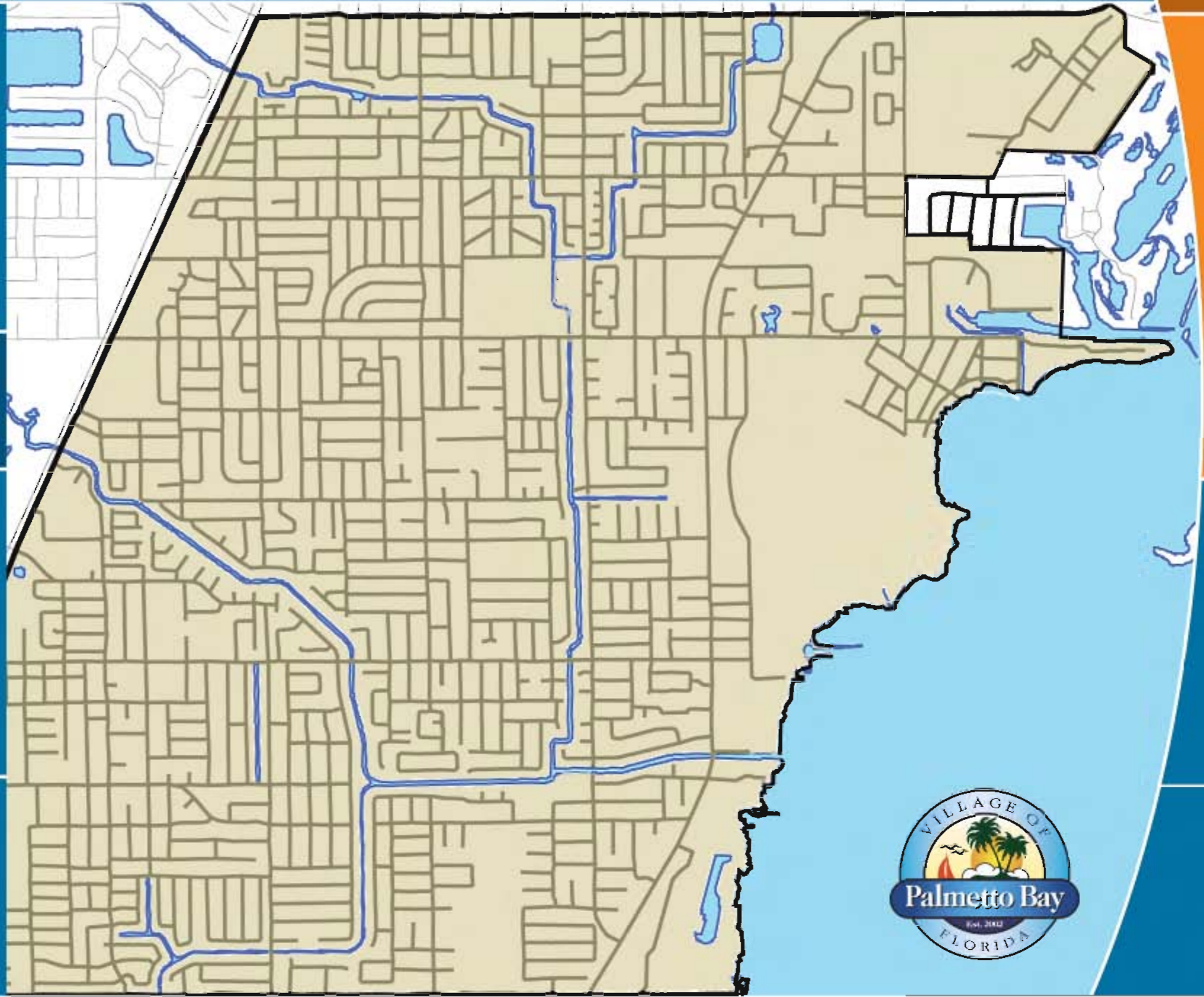


# Village of Palmetto Bay

## Transportation Master Plan Executive Summary



**THE CORRADINO GROUP**  
PLANNING ENGINEERING ARCHITECTURE CONSTRUCTION

4055 N.W. 97TH AVENUE  
MIAMI, FL 33178  
305.594.0735 TEL  
305.594.0755 FAX  
[WWW.CORRADINO.COM](http://WWW.CORRADINO.COM)



Palmetto Bay's Transportation Master Plan is the result of several months of data collection, analysis, public discussion, and strategic planning.

The Results are presented in three documents: an executive summary, a detailed report, and appendices.

It is hoped that this process will add value in guiding the transportation decisions of the future.



Speed Tables  
• Safer Than Humps  
• Mitigate Speed to a Lesser Degree



Enforcement  
• Temporary Measure





#### Chicanes

- Curb Bulbs on Alternating Sides of Street
- Beautify When Placed Mid Block
- Decreases Speed 5 – 13mph



#### Humps

- 14ft Hump Decreases Speed up to 25mph
- 22ft Hump Decreases Speed up to 33mph
- Can Increase Noise
- Can Interfere With Emergency Vehicles

## Palmetto Bay Transportation Master Plan

### Summary

#### Introduction

Palmetto Bay has newly incorporated, and has adopted a master planning strategy to discover and mitigate transportation issues that impact the Village. Located in South Dade, thousands of people move through the Village each day. In addition, it is expected that thousands of more housing units will be developed to the south of the Village in the coming years. With the advent of the Peoples Transportation Plan, Palmetto Bay has the ability to control transportation and mobility as it relates to the area within its boundaries. From a regional perspective, participation and cooperation with the State and County will be important in developing transportation systems that positively

impact the Village's quality of life. The entire Village has been examined to address the issue of mobility. With a foundation based on intensive public involvement, this project focused heavily on data collection and analysis. A five-year plan of projects was developed, fulfilling the 20% Transit / 80% Transportation requirements of the Peoples Transportation Plan. This Master Plan is a policy document that recommends projects to be developed as needed. The Village should use this as a guide in making transportation investments.

#### Vision

Palmetto Bay's Transportation Vision was formulated through intensive public involvement, including conversations with community members, elected officials and Village staff. The following are the key points from which this plan has developed.

#### • Serving the Needs of the Residents by Controlling Congestion

Palmetto Bay is primarily a residential community with a number of schools, parks and recreational amenities. It is bound on both the east and west by the major transportation corridors of US-1 and Old Cutler Road. A main concern is to maintain the Village character by not encouraging additional traffic through the Village.

#### • Promote a Safe but Efficient Traffic Flow while Controlling Intrusion

As development to the south becomes more intensive, traffic will attempt to find alternative routes that will include neighborhood streets within the Village. It is desired to keep this traffic on the State and County road system and protect these neighborhood streets from traffic intrusion.

#### • Provide Alternatives by Supporting Multimodal and Transit Policy Initiatives

Miami-Dade County is growing at a tremendous rate. Palmetto Bay realizes that transportation alternatives will need to be provided to effectively move people in the future. The Village supports Miami-Dade County's efforts to develop transit. In addition, a major focus will be to provide for alternatives that enhance the ability for transit to circulate within the Village.

#### • Enhance the Quality of Life by Protecting Village Amenities

Through a multi-modal focus, using the funding available through the Peoples Transportation Plan, Palmetto Bay will be able to increase the quality of life for its citizens.

## Involvement Public Meetings

### Public Meetings

A multifaceted public involvement process was undertaken to establish consensus and create ownership for the Transportation Master Plan.

Working with a steering committee gathered by the Village, a stakeholders list was developed. One-on-one "stakeholders" meetings were held with over 20 individuals and groups to gain insight to neighborhood specific issues. At the 1st public workshop data and analysis were presented, and an open discussion was facilitated. General topics taken from the stakeholder meetings were distilled by the group into a set of discussion issues focused on the areas of concern. The discussion of those issues resulted in the development of policies, which culminated in a set of consensus agreement on prioritization criteria and potential projects. Where consensus could not be reached, further study was recommended. The policies and issues were thoroughly examined in light of the analysis performed, and a full set of projects was created and prioritized.

The Consensus that was reached focused on not encouraging additional through traffic by seeking to widen county or state roads. Such capacity improvements may result in increased volumes and levels of service that were not significantly better than they were projected to be without the improvement. It is understood that as levels of service deteriorate, traffic intrusion in the neighborhoods may increase. Traffic calming programs in these neighborhoods are a priority. Most citizens would like to have the ability to utilize alternative modes of transportation, whether it be transit, walking, or bicycling, and they actively support Miami-Dade County in its efforts to expand transit services. It was important that the money spent for the improvements first come from the funds gained from the Peoples Transportation Plan. Finally it is important to the community that while projects be focused on solving recognized problems, each should serve to improve the image of the Village and the quality of life for its residents.

## Issues

### Transportation Topics from Stakeholders Meetings:

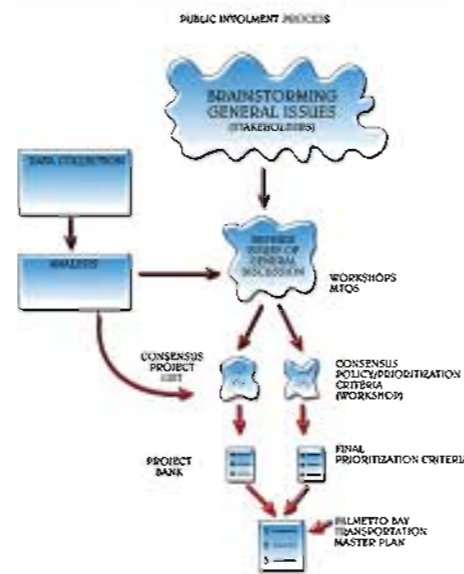
- Traffic congestion
- Traffic intrusion
- Enhancing, connecting and protecting village amenities
- Supporting multi-modal alternatives

### Issues of General Discussion from the Workshop (The Basis of the Project Bank):

- Old Cutler Road / US-1
- The Busway's impact on US-1 and mobility in Palmetto Bay.
- Traffic flows through the Village both east and west and north and south.
- Major growth occurring in South Dade.
- Traffic calming on the neighborhood streets.
- The possible extension of the Section Roads across canals.
- Safety of pedestrians and bicyclists.
- Speeding.
- City sponsored local transit.

### Consensus Prioritization Criteria:

- Do not encourage additional traffic through the Village.
- Protect neighborhood streets from traffic intrusion as levels of service deteriorate over time.
- Support County efforts to develop transit.
- Enhance the ability of people to walk or bike.
- Encourage projects that are acceptable as part of the Peoples Transportation Plan.
- Projects should have a positive impact on the Village image and quality of life.
- Solve an identified problem.
- Projects should be cost effective.
- Projects should be under Village control.



## Traffic Calming Primary Focus

Handling traffic intrusion on the neighborhood streets was the primary focus of the Palmetto Bay Transportation Master Plan. Because the major transportation corridors are under the jurisdiction of either the County or the State, Palmetto Bay is only truly in control of the neighborhood streets. Traffic calming will be when developing character and image, keeping pedestrians and motorists safe and creating a relaxed but efficient flow of traffic. This is a method of slowing automobile traffic on residential and local streets with road obstructions which impede speed. A successful traffic calming program will redirect non-local traffic onto main arterials and reserve local streets for local traffic. There is a need for traffic calming at various locations in Palmetto Bay.

There are myriad of traffic calming techniques employed throughout the country. Some of the best examples are found on the West Coast of the United States, where a strong commitment to planned urban growth has been made. Many times traffic calming is regional, due to of local approving engineers with either the State or County. Miami-Dade County has recognized a need to strengthen its commitment to quality planning and design by developing the Miami-Dade County Street Closure / Traffic Flow Modification Manual.

### Process

The Miami-Dade County Street Closure / Traffic Flow Modification Manual provides guidelines for implementing traffic calming projects within Miami-Dade County. The process outlined suggests studying traffic conditions before calming measures are implemented to determine if traffic calming is needed and what measures may be appropriate on a temporary basis. Once traffic calming measures are installed on an experimental basis, the manual recommends that a traffic study be conducted to determine the impact and effectiveness of the measures. If proven effective, the traffic calming measures may be implemented on a permanent basis. However, if the measures are proven ineffective, other measures may be implemented until the issues are mitigated.

Traffic calming is best done as a program. Generally, one device has little substantive impact. Each program should begin with a stated goal and work toward that initially with the least obtrusive device. Care must be taken to make sure the study area is large enough so that unforeseen results are not created. There are minimum vehicle-per-day thresholds that must be met in order to consider traffic calming. In addition, public involvement must be held to the extent that a required percentage of affected citizens must sign a petition prior to the implementation of devices.

## Devices



### Circles

- Reduce Speed
- Beautify
- Reduce Collisions



## The Performance of the Roadway System Existing and Future Level of Service

YEAR 2				
Project	Planning Costs	Design Costs	Construction Costs	Project Type
1. Old Cutler Road: Intersection Capacity Improvements*	\$20,000	\$25,000	\$250,000	Transportation
2. 184th Street, Widen to 5 Lanes	\$10,000	\$600,000	\$6,000,000	Transportation
3. Pedestrian Bridges at Canals	na	\$240,000	\$300,000	Transit
4. 184th Street Continuous Sidewalk	\$2,000	TBD	TBD	Transit
5. 152nd Street Bicycle Lane	na	\$15,000	\$150,000	Transit
6. 168th Street Bicycle Lane	na	\$20,000	\$190,000	Transit
7. 87th Avenue Bicycle Lane	na	\$10,000	\$85,000	Transit
8. 82nd Avenue Bicycle Lane	na	\$20,000	\$170,000	Transit
9. 184th Street Bicycle Lane	na	\$20,000	\$190,000	Transit
10. 152nd St / 87th Ave: Signal Warrant Analysis	\$26,000	TBD	TBD	Transportation
	\$8,343,000	\$58,000	\$950,000	\$7,335,000

YEAR 3				
Project	Planning Costs	Design Costs	Construction Costs	Project Type
1. US-1 Median Beautification	\$1,000	\$50,000	\$500,000	Transportation
2. 82nd Avenue / 136th Street, Left Turn Signal	\$5,000	TBD	TBD	Transportation
3. Rear Access To Publix Study	\$4,000	\$15,000	\$80,000	Transportation
4. 87th Avenue Widening Analysis	\$30,000	TBD	TBD	Transportation
5. 152nd Street Widening Analysis	\$30,000	TBD	TBD	Transportation
	\$715,000	\$70,000	\$685,000	

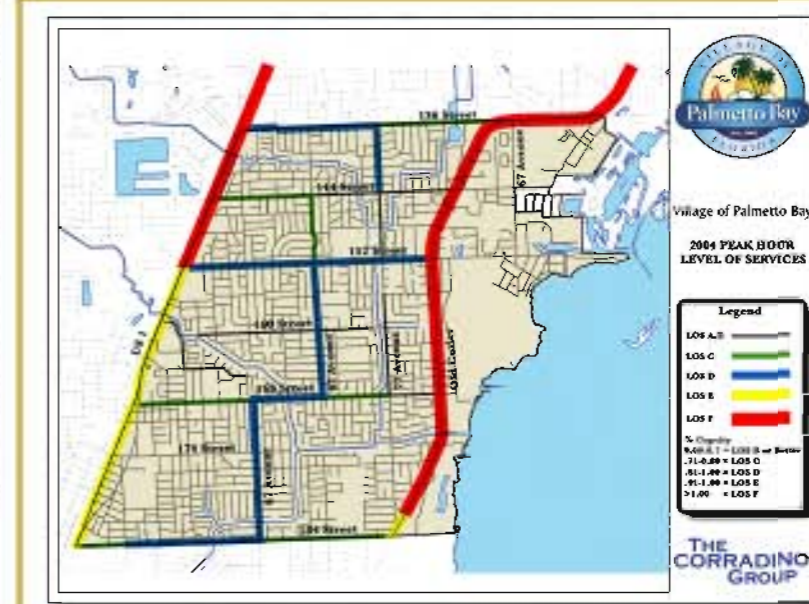
YEAR 4				
Project	Planning Costs	Design Costs	Construction Costs	Project Type
1. 168th St / US-1 WB Right Turn Lane	\$20,000	\$75,000	\$250,000	Transportation
2. 144th St / US-1 WB Right Turn Lane	\$20,000	\$75,000	\$250,000	Transportation
3. 97th Avenue - US-1 NB Right Turn Lane	\$20,000	\$75,000	\$250,000	Transportation
4. 152nd St / US-1 Operational Analysis	\$20,000	\$60,000	\$600,000	Transportation
5. 157th Terr / Old Cutler Road: No Left Turn Sign	\$9,000		\$400	Transportation
6. 136th Street / Old Cutler Road: Operational Analysis	\$20,000	\$60,000	\$600,000	Transportation
	\$2,404,400	\$109,000	\$345,000	\$1,950,400

YEAR 5				
Project	Planning Costs	Design Costs	Construction Costs	Project Type
1. 184th St / US-1 WB Right Turn Lane	\$20,000	\$75,000	\$250,000	Transportation
2. 97th Avenue - Move Hospital Entrance Nearer to 85th St	\$20,000	\$25,000	\$250,000	Transportation
3. Greenway Network	\$30,000	TBD	TBD	Transportation
4. Rear Access To Publix Study	\$4,000	\$15,000	\$80,000	
5. 152nd Street / 87th Avenue: Safety Analysis	\$10,000	TBD	TBD	Transportation
6. Support County Efforts to Develop Transit	TBD	TBD	TBD	Transportation
	\$779,000	\$84,000	\$115,000	\$580,000

The Palmetto Bay Transportation Master Plan is comprehensive nature. A blending of approaches was used to determine the needs and desires in an effort to develop a list of projects that would make tangible and targeted improvements to the transportation system. This plan focused on community input as well as data collection and analysis. Forty traffic counts were collected at various locations in the Village to portray the existing conditions. The counts were projected to 2010 and 2020 to show roadways where level of service deficiencies will be in the future. It was determined volumes will increase steadily over time and level of service, which is already unacceptable on US-1 and Old Cutler Road, will deteriorate. A north / south route through the Village becomes apparent. This route (87th Ave - 168th St - 82nd Ave) will deteriorate to an unacceptable LOS within the study horizon.

### Existing LOS

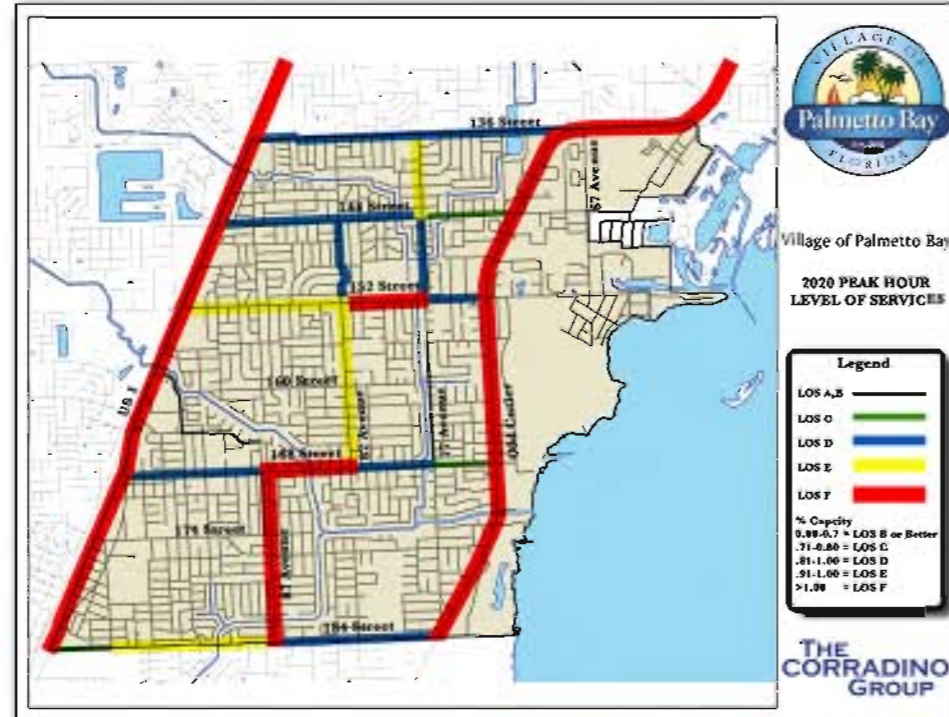
Currently LOS is unacceptable on Old Cutler Rd. and US-1. All other roads are in the acceptable range. Between 2004 and 2010 very little change in the LOS is realized, however, a comparison of the direct volumes shows a major increase in traffic on every roadway segment. Through the analysis it has been shown that traffic moves north and south through the Village using SW 87th Avenue, SW 168th Street and SW 82nd Avenue. This route, currently at LOSD, shows deterioration of LOS accompanying the high growth rate in traffic. The interrupted grid system exacerbates the situation.



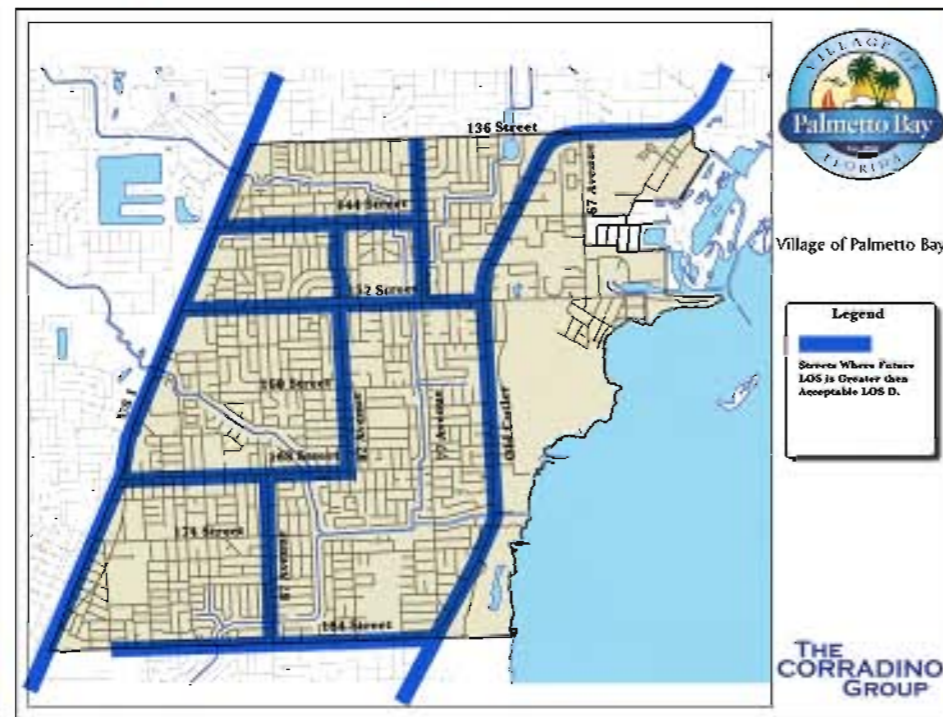
### Future LOS

The growth through 2020 shows both a considerable increase in traffic volumes and a decrease in LOS. Since Palmetto Bay is nearly built out, the growth in volumes and decline in LOS will be mostly the result of additional through trips as commuters attempt to access points north and south on a daily basis. US-1 and Old Cutler will both be entirely over capacity within the Village limits of Palmetto Bay. The majority of the roadway segments that make up the alternate north-south route, SW 87th Avenue, SW 168th Street and SW 82nd Avenue, will also be over capacity. The result is that the remaining capacity in the rest of the network is disappearing as drivers begin to the neighborhood streets trying to find a path that is not congested. The result will be traffic intrusion across.

## 2020 LOS



## Village roadways functioning at LOS D or worse by 2020



## Prioritization (cont.)

Year 2 of the plan is focused on neighborhood mobility and alternative mode projects that will fulfill the transit requirement. This accounts for over \$8 million in total costs, \$73,000 in planning, \$950,000 in design, and \$7.3 million in construction.

Year 3 costs begin to address facilities that are mainly the jurisdiction of the State or County. As such coordination will be needed to address these issues. This represents about \$715,000 in total projects. Years 4 and 5 projects are similar in nature and represent approximately \$600,000 in projects respectively.

IMMEDIATE PROJECTS				
Project	Planning Costs	Design Costs	Construction Costs	Status / Action
1. Participate in MPO LRTP Process	\$1,500	na	na	Completed
2. Change Functional Classification of 87th Ave	\$10,000	na	na	Work With FDOT
3. Oppose Widening of 87th Avenue North of 164St	na	na	na	Work With MPO
4. US-1 Grade Separation Study	No funds required			Completed
5. Transportation Liaison	\$25,000	na	na	Appoint Staff / Cons
6. 148th St / US-1: Signal Warrant Analysis	\$26,000	na	na	Letter To FDOT
	\$62,500	\$62,500	\$0	\$0

YEAR 1 TRANSIT				
Project	Planning Costs	Design Costs	Construction Costs	
1. Sidewalks, ADA Compliant	\$8,000	TBD	TBD	
2. Circulator Study	\$35,000	na		
3. US-1 Crosswalks *	\$1,000	\$4,000	\$14,000	
4. New Bus Shelters	\$5,000	No Costs Required		
5. Bus Pullout Bays	\$5,000	\$15,000	\$100,000	
6. Connect All Transit Stops With Sidewalks	\$8,000	TBD	TBD	
	\$195,000	\$62,000	\$19,000	\$114,000

YEAR 1				
Project	Planning Costs	Design Costs	Construction Costs	Project Type
1. 164th Street Traffic Calming Program	\$30,000	\$15,000	\$150,000	Transportation
2. Mango wood Traffic Calming Program	\$30,000	\$15,000	\$150,000	Transportation
3. South wood Traffic Calming Program	\$30,000	\$15,000	\$150,000	Transportation
4. 84th Avenue Street end Traffic Calming	\$1,000	\$3,000	\$25,000	Transportation
5. Bus Pullout Bays	\$5,000	\$15,000	\$100,000	Transit
6. 148th Street Traffic Calming	\$25,000	\$10,000	\$100,000	Transportation
7. Sidewalks, ADA Compliant	\$8,000	na	na	Transit
8. Circulator Study	\$35,000	na	na	Transit
9. US-1 Crosswalks *	\$1,000	\$4,000	\$14,000	Transportation
10. City Wide Speed Limit Enforcement Program	No funds required			Transportation
11. Safe Routes To School **	\$15,000			Transportation
12. Walk Our Children To School Day	\$20,000	na	na	Transportation
13. Street Repaving Program	\$8,000	TBD	TBD	Transportation
14. New Bus Shelters	\$5,000	No Costs Required		Transit
15. Connect All Transit Stops With Sidewalks	\$8,000	TBD	TBD	Transportation
16. Coordinate with Farm Stores About Deliveries	No funds required			Transportation
17. 164th Street Sidewalk	na	\$10,000	\$66,000	Transportation
	\$1,963,000	\$221,800	\$87,000	\$755,000

\* Coordinate w/ State or County  
 \*\* Coordinate w/ School Board



Project (Continued)			
Sustainable Community	Planning Costs	Design Costs	Construction Costs
33. Support County Efforts to Develop Transit	TBD	TBD	TBD
34. 164th Street Traffic Calming Program	\$30,000	\$15,000	\$150,000
35. Mangewood Traffic Calming Program	\$30,000	\$15,000	\$150,000
36. Southwood Traffic Calming Program	\$30,000	\$15,000	\$150,000
37. 84th Avenue Streetend Traffic Calming	\$1,000	\$3,000	\$25,000
38. 148th Street Traffic Calming	\$25,000	\$10,000	\$100,000
39. Participate in MPO LRTP Process	\$1,500	NA	NA
40. Sidewalks, ADA Compliant	\$8,000	NA	NA
41. Change Functional Classification of 87th Ave	\$10,000	NA	NA
42. Oppose Widening of 87th Avenue North of 164th	NA	NA	NA

Project (Continued)			
Sustainable Community	Planning Costs	Design Costs	Construction Costs
43. City Wide Speed Limit Enforcement Program	No funds required		
44. Safe Routes To School	\$15,000		
45. Transportation Liaison	\$25,000	NA	NA
46. Street Repaving Program	\$8,000	NA	NA
47. Walk Our Children To School Day	\$20,000	NA	NA
48. Greening Network	\$30,000	TBD	TBD
49. 152nd Street / 87th Avenue Safety Analysis	\$10,000	NA	NA
	\$475,540	\$244,500	\$1,347,000
	\$1,287,000	\$400,000	\$1,547,000

## Prioritization Criteria

Projects in the Project Bank are prioritized based on criteria developed as part of the interactive stakeholder/workshop process. Participants were asked about their priorities. The first public workshop held in June 2004 discussed transportation issues, potential projects, and community transportation preferences (policies) to be used as a basis for prioritization criteria.

### Policies Developed

- Do not encourage additional traffic through the Village.
- Protect neighborhood streets from traffic intrusion as levels of service deteriorate.
- Support County efforts to develop transit.
- Enhance the ability of people to walk or bike.
- Encourage projects that are acceptable as part of the Peoples Transportation Plan.
- Perform projects that have a positive impact on the Village image and quality of life.
- Perform projects that solve an identified problem.
- Perform projects that are cost effective.
- Perform projects that the Village can control.

Projects were scored, ranked and assembled into four categories:

- Capacity
- Alternative Mode
- Corridor
- Sustainable Community

In total this Transportation Master Plan represents about \$13.5 Million in improvements. This includes \$600,000 in planning, \$1.5million in design and \$11.2 million in construction. As some of these projects include coordination with the County and State.

Year one represents about \$1million in spending. With \$221,000 in planning, which can be completed in the first year; \$87,000 in design, which may take up the second year; and nearly \$755,000 in construction costs, which can be implemented beginning in year three. Based on community objectives, projects that dealt with traffic calming, transit and alternative modes were of the highest priorities. These are listed below in the Year 1 table.

Transit in year one represents about \$195,000 in spending. This includes \$62,000 in studies, 19,000 in design and \$114,000 in construction.

## Funding Peoples Transportation Plan

While South Florida is the twelfth largest region in the nation, it is ranked the fifth worst nationally for urban traffic congestion. Before November of 2002, Miami-Dade County was one of only two metropolitan areas that did not have a dedicated source of funds for public transportation. This meant there was little or no chance of receiving federal funding for mobility enhancement projects. Subsequently, 66% of the voters in the county approved the Peoples Transportation Plan (PTP). With the passage of this half-penny sales tax, the County is beginning a \$16 billion, 30-year transportation investment which will double the number of buses on the road, quadruple the size of Metro Rail to 90 miles, speed the construction of new roads and provide municipalities with the ability to have meaningful input into the projects that affect them. The PTP will allow for municipal and county funds which are already in place for transit and transportation to remain in the budget. Current funds cannot be replaced by the new revenue. Twenty percent of the total annual revenue will be divided among the municipalities on a pro-rata basis (determined by population) for transportation enhancement projects. Palmetto Bay is due to receive about \$700,000 per year.

### Peoples Transportation Plan Municipal Disbursements (estimated):

Jurisdiction	Percent	1 YR	Jurisdiction	Percent	1 YR
Aventura	1.90%	\$475,679	Miami Beach	7.76%	\$1,940,022
Bal Harbour Village	0.24%	\$59,135	Miami Lakes	2.09%	\$521,737
Bay Harbor Islands	0.45%	\$112,405	Miami Shores	1.12%	\$280,580
Biscayne Park	0.40%	\$99,232	Miami Springs	1.84%	\$459,813
Coral Gables	5.34%	\$1,334,919	North Bay Village	0.53%	\$133,271
El Portal	0.29%	\$73,462	North Miami	5.53%	\$1,382,420
Florida City	0.96%	\$241,060	North Miami Beach	3.93%	\$983,665
Golden Beach	0.08%	\$19,519	Opa-Locka	1.40%	\$351,062
Hialeah	20.71%	\$5,177,944	<b>Palmetto Bay</b>	<b>2.18%</b>	<b>\$696,000</b>
Hialeah Gardens	1.70%	\$424,524	Pinecrest	2.35%	\$587,988
Homestead	3.50%	\$873,952	South Miami	1.22%	\$305,388
Indian Creek Village	0.02%	\$5,962	Sunny Isles Beach	1.15%	\$287,888
Key Biscayne	0.94%	\$234,714	Surfside	0.46%	\$115,674
Medley	0.30%	\$74,039	Sweetwater	1.20%	\$300,196
Miami	31.81%	\$7,953,265	Virginia Gardens	0.23%	\$56,924
			West Miami	0.53%	\$133,559

(Source: Miami-Dade County)

To assure that this additional revenue is spent in a proper manner, a Citizens Independent Transportation Trust (CITT) has been developed to review, audit, and investigate the implementation of transportation and transit projects. The trust consists of 15 members: one from each of Miami-Dade County's thirteen commission districts, one member appointed by the Mayor, and one appointed by the Miami-Dade League of Cities. There are two municipal liaisons, which are there to assist each municipality with the implementation of the effort.

All municipalities are required to submit a plan of projects for CITT approval. At least 20% of the money received by the cities (\$140,000 for Palmetto Bay) must be used for transit purposes. Examples of transit include circulator buses, bus shelters, bus pullout bays or other transit related infrastructure. If a city cannot apply at least 20% of its surtax proceeds to transit purposes, the City may contract with the County for the County to provide a project that enhances transit in the immediate vicinity. If the City does not authorize and appropriate nor contract with the County for such a project, that portion of the funds will revert to the County for redistribution. Similarly, the Cities may spend up to 80% of the money they receive on non transit but transportation related projects. This would include the building, operating, and maintenance of roads or bridges. If this money is not appropriated and approved, it will revert to the county. It is understood that both transit and transportation projects may take longer than a year to develop and construct. As such, it is understood that not all of the money received needs to be spent in any given year, but it must be authorized and appropriated. Approval of the Palmetto Bay Transportation Master Plan sets policy direction and suggests projects that will fulfill these requirements.



## Project Bank

### Projects

The Palmetto Bay Transportation Master Plan has identified transportation issues through a series of stakeholder meetings and public workshops in coordination with data collection and analysis. This interactive and analytical process led to the formulation of the Project Bank, which is the palate of projects of all sizes that have been prioritized to develop the implementation plan. Projects were developed in four categories:

- Corridor
- Capacity
- Alternative Mode
- Sustainable Community

As part of the interactive nature of this study, the issues that were initially developed were subsequently converted into projects after intensive discussion. Generally, there is frustration that US-1 and Old Cutler Road are congested, and becoming worse each year. This has begun to impact the Village in the form of cut through traffic, a situation which is exacerbated by the tremendous growth of the region, particularly in South Dade, which is fueling this traffic as commuters need to access business and commercial centers north of the Village.

While there is little that can be done to prevent traffic from entering the Village, there is much that can be done protect the neighborhood streets from traffic intrusion. The Village is primarily residential and there are several schools, parks and natural areas that can be found in all neighborhoods. The ability to provide alternatives for people to access these facilities is important.

Transit is a key issue because alternatives need to be provided as roadway capacity is diminished and travel times are extended.

Palmetto Bay has a wealth of natural resources, from its parks and schools, to the Dearing Estate, the Sadowski Preserve and the canal system. Here lies an opportunity to provide transportation and recreation facilities by integrating transportation into them or linking them by lanes, paths or sidewalks, encouraging multimodal alternatives such as transit, bicycling and walking.

Forty nine projects were developed to address these issues Village wide.

### Cost Estimates

Each of the projects includes preliminary cost estimates for planning, design and construction, developed to provide an order-of-magnitude cost. Such estimates are general approximations and are to be utilized for planning purposes.

The planning component of the project primarily consists of feasibility studies, environmental studies, operational studies and public involvement. The design component of the project cost includes preparing design, plans specifications, details, construction contract documents, and permitting. The construction component estimates the cost to build the project including acquisition of right-of-way, utility relocation and construction engineering and inspections.

After the planning component determines precisely what actually needs to be constructed, a more detailed engineering cost estimate should be prepared. This detailed cost estimate will identify the required funds that should be programmed for the project. Additionally, the costs reflect current values and should be adjusted in the future to reflect current economic conditions in the year they are bid.

Costs for the projects in the project bank were developed based on comparisons with similar projects and unit cost comparisons for industry standard and market specific items.

Project			
Corridor	Planning Costs	Design Costs	Construction Costs
1. US-1 Crosswalks	\$1,000	\$4,000	\$14,000
2. Old Cutler Road: Intersection Capacity Improvements	\$20,000	\$25,000	\$250,000
3. US-1 Median Beautification	\$1,000	\$50,000	\$500,000
4. 168th St / US-1 WB Right Turn Lane	\$20,000	\$75,000	\$250,000
5. 144th St / US-1 WB Right Turn Lane	\$20,000	\$75,000	\$250,000
6. 97th Avenue - US-1 NB Right Turn Lane	\$20,000	\$75,000	\$250,000
7. 152nd St / US-1 Operational Analysis	\$20,000	\$60,000	\$600,000
8. 157th Terr / Old Cutler Road: No Left Turn Sign	\$9,000	NA	\$400
9. 136th Street / Old Cutler Road: Operational Analysis	\$20,000	\$60,000	\$600,000
10. 184th St / US-1 WB Right Turn Lane	\$20,000	\$75,000	\$250,000
	\$3,614,000	\$151,000	\$499,000
			\$2,964,000

Capacity	Planning Costs	Design Costs	Construction Costs
11. US-1 Grade Separation Study	No funds required		
12. 184th Street, Widen to 5 Lanes	\$10,000	\$600,000	\$6,000,000
13. 152nd St / 87th Ave: Signal Warrant Analysis	\$26,000	NA	NA
14. 148th St / US-1: Signal Warrant Analysis	\$26,000	NA	NA
15. 82nd Avenue / 136th Street: Left Turn Signal	\$5,000	NA	NA
16. Rear Access To Publix Study	\$4,000	\$15,000	\$80,000
17. 87th Avenue Widening Analysis	\$30,000	NA	NA
18. 152nd Street Widening Analysis	\$30,000	NA	NA
19. Coordinate with Farm Stores About Deliveries	No funds required		
20. 97th Avenue - Move Hospital Entrance Closer to 85th St	\$20,000	\$25,000	\$250,000
	\$7,121,000	\$151,000	\$6,330,000

Project (Continued)			
Alternative Mode	Planning Costs	Design Costs	Construction Costs
21. Circulator Study	\$35,000	NA	NA
22. 164th Street Sidewalk	NA	\$10,000	\$66,000
23. New Bus Shelters	\$5,000	No Costs Required	
24. Connect All Transit Stops With Sidewalks	\$8,000	TBD	TBD
25. Pedestrian Bridges at Canals	NA	\$240,000	\$300,000
26. 184th Street Continuous Sidewalk	\$2,000	TBD	TBD
27. 152nd Street Bicycle Lane	NA	\$15,000	\$150,000
28. 168th Street Bicycle Lane	NA	\$20,000	\$190,000
29. 87th Avenue Bicycle Lane	NA	\$10,000	\$85,000
30. 82nd Avenue Bicycle Lane	NA	\$20,000	\$170,000
31. Bus Pullout Bays	\$5,000	\$15,000	\$100,000
32. 184th Street Bicycle Lane	NA	\$20,000	\$190,000
	\$1,656,000	\$35,000	\$350,000
			\$1,251,000