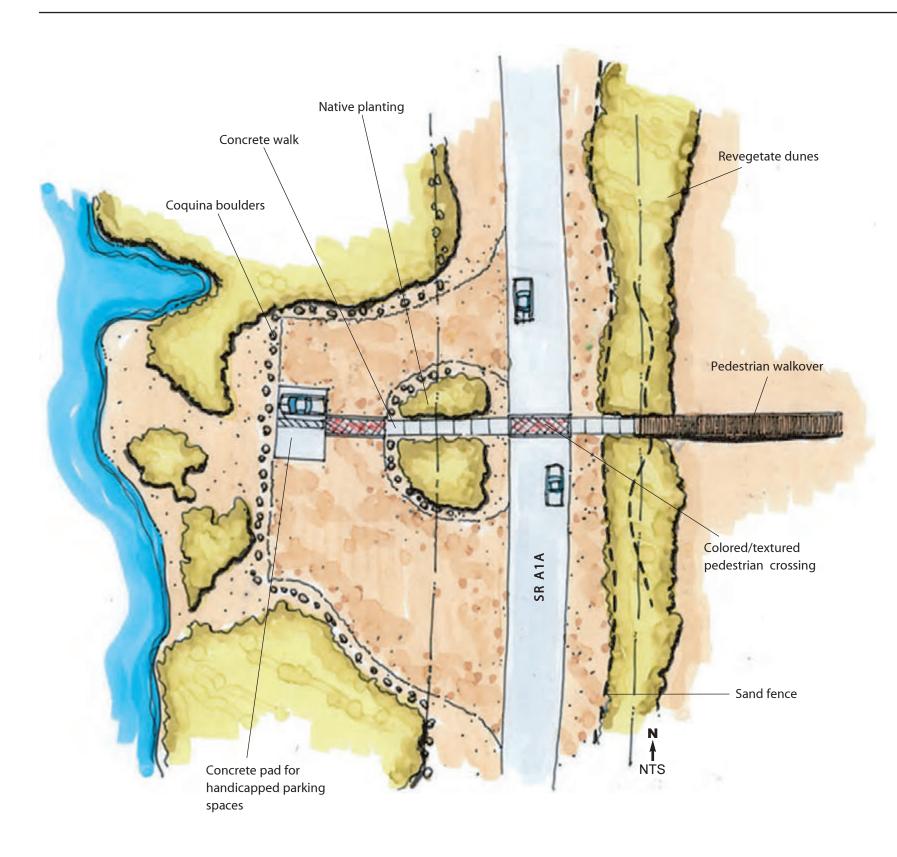
# Interactive Public Educational Art (IPEA)

Art pieces at some parks will serve to educate travelers about the environmental resources located along the corridor. This reoccurring element will help link the parks along the scenic roadway.

While preliminary sketches for these pieces are included in the Master Plan, the art sculptures should be commissioned for each park by a local or national artist. A competition could be held to select an artist for each park or one artist could be commissioned for all of the parks identified to the IPEAs.



### **Southern Pull-off**



#### **Required Permitting**

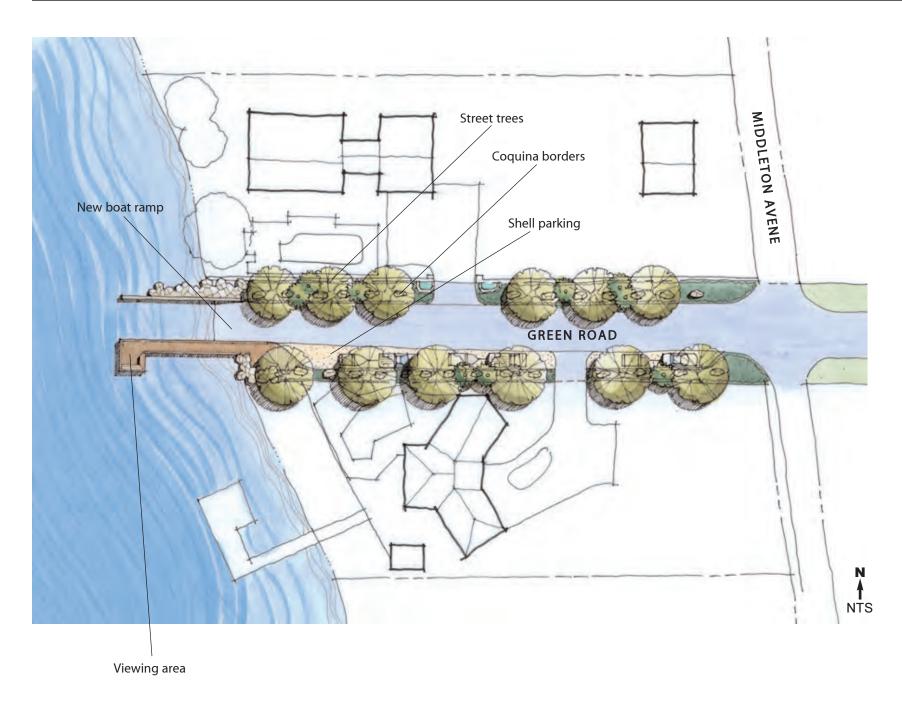
- River to Sea Preserve Parkland owned by Flagler County within St. Johns' county boundary. Formal coordination with Flagler County and the SR A1A Corridor Management Council for Flagler County is required.
- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP).
- Army Corps of Engineers (ACOE) unless activities are confined to upland areas only.
- St. Johns and Flagler Counties Building and/or Development Review.
- Check land use and zoning designation
- FCT Management Plan Review.

#### **Statement of Probable Cost**

Construction Costs \$190,000



# **Green Road Boat Ramp**



### **Required Permitting**

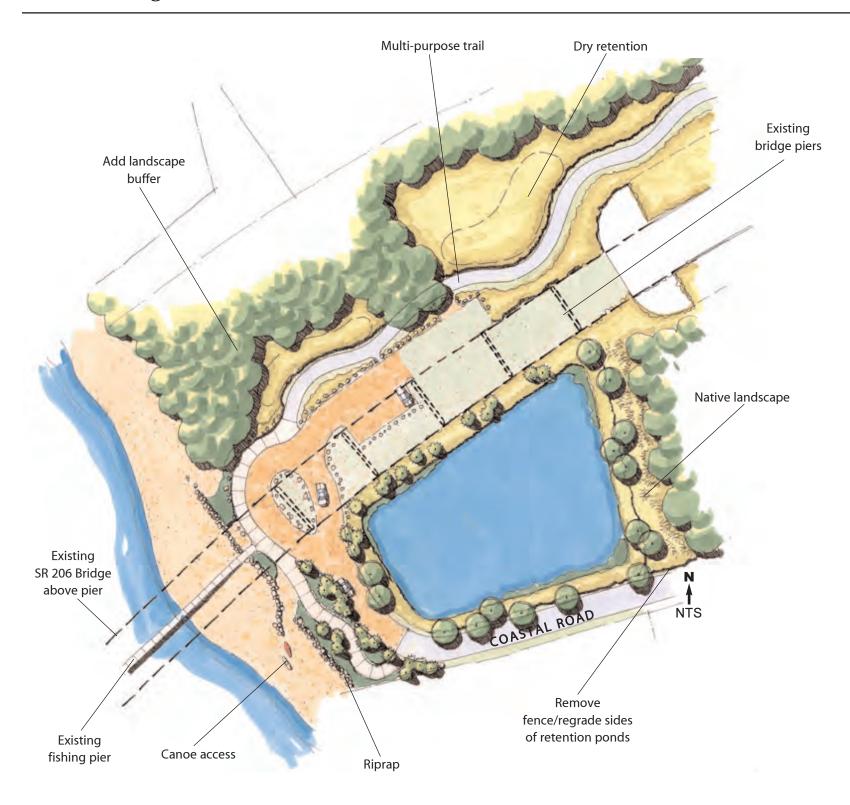
- Sovereign submerged land determination and either consent of use or lease negotiated with Florida Department of Environmental Protection (FDEP).
- Army Corps of Engineers (ACOE) Nation Wide Permit likely.
- St. Johns County Building and/or Development Review.
- Check land use and zoning designation.

#### **Statement of Probable Cost**

Construction Costs \$174,000



# SR 206 Bridge



#### **Required Permitting**

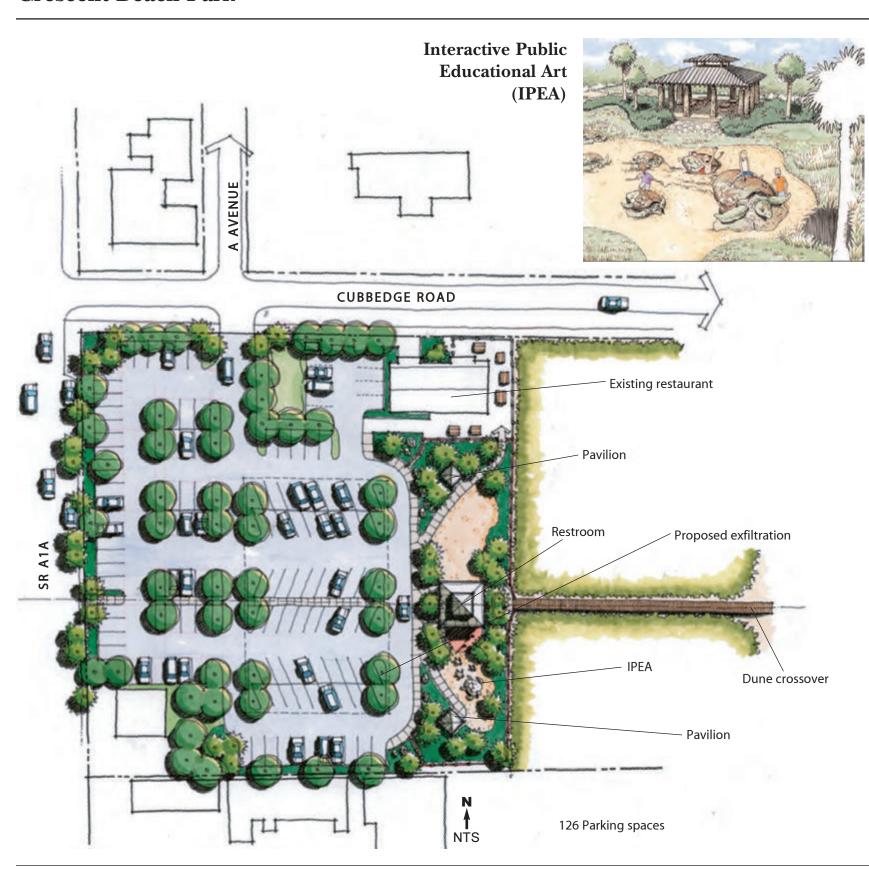
- Property owned by the Florida Department of Transportation (FDOT). Coordination and approval of FDOT required
- Sovereign submerged land determination and either consent of use or lease negotiated with Florida Department of Environmental Protection (FDEP)
- Army Corps of Engineers (ACOE) Nationwide Permit likely
- St. Johns County Building and/or Development Review
- St. Johns River Water Management District (SJRWMD) Environmental Resource Permit (ERP)
- St. Johns County 50 ft. upland wetland buffer required from wetland jurisdictional wetland line to any development. Pursue a vesting or variance to mitigate 50 ft. upland buffer requirement
- Check land use and zoning designation

#### **Statement of Probable Cost**

Construction Costs \$323,000



### **Crescent Beach Park**



### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP).
- Army Corps of Engineers (ACOE) unless activities are confined to upland areas only.
- St. Johns County Building and/or Development Review.
- Coastal Impact Permit.
- Check land use and zoning designations.

#### **Statement of Probable Cost**

Construction Costs \$935,000



#### Frank Butler East

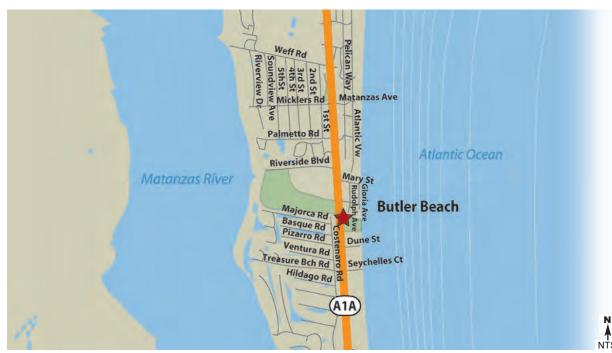


### **Required Permitting**

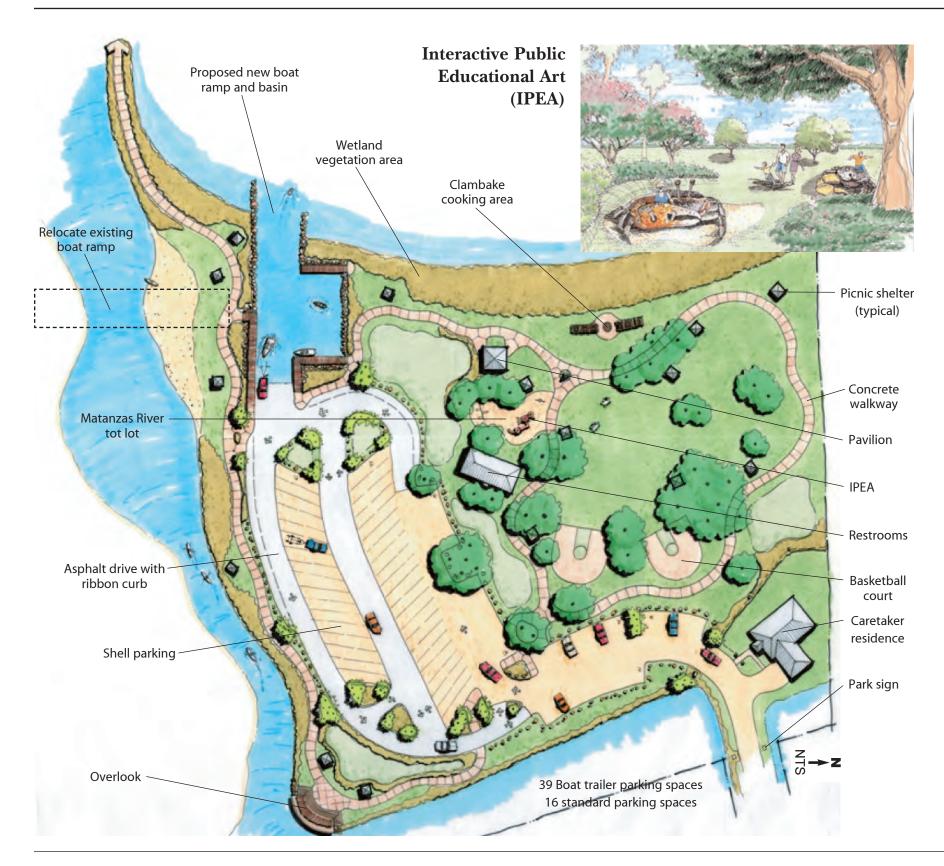
- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- St. Johns County Building and/or Development Review
- Coastal Impact Permit.
- Check land use and zoning designations.

#### **Statement of Probable Cost**

Construction Costs \$1,149,000



#### Frank Butler West



### **Required Permitting**

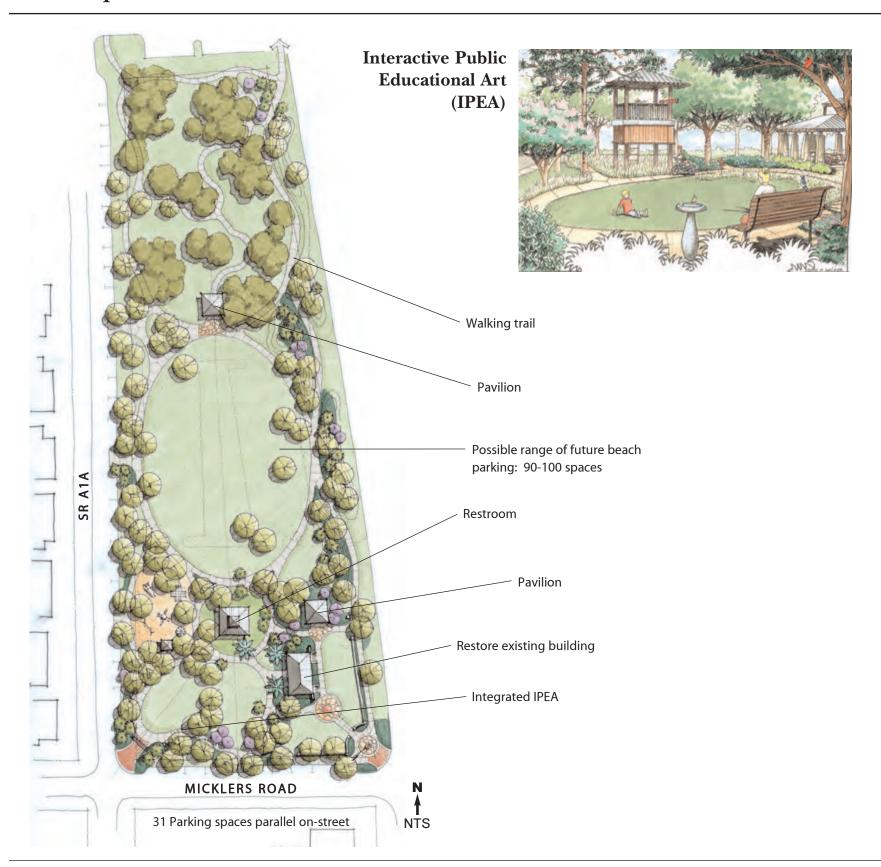
- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- Army Corps of Engineers (ACOE) unless activities are confined to upland areas only
- St. Johns County Building and/or Development Review
- St. Johns County 50 ft. upland wetland buffer required from the wetland jurisdiction wetland line to any development. Pursue a vesting or variance to mitigate 50 ft. upland buffer requirement.
- Check land use and zoning designations.

#### **Statement of Probable Cost**

Construction Costs \$1,991,000



# Windswept Park



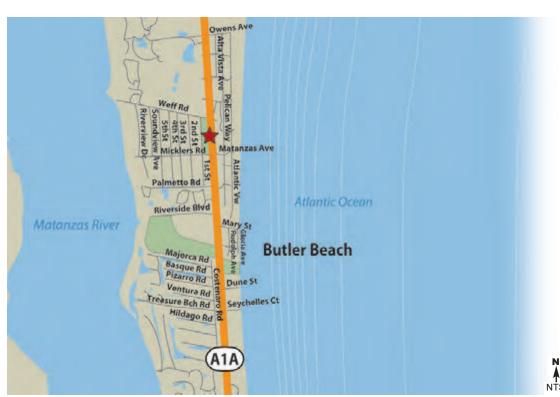
#### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- St. Johns County Building and/or Development Review
- Check land use and zoning designations.

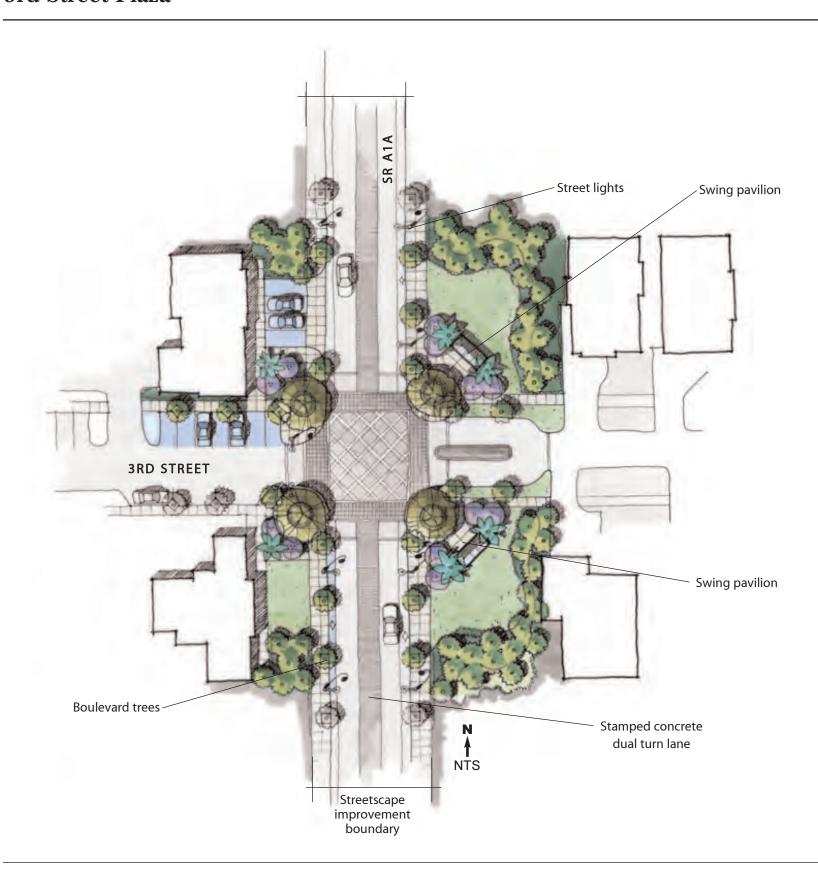
#### **Statement of Probable Cost**

**Construction Costs** 

\$1,121,000



#### 3rd Street Plaza



### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- City of St. Augustine Beach Beautification Board Review
- City of St. Augustine Beach Building and/or Public Works Development Review

#### **Statement of Probable Cost**

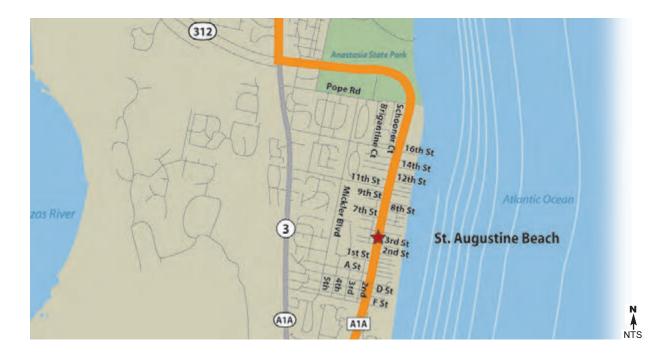
Park Construction (outside of right-of-way)

\$70,000 \$94,000

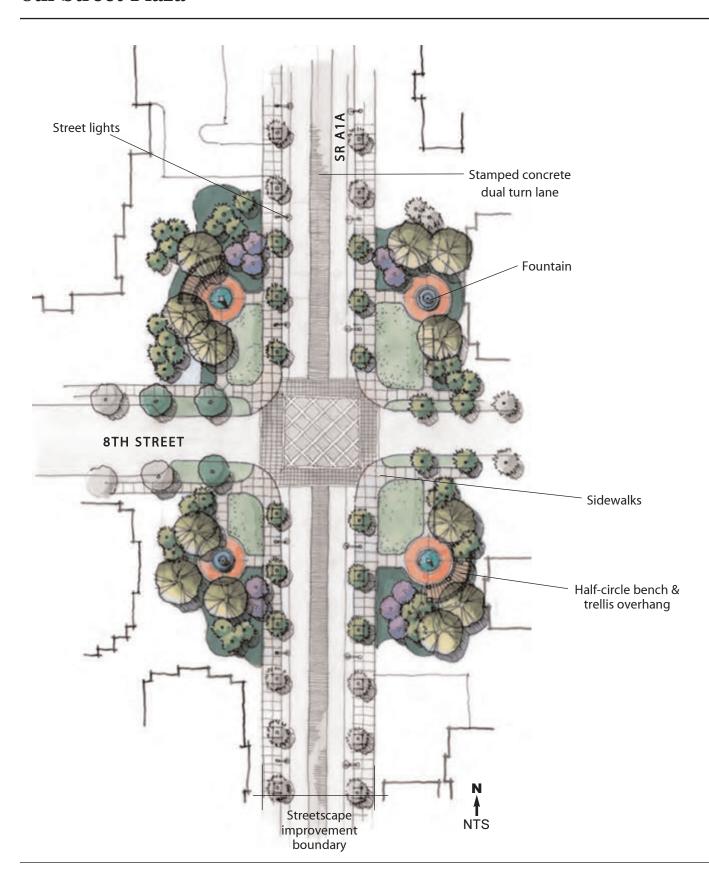
Park Landscape (outside of right-of-way)

Streetscape costs, including intersection decorative paving, roadway pavement, demolition and/or removal, are included in the Transportation Initiatives #8 for SR A1A from F Street to Pope Road

Total Cost \$164,000



### 8th Street Plaza



### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- City of St. Augustine Beach Beautification Board Review
- City of St. Augustine Beach Building and/or Public Works Department

#### **Statement of Probable Cost**

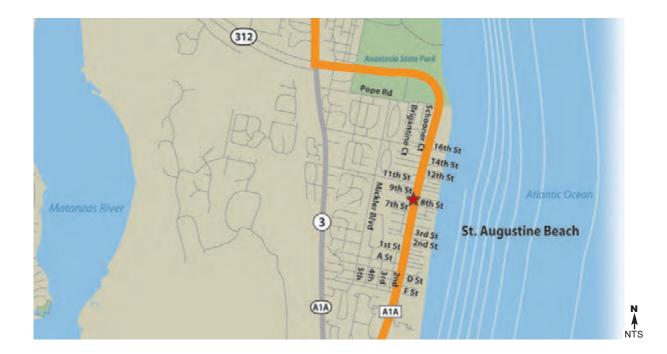
Park Construction (outside of right-of-way)
Park Landscape (outside of right-of-way)

\$146,000

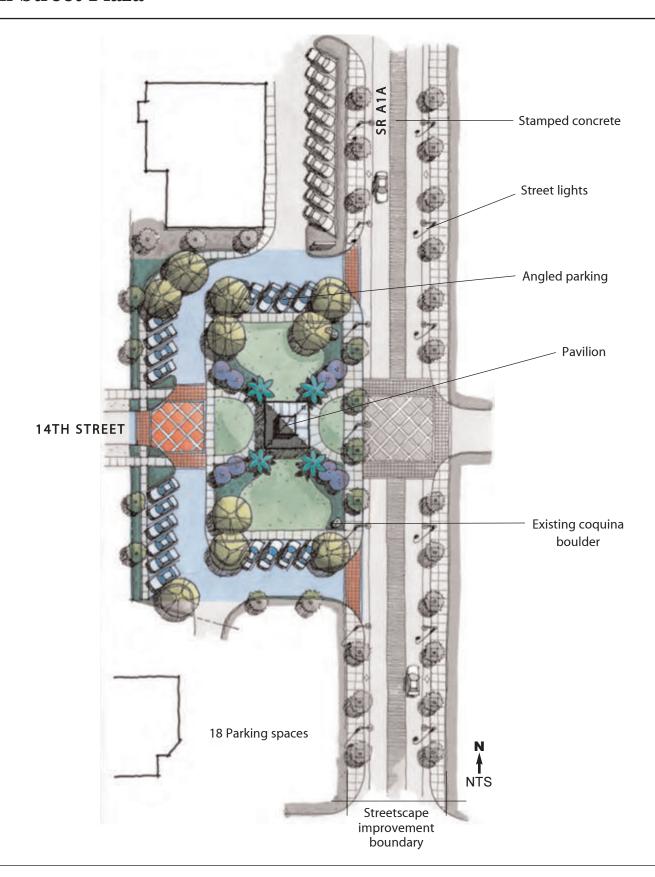
\$69,000

Streetscape costs, including intersection decorative paving, roadway pavement, demolition and/or removal, are included in the Transportation Initiatives #8 for SR A1A from F Street to Pope Road

Total Cost \$215,000



### 14th Street Plaza



### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- City of St. Augustine Beach Beautification Board Review
- City of St. Augustine Beach Building and/or Public Works Department

#### **Statement of Probable Cost**

Park Construction (outside of right-of-way)
Park Landscape (outside of right-of-way)

\$169,000

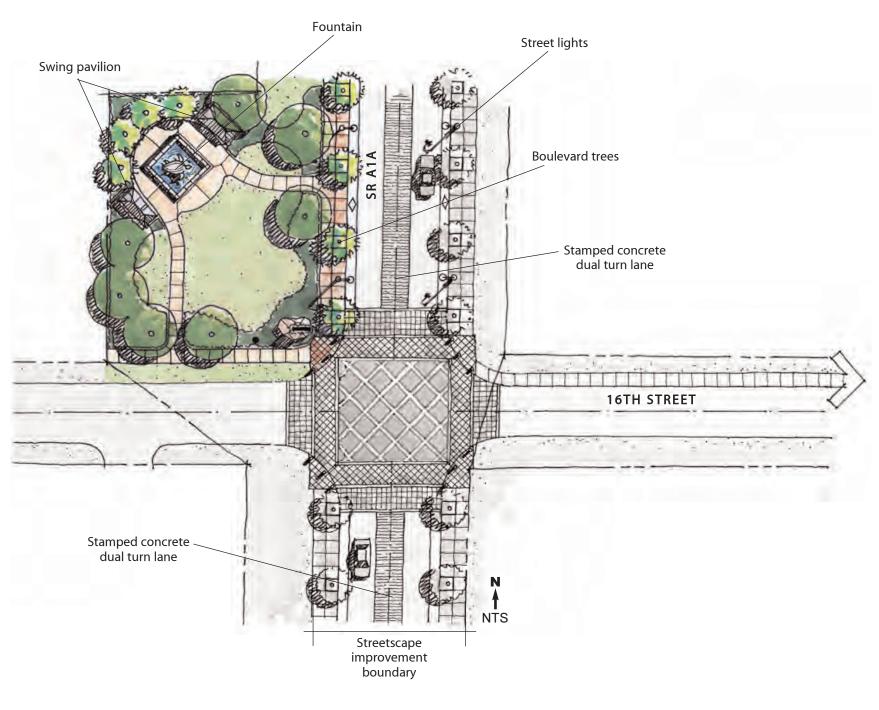
\$63,000

Streetscape costs, including intersection decorative paving, roadway pavement, demolition and/or removal, are included in the Transportation Initiatives #8 for SR A1A from F Street to Pope Road

Total Cost \$232,000



### 16th Street Plaza



#### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- City of St. Augustine Beach Beautification Board Review
- City of St. Augustine Beach Building and/or Public Works Department

#### **Statement of Probable Cost**

Park Construction (outside of right-of-way)

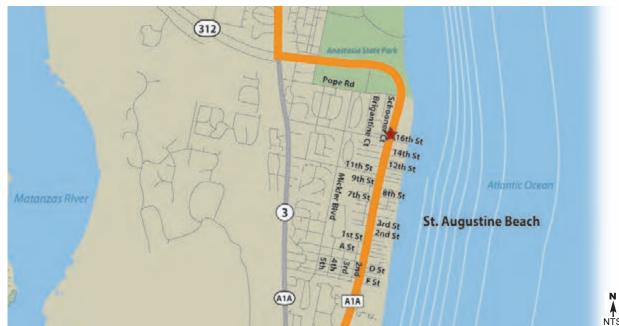
\$60,000

Park Landscape (outside of right-of-way)

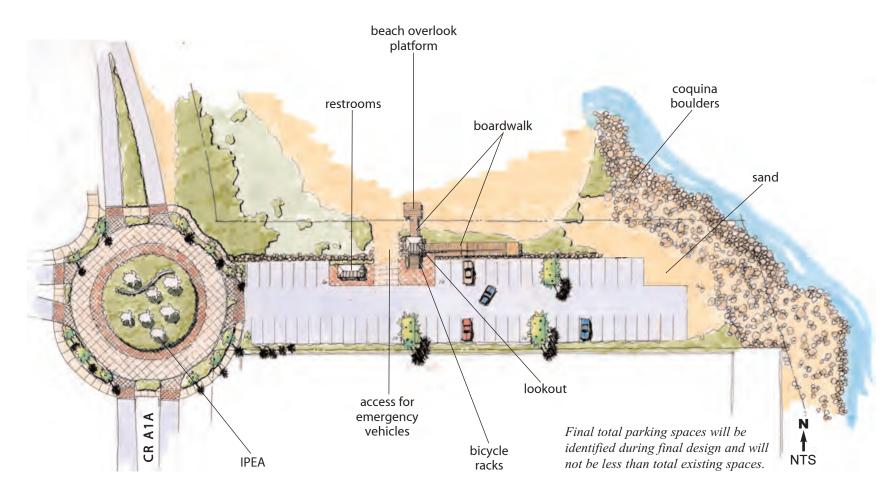
\$25,000

Streetscape costs, including intersection decorative paving, roadway pavement, demolition and/or removal, are included in the Transportation Initiatives #8 for SR A1A from F Street to Pope Road

Total Cost \$85,000



# Pope Road Roundabout and Scenic Pull-Off (Alternative A)



#### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- Army Corps of Engineers (ACOE) unless activities are confined to upland areas only.
- City of St. Augustine Beach Beautification Board Review
- City of St. Augustine Beach Building and/or Public Works Department
- St. Johns County Building and/or Development Review.
- Coastal Impact Permit.

#### **Statement of Probable Cost**

Park Construction (outside of right-of-way)

\$537,000

Park Landscape (outside of right-of-way)

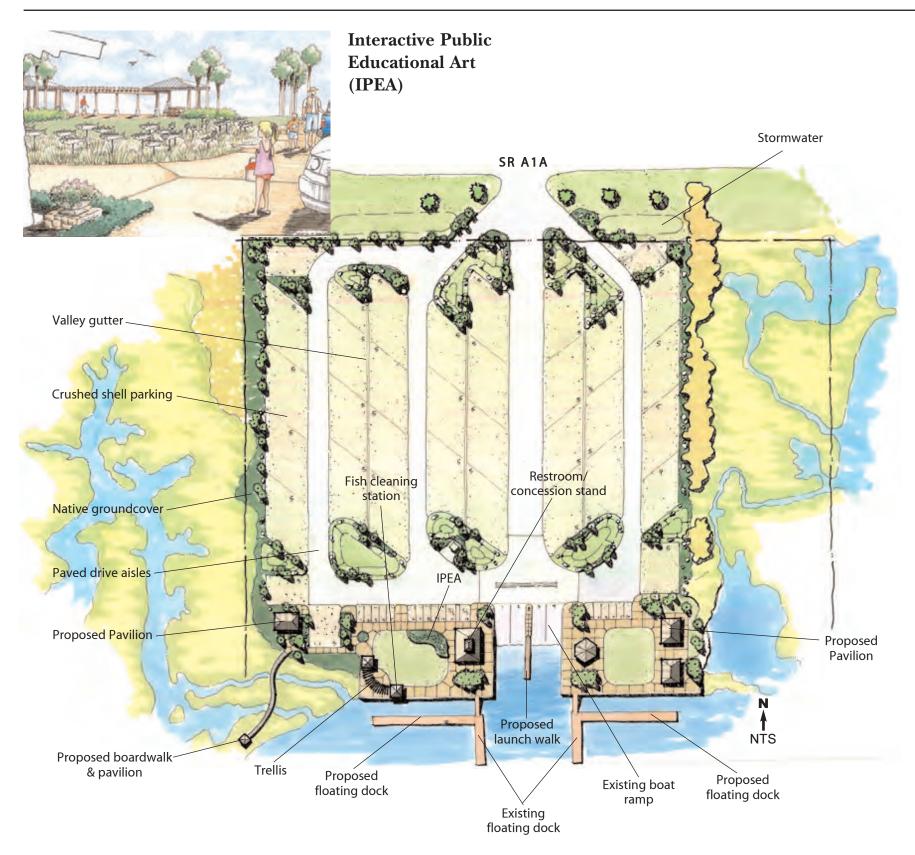
\$25,000

Streetscape costs, including intersection decorative paving, roadway pavement, demolition and/or removal, are included in the Transportation Initiatives #8 for SR A1A from F Street to Pope Road

Total Cost \$562,000



# Vilano Boat Ramp



#### **Required Permitting**

- Sovereign submerged land determination and either consent of use or lease negotiated with Florida Department of Environmental Protection (FDEP)
- Army Corps of Engineers (ACOE) nationwide permit likely
- St. Johns County Building and/or Public Works Department
- Check land use and zoning designation

#### **Statement of Probable Cost**

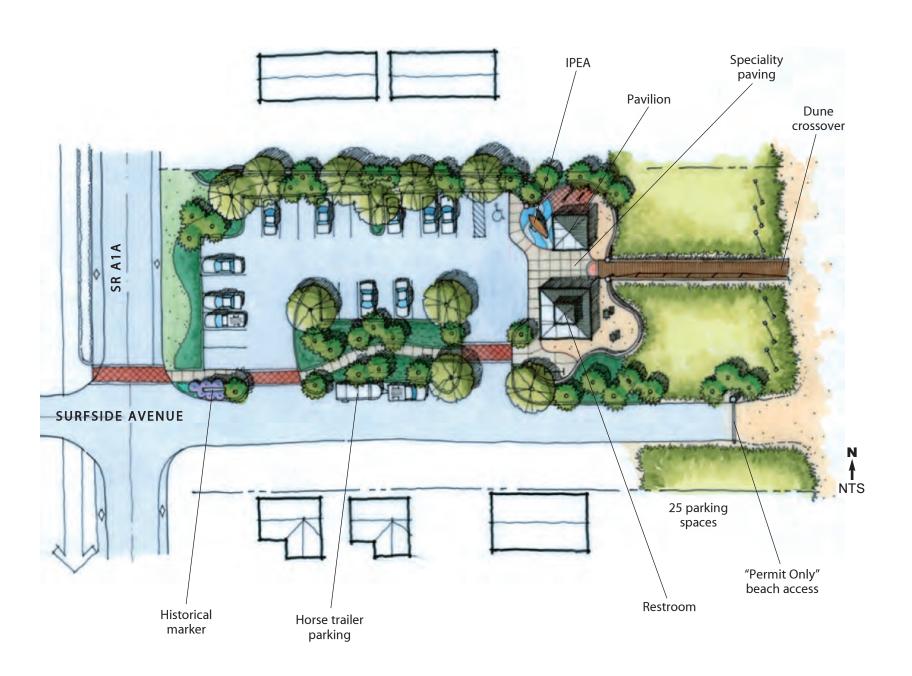
Park Construction (outside of right-of-way)
Landscape Cost (outside of right-of-way)

\$1,720,000 \$205,000

Total Costs \$1,925,000



# **Surfside Park**



### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- St. Johns County Building and/or Development Review
- Check land use and zoning designation
- Coastal Impact Ordinance

#### **Statement of Probable Cost**

Construction Costs \$403,000



### **North Beach Park**



### **Required Permitting**

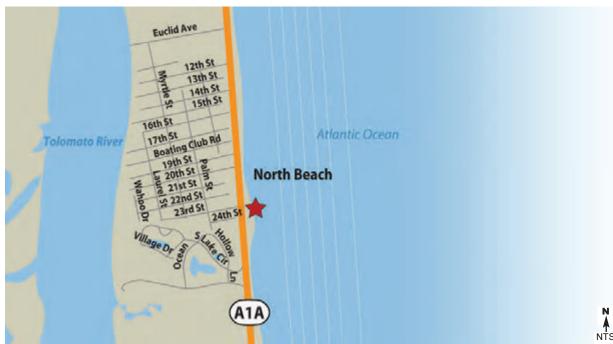
- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- St. Johns County Building and/or Development Review
- Check land use and zoning designation

#### **Statement of Probable Cost**

Construction Costs \$1,111,000

Glatting Jackson Kercher Anglin Lopez Rinehart, Inc. has no control over the cost of labor, materials, or equipment, the Contractor's method of determining prices or competitive bidding or market conditions. Therefore, our opinions of probable construction costs provided for herein are made on the basis or experience and represent our best judgement as Landscape Architects familiar with the construction industry. The firm cannot and does not guarantee that proposals, bids or the construction cost will not vary from our opinions of probable costs. If the Owner wishes greater assurances as to the construction cost, we recommend the employment of an independent cost estimator. This estimate only includes construction costs. Design, engineering, and permitting costs are not included.

Existing beach walkover



\$606,000

#### **South Ponte Vedra Park**

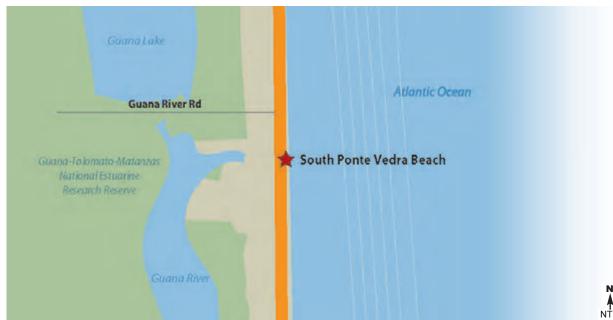


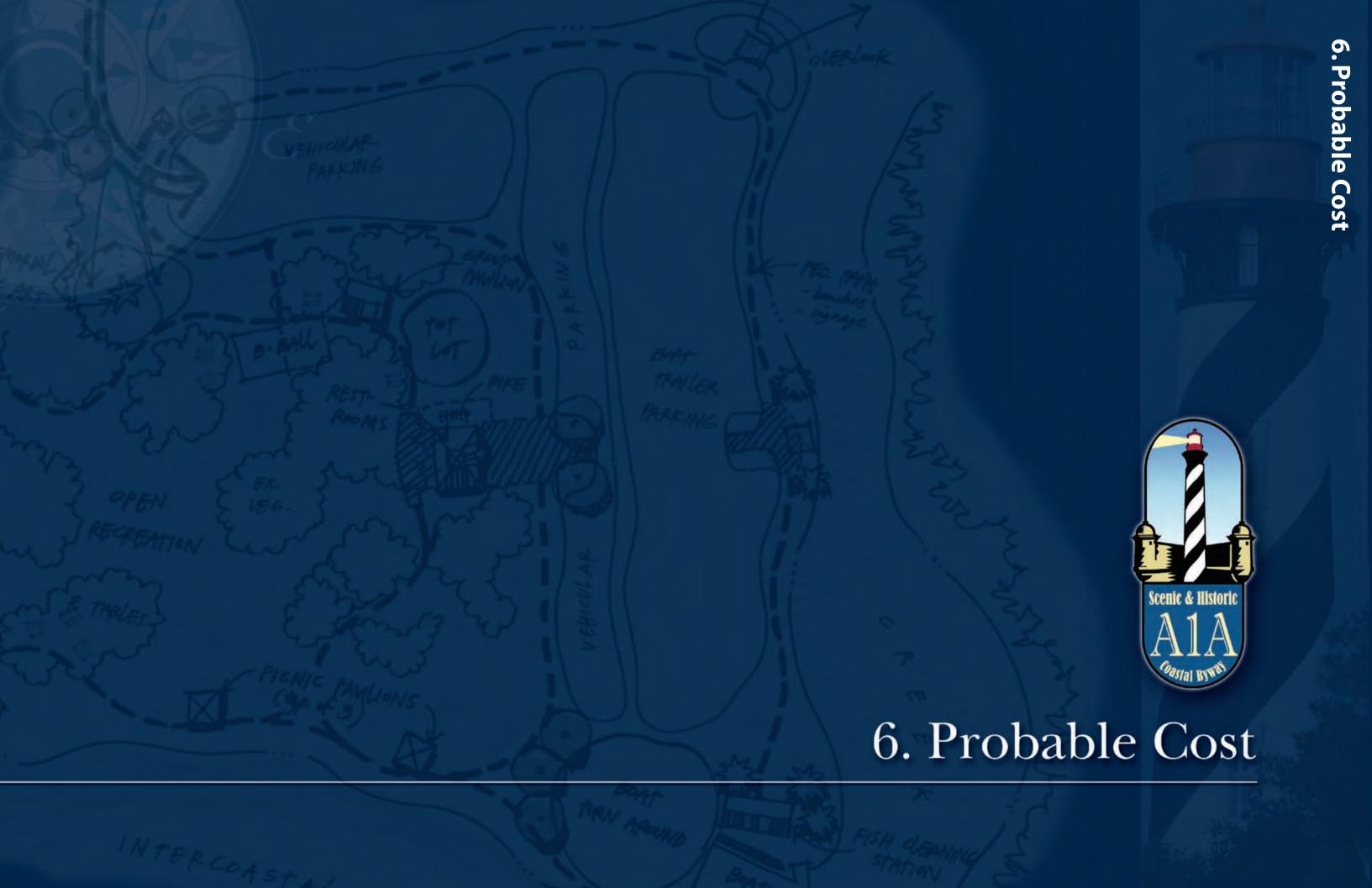
### **Required Permitting**

- St. Johns River Water Management District (SJRWMD)/Florida Department of Environmental Protection (FDEP) Environmental Resource Permit (ERP)
- St. Johns County Building and/or Development Review
- Check land use and zoning designation
- Coastal Impact Permit

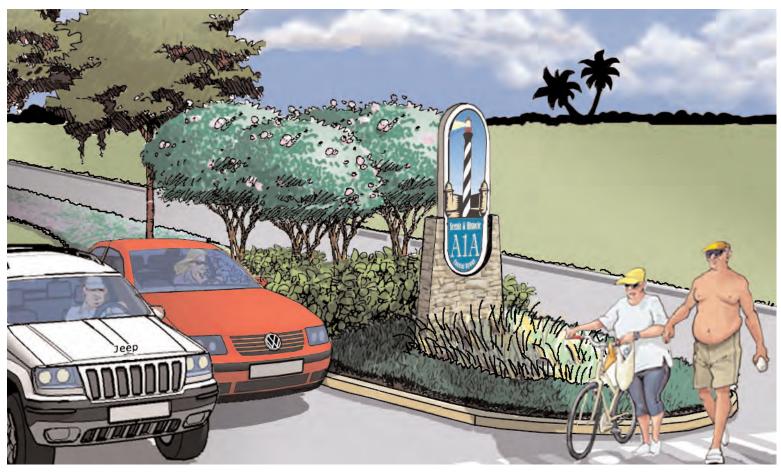
#### **Statement of Probable Cost**

Construction Costs

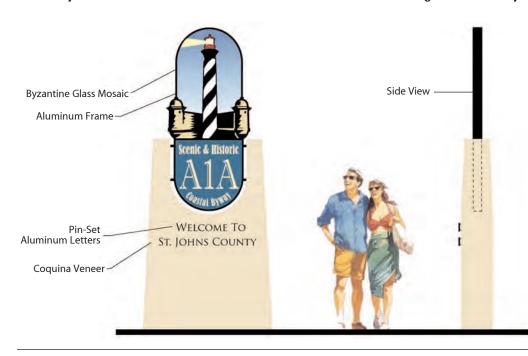




# **Northern Gateway**



Gateway feature would be located in the median at the St. Johns County/Duval County Line



#### **Required Permitting**

- ROW owned and managed by FDOT. Will require review and approval, with focus on sight lines and clear zone requirements.
- A funding and maintenance agreement between FDOT and St. Johns County may be required.
- St. Johns County Building and/or Development Review
- Pointe Vedra/Palm Valley Architectural Review Committee

#### **Statement of Probable Cost**

Construction Costs \$23,000

## **Transportation Initiative**

### **Project**

1. Reduce the posted speed limit in South Anastasia Island from the Flagler/St. Johns County Line to Green Road
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- 2. Provide a sidewalk on the east side of SR A1A from Green Road to the SR A1A/SR 206 intersection.
- 3. Provide a sidewalk on the west side of SR A1A from the SR A1A/SR 206 intersection to Windswept Park
- 4. Introduce a roundabout at SR 206/SR A1A intersection.
- 5. Provide pedestrian crossings at the following locations: the northern town limits of Marineland, the River to Sea Preserve, the SR A1A and Green Road intersection, the SR A1A and Cubbedge Road intersection, the SR A1A and Jellison Street intersection, the SR A1A and Treasure Beach Road intersection, the SR A1A and Mary Street intersection, and the SR A1A and Matanzas Avenue intersection.
- 6. Introduce some raised landscaped islands along CR A1A from SR A1A to F Street, within the City of St. Augustine Beach.
- 7. Provide some traffic calming measures and landscaping along CR A1A from F Street to Pope Road to enhance pedestrian safety and access to the beach.
- 8. Introduce a gateway at CR A1A and Pope Road.

Alternative A: Roundabout

Alternative B: Signalized Intersection

- 9. Introduce some raised landscaped medians along SR A1A, from the SR A1A/SR 312 intersection to the City of St. Augustine Beach city limits.
- 10. Introduce a roundabout at SR A1A and Coastal Highway (SR A1A).
- 11. Introduce a multi-purpose trail within the SR A1A right-of-way (where possible) from the Vilano Town Center to the Guana-Tolomato- Matanzas National Estuarine Research Reserve.
- 12. Introduce a new multi-purpose trail running north-south parallel to the Guana-Tolomato-Matanzas National Estuarine Research Reserve within the SR A1A ROW. Maintain a landscaped buffer between the roadway and the trail. The trail may consider connecting to an existing north-south trail located within the Guana-Tolomato-Matanzas National Estuarine Research Reserve along the west side of the Guana Lake, extending from the dam to Mickler Road, during non-hunting season (Feb. Sept.).
- 13. Introduce native landscaped pedestrian refuge safety islands at the existing pedestrian crossings for the Guana-Tolomato-Matanzas National Estuarine Research Reserve.
- 14. Introduce a multi-purpose trail from the northern limits of the Guana-Tolomato-Matanzas National Estuarine Research Reserve to Mickler Landing Park (a.), and from Mickler Landing Park to the St. Johns County/Duval County line (b.) within the SR A1A ROW. In addition, introduce a signed bicycle lane on the shoulder from Mickler Road to the St. Johns County/Duval County line.
- 15. Relandscape existing medians and shoulders in Ponte Vedra.
- 16. In coordination with other roadway improvements or work within the ROW, relocate overhead utility lines underground where possible. If the main lines cannot be relocated, bury connections (service lines) that extend across the roadway.

# **Statement of Probable Cost for Construction**

\$102,000	(or \$170,000/mile)
\$323,000	(or \$170,000/mile)
\$412,000	
\$103,000	
\$1,274,000	per mile
\$2,967,000	per mile
\$162,000 \$358,000	
\$506,000	per mile unit price
\$412,000	
\$2,948,000	(\$556,000/mile)
\$3,223,000	(\$329,000/mile)
\$60,000	(per refuge island
a. \$1,877,350	(\$218,000/mile)
b. \$2,019,540	(\$297,000/mile)
\$7,904,000	(1,163,000/mile)
\$1,878,000 \$2,020,000	(\$1,163,000/mile)

Costs shown above were estimated based on 2005 dollars and do not include design, engineering, permitting costs, or inflation adjustment considerations.

### **Parks**

Site	Statement of Probable Cost for Construction
1. Southern Pull-off	\$190,000
2. Green Road Boat Ramp	\$174,000
3. SR 206 Bridge	\$323,000
4. Crescent Beach Park	\$935,000
5. Frank Butler East	\$1,149,000
6. Frank Butler West	\$1,991,000
7. Windswept Park	\$1,121,000
8. 3rd Street Plaza	\$164,000
9. 8th Street Plaza	\$215,000
10. 14th Street Plaza	\$232,000
11. 16th Street Plaza	\$85,000
12. City of St. Augustine Beach Scenic Pull-off (Pope Road)	\$562,000
13. Vilano Boat Ramp	\$1,925,000
14. Surfside Park	\$403,000
15. North Beach Park	\$1,111,000
16. South Ponte Vedra Park	\$606,000
17. Northern Gateway	\$23,000

Costs shown above were estimated based on 2005 dollars and do not include design, engineering, permitting costs, or inflation adjustment considerations.

