Broward County MPO
Long Range Transportation Plan
2030 Update

SAFETEA-LU Compliance

EXECUTIVE SUMMARY

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1. Introduction

This document is intended to provide a summarized description of the development of the 2030 Long Range Transportation Plan Update for Broward County. The Year 2030 update is intended to be a truly multi-modal plan in accordance with the wishes of the Broward County MPO, which has advocated transportation choices - and particularly a vastly improved transit system - to address future travel needs in the County.

The process to develop the 2030 plan began in November 2003 and was completed by December 2004 - in time for the plan to be adopted by the Broward County Metropolitan Planning Organization (MPO). This Executive Summary provides a brief explanation of the eleven tasks followed by the consultant team in developing the plan. These tasks include:

1. Public Involvement Plan
2. Goals, Objectives and Measures of Effectiveness
3. Data Compilation and Review
4. Model Review and Development
5. 2030 Needs Assessment
6. ETDM
7. Financial Needs Plan
8. 2030 Cost Feasible Plan (projects listing and maps are in the Appendices)
9. Air Quality Conformity Determination
10. Environmental Justice and Intergovernmental Coordination
11. 2030 Transportation Plan Adoption

The following sections provide further discussion on each task, albeit in a form summarized for the Executive Summary. Further detail on each task is provided in the 2030 Long Range Plan document. In addition, further information can be found on the website at: www.browardlrtp.org

2. Public Involvement Plan

The Public Involvement Plan (PIP) for the Broward County Metropolitan Planning Organization (MPO) Year 2030 Long Range Transportation Plan Update has been developed to ensure maximum public participation and to build consensus in this important planning study. The plan has been developed to be consistent with the MPO guidelines for public participation in the planning process, and places a particular emphasis on outreach to minorities, low-income groups, environmental justice, and intergovernmental coordination.

The purpose of the PIP is:

> *To develop early and* continuing *participation of the Community Involvement Roundtable (CIR), Technical Coordinating Committee (TCC), Metropolitan Planning Organization (MPO), Bicycle Advisory Committee (BAC), Broward County Coordinating Board for the Transportation Disadvantaged (BCCB), interested groups, and the general public in the development of the 2030 Long Range Transportation Plan (LRTP).*

The PIP included over thirty (30) meetings, five (5) Workshops that were held during the course of

this project, and the participation of the following boards and groups:

- Project Management Team (MT)
- Broward County Metropolitan Planning Organization (MPO) Board
- Technical Coordinating Committee (TCC)
- Community Involvement Roundtable (CIR)
- Plan Update Steering Committee (PUSC)
- Bicycle Advisory Committee (BAC)
- Broward County Coordinating Board for the Transportation Disadvantaged (BCCB)
- The public

Presentations were made to each of these groups at critical junctures throughout the study process to explain the issues, describe the potential solutions and the impacts associated with each, and to receive input and direction from these groups.

These presentations were made at the groups regularly scheduled meetings or as an advertised meeting for the public. Material presented were either informational, or as action items to adopt interim products in the development of the 2030 plan. Meeting materials - including Technical Reports, tables and maps containing project recommendations and public meeting invitations – were mailed out to these groups in advance of the meetings at which plan information was presented. Notes were taken at each meeting to record comments and suggestions from each group.

A number of public relations tools were used to communicate with the public, provide information on the progress of the study, and generate public input into the project in an effort to develop consensus and direction in the plan update. These tools focused on notification and communication and included:

- Newsletters
- Direct Mailing
- Newspaper Articles and Advertisements
- World Wide Web
- E-mail Broadcasting
- Press Releases
- Interactive Local Meetings and Public Workshops

3. Goals, Objectives, and Measures of Effectiveness

The development of Goals, Objectives, and Measures of Effectiveness for the 2030 LRTP involved the review of a number of documents, including the Goals; Objectives from the previous Broward County adopted 2025 Long Range Transportation Plan (LRTP). To accomplish this task, the following documents were reviewed:

- The Planning Factors of the Transportation Efficiency Act of the 21st Century (TEA-21);
- Goals and Objectives of the Florida Transportation Plan;
- Broward County Comprehensive Plan Transportation Element as summarized in Chapter 1, Goals, Objectives and Policies (GOPs);
- Broward County Major Issue #6 Developing Transit Oriented Land Use Patterns (TOLUPS);

and

- Goals, Objectives, Measures of effectiveness and Policies of other Florida Metropolitan Planning Organizations (MPOs).

This review focused on the following:

- Whether the goals of the 2025 LRTP were consistent with the TEA-21 Transportation Planning Factors and the goals of the Florida Transportation Plan;
- Whether the goals and objectives for the 2025 LRTP are generally consistent with the Broward County Comprehensive Plan Transportation Element Goals, Objectives, and Policies;
- Whether the goals and objectives for the 2025 LRTP need to be updated based on recommendations contained in the Broward County TOLUPS study; and
- Other updates to the goals and objectives of the 2025 LRTP based on review of other Florida MPO goals, objectives, polices, and measures of effectiveness, professional judgment and input form the different MPO committees.

The Goals used to direct this long-range transportation study for Broward County were developed and refined in two public workshops held in January 2004. Along with a set of Objectives and Measures, these Goals have been used throughout the project to help develop the transportation improvements alternatives, and to evaluate and to prioritize projects proposed for inclusion in the plan. The study goals are provided in the table below.

Table 1: Broward County 2030 LRTP Goals

1.	A balanced, multi-modal transportation system that serves the local and regional movement of people, freight and services and provides choices in mobility.
2.	A transportation system that is regionally coordinated and consistent with the future economic development plans of Broward County's constituent communities and neighbors.
3.	A safe and secure transportation system.
4.	Preservation of Broward County's investment in transportation in a cost-feasible manner.
5.	An aesthetically pleasing transportation system, which minimizes impact on the natural and built environment.

4. Data Compilation and Review

More than fifteen transportation studies were compiled and reviewed during the development of the Broward County LRTP to ensure that the most current and the most detailed information would be incorporated into the plan. These studies included Master Plans for I-95, I-75 and I-595, the Fort Lauderdale-Hollywood International Airport Master Plan, the Fort Lauderdale Airport/Seaport Multimodal Connector Major Investment Study, the Broward County Signal System Master Plan, the Broward County Transit Development Plan, as well as the County's Comprehensive Plan and numerous local jurisdiction plans for communities within Broward County. The Urban Planning and Redevelopment Department mainly developed the socioeconomic data for the travel forecast model application. In addition, data was collected for the following transportation modes: pedestrian, greenways, bicycle, waterborne, transit, highway, freight, and Intelligent Transportation Systems.

4.1 Pedestrian Facilities

Broward County's pedestrian facilities are comprised primarily of sidewalks. These were historically not very well provided in many of the developments constructed before the late 1980's, and a great number of infill sidewalks are required on the County's arterial and collector streets to provide safe and comfortable (drained) walkways for pedestrians. This point is particularly important when access to transit is considered.

As part of the development of this Long Range Plan Update, a sidewalk inventory was completed for over 400 miles of sidewalks in ten pedestrian focused study areas identified by MPO's Pedestrian Focus Group. Approximately 370 miles of this inventory was completed along arterial and collector streets, while the remainder included local streets that either carry transit buses, or serve as primary pedestrian routes accessing transit stops. Of the 400+ miles of roads inventoried, 70 percent are in good or fair condition, but almost 20 percent – or 80 miles – are missing sidewalks altogether.

In addition to these pedestrian focus areas, sidewalk conditions for state highways were obtained from FDOT's Roadway Characteristics Inventory (RCI) database and video log records, and an additional 140 miles of County and Municipal roadways were inventoried in July 2004 as part of this study.

4.2 Greenway Facilities

In the spring of 1999, the Broward County Board of County Commissioners identified the creation of a countywide system of greenways and trails as a priority goal. A vision was identified to lead the project development:

> *"Broward County's Greenways System will be a fully funded, countywide network of safe, clean, bicycle and equestrian paths, nature trails and waterways. Greenways will connect each neighborhood, from the Everglades to the Atlantic Ocean to conservation lands, parks and recreation facilities, cultural and historic sites, schools and business areas. The system will provide opportunities for recreation, restoration and enhancement of native vegetation and wildlife habitat, and alternative modes of transportation."*

There are over 370 miles of regional Greenways, land trails and water trails delineated on the

Conceptual Master Plan. The regional network of Greenways depicted are essentially the regional backbone which may supplement, augment or serve as a foundation for the local trail networks, such as the trails of Davie, Plantation, Parkland and Southwest Ranches.
Six corridors have been selected to represent the "phase one" corridors of the Broward County Greenways System. They include:

Dixie Highway,
C-14, Cypress Creek,
New River-SR 84, and
Flamingo Rd Trail
Hiatus Rd, C 42 Canal
SR A1A (added in 2002).

These Phase-One corridors were identified as those with the highest priority for development. These corridors effectively form a framework that traverses all parts of the County, and provide a good representation of differing types of trails, from wide paved and unpaved trails through natural and rural areas, to wide sidewalks through urban areas. This approach provides opportunities for all types of trail users and interests.

4.3 Bicycle Facilities

The bicycle is a low-cost and effective means of transportation that is quiet, non-polluting, extremely energy-efficient, versatile, healthy, and fun. Bicycles also offer low-cost mobility to the non-driving public, including the young. In the United States, bicycles were a popular means of transportation in the pre-automobile age. As the automobile became more popular, bicycles lost their advantage as well as their place on the road. Now, as cities work to create more balanced transportation systems and make streets a safe place for all modes, the bicycle is making a comeback.

Broward County's bicycle facilities consist of a limited but growing number of marked on-street lanes, unmarked shoulder lanes, wide outside travel lanes and a number of multi-purpose off-street paths, which accommodate cyclists, pedestrians and other non-motorized traffic including rollerblades. In addition, the County has calculated a Bicycle Suitability Rating for all arterial and collector roadways, which provides an idea of how comfortable a cyclist can expect to feel on that roadway depending on the traffic volumes on the road and the pavement provided. The County also provides a map – available on-line – that indicates marked routes where wide paved shoulders exist and provide some safety for cyclists.

4.4 Waterborne Transit Network

The City of Fort Lauderdale known as the "Venice of America" and the Intracoastal Waterway (ICWW) extends along the entire length of Broward County's coastline, serving as the backbone to over 300 miles of navigable canals. Waterborne transportation has the potential to address congestion concerns in the eastern portions of the County, and to enhance the mobility of residents and visitors alike.

Water Taxi Inc. has served Fort Lauderdale with an on-demand ferry service for several years. In November 2001, the company teamed with Broward County Transit (BCT) to provide regularly scheduled Waterbus service with 20 stops (shown below) in the central city area, many of which connect with regular bus service. Weekly, monthly and annual transit passes are honored on the Waterbus. Service is provided using 70-passenger vessels, which are air-conditioned and run on diesel fuel.

The Waterbus service currently runs between Oakland Park Boulevard and Southeast 17th Street along the Intracoastal Waterway, and west along the New River into downtown Ft. Lauderdale as far as River House, immediately west of the FEC rail corridor. These services target both commuter and recreational trips, with half hour headways during peak morning and evening periods and one-hour headways during the day and on weekends. Hours of service are from 6:30 am to 12:30 am and has a fixed route schedule. Special services also include the Thursday Night Pub Crawl and Saturday South Beach Shuttle Service.

4.5 Transit Facilities

Broward County Transit (BCT) is a service of the Broward County Mass Transit Division, which currently operates 40 fixed-route bus lines utilizing 260 full-size transit coaches. The Transit Development Plan (TDP), which is updated each year by the County, provides a great deal of additional information relating to the operation of the service. Community transit services are provided by 23 municipalities within Broward County. In addition, the County provides Paratransit and Transportation Disadvantaged services to Broward's citizens. These services are provided in conformance with the requirements of the Americans with Disabilities Act (ADA) and the Florida Commission for the Transportation Disadvantaged (FCTD).

The Tri-County Rail Authority (TCRA), which operates as Tri-Rail, provides commuter rail services between Palm Beach, Broward and Miami Dade Counties along the 71-mile South Florida Rail Corridor (formerly the CSX rail corridor), which parallels I-95. Tri-Rail operates 28 weekday trains between the 18 stations on the route. These services are coordinated with BCT via a number of Tri-Rail feeder buses, which provide connections to the airports and downtowns along the route. Included in the MPO's Transportation Improvement Program (TIP) is a project to complete double-tracking along the entire Tri-Rail corridor, which, according to Tri-Rail, will result in 20-minute headways during peak hours by 2006.

4.6 Roadway System

Broward County has over 1,000 miles of collector and arterial roadways serving the population. The majority of roadway data supplied for this study was provided in the form of data files for the FSUTMS travel demand model. This included roadway classification, link lengths, number of lanes, posted speeds and a host of other information used by the model to assess capacity conditions. Roadway jurisdiction – indicating state, county or municipal ownership and roadway classification – indicating arterial or collector facility – were also collected.

4.7 Freight Transportation Network

In response to ISTEA and TEA-21, the Broward County MPO began to lay the groundwork for freight planning in the region. Work began in the mid 1990s with an industry outreach initiative designed to identify freight transportation needs. This was followed by a comprehensive Freight and Goods Movement Study (FGMS), completed in 2002. The FGMS was adopted as the first ever freight component of the 2025 Long-Range Transportation Plan Update, setting the foundation for an ongoing freight program. The recently completed Broward County ITS Intermodal Plan built on the findings and conclusions of the FGMS by identifying potential ITS applications to assist in the management of the freight transportation system. This freight component of the Broward County MPO LRTP Update further complements and enhances these earlier initiatives.

Broward County has a vast truck freight network. Figure A shows the truck network. The extent of the system illustrates the importance of truck access to provide consumer goods to the residents of Broward County, as well as accessibility to the major freight facilities. Three criteria were used to designate this system, consisting of truck volumes (all state corridors where the truck volumes were greater than or equal to 500 trucks per day); total roadway volumes (Broward County roadways where the average annual daily traffic (AADT) was equal to or exceeded 10,000 vehicles); and land use data (locations important for truck access, such as Fort Lauderdale-Hollywood International Airport, Port Everglades, rail yards/terminals, and industrial parks).

Port Everglades is a major load center for both passenger and freight traffic. Port Everglades is the sole seaport within Broward County and is one of 14 state-designated deepwater ports. The Port is a major generator of bulk and containerized cargo as well as cruise passengers, all of which are expected to grow significantly over the next several decades. The Port is pursuing aggressive strategies to deal with this projected growth, including the development of a Southport Intermodal Complex to increase container capacity and the construction of a people mover to connect the Fort Lauderdale-Hollywood International Airport with cruise ship facilities at the Port.

Highway access to Port Everglades and Fort Lauderdale-Hollywood International airport is a major regional strength. Four major highways in the region provide trucks with access to and from Broward County: I- 95, Florida's Turnpike, I -75, and U.S. Route 27. I-595 provides direct access to both Port Everglades and the Fort Lauderdale-Hollywood International Airport. While these highway facilities provide strong north-south service, efficient east-west highway service within the county is limited to I-595.

Broward County is served by two freight railroads: FEC and CSX. FEC provides direct rail service to Port Everglades and is the only provider of single and double-stack intermodal service to southeast Florida. CSX is the State's largest railroad and operates train-loading facilities in Fort Lauderdale. The region's expanding passenger rail service may affect freight operations. Passenger rail service in Broward County is provided by Tri-Rail and Amtrak. Tri-Rail operates along state-owned right-of-way between Miami and Palm Beach while Amtrak operates intercity service in Florida and nationwide. Tri-Rail is employing strategies to improve service levels by increasing passenger train frequency, double tracking the line, and assuming responsibility for train dispatching along the South Florida Rail Corridor. These service increases may affect freight operations along this important corridor, as the line is utilized by both passenger and freight traffic.

4.8 ITS Applications

Intelligent Transportation Systems (ITS) represents the application of technologies involving information processing, communications, control, and electronics to improve Broward County's transportation system by reducing accidents and traffic jams. The ITS projects underway in Broward County include the I-595 Dynamic Message Sign System, the I-95 Dynamic Message Sign System, the Intracoastal Waterway Dynamic Message Sign System, the Broward County Advanced Traffic Management System, the Advanced Traveler Information System (ATIS) Services, Additional Communication Linkages, and the Broward ITS Operations Facility.

4.9 Population and Employment Data

Creation of the 2030 population datasets began with housing forecasts for the year 2030 which are an extension of the forecasts previously developed within the Planning Services Division. The forecasting model attempts to emulate the forces that cause population to change in Broward County. Building upon the characteristics of the base population, Broward's population grows according to the number of births, deaths, in-migrants and out-migrants for a series of five-year periods beginning with 2000 and finishing in 2030. By 2030, the model forecasts a resident, non-institutional population of 2,383,000. The resultant 931,000 households are assigned to Traffic Analysis Zones (TAZs). Employment is divided into three categories: industrial, commercial, and service. Using the 2000 census information, the U.S. Bureau of Economic Analysis Regional Projections, and committed development data, the total employment was projected to be 944,000 in 2030.

Population and employment estimates for the base year (2000) and the forecast year (2030) are summarized in Table 2. These numbers include the addition of part-year residents of Broward County.

Table 2: Population and Employment Growth Summary

	2000	2030	Increase
Population	1,602,000	2,383,000	48.8%
Employment	651,000	944,000	45.0%

5. Model Review and Development

This section presents the methodology used to develop the travel demand model data used to estimate transportation deficiencies in Year 2030. The Florida Department of Transportation (FDOT) District Four Planning Office recently completed a study to develop and validate a new set of travel demand models for the base year 2000 in Broward County. FDOT documentation, prepared as part of this separate study, should be consulted for details on base-year model development and validation.

5.1 Existing plus Committed Networks

The development of the existing-plus-committed (E+C) highway and transit networks began with updating the base year 2000 Broward County FSUTMS model networks to the year 2004 (the "existing" component). Next, the networks were updated to reflect all projects "committed" to construction by the year 2009, according to the MPO's Transportation Improvement Program (TIP). Two different sets of procedures were used, one for the highway network and one for the transit network.

The special generator file is used to adjust the number of attractions or productions for a specific traffic analysis zone (TAZ). These adjustments might be necessary if the trip generation rates applied to the socioeconomic data in the ZDATA1b or ZDATA2 files do not produce the correct number of trip ends. The types of land use that typically need adjustments include:

» colleges or universities,
» regional airports, large regional shopping malls,
» military bases, group quarters (dormitories, barracks), and
» recreational areas.

For this study, only the Fort Lauderdale - Hollywood Airport entries in ZDATA3 were modified from the base year numbers. This is because there are no specific plans to expand or add new substantial shopping malls or recreational areas. Furthermore, there are no military bases located within Broward County. Adjustments were not made to the college and university special generators, as information was not readily available on forecasted enrollment increases through the year 2030. The college special generators might merit reevaluation should additional data become available.

5.2 Deficiency Analysis

Using the newly created year 2030 socioeconomic data, special generator estimates, external trip forecasts, and the E+C highway and transit networks, a model run was performed to estimate the volume to capacity (v/c) ratios and levels-of-service (LOS) for all roadway segments in the Broward County FSUTMS model. This model run was compared to results from estimating LOS from the base year 2000 model.

6. 2030 Needs Assessment

The needs are divided into a number of individual modal elements:

- Pedestrian
- Greenway
- Bicycle
- Waterborne Transportation
- Transit
- Roadway
- Freight
- Intelligent Transportation Systems

The needs assessment was conducted by evaluating horizon year (2030) travel conditions on the transportation network that has current funding commitments – i.e., the existing transportation network enhanced by improvements included in the MPO's five-year Transportation Improvement Program (TIP), which covers the period until 2009. Future travel demand for the year 2030 was estimated based on the forecast increase in population and employment in the County for the same period. Future transportation needs are those improvements required to maintain the currently adopted roadway standards under future travel demands.

For the transit and roadway systems, this analysis was performed using the FSUTMS travel demand model. Input variables include 2030 socioeconomic data that is comprised of population and housing data, employment projections and schools, hotels and other special generators. For the pedestrian and bicycle systems, no such widely-accepted planning tool exists, so a number of other planning methods were used to determine future needs. These included a composite countywide sidewalk inventory, the County's Bicycle Suitability Map, Bicycle Level of Service (BLOS) analysis and input from the Bicycle Advisory Committee and the Technical Advisory Committee. Waterborne transportation needs were assessed in close coordination with the Water Taxi, the operator currently providing Waterbus service, a review of navigable waterways and current and future ferry trip opportunities based on land uses and development plans. Freight needs – primarily truck and rail travel – was assessed based on commodity flow patterns and future seaport, airport and railroad plans. Intelligent Transportation System needs were assessed based on industry advancements and in cooperation with Broward County Traffic Engineering and FDOT District 4 Traffic Operations office.

Each mode of transportation was evaluated with respect to the baseline conditions and the adopted Goals, Objectives, Policies and Evaluation Criteria for this plan. This approach is an attempt to identify the efficient transportation infrastructure needs to accommodate future travel demand without regard to economic, local, or political considerations.

6.1 Summary of Alternatives

Three separate Needs Plan alternatives were subsequently created based on model performance of using the 2030 socioeconomic data and the E+C network.

- The first 2030 Needs alternative had a "highway emphasis" stressing more highway capacity projects with a limited number of transit projects.
- The second 2030 Needs alternative was a "transit emphasis" plan with a strong accent on transit projects with only the most needed highway projects.
- After both alternatives were tested and evaluated, a "balanced" Needs Plan was created by blending the best projects from both the highway and transit emphasis Needs Plans.

The 2030 Highway Emphasis Needs Alternative was based on three highway components and two transit components. The three highway components are the E+C network, the 2025 Needs projects, and a list of recommended projects to correct over capacity conditions due to additional growth beyond the 2025 horizon. The two transit components are the Transit Development Plan (Transit E+C) and the 2025 Transit Cost Feasible Plan, which included several new high performance transit

routes.

The 2030 Transit Emphasis Needs Alternative was based on two highway components and three transit components. The two highway components are the E+C network and selected high priority projects in the 2025 Cost Feasible Plan. The three transit components are the Transit Development Plan, the 2025 Transit Cost Feasible Plan, and a series of additional premium transit enhancements beyond what is found in the 2025 Cost Feasible Plan. With an emphasis on transit, it was felt that this alternative should include fewer highway capacity projects. Therefore, this alternative is limited to highway projects found in the 2025 Cost Feasible Plan. In other words, this alternative does not include 2025 Needs Plan projects that did not make the 2025 Cost Feasible Plan listing and it does not include the new highway projects recommended in the highway emphasis alternative to address needs beyond the year 2025. Furthermore, this alternative limits 2025 Cost Feasible highway projects to those most needed (i.e., projects with volumes barely over LOS thresholds were not included).

The premium transit enhancements include:

- SR 7/US 441 light rail
- East-West Transit Corridor light rail
- FEC commuter rail
- Downtown Fort Lauderdale light rail
- Airport/Seaport People Mover automated guideway

Eight new Bus Rapid Transit (BRT) routes along primary north-south and east-west corridors including:

- University Drive
- Powerline Road
- Oakland Park Boulevard
- Sunrise Boulevard
- Broward Boulevard
- Hollywood-Pines Boulevard
- Sample Road
- Atlantic Boulevard

The BRT routes link major activity centers and connect with other premium transit facilities and are assumed to provide a higher level of transit than either local bus or arterial-level express buses. It is anticipated that portions of the BRT may operate in exclusive guideways such as roadway medians. The BRT system would also include exclusive queue-jumper lanes approaching selected intersections giving buses priority over autos at stoplights. The BRT system would also likely include attractive transit stations or plazas for boarding and alighting of vehicles.

- A number of express buses with limited stop services on high demand corridors
- A number of new local bus routes including a Central Circulator loop from Tri-Rail and Downtown Ft. Lauderdale to the beaches
- Community Bus service expansion
- New Community Transit Centers

- 20-minute headways on Tri-Rail

The freight needs were prepared to address the following issues:

- Significant congestion in key freight corridors
- Limited access for freight movements
- Balancing freight operations and security
- Freight-specific incident management issues
- Need for improved regional communications and coordination

The Intelligent Transportation System (ITS) needs were developed through coordination with stakeholders and a review of previous plans and programs. The needs relate to the needs of the highway, transit, and freight modes.

6.2 Evaluation of System Performance

Tabular and graphic comparisons of air quality emissions, vehicle-miles traveled, and other statistics were created to assess the performance of each alternative on an aggregate, system wide basis. In addition, roadway level-of-service deficiencies of these alternatives were determined in terms of congestion on specific corridors. All of this information was used to refine the two alternatives into a third "balanced alternative" Needs Assessment. The components of that plan are summarized on Table 3.

Table 3: 2030 LRTP Needs Assessment Total Cost Estimate

#	Transportation Mode	Cost ($1,000)	% Distribution by Mode
1	Pedestrian	22,745	0.2 %
2	Greenways	53,200	0.6 %
3	Bikeways	100,336	1.1 %
4	Waterborne	58,131	0.6 %
5	Transit	6,163,459	53.4 %
6	Highway (including FIHS)	4,144,444	43.3 %
7	ITS	46,500	0.5 %
8	Freight	34,213	0.4 %
Total		10,623,028	100%

7. ETDM

This Efficient Transportation Decision Making (ETDM) Process creates linkages between land use, transportation and environmental resource planning initiatives through early, interactive agency involvement, which is expected to improve decisions and greatly reduce the time, effort and cost to effect transportation decisions. Efficiency is gained by two screening events built into the current transportation planning process. An Environmental Technical Advisory Team (ETAT), consisting of planning, consultation and resource protection agencies, will be established with each agency appointing a transportation representative with responsibility to coordinate transportation reviews within their respective agency. They will then provide agency response to the transportation agency (FDOT and MPO). This response will be advisory and will include input about the agency's regulatory and planning program

8. Financial Resources

This section provides an overview of transportation funds that will be available for the Broward County area through the period 2010 through 2030. Using these estimates, one can determine which improvements on the Transportation Needs Plan are financially feasible. Sufficient funds are not typically available to meet all transportation needs. Therefore, the Financially Feasible Plan serves as an implementation tool to policy and decision makers. For the purposes of developing the Long-Range Transportation Plan, the MPO and FDOT have cooperatively developed estimates of funds that will be available to support plan implementation.

Federal and state estimates were obtained from information provided in the *Revenue Forecast Handbook* (February 2001), the *2020 Florida Transportation Plan Update, Development of the 2020 Revenue Forecast* (May 2001), and consultation with the staff from FDOT District 4. Local proceeds were based on estimates generated for the County in the *2003 Local Government Financial Information Handbook* (December 2003) and projected into the future using fuel consumption projections developed by FDOT in March 2004. Year-of-expenditure projections were adjusted to constant 2000 dollars using the adjustment factors provided in Appendix D of FDOT *Revenue Forecast Handbook (February 2001).*

A summary of the available revenues from Federal, State and local sources is provided in Table 4

Table 4: Financial Resources Summary

Revenue Source	Revenue (1,000)
FIHS/Turnpike	$1,088,400
Arterial ROW/Transit	$1,708,500
Section 5309	$769,200
LOGT – County & Cities	$1,467,800
Constitutional Fuel Tax	$191,100
Transit Concurrency Fees	$42,400
Maintenance Reductions	-$284,800
Para Transit Revenues	$285,500
Aviation Department	$1,150,000
Downtown Dev. Authority	$95,200
TOTAL	**$6,513,300**

9. 2030 Cost Feasible Plan

The cost of implementing the recommended multi-modal transportation needs plan is estimated at $9.382 billion, which exceeds the anticipated revenues of $6.513 billion. It was therefore necessary to prioritize the improvements included in the needs plan to ensure that those projects which most closely address the Goals and Objectives of the 2030 LRTP would be included as cost-feasible and built with available moneys.

To this end, a number of measurable criteria were identified to evaluate each project in the identified transportation needs list against the plan goals, various community values, and input from the MPO, TCC, CIR and the public. Between three and five criteria were identified for each of the five goals of this long-range plan study are Multi-Modalism, Safety, Preservation, Coordination, and Environmental Sensitivity.

Finally, the scores related to each criterion described above were weighted based on feedback received at public meetings through the public involvement process to ensure that the community's priorities regarding transportation funding were addressed.

The results of this process are eight lists of projects for the different modes of transportation that comprise the Broward County 2030 Long Range Transportation Plan. These modes include Pedestrian, Greenway, Bicycle, Waterborne, Transit, Roadway, Freight, and ITS which are attached to this document in the appendix. Maps indicating the projects for each mode are also attached. A summary of the draft Cost Feasible Plan is provided in Table 5.

Table 5: Broward County 2030 Cost Feasible LRTP Summary

Mode	# Projects	Cost ($Millions)
Pedestrian	114	22.7
Greenway	4	53.2
Bicycle	93	100.3
Waterborne	5	48.8
Transit	29	4,081.2
Highway	84	2,187.9
ITS	7	46.5
Freight	27	34.1
Total	**362**	**6,574.7**

10. Air Quality Conformity Determination

An analysis was conducted to determine the potential impact on air quality that would result from implementation of the proposed transportation projects in the year 2030 Cost Feasible Long Range Transportation Plan (LRTP). The LRTP is in conformance with Florida's State Implementation Plan (SIP) for air quality, the Clean Air Act Amendments of 1990 (CAAA), and the corresponding transportation conformity regulations (40 CFR Parts 51 and 93) approved by the United States Environmental Protection Agency (USEPA). This effort included the air quality analysis of all conforming transportation improvement projects in the FY 2004/05 - 2008/09 Transportation Improvement Program (TIP) which was approved by the Broward County MPO on May 13, 2004. The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) subsequently found the FY 2004/05 - 2008/09 TIP to satisfy conformity determination requirements for areas in Florida designated as one-hour ozone maintenance areas and the TIP was approved by the Secretary of the Florida Department of Transportation (FDOT).

To perform the air quality analysis for the LRTP, four scenarios were developed representing interim years 2005, 2015 and 2025, and horizon year 2030. The analysis results indicated that the implementation of the recommended 2030 LRTP would contribute to annual emission reductions when compared to the 1990 base year network and emission budget for 2005/2015. The same is true for the interim years and the horizon year. The interim and horizon years were selected by the MPO through consultation with the Florida Department of Transportation (FDOT) and Federal Highway Administration (FHWA). The analysis indicates a reduction of Volatile Organic Compounds (VOCs) and Nitrogen Oxides (NOx) from the 1990 base year (attainment year) emission levels. The emissions expected from the implementation of the LRTP are consistent with the Motor Vehicle Emissions Budgets (MVEB) for the Broward County MPO area shown in the approved Maintenance Plan (see Federal Register/Vol. 69, No. 30, February 13, 2004, pages 7127-7132) and meets the analysis requirements of 40 CFR 93.118. Emissions for each interim year and the horizon year are less than the Emission Budget for 2005/2015. These emissions are summarized on Table 6.

Table 6: Summary of on-road estimated emissions (Tons/day)

Parameter	1990 Base Year	Budget[1]	2005 Interim	2015 Interim	2025 Interim	2030 Horizon
Population	1,238,763	N/A[2]	1,784,522	2,027,028	2,263,535	2,383,116
VMT	23,928,152	N/A[2]	40,976,464	48,308,072	54,407,164	58,201,444
VOC (tons/day)	132.2	66.1	52.85[3]	29.9[3]	23.01[3]	23.97[3]
NOx (tons/day)	117.0	113.0	90.3[3]	38.41[3]	22.29[3]	20.58[3]

Notes:
1. Source: Approved Air Quality Maintenance Plan (2005-2015); see Federal Register/Vol. 69, No. 30, February 13, 2004, pages 7127-7133.
2. N/A – Not Applicable.
3. Source: EMIS.OUT.
4. VOC and NOx levels for interim and horizon years are lower than budget.

11. Environmental Justice and Intergovernmental Coordination

The principles of environmental justice, as outlined by the Federal Highway Administration, were used throughout this project. These principles are intended to ensure that the process of transportation planning is consistent with the provisions of Title VI of the Civil Rights Act. These provisions were incorporated into the scope of services developed for this study, and were adhered to throughout the public involvement task of this project. In addition, the Consultant has worked from the outset of this project to include the highest level of inter-agency coordination possible. This includes coordination between various Broward County departments, the Florida Department of Transportation (FDOT), the various incorporated cities in Broward County, neighboring Counties (Miami-Dade and Palm Beach) and the Federal Highway Administration.

11.1 Environmental Justice

A 1994 Presidential Executive Order directed every Federal agency to make Environmental Justice part of its mission by identifying and addressing the effects of all programs, policies, and activities on traditionally under-represented groups, defined as "minority populations and low-income populations."

The United States Department of Transportation (DOT) Environmental Justice initiatives accomplish this goal by involving the potentially affected public in developing transportation projects that fit harmoniously within their communities without sacrificing safety or mobility. Environmental justice and Title VI are not new concerns. Today, because of the evolution of the transportation planning process, they are receiving greater emphasis. Effective transportation decision-making depends upon understanding and properly addressing the unique needs of different socioeconomic groups.

An analysis of 1990 and 2000 census data on minority and low-income populations provided by Broward County staff indicated that there are three areas of significant concern relating to

environmental justice in Broward County. These areas are described below:

- Northeast: Hammondville Road between Powerline Road and Dixie Highway
- Central County: bounded by Rock Island Road, Oakland Park Boulevard, Andrews Avenue, and Peters Road
- South County: south of Pembroke Road and west of I-95.

An analysis was performed to determine if these remain the only areas of significant concern and ascertain what level of investment these or other areas will receive in terms of transportation spending as part of the Year 2030 LRTP.

In keeping with the principles and objectives of Environmental Justice, the Broward County LRTP 2030 Update study made special efforts to reach out to minorities and low-income groups within the County. These outreach efforts focused on efforts to involve members of the Creole-speaking Haitian community and the Spanish speaking Hispanic community through the local community newspapers and on community radio and television stations. Members of the French-speaking Canadian residents (largely in southeast Broward) are understood to be largely bi-lingual, and no French-language efforts were anticipated for this community.

11.2 Intergovernmental Coordination

The Consultant set goals to ensure the highest level of inter-agency coordination. This included coordination between various Broward County Departments, the Florida Department of Transportation (FDOT), various cities in Broward County, neighboring counties (Miami-Dade and Palm Beach), and the Federal Highway Administration. Representatives from these agencies were included in the mailing list for this project. The Project Management Team (PMT) includes FDOT representatives, numerous representatives from other agencies previously mentioned, and Broward County MPO board members, members of the Technical Coordinating Committee (TCC), Community Involvement Roundtable (CIR), Plan Update Steering Committee (PUSC), Bicycle Advisory Committee (BAC), and the Broward County Coordinating Board for the Transportation Disadvantaged (BCCB).

12. 2030 Transportation Plan Adoption

On December 9, 2004, the Broward County Metropolitan Planning Organization Board adopted the LRTP Cost-Feasible Plan. The Broward County 2030 Long Range Transportation Plan (LRTP) contains a truly multi-modal set of improvement projects, which will provide the County's residents, business people and visitors with travel choices and reduce reliance on the private automobile. Transit services will be dramatically improved to allow a far higher degree of commuter travel to occur by this mode. Bicycle and pedestrian system improvements will ensure that shorter-distance trips and leisure trips can be safely addressed by these modes, and will contribute towards a sustainable future for Broward County.

Appendices (Project Listings and Maps)

1. Pedestrian improvements - project listing and map
2. Greenway improvements – project listing
3. Bikeway improvements - project listing and map
4. Waterborne improvements - project listing
5. Transit improvements – project listing and map
6. Highway improvements - project listing and map
7. Intelligent Transportation System (ITS) improvements – project listing
8. Freight improvements – project listing

Cost-Feasible Pedestrian Projects

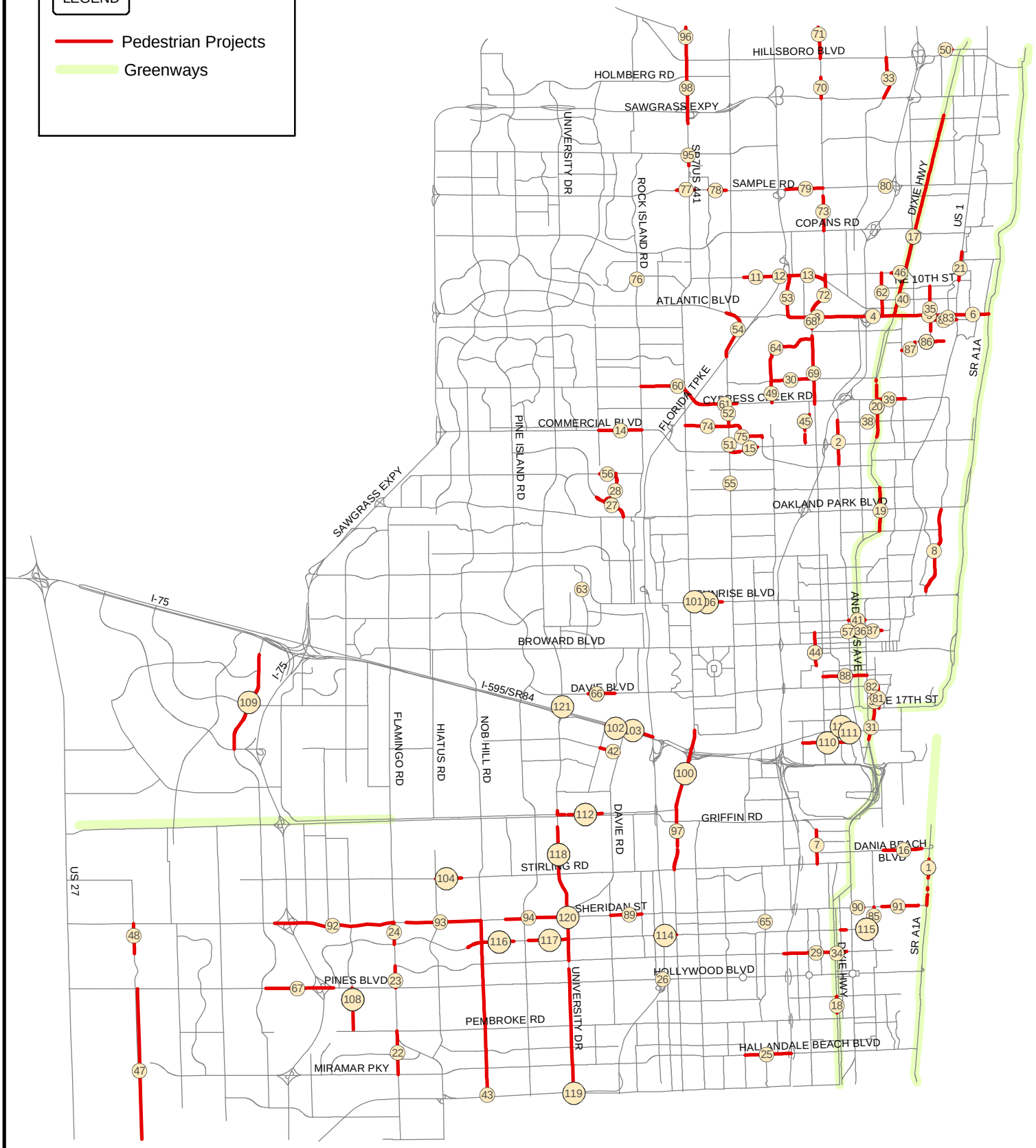
Project ID	Street Name	Limits	Length (mi)	Cost ($000)
1	A1A (HOL)	Sheridan St to S of Dania Beach Blvd	0.7	169
2	Andrews Av (OAK)	N of Prospect Rd to N of NE 56th St	1	229
3	Atlantic Blvd (POM)	NW 31st Av to NW 15th Av	1.3	288
4	Atlantic Blvd (POM)	NW 15th Av to S Cypress Rd	1.3	306
5	Atlantic Blvd (POM)	S Cypress Rd to Federal Hwy	1.2	282
6	Atlantic Blvd (POM)	Federal Hwy to A1A	0.7	168
7	Banyan Rd (DAN)	Stirling Rd to Old Griffin Rd	0.8	175
8	Bayview Dr (FTL)	N of Sunrise Blvd to S of Oakland Park Blvd	2	455
11	Coconut Creek Pkwy (CCR)	US 441 to NW 31st Av	1	227
12	Coconut Creek Pkwy (CCR)	NW 31st Av to Florida Turnpike	0.5	103
13	Coconut Creek Pkwy (POM)	Florida Turnpike to Powerline Rd	0.9	193
14	Commercial Blvd (TAM)	NW 64th Av to Rock Island Rd	1	226
15	Commercial Blvd (TAM)	E of NW 30th Terrace to W of Prospect Rd	0.6	127
16	Dania Beach Blvd (HOL)	E of SE 5th Av to W of A1A	0.9	201
17	Dixie Hwy (DFB)	Atlantic Blvd to N of NE 54 St	4.7	1,060
18	Dixie Hwy (HOL)	N of Pembroke to Washington St	0.4	87
19	Dixie Hwy (OAK)	NE 26th St to 38th St	1	230
20	Dixie Hwy (OAK)	N of Commercial to S of McNab	1.2	278
21	Federal Hwy/US 1 (POM)	NE 10th St to NE 16th St	0.7	150
22	Flamingo Rd (MIR)	Miramar Pkwy to Pembroke Rd	1	227
23	Flamingo Rd (PEM)	Pines Blvd to Johnson St	0.5	114
24	Flamingo Rd (PEM)	Taft St to Sheridan St	0.5	113
25	Hallandale Beach Blvd (PBP)	SW 40th Av to I-95	1.1	242
26	Hollywood Blvd (HOL)	N 63rd Av to Turnpike	0.04	9
27	Inverrary Blvd (LDH)	N of Inverrary Dr to Oakland Park Blvd	0.8	184
28	Inverrary Dr (TAM)	Inverrary Blvd to NW 44th St	0.8	183
29	Johnson St (HOL)	W of I-95 to W of US 1	1.5	329
30	McNab Rd (FTL)	Palm Air Dr to Powerline Rd	1	224
31	Miami Rd (FTL)	Federal Hwy to SE 19th St	0.6	125
32	Miami Rd (FTL)	SE 17th St to SE 12th St	0.7	168
33	Military Trail (DFB)	SW 10th Street to Hillsboro Blvd	1	221
34	N 21st Av (HOL)	Lincoln St to Johnson St	0.1	15
35	NE 11th Av (POM)	SW 6th Terrace (canal S of Atlantic) to NE 10th St	1	234
36	NE 4th St (FTL)	NE 3rd Av to Federal Hwy	0.2	46
37	NE 4th St (FTL)	Federal Hwy to NE 12th Av	0.4	85
38	NE 56th St (OAK)	NE 7th Terrace to NE 9th Av	0.1	21
39	NE 62nd St (FTL)	Dixie Hwy to NE 18th Terrace	0.6	139
40	NE 6th St (POM)	E of Dixie Hwy to NE 3rd Av	0.2	49
41	NE 6th St (FTL)	Andrews Av to Federal Hwy	0.4	89
78	North 28th Ave (HOL)	Taft St to Sheridan Rd	0.6	136
42	Nova Dr (DAV)	College Av to SW 64th Av	0.5	103
43	NW 101st Av (PEM)	Miami Dade County Line to Sheridan St	4	911
44	NW 11th Av (FTL)	SW 5th Pl to NW 4th St	0.7	167
45	NW 12th Ave (FTL)	N of Commercial Blvd to S of Cypress Creek Rd	0.6	135
46	NW 15th St (POM)	E of NW 6th Av to Dixie Hwy	0.3	71
47	NW 196th Av (PEM)	Miami Dade County Line to Pines Blvd	3.5	785
48	NW 196th Av (PEM)	Taft St to Sheridan St	0.7	155

Project ID	Street Name	Limits	Length (mi)	Cost ($000)
49	NW 21st Av (FTL)	NW 62nd St to McNab Rd	0.5	113
50	NW 2nd St (DFB)	Between NW 3rd Av and NE 1st Terrace	0.2	56
51	NW 31st Av (FTL)	B/t Commercial Blvd and Cypress Lake Dr	0.1	19
52	NW 31st Av (FTL)	Prospect Rd to NW 62nd St	0.5	117
53	NW 31st Av (POM)	Atlantic Blvd to Coconut Creek Pkwy	1	219
54	NW 31st Av/SW 46th Av (CCR)	Atlantic Blvd to Turnpike	1.3	287
55	NW 31st Ave (LLK)	NW 39th St to NW 41st St	0.3	60
56	NW 44th St (TAM)	E of Inverrary Blvd to W of Rock Island Rd	0.4	83
57	NW 4th St (FTL)	W of NW 1st Av to Andrews Av	0.1	14
60	NW 62nd St (FTL)	SW 71st Ave to NW 35th Av	1.7	387
61	NW 62nd St (FTL)	NW 35th Av to NW 29th Ave	0.7	153
62	NW 6th Av (POM)	Atlantic Blvd to NW 15th St	1	224
63	NW 70th Av (PLN)	NW 11th Pl to NW 13th St	0.2	37
64	Palm Aire Dr (FTL)	W McNab Rd to Pompano Pkwy	1.8	419
65	Park Rd (HOL)	Harding St to Lee St	0.2	44
66	Peters Rd (PLN)	SW 69th Av to SE 13th St	0.6	137
67	Pines Blvd (PEM)	E of NW 160th Av to I-75 Ramp	1.6	353
68	Pompano Pkwy (POM)	N of SW 3rd St to Atlantic Blvd	0.3	61
69	Pompano Pkwy/NW 9th Av (FTL)	S of NW 62nd St to S SW 3rd St	1.6	357
70	Powerline Rd (DFB)	SW 10th St to SW 4th St	0.5	111
71	Powerline Rd (DFB)	Hillsboro Blvd to Palm Beach County Line	0.7	163
72	Powerline Rd (POM)	N of Atlantic Blvd to NW 15th St	0.9	215
73	Powerline Rd (POM)	Copans Rd to S of Sample	0.8	180
74	Prospect Rd (FTL)	SR 7 to SW 31st Av	1	227
75	Prospect Rd (FTL)	SW 31st Av to NW 52nd Ct	1	227
76	Rock Island Rd (MAR)	NW 10th Ct to Margate Blvd	0.2	34
77	Sample Rd (CCR)	Turtle Creek Rd to W of SR 7	0.4	93
78	Sample Rd (CCR)	Banks Rd W of Lyons Rd	0.4	92
79	Sample Rd (POM)	Florida Turnpike to S Powerline Rd	0.9	194
80	Sample Rd (UNI)	NW 5th Terrace to I-95 Ramp	0.3	59
81	SE 10th Av (FTL)	SE 17th St to Davie Blvd	0.5	116
82	SE 12th St (FTL)	S Miami Rd to SE 10th Av	0.2	53
83	SE 18th Av (POM)	SE 2nd St to Atlantic Blvd	0.1	26
84	SE 2nd St (POM)	NE 11th Av to US 1	0.6	137
85	SE 5th Ave (HOL)	N of Taft to Sheridan St	0.4	87
86	SE 5th Ct (POM)	SE 4th Av to canal W of US1	0.5	122
87	SE 8th/6th St/3rd Terrace (POM)	Cypress Rd to SE 5th Ct	0.9	206
88	SE 9th St (FTL)	SW 9th Av to Federal Hwy	1	227
89	Sheridan St (HOL)	72nd Av to 66th Av	0.7	164
90	Sheridan St (HOL)	Federal Hwy to SE 3rd Av	0.3	66
91	Sheridan St (HOL)	Between SE 5th Av and A1A	0.9	193
92	Sheridan St (PEM)	W of I-95 to Flamingo Rd	2.8	628
93	Sheridan St (PEM)	S Lake Blvd to Palm Av	1.7	391
94	Sheridan St (PEM)	E of Pine Island Rd to University Dr	1.6	369
95	SR 7 (CCR)	N of Sample Rd to N of Wiles Rd	0.4	85
96	SR 7 (CCR)	Hillsboro Blvd to Palm Beach County Line	0.8	173
98	SR 7 (PAK)	S of Sawgrass Exwy and W Hillsboro Blvd	1.5	329
97	SR 7 (HOL)	Stirling Rd to Orange Dr	1.3	288
100	SR 7 (UNI)	SW 45th/Orange to S of Riverland Rd	1.9	429

Project ID	Street Name	Limits	Length (mi)	Cost ($000)
102	SR 84 EB (DAV)	College Av to SW 64th Av	0.5	103
103	SR 84 WB (UNI)	SW 64th Av to Florida Turnpike	0.7	149
104	Stirling Rd (CPC)	Hiatus to W of Palm Av	0.6	135
106	Sunrise Blvd (LDH)	SR 7 to W of NW 33rd Ave	0.7	170
108	SW 136th Av (PEM)	Pembroke Rd to Pines Blvd	0.9	208
109	SW 160th AV (SUN)	Arvida Pkwy to S of I-595	2.3	531
110	SW 28th St (FTL)	SW 15th St Av to SW 2nd Av	1.1	252
111	SW 2nd Av (FTL)	SW 26th St to SR 84	0.1	29
112	SW 45th St/Orange Dr (DAV)	University Dr to W of N 64th Av	1	219
113	SW 4th Av (FTL)	SR 84 to SW 20th St	0.3	58
114	Taft St (HOL)	N 64th Av to SR 7	0.5	115
115	Taft St (HOL)	Between N 14th Av and N 20th Av	0.4	84
116	Taft St (PEM)	W of Palm Av to W of Douglas Rd	1.1	240
117	Taft St (PEM)	Douglas Rd to University Dr	0.9	204
118	University Dr (DAV)	Stirling Rd to N of Orange Dr	1.2	266
119	University Dr (PEM)	N of Pines Blvd to HEFT	2.8	642
120	University Dr (PEM)	Johnson St to Stirling Rd	2	460
121	University Dr (PLN)	SR 84 to S of Peter Rd	0.3	62
	TOTAL	114 Projects	100.3	22,745

Broward County 2030 Long Range Tranportation Plan

Figure 8-1: Cost-Feasible Pedestrian Projects



Cost-Feasible Bicycle Projects

Project ID	Street Name	Limits	Project Description	Length (mi)	Cost ($000)
1	Andrews Ave (FTL)	Prospect Rd to NE 62nd St	Add Bike Lane	1.6	1,165
2	Andrews Ave (FTL)	Sunrise Blvd to Oakland Park Blvd	Add Bike Lane	2.1	1,540
3	Atlantic Blvd (CCR)	SR 7 to Powerline Rd	Add Bike Lane	3.0	2,268
4	Atlantic Blvd (POM)	Powerline Rd to I-95	Add Bike Lane	1.3	940
5	Atlantic Blvd (CSP)	University to SR 7	Add Bike Lane	3.1	2,318
6	Atlantic Blvd (CSP)	Sawgrass Exp to University	Add Bike Lane	2.6	1,975
7	Broward Blvd (PLN)	Flamingo Rd to Nob Hill Rd	Add Bike Lane	1.8	1,344
8	Broward Blvd (PLN)	University to SR 7	R/R for Bike Lane*	3.9	443
9	Broward Blvd (FTL)	SR 7 to I-95	R/R for Bike Lane	2.0	233
10	Commercial Blvd (FTL)	NE 15th Ave to US 1	Add Bike Lane	0.7	521
11	Commercial Blvd (FTL)	US 1 to ICWW	Add Bike Lane	0.9	687
12	Copans Rd (CCR)	SR 7 to Turnpike	Add Bike Lane	2.3	1,700
13	Cypress Creek Rd (FTL)	Dixie Hwy to US 1	Add Bike Lane	1.5	1,118
14	Davie Blvd (FTL)	I-95 to SE 3rd Ave	R/R for Bike Lane	1.8	200
15	Davie Rd/SW 64th Ave (DAV)	Nova Dr to SR 84	Add Bike Lane	0.5	397
16	Davie Rd/SW 64th Ave (DAV)	Stirling St to Griffin Rd	Add Bike Lane	1.3	982
17	Dixie Hwy (POM)	McNab Rd to SW 2nd Pl	R/R for Bike Lane	1.3	149
18	Dixie Hwy (DAV)	NE 38th St to Commercial Blvd	R/R for Bike Lane	1.1	124
19	Federal Hwy (DAN)	E Young Cir to Dixie Hwy	Add Bike Lane	2.0	1,457
20	Federal Hwy (FTL)	Broward Blvd to Sunrise Blvd	Add Bike Lane	1.0	776
21	Federal Hwy (FTL)	Sunrise Blvd to Oakland Park Blvd	Add Bike Lane	2.2	1,620
22	Federal Hwy (FTL)	Commercial Blvd to Atlantic Blvd	Add Bike Lane	3.0	2,261
23	Federal Hwy (DFB)	NE 36th St to Hillsboro Blvd	Add Bike Lane	3.0	2,207
24	Griffin Rd (DAN)	Ravenswood Rd to US 1	R/R for Bike Lane	1.6	185
25	Hiatus Road (SUN)	Oakland Park Blvd to Commercial Blvd	Add Bike Lane	1.9	1,455
26	Hillsboro Blvd (DFB)	Military Trail to A1A	Add Bike Lane	3.2	2,395
27	Hollywood Blvd (HOL)	SR 7 to S Circle Dr	Add Bike Lane	1.5	1,150
28	Hollywood Blvd (HOL)	Turnpike Mainline to SR 7	R/R for Bike Lane	0.3	39
29	Johnson St (HOL)	I-95 to US 1	R/R for Bike Lane	1.5	170
30	Johnson St (HOL)	Park Rd to I-95	R/R for Bike Lane	0.5	60
31	Johnson St (HOL)	SR 7 to Park Rd	Add Bike Lane	2.0	1,496
32	Johnson St (HOL)	SW 72nd Ave to SR 7	R/R for Bike Lane	1.5	171
33	Las Olas Blvd (FTL)	SE 3rd Ave to SE 15th Av	R/R for Bike Lane	0.9	104
34	McNab Rd (TAM)	Nob Hill Rd to Pine Island Rd	Add Bike Lane	1.0	745
35	Miramar Pkwy (MIR)	University Drive to SR 7	Add Bike Lane	2.6	1,918
36	MLK Boulevard (POM)	Powerline Rd to I-95	Add Bike Lane	1.8	1,366
37	N 46th Ave (HOL)	Sheridan St to just south of N 35th St	R/R for Bike Lane	0.6	70
38	N 56th Ave (DAN)	Sheridan St to Stirling Rd	R/R for Bike Lane	1.0	116
39	N 72nd Ave (HOL)	Johnson to Sheridan St	Add Bike Lane	1.0	746
40	NE 16th Ave (OAK)	NE 26th St to NE 45th St	Add Bike Lane	1.7	1,235
41	NE 48th St (DFB)	NE 15th Ave to Federal Hwy	R/R for Bike Lane	0.9	106
42	NE 56th St (FTL)	Dixie Hwy to US 1	Add Bike Lane	1.3	975

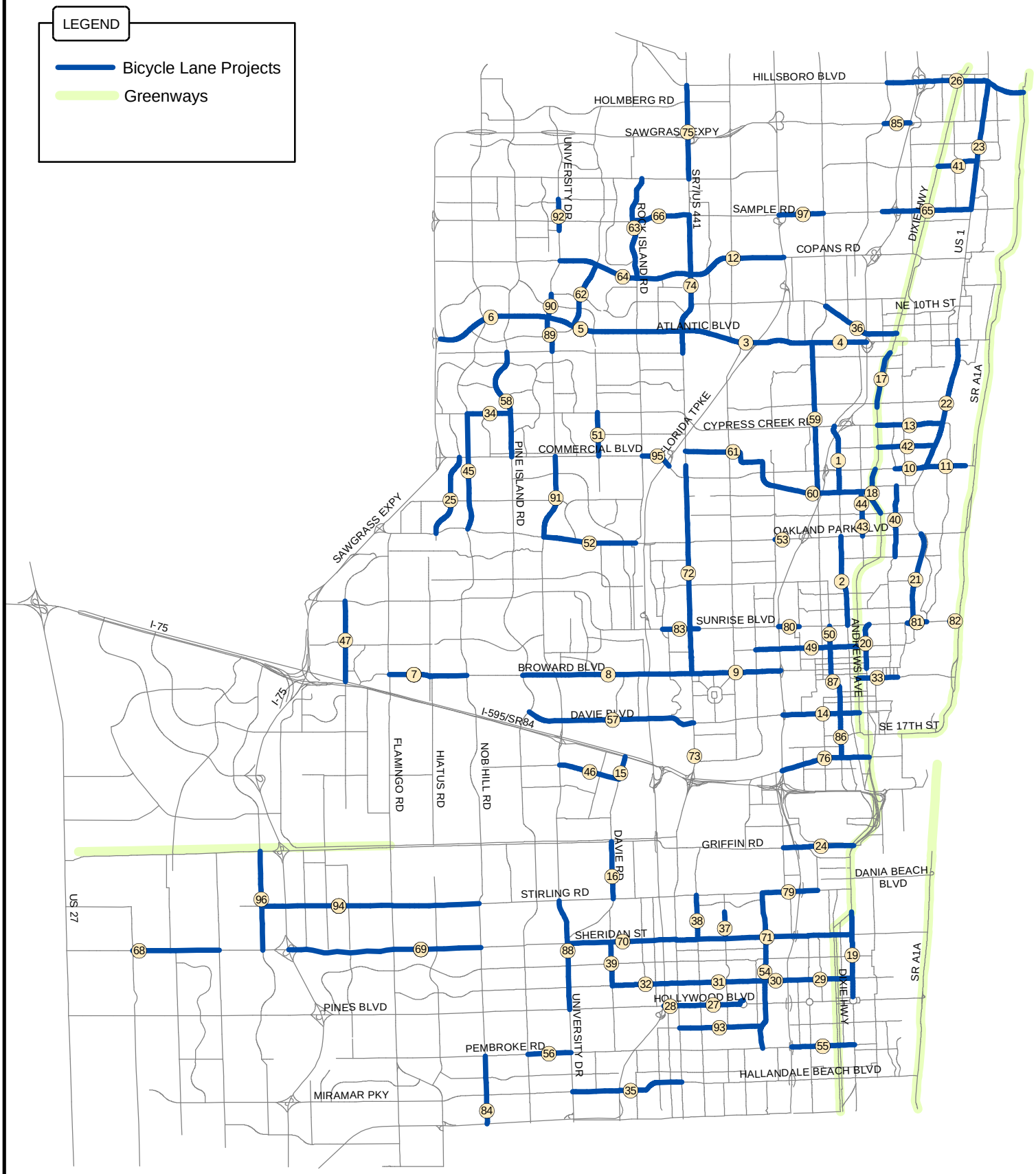
Project ID	Street Name	Limits	Project Description	Length (mi)	Cost ($000)
43	NE 6th Ave (OAK)	Oakland Park Blvd to NE 38th St	R/R for Bike Lane	0.5	57
44	NE 6th Ave (OAK)	NE 38th St to Prospect Rd	R/R for Bike Lane	0.5	59
45	Nob Hill Rd (SUN)	Oakland Park Blvd to McNab Rd	R/R for Bike Lane	2.7	305
46	Nova Dr (DAV)	University Dr to Davie Rd	Add Bike Lane	1.4	1,058
47	NW 136th Ave (PLN)	SR 84 to Sunrise Blvd	R/R for Bike Lane	1.9	211
49	NW 6th St (FTL)	NW 27th Ave to Federal Hwy	Add Bike Lane	2.5	1,891
50	NW 7th Ave (FTL)	Broward Blvd to Sunrise Blvd	Add Bike Lane	0.5	365
51	NW 81st Ave (NLD)	Commercial Blvd to Mc Nab Rd	Add Bike Lane	1.0	747
52	Oakland Park Blvd (LDH)	University Dr to Rock Island Rd	Add Bike Lane	2.1	1,587
53	Oakland Park Blvd (OAK)	NW 21st Ave to NW 17th Terrace	Add Bike Lane	0.3	212
54	Park Rd (HOL)	Pembroke Rd to Stirling St	Add Bike Lane	3.6	2,709
55	Pembroke Rd (HAL)	I-95 to Federal Hwy	Add Bike Lane	1.4	1,077
56	Pembroke Rd (MIR)	Douglas Rd to University Dr	R/R for Bike Lane	1.0	113
57	Peters Rd (PLN)	Pine Island Rd to SR 7	Add Bike Lane	3.9	2,903
58	Pine Island Rd (TAM)	Commercial Blvd to Southgate Blvd	Add Bike Lane	2.6	1,947
59	Powerline Rd (FTL)	Prospect Rd to Atlantic Blvd	Add Bike Lane	3.5	2,585
60	Prospect Rd (OAK)	Commercial Blvd to Dixie Hwy	Add Bike Lane	2.7	2,048
61	Prospect Rd (FTL)	SR 7 to Commercial Blvd	Add Bike Lane	2.2	1,653
62	Riverside Dr (CSP)	Atlantic Blvd to Royal Palm Blvd	R/R for Bike Lane	1.5	176
63	Rock Island (CSP)	Royal Palm Blvd to Wiles Rd	Add Bike Lane	2.4	1,790
64	Royal Palm Blvd (CSP)	University Dr to SR 7	Add Bike Lane	3.0	2,271
65	Sample Rd (LHP)	NE 5th Ave to US 1	R/R for Bike Lane	2.0	233
66	Sample Rd (CSP)	Rock Island to SR7	Add Bike Lane	1.3	995
68	Sheridan Street (PEM)	SW 196th Ave to SW 172nd Ave	Add Bike Lane	2.0	1,487
69	Sheridan Street (DAV)	I-75 to Palm Ave/NW 101st Ave	Add Bike Lane	4.4	3,307
70	Sheridan Street (HOL)	University to SR 7	Add Bike Lane	2.5	1,864
71	Sheridan Street (HOL)	SR 7 to US 1	Add Bike Lane	4.1	3,032
72	SR 7 (LLK)	Broward Blvd to Commercial Blvd	Add Bike Lane	4.8	3,575
73	SR 7 (UNI)	North of Turnpike ramp to Riverland Rd	Add Bike Lane	0.2	147
74	SR 7 (CSP)	Southgate Blvd to Sample Rd	Add Bike Lane	3.2	2,422
75	SR 7 (CCR)	Wiles Rd to Hillsboro Rd	R/R for Bike Lane	2.2	246
78	SR 84 (FTL)	I-95 to US 1	Add Bike Lane	2.0	1,493
79	Stirling Rd (DAN)	Park Rd to S Bryan Road	Add Bike Lane	1.3	953
80	Sunrise Blvd (FTL)	I-95 to NW 15th Ave	Add Bike Lane	0.5	359
81	Sunrise Blvd (FTL)	US 1 to Middle River	Add Bike Lane	0.5	385
82	Sunrise Blvd (FTL)	North Birch Rd to A1A	Add Bike Lane	0.1	111
83	Sunrise Blvd (LDH)	NW 45th Ave to SR 7	Add Bike Lane	0.8	615
84	SW 101st Ave (MIR)	Florida Turnpike to Pembroke Rd	Add Bike Lane	1.6	1,167
85	SW 10th St (DFB)	Military Trail to I-95	R/R for Bike Lane	0.6	68
86	SW 4th Ave (FTL)	SR 84 to Davie Blvd	R/R for Bike Lane	1.0	116
87	SW 4th Ave/SW 7th Ave (FTL)	SW 7th St to Broward Blvd	Add Bike Lane	1.6	1,202
88	University Dr (DAV)	Pines Blvd to Stirling Rd	R/R for Bike Lane	2.5	289
89	University Dr (CSP)	Southgate Blvd to Atlantic Blvd	Add Bike Lane	0.8	593
90	University Dr (CSP)	Atlantic Blvd to Shadow Wood Blvd	R/R for Bike Lane	0.5	62

Project ID	Street Name	Limits	Project Description	Length (mi)	Cost ($000)
91	University Dr (LDH)	Oakland Park Blvd to Commercial Blvd	Add Bike Lane	1.9	1,439
92	University Dr (CSP)	NW 31st Ct to NW 40th St	Add Bike Lane	0.7	533
93	Washington St (HOL)	SR 7 to Park Rd	R/R for Bike Lane	1.9	216
94	Stirling Rd (CPC)	SW 160th Ave to Nob Hills Rd	Add Bike Lane	5.0	3,732
95	Commercial Blvd (TAM)	Rock Island Rd to Turnpike	Add Bike Lane	0.7	539
96	Dykes Rd (DAV)	Sheridan St to Griffin Road	Add Bike Lane	2.3	1,698
97	Sample Rd (POM)	Turnpike Mainline to Powerline Rd	Add Bike Lane	1.0	769
	TOTAL	93 Projects		168	100,336

R/R for Bike Lane = Resurface/Restripe for Bike Lane

Broward County 2030 Long Range Tranportation Plan

Figure 8-2: Cost-Feasible Bicycle Projects



Cost-Feasible Greenway Projects

Project Name	Limits	Length (mi)	Cost ($000)
Dixie Hwy (north)	From north Perimeter Rd to Broward Palm Beach County Line	14.6	10,000
Dixie Hwy (South)	From north Perimeter Rd to Broward Miami-Dade County Line	14.0	10,000
SR A1A	Miami-Dade County Line to Palm Beach County Line	25.7	28,000
C-11	From Flamingo Rd to US 27	13.6	5,200
TOTAL	4 projects	67.9	53,200

Cost-Feasible Waterborne Projects

Project ID	Project Name	Project Description	Estimated Operating Subsidy [(1)] ($000)	Capital Cost ($000)
1	Base Service	Hourly Service to 22 stops on New River & Intracoastal Waterway	$31,500	$370
2	Increase Frequency	Thirty-minute headways commencing December 2003	$2,709	$0
3	Downtown Commuters	6:30am to 9:30am service from S.W. 7th Street to Marina Bay	$2,625	$0
4	I-95 Extension	West on New River from S.W. 7th Street to Marina Bay	$6,636	$2,500
5	New Terminal	Optional locations being considered	$0	$2,500
			$43,470	$5,370
TOTAL		5 projects		$48,840

[(1)] Annual Operating Subsidy multiplied by 21 years. Expressed in 2004 dollars.

Cost-Feasible Transit Projects

Project Type	Service Improvement	Route Numbers	Total Operating Subsidy (2004$ - $000)	Total Capital Cost [1] ($000)
Regular Transit Service				
Local Operations	Transportation trust funds used to subsidize local transit operations, 2010 to 2030		$753,690	$0
Regular Bus	Weekday 10 minute headways	1, 18, 36, and 72	$5,171	$7,800
Regular Bus	Weekday 15 minute headways	2, 14, 31, 40, 50, and 60	$4,575	$6,900
Regular Bus	Weekday 20 minute headways	7, 10, 11, 28, and 83	$3,381	$5,100
Regular Bus	Weekday 30 minute headways	3, 5, 9, 15, 20, 55, and 62	$3,035	$4,500
Regular Bus	Weekday 40 minute headways	57	$184	$300
Regular Bus	Saturday Headway Improvements	2, 9, 14, 15, 31, 50, and 55	$624	$0
Regular Bus	Sunday/Holiday Headway Improvements	6, 7, 9, 10, 11, 14, 15, 30, 40, 50, 55, 81, and 83	$893	$0
Regular Bus	Service Expansion	12 and 88	$2,042	$1,800
Regular Bus	Six New Routes	Galleria to Aventura (4), Atlantic (42), Margate to Sawgrass Mills (44), Hillsboro (89), Stirling (201), and Griffin (202)	$6,545	$7,200
			$780,140	$33,600
	TOTAL			$813,740

Project ID	Project Type	Project Name	Project Alignment Limits	Length (mi)	Total Operating Subsidy (2004$ - in $000)	Total Capital Cost (in $000)
Premium Transit Service						
3	LRT [1]	FEC RR Transit Corridor and Crossing Improvements	From Miami-Dade County to Palm Beach County	24.15	$50,802	$402,895
4	LRT	Central Broward East-West Transit Corridor	From Sawgrass Mills to Int'l Airport via Downtown	21.00	$30,826	$600,000
5	BRT/Rapid Bus [2]	SR 7 Transit "Bridge"	Phase 1: Miami-Dade Co. to I-595; Phase 2: I-595 to Palm Beach Co.	25.50	$10,852	$51,000
7	Rapid Bus	Oakland Park Blvd	From Sawgrass Mills to Downtown via US 1	18.03	$49,153	$40,030
8	Rapid Bus	Pines/Hollywood Blvd	From SW 160th Ave to Young Circle	13.56	$70,600	$31,560
9	Rapid Bus	Sample Road	From Sawgrass Expwy. to Pompano Square Mall via Dixie Hwy	13.61	$36,529	$30,270
10	Rapid Bus	University Drive	From Miami-Dade County to Sample Road	21.02	$56,427	$34,010
11	Express Bus	Atlantic Blvd.	From Sawgrass Expwy. to Pompano TC at Dixie	10.94	$10,755	$1,890
13	Express Bus	Cypress Creek / McNab Road	Sawgrass Mills - Tri-Rail - Downtown TC	18.74	$16,196	$3,150
14	Express Bus	I-75	From Miami-Dade County to Sawgrass Mills	20.67	$32,863	$3,150
15	Express Bus	Powerline Road	From Downtown Ft. Laud. to Palm Beach Co.	15.05	$26,556	$4,410

Project ID	Project Type	Project Name	Project Alignment Limits	Length (mi)	Total Operating Subsidy (2004$ - in $000)	Total Capital Cost (in $000)
16	Express Bus	Sawgrass Expressway	Sawgrass Mills to Boca Raton Tri-Rail Station	20.33	$16,196	$0
18	Express Bus	Sunrise Blvd	Sawgrass Mills to downtown Ft Lauderdale	12.91	$43,220	$4,410
20	Paratransit	Operations and Capital			$285,500	$0
21	Tri-Rail Operations	Contribution to Tri-Rail operations	Miami-Dade to Palm Beach County Lines		$84,000	$0
22	Construction	Build Neighborhood and Regional Transit Centers	At the Cities of Lauderhill, Coral Springs, Miramar, Hollywood, Pompano Beach and Davie (Educational Center)		$0	$8,150
Project Funded by Broward County Aviation Department						
1	Automated People Mover (APM)	Automated People Mover	From FLL Airport to Port Everglades		0	1,150,000
Project Funded by Fort Lauderdale Downtown Development Authority						
2	Light Rail Transit (LRT)	Downtown Light Rail	Downtown Ft. Lauderdale: Andrews and 3rd Ave		$30,986	$51,042
					$851,462	$2,415,967
TOTAL					$3,267,429	
		GRAND TOTAL	29 Projects		$4,081,169	

[(1)] Total capital cost is $775 million, only 52% is funded. As an interim step toward implementation, express limited-stop transit service will be provided on US 1.
[(2)] The LRTP contains sufficient funds for this project to evolve from a Rapid Bus service in mixed-traffic to a BRT service with exclusive transit lanes

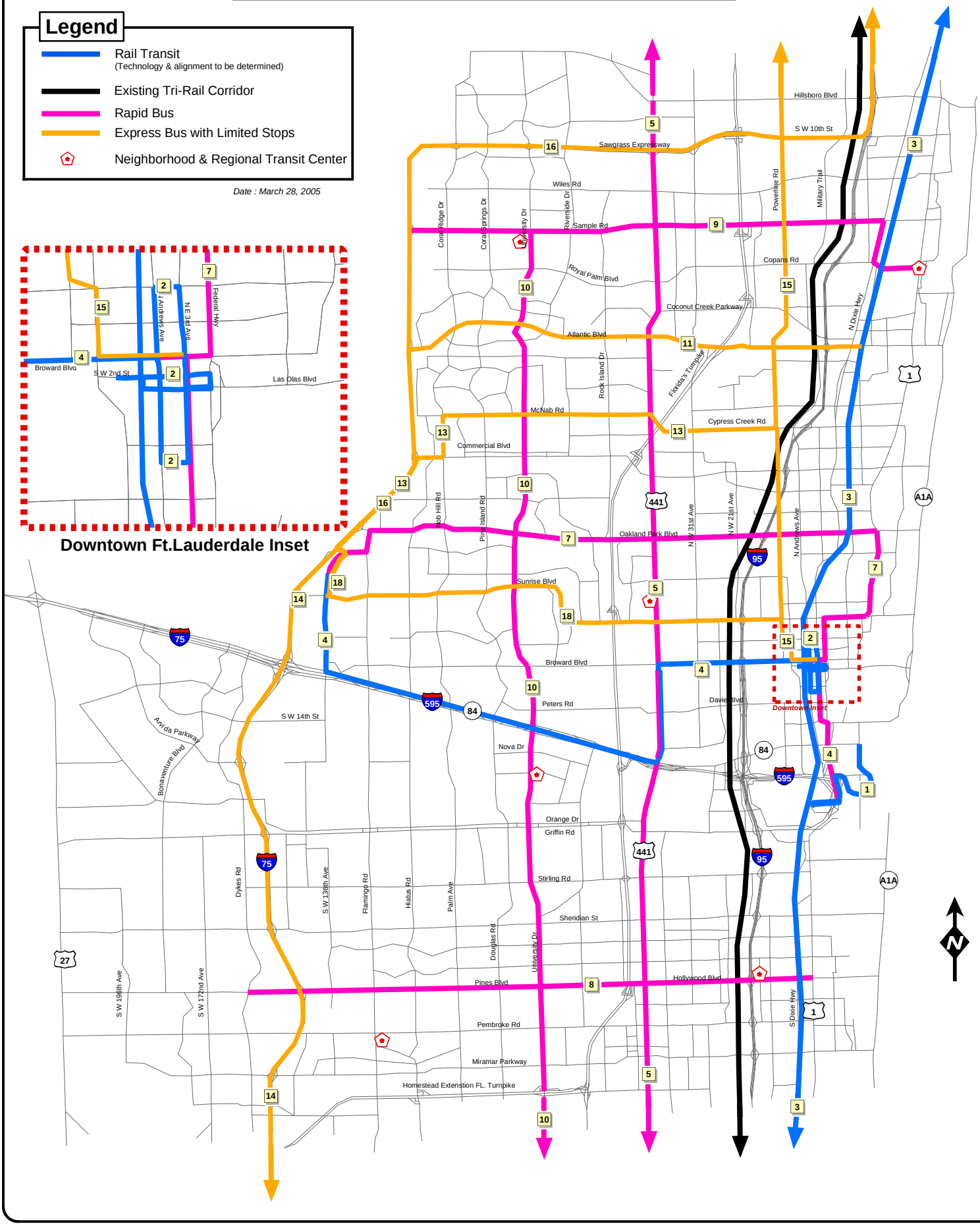
Transit Unit Costs

LRT capital cost per vehicle is $2.6 million.
Rapid bus development cost is $2.0 million per centerline mile. This includes right-of-way acquisition for stations, signing, traffic signal priority, and ITS station enhancements.
Express and Local Bus capital cost per vehicle is $315,000.

Year of Implementation for Premium Transit Services

2006: State Road 7 Rapid Bus
2010: Oakland Park Rapid Bus and Sunrise Express Bus
2015: Central Broward East-West Transit Corridor, Pines/Hollywood Rapid Bus, and Powerline Express Bus
2020: FEC LRT, University Drive Rapid Bus, Cypress Creek/McNab Express Bus, and I-75 Express Bus
2025: Downtown FTL LRT, Atlantic Express Bus, Sample Road Rapid Bus, and Sawgrass Express Bus \

Figure 8-3: Cost-Feasible Plan Transit Projects



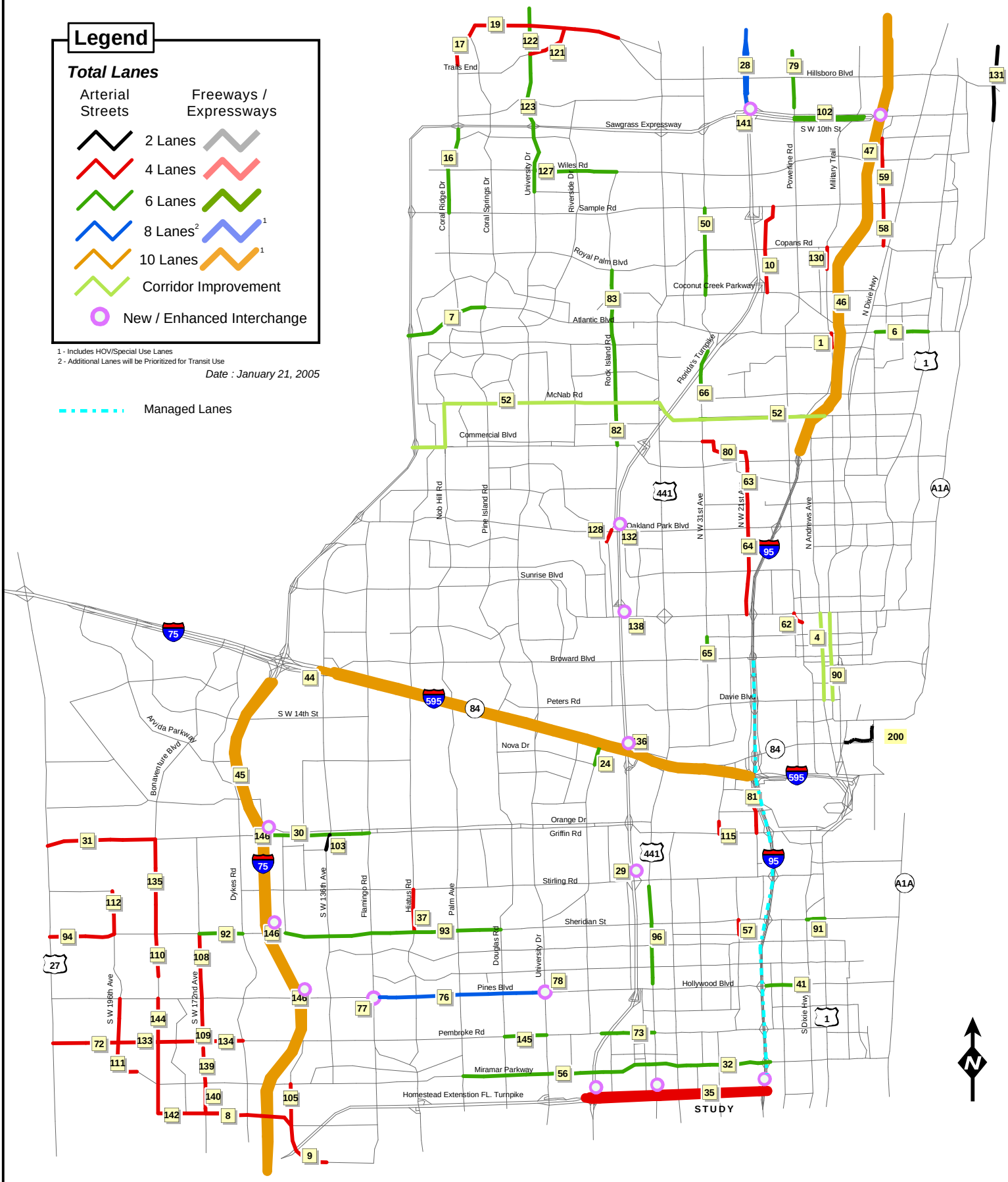
Cost-Feasible Highway Projects

Project ID	Project Name	Segment	Length (mi)	Project Description	Cost ($000)
Highway System					
1	Andrews Ave	Pompano Park Pl to Atlantic Blvd	0.4	New (4LD)	35,040
130	Andrews Ave	NW 18 St to Copans Rd	0.5	New (4LD)	19,500
4	Andrews Ave	Davie Blvd to Sunrise Blvd	2.0	Corridor Improvement	1,000
6	Atlantic Blvd	Cypress Rd to Federal Hwy (US1)	1.1	Restripe for 6LD	1,000
7	Atlantic Blvd	Sawgrass Exwy to Coral Springs Dr	1.9	From 4 to 6 lanes (6LD)	15,514
8	Bass Creek Rd	SW 172nd Ave to SW 148 Ave	2.3	From 2 to 4 lanes (4LD)	10,634
9	Bass Creek Rd	SW 148 Ave to Flamingo Rd	2.0	New 4 lanes	24,942
142	Bass Creek Rd	SW 184th Ave to SW 172nd Ave	1.0	New (4LD)	7,343
10	Blount Rd	Hammondville Rd to Sample Rd	1.8	From 2 to 4 lanes (4LD)	20,852
16	Coral Ridge Dr	Sample Rd to Sawgrass Exwy	2.0	From 4 to 6 lanes (6LD)	16,558
19	County Line Rd	Coral Ridge Dr to Hillsboro Blvd Ext	2.8	New (4LD)	20,193
24	Davie Rd	Nova Dr to I-595	0.5	From 4 to 6 lanes (6LD)	5,672
31	Griffin Rd	US 27 to Bonaventure Blvd	2.5	From 2 to 4 lanes (4LD)	12,084
30	Griffin Rd	I-75 to Flamingo Rd	2.7	From 4 to 6 lanes (6LD)	13,122
32	Hallandale Bch Blvd	SR 7 / US 441 to I-95	2.5	From 4 to 6 lanes (6LD)	28,361
37	Hiatus Rd	Sheridan Street to Stirling Rd	1.0	From 2 to 4 lanes (4LD)	8,209
41	Hollywood Blvd	I-95 to S Dixie Hwy	1.4	Restripe for 6LD	2,000
50	Lyons Rd	S of Coconut Creek Pkwy to Sample Rd	2.1	From 4 to 6 lanes (6LD)	23,824
52	McNab /Commercial Blvd	Sawgrass Exwy to I-95	10.4	Corridor/Transit Improve	10,000
56	Miramar Pkwy	Palm Ave to SR 7 / US 441	4.6	From 4 to 6 lanes (6LD)	44,822
57	N. Park Rd	Sheridan Street to Coolidge St	0.4	From 2 to 4 lanes (4LD)	4,634
58	NE 3rd Ave	Copans Rd to Sample Rd	1.0	From 2 to 4 lanes (4LD)	9,834
59	NE 3rd Ave	Sample Rd to NE 54th St	1.5	From 2 to 4 lanes (4LD)	12,023
17	Nob Hill Rd	N of Trails End to County Line Rd	1.6	New (4LD)	11,969
63	NW 21 Ave	Oakland Park Blvd to Commercial Blvd	1.3	From 2 to 4 lanes (4LD)	15,300
64	NW 21/23 Ave	Sunrise Blvd to Oakland Park Blvd	2.0	From 3 to 4 lanes (4LD)	17,377
65	NW 31st Ave	Broward Blvd to Sistrunk Blvd	0.5	From 4 to 6 lanes (6LD)	5,672
66	NW 31st Ave	McNab Rd to N of FL Turnpike	1.3	From 4 to 6 lanes (6LD)	14,748
128	NW 55th Ave	S to N of Oakland Park Blvd	0.5	Align w. Rock Island Rd	3,672
62	NW 7th/9th Ave Connector	S of Sunrise Blvd to NW 6th St	1.4	New (4LD)	40,000
73	Pembroke Rd	W of Turnpike to SR 7 / US 441	1.4	Restripe for 6LD	1,000
72	Pembroke Rd.	SW 200th Ave to US Hwy 27	1.5	New (4LD)	11,015
133	Pembroke Rd.	SW 184th Ave to SW 200th Ave	1.0	New (4LD)	7,342
134	Pembroke Rd.	SW 160th Ave to SW 184th Ave	1.9	New (4LD)	13,950
145	Pembroke Rd.	University Dr to Douglas Rd	1.0	From 4 to 6 lanes (6LD)	2,500
77	Pines Blvd	At Flaming Rd		New Interchange	10,000
76	Pines Blvd	Flamingo Rd to University Dr	3.0	From 6 to 8 lanes (8LD)	27,142
78	Pines Blvd	At University Dr		New Interchange	10,000
79	Powerline Rd	SW 10 St to PB County Line	1.6	From 4 to 6 lanes (6LD)	18,391
80	Prospect Rd	NW 31 Ave to Commercial Blvd	1.5	From 2 to 4 lanes (4LD)	17,377
81	Ravenswood Rd	Griffin Rd to SW 36 St	1.0	From 2 to 4 lanes (4LD)	11,825
82	Rock Island Road	Commercial Blvd to McNab Rd	1.0	From 4 to 6 lanes (6LD)	11,345
90	SE/NE 3 Ave	Davie Blvd to Sunrise Blvd	2.0	Corridor Improvement	1,000
92	Sheridan St	SW 160th Ave to SW 172nd Ave	1.0	From 4 to 6 lanes (6LD)	4,734

Cost-Feasible Highway Projects

Project ID	Project Name	Segment	Length (mi)	Project Description	Cost ($000)
94	Sheridan St	US 27 to NW 196th Ave	1.4	From 2 to 4 lanes (4LD)	6,767
93	Sheridan St	SW 148th Ave to Douglas Rd	5.0	From 4 to 6 lanes (6LD)	33,496
91	Sheridan St	Dixie Hwy to US-1	0.4	From 4 to 6 lanes (6LD)	19,671
96	SR 7	N of Hollywood Blvd to S of Stirling Rd	2.4	From 4 to 6 lanes (6LD)	152,536
95	SR 7 / US 441	At Atlantic Blvd		Intersection Improve	10,000
102	SW 10th St	Powerline Rd to Military Trail	1.4	From 4 to 6 lanes	11,016
103	SW 136th Ave	E Palomino Dr to Griffin Rd	0.4	New (2LU)	3,414
105	SW 148th Ave	Bass Creek Rd to Miramar Pkwy	1.0	From 2 to 4 lanes (4LD)	14,435
108	SW 172 Ave	Pines Blvd to Sheridan Street	1.5	From 2 to 4 lanes (4LD)	7,251
109	SW 172 Ave	Pembroke Rd to Pines Blvd	1.0	From 3 to 4 lanes (4LD)	3,625
139	SW 172 Ave	Miramar Pkwy to SW 23 Street	0.6	Add one NB Lane	1,450
140	SW 172 Ave	Miramar Pkwy to Bass Creek Rd	0.6	From 2 to 4 lanes (4LD)	2,900
110	SW 184th Ave	4th Street to Sheridan Street	1.5	From 2 to 4 lanes (4LD)	3,899
135	SW 184th Ave	Sheridan Street to Griffin Rd	2.2	New (4LD)	16,155
144	SW 184th Ave	Pines Blvd to Bass Creek Rd	2.5	New 4 lanes	20,000
111	SW 196th Ave	Miramar Pkwy to Pines Blvd	2.0	New (4LD)	14,686
112	SW 196th Ave	S of Sheridan Street to Stirling Rd	1.1	From 2 to 4 lanes (4LD)	5,317
115	SW 30th Ave	Griffin Rd to SW 45th St	0.3	From 2 to 4 lanes (4LD)	3,475
121	Trails End	University Dr to County Line Rd	0.7	New (4LD)	5,140
123	University Dr	NW 40 St (Cardinal) to Holmberg Rd	2.2	From 4 to 6 lanes (6LD)	24,958
122	University Dr	Holmberg Rd to County Line Rd	1.5	From 2 to 6 lanes (6LD)	7,251
127	Wiles Rd	University Dr to Rock Island Rd	1.7	From 4 to 6 lanes (6LD)	19,286
131	SR A1A (Deerfield Bch)	NE 4th Street to SE 1st Street		Intersection Improve	11,600
200	US-1 By-Pass	SE 17 St Causeway to US-1	1.2	New 2 lanes	22,000
FIHS/Turnpike					
28	Florida's Turnpike	Sawgrass Expwy to PB County Line	1.9	From 6 to 8 lanes (8LD)	26,700
29	Florida's Turnpike	At Stirling Rd	0.2	New Interchange	60,000
132	Florida's Turnpike	At Oakland Park Boulevard	0.2	New Interchange	18,600
136	Florida's Turnpike	At I-595	0.3	Interchange Modification	88,900
141	Florida's Turnpike	At Sawgrass Interchange	0.2	Interchange Modification	35,000
147	Sawgrass Exwy	Sunrise Blvd to FTPK Main Line	22.1	Implement Open Road Tolling	30,000
138	Florida's Turnpike	At Sunrise Boulevard	0.1	Interchange Modification	28,000
35	County Line Rd (HEFT Ext)	FL. Turnpike to I-95	3.9	Feasibility Study	1,000
44	I-595	E. of I-75 to E. of State Road 7	10	Add 2 Reversible Lanes	84,100
44	I-595	I-75 to US-1	14	Causeway Improvements	151,800
44	I-595	I-75 to University Drive	7.0	Ramp Modifications & 3 cross-street overpasses	144,000
45	I-75	Miami-Dade County Line to I-595	12.3	Add Reversible Lanes	214,000
146	I-75	At Pines, Sheridan, and Griffin		3 Urban Interchanges	16,500
47	I-95	Sample Rd to PB County Line	3.7	From 8 to 10 lanes (AUX)	58,300
46	I-95	Commercial Blvd to Sample Rd	6.5	From 8 to 10 lanes (AUX)	131,500
148	I-95	Miami-Dade Co Line to Broward Blvd	9.5	Managed Lanes w BRT	75,675
GRAND TOTAL		**84 Projects**			**2,187,923**

Figure 8-4: Cost-Feasible Plan Highway Projects



Cost Feasible ITS Projects

Project ID	Project Description	Cost ($000)
1	ATMS Design Group 3	$8,000
2	Traffic Signal Preemption/Priority along CMS Corridor	$2,000
3	Video based vehicle detection systems along CMS Corridor	$2,000
4	ATMS Design Group 4	$10,000
5	ATMS Design Group 5	$12,000
6	ATMS Design Group 6	$12,000
7	Crash Data Center	$500
TOTAL	**7 Projects**	**$46,500**

Cost Feasible Freight Projects

Project ID	Project Name	Limits / Description	Cost ($000)
Infrastructure Projects - Expansion and Improvement			
Airport/Seaport Infrastructure Expansion			
1	FPL Canal Bridge [(1)]	Construct new bridge over FPL canal	$2,000
2	Southport rail connector [(1)]	Rail Connector between Southport and FEC mainline	$3,300
3	On-Port circulation Improvements [(1)]		$4,500
4	Advanced baggage transfer system	Between Port & Airport	$5,000
5	Intermodal Container Terminal Facility (ICTF)	Southport	$13,500
6	Roadway capacity expansion	At Eller Drive; Port Entrance.	$500
7	Access Improvements	At Eisenhower Blvd; Port Entrance.	$500
8	Access Improvements	At SW 24/ Spangler Blvd; Port Entrance	$500
Parsec-Intermodal Infrastructure Improvement			
9	Operational improvement - turn radius	Andrews Ave./SR 84 southbound	$200
[(1)] from Atlantic Commerce Corridor Study, Nov 2003		SUBTOTAL	$30,000
Intelligent Transportation System (ITS) projects - Operational & Technology Improvements			
10	Directional Dynamic Message Signs (DMS)	Within Port Limits	$78
11	Optimize Signal Timing	7 East-West Arterials	$80
12	Inventory Clearance Equipment	FDOT and FTPK accessible	$10
13	Traveler Information via DMS	Port exit: inform on major incidents; security	$25
14	Real Time Train Locations	Upgrade/expand current FEC program; add SFRC.	$22
15	Delivery appointment system for cruise ships	Web-based appointment system	$7
16	Database integration	Integrate Available Databases into Centralized System	$5
17	Additional vehicle classification counts.	Key freight highways, annually	$16
18	Outreach & Education	Each freight project includes outreach, public relations, and education purposes.	$0
Annualized cost - over 21 years		SUBTOTAL	$3,465
Studies - Freight Program Enhancements			
19	Freight origin/destination surveys	Commodity type, pick-up and drop-off facility types, key highways, trip frequency	$90
20	Economic impact study	Economic impact study to evaluate the impact of the industry based in Broward County.	$40
21	Freight modeling tools	Integrate statewide freight model with local	$30
22	Freight operations data.	Surveys carriers & shippers	$50
23	Train volume data set	# Freight trains, length, type of equipment, etc.	$175
24	Revise ranking/prioritization methodology	Develop freight-specific project evaluation criteria to evaluate and prioritize freight improvement projects.	$50
25	Regional freight plan	With Palm Beach and Miami-Dade MPOs.	$100
26	Commodity flow forecasts for the region	Utilize the statewide truck freight model to forecast truck trips for internal/external and external/internal trips.	$75
27	Develop freight performance measures	The MPOs should develop a comprehensive set of performance measures to evaluate the Tri-County freight transportation system on an ongoing basis.	$60
SUBTOTAL			$670
	GRAND TOTAL	27 Projects	$34,135