



IMMOKALEE•CRA  
PUBLIC REALM PLAN

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# Public Realm Plan

## IMMOKALEE CENTRAL BUSINESS DISTRICT

PREPARED by:

RWA<sup>INC.</sup>  
CONSULTING



PREPARED for:

IMMOKALEE CRA  
Community Redevelopment Agency  
iThe Place to Call Home!





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### CD OF SUPPLEMENTAL MATERIALS:

- Immokalee Stormwater Master Plan, H.W. Lochner, Inc., December 2004
- SR 29 Landscape Plans, McGee and Associates, 2009
- Community Traffic Safety Team, Road Safety Audit Report: Immokalee MSTU Landscape Median, Traffic Operations Department, Collier County, February 2009
- Cost-Estimates Spreadsheets for Proposed Public Realm Improvements
- PowerPoint - Plazas
- PowerPoint - Streetscape
- Intermediate and Long-Range Streetscape Plans

**COMPANION DOCUMENT:** Central Business District Form Based Guidelines



## EXECUTIVE SUMMARY

This Public Realm Plan establishes a distinct “brand” for Immokalee, defined by an updated streetscape design, new way-finding and signage recommendations, and the creation of conceptual plans for two public plazas. Additionally, this report includes a stand-alone form-based code that provides clearly articulated standards and guidelines for the development and redevelopment of buildings and structures adjacent to the public realm. This form-based code deals with development on private property which, technically speaking, is separate from the public realm; however the built environment abutting public spaces greatly influences an individual’s experience of place. With that in mind, the form-based code was developed to complement and enhance the Public Realm Plan and is presented as a companion document.

The Public Realm Plan and its unified design theme focuses on an area identified as the Central Business District (CBD). The CBD includes the Main Street/State Road 29 corridor from 9<sup>th</sup> Street to the east and East 2<sup>nd</sup> Street to the west, and the South 1<sup>st</sup> Street corridor from Pine Street on the north to the Seminole Casino on the south. This corridor is approximately 1.1 miles long.

The intent of the Public Realm Plan is to enhance and promote the unique image and character of Immokalee. As the CBD develops and attracts new investments, the multicultural heritage of the corridor will be preserved and enhanced. The unified design scheme will ensure that future redevelopment activity highlights the Latin flavor of Immoka-

lee; implements the vision outlined in Section I; promotes a safe walkable downtown; and provides civic spaces that promote social interaction. This Public Realm Plan consists of six major sections, and a companion document:

### I. VISION STATEMENT FOR IMMOKALEE

The vision statement sets forth the envisioned future for Immokalee, as developed by the Community Redevelopment Agency. This vision is the basis for this Public Realm Plan.

### II. EXISTING CONDITIONS REPORT

The first step in developing new streetscape and design guidelines is to thoroughly understand the current conditions, including road and right-of-way conditions, building placement, land uses, current regulatory conditions, the assets of the community, and the ways in which the downtown public realm is currently being used by residents.

### III. BRANDING

The design of public spaces can enhance a community’s character and even create a unique sense of place.

Through careful design of the public realm, and specifically the Central Business District (CBD), Immokalee can showcase its personality and create a brand for itself. The elements of design used to create this unique brand or image for

Immokalee are based on the rich multi-cultural influences that have given Immokalee its essence.

### IV. PUBLIC PLAZA DESIGNS

Currently, there are no plazas or great squares for public gatherings in downtown Immokalee. Public gathering places, such as zócalos in Mexico, are the heart of the Mexican-Tenochtitlan community, and are often anchored by a church or market place. In Immokalee, the two proposed plazas are intended to inspire community pride and revitalize the CBD by creating a more livable and walkable community, and are proposed as “anchors” for the CBD.

### V. MAIN STREET/SR 29 STREETScape

An integrated, signature streetscape can enhance a community in many ways, and set the stage for a unique and vibrant downtown destination. When combined with a coordinated wayfinding and gateway system, a unique brand or image for Immokalee will come alive. A well-designed streetscape may also serve as a catalyst for economic development and strengthen the community’s sense of place.

### VI. IMPLEMENTATION PLAN

The implementation plan presents a timeline and sequence by which the projects identified within the Public Realm Plan may be implemented. The Plan provides cost estimates for signage, public plazas, and streetscape improvements as presented in this report.

The implementation plan sets the foundation for



future action to take place. Based on the guidelines and standards set forth, the next steps in the implementation process will include:

- Acquisition of parcels for public plazas;
- Development of construction documents for streetscape improvements (contracted through the Immokalee Beautification Municipal Services Taxing Unit (MSTU) to JRL Design), followed by actual construction;
- Development of construction documents for plazas, followed by actual construction; and
- Approval and adoption of design guidelines (to be done as part of the Immokalee Land Development Code update being undertaken by RWA, Inc.).

## COMPANION DOCUMENT: CENTRAL BUSINESS DISTRICT FORM-BASED STANDARDS

In conjunction with the Public Realm Plan, there is another report, provided under separate cover, entitled “Central Business District Form-Based Standards.” Buildings and structures directly adjacent to public right-of-way are not technically part of an area’s public realm; however, they are a crucial part of the built environment and define the look and feel of a place. The form-based standards serve as a guide to development within Immokalee’s downtown and aim to create a cohesive urban building pattern that enhances the pedestrian experience.



“Those of us who live and work in Immokalee envision a great future for our town. We see new business and job opportunities in international trade and distribution, agri-business, ecotourism, recreation and entertainment, and the construction industry. We see Immokalee as an attractive, clean community with affordable-workforce housing, neighborhood parks, and outstanding schools -- a place where people walk and bicycle to do their errands, and where parents are returning to classrooms to finish their education and master new job skills. Main Street will have a Latin flavor – plazas, outdoor cafés, shops, and entertainment – attracting both the local community and the tourists who come to explore our unique ecology or gamble at the Casino.”

-Penny Phillippi, Executive Director, Immokalee CRA



## A. INTRODUCTION

As part the Immokalee Area Master Plan Update process, it became apparent that creating a distinct sense of place for the Immokalee community; promoting economic revitalization of the downtown area; and creating safe, walkable public spaces were community priorities that needed to be addressed immediately. Through the leadership of the Community Redevelopment Agency staff and the Immokalee Area Master Plan Visioning Committee, the following Public Realm Plan came into being. The public realm, which includes all public spaces within an urban environment – streets, sidewalks, parks, plazas, and open space, not only defines an area’s physical environment, but also plays a central role in creating a sense of place and can even influence the social fabric of a community.

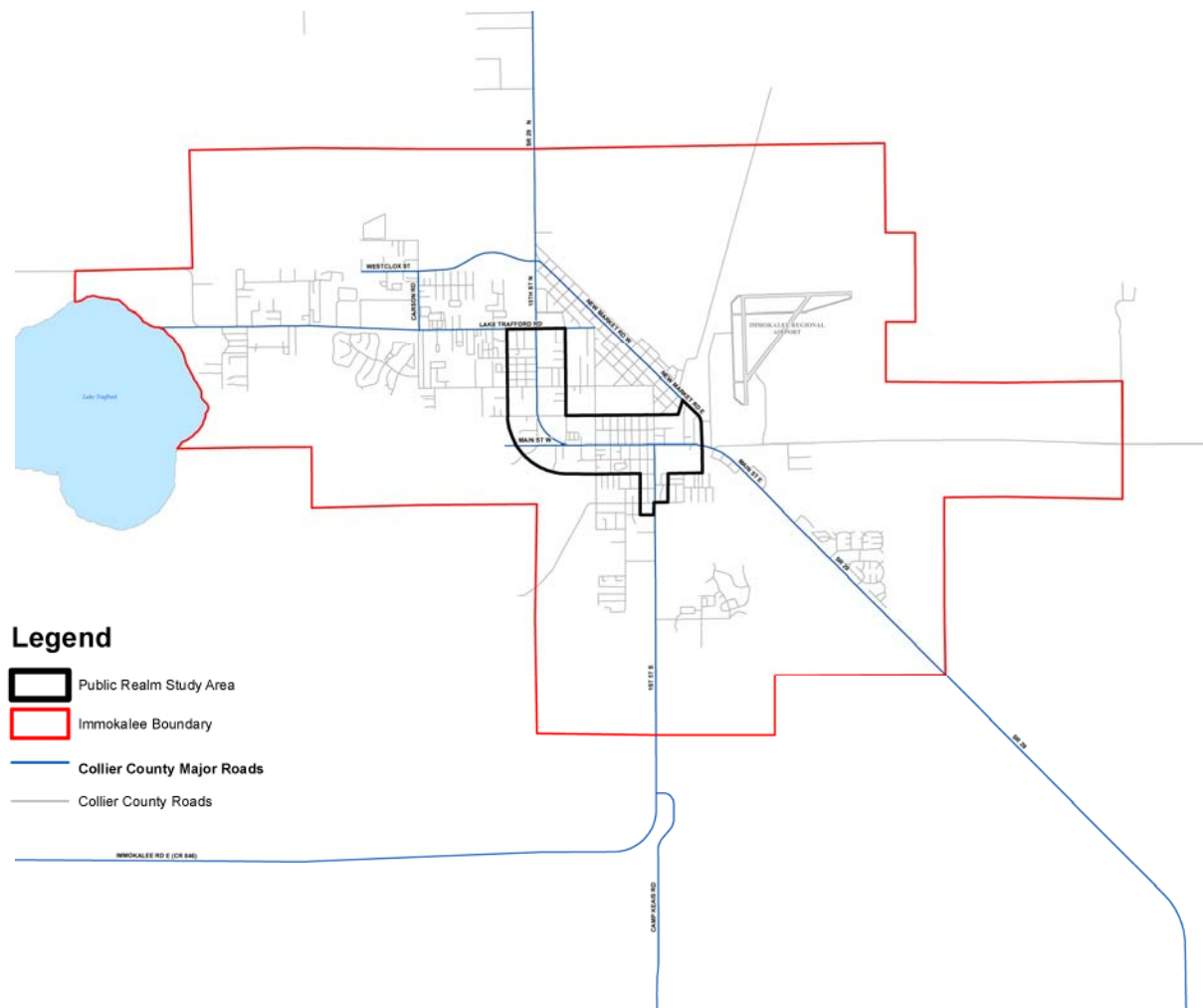
Immokalee has an active and recognizable central business district (CBD); however, the physical environment and economic conditions in this area are not as favorable as community residents and merchants desire. Additionally, this area does not capitalize on the social activity that currently exists in the downtown area. The CBD is the heart of Immokalee, but dedicated civic spaces are lacking and pedestrian and bicycle safety seems to be an afterthought. Immokalee’s CBD is unique in comparison to most Florida towns in that it has such a high percentage of bicycle and pedestrian traffic. This, of course, provides certain safety and operational challenges, but creates great opportunities in developing a vibrant and active downtown.

It was determined during the update of the Master Plan that addressing the public realm and the pe-

destrian environment could create a much stronger sense of community, help “brand” Immokalee, as well as stimulate economic development in the area. RWA and their sub-consultant, Land Design Innovations, were commissioned by the CRA to

develop a Public Realm Plan to achieve the following objectives.

FIGURE 1. LOCATION MAP





### Public Realm Plan Objectives:

1. Create a brand or theme for Immokalee that showcases the diverse cultural heritage of the community;
2. Incorporate this brand into streetscape, gateways, and wayfinding concepts;
3. Create public plazas for social activity that integrate the unified design theme; and
4. Develop design standards for future development in the Immokalee CBD that are consistent with the public realm theme and programmed improvements.

The Plan builds upon existing beautification improvements and proposes a distinct Immokalee brand through a unified theme that integrates an enhanced streetscape design, wayfinding and entrance signage, and public plazas. In order to strengthen the theme and to create a distinct sense of place, design standards and guidelines for private development along the public realm are also included as a stand alone document.

In developing the Public Realm Plan, an area of approximately 790 acres was initially studied. This area consisted of the State Road (SR) 29 corridor from Lake Trafford Road at the north end to New Market Road at the south end. (See Figure 1 Location Map, and Figure 2, Boundaries of the Study Area.) The corridor included the public right-of-way and adjacent private lands. The Study Area was broken down into four “subareas” for ease of discussion and analysis. Through this analysis, the logical borders of the CBD were identified.

The CBD was determined to be the heart of the Immokalee community where revitalization efforts,

as outlined in this plan, should be focused. The CBD consists of the SR 29 corridor from 9<sup>th</sup> Street at the west end, to East 2<sup>nd</sup> Street at the east end; and the South 1<sup>st</sup> Street corridor from Pine Street on the north to the Seminole Casino on the south (shown as Subarea 3 on Figure 2). The CBD is approximately 230 acres and contains the area commonly referred to as “downtown” or “main street.”

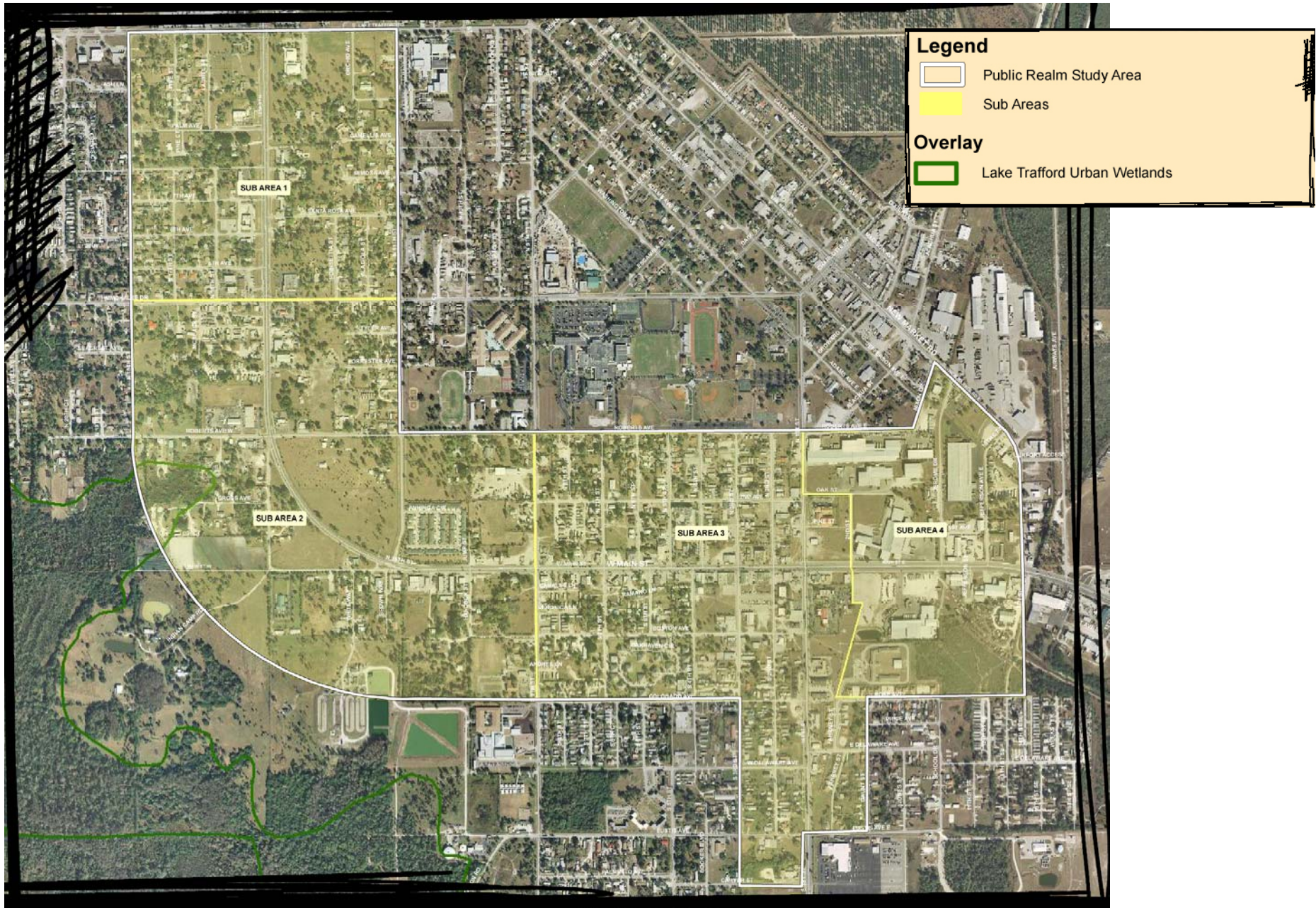
Several characteristics make the CBD the most logical area for streetscape improvements and branding, as well as make it key in the efforts to attract new business, redevelopment, and economic activity to Immokalee. The CBD is the historic downtown core; it is centrally located to the rest of town and contains commercial uses and buildings framing the street. SR 29 widens to four lanes at 9<sup>th</sup> Street, thereby creating a sense of arrival into the district. The MSTU has already installed several streetscape improvements in this area, including paver sidewalks, bike racks, planters, and benches, all of which help to promote the area as the heart of social activity. The area is compact and easily walkable (requiring no more than 20 minutes to walk from one end to the other) and already has a significant amount of pedestrian and bicycle traffic. In addition, government and institutional services are concentrated in this area and are attractors for social activity. Finally, the creation of the Central Business District will be a way to connect downtown with the Seminole Casino. This connection will help draw visitors into the downtown area and will capitalize on the Casino as a significant tourist destination.

The following discussion relates to the CBD only; however, descriptions of land uses and conditions within Subareas 1, 2, and 4 are included in the Appendix A of this report for comparison and review.





FIGURE 2. BOUNDARIES of the Study Area





## B. CHARACTER

The term “public realm” as used in this plan includes both traditionally defined public space, such as public plazas, as well as public space encompassed within road right-of-way, specifically that of SR 29 and 1<sup>st</sup> Street. Converting a road into viable public space entails several challenges. One relates to atmosphere: a road, especially a state road,



Existing beautification improvement banners.

is not designed to reflect or emphasize the character of a community. In Immokalee, this issue has been somewhat addressed through the efforts of the Municipal Services Taxing Unit (MSTU). The MSTU was established undertake beautification improvements such as roadway landscaping, including distinctive blue light



Public garbage receptacles.

poles, and in the downtown area, paver sidewalks, seating areas with planters, blue bike racks, and blue trash cans. These improvements are found in “bump-outs” located at the end of each block on Main Street, from 9<sup>th</sup> Street to 1<sup>st</sup> Street.

Another challenge in utilizing right-of-way as



Distinctive blue light poles.

public space is the inherent conflict between automobiles and pedestrians or bicyclists. SR 29 and South 1<sup>st</sup> Street connect Immokalee with the rest of Collier County and the state. The pass-through traffic along these roadways offers an important revenue generation potential; however, the high levels of automobile and truck traffic can present a hazard to pedestrians and bicyclists. Numerous accidents have attracted the attention of County and State transportation officials. Collier County recently performed a road safety audit (RSA) to identify safety improvements to landscaping and medians. A copy of the audit results is included in Appendix B of this report. Roads de-

signed to maximize traffic volume and operational efficiency typically provide little consideration to the pedestrian and bicyclist experience and rarely provide accommodations for those users. To achieve a successful integration between motorized and non-motorized traffic, drivers must be alerted to the fact that they will be sharing the roadway, and made aware of where to expect interactions with other modes of travel.



Blue signalization poles.

### I. Roadway SECTION

Given that the roadways create the corridor and define the public realm, a description of the corridor’s character must begin with a description of the roads. West and north of 9<sup>th</sup> Street, SR 29 is a two-lane facility with a middle turn-lane, constructed without curb or gutter. The right-of-way width for this portion of SR 29 is 200 feet, as originally platted with the design and construction of SR 29 in the 1940’s. This is comparable to right-of-way reservations for some sections of I-75 in Collier County. Four-foot concrete sidewalks are located adjacent to the road along both sides of SR 29 from Lake Trafford to Immokalee Road; however, from Immokalee Road to south of the curve, there is a sidewalk on the west side only, except for a small portion of sidewalk on the east side in

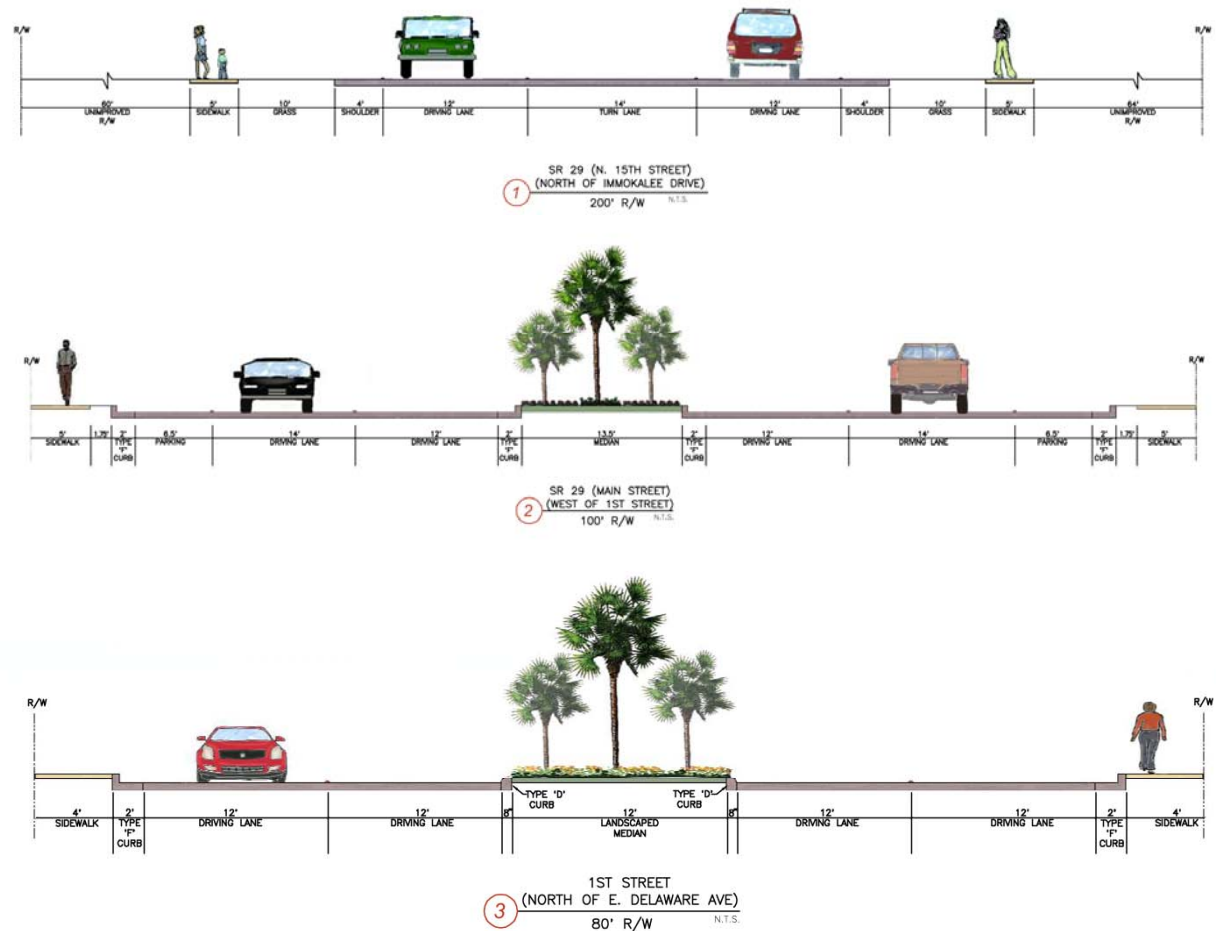


FIGURE 3. Right-of-Way Typical Sections

front of the Popeye's restaurant. Additional sidewalk segments have been constructed on parcels with new construction, creating a second sidewalk, closer to the building.

East of 9<sup>th</sup> Street, SR 29 becomes a four-lane road, with sidewalks on both sides, landscaped medians, and curb and gutter. It remains a four-lane road through the rest of the study area. Interestingly, although the road widens for this section, the right-of-way decreases, from 200 feet to 100 feet.

South 1<sup>st</sup> Street is built with curb and gutter throughout the CBD, and the right-of-way width averages 100 feet. Four-foot concrete sidewalks have also been constructed and are located, in most instances, directly adjacent to the roadway.





## 2. GATEWAYS

The MSTU also constructed gateways to welcome folks into Immokalee and to clearly delineate town limits. There is a north “entrance,” at SR 29 and New Market Road West. There is also a gateway on South 1<sup>st</sup> Street, just north of the Seminole Casino. Both of these gateways are identified through a brick monument sign that features a carved wood sign. The scale of both signs is typical of entrance signage used for residential subdivisions.



Entrance Sign on SR 29 at New Market Road



Examples of impermanent signage.





### 3. Distinguishing Elements

Certain elements are consistent throughout the corridor. Though not intentional design features, they do reflect the current state of the corridor. One element is signage, which tends to be informal and impermanent.



Pedestrian activity within the CBD.

The amount of pedestrian and bicycle traffic also distinguishes Immokalee from coastal Collier County. Car ownership in Immokalee is significantly lower than the rest of the county and the state as a whole. This leads to increased pedestrian and bicycle activity which is often lacking in many other communities trying to revitalize their downtown.

Another interesting feature that characterizes Immokalee is an element that has all but disappeared from many urban locations—the pay phone.

These distinguishing physical characteristics, while probably manifestations of current socio-economic conditions in Immokalee, certainly contribute to the existing character of the CBD.



Prevalence of pay phones - an element that has practically disappeared from the urban landscape.



## B. CURRENT LAND USE

One way to analyze existing conditions is to look at existing land use, which refers to the type of uses currently found on the ground today. “Land use” in this sense is not a regulatory description, but rather a way to analyze current conditions in the study area. The CBD contains approximately 228 acres within 505 parcels. The most common land use is residential (single-family residential, multi-family residential, and mobile home and RV parks, 42%), followed by vacant land (30%), and commercial uses (15%), as shown in Figure 4, Current Land Use Exhibit, and Table 1 Current Land Uses in the CBD.

Figure 5 on page 16 depicts an aerial of the CBD, with photographs illustrating typical development, numbered 1-12. While a large portion of the CBD is comprised of residential uses, there is a more consistent presence of commercial properties along SR 29 in this area than elsewhere in Immokalee, especially east of 5<sup>th</sup> Street. Buildings in this portion of the corridor are essentially located adjacent to the road right-of-way, typical of a more urban roadway cross-section. The area east of 9<sup>th</sup> Street also has characteristics more typical of a “downtown;” that is, wider sidewalks, benches, bicycle racks, street trees, and on-street parking. However, there is an obvious lack of shade cover which should be an important public realm design consideration for southwest Florida communities. Given the extreme heat and rain during the summer months, addressing those elements through design is necessary in creating a comfortable pedestrian experience. The following maps and discussion highlight existing development by type (commercial, institutional, residential, etc.)

Table 1. CURRENT LAND USES IN THE CBD

LAND USE	PARCEL COUNT	PERCENT	ACRES	PERCENTAGE
Agriculture	0	0.0%	0.00	0.0%
Commercial	75	14.9%	33.44	14.6%
Government	4	0.8%	7.90	3.5%
Institutional	24	4.8%	16.34	7.2%
Mobile Home or RV Park	4	0.8%	5.35	2.3%
Single-family Residential	245	48.5%	63.87	28.0%
Multi-family Residential	35	6.9%	25.66	11.2%
Roadways	1	0.2%	7.13	3.1%
Vacant Land	117	23.2%	68.62	30.1%
<b>Total</b>	<b>505</b>	<b>100.0%</b>	<b>228.31</b>	<b>100.0%</b>

Source: Collier County Property Appraiser, February 2009; Analysis RWA, Inc.

### CURRENT LAND USES

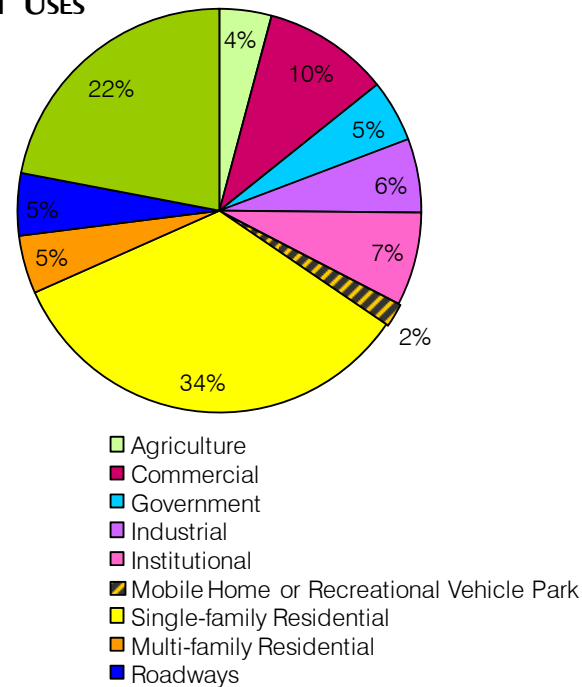




Figure 4. IMMOKALEE CURRENT LAND USE EXHIBIT

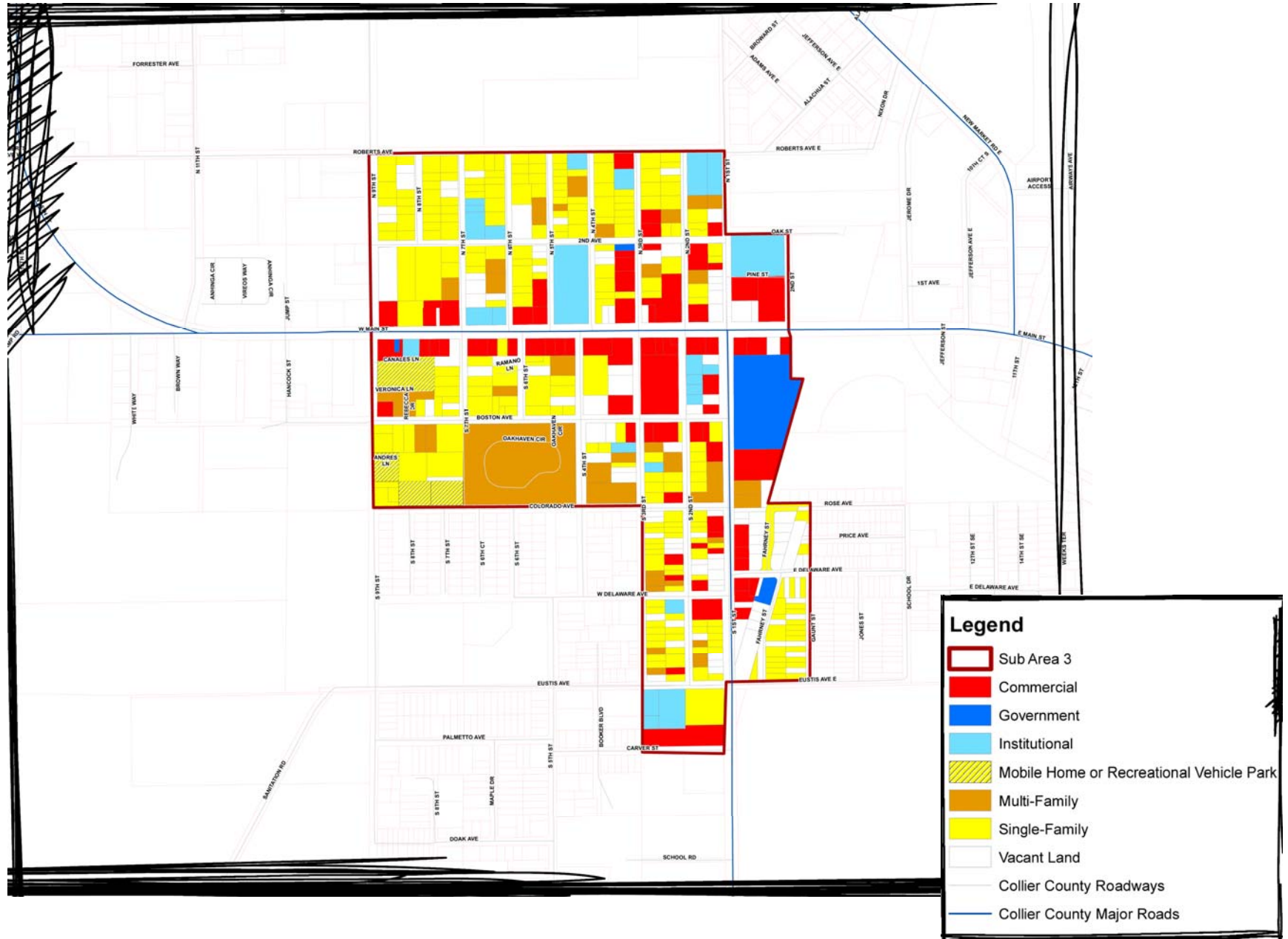




FIGURE 5.  
CENTRAL BUSINESS  
DISTRICT AERIAL







## 1. COMMERCIAL USES

Commercial properties make up 15 percent of the CBD, a relatively small percentage for a business district; however, the majority of land directly abutting SR 29 and 1<sup>st</sup> Street is zoned for commercial use. Structures are generally older, having been built in the 1960's and 70's. The condition of these buildings varies from well-maintained to a state of disrepair. Most of the buildings have flat or mansard roofs.

The buildings, however, commonly have fenestration facing the street, as well as entrances facing the public realm (see Photo 12 on Figure 5). Site landscaping is sparse. Additional photographs are included on the following page to further illustrate existing structures in the CBD. Most commercial buildings range in height from 10 to 15 feet. The Azteca building at the northwest corner of 2<sup>nd</sup> Street and Main Street, at 20-25 feet high, is an exception. There is no typical color palette for buildings. Street landscaping is predominantly palm trees and low shrubbery.

FIGURE 6. CENTRAL BUSINESS DISTRICT COMMERCIAL USES





Limited commercial uses are located along 1<sup>st</sup> Street, north of Main Street, including a recently completed building, Lucy's Hair Salon (Photo 3 on Figure 5).

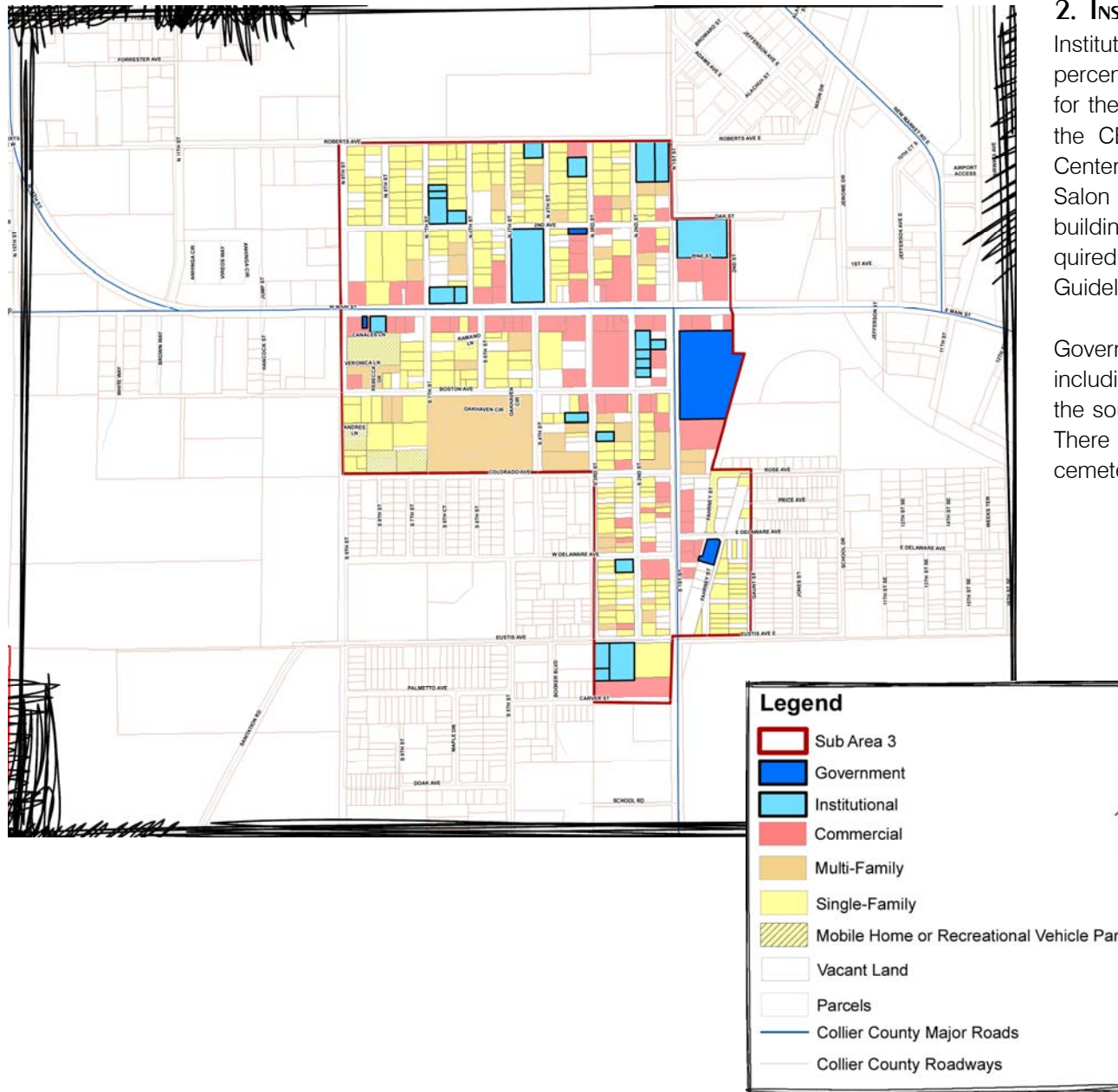
Other commercial properties have industrial-type metal buildings, with limited or no fenestration, minimal landscaping, and industrial features such as overhead doors. This style of building is clearly not pedestrian-scaled or typical of a central business district.



Examples of existing commercial uses along Main Street.



FIGURE 7. CENTRAL BUSINESS DISTRICT INSTITUTIONAL & GOVERNMENT USES



## 2. INSTITUTIONAL & GOVERNMENT USES

Institutional and government uses represent 10 percent of the CBD, and are important attractors for the district. Two of only three new buildings in the CBD house institutional uses: the Rollason Center and the Pace Center for Girls (Lucy's Hair Salon is the other). These recently constructed buildings have incorporated design features required by the Collier County Architectural Design Guidelines, such as the cupola.

Government uses are also located in this area, including the Immokalee Government Center at the southeast corner of Main Street and 1<sup>st</sup> Street. There is also a small historic site, a 19<sup>th</sup>-century cemetery, located directly on SR 29.



Institutional/Government buildings - Rollason Center above; Pace Center for Girls below.



Historic site - 19th century cemetery along SR29.



### 3. Residential Uses

Residential uses make up over 40 percent of the district. While this may seem like a large percentage and uncommon for most revitalizing downtowns, residential uses provide a significant opportunity for the CBD. Residential uses put people on the street, which supports commercial uses, promotes bicycle and pedestrian traffic, and contributes to a vibrant community. However, there are single-family and multi-family units directly on SR 29 and South 1<sup>st</sup> Street, in areas zoned for commercial use. These existing residences provide challenges in developing a central business district, but over time, these uses can be redeveloped into commercial or mixed-use buildings which would be consistent with the vision for the area and would yield the highest and best use for the property owners.

Generally, the residential uses consist of smaller, single-family units, on small lots. Many of these lots were platted in the 1920's and 30's. Some lots are as small as 3,250 square feet, less than the minimum lot size allowed by zoning. These small lot sizes may hinder redevelopment, as required setbacks and landscaping can be difficult to accommodate on a substandard lot, and essentially act as a disincentive to owners to make improvements. Small lot sizes can also deter large-scale development, as the land needed for the project may have multiple owners, thereby increasing the time and costs associated with assembling the property.

There are several trailer and mobile homes parks within the in the neighborhoods north and south of SR 29, of which, many are in disrepair, There are



Typical local road within a residential neighborhood.

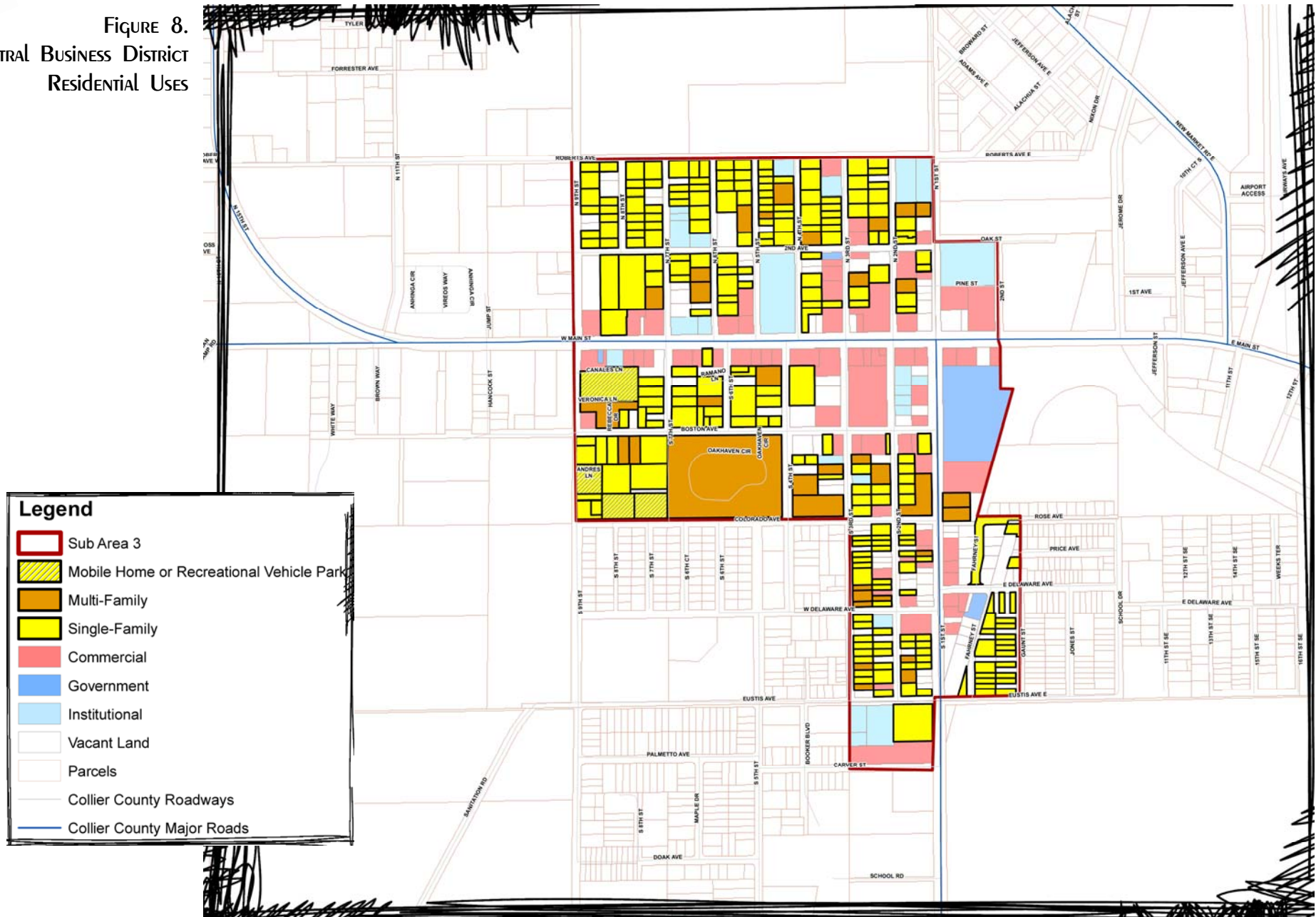
four affordable housing projects in the CBD, 1.) Main Street Village (79 units), 2.) Oakhaven (160 units), 3.) the Farmworker Dormitory Complex (192 beds), and 4.) the Milagro Place affordable housing subdivision, developed by the Empowerment Alliance of Southwest Florida, which consists of 26 single-family homes. Both Main Street Village and Oakhaven are fenced off with a wide ditch surrounding the property.

There is a relatively large concentration of affordable housing developments, which highlights a major dif-

ference between Immokalee and coastal Collier County. Although only 7.6 percent of the County's total population resides in Immokalee, 43 percent of the affordable housing projects are located within Immokalee. Other multifamily properties are illustrated on page 23.



FIGURE 8.  
CENTRAL BUSINESS DISTRICT  
RESIDENTIAL USES





#### 4. VACANT LOTS

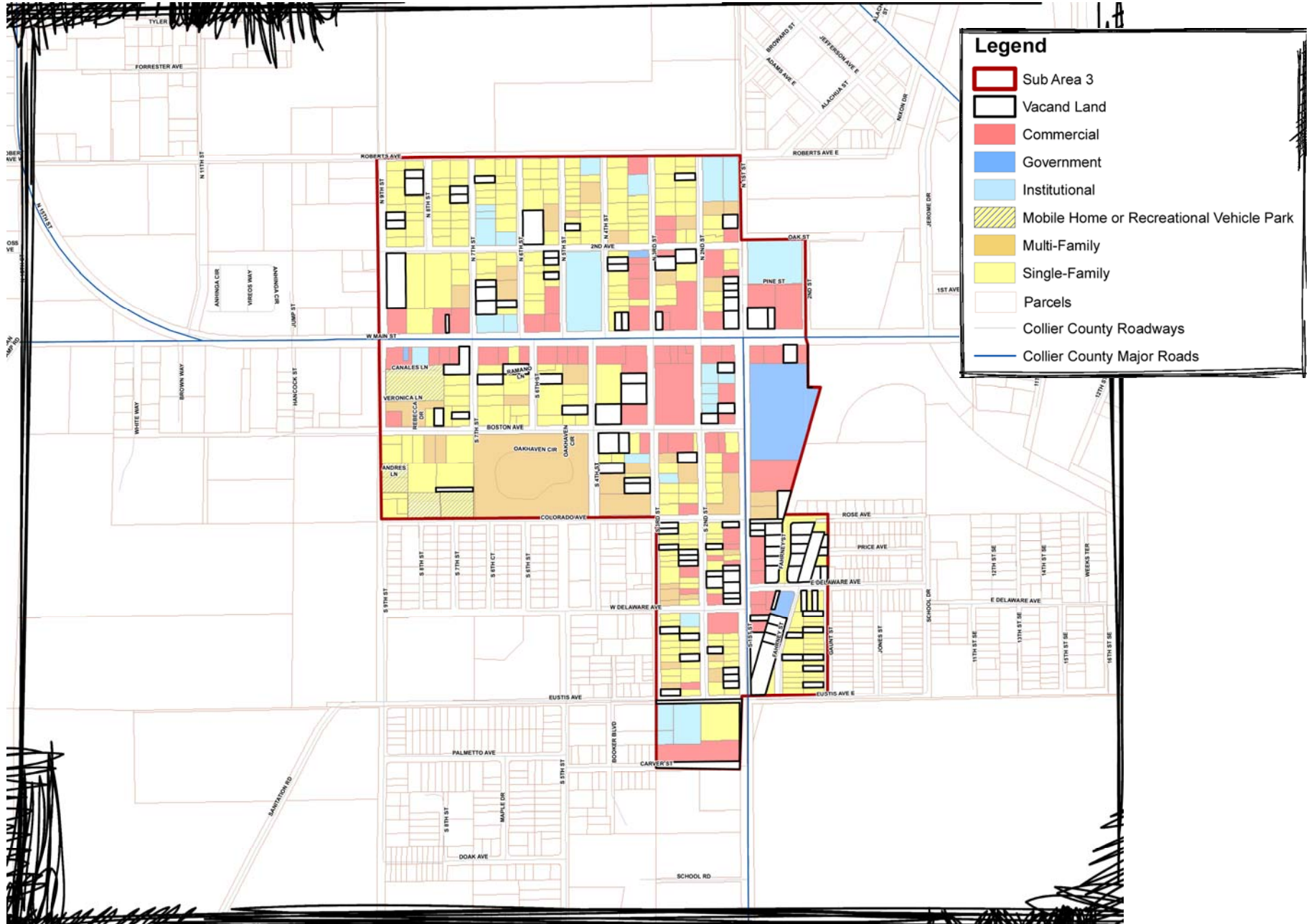
There are several vacant parcels and buildings in this area, which, while representing opportunities for new development, currently interrupt the pedestrian experience and detract from the downtown atmosphere. Over 30 percent of the land in the CBD is currently vacant. Except for a small, two-block segment from 1<sup>st</sup> Street to 3<sup>rd</sup> Street, there is no cohesive or consistent structural element fronting the sidewalks along the corridor, due to vacant parcels, abandoned buildings, inconsistent setbacks, and inconsistent parking placement



Examples of housing stock within the CBD.



FIGURE 9. CENTRAL BUSINESS DISTRICT VACANT LOTS







The south end of the study area at South 1<sup>st</sup> Street and Carver Street represents the southern entrance into downtown from coastal Collier County. The Seminole Casino is on the east side of the road (outside of the Study Area), and there is a gas station and small store on the west side of the road (see Photo 10 on Figure 5). A mixture of commercial and residential uses border South 1<sup>st</sup> Street, both single-family and multifamily structures, as well as several vacant parcels and buildings. The mixture of uses, and the lack of design consistency, results in confu-



sion about the nature of the district and does not give any visual signal or reference that one is entering a central business district or a possible tourist destination.

Examples of residential and commercial structures along South 1st Street.



## C. BUILT ENVIRONMENT

The following series of maps more closely detail the built environment within the CBD and how these conditions relate to public health and safety, as well as their affect on redevelopment.

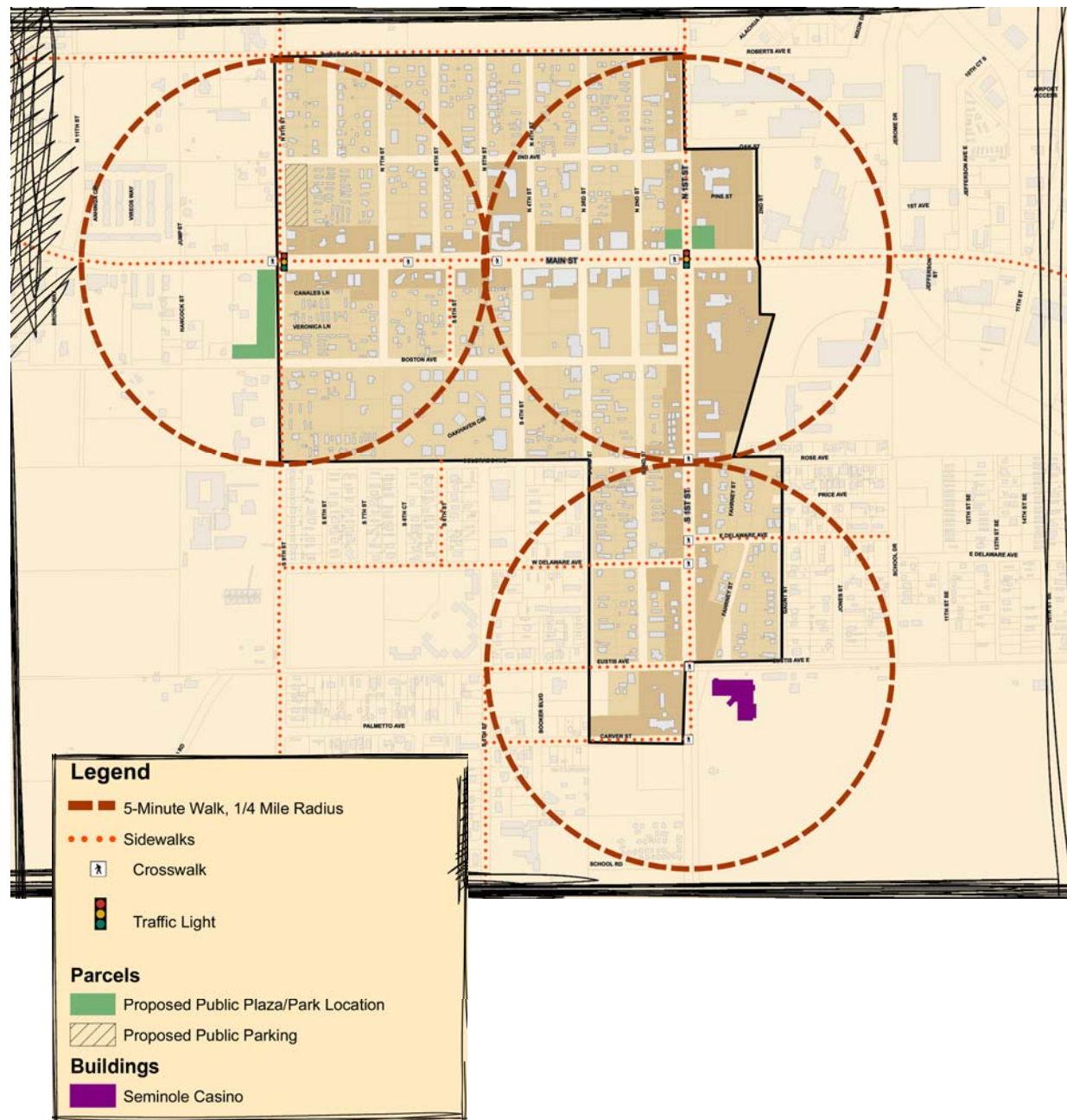
### I. PEDESTRIAN AMENITIES

#### Sidewalks

As previously discussed, many Immokalee residents, especially those living within the CBD, bike or walk rather than drive to their destinations. Figure 10 depicts a five-minute walk (quarter-mile) from three key locations – the Seminole Casino at South 1<sup>st</sup> Street and Eustis Avenue; the intersection of 1<sup>st</sup> Street and Main Street; and the intersection of 9<sup>th</sup> Street and Main Street. The latter two intersections represent “bookends” to the CBD, and are the proposed locations for two new public plazas, which are described and discussed in greater detail further in the report. The map illustrates the location of sidewalks and crosswalks within the CBD. As demonstrated, the CBD is easily walkable, no more than 20 minutes (one mile) from the Casino to 9<sup>th</sup> Street. A public parking facility is being considered for the intersection of 9<sup>th</sup> Street and Main Street, in the northeast corner.

As can be seen from Figure 10, there are sidewalks along major roadways; however, sidewalks along secondary streets leading into core neighborhoods north and south of the CBD are incomplete or lacking. It should be understood that the lack of sidewalk facilities identified on the map is not reflective of the actual pedestrian traffic in Immokalee. Existing pedestrian traffic and demand for sidewalks is significant, but supply of

FIGURE 10. PEDESTRIAN FACILITIES





such facilities lags behind. The lack of sidewalks has led to improvised footpaths and unsafe conditions where individuals walk within narrow, paved shoulders. These conditions represent a deficiency in the pedestrian network, but also provide an easily-identified opportunity to improve mobility and safety within the CBD.

### Crosswalks

Crosswalks are another key component to a safe pedestrian system. The Florida Department of Transportation (FDOT) recently added two crosswalks along Main Street. These crosswalks are located along Main Street at the intersection of 5th Street, and mid-block between 6th and 7th Streets. There are several crosswalks along South 1<sup>st</sup> Street; however they are faded, poorly marked, and have minimal signage associated with them. Additionally, none of the crosswalks are linked to a traffic light, therefore pedestrians using the crosswalk must rely on the awareness and responsiveness of drivers for their safety. As previously stated, the mix of uses, inconsistent setbacks, and building types fail to alert the driver to the fact they are entering a downtown area, with associated pedestrian activity. The crosswalk in front of the Casino especially needs improvement, as overflow parking for the Casino is located across South 1<sup>st</sup> Street which leads to significant pedestrian traffic crossing back and forth. Additionally, there is no sidewalk in front of the Casino.

According to a recent road safety audit conducted by the Collier County Community Traffic Safety Team, the majority of pedestrian and bicycle crashes in the CBD occur within two roadway segments, on Main Street/SR 29 from 1<sup>st</sup> Street to 9<sup>th</sup> Street, and along South 1<sup>st</sup> Street from Main Street/



Crosswalk in front of casino - markings are faded and signage is lacking.



Example of jaywalking resulting from lack of crosswalks.



Example of properly identified crosswalk within Immokalee.

SR 29 south to the Seminole Casino. This audit suggests possible changes to existing landscaping and medians in order to improve safety. These recommendations were closely analyzed and incorporated into the proposed CBD streetscape design. In addition, Collier County is also investigating the feasibility of installing a stoplight with crosswalk in front of the Seminole Casino.



## 2. Building Uses AND FORM

The following map (Figure 11) illustrates the buildings and current land uses that border SR 29 and South 1<sup>st</sup> Street. Again, the two parks/plazas, as well as the Seminole Casino, are shown for reference. As the map illustrates, the majority of uses along the corridor are commercial; however, institutional, government, and even single-family residential uses are also present.

While residential uses are not necessarily out of place in a CBD, it is atypical to have an extensive amount of single family residences directly abutting the public right-of-way. These areas are typically zoned for commercial uses and represent prime real estate for redevelopment. Within most downtowns, it is more common for residential units to be housed within mixed-use buildings or to be further removed

from “main street” behind a row of commercial or institutional uses. However, residential use can be effectively integrated into the public realm and into a unified main street design scheme. It is common for redevelopment efforts to establish a “build to line” directly abutting the public right-of-way to ensure that buildings frame the public realm and provide a unified visual delineation between public spaces and private development. When existing residential buildings do not directly abut the public right-of-way, a technique often used to ensure uniform frontage is to mandate that a fence or wall be used for continuity.

FIGURE 11. BUILDING USES ALONG MAIN STREET & 1<sup>ST</sup> STREET CORRIDOR

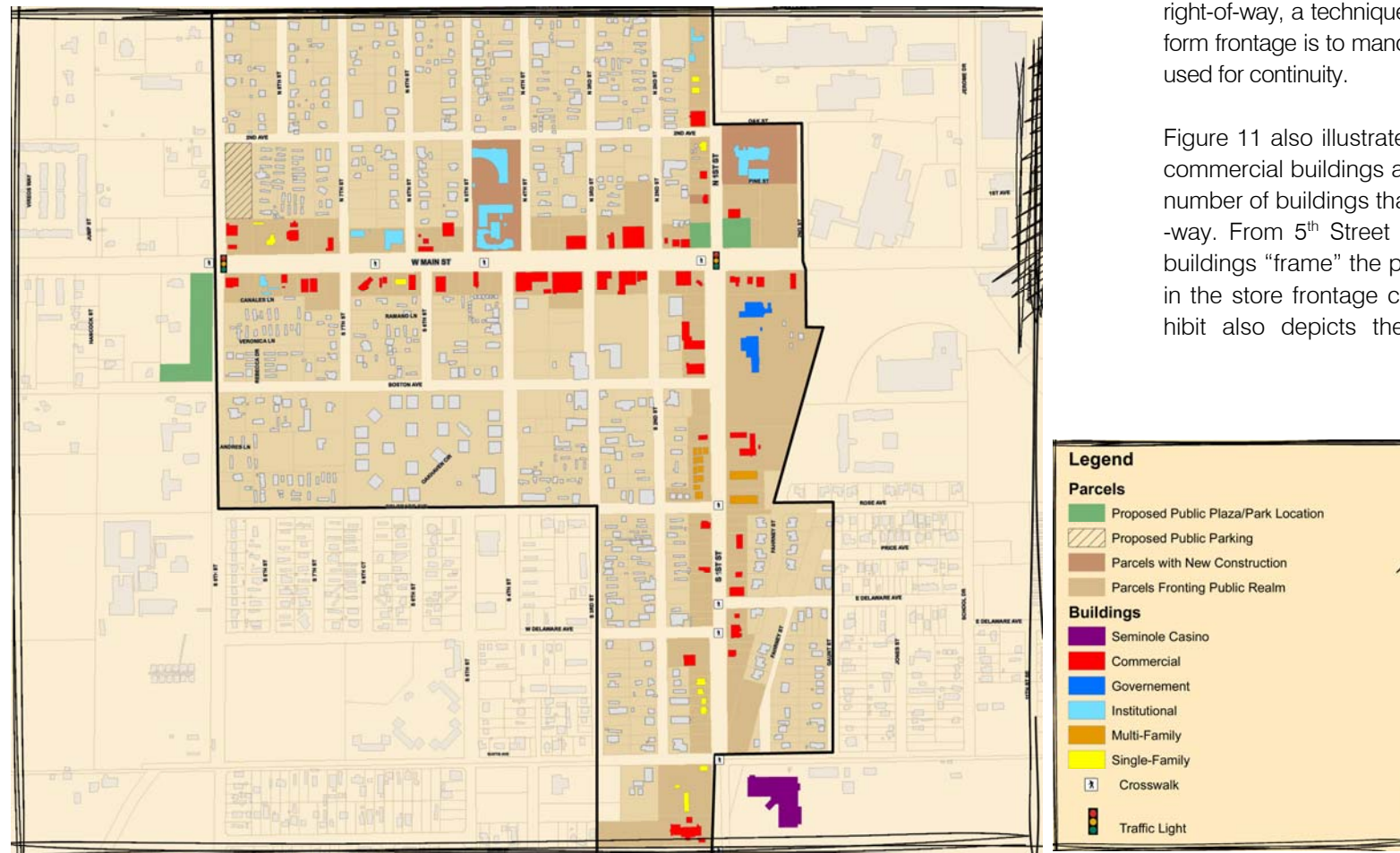


Figure 11 also illustrates the strong presence of commercial buildings along Main Street, and the number of buildings that directly abut the right-of-way. From 5<sup>th</sup> Street to 1<sup>st</sup> Street, commercial buildings “frame” the public realm and few gaps in the store frontage can be observed. This exhibit also depicts the large expanses where



FIGURE 12. TRANSIT ROUTES



frontage is lacking. From 9<sup>th</sup> to 5<sup>th</sup> Streets, and along most of 1<sup>st</sup> Street, building size and location represent typical suburban, auto-dependent development, with more of the parcel devoted to parking, and buildings set back further from the street. For example, the Government Center, at the southeast corner of Main Street and 1<sup>st</sup>, is located approximately 70 feet from South 1<sup>st</sup> Street. These setbacks, in addition to considerable variations in the “massing” of buildings, can be significant visual detractors that present challenges in establishing a cohesive and attractive public realm.

### 3. TRANSIT

Public transit represents another key element to a pedestrian-friendly downtown. Figure 12 shows current Collier Area Transit (CAT) routes in Immokalee. Route 5, the Immokalee Shuttle, runs from the Health Department in Immokalee to the Government Center in Naples; Route 7, the Marco Island Shuttle runs from North 19<sup>th</sup> Street to Caxambas Park in Marco Island; and Route 8, the Immokalee Circulator, runs within Immokalee. The Public Realm Area is well-served by both



Examples of bus stops in Immokalee - minimal accommodation for transit rider.



Route 5 and Route 8, with bus stops being no more than a mile from any location within the area. Bus stops are provided at several locations along each route, however, the number of bus stops could be increased and the quality of these bus stops could be enhanced.

#### 4. ACCESS DRIVES

Limiting conflicts amongst drivers, pedestrians, and bicyclists is important in creating a pedestrian-friendly downtown. Currently, there are several curb-cuts along SR 29 and South 1<sup>st</sup> Street that accommodate private driveways. While the arrangement makes sense from an ease of access standpoint, such multiple curb-cuts have two major drawbacks. 1.) For motorists, it increases turning movement conflicts and reduces travel speed. 2.) For pedestrians, each driveway represents a potential conflict with a motor vehicle. For these reasons, the CRA should explore the development of an access management plan that could provide incentives for the development of shared access points, and shared parking with cross access easements behind buildings that front the public realm. Figures 13 and 14 demonstrate how access for one sample block, on the south side of Main Street, from 6<sup>th</sup> Street to 4<sup>th</sup> Street, is currently configured, and how that access could be potentially reconfigured by incorporating a joint access easement as redevelopment occurs.

FIGURE 13. Multiple Access Drives, Existing Parking Conditions

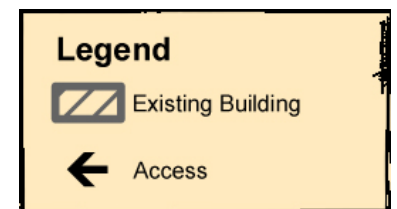
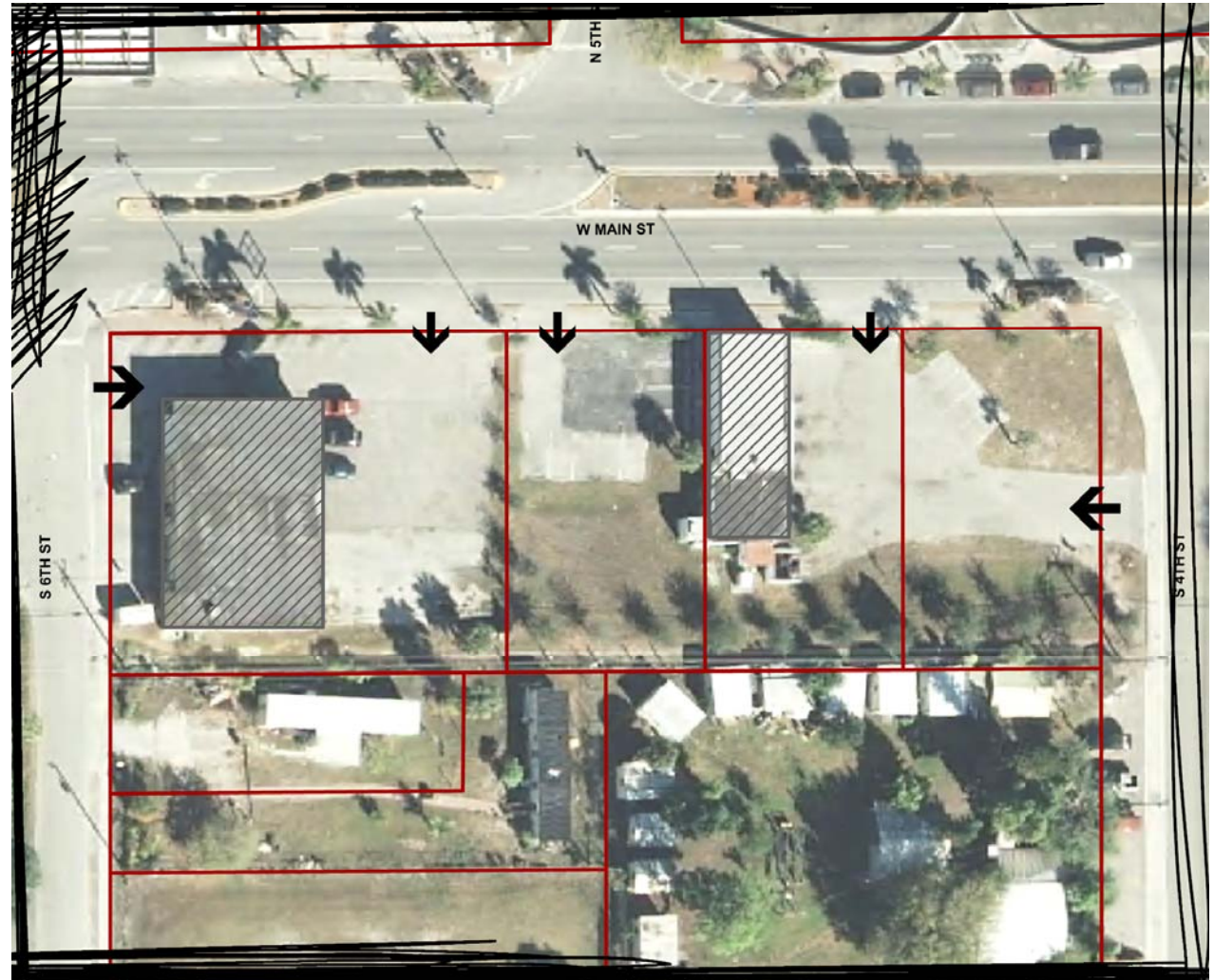
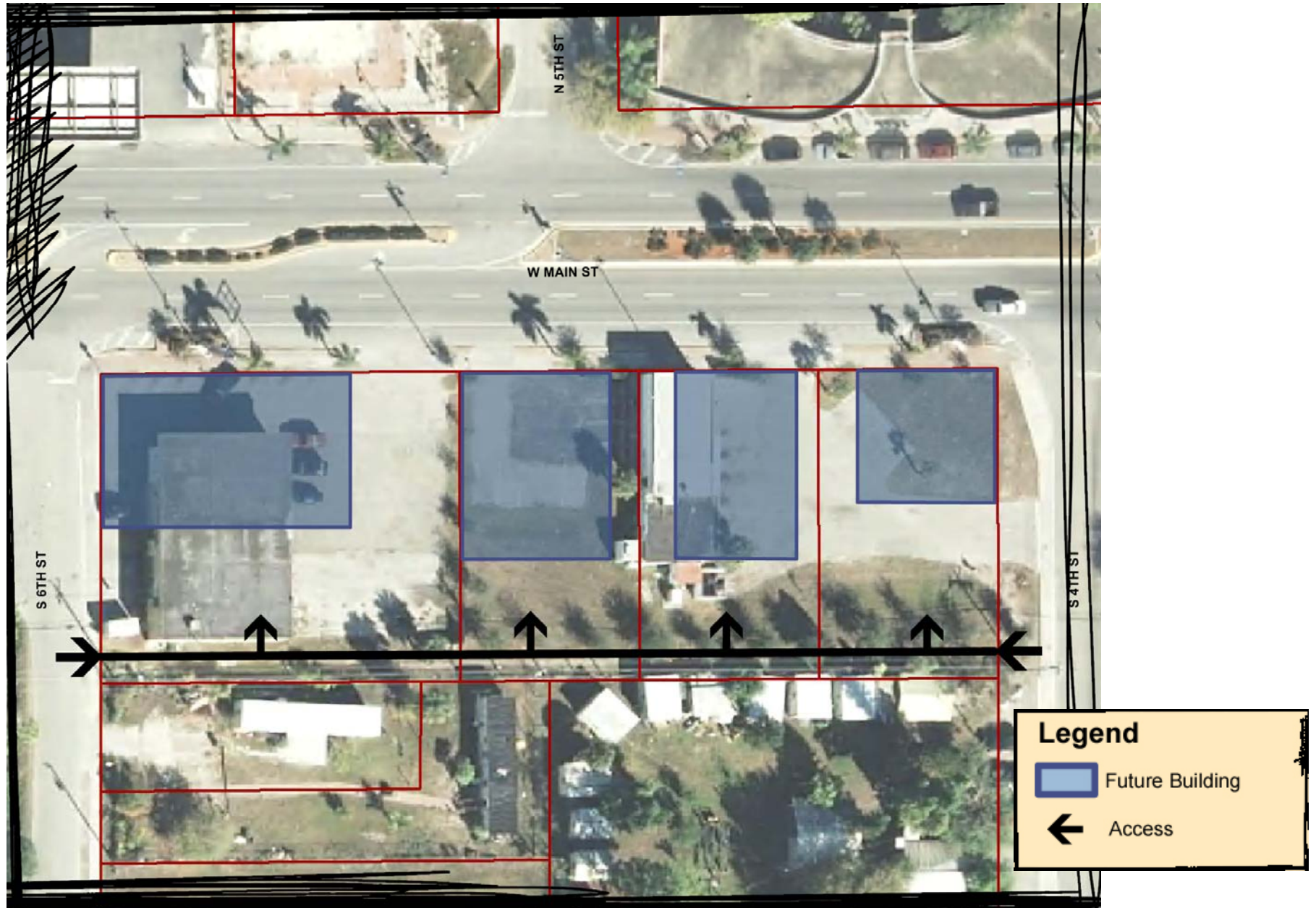




FIGURE 14. POTENTIAL ACCESS DRIVE & PARKING IMPROVEMENTS





## 5. DRAINAGE

Unfortunately, the CBD, along with many areas in Immokalee, currently experiences significant flooding issues during rainy periods. A Stormwater Master Plan for Immokalee was completed in 2006. The Plan identified areas prone to flooding and recommended improvements to remediate a number of problems. The plan was recently adopted by the Board of County Commissioners, which will allow the CRA to refine and finalize the plan and move forward with needed stormwater improvements. A review of the plan in relation to the public realm study area is included in Appendix A. A copy of the entire plan has also been included on CD.

As part of the Stormwater Master Plan, a model was developed to simulate existing and future drainage conditions based on varying stormwater infrastructure conditions. An existing conditions model was created based on current development within Immokalee, and future conditions were then modeled by adding various drainage improvements such as pipes, weirs, retention ponds, etc. However, the model did not simulate changes in land use that may result from redevelopment and new development — for instance, a change from agricultural land to commercial land would not be addressed by this model. More stringent water quality and quantity standards will be required for new development rather than existing development, and the impact of future development is anticipated to result in positive improvements to stormwater management. However, future development may need evalua-

tion and simulation to determine the effect on the conveyance, storage, and water quality treatment aspects of the stormwater management system. Additionally, in the review of new development, new stormwater improvements and how they interface with existing stormwater management systems and the overall drainage pattern will need to be considered.

Within the CBD, proposed improvements consist of:

- a. 48" pipes along Delaware, Colorado, and Boston Avenues running east and west;
- b. a series of 18-inch exfiltration trenches on various streets running north and south;
- c. a weir control structure at 5<sup>th</sup> Street and Bethune Drive; and
- d. a 2-acre lake at the intersection of South 9<sup>th</sup> Street and Eustis Avenue.

One of the most beneficial improvements to the CBD is the proposed two-acre stormwater retention pond. Within the Stormwater Master Plan, this pond is located just south of Colorado Avenue and west of South 9<sup>th</sup> Street. The stormwater facility provides the most immediate and viable stormwater management improvement for water quality treatment and water quantity storage. In addition, it could serve as a catalyst for redevelopment in this area, by providing an aesthetically pleasing amenity, passive recreation benefits, and by possibly accepting water from infill development, thus reducing the need for private property owners to manage all their water onsite. It is

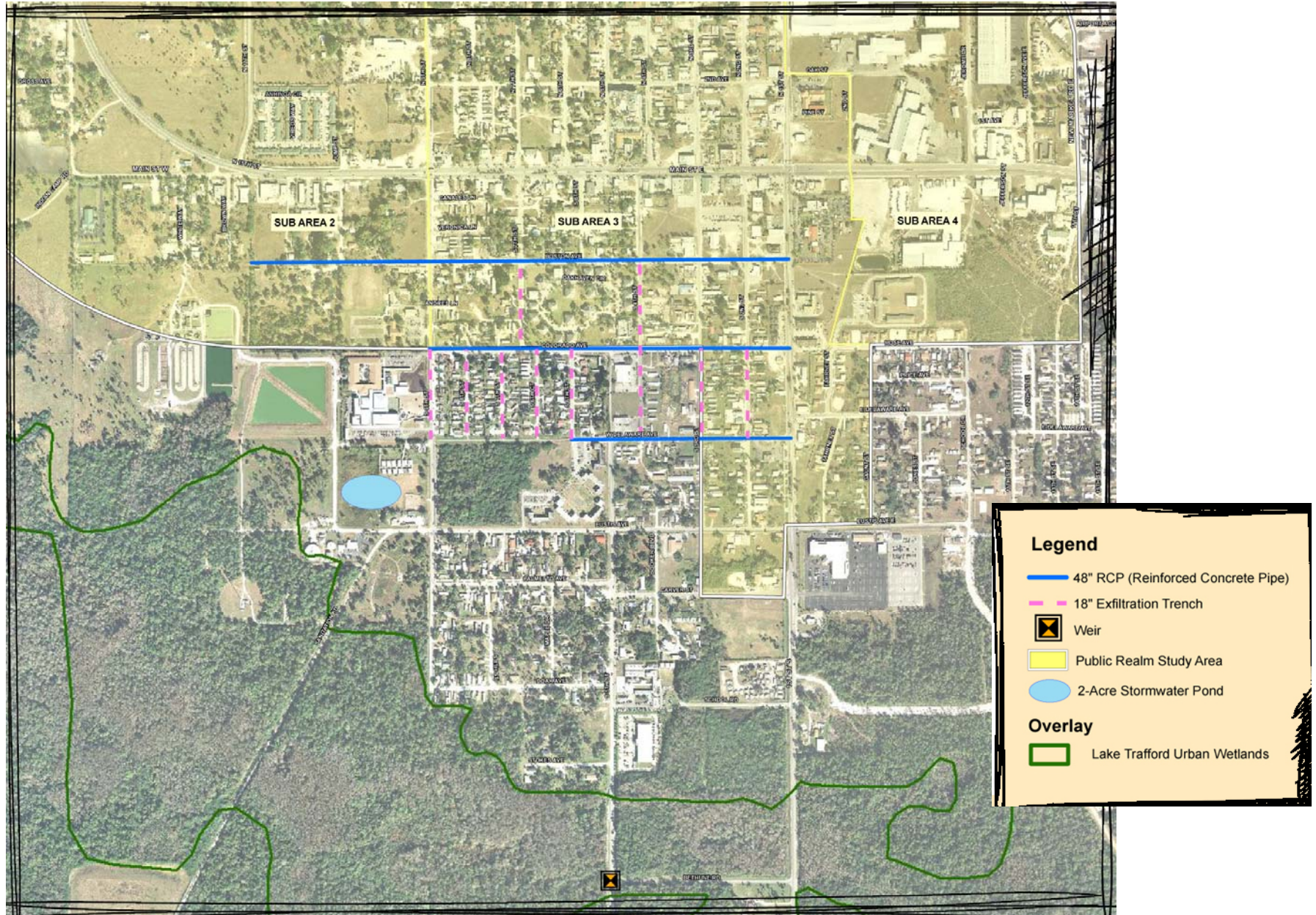
recommended that the lake improvement be expedited, since it has the potential to provide great benefit to the Immokalee CRA, both in significant improvements to stormwater control downtown and as a possible park site.

<sup>1</sup> This stormwater lake is shown as two acres on the associated graphics included in the stormwater report; however, it is listed in the text as five acres. We have assumed that two acres is the correct figure.





FIGURE 15. IMMOKALEE STORMWATER MASTER PLAN AREA 6 IMPROVEMENTS





## D. CHALLENGES & OPPORTUNITIES

The existing conditions in the CBD are discussed to illustrate the challenges and opportunities that face redevelopment initiatives in Immokalee, and specifically to illustrate how some of the challenges will be addressed and opportunities capitalized upon through the implementation of the Public Realm Plan.

The large amount of pedestrian and bicycle traffic represents both a challenge and an opportunity. The safety of pedestrians and bicyclists must be addressed to prevent accidents and eliminate pedestrian fatalities. In doing so, proposed improvements can also enhance walkability and liveability within the CBD. The Public Realm Plan recognizes that there is a very significant amount of non-motorized travel throughout Immokalee and especially within the CBD, and proposes streetscape improvements, as well as new crosswalks to improve safety and the overall pedestrian and cyclist experience.

The plan intends to implement a new vision for Immokalee, and presents a cohesive design that will clearly demonstrate the town's multicultural heritage and create a unique sense of place. The public plazas will act as the center of social activity and become assets for the community. Implementation of the plan will also lead to greater interest in Immokalee as a tourist destination, by better connecting the Seminole Casino with the CBD and expanding the tourist destination from a single building to an entire district. The plan is intended to provide a catalyst for redevelopment of the CBD. Significant public investment, in addition to numerous CRA initiatives, will be utilized to stimulate private investment and help revitalize Immokalee.



### III. BRANDING

#### BRANDING

The design of the public realm can enhance or even create the unique character of a destination. The personality of a central business district can be made memorable through the design of this community environment.



The elements of design used to create a unique brand or image for Immokalee are based on the rich cultural heritages that have given Immokalee its essence. These cultural influences include an agrarian heritage of citrus and crop farms and cattle ranching. Additionally, Immokalee's cultural influences include a diverse ethnic mix of Mexican, Guatemalan, South American, and Caribbean cultures.

These cultural heritages are embraced in the gateways, wayfinding signage, Main Street streetscape concept, and the two public plaza concepts. The multi-cultural theme is expressed through the various shapes and functions of the plazas, the architectural elements, the landscape architecture, the vibrant color palettes, energetic geometric patterns, and



natural materials. The colors, shapes, and designs of Immokalee's heritage have been integrated into the public realm elements, from single ceramic tiles to an entire Main Street streetscape with public plazas at each end.

The use of colorful decorative tiles, as proposed for Immokalee, is prevalent in Latin American plazas and streetscapes. They add vibrancy and color to walls, columns, steps, benches, planters and fountains. There is an enormous range and diversity of styles available. Local artists could also be solicited to create custom mosaics and hand-painted tiles.

The brand for Immokalee is first introduced to visitors by the predominant gateways that lead into the CBD and the Community Redevelopment Area. Additional wayfinding signage introduces the theme and directs tourists throughout the community. This section identifies the proposed gateways and wayfinding system for the Immokalee community.



## A. PROPOSED GATEWAYS

Although the focus of the public realm plan is the CBD, the branding actually begins beyond the boundaries of the CBD to introduce tourists to the unique identity of Immokalee. Gateways must be strategically located and designed at a scale that is appropriate for the intended user, whether that is predominantly pedestrians, bicyclists, or motorists, and must be related to the right-of-way and speed of travel.

Immokalee currently has two existing entrance gateways that utilize a cornucopia logo. These gateways are strategically located for traffic arriving from Fort Myers and Naples, but do not capture the spirit of Immokalee, and their scale is not appropriate for the locations or traffic speed. It is recommended that these two gateways be redesigned to incorporate the new design theme. This plan also identifies several strategic locations for new gateways.

In addition, new gateways are proposed for entry into the community from the southwest along SR 29. More pedestrian and bicycle-scale gateways are also proposed to announce entry into the CBD. The proposed locations for the redesign and new gateways include the following:

### Pedestrian Scale Monument Gateways

- The intersection of Main Street and 1<sup>st</sup> Street – Public Plaza
- The intersection of Main Street and 9<sup>th</sup> Street – Public Plaza and Park

### Motorist Scale Monument Gateways

- The intersection of SR 29 and New Market Road W – Large Entry Monument Redesign
- The intersection of 1<sup>st</sup> Street near the Seminole Casino Immokalee – Small Entry Monument Redesign
- Along CR 846 29 near the airport – Small or Large Entry Monument (dependent on available right-of-way width)
- SR 29 at the Farm Workers Village – signage on the existing pedestrian bridge

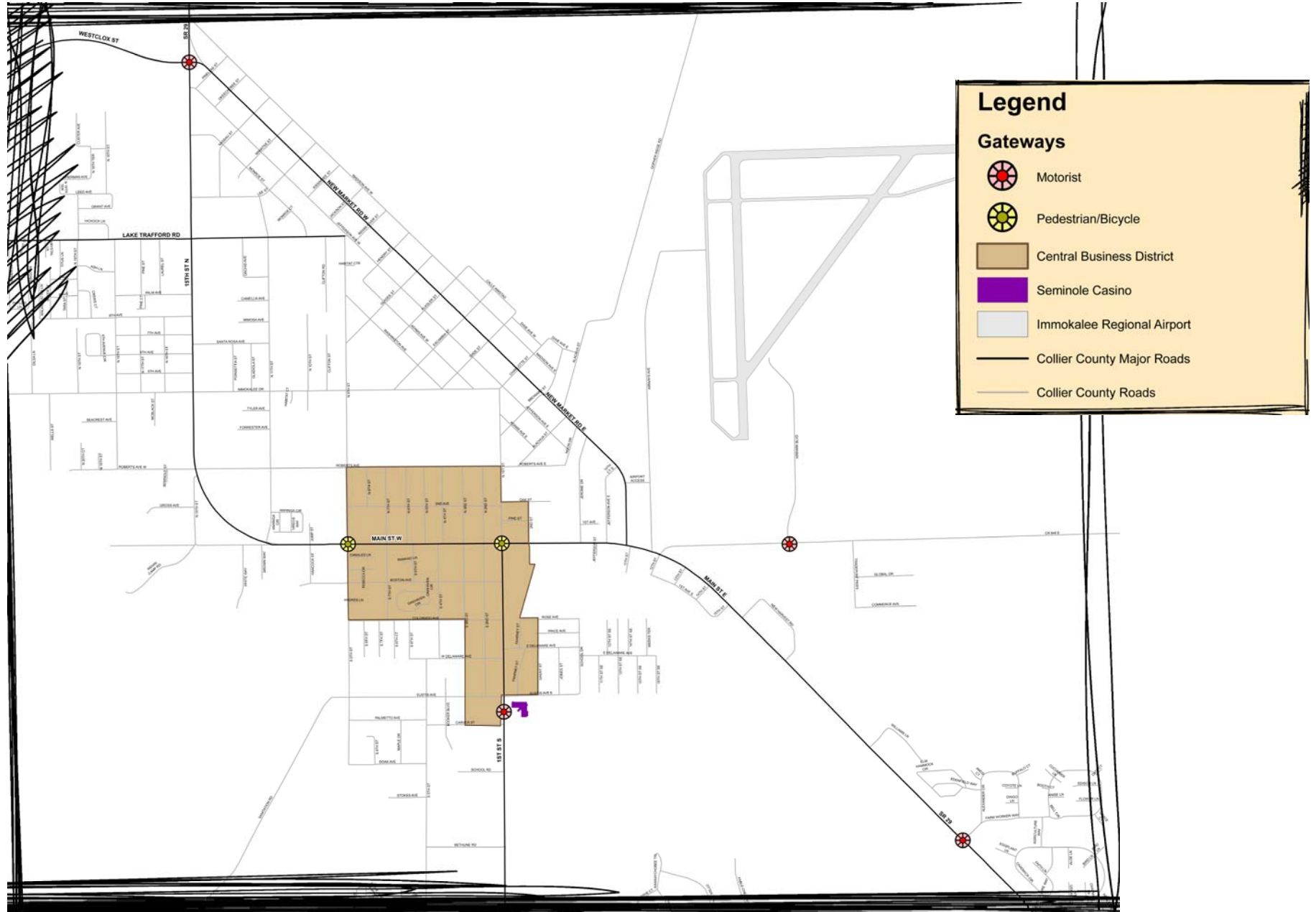
The proposed locations for the above gateways are illustrated in Figure 16.

According to the 2009 Road Safety Audit (RSA) commissioned by the Municipal Service Taxing Unit (MSTU), “Gateways help calm traffic movements and provide a visual queue [sic] to drivers to expect higher pedestrian traffic.” Therefore, the use of gateways at the proposed locations will potentially increase pedestrian safety. Additional information on both public plazas is included in the next section of this report.





FIGURE 16. GATEWAY LOCATION MAP





## 1. CENTRAL BUSINESS DISTRICT GATEWAY

### COLUMNS

To create an identity for the CBD along Main Street, pedestrian/bicycle scale gateways are proposed to clearly establish each end of the District. These gateways are proposed as tall, narrow columns to prevent sidewalk conflicts for pedestrians. In Approaching the CBD, visitors' and residents' attention will be drawn to the prominent gateway columns. The colorful masonry columns are proposed at eight to ten-feet tall and feature a stylized fruit basket or sphere finial. With their bold colors, geometric patterns, and ceramic tiles, the colorful columns will enliven the gateway. The graphic sketches on page 39 provide conceptual illustrations of the example gateway columns.

## 2. LARGE ENTRY MONUMENT

Large gateways are proposed for entry from SR 29 into the CRA, which has a substantial right-of-way at both the north and south entrances. The design proposes a pair of impressive columns flanking a large monument sign in the center landscaped median. These monuments, united in style and color, will provide a bold entrance into Immokalee. They feature masonry construction finished in bold-colored stucco and accented with bright ceramic tiles. The sign area itself is a field of ceramic tiles with a welcoming message and custom artwork. A large Talavera pot in bright colors completes the ensemble. Although the focal point plant will be drought-tolerant, a drip irrigation system is proposed in order to reduce maintenance.

## 3. SMALL ENTRY MONUMENT

In areas of reduced rights-of-way, large entry monuments are not possible. In these locations, an impressive entry monument may still be created by maximizing the proportionate height of the structure. Similar to the large entry monument, the smaller version features masonry construction finished in bold-colored stucco and accented with bright ceramic tiles. A pair of Talavera pots in bright colors flanks the monument and softens the vertical mass of the backdrop.

## 4. SR 29 PEDESTRIAN BRIDGE

The existing pedestrian bridge located by the Farm Workers Village may serve as the perfect framework for announcing the entrance into the Immokalee area. The logo of the Immokalee CRA, with its large colorful letters, would be recommended for this gateway in order to make the largest impact and clearly identify the community.

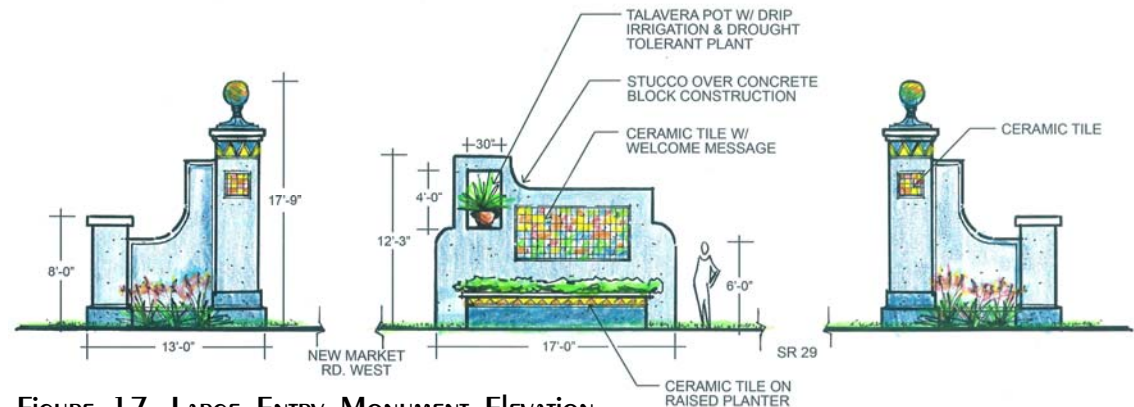


FIGURE 17. LARGE ENTRY MONUMENT ELEVATION

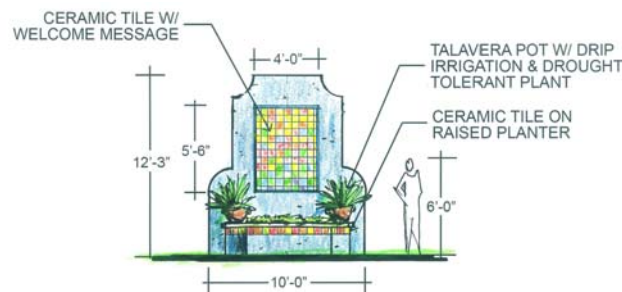


FIGURE 18. SMALL ENTRY MONUMENT ELEVATION

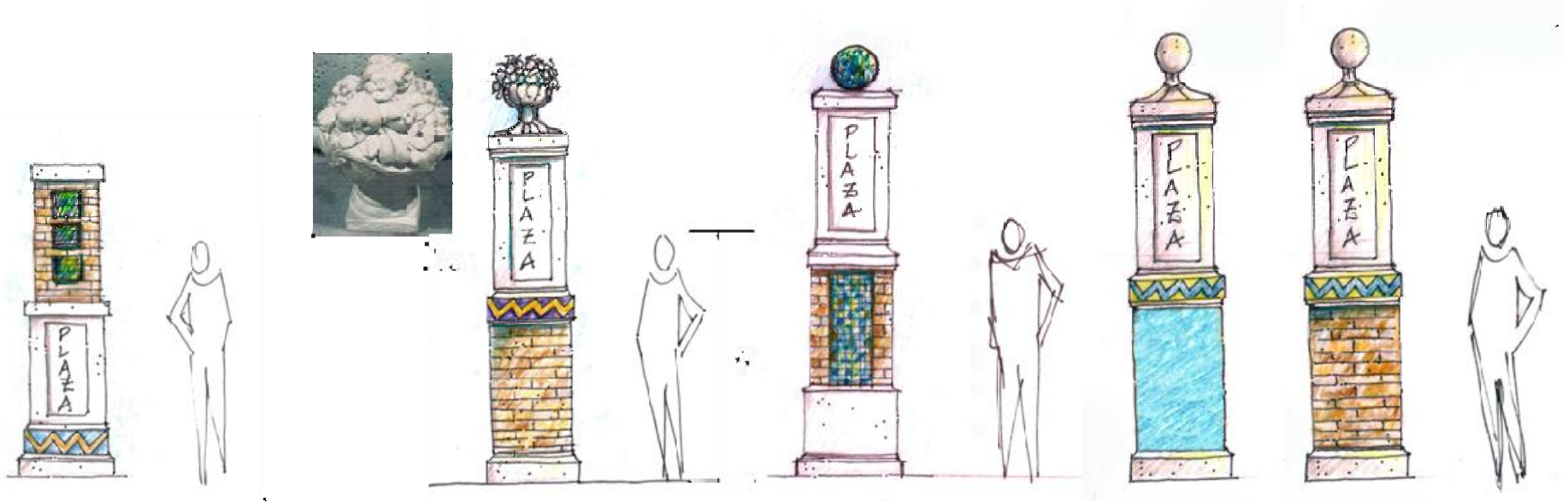


Pedestrian overpass at Farmworkers Village.



FIGURE 19. GATEWAY COLUMNS (FOR PROPOSED PLAZAS)

-Depicting cornucopia or sphere finial, as well as design elements such as mosaic tiles, bright colors, and Latin-influenced patterns.





## B. Wayfinding Signage

Wayfinding and directional signs provide a needed information and direction system to guide tourists and pedestrians safely and efficiently in and around the CBD. Directional signs, like the Vehicular Directional Sign shown to the right, are strategically placed to offer pedestrian and vehicular traffic quick help at intersections and key crossroads.

Wayfinding signs, like the pedestrian directory below, can provide landmark names and directional arrows that indicate the direction of travel to a particular landmark. These could be placed in the two gateway plazas and in key bump-outs along Main Street. Pedestrian directories are critical to Immokalee due to heavy pedestrian and bicycle traffic that exists. Both the pedestrian directory and vehicular directional signs can employ multiple listing signs with changeable panels. The cohesive wayfinding system has been developed such that the signage appearance and theme are consistent throughout the entire area, which allows the signs to be easily recognizable by pedestrians and motorists.

The following illustrates two examples of wayfinding signage proposed for the Immokalee area.

As redevelopment efforts move forward, a comprehensive wayfinding program for the entire Immokalee Urban Area should be defined. However, it is suggested that the implementation of the wayfinding program begin with the CBD and that strategic sign locations and points of interest be identified. This effort will require input from the CRA staff, the and the CRA Advisory

FIGURE 20. PEDESTRIAN DIRECTORY

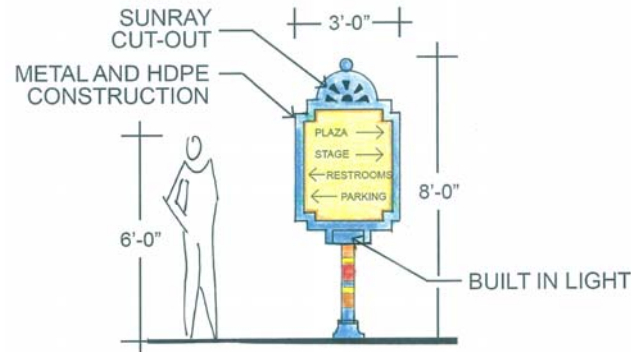
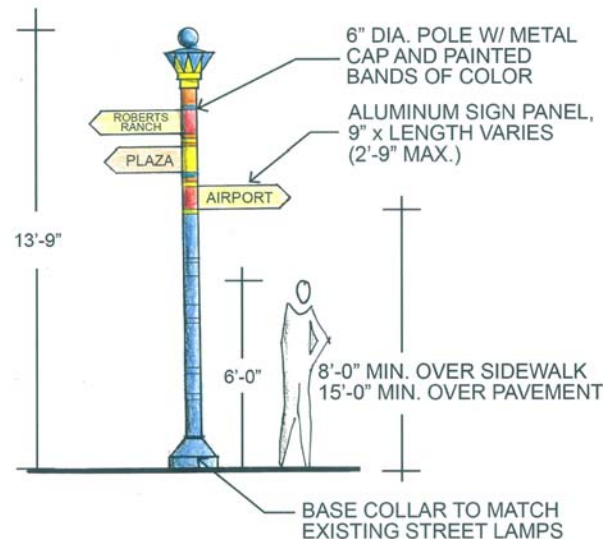


FIGURE 21. VEHICULAR DIRECTION SIGN



Figures 20 and 21 illustrate two examples of wayfinding signage proposed for the Immokalee area.

Board. The strategic locations should be based upon ease of visibility to motorists and pedestrians, and the signs should provide an organized offering of information and directions that are quick to read and easy to understand.

Four strategic locations have been identified within the CBD:

1. Along South Main Street, in front of the Casino
2. At the intersection of 1<sup>st</sup> and Main, where the public plaza is proposed
3. At the crosswalk located at the intersection of Main and 5<sup>th</sup> Street
4. At the intersection of Main and 9<sup>th</sup> Street, where the Public Plaza/Park is proposed

Additionally, a preliminary list of landmarks that could be identified on the signs is provided below:

- Airport
- Tradeport Business Park
- Casino
- Lake Trafford/Marina
- Roberts Ranch
- Pepper Ranch
- Pinhookers Market
- State Farmers Market
- Community Parks
- Schools
- University of Florida facilities
- Public Plazas
- Public Parking (future)
- Rollason Center
- Immokalee Government Services Center
- Immokalee Career and Service Center





# IV. Public Plaza Designs

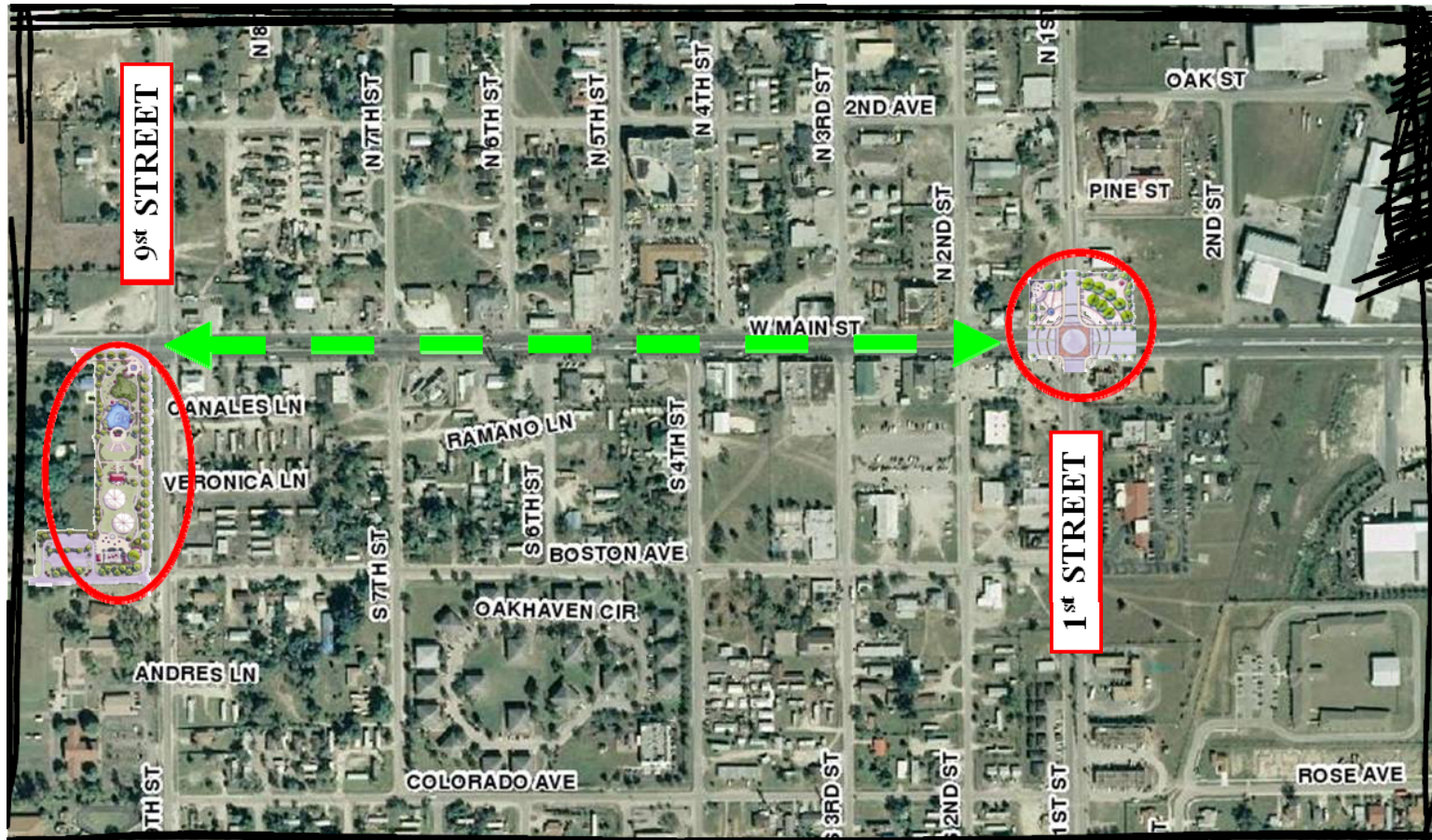
## Public Plaza Designs

Currently, there are no plazas or great squares for public gatherings in downtown Immokalee. Public gathering places, such as Zócalos in Mexico, are the heart of the Mexican-Tenochtitlan community, and are often anchored by a church or market place. In Immokalee, such plazas are intended to inspire community pride and revitalize the CBD into a more livable and walkable community; and are proposed as anchors for the CBD.

Conceptual layouts were created for two plazas at the recommended locations within the Immokalee CRA. One public plaza is proposed at the intersection of 1<sup>st</sup> Street and Main Street. Another plaza is proposed at the intersection of 9<sup>th</sup> Street and Main Street. Combined with gateways, the plazas become functional “book-ends” to define the geographic limits of the defined

Immokalee CBD along Main Street. The conceptual layouts for each plaza area are based on site visit information, interviews, direction from the CRA, and feedback from Immokalee CRA staff.

FIGURE 22. PLAZA LOCATIONS





## A. PROPOSED 1ST STREET PLAZA

First Street is a primary entrance to Immokalee from the Naples area, the new Ave Maria community, and the Seminole Indian Reservation surrounding the expanding casino. There are two vacant lots at the intersection of North 1<sup>st</sup> Street and Main Street, with one lot at the northeast intersection quadrant and the other lot at the northwest intersection quadrant. The area of both lots totals approximately 54,660 square feet (1.25 acres). From an analysis of the aerial to the right, there appears evidence of heavy pedestrian circulation crossing the lot on the northwest corner. The County's Road Safety Audit recommended purchasing this vacant lot and constructing a diagonal walkway from 1<sup>st</sup> Street to Main Street. However, the Public Realm Plan recommends a plaza for each parcel that will be more beneficial to the entire CBD rather than just a diagonal sidewalk. The conceptual design for the 1<sup>st</sup> Street plaza shown on the following page includes the use of both vacant lots on the north side of Main Street.

For special public events, 1<sup>st</sup> Street could temporarily be closed north of Main Street. This would allow for both 1<sup>st</sup> Street plaza areas to function as one large public space. For larger events, a temporary stage could be set up on the closed section of 1<sup>st</sup> Street.

The primary plaza space is the "street level" plaza east and west of 1<sup>st</sup> Street. The "middle" and "upper" terraces step up from the street level plaza in the interior of the space and slope upward from the perimeter of the plaza. Pedestrian accessibility is provided to the upper levels of both plazas.

As previously mentioned, gateway columns on either side of 1<sup>st</sup> Street are used to identify "downtown" Immokalee. They incorporate the design colors and names

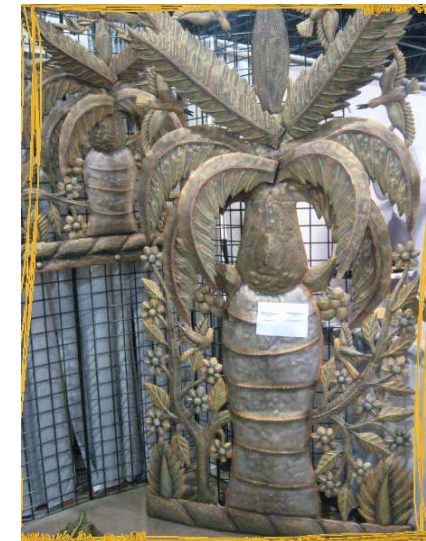
of the plazas. Similarly, bollards are used for safety by defining areas and perimeters. They are proposed on the north side of Main Street and on both sides of 1<sup>st</sup> Street to identify the edges of the corner plaza. In keeping with the colorful multicultural theme, the



same site furnishings and paving proposed for the Main Street streetscape concept can be used in the plazas. The plaza design also includes art walls, which represent a novel feature of this plaza design. The wall has built-in openings for the display of art. The art wall can be used to display local or touring artwork. Local artists could be encouraged to develop works of art as part of a competition, special event, or fundraiser.



The use of porous paving or permeable pavers in the plazas will promote stormwater infiltration and groundwater recharge. They also offer a "cooler" pavement system



Decorative art elements.

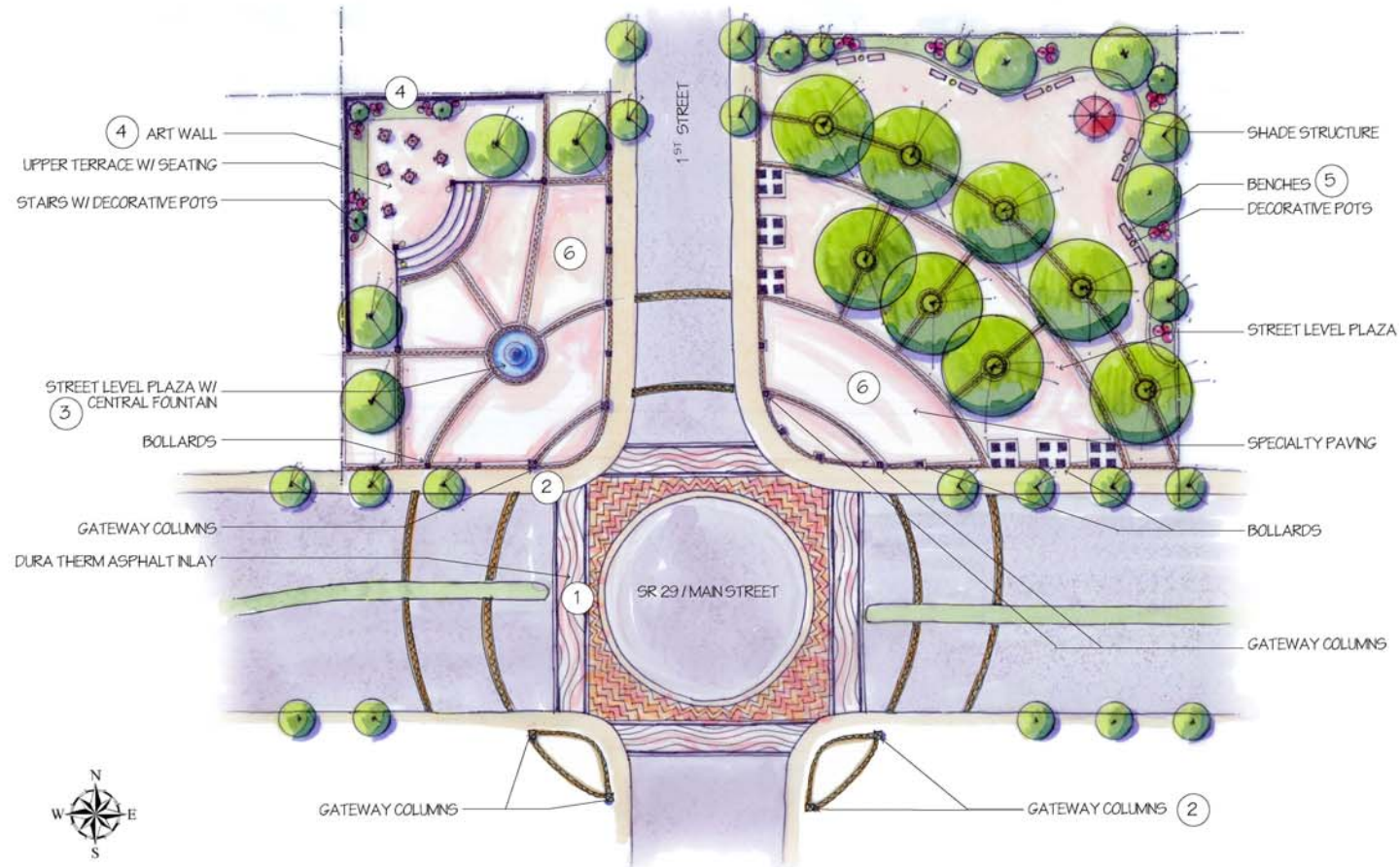
that reduces the heat island effect. Rainwater harvesting is possible if the stormwater runoff is held and recycled in the irrigation system.

More detail about the 1st Street Plaza can be found in a detailed PowerPoint presentation include in Appendix B. This presentation provides additional exhibits depicting design elements proposed for this plaza.





FIGURE 23. 1ST STREET PLAZA





## B. Proposed 9th Street Plaza

The development of a parcel on the southwest corner of Main Street and 9<sup>th</sup> Street was identified and studied for location of the second anchor plaza and park area. The single ownership of the parcel makes it conducive for the plaza development. The parcel depth and location allows for the connection of residential neighborhoods and a church to the Main Street corridor via the plaza area. The total area of the plaza and park is approximately 105,100 square feet (2.41 acres). A conceptual site plan for the proposed 9<sup>th</sup> Street plaza and park area is shown in the conceptual rendering on page 45.

Colorful perimeter fencing is proposed at the corner entrances to the park to showcase the Latin flavor of the design theme and to integrate unique features such as hand painted tiles. The fence style can introduce and reinforce a desired theme and

color scheme. The linear border between fencing is open, yet well-landscaped.

Permanent arbors and gazebos provide shade, as well as special-event tents. As shown, the tents will seat approximately 140 people banquet style and 182 people with an auditorium seating arrangement (Figure 25, photo 5). They may be installed as needed and do not need permanent posts for installation. When not tented, the lawn may become a multi-purpose field to accommodate a number of different sporting events and other social activities.

Other plaza amenities include a traditional fountain near Main Street, an amphitheater, an interactive fountain/splash pad, concession and restroom buildings, playground, and off-street parking. A bio-swale in between the parking bays can temporarily

store, convey, and treat run-off from the parking lot. A rain garden off of Boston Avenue continues to treat the stormwater runoff by removing nutrients and suspended solids. The rain garden can be designed as an aesthetic and functional site feature. The intent of these features is to “clean” the water before it is reused or returned to the ecosystem.

The use of porous paving or permeable pavers in the plazas will promote stormwater infiltration and groundwater recharge. They also offer a “cooler” pavement system, reducing the heat-island effect. Rainwater harvesting is possible when the stormwater runoff is held and recycled in the irrigation system or used in decorative fountains. Harvested rainwater could also be used to flush toilets in the restrooms.

More information about the 9<sup>th</sup> Street Plaza can be found in Appendix B. A Power Point presentation detailing design elements is included.

FIGURE 24. POTENTIAL FENCING ALTERNATIVES





FIGURE 25. 9th STREET PLAZA/PARK





## MAIN STREET/SR29 STREETScape

An integrated and signature streetscape can enhance a community in many ways, and set the stage for a unique and vibrant downtown destination. When combined with a coordinated wayfinding and gateway system, a unique brand or image for Immokalee will be created. A well-designed streetscape may also serve as a catalyst for economic development and strengthen the community's sense of place.

Immokalee is fortunate to already have a streetscape in place along much of 1<sup>st</sup> Street and SR 29. Streetscape and road corridor improvements along Main Street/SR 29 within the CBD have been an ongoing project for the Municipal Service Taxing Unit (MSTU)/Beautification Committee. Improvements previously implemented by the MSTU include median landscaping, streetlights, bump-outs, and site furnishings.

The conceptual streetscape renovations proposed as part of the Plan will build upon and complement the existing streetscape framework and previous accomplishments of the MSTU. The streetscape renovations proposed as part of this plan will accomplish two community objectives:

- A. Increase pedestrian and bicyclist safety on Main Street.
- B. Unite proposed public plazas at 1<sup>st</sup> Street and 9<sup>th</sup> Street with a shared multi-cultural theme along Main Street.

The conceptual streetscape design for SR 29/Main Street is proposed to be completed in a two-phase

plan, consisting of Phase 1 - the Intermediate Streetscape Concept Design, and Phase 2 - the Long-Range Streetscape Concept Design. The intermediate design improvements can be completed immediately or as existing streetscape must be replaced, thereby laying the foundation for the future long-term design. The long-term design would be implemented

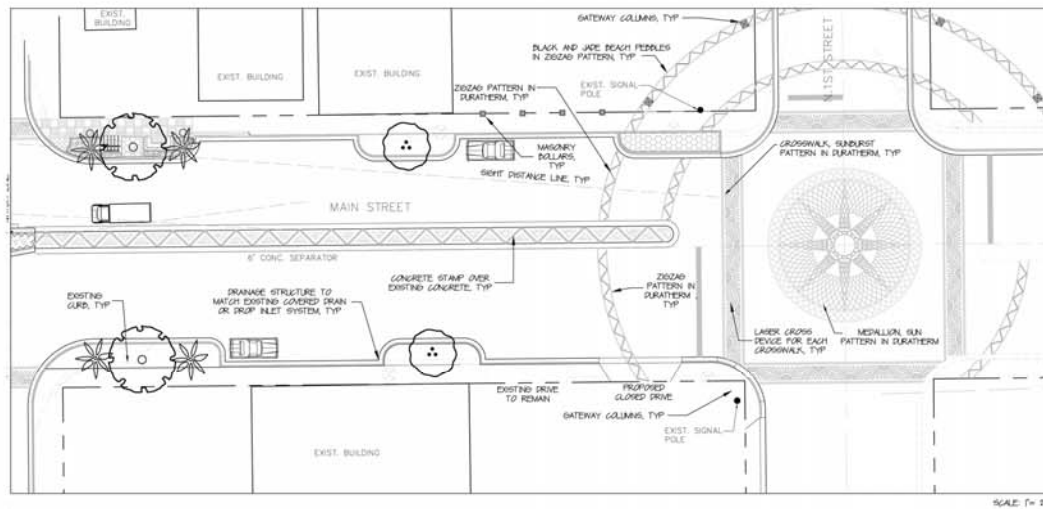
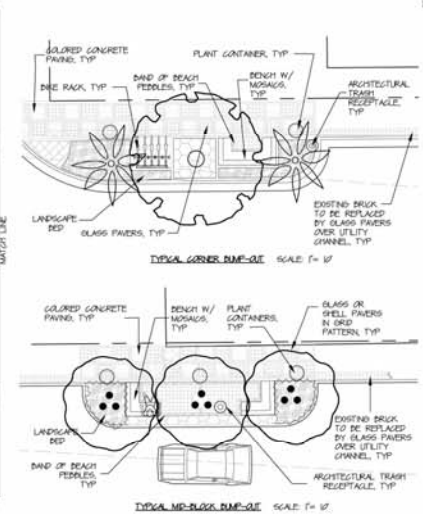
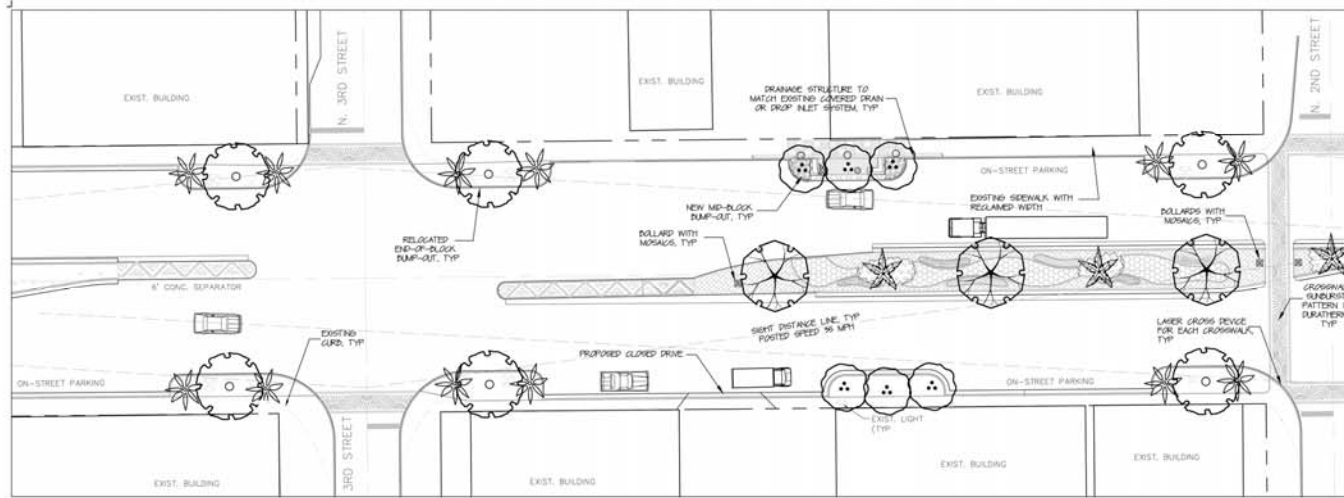
in conjunction with the establishment of the proposed SR 29 Loop Road. Once the SR 29 Loop Road is in place and trucks are no longer passing through the CBD, the long-term improvements can be safely implemented.



Aerial depicting typical segment used to develop conceptual streetscape design.



FIGURE 26. INTERMEDIATE STREETScape CONCEPT





## A. INCREASE PEDESTRIAN & BICYCLIST SAFETY

A high number of pedestrian and bicycle crashes and fatalities have occurred over the past years on Main Street (3 pedestrian/bike fatalities, 16 injuries from 2005-2007). In 2008, this prompted Collier County to perform a Road Safety Audit (RSA). The findings and recommendations of the MSTU-commissioned RSA have been incorporated in the development of these streetscape concepts. Examples of this include enhanced crosswalk paving, reduction of mid-block crossing opportunities, the addition of dedicated bike lanes, and the use of landscaped “bump-outs” to reduce vehicle speeds.

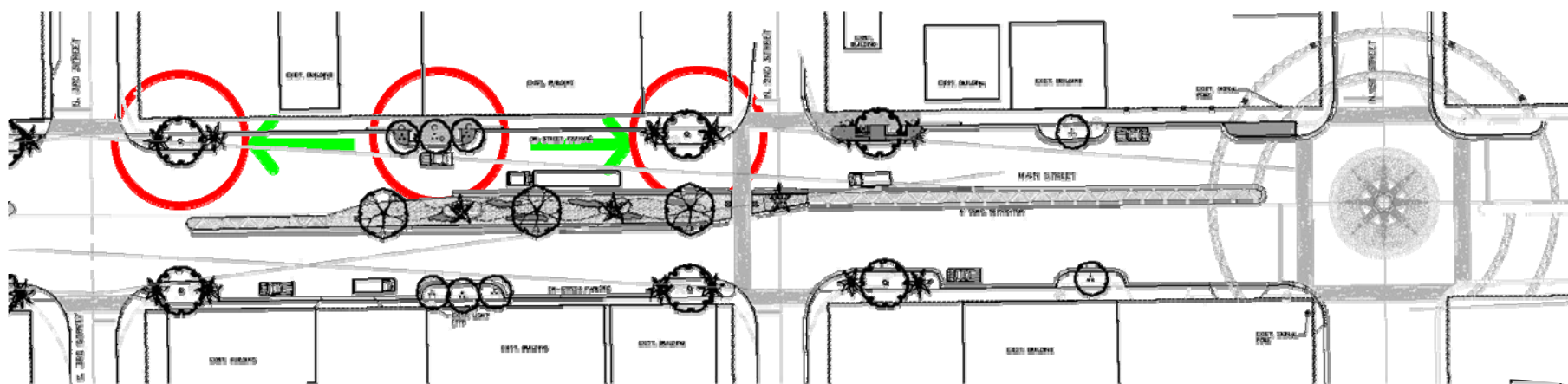
## B. UNITE THE DESIGN THEMES OF THE TWO PLAZAS

The proposed Main Street streetscape will serve to unite the design themes of the two public plazas at 1<sup>st</sup> Street and 9<sup>th</sup> Streets, previously discussed in this report. A two-block section of Main Street, from 1<sup>st</sup> to 3<sup>rd</sup> Streets, was chosen for the development of a prototype for the streetscape concepts. The streetscape design featured in this two-block prototype may be replicated elsewhere along Main Street. The conceptual streetscape is based on site visits, interviews, and direction and feedback from Immokalee residents and CRA staff. Again, two conceptual streetscape plans have been created, one utilizing the existing parallel parking (Intermediate Street-

scape Concept Figure 26), and one that proposes reverse-angle parking (Long-Range Streetscape Concept).

It should be noted that the proposed conceptual design can easily be extended beyond the boundaries described above. It is envisioned that streetscape improvements will eventually extend to the intersection of Lake Trafford Road to the north and the Casino to the south. Extending this design to the Casino is especially significant since it may help draw Casino visitors into the downtown.

FIGURE 27. ILLUSTRATION of STREET “BUMP-OUTS”







## C. PHASE 1- INTERMEDIATE STREETSCAPE CONCEPT

The streetscape improvements recommended in this concept could be made without changing the existing lane widths on SR 29. The existing curbs will also remain in the same location, thereby avoiding the need to make significant infrastructure modifications. See Figure 26.

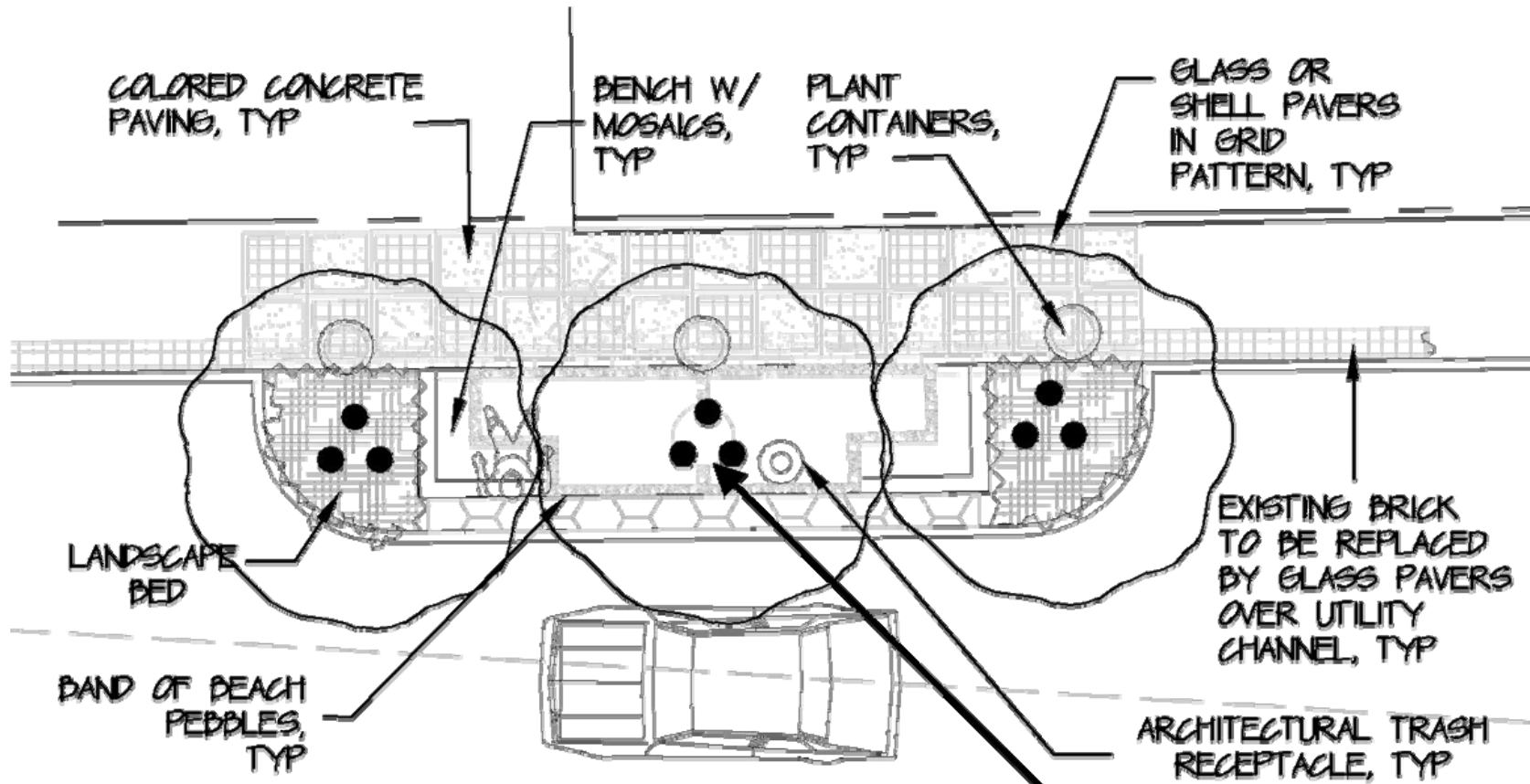
### 1. Bump-Outs

The existing bump-outs are moved closer to the street intersections, as recommended in the RSA (Figure 26). This will shorten the crossing distance for pedestrians and allow the crosswalks and vehicle stop bars to be moved toward Main Street to increase motorist visibility. The relocated bump-outs are elongated to increase landscape areas and allow planting of trees to shade the sidewalks. New mid-block bump-outs are also proposed to increase landscape areas and increase tree canopy to shade the sidewalks. In addition, the widened bump-outs and tree canopy may potentially have the additional benefit of slowing vehicle speed along Main Street.

Whenever trees are proposed in paved areas, a paver-grate is recommended to allow the tree to grow while also allowing pavement close to the trunk. The grate also protects the irrigation system (Figure 28).



FIGURE 28. INTERMEDIATE STREETScape WITH EXISTING PARALLEL PARKING



Mid-Block Bump-out, Typical

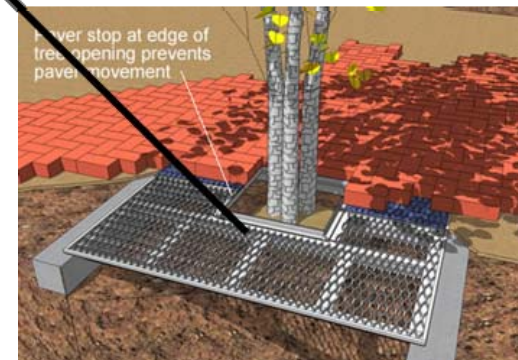
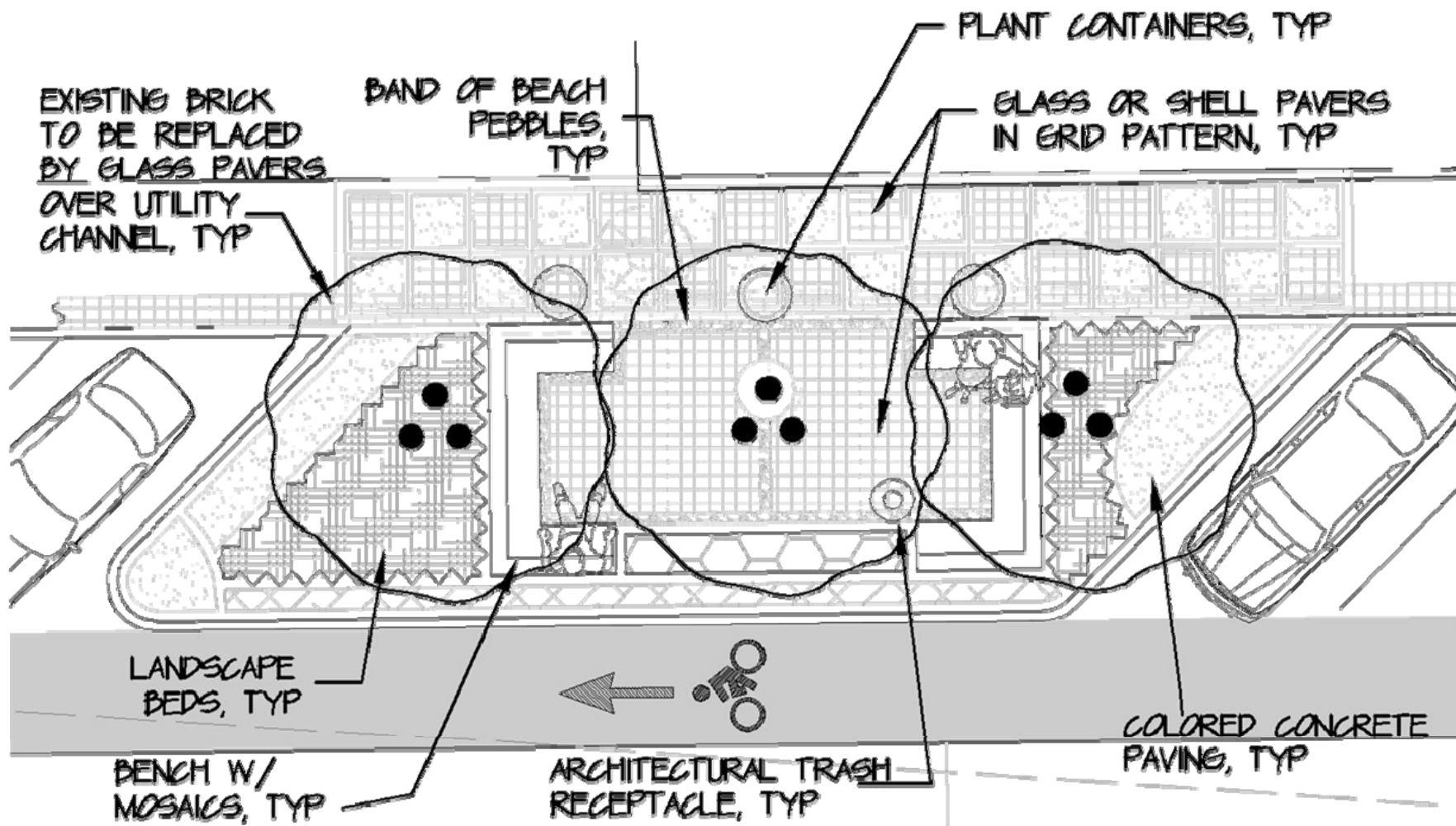




FIGURE 29. LONG-RANGE STREETScape WITH FUTURE ANGLED PARKING



Mid-Block Bump-out, Typical



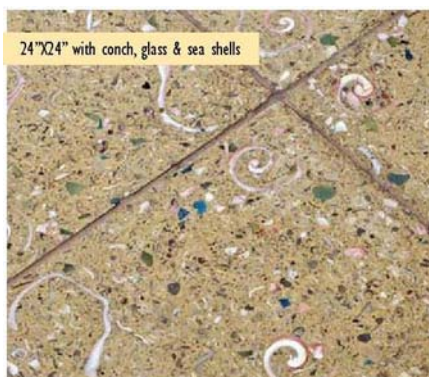
## 2. PAVING

Glass pavers are proposed to replace the existing brick paving in the bump-outs and the utility channel in the sidewalk. These pavers will have a concrete base color compatible with the existing concrete pavement. Their bold colors come from the integration of 100-percent recycled glass particles.

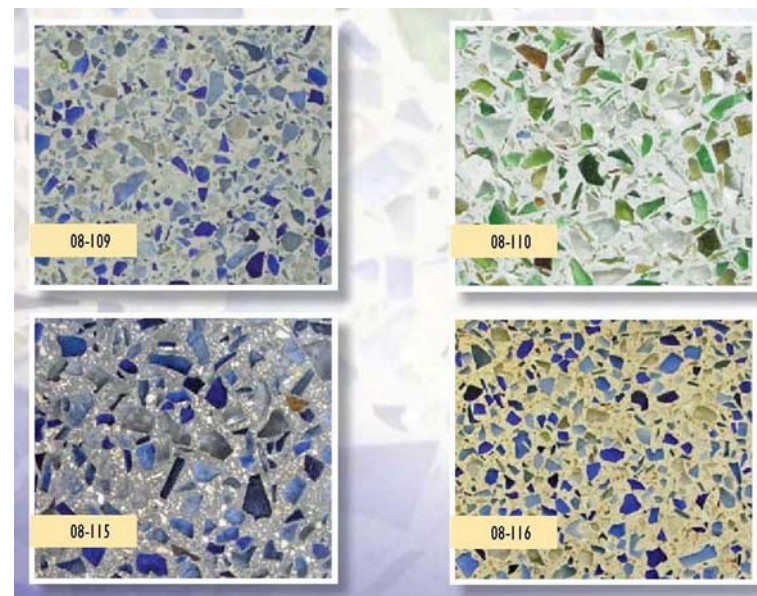
An alternative paver system and material, playa pavers, has the same components as glass pavers, but with the addition of shell fragments to give a Caribbean look. Playa pavers are made from recycled materials, with only reclaimed shells used. Glass pavers and playa pavers are readily available and locally produced in Collier County.

As an accent feature, beach and seaside pebbles may be incorporated into the sidewalk areas. The pebbles are installed in mortar to become a permanent paving feature. The pebbles add color and texture reminiscent of the Caribbean and Mexico. In the bump-outs, pebbles can be used to create textural bands around a field of glass pavers. They can also be used as accent pieces designed into the rhythm of the hardscape materials.

To reclaim the full width of the existing sidewalk, the existing Foxtail Palms could be transplanted to one of the plazas or another streetscape. The tree wells could be filled with concrete to match the existing paving, thus eliminating the existing trip hazards mentioned in the RSA.



Playa pavers.



Glass pavers.



Assorted pebbles.



### 3. CROSSWALKS

Crosswalks are proposed at the 1<sup>st</sup> Street intersection, which is a recently designated this intersection for improvement by FDOT. A crosswalk has also been proposed at 2<sup>nd</sup> Street through the median. The crossing has the same elevation of the road to prevent tripping over the curb. This crosswalk was not in the FDOT recommendations, but was sug-

gested in the Road Safety Audit. A laser crossing device is recommended for each new crosswalk, pending approval of these devices by FDOT for use on state roads.

The sunburst pattern proposed for these crosswalks is imprinted directly into the existing as-

phalt. The proposed product, DuraTherm, is approved by FDOT for use on state roadways and is recommended for roads with heavy vehicular traffic. Installation of DuraTherm does not require extended road or lane closures; it can potentially be installed overnight, one lane at a time. See Figure 30.

FIGURE 30. STREETSCAPE PLAN - 1ST & MAIN INTERSECTION

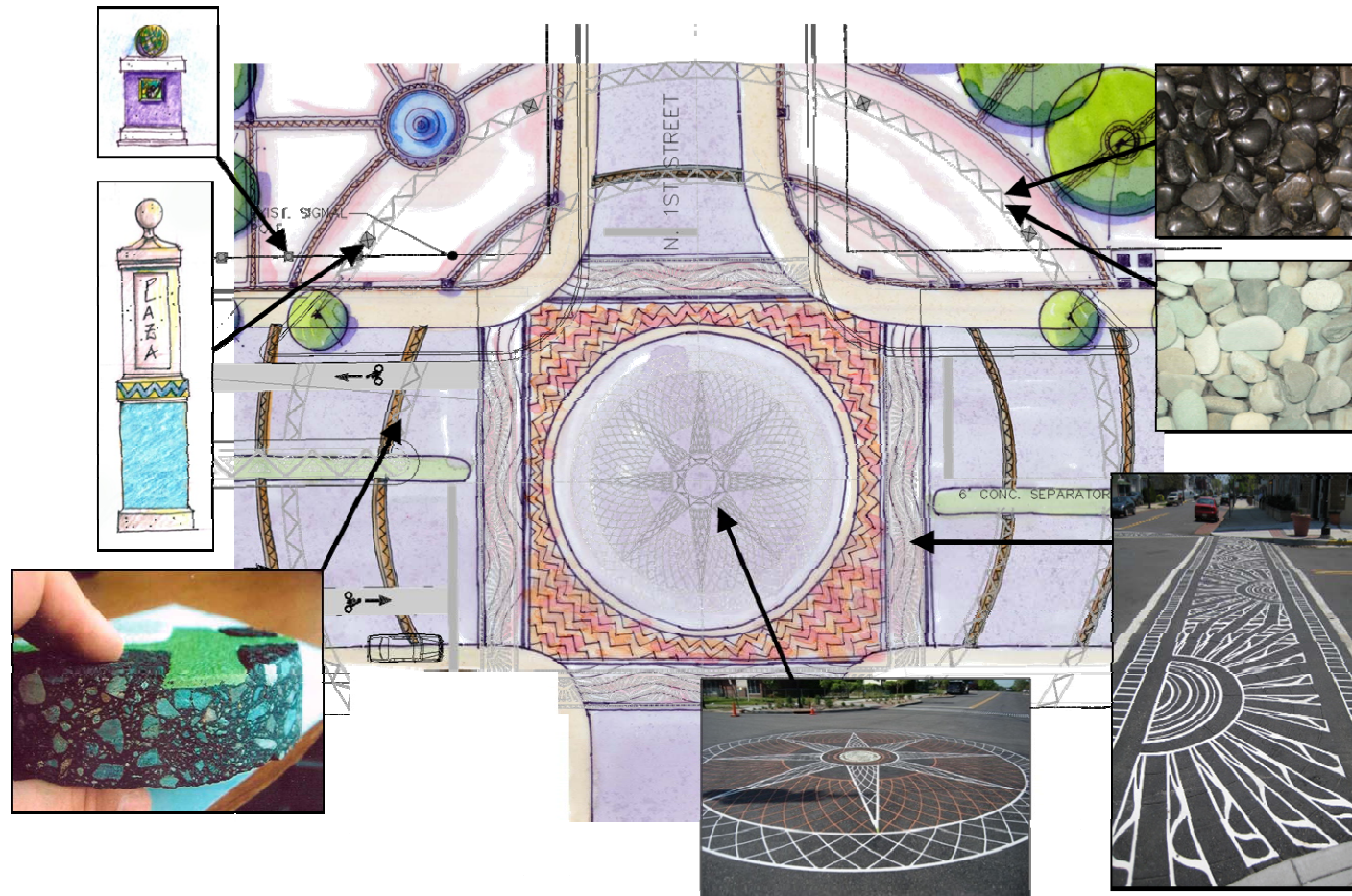
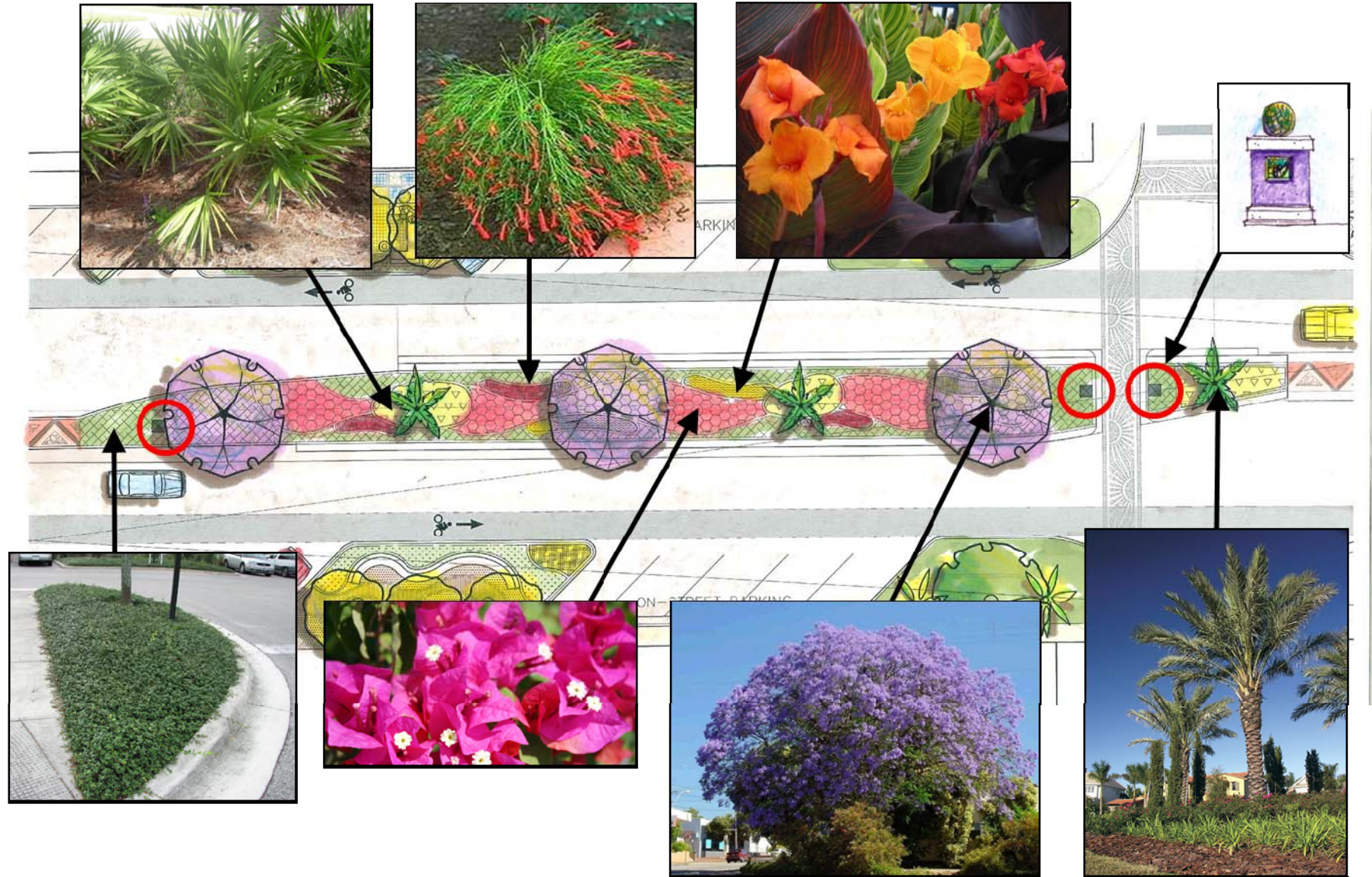




FIGURE 31. STREETScape PLAN - MEDIAN





#### 4. CENTER PAVEMENT Medallion

A center medallion for the intersection of Main Street and 1<sup>st</sup> Street is proposed. The medallion, shown below, features a sunray pattern available from DuraTherm. In addition, the medallion may be left open or customized with the addition of a center logo or design as shown at the right.



#### 5. STREET FURNITURE

Site furnishings are those “useful comfort items” that improve the safety, utility, and enjoyment of a space. The street furniture proposed in this section was chosen to complete and unify the multicultural streetscape theme. All of the proposed materials are durable materials that require little or no maintenance. To avoid vandalism, all of the proposed street furnishings should be secured to the paving with vandal-resistant screws.

##### A. BENCHES

The proposed benches feature colorful tile mosaics and durable masonry materials. The benches can be used to frame outdoor rooms or gathering spaces. The tile work carries the design themes from the two proposed plazas to the site furnishings.

##### B. Bike Racks

More bike racks are needed to accommodate the high volume of bicyclists downtown. Bike racks are proposed in each corner bump-out. Thus, four bike racks could be provided per block. A range of styles and locking options are available. The type or style of bike rack used can introduce and reinforce a theme and color scheme for the overall design.





### C. POTTERY

A variety of plant containers and pottery may be used to create visual interest and define spaces with foliage. As with the benches and bike racks, the type or style of pottery used can introduce and reinforce a theme and color scheme for the overall design. For a colorful Mexican/South American theme, Mexican clay planters and Mexican Talavera are proposed. For a Caribbean theme, glazed pots in tropical colors and a wave motif would complement the streetscape.



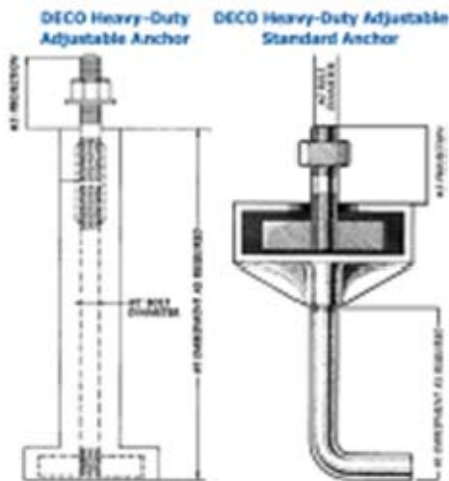
To prevent theft, pots can be easily secured using anchor bolts. When the pots are ordered, an extra drain hole should be requested to accommodate installation of this bolt. A drip irrigation system can provide an efficient and low-maintenance method for watering the container plants.

### D. ASH AND TRASH RECEPTACLES

The proposed receptacles are made of a durable yet attractive cast concrete material, and are available in numerous colors to complement the color scheme of the bump-outs and the surrounding pottery. These receptacles are large and heavy and should stand up to strong winds. An optional rain dome is recommended to keep water out of the liner. The rain dome is secured to the receptacle by a cable.

### E. Bollards

Bollards are used for safety by defining areas and perimeters and by providing physical barriers that protect pedestrians and cyclists. They are proposed on the north side of Main Street near 1<sup>st</sup> Street to identify the edge of the corner plaza. Bollards are also proposed to delineate each center landscape median. The tile work and colors of the bollards will carry the design themes along main street from one proposed plaza to the next.







## 6. LANDSCAPE

The proposed plant pallet has been selected based on low-maintenance requirements, drought tolerance, and unique characteristics that contribute toward the overall multicultural theme. (Figure 31)

### A. CONTAINER PLANTS

Choosing the right combination of plants for a container is critical. As shown in the chart below, there are several different plant combinations proposed for pots along Main Street. In keeping with the Mexican/South American tradition, identical pots of the same plantings are repeated in a row to create rhythm in the landscape. In each of these combinations, there is a taller, focal point or “thriller” plant; a colorful “filler” plant; and a “spiller,” to cascade flowers or foliage down the container.

Table 2. CONTAINER PLANT COMBINATIONS

CONTAINER PLANT COMBINATIONS				
	Option 1	Option 2	Option 3	Option 4
“Thriller”	Red Star Cordyline	Sansevieria	‘Brazilian Red Hots’ Alternanthera	Spineless Agave
“Filler”	Cuban Gold Duranta	Diamond Frost	Nirvana Vince	Various Succulents
“Spiller”	Ornamental Sweet Potato	Purslane	Sweet Potato Vine	Burros Tail

### B. GROUNDCOVERS AND SHRUBS

Low maintenance and drought-tolerant plants will add warm tropical colors along Main Street. If not over-watered, the ‘Helen Johnson’ Dwarf Bougainvillea will flower throughout most of the year. It is planted in a sweeping mass along the length of the median. Smaller pockets of Firecracker Plant and Cana Lilies enliven the colorful show.

#### Potential Plant Species:

- ‘Helen Johnson’ Dwarf Bougainvillea
- Asiatic Jasmine
- Lantana
- Muhly Grass
- ‘Tropicanna’ Canna
- Saw Palmetto
- Firecracker Plant





### C. TREES AND PALMS

To increase shade along the sidewalks, Live Oaks and Puerto Rican Hat Palms are paired in the end-of-block bump-outs. In addition, a trio of Yellow Tabebuias enlivens the mid-block bump-outs. Jacaranda and Medjool Palms are used as specimen canopy trees to punctuate the median landscaping. These trees are spaced 40 feet apart as recommended in the Road Safety Audit.





## D. PHASE 2 - LONG-RANGE STREETScape CONCEPT

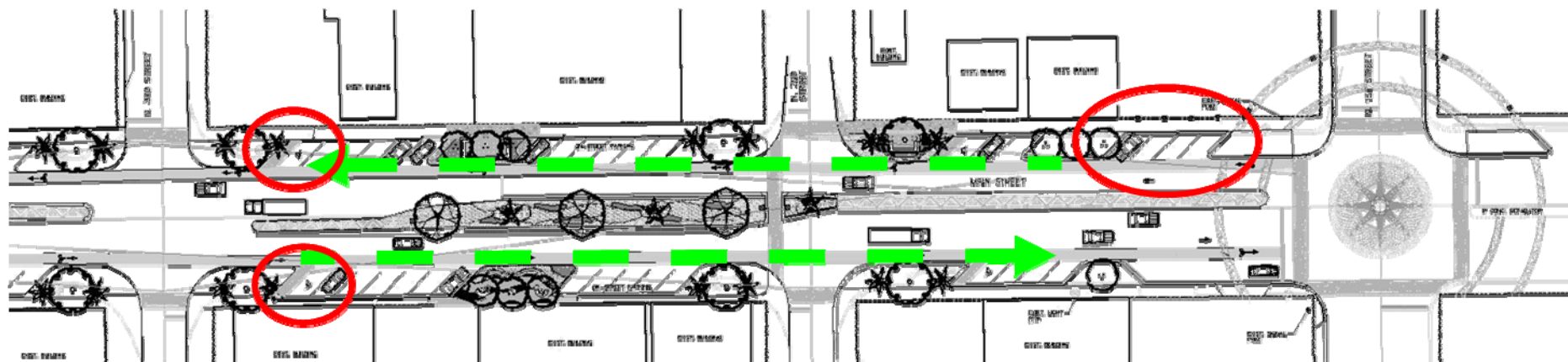
Upon completion of the future SR 29 Loop Road, the following changes are proposed in the RSA to increase pedestrian safety and further enhance the streetscape:

- The four travel lanes are reduced to two lanes, one in each direction.
- A dedicated bike lane is added on both sides of Main Street.
- A reverse angled parking configuration replaces the parallel parking.

The existing bump-outs, as shown in the Intermediate Streetscape Concept, are expanded toward the bike lane. Additional landscaping, paving, and site furnishings may be added to the larger bump-outs.



FIGURE 32. PLAN DEPICTING LONG-RANGE STREETScape



2 travel lanes, reverse angled parking, dedicated bike lane, and handicapped parking.



FIGURE 33. COLORED ILLUSTRATION of CORNER BUMP-OUT

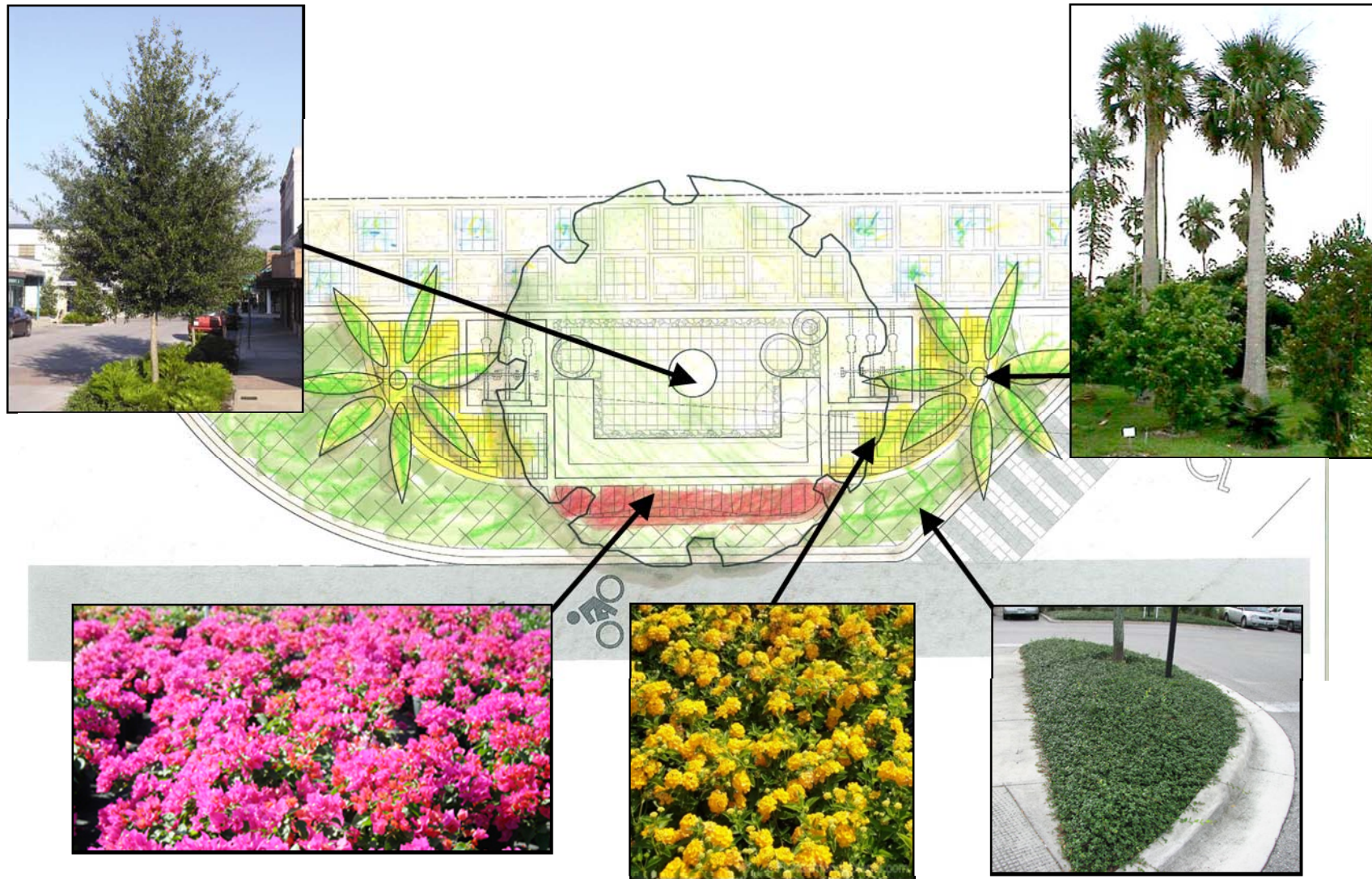
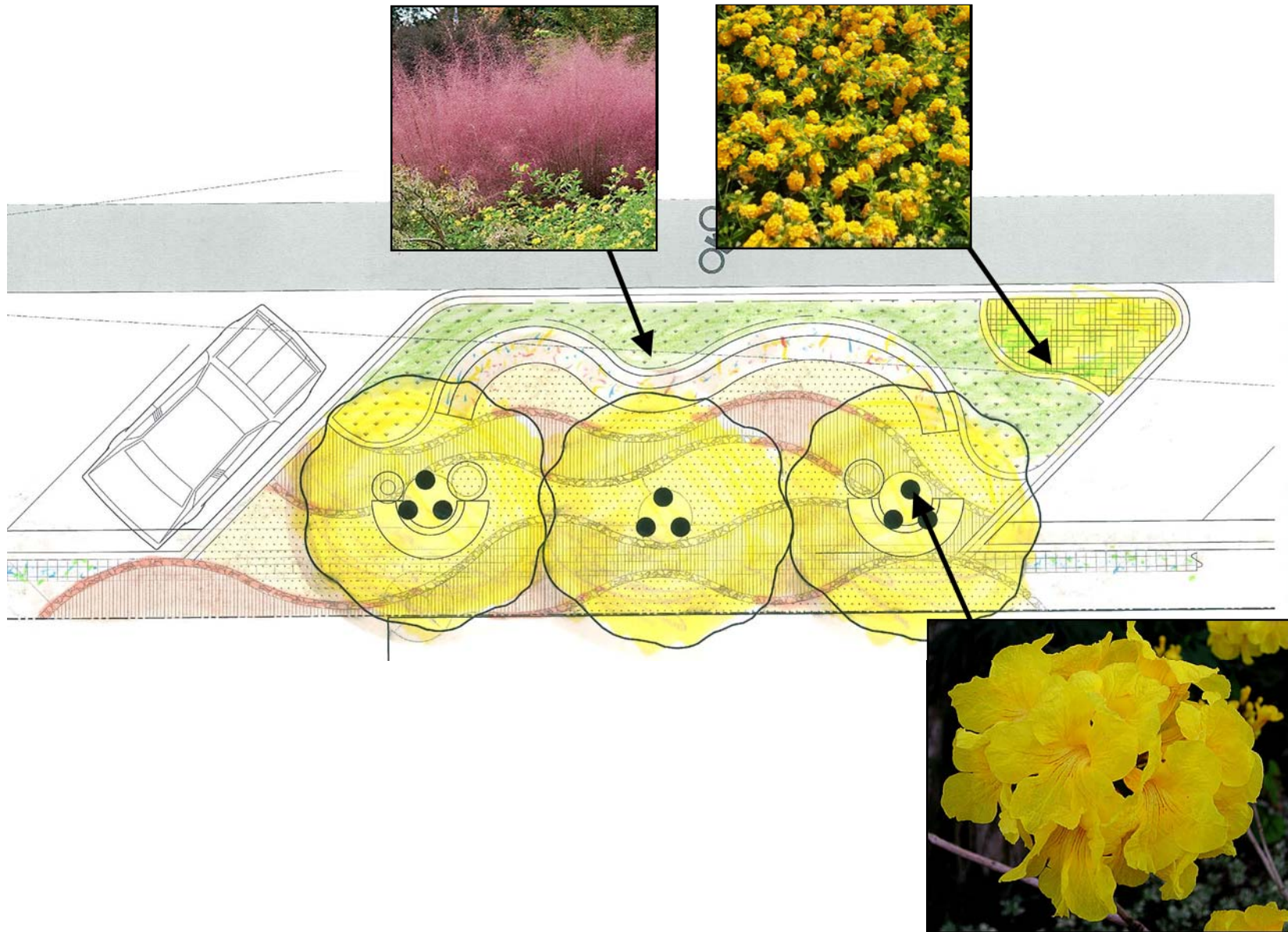




FIGURE 34. COLORED ILLUSTRATION of Mid-Block Bump-Out





## E. INTERMEDIATE AND LONG-RANGE STREETSCAPE CONCEPT COMPARISON

Much consideration was given to how to transition from the Intermediate to Long-Range Plan. The goal was to minimize demolition, replanting, and relocation of street furniture. Therefore, the trees planted earlier in the intermediate plan bump-outs remain in the same location, with no transplanting necessary. Essentially, the sidewalk bump-outs just become larger, as indicated in the long-range concept plan, and al-

low for more landscaping, a larger hardscape, and increased protection for pedestrians on the sidewalks.

As described in more detail below, both plans propose consolidation of access points onto Main Street to reduce unsafe conditions that currently exist between vehicles and pedestrians. Addition-

ally, both plans have an impact on the amount of parking provided, as described below.

### I. RESTRICTED ACCESS

In an effort to increase pedestrian safety, the RSA recommends reducing driveway access to Main Street. This goal is accomplished in both the Intermediate and Long-Range Streetscape Concepts.

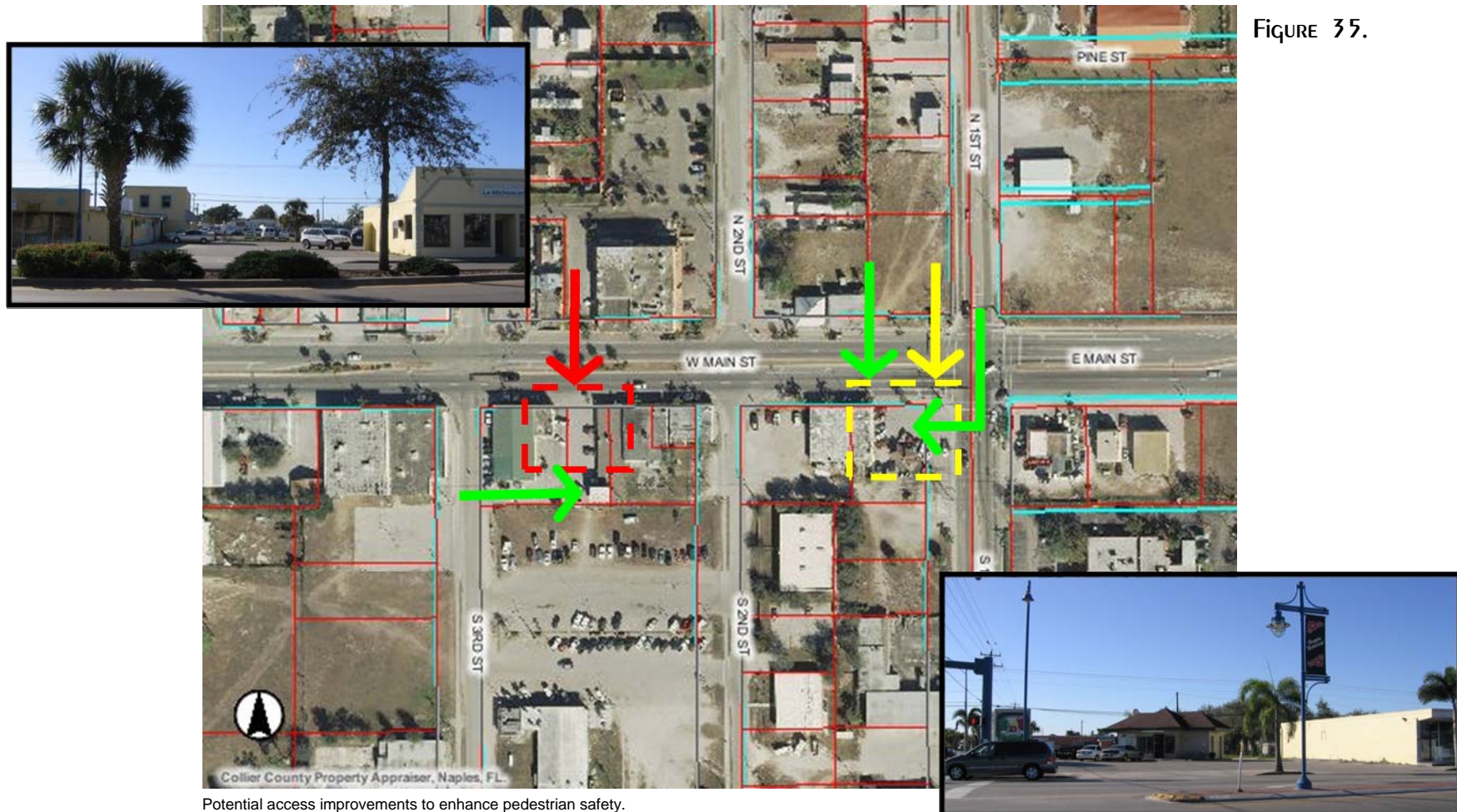


FIGURE 35.

Potential access improvements to enhance pedestrian safety.



Increased on-street parking is an added benefit of reducing too many driveway access points. No property will be left without access from a public road. All of the driveways and access to properties along the two-block prototype (Main Street between 1<sup>st</sup> and 3<sup>rd</sup> Streets) were studied.

Regarding the driveways immediately west of 1<sup>st</sup> Street (south side), there is no on-street parking due to a right-hand turn lane (Figure 35). This pair of driveways could remain open without affecting existing or proposed parking. However, if the double drives were reduced (yellow arrow) to a single access, there would be fewer vehicles crossing the pedestrian sidewalk. The opportunity to increase parking on the property could also be a direct positive result of this driveway consolidation.

Between 2<sup>nd</sup> and 3<sup>rd</sup> Streets (south side), there is existing access for the merchants from 2<sup>nd</sup> Street (green arrow). Restricting access here (red arrow) directly from Main Street would result in fewer vehicles crossing the pedestrian sidewalk, and the increased street frontage could be made available for parking.

## 2. PARKING COUNTS

There are approximately 26 existing parking spaces on Main Street between 1<sup>st</sup> and 3<sup>rd</sup> Streets. After the addition of the mid-block bump-outs and the longer corner bump-outs, the Intermediate Streetscape Concept proposes reducing parking to 18 spaces in this same area (Main Street between 1<sup>st</sup> and 3<sup>rd</sup> Streets). However, the Long-Range Streetscape Concept, with the reverse angle parking spaces, would in-

crease parking to 41 spaces in this same area (Main Street between 1<sup>st</sup> and 3<sup>rd</sup> Streets). Therefore, there will be an initial reduction in order to address safety concerns, but eventually the improvements will result in an increase in the number of parking spaces from the Intermediate to Long-Range Concept.

There are currently no handicapped parking spaces on Main Street between 1<sup>st</sup> and 3<sup>rd</sup> Streets. The RSA suggests providing handicapped spaces on the side streets that abut Main Street. With the proposed angled parking, two handicapped spaces per block are proposed.

For more details about the proposed streetscape plan, a Power Point presentation is included in Appendix B. This presentation provides additional illustrations and clearly depict how the Intermediate and Long-Range concepts interface.



## IMPLEMENTATION PLAN

The following section presents estimates for planned projects within the Public Realm Plan. Several of the proposed projects are sequential, multi-stage projects, and require consecutive-year schedules and funding. Other projects may be listed further down the implementation timeline in order to utilize future Tax Increment Funding (TIF) revenues or to follow the completion of the SR 29 Loop Road. A Capital Improvement Plan outlining a timeline and the sequence for these improvements will be developed within the next year. The CIP will provide programming recommendations; identify responsible parties; and provide funding opportunities.

### A. DESIGN STANDARDS

The Public Realm Plan addresses the form and design of public areas within and adjacent to public rights-of-way. In conjunction with the Public Realm Plan, there is another report, provided under separate cover, entitled: Central Business District-Form-Based Standards. The purpose and intent of these form-based standards is to guide development within the Immokalee community toward creating a cohesive urban pattern of buildings (both public and private) that emphasizes the pedestrian experience throughout the CBD. The form-based guidelines also address streetscapes to balance the pedestrian and traffic needs of residents, while protecting and enhancing the original pattern of development.

In implementing the two public plazas described in Section IV of this report, it will be necessary that the buildings lining the plazas be located and oriented according to parameters found in the Central Busi-

ness District Form-Based Guidelines. The buildings form the urban edge and engage the surrounding open space.

### B. COST ESTIMATES

Preliminary cost estimates are provided for the streetscape concepts and plaza designs. They are based on the conceptual plans presented, and not on final construction documents, which have not yet been prepared. Construction documents will be developed by a third part designer under contract with the Immokalee MSTU.

Three cost estimate tables were prepared: one for the 1<sup>st</sup> Street Plaza, one for the 9<sup>th</sup> Street Plaza and Park, and one for the overall streetscape design, from 1<sup>st</sup> Street to 9<sup>th</sup> Street. Two prices are shown for the streetscape, one which is the initial investment for the “Intermediate” plan, and another for the additional investment needed in order to implement the “Long-Range” plan, with reconfigured bump-outs and on-street parking. A summary of anticipated construction costs for each component is included below, along with the list of assumptions used in creating the estimates.

1. Estimated construction costs are based on 2009 industry standards and market rates, plus a 25% contingency for an unknown future start-up date. These figures are based on conceptual drawings and may be adjusted periodically to reflect current market conditions.
2. Items not included: design and engineering, handicap ramp construction, streetlight relocation, signage, project coordination, permits,

- meetings, pay requests, traffic maintenance, landscape or irrigation maintenance.
3. The costs are based on one phase of construction. Multiple phases may increase general cost.
4. Total costs for 1<sup>st</sup> to 9<sup>th</sup> Street streetscape improvements are projected by multiplying an estimate created for the 1<sup>st</sup> to 3<sup>rd</sup> Street demonstration block by four (four blocks).
5. Cost-estimates for signage are provided separately.

These cost estimates reflect implementation of the entire design as proposed. The CRA has leeway in removing elements or replacing elements in order to reduce the overall price.

Table 3. SUMMARY OF COST ESTIMATES

COMPONENT	COST ESTIMATE
Streetscape (Intermediate)	\$3,501,736.68
Streetscape (Long-Range)	\$1,902,251.00
1 <sup>st</sup> Street Plaza	\$670,530.90
9 <sup>th</sup> Street Plaza & Park	\$1,886,683.50
<b>TOTAL</b>	<b>\$7,961,202.08</b>





Table 4. STREETScape CONCEPTS COST ESTIMATE - SR29/MAIN STREET (1ST STREET TO 3RD STREET ONLY)

No.	ITEM	UNIT	UNIT COST	INTERMEDIATE		LONG-RANGE	
				QTY.	TOTAL	QTY.	TOTAL
1	Medjool Palm, 20' CT	ea	\$5,000.00	3	\$15,000.00	0	\$0.00
2	Yellow Tabebuia, 25 Gal	ea	\$200.00	8	\$1,600.00	2	\$400.00
3	Jacaranda, 25 Gal	ea	\$250.00	3	\$750.00	0	\$0.00
4	High Rise Live Oak, 4" Cal	ea	\$1,000.00	8	\$8,000.00	0	\$0.00
5	Puerto Rican Hat Palm, 15' CT	ea	\$1,800.00	6	\$10,800.00	0	\$0.00
6	Dwarf Bougainvillea, 2 Gal	ea	\$18.00	438	\$7,884.00	92	\$1,656.00
7	Firecracker Plant, 3 Gal	ea	\$12.00	21	\$252.00	0	\$0.00
8	Green Saw Palmetto, 7 Gal	ea	\$88.00	53	\$4,664.00	0	\$0.00
9	Cana Lilly, 3 Gal	ea	\$14.00	29	\$406.00	0	\$0.00
10	Muhly Grass, 1 Gal	ea	\$5.00	0	\$0.00	104	\$520.00
11	Dwarf Asiatic Jasmine, 4" Pot	ea	\$3.00	695	\$2,085.00	1325	\$3,975.00
12	Lantana, 1Gal	ea	\$6.25	430	\$2,687.50	62	\$387.50
13	Mulch, shredded Melaleuca	cy	\$5.60	5000	\$28,000.00	5000	\$28,000.00
14	8' Sunburst Crosswalks	sf	\$14.00	1680	\$23,520.00	0	\$0.00
15	Pavement Marking/ Striping	ea	\$3,200.00	4	\$12,800.00	4	\$12,800.00
16	Remove Existing Curb	lf	\$15.00	450	\$6,750.00	800	\$12,000.00
17	Const Mid Block Bump Out	ea	\$7,500.00	4	\$30,000.00	4	\$30,000.00
18	Const Corner Bump Out	ea	\$9,000.00	9	\$81,000.00	9	\$81,000.00
19	6' Stamp over Exist Conc	lf	\$12.30	350	\$4,305.00	0	\$0.00
20	New Curb Construction	lf	\$12.50	180	\$2,250.00	3400	\$42,500.00
21	Rework Exist Bumpouts	ea	\$3,000.00	0	\$0.00	12	\$36,000.00
22	Parking Spaces	ea	\$1,000.00	0	\$0.00	41	\$41,000.00
23	6' Colored Bike Lane	lf	\$6.80	0	\$0.00	1440	\$9,792.00
24	Glass Pavers	sf	\$4.20	70552	\$296,318.40	160	\$672.00
25	Trash Receptacles	ea	\$252.00	12	\$3,024.00	0	\$0.00
26	Tree Grate under pavers	ea	\$925.00	24	\$22,200.00	0	\$0.00
27	Bike Racks	ea	\$1,440.00	8	\$11,520.00	8	\$11,520.00
28	Plant Containers	ea	\$225.00	44	\$9,900.00	0	\$0.00
29	Masonry Bench	ea	\$1,370.00	16	\$21,920.00	16	\$21,920.00
30	Erosion and Sedimentation Cont	ls	\$7,500.00	1	\$7,500.00	1	\$7,500.00
31	Laser Crossing Devices	ea	\$800.00	27	\$21,600.00	0	\$0.00
32	Color Concrete	sf	\$4.67	2500	\$11,675.00	2500	\$11,675.00
33	Irrigation System	ls	\$25,000.00	1	\$25,000.00	0.5	\$12,500.00



		Intermediate:	Long-Range:
TOTALS		\$ 673,410.90	\$ 365,817.50
Mobilization	5%	\$ 33,670.55	\$ 18,290.88
Contingency	25%	\$ 168,352.73	\$ 91,454.38
TOTALS		\$ 875,434.17	\$ 475,562.75
TOTAL COST ALL IMPROVEMENTS			\$ 1,350,996.92
TOTAL COST 1st to 9th Street INTERMEDIATE			\$ 3,501,736.68
TOTAL COST 1st to 9th Street LONG-RANGE			\$ 1,902,251.00
TOTAL COST 1st to 9th Street, ALL IMPROVEMENTS			
<b>INTERMEDIATE &amp; LONG-RANGE</b>			<b>\$ 5,403,987.68</b>

Notes:

1. Estimated construction costs are based on 2009 industry standards and market rates plus a 25% contingency for an unknown future start-up date. These figures are based on conceptual drawings and may be adjusted periodically to reflect current market conditions.
2. Items not included: design and engineering, handicap ramp construction, Infrastructure/ drainage, streetlight relocation, signage, project coordination, permits, meetings, pay requests, traffic maintenance, landscape or irrigation maintenance.
3. The costs above are based on one phase of construction. Multiple phases may increase general cost.
4. Total costs for 1st to 9th Street improvements are estimated by multiplying 1st to 3rd Street cost estimates by four (four blocks).
5. Signage is not included in the streetscape cost-estimate.



Table 5. 9TH STREET PLAZA & PARK CONCEPT COST ESTIMATES

No.	ITEM	Unit	Unit Cost	Qty.	Total
1	Clearing & Stru. Removals	ac	\$ 5,000.00	4.3	\$ 21,500.00
2	Excavation - Topsoil	cy	\$ 4.00	6,400	\$ 25,600.00
3	Embankment from Off-Site	cy	\$ 9.00	12,000	\$ 108,000.00
4	Perimeter Fencing	lf	\$ 27.00	985	\$ 26,595.00
5	Sidewalks/ Paths	lf	\$ 24.00	1,450	\$ 34,800.00
6	Lake & Water Feature	ls	\$ 68,000.00	1	\$ 68,000.00
7	Amphitheater/ Stage	ls	\$ 82,000.00	1	\$ 82,000.00
8	Lawn & Event Tenting	ea	\$ 197,000.00	2	\$ 394,000.00
9	Restrooms & Bike Lockers	ls	\$ 48,000.00	1	\$ 48,000.00
10	Interactive Fountain	ls	\$ 150,000.00	1	\$ 150,000.00
11	Bio-Swale & Rain garden	ls	\$ 24,000.00	1	\$ 24,000.00
12	Park Landscaping & Sod	ls	\$ 55,000.00	1	\$ 55,000.00
13	Two Drives & Parking Lot	sy	\$ 18.50	4,800	\$ 88,800.00
14	Irrigation System	ls	\$ 25,000.00	1	\$ 25,000.00
15	Playground	ea	\$ 60,000.00	1	\$ 60,000.00
16	Site Furnishing	ls	\$ 20,000.00	1	\$ 20,000.00
17	Corner Fountain	ls	\$ 80,000.00	1	\$ 80,000.00
18	Plaza Corners Concrete	ea	\$ 2,500.00	2	\$ 5,000.00
19	Large Restroom Facility	els	\$ 135,000.00	1	\$ 135,000.00

TOTALS		\$ 1,451,295.00
Mobilization	5%	\$ 72,564.75
Contingency	25%	\$ 362,823.75
<b>TOTALS</b>		<b>\$ 1,886,683.50</b>

Notes:

1. Estimated construction costs are based on 2009 industry standards and market rates plus a 25% contingency for an unknown future start-up date. These figures are based on conceptual drawings and may be adjusted periodically to reflect current market conditions.
2. Items not included: design and engineering, handicap ramp construction, streetlight relocation, signage, project coordination, permits, meetings, pay requests, traffic maintenance, landscape or irrigation maintenance.
3. The costs above are based on one phase of construction. Multiple phases may increase general cost.



Table 6. 1ST STREET PLAZA CONCEPT COST ESTIMATES

No.	ITEM	Unit	Unit Cost	Qty.	Total
1	Clearing & Structure Removals	ac	\$ 2,500.00	1.25	\$ 3,125.00
2	Excavation - Topsoil & Vegetation	cy	\$ 4.00	1,000	\$ 4,000.00
3	Embankment from Off-Site	cy	\$ 9.00	3,700	\$ 33,300.00
4	Gateway Columns	ea	\$ 3,500.00	4	\$ 14,000.00
5	Specialty Paving on Concrete Area	sy	\$ 53.00	1300	\$ 68,900.00
6	Art Wall	ls	\$ 72,000.00	1	\$ 72,000.00
7	Pedestrian Directory w/ HDPE	ea	\$ 980.00	4	\$ 3,920.00
8	Plaza Fountain	ls	\$ 90,000.00	1	\$ 90,000.00
9	Plaza Landscaping	ls	\$ 45,000.00	1	\$ 45,000.00
10	60' Dia Medallion, Sun Pattern	ea	\$ 26,000.00	1	\$ 26,000.00
11	8' Sunburst Crosswalks	sf	\$ 14.00	1280	\$ 17,920.00
12	4' Pebble Zigzag	1f	\$ 17.00	720	\$ 12,240.00
13	Tree Paver Grates	ea	\$ 925.00	12	\$ 11,100.00
14	Glass Pavers	sf	\$ 4.20	12,500	\$ 52,500.00
15	Masonry Bench	ea	\$ 1,370.00	4	\$ 5,480.00
16	Trash Receptacles	ea	\$ 252.00	4	\$ 1,008.00
17	Vehicular Directional Sign	ea	\$ 1,600.00	4	\$ 6,400.00
18	Erosion & Sedimentation Cont	ls	\$ 7,500.00	1	\$ 7,500.00
19	Irrigation System	ls	\$ 5,400.00	1	\$ 5,400.00
20	Bollards	ea	\$ 1,000.00	36	\$ 36,000.00

TOTALS		\$ 515,793.00
Mobilization	5%	\$ 25,789.65
Contingency	25%	<u>\$ 128,948.25</u>
TOTALS		\$ 670,530.90



Table 7. CENTRAL BUSINESS DISTRICT SIGNAGE CONCEPT COST ESTIMATE

No.	ITEM	UNIT	UNIT COST	Qty.	TOTAL
1	Large Entry Monument	ea	\$ 44,200.00	3	\$132,600.00
2	Small Entry Monument	ea	\$ 13,425.00	2	\$ 26,850.00
3	Pedestrian Directory	ea	\$ 2,200.00	4	\$ 8,800.00
4	Vehicular Directional	ea	\$ 4,300.00	4	\$ 17,200.00

TOTALS		\$185,450.00
Mobilization	5%	\$ 9,272.50
Contingency	25%	<u>\$ 46,362.50</u>
TOTALS		\$241,085.00

1. The quantity identified for each type of sign is an estimate. Actual number of signs will be decided when program is implemented and if appropriate space is available.



## I. EXISTING CONDITIONS FOR THE REMAINDER OF THE PUBLIC REALM STUDY AREA

This Appendix details existing conditions for the other areas outside of the CBD, which were researched as part of the development of this Public Realm Plan, and also provides more detailed information for the entire Study Area.

### A. OVERVIEW OF PLANNING EFFORTS BY THE IMMOKALEE CRA

The Public Realm Plan is part of an on-going effort by the CRA to advance economic development activities and improve the quality of life in Immokalee. This effort consists of five other components: revisions to the Immokalee Area Master Plan; an interim deviation process from certain land development regulations; revisions to the Immokalee Overlay in the Land Development Code; new transportation regulatory and financial strategies; and a revised Capital Improvements Plan to effectively implement these new planning approaches.

Two of these components have been completed and are in the process of being reviewed by County staff prior to adoption: the revised Immokalee Area Master Plan (IAMP) and the interim land development regulation deviation process. The IAMP sets forth objectives and policies to address economic development, housing, infrastructure and public services, including transportation, natural resource protection, land use, urban form and design, and intergovernmental coordination. The deviation process from certain Land Development Code re-

quirements for properties in Immokalee will be an interim process, and will only be effective until the full Immokalee Overlay, with land development regulations specific to Immokalee, has been submitted and approved. The interim language will allow deviations from requirements such as landscaping and architectural design guidelines, subject to conditions.

New regulatory and financial transportation strategies for Immokalee are being created. This process is contingent on two long-range transportation planning efforts currently being undertaken by the County, the Rural Land Stewardship Area 5-year review and the build-out transportation study. Finally, a new Capital Improvements Plan will be developed to reflect the new priorities and strategies embodied in these various efforts.

### B. FUTURE LAND USE AND ZONING

Florida growth management law requires that every local government adopt a Future Land Use Map (FLUM) to regulate the use of land within their jurisdiction. The FLUM depicts the location of allowable land uses in broad categories, such as agriculture or commercial, for all properties within the local jurisdiction. Density and intensity standards are also included for each future land use category. These categories represent the location of desired land uses in the future. While the FLUM remains regulatory in nature, it pro-

vides a vision of the location and types of land uses a community desires in the future.

Future land use can be considered the first “layer” in land use regulation. The second “layer” is zoning. Zoning districts, established through local land development regulations, is the tool used to implement the future land use map. Zoning “sits on top of” future land use designations. That is, zoning may be more restrictive than future land use (for example, allowing less density or fewer uses), but it cannot be more permissive than future land use (allowing more density or additional uses). The third layer, which option and used sparingly, is a zoning overlay, which adds another layer of regulation on top of the base zoning district, and is more specific to a particular area.

In Immokalee, future land use is established in the Immokalee Area Master Plan, part of Collier County’s Growth Management Plan. The IAMP is currently being updated as part of the CRA’s on-going economic development efforts. Therefore, two sets of future land use designations are discussed herein. The first is the adopted future land use, now in effect in Immokalee, shown in Figure 1 and Table 1. The second is the proposed FLU, under consideration for adoption, shown in Figure 3 and Table 2. (Incl. note: Includes right-of-way)



FIGURE 1. ADOPTED FUTURE LAND USE MAP

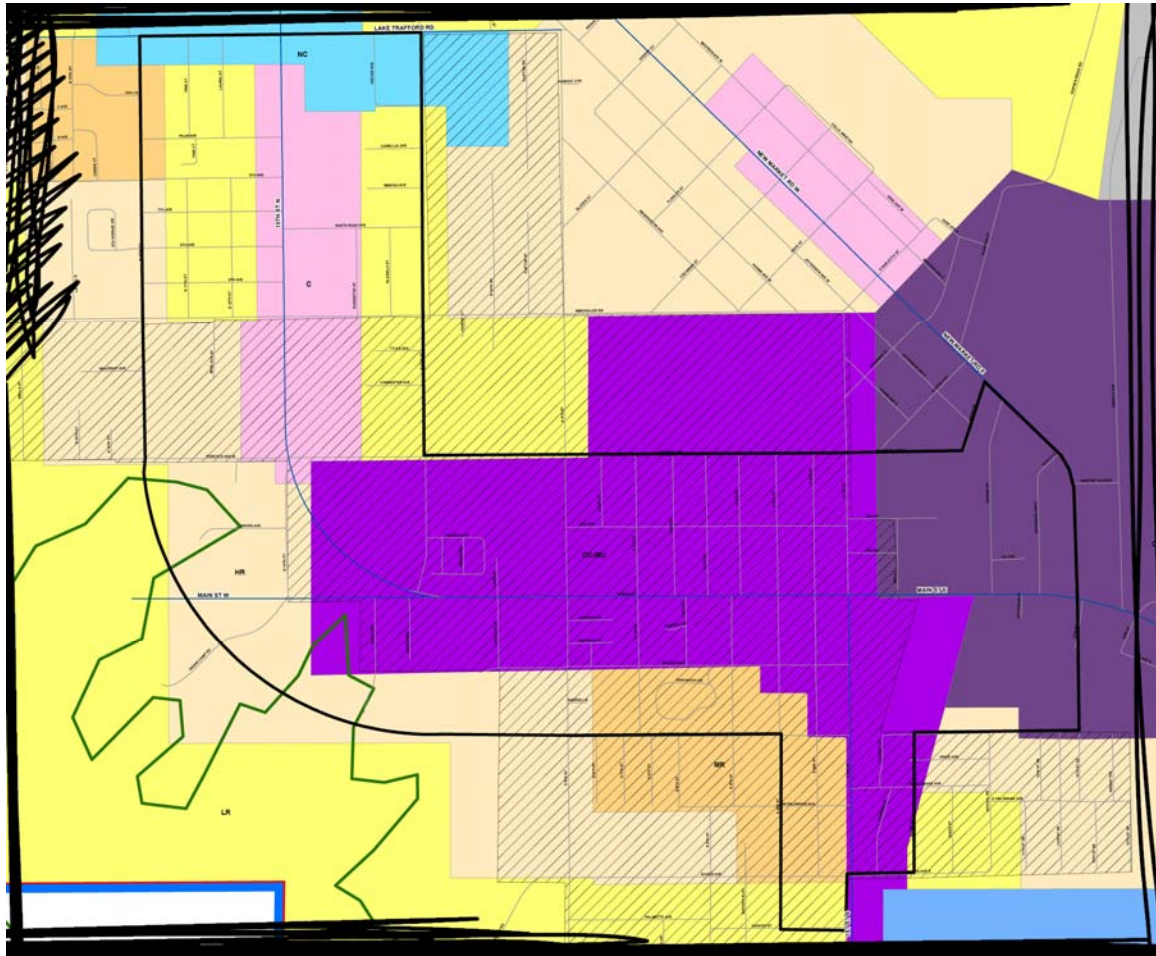


TABLE 1. ACREAGE by ADOPTED FLUM DESIGNATION

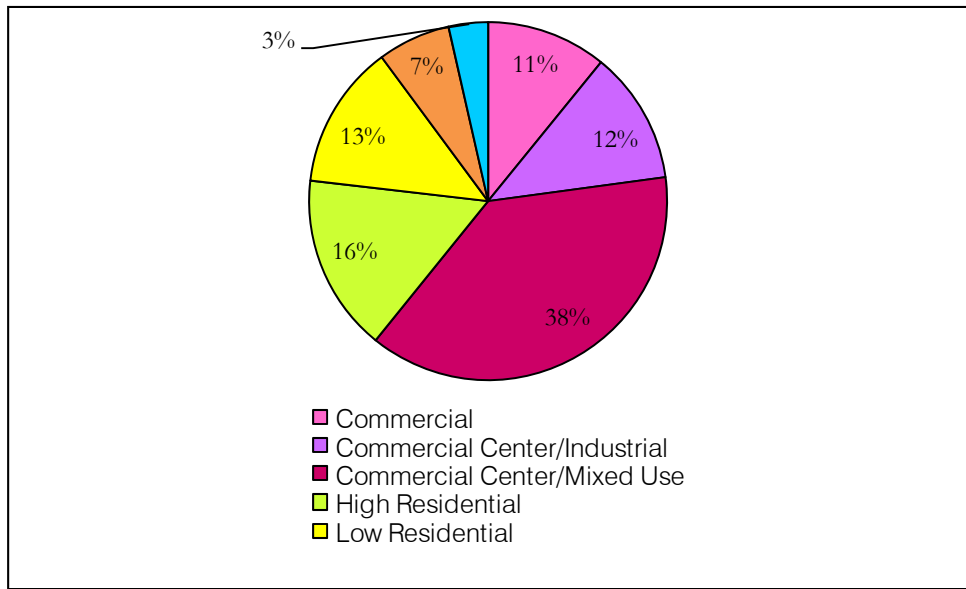
ADOPTED FLUM DESIGNATION	ACRES	PERCENT
Commercial	85.91	10.9%
Commercial Center/ Industrial	94.87	12.0%
Commercial Center/Mixed Use	300.13	38.0%
High Residential	126.62	16.0%
Low Residential	103.06	13.0%
Mixed Residential	52.06	6.6%
Neighborhood Center	28.11	3.6%
<b>Total</b>	<b>790.76*</b>	<b>100.0%</b>

Total acreage is inclusive of right-of-way.





FIGURE 2. ADOPTED FLUM DESIGNATIONS



Currently, Commerce Center Mixed Use (CCMU) is the most prevalent FLU designation in this area of Immokalee (38%). The IAMP states:

### 5. Commerce Center Mixed Use Subdistrict

The purpose of this designation is to create a major activity center that services the entire Immokalee Urban Designated Area and surrounding agricultural area. The Mixed Use District shall function as an employment center and shall encourage commercial and institutional uses. Uses permitted within this Subdistrict shall include shopping center, governmental institutions, middle or high school, community park and other employment generating uses. Other permitted commercial uses shall include transient lodging facilities at 26 dwelling units per acre. The appropriate zoning districts include C-1 through C-4 as identified in the Land Development Code. In considering new commercial zoning, priority shall

be given to protecting existing residential uses. Residential development is permitted within the mixed use Subdistrict at a maximum density of twelve (12) units per gross acre. Residential dwellings shall be limited to multi family structures and less intensive units such as single family and duplexes provided they are compatible with the district. Mobile home developments shall be permitted only in the form of mobile home subdivisions or parks as defined in the Land Development Code.

The mixed use district will be controlled via a series of performance standards that address issues of buffering, noise, signage, lighting, architectural compatibility, lot size, parking and landscaping.

In the proposed IAMP, this area of Immokalee would be predominantly designated as Commercial Mixed Use (CMU) (60%).

The proposed IAMP states:

### Commercial - Mixed Use Subdistrict (C-MU):

The purpose of this Subdistrict is to create pedestrian-scaled, higher density residential and mixed-use development, providing for employment and recreational opportunities, cultural and civic activities, and public places to serve residents of and visitors to the Immokalee Urban Area. Nonresidential uses permitted within this Subdistrict include shopping centers, offices, transient lodging facilities, government institutions, schools, restaurants and other entertainment uses. In considering new commercial zoning, compatibility with existing residential uses will be evaluated. Existing mobile home subdivisions or parks are allowed in accordance with the provisions set forth in Policy 5.1.11.

Maximum Standard Density: Sixteen (16) units per gross acre including acreage allocated to commercial uses.

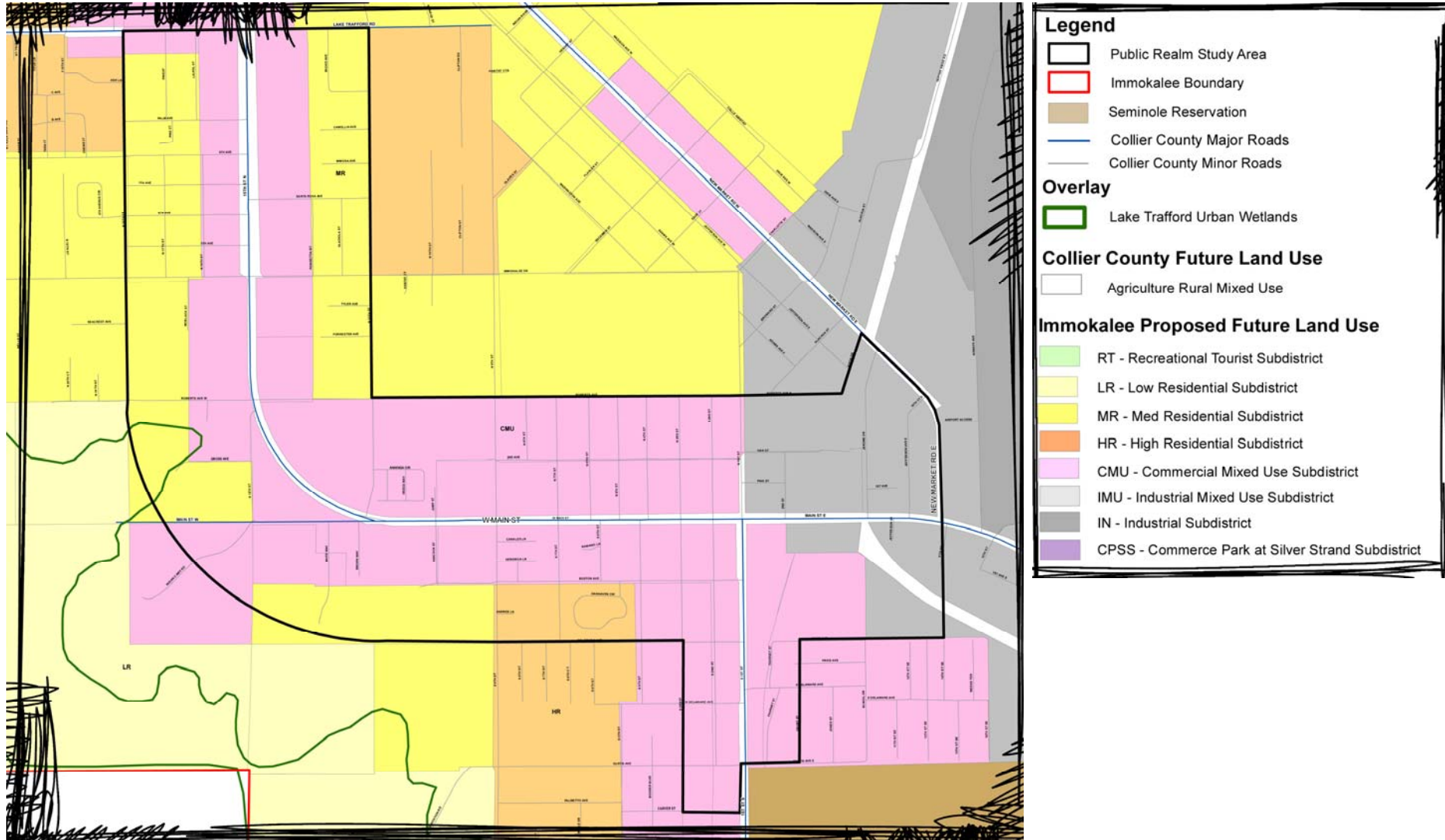
Maximum Density with Bonuses: Twenty (20) dwelling units per gross acre including acreage allocated to commercial uses

Transient lodging is permitted at a maximum density of thirty-two (32) units per acre.





FIGURE 3. PROPOSED FUTURE LAND USE MAP





**Table 2. ACREAGE by Proposed FLUM Designation**

PROPOSED FLUM DESIGNATION	ACRES*	PERCENT
CMU - Commercial Mixed Use Subdistrict	443.58	59.8%
HR - High Residential Subdistrict	21.76	2.9%
IMU - Industrial Mixed Use Subdistrict	91.95	12.4%
LR - Low Residential Subdistrict	0.02	0.0%
MR - Med Residential Subdistrict	185.35	25.0%
<b>Total</b>	<b>742.66</b>	<b>100.0%</b>

\* excludes right-of-way

**FIGURE 4. PROPOSED FLUM DESIGNATIONS**

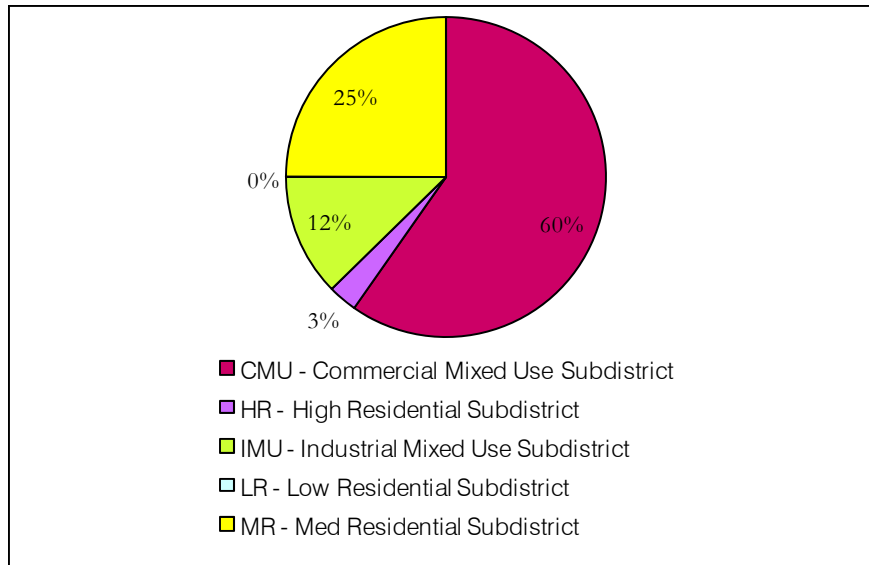


Table 3 shows the acreage by zoning district, where the districts have been aggregated into similar categories (for example, all commercial districts are added together, rather than C-4, C-5, etc.). The majority of properties are zoned commercial (37%), followed by residential multi-family (24%).

There are currently five zoning overlays in Immokalee: State Road 29 Commercial Overlay Subdistrict, Jefferson Avenue Commercial Overlay Subdistrict, Farm Market Overlay Subdistrict, Agribusiness Over-

lay Subdistrict, and the Main Street Overlay Subdistrict. These add use or development standards to supplement those allowed by the base zoning district for a specific area. See Figure 6 for the generalized zoning map and the location of zoning overlays.

**Table 3. ACREAGE by ZONING CATEGORIES**

ZONING DESCRIPTION	ACRES	PERCENT
Commercial	292.42	37.0%
Industrial	2.61	0.3%
Mobile Home Residential	12.50	1.6%
Planned Unit Development	46.58	5.9%
Public	0.67	0.1%
Residential Multi-Family	186.08	23.5%
Residential Single-Family	158.73	20.1%
Residential Tourist	2.16	0.3%
Village Residential	89.01	11.3%
<b>Total</b>	<b>790.76</b>	<b>100.0%</b>

**FIGURE 5. ZONING CATEGORY DESCRIPTIONS**

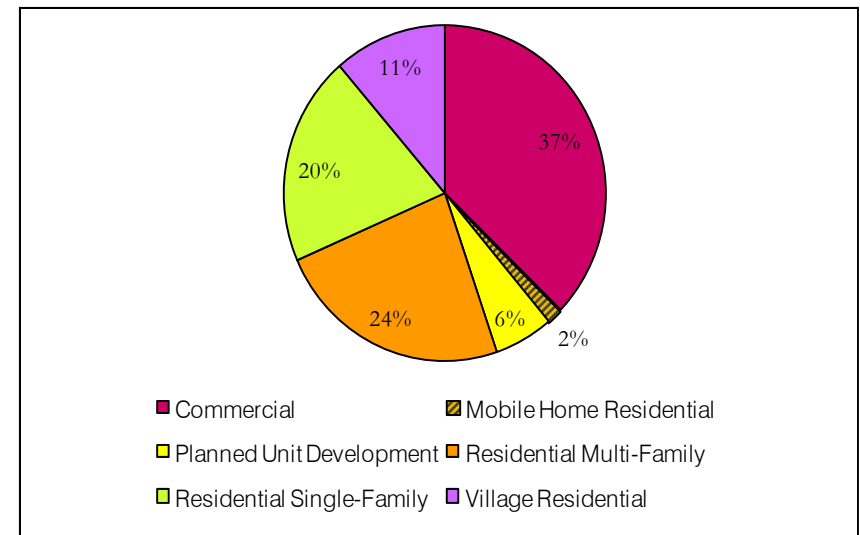
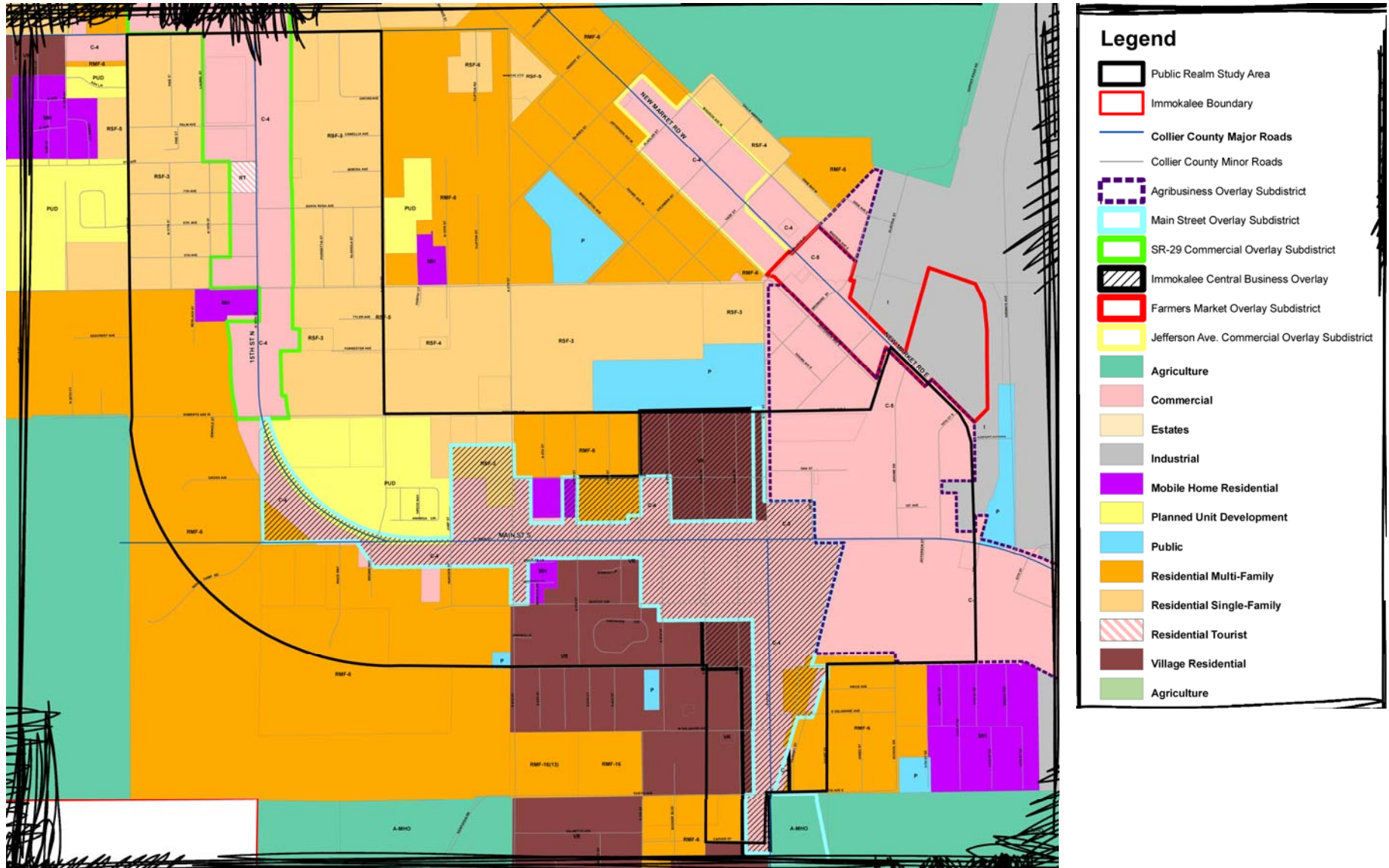




FIGURE 6. ZONING MAP





### C. Existing Land Use

Existing land use refers to the actual land uses currently on the ground, and is not a regulatory designation. It is a way to analyze current conditions in the Study Area. The Study Area is predominantly residential (residential and mobile home park and recreational vehicles) (43%), with vacant land the second most common land use (22%). See Figure 7, the Existing Land Use Map, and Table 4, below, for the list of land use, number of parcels, and acreages.

While it is not unusual for residential to be the most prevalent land use, in Immokalee, the type of residential uses are unique to the area. Several lots are developed with mobile homes and trailers, and several housing developments were specifically created and targeted for lower-income families and agricultural industry workers. There are four affordable housing developments just within the study area – Main Street

Village, at the northeast corner of 11<sup>th</sup> Street and Main Street (79 units); Oakhaven, on the north side of Colorado Avenue between 4<sup>th</sup> Street and 7<sup>th</sup> Street (160 units); the Farmworker Dormitory, south of the Immokalee Government Service Center off of Fahrney Street (192 beds), and Milagro Place on Rose Avenue, east of 1<sup>st</sup> Street (26 units). This is a relatively large concentration of affordable housing developments, and exemplifies some of the differences between Immokalee and coastal Collier County. Though only 7.6 percent of the County's total population resides in Immokalee, 43 percent of the affordable housing projects are located in Immokalee.

Results from the Immokalee Housing Condition Inventory, prepared in 2004 by Collier County should be noted. This report assessed housing conditions, with the exception of trailer parks, throughout most

FIGURE 7. EXISTING LAND USES

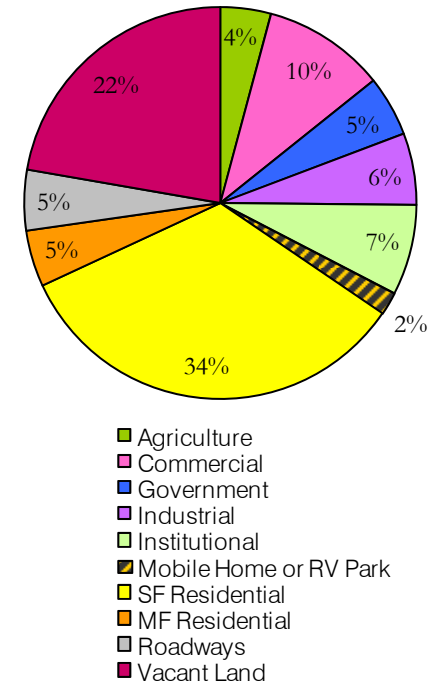


TABLE 4. PUBLIC REALM STUDY AREA EXISTING LAND USES

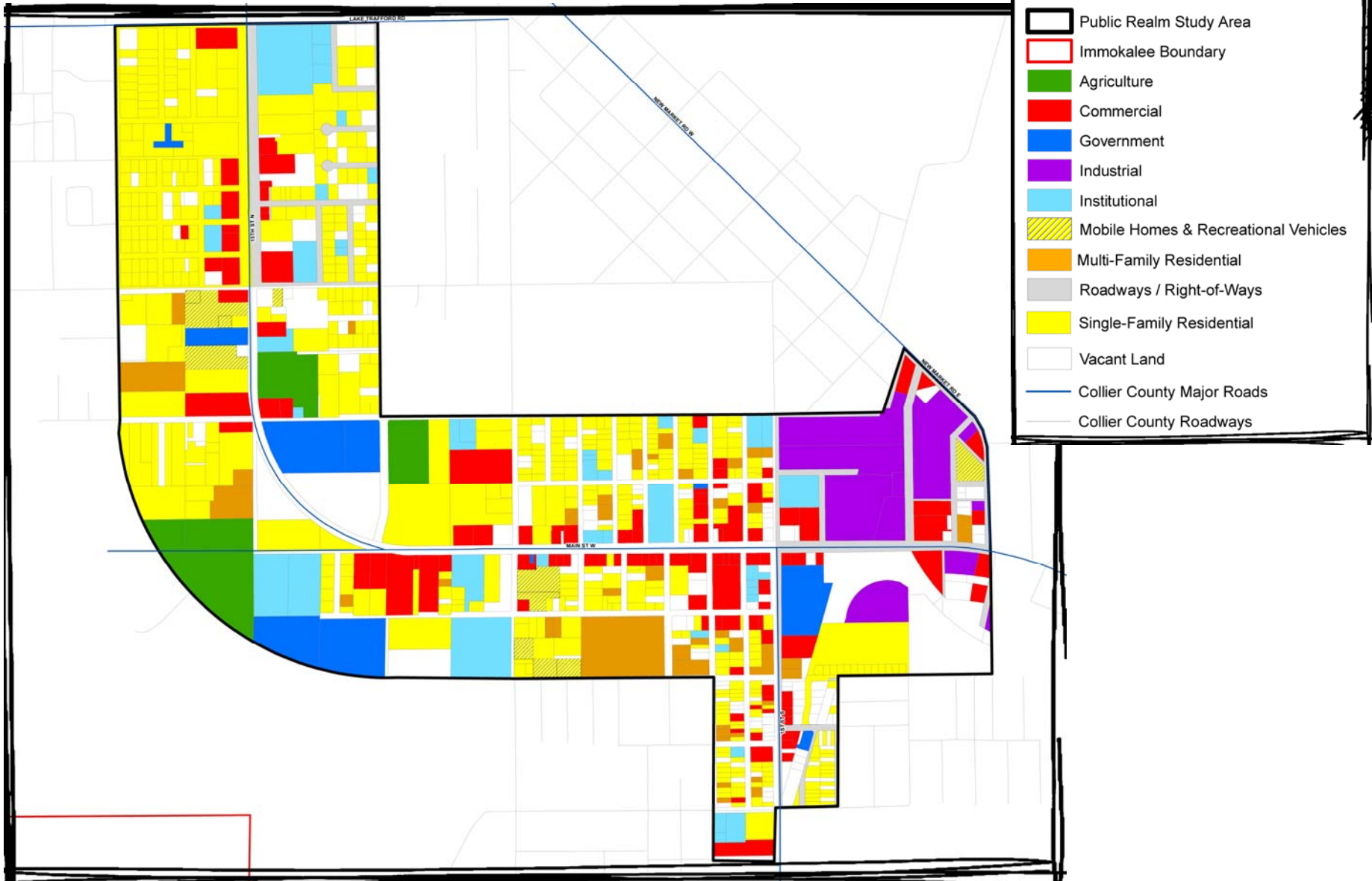
LAND USE	PARCEL COUNT	PERCENT	ACRES	PERCENT
Agriculture	5	0.5%	32.94	4.2%
Commercial	115	12.0%	79.72	10.1%
Government	11	1.1%	39.36	5.0%
Industrial	11	1.1%	46.73	5.9%
Institutional	45	4.7%	58.97	7.5%
Mobile Home or Recreational Vehicle Park	11	1.1%	15.02	1.9%
Single-family Residential	507	53.0%	267.38	33.6%
Multi-family Residential	43	4.5%	36.84	4.7%
Roadways	4	0.4%	39.45	5.0%
Vacant Land	205	21.4%	173.83	22.3%
<b>Total</b>	<b>957</b>	<b>100.0%</b>	<b>790.24</b>	<b>100.0%</b>

Source: Collier County Property Appraiser, February 2009; Analysis prepared by RWA, Inc.

of the Immokalee Urban Area. Rural portions of the community were not included in the assessment. The inventory catalogued the exterior condition of homes and was conducted through a visual survey that occurred between May and August 2004. Assessments included the physical condition of each dwelling unit, its visible infrastructure, and surrounding conditions. Of the 3,558 buildings surveyed, 406 or 11.4 percent, were determined to be deteriorated or dilapidated, requiring major repairs in order to provide safe and adequate shelter. While the report is somewhat dated, it remains a relevant assessment of Immokalee's housing stock and clearly illustrates that providing safe and adequate shelter



FIGURE 8. EXISTING LAND USE MAP





for residents of Immokalee remains a challenge.

**D. LOCAL ROADWAY LEVEL of SERVICE**

Table 6 includes the average annual daily trips and level of service (LOS) for segments of SR 29 through Immokalee, as well as for major roadways within the Study Area.

**E. ENVIRONMENTALLY SIGNIFICANT LANDS**

A small portion of the Lake Trafford Urban Wetlands Overlay (currently called “Wetlands Connected to Lake Trafford/ Camp Keias Strand System”), as depicted on the proposed Immokalee Future Land Use Map, extends into the Study Area, west of SR 29 and south of Roberts Road (in Subarea 2). These wetlands were delineated through aerial interpretation by Collier County staff, and have not been field-verified. Current regulations for areas within this overlay require that property owners preserve wetlands identified as flowways and areas utilized by listed species or serving as corridors for the movement of wildlife.

**Table 5. IMMOKALEE ROADWAYS: PEAK HOUR TRAFFIC COUNTS AND LEVEL of SERVICE (LOS)**

SEGMENT ID	Roadway	ROAD SEGMENT	EXISTING ROAD Type	10-MONTH PEAK HOUR PEAK DIR SERVICE VOLUME	2008 PEAK HOUR PEAK DIR VOLUME	LOS
1	SR 29	CR 858 to CR 29A (New Market)	2-lane, undivided	875	404	C
2	SR 29	CR 29A South to N 15 <sup>th</sup> Street	4-lane, divided	1,860	661	B
3	SR 29	N 15 <sup>th</sup> Street to CR 29A North	2-lane, undivided	875	550	C
4	SR 29	CR 29A North to SR 82	2-lane, undivided	875	550	C
5	Lake Trafford Rd	W of SR 29 to SR 29	2-lane, undivided	875	367	C
6	New Market Rd	Broward St to SR 29	2-lane, undivided	1,010	893	C
7	N. 1 <sup>st</sup> Street	New Market Road to Main Street	2-lane, undivided	1,000	457	C
8	CR 846/ Immokalee Rd/ S. 1 <sup>st</sup> Street	Oil Well Road to SR 29	2-lane, undivided	860	262	C

Source: Collier County Annual Update and Inventory Report on Public Facilities, 2008



### F. SUBAREA 1: NORTHERN IMMOKALEE

Subarea 1 consists of approximately 161 acres, containing 224 parcels, and extends from Lake Trafford Road to Immokalee Drive. The largest current land use is residential (60%), followed by institutional uses (11%), and vacant land (11%). See Figure 8, Existing Land Use Exhibit, and Table 7.

Figure 10 is an aerial of this Subarea, with photographs, labeled 1-7, to illustrate typical development. There are five single-family homes that directly access SR 29, all of them on large lots (greater than one acre) (see photo 6 on the aerial). Commercial buildings range in age from new construction, such as the Auto Zone (photo 2), to much older construction, such as the Immokalee Inn (photo 3). Land use intensities are low, with large setbacks, and relatively small buildings on large lots. Most buildings are one-story in height. There are three, two-story buildings – the Immokalee Inn, the First Baptist Church, and Eye Centers of Florida – ranging in height from 20 feet to 30 feet; however, because of the large setbacks, the overall effect remains that of very low-intensity development.

While new construction appears to conform to Collier County landscaping regulations, landscaping for older commercial projects is substandard.

Non-residential development extends approximately one block east and west of SR 29, then land uses transition into single-family residential development. To the east, north of Santa Rosa Avenue, lots range in size

Table 6. SUBAREA 1 EXISTING LAND USES

LAND USE	PARCEL COUNT	PERCENT	ACRES	PERCENT
Agriculture	0	0.0%	0.0	0.0%
Commercial	15	6.7%	12.73	7.9%
Government	1	0.4%	0.72	0.4%
Institutional	12	5.4%	17.32	10.8%
Mobile Home or RV Park	0	0.0%	0.0	0.0%
Single-family Residential	158	70.5%	97.87	60.8%
Multi-family Residential	0	0.0%	0.0	0.0%
Roadways	1	0.4%	15.34	9.5%
Vacant Land	37	16.5%	17.03	10.6%
<b>Total</b>	<b>224</b>	<b>100%</b>	<b>161.01</b>	<b>100.0%</b>

Source: Collier County Property Appraiser, February 2009; Analysis prepared by RWA, Inc.

FIGURE 9. SUBAREA 1 EXISTING LAND USES

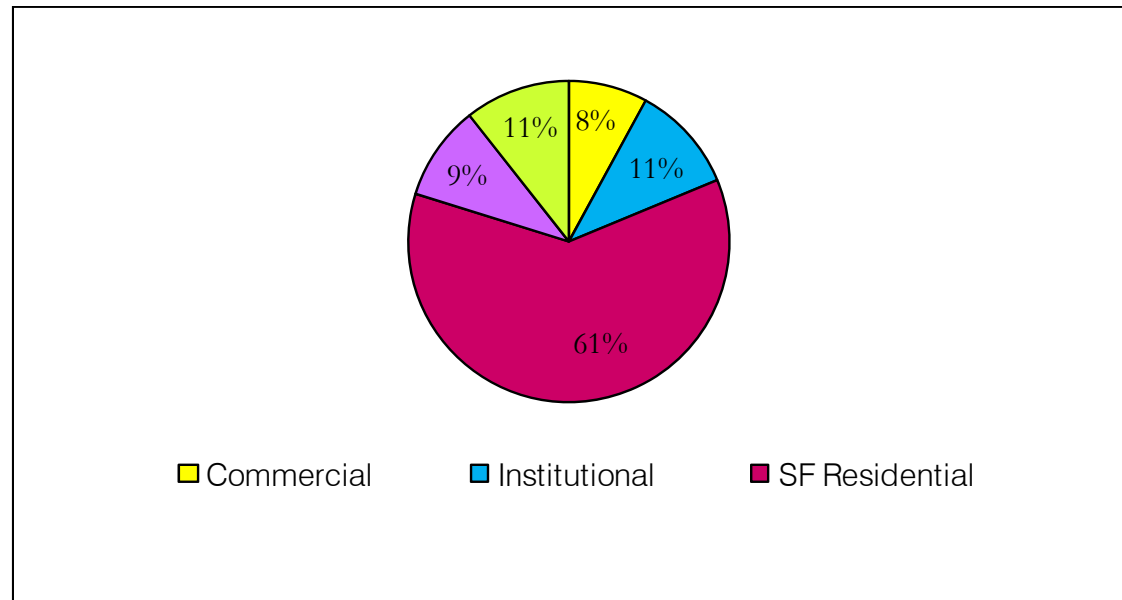
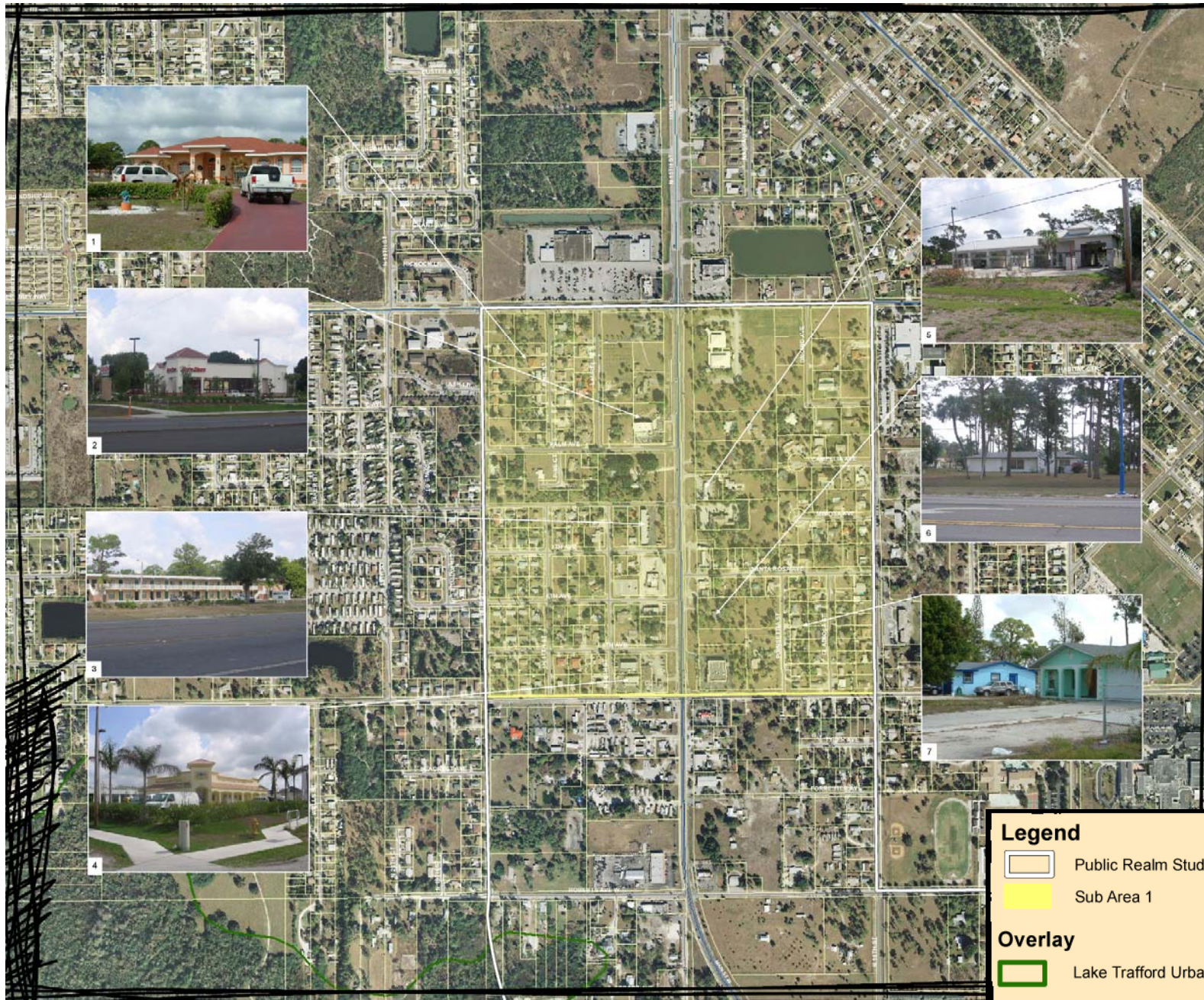




FIGURE 10.  
SUBAREA 1  
NORTHERN IMMOKALEE



**Legend**

- Public Realm Study Area
- Sub Area 1

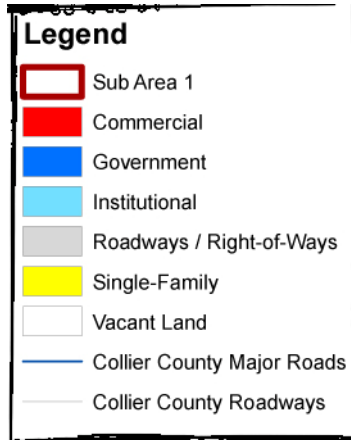
**Overlay**

- Lake Trafford Urban Wetlands





FIGURE 11.  
SUBAREA 1  
EXISTING LAND USE





from a little over a third of an acre to slightly under one acre. South of Santa Rosa Avenue, lots measure one-quarter acre. To the west of SR 29, lots are generally about one-quarter acre in size. There are no sidewalks interior to these residential communities; however, there are sidewalks along both sides of Immokalee Drive east of SR 29, along the south side of Immokalee Drive west of SR 29, and along a portion of the west side of North 18<sup>th</sup> Street, from Lake Trafford to 8<sup>th</sup> Avenue.



In this section of the Study Area, the right-of-way width for SR 29 doubles in size, from an average of 100 feet to 200 feet. This is the original right-of-way width from the design and construction of SR 29 in the 1940's, and is comparable to right-of-way reservations for some sections of I-75 in Collier County.



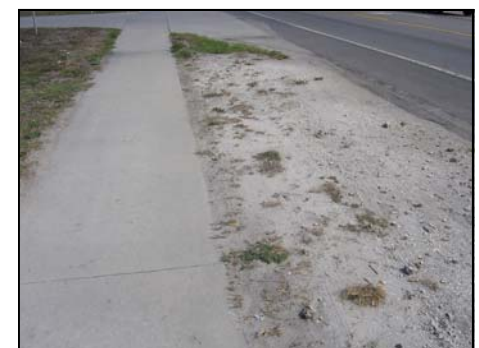
Setbacks from the property line range from twenty feet to over 100 feet; the addition of right-of-way adds another 50 feet to these setback depths. Parking is located in front of buildings, with the exception of parking facilities for the First Baptist Church, which are located off of Lake Trafford Road.



In this section, SR 29 is built without curb and gutter. Four-foot concrete sidewalks are located on both sides of the road, and no bicycle lane is provided. Additional sidewalk segments have been constructed along the property line of new commercial buildings (the Walgreen's and Autozone, see Photo 2 on the Subarea aerial), creating a second sidewalk, closer to the building.

The Public Realm Plan does not propose new design standards for this Subarea. The Plan focuses on areas closer to downtown, where more pedestrian activity currently occurs, and where the exist-

ing conditions are more conducive to redevelopment, less right of way is reserved for roadway expansion, buildings are located closer to the street, and where additional improvements to the public realm have already been constructed (paver sidewalks, seating areas, planters, etc.) However, the CRA could consider future improvements within this Subarea, such as the feasibility of extending the proposed plant palette and enhanced landscaping into this Subarea, or the construction of a multi-use path within the right-of-way. Any future corridor improvements should complement the proposed design regulations of this public realm plan, although it may not be identical to them.





### G. SUBAREA 2: SUBURBAN IMMOKALEE

Subarea 2 consists of approximately 285 acres, containing 166 parcels, and extends from Immokalee Drive to 9<sup>th</sup> Street. The largest land use is residential (residential and mobile home/recreational vehicle park) (39%), followed by vacant lands (21%), and agriculture (12%). See Figure 12, Existing Land Use Exhibit, and Table 8, below.

This area is suburban in character, with most buildings along SR 29 set back substantially from the road, and a sidewalk along the west side only. Figure 13 is an aerial of this Subarea, with photographs, numbered 1-9, to illustrate typical development. Residential developments include a mobile home park and a trailer park with direct access onto SR 29 (see photo 2 of the aerial exhibit). Residential units to the east of SR 29 are located on typical subdivision lots, while those to the west of SR 29 are single-family homes on larger lots (0.93 acres to 4.16 acres) (photo 3 on the aerial exhibit). Commercial properties include newer developments, such as the McDonald's, Popeye's (photo 6), and Goodwill, with landscaped buffers and landscaping that appears to be consistent with code requirements. Older commercial properties, such as the Immokalee Tire (photo 5 on the aerial exhibit) or Ace Hardware (photo 4), lack landscaped buffers and have minimal landscaping. The lack of landscaping may reflect that the buildings pre-date current landscaping requirements. Roberts Ranch (photo 8), owned by Collier County as a historic and cultural site, is also within Subarea 2, totaling about 13 acres on the north side of the curve.

Consistent with typical suburban commercial development, the structures are low-intensity, and one-story in height except for the Lee County Electric Cooperative, which is two-story building. There are several vacant or

agricultural parcels, which also create a suburban character. SR 29 is not built with curb and gutter in this section which is more consistent with a rural road cross-section rather than a more urban roadway treatment. Land uses are mixed in nature. The blue light poles are the only attempt at cohesive design; however, the light poles lack landscaping, and are overwhelmed by utility lines and the height of the electrical poles.

FIGURE 12. SUBAREA 2 EXISTING LAND USES

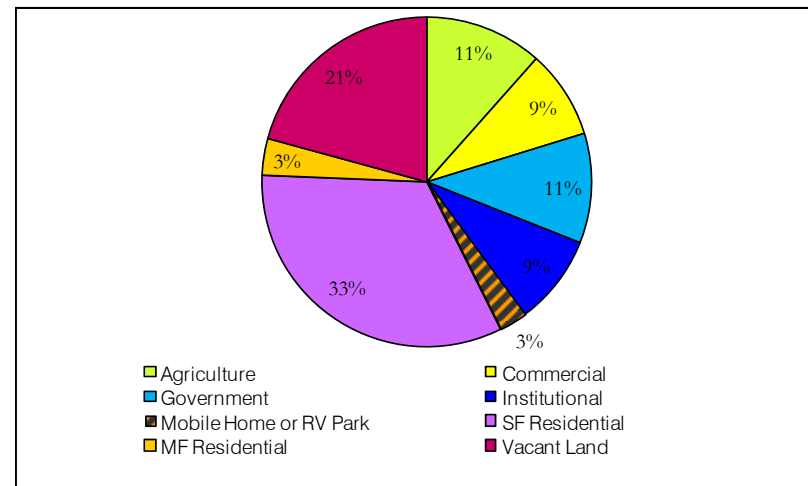


Table 7. SUBAREA 2 EXISTING LAND USES

LAND USE	PARCEL COUNT	PERCENT	ACRES	PERCENT
Agriculture	5	3.0%	32.94	11.6%
Commercial	15	9.0%	24.69	8.7%
Government	5	3.0%	30.73	10.8%
Institutional	8	4.8%	25.23	8.9%
Mobile Home or RV Park	6	3.6%	7.82	2.7%
Single-family Residential	89	53.6%	94.07	33.0%
Multi-family Residential	7	4.2%	10.24	3.6%
Roadways	1	0.6%	0.02	0.0%
Vacant Land	30	18.1%	59.12	20.8%
<b>Total</b>	<b>166</b>	<b>100.0%</b>	<b>284.87</b>	<b>100.0%</b>

Source: Collier County Property Appraiser, February 2009; Analysis prepared by RWA, Inc.



FIGURE 13.  
SUBAREA 2  
SUBURBAN  
IMMOKALEE



FIGURE 14.  
SubAREA 2  
CURRENT LAND USE





## H. SUBAREA 4: AGRICULTURAL-INDUSTRIAL

### IMMOKALEE

Subarea 4, from East 2<sup>nd</sup> Street to New Market Road, consists of mostly agricultural-industrial uses and buildings, and contains 62 parcels in approximately 116 acres. The majority of land uses are industrial (40%), followed by vacant land (25%), and road right-of-way (15%). See Table 8 and Figure 15, Existing Land Use.

Typical industrial construction in Subarea 4 is shown on the aerial, Figure XX. The industrial buildings are large structures, with heights ranging from 35 to 60 feet. Industrial buildings have little fenestration, limited landscaping or buffering, and extensive outdoor storage. Agricultural processing continues to be an important industry for the local economy, as it has been for several decades. While industrial uses are not typical “downtown” or “public realm” uses, the area is included in the Public Realm Plan Study Areas due to its close proximity to the downtown core and because it is an important local employment center. However, it was not included in the CBD due to the nature of these uses.



Table 8. SUBAREA 4 Existing LAND USES

LAND USE	PARCEL COUNT	PERCENT	ACRES	PERCENT
Agriculture	0	0.0%	0.0	0.0%
Commercial	10	16.1%	8.86	7.6%
Government	1	1.6%	0.01	0.0%
Industrial	11	17.7%	46.73	40.3%
Institutional	1	1.6%	0.08	0.1%
Mobile Home or RV Park	1	1.6%	1.85	1.6%
Single-family Residential	15	3.2%	11.57	10.0%
Multi-family Residential	1	1.6%	0.94	0.8%
Roadways	1	1.6%	16.96	14.6%
Vacant Land	21	54.8%	29.07	25.0%
<b>Total</b>	<b>62</b>	<b>100.0%</b>	<b>116.07</b>	<b>100.0%</b>

Source: Collier County Property Appraiser, February 2009; Analysis prepared by RWA, Inc.

FIGURE 15. SUBAREA 4 Existing LAND USES

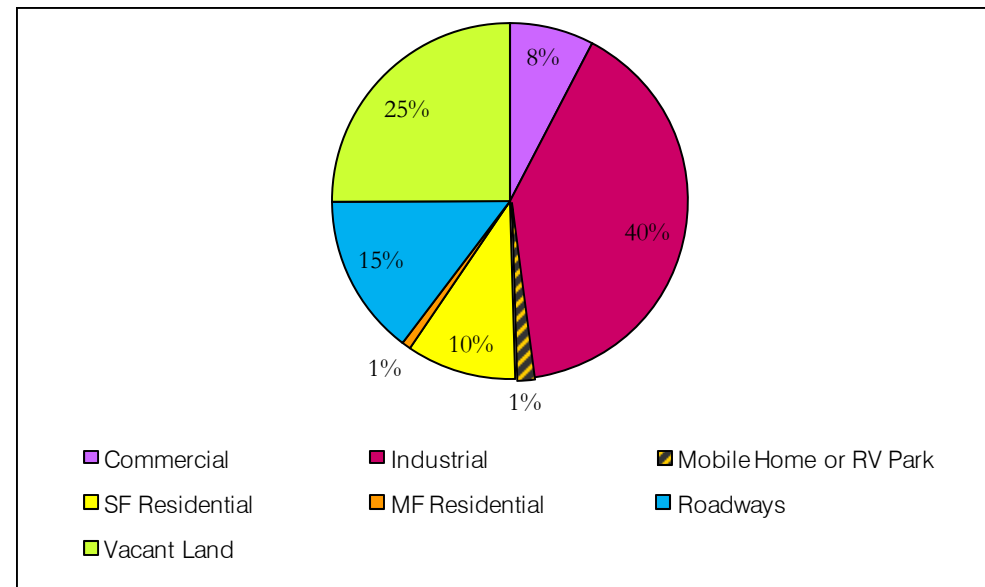
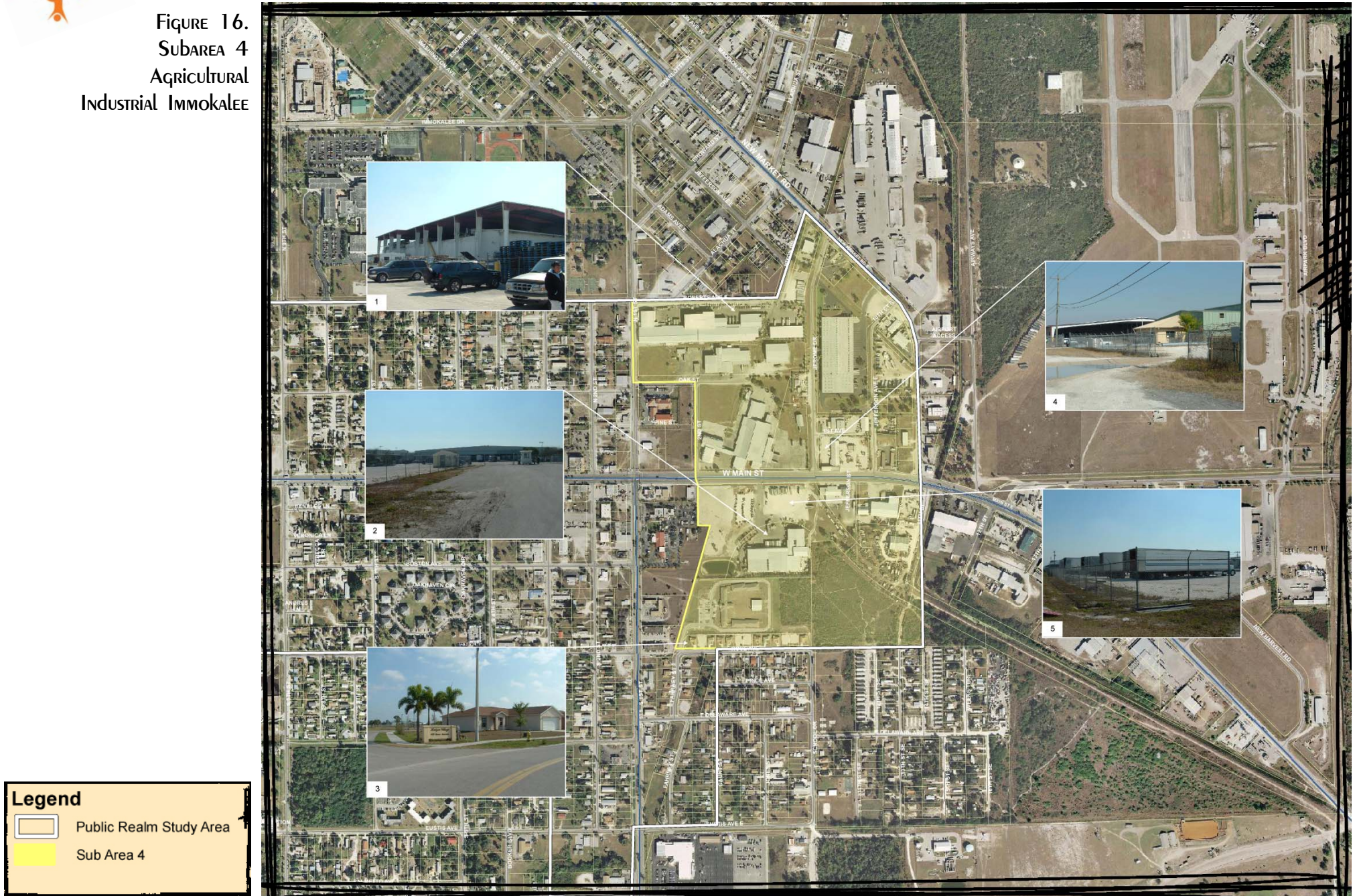




FIGURE 16.  
SUBAREA 4  
AGRICULTURAL  
INDUSTRIAL IMMOKALEE



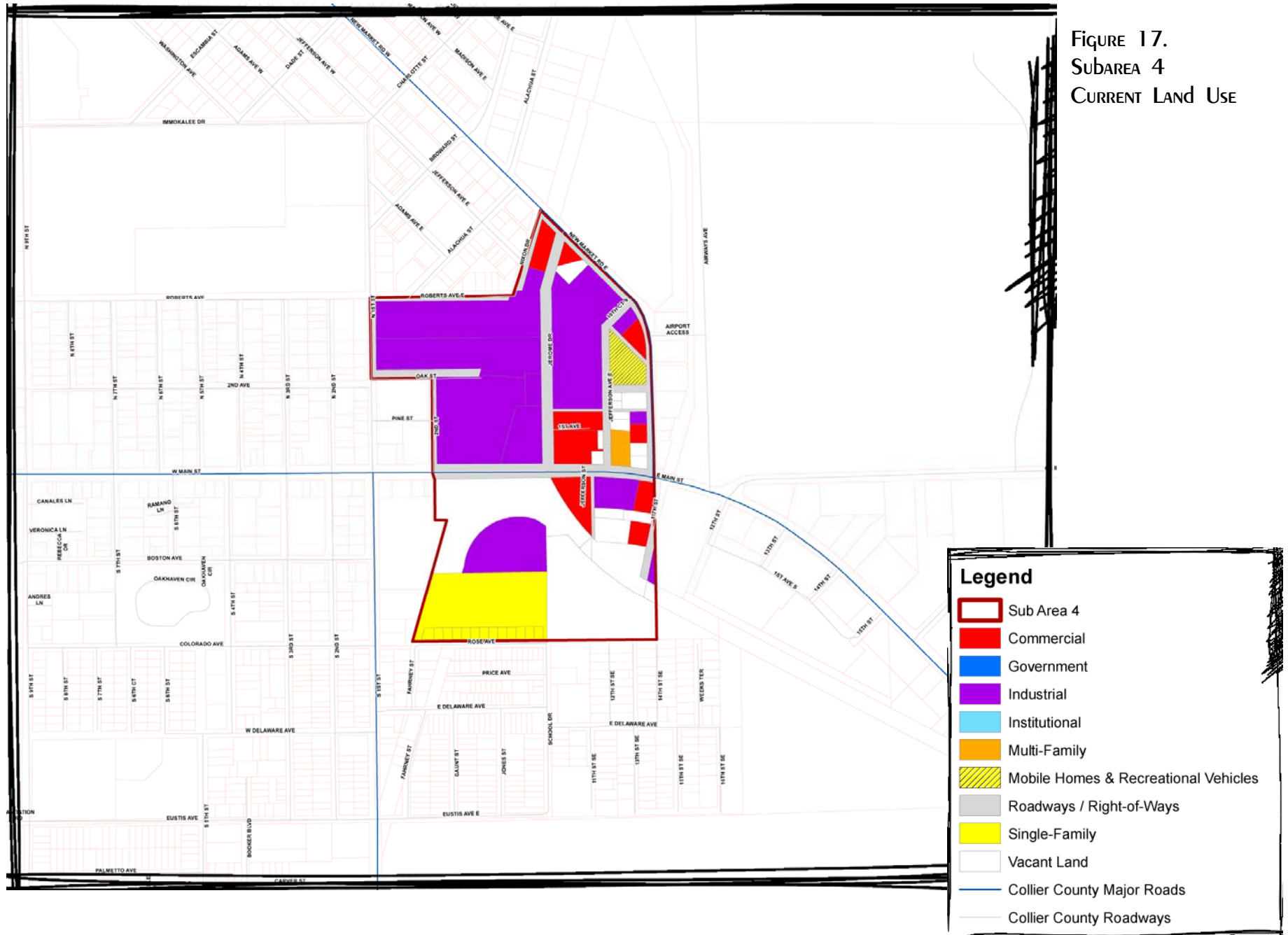


FIGURE 17.  
Subarea 4  
CURRENT LAND USE





## IMMOKALEE STORMWATER MASTER PLAN

Immokalee currently experiences significant flooding issues. A Stormwater Master Plan for Immokalee was completed in 2006 to address flood-prone areas and recommend stormwater improvements to alleviate those flooding problems. The Plan was recently adopted by the Board of County Commissioners, which will allow the CRA to move forward with implementation of proposed improvements.

The Immokalee area developed over the years without a plan for a cohesive water management system, which has led to inadequate drainage, flooding, and concerns over water quality. H.W. Lochner Inc. was commissioned to prepare a Stormwater Management Plan for Immokalee, and has produced a stormwater model and associated report that documents design inputs and outputs, flooding stages, and water quality analysis. The stormwater model was used to assess current conditions and develop a number of different conceptual drainage improvements and alternatives to alleviate flooding and improve water quality issues within the Immokalee area.

The Lochner report was prepared for a very large basin, roughly 22,000 acres. The study area for the Immokalee CRA Public Realm is only a small portion of this large basin, roughly 790 acres. The report recommended four alternatives for improvements. Of the four alternatives, Alternative #4 was determined to be the most beneficial in terms of flood mitigation and water quality. Alternative #4 consists of six areas for improvement:

1. Lake Trafford Ditch Culvert Upgrades
2. Fish Creek
3. Madison Creek Ditch
4. Slough Cross-Drain Additions
5. Immokalee Drive
6. Downtown Immokalee

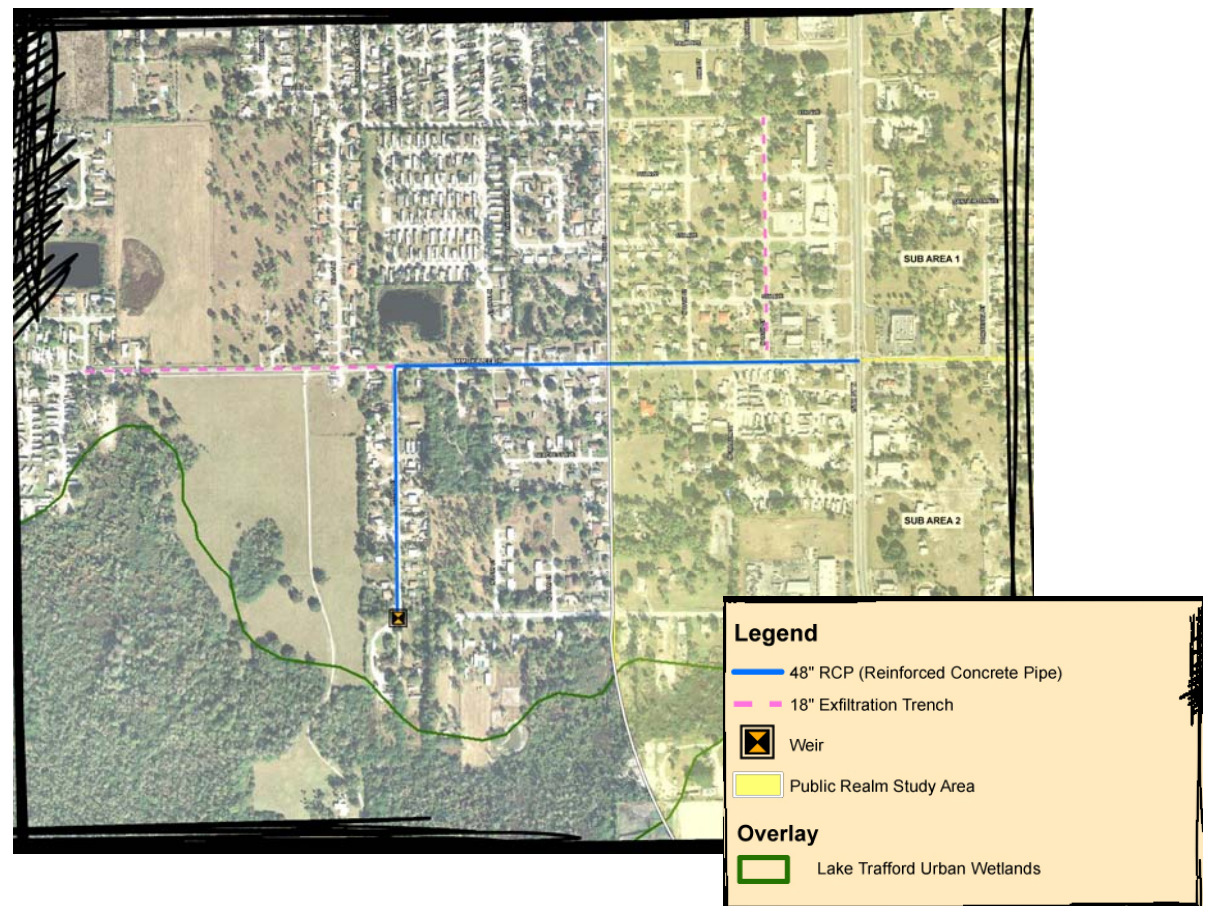
Although all of these improvements would greatly benefit the Immokalee community, only items 5 and 6

provide direct improvements and benefits to the Study Area and more specifically the CBD.

Area 5 (Immokalee Drive) improvements include the following:

- a. a 48" pipe from SR 29 to Wells Street along Immokalee Drive;
- b. a 48" pipe on Wells Street from Immokalee Drive south to the terminus of Wells Street;
- c. a weir control structure at the south terminus of Wells Street;
- d. 18" exfiltration trenches on Immokalee

FIGURE 18. AREA 5 IMPROVEMENTS





- Drive west of Wells Street; and
- e. 18" exfiltration trenches on 16th Street north of Immokalee Drive.

- Bethune Drive; and
- d. a 2-acre lake at the intersection of South 9th Street and Eustis Avenue.

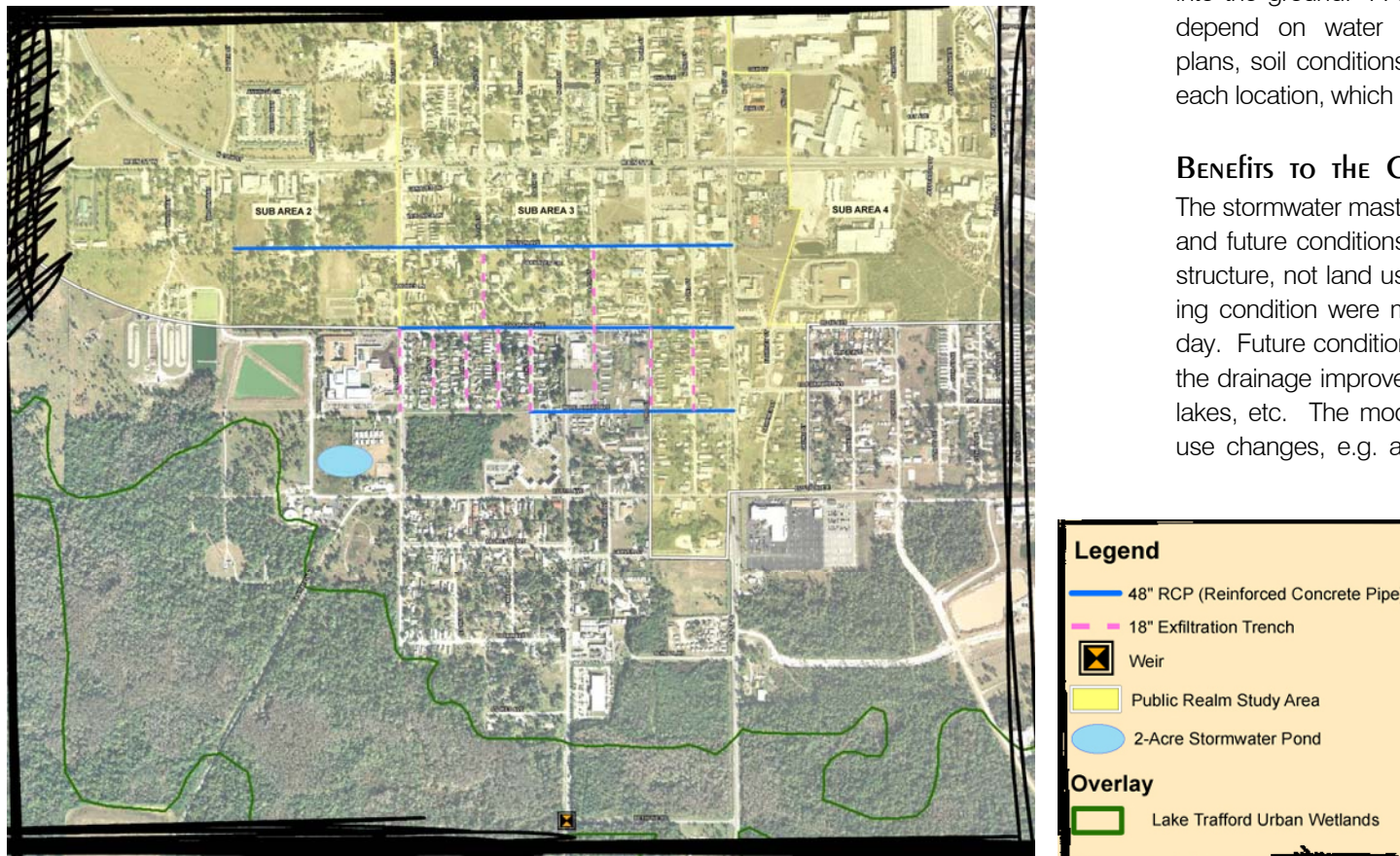
Area 6 (Downtown Immokalee) improvements consist of:

- a. 48" pipes along Delaware, Colorado, and Boston Avenues running east and west;
- b. a series of 18" exfiltration trenches on various streets running north and south;
- c. a weir control structure at 5th Street and

The improvements proposed in Areas 5 and 6 will help decrease flood stages by providing a better conveyance system to transport stormwater. Results will vary depending on location. Some areas that currently flood may not flood at all, some may have less flooding, or the stormwater may dissipate more quickly and the land return to natural dry conditions more rapidly. Large 48-inch pipes are used

to transport stormwater from residential and commercial areas to the outfall locations because stormwater flows more easily through a smooth pipe than through a rough grassy swale. A 48-inch pipe also has more capacity than the existing ditches and can transport larger volumes of water. Replacement of roadway ditches with exfiltration trenches will enhance the aesthetic appeal and safety of the roadway network by filling in open ditches with pipe and gravel and seeding or sodding over it. The final result will look the same as a typical drainage pipe installation, but will allow stormwater to seep directly back into the ground. A successful exfiltration trench will depend on water table elevations, maintenance plans, soil conditions, and capacity requirements at each location, which may need further investigation.

FIGURE 19. AREA 6 IMPROVEMENTS



### BENEFITS TO THE CBD

The stormwater master plan model simulates existing and future conditions with respect to drainage infrastructure, not land use basin characterization. Existing condition were modeled as the basin exists today. Future condition were then modeled by adding the drainage improvements, that is, the pipes, weirs, lakes, etc. The model did not simulate future land use changes, e.g. a change of agricultural land to



commercial. Therefore, future growth modifications to specific land uses may have to be evaluated and simulated to determine impacts to the conveyance, storage, and water quality treatment aspects of the stormwater management system. However, new development will be required to meet more stringent water quality and quantity standards than existing development, and the impact of future development can be anticipated to result in positive improvements to stormwater management. How new improvements will interface with existing stormwater management systems, or the lack thereof, and the overall drainage pattern that will be created must be considered in the review of all future development.

Water quality will be improved by utilizing weir control structures to regulate the storage volume in order to reduce pollutant transfers and promote biological nutrient uptake. Pollutants and nutrients are held back from discharging into receiving waters and are given time to settle out and be absorbed by plant life. Through the use of weir control structures, water quantity will also be regulated, which will result in improved discharges to sensitive receiving waters, such as the adjacent slough, Lake Trafford, and the SR 29 Canal system. Improving the water quality in these areas will help enhance recreational opportunities on a local and regional level.

One of the most beneficial improvements to the CBD is the proposed two-acre lake. The Stormwater Master Plan conceptually located this lake just south of Colorado Avenue and west of South 9<sup>th</sup> Street. The lake provides the most immediate and visible stormwater management improvement for water quality treatment and water quantity storage. In addition, it could also be a catalyst for redevelop-

ment in this portion of the community, as it could provide a recreational amenity. It is recommended that the lake improvement be expedited, as it has great potential to be a positive benefit to the Immokalee community, both in significant benefits to stormwater control in the downtown area and as a potential passive recreation park site.