

The Village of Key Biscayne

Master Landscape Plan, Phase II: Concept Development Options



Prepared by:
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VILLAGE OF KEY BISCAYNE

Village Council

Robert L. Vernon, Mayor
Michael W. Davey, Vice Mayor
Enrique Garcia
Robert Gusman
Michael E. Kelly
Jorge E. Mendia
Thomas Thornton

Village Attorney

Weiss, Serota, Helfman, Pastoriza, Cole & Boniske, P.A.

Administration

Genaro "Chip" Iglesias, Village Manager
Todd Hofferberth, Parks and Recreation Director
Jud Kurlancheek, AICP, Building, Zoning, and Planning Director
Armando A. Nuñez, Public Works Director
Ron Oprzadek, Horticulturist

Office of the Village Clerk

Conchita H. Alvarez, CMC

Landscape Master Plan Committee

Craig S. Hardie
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Landscape Master Plan Consultants

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Sweeney & Associates, Irrigation Consultant

January 20, 2009



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STUDY AREAS



- A** Village Green
- B** Village Beach Park
- C** East Enid Lake Park
- D** Key Biscayne Community School

- Pocket & Vista Parks
- Streets & Cul-de-sacs
- Village Civic Center

PROCESS

Phase I: Discovery

Task 1 – Identify Project Parameters

- Data Gathering
- Stakeholder Interviews

Task 2 – Existing Conditions

- Inventory & Analysis
- VKB Community Meeting

Phase II: Master Plan

Task 3 – Concept Development

- Alternative Concepts
- VKB Community Meeting

Task 4 – Draft Landscape Master Plan Preferred Concept:

- Design & Development Guidelines
- Preliminary Implementation Strategies
- Preliminary Landscape Management Strategy
- VKB Community Meeting

Task 5 – Final Landscape Master Plan

- Document Development & Submittal
- Presentation to Village Council

PURPOSE

Vision

“...the Village of Key Biscayne enjoys outstanding natural beauty, a compelling sense of place, lush landscaping, and a unique small-town ambiance that leads many residents and visitors to call it “Island Paradise”.

Enhance our streetscapes, parks, civic realm and open spaces with a well-maintained subtropical plant palette suited to our island.

Practice responsible stewardship of our natural environment by protecting our tree canopy, natural habitats, beaches, dunes, and nearshore water quality.

Expand our array of passive parks, open spaces and active recreation facilities through carefully directed property acquisition and redevelopment, to include small-scale neighborhood parks, a restored, protected Calusa Park with improved pedestrian access, additional playing fields and bikeways and trails...”

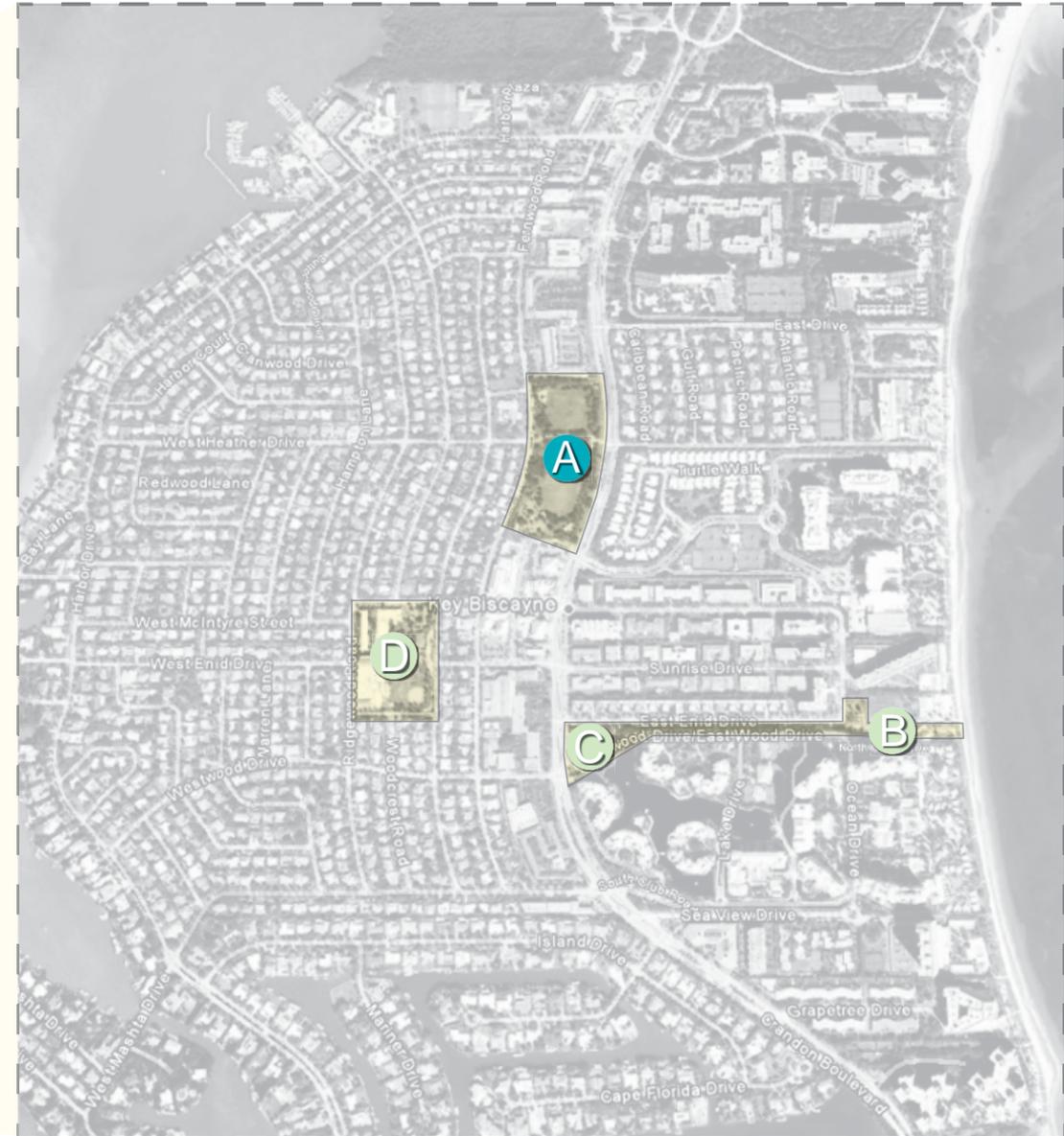
-Village of Key Biscayne 2020 Vision Plan

Objectives

- Establishment of a world-class landscape ‘vision’
- Sensitivity to the community’s unique cultural and environmental identity
- Development of an achievable, practical comprehensive plan, accompanied with a clear program for implementation and management.

Conceptual Alternative Development - Purpose

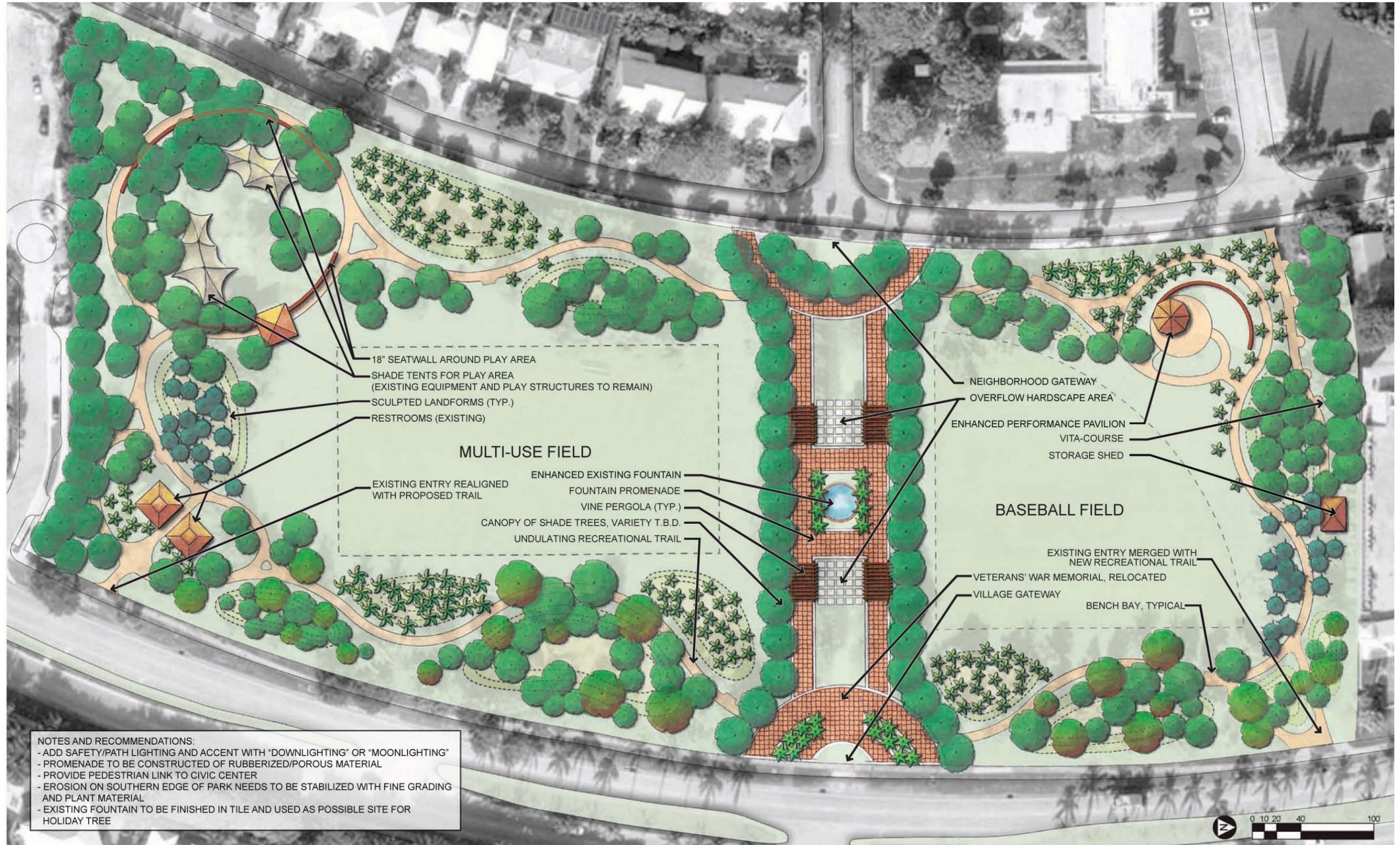
- To explore different landscape development options for the Village’s Open Spaces.
- To evaluate – in relative terms – the quality, character, and use of the proposed alternative landscape options.



Existing Conditions

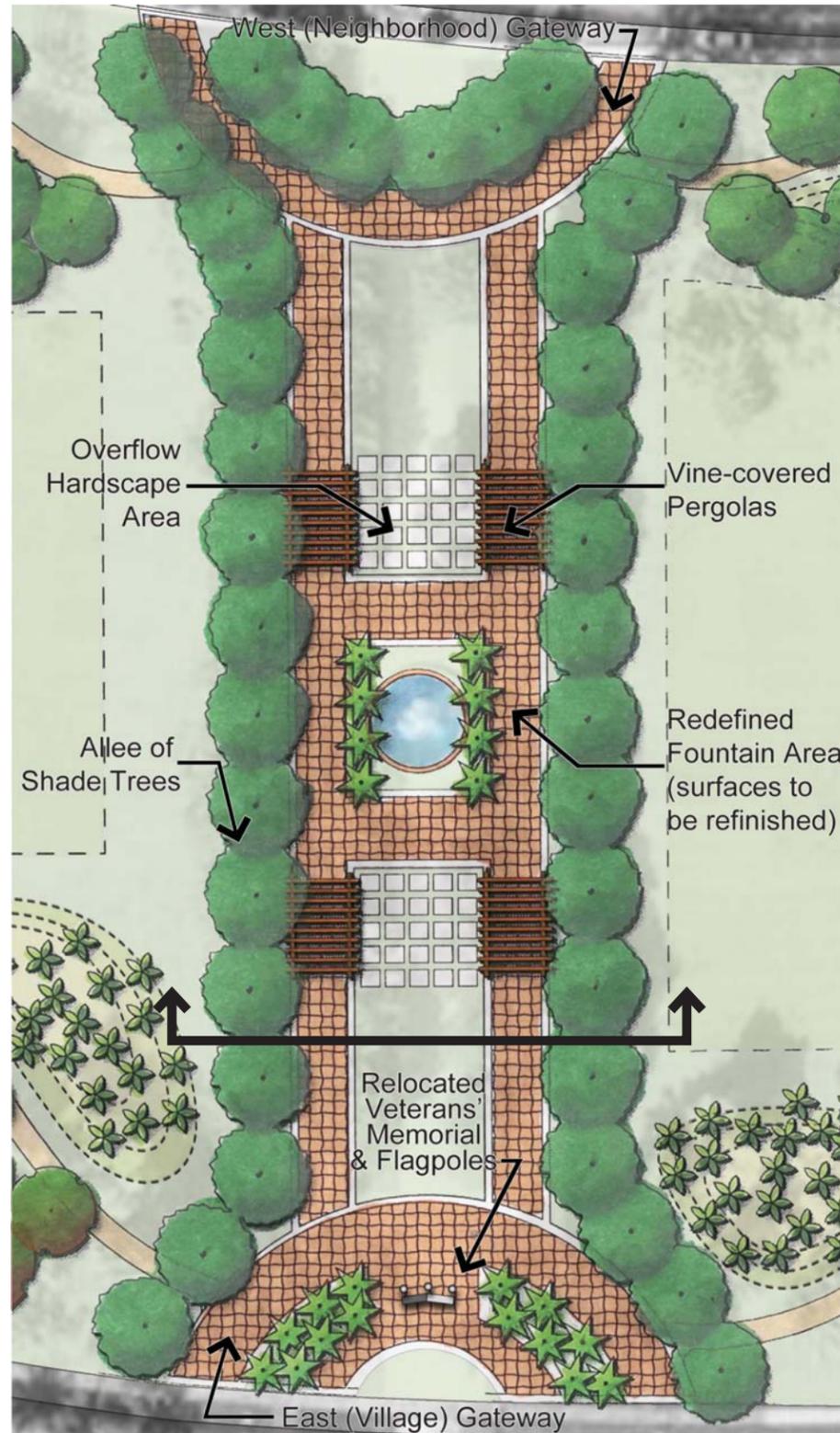


Proposed Improvements



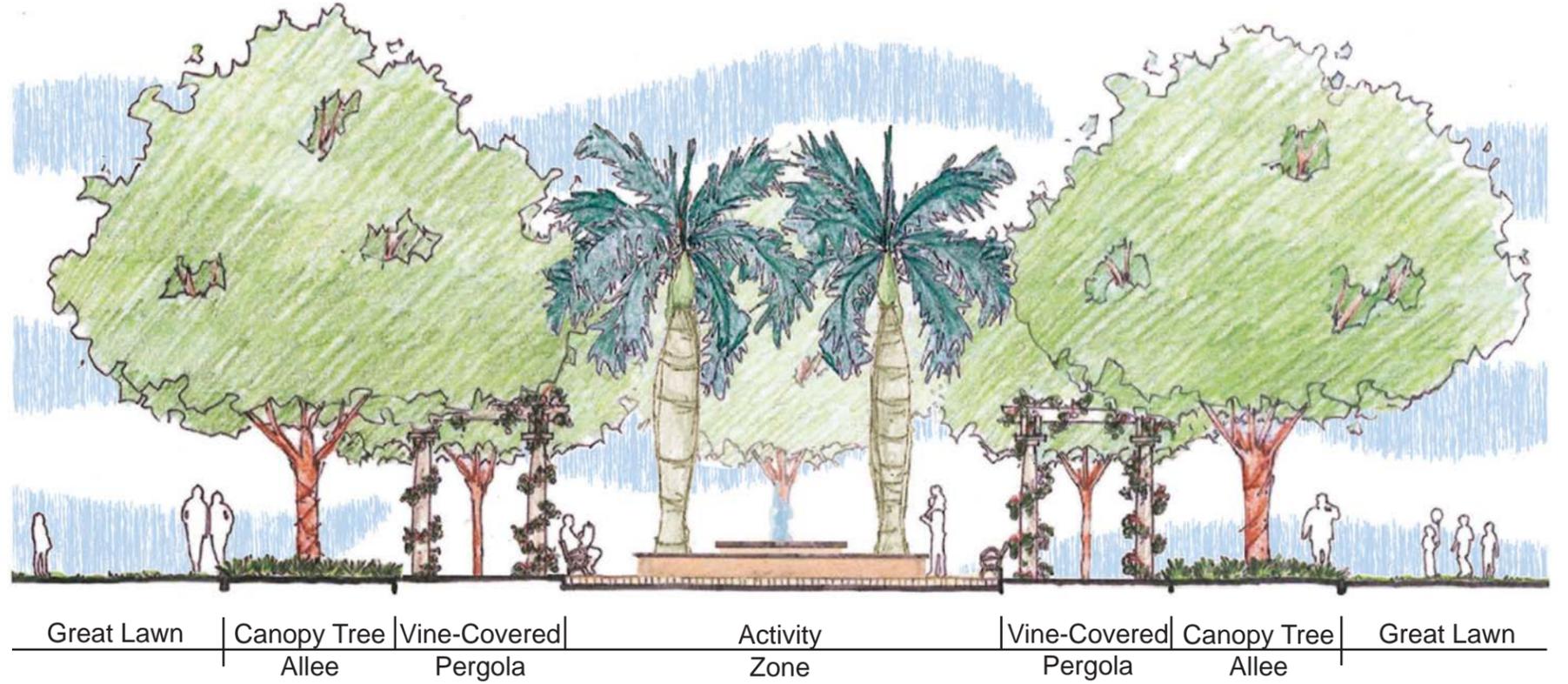
Enhance and Restore Existing Park Elements

Grand Esplanade & Village Gateway



Memorial & Flagpoles

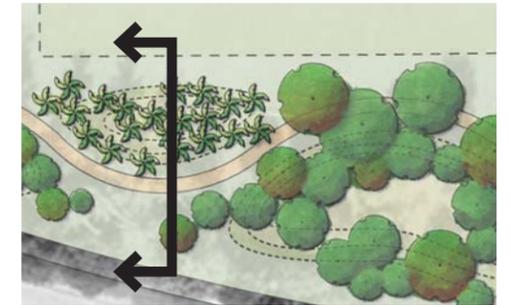
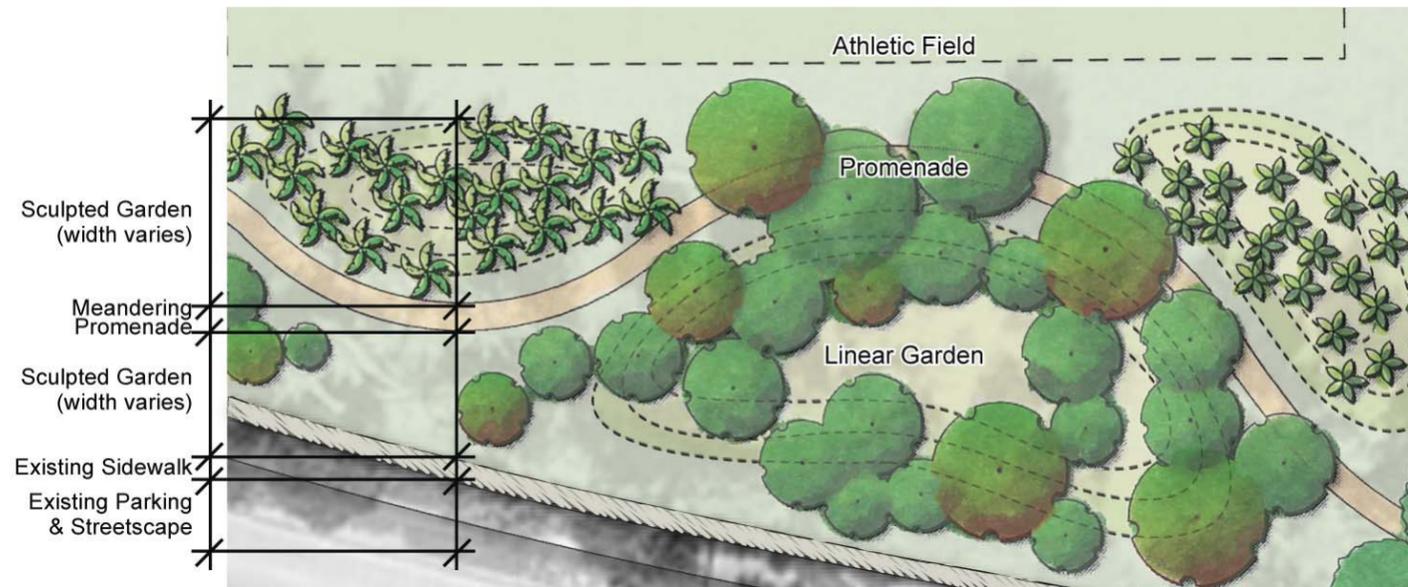
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Renovation/Enhancement of Central Corridor into a "Grand Esplanade"

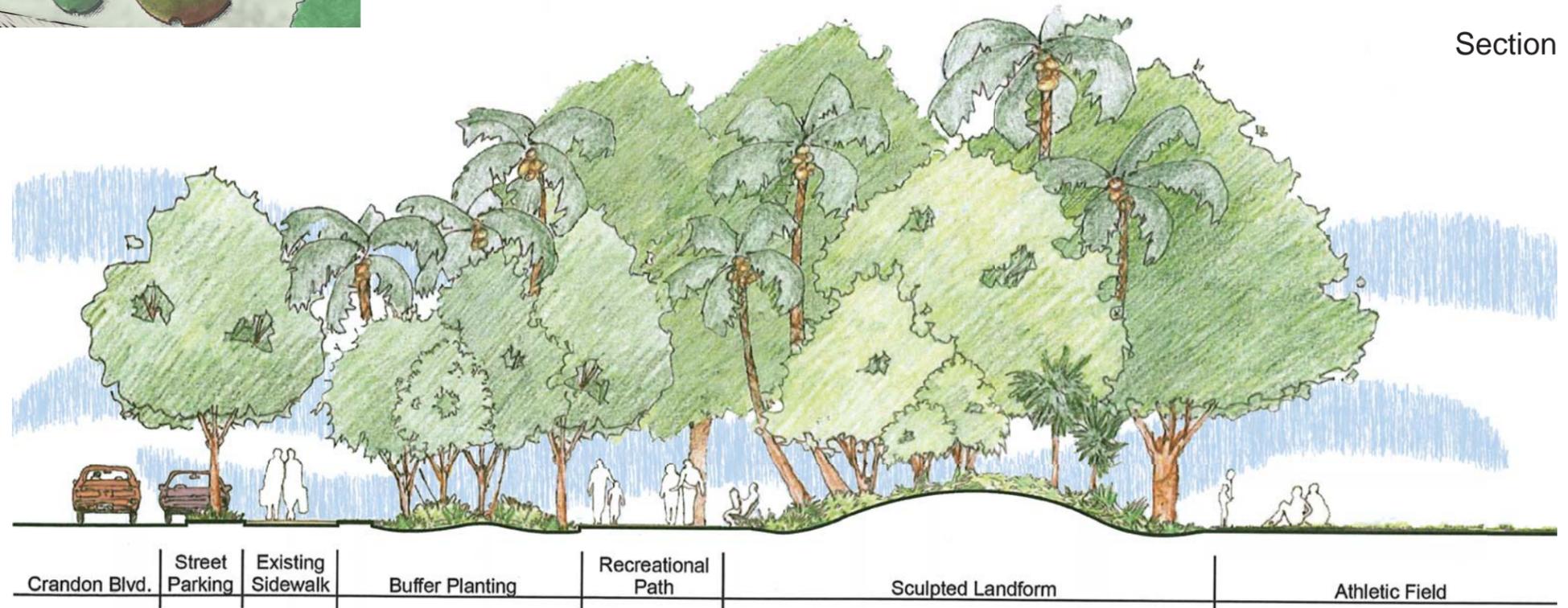
- Esplanade anchored by two gateways:
 - East: Village Gateway at Crandon Boulevard
 - West: Neighborhood Gateway at Fernwood Road
- War Memorial is integrated into the Village Gateway
- Allee of shade trees frames the Esplanade and unifies this public space with the Crandon Boulevard Landscape
- Vine-covered pergolas with seating for color, shade, and respite
- Composition of formal "palm court" with existing fountain creates a "Village Core"

Sculpted Edge



Key

Section



Sculpted Promenade creates a linear journey

- Enhancement of walking path into a promenade that weaves through berms of palms, flowering trees, shrubs & groundcovers
- Sculpted landforms create enclosure and provide a buffer from vehicular noise on adjacent streets

Performance Pavilion



Key

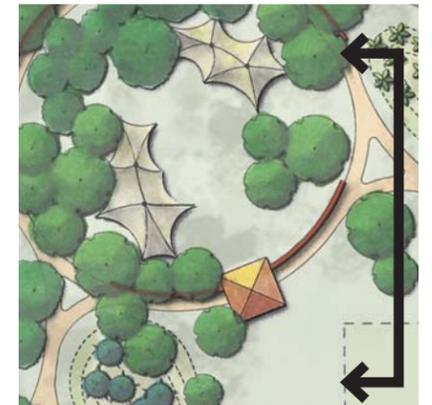
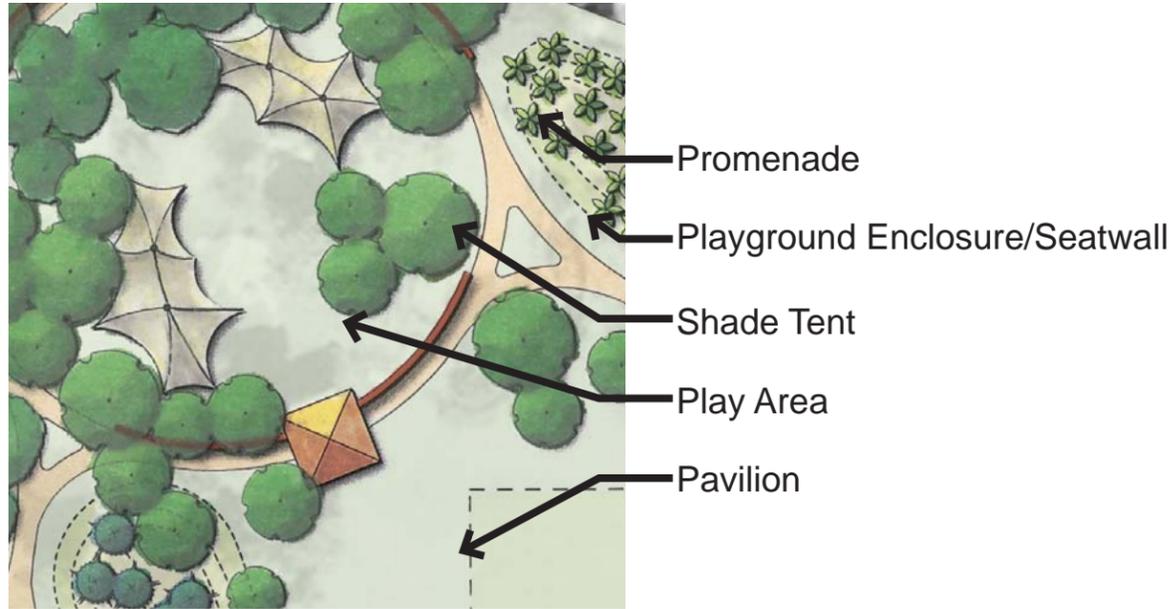


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Establish the Village Green as an exceptional outdoor performance venue

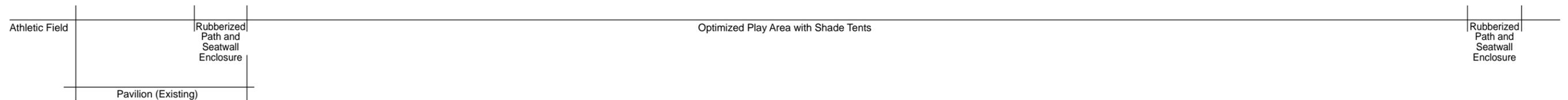
- Create new pathways that connect the area with the remainder of the park
- Use landform to buffer vehicular noise from neighboring streets
- Renovate the gazebo, considering its scale relative to its contextual area
- Provide interior lawn space for blankets and a more intimate environment for performers

Children's Playground



Key

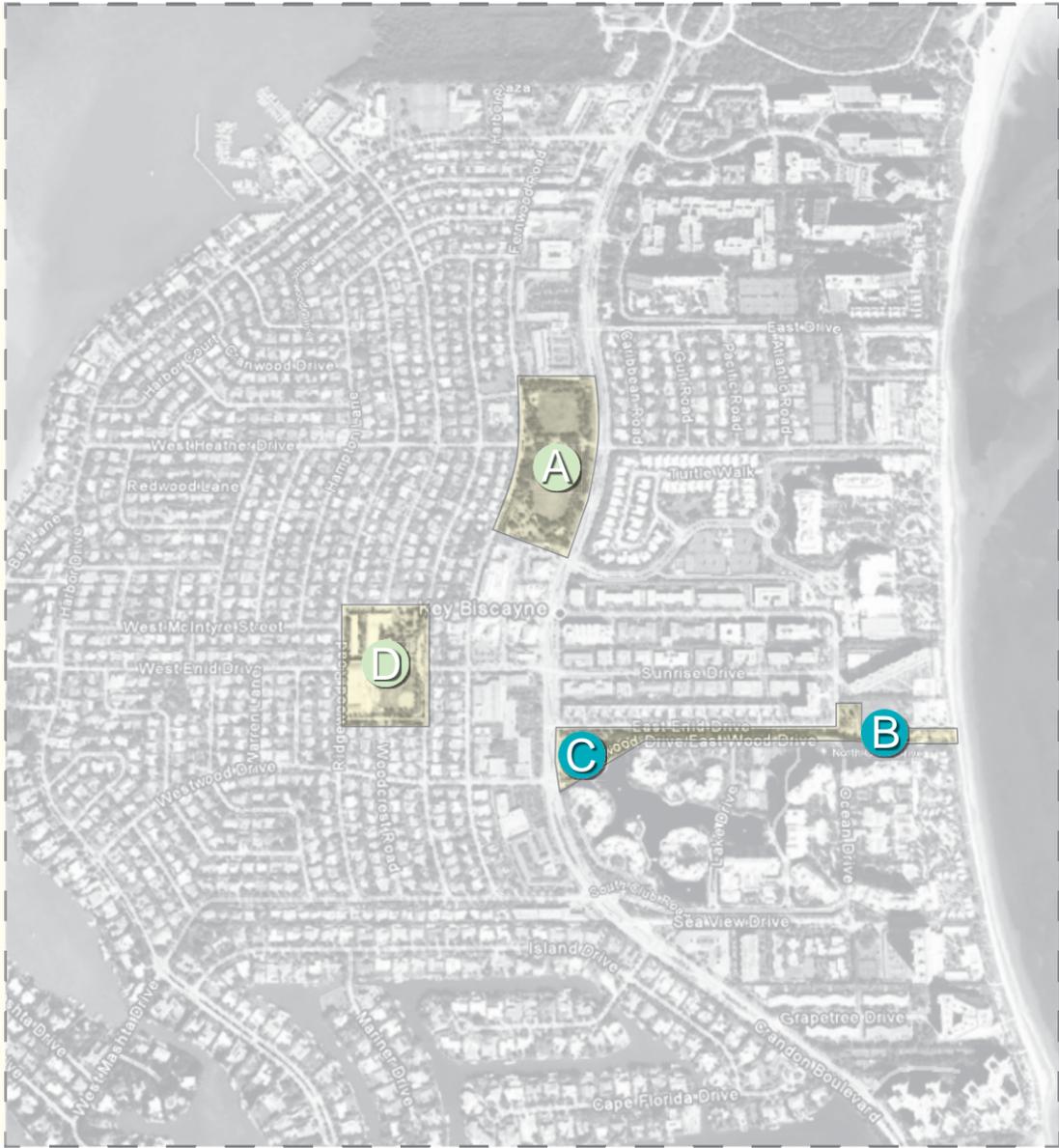
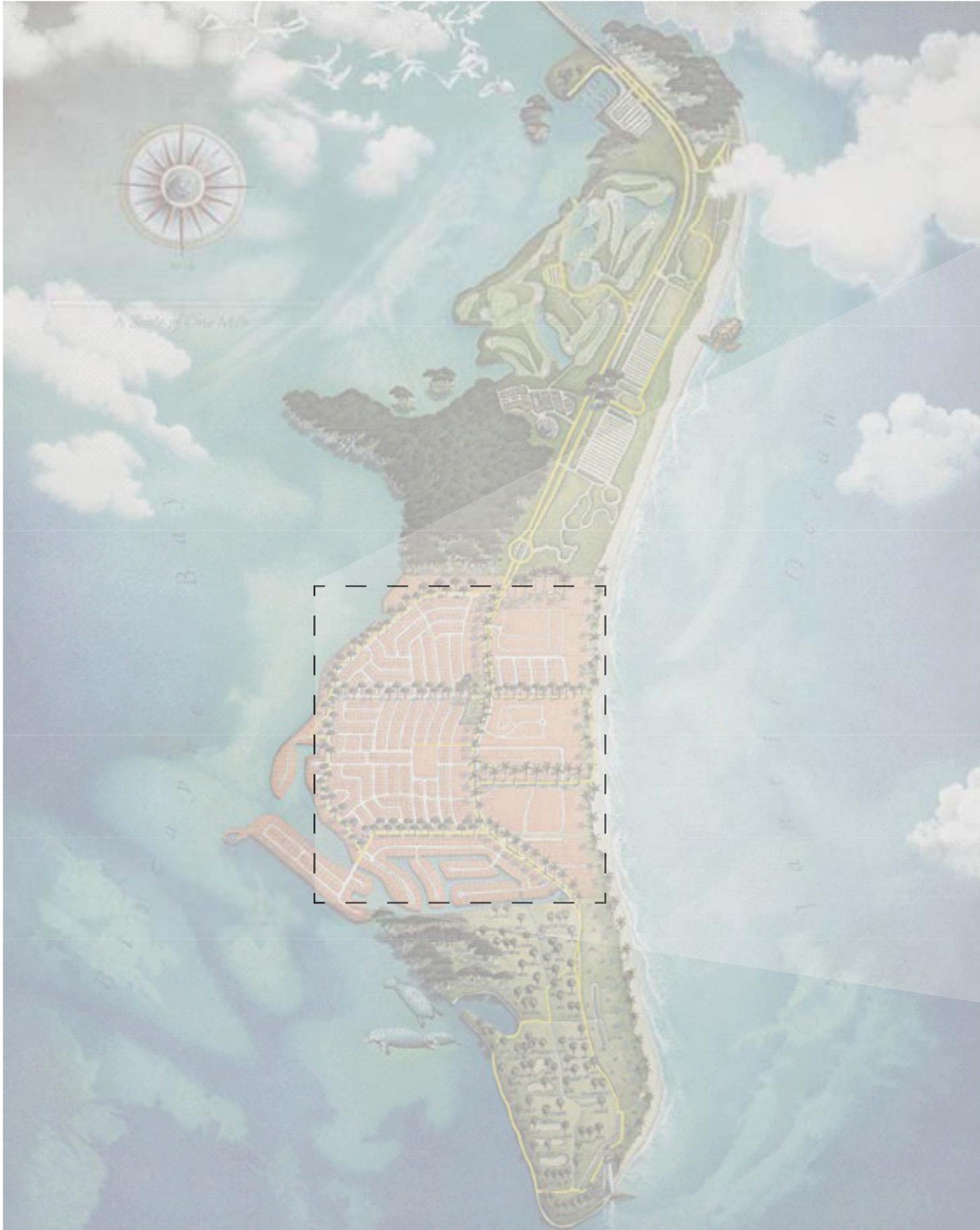
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Consolidate and upgrade play area to create a vibrant and safe destination

- Consolidation of play space will increase density and bolster both security and user visibility
- Safety pavement will represent the Village heritage through playful patterns
- Pavilion & enclosure surround provides additional seating and a secure environment
- New age-appropriate equipment located in age-focused areas will extend play opportunities to a wider variety of users

C EAST ENID LAKE & B BEACH PARK

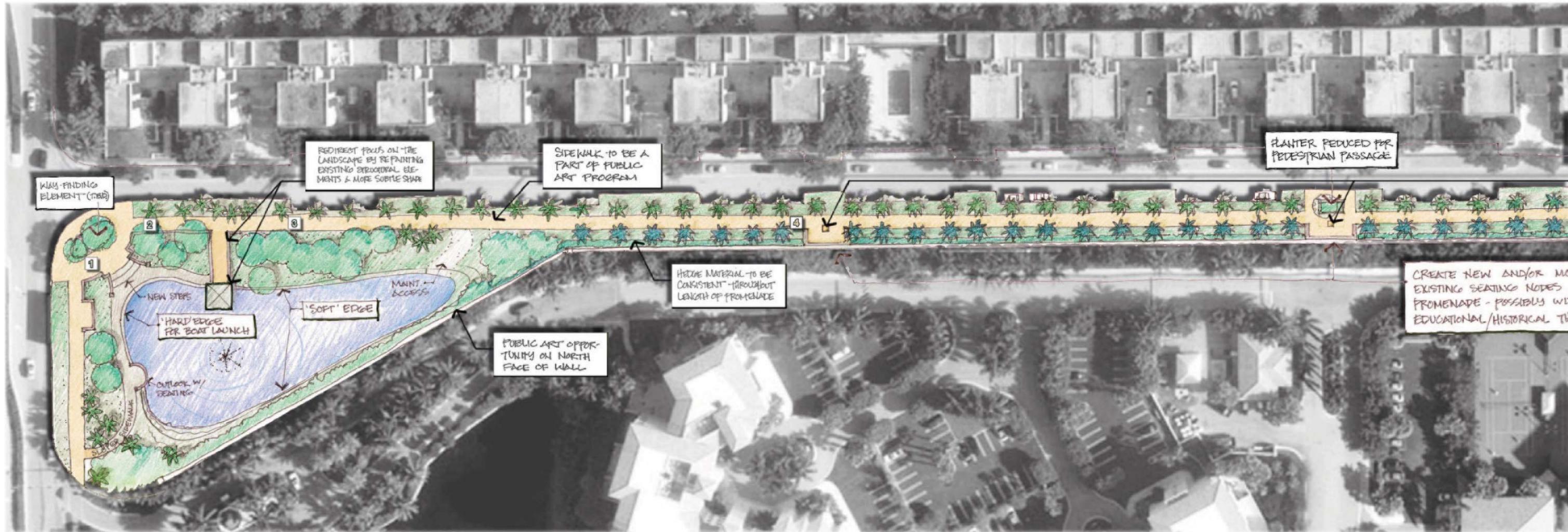


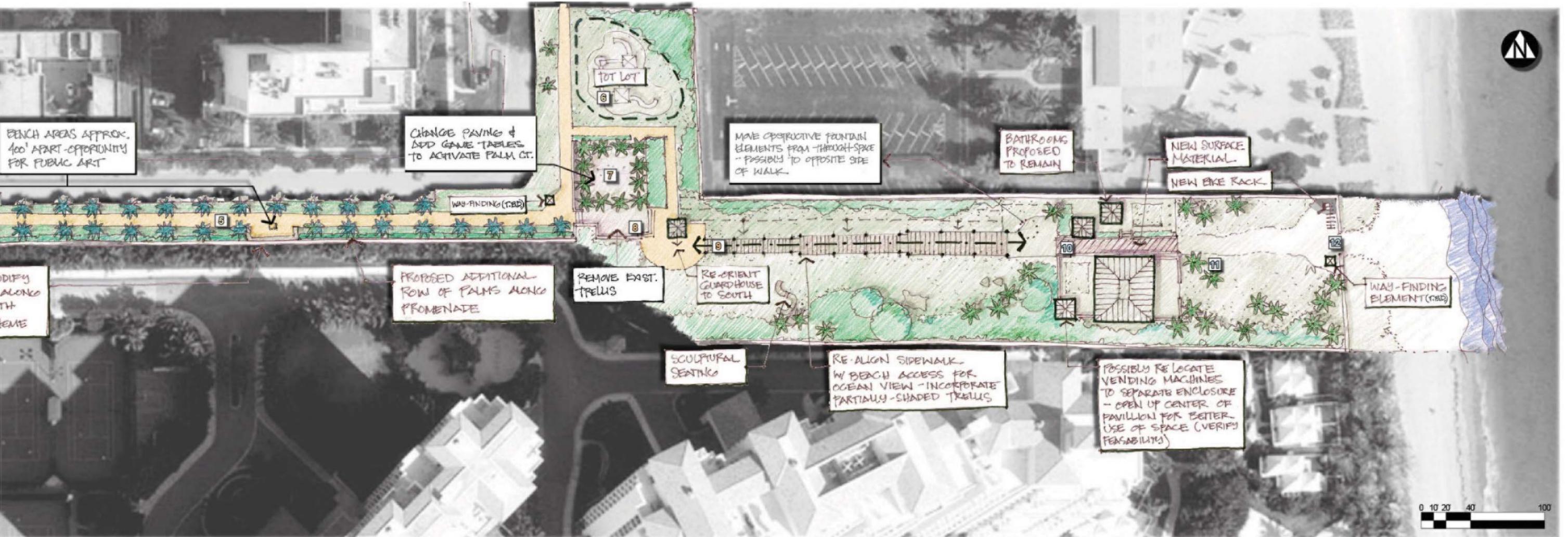
Existing Conditions



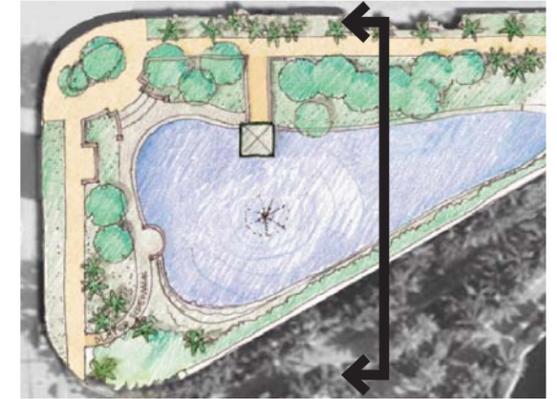


Proposed Enhancements



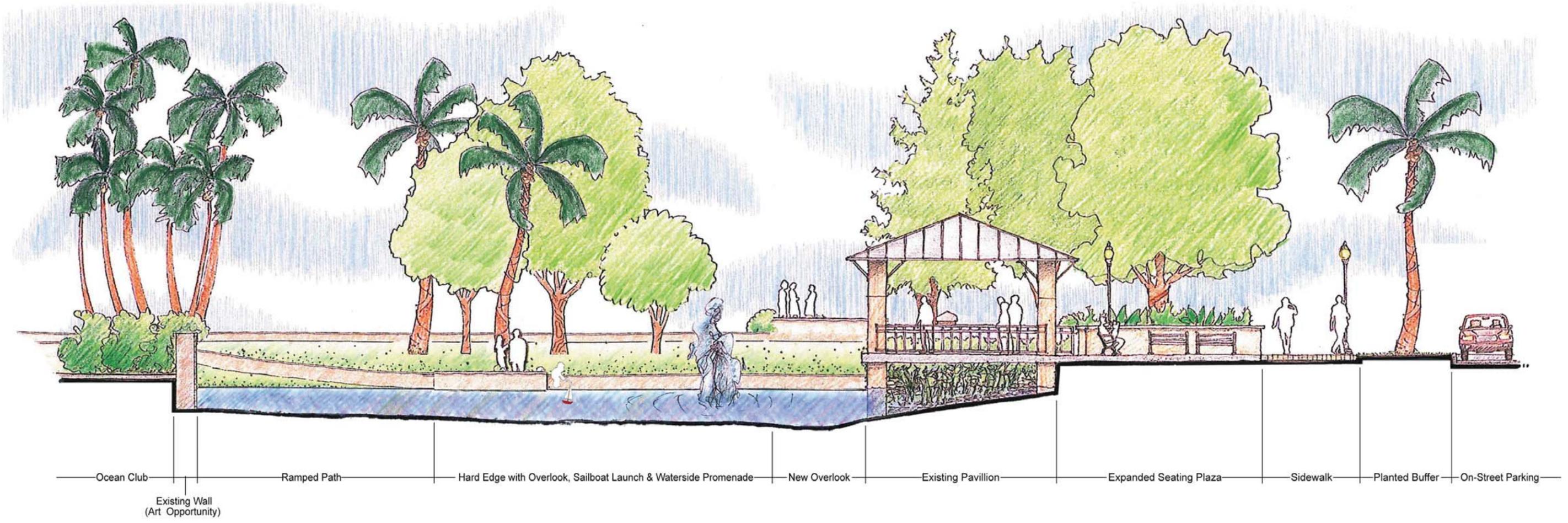


East Enid Lake



Key

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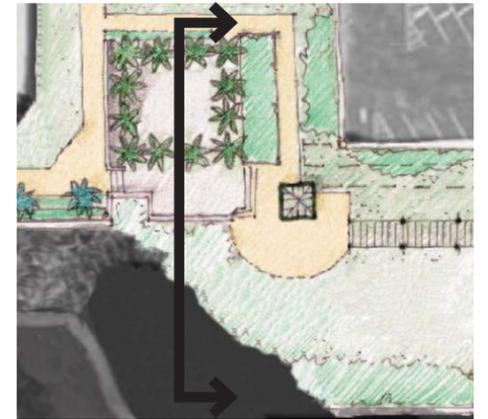
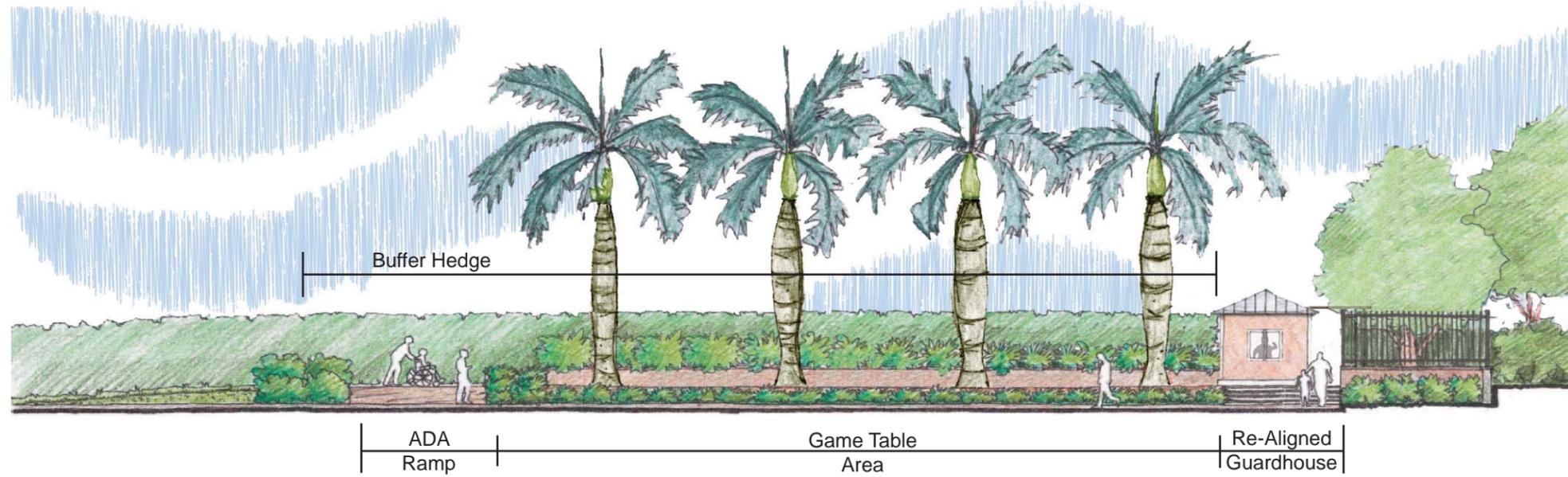


Ocean Club Ramped Path Hard Edge with Overlook, Sailboat Launch & Waterside Promenade New Overlook Existing Pavillion Expanded Seating Plaza Sidewalk Planted Buffer On-Street Parking

Existing Wall
(Art Opportunity)

Proposed Enhancements

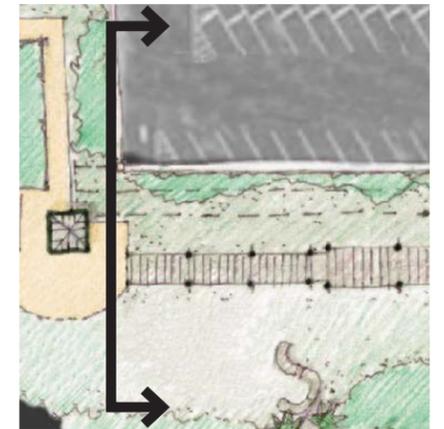
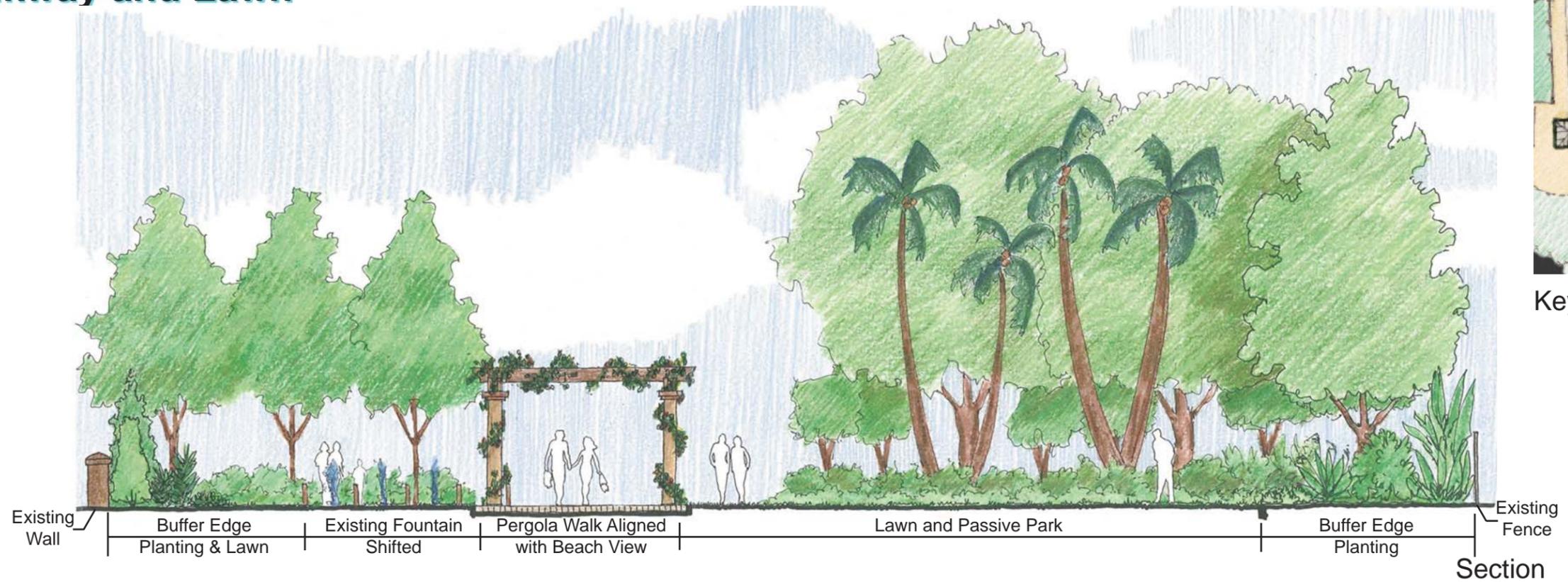
Entry Plaza



Key

Section

Access Walkway and Lawn

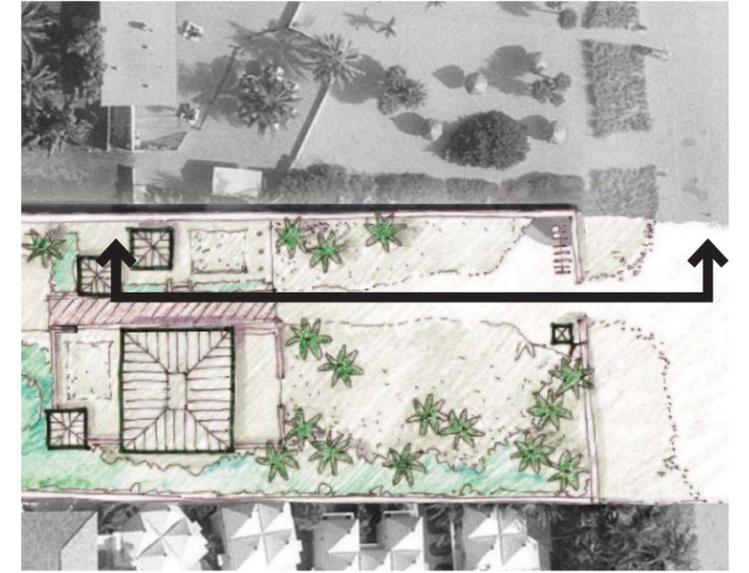


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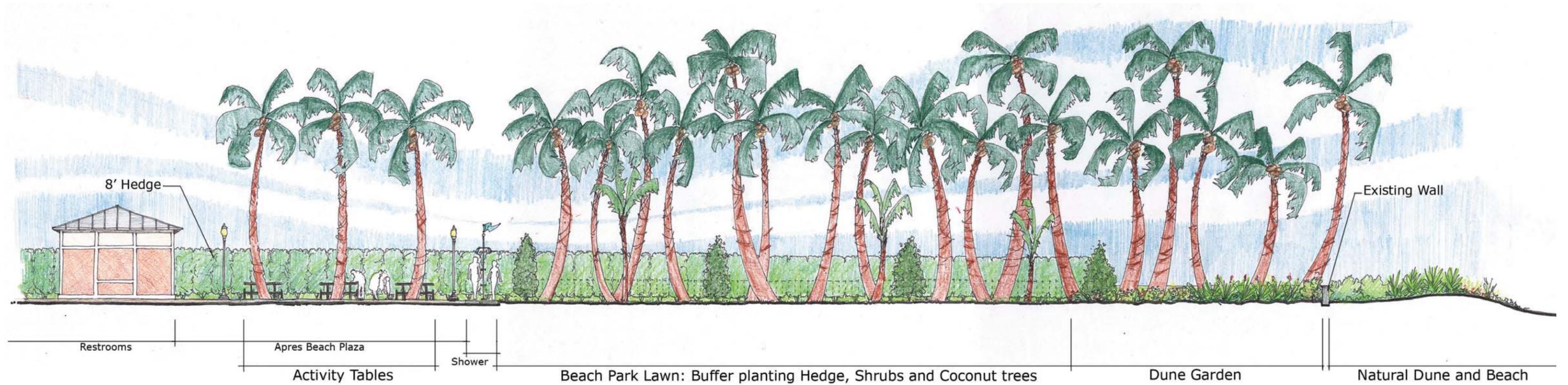
Proposed Enhancements

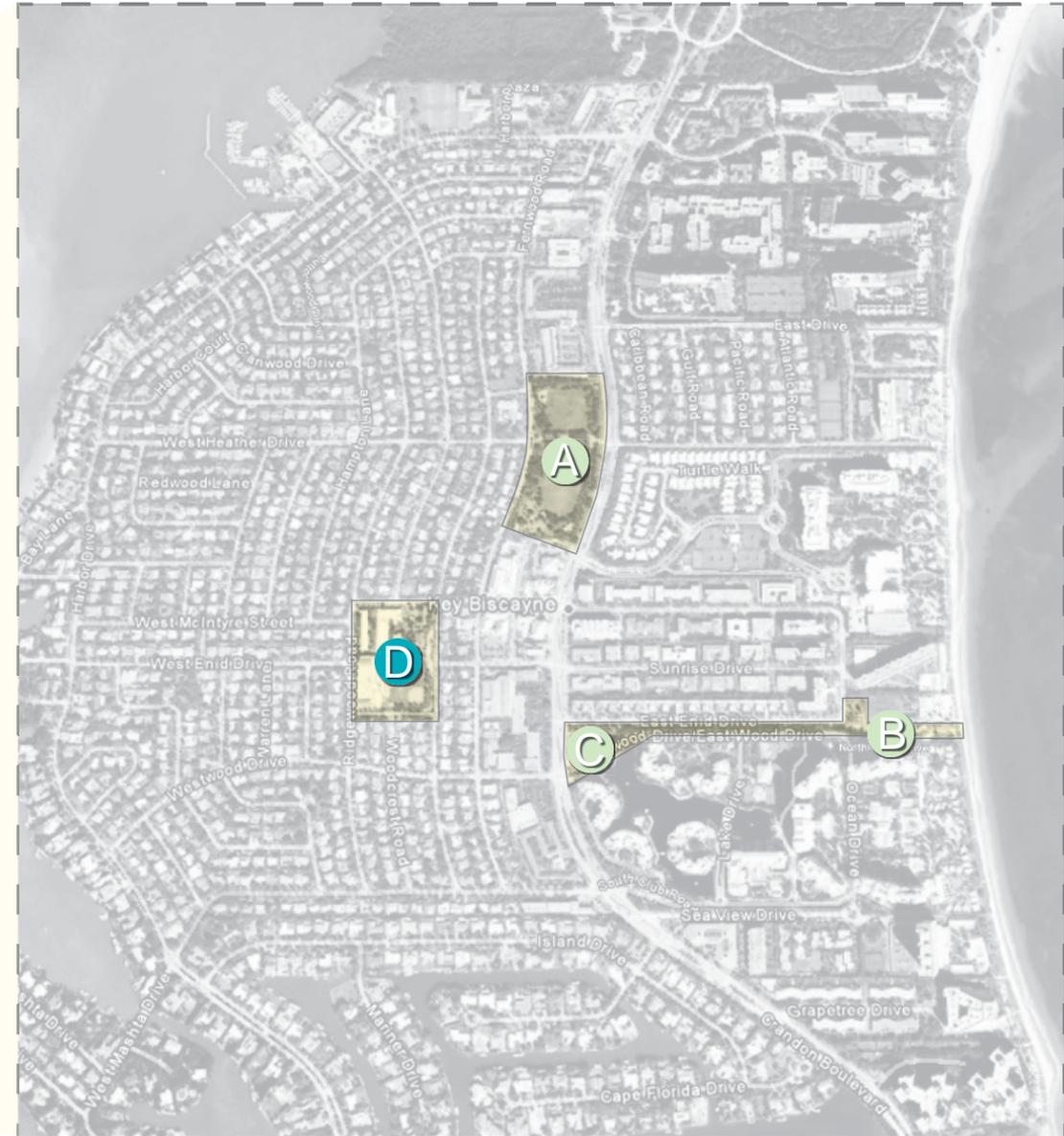
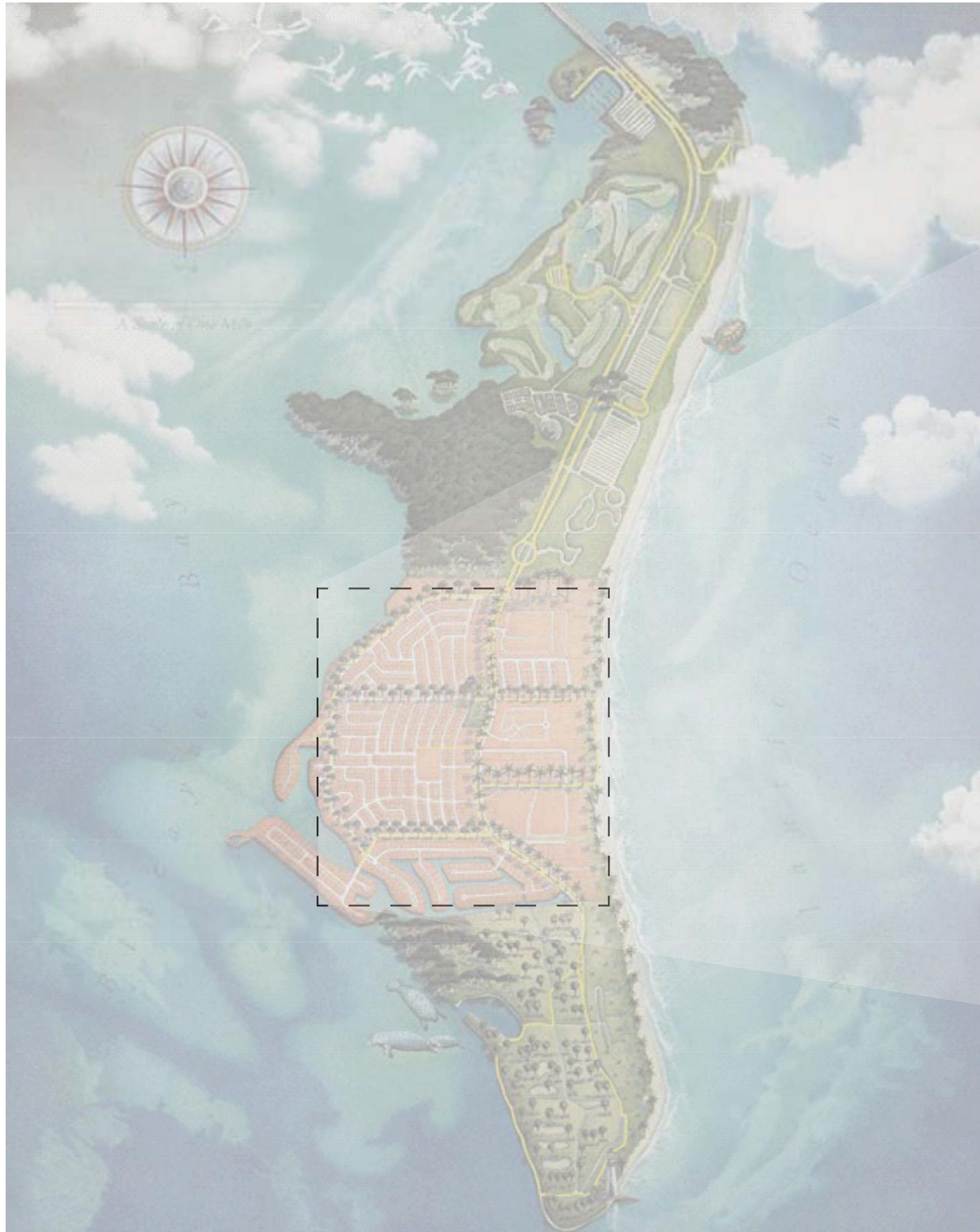
Restrooms & Beach Access



Key

Section

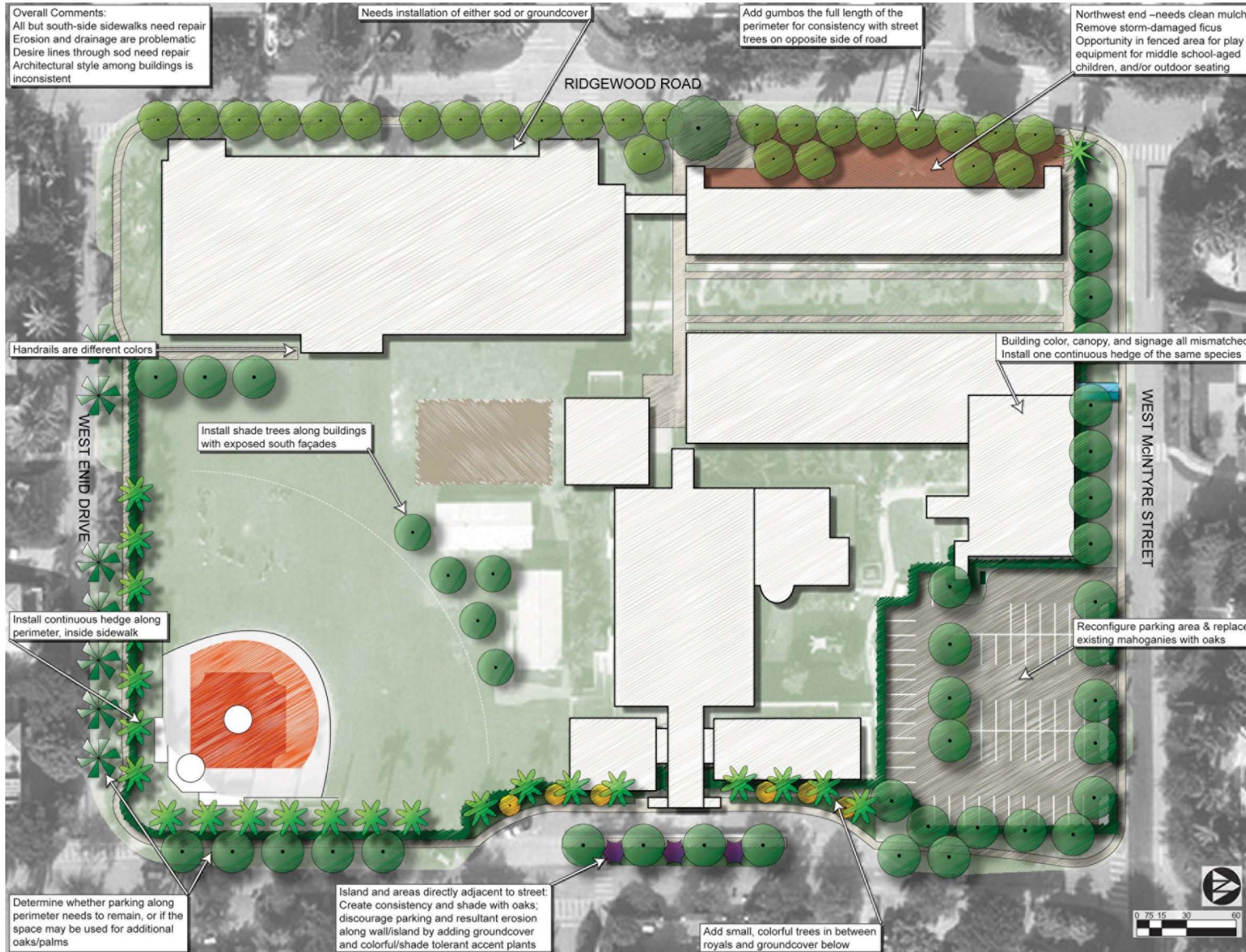




Existing Conditions



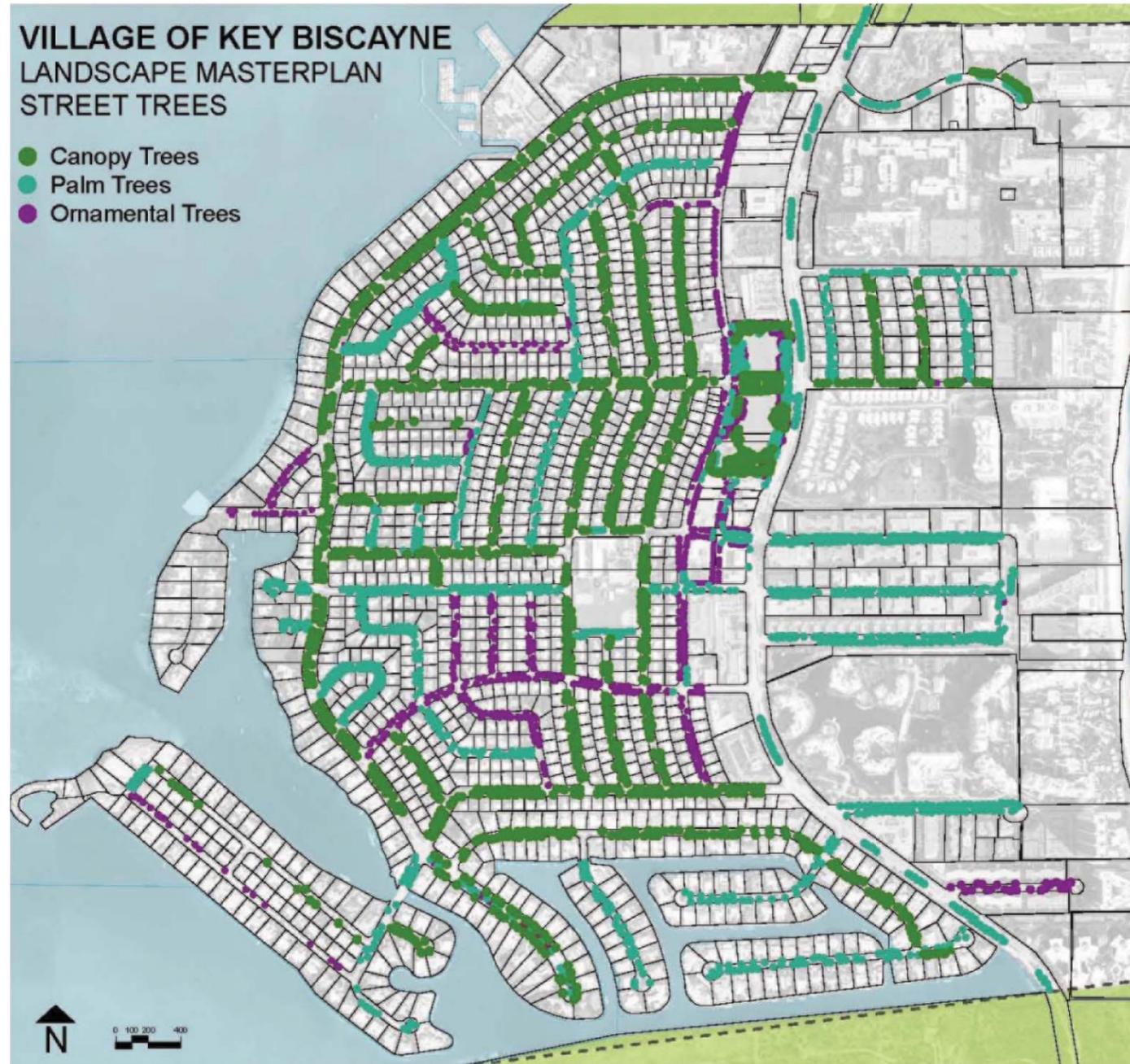
Proposed Enhancements



STREETS & INTERSECTIONS



Existing Conditions



Street Trees by Type



Street Tree Coverage and Quality

Long-Range Goals

Replace existing street trees with LMP-approved species

- LMP selections are tolerant of drought, salt, and/or storms

Each roadway should be planted with the same tree species

Roadway trees should aid in way-finding

Interim Actions

On roadways with LMP-approved trees:

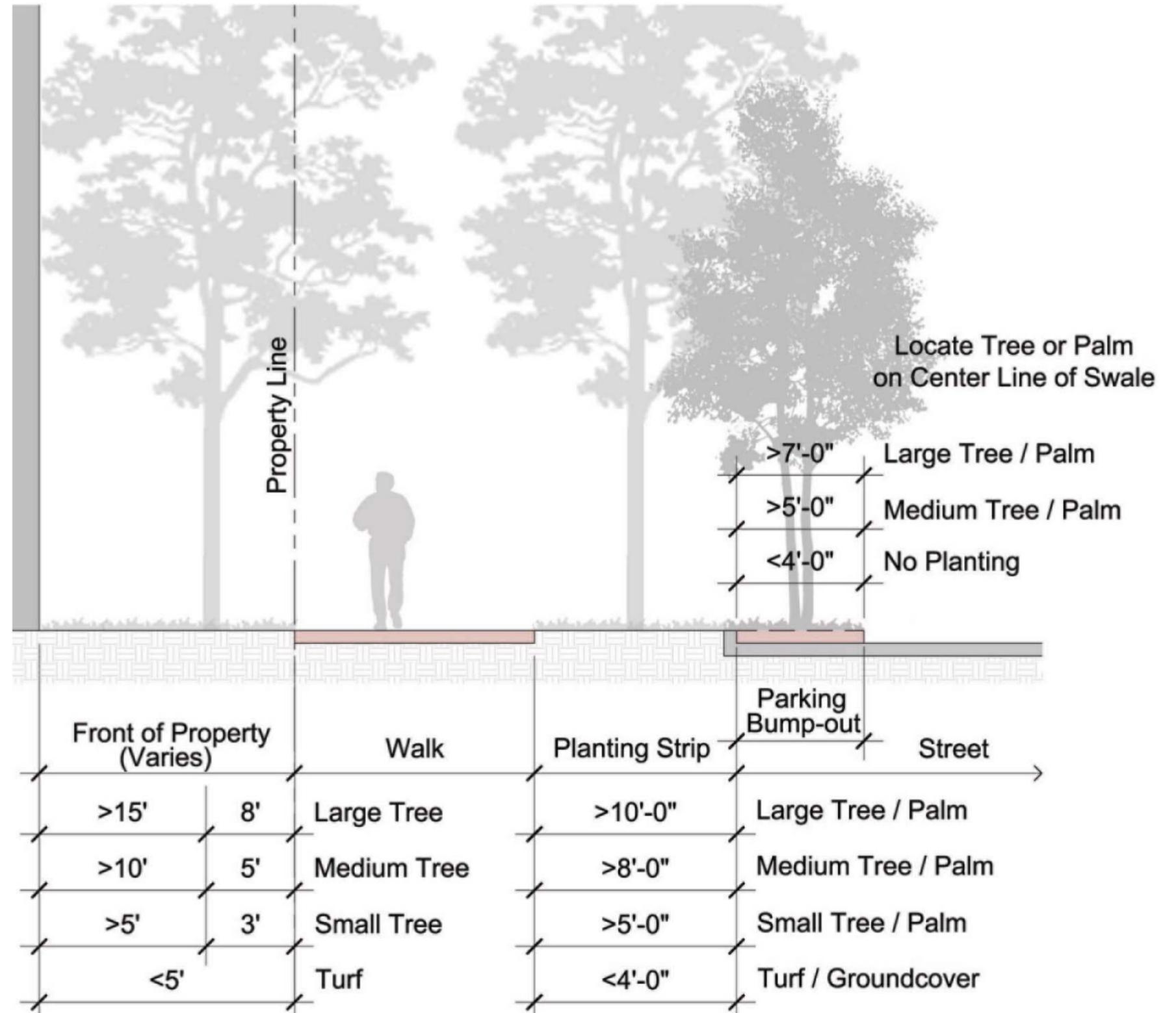
- Replace with same species at LMP-approved spacing

On roadways with non-approved trees:

- If coverage is less than 50%, replace with LMP-approved species
- If coverage is greater than 50%, replace with existing species
- All new trees shall be “Florida Fancy,” as per the *Florida Grades and Standards for Trees and Palms*

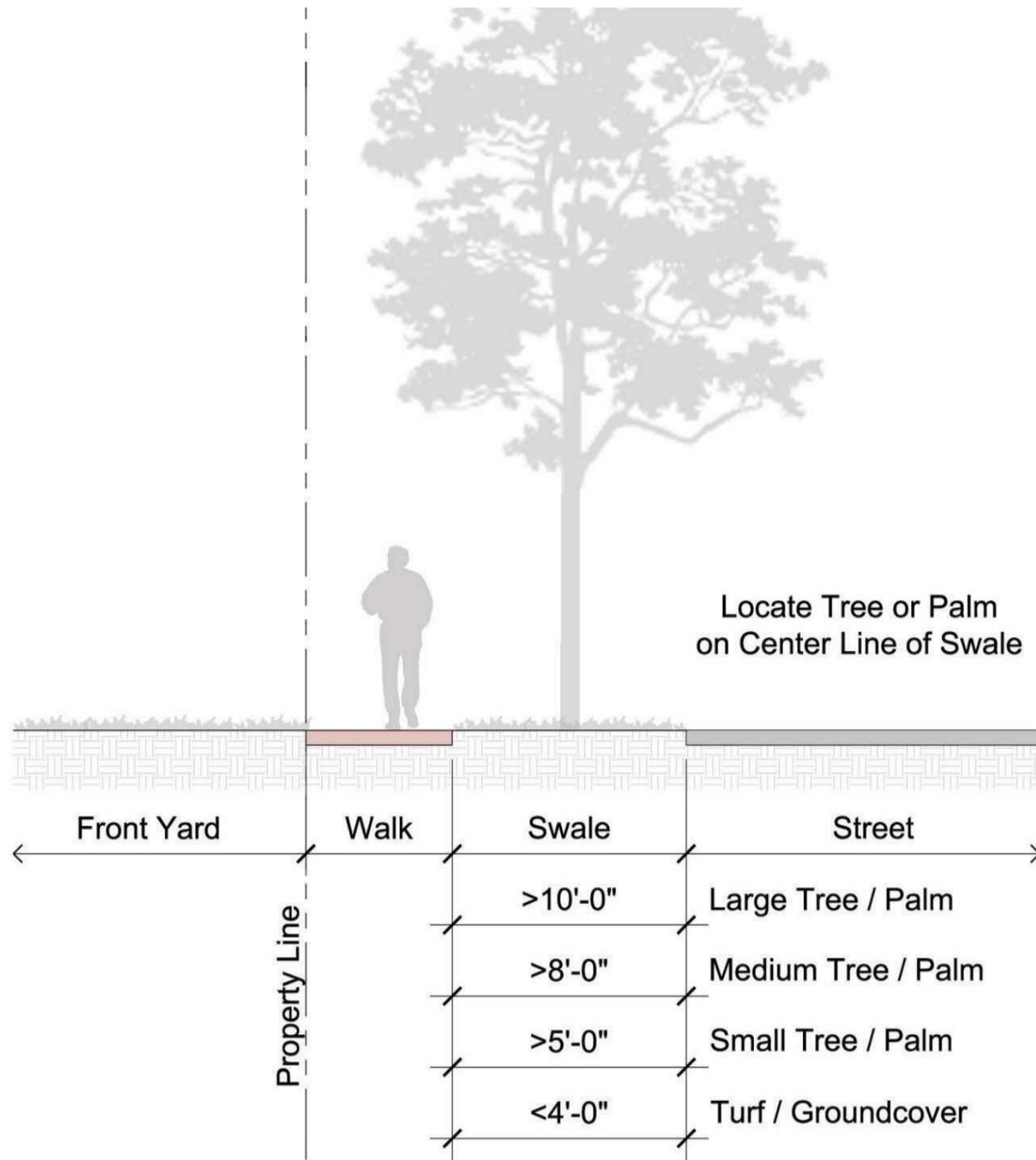
Annual review and update of inventory

Evaluation of all public realm plantings every 3-5 years or following unforeseen natural disasters, specifically hurricanes

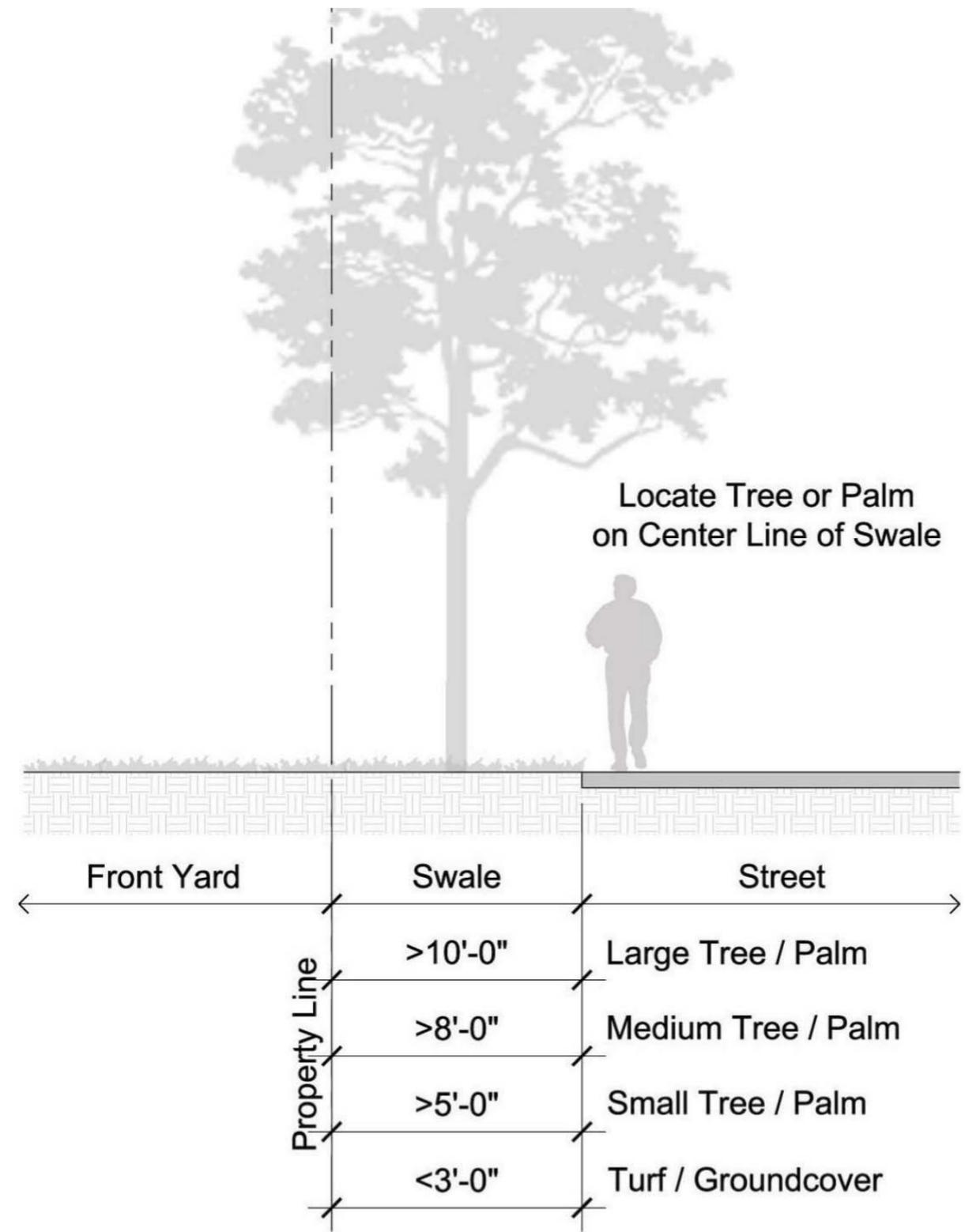


Arterial Streets

Proposed Guidelines



Neighborhood Streets with Sidewalks

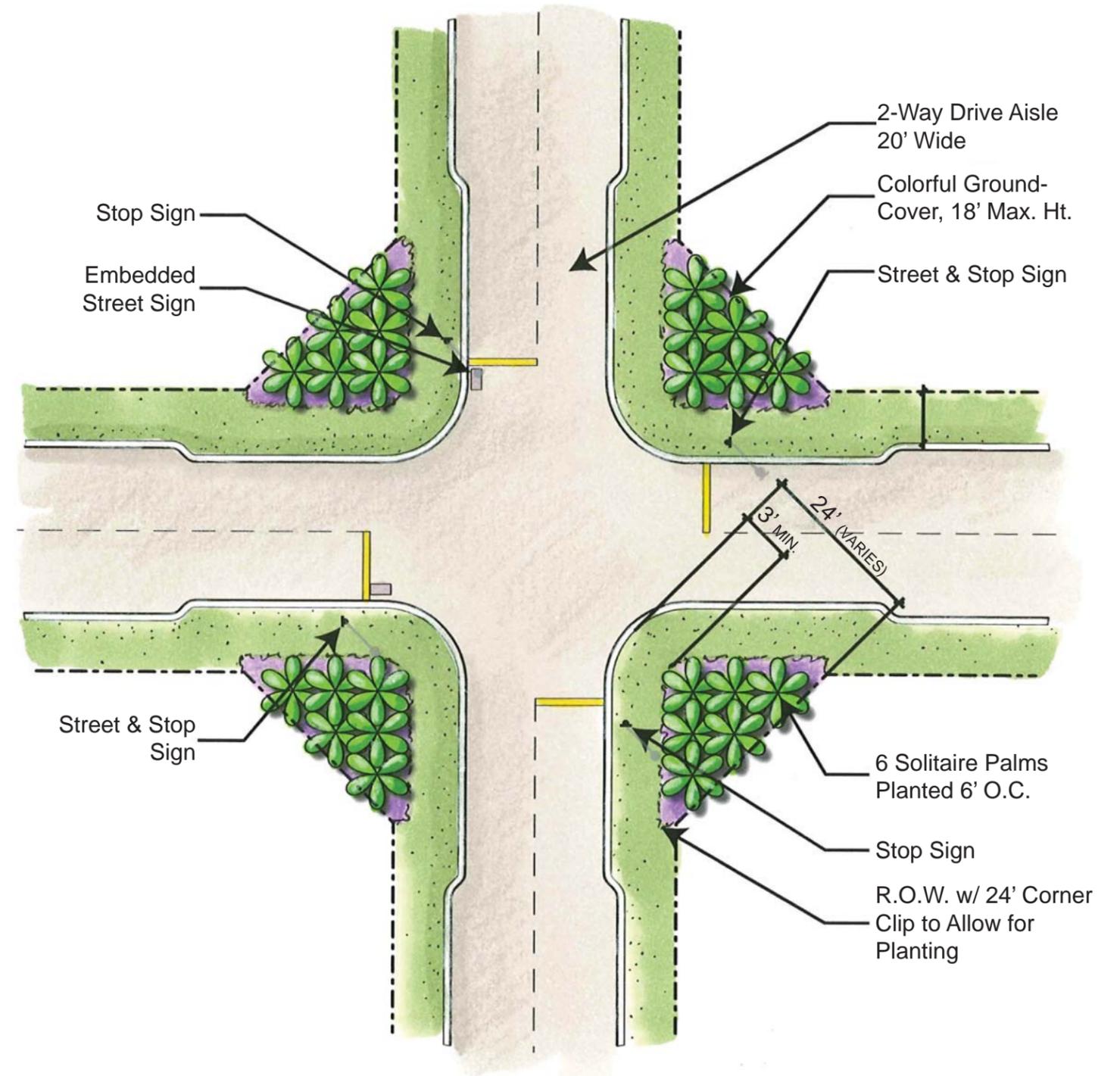


Neighborhood Streets without Sidewalks

Proposed Guidelines

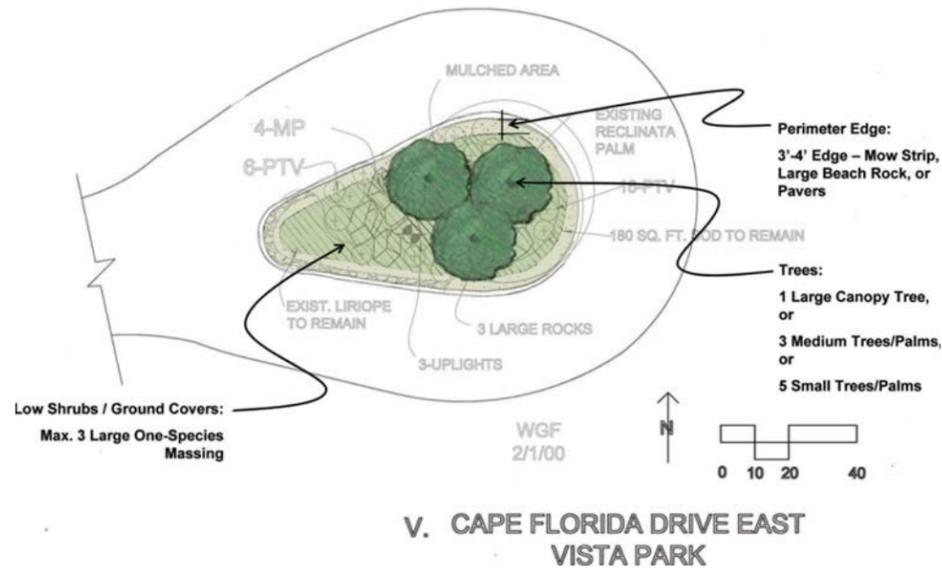


Typical Key Biscayne Intersections

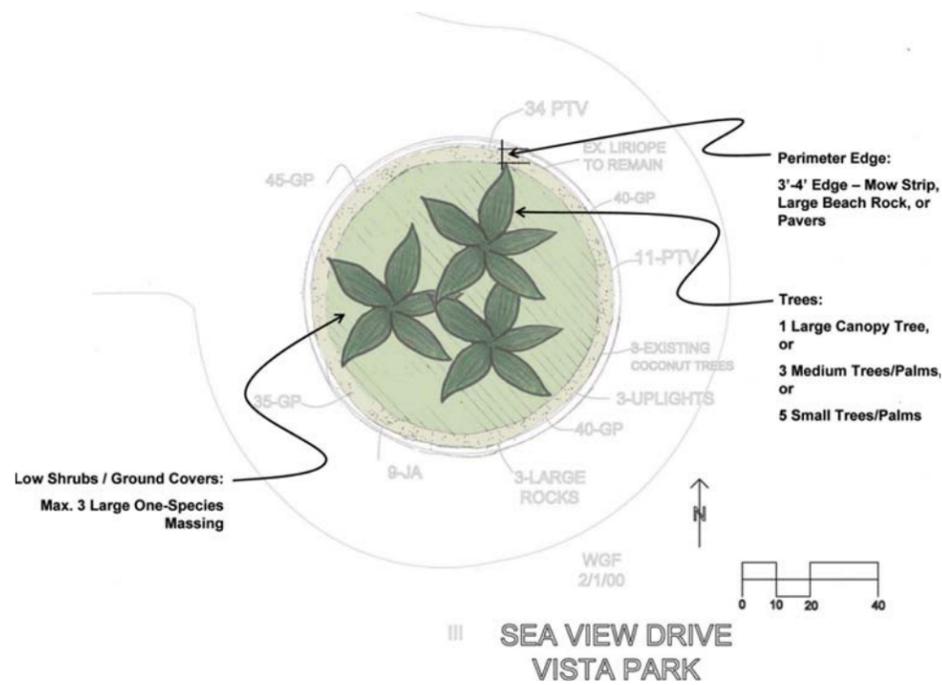


Proposed Planting and Signage Locations

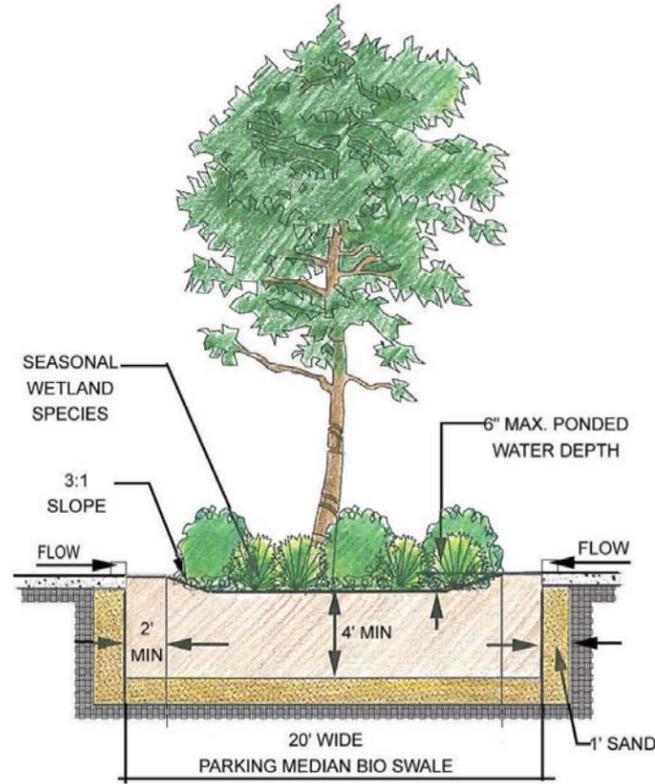
Schematic Planting Design



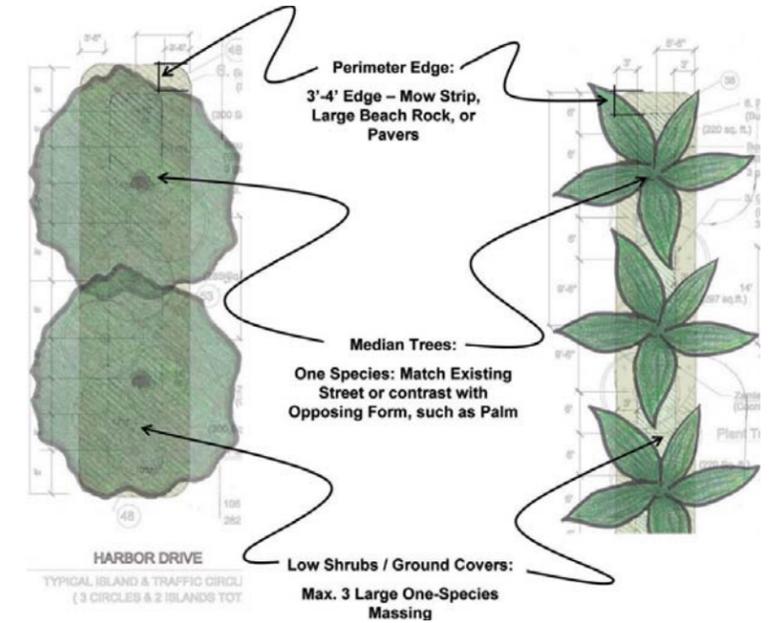
Cul-de-Sacs



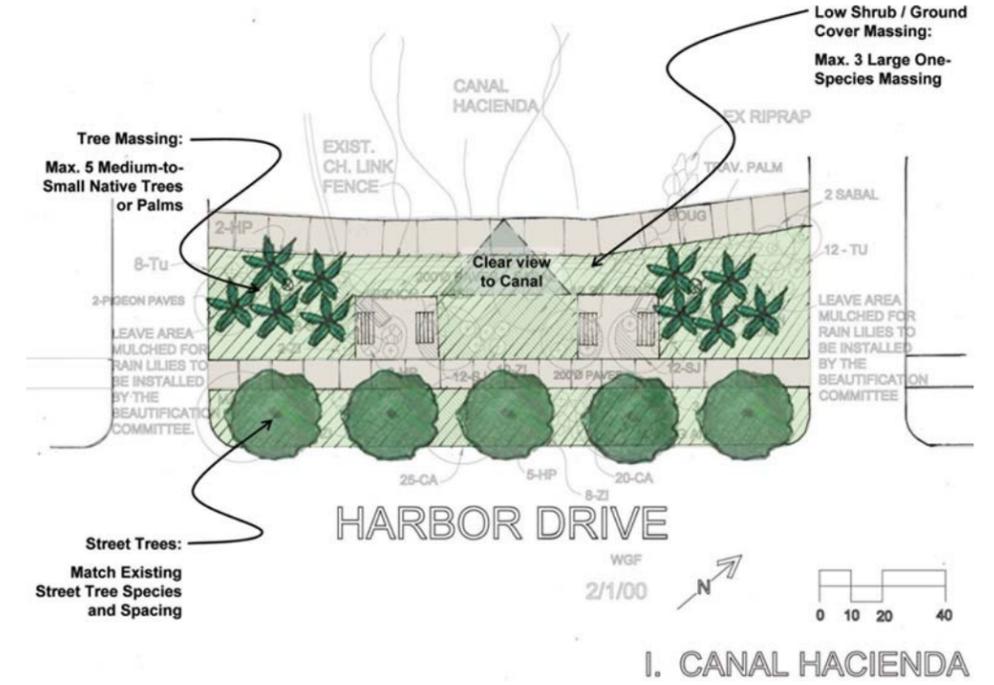
Round-Abouts



Bio-Swales



Pocket Parks



Medians

VEGETATION



Large Trees

VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN - SUGGESTED PLANT SPECIES

LARGE HARDWOOD TREES		CULTURAL DATA & CHARACTERISTICS										PROPOSED LOCATION						
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Needs	Growth Rate	Mature Size	Flowering Season	Flower	Plant Type	Notable Features	Village Green	Accent Areas	Village Civic Center	Community School	Village Beach Park	Pocket & Vista Parks	Street-scapes
* Gumbo Limbo	<i>Bursera simaruba</i>	Yes	High	High	Medium	Fast	40' x 35'	Sp	Green	Semi-Deciduous	Attractive Bark	X			X		X	X
Flame of the Forest	<i>Butea monosperma</i>																	
Golden Shower Tree	<i>Cassia fistula</i>	No	Medium	Medium	High	Fast	35'	S	Yellow	Deciduous		X			X			
Floss Silk Tree	<i>Chorisia speciosa</i>	No	High	Medium	High	Fast	45'	F	Pink	Deciduous	Spiny	X						
Satinleaf	<i>Chrysophyllum oliviforme</i>	Yes	High	Medium	High	Slow	30' x 20'	F	Yellow	Evergreen		X			X		X	X
* Autograph Tree	<i>Clusia rosea</i>	No	High	High	High	Slow	30' x 25'	S	Pink-White	Evergreen		X			X	X	X	X
* Seagrape	<i>Coccoloba uvifera</i>	Yes	High	High	Medium	Medium	30' x 25'	S	White	Evergreen	Nice Bark, Fruit	X				X	X	X
* Buttonwood, Silver	<i>Conocarpus erectus var. sericeus</i>	Yes	High	High	High	Medium	35' x 25'	Sp, S, F, W	White	Evergreen	Silver Foliage		X	X	X		X	X
* Buttonwood, Green	<i>Conocarpus erectus</i>	Yes	High	High	High	Medium	35' x 25'	Sp, S, F, W	White	Evergreen		X	X	X	X	X	X	X
Royal Poinciana	<i>Delonix regia</i>	No	High	Medium	High	Fast	40' x 50'	Sp,S	Red-Orange	Deciduous								
Coral Tree	<i>Erythrina variegata</i>	No	High	Medium	High	Fast	60'	Sp	Red	Deciduous	Spiny	X						
* Short-Leaf Fig	<i>Ficus citrifolia</i>	Yes	High	Medium	High	Fast	45'	Na	Na	Evergreen		X			X			
Bolly	<i>Guapira discolor</i>	Yes	High	High	High	Medium	30' x 40'	Sp, S	Green-Yellow	Evergreen	Attractive Bark	X			X			
Queen's Crape Myrtle	<i>Lagerstroemia speciosa</i>																	
Wild Tamarind	<i>Lysiloma latiliquum</i>	Yes	High	High	High	Medium	50' x 40'	Sp, S	White	Evergreen	Very Fragrant							
* Screw Pine	<i>Pandanus utilis</i>	No	High	High	High	Slow	25'	Sp,S,F,W	Yellow	Evergreen	Focal Point		X			X		
Jamaica Dogwood	<i>Piscidia piscipula</i>	Yes	High	High	Medium	Fast	45' x 25'	Sp	Purple-White	Deciduous	Fragrant							
* Live Oak	<i>Quercus virginiana</i>	Yes	High	High	High	Medium	60' x 40'	Sp	Green	Evergreen		X		X	X			
Mastic	<i>Sideroxylon foetidissimum</i>	Yes	High	Medium	Medium	Medium	45' x 30'	Sp, S, F, W	Yellow-Green	Evergreen	Fragrant	X						
Paradise Tree	<i>Simarouba glauca</i>	Yes	High	Medium	Medium	Medium	50' x 30'	Sp	Yellow	Evergreen								
Mahogany	<i>Swietenia mahagoni</i>	Yes	High	Medium	Medium-High	Fast	50' x 40'	Sp	Green-Yellow	Evergreen				X	X			
Pink Trumpet Tree	<i>Tabebuia heterophylla</i>	No	High	Medium	High	Medium	50' x 40'	Sp	Pink-Purple	Evergreen				X				
Cypress, Bald	<i>Taxodium distichum</i>	Yes	High	Medium	Medium-High	Med.-Fast	80' x 25'	Sp	Na	Deciduous Conifer								

* Denotes Exceptional Performer

Species Suggestions for each Study Area

Small Trees

VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN - SUGGESTED PLANT SPECIES

SMALL HARDWOOD TREES		CULTURAL DATA & CHARACTERISTICS										PROPOSED LOCATION						
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Needs	Growth Rate	Mature Size	Flowering Season	Flower	Plant Type	Notable Features	Village Green	Accent Areas	Village Civic Center	Community School	Village Beach Park	Pocket & Vista Parks	Street-scapes
Cinnecord	<i>Acacia choriophylla</i>	No	High	High	High	Medium	15' x 15'	S	Yellow	Evergreen		X			X		X	X
* Torchwood	<i>Amyris elemifera</i>	Yes	High	Medium	Medium-High	Medium	15' x 10'	F	White	Evergreen	Very Fragrant	X						
Bahama Strongbark	<i>Bouyeria ovata</i>	Yes	High	Medium	Medium-High	Medium	20' x 15'	Sp, S, F, W	White	Evergreen	Attractive Bark, Fragrant	X	X		X		X	X
Jamaica Rain Tree	<i>Brya ebenus</i>																	
Dwarf Poinciana	<i>Caesalpinia pulcherrima</i>	No	High	Medium	High	Fast	15' x 10'	Sp, S, F	Orange-Yellow	Evergreen	Fragrant							
Spicewood	<i>Calyptanthes pallens</i>	Yes	High	Medium	Medium	Slow	15' x 10'	Sp, S, F, W	White	Evergreen	Fragrant	X	X				X	X
Wild Cinnamon	<i>Canella winterana</i>	Yes	High	High	High	Slow	25' x 20'	Sp, S, F	White-Purple	Evergreen	Attractive Bark, Fragrant	X	X				X	X
Fiddlewood	<i>Citharexylum spinosum</i>	Yes	High	Medium	Medium	Fast	20' x 15'	Sp, S, F	White	Evergreen	Fragrant	X	X		X		X	X
Pigeon Plum	<i>Coccoloba diversifolia</i>	Yes	High	High	Medium-High	Fast	25' x 20'	Sp	White	Evergreen	Attractive Bark	X	X		X		X	X
* Geiger Tree	<i>Cordia sebestena</i>	Yes	High	High	Medium	Medium	25' x 20'	Sp, S, F, W	Orange	Evergreen	Beetles	X	X		X		X	X
Black Torch	<i>Erithalis fruticosa</i>	Yes	High	High	Medium-High	Medium	8'	Sp, S, F, W	White	Evergreen		X	X				X	X
White Stopper	<i>Eugenia axillaris</i>	Yes	High	High	Medium-High	Medium	25' x 15'	Sp, S	White	Evergreen	Fragrant	X	X				X	X
Spanish Stopper	<i>Eugenia foetida</i>	Yes	High	High	Medium	Medium	15' x 15'	S	White	Evergreen	Fragrant	X	X				X	X
Red Stopper	<i>Eugenia rhombea</i>	Yes	High	Medium	Medium	Slow	20' x 10'	Sp, S, F, W	White	Evergreen		X	X				X	X
Japanese Fern Tree	<i>Filicium decipiens</i>	No			Medium-High		20-30'			Evergreen		X	X		X		X	X
* Lignum Vitae	<i>Guaiacum sanctum</i>	Yes	High	High	Medium	Slow	15' x 15'	Sp, S, F, W	Blue	Evergreen		X	X		X	X	X	X
* Peregrina	<i>Jatropha integerrima</i>	No	High	Medium	High	Medium	8'	Sp, S, F, W	Red	Evergreen		X					X	X
* Crape Myrtle	<i>Lagerstroemia indica</i>	No	High	Medium	High	Medium	25' x 15'	Sp, S	Many Colors	Deciduous	Attractive Bark, Fragrant							
* Japanese Privet	<i>Ligustrum japonicum</i>	No	High	Medium	Medium-High	Medium	12'	Sp	White	Evergreen	Fragrant	X			X			
* Simpson's Stopper	<i>Myrcianthes fragrans</i>	Yes	High	High	Medium-High	Slow	25' x 20'	Sp, S, F, W	White	Evergreen	Attractive Bark, Very Fragrant	X	X		X		X	X
Frangipani	<i>Plumeria spp.</i>	No	High	Medium	Medium	Slow	20' x 20'	Sp, S	Red - White	Deciduous	Very Fragrant							
Yellow Elder	<i>Tecoma stans</i>	No	High	Medium	High	Fast	25' x 15'	Sp, S, F, W	Yellow	Evergreen		X	X		X	X	X	X
Satinwood	<i>Zanthoxylum flavum</i>	Yes	High	Medium	Medium	Medium	20' x 10'	S	Green-White	Deciduous	Hard to Find	X	X				X	X

* Denotes Exceptional Performer

Palms & Tropical Plants

VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN - SUGGESTED PLANT SPECIES

PALMS & TROPICAL PLANTS		CULTURAL DATA & CHARACTERISTICS										PROPOSED LOCATION						
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Needs	Growth Rate	Mature Size	Leaf Type	Foliage Color	Fruit	Notable Features	Village Green	Accent Areas	Village Civic Center	Community School	Village Beach Park	Pocket & Vista Parks	Street-scapes
King Alexander Palm	<i>Archontophoenix alexandrae</i>	No	High	Low	Medium-High	Medium	40'	Pinnate	Green	Red								
* Malayan Coconut Palm	<i>Cocos nucifera 'Malayan'</i>	No	High	High	High	Medium	40'	Pinnate	Green	Green to Brown		X	X	X	X	X	X	X
* Silver Palm	<i>Coccothrinax argentata</i>	Yes	High	High	Medium-High	Slow	15'	Palmate	Green above-Silver below	Black								
Areca palm	<i>Dypsis lutescens</i>	No	Medium	Medium	Medium-High	Fast	25'	Pinnate	Green with Yellow	Orange	Clustering Habit							
* Bottle Palm	<i>Hyophorbe lagenicaulis</i>	No	High	High	Medium	Slow	10'	Pinnate	Green	Green to Black	Specimen		X		X		X	X
* Spindle Palm	<i>Hyophorbe verschaffeltii</i>	No	High	High	High	Slow	20'	Pinnate	Green	Orange to Red	Specimen		X		X		X	X
* Lantan Palm, Blue	<i>Latania loddigesii</i>	No	High	Medium	High	Slow	30'	Palmate	Blue-green	Brownish-Green		X	X	X	X	X	X	X
* Lantan Palm, Red	<i>Latania lontaroides</i>	No	High	Medium	High	Slow	30'	Palmate	Gray-Green w/ Red Margins	Brownish-Green			X				X	X
Chinese Fan Palm	<i>Livistona chinensis</i>	No	Medium	Low	High	Medium	35'	Pinnate	Green	Blue to Grey					X		X	X
Canary Island Date Palm	<i>Phoenix canariensis</i>	No	High	Medium	Medium-High	Slow	40'	Pinnate	Green	Orange								
Medjool Date Palm	<i>Phoenix dactylifera 'Medjool'</i>	No	High	High	High	Slow	70'	Pinnate	Green	Orange to Red		X	X	X				
* Senegal Date Palm	<i>Phoenix reclinata</i>	No	High	Medium	High	Medium	30'	Pinnate	Dark Green	Reddish-Brown	Clustering Habit							
Cliff Date Palm	<i>Phoenix rupicola</i>	No	High	Medium	High	Slow	25'	Pinnate	Green	Purplish-Red								
* Wild Date Palm	<i>Phoenix sylvestris</i>	No	High	Medium	High	Slow	50'	Pinnate	Silver Green	Red-Brown		X					X	X
* Buccaneer Palm	<i>Pseudophoenix sargentii</i>	Yes	High	High	Medium-High	Slow	10'	Pinnate	Blue-Green	Red Clusters		X			X	X	X	X
* Solitaire Palm	<i>Ptychosperma elegans</i>	No	High	Low	Medium-High	Medium	20'	Pinnate	Green	Red					X		X	X
Macarthur Palm	<i>Ptychosperma macarthurii</i>	No	High	Low	Medium-High	Medium	25'	Pinnate	Green	Red					X		X	X
Royal Palms	<i>Roystonea regia</i>	Yes	Medium-Low	Medium	High	Medium	80'	Pinnate	Deep Green	Purple			X	X				
* Cabbage Palm	<i>Sabal palmetto</i>	Yes	High	High	Medium-High	Slow	40'	Costapalmate	Dull Green	Black		X	X	X	X	X	X	X
Bird of Paradise, White	<i>Strelitzia nicolai</i>	No	High	Medium	Medium-High	Slow	20'	Simple	Green	Na	Clumping, Needs Shade		X					
* Key Thatch Palm	<i>Thrinax morrisii</i>	Yes	High	High	Medium-High	Medium	20'	Palmate	Green above-Silver below	White		X			X	X	X	X
* Florida Thatch Palm	<i>Thrinax radiata</i>	Yes	High	High	Medium-High	Slow	20'	Palmate	Green w/ Yellow Ribs	White		X			X	X	X	X
* Veitchia spp.	<i>Veitchia joannis</i>	No	High	Medium	Medium-High	Fast	60'	Pinnate	Green		resistant to lethal yellowing		X		X			
	<i>Veitchia mcdanielsii</i>	No	High	Medium	Medium-High	Fast	60'	Pinnate	Green		resistant to lethal yellowing		X		X			
	<i>Veitchia winin</i>	No	High	Medium	Medium-High	Fast	50'	Pinnate	Green		resistant to lethal yellowing		X	X	X			
Washington Palm	<i>Washingtonia robusta</i>	No	High	Medium	High	Medium	70'	Costapalmate	Green	Brownish-Black								

* Denotes Exceptional Performer

VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN - SUGGESTED PLANT SPECIES

SHRUBS		CULTURAL DATA & CHARACTERISTICS										PROPOSED LOCATION						
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Needs	Growth Rate	Mature Size	Flowering Season	Flower Color	Plant Type	Notable Features	Village Green	Accent Areas	Village Civic Center	Community School	Village Beach Park	Pocket & Vista Parks	Street-scapes
Shell Ginger	<i>Alpinia zerumbet</i>	No	Medium	Medium	Medium-High	Fast	8'	S, F, W	White-Tellow	Evergreen			X	X	X			
* Variegated Shell Ginger	<i>Alpinia zerumbet 'Variegata'</i>	No	Medium	Medium	Medium-High	Fast	8'	S, F, W	White-Yellow	Evergreen			X	X	X			
Marlberry	<i>Ardisia escallonioides</i>	Yes	High	High	Low-Medium	Medium	10'	Sp, S, F, W	White	Evergreen	Fragrant	X					X	X
* Sea Lavender	<i>Argusia gnaphalodes</i>	Yes	High	High	High	Slow	6'	W, Sp	White	Evergreen						X		
Bougainvillea	<i>Bougainvillea glabra</i>	No	High	High	High	Fast	Na	Sp, S, F, W	Many Colors	Evergreen	Vining	X		X		X		
Locustberry	<i>Byrsonima lucida</i>																	
Butterfly Bush	<i>Buddleia davidii</i>	No	Medium	Medium	Medium-High	Fast	6-12'	Sp, S, F	Many Colors	Semi-Evergreen	Very Fragrant, butterfly attractant							
* Jamaican Caper	<i>Capparis cynophallophora</i>	Yes	High	High	High	Slow	10'	Sp	Pink-White	Evergreen	Fragrant	X	X		X	X	X	X
* Natal Plum	<i>Carissa macrocarpa</i>	No	High	High	Medium-High	Medium	10'	Sp, S, F	White	Evergreen						X	X	X
* Red-Tip Cocoplum	<i>Chrysobalanus icaco</i>	Yes	Medium	High	High	Medium	12'	Sp, S, F, W	White	Evergreen		X	X	X	X		X	X
String Lily	<i>Crinum americanum</i>	Yes	Medium	High	Medium	Medium	2'	S, F	White	Evergreen	Very Fragrant							
Tree Crinum	<i>Crinum asiaticum</i>	No	Medium	Medium	Medium	Medium	5'	Sp, S, F	White-Pink	Herbaceous Perennial	Very Fragrant			X		X		
Giant Spider Lily	<i>Crinum x amabile</i>	No	Medium	Medium	Medium	Medium	4'	Sp, S, F, W	Red-Pink	Herbaceous Perennial	Very Fragrant			X	X	X	X	X
* Queen Emma Crinum Lily	<i>Crinum augustum</i>	No	Medium	Medium	Medium	Medium	5'	Sp, S	Purple-White	Herbaceous Perennial	Very Fragrant		X	X	X			
Chamal	<i>Dioon edule</i>	No	High	Medium	Medium-High	Slow	5'	S	Na	Evergreen	Specimen	X	X					
Spiny Dioon	<i>Dioon spinulosum</i>	No	High	Medium	Medium-High	Slow	6'	S	Na	Evergreen	Spines							
Keys Varnish Leaf	<i>Dodonaea elaeagnoides</i>	Yes	High	High	Medium-High	Fast	6'	S	White	Evergreen	Fragrant	X						
Thryallis	<i>Galphimia gracilis</i>	No	Medium	Medium	Medium-High	Medium	5'	Sp, S, F	Yellow	Evergreen								
Seven Year Apple	<i>Genipa clusiifolia</i>	Yes	High	High	Medium-High	Slow	10'	Sp, S, F, W	White	Evergreen	Fragrant	X						
Firebush	<i>Hamelia patens</i>	Yes	High	Medium	Medium-High	Fast	10'	Sp, S, F, W	Orange-Red	Evergreen		X	X		X		X	X
Heliconia:	<i>Heliconia bihai</i>	No	Medium	Medium	Medium-High	Fast	10'	Sp, S	Red-Yellow	Evergreen								
	<i>Heliconia caribaea</i>	No	Medium	Medium	Medium-High	Fast	12'	Sp, S	Red-Yellow	Evergreen			X					
	<i>Heliconia rostrata</i>	No	Medium	Medium	Medium	Fast	5'	S	Red-Yellow	Evergreen								
	<i>Heliconia stricta</i>	No	Medium	Medium	Medium	Medium	3'	F, W	Red	Evergreen								
	<i>Heliconia wagneriana</i>	No	Medium	Medium	Medium	Medium	5'	W, Sp	Pink-Cream	Evergreen								
Gallberry	<i>Ilex glabra</i>	Yes	High	Medium	Medium-High	Slow	7'	Sp	White	Evergreen		X			X			

* Denotes Exceptional Performer

Shrubs

VILLAGE OF KEY BISCAIYNE LANDSCAPE MASTER PLAN - SUGGESTED PLANT SPECIES

SHRUBS (continued)		CULTURAL DATA & CHARACTERISTICS										PROPOSED LOCATION						
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Needs	Growth Rate	Mature Size	Flowering Season	Flower Color	Plant Type	Notable Features	Village Green	Accent Areas	Village Civic Center	Community School	Village Beach Park	Pocket & Vista Parks	Street-scapes
Star Jasmine	<i>Jasminum nitidum</i>	No	Medium	Medium	Medium-High	Medium	2-4'	Sp, S	White	Evergreen	Very Fragrant, Night Bloomer	X			X			
* Wax Jasmine	<i>Jasminum volubile</i>	No	Medium	Medium	High	Medium	5'	Sp, S, F, W	Red	Evergreen		X			X			
* Peregrina	<i>Jatropha integerrima</i>	No	High	Medium	High	Medium	8'	Sp, S, F, W	Red	Evergreen		X			X		X	X
* Wild Sage Lantana	<i>Lantana involucrata</i>	Yes	High	High	High	Medium	5'	Sp, S, F, W	White	Evergreen		X					X	X
* Pittosporum	<i>Pittosporum tobira</i>	No	Medium	High	High	Medium	6'	S	White	Evergreen		X		X	X		X	X
* Leadwort	<i>Plumbago auriculata</i>	No	Medium	Medium	High	Fast	5'	Sp, S, F	Blue-White	Evergreen		X			X		X	X
Bahama Coffee	<i>Psychotria ligustrifolia</i>	Yes	Medium	Medium	Low-Medium	Fast	4'	Sp, S	White	Evergreen		X	X		X		X	X
Myrsine	<i>Rapanea punctata</i>	Yes	High	High	Medium-High	Medium	15'	Sp, S, F, W	White	Evergreen		X	X		X		X	X
Indian Hawthorn	<i>Raphiolepis indica</i>	No	Medium	Medium	Medium	Slow	4'	Sp	Pink	Evergreen		X		X	X		X	X
Lady Palm	<i>Rhapis excelsa</i>	No	Medium	Medium	Low-Medium	Medium	7'	S	White	Evergreen			X	X	X		X	X
Dwarf Palmetto	<i>Sabal minor</i>	Yes	High	Medium	High	Slow	6'	S	White	Evergreen								
Brazilian Sage	<i>Salvia guaranitica</i>	No			Medium-High		3-5'	S, F	Blue	Perennial	Annual, Attracts hummingbirds							
Mexican Sage	<i>Salvia leucantha</i>	No	Medium		High	Fast	4'	F, W	Purple	Perennial, Evergreen	Attracts hummingbirds							
Inkberry	<i>Scaevola plumeri</i>	Yes	High	High	High	Slow	4'	Sp, S	White-Pink	Evergreen								
* Dwarf Schefflera	<i>Schefflera arboricola</i>	No	High	Medium	Low-Medium	Fast	10'	S	White	Evergreen		X	X	X	X		X	X
* Butterfly Bush	<i>Senna spp.</i>										Attracts butterflies							
* Saw Palmetto	<i>Serenoa repens</i>	Yes	High	Medium-High	High	Slow	8'	S	White	Evergreen		X					X	X
* Necklace Pod	<i>Sophora tomentosa</i>	Yes	High	High	Medium-High	Medium	8'	Sp, S, F, W	Yellow	Evergreen	Fragrant	X			X		X	X
* Bay Cedar	<i>Suriana maritima</i>	Yes	High	High	High	Slow	10'	Sp, S, F, W	Yellow	Evergreen		X			X		X	X
Spanish Bayonet	<i>Yucca aloifolia</i>	Yes	High	High	High	Medium	12'	Sp	White	Evergreen	Fragrant, Spinose					X		
Spineless Yucca	<i>Yucca elephantipes</i>	No	High	Medium	High	Medium	25'	S, F	White	Evergreen						X		
Pinecone Ginger	<i>Zingiber zerumbet</i>	No	High	Medium	High	Medium	25'	S, F	White	Evergreen						X		

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Ground Covers

VILLAGE OF KEY BISCAYNE LANDSCAPE MASTER PLAN - SUGGESTED PLANT SPECIES

GROUND COVER		CULTURAL DATA & CHARACTERISTICS										PROPOSED LOCATION						
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Requirement	Growth Rate	Mature Size	Flowering Season	Flower	Plant Type	Notable Features	Village Green	Accent Areas	Village Civic Center	Community School	Village Beach Park	Pocket & Vista Parks	Street-scapes
Cast-iron Plant	<i>Aspidistra elatior</i>	No	High	Medium	Low-Medium	Slow	2'	Na	Na	Perennial		X	X	X	X	X		X
* Sea-Oxeye Daisy	<i>Borrchia frutescens</i>	Yes	High	High	High	Slow	3'	Sp, S, F	Yellow	Semi-woody Perennial						X	X	X
Bay Bean	<i>Canavalia rosea</i>	Yes	High	High	High	Medium	6-12"	Sp, S, F, W	Rose-Purple	Climbing Vine	coastal uplands					X		
Natal Plum	<i>Carissa macrocarpa</i>	No	High	High	High	Medium	3-4'		white	Perennial						X	X	X
* Tree Crinum	<i>Crinum asiaticum</i>	No	Medium	Medium	High	Medium	5'	Sp, S, F, W	White	Bulb-Clumper	Very Fragrant	X		X		X		
Gold Mound Duranta	<i>Duranta erecta 'Gold Mound'</i>	No	Medium	Medium	High	Medium	2-3'		Purple	Perennial		X	X	X	X	X	X	X
* Golden Creeper	<i>Ernodea littoralis</i>	Yes	High	High	High	Medium	2'	Sp, S, F, W	White-Pink	Semi-woody Evergreen						X		
Coral Bean	<i>Erythrina herbacea</i>	Yes	High	High	High	Medium	16'	Sp, S	Reddish	Semi-herbaceous		X	X	X	X	X	X	X
Indian Blanket Flower	<i>Gaillardia pulchella</i>	No	High	High	High	Medium	14-24"	S	Yellow-Orange	Perennial	Use as Annual	X				X		
* Beach Sunflower	<i>Helianthus debilis</i>	Yes	High	High	High	Fast	1-2'	Sp, S, F, W	Yellow-Black	Annual Vine	Beach Dunes					X		
Spider Lily	<i>Hymenocallis latifolia</i>	Yes	High	High	Mhigh-Medium	Medium	3'	S	White	Perennial	Clumping					X	X	X
Railroad Vine	<i>Ipomoea pes-caprae</i>	Yes	High	High	High	Fast	.5'	Sp, S, F, W	Pink-Lavender	Evergreen Vine						X		
Jacquemontia	<i>Jacquemontia curtissii</i>	Yes	High	High	Medium-High	Fast	Na	F, W, Sp	White	Evergreen Vine								
Shore Juniper	<i>Juniperus conferta</i>	No	High	High	High	Fast	12-18"	Na	Na	Groundcover		X						
Parson's Juniper	<i>Juniperus davurica 'Parsonii'</i>	No	High	High	High	Medium	4'-5'	Na	Na	Groundcover/shrub	Beach Dunes							
Wild Sage	<i>Lantana involucrata</i>	No	High	Medium	High	Fast	2-3'	Sp, S, F, W	White or Yellow	Groundcover				X	X		X	X
* Trailing Lantana	<i>Lantana montevidensis</i>	No	Medium	High	High	Medium	2'	Sp, S, F, W	Purple	Perennial		X		X	X			
Liriope	<i>Liriope muscari</i>	No	High	Medium	Medium-High	Medium	1-2'	S	Purple to White	Herbaceous Perennial		X		X	X		X	X
Mondo Grass	<i>Ophiopogon japonicus</i>	No	Medium	Medium	Low-Medium	Medium	.5'	S	White	Herbaceous Perennial								
Beach Grass	<i>Panicum amarum</i>	Yes	High	High	High	Fast	3'	Sp, S, F, W	Green	Grass		X				X		
Seashore Paspalum	<i>Paspalum vaginatum</i>	Yes	High	High	High	Medium	2'	Na	Na	Turfgrass	Turfgrass Substitute	X						
Philodendron 'Burle Marx'	<i>Philodendron 'Burle Marx'</i>	No	Medium	Medium	Medium-High	Fast	3'	Na	Na	Groundcover		X	X	X			X	X
Sea Purslane	<i>Sesuvium portulacastrum</i>	Yes	High	High	High	Medium	4-6"	Sp, S, F, W	Pink	Perennial	dune stabilizer					X		
* Sand Cordgrass	<i>Spartina bakeri</i>	Yes	High	Medium	High	Medium	3-6'	F, W, Sp	Green	Grass								
* Saltmeadow Cordgrass	<i>Spartina patens</i>	Yes	High	High	High	Medium	2'	Sp, S, F, W	Green	Grass	Needs Cleaning							
Purple Queen	<i>Tradescantia pallida 'Purpurea'</i>	No	Medium	High	Medium-High	Fast	1'	Sp, S, F, W	Pink	Herbaceous Perennial		X	X		X	X	X	X
* Fakahatchee Grass	<i>Tripsacum dactyloides</i>	Yes	High	Medium	High	Medium	2'	F	Gold	Grass		X	X		X	X	X	X
* Florida Gamma Grass	<i>Tripsacum floridana</i>	Yes	High	Medium	High	Medium	1'	F	Green	Grass		X	X		X	X	X	X
Wild Allamanda	<i>Urechites lutea</i>	Yes	High	Medium	Medium-High	Medium	Na	Sp, S, F, W	Yellow	Evergreen Vine								
* Coontie	<i>Zamia pumila</i>	Yes	High	High	Medium-High	Slow	2'	S	Na	Cycad		X			X	X	X	X

* Denotes Exceptional Performer

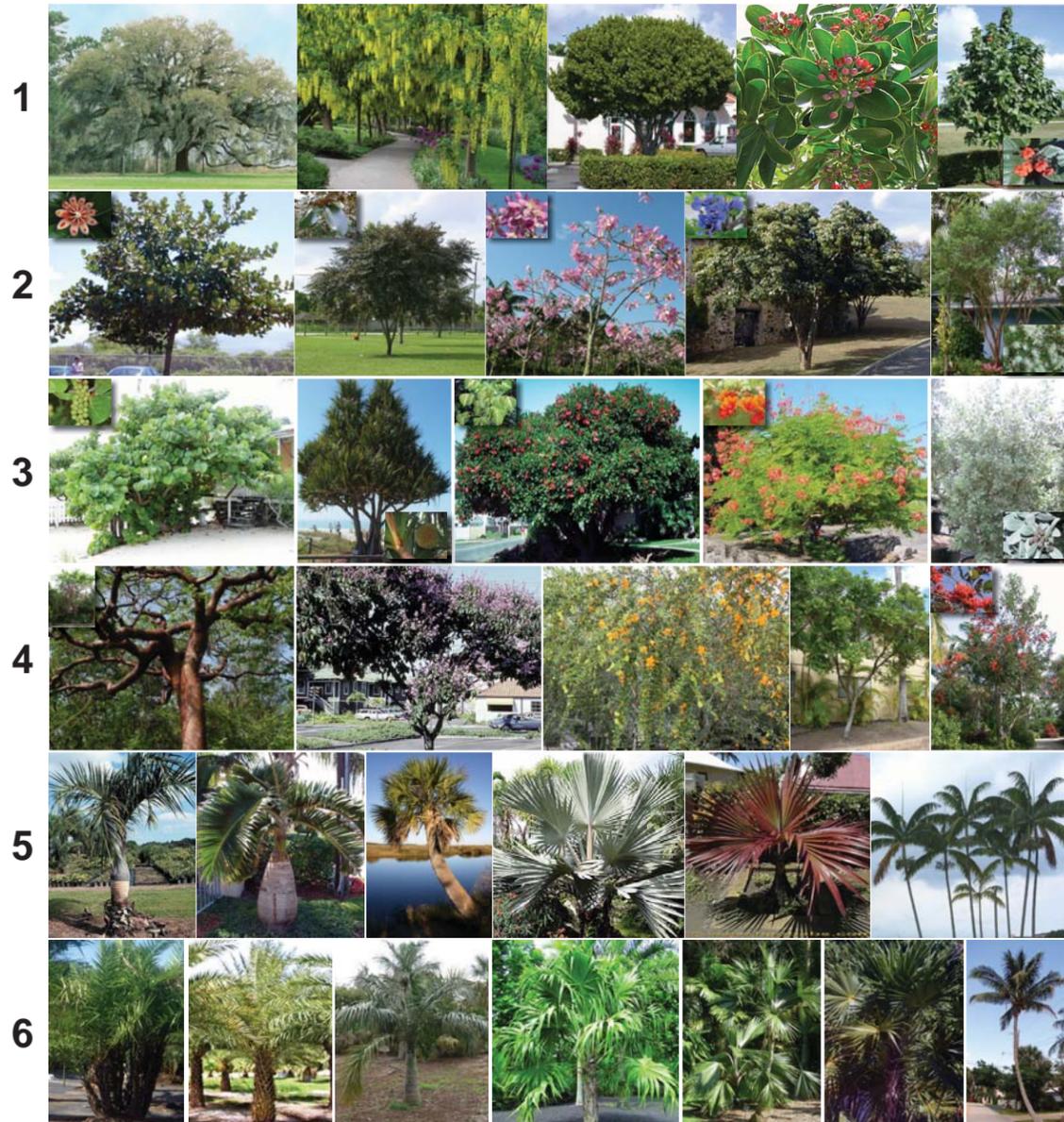
Annuals & Perennials

VILLAGE OF KEY BISCAYNE LANDSCAPE MASTER PLAN - SUGGESTED PLANT SPECIES

ANNUALS & PERRENIALS		CULTURAL DATA & CHARACTERISTICS										PROPOSED LOCATION							
Common Name	Botanical Name	Native	Drought Tolerance	Salt Tolerance	Light Needs	Growth Rate	Mature Size	Flowering Season	Flower	Plant Type	Notable Features	Village Green	Accent Areas	Village Civic Center	Community School	Village Beach Park	Pocket & Vista Parks	Street-scapes	
* Butterfly Weed	<i>Asclepias curavassica</i>	Yes	High	Medium	Medium-High	Fast	2'	Sp, S, F	Red or orange	Perennial	larval/nectar plant for butterflies								
* Sea-Oxeye Daisy	<i>Borrchia frutescens</i>	Yes	High	High	High	Slow	3'	Sp, S, F	Yellow	Semi-woody Perennial						X	X	X	
* Bulbine	<i>Bulbine frutescens</i>	Yes	High	Medium	Medium-High	Fast	2'	Sp, S, F	Red or orange	Perennial	larval/nectar plant for butterflies								
* Common Tickseed	<i>Coreopsis leavenworthii</i>	Yes	Medium	Low	High	Fast	4'	Sp, S, F, W	Yellow	Perennial									
* Golden Creeper	<i>Ernodea littoralis</i>	Yes	High	High	High	Medium	2'	Sp, S, F, W	White-Pink	Semi-woody Evergreen						X			
Coral Bean	<i>Erythrina herbacea</i>	Yes	High	High	High	Medium	16'	Sp, S	Reddish	Semi-herbaceous									
* Yellowtop	<i>Flaveria linearis</i>	Yes	High	High	High	Fast	4'	Sp, S, F, W	Yellow	Perennial	Likes sandy soil								
Indian Blanket Flower	<i>Gaillardia pulchella</i>	No	High	High	High	Medium	14-24"	S	Yellow-Orange	Perennial	Plant Feb.-May; Use as Annual	X					X		
* Beach Sunflower	<i>Helianthus debilis</i>	Yes	High	High	High	Fast	1-2'	Sp, S, F, W	Yellow-Black	Annual Vine	Beach Dunes						X		
Spider Lily	<i>Hymenocallis latifolia</i>	Yes	High	High	Mhigh-Medium	Medium	3'	S	White	Perennial	Clumping						X	X	X
Shore Juniper	<i>Juniperus conferta</i>	No	High	High	High	Fast	12-18"	Na	Na	Groundcover		X							
Parson's Juniper	<i>Juniperus davurica 'Parsonii'</i>	No	High	High	High	Medium	4'-5'	Na	Na	Groundcover/shrub	Beach Dunes								
* Shrub Verbena	<i>Lantana depressa</i>	Yes	High	High	High	Medium	2'	Sp, S, F, W	Yellow	Perennial									
Wild Sage	<i>Lantana involucrata</i>	No	High	Medium	High	Fast	2-3'	Sp, S, F, W	White or Yellow	Groundcover				X	X		X	X	
Liriope	<i>Liriope muscari</i>	No	High	Medium	Medium-High	Medium	1-2'	S	Purple to White	Herbaceous Perennial		X		X	X		X	X	
Muhly Grass	<i>Muhlenbergia capillaris</i>																		
Mondo Grass	<i>Ophiopogon japonicus</i>	No	Medium	Medium	Low-Medium	Medium	.5'	S	White	Herbaceous Perennial		X		X	X		X	X	
Seashore Paspalum	<i>Paspalum vaginatum</i>	Yes	High	High	High	Medium	2'	Na	Na	Turfgrass	Turfgrass Substitute	X							
Philodendron 'Burlie Marx'	<i>Philodendron 'Burlie Marx'</i>	No	Medium	Medium	Medium-High	Fast	3'	Na	Na	Groundcover		X	X	X			X	X	
* Moss Rose	<i>Portulaca grandiflora</i>	No	High	High	High	Fast	4-8"	Summer	Yellow, pink, red, orange	Annual succulent	Plant Mar.-Aug.								
Tropical Sage	<i>Salvia coccinea</i>	Yes	High	Medium	Medium-High	Medium	2'	Sp, S	Red	Annual or perennial	Plant mid Feb.-Dec.								
Sage	<i>Salvia leucantha</i>																		
Sea Purslane	<i>Sesuvium portulacastrum</i>	Yes	High	High	High	Medium	4-6"	Sp, S, F, W	Pink	Perennial	Dune stabilizer					X			
* Blue Porterweed	<i>Stachytarpheta jamaicensis</i>	Yes	High	Medium	Medium-High	Medium	1-3'	Sp, S, F, W	Blue, Purple	Perennial									
Purple Queen	<i>Tradescantia pallida 'Purpurea'</i>	No	Medium	High	Medium-High	Fast	1'	Sp, S, F, W	Pink	Herbaceous Perennial		X	X		X	X	X	X	
* Florida Gamma Grass	<i>Tripsacum floridana</i>	Yes	High	Medium	High	Medium	1'	F	Green	Grass		X	X		X		X	X	
* Sage Rose	<i>Turnera ulmifolia</i>	Yes	High	High	Medium-High	Fast	3'	Sp, S, F, W	Yellow	Perennial									
Wild Allamanda	<i>Urechites lutea</i>	Yes	High	Medium	Medium-High	Medium	Na	Sp, S, F, W	Yellow	Evergreen Vine									
* Coontie	<i>Zamia pumila</i>	Yes	High	High	Medium-High	Slow	2'	S	Na	Cycad		X			X	X	X	X	

* Denotes Exceptional Performer

Plant Images



ROW 1: *Quercus virginiana*, *Cassia fistula*, *Coccoloba diversifolia*, *Canella winterana*, *Cordia sebestena*
ROW 2: *Clusia rosea*, *Chrysophyllum oliviforme*, *Chorisia speciosa*, *Guaiacum sanctum*, *Myrcianthes fragrans*
ROW 3: *Coccoloba uvifera*, *Pandanus utilis*, *Erythrina indica*, *Caesalpinia pulcherrima*, *Conocarpus erectus* var. *sericeus*
ROW 4: *Bursera simarouba*, *Lagerstroemia speciosa*, *Brya ebenus*, *Filicium decipens*, *Butea monosperma*
ROW 5: *Hyophorbe verschaffeltii*, *Hyophorbe lagenicaulis*, *Sabal palmetto*, *Latania loddigesii*, *Latania lontaroides*, *Veitchia joannis*
ROW 6: *Phoenix reclinata*, *Phoenix sylvestris*, *Pseudophoenix sargentii*, *Thrinax radiata*, *Thrinax morrisii*, *Coccothrinax argentata*, *Cocos nucifera* 'Maypan'

Trees & Palms

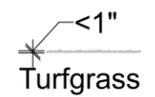
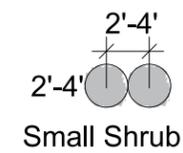
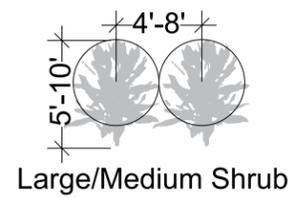
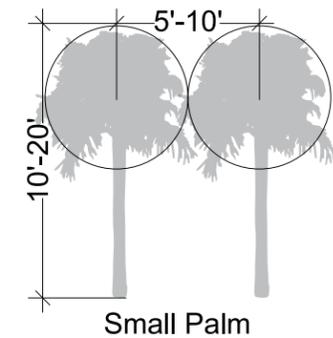
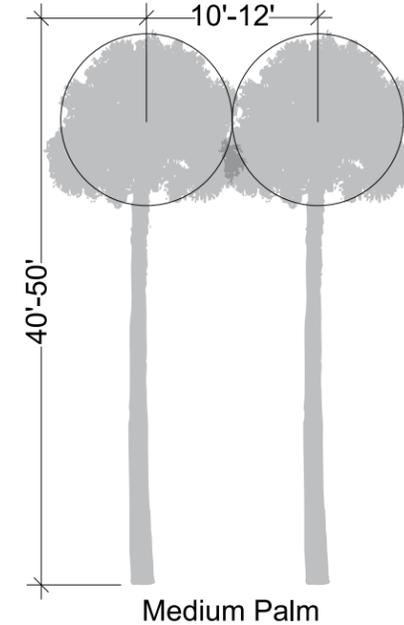
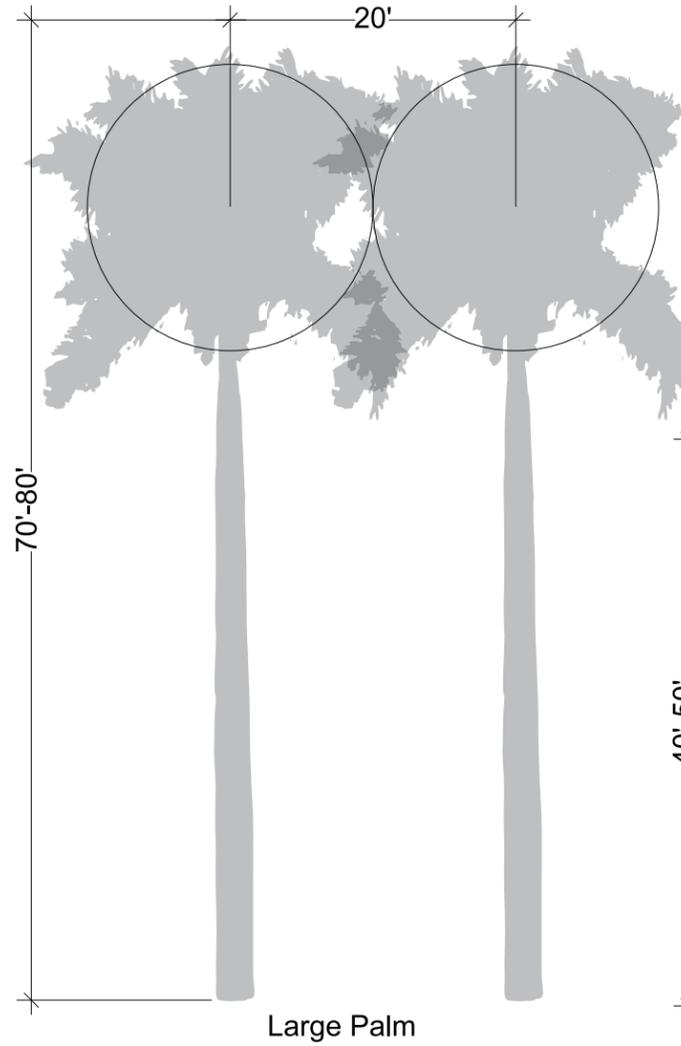
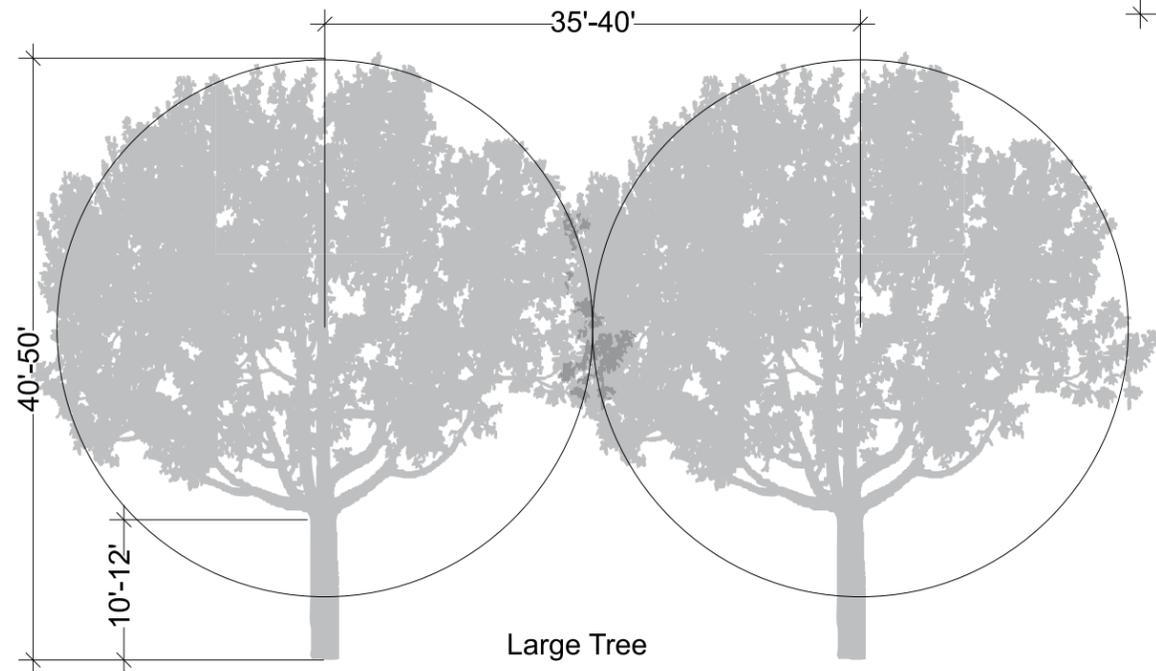
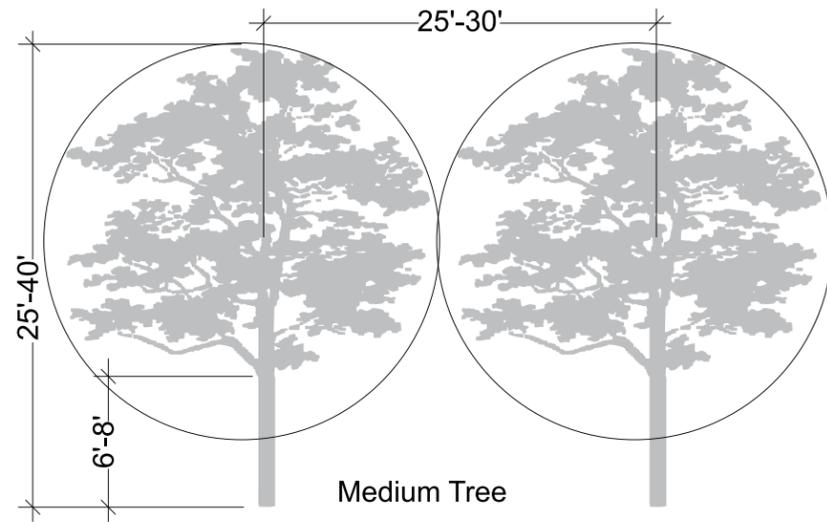
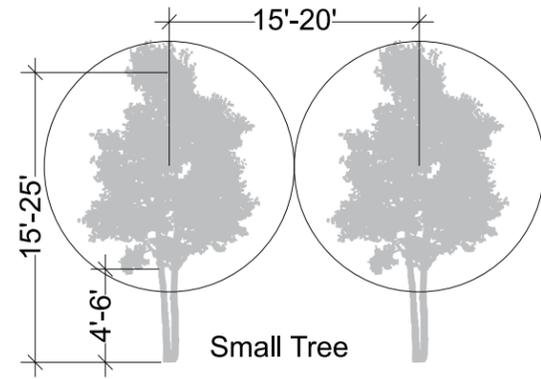
ROW 1: *Alpinia zerumbet* 'Variegata', *Argusia gnaphalodes*, *Bougainvillea glabra*
ROW 2: *Buddleja davidii*, *Byrsonima lucida*, *Capparis cynophallophora*, *Senna* spp.
ROW 3: *Carissa microcarpa*, *Suriana maritima*, *Crinum augustum*
ROW 4: *Duranta repens*, *Heliconia psitticorum*, *Heliconia caribea* X *bihai*, *Jasminum volubile*
ROW 5: *Jatropha integerrima*, *Pittosporum tobira*, *Plumbago auriculata*
ROW 6: *Schefflera arboricola*, *Sabal minor* (blue), *Sabal minor* (green), *Sophora tomentosa*

Shrubs

ROW 1: *Asclepias curravassica*, *Borrchia frutescens*, *Crinum asiaticum*, *Flaveria linearis*
ROW 2: *Ernodea littoralis*, *Gaillardia pulchella*, *Hamelia patens*, *Helianthus debilis*
ROW 3: *Lantana depressa*, *Lantana montevidensis*, *Portulaca grandiflora*, *Salvia coccinea*
ROW 4: *Muhlenbergia capillaris*, *Salvia leucantha*, *Bulbine frutescens*, *Spartina bakeri*
ROW 5: *Spartina patens*, *Tradescantia pallida* 'Purpurea', *Juniperus conferta*, *Stachytarpheta jamaicensis*
ROW 6: *Tripsacum floridana*, *Turnera ulmifolia* (white), *Turnera ulmifolia* (yellow), *Zamia pumila*

Groundcover

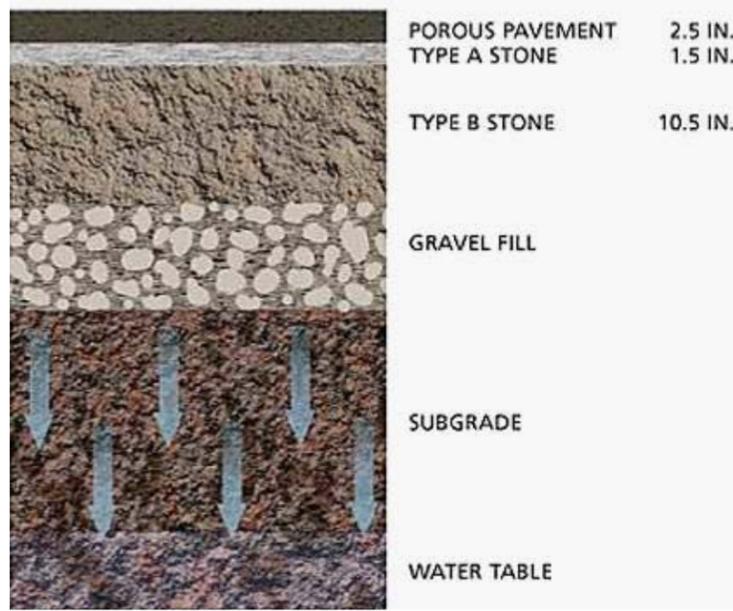
Scale & Spacing



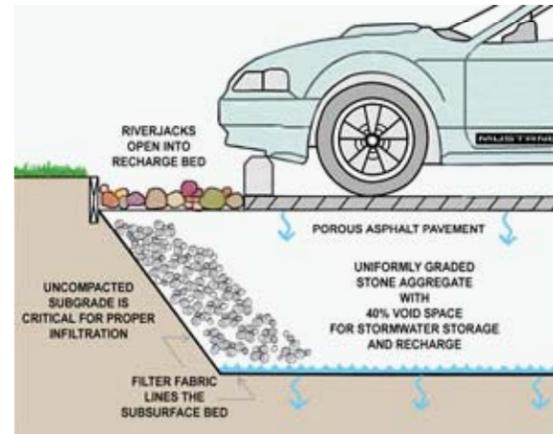
SITE DESIGN



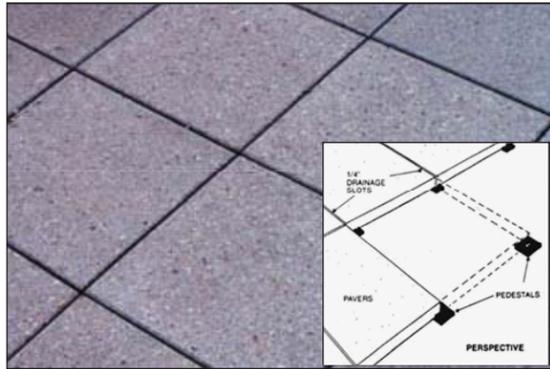
Hardscape



Turf Pave



Uni-Eco Stone



Pavers



Cast-in-Place Concrete



Permeable Paving
Permeable Hardscape



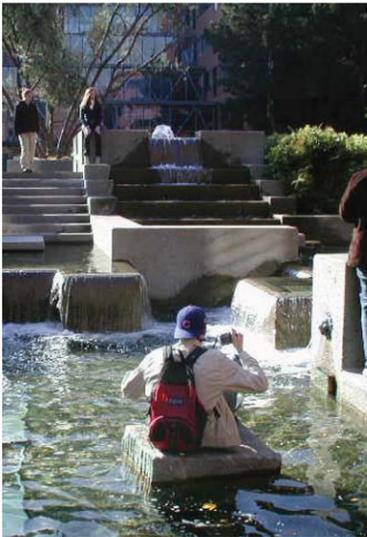
Permeable Asphalt



Recycled Play Surfaces



Interactive Water Features



Engaging Features

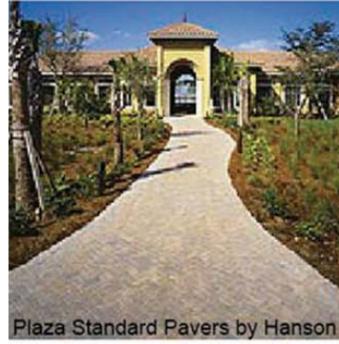


Fountains

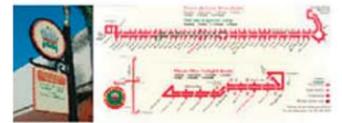
Proposed Amenities



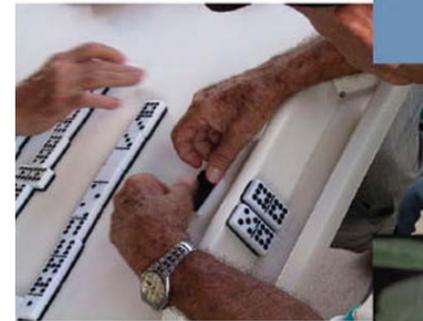
Trellises



Walkways



Wayfinding



Program:



Play,



Explore,

Relax

Proposed Furnishings

Existing
Scarborough Series
by Landscapeforms



Pet Waste Station by Dogipot



Existing



Existing



Bicycle Rack
by Columbia Cascade



RAL-2172-01-E

Plainwell Series by Landscapeforms



Black



Wood

Green Sites Series by Victor Stanley



RHF-24



RTH-24

Black Steel Series by Victor Stanley



A-36



NSDC-36

Receptacles

Solar-Powered Annapolis Bollard
by Lumec



L80 Contemporary Lantern
by Lumec



Lighting

Classic Series by Victor Stanley



Backless Bench



Table

Plainwell Bench by Landscapeforms



Aluminum



Wood



Aluminum Black

Benches

Framers Modern Series
by Victor Stanley



FMBF-324



FB-324

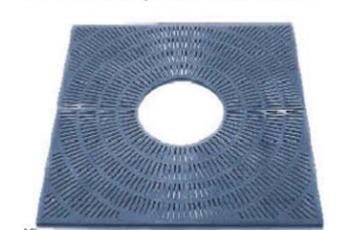


FMS-324

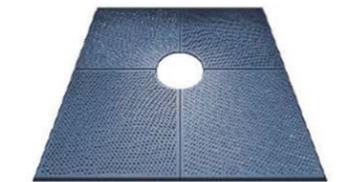
Water Fountain by Hahs



Tree Grates by Urban Accessories



Kiva



Viper



Fiat Rainbow

Other

COST ESTIMATES



Cost Estimates

Purpose

To provide the Village of Key Biscayne with order-of-magnitude cost estimates for future landscape improvements that were identified in the Master Landscape Plan's Inventory and Analysis Report. The following estimates are for budgetary purposes and do not represent cost estimates based on designed landscapes

Method

Design, construction, and implementation cost estimates were calculated for each study area using the following variables:

- Total square footage of landscape and hardscape improvements suggested
- Percentage of upgrades suggested for each study area based on inventory and assessment
- Cost per square foot for suggested improvements
- Construction contingency costs
- Design contingency costs

Summary

The total **Construction** estimates for the Village Green, Community School, and Enid Lake/Beach Park equals \$ 1,319,394

Order-of magnitude Project estimates reflect the inclusion of all probable soft-costs, such as design, permitting, project management, etc.

A summary breakdown of Order-of Magnitude projects by study area is as follows:

Village Green	\$ 1,312,000
Community School	\$ 117,939
<u>East Enid Lake & Beach Park</u>	<u>\$ 739,932</u>
TOTAL	\$ 2,169,871

Calculations

Calculations are listed by study area. The total estimated construction cost of each study area "project" was input into the Capital Project budget calculator to reach the total project value.

Capital Project - Scope, Schedule, & Budget Initial Budget Estimate			
Zone Name: <u>Village Green</u>			
Base Year For Cost Estimate: <u>2008</u> Fiscal Year _____			
Planning/Design Phase: _____			
A. Design:			
1. Consultant Basic Fees:		\$87,712	
2. Consultant Supplemental Services:		\$17,542	
3. Reimbursable Expenses:		\$8,771	
Design Total:			\$114,026
B. Site Acquisition/Investigation:			
1. Land Acquisition:			
2. Legal Fees:			
3. Environmental Audits/Testing:			
Site Acquisition Total:			
C. Miscellaneous Costs:			
1. PM on Design* (% of A & B)	20.00%	\$22,805	
2. Plan Review Fees* (% of A & B)			
3. Other:			
Total Misc. Costs:			\$22,805
Planning Phase Total:			\$136,831
Construction Phase:			
Fiscal Year _____			
D. Construction:			
1. Estimate of Construction		\$797,384	
2. Design Contingency** (% of 1)	10.00%	\$79,738	
3. C. O. Allowance (% of 1 & 2)	5.00%	\$43,856	
4. Project Contingency (% of 1 & 2)	5.00%	\$43,856	
5. Subtotal Construction		\$964,835	
6. Public Art*** (% of 5)			
7. Permits, Util. and Testing (% of 5)	3.00%	\$28,945	
8. OCIP (% of 5)	3.00%	\$28,945	
9. PM/CM**** (% of 5)	10.00%	\$96,483	
Construction Total:			\$1,119,208
E. Relocation Expenses:			
1. Moving Expenses:			
2. Interim Leases:			
3. Other (incl. contingency):			
Total Relocation Exp.:			
F. Furnishings:			
1. Furniture and Equipment:			
2. Security:			
3. Other (incl. contingency):			
Total FF & E:			
G. Allowances:			
1. Project Reserve *****(% of Const.)	5.00%	\$55,960	
Allowances Total:			\$55,960
Construction Phase Total:			\$1,175,169
Total Estimated Project Cost (Base Year Dollars)----->>			\$1,312,000
Date: <u>7/31/2008</u>			
Prepared By: <u>Wallace, Roberts & Todd, LLC</u>		Approved By: _____	
Remarks: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>			

Based on the conditions identified through the inventory and assessment of the Village Green, seventy-five percent (75%) overall improvements are recommended for new canopy and re-sodding. This square footage was the used for estimating on a unit cost basis.

Detailed improvement costs were identified for this particular study area due to its identification as the Village's signature green space.

The construction cost total of \$797,384 was input into the Capital Project budget calculator to reach the total project value.

Total project estimated amount for the Village Green enhancement is \$1,312,000.

	total area (SF)	% upgrades	adjusted area (SF)	cost per unit	construction cost	subtotal	10% contingency	total	GRAND TOTAL
Village Green						\$ 724,895	\$ 72,489	\$ 797,384	\$1,312,000.00
Landscape Upgrades									
Canopy	150,371	75	75,186	\$3.00/SF	\$ 225,557				
Sod	211,288	75	105,644	\$0.50/SF	\$ 52,822				
Hardscape Upgrades*									
Plaza	27,272			\$6.00/SF	\$ 163,632				
Jogging Path	29,971			\$4.00/SF	\$ 119,884				
Arbor	2,708			\$50.00/SF	\$ 135,400				
Seat Wall	460 LF			\$60.00/LF	\$ 27,600				

Key Biscayne Community School

Based on the conditions identified through the inventory and assessment of the Key Biscayne Community School, ten percent (10%) improvements are recommended for hardscape areas and fifty percent (50%) for landscape areas.

Moderate improvement costs per square foot were identified for this study area. These costs were determined by taking an average of current hardscape and landscape treatments for school properties.

\$ 6/SF hardscape

\$ 5/SF landscape

The construction cost total of \$72,307 was input into the Capital Project budget calculator to reach the total project value.

Total project estimated amount for the Key Biscayne Community School enhancement is \$117,939.

	total area (SF)	% upgrades	adjusted area (SF)	cost per unit	construction cost	subtotal	10% contingency	total	GRAND TOTAL
Key Biscayne Community School						\$ 65,733	\$ 6,573	\$ 72,307	\$117,939.00
Landscape Upgrades	36,447	50	18,224	\$3.00/SF	\$ 54,671				
Hardscape Upgrades	18,438	10	1,844	\$6.00/SF	\$ 11,063				

Capital Project - Scope, Schedule, & Budget Initial Budget Estimate			
Zone Name: <u>Key Biscayne Community School</u>			
Base Year For Cost Estimate: <u>2006</u>		Fiscal Year: _____	
Planning/Design Phase: _____			
A. Design:			
1. Consultant Basic Fees:		\$7,954	
2. Consultant Supplemental Services:		\$1,591	
3. Reimbursable Expenses:		\$795	
Design Total:			\$10,340
B. Site Acquisition/Investigation:			
1. Land Acquisition:			
2. Legal Fees:			
3. Environmental Audits/Testing:			
Site Acquisition Total:			
C. Miscellaneous Costs:			
1. PM on Design* (% of A & B)	10.00%	\$1,034	
2. Plan Review Fees* (% of A & B)			
3. Other:			
Total Misc. Costs:			\$1,034
Planning Phase Total:			\$11,374
Construction Phase:		Fiscal Year: _____	
D. Construction:			
1. Estimate of Construction		\$72,307	
2. Design Contingency** (% of 1)	10.00%	\$7,231	
3. C. O. Allowance (% of 1 & 2)	5.00%	\$3,977	
4. Project Contingency (% of 1 & 2)	5.00%	\$3,977	
5. Subtotal Construction		\$87,491	
6. Public Art*** (% of 5)			
7. Permits, Util. and Testing (% of 5)	3.00%	\$2,625	
8. OCIP (% of 5)	3.00%	\$2,625	
9. PM/CM**** (% of 5)	10.00%	\$8,749	
Construction Total:			\$101,490
E. Relocation Expenses:			
1. Moving Expenses:			
2. Interim Leases:			
3. Other (incl. contingency):			
Total Relocation Exp.:			
F. Furnishings:			
1. Furniture and Equipment:			
2. Security:			
3. Other (incl. contingency):			
Total FF & E:			
G. Allowances:			
1. Project Reserve *****(% of Const.)	5.00%	\$5,075	
Allowances Total:			\$5,075
Construction Phase Total:			\$106,565
Total Estimated Project Cost (Base Year Dollars)----->>			\$117,939
Date: <u>8/9/2006</u>			
Prepared By: <u>Wallace, Roberts & Todd, LLC</u>		Approved By: _____	
Remarks: <div style="border: 1px solid black; height: 30px; width: 100%;"></div>			

East Enid Lake & Beach Park

Capital Project - Scope, Schedule, & Budget Initial Budget Estimate			
Zone Name: <u>East Enid Lake through Village Beach Park</u>			
Base Year For Cost Estimate: <u>2008</u> Fiscal Year _____			
Planning/Design Phase: _____			
A. Design:			
1. Consultant Basic Fees:		\$49,467	
2. Consultant Supplemental Services:		\$9,893	
3. Reimbursable Expenses:		\$4,947	
Design Total:		\$64,308	
B. Site Acquisition/Investigation:			
1. Land Acquisition:			
2. Legal Fees:			
3. Environmental Audits/Testing:			
Site Acquisition Total:			
C. Miscellaneous Costs:			
1. PM on Design* (% of A & B)	20.00%	\$12,862	*PM on Design 20% Design < \$10M 15% Design > \$10M Plan Review Fees Range 1%-5%
2. Plan Review Fees* (% of A & B)			
3. Other:			
Total Misc. Costs:		\$12,862	
Planning Phase Total:			\$77,169
Construction Phase:			
D. Construction:			
1. Estimate of Construction		\$449,703	**Design Contingency 40% for O of M 30% for 10% Des. 20% for 60% Des. 10% for 90% Des. 5% for 95% Des. 0% for 100% Des. ***Public Art 2% for Vertical Const. ****PM/CM 10% Const. <\$100M 8% Const. <\$500M 6% Const. >\$500M 6% Const. > 500M (incl. optional services) *****Project Reserve Range 2.5%-7.5%
2. Design Contingency** (% of 1)	10.00%	\$44,970	
3. C. O. Allowance (% of 1 & 2)	5.00%	\$24,734	
4. Project Contingency (% of 1 & 2)	5.00%	\$24,734	
5. Subtotal Construction		\$544,141	
6. Public Art*** (% of 5)			
7. Permits, Util. and Testing (% of 5)	3.00%	\$16,324	
8. OCIP (% of 5)	3.00%	\$16,324	
9. PM/CM**** (% of 5)	10.00%	\$54,414	
Construction Total:		\$631,203	
E. Relocation Expenses:			
1. Moving Expenses:			
2. Interim Leases:			
3. Other (incl. contingency):			
Total Relocation Exp.:			
F. Furnishings:			
1. Furniture and Equipment:			
2. Security:			
3. Other (incl. contingency):			
Total FF & E:			
G. Allowances:			
1. Project Reserve *****(% of Const.)	5.00%	\$31,560	
Allowances Total:		\$31,560	
Construction Phase Total:		\$662,763	
Total Estimated Project Cost (Base Year Dollars)----->>			\$739,932
Date: <u>7/31/2008</u>			
Prepared By: <u>Wallace, Roberts & Todd, LLC</u>		Approved By: _____	
Remarks: <div style="border: 1px solid black; height: 20px; width: 100%;"></div>			

After input from the newly appointed Landscape Committee and Village Staff, the decision was made to combine project scopes and associated costs for East Enid Lake and Beach Park as these sites are contiguous properties.

Due to the varied nature of improvements, the unit costs were determined on a more detailed level for each element.

The construction cost total of \$449,703 was input into the Capital Project budget calculator to reach the total project value.

Total project estimated amount for the East Enid Lake and Village Beach Park enhancement is \$739,932.

	total area (SF)	% upgrades	adjusted area (SF)	cost per unit	construction cost	subtotal	10% contingency	total	GRAND TOTAL
East Enid Lake - Beach Park						\$ 408,821	\$ 40,882	\$449,703	\$739,932.00
Landscape Upgrades									
Canopy	17,465	30	5,240	\$3.00/SF	\$ 15,719				
Dense Buffer	8,359			\$3.00/SF	\$ 25,077				
New Esplanade Palms	25,106	30	7,532	\$3.00/SF	\$ 22,595				
Linear Hedge	1220 LF	50	610 LF	\$9.00/LF	\$ 5,490				
Hardscape Upgrades**									
Paving	37,090	75	27,818	\$4.50/SF	\$ 125,179				
Boardwalk	1,592	50	796	\$25.00/SF	\$ 19,900				
Boat Launch	2,869			\$3.50/SF	\$ 10,042				
Trellis	3,958			\$40.00/SF	\$ 158,320				
Bike Rack				\$1,500	\$ 1,500				
Tot Lot	9,000	Allowance			\$ 25,000				

**Does not include Escofet™ furnishings

