

draft

# Brickell Area Streetscape Implementation Guidelines

*"To make Miami the most livable city in America"*

DDA *Miami*

March 18, 2005

 GLATTING  
JACKSON  
KERCHER  
ANGLIN  
LOPEZ  
RINEHART



### Executive Summary Poster

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#### 1. Introduction

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#### 2. Existing Conditions

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#### 3. Street Design Principles and Concepts

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#### 4. Conceptual Master Plan

- New Streets
  - Bike Paths
  - Corner Bulbouts
  - On-Street Parking
  - Composite
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#### 5. Typical Street

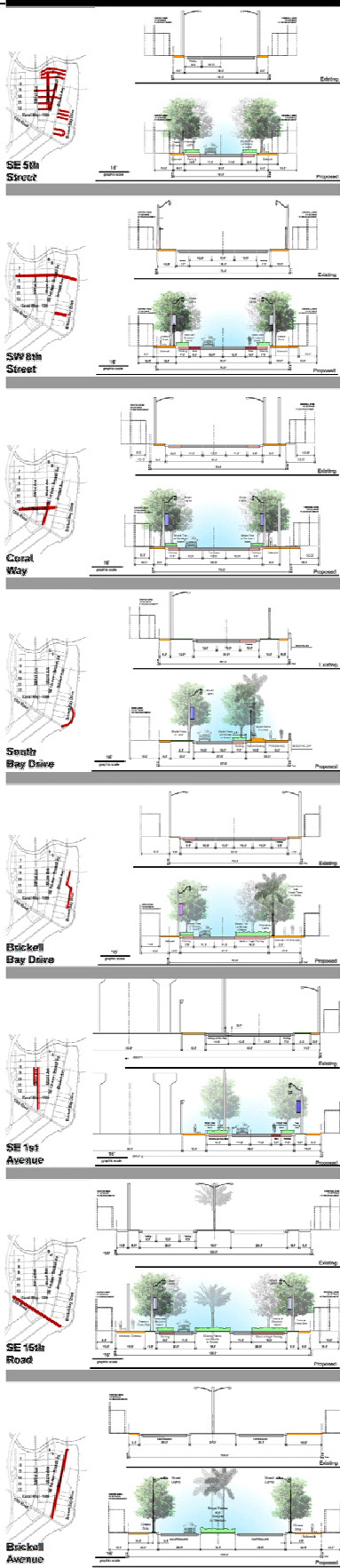
- Plans and Sections
  - Typical Plans
  - Typical Sections
- 

#### 6. Implementation Plan

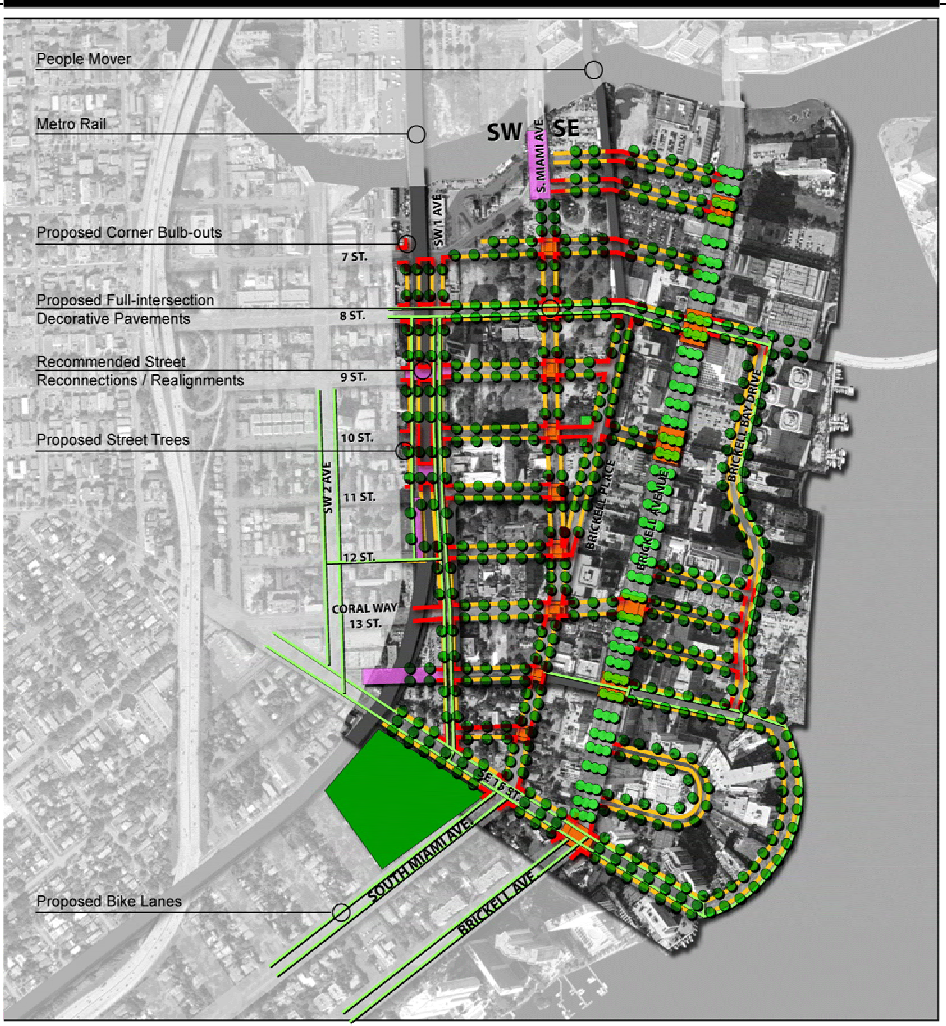
1. Opinion of Probable Costs
  2. Code Review
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#### Appendices

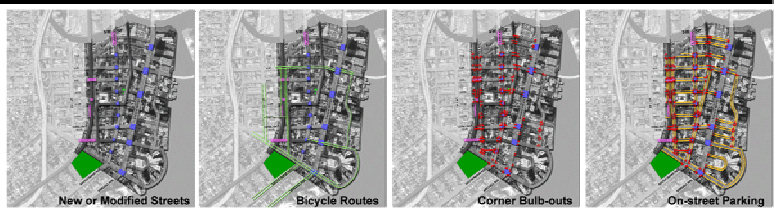
- Brickell Village Action Plan
- Miami Downtown Transportation Master Plan
- Brickell Village Streetscape, Urban And Architectural Standards
- South Brickell Streetscape Concept



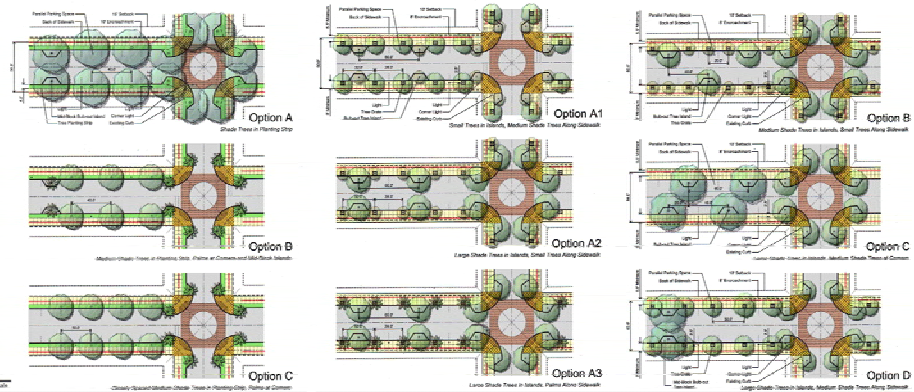
Typical Street Sections



### Streetscape Master Plan



Streetscape Master Plan Diagrams



Tree Planting Options - General Area

Tree Planting Options - Central Area

# Brickell Village Streetscape Implementation Plan

March 15, 2005

GLATFING JACKSON KERBER ANGLIN LOPEZ BINSWANT

DDA Miami Miami, Florida

### *Purpose of the Guidelines*

The mission of the Miami Downtown Development Authority (DDA) is to "*work with public and private stakeholders to make Miami the most livable city in America, and to strengthen downtown's competitive position as an international center of commerce and culture*". Recognizing that the quality of the downtown street network is critical to accomplishing this mission, the DDA retained Glatting Jackson to prepare these Streetscape Implementation Guidelines to guide the redevelopment of the City's downtown streets.

The Guidelines are based on sound design principles to create a more livable downtown, as well as on design concepts developed in earlier studies (see Appendices). The purpose of the Guidelines is two-fold:

- 1) to provide DDA Board members and staff, elected officials, City/ County/ FDOT staff and the public with an overall vision to guide the redevelopment of the downtown streets
- 2) to provide street designers with design criteria (detailed cross sections, design details and code information) to guide the design of individual street segments

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## *How to Use These Guidelines*

**Section 3 - Street Design Principles and Concepts**, establishes the basic framework for all of the streets in the Brickell Area. This section should be used as a checklist to evaluate the proposed design of any street segment.

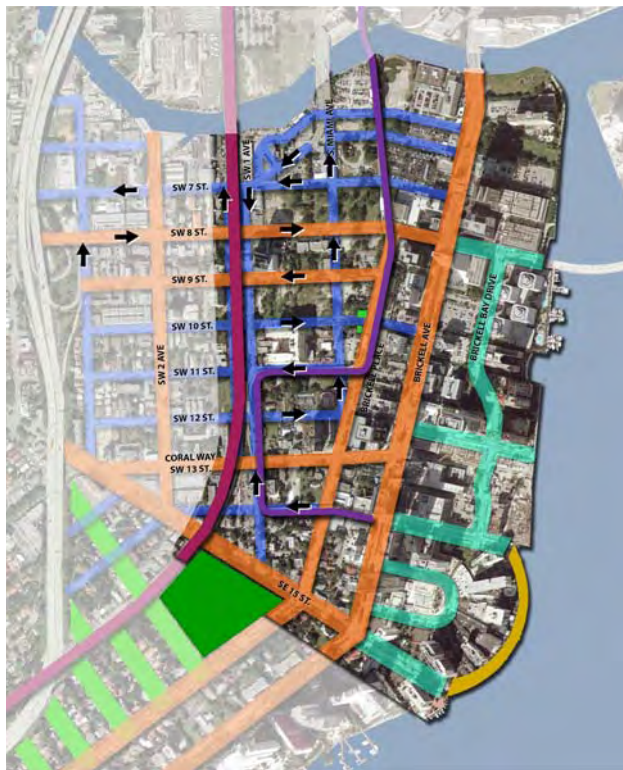
**Section 4 - Conceptual Master Plan**, shows the overall Vision for the Brickell Area, including new streets, bike lanes and paths, corner bulb-outs and on-street parking. Every proposed streetscape improvement should be consistent with this overall Vision.

**Section 5 - Typical Street Sections**, shows the proposed layout of typical streets in the Brickell Area, based on their right-of-way (ROW) widths. Care was taken not to require the relocation of curbing or storm drainage in order to minimize costs. All streets should be designed in accordance with these sections.

Finally, **Section 6 - Implementation Plan**, includes an Opinion of Probable Costs and a review of applicable codes. The Opinion of Costs is based on 2005 costs for above-ground improvements such as street trees, pavement, curbing, site furnishings and lighting. It does not include underground costs for utilities or storm drainage improvements.

The review of applicable codes outlines variances required to existing codes to build the proposed streetscape plans and sections. Three different agencies have jurisdiction over the Brickell Area streets: the City of Miami, Miami-Dade County and the Florida Department of Transportation (FDOT). The agencies' codes are not consistent so street designers will need to work with the appropriate agency to gain the necessary variances and approvals for each street section.

## 2. Existing Conditions



### ROW Hierarchy

50' ROW

60' ROW

70' ROW

>70' ROW

figure 1: Right of Way Widths and One-way Streets

The project area is bounded on the east by Biscayne Bay, on the west by NW 1<sup>st</sup> Avenue, on the north by the Miami River, and on the south by SE 15<sup>th</sup> Road. Within these bounds the width of the roadway rights-of-ways (ROW) varies from approximately fifty feet to over seventy feet wide (figure 1). All of the streets are curbed with sidewalks and some on-street parking, and barring a few exceptions along Brickell Avenue and adjacent to newer developments, the streets are generally in fair to poor condition. This roadway network is designed to accommodate vehicular traffic into downtown and to Interstate 95 by funneling vehicles through the neighborhood to the major collector roads, Brickell Avenue, Coral Way, SW 7<sup>th</sup> and 8<sup>th</sup> Streets and South Miami Avenue. The street network is interrupted by the MetroMover and Metrorail lines, further limiting vehicular travel through the area (figure 2). Although sidewalks are provided, they are often narrow, and lack a consistent tree canopy. Combined with fast-moving traffic and turn-lanes, the area is generally uncomfortable and difficult for pedestrians to navigate through, especially at the major intersections and along Brickell Avenue.



figure 2: Interruptions in Street Network



*figure 3: Northern Area*



*figure 4: Central Area*



*figure 5: Western Area*

In terms of general streetscape “character”, the northern side of the Brickell Village area near the river has several large empty parcels, remnant commercial buildings, and an overall “industrial” character. The streets are open, treeless, and roughly 38’ wide from curb to curb in 50’ wide ROW’s.

The central area between the Metro Rail and MetroMover lines is a mixture of commercial and residential uses. The streetscape contains a mixture of tree plantings, often changing in tree location, species and spacing from property to property.

West of the MetroRail line is predominantly low to mid-rise multi-family residential blocks without trees in the ROW. Streets in this neighborhood tie into NW 1<sup>st</sup> Avenue which parallels the MetroRail line and several bus routes. Access to the MetroRail from these streets is good; however the lack of tree canopy and narrow sidewalks results in a harsh pedestrian environment in this heavily populated area.

East of Brickell Avenue the streets are generally newer, wider, and have a contiguous sidewalk system. Few streets connect to Brickell Avenue, so the garages serving Brickell Avenue buildings are accessed in this area. Several new and existing condominium complexes facing the water are located along Brickell Bay Drive, and along the water is South Shore Drive which has a narrow walkway directly at the waters edge. this densely populated area has basic sidewalks along the streets, but as densities increase so will the need to accommodate the new residents on safe, comfortable walks to the downtown and new retail facilities within the Brickell Village area.



*figure 6: Eastern Area*

Brickell Avenue is a signature street for the city and region. The streets' materials and finishes reflect the character of the individual building frontages, resulting in a patchwork of patterns, fixtures, spaces, and experiences. The high volume of vehicular traffic conveyed on this thoroughfare -- with pedestrians immediately adjacent to the travel lanes-- results in a noisy, hot, and potentially dangerous pedestrian environment, especially when crossing the street. There are few "official" crosswalks, forcing pedestrians to walk several blocks to get to a crossing point. The median serves as a barrier to deter jaywalkers; however mid-block footpaths through the median are evidence of the determination of pedestrians to take the shorter, more dangerous route dodging the traffic.

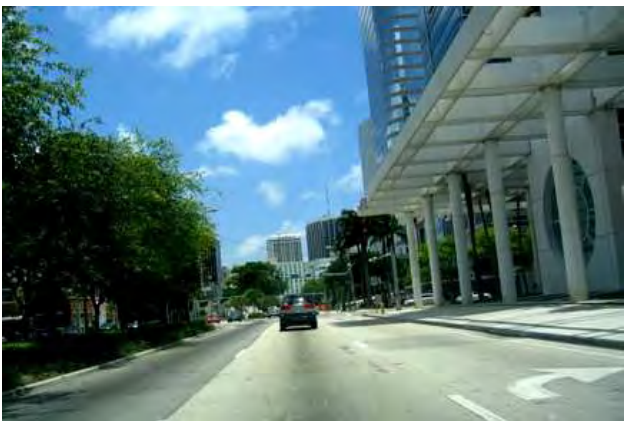


figure 7: Brickell Avenue



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### 3. Street Design Principles and Concepts

Livable cities have great streets, and in simple terms, a “great” street includes as many of the following attributes as possible.

*A Great Street ...*

- *...is an interconnected network of walkable blocks, the “bone structure” or framework of the city. Blocks should be as small as possible, and connected with two-way roads to provide alternative routes for vehicles through the street network.*
- *...provides access to public spaces. Ideally there are green parks, plazas, and café’s adjacent to the street and in some instances places directly on the street for people use.*
- *...is safe and comfortable for pedestrians, and accommodates bicycle circulation whenever feasible. The sidewalks must be scaled correctly to the size of the street and intensity of activity. Street trees must be included —preferably shade trees—to provide shade and minimize glare, pedestrian scale lights and street furniture*
- *...includes on-street parking for traffic calming, pedestrian buffer*
- *...has buildings close up to the street. Bringing active uses up to the sidewalk,*
- *...has slow, congested traffic! Slower traffic makes it easier for pedestrians cross the street.*





figure 8: New / Extended Streets



figure 9: Bicycle Paths

The primary purpose of this study is to test the feasibility of implementing the recommendations made in previous studies, and serve as a guide for coordinating the streetscape improvements in the area.

Objectives:

- Emphasize pedestrian comfort and safety
- Maintain existing curblines if possible
- Provide / maintain on-street parking
- Re-establish local street grid to increase options for traffic flow

These are the recommendations for accomplishing these objectives:

## New / Extended Streets

There are several locations where the street network may be augmented by re-connecting streets that over time have been severed from the historic street pattern. In particular,

- Extend SE 1st / Brickell Place to SE 5th Street
- Extend SW 9th under MetroRail
- Convert Bus Turnaround to Street (may not be feasible for semi-trailer truck clearance, but currently buses use this to turn around).
- Connect SW 1st Ave between 11th and 12th Streets
- Extend SW 14th Street to SW 2nd Ave

## Bicycle Paths

Access to a bicycle path is possible within three blocks of any place in the Brickell Village area. Through a combination of re-striping existing roads on-street bike lanes can connect to existing paths on South Brickell and South Miami Avenue's. In addition, the construction of a wide pedestrian promenade with room for bicycles can make the route along South Bayshore Drive and Brickell Bay Drive one of the premier pedestrian walking spaces in the area.

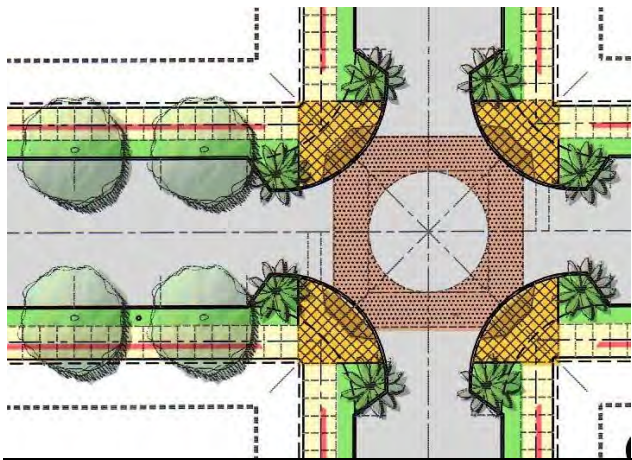


figure 10: Typical Corner Bulbout Plan

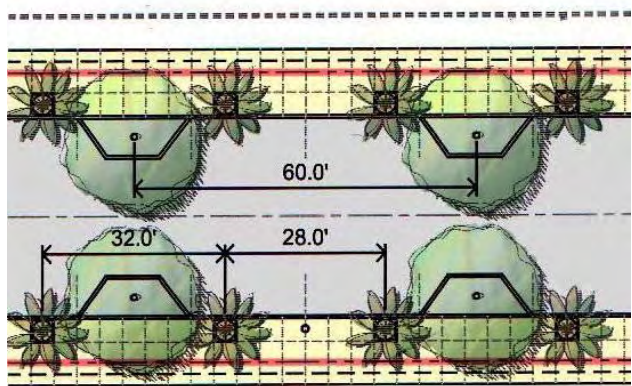


figure 11: Typical Mid-block Bulbout Plan



figure 12: All Potential Bulbout Locations

## Corner and Mid-block Bulbouts

The key traffic-calming and pedestrian safety component of this Concept Master Plan is the inclusion of “bulb-outs” at as many intersections as possible. A “bulb-out” is a narrowing of the intersection to shorten the walking distance for pedestrians across the street. Sized to accommodate emergency vehicle turning radii, this type of corner also helps define the on-street parking areas, and in some instances may be

## On-Street Parking

In this densely populated area of the city with a growing number of retail uses, parking is a valuable asset

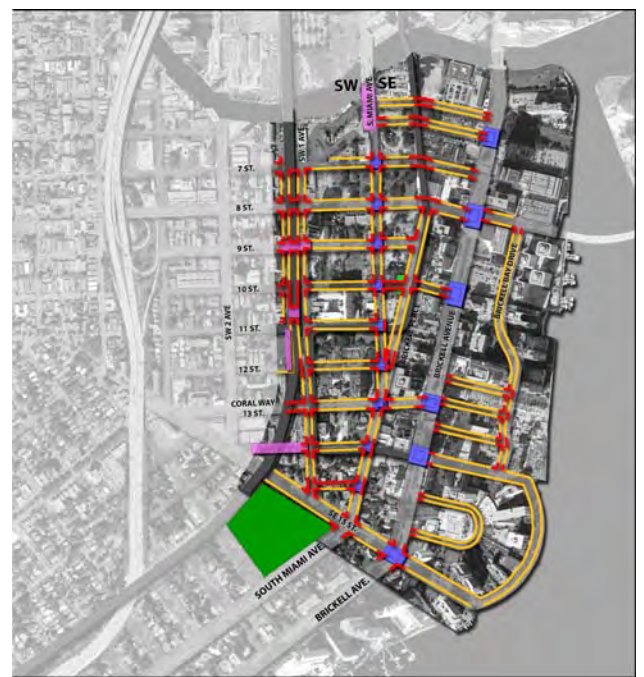


figure 13: Potential On-Street Parking and Bulbouts

## Composite Plan

The composite plan below illustrates how trees, on-street parking, corner bulbouts and bicycle paths form a complete network of pedestrian and vehicular routes throughout the Brickell Village area.

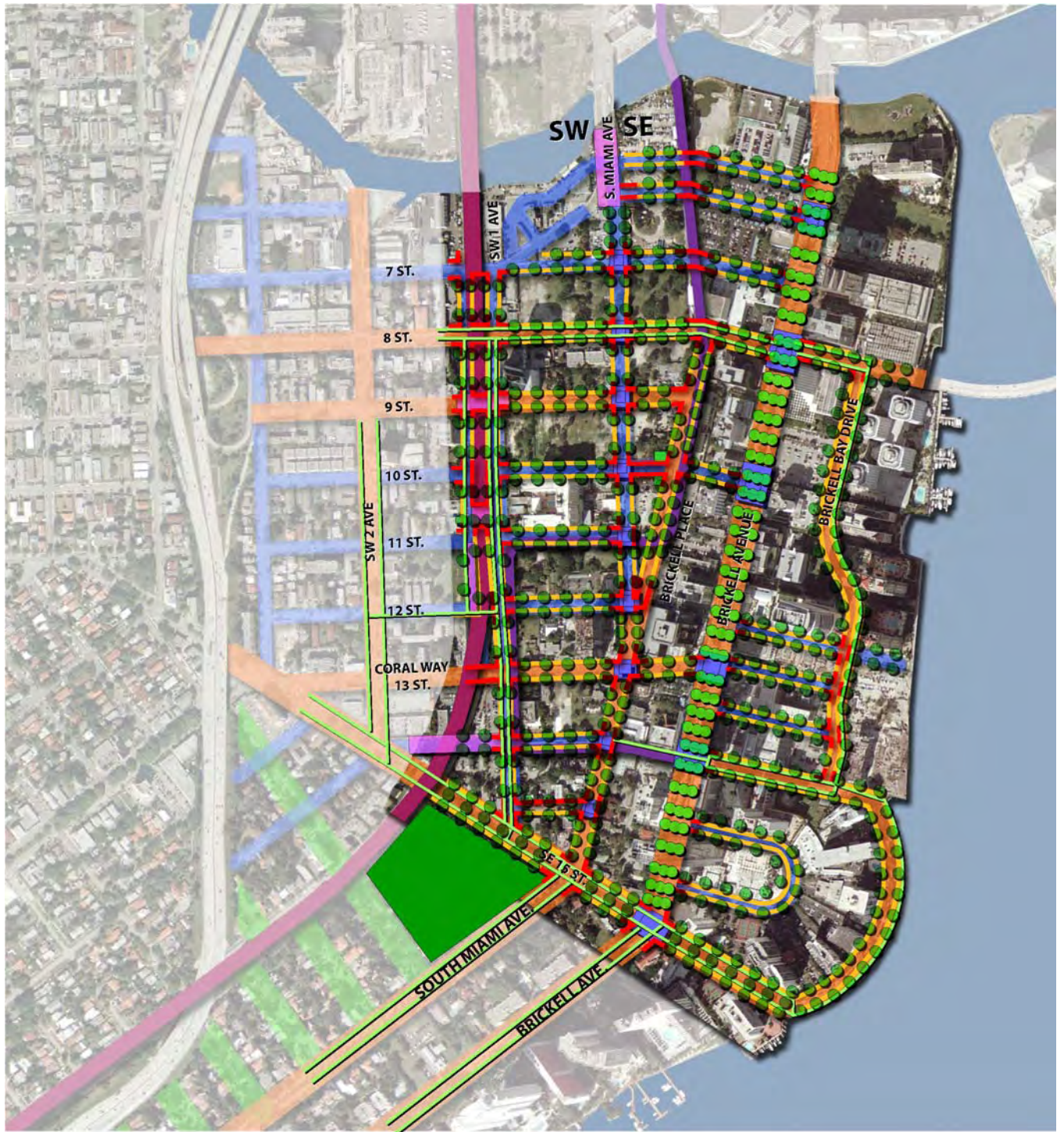


figure 14: Composite Plan of Recommended Streetscape Improvements

## 5. Typical Street Sections

No two streets are exactly alike in the Brickell Village area, however, all of the streets can be categorized into one of nine typical cross-sections based on ROW width, number of travel and parking lanes, and the width of sidewalk. These sections are based on field measurements of each street, and dimensions are provided for widths or setbacks of the various features. Even though there will be some variation in the exact dimensions for each street, the general concept illustrated in these sections is still valid.

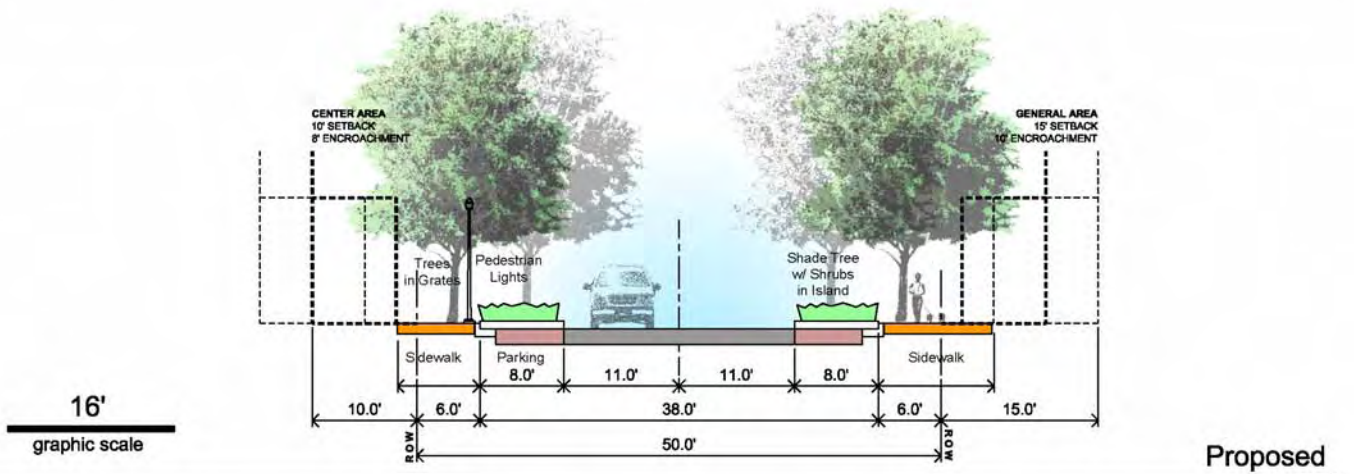
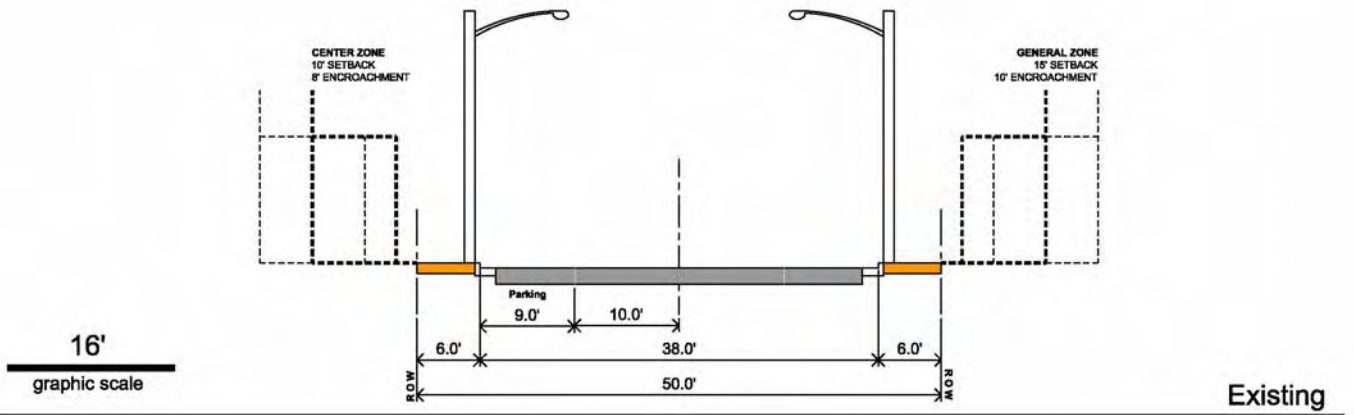
Each section follows the same format, at the top is a photograph of the street with a location map adjacent to it. Below is a cross section through the existing street and at the bottom of the sheet is the proposed cross section. All the cross sections—except for the cross-section for Brickell Avenue—show on-street parking with a tree in a bulbout the width of the parking lane. Although it is desirable to include as many trees as possible in mid-block bulbouts, it may not be feasible in many areas due to existing driveways or other interruption in the street, not enough space on the block to maintain the current number of parking spaces, or due to safety concerns for providing a clear view to oncoming vehicles.

These sections also indicate the setback and encroachment zones proposed in the "*Brickell Village Streetscape, Urban and Architectural Standards*" prepared by HOK. In that report the Brickell Village Area was divided into a "Central Area" and a "General Area", each having a different setback and encroachment dimension. The Central Area is where ground-level retail uses will likely occur, whereas the General Area will attract uses that require fewer street-level access points. Several of these roads span between these two areas so the width of the sidewalk will vary depending upon which area. In most cases the sidewalk will extend over the ROW line to maintain adequate walkway widths and provide space for street trees in either grates (Central Area) or a grass strip (General Area).





location

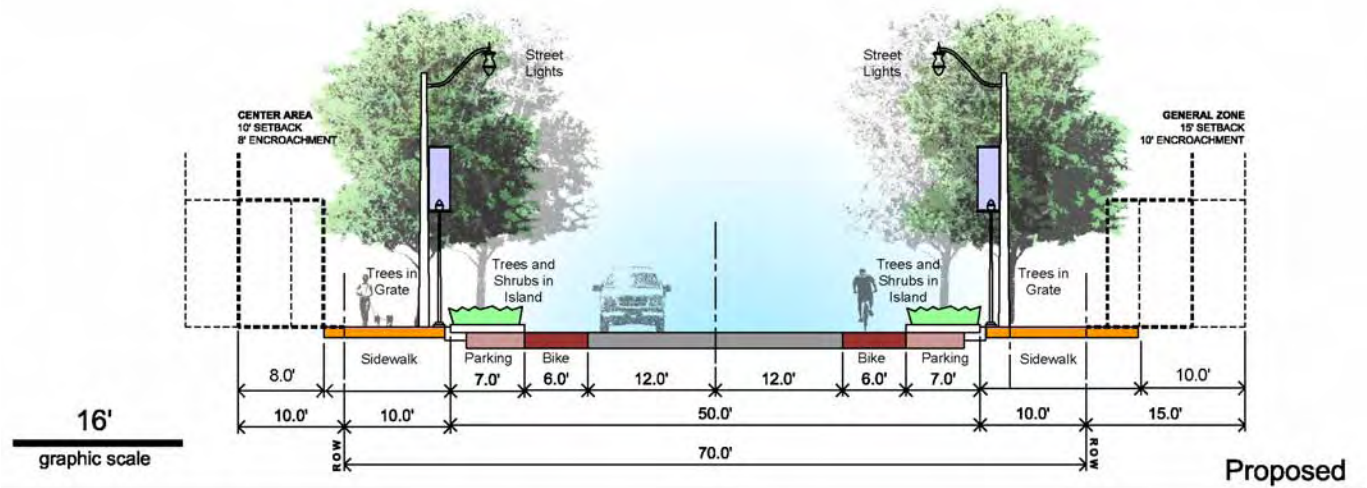
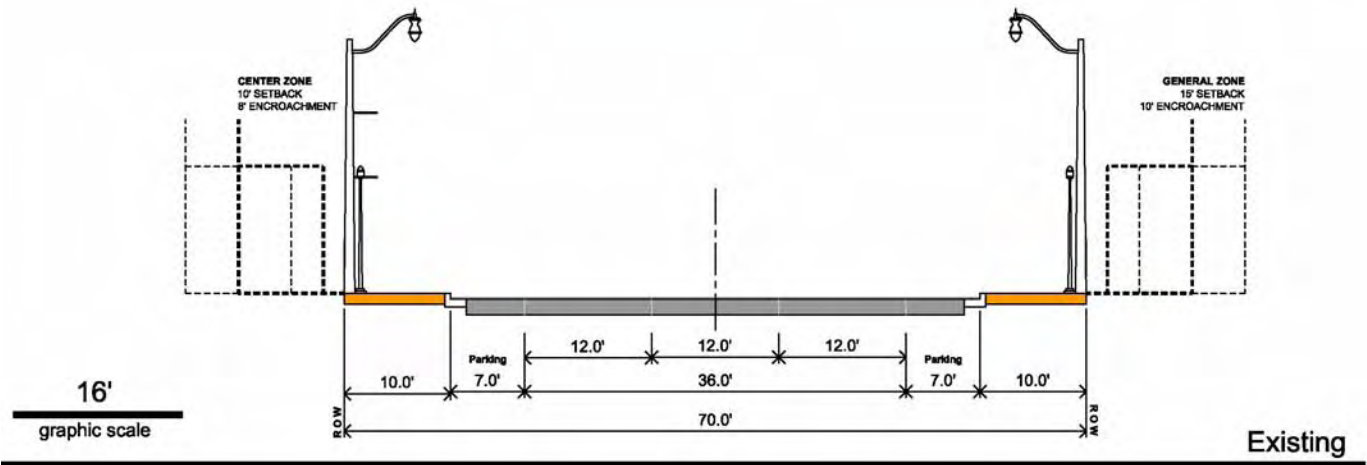


**DDA Miami - Brickell Village Area: Streetscape Implementation Plan**  
 Glattig Jackson Kercher Anglin Lopez Rinehart, Inc.  
 18211.0  
 March 15, 2005

Conceptual Street Cross Sections  
**SE 5th Street**  
 50' ROW



location

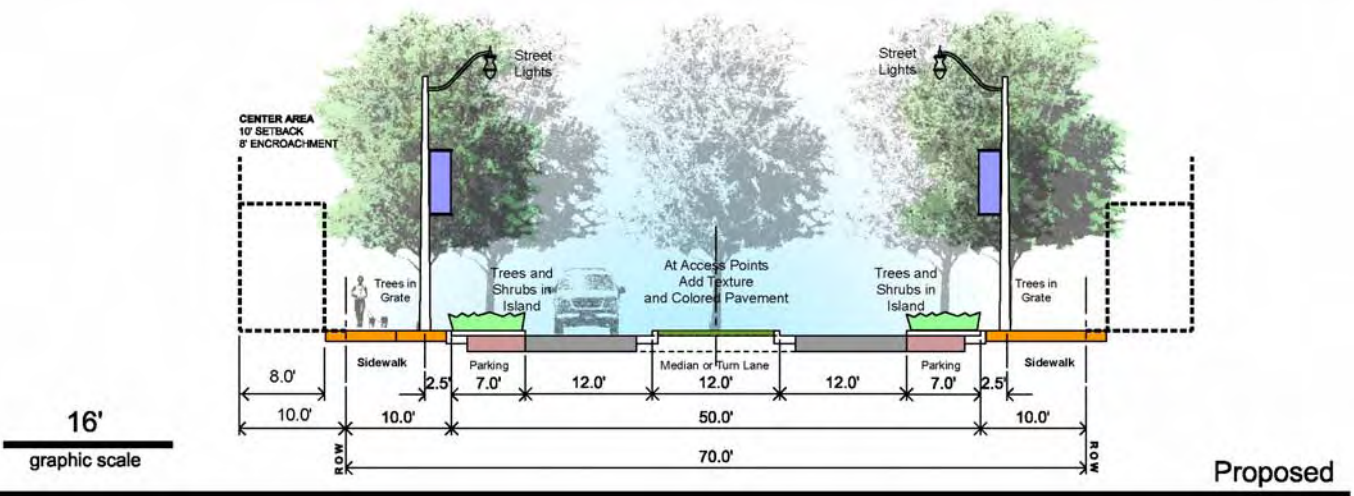
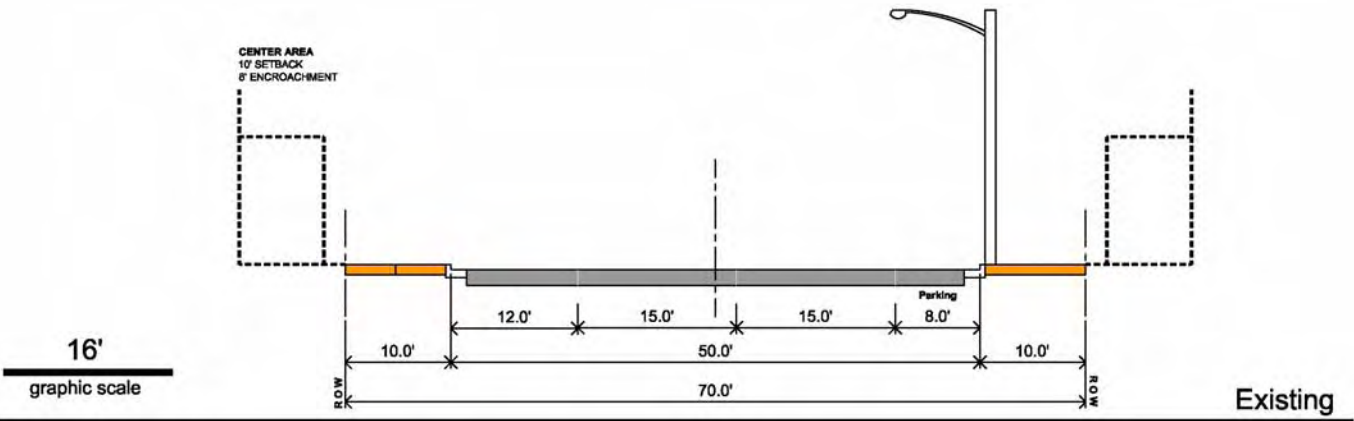


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Conceptual Street Cross Sections  
**SW 8th Street**  
 70' ROW



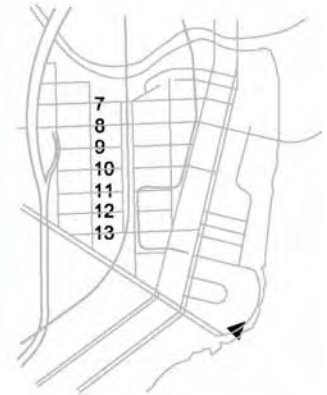
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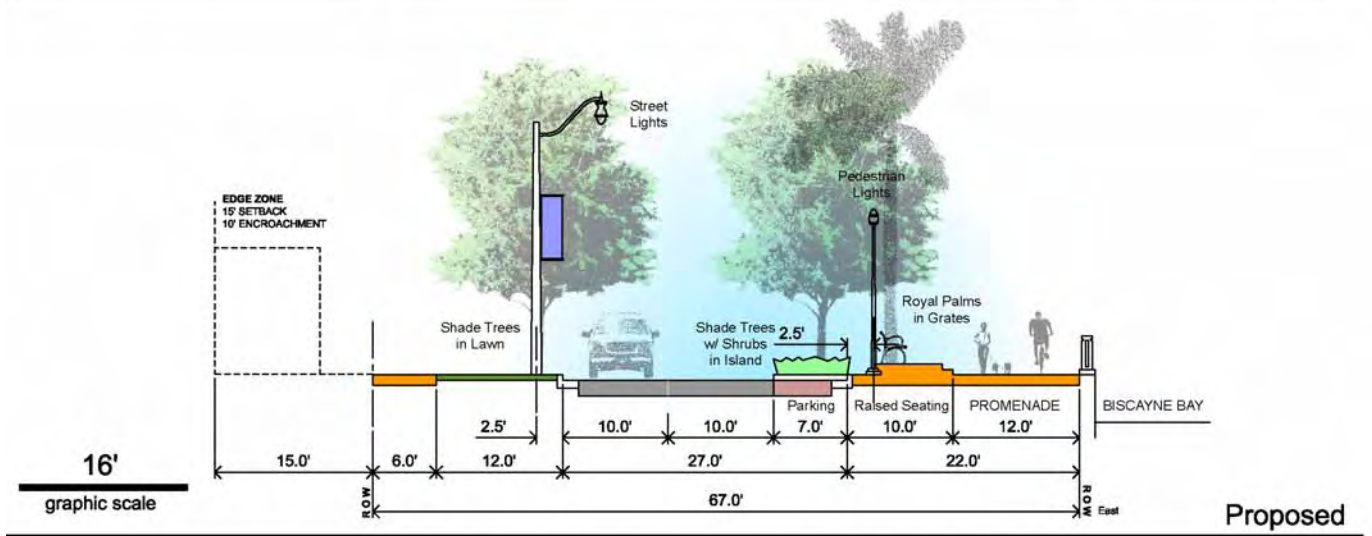
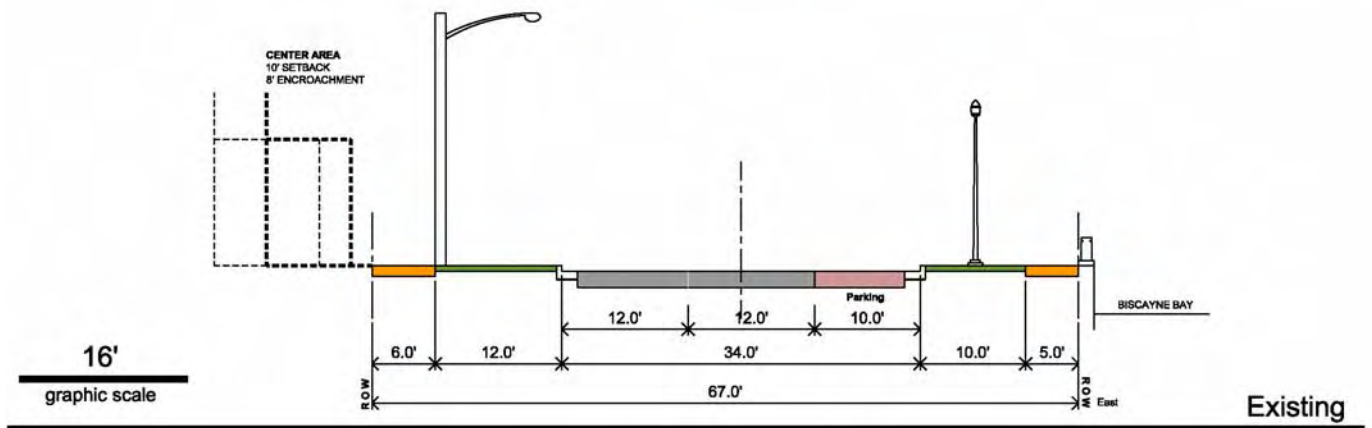
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Conceptual Street Cross Sections  
**South Miami Ave**  
 (from coral Way to SW 12th Street) - 70' ROW





location

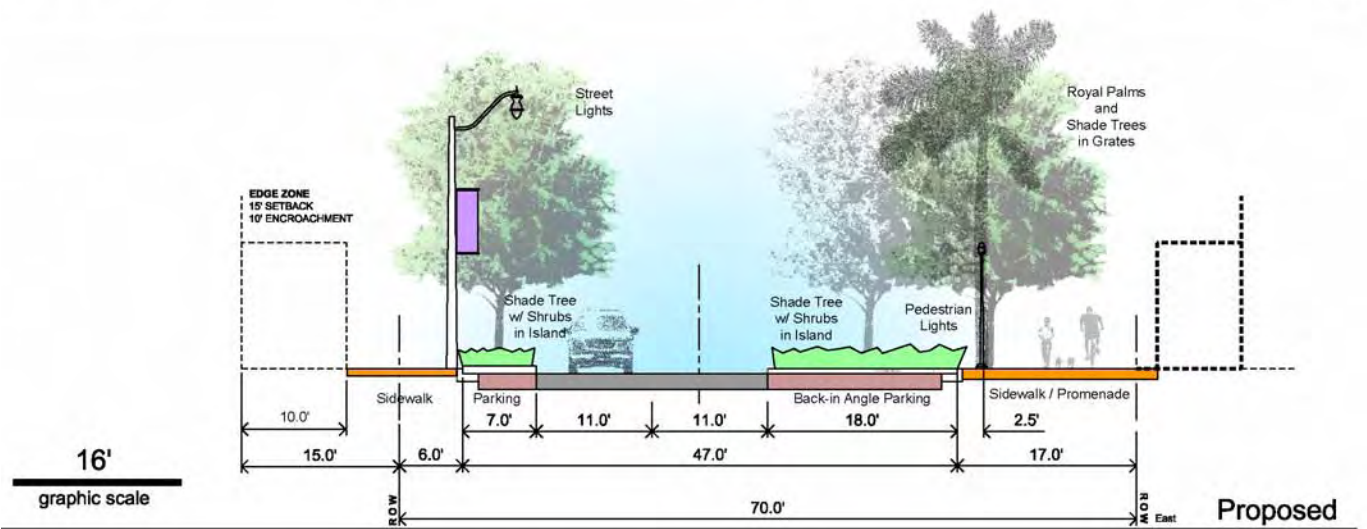
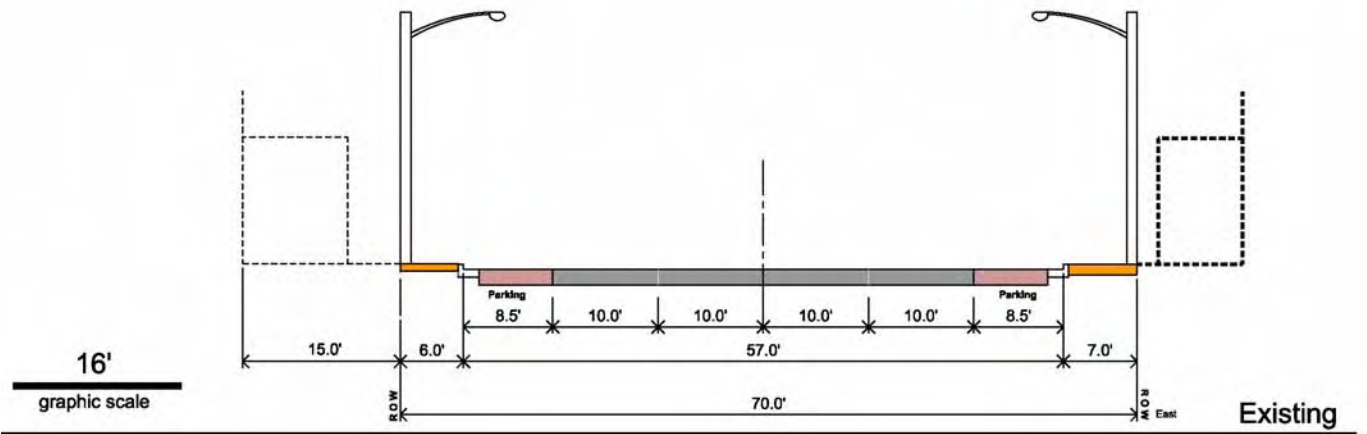


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Conceptual Street Cross Sections  
**South Bayshore Drive**  
 70' ROW

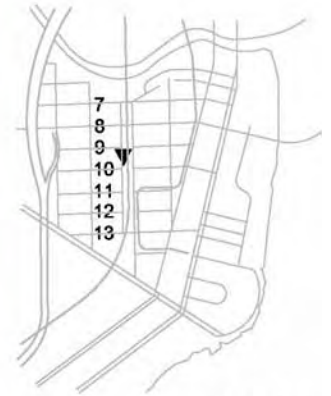


location

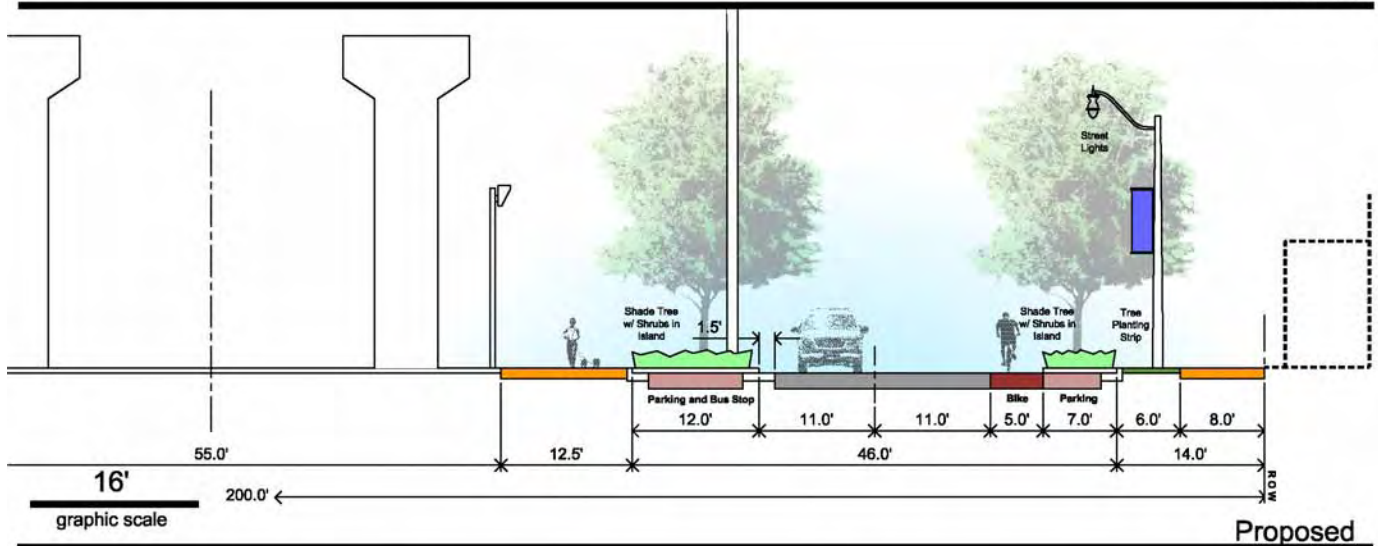
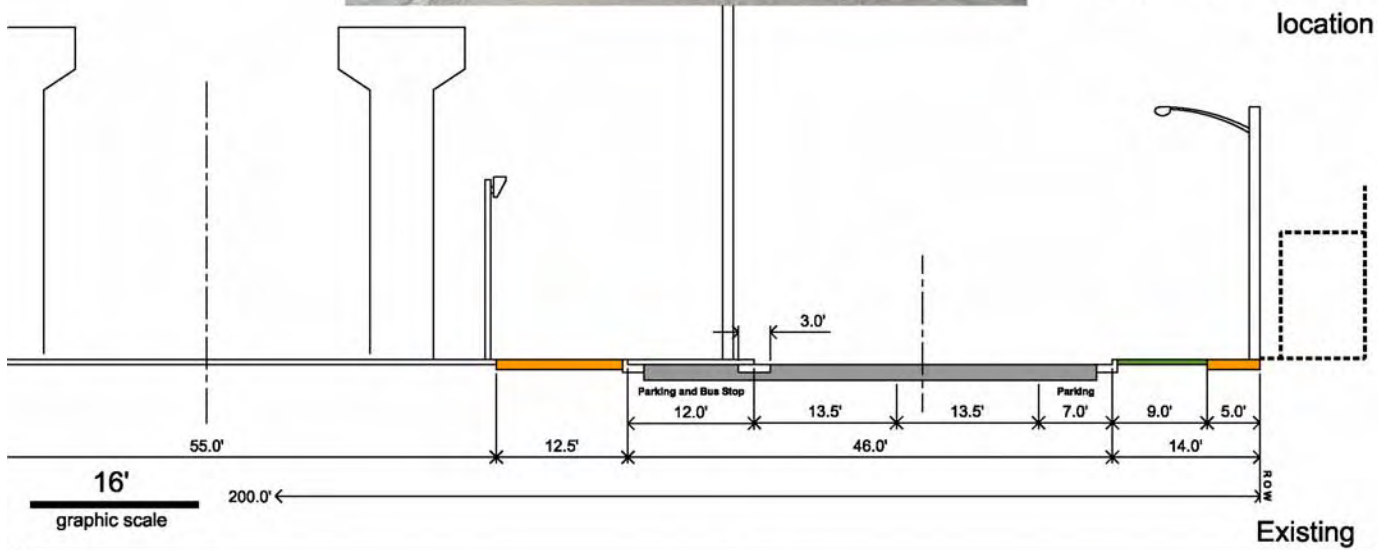


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Conceptual Street Cross Sections  
**Brickell Bay Drive**  
 70' ROW



location

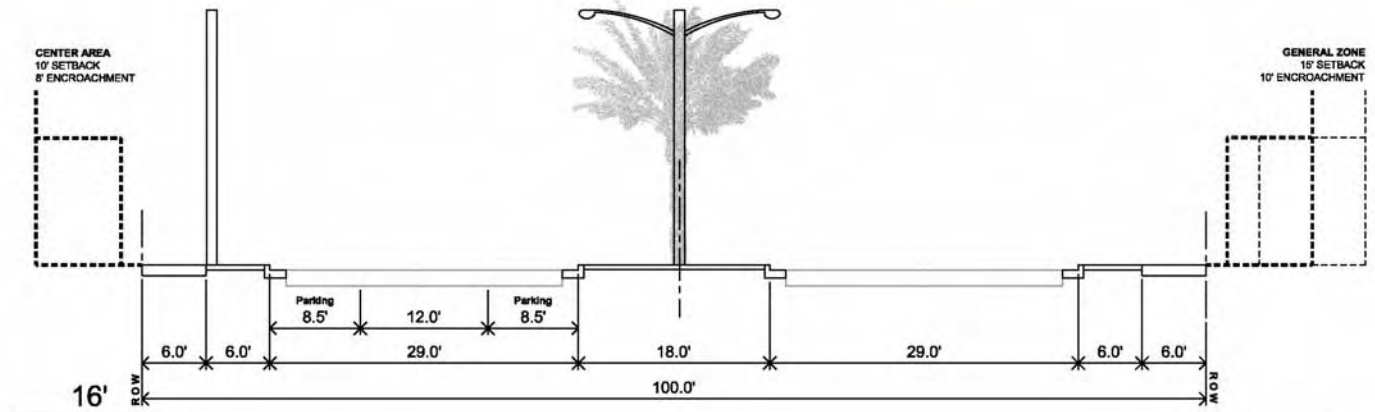


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Conceptual Street Cross Sections  
**1st Avenue - West Side (northbound)**  
 200' ROW

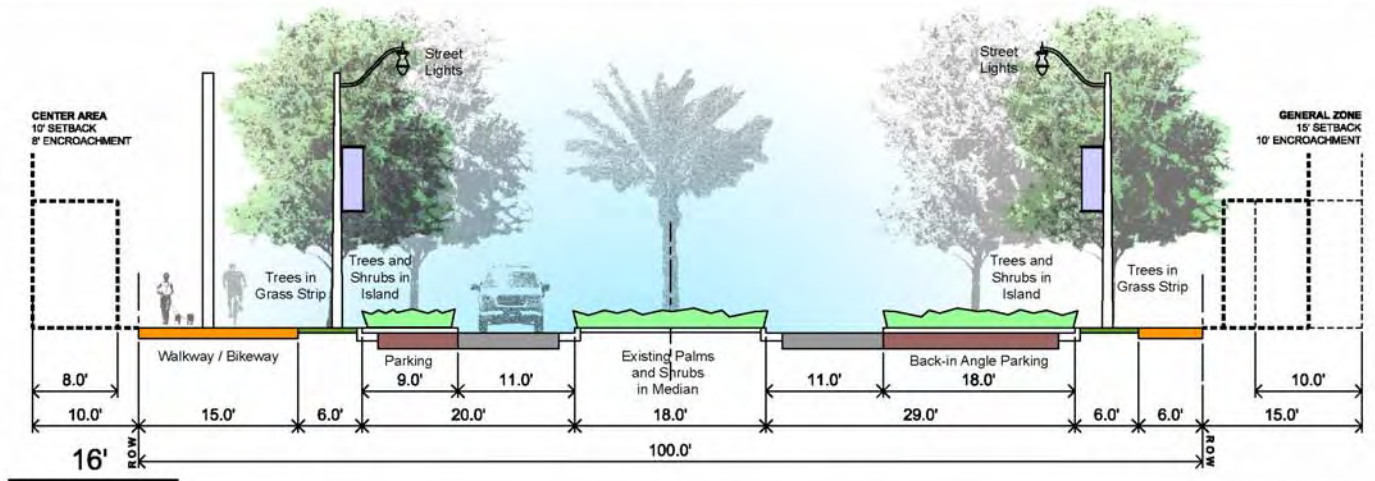


location



graphic scale

Existing



graphic scale

Proposed

**DDA Miami - Brickell Village Area: Streetscape Implementation Plan**

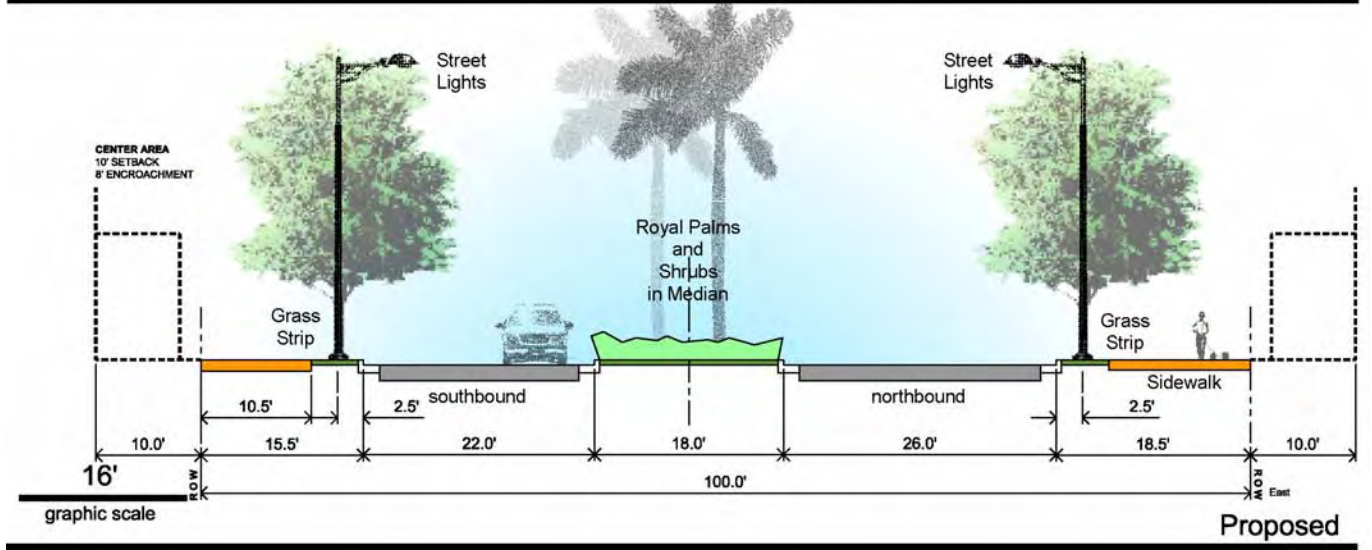
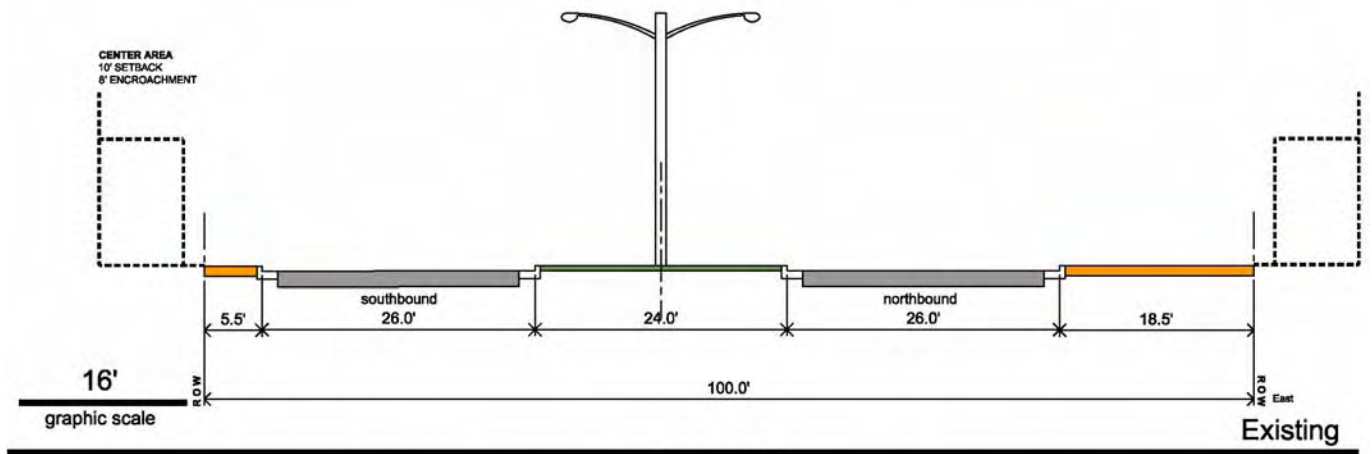
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Conceptual Street Cross Sections

**SE 15th Road**  
100' ROW



location



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 March 15, 2005

Conceptual Street Cross Sections  
**Brickell Avenue - Option "B"**  
 Median Narrowed and Curbside Moved East on Southbound Lane - 100' ROW



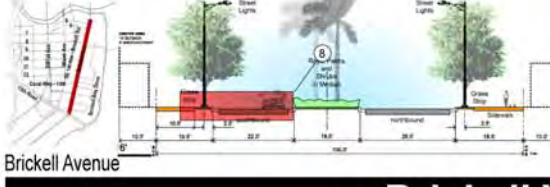
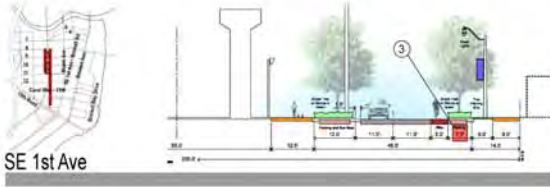
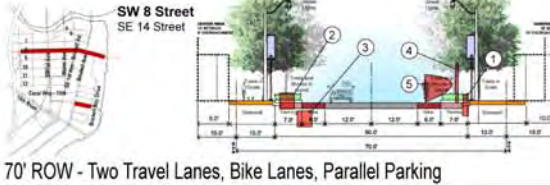
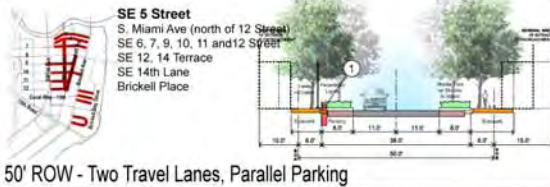
### Review of Applicable Codes

The three governing bodies for the streets in the Brickell Village area are the City of Miami, Miami-Dade County, and the Florida Department of Transportation (FDOT), each with its' own regulations for streetscape design. The most rigorous standards are FDOT's which in general follow the American Association of State Highway and Traffic Officials (AASHTO) guidelines. The two streets governed by these standards are Brickell Avenue and SW 8<sup>th</sup> Street. Miami-Dade County also uses FDOT's standards for Miami Avenue and 1<sup>st</sup> Avenue, and a portion of 15<sup>th</sup> Road. At each of these streets the most challenging regulation with regard to creating a "great street" is the "sight triangle" requirements, which regulate the location, size and spacing of trees and other visual obstructions. The sight triangle is determined by the speed of the road and the setback of vehicles from an intersection, and is based on the driver of vehicle at an intersection having a clear view of oncoming vehicles. Any obstruction within the sight triangle formed between the oncoming vehicle, and the vehicle at the intersection triangle must conform to FDOT's guidelines for sizing and spacing trees, and often that results in small trees spaced widely. Because of the relatively low speed of the streets in this area, the impact of the sight triangle will be most evident on Brickell Avenue since the blocks are short. On the east-west streets which are mostly owned by the City of Miami and are mostly neighborhood blocks, the sight triangle is not a requirement.

The street cross-sections in the previous section each will each need to be adapted to meet the current regulations of the respective governing body. In most instances this will have minimal impact on the street cross section, the more noticeable impact will be on the spacing of trees and the size of the corner bulbout. To identify the areas where these potential discrepancies occur, a "Streetscape Implementation Plan" poster was developed outlining the issues in plan and on each proposed street cross section.

### Typical Street Sections

These sections are based on the specific street listed in bold, and are typical for the streets shown in the diagram and listed below.



### Street Ownership Diagram



### Introduction / Objectives / Observations

The Purpose of this Sheet is to Pinpoint Where these Proposed Sections and Plan Conflict with the Current City of Miami, Miami-Dade County, and FDOT Regulations / Requirements. In General, the Dimensional Differences are Minimal, Within One or Two Feet in Most Cases. Overall, These Sections and Plan with Minor Adjustments are Implementable Proposals.

Previous Master Plans and Street Sections Prepared for the City of Miami were Used as a Starting Point for the Design of the Plan and Sections on this Sheet. The Purpose of this Project is to Create a Pedestrian-Friendly Environment that is Also Responsive to Vehicular and Bicycle Traffic Needs.

The Proposed Sections are Based Upon Field Measurements, and Include Bicycle Lanes Where Feasible, Maintain or Increase On-street Parking, Add Shade Trees and Widen the Walkways. In All Proposed Street Sections (except for Brickell Ave., Brickell Bay Drive, south Bay Drive, and SE 15th Road, the Existing Curblines Are Maintained.

### Issues Affecting Street Sections

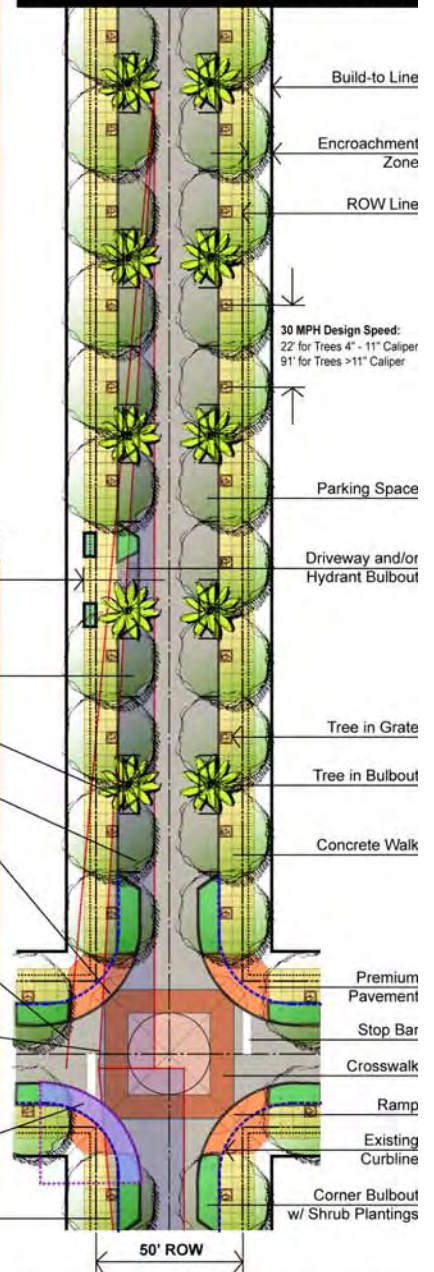
- 1 Tree Bulbout May Require Curb Adjacent to Existing Gutter. This May Require Moving Tree Closer to the Street, and in Conflict with 4' Minimum Setback (FDOT Greenbook)
- 2 Fixture and Tree Setback in Conflict with 4' Setback (FDOT Greenbook), but Complies with 1.5' FDOT-TDLC Setback
- 3 City of Miami Parking Space Width (7') Does Not Include Gutter Dimension. This Eliminates Parking on Two-Lane City Streets (10' Lanes) with Curb to Curb Dimensions Less than 35.5', and Two-Lane (11' Lanes) Miami-Dade Streets Less than 37.5'
- 4 Trees and Other Obstructions Must Be Setback 4' From Travel Lane, and Meet FDOT Index 546 Rqmts. within Sight Triangle (Trees Limited to 4" - 11" cal., Spaced at 22' for 30 MPH Design Speed / 27' for 35 MPH Design Speed. Trees > 11" cal. Allowed at 91' and 108' Spacing for 30 / 35 design speeds)
- 5 Vertical Clearance on City Streets Must be 16', and May Eliminate Opportunities for Using Large Shade Trees in Mid-Block Locations
- 6 Minimum Median Width is 22' (FDOT Greenbook), and May Eliminate Opportunities for Unique Plantings in Neighborhoods
- 7 Back-in Parking is Currently Not Allowed. Head-in Parking is Currently Discouraged on Heavily Trafficked Streets. This May Diminish the Number of Parking Spaces Possible on Brickell Bay Drive and NE 15th Road. An Alternative Solution to This Section is to add a Bike Trail to the South Side of the Street, and Eliminate On-street Bike Lanes
- 8 FDOT Greenbook Requirements for Tree Setback in Median (4'), Minimum Lane Widths (11' not including Gutter) Limits Opportunities for Expanding Pedestrian Area Along West Side of Brickell Ave.

### Issues Affecting Street Plan

- Driveway / Alley Curb Ramp Bulbout**  
To Protect Pedestrians at Blind Corners at Drives or Alleys Between Buildings, a Low Planting Bed or Other Obstruction is Recommended to Redirect Walking Traffic. This Will Improve the Visibility of Approaching Vehicles
- Parallel Parking Space Dimension**  
Current City of Miami Standards are 25' Long x 7' Wide, Not Including Gutter. This May Limit the Number of Spaces on Some Streets
- Tree Bulbout - Street Drainage**  
To Properly Drain the Street Bulbout Curb May Be Located in Front of Existing Gutter
- Corner Drainage Structure Location**  
To Properly Drain the Intersection Catch Basins May Need to Be Relocated and the Road Slope Modified to Redirect Stormwater
- Corner Bulbout - Turning Radius and Ramp Location**  
Present City of Miami Corner Radius is 20'. Miami-Dade and FDOT Recommends Larger Radii, Approx. 35' to Curb Face to Help Large Vehicles in Stay within Lane when Turning. Larger Radii Result in Longer Walking Distances and Less Space for Pedestrians. FDOT Index Recommends Aligning Accessible Ramps Close to Parallel with Adjacent Travel Lanes, Resulting in the Crosswalk and Stop Bar Being Moved Further Back from The Intersection, which Increases the Area Affected by the sight Triangle. Net Result: Fewer Trees.
- Line of Sight - Conservative Location**  
Starting the Line-of-Sight Behind Stop Bar Increases the Area Included in the Sight Triangle, Resulting in Fewer Trees and/or Increasing the Spacing Between Trees to Comply w/ FDOT Index 546
- Sight Triangle - Near Traffic Lane**  
Long Side of Triangle Extends 335' for 30 MPH Design speed, and 350' for 35 MPH (shown). Short Side of Triangle at 145' Setback from Travel Lane. Trees Within Triangle are Limited in Size and Spacing (Trees Limited to 4" - 11" cal., Spaced at 22' for 30 MPH Design Speed / 27' for 35 MPH Design Speed. Trees > 11" cal. Allowed at 91' and 108' Spacing for 30 / 35 design speeds)
- Corner "Control Zone"**  
Obstructions Such as Poles and Trees Should Not Be Located in This Area. Extends from Start of Curve to End of Curve
- Sight Triangle - Far Traffic Lane**  
Limitations in Tree Caliper and Spacing

### Prototypical Block Plan

The plan below illustrates a typical block in the Central Area of the Brickell Village Vicinity.



March 15, 2005

GLATTING JACKSON KERCHER ANGLIN LOPEZ RINEHART

## Brickell Village Streetscape Implementation Plan

DDA Miami

Miami, Florida



### Probable Construction Costs

The probable construction costs listed on the following pages are based on the average cost per linear foot for each of the typical cross-sections. These average linear foot costs are multiplied by the average lengths shown on the plan diagram in figure 15, and an average cost per intersection is added to that figure where appropriate to cover the additional expense incurred at signalized and non-signalized street corners. Assumptions have been made for approximating how much of the existing road, sidewalk and curb will remain for each cross-section, as well as the number of trees, lighting fixtures or other appurtenances. These have all been factored into the average linear foot cost. What are NOT included are the below-grade costs for utilities or other infrastructural costs. Lastly, the costs are only for areas within the public right of way, even though sidewalks over the ROW line.



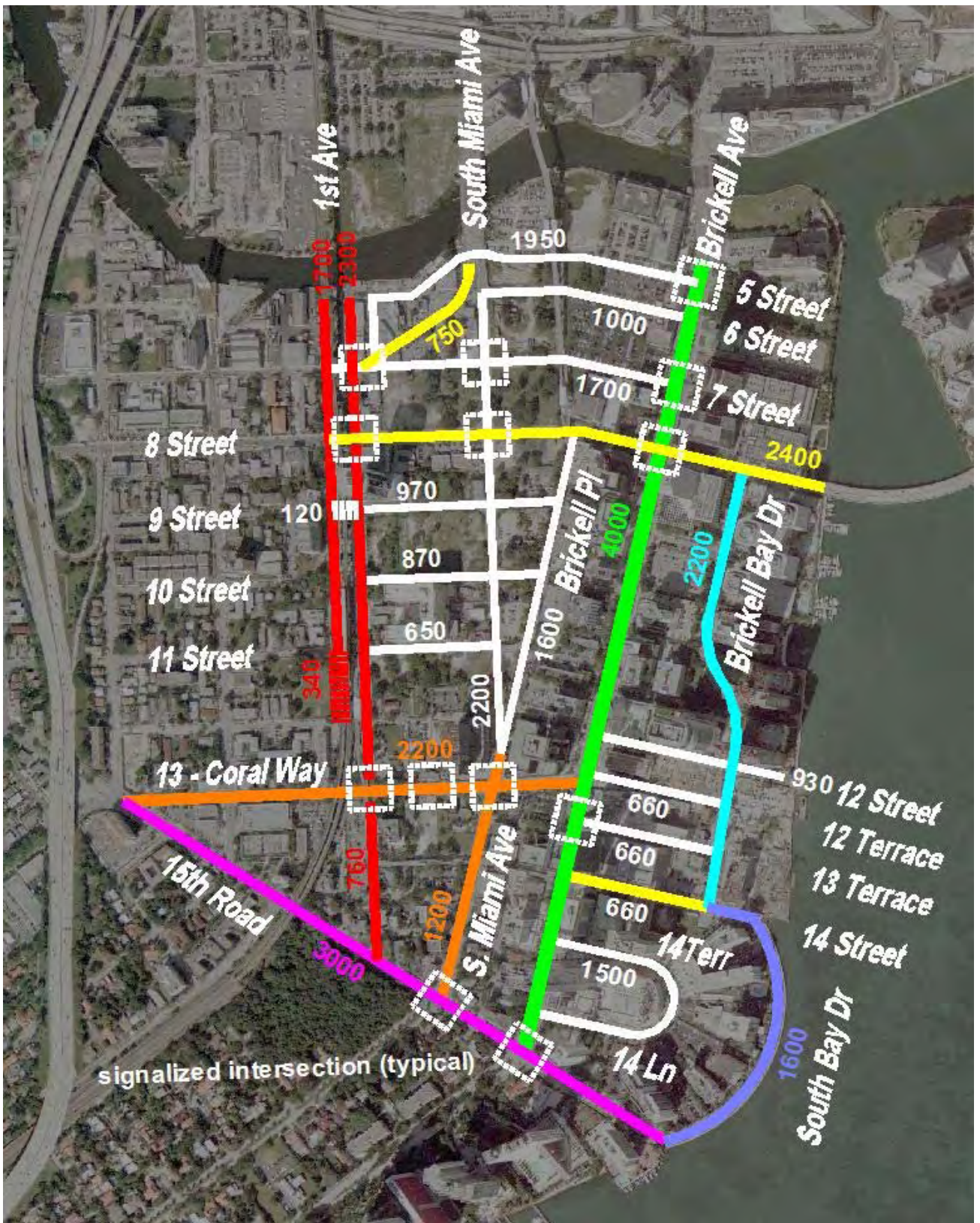


figure 15: Approximate Street Lengths and Location of Similar Street Cross Sections



STREETS	street			corners east-west streets			traffic signals east-west streets			TOTAL COSTS
	approx. length of street	average cost per linear foot for both sides of street	cost subtotal	number of corners per street	average cost per intersection (four corners)	cost subtotal	number of signals per street	average cost per intersection (four corners)	cost subtotal	\$24,171,224

**note -- utility costs are NOT included**

<b>50' ROW - Two Travel Lanes, Parallel Parking</b>										<b>\$8,990,099</b>
S. Miami Ave (North of 12th St)	2200	\$517.31	\$1,138,078							\$1,138,078
Brickell Place	1600	\$517.31	\$827,693							\$827,693
SE 5th Street	1950	\$517.31	\$1,008,751	8	\$9,240.00	\$73,920	1	\$250,800.00	\$250,800	\$1,333,471
SE 6th Street	1000	\$517.31	\$517,308	4	\$9,240.00	\$36,960				\$554,268
SE 7th Street	1000	\$517.31	\$517,308	10	\$9,240.00	\$92,400	3	\$250,800.00	\$752,400	\$1,362,108
SE 9th Street	970	\$517.31	\$501,789	6	\$9,240.00	\$55,440				\$557,229
SE 10th Street	870	\$517.31	\$450,058	6	\$9,240.00	\$55,440				\$505,498
SE 11th Street	650	\$517.31	\$336,250	4	\$9,240.00	\$36,960				\$373,210
SE 12th Street	930	\$517.31	\$481,096	4	\$9,240.00	\$36,960				\$518,056
SE 12th Terrace	660	\$517.31	\$341,423	4	\$9,240.00	\$36,960				\$378,383
SE 13th Terrace	660	\$517.31	\$341,423	4	\$9,240.00	\$36,960	1	\$250,800.00	\$250,800	\$629,183
SE 14th Terrace and Lane	1500	\$517.31	\$775,962	4	\$9,240.00	\$36,960				\$812,922
<b>70' ROW - Two Travel Lanes, Bike Lanes, Parallel Parking</b>										<b>\$2,568,559</b>
SE 8th Street	2400	\$565.53	\$1,357,277	12	\$9,240.00	\$110,880	3	\$250,800.00	\$752,400	\$2,220,557
SE 14th Street	550	\$565.53	\$311,043	4	\$9,240.00	\$36,960				\$348,003
<b>70' ROW - Two Travel Lanes, Center Turn Lane, Parallel Parking</b>										<b>\$2,836,513</b>
SE 13th Street - Coral Way	2200	\$648.69	\$1,427,122	14	\$9,240.00	\$129,360	2	\$250,800.00	\$501,600	\$2,058,082
S. Miami Ave (South of 12th St.)	1200	\$648.69	\$778,430							\$778,430
<b>70' ROW - Two Travel Lanes, Parallel Parking, Pedestrian Esplanade - South Bay Drive</b>										<b>\$877,395</b>
South Bay Drive	1600	\$548.37	\$877,395							\$877,395
<b>70' ROW - Two Travel Lanes, Angled Parking, Pedestrian Esplanade - Brickell Bay Drive</b>										<b>\$2,184,921</b>
Brickell Bay Drive	2200	\$993.15	\$2,184,921							\$2,184,921
<b>200' ROW - Four Travel Lanes, Bus Loading Lane, Parallel Parking - SE 1st Avenue</b>										<b>\$1,303,584</b>
SE 1st Ave (Northbound - West Side)	1700	\$426.01	\$724,214							\$724,214
SE 1st Ave (Southbound - East Side)	3060	\$426.01	\$1,303,584							\$1,303,584
<b>100' ROW - Four Travel Lanes, Planted Median - 15th Road</b>										<b>\$2,447,544</b>
15th Road	3000	\$605.53	\$1,816,584	14	\$9,240.00	\$129,360	2	\$250,800.00	\$501,600	\$2,447,544
<b>100' ROW - Four to Six Travel Lanes, Turn Lanes and Planted Median - Brickell Avenue</b>										<b>\$2,962,608</b>
Brickell Avenue	4000	\$740.65	\$2,962,608							\$2,962,608



**Probable Street Construction Cost per Linear Foot (Including Fees and Contingencies)**

Project Name: **Brickell Village Area - Streetscape Implementation Plan**  
 GJ Project #: 18211.00  
 Date: February 11, 2005  
 Project Phase: Conceptual Masterplan

**D R A F T**

**50' ROW - Two Travel Lanes, Parallel Parking \$517.31 per Linear Foot (both sides of street)**  
**S.Miami Av (north of 12th); Brickell Pl & Terr; SE5,6,7,9,10,11,12 St; SE 12,13,14 Terr; SE14 Ln**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Mill Existing Bituminous Pavement Wearing Course	18,000	SF	\$0.20	\$3.60	32%	\$59.27
Remove Existing Bituminous Pavement	5,000	SF	\$2.00	\$10.00		
Remove Existing Concrete Pavement	6,000	SF	\$3.00	\$18.00		
Remove Existing Concrete Curb	1,000	LF	\$10.00	\$10.00		
Remove Existing Light Fixture	0.011	EA	\$300.00	\$3.30		

36' wide, assume 50% of roads will be resurfaced = 18 sf  
 parallel parking area, assume 25% of existing to be removed = 2.5 sf / side  
 6' walks, assume 50% of walks to be removed = 3 sf / walk  
 assume 50% of existing curb to be removed  
 remove and dispose of fixture and conduit - assume 1/90' = .011

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Asphaltic Concrete Road Pavement Resurface	18,000	SF	\$1.00	\$18.00	32%	\$66.53
Stamped / Colored Asphaltic Concrete Road Pavement	0.000	SF	\$8.00	\$0.00		
Unit Pavers	0.000	SF	\$18.00	\$0.00		
Type "F" Curb and Gutter	1,000	LF	\$18.00	\$18.00		
Type "F" Curb and Gutter for Bulbouts	0.800	LF	\$18.00	\$14.40		
Type "D" Curb	0.000	LF	\$16.00	\$0.00		
Valley Gutter Curb	0.000	LF	\$17.00	\$0.00		

36' wide, assume 50% of roads will be resurfaced = 18 sf  
 for parallel parking areas - assume 25% of spaces paved = 2.5 / side  
 assume 50% of existing curb to be replaced  
 1 bulbout every 70' w/ 30 additional linear feet / bulbout = .4' / side

Landscape and Walks	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Unit Paver Walkway	0.000	SF	\$12.00	\$0.00	32%	\$292.78
Cast in Place Concrete Walkway	9,000	SF	\$5.00	\$45.00		
Shade Trees	0.050	EA	\$1,500.00	\$75.00		
Tree Grate	0.050	EA	\$1,600.00	\$80.00		
Irrigation (Trees in Grates)	0.050	EA	\$100.00	\$5.00		
Irrigation (Grass and Shrubs)	5,000	SF	\$2.00	\$10.00		
Irrigation Tap and Controller	0.0017	EA	\$4,000.00	\$6.80		

used in furnishing area adjacent to curb - 5' wide / side  
 6' wide, 75% of all walks replaced = 4.5 sf / side  
 5" caliper, 30' on center, prepared soil, 75% of street = .025 / side  
 one cast iron grate & frame every 30', for 75% of street = .025 / side  
 one tree every 30' for 75% of street = .025 / side  
 bubblers and sprays w/ sleeves for 50% of street = 2.5 sf  
 one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Pedestrian / Roadway Light Fixtures	0.034	EA	\$2,200.00	\$74.80	32%	\$98.74
Bicycle Rack	0.000	EA	\$1,000.00	\$0.00		
Bench	0.000	EA	\$1,200.00	\$0.00		
Trash Receptacle	0.000	EA	\$1,200.00	\$0.00		

60' spacing, 1/60 = .017 / side

Total Contingency Percentage Added to Item Cost	32%
Design Contingency	15%
Traffic Control	2%
GC Overhead	8%
GC Profit	6%
Inflation	1%



**Probable Street Construction Cost per Linear Foot  
(Including Fees and Contingencies)**

Project Name: **Brickell Village Area - Streetscape Implementation Plan**

GJ Project #: 18211.00

Date: February 11, 2005

Project Phase: Conceptual Masterplan

**D R A F T**

**70' ROW - Two Travel Lanes, Bike Lanes, Parallel Parking  
SE 8th; 14th Streets**

**\$565.53 per Linear Foot (both sides of street)**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Mill Existing Bituminous Pavement Wearing Course	18,000	SF	\$0.20	\$3.60	32%	\$52.71
Remove Existing Bituminous Pavement	2,500	SF	\$2.00	\$5.00		
Remove Existing Concrete Pavement	6,000	SF	\$3.00	\$18.00		
Remove Existing Concrete Curb	1,000	LF	\$10.00	\$10.00		
Remove Existing Light Fixture	0.011	EA	\$300.00	\$3.33		

36' wide, assume 50% of roads will be resurfaced = 18 sf  
parallel parking area, assume 25% of existing to be removed = 2.5 sf / side  
6' walks, assume 50% of walks to be removed = 3 sf / walk  
assume 50% of existing curb to be removed  
remove and dispose of fixture and conduit - assume 1/90' = .011

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Asphaltic Concrete Road Pavement Resurface	0.000	SF	\$1.00	\$0.00	32%	\$18.53
Stamped / Colored Asphaltic Concrete Road Pavement	0.000	SF	\$8.00	\$0.00		
Unit Pavers	0.000	SF	\$18.00	\$0.00		
Type "F" Curb and Gutter	1,000	LF	\$18.00	\$18.00		
Type "F" Curb and Gutter for Bulbouts	0.800	LF	\$18.00	\$14.40		
Type "D" Curb	0.000	LF	\$16.00	\$0.00		
Valley Gutter Curb	1,500	LF	\$17.00	\$25.50		

for parallel parking areas - assume 25% of spaces paved = 2.5 / side  
assume 50% of existing curb to be replaced  
1 bulbout every 70', w/ 30 additional linear feet / bulbout = .4' / side  
24" concrete valley curb, for 75% of block

Landscape and Walks	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Unit Paver Walkway	0.000	SF	\$12.00	\$0.00	32%	\$70.98
Cast in Place Concrete Walkway	9,000	SF	\$5.00	\$45.00		
Shade Trees	0.050	EA	\$1,500.00	\$75.00		
Tree Grate	0.050	EA	\$1,600.00	\$80.00		
Irrigation (Trees in Grates)	0.050	EA	\$100.00	\$5.00		
Irrigation (Grass and Shrubs)	5,000	SF	\$2.00	\$10.00		
Irrigation Tap and Controller	0.0017	EA	\$4,000.00	\$6.80		

used in furnishing area adjacent to curb - 5' wide / side  
6' wide, 75% of all walks replaced = 4.5 sf / side  
5" caliber, 30' on center, prepared soil, 75% of street = .025 / side  
one cast iron grate & frame every 30', for 75% of street = .025 / side  
one tree every 30' for 75% of street = .025 / side  
bubblers and sprays w/ sleeves for 50% of street = 2.5 sf  
one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Pedestrian / Roadway Light Fixtures	0.034	EA	\$3,200.00	\$108.80	32%	\$143.62
Bicycle Rack	0.000	EA	\$1,000.00	\$0.00		
Bench	0.000	EA	\$1,200.00	\$0.00		
Trash Receptacle	0.000	EA	\$1,200.00	\$0.00		

60' spacing, 1/60 = .017 / side

Total Contingency Percentage Added to Item Cost	32%
Design Contingency	15%
Traffic Control	2%
GC Overhead	8%
GC Profit	6%
Inflation	1%



**Probable Street Construction Cost per Linear Foot  
(Including Fees and Contingencies)**

Project Name: **Brickell Village Area - Streetscape Implementation Plan**

GJ Project #: 182711.00

Date: February 11, 2005

Project Phase: Conceptual Masterplan

**D R A F T**

**70' ROW - Two Travel Lanes, Center Turn Lane, Parallel Parking  
SE 13th Street/Coral Way: S. Miami Ave (south of 12th St)**

**\$648.69 per Linear Foot (both sides of street)**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency %	and cost	subtotal w/ contingency
Mill Existing Bituminous Pavement Wearing Course	23,000	SF	\$0.20	\$35.93	32%	\$11.50	\$47.43

46' wide, assume 50% of roads will be resurfaced = 23 sf  
parallel parking area, assume 25% of existing to be removed = 2.5 sf  
6' walks, assume 50% of walks to be removed = 3 sf / walk  
assume 50% of existing curb to be removed  
remove and dispose of fixture and conduit - assume 1/90' = .011

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency %	and cost	subtotal w/ contingency
Asphaltic Concrete Road Pavement Resurface	12,500	SF	\$1.00	\$12.50	32%	\$39.97	\$164.87

25' total width, assume 50% of roads resurfaced = 12.5 sf  
10' wide turn lane  
for parallel parking areas - assume 25% of spaces paved = 2.5 / side  
assume 50% of existing curb to be replaced  
1 bulbout every 70', w/ 30 additional linear feet / bulbout = .4' / side

Landscape and Walks	quantity	unit	unit price	item subtotal	contingency %	and cost	subtotal w/ contingency
Unit Paver Walkway	0.000	SF	\$12.00	\$0.00	32%	\$70.98	\$292.78

used in furnishing area adjacent to curb - 5' wide / side  
6' wide, 75% of all walks replaced = 4.5 sf / side  
5" caliper, 30' on center, prepared soil, 75% of street = .025 / side  
one cast iron grate & frame every 30', for 75% of street = .025 / side  
one tree every 30' for 75% of street = .025 / side  
bubblers and sprays w/ sleeves for 50% of street = 2.5 sf  
one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency %	and cost	subtotal w/ contingency
Pedestrian / Roadway Light Fixtures	0.034	EA	\$3,200.00	\$108.80	32%	\$34.82	\$143.62

60' spacing, 1/60 = .017 / side

Total Contingency Percentage Added to Item Cost	32%
Design Contingency	15%
Traffic Control	2%
GC Overhead	8%
GC Profit	6%
Inflation	1%

**Probable Street Construction Cost per Linear Foot  
(Including Fees and Contingencies)**



**Project Name: Brickell Village Area - Streetscape Implementation Plan**

Project #: 18211.00

Date: February 11, 2005

Project Phase: Conceptual Masterplan

**D R A F T**

**70' ROW - Two Travel Lanes, Parallel Parking, Pedestrian Esplanade  
South Bay Drive**

**\$548.37 per Linear Foot (both sides of street)**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
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26' wide, assume 100% of roads will be resurfaced  
at proposed pedestrian esplanade  
6' walks, assume 50% of walks to be removed = 3 sf / walk  
assume 100% of existing curb on east side to be removed  
remove and dispose of fixture and conduit - assume 1/90' = .011

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
--------------------------	----------	------	------------	---------------	------------------------	-------------------------

25' total width, assume 50% of roads replaced = 12.5 sf  
10' wide turn lane  
for parallel parking areas - assume 25% of spaces paved = 2.5 / side  
1 bulbout every 70', w/ 30 additional linear feet / bulbout = .4 / side  
curbs adjacent to parallel parking, and draining to valley curb  
24" concrete valley curb, for 75% of block

Landscape and Walks	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
---------------------	----------	------	------------	---------------	------------------------	-------------------------

used in furnishing area adjacent to curb - 5' wide  
22' wide - assume for 75% of length = 16.5  
20' on center, prepared soil, 75% of street = .037 / side  
bubblers and sprays w/ sleeves for 50% of street = 5 sf  
one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
--------------------------	----------	------	------------	---------------	------------------------	-------------------------

60' spacing, 1/60 = .017 / side  
one rack every 300' = .003 / side  
two benches every 300' = .006 / side  
one receptacle every 300' = .003 / side

Total Contingency Percentage Added to Item Cost	32%
Design Contingency	15%
Traffic Control	2%
GC Overhead	8%
GC Profit	6%
Inflation	1%

**Probable Street Construction Cost per Linear Foot  
(Including Fees and Contingencies)**



Project Name: **Brickell Village Area - Streetscape Implementation Plan**

G.I Project #: 18211.00

Date: February 11, 2005

Project Phase: Conceptual Masterplan

**D R A F T**

**70' ROW - Two Travel Lanes, Angled Parking, Pedestrian Esplanade  
Brickell Bay Drive**

**\$993.15 per Linear Foot (both sides of street)**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Mill Existing Bituminous Pavement Wearing Course	23,000	LF	\$0.20	\$35.93	32%	\$47.43

Remove Existing Bituminous Pavement	2,500	SF	\$2.00	\$5.00			46' wide, assume 50% of roads will be resurfaced = 23 lf parallel parking area, assume 25% of existing to be removed = 2.5 sf
Remove Existing Concrete Pavement	6,000	SF	\$3.00	\$18.00			6 walks, assume 50% of walks to be removed = 3 sf / walk
Remove Existing Concrete Curb	0,500	LF	\$10.00	\$5.00			assume 50% of existing curb to be removed
Remove Existing Light Fixture	0,011	EA	\$300.00	\$3.33			remove and dispose of fixture and conduit - assume 1/90' = .011

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Asphaltic Concrete Road Pavement Resurface	12,500	SF	\$1.00	\$12.50	32%	\$16.27

Stamped / Colored Asphaltic Concrete Road Pavement	0,000	SF	\$8.00	\$0.00			25' total width, assume 50% of roads replaced = 12.5 sf
Unit Pavers	0,000	SF	\$18.00	\$0.00			10' wide turn lane
Type "F" Curb and Gutter	0,000	LF	\$18.00	\$0.00			for parallel parking areas - assume 25% of spaces paved = 2.5 / side
Type "F" Curb and Gutter for Bulbouts	0,800	LF	\$18.00	\$14.40			assume 50% of existing curb to be replaced
Type "D" Curb	0,700	LF	\$16.00	\$11.20			1 island every 70', w/ 50 additional linear feet / island = .66 / side
Valley Gutter Curb	0,750	LF	\$17.00	\$12.75			curbs adjacent to parallel parking, and draining to valley curb
							24" concrete valley curb, for 75% of block

Landscape and Walks	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency	
Unit Paver Walkway	0,000	SF	\$12.00	\$0.00			used in furnishing area adjacent to curb - 5' wide

Cast in Place Concrete Walkway	12,000	SF	\$5.00	\$60.00			12' wide east side, west side remains
Shade Trees	0,050	EA	\$1,500.00	\$75.00			5" caliper, 30' on center, prepared soil, 75% of street = .025 / side
Tree Grate	0,250	EA	\$1,600.00	\$400.00			one cast iron grate & frame every 30', for 75% of street = .025 / side
Irrigation (Trees in Grates)	0,050	EA	\$100.00	\$5.00			one tree every 30' for 75% of street = .025 / side
Irrigation (Grass and Shrubs)	5,000	SF	\$2.00	\$10.00			bubblers and sprays w/ sleeves for 50% of street = 2.5 sf
Irrigation Tap and Controller	0,0017	EA	\$4,000.00	\$6.80			one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency	
Pedestrian / Roadway Light Fixtures	0,034	EA	\$3,200.00	\$108.80			60' spacing, 1/60 = .017 / side

Bicycle Rack	0,000	EA	\$1,000.00	\$0.00		
Bench	0,000	EA	\$1,200.00	\$0.00		
Trash Receptacle	0,000	EA	\$1,200.00	\$0.00		

Total Contingency Percentage Added to Item Cost	32%
Design Contingency	15%
Traffic Control	2%
GC Overhead	8%
GC Profit	6%
Inflation	1%

**Probable Street Construction Cost per Linear Foot  
(Including Fees and Contingencies)**



**Project Name: Brickell Village Area - Streetscape Implementation Plan**

Project #: 18211.00

Date: February 11, 2005

Project Phase: Conceptual Masterplan

**D R A F T**

**200' ROW - Four Travel Lanes, Bus Loading Lane, Parallel Parking**

**\$426.01 per Linear Foot (both sides of street)**

**SE 1st Avenue - Northbound / Southbound**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
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Mill Existing Bituminous Pavement Wearing Course  
 Remove Existing Bituminous Pavement  
 Remove Existing Concrete Pavement  
 Remove Existing Concrete Curb  
 Remove Existing Light Fixture

17.000	SF	\$0.20	\$3.40	32%	\$11.73	\$15.49
0.000	SF	\$2.00	\$0.00			
0.000	SF	\$3.00	\$0.00			
0.500	LF	\$10.00	\$5.00			
0.011	EA	\$300.00	\$3.33			

34' wide, assume 50% of roads will be resurfaced = 17 sf  
 parallel parking area, assume 25% of existing to be removed = 2.5 sf  
 6' walks, assume 50% of walks to be removed = 3 sf / walk  
 assume 50% of existing curb to be removed  
 remove and dispose of fixture and conduit - assume 1/90' = .011

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
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Asphaltic Concrete Road Pavement Resurface  
 Stamped / Colored Asphaltic Concrete Road Pavement  
 Unit Pavers  
 Type "F" Curb and Gutter  
 Type "F" Curb and Gutter for Bulbouts  
 Type "D" Curb  
 Valley Gutter Curb

17.000	SF	\$1.00	\$17.00	32%	\$40.40	\$53.33
0.000	SF	\$8.00	\$0.00			
0.000	SF	\$18.00	\$0.00			
0.500	LF	\$18.00	\$9.00			
0.800	LF	\$18.00	\$14.40			
0.000	LF	\$16.00	\$0.00			
0.000	LF	\$17.00	\$0.00			

34' total width, assume 50% of roads resurfaced = 17 sf  
 10' wide turn lane  
 for parallel parking areas - assume 25% of spaces paved = 2.5 / side  
 assume 50% of existing curb to be replaced  
 1 bulbout every 70', w/ 30 additional linear feet / bulbout = .4 / side  
 curbs adjacent to parallel parking, and draining to valley curb  
 24" concrete valley curb, for 75% of block

Landscape and Walks	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
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Unit Paver Walkway  
 Cast in Place Concrete Walkway  
 Shade Trees  
 Tree Grate  
 Irrigation (Trees in Grates)  
 Irrigation (Grass and Shrubs)  
 Irrigation Tap and Controller

0.000	SF	\$12.00	\$0.00	32%	\$161.80	\$213.58
4.500	SF	\$5.00	\$22.50			
0.025	EA	\$1,500.00	\$37.50			
0.050	EA	\$1,600.00	\$80.00			
0.050	EA	\$100.00	\$5.00			
5.000	SF	\$2.00	\$10.00			
0.0017	EA	\$4,000.00	\$6.80			

used in furnishing area adjacent to curb - 5' wide / side  
 6' wide, 75% of all walks replaced = 4.5 sf / side  
 5" caliper, 30' on center, prepared soil, 75% of street = .025 / side  
 one cast iron grate & frame every 30', for 75% of street = .025 / side  
 one tree every 30' for 75% of street = .025 / side  
 bubblers and sprays w/ sleeves for 50% of street = 2.5 sf  
 one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
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Pedestrian / Roadway Light Fixtures  
 Bicycle Rack  
 Bench  
 Trash Receptacle

0.034	EA	\$3,200.00	\$108.80	32%	\$108.80	\$143.62
0.000	EA	\$1,000.00	\$0.00			
0.000	EA	\$1,200.00	\$0.00			
0.000	EA	\$1,200.00	\$0.00			

Total Contingency Percentage Added to Item Cost	32%
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Design Contingency	15%
Traffic Control	2%
GC Overhead	8%
GC Profit	6%
Inflation	1%



**Probable Street Construction Cost per Linear Foot  
(Including Fees and Contingencies)**



**Project Name: Brickell Village Area - Streetscape Implementation Plan**

Project #: 18211.00

Date: February 11, 2005

Project Phase: Conceptual Masterplan

**D R A F T**

**100' ROW - Four Travel Lanes, Planted Median  
SE 15th Road**

**\$605.53 per Linear Foot (both sides of street)**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Mill Existing Bituminous Pavement Wearing Course	22.000	SF	\$0.20	\$35.73	32%	\$47.17
Remove Existing Bituminous Pavement	2.500	SF	\$2.00	\$5.00		
Remove Existing Concrete Pavement	6.000	SF	\$3.00	\$18.00		
Remove Existing Concrete Curb	0.500	LF	\$10.00	\$5.00		
Remove Existing Light Fixture	0.011	EA	\$300.00	\$3.33		

44' wide, assume 50% of roads will be resurfaced = 22 sf  
parallel parking area, assume 25% of existing to be removed = 2.5 sf  
6' walks, assume 50% of walks to be removed = 3 sf / walk  
assume 50% of existing curb to be removed  
remove and dispose of fixture and conduit - assume 1/90' = .011

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Asphaltic Concrete Road Pavement Resurface	36.000	SF	\$1.00	\$36.00	32%	\$48.77
Stamped / Colored Asphaltic Concrete Road Pavement	0.000	SF	\$8.00	\$0.00		
Unit Pavers	0.000	SF	\$18.00	\$0.00		
Type "F" Curb and Gutter	2.000	LF	\$18.00	\$36.00		
Type "F" Curb and Gutter for Bulbouts	0.800	LF	\$18.00	\$14.40		
Type "D" Curb	2.000	LF	\$16.00	\$32.00		
Valley Gutter Curb	2.000	LF	\$17.00	\$34.00		

36' total width, assume 100% of roads resurfaced  
10' wide turn lane  
for parallel parking areas - assume 25% of spaces paved = 2.5 / side  
assume new curbs  
1 bulbout every 70', w/ 30 additional linear feet / bulbout = .4 / side  
median curb  
24" concrete valley curb, for 75% of block

Landscape and Walks	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Unit Paver Walkway	0.000	SF	\$12.00	\$0.00		
Cast in Place Concrete Walkway	4.500	SF	\$5.00	\$22.50		
Shade Trees	0.025	EA	\$1,500.00	\$37.50		
Tree Grate	0.050	EA	\$1,600.00	\$80.00		
Irrigation (Trees in Grates)	0.050	EA	\$100.00	\$5.00		
Irrigation (Grass and Shrubs)	5.000	SF	\$2.00	\$10.00		
Irrigation Tap and Controller	0.0017	EA	\$4,000.00	\$6.80		

used in furnishing area adjacent to curb - 5' wide / side  
6' wide, 75% of all walks replaced = 4.5 sf / side  
5" caliber, 30" on center, prepared soil, 75% of street = .025 / side  
one cast iron grate & frame every 30', for 75% of street = .025 / side  
one tree every 30' for 75% of street = .025 / side  
bubblers and sprays w/ sleeves for 50% of street = 2.5 sf  
one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
Pedestrian / Roadway Light Fixtures	0.034	EA	\$3,200.00	\$108.80	32%	\$143.62
Bicycle Rack	0.000	EA	\$1,000.00	\$0.00		
Bench	0.000	EA	\$1,200.00	\$0.00		
Trash Receptacle	0.000	EA	\$1,200.00	\$0.00		

60' spacing, 1/60 = .017 / side

**Total Contingency Percentage Added to Item Cost**

Design Contingency	32%
Traffic Control	15%
GC Overhead	2%
GC Profit	8%
Inflation	6%
	1%

**Probable Street Construction Cost per Linear Foot  
(Including Fees and Contingencies)**

**Project Name: Brickell Village Area - Streetscape Implementation Plan**

GJ Project #: 18211.00  
Date: February 11, 2005  
Project Phase: Conceptual Masterplan

**D R A F T**



**100' ROW - Four to Six Travel Lanes, Turn Lanes and Planted Median  
Brickell Avenue**

**\$740.65 per Linear Foot (both sides of street)**

**note -- utility costs are NOT included**

Demolition	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
				\$0.00	32%	\$0.00

Mill Existing Bituminous Pavement Wearing Course	0.000	LF	\$0.20	\$0.00			assume demolition by fdot
Remove Existing Bituminous Pavement	0.000	SF	\$2.00	\$0.00			assume demolition by fdot
Remove Existing Concrete Pavement	0.000	SF	\$3.00	\$0.00			assume demolition by fdot
Remove Existing Concrete Curb	0.000	LF	\$10.00	\$0.00			assume demolition by fdot
Remove Existing Light Fixture	0.000	EA	\$300.00	\$0.00			assume demolition by fdot

Curbs and Road Pavements	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
				\$18.00	32%	\$5.76

Asphaltic Concrete Road Pavement Resurface	0.000	SF	\$1.00	\$0.00			assume FDOT will resurface
Stamped / Colored Asphaltic Concrete Road Pavement	0.000	SF	\$8.00	\$0.00			
Unit Pavers	0.000	SF	\$18.00	\$0.00			new curb along west side
Type "F" Curb and Gutter	1.000	LF	\$18.00	\$18.00			
Type "F" Curb and Gutter for Bulbouts	0.000	LF	\$18.00	\$0.00			
Type "D" Curb	0.000	LF	\$16.00	\$0.00			
Valley Gutter Curb	0.000	LF	\$17.00	\$0.00			

Landscaping and Walks	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
				\$304.30	32%	\$97.38

Unit Paver Walkway	10.000	SF	\$12.00	\$120.00			5' wide, used in furnishing area adjacent to curb / side
Cast In Place Concrete Walkway	9.000	SF	\$5.00	\$45.00			6' wide, 75% of all public walks replaced = 4.5 sf / side
Shade Trees	0.025	EA	\$1,500.00	\$37.50			5" caliper, 30' on center, prepared soil, 75% of street = .025 / side
Tree Grate	0.050	EA	\$1,600.00	\$80.00			one cast iron grate & frame every 30', for 75% of street = .025 / side
Irrigation (Trees in Grates)	0.050	EA	\$100.00	\$5.00			one tree every 30' for 75% of street = .025
Irrigation (Grass and Shrubs)	5.000	SF	\$2.00	\$10.00			bubblers and sprays w/ sleeves for 50% of street = 2.5 sf
Irrigation Tap and Controller	0.0017	EA	\$4,000.00	\$6.80			one system every 600', 1/600 = .0017 for both sides

Fixtures and Furnishings	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
				\$238.80	32%	\$76.42

Pedestrian / Roadway Light Fixtures	0.066	EA	\$3,200.00	\$211.20			30' spacing, 1/30 = .033 / side
Bicycle Rack	0.006	EA	\$1,000.00	\$6.00			one rack every 300' = .003 / side
Bench	0.012	EA	\$1,200.00	\$14.40			two benches every 300' = .006 / side
Trash Receptacle	0.006	EA	\$1,200.00	\$7.20			one receptacle every 300' = .003 / side

Total Contingency Percentage Added to Item Cost	32%
Design Contingency	15%
Traffic Control	2%
GC Overhead	8%
GC Profit	6%
Inflation	1%



**Probable Street Corner and Intersection Construction Cost  
(Including Fees and Contingencies)**

Project Name: **Brickell Village Area - Streetscape Implementation Plan**

GJ Project #: 18211.00

Date: February 11, 2005

Project Phase: Conceptual Masterplan

	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
<b>Corners</b>				<b>\$7,000</b>	<b>32%</b>	<b>\$9,240</b>
Pedestrian Access Ramps	1	EA	\$1,000.00	\$1,000		
Unit Paver Walkway	500	SF	\$12.00	\$6,000		
						assume unit paver ramp on concrete base pavers at corners

	quantity	unit	unit price	item subtotal	contingency % and cost	subtotal w/ contingency
<b>Signalized Intersection</b>				<b>\$190,000</b>	<b>32%</b>	<b>\$250,800</b>
Signal Mast Arm	2	EA	\$75,000.00	\$150,000		
Pedestrian Crossing Signals	4	EA	\$10,000.00	\$40,000		
						new fixtures

<b>Total Contingency Percentage Added to Item Cost</b>		<b>32%</b>
Design Contingency		15%
Traffic Control		2%
GC Overhead		8%
GC Profit		6%
Inflation		1%

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## Appendices