

**Fort Lauderdale WAVE Downtown Transit Circulator  
Request to Initiate Small Starts Project Development**

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## MAKING THE CASE REPORT



*Prepared for these project partners:*

Broward County/Broward County Transit (BCT)  
South Florida Regional Transportation Authority (SFRTA)  
Florida Department of Transportation – District IV (FDOT)  
Broward Metropolitan Planning Organization (MPO)  
City of Fort Lauderdale  
Downtown Development Authority of Fort Lauderdale (DDA)

APRIL 11, 2011

**HDR**



## 1.0 PROJECT DESCRIPTION

The proposed Downtown Fort Lauderdale Transit Circulator is a 2.7-mile modern streetcar system commonly referred to as "The WAVE Streetcar" (see *Figure 1*) The project area contains a high-rise core flanked by mixed-use, near-Downtown neighborhoods, generally bounded by Federal Highway (US 1) on the east, SE 17th Street on the south, the Florida East Coast Railway (FEC) NW 7th Avenue on the west, and the FEC/ Sunrise Boulevard to the north.

The WAVE Streetcar will serve the area of densest development in Fort Lauderdale, and will act as a spine running through the highest concentration of activity-generating uses Downtown, including Flagler Village, the Downtown Core, Southside Neighborhood, and the North Broward Hospital District. The WAVE Streetcar will also help forge connections between Downtown Fort Lauderdale's newest areas of transit-oriented development and existing neighborhoods that are targeted for revitalization and in-fill development programs.

## 2.0 SETTING

The WAVE Streetcar is a project borne from a transit-supportive environment wherein local and regional planning practice, policies, and land use development trends have paved the way for implementation of an effective, land use-supportive local area transit circulator for Downtown Fort Lauderdale.

Several adopted plans contain policies, goals and objectives that support implementation of premium rail transit as a way to encourage more compact and sustainable development patterns, and create safer, cleaner more livable communities across Broward County.

In the early part of the decade, the adoption of several planning documents laid the groundwork for a local-area transit circulator, beginning with the 2003 City of Fort Lauderdale Comprehensive Plan, which encouraged transit-oriented development in the downtown core. A key provision of the Comprehensive Plan is the large amount of land downtown that is zoned for mixed-use development without height limits or parking requirements for the area.

Adoption of the Broward MPO 2035 Long-Range Transportation Plan (LRTP) in December 2009 was a watershed event that announced a new transportation future with transit at its core. This Plan highlights the distinct social, political and economic benefits in encouraging multi-modal travel and the development of diverse and geographically dispersed *Mobility Hubs*. The Plan's vision is to *"Transform transportation in Broward County to achieve optimum mobility with emphasis on mass transit while promoting economic vitality, protecting the environment, and enhancing quality of life"*.

- Key Adopted Transit Supportive Plans:**
- City's Comprehensive Plan
  - Broward MPO's 2035 LRTP
  - SFRTA's Strategic Plan for South Florida
  - Broward County's Transit Development Plan
  - Downtown Fort Lauderdale Master Plan/Pedestrian and Mobility Plan and Design Guidelines
  - Broward County Codified Handbook

The SFRTA's September 2008 Strategic Regional Transit Plan for South Florida speaks to the realization of a "bold vision" for transit and mobility, to promote economic development and quality of life improvements. This plan also presents findings that demonstrate how transit supportive land use in future years can have a positive impact on transit ridership and operating costs in South Florida.



Figure 1: Project Map





The Broward County Transit Development Plan 2009 – 2018 calls for the creation of clean, safe and reliable transit service that is “responsive to changing needs and focusing on customer service as our highest priority”. Some of the supporting goals and objectives are designed to encourage environmental sustainability, increase ridership, improve “image” and heighten “awareness”, enhance economic development and quality of life considerations through “Intergovernmental and Regional Transportation Coordination”.

As part of this local desire to encourage transit-supportive development, a 2004 mobility study identified the need for enhanced pedestrian movements in the core and led to the pursuit of federal approval for the WAVE Streetcar. In subsequent years, a host of more detailed neighborhood plans and policies furthered the City vision for a Downtown that is mixed-use, pedestrian-friendly, transit-rich, and well-designed. Over the last decade, growth in Downtown Fort Lauderdale has continued to trend towards mixed-use, higher-density development, as a slate of new residential projects broke ground alongside major institutional, office and commercial uses. Both the City and the County are large landowners in the project area and both began planning ways to redevelop their land holdings in the core, to make way for a more environmentally and economically sustainable land use framework.

In 2008, the Alternatives Analysis study produced what is termed a recommendation for a Locally Preferred Alternative (LPA) for the WAVE Streetcar. The LPA was formally endorsed by Broward County, the City of Fort Lauderdale and the Downtown Development Authority (DDA). Broward County committed to be the owner and operator of the system and to pay for operations and maintenance. The City of Fort Lauderdale pledged a capital contribution of \$10.5 million, with plans for a local City assessment to raise the remaining local share. More recently, the South Florida Regional Transportation Authority (SFRTA) committed to be the owner’s representative and be the FTA project sponsor and to lead the design, procurement and construction of the system.

Firm plans for the WAVE Streetcar cemented Downtown Fort Lauderdale as the area of choice for new development; local agencies, business groups, homeowners’ associations and advocacy organizations issued letters of support for a streetcar system that would serve as the transit centerpiece for Downtown, improving immediate and regional connectivity, supporting increased density and growth, spurring mixed-used development, and anchoring sustained economic growth.

### **3.0 PURPOSE OF THE PROPOSED PROJECT**

The purpose of the Fort Lauderdale WAVE Streetcar is to realize the growth and development patterns prescribed in local land use plans, to improve mobility, to connect major activity centers and neighborhoods, and to improve transit service. The future growth of Downtown Fort Lauderdale will be severely constrained without the implementation of a major transit investment that provides a high level of transportation mobility in the project area. The WAVE Streetcar will provide a sustainable and permanent transportation investment that is strongly supported by local land use plans and eagerly awaited by the Fort Lauderdale community.

The WAVE Streetcar is seen as the “first leg” and tangible example of a local serving fixed rail transit line that Broward County residents will be able to use and experience and that will eventually accelerate the implementation of other regional fixed rail transit systems currently being planned.



## 4.0 CURRENT CONDITIONS IN THE CORRIDOR

Fort Lauderdale's concerted effort to develop its central area over the past 15 years via transit supportive, high-density and mixed-use land use plans, policies and zoning has increasingly helped shape the Downtown as an attraction center for people, businesses, and events. The streetcar corridor is approximately 1/2 mile wide and 3 miles long. The Streetcar Influence Zone (SIZ) includes over 15,000 residential units and in excess of 5 million square feet of commercial development. The 2008 SIZ area population is 26,378 persons; employment is in excess of 42,000. A total of 80,000 work trips are made to the downtown daily. Based on 7,880 daily transit boardings, the study area transit share is nearly 10 percent of the total work trips made to the Downtown area daily.

### Land Use Aspects

In the last ten years, the downtown has added 4,300 new housing units at transit-supportive densities, many with ground-floor retail and commercial uses. This represents more than a tripling of the downtown housing stock. Recent residential projects have been built to 30 story heights and at densities of 150 units/acre. *Nearly 75 percent of the project area consists of land designated for development, or redevelopment in a transit oriented high density mixed use form.* A high percentage of land is either vacant or considered highly desirable for redevelopment given the high density capacity of local zoning. The capacity of the developable sites under existing zoning is sufficient to accommodate up to 18,000 additional units and 10,000,000 more square feet of non-residential development, assuming densities and allocations between residential and non-residential uses that are similar to what have occurred over the past ten years. Virtually all of this developable land is served by city streets on a normal rectangular small block scale street grid, with utilities available, that is conducive to pedestrian movement.

#### Land Use Highlights:

- SIZ includes over 15,000 residential units and over 5,000,000 sq ft of commercial/retail space
- Unlimited height for new commercial buildings in the RAC-CC
- No parking requirements in the RAC-CC
- Current rental residential occupancy is 98%
- Future capacity to absorb an additional 18,000 residential units and 10,000,000 more commercial sq ft

### Transportation Aspects

From 2000 – 2006, travel speeds during the a.m. peak have decreased by 25 percent, from 20 miles per hour (mph) to 15 mph. Today the major north/south and east/west streets operate at a level of service (LOS) of E or F during the a.m. peak hour, with the highest volumes and slowest travel speeds at NE 3rd Avenue and Broward Boulevard. The traffic analysis shows a steady decline in travel times that will reduce the capacity of the street system to a point where it can only accommodate 65 percent of the projected demand by 2025.

Existing transit users are battling current conditions as well. Over 70 percent of existing Broward County Transit (BCT) transit riders are transit-dependent and many are economically disadvantaged. Approximately 36 percent are minorities and 22 percent live below the poverty level. BCT serves 410 square miles of Broward County, with 260 buses on 15- to 30-minute weekday headways. Routes 1, 11, 30, 40 and 60, which primarily affect the project area, operate



on 20- to 30- minute headways. A transfer from one of these routes to another Downtown route is necessary to access many of the activity centers.

Currently, there are five intermodal connections between the BCT buses and Downtown. They include the Amtrak/Tri-Rail facility; the Greyhound bus facility; Fort Lauderdale Executive Airport; Fort Lauderdale International Airport; and Port Everglades. In the future, these facilities will depend on the WAVE Streetcar for Downtown circulation and potentially three new regional transit services: The proposed Broward East/West Light Rail System and the proposed Florida East Coast (FEC) Railroad Corridor high capacity system, and the Central Broward East-West Transit project. These services will connect to the WAVE Streetcar at the future Grand Terminal, which will be constructed near an existing BCT Transfer Facility. The riders that could be attributed to the WAVE Streetcar as transfers from these new services are not included in the ridership forecast because they come online after the 2015 service date for the system.

Based on a 2006 on-board survey performed on all of the routes serving Downtown Fort-Lauderdale, approximately 5,700 riders start and/or complete their trips within the study area. Sixty-four percent of the transit riders walk to the transit route and 27 percent are transfers from other transit service or routes. Most of the riders (42 percent) use the system from their home to their place of employment and almost an equal amount (38 percent) use transit from home to a location other than work. Close to half of the riders depend on transit as their mode of travel since 46 percent of the trips are made by riders living in zero-car households. Thirty percent of the riders are from a one-car household, while 24 percent are from a 1+-car household.

## 5.0 ANTICIPATED NO-BUILD CONDITIONS

Between 2000 and 2030, households and population in the study are projected to increase by approximately 470 percent. Between 2012 and 2030, households and population are expected to almost double, with increases of about 95 percent, according to data and projections obtained from the Southeast Florida Regional Planning Model (SERPM). Project area employment is projected to increase by more moderate percentages: between 2000 and 2012, employment is expected to grow by almost 5 percent, and between 2012 and 2030, by approximately 7 percent.

By 2013, morning peak period delays for those traveling by automobile with an average speed of 11 miles per hour will be 35 percent higher than today. Most major streets will operate at LOS E or F with the highest volumes at N.E. 3rd Avenue and Broward Boulevard. The average auto speeds will be reduced by 5 miles per hour in 2030 and the roadway network will only be able to accommodate approximately 65 percent of the projected demand.

## 6.0 MERITS OF THE PROPOSED PROJECT

The WAVE Streetcar will help to:

### **Stimulate and support increased residential and commercial development**

The WAVE Streetcar is expected to increase economic development and property values for existing and new residential and commercial properties in the project area. The WAVE Streetcar is the central tool for realizing the growth expectations and development forecasts in local and regional plans, and assuring that this development conforms to a transit and pedestrian supportive pattern, rather than spreading out. By 2030, the land use plans and the WAVE Streetcar will combine to induce an additional 22,600 residential units and approximately 9.4 million square feet of commercial development.



### **Encourage sustainable neighborhood revitalization**

Increasing local employment opportunities will benefit the project area's existing residents in addition to its future ones, providing equitable benefits and contributing toward a more economically sound community overall. The northern end of the project area is home to older, established neighborhoods in the Sistrunk/Flagler Village Community Redevelopment Area, which has become a popular residential destination for young urban professionals and local artists, primarily because of its proximity to regional cultural attractions located in Downtown Fort Lauderdale. Blended with the traditional base of low to moderate-income households, these neighborhoods are emerging as diverse and eclectic communities, with a variety of community, business, and mobility needs.

These neighborhoods will benefit from the revitalization and economic development effects of The WAVE Streetcar. A primary mission of the local Community Redevelopment Agency, a primary supporter of the WAVE Streetcar, is to redevelop the area, and improve connectivity among neighborhoods, using a fixed transit investment as a catalyst. Transit-based revitalization of areas like Sistrunk is an important element toward achieving a more sustainable Fort Lauderdale.

### **Achieve federal Livable Communities goals**

In addition to exemplifying local goals, the WAVE Streetcar also embodies the goals of the federal HUD/DOT/EPA Partnership for Livable Communities program. Both within and immediately adjacent to the project area are neighborhoods with regionally disproportionately high percentages of disadvantaged populations, whether measured in terms of job opportunities, income, or accessibility to regional transportation. The WAVE Streetcar would improve the accessibility of these populations to job opportunities both by the job creation and economic development effects of the system as well as by improved access to the wider regional transportation network.

### **Focus growth in urban core that will revitalize public investments and encourage private investments**

The City and County have invested substantial resources in facilities and infrastructure in the project area. Focusing growth in the urban core will decrease the incremental cost of providing government services; increase the use of the facilities; revitalize the public investment; and encourage additional private investment. The development potential for the project area is very strong. The added investment projected for the study area could triple annual tax revenues by 2025.

### **Safe travel time**

The WAVE Streetcar will enhance mobility within the City of Fort Lauderdale by providing a streetcar rail option. The capacity of the streetcars will accommodate higher numbers of people than single occupant cars. In 2016, the WAVE Streetcar is projected to generate over 3,000 riders per day and over 1 million riders annually. Approximately 1,670 or 42 percent of total daily riders will be new riders. By 2030, ridership will increase to 10,000 daily riders or 3.1 million annual riders. The system will save almost 1.4 million hours in travel time annually. Based on previous industry experience and studies, an increase of 5,000 residential units in the RAC could reduce the average vehicle miles of travel (VMT) in the study area by 17 million miles annually, or 76.8 million miles annually for the proposed 22,600 new residential units in the study area in 2030. Transit ridership in the study area is projected to increase from 2.4 percent of daily work trips to almost 10.0 percent by 2030.



### **Facilitate access to and within the core by improving connectivity**

The WAVE Streetcar will greatly improve local area circulation within the project area, and facilitate connectivity among established activity centers and growing neighborhoods. Today nearly 80,000 people travel to and from Fort Lauderdale for employment purposes. Future travel volumes in 2013 are estimated at nearly 100,000 person trips for employment purposes. Currently only 2.4 percent utilize public transit. With implementation of the WAVE Streetcar, the transit share will double in subsequent years. Transit service from the region to Downtown Fort Lauderdale is currently provided by numerous routes operating at 15- to 60-minute headways. These routes force a transfer at the Broward County Transit Terminal to reach most of the major employment centers in Downtown Fort Lauderdale. While a transfer will still be required when the system is in place, the proposed streetcar would provide faster service (7.5-minute headways) and direct access to areas not served currently, such as the Downtown Fort Lauderdale core, Colleges and Universities, and the Broward General Medical Center at the southern tip of the study area. The proposed improvements will address the current service gaps, provide seamless connection between the northern and southern sections of Downtown, and increase frequency of service.

## **7.0 RISK**

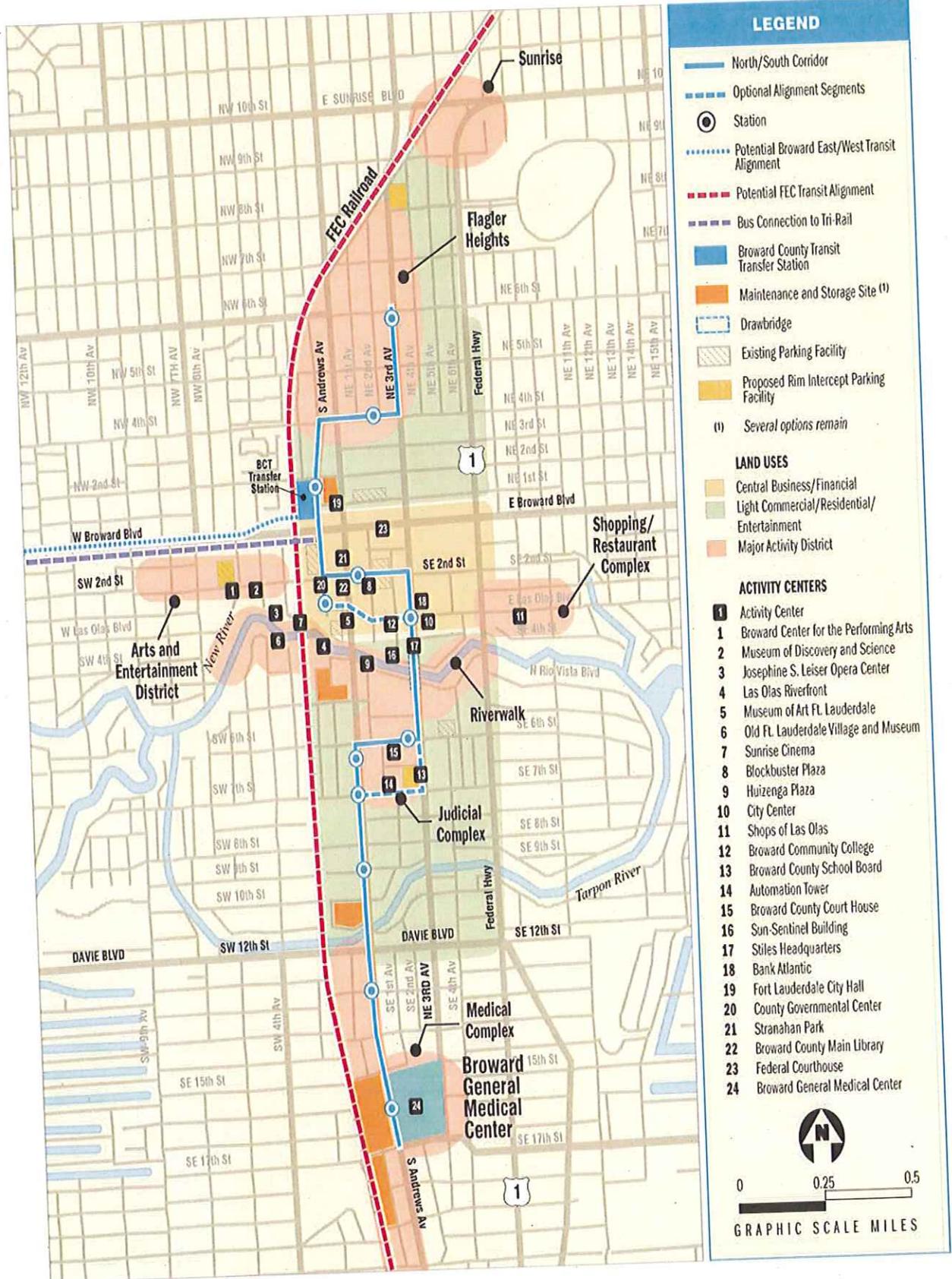
One potential constraint of the project is the current ceiling on housing units in Downtown set by the Broward County Land Use Plan. In the Downtown Regional Activity Center, of the 11,060 approved and flex units, 6,464 total housing units are available for development. The South Regional Activity Center contains 936 units approved for development, and another 475 flex units, with a cap of 1,411 residential units. These caps have been increased through requests by the City on the basis that Downtown infrastructure can support additional units. This current housing unit cap is lower than the innate holding capacity of the vacant and underdeveloped sites implied by existing zoning. Funding and completion of the WAVE Streetcar and other transit infrastructure would support the further lifting of this ceiling towards the inherent capacity of the land under the existing zoning.

## **8.0 SUMMARY**

While Fort Lauderdale is beginning to achieve the vision set out in its land use plans and development forecasts, the WAVE Streetcar remains the missing link to fully achieving the Fort Lauderdale of the future. Transit investment will be a driving factor in achieving the desired density capacity of local land use plans.

The purpose of the Fort Lauderdale WAVE Streetcar is to realize the growth and development patterns prescribed in local land use plans, to improve mobility, to connect major activity centers and neighborhoods, and to improve transit service. The future growth of Downtown Fort Lauderdale will be severely constrained without the implementation of a major transit investment that provides a high level of transportation mobility in the project area. The WAVE Streetcar will provide a sustainable and permanent transportation investment that is strongly supported by local land use plans and eagerly awaited by the Fort Lauderdale community.

# PROJECT MAP



## LEGEND

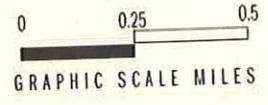
- North/South Corridor
- - - Optional Alignment Segments
- Station
- ⋯ Potential Broward East/West Transit Alignment
- - - Potential FEC Transit Alignment
- - - Bus Connection to Tri-Rail
- Broward County Transit Transfer Station
- Maintenance and Storage Site <sup>(1)</sup>
- Drawbridge
- Existing Parking Facility
- Proposed Rim Intercept Parking Facility
- <sup>(1)</sup> Several options remain

## LAND USES

- Central Business/Financial
- Light Commercial/Residential/Entertainment
- Major Activity District

## ACTIVITY CENTERS

- 1 Activity Center
- 1 Broward Center for the Performing Arts
- 2 Museum of Discovery and Science
- 3 Josephine S. Leiser Opera Center
- 4 Las Olas Riverfront
- 5 Museum of Art FL Lauderdale
- 6 Old Ft. Lauderdale Village and Museum
- 7 Sunrise Cinema
- 8 Blockbuster Plaza
- 9 Huizenga Plaza
- 10 City Center
- 11 Shops of Las Olas
- 12 Broward Community College
- 13 Broward County School Board
- 14 Automation Tower
- 15 Broward County Court House
- 16 Sun-Sentinel Building
- 17 Stiles Headquarters
- 18 Bank Atlantic
- 19 Fort Lauderdale City Hall
- 20 County Governmental Center
- 21 Stranahan Park
- 22 Broward County Main Library
- 23 Federal Courthouse
- 24 Broward General Medical Center



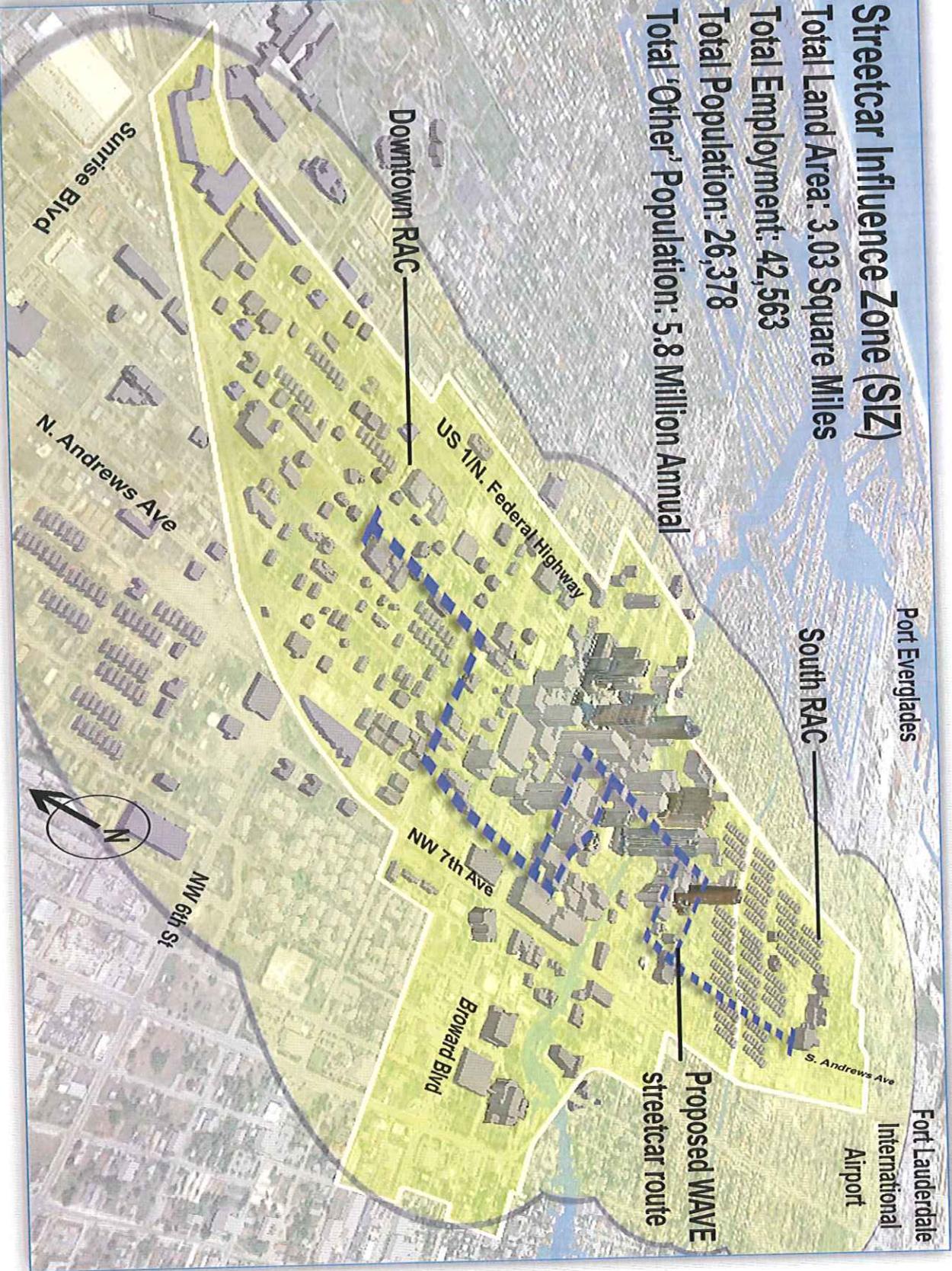
# Streetcar Influence Zone (SIZ)

Total Land Area: 3.03 Square Miles

Total Employment: 42,563

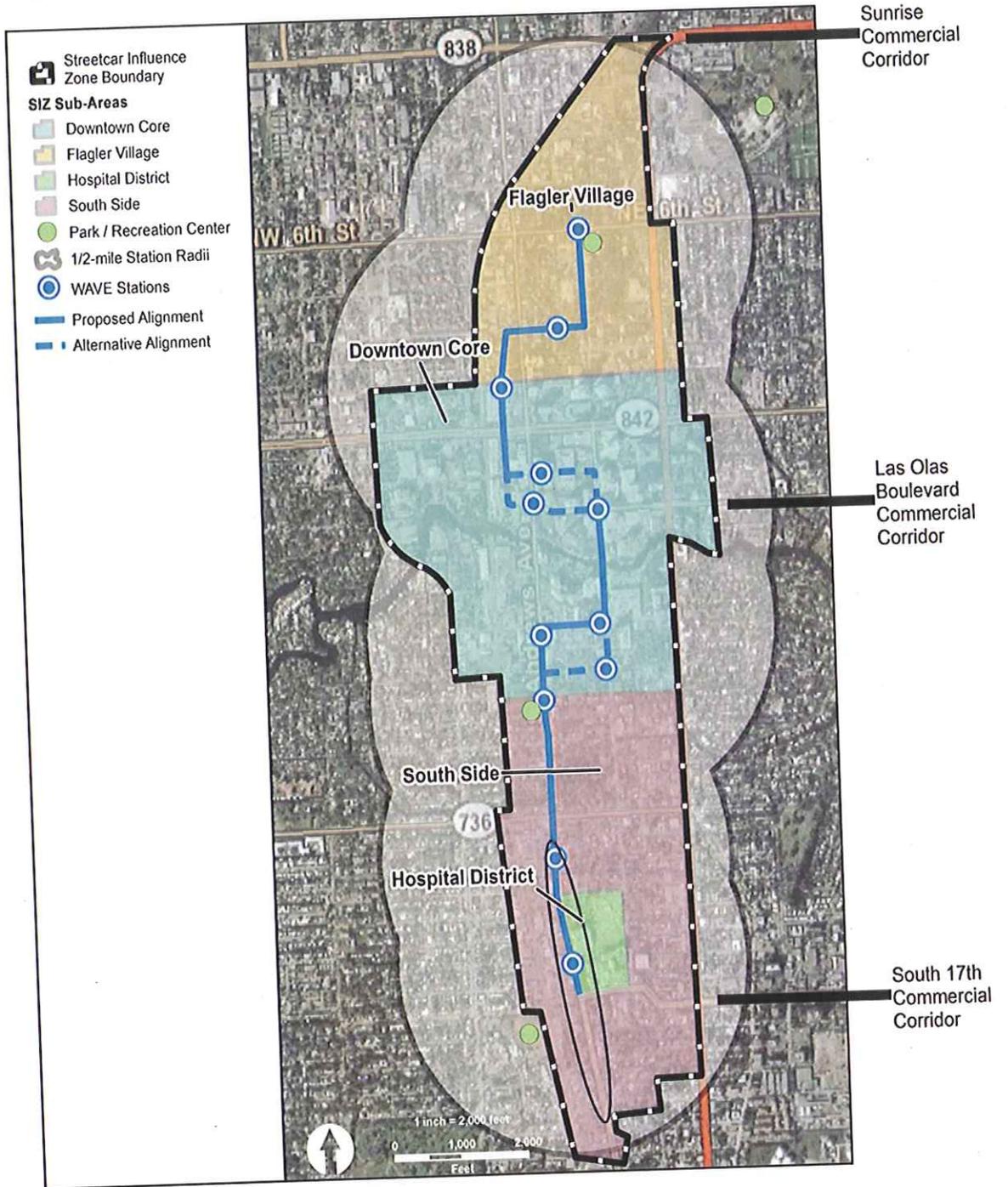
Total Population: 26,378

Total 'Other' Population: 5.8 Million Annual

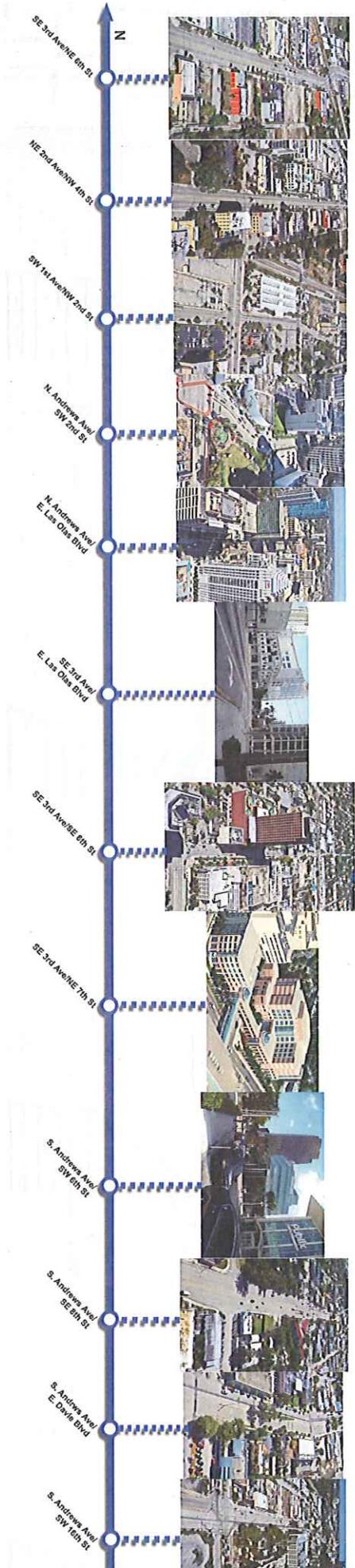


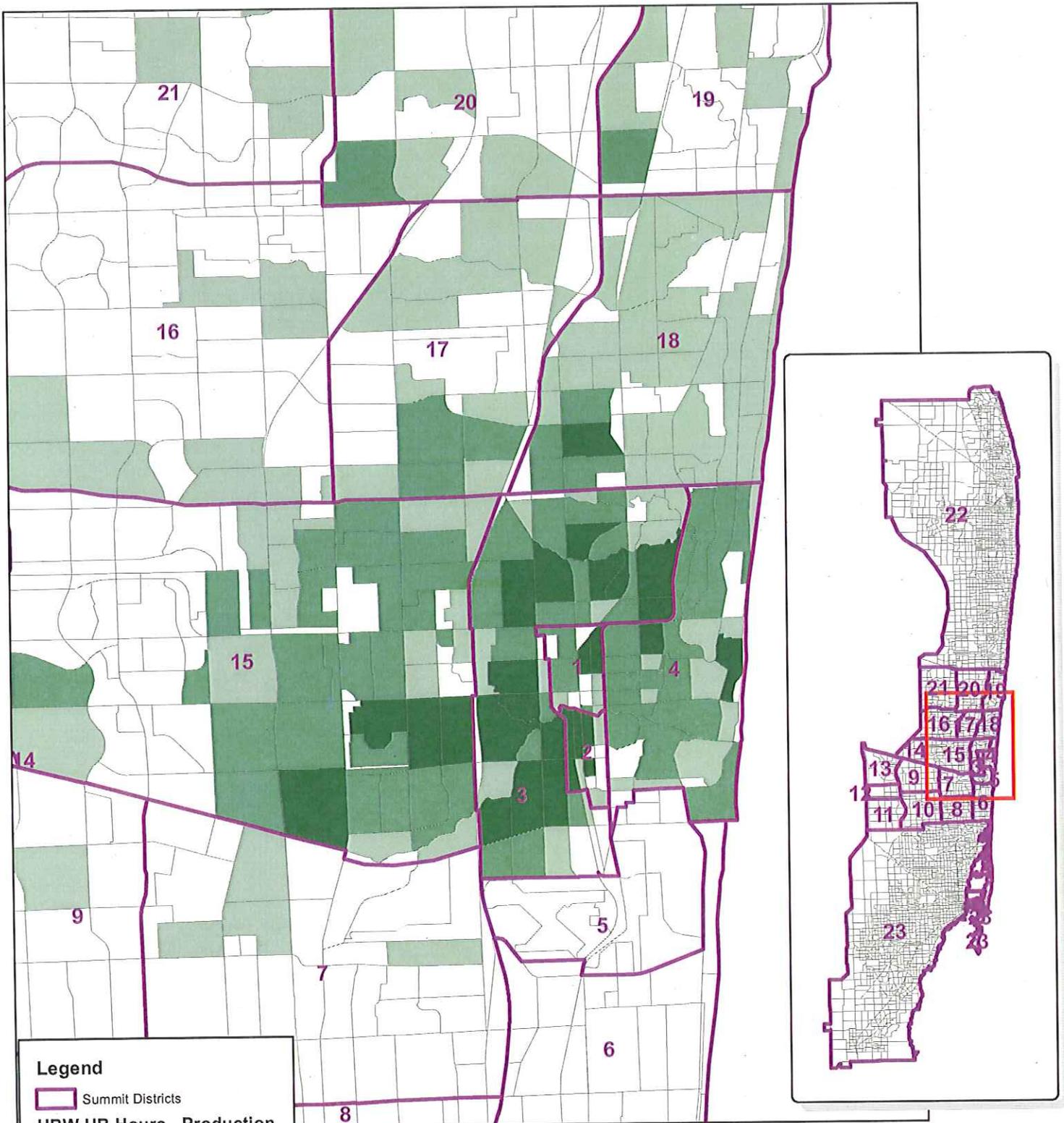


Sub-District Map



# WAVE STREETCAR STATION LOCATIONS





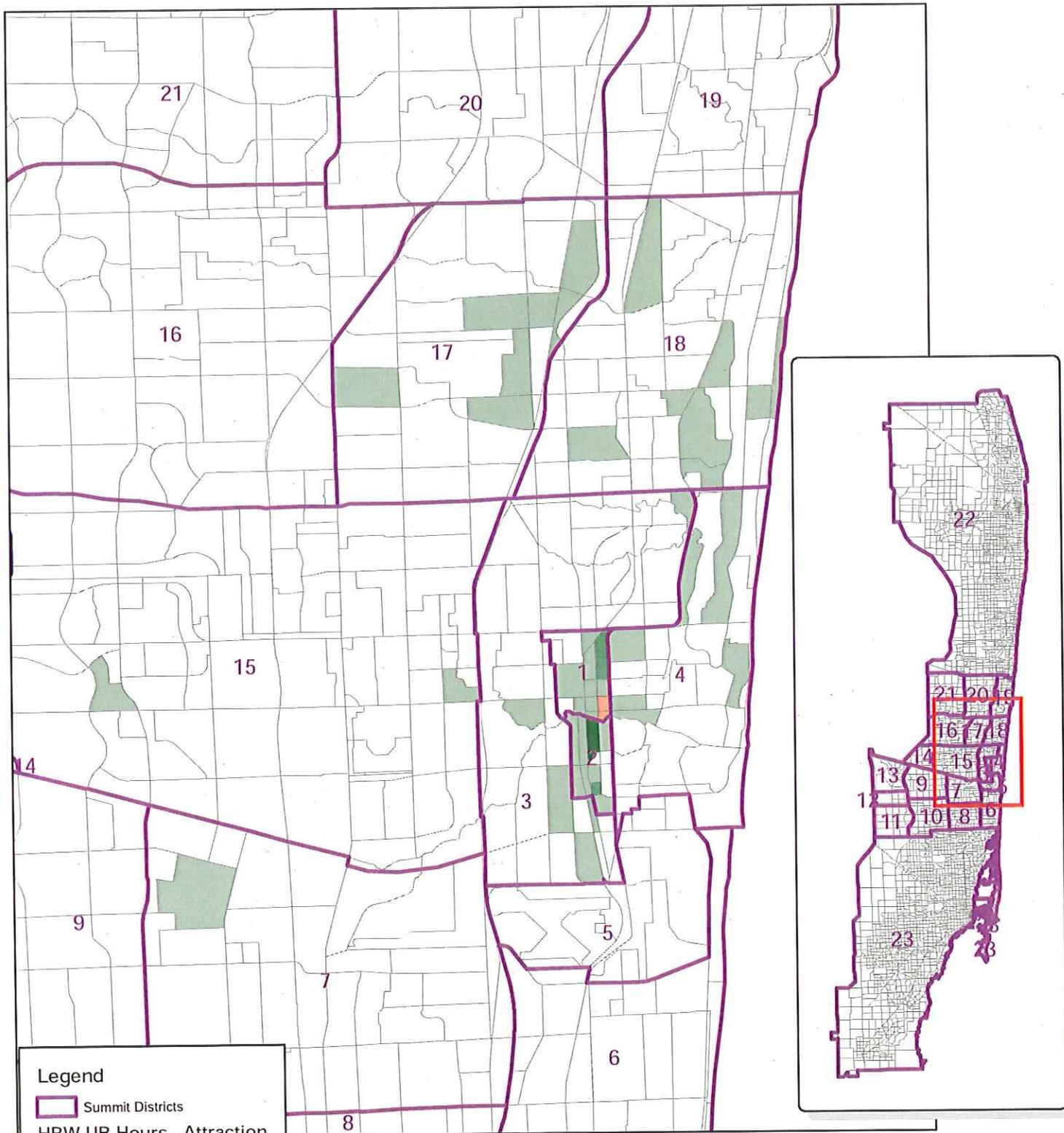
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-  Summit Districts
- HBW UB Hours - Production**
-  Significant Disbenefits (-30.4 - -3.6)
-  Medium Disbenefits (-3.6 - -1.3)
-  Small Disbenefits (-1.3 - -0.4)
-  Negligible Benefits (-0.4 - 0.4)
-  Small Benefits (0.4 - 1.3)
-  Medium Benefits (1.3 - 3.6)
-  Significant Benefits (3.6 - 30.4)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011





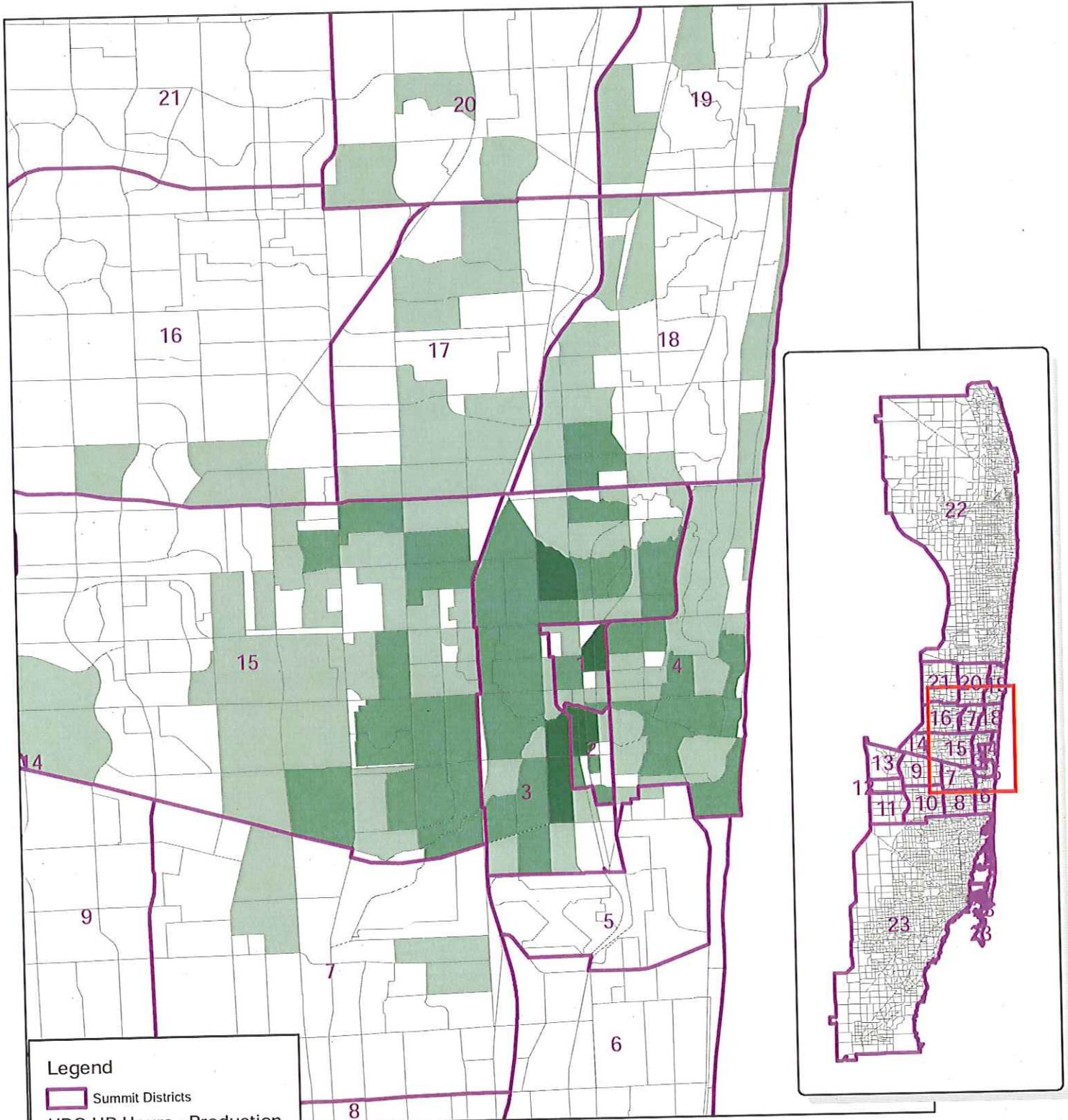
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- Summit Districts
- HBW UB Hours - Attraction**
- Significant Disbenefits (-175.0 - -151.9)
- Medium Disbenefits (-151.9 - -32.8)
- Small Disbenefits (-32.8 - -0.6)
- Negligible Benefits (0.6 - 0.6)
- Small Benefits (0.6 - 32.8)
- Medium Benefits (32.8 - 151.9)
- Significant Benefits (151.9 - 175.0)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011





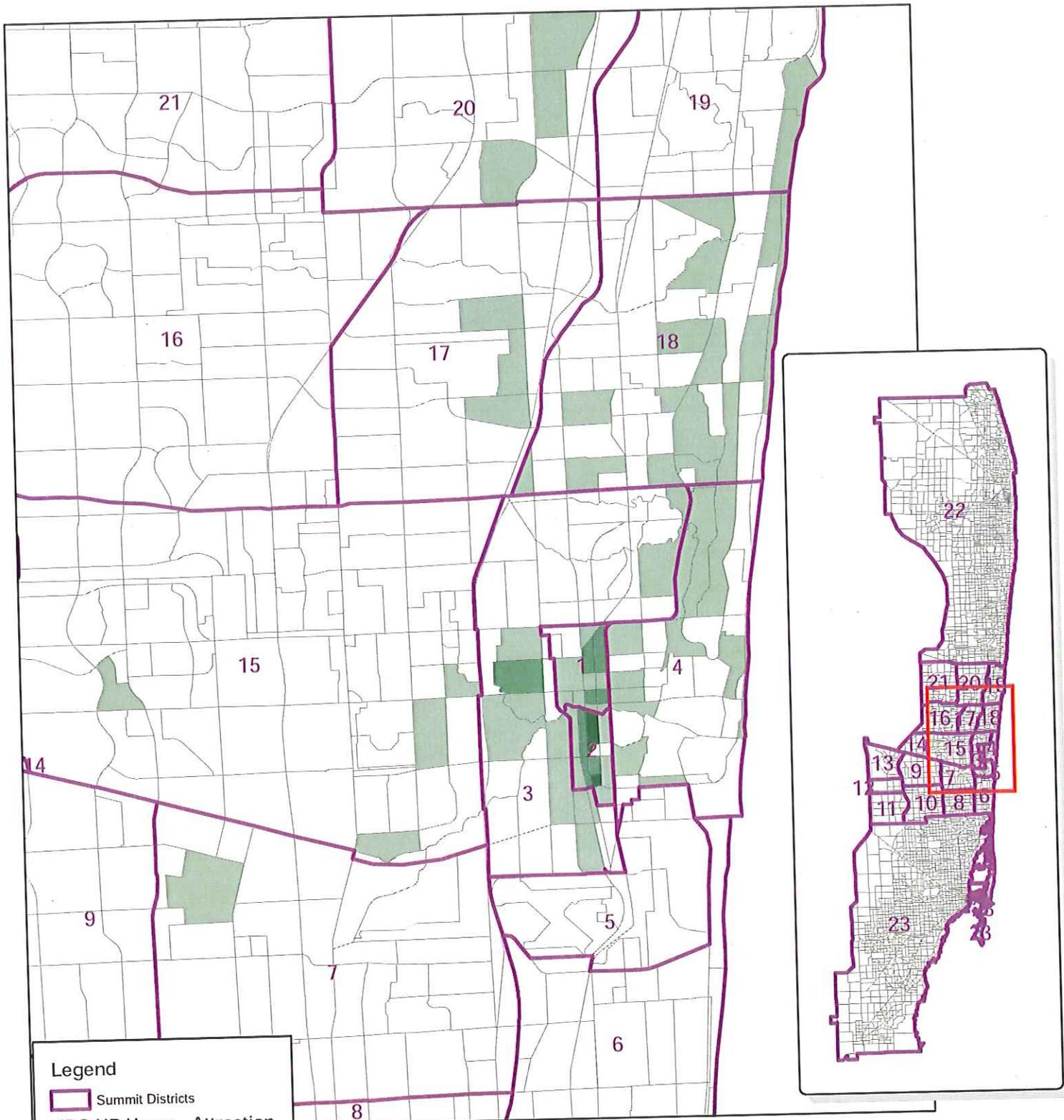
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-  Summit Districts
- HBO UB Hours - Production**
-  Significant Disbenefits (-67.0 - -9.3)
-  Medium Disbenefits (-9.3 - -1.8)
-  Small Disbenefits (-1.8 - -0.5)
-  Negligible Benefits (-0.5 - 0.5)
-  Small Benefits (0.5 - 1.8)
-  Medium Benefits (1.8 - 9.3)
-  Significant Benefits (9.3 - 67.0)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011



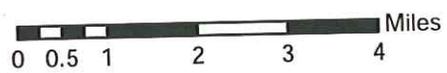


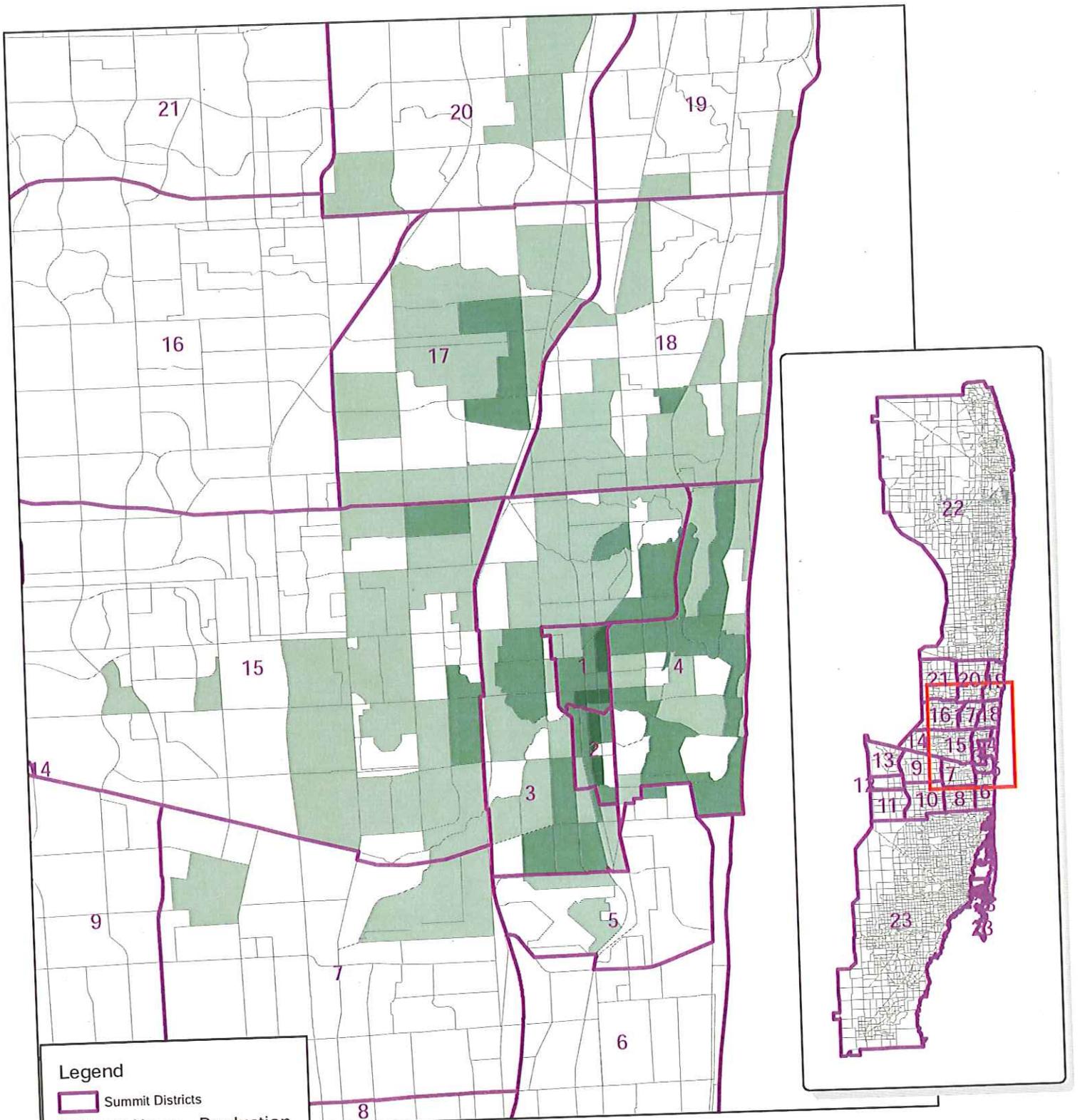
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- Summit Districts
- HBO UB Hours - Attraction**
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- Medium Disbenefits (-72.3 - -7.2)
- Small Disbenefits (-7.2 - -0.6)
- Negligable Benefits (-0.6 - 0.6)
- Small Benefits (0.6 - 7.2)
- Medium Benefits (7.2 - 72.3)
- Significant Benefits (72.3 - 112.0)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011





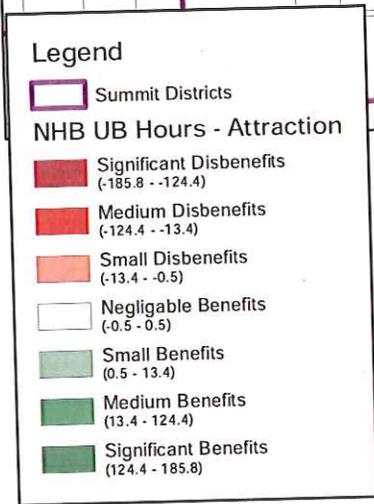
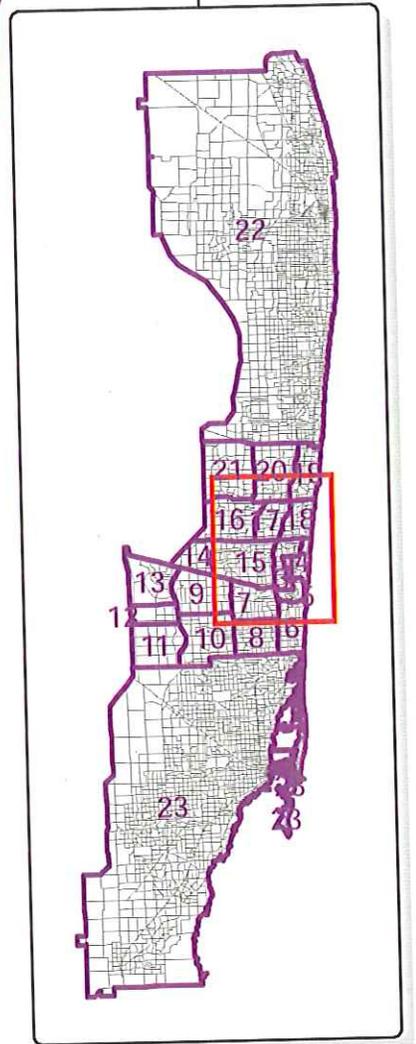
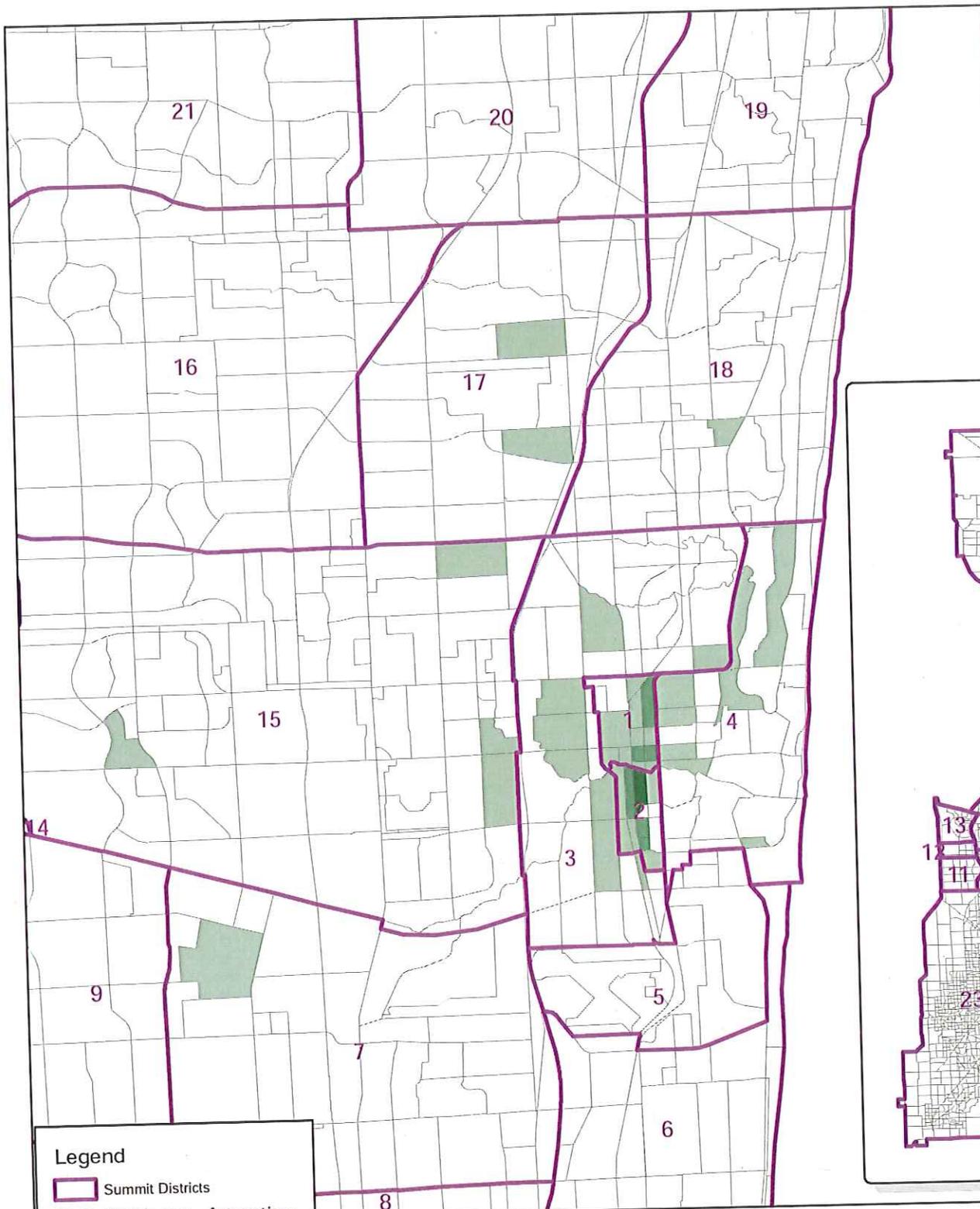
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- Summit Districts
- NHB UB Hours - Production**
- Significant Disbenefits (-69.4 - -10.0)
- Medium Disbenefits (-10.0 - -1.5)
- Small Disbenefits (-1.5 - -0.4)
- Negligible Benefits (-0.4 - 0.4)
- Small Benefits (0.4 - 1.5)
- Medium Benefits (1.5 - 10.0)
- Significant Benefits (10.0 - 69.4)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011

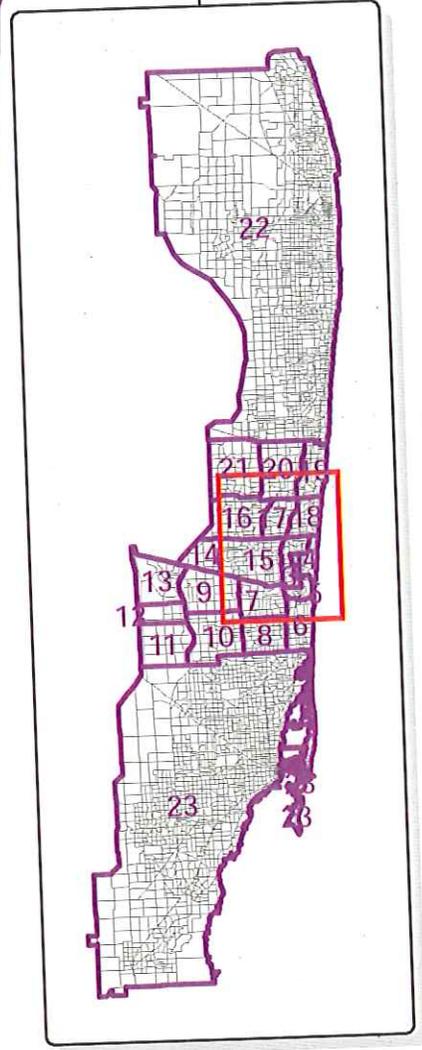
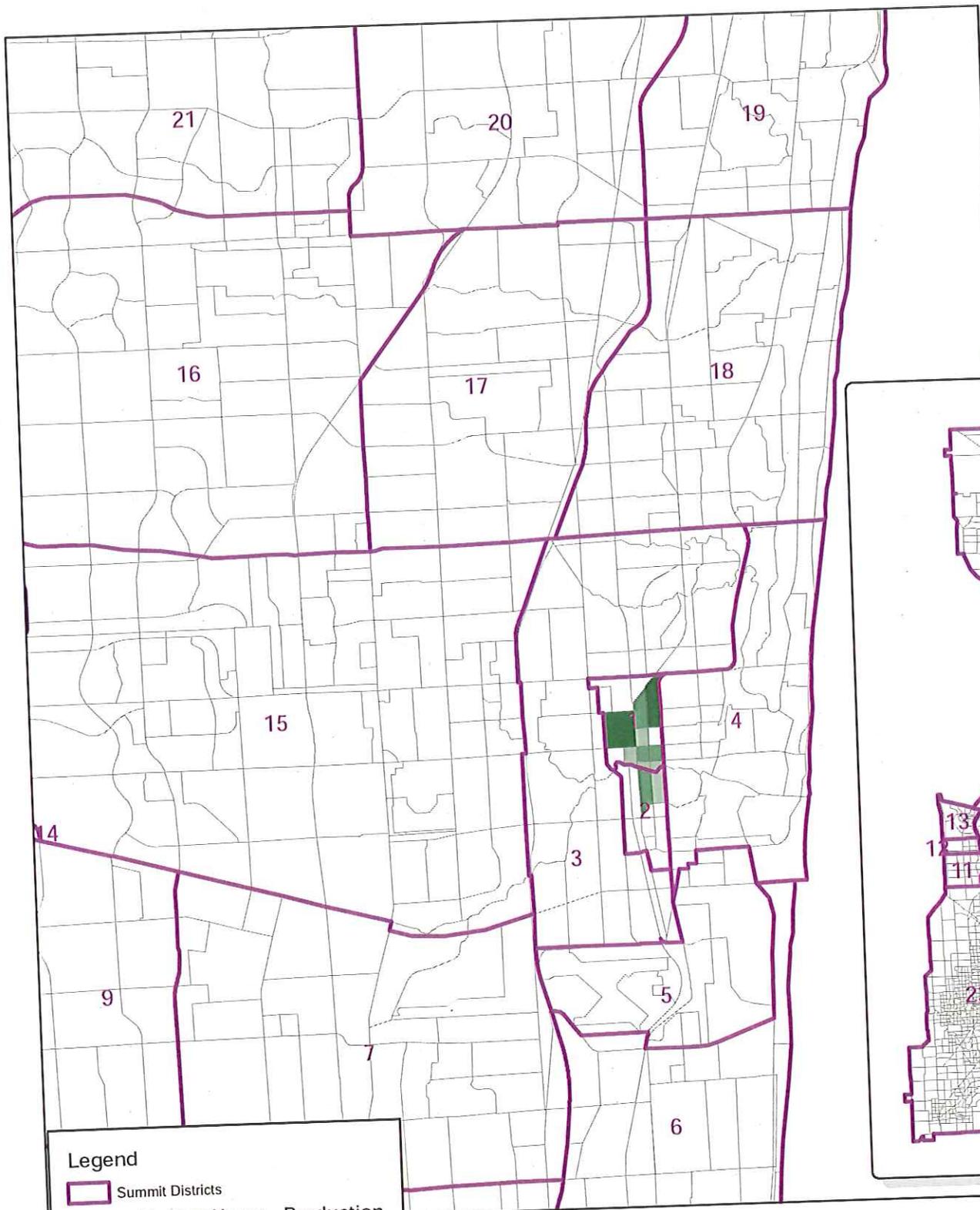




# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011



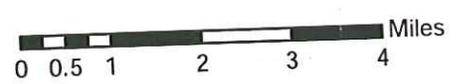


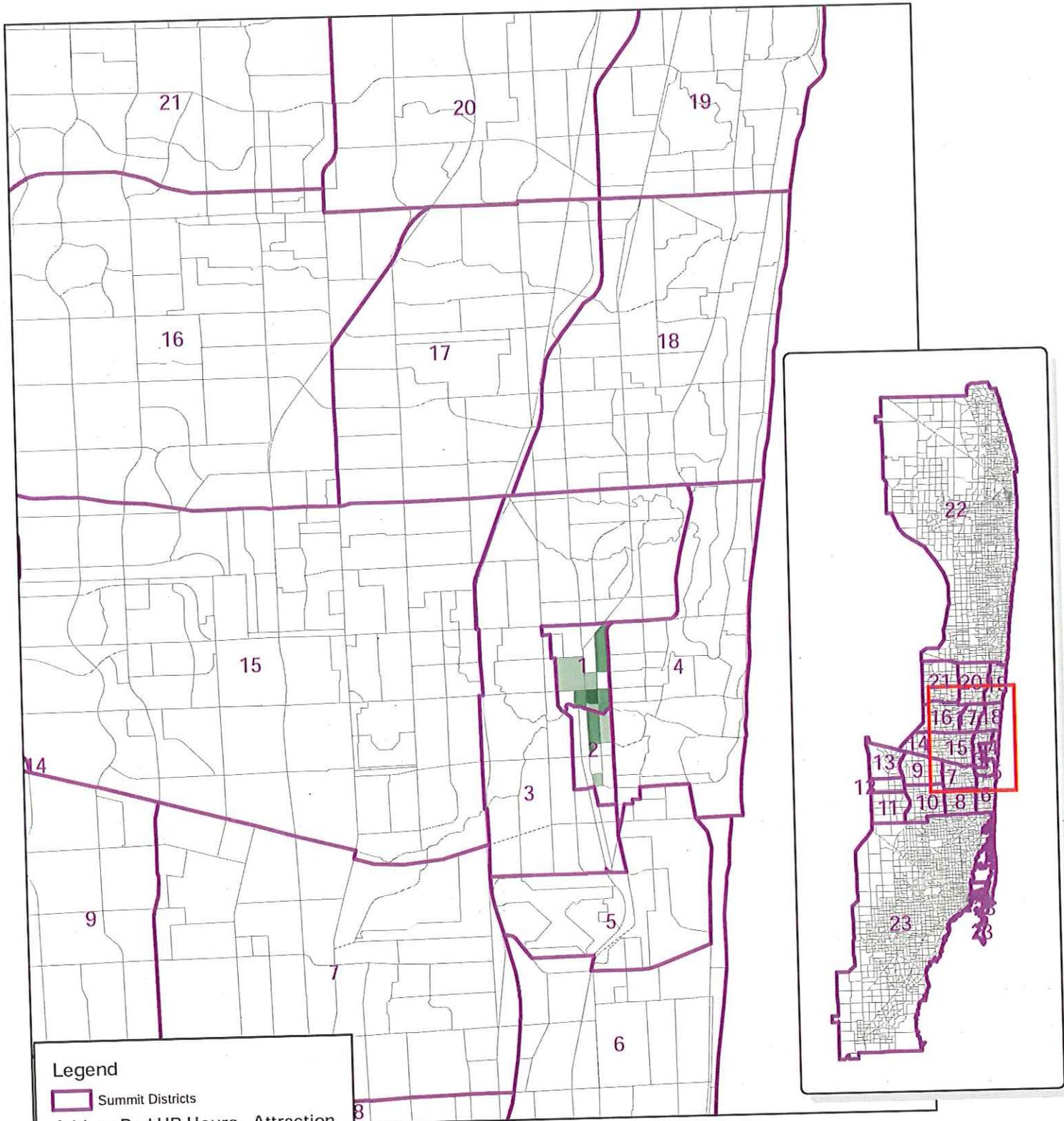
**Legend**

- Summit Districts
- Add-on Ped UB Hours - Production**
- Significant Disbenefits (-30.2 - -24.9)
- Medium Disbenefits (-24.9 - -9.9)
- Small Disbenefits (-9.9 - -6.1)
- Negligable Benefits (-6.1 - 6.1)
- Small Benefits (6.1 - 9.9)
- Medium Benefits (9.9 - 24.9)
- Significant Benefits (24.9 - 30.2)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011



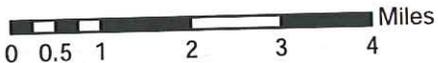


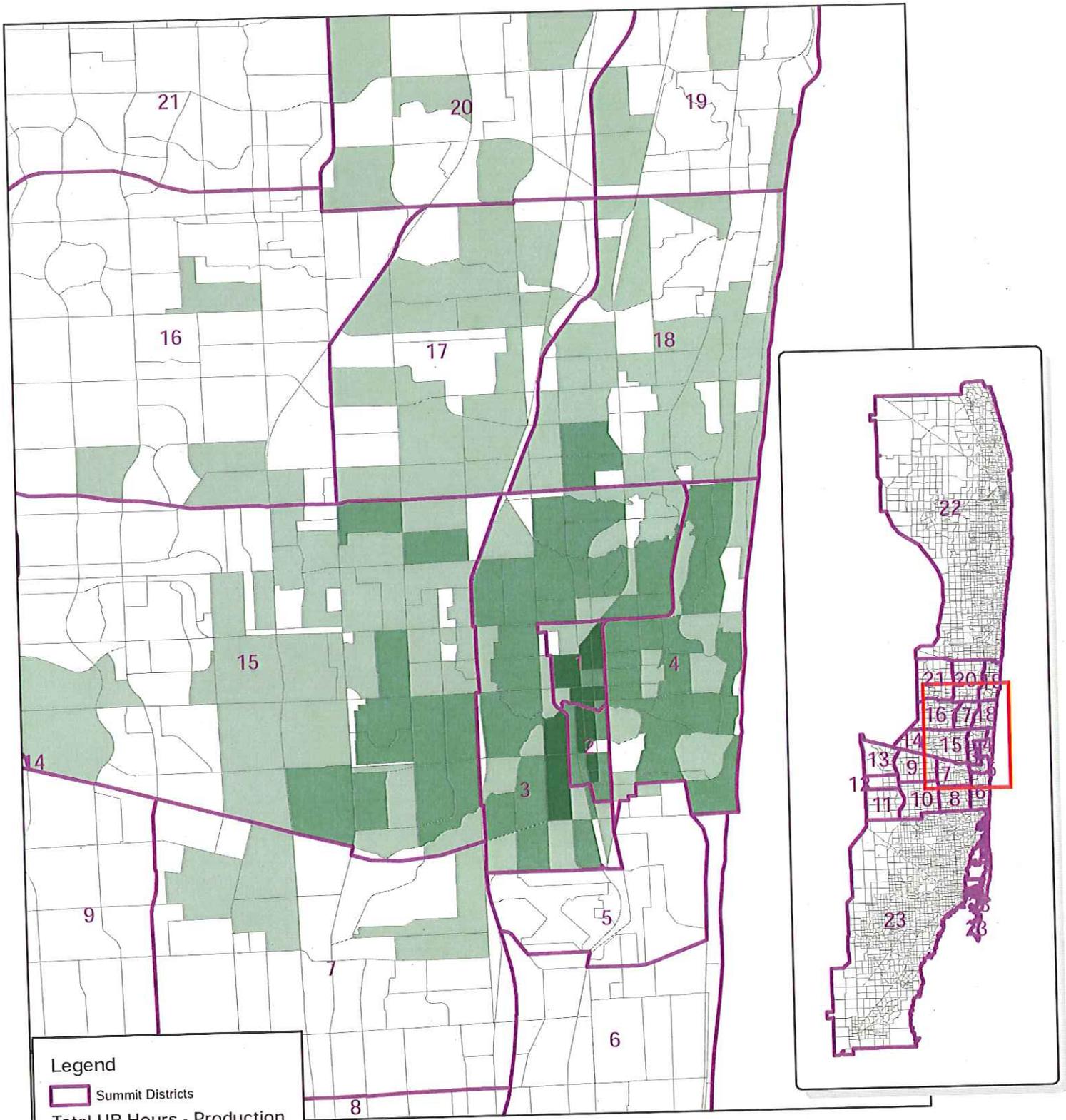
**Legend**

-  Summit Districts
- Add-on Ped UB Hours - Attraction**
-  Significant Disbenefits (-52.5 - -42.4)
-  Medium Disbenefits (-42.4 - -9.9)
-  Small Disbenefits (-9.9 - -4.3)
-  Negligible Benefits (-4.3 - 4.3)
-  Small Benefits (4.3 - 9.9)
-  Medium Benefits (9.9 - 42.4)
-  Significant Benefits (42.4 - 52.5)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011



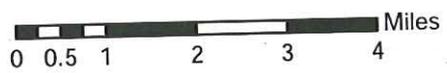


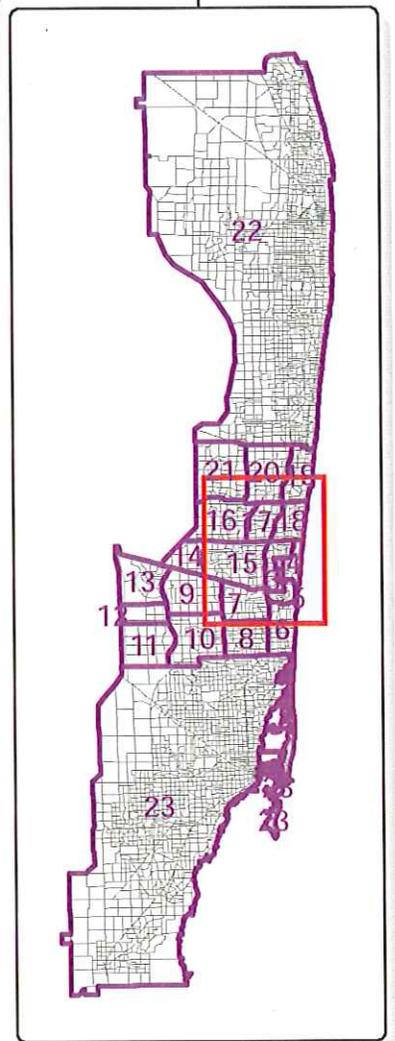
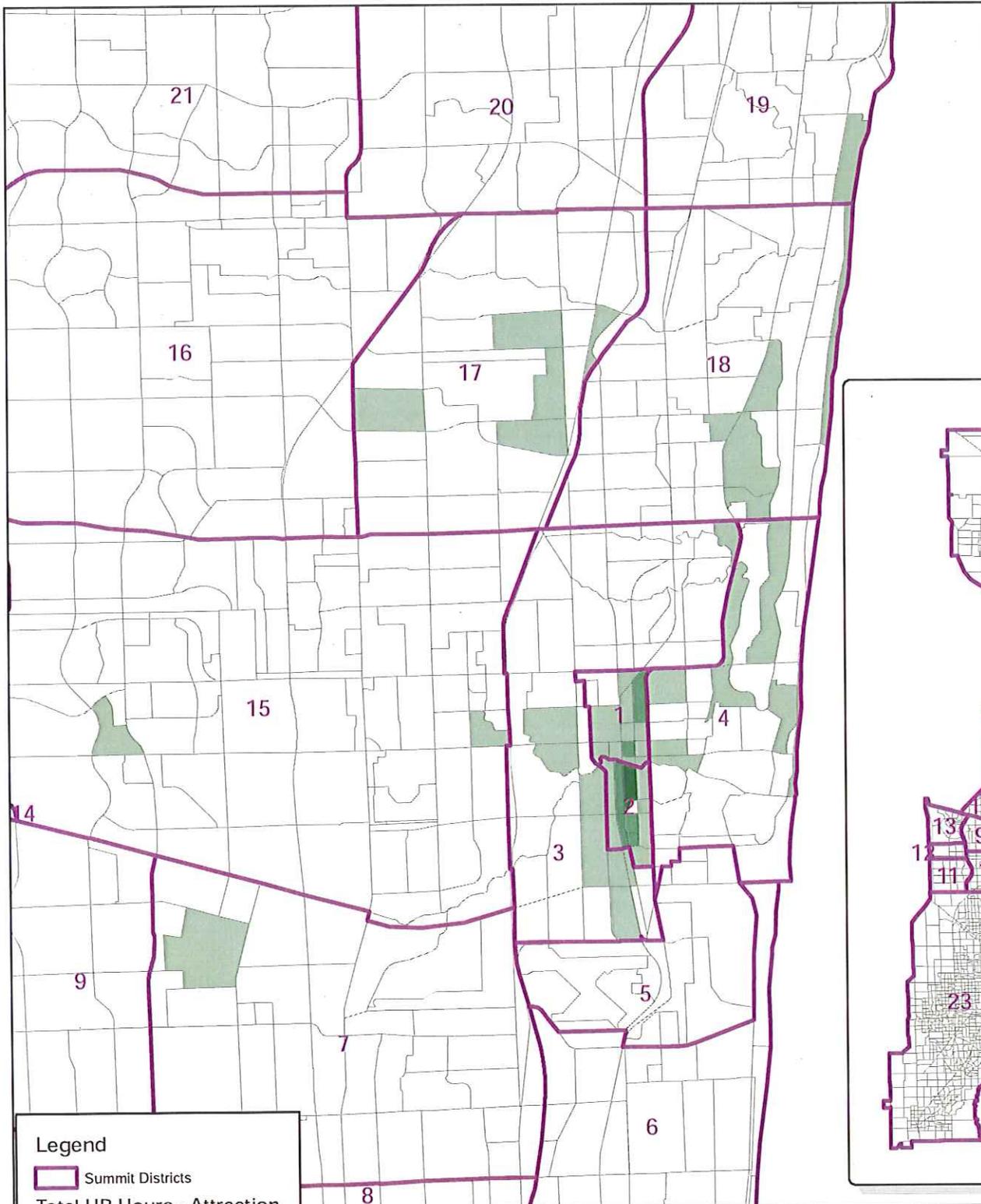
**Legend**

-  Summit Districts
- Total UB Hours - Production**
-  Significant Disbenefits (-125.1 - -23.4)
-  Medium Disbenefits (-23.4 - -5.0)
-  Small Disbenefits (-5.0 - -1.3)
-  Negligible Benefits (-1.3 - 1.3)
-  Small Benefits (1.3 - 5.0)
-  Medium Benefits (5.0 - 23.4)
-  Significant Benefits (23.4 - 125.1)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011



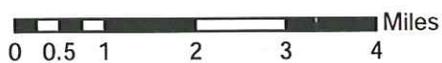


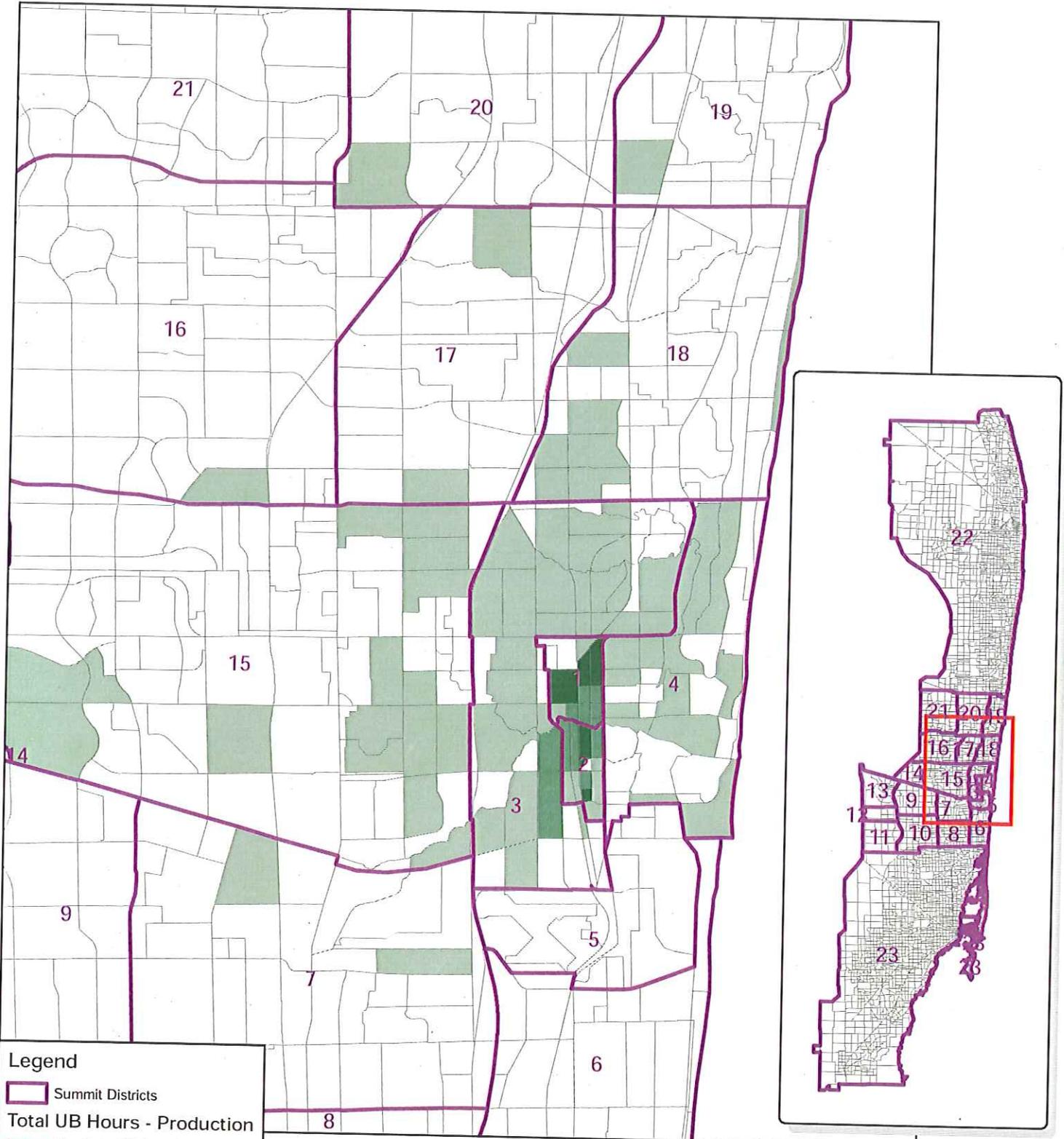
**Legend**

- Summit Districts
- Total UB Hours - Attraction**
- Significant Disbenefits (-505.0 - -398.5)
- Medium Disbenefits (-398.5 - -37.4)
- Small Disbenefits (-37.4 - -1.7)
- Negligable Benefits (-1.7 - 1.7)
- Small Benefits (1.7 - 37.4)
- Medium Benefits (37.4 - 398.5)
- Significant Benefits (398.5 - 505.0)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Baseline vs. No Build - 8-30-2011





**Legend**

-  Summit Districts
- Total UB Hours - Production**
-  Significant Disbenefits (-11.6 - -4.1)
-  Medium Disbenefits (-4.1 - -1.3)
-  Small Disbenefits (-1.3 - -0.1)
-  Negligable Benefits (-0.1 - 0.1)
-  Small Benefits (0.1 - 1.3)
-  Medium Benefits (1.3 - 4.1)
-  Significant Benefits (4.1 - 11.6)

# Fort Lauderdale Downtown Circulator Summit User Benefits

Build vs. Baseline - 8-30-2011





**TRAVEL FORECASTS TEMPLATE (OPENING YEAR)**

**PROJECT NAME:**

Line	Trip-Purpose-Specific Information	Source	Purpose 1	Purpose 2	Purpose 3	Purpose 4	Purpose 5	Purpose 6	Purpose 7	Purpose 8	DAILY TOTAL
1	Daily transit trips, Baseline Alternative	Summit: table 30	116,309	76,600	67,146	97,718	32,438	34,001			424,212
2	Daily transit trips, Build Alternative	Summit: table 40	116,309	76,600	67,146	97,718	32,438	34,001			424,212
3	Daily person trips, Build Alternative	Summit: table 20	2,752,466	1,852,853	4,695,542	6,015,478	1,752,495	3,524,049			20,592,833
4	Daily hours of user benefits (UB)	Summit: table 70 / 60	0	0	0	0	0	0			0
5	Positive UB hours from coverage changes	Summit: (tables 44+47+48) / 60									0
6	Change in hours of UBs due to capping	Summit: capping impact / 60									0
7	Daily hours of UBs for transit dependents	Summit: standard report									0
<b>Trip-Purpose-Specific Quality-Control Measures</b>											
8	Daily new transit trips		0	0	0	0	0	0	0	0	0
9	Daily new transit trips -- distribution (%)		0%	0%	0%	0%	0%	0%	0%	0%	0%
10	Daily user benefits -- distribution (%)		0%	0%	0%	0%	0%	0%	0%	0%	0%
11	Daily transit trips, Baseline Alternative -- distribution (%)		27%	13%	16%	23%	8%	8%	0%	0%	100%
12	Percent change in user benefits due to capping		0%	0%	0%	0%	0%	0%	0%	0%	0%
13	Percent of user benefits accruing to transit dependents		0%	0%	0%	0%	0%	0%	0%	0%	0%

Line	Special-Markets Information	Source	Unincluded Attributes	Market 2	Pedestrians (Daily)	Events (Yearly total)	Market 5	Market 6	Market 7	Market 8	ANNUAL TOTAL
14	Special-market project trips per event-day	Special-market forecasts	2,250		957	71,403					1,043,124
15	Special-market UB hours per event-day	Special-market forecasts	74		38	2,678					36,614
16	Special-market pass-miles per event-day	Special-market forecasts	2,287		721	71,403					982,827
17	Annualization factor (event-days / year)	Special-market forecasts	303		303	1					---
<b>Special-Markets Quality-Control Measures</b>											
18	Annual new transit trips, special markets only -- distribution (%)		65%	0%	28%	7%	0%	0%	0%	0%	100%
19	Annual user benefits, special markets only -- distribution (%)		61%	0%	31%	7%	0%	0%	0%	0%	100%
20	Minutes of user benefits per project trip, special markets only		2.0	0.0	2.4	2.3	0.0	0.0	0.0	0.0	2.1

Line	General Information	Source	Entry	General Information	Source	Entry
21	Annualization factor (days/year)	Current/similar guideway	303			
22	Daily project trips, no special mkt	Travel forecasts	0	Station-area employees (within 1/2 mile)	Linked from Land Use Template	0
23	Daily project trips, transit dependents	Travel forecasts	0	Station-area residents (within 1/2 mile)	Linked from Land Use Template	0
24	Daily project pass-miles, no special mkt	Travel forecasts	0	Project length (miles)	Linked from Project Descrip Template	0.0
25	Daily project pass-miles, tm dependents	Travel forecasts	0			
<b>General Quality Control Measures (Excluding Special Markets)</b>						
26	Minutes of user benefits per daily project trip (before capping)		0.0	Daily project trips per station area employee		0.00
27	Minutes of user benefits per daily project trip (after capping)		0.0	Daily project trips per station area resident		0.00
28	Percent of user benefits that are coverage related		0%	Daily minutes of user benefits per station area employee		0.00
29	Percent of user benefits that are off-model		100%	Daily minutes of user benefits per station area resident		0.00
30	Percent of project trips that are new transit trips		0%			
31	Project average trip distance / project length		0%			



## 4.0 O&M COSTS

Annual operating and maintenance costs were estimated in accordance with FTA planning guidelines and based on best industry practices. Based on an operating plan for streetcar service at 7.5 minute frequencies with four vehicles, the annual operating and maintenance (O&M) costs are estimated to total \$2,600,809 (in 2011 dollars). These totals include operators, management, administration, vehicle and facilities maintenance, fuel, energy and other expenses.

### 4.1 Summary of O&M Cost Productivities

A summary of O&M cost estimates results, including operating assumptions, O&M model methodology and structure are presented in this section. Detailed documentation on methodology, structure, inputs and productivity factors are provided in *Operating and Maintenance Cost Estimating Methodology DRAFT Report (July 2007)*.

#### 4.1.1 Operating Assumptions

The Downtown Transit Circulator (DTC) is a modern streetcar system proposed starting from NW 6<sup>th</sup> Street, connecting the major employment centers and primary activity centers in downtown and terminate near Broward General Medical Center to the south at SE 17<sup>th</sup> Street. The streetcar system (Build alternative) would operate on 5.24 directional round trip miles with transit signal priority, serving ten (10) stations and requiring four streetcars during peak service. The Baseline alternative would operate with the same assumptions as the Build alternative utilizing a bus. General operating assumptions and plans were developed for each of the alternatives to meet projected service levels and are summarized below:

Span of Service – The following span of service is assumed for the proposed Baseline and Build alternatives:

- Monday-Thursday – 5:30 am-12:00 am (18.5 hours)
- Friday-Saturday – 5:00 am-1:00 am (20 hours)
- Sunday-Holiday – 7:00 am-10:00 pm (15 hours)

Service Frequency – The following headways were assumed:

- Monday-Thursday – 7.5 minutes peak and off peak periods (5:30 am-6:30pm), and 15 minutes during the evening period (6:30 pm-12:00 am)
- Friday-Saturday – 7.5 minutes peak and off peak periods (5:30 am-6:30pm) and 15 minutes evening period (6:30 pm-1:00 am)
- Sunday-Holiday – 15 minutes all day (7:00 am-10:00 pm)

Days of Operation – The annual days of operation assumed are 254 weekdays, 52 Saturdays and 59 Sundays & Holidays. Daily service may be augmented with higher frequencies and use of a spare vehicle to support higher ridership demands during special events.

Table 4-1 presents the operating requirements and estimates of annual revenue vehicle-hours and vehicle-miles based on level of service.

**Table 4-1: Downtown Transit Circulator Operating Requirements**

Run Time (min)	Distance (miles)	---Headway---			----Annual Revenue----		Lay Over	Cycle Time	---Cars---	
		Day	Peak	Off-Peak	Car-Miles	Veh-Hours			Peak	Off-Pk
26.20	5.24	Mon-Thurs	7.5		69,200	6,600	3.8	30.0	4	
					69,200	6,600	3.8	30.0		4
				Evening	15.0	29,300	2,790	3.8		30.0
		Fri-Sat	7.5		15,300	1,460	3.8	30.0	4	
					14,200	1,350	3.8	30.0		4
		Evening		15.0	7,100	680	3.8	30.0	2	
		Sundays	15.0		18,500	1,770	3.8	30.0	2	

**ESTIMATED TOTALS:**    21,250    annual revenue vehicle-hours  
    222,800    annual revenue vehicle-miles  
**PEAK VEHICLE REQUIREMENT:**    4    vehicles  
**FLEET VEHICLE REQUIREMENT:**    5    vehicles

#### 4.1.2 Methodology and Structure

O&M resource build-up models were developed to estimate operating and maintenance costs (O&M) for streetcar operations in the Build Alternative. The LRT model includes 2004 NTD data of 16 LRT peer systems, Broward County Transit (BCT) labor & fringe benefit costs (with 15% premium for LRT compared to BCT bus operations) and Miami-Dade Transit propulsion power demand and costs for MetroMover and MetroRail. Costs were allocated to four variables (train-miles, train-hours, peak cars and directional miles) with a 7% inflation rate from 2004 to 2006. The Streetcar model was developed by modifying the LRT model, using the same methodology, but incorporating 2004 NTD data of BCT bus operations for Labor-Admin/Scheduling and Services and Portland Streetcar general costs for vehicle maintenance, considered more appropriate for streetcar operations. Table 4-2 provides a summary of the O&M cost model applied to the Build Alternative.

**Table 4-2: Build Alternative O&M Cost Model**

	Units	Variable	Unit Cost	Annual Cost
<b>Vehicle Operations</b>				
Labor-Admin & Scheduling		4 Peak Vehicles	\$ 25,377.26	\$ 101,509.04
Labor-Operator Wages & Fringes	21,250	Vehicle Hours	\$ 36.71	\$ 780,087.50
Service		4 Peak Vehicles	\$ 11,078.15	\$ 44,312.60
Propulsion Power - demand		4 Peak Vehicles	\$ 4,951.43	\$ 19,805.72
Propulsion Power - energy	222,800	Vehicle Miles	\$ 0.4517	\$ 100,638.76
<b>Maintenance</b>				
Vehicle Maintenance - Labor		4 Peak Vehicles	\$ 50,000.00	\$ 200,000.00
Vehicle Maintenance - Services		4 Peak Vehicles	\$ 48,000.00	\$ 192,000.00
Vehicle Maintenance - Materials and Supplies		4 Peak Vehicles	\$ 14,875.00	\$ 59,500.00
Non Vehicle Maintenance - Labor and Other		5 Dir. Rte. Miles	\$ 49,746.50	\$ 260,671.66
<b>Other</b>				
Casualty and Liability	21,250	Vehicle Hours	\$ 7.9007	\$ 167,889.88
Labor - General Administration		4 Peak Vehicles	\$ 16,918.33	\$ 67,673.32
Service - General Administration		4 Peak Vehicles	\$ 28,635.64	\$ 114,542.56
			<b>Total</b>	<b>\$ 2,108,631.04</b>
			2% Other Expenses	\$ 42,172.62
			Conversion factor from 2004 to 2006 Dollars	1.07
			2006 Forecast	\$ 2,301,359.91
			Conversion factor from 2006 to 2008 Dollars	1.098
			<b>2008 Forecast</b>	<b>\$ 2,526,893.18</b>

A BCT cost per bus-hour of \$92.11 (source: 2009 National Transit Database) was applied to the estimated annual bus-hours to calculate O&M cost for the Baseline alternative, as shown in Table 4-3.

**Table 4-3: Baseline Alternative O&M Cost Model**

	Annual Bus Hours	2009 dollars
7.5 min peak/7.5 min off-peak/15 min evenings_Sundays_Holidays	21,250	\$ 1,957,338

*BCT Cost per Bus Hour (2009 NTD) \$92.11*

#### 4.1.3 Operating and Maintenance Cost Estimates Results

O&M costs for the Baseline and Build Alternatives were inflated to current year 2011 dollars based on an 1.3% rate of inflation between 2008-2010, 1.6% rate assumed between 2010-2011 based on inflation rate between 2009-2010 (source: U.S Bureau of Labor Statistics). Table 4-3 provides a summary of O&M cost results for both alternatives.

**Table 4-3: Summary of Downtown Transit Circulator O&M Cost Estimates**

	Build Alternative	Baseline Alternative**
<b>Assumptions</b>		
Headway (minutes)		
<i>Peak</i>	7.5	7.5
<i>Off-Peak</i>	7.5	7.5
<i>Evenings/Sundays and Holidays</i>	15	15
Service Hours		
<i>Mon-Thurs</i>	18.5	18.5
<i>Fri-Sat</i>	20	20
<i>Sun &amp; Holidays</i>	15	15
Operating Characteristics		
<i>Annual Vehicle Miles</i>	222,800	222,800
<i>Annual Vehicle Hours</i>	21,250	21,250
<i>Peak Vehicles</i>	4	4
<i>Directional Route Miles</i>	5.24	5.24
<b>Results</b>		
Annual O&M Cost (2011 dollars)*	\$ 2,600,809	\$ 2,020,473
<i>Cost per Vehicle Hour</i>	\$ 122	\$ 95

\* 1.3% rate of inflation between 2008-2010, 1.6% rate assumed between 2010-2011 based on inflation rate between 2009-2010 (source: U.S Bureau of Labor Statistics)

\*\* Based on BCT Cost per Bus Hour (2009 NTD) = \$92.11

**COST-EFFECTIVENESS FOR SMALL STARTS TEMPLATE**

**PROJECT NAME:**

**Cost Effectiveness**

Line	Item	Alternative		Difference	Value	Source/Calculation
		Small Starts Baseline	Small Starts Build			
21	Annualized capital cost (millions of constant 2011 dollars)	\$ 1.742	\$ 10.132	\$ 8	---	Source: SSC Worksheets
22	Total systemwide annual operating and maintenance cost (millions of constant 2011 dollars)	\$ 2.020	\$ 2.601	\$ 1	---	Source: O&M cost models (attach documentation)
23	Total annualized cost in forecast year (millions of constant 2011 dollars)	\$ 4	\$ 13	\$ 9	---	Sum of lines 21 and 22
24	Annual user benefits total (hours)	---	---	54,921	---	Line 6
25	<b>Cost-Effectiveness:</b> Incremental annualized cost / annualized user benefits (\$/hour)	---	---	---	\$163.34	Line 23 divided by line 24
26	Total transit ridership	128,536,236	129,579,360	1,043,124		Linked from Travel Forecasts template
27	<b>Cost Per New Transit Trip:</b> Incremental annualized cost / incremental annual transit trips (\$/hour/trip)				\$8.60	Line 23 divided by line 26

**Fort Lauderdale WAVE Streetcar**

<b>Forecast Run Set</b>	<b>Original As Modeled (SERPM) PB January 2010</b>	<b>As Modeled (SERPM) HDR August 2010</b>	<b>As Modeled (SERPM) HDR August 2010</b>	<b>As modeled, plus Add In for Pedestrians, 2013</b>	<b>As modeled, plus Add In for Pedestrians, 2030</b>	<b>As modeled, plus Add In for Pedestrians, 2013 Adjusted</b>	<b>As modeled, plus Add-ins for pedestrians and events</b>
<b>Assumptions:</b>							
Service Headway (Peak/Offpeak)	7.5/7.5	7.5/7.5	7.5/7.5	7.5/7.5	7.5/7.5	7.5/7.5	7.5/7.5
Assumed Unincluded Attribute Time	1 Minute	1 minute	2 minutes	2 minutes	2 minutes	2 minutes	2 minutes
Assumed In-Vehicle Time discount	0.05	0.05	0.10	0.10	0.10	0.10	0.10
Assumed Fare	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00	\$1.00
Annualization Factor	303	303	303	303	303	303	303
Small Starts Adjustment (FTA-derived)	1.5	1.5	1.5	1.5	1	1.5	1.5
<b>Results:</b>							
Total Regional Person Trips (Daily)	20,592,882	20,592,882	20,592,882	20,598,503	20,601,122	20,598,993	20,598,993
Total Regional Transit Trips (Daily)	424,195	424,194	424,195	425,063	425,493	425,152	425,152
WAVE Trips (Daily)	2,250	2,247	2,250	3,118	3,538	3,207	3,207
Percentage Change							
Project Passenger Miles (Daily)	2,287	2,287	2,287				3,008
Project Passenger Miles (Annualized)	692,961	692,961	692,961	-	126	-	982,827
<b>Total Daily TSUB, Hours</b>	<b>38</b>	<b>38</b>	<b>74</b>	<b>108</b>	<b>126</b>	<b>112</b>	<b>112</b>
Annualized TSUB, Hours	11,514	11,514	22,422	32,845	40,734	33,936	36,614
Adjusted Annual TSUB, hours	17,271	17,271	33,633	49,268	40,734	50,904	54,920
Percentage change to TSUB			95%				63%
Incremental Annualized Costs	\$ 7,942,933	\$ 7,942,933	\$ 8,970,080	\$ 8,970,080	\$ 8,970,080	\$ 8,970,080	\$ 8,970,080
Percentage change to costs							
<b>Cost Effectiveness Index (\$/hr)</b>	<b>\$ 459.90</b>	<b>\$ 459.90</b>	<b>\$ 266.70</b>	<b>\$ 182.07</b>	<b>\$ 220.21</b>	<b>\$ 176.22</b>	<b>\$ 163.33</b>

Source: HDR (+ file from PB and FDOT)

Cost Data 16-August-2011

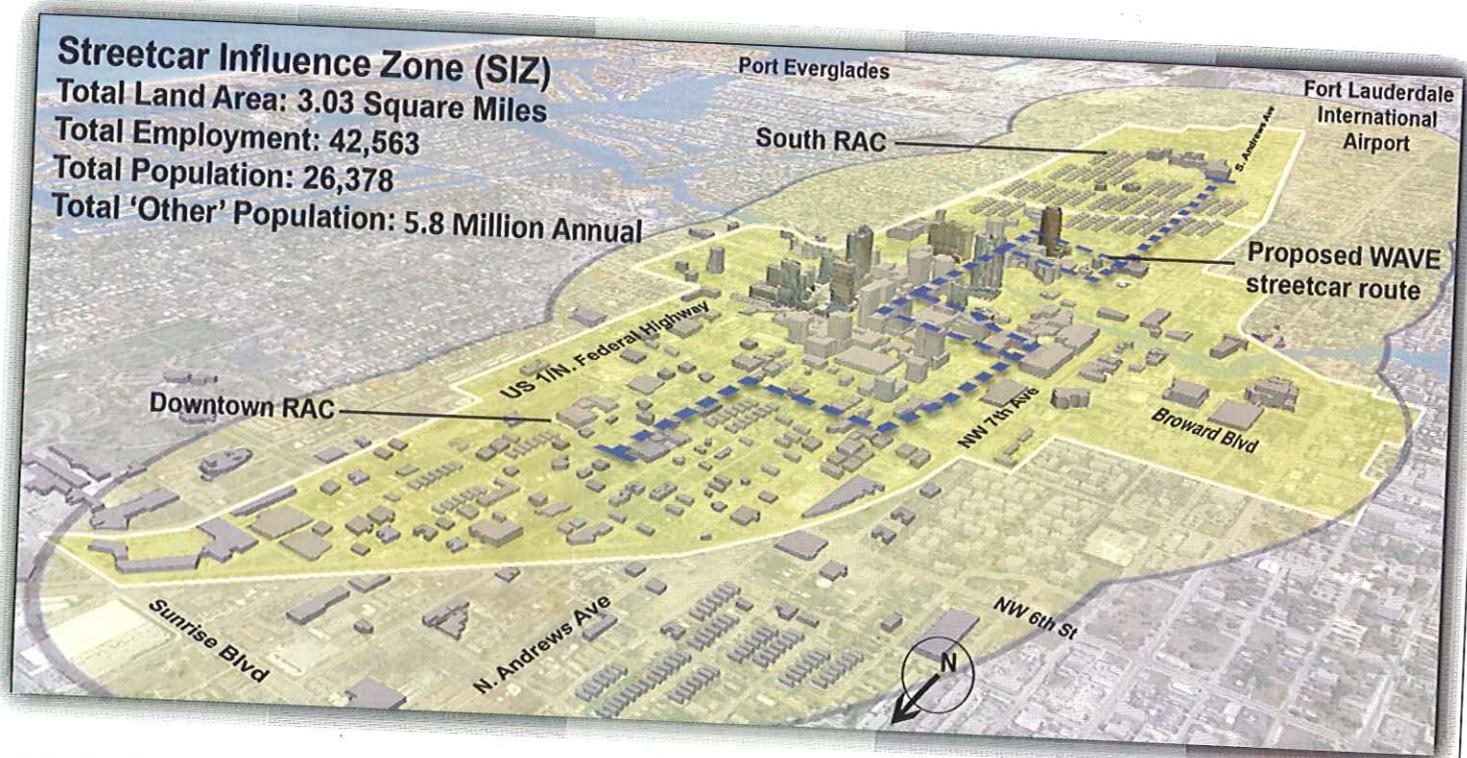
# Qualitative Land Use and Economic Development Information for Small Starts Template

## 1. EXISTING LAND USE [1 to 2 pages]

What is the general character of land use in the proposed New Starts station areas (e.g., types of uses, density of development, pedestrian-oriented design features)?

The alignment for the proposed Fort Lauderdale project, known as the "WAVE Streetcar", forms a strong logical circulation spine inter-connecting all the uses and activities in Fort Lauderdale's Downtown and South Regional Activity Centers (D-RAC) and (S-RAC)<sup>1</sup> as shown in the 3D map below. These RACs are the densest and most diverse in Broward County [<http://gis.broward.org/maps/webPDFs/Pcouncil/futurelanduse36by36.pdf>] and encompass the historic Downtown and adjacent neighborhoods of the county's largest city.

Figure 1: Streetcar Influence Zone

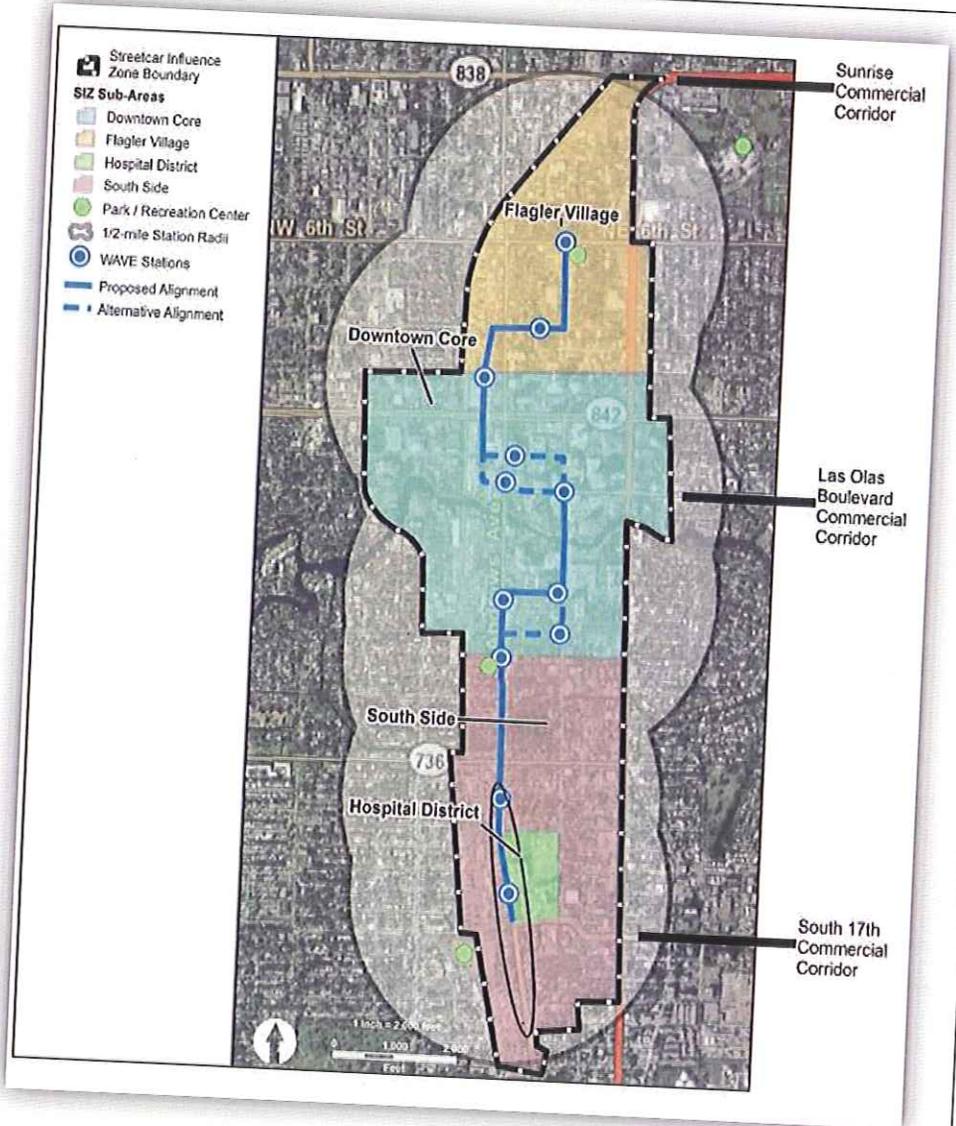


All of the land in the RACs is located within 3/8 mile of the proposed project alignment; approximately 85% of the RAC land area is within 1/4 mile. Based on other cities' experience, the area within 1/4-mile will likely gain the most direct economic benefit from the proposed streetcar project. The WAVE Streetcar will connect to other systems and allow for local circulation in Downtown Fort Lauderdale and the surrounding areas. Consequently, the two RACs form the basic boundaries for this land use/economic development analysis. This area is hereafter referred to as the Streetcar Influence Zone (SIZ). The SIZ has emerged as the County's most dynamic, amenity rich area attractive to diverse populations. Immediately outside the SIZ but intersecting it at the northwest corner is the Northwest RAC, which has historically been a low-income, predominantly

<sup>1</sup> Regional Activity Center: The current definition of a regional activity center, a land-use designation, may be found in Rule 28-24.014(10)(c)(2), Florida Administrative Code. This rule provides that a regional activity center is a compact, high-intensity, high-density, multi-use area designated as appropriate for intensive growth by the local government.

African American community, known as the Sistrunk Boulevard community where revitalization activities have been underway in the last 10 years. Sistrunk Boulevard is also a major transportation spine in that community and is in the midst of a "Complete Streets" rebuilding program. The WAVE Streetcar will intersect with this transportation corridor, providing direct improved access to job opportunities in the Fort Lauderdale Central Business District (CBD).

The SIZ boosts total employment of 42,563 and a total population of 26,378. Important markets (shown as "other population" in Figure 1) not currently calculated within these two categories include the large County and Federal Courthouse daily jury population (weekday use), the college/university student population (24/7 use), the large visitor/tourist population (24/7 use), the population generated by special events and major activity centers (primarily week night and weekend use) the hospital visitor/family population (24/7 use) and the workforce of the after-hours bar/restaurant industry (primarily week night and weekend use).



Since 2000, the revitalizing, pedestrian oriented communities of the SIZ have gained 4,270 housing units (an increase of 225%). During that same period, approximately 1.2 million square feet of new commercial (office and retail) space was constructed, bringing the total commercial space in the area to over 5 million square feet. This space, combined with an approximate total of 15,365 residential units, establishes the area as a true mixed use environment. Three main sub-districts (Downtown Core/Flagler Village/Southside-Hospital) within the SIZ are fully connected by the Wave Streetcar as shown in Figure 2 above and are described in details below.

**The Downtown Core:** The downtown core is the truly urban center of the SIZ. This area contains over 4 million sf. of commercial space and over 7,000 housing units in a dense, urban environment including 15 buildings between 10 and 30 stories in height. It employs approximately 34,000 in a concentrated, hi-rise business and government nucleus. Private sector employment is concentrated in financial, maritime, retail, eating/drinking and entertainment/tourism uses. The CBD houses the City of Fort Lauderdale's City Hall, the Broward County seat of government, and the County and Federal Judicial centers. It is a major cultural, educational and entertainment/shopping hub for Broward County, and includes 4 regional cultural facilities: Broward County Main Library; Broward Center for Performing Arts; Museum of Discovery and Science, and Museum of Art. It also includes three colleges/universities and one language school: Florida Atlantic University; Broward College; Nova Southeastern University; and Embassy CES.

Figure 3: Downtown Fort Lauderdale



Additional attractions include the Las Olas Shoppes and Riverfront entertainment area, the Himmarshee Village and the Historic District. All the Activity Centers (residential, commercial, retails, institutional/offices, transit centers, open spaces and parks, etc) are pictured and described in [http://www.ddaftl.org/view/pdf/Wave\\_ACdescriptions.pdf](http://www.ddaftl.org/view/pdf/Wave_ACdescriptions.pdf). All of these activities have customer bases with a strong potential to use transit to circulate among uses.

Since 2000, the Downtown core has added over 1 million square feet of new commercial development and nearly 3,000 housing units. Regional transit, local bus routes, and a water taxi converge in this area and intersect with the WAVE Streetcar route, providing significant connectivity in the transit system. The WAVE Streetcar will connect this heart of the SIZ to the neighboring areas, allowing further development in the core and expanding the area in which such dense development is attractive. While the SIZ is already rapidly densifying, the WAVE Streetcar will be the key element that accelerates and amplifies this dynamic in the following two areas.

**Flagler Village:** This pedestrian-oriented neighborhood is located immediately north of the downtown core (generally bound by Federal Hwy, Broward Blvd, Flagler Drive and Sunrise Blvd) and contains approximately 2,300 housing units (with 1,300 built in last 10 years). The majority of the new units have been constructed in mid-rise buildings (many including neighborhood serving retail) with the balance being urban townhomes. The occupancy levels of these new residential rental units are almost at 100%, indicating a very healthy residential market. With these new units, the area is now home to approximately 4,300 residents, many attracted to the mixed use, pedestrian oriented character of the area with sidewalks and streetscape elements, led by the NE 6<sup>th</sup> Street/Sistrunk Boulevard Streetscape and Urban Design Improvement Project.

The area's high level of pedestrian orientation is further enhanced by parks and a new arts and entertainment district. This area is in the Flagler Village Precinct Plan [[http://ci.ftlaud.fl.us/cra/pdf/Precinct\\_Plan\\_6-2005.pdf](http://ci.ftlaud.fl.us/cra/pdf/Precinct_Plan_6-2005.pdf)] and forms the eastern part of the Northwest-Progresso-Flagler Heights Area Community Redevelopment Area. This area represents much opportunity for redevelopment.

Southside Neighborhood and Hospital District: This diverse, mixed income, mixed-use area includes the headquarters for Broward Health, one of the ten largest public health care systems in the nation, and the Broward General Medical Center, which is a 716 bed state of the art level I trauma center. With over 2,200 employees, an estimated 28,000 admissions and over 240,000 outpatient visits per year, the hospital is a source of significant activity and potential demand for the transit system. The WAVE Streetcar would link this important employment center and area residents to the Downtown Core to the north. Current overall residential density level is the lowest scale of the 3 areas, but future land use designations and zoning in place allows for higher, mixed-use densities.

The entire area served by the WAVE Streetcar exemplifies all of the elements of the HUD/DOT/EPA Partnership for Livable Communities program. Both within and immediately adjacent to the SIZ are neighborhoods with disproportionately high percentages of disadvantaged populations (relative to the entire region), whether measured in terms of job opportunities, income, or accessibility to regional transportation. The SIZ includes 3 qualified census tracts ranging from poverty rates of 31% up to 41% and households below income limits from 54% up to 65%. The WAVE Streetcar would improve the accessibility of these populations to job opportunities both by the job creating effects of streetcar induced neighborhood economic development, as well as improved access to the wider regional transportation network.

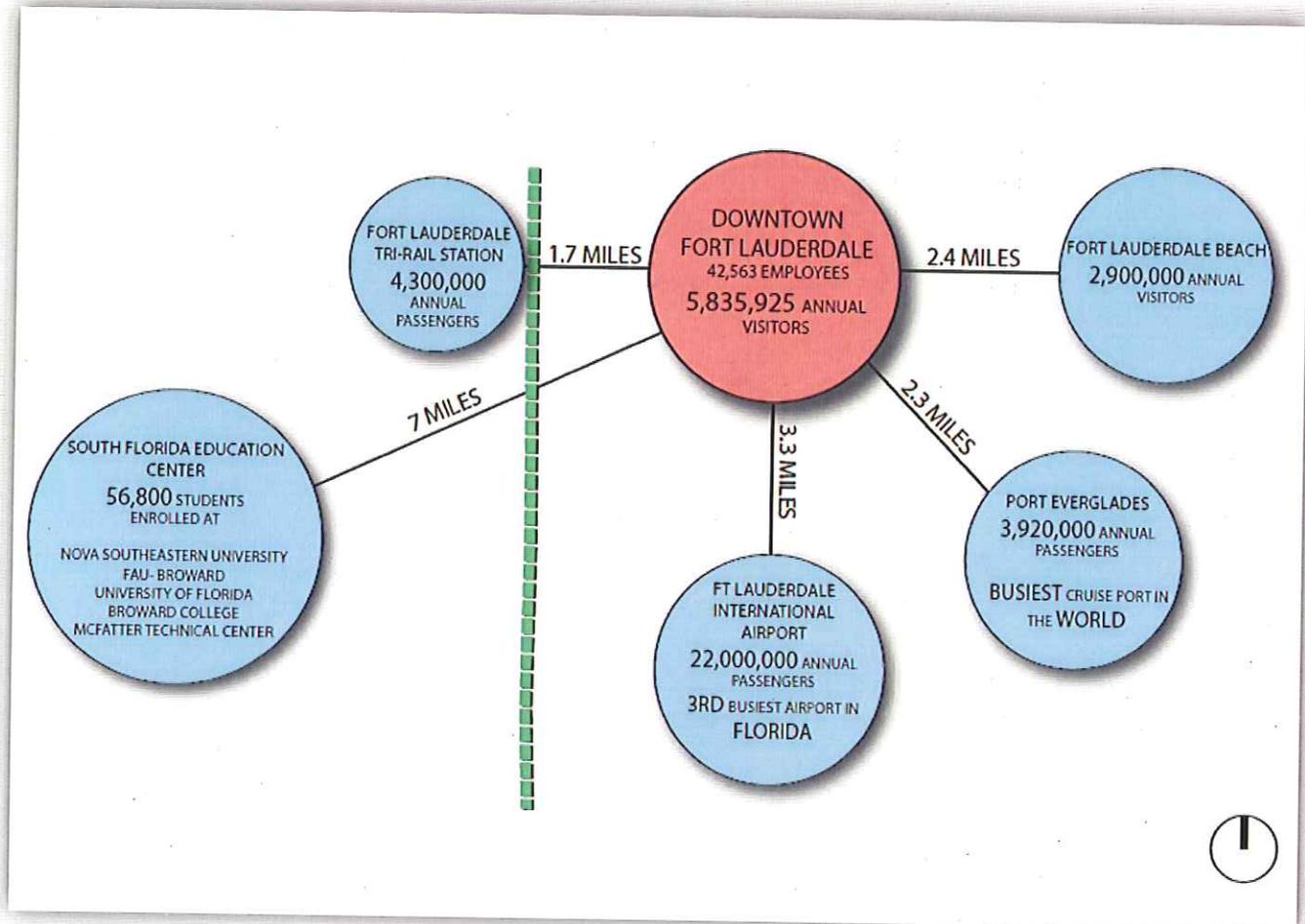
**What major trip generators are served that are not reflected in the reported quantitative population and employment data (e.g., professional sports stadiums, colleges and universities, hospitals and medical centers)?**

Important markets not currently calculated within the population and employment data include the large County and Federal Courthouse daily jury population (weekday use), the college/university student population (24/7 use), the large visitor/tourist population (24/7 use), the population generated by special events and major activity centers (primarily week night and weekend use) the hospital visitor/family population (24/7 use) and the workforce of the after-hours bar/restaurant industry (primarily week night and weekend use). **Table 1** below that lists all the population types with estimated annual population generated by these sources]. **Figure 4** shows the major trip generators in Greater Fort Lauderdale while **Appendix 1** shows the SIZ and ridership generators in the zone of influence.

**Table 1: Annual Population in the SIZ (Beyond Employment and Residential Population)**

Special Population	Annual	Notes
Broward Center for the Performing Arts	700,000	
Museum of Discovery & Science	450,000	
Museum of Art	500,000	
War Memorial and Parker Playhouse	219,000	
Other Cultural	530,154	inc. Opera Center, Historic Museum, Stranahan House, & the County Main Library
Airport/Seaport	1,320,000	5% of airport/seaport population captured
Broward County Convention Center	52,500	15% of Convention Center population captured
Himmarshee Village	352,000	inc. Riverfront Complex
Las Olas Shoppes	312,000	including YOLO area
Outdoor Events of Regional Significance	473,000	including top 12 events in Downtown
Beach Corridor	150,000	15% of beach population captured
Churches of Regional Significance	100,000	First Baptist, First United Meth., St. Anthony's Catholic
Universities/Education	57,271	Includes FAU, BC, Nova, and Lighthouse for the Blind & CES Language School
Hospital Industry	100,000	visitor population and secondary services
Judicial Industry	520,000	including jurors, lawyers, and other users of the court system
<b>TOTAL</b>	<b>5,835,925</b>	

Figure 4: Major Trip Generators In Greater Fort Lauderdale



**What are typical parking costs and supply (e.g., on-street, off-street lots, structured) in station areas?**

Parking is most constrained in the **Downtown Government/Business nucleus** and almost all is in structured garages. The overall off-street office parking ratio in this area is between 2.0 and 2.5 spaces per 1,000 square feet of office. Availability of parking (in terms of amount and cost) is repeatedly cited by real estate brokers and office tenants as a problem in leasing space. Daily parking rates in the core range from \$7-12/day (public garages) to \$16-25/day (commercial garages). Importantly, the D-RAC is parking exempt for new commercial and residential buildings. The business and development community have adapted to this reality. In general, new projects are minimizing the number of spaces built. In fact some new developments have forgone parking completely and utilized nearby public garages as well as shared and/or valet parking to accommodate demand. This trend would be reinforced by the WAVE Streetcar. The route passes by all major County and City owned public parking facilities and can help make existing supplies more accessible to all of the activity generators, thereby encouraging a "Park Once, Visit Many" walk and circulate habit in the core. Over time, the presence of streetcar and changing regional trends is likely to further reduce the overall demand for parking.

Outside of the Downtown Core, parking is presently fairly abundant because of the presence of numerous undeveloped and underdeveloped lots and the largely residential nature of these areas. However, as build-out proceeds, each new project would either need structured parking (hence higher overall development costs) or substantially reduced parking ratios to meet density objectives [For example, at 50 to 150 units per acre, as is typical of the new projects, a market standard parking ratio of 1 car or more per bedroom needs the equivalent of 1 to 3 floors of structures parking over the ENTIRE site (or more

floors if on part of it only)). A streetcar could benefit these projects' densities and economics as in the Portland case where, once service became available, new residential buildings were added with progressively lower and lower parking ratios because of reduced demand for spaces.

## 2. TRANSIT SUPPORTIVE PLANS AND POLICIES [2 to 3 pages]

**What efforts have been undertaken to develop transit-supportive policies for the proposed Small Starts corridor (e.g., local comprehensive plans, subarea plans, economic development plans, transit station area planning activities)? Who is responsible, and what is the timeframe for completion of these efforts?**

Almost all of the land area included in the WAVE Streetcar SIZ is already covered by well-established and adopted series of plans and policies that are specifically and deliberately supportive of transit oriented development and transit.

At the **regional and County level**, the adopted Broward County Land Use Plan has long emphasized the need and desirability [<http://www.broward.org/PlanningCouncil/Documents/LandUsePlan/toc.pdf>] of focusing new population growth and development as infill and redevelopment in the older eastern edge cities, given that there is severely limited space for continued expansion to the west (due to the barrier of the Everglades Conservation Area). The SIZ corresponds with the Downtown and South Regional Activity Centers defined and targeted in the Broward County Land Use plan as the densest and most mixed- use development nodes in a County expected to add over 500,000 people in the next 20 years.

The **City of Fort Lauderdale** plans pick up and support this theme. The 2003 Comprehensive Plan [<http://ci.ftlaud.fl.us/documents/compplan.htm>] adopted the D-RAC and the S-RAC designations encouraging medium to high density mixed-use, transit oriented development. For example, within the D-RAC, nearly the entire area is zoned for mixed use development with no height limits or minimum parking requirements. This comprises approximately 35% of the entire SIZ. The remaining land areas all carry mixed use zoning and medium to high density designations (typically 30 units per acre to 150 + units/acre).

A series of more detailed subarea plans and policies further the creation of a highly amenitized, pedestrian friendly, transit rich and well-designed mixed use corridor supporting a diverse resident and visiting population. These include:

- Downtown Master Plan : updated 2007  
[[http://ci.ftlaud.fl.us/planning\\_zoning/pdf/downtown\\_mp/120508downtown\\_mp.pdf](http://ci.ftlaud.fl.us/planning_zoning/pdf/downtown_mp/120508downtown_mp.pdf)]
- Flagler Village Precinct Plan: update 2008  
[[http://ci.ftlaud.fl.us/cra/pdf/Precinct\\_Plan\\_6-2005.pdf](http://ci.ftlaud.fl.us/cra/pdf/Precinct_Plan_6-2005.pdf)]
- Downtown New River Master Plan: adopted 2008  
[[http://ci.ftlaud.fl.us/planning\\_zoning/downtown\\_newriver\\_mp.htm](http://ci.ftlaud.fl.us/planning_zoning/downtown_newriver_mp.htm)]
- South Andrews Avenue Master Plan: adopted 2003  
[[http://ci.ftlaud.fl.us/planning\\_zoning/south\\_andrews\\_masterplan.htm](http://ci.ftlaud.fl.us/planning_zoning/south_andrews_masterplan.htm)]

Policies, guidelines and regulations at both the County and City level include design guidelines and incentives to encourage mixed uses and higher densities, and "complete streets". Adopted initiatives include:

- Broward County Community Design Guidebook: 2005 and recently adopted (2009) "codification" policies to implement the changes into new administrative regulations, zoning, and street standards in "context sensitive design" settings: i.e. specially designated "urban" districts.  
[<http://www.broward.org/PlanningAndRedevelopment/Pages/Default.aspx>]
- Updated Urban Design Guidelines in Downtown Master Plan – 2007  
[[http://ci.ftlaud.fl.us/planning\\_zoning/pdf/downtown\\_mp/120508downtown\\_mp.pdf](http://ci.ftlaud.fl.us/planning_zoning/pdf/downtown_mp/120508downtown_mp.pdf)]

- Riverwalk District Plan: Adopted April 2011

[[http://www.fortlauderdale.gov/planning\\_zoning/riverwalk\\_district\\_plan.htm](http://www.fortlauderdale.gov/planning_zoning/riverwalk_district_plan.htm)]

Most of the Flagler Village area is part of the larger Northwest-Progresso-Flagler Heights Area Community Redevelopment Area (NWPFH-CRA) and subject to its adopted redevelopment plan [[http://ci.ftlaud.fl.us/cra/pdf/cra\\_plan\\_part1.pdf](http://ci.ftlaud.fl.us/cra/pdf/cra_plan_part1.pdf)], which encourages creation of an “urban village”. To date, this area has received a variety of specific development incentives (see next section) and capital improvements including Flagler Village Park and streetscape improvements throughout the neighborhood.

Approximately 90% of the land area of the D-RAC falls within the jurisdiction of the Downtown Development Authority. The Downtown Development Authority of Fort Lauderdale (DDA) was established in 1965, by special act of the Florida legislature, to provide for the rehabilitation, redevelopment, and revitalization of the Downtown and taxes the commercial properties within the district [<http://www.ddaftl.org/aboutus.php>]. The DDA has played a multi-faceted role in the redevelopment of Downtown Fort Lauderdale. In the 1970’s, the DDA issued \$10.5 million in bonds that it used to support redevelopment activities. The agency acquired property, cleared blight, assembled parcels and resold assembled development sites. The DDA acquired more than 14 acres of land in the Downtown core and demolished dilapidated buildings in a traditional urban renewal/clearance program. After the initial clearance activities were completed, the vacant lands and buildings were promoted to attract federal, state, and local governmental facilities.

The private sector responded in the 1980’s and 1990’s to the increased public investment by building new offices, banks, restaurants and retail establishments to cater to the growing Downtown workforce. To balance development activities with the public amenities, the DDA donated the land for the Broward Center for the Performing Arts, the Museum of Discovery and Science, and the Museum of Art, causing many other cultural institutions to follow.

In 2000, the DDA issued another bond to further invest in the Downtown by providing better transportation infrastructure, streetscape improvements, and park/open space improvements. Many projects were completed that focused on improving the pedestrian realm, including access and connectivity. See **Table 2** below for list of improvements. **Table 3** below is a list of roadway and transit improvements further planned for funding in the region’s 2030 Long Range Transportation Plan.

Many plans are already in place to grow many of the major activity centers and governmental offices that are currently over capacity. The City of Fort Lauderdale is in preliminary planning stages for a new City Hall in the Downtown Core and redevelopment of some of its major land holdings along the WAVE Streetcar route for high density mixed-use development. Broward County has approved the expansion and funding of their Judicial Center with a 719,000 square foot building, pedestrian and streetscape improvements. The new facility, with a construction value of \$300 million, is directly on the WAVE Streetcar route and due to open in 2013. The County also has longer term plans to redevelop its 4 blocks of holdings centered at Broward Boulevard and SW 1<sup>st</sup> Avenue into a new governmental center, with high density mixed-use development and an expanded Intermodal Transit Center.

In addition, the Museum of Discovery & Science started construction in June 2010 for their expansion, which is expected to increase their annual visitor attendance from 400,000 to 600,000. The Museum of Art recently finished construction in January 2011 for expansion, which includes additional exhibition space, new educational space, and pedestrian improvements in the public realm. Just as significant is the Broward Center for the Performing Arts \$42 million planned capital expansion that includes the surrounding outdoor parks/open space. Together with the MODS and MOA plans, the area is going to be transformed and provide even more of an economic impact to the downtown.

Broward College, Florida Atlantic University and Nova Southeastern University are currently looking for additional classroom space and have started meeting with local stakeholders to identify potential downtown locations.

**Table 2: List of Infrastructure Improvements Funded by DDA's 2000 Bond Issue**

Project	Improvements
2 <sup>nd</sup> Street Demonstration Streetscapes	Ped crosswalks, trees, lighting, street furniture, - 2 <sup>nd</sup> Street corridor
Broward Blvd Streetscapes	Intersection pedestrian crossing improvements and resurfacing
Other Local Streets – Streetscape Intersection Improvements	Intersection pedestrian crossing improvements and resurfacing at various intersections in the Downtown core
Tunnel Top Park Improvements	Park Improvements to include hardscaping, trees, landscape and lighting
FAU/Broward College Capital Improvements	Hardscaping, landscaping, signage, trees and street furniture at shared college public space
Huizenga Plaza Park Improvements	Improved lighting, landscaping, and hardscape elements to downtown's premier park
Beach to Downtown Shuttle	Local match for purchase of trolley vehicles for the Downtown TMA Sun Trolley system
Museum of Art/Las Olas Streetscapes	Lighting improvements along Las Olas Blvd in front of the Museum of Art
Broward Center for the Performing Arts Streetscapes	Planned streetscape improvements as part of the Center's \$42 million recapitalization
Transportation Studies	Analysis of pedestrian and transportation needs in the corridor, to include subsequent Alternatives Analysis and Environmental Assessment studies and Public Involvement
Flagler Village Streetscape Design Plans	Surveying and design plans for corridors in the Flagler Village area of Downtown
SE/SW 7 <sup>th</sup> Street Traffic Study and Design Plan	Traffic study and subsequent design plan for future streetscape improvements in the corridor

**Table 3: 2030 Roadway and Transit Improvements**

Project	Location	Improvements
<b>Highways</b>		
#17 NW 7th/9th Ave. Connector	S. of Sunrise Blvd. to NW 6th St.	From 2 lanes to 4 lanes
<b>Transit</b>		
US 1/Federal Hwy.	Miami-Dade Co. to Palm Beach Co.	Premium Rapid Bus
Dixie Hwy	Downtown Fort Lauderdale to Sample Rd.	Premium Rapid Bus
Broward Blvd.	SR 7 to Downtown Fort Lauderdale	Premium High Capacity
Sunrise Blvd.	From University Dr. to SR A1A	Premium High Capacity

Source: Broward MPO 2035 Long-Range Transportation Plan.

Note: The number preceding the name of the highway or transit project is the same as listed in the 2035 LRTP.

As part of the planned FEC commuter rail project [[http://www.sfecstudy.com/study\\_area.html](http://www.sfecstudy.com/study_area.html)], the planned Broward Boulevard corridor transit [<http://www.sfrta.fl.gov/planning.html>] project, and the 2035 Long Range Transportation Plan, meetings were held that encouraged participation from the community and the feedback helped to shape and define the direction of each of the projects, including the WAVE Streetcar.

Additional land use planning includes outreach efforts for the Downtown Master Plan, the South Andrews Avenue Master Plan, the New River Master Plan, and the Riverwalk District Plan, soliciting and incorporating feedback from the various community members. Of particular interest to the land use planning of the WAVE Streetcar, and the station areas (which encompassed virtually all of the SIZ), there were several workshops and charettes that focused on station area planning and design and include the following:

1. November 15, 2006 – a station area planning charrette
2. March 19, 2007 (2 meetings were held) – an alignment and station planning workshop
3. May 2, 2007 – station area planning and design workshop for North of the New River
4. May 8, 2007 – station area planning and design workshop for South of the New River
5. September 27, 2007 – station planning charrette with local technical agencies and the public

While the DDA has been the lead proponent and manager of the planning for the WAVE Streetcar and its influence zone, the City of Fort Lauderdale, Broward County, the MPO, FDOT, SFRTA (Tri-Rail) and the private sector have all strongly supported the process. Perhaps most impressive is that the business community has not only supported the project, but in fact have “led the charge” and pushed for a strong partnership to move forward. The enthusiasm for this project cannot be overemphasized.

With more than 30 letters of support from local businesses, property owners, major cultural and institutional organizations, neighborhood associations and governmental agencies, not only is cooperation for the Streetcar project extremely positive, but these partners have also demonstrated the willingness to provide local funds to help build it! These letters are attached with the submittal.

**What are the approximate or typical densities, types of uses, and mix of uses allowed under existing and/or proposed zoning in the proposed Small Starts station areas? How do existing and/or proposed zoning regulations support pedestrian-friendly design? What is the timeline for adopting changes to station-area zoning?** Existing zoning and other development guidelines fully accommodate and encourage transit-oriented development. The land in the SIZ is zoned for medium to high density mixed-use. For information on the RAC definitions, go to: [www.ddaftl.org/view/pdf/RACdefined.pdf](http://www.ddaftl.org/view/pdf/RACdefined.pdf)

Within the Downtown core, there are no limits on either height or density and no minimum parking requirements. In the other zoning districts, parking requirements for residential are generally reduced by 40%. The ability to absorb large amounts of mixed-use development along with a wide range of existing uses and activities, as well as in-place urban design guidelines and requirements, and public capital investments (in parks, plazas, streetscapes, river walks) fully encourage and support pedestrian friendly design. For example, Section 47-13 Downtown Regional Activity Center of the City of Fort Lauderdale’s Zoning Ordinance [<http://library.municode.com/index.aspx?clientId=10787&stateId=9&stateName=Florida>] describes the zoning regulations applying in the different sub-districts of the D-RAC. These regulations include such pedestrian oriented features as minimum and maximum setbacks from street, sidewalk and streetscape improvements, ground level retail and other mixed use requirements if the development is to access the higher densities permitted.

The FAR<sup>2</sup> of new buildings completed in the last 10 years in the Downtown Core has in cases exceeded 6.0 FAR for commercial development and 150 units/acre for residential buildings, an indication that the local market is responding to the

<sup>2</sup> FAR = Floor Area Ratio: the ratio of the total area of the building relative to the total area of the building site. A building with an FAR of 10 could be, for example, at 20 story building covering ½ of its lot, or a 40 story building covering ¼ of its site.

regulations in place. Zoning throughout most of the Flagler Village area allows for over 100 units/acre and recent projects have achieved those levels. In essence, the entire SIZ already has in place a full range of plans, policies and regulations fully supportive of dense, mixed-use, pedestrian-friendly development.

**What financial, regulatory, or other tools and incentives are available to promote transit-supportive development in station areas (e.g., tax breaks, low-interest loans, reduced impact fees, expedited development review, assistance with land assembly, infrastructure finance, joint development programs)? Have these tools and incentives been applied in practice?**

All of the SIZ south to the New River is part of the City’s Enterprise Zone. The Enterprise Zone is administered by the City of Fort Lauderdale. It receives monies through the State and the Federal government and in turn provides monetary and tax credit incentives to relocate and grow businesses in the specified boundary. For more info, go to <http://ci.ftlaud.fl.us/cra/programs/enterprise.htm> . In addition, Flagler Village is also part of the Northwest-Progresso-Flagler Heights Community Redevelopment Agency area. The CRA, pursuant to both its powers and adopted plan, uses tax increment financing and other funding sources to stimulate the construction of residential and mixed use development. [See Table 4 below for a list of projects that took advantage of these programs within the past 5 years]

**Table 4: List of Residential Projects Using CRA/Enterprise Zone incentives**

Project	Units	Housing Type	Construction Cost	Funding Assistance	CRA Per Unit Contribution
Avenue Lofts	98	Lofts/Mixed use	\$18 Million	\$2,659,000 for infrastructure and tax increment rebate commitment	\$27,133
Four Forty Flagler	218	Apartments/Mixed Use	\$70 Million	\$385,486 streetscape grant	\$1,768
Alexan Solmar	282	Apartments/Mixed Use	\$80 Million	\$489,951 streetscape grant	\$1,787
Sole Condominiums	243	Apartments Converted to Condominiums/Mixed Use	\$27 Million	\$710,260 streetscape grant	\$2,922
Bamboo Flats	57	Condominiums/Mixed Use	\$16.5 Million	\$149,000 streetscape grant	\$2,614
Eclipse	101	Apartments	\$26 Million	\$183,525 for park impact fees; \$230,682 streetscape grant	\$4,101
Progresso Point	76	Apartments	\$21 Million	\$142,500 for park impact fees	\$1,875

Also, as mentioned in the previous section, both the City of Fort Lauderdale, and Broward County hold extensive excess developable land in the D-RAC and had been exploring public/private partnerships with developers to undertake high density, mixed-use developments prior to the recent real estate slowdown.

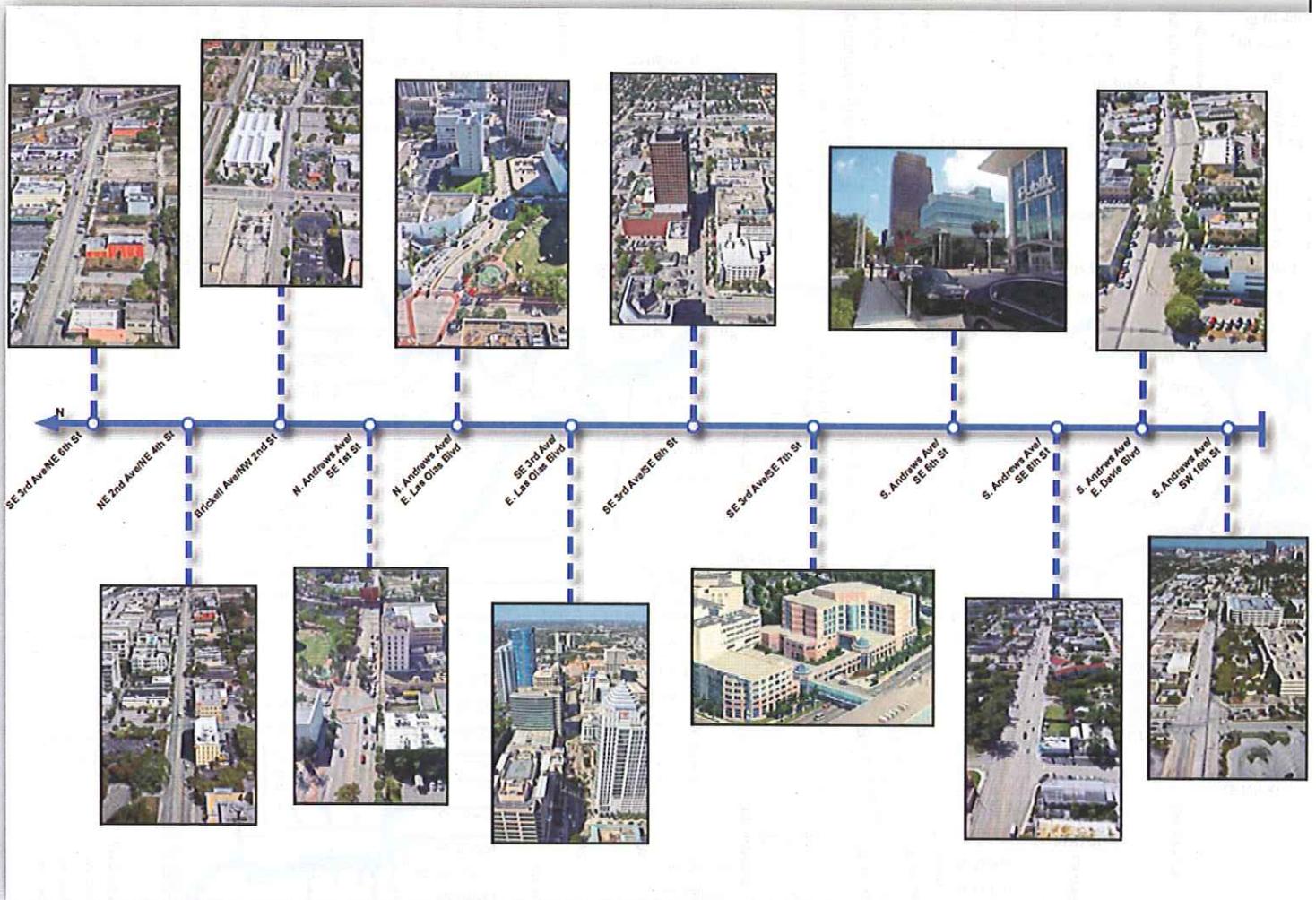
### 3. PERFORMANCE AND IMPACTS OF LAND USE POLICIES [1 to 2 pages]

What examples exist of recent or proposed transit-supportive development in the Small Starts station areas, or in other areas served by transit in the jurisdiction?

The strongest testimony to the enormous strength of the SIZ for transit-supportive development is the actual amount of both new and proposed transit supportive development that has occurred in this small area in recent years (see Figure 5). To view pictures of recently built projects, go to: [www.ddaftl.org/view/pdf/WAVEpictures.pdf](http://www.ddaftl.org/view/pdf/WAVEpictures.pdf)

Since 2000, nearly 4,300 housing units have been built in 26 medium and high density projects. 10 of these projects have ground floor street front retail/commercial uses. In the same time period, over 1 million sf. ft of new commercial space has been built in 15 projects, all within the Streetcar Influence Zone. Another 2,900 housing units and over 1.2 million square feet of commercial space have been approved and are either getting underway or awaiting improved economic conditions.

Figure 5: Transit Supportive Development/Opportunities at WAVE Streetcar Station Locations



To what extent do local and regional economic conditions and market trends support development in the corridor?

Based on the documented inventories of projects completed since 2000 - an average of approximately 430 units of housing and 120,000 sf. of commercial space have been built annually in the SIZ. While the 2008-2010 period has seen a slowdown in

development due to national and statewide economic conditions, the downtown did see a 101 unit new 12 story affordable housing project built, as well as 3 new residential mid-rise rental buildings (718 units). In addition, the number of residential units still under original developer ownership ("first generation units") continues to decrease and is currently at approximately 70 units. This is very low compared to other regions who are reporting first generation units in the 1,000s. Expectations are that the larger Broward County region (and SIZ area in particular) will come back strong as the overall national economic condition improves. There are significant signs of current stabilization. For the latest DDA quarterly residential real estate report, go to: [www.ddaftl.org/view/pdf/2010\\_4Q2011\\_1Q.pdf](http://www.ddaftl.org/view/pdf/2010_4Q2011_1Q.pdf)

Prior to the past ten years, Broward County has seen low density, suburban development with 1.8 million people, and 665,000 jobs spread out over the County's ~1300 square miles. However, over the past decade, as the remaining green-field sites in the County have been largely consumed, growth in the D-RAC has accelerated as people and businesses recognize the attractiveness of being near the region's principal business and activity center. For example, as the D-RAC population is projected to grow from approximately 12,090 in 2008 to an estimated 13,814 in 2015 (a 14% increase), the County's population is also projected to grow by approximately 12%; showing that the D-RAC is capturing an increasing share of County's future growth (Broward County MPO 2035 LRTP).

In the medium to longer term, as growth returns to Broward County, trends point to it concentrating along the eastern edge due to a combination of the following factors: lack of land in the west (Everglades), regional transportation and land use policies, changing national consumer patterns (aging population/changing lifestyles, desire to be in urban core neighborhoods, with many amenities); and the attractiveness/maturation of cities like Fort Lauderdale to capture these markets.

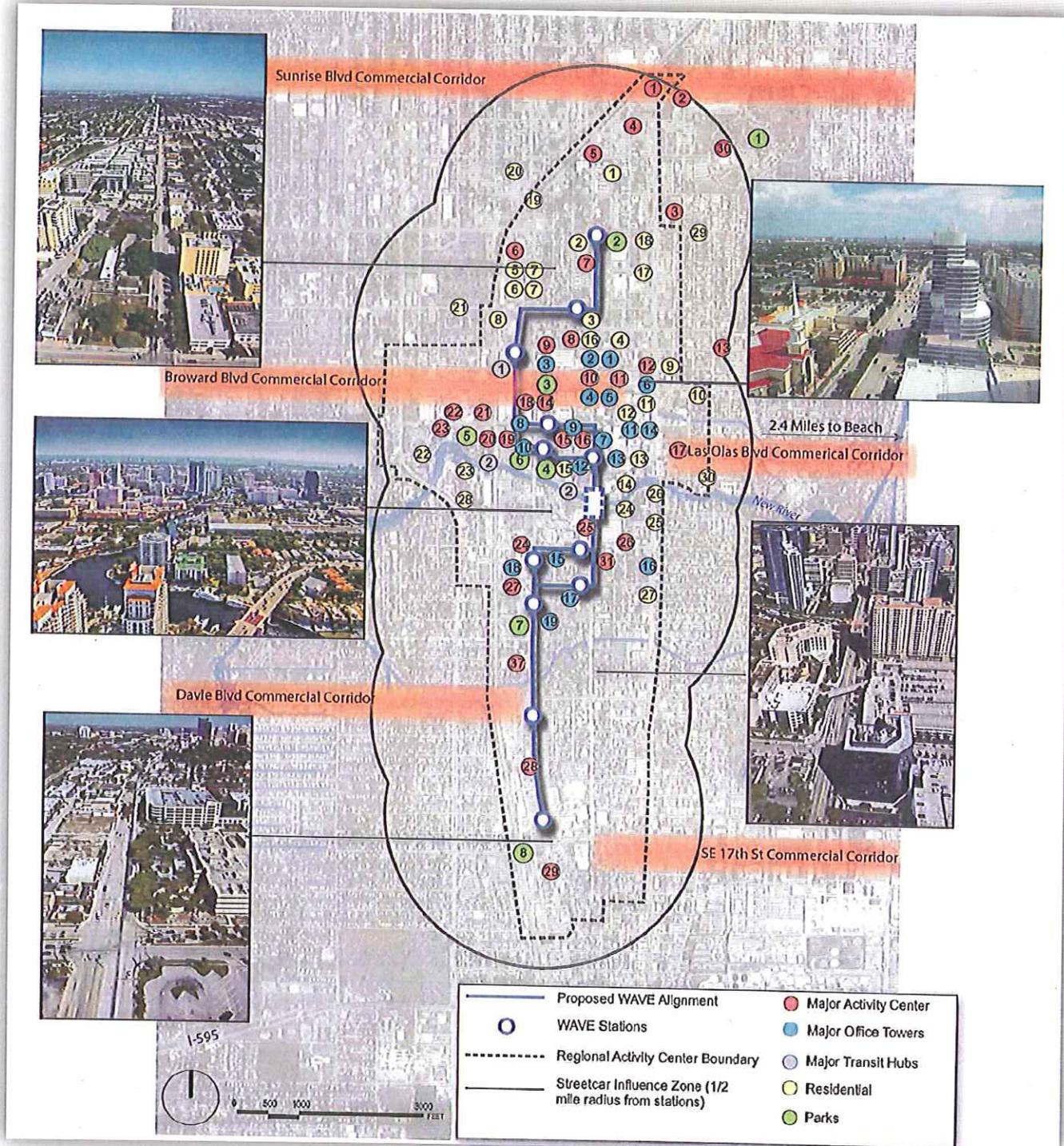
**To what extent is land in the station areas available for development or redevelopment? What barriers exist to redevelopment (e.g., land assembly, contamination, inadequate infrastructure)?**

The SIZ contains a conservatively estimated 165 acres of land that is either vacant land or highly susceptible to redevelopment given the higher density zoning already in place. Virtually all of this land is served by city streets on a normal rectangular small block scale street grid, with adequate utilities available. The capacity of the developable sites under existing zoning is sufficient to accommodate up to 18,000 additional units of housing and 10,000,000 square feet of non-residential development, assuming densities and allocations between residential and non-residential uses that are similar to those observed over the past 10 years. Much of the land is "in play", being held and assembled for future redevelopment. In general, the potential development capacity within the SIZ faces few constraints other than caused by current market and financing conditions. Other than a few small scattered sites (e.g. former corner gas stations, dry cleaning sites), environmental contamination does not pose a significant constraint on development within the SIZ.

The CRA and DDA operate as redevelopment agencies with jurisdiction over much of this land area, and offer economic and financial incentives to develop in this area, and even land under their direct ownership or control. They are very proactive in seeking to support realization of the many private and public projects in the pipeline. The City of Fort Lauderdale and Broward County also have significant landholdings in the SIZ, which they wish to see developed as mixed-use public/private projects as soon as market conditions permit.

While there are no limits on the overall amount of commercial and office uses that may be constructed within the D-RAC, the amount of residential development is currently limited. Under current land use regulations, an additional 6,464 units are permitted within the D-RAC. While this figure does represent a constraint on residential development, the number of units permitted (6,464) is seen as adequate to absorb near to mid-term (~10 years) residential development within the area. Beyond that timeframe, the City is reviewing land use regulations and plans. Historically, the City has increased the number of units permitted within the downtown as development levels have approached the permitted limits.

# APPENDIX 1: STREETCAR INFLUENCE ZONE (SIZ) AND RIDERSHIP GENERATORS



### Major Activity Center ●

1. Searstown
2. Shopping Center
3. Shopping Center
4. The Bubble Art Space
5. Lighthouse for the Blind
6. F.A.T Village
7. 3rd Ave Art District
8. Girl's Club Gallery
9. City Hall
10. Federal Court
11. 1st Baptist
12. Shopping Ctr.
13. St. Anthony's
14. Main Library
15. Museum of Art
16. FAU and Broward College
17. Riverside Hotel
18. Brwd Government Center
19. Riverfront
20. Historic Village
21. Himmarshee Village
22. Museum of Discovery & Science
23. Broward Center for the Performing Arts
24. Publix Supermarket
25. County Courthouse
26. Cinema Paradiso
27. Southside School
28. Marando Farms
29. Marine Training
30. War Memorial
31. School Board

### Major Office Towers ●

1. Plaza 100
2. 101 Business Ctr.
3. 1 E. Broward
4. 100 E. Broward
5. 200 E. Broward
6. 500 E. Broward
7. 300 Las Olas Pl.
8. 200 Las Olas Cir.
9. Museum Plaza
10. One River Plaza
11. Las Olas City Center

12. 200 E. Las Olas
13. 350, 450 Las Olas
14. 501 E. Las Olas
15. 110 Tower
16. 633 S. Federal Hwy
17. Trial Lawyers Bldg
18. Litigation Bldg
19. Courthouse Place

### Major Transit Hubs ●

1. BCT Terminal
2. Water Taxi

### Residential ●

1. Bamboo Flats
2. Solé
3. Strada 315
4. Nola Lofts
5. The Foundry
6. The Mill
7. Avenue Lofts
8. Eclipse
9. The Waverly
10. Venezia
11. Camden Las Olas
12. 350 Las Olas
13. Las Olas Grand
14. The Watergarden
15. Las Olas Riverhouse
16. The Exchange
17. 440 Flagler
18. Alexan Solmar
19. Progresso Point
20. Progresso Village
21. City View Townhomes
22. The Symphony
23. Esplanade
24. NuRiver Landing
25. Las Olas by the River
26. Edgewood
27. Villa Tuscany
28. Sailboat Bend Apts.
29. The Ellington
30. Chateau Mar

### Parks ●

1. Holiday Park
2. Peter Feldman Park
3. Stranahan Park
4. Hulzenga Plaza
5. Esplanade Park
6. Riverwalk
7. Hardy Park
8. Croissant Park

# THE WAVE STREETCAR

## Executive Summary

The Fort Lauderdale Downtown Development Authority (DDA) is working with the City of Fort Lauderdale, the Florida Department of Transportation (FDOT-4) and Broward County Transit (BCT) to develop the 2.7-mile WAVE modern streetcar system in Downtown Fort Lauderdale. The WAVE will connect major destinations in the Downtown Core, the Hospital District and Sistrunk/Flagler Village with the Florida East Coast (FEC) Railway, the BCT Downtown Bus Terminal, and eventually with Tri-Rail.

The WAVE Streetcar is a critical "next step" in realizing the "transformation" of this region as visualized in the Broward MPO 2035 Long Range Transportation Plan. The WAVE Streetcar is seen as an integral piece of the regional transit network, the linkages of major employment centers such as Sawgrass Corporate Park, the Educational Campus in Davie, the Sawgrass Mills BankAtlantic Center, Plantation Midtown office center, and as an extension of several planned transit projects, such as: the Central Broward East-West Transit Study; the South Florida East Coast Corridor Study; and the Peplemover-Sunport (Airport/Seaport) Study.

*The WAVE Streetcar will provide the critical link of local circulation for people traveling through the region via these longer transit corridors.*

While these benefits of regional transit integration are real and important, the WAVE Streetcar has the potential to be transformative in the role transit plays in the lives of Broward County residents and visitors. One must travel outside of Florida to experience the powerful connection between modern rail transit and sustainable, walkable urban environments. This synergy, this dramatic improvement of life at street level, can only be weakly communicated through studies, renderings and other planning tools. Once citizens experience it, however, they "get it."

*As the first modern streetcar in the Southeastern United States, the WAVE Streetcar will serve as a pioneering example of the role that high-quality local transit can play in enabling car-free or "car-light" lifestyles.*

A large and growing portion of the population are seeking this environment, choosing to live, locate their businesses, or spend discretionary time and dollars in places characterized by "walkable urbanism." In the "next economy", quality of life at street level is likely to be a major driver in which areas attract investment.

*The WAVE Streetcar will help position Broward County as one of those locations of choice.*

The WAVE Streetcar will connect the Downtown and South Regional Activity Centers, two of the County's most dense and diverse developments. More than 800 acres, or 85 percent of the land in this area, located within easy walking distance (one-quarter mile) to The WAVE Streetcar.

*Why build The WAVE Streetcar? It's an important transit tool to support and enhance the existing Tri-Rail and bus service. It will support the County's vision of quality of life transformation. It supports the Region's stated development policies and vision; its construction would be yet one more step toward the realization of full coverage Premium Transit service.*

Local support for The WAVE Streetcar has been growing. At the same time, federal policy has aligned in favor of projects like The WAVE Streetcar. In the past twelve months, the US Department of Transportation has granted over \$300 million in capital funding for the construction of similar projects. The timing is right for Broward County to become a pioneer in the Southeastern United States, leveraging this local and federal support and implementing a modern streetcar project. This effort will pay more than local dividends. A success in this “demonstration project” will serve the interests of Broward County and its many municipalities, from Hollywood to Miramar to Pembroke Pines and Cooper City, from Oakland Park to Tamarac and Coral Springs, Weston to Sunrise, and the Beaches, as they work together to carry out the larger regional agenda.

As cities and urban regions try to position their communities for prosperity and health in a turbulent time, investments in mobility and sustainability might prove the wisest use of limited financial and political capital. The WAVE Streetcar is configured as just that kind of investment, a critical piece of transformational infrastructure that will help set a larger regional vision in motion.

Figure 1 – Streetcar Influence Zone

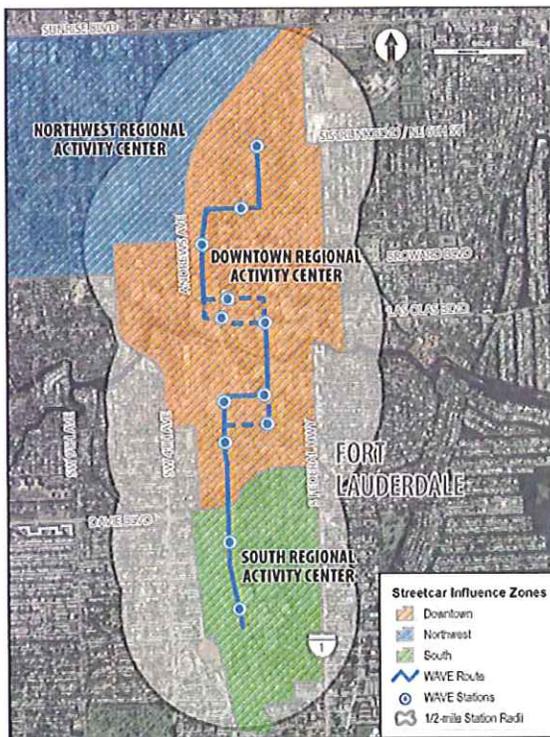


Figure 2 – Regional Map

