



EXECUTIVE SUMMARY

Overview

The Doral Transportation Master Plan has been funded jointly by the City of Doral and the Miami-Dade County Metropolitan Planning Organization (MPO). Through its public involvement, data collection, and analyses this effort has recommended projects based on the needs of three components of the transportation system. These include:

- ★ Roadway Network (capacity)
- Transit (alternative modes)
- Transportation Management (traffic management, policies)

An intensive public involvement process, focused on building consensus. This approach consulted decision makers from state and county agencies, public officials, citizens and business owners. In addition, the transportation network was comprehensively inventoried, existing conditions were evaluated and projected into the future. A set of projects has been produced. Projects in each area have been examined in detail and prioritized based on criteria developed within the community.







Task / Public Involvement

Public involvement was performed at many levels and continued throughout the project. The goal was to build consensus by having the community understand the effort and take ownership of it. The process was checked by a steering committee that provided input on direction at critical points in the process. Multiple stakeholders were interviewed one-on-one. Which led to an understanding the issues from the perspective of the citizen and business people, who live and work in the city every day. These issues were refined, resulting in projects in the Project Bank and the policies by which they were prioritized.

Three public workshops were held. An initial workshop presented data and analysis and facilitated discussion. General issues taken from the stakeholder meetings were distilled into a set of discussion points, which focused on the areas that were of most concern. These were refined into project and policies in light of the data and analysis.





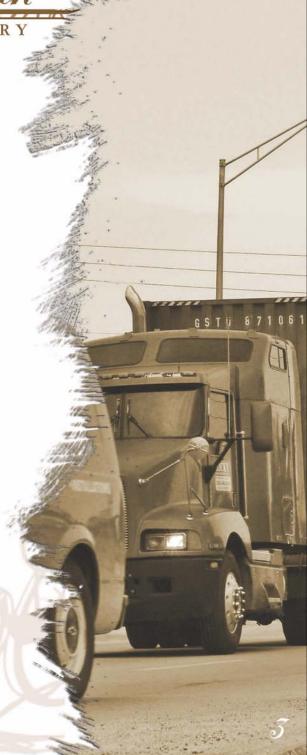
EXECUTIVE SUMMARY

Tash 2 Roadway Improvement Related Services

In order to make suggestions to the program regarding the capacity of the roadway system, it has been inventoried and a comprehensive set of 52, 72hr traffic counts were taken on the major roadway links and intersections. This provides snapshot of transportation Level of Service as it exists today. These traffic volumes have been analyzed and projected, to the planning horizons of 2015 and 2030, to portray future conditions.



ınt#	Street	From	То
		Links	
1	NW 74 St	NW 117 Ave	NW 107 Ave
2	NW 58 St	NW 117 Ave	NW 107 Ave
3	-	NW 107 Ave	NW 97 Ave
4		NW 97 Ave	NW 87 Ave
5		NW 87 Ave	SR 826
6	NW 41 St	NW 117 Ave	NW 107 Ave
7		NW 107 Ave	NW 97 Ave
8		NW 97 Ave	NW 87 Ave
9		NW 87 Ave	SR 826
10	NW 25 St	NW 117 Ave	NW 107 Ave
11		NW 107 Ave	NW 97 Ave
12	7	NW 97 Ave	NW 87 Ave
13		NW 87 Ave	SR 826
14	NW 12 St	NW 107 Ave	NW 97 Ave
15		NW 97 Ave	NW 87 Ave
16		NW 87 Ave	SR 826
17	NW 79 Ave	NW 25 St	NW 41 St
18	INV 13 AVE	NW 41 St	NW 58 St
19	NW 82 Ave	NW 25 St	NW 41 St
20	INVV 02 AVE	NW 12 St	NW 25 St
21	NW 87 Ave	NW 12 St	NW 25 St
22	INVV OF AVE	NW 25 St	NW 41 St
23		NW 41 St	NW 58 St
24	NW 97 Ave	NW 12 St	NW 25 St
25	1111 01 7110	NW 25 St	NW 41 St
26		NW 41 St	NW 58 St
27	NW 107 Ave	NW 12 St	NW 25 St
28	INV 107 AVE	NW 25 St	NW 41 St
00000		The state of the s	The state of the s
29		NW 41 St	NW 58 St
30		NW 58 St	NW 74 St
31	NW 102 Ave	NW 58 St	NW 41 St
32		NW 41St	NW 97 Ave
33	NW 114 Ave	NW 74 St	NW 58 St NW 41 St
35	NW 50 St	NW 58 St NW 117 Ave	
			NW 107 Ave
36	NW 52 St	NW 107 Ave	NW 97 Ave
07		ntersections	INDA/ 40741- A
37	NW 58th St	@	NW 107th Ave
38	NW 58th St	@	NW 97th Ave
39	NW 58th St	@	NW 87th Ave
40	NW 58th St	@	NW 79th Ave
41	NW 41st St	@	NW 107th Av
42	NW 41st St	@	NW 97th Ave
43	NW 36th St	@	NW 87th Ave
44	NW 36th St	@	NW 79th Ave
45	NW 25th St	@	NW 107th Av
46	NW 25th St	@	NW 97th Ave
47	NW 25th St	@	NW 87th Ave
48	NW 25th St	@	NW 79th Ave
49	NW 12th St	@	NW 107th Av
50	NW 12th St	@	NW 97th Ave
51	NW 12th St	@	NW 87th Ave
52	NW 50th St	@	NW 114th Ave

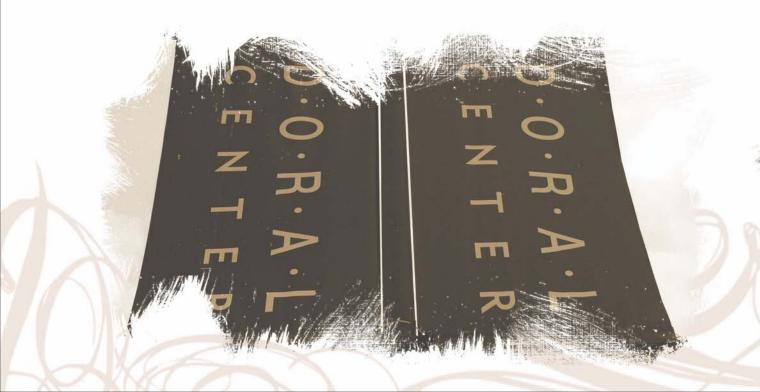




EXECUTIVE SUMMARY

2./ Inventory

Doral roadway segments are typified by section-line roads, which are spaced every mile. The main roadway network was inventoried on a section-by-section basis. Most of the roadway facilities in Doral are under the control of Miami-Dade County. Doral has very few local streets, and many of those roads that are lower on the transportation hierarchy are privately owned as part of gated developments. The assigned functional classification reflects whose control the facility is under and the hierarchical rank of that facility in terms of its importance in moving traffic. Doral's roadways are typified by a cross section with two to three travel lanes in both directions. There are usually one or two left turn lanes at each intersection. Most of the Streets in Doral have sidewalks on both sides. These are usually 5' sidewalks, which connect with intersections in ADA compliable manners. Roads and sidewalks are in good condition and there are few Right-of-Way encroachments. Each section of pavement has been inventoried and rated for the condition of the pavement, based on the FDOT road rating standards. Overall roadways in Doral are in good condition. Seven transit routes operate in Doral. On streets where routes exist, stops are announced with a sign but generally no shelter.





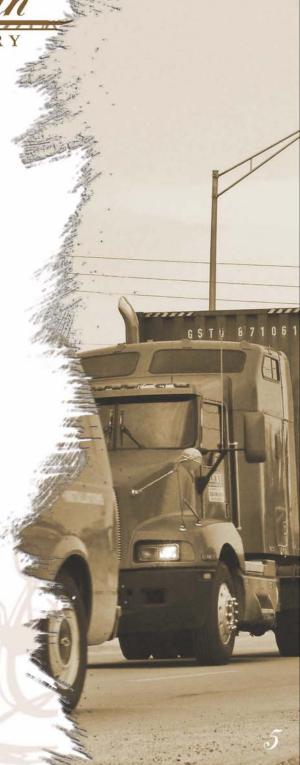
EXECUTIVE SUMMARY

Intersection / Link Analysis

Being west of the Palmetto Expressway, (outside of the Urban Infill Boundary), Doral's Level of Service threshold is D. Where specialized transit exists, the LOS threshold is D+ 150%. On state facilities the threshold is E.

For ease of analysis, each link has been color-coded. Three colors are shown in the table, green, yellow and red. Green indicates that the roadway link is operating better than the LOS threshold, meaning that in general, there is no significant congestion and the roadway segment can absorb additional traffic volumes. Yellow indicates that the roadway segment is operating at the LOS threshold. The red is indicative of LOS thresholds that have been exceeded.

#	Intersection	Delay (sec/veh/hr)	LOS*
1	NW 58th Street @ NW 107th Avenue	34.4	С
2	NW 58th Street @ NW 97th Avenue	21.2	С
3	NW 58th Street @ NW 87th Avenue	103.8	F
4	NW 58th Street @ NW 79th Avenue	42.2	D
5	NW 41st Street @ NW 107th Avenue	62.2	E
6	NW 41st Street @ NW 97th Avenue	100.0	F
7	NW 36th Street @ NW 87th Avenue	76.0	E
8	NW 36th Street @ NW 79th Avenue	17.6	В
9	NW 25th Street @ NW 107th Avenue	79.4	E
10	NW 25th Street @ NW 97th Avenue	31.8	C
11	NW 25th Street @ NW 87th Avenue	43.3	С
12	NW 25th Street @ NW 79th Avenue	37.0	D
13	NW 12th Street @ NW 107th Avenue	59.1	D
14	NW 12th Street @ NW 97th Avenue	11.1	В
15	NW 12th Street @ NW 87th Avenue	157.7	F
16	NW 12th Street @ NW 50th Street / NW 114th Avenue	18.0	В





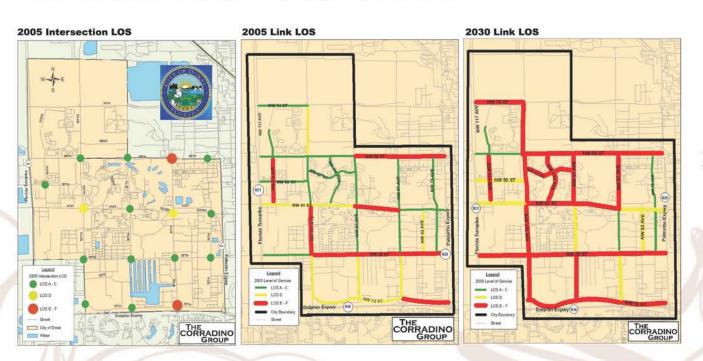
EXECUTIVE SUMMARY

Intersection / Link Analysis (cont.)

Of the 16 intersections counted, nine meet or exceed the level of service thresholds. The most problematic areas are along 87th Avenue, 107th Avenue and 41st Street. Intersections along 58th Street, 25th Street and 12th Street generally run in an acceptable manner. Poorly operating intersections may be able to be cured by either signal optimization or capital improvement projects.

Many of the existing links already exceed Level of Service thresholds. Specifically 58th Street between 97th Avenue and the Palmetto Expressway, 41st Street between 97th Avenue and 87th Avenue and 25th Street between 107th Avenue and the Palmetto Expressway. Nearly half of the links counted currently meet or exceed LOS thresholds.

Traffic volumes will increase significantly by 2030 to the point that nearly 75% roadway segments within the City will be meeting or exceeding LOS standards and with an overall worsening of traffic conditions and an increase in traffic congestion and delays. On all maps LOS is color coded to mean A-C = green, D = yellow and E-F = red.







EXECUTIVE SUMMARY

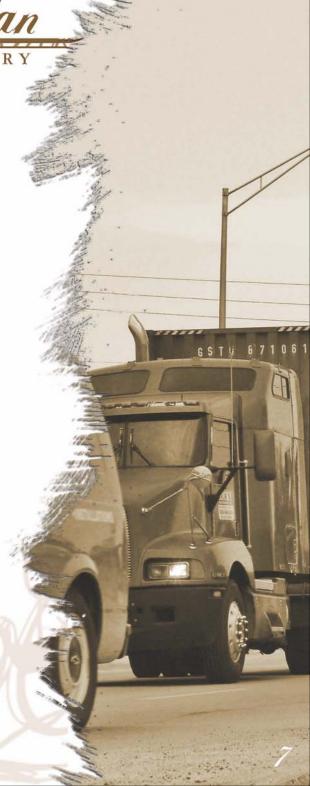
Intersection / Link Analysis (cont.)

Doral has evolved to a community built inside large superblocks. These are framed by the County's section line roads and nearly all development; residential, industrial and service oriented commercial fits in to the many that make up The of City Doral. There is little through access inside these roads. In residential areas, it is common for the sections to be gated and for private access only. These roads are privately owned and maintained, so there are few local streets. Most vehicular activity happens on the section lines. Aside from a spatially diverse land use pattern, the intensity of development in Doral is suburban.

Data shows that the number of vehicles entering the City during the morning peak is higher than the vehicles exiting the City at the western boundaries. However, at the eastern boundary of the City, the number of vehicles exiting are much larger than the number of vehicles entering. This suggests that the vehicles coming from the west are heading for destinations outside the City, thus roads within Doral are serving significant numbers of "through" traffic.

Without an effective and adequately funded program of transportation improvement projects and policies to effectively manage the anticipated growth, the overall quality of life within the City can be expected to deteriorate as the result of increasing levels of congestion.

Doral often lacks the supporting roadway network and circulation system that provides access. As such, the existing roadway hierarchy should be enhanced. The primary conduits of traffic surrounding Doral are contained in the expressway system, including the Turnpike, 826 (Palmetto Expressway) and 836 (Dolphin Expressway). Direct connections between these facilities should be emphasized as major transportation corridors. These include 74th Street, 41st Street, 25th Street, 87th Avenue and 107th Avenue. Enhancement of these can be made by making sure they have sufficient capacity and traverse the city, as well as through implementation of progressive techniques such as grade separated intersections, signal timing, intelligent transportation systems, reversible lanes and specialized transit. These roads should carry traffic to and through the city. Enhancement of these would mitigate cut through traffic on other roads. In addition, trucks mix with the automobile traffic, creating conflicts, and quickly deteriorating the available capacity and service levels on the roadways.



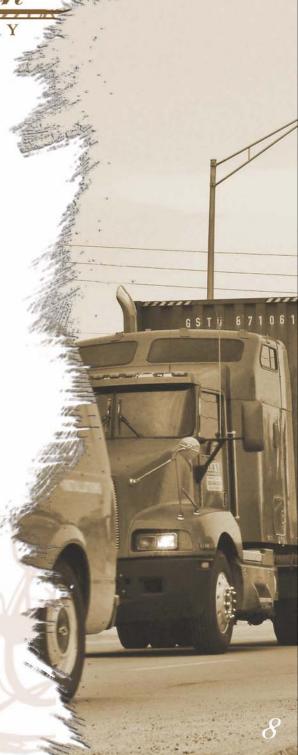


EXECUTIVE SUMMARY

Intersection / Link Analysis (cont.)

Based on the analysis there are needs for roadway capacity improvements on the links (roadways) and the intersections now and in the future. Remedies consist of effectively and efficiently utilizing all of the available right-of-way in areas like on 97th Avenue between 25th Street and 41st Street. Other segments, which are built out need to explore the more effective utilization of right of way to gain capacity. This may include addition of a lane or expansion of ROW in segments similar to the area along 25th Street between 87th and 97th Avenues, where canal frontage may be available. The possible use of reversible lanes along 41st Street and other corridors where traffic flow is highly directional, should be explored. The utilization of 41st Street as an express arterial connecting the Turnpike the Palmetto Expressway and SR 112 would enhance mobility. At intersections, remedies include implementation of dual left turn lanes, bus pull out bays and dual right turning lanes in addition to the maximized number of travel lanes. At intersections where level of service is surpassing LOS D, optimization of the signals should be done immediately. If this does not mitigate the issue, measures that are more physical should be studied.







Task 3 Traffic Management Services

Traffic management is viewed as the development of policy tools or programs by which to manage traffic, by directing it, or changing driving behavior. Within the realm of traffic management, the fields of access management and transportation demand management (TDM) are key components. Access management relates to how people physically access an area. TDM relates management or policy related methods

Transportation Demand Management

Transportation Demand Management (TDM) is defined as the use of incentives, disincentives and market management to affect travel behavior to shift to non-motorized and/or higher-occupancy modes, reduce or eliminate the need to travel, and/or shift travel onto less congested routes. In recent years, TDM has been targeted in federal legislation as potentially important pieces of the overall strategy to address congestion and air quality issues. The City should coordinate with South Florida Commuter Services to facilitate implementation of TDM procedures and serve as an interface between the public and private sectors.





EXECUTIVE SUMMARY

Task 4 Transit

There are seven transit routes operating within Doral. These generally run northeast to southwest from the Palmetto Metrorail Station to and from the Dolphin Mall area. Headways are typically 15 minutes in the peak hours. Buses are between 40' and 60' in length. The most successful route is the Route 36, which has about 3,200 passengers on the average weekday, and up to 80,000 riders per month. The least impactfull route is the TriRail Shuttle, which has on average 49 riders per month. Many people interviewed suggest that they would ride transit if provided frequently. The City should focus on the development of specialized transit services, as well as on focusing on the connection to major transit infrastructure such as the Palmetto Metrorail station or the future East-West link. In addition, the development of park and ride lots coordinated with land use scenarios will be important.

		Boardings E	By Day of Wee	k	Total		
Routes in Doral	Average Weekday	Weekdays	Saturdays	Sundays	Monthly Boardings	Headways	Bus Size
36	3,271	68,693	6,365	5,095	80,153	15 minutes	40' or 60'
41	N/A	N/A	N/A	N/A	N/A	N/A	40' or 60'
87	1,861	39,071	2,748	2,874	44,694	15 minutes	40' or 60'
238	513	10,765	1,807	1,520	14,092	15 minutes	40' or 60'
242	397	8,334	N/A	N/A	8,334	15 minutes	40' or 60'
132- TriRail Shuttle	49	1,030	N/A	N/A	1,030	N/A	40' or 60'
95x - Earlington Heights	1,626	34,147	N/A	N/A	34,147	N/A	40' or 60'

Note: Route 41 not in MDT Ridership Technical Report or PTP



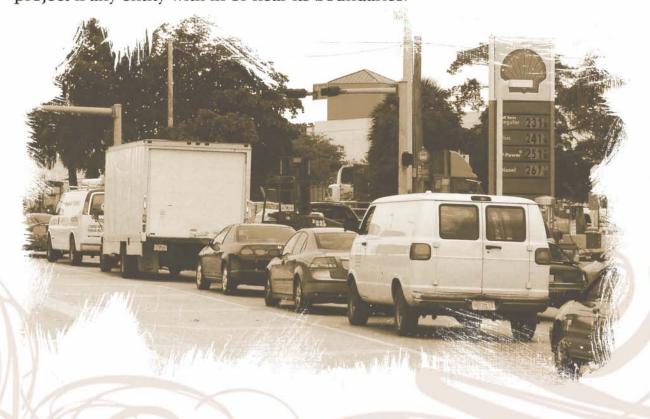


EXECUTIVE SUMMARY

Task 5 Funding

The new federal transportation bill the "Safe, Accountable, Flexible and Efficient Transportation Equity Act" (SAFE-TEA) has been signed into action. For municipalities there are a few meaningful changes form the last bill. Essentially federal dollars will continue to be provided to states for distribution through departments of transportation through the MPO process. A focus will be placed on implementation of intelligent transportation systems, as well as for new transportation services for individuals with disabilities.

The two most pertinent sources of funding for municipalities in Miami-Dade County, which afford Doral the most control it will have in funding its projects are from the FDOT Local Agency Program (LAP) and the Peoples Transportation Plan, of which Doral is not a part of at this time. It is imperative that Doral achieve full and active participation in the development of any transportation project if any entity with in or near its boundaries.







EXECUTIVE SUMMARY

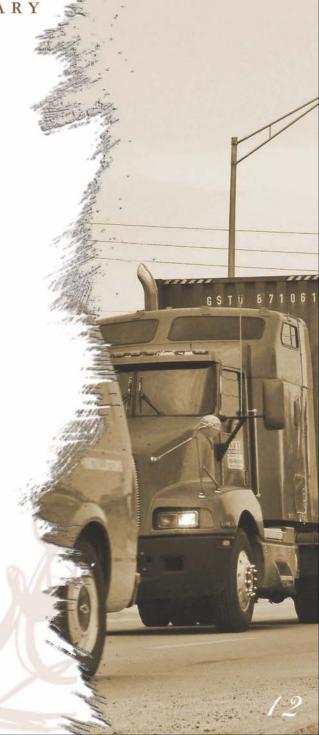
People's Transportation Plan

While our region is the twelfth largest in the nation, it is ranked the fifth worst nationally for urban traffic congestion. 66% of the voters in the county approved the Peoples Transportation Plan, (PTP). With the passage of the half-penny sales tax, the county began a \$16 billion, 30 year transportation investment which, as advertised, would double the number of buses on the road, quadruple the size of Metro Rail to 90 miles and speed the construction of new roads.

Twenty percent of the total annual revenue is divided among the municipalities on a pro-rata basis, (determined by population) for transportation enhancement projects. Doral is not eligible for this funding source. If it were it would be due to receive about \$700,000 per year.

Initial PIP funding	g estimates
	7-17/4

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





EXECUTIVE SUMMARY

Project Bank

Twenty-seven projects have been developed in the three categories, Roadway, Transit and Transportation Management. Some projects are broad in nature, and have several specific efforts listed within them. Roadway projects deal with capacity or physical improvements to the roadway. Transit deals with alternative modes. Transportation Management deals with methods of controlling the way and times that people travel. The following is an unprioritized list of the projects in each category that make up the Project Bank. Each is described in detail in the project sheets found in the main report that discusses their purpose, need and cost, (planning, design, construction). In addition, there are several projects that exist on the MPO LRTP and TIP, which if implemented could work in concert with the city's concerns regarding transportation.

Pro	oject	Type
1.	Traffic Calming	Roadway
2.	41st Street Roundabouts	Roadway
3.	Additional Turnpike Interchanges	Roadway
4.	LAP Certification	Roadway
5.	PTP Funding	Roadway
6.	Enhanced ROW on 25th Street	Roadway
7.	Comprehensive Signal Timing Study	Roadway
8.	Level of Service Improvements @ Intersections	Roadway
9.	Access Management	Roadway
10.	Maximize Capacity of Section line Roads	Roadway
	Haul Road	Roadway
12.	Support 25th Street Viaduct (Apt to Tpk)	Roadway
	Park and Ride Lots	Transit
14.	Linear Parks	Transit
15.	Municipal Circulator	Transit
	Link Transit with Metrorail	Transit
17.	Doral Heavy Truck Movement / Mobility Study	TDM
	Transportation Liaison / TMA	TDM
	Implement TDM Strategies	TDM
	25th Street Truck Route	TDM
21.	Peak Hour Truck Prohibition	TDM
22.	Livable Communities	TDM
23.	Concurrency Management System	TDM
24.	Transportation Impact Fees	TDM
	Reversible Flow Lanes	TDM
	Support LRTP development of Hierarchy	TDM
27.	Additional County and State Funding	TDM





EXECUTIVE SUMMARY

Prioritization

Important to making this Transportation Master Plan most useful is the prioritization of the Project Bank, so that there is an implementation plan. Based on the Prioritization criteria each project has been evaluated and ranked accordingly.

The City is currently developing its Comprehensive Development Master Plan (CDMP). In the Transportation Element there are several Goals, Objectives and Policies. The prioritization criteria have been developed in concert with the CDMP. The goal of the Transportation Element is to provide a safe, convenient, effective and energy efficient multimodal transportation system, which is intricately related to the land use pattern and improves the level of mobility of all the City's residents and visitors. The following list criteria coordinates with this element.

Prioritization Criteria

- * Coordinate with Land Use Element
- Maintain LOS D
- * Complete County Grid System (sections, 1/2, 1/4)
- * Coordinate with County and State Governments
- * Enhance Movement of Freight and Passengers
- Enhance Pedestrian and Bicycle Opportunities
- * Enhance Public Transportation Opportunities Ease of Implementation.

A matrix has been developed and each project has been evaluated based whether it compares favorably, neutral or unfavorably with the criteria. Each criterion has received a symbol and a color that coordinates with its "rank". A (+) has been developed for a favorable comparison, (+/-) for a neutral comparison and (-) for an unfavorable comparison. For ease of analysis each evaluation has been color coded, green for favorable, yellow for neutral, and red for unfavorable. Each project was ranked.



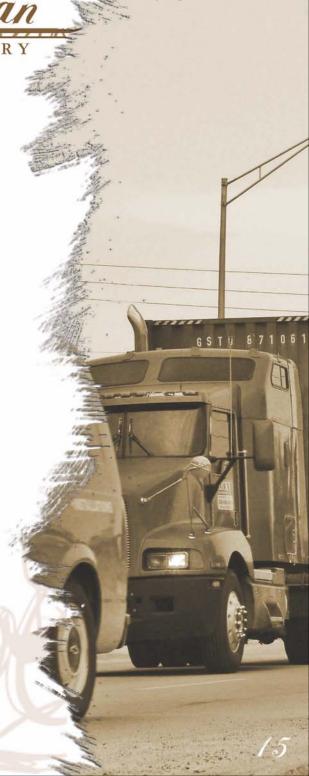




EXECUTIVE SUMMARY

Roadway Project Prioritization Matrix

Criteria							
Projects: ROADWAY	Coordinate w/ Land Use Element	Maintain LOS D	Complete Grid System	Coordinate with County / State Governments	Enhance Movement of Freight and People	Enhance Pedestrian and Bicycle Opportunities	Enhance Public Transportation Opportunities
Traffic Calming	+	-	+/-	+-		÷.	+/-
11st Street Roundabouts	+/-	+	+	+/-	+	+/-	+/-
dore Turnpike nterchanges		_	+/-	_	+		_
AP Certification	+	+	+	+	+	+	+
TP Funding	+	+	+	+	•	+	+
Enhanced ROW on 25th Street	+/-	+	+	+/-	+	+/-	+/-
Comprehensive Signal Timing Study	+	+	+	+	+	+	+
evel of Service mprovements @ ntersections	+	+	+	+	+	+/-	
Access Management	+	+	+/-	*		+/-	+/-
Maximize Capacity of Section line Roads	+/-	+	+	+	+	+/-	+/-
laul Road	+/-	+	+	+/-	*	+/-	+/-
Support 25th Street Fiaduct (Airport to Furnpike)	+/-		+	+/-	+	+/-	+/-





Transit Project Prioritization Matrix

San Kills III	Criteria						
Projects: TRANSIT	Coordinate w/ Land Use Element	Maintain LOS D	Complete Grid System	Coordinate with County / State Governments	Enhance Movement of Freight and People	Enhance Pedestrian and Bicycle Opportunities	Enhance Public Transportation Opportunities
Park and Ride Lots	+	+	+/-	+/-	+	+	+
Linear Parks	+:	+	+/-	+/-	+	+	+
Municipal Circulator	:+	+	+/-	+	+	+	+
Link Transit with Metrorail	+	+	+/-	_	+	+	+

^{+:} compares favorably with criteria (green)

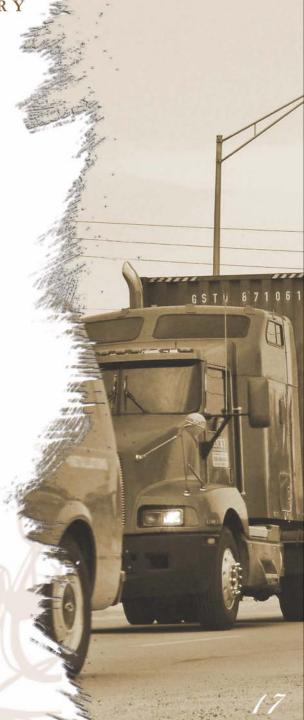
^{-:} compares unfavorably with criteria (red) +/- compares neutrally with criteria (yellow)



EXECUTIVE SUMMARY

ransportation Demand Projects Prioritzation Matrix Criteria							
Projects: TDM	Coordinate w/ Land Use Element	Maintain LOS D	Complete	Coordinate with County / State Governments	Freight and	Enhance Pedestrian and Bicycle Opportunities	Enhance Public Transportation Opportunities
Additonal Funding	+/-	+	+	+	+	+	+
Doral Heavy Truck Movement / Mobility Study	+	+	+/-	+	+	+/-	+/-
Transportation Liaison	+	+	+	+	+	+	+
Implement TDM Strategies	+	+	+/-	+	÷	+	+
25th Street Truck Route	+	+	+/-	+	+	+/-	+/-
Peak Hour Truck Prohibition	+	+	+/-	+/-	+	+/-	+/-
Livable Communities	+	+	+	+	+	+	+
Concurrency Management System	+	+	+	+	+	+	+
Transportation Impact Fees	+/-	+	+	+/-	+/-	+	+
Reversible Flow Lanes	+/-	+	+	+	+	+/-	+/-
Support LRTP Development of Hierarchy	+	+	+	: + :	+	+	+

^{+:} compares favorably with criteria (green)
-: compares unfavorably with criteria (red)
+/- compares neutrally with criteria (yellow)





EXECUTIVE SUMMARY

Overall Ranking

Project	Type
1. PTP Funding	Roadway
2. LAP Certification	Roadway
3. Haul Road	Roadway
4. 25th Street Truck Route	TDM
5. Support 25th Street Viaduct (Airport to Turnpike)	Roadway
6. Transportation Impact Fees	TDM
7. Doral Heavy Truck Movement / Mobility Study	TDM
8. Peak Hour Truck Prohibition	TDM
9. Additional County & State Funding	TDM
10. Comprehensive Signal Timing Study	Roadway
11. Transportation Liaison	TDM
12. Concurrency Management System	TDM
13. Implement TDM Strategies	TDM
14. Participate in LRTP Projects	TDM
15. Level of Service Improvements @ Intersections	Roadway
16. Municipal Circulator	Transit
17. Livable Communities	TDM
18. Link Transit with Metrorail	Transit
19. Park and Ride Lots	Transit
20. Linear Parks	Transit
21. Access Management	Roadway
22. Reversible Flow Lanes	TDM
23. Maximize Capacity of Section line Roads	Roadway
24. Enhanced ROW on 25th Street	Roadway
25. 41st Street Roundabouts	Roadway
26. Traffic Calming	Roadway
27. Turnpike Interchange at 25th Street	Roadway

The City should immediately begin to implement these projects in coordination with FDOT and Miami-Dade County.



