CITY OF SOUTH MIAMI
TROLLEY/CIRCULATOR FEASIBILITY STUDY

prepared for

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EXECUTIVE SUMMARY

This *City of South Miami Trolley/Circulator Feasibility Study* is sponsored by the Miami-Dade County Metropolitan Planning Organization (MPO) to determine the feasibility of establishing a local bus circulator or trolley service within the City of South Miami. The study was authorized in late 2006 and completed in June 2007. The data, analysis, and recommendations are summarized below.

Data presented in **TABLE ES-1** and **MAP ES-1** (and other demographic data in *Chapter 8.0, Table 8-1, Service Area Demographics* and *Appendix C, Demographic Conditions 2005*) document that South Miami is a relatively middle-income community with a high level of automobile ownership. The census shows that only five to six percent of the residents use transit for work trips. About 15 percent of the households have a resident population of 65 or older. These older residents are heavily concentrated in the two census tracts north of SW 72nd Street (Census Tracts 76.02 and 76.03). Households with children are uniformly scattered throughout the City. The average vehicles per person, regardless of age is nearly 0.8 (*Table 8-1, Service Area Demographics*). The average vehicles per person in northeast census area (Tract No. 76.02) is slightly lower at approximately 0.65. Miami-Dade County 2005 employment estimates within the seven City of South Miami Traffic Analysis Zones (TAZs) documents 13,375 workers. The overall estimate is 1.9 vehicles per household. Comparing vehicles per household to number of workers, there are more vehicles than workers. This data suggests that residents do not have significant transportation issues.

The City's previous endeavor to operate a Pilot Trolley in the first half of 2005 provided important data for analyzing service characteristics and rider behavior. Extensive discussions and meetings were conducted with City of South Miami stakeholders; Coral Gables and the University of Miami; the Community Redevelopment Agency (CRA); City Commissioners; the MPO staff and technical advisory committee. A community workshop and individual surveys and meetings provided additional input for assessing the trolley/circulator feasibility. Potential routes were time tested; existing MDT and adjacent services were studied; and various potential

service concepts explored. The results of these data collection activities provided the following insights:

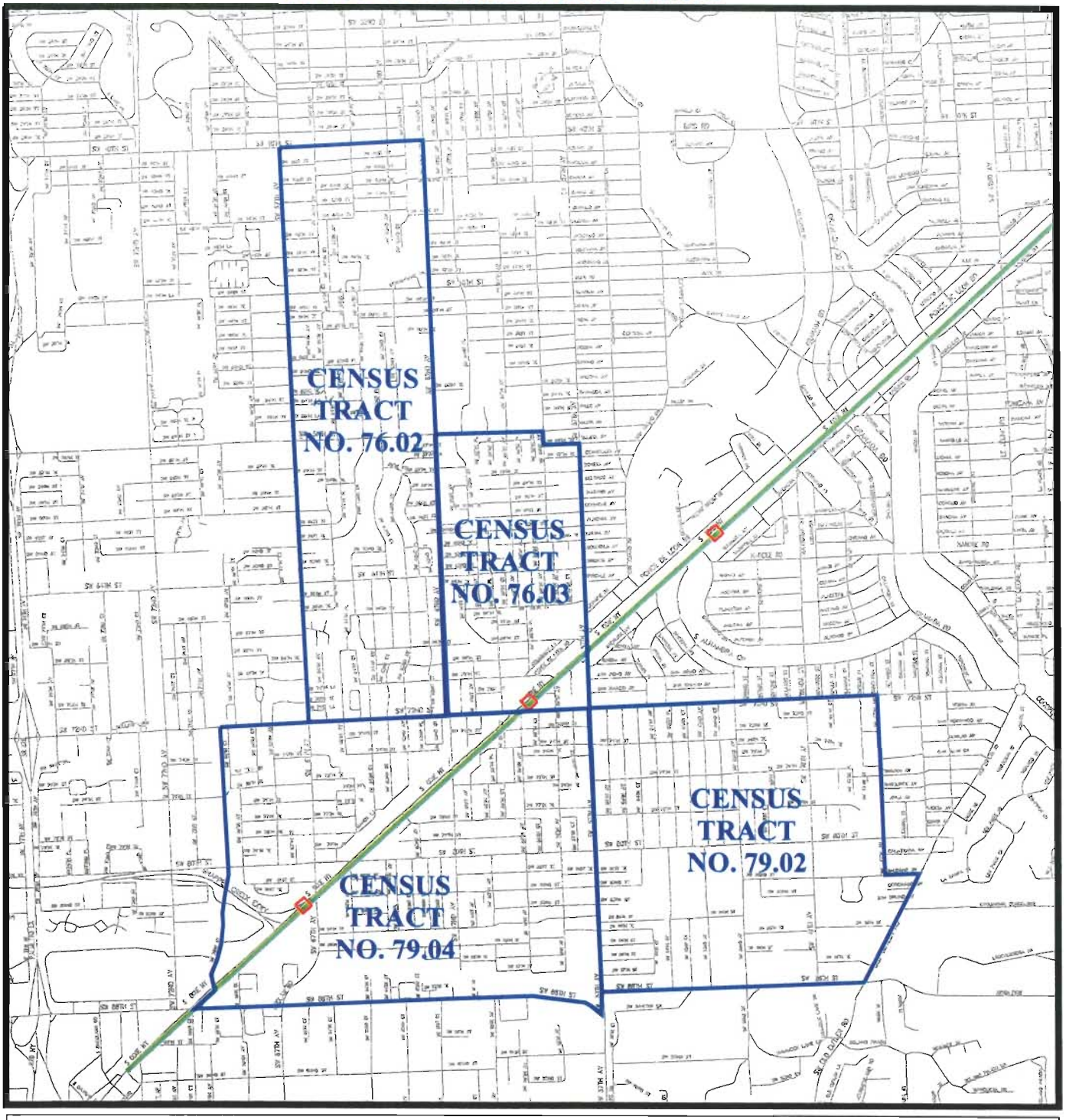
1. Community perceptions of the need for a circulator bus service varied, ranging from no support to providing services for very specific travel reasons, such as for seniors and schoolchildren.
2. Suggestions on routings were not very specific as compared with discussion over locations that needed service:
   a. Feedback to an employer survey (including city hospitals and the Shops on Sunset shopping complex) was weak.
   b. Discussions with the merchants group indicate no unmet needs.
   c. The City of Coral Gables has studied a proposed route from Douglas Road Metrorail station along Ponce de Leon, crossing South Dixie Highway through the Coral Gables Riviera neighborhood onto Red Road and Sunset Drive and back. This proposed route services only a few blocks of South Miami's business district.
   d. The University of Miami sees great potential for a circulator connection between the University Metrorail station and the Sunset Drive (SW 72nd Street) business district.
   e. South Miami Middle School officials revealed that only one-third of their student population comes from South Miami. Most live within walking distance and are not entitled to school bus service.
   f. CRA divulged a strong desire for middle school bus service and a public transportation connection between the Sunset Business District and the CRA area. Service into Coral Gables was mentioned.
   g. The Senior Center representative cited a need for access to the Sunset Business District and other shopping areas (i.e., Dadeland) and medical centers outside the City. Seniors need service early in the day on a readily accessible vehicle.
   h. City Commission members stated that service must be high quality; used by residents; and be supported and promoted by comprehensive outreach and a marketing campaign. Commission members have diverse views on service routes and stops.
3. City residents firmly assert that the service be free.

TABLE ES-1
SOUTH MIAMI AREA DEMOGRAPHIC OVERVIEW
2000 Federal Census Selected Highlights

(see Map ES-1 *for tract boundaries)*

	Census Tract Number - 2000 Census				
Census Tract	**76.02**	**76.03**	**76.04**	**79.02**	**Total**
General Quadrant of the City	**NW**	**NE**	**SW**	**SE**	**--**
Total Population	8,676	3,426	5,619	3,157	20,878
Number of Households with income	3,528	1,196	2,599	1,293	8,616
Households with residents over 65	950	327	479	384	2,140
Average family Size	3.03	3.61	2.94	3.00	NA
One-person households	945	341	1,016	364	2,666
Population below poverty level	1,274	1,097	631	70	3,072
5 years or less	8	132	21	0	161
6-17 years	149	300	62	8	519
18-64 years	919	527	508	49	2,003
65 or over	198	138	40	13	389
Per Capita Income - 1999	$25,761	$12,301	$30,471	$70,768	NA
Median Household Income	$45,974	$22,296	$39,863	$87,061	NA
Income Distribution					
$19,999 or less	896	508	607	95	2,106
$20,000 - $39,999	582	353	697	204	1,836
$40,000 - $59,999	723	151	351	215	1,440
$60,000 - $99,999	764	98	437	171	1,470
Over $100,000	563	86	507	608	1,764
Travel to Work					
Number of Workers 16 or Over	4,344	1,116	2,902	1,539	9,901
Drove Alone	3,312	747	2,192	1,253	7,504
Carpooled	446	137	216	61	860
Public Transit	221	105	231	34	591
Bicycle	9	13	28	0	50
Walked	64	101	53	15	233
Other Means	47	0	50	7	104
Worked at Home	212	13	132	169	526
Racial Background					
White alone	7,363	951	4,966	2,989	16,269
African-American alone	736	2,319	174	41	3,270
Other Races or Backgrounds	577	156	479	127	1,339
Household Type, Size, and Presence of Children					
Total:	3,524	1,197	2,602	1,293	8,616
1-person household:	945	341	1,016	364	2,666
2 or more person household:	2,579	856	1,586	929	5,950
Family households:	2,124	745	1,316	848	5,033
Married-couple family:	1,510	323	1,004	680	3,517
With own children under 18 years	619	132	467	325	1,543
No children under 18 years	891	191	537	355	1,974
Other family:	614	422	312	168	1,516
Male householder, no wife present:	173	70	79	37	359
With own children under 18 years	52	33	40	17	142
No own children under 18 years	121	37	39	20	217
Female householder, no husband present:	441	352	233	131	1,157
With own children under 18 years	199	176	126	66	567
No own children under 18 years	242	176	107	65	590
Non-family households:	455	111	270	81	917
Housing Units					
Total	3,643	1,249	2,678	1,367	8,937
Total occupied	3,524	1,197	2,602	1,293	8,616
Owner occupied	2,281	569	1,326	1,002	5,178
Renter occupied	1,243	628	1,276	291	3,438

MAP ES-1
SOUTH MIAMI AREA CENSUS TRACTS



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City of South Miami Trolley Study

Census Tract Delineation

NORTH

Census Tracts

Metrorail

Metrorail Station

Scale 1.0"=1/2 Mile

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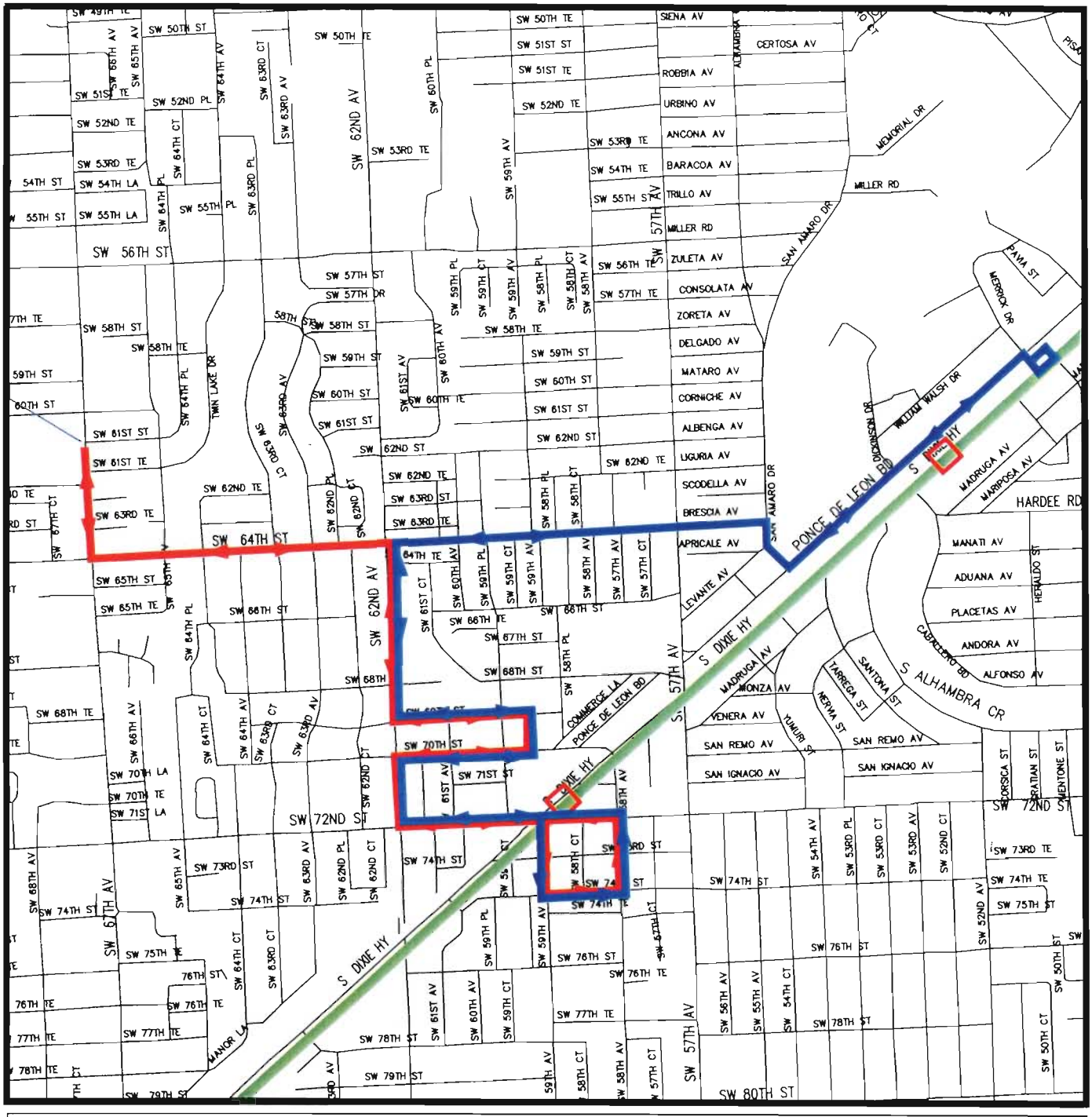
4. Uniformly, respondents think bus service should operate Monday-Friday during normal business and school hours and possibly longer into the evenings. There was no demand for weekend service.
5. The MPO technical committee maintains that new service to non-serviced and under-served travel markets be established rather then creating a conflict for of circulator bus routes that will compete with existing transit services (Metrorail, Metrobus).
6. All stakeholders unanimously agreed that any service be privately run and operated.
7. A set budget for future service was not voiced by stakeholders and officials. The City currently allocates 20 percent of its People's Transportation Plan (PTP) funds toward area circulator bus (about $35-40,000 yearly). Miami-Dade County municipalities with circulator bus systems generally use more than 20 percent of their PTP funds and some use general funds to support their municipal circulator bus system operations (see Appendix C).

The recommended service, resulting from the analysis of the data collected, proposes Monday-Friday service targeting key users and service areas. **MAP ES-2** illustrates the two-route circulator service.

1. School service is time-limited to delivering students to school in the morning and home in the afternoon. Midday school service is not needed. One route will run early in the morning (7:00 AM to 9:00 AM) and in the late afternoon (2:30 PM to 4 or 4:30 PM), connecting the area between Red Road and SW 62nd Avenue with the middle school on Ludlam Road (67th Avenue) to SW 62nd Avenue on to the South Miami Metrorail station and the Sunset Business District and back. This service can be halted or modified when school in not in session.
2. When school service is not needed ((9:30 AM to 2 PM), the route will service the University of Miami campus via Ponce de Leon on to SW 64th Street to SW 62nd Avenue and to the South Miami Metrorail station and then to the Sunset Business District and back..
3. Northbound, all routes run through the Sunset Drive business area (with stops near Winn-Dixie and CVS). This route continues to the Metrorail station, with a stop near South Miami General Hospital (Sunset and SW 62nd Avenue). It proceeds north on SW 62nd Avenue stopping near Larkin Hospital, the Senior Center, Lee School, and the U.S. Post Office

MAP ES-2
PROPOSED TWO ROUTE CIRCULATOR SERVICE



City of South Miami Trolley Study

Proposed South Miami Trolley Routes

NORTH

Route A
Route B
Metrorail
Metrorail Station

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Scale 2.0"=1/2 Mile

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and the Metrorail station. It goes on to the Middle School or the University of Miami. The return southbound service duplicates the route.

4. One bus can make two-trips – each way – per hour on these routes. This equates to one bus providing service every 30 minutes. Two buses will provide service every 15 minutes. Bus service costs approximately $40-$50 per hour of operation, common for most municipal services in South Florida in recent years. The City can offer fuel to help reduce direct operator costs.
5. Service can be optimized if bus turn-around is provided immediately north of the University Metrorail station and through the middle school parking lot. The City needs to explore restoration of both bus and pedestrian access from Sunset Drive to the South Miami Metrorail station. Metrobus routes now enter via South Dixie Highway. Pedestrian access to City Hall and the South Miami Hospital is circuitous and non-user friendly, restricting transit access for workers, visitors, and the Metrorail station.
6. A pedestrian bridge over South Dixie Highway will be completed in 2010, but this does not address access to City Hall and the South Miami hospital.

It is difficult to estimate ridership for a small area using the regional travel demand models. Sufficient demographic indicators are available to estimate daily ridership demand along the proposed routes. The analysis is detailed in *Chapter 8.0, Ridership Estimate*. With service provided every 15-30 minutes, 300 to 400 daily riders would use the service if it is high-quality, reliable, and available amenities to encourage transit use. If ridership reaches these levels, the service would achieve the productivity and cost-effectiveness similar to other Miami-Dade County community bus systems.

If the City elects to provide circulator bus service, the following should be considered:

1. A private operator to provide the equipment, drivers, vehicle maintenance, marketing, and public outreach.
2. Benchmarks to provide service effectively. At a minimum, these performance measures should include riders per hour; cost per rider; and vehicle load factors. Other service delivery benchmarks will require user feedback regarding satisfaction.

3. An expectation that route or service changes may be necessary to reach efficiency targets. There should be a schedule – with time points – so users know when buses are due at stops. Efficiency reports should be made quarterly.
4. User satisfaction surveys to assure that service meets expectation (on-time performance, cleanliness, convenience, and similar passenger comfort expectations).
5. Service monitoring to ensure contractor performance and user satisfaction.
6. Type of equipment. A trolley-type coach may not be appropriate for patrons. South Miami residents – especially seniors – may be better served with a modern, low floor, air-conditioned bus, with comfortable seating and places to place their packages. A shuttle bus used at airport rental car centers could be a proto-typical vehicle. On-board closed-circuit television (CCTV) to monitor unruly students was proposed.
7. Fully integrated ancillary components to ensure two-route split system operation. Adequate signage, route information, and stop and route identification is necessary for both routes. Stops should not be too frequent. Metrobus stops can be used, with proper signage to identify the new service.
8. Coordination with the University of Miami's transportation staff to optimize service use. The parties should determine if congestion on Sunset Drive is reduced as a result of the new lunchtime service. The University, business groups, and other stakeholders should be approached to financially underwrite portions of bus service operating costs.
9. Other transit needs. Sidewalks, shelters, streetlights, and other basic amenities need to be provided at stops and passageways to the stops. City funding for these amenities will help fulfill the PTP transit-spending requirements as long as those amenities enhance transit routes and access to transit routes.

Developing a circulator system within the City is a popular consideration by many stakeholders. Some of the proposed connections (e.g., from the Metrorail station to the hospitals (4-5 blocks); the CRA area to Ludlum Road (1 mile); and from the Metrorail Station to the Sunset business district (3-blocks)) are five to fifteen minute walks. If bus service is less frequent than these walk times, heavy use (even if the circulator is free) is unlikely if the walk is faster. The University of Miami connection to the Sunset Business district is somewhat longer, but use will be service sensitive. In all cases, circulator bus service is more likely to be used if bus

service is both frequent and fast. Service for seniors may not be as time sensitive, but high quality service is a necessity. Monitoring the service is required to meet quality, cost, and schedule adherence. Other improvements, like better access to the Metrorail station, bus stops, bus shelters, sidewalks, and lighting are necessary to attract riders to the circulator service.

CHAPTER 1.0 INTRODUCTION

At the request of the City of South Miami, the Miami-Dade Metropolitan Planning Organization (MPO) funded a follow up study for trolley service for the City that had previously been operated under a pilot demonstration program. The objective of the Study was to determine what level of service could be operated by a rubber-tired bus circulator system within the South Miami community.

A number of Miami-Dade County municipalities operate community based local transit services, tailored to the unmet needs of local residents. The Miami-Dade Transit (MDT) system operates countywide regional services that do not always meet the localized community needs in a County of 2.5 million residents. Cities receive funds from the Peoples' Transportation Plan sales tax just for such efforts.

South Miami already has a Metrorail station near its Sunset Drive Business district on SW 72nd Street. In 2005, the City tried a Pilot demonstration to examine use of a local circulator bus. Building on this set of facts, meeting with citizens, community leaders and technical staff, this study examines opportunities that might exist for a successful South Miami community based transit service.

The study commenced in October 2006 with a completion deadline of June 2007. A community workshop was held in January 2007. City Commission members had opportunity to meet with the consultants in March 2007. The MPO's technical advisors had several briefings on the project and all had opportunity for comments during the study period.

This study was completed and presented to the MPO during June 2007.

CHAPTER 2.0 BACKGROUND

On December 7, 2004, the City of South Miami Commission approved Resolution 191-04-11970 to support a 6-month pilot program to provide free trolley bus service using funds from the People's Transportation Plan (PTP) sales tax. The Community Redevelopment Agency (CRA) assisted in developing the pilot project. The City receives funds from the Miami-Dade County PTP sales tax surcharge (one-half of one-percent) based on its population. The City received ~$304,170 in 2005. The total cost for the 6-month pilot effort was about $71,000.

Two routes were operated when service was initiated in January 2005. They were A) the Regular Route; and B) the Quick Route (or Sunset on the Sunday route, operated every first Sunday of the month). The Regular Route operated on Friday and Saturday and the first Sunday of the month, serving areas on both sides of South Dixie Highway. The Quick Route operated only on the first Sunday of the month and was much shorter (quicker) than the regular route, connecting the Metrorail station and the Sunset Drive business area. The Regular Route was a loop, 6.32 miles in length. Service was free. **MAP 2-1** illustrates the initial Regular and Quick Routes. **TABLE 2-1** summarizes the route information.

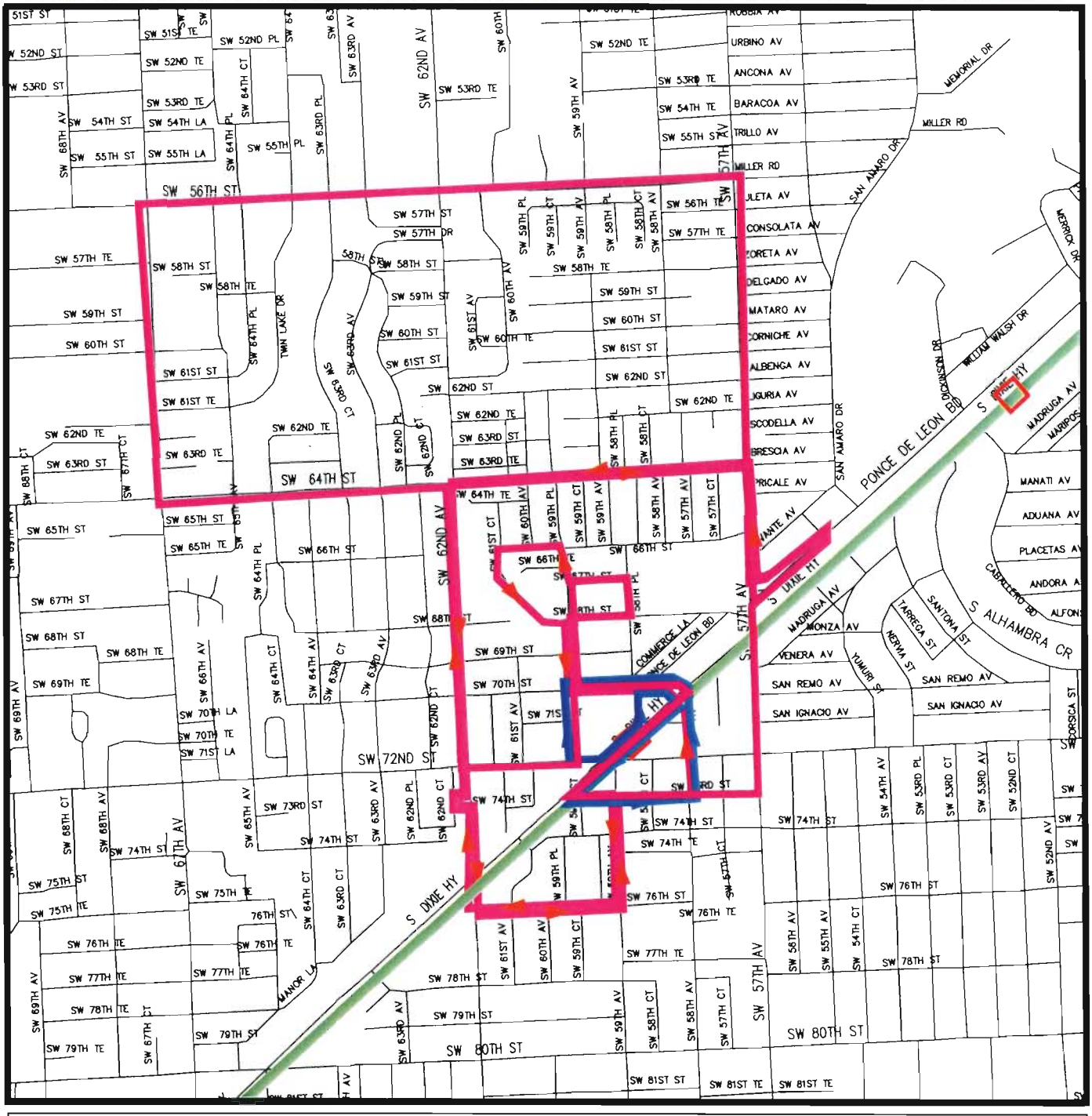
After two months of service, during the first weekend in March 2005, the Regular Route was revised. The revised route was a longer, 11.15-mile loop. **MAP 2-2** shows the revised routes for the Friday and Saturday regular service. Stop locations are shown in **TABLE 2-2**.

For the service period, 4,406 patrons were carried, equating to 81 passengers per day (about 40 passengers per vehicle). There were 11 daily vehicle service hours per bus, a 22 per day total on Friday and Saturday. On the first Sunday on the month, the Regular Route and the Quick Route were operated. The Quick Route circulated between the Sunset business district and the South Miami Metrorail Station, adding an extra vehicle on the first Sunday of the month. All together, the system carried an average of 3.7 riders per service hour.[1]

[1] *City of South Miami Trolley System Report, July 13, 2005*

MAP 2-1

CITY OF SOUTH MIAMI TROLLEY SYSTEM PILOT PROJECT - INITIAL SERVICE ROUTES



City of South Miami Trolley Study

NORTH

Initial Pilot Trolley Service Routes

- Initial Friday and Saturday Route (arrows show travel direction)
- Initial 'Sundays on Sunset' Route (arrows show travel direction)
- Metrorail
- South Miami Metrorail Station

Scale 2.0"= 1/2 Mile

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TABLE 2-1
CITY OF SOUTH MIAMI PILOT PROGRAM
Trolley Service Summary

	Original Regular Route	Revised Regular Route	Quick Route (1st Sunday of the Month)
Duration	1-2-05 through 2nd weekend of March 2005	2nd weekend of March through June 2005	February 2005 to- end of May 2005
Hours of Service	11:00 AM to 10:00 PM	11:00 AM to 10:00 PM	10:00 AM to 6:00 PM
Daily Operations	Friday, Saturday	Friday, Saturday	1st Sunday of the Month
Vehicle Requirement	2 vehicles	2 vehicles (1 vehicle after school ended in June)	1 vehicle (Quick Route) 2 vehicles (Regular Route)
Fares	Free	Free	Free
Route Length	6.32 miles	11.15 miles	NA
Round Trip Run time	NA	NA	NA
Scheduled Travel Times Between Key Destinations	NA	NA	NA
Frequency	Hourly	Hourly	Hourly
Revenue Hours	Friday – 550 Saturday – 550	Friday – 550 Saturday – 550	Sunday - 144

Source: City of South Miami Trolley System Report, July 13, 2005

The Regular Route (Friday and Saturday) carried 4,059 riders. The Sunday service carried 347 riders on the Regular Route and 286 riders on the Quick Route, totaling 733 riders. The hourly use of the circulator trolley for the Regular Route is shown in **TABLE 2-3**.

As shown in **TABLE 2-3**, fifty-three (53) percent of the riders were carried during 11:00 AM to 2:00 PM. The other 47 percent were spread over the remaining eight hours of operation. In general, fewer patrons used the service later in the day, particularly after 7:00 PM. The City's July 13, 2005 review of the service concluded that the ridership gains were achieved when the revised regular route service was introduced in March 2005, extending service to South Miami Middle School. The recorded data documents that February and April rider volumes are identical, even though the middle school was not a stop in February and was a stop in April. Friday had 53.2 percent of regular riders, while Saturday had 46.8 percent.

MAP 2-2
CITY OF SOUTH MIAMI TROLLEY SYSTEM PILOT PROJECT - REVISED SERVICE ROUTES

City of South Miami Trolley Study

Revised Pilot Trolley Service Routes

- Revised Friday and Saturday Route (arrows show travel direction)
- 'Sundays on Sunset' Route (arrows show travel direction)
- Metrorail
- South Miami Metrorail Station

Scale 2.0"= 1/2 Mile

NORTH

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TABLE 2-2
CITY OF SOUTH MIAMI TROLLEY PILOT PROGRAM
Bus Stops[2]

Stop Number	A Direction Location	B Direction Location	Stop Number
1 A	Parking Lot @ Ponce de Leon Blvd.		
2 A	Brewer Park	Brewer Park	2 B
3 A	South Miami Middles School	South Miami Middles School	3 B
4 A	Senior Center & J.R. Lee School	Senior Center & J.R. Lee School	4 B
5 A	Larkin Community Hospital	Larkin Community Hospital	5 B
6 A	South Miami Library and City Hall	South Miami Library and City Hall	6 B
7 A	Post Office	South Miami Market	8 B
8 A	South Miami Market	Community Center	9 B
9 A	Community Center	South Miami Market	10 B
10 A	South Miami Market	Post Office	7 B
11 A	South Miami Metrorail Station	Winn-Dixie @ SW 73rd Ave	12 B
12 A	Winn-Dixie @ SW 73rd Ave	SW 73rd Street @ 58th Avenue	13 B
13 A	SW 73rd Street @ SW 58th Avenue	Shops at Sunset Place	14 B
14 A	Shops at Sunset Place	Parking Lot @ Ponce de Leon Blvd.	1 B

Source: City of South Miami Trolley System Report, July 13, 2005

Appendix A, Pilot Project Bus Stop Activity lists daily boarding counts by stop.

The A (northbound) and B (southbound) designations represent the two directions of the loop. The service operated on six Sundays, 25 Fridays, and 25 Saturdays during the 6-month pilot period. Vehicle productivity is tabulated in **TABLE 2-4.**

TABLE 2-3
CITY OF SOUTH MIAMI TROLLEY PILOT PROGRAM
Ridership Profile by Month and Time-of-Day

Time / Month	11 AM-2 PM	2-4 PM	4-7 PM	7-10 PM	Monthly Total
January	68	79	140	38	325
February	449	100	238	63	850
March	348	74	57	56	535
April	472	142	139	98	851
May	461	161	83	40	745
June	271	101	93	77	542
Total	**2037**	**657**	**750**	**372**	**3816**
Percentage	53%	17%	20%	10%	--

Source: City of South Miami Trolley System Report, July 13, 2005

[2] *City of South Miami Trolley System Report, July 13, 2005*

TABLE 2-4
CITY OF SOUTH MIAMI TROLLEY PILOT PROGRAM
Vehicle Use Productivity

	Total	Friday	Saturday	Sunday
Vehicle Hours	1200	550	550	144
Riders	4549	2156	1903	490
Riders Per Vehicle Hour	3.79	3.92	3.46	3.40

Source: City of South Miami Trolley System Report, July 13, 2005

The City spent approximately $71,000 operating the service through a private operator. The service cost $57.00 per vehicle hour, covering all operator costs. The service was free, so no offsetting fare box revenues were collected. Daily vehicle and operating costs are detailed in **TABLE 2-5**.

TABLE 2-5
CITY OF SOUTH MIAMI TROLLEY PILOT PROGRAM
Vehicle Activity and Operating Cost (January-June 2005)

Date	Day	Revenue Hours	Vehicles In Service	Total Vehicle Service Hours	Friday Riders	Saturday Riders	Sunday Riders
2-Jan	Sunday	8	3	24			40
7-Jan	Friday	11	2	22	56		
8-Jan	Saturday	11	2	22		56	
14-Jan	Friday	11	2	22	40		
15-Jan	Saturday	11	2	22		40	
21-Jan	Friday	11	2	22	30		
22-Jan	Saturday	11	2	22		20	
28-Jan	Friday	11	2	22	17		
29-Jan	Saturday	11	2	22		79	
4-Feb	Friday	11	2	22	88		
5-Feb	Saturday	11	2	22		79	
6-Feb	Sunday	8	3	24			98
11-Feb	Friday	11	2	22	99		
12-Feb	Saturday	11	2	22		86	
18-Feb	Friday	11	2	22	155		
19-Feb	Saturday	11	2	22		189	
25-Feb	Friday	11	2	22	91		
26-Feb	Saturday	11	2	22		71	
4-Mar	Friday	11	2	22	60		
5-Mar	Saturday	11	2	22		81	
6-Mar	Sunday	8	3	24			15
11-Mar	Friday	11	2	22	58		
12-Mar	Saturday	11	2	22		104	
18-Mar	Friday	11	2	22	58		
19-Mar	Saturday	11	2	22		139	
25-Mar	Friday	11	2	22	140		
26-Mar	Saturday	11	2	22		78	

TABLE 2-5
CITY OF SOUTH MIAMI TROLLEY PILOT PROGRAM
Vehicle Activity and Operating Cost (January-June 2005)

Date	Day	Revenue Hours	Vehicles In Service	Total Vehicle Service Hours	Friday Riders	Saturday Riders	Sunday Riders
1-Apr	Friday	11	2	22	117		
2-Apr	Saturday	11	2	22		35	
3-Apr	Sunday	8	3	24			89
8-Apr	Friday	11	2	22	121		
9-Apr	Saturday	11	2	22		89	
15-Apr	Friday	11	2	22	114		
16-Apr	Saturday	11	2	22		97	
22-Apr	Friday	11	2	22	74		
23-Apr	Saturday	11	2	22		70	
29-Apr	Friday	11	2	22	110		
30-Apr	Saturday	11	2	22		74	
1-May	Sunday	8	3	24			51
6-May	Friday	11	2	22	93		
7-May	Saturday	11	2	22		38	
13-May	Friday	11	2	22	127		
14-May	Saturday	11	2	22		86	
20-May	Friday	11	2	22	105		
21-May	Saturday	11	2	22		69	
27-May	Friday	11	2	22	148		
28-May	Saturday	11	2	22		82	
3-Jun	Friday	11	2	22	134		
4-Jun	Saturday	11	2	22		91	
5-Jun	Sunday	8	3	24			56
10-Jun	Friday	11	2	22	29		
11-Jun	Saturday	11	2	22		79	
17-Jun	Friday	11	2	22	37		
18-Jun	Saturday	11	2	22		47	
24-Jun	Friday	11	2	22	57		
25-Jun	Saturday	11	2	22		71	
January–February (hours)				600	**550**	**550**	**144**
March-June (hours)				644			
Grand Totals (hours-riders)				1244	2156	1903	733
Pilot Project Expenditure				$70,908			
Cost per Revenue Vehicle Hour				$57.00			
Cost per Service Day					$31,350	$31,350	$8,208
Cost per Rider by Day				$15.59	$14.54	$16.47	$11.20

Source: City of South Miami Trolley System Report, July 13, 2005

Data regarding routes, stops, and daily ridership were available. Detailed data regarding schedules, delays, incident reports, and actual financial records were not available.

CHAPTER 3.0 PEOPLE'S TRANSPORTATION PLAN

In November 2002, Miami-Dade County residents approved a one-half cent sales tax to support the People's Transportation Plan (PTP) program. This fund supports expansion of public transit throughout Miami-Dade County. Municipalities receive 20 percent of the tax proceeds for transit and transportation projects. At least 20 percent of these municipal funds are used to expand local transit services, while the balance can be applied to other transportation needs.

The City of South Miami's 2003-2008 proposed five-year PTP budget is recorded in **TABLE 3-1.**

TABLE 3-1
CITY OF SOUTH MIAMI
Five-Year People's Transportation Program Budget

Project	'04	'05	'06	'07	'08	Total
Traffic Calming Northside Charrette Area	$115,000	$111,683	$31,000	$31,000		$288,683
Traffic Calming Snapper Creek	$50,270	$50,753			$51,436	$152,459
Traffic Calming Manor Lane	$56,900	$19,900	$19,900			$96,700
Downtown Improvements Phase 3	$34,500					$34,500
Roadway Resurfacing Citywide	$11,500	$30,00	$35,000	$35,000	$49,900	$161,400
Bus Bay Pullout US 1 Sunset to SW 62 Ave		$25,000	$4,000			$29,000
Trolley System		$35,834	$30,417	$35,417	$35,417	$137,085
Bus Shelters Downtown Area			$25,417	$25,417	$25,417	$76,251
Traffic Calming SW 64th St SW 57 to 62 Aves			$66,718	$75,118		$141,836
Traffic Calming CRA Area			$70,718	$81,218	$121,000	$272,936
Maintenance Equipment Purchase	$21,000	$21,000	$21,000	$21,000	$21,000	$105,000
Traffic Control Cocoplum Terrace SW 62 Ave	$15,000	$10,000				$25,000
Total	$304,170	$304,170	$340,170	$304,170	$340,170	$1,520,850

Source: City of South Miami, Public Works

The City of South Miami uses these funds for a variety of transportation services and improvements. Public transit service (trolley system) and bus shelter improvements are budgeted to consume 15 to 20 percent of PTP funds. Funding decisions are re-evaluated periodically and 5-year plans are frequently revised by most cities as the planning horizon progresses.

By contrast, the City of Coral Gables uses 100 percent of its PTP funds for transit. Most noteworthy is the City of Coral Gables trolley route on Ponce de Leon Boulevard, connecting the Douglas Road Metrorail station and the downtown Coral Gables commercial area. Data from

several Miami-Dade municipalities document how community circulator systems are funded and operate.

Existing MDT Bus Service

Eight Miami-Dade Transit (MDT) bus routes serve the City of South Miami. South Miami's Metrorail system station is located at Sunset Drive (72nd Street), west of US 1/South Dixie Highway. Typically, the MDT bus routes operate on 30-minute frequencies throughout the day. Additional service is provided on some routes during the busiest peak-hour, Monday through Friday. Six routes operate on weekends at the same or slightly reduced service levels. Six of the eight routes service the South Miami Metrorail station. The routes operate from approximately 5:00 AM to 10:00 or 11:00 PM weekdays. Saturday and Sunday service operates 6:00 AM to 8-9 PM, a slight reduction from weekday operations.

Metrorail service is available 19 hours daily, seven days a week. Weekdays, trains are scheduled six-minute headways during the peak-period; every 10 minutes during peak hours when buses travel on roadway shoulders; every 15 minutes from 6:15 PM to 8:30 PM; and at 30-minute headways remaining daily operating hours. On weekends, trains operate from 5:00 AM to midnight. Weekend service runs typically at 15-minute headways and at 30-minute intervals during off-peak periods.

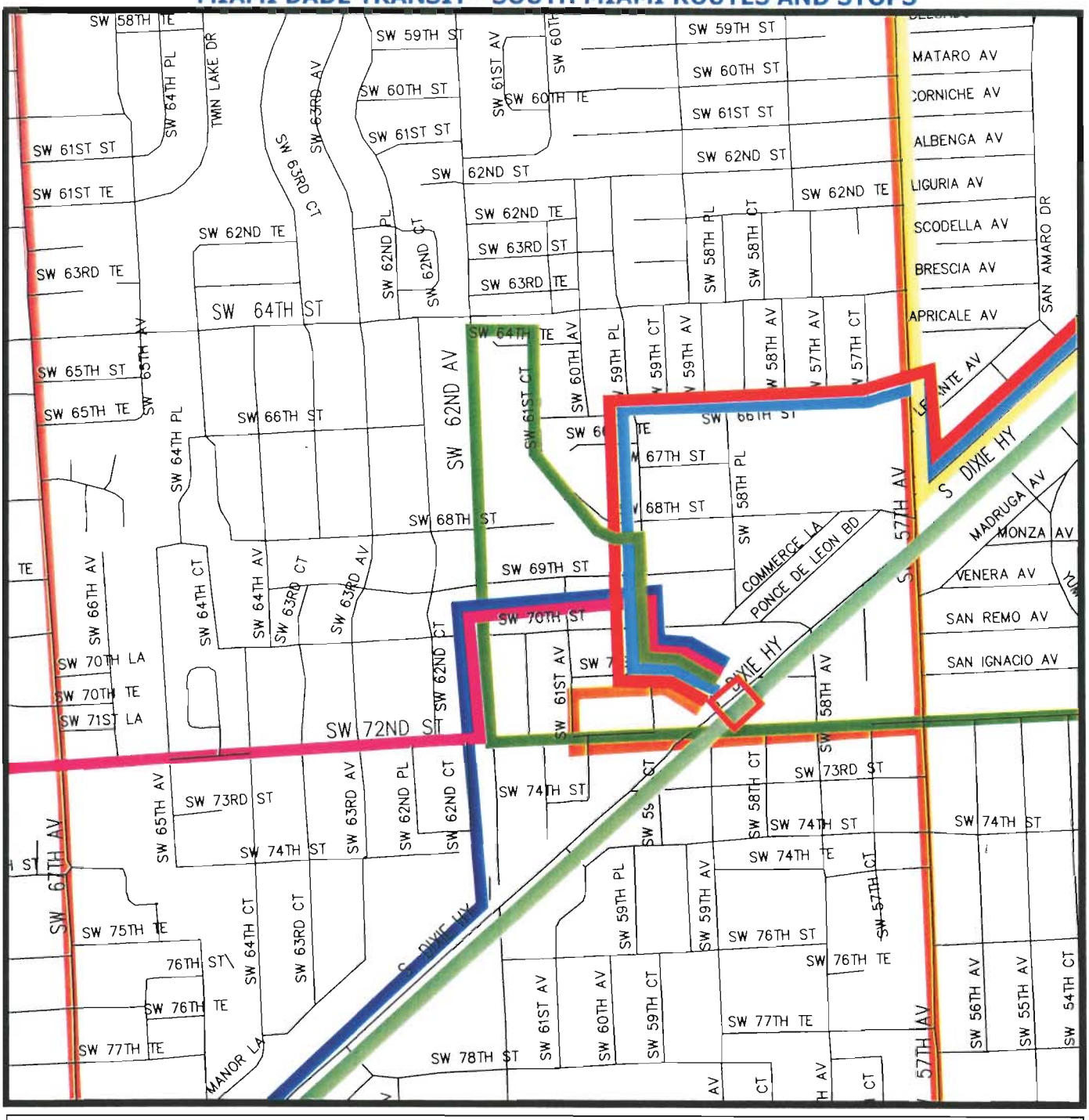
TABLE 3-2 summarizes Metrobus and Metrorail service. **MAP 3-1** delineates MDT bus routes through South Miami and adjacent areas. All routes are operated by Miami-Dade County. The City of South Miami places bus stops in conjunction with MDT. **TABLE 3-3** documents recent system wide on-board ridership counts for these routes, extracted from a 2004 Metrobus operations survey providing South Miami raw Metrobus route ridership data.

TABLE 3-2
MIAMI DADE TRANSIT (MDT) TRANSIT BOARDINGS
South Miami Area Bus Service

Route	Weekdays		Weekends		Notes
	Frequency	Service	Frequency	Service	
37 Douglas Road	Every 30 minutes	4:44 AM to 12:56 AM	40 minutes	5:46 AM to 11:57 PM	Hialeah-MIA-Douglas Road to Douglas Road Metrorail Station, continuing on Douglas Road to Cocoplum Plaza Circle to Sunset Dr to South Miami Metrorail Station
48 Ponce de Leon + Hardee	Every 30 minutes	5:05 AM to 8:30 PM	30 minutes	5:15 AM to 8:27 PM	South Miami, University and Douglas Metrorail Stations to Coconut Grove to Downtown Miami via Bayshore Dr and Brickell Ave
52 Cutler Ridge via So Dade Busway to South Miami Station	Every 40 minutes	5:25 AM to 11:36 PM	35-40 minutes	4:47 AM to 11:36	Cutler Ridge local service to SW 152 St Busway station; Dadeland South Metrorail Station-Dadeland Mall via 80th St; 62 Ave to South Miami Metrorail Station.
56 Miller Road	Every 30 minutes	5:35 AM to 8:45 PM	No Service	No Service	Western Kendall to Coral Gables CBD via 56th St and University of Miami campus- University Metrorail Station
57 Red Road	Every 30 minutes	5:12 AM to 8:54 PM	No Service	No Service	MIA to Red Road to South Miami Metrorail to Red Road to SW 111 St to Jackson South Hospital
72 & 72A Sunset Dr. (service period is combined route)	Every 30 minutes	5:12 AM to 9:05 PM	30-minutes	6:11 AM to 8:12 PM	Miller Square to Sunset Dr to South Miami Metrorail Station; A-route connects to Westlakes Plaza
73 Miami Lakes Tech to Dadeland South via 67th & 72nd Aves	Every 20 to 30 minutes	5:00 AM to 9:57 PM	Every 30 minutes	6:00 AM to 8:37 PM	Dadeland South Metrorail Station via 67th Ave to Doral via 72 Ave to Miami Lakes
152 Gables Connector	30 minutes	5:30 AM to 9:10 PM	Every 30 minutes	5:34 AM to 8:33 PM	Service: South Miami and University Metrorail station to Coral Gables CBD via LeJeune Road.
Metrorail	Every 6 minutes during AM/PM peaks; Every 8 minutes 8:52 AM to 9:48 AM; Every 10 minutes midday; Every 15 minutes 6:15 PM -8:30 PM; Every 30 minutes 8:54 PM to 11:54 PM	5:00 AM to Midnight	Every 15 minutes 6:00 AM to 9:30 PM; 30 minutes thereafter	5:00 AM to Midnight	Travel Time Between Stations: South Miami to University: 2 minutes; University to Douglas: 3 minutes Bus Connections to South Miami Metrorail Station: Routes 37, 48, 52, 57, 72, and 152 Bus Connections to University Metrorail Station: Routes: 48, 56, and 152 Bus Connections to Douglas Road Metrorail Station: Routes 37,40,42,48, 65, 72 224, 249, and J

MAP 3-1

MIAMI DADE TRANSIT - SOUTH MIAMI ROUTES AND STOPS



City of South Miami Trolley Study

NORTH

Existing MDT Transit Bus Routes

- Route 52
- Route 48
- Route 57
- Route 37
- Route 56
- Route 73
- Metrorail
- Route 72
- Route152
- Metrorail Station

Scale 3.0"=1/2 Mile

MIAMI-DADE MPO

PARSONS

CITY OF SOUTH MIAMI INCORPORATED 1927 FLORIDA

TABLE 3-3
MIAMI DADE TRANSIT (MDT) BUS RIDERSHIP

Route Number and Description	Weekdays Average Daily Boardings	Weekends Saturday Average Boardings	Weekends Sunday Average Boardings
37 – Douglas Road	4150	3720	-
48 – Ponce de Leon + Hardee	889	353	247
52 – Cutler Ridge via So Dade Busway to South Miami Station	1858	1189	936
56 – Miller Road	799	-	-
57 – Red Road	771	-	-
72 & 72A - Sunset Dr. (Service period is for the combined route)	1093	702	-
73 - Miami Lakes Tech to Dadeland South via 67th & 72nd Aves	2648	1227	552
152 - Gables Connector	239	107	12
249 - Coconut Grove Circulator	2250	2805	1178
Metrorail (Total)	61,458	27915	17807
South Miami Area Stations:			
So Miami	3370	1605	1307
University	2051	710	448
Douglas	3478	1905	1380

Source: Miami-Dade Transit February 2007 MDT Ridership Report

CHAPTER 4.0 OTHER RELATED ACTIVITIES

City of Coral Gables Circulator

The circulator service was inaugurated in November 2003. Previous bus operations along Miracle Mile were not effective. The service running from the Douglas Road Metrorail station to downtown Coral Gables via Ponce de Leon is carrying 3,000 to 4,000 daily riders[3]. This service operates from 6:30 A.M. to 8:00 PM (10:00 PM on Fridays) on weekdays. More frequent service at 8-minute headways is operated during morning, midday, and evening peak-periods. Weekend service is not provided. The system includes eight buses; six of those operate during peak periods. The service is free.

The City is proposing an extension of the route from the Douglas Road Metrorail Station northward from the downtown area to Flagler Street, operating on Douglas Road and Ponce de Leon Boulevard. The same operations frequencies and times will be implemented. One bus will be added to the fleet to provide this service.

Coral Gables has initiated a study to develop a southerly circulator service[4] that identifies two routes:

1. Douglas Road Metrorail Station to University of Miami Campus on Stanford Road. The run time is estimated at 18-20 minutes.
2. Douglas Road Metrorail Station to South Miami's Sunset Business District. This concept has southbound service on South Alhambra Circle to Yumuri Street to Sunset Drive, with northbound service on Red Road and Ponce de Leon Boulevard. The run time is estimated at 26-34 minutes. The concept proposes a 10:00 AM to 8:00 PM operation, Monday through Friday, with buses running every 15-20 minutes. The City estimates a need for two extra buses for this service. Annual boardings are estimated at 40,000 to 60,000 annually (250 to 300 daily riders). **MAP 4-1** shows the conceptual alignment for this route.

[3] Ridership continues to increase and in 2007 as many as 7,000 daily riders were reported.
[4] David Plummer Associates, Coral Gables Trolley Route Expansion Feasibility Study, March 2006.

MAP 4-1

CITY OF CORAL GABLES - PROPOSED RIVIERA/SUNSET CIRCULATOR

City of South Miami Trolley Study

NORTH

Proposed Coral Gables - Riviera/Sunset Shuttle

Proposed Coral Gables Shuttle (arrows show travel direction)

Metrorail

Metrorail Station

Scale 1.5"= 1/2 Mile

MIAMI-DADE MPO

PARSONS

CITY OF SOUTH MIAMI INCORPORATED 1927 FLORIDA

The two routes, as currently envisioned, will not be an extension of the existing Ponce de Leon Boulevard trolley service. Both would be anchored by the Douglas Road Metrorail Station and operate independently. Increasing the bus fleet could require an expansion of the City's bus maintenance facility. The study indicates that the revenue earned by implementing a $0.25 per ride fare may not cover fare collection and security.

Capital costs are estimated at $300,000 per trolley vehicle (vintage, low-floor, low-emission). Signs and amenities will add $3000 per stop. Twenty stops are estimated for the Douglas Road Metrorail Station to Sunset Business District route, totaling $60,000. The City estimates a capital cost of $660,000 for this service and annual operating costs of $354,000. Approximately 7,300 to 7,500 annual revenue hours of service are estimated. Operating costs are calculated at $48 to $50 per hour, exclusive of capital costs and depreciation.

Hurry 'Cane Campus Shuttle System

This shuttle service is free of charge to University students, faculty, staff and visitors. The two main routes are 1) Fountain/Stanford, and 2) Dickenson. Routes operate weekdays during the fall and spring academic semesters between 7:00 AM and midnight. In the summer, the Fountain/Stanford route operates at reduced hours (7:00 AM to 7:00 PM). In the fall and summer academic semesters, frequency is every four to five minutes on each route. During the summer period, headway is 10 to 15 minutes.

During the fall and spring semesters, the shuttle services off-campus sites, including Coconut Grove; the Shops at Sunset Place and Publix on South Dixie Highway (US 1); University Center; and Crandon Park. The Coconut Grove route operates Friday and Saturday evenings from 8:00 PM to 3:30 AM. The Sunset/Publix route runs from 8:00 PM to 2:00 AM, Fridays and Saturdays at 20-30 minute frequency. The University Center route operates daily from 5:00 PM to 11:00 PM. Crandon Park is a weekend route.

University service to both the University Center and the Sunset Business District was established to avoid the unsafe pedestrian environment for crossing South Dixie Highway.

Several fatalities have occurred as pedestrians attempted to cross the highway from the Metrorail station on the west to access commercial areas on the east.[5] MDT is developing pedestrian bridges from the University Station and the South Miami Station over South Dixie Highway. These will be completed by 2010.

Coconut Grove Circulator (Route 249)

MDT Operates the Coconut Grove Circulator. This route connects the Coconut Grove Metrorail Station at NW 27th Avenue to Miami City Hall on Dinner Key, the Coconut Grove area, and the Douglas Road Metrorail Station. Service frequency is every 15 minutes during peak periods. Weekday operations extend from 5:00 AM to 11:00 PM. Weekend hours and services are comparable.

South Miami Station Pedestrian Overpass

This pedestrian crossing is planned as a low profile bridge supported on both ends by vertical circulation towers. The towers will be located at the corner of Sunset Drive and South Dixie Highway (US 1) on the east and between the Metrorail guideway and the South Dixie Highway (US 1) on the west. The total estimated project budget for the pedestrian overpass is $6,213,000. The construction cost is estimated at $3,835,000 and right-of-way cost is estimated at $1,523,000.

The Conceptual Study was completed on March 15, 2006. The environmental document (Categorical Exclusion) has been completed and approved by the Federal Transit Administration (FTA). MDT has initiated the County procurement process to contract consultant services to perform for the construction of the pedestrian overpass. The project was advertised on April 21, 2006 through a Notice to Professional Consultants (NTPC) for the final design. Notice to Proceed (NTP) to the consultant was scheduled for December 22, 2006.

Final Design is expected to be completed by November 2007 and the construction is expected to be completed in November 2009.

[5] The most recent fatality was in 2005 across from the University Metrorail station.

University Station Pedestrian Overpass

This pedestrian over-crossing is planned as a low profile bridge supported on both ends by vertical circulation towers. The towers will be located at the southwest corner of Mariposa Court and South Dixie Highway (US 1) on the east and between the Metrorail guideway and South Dixie Highway (US 1) on the west.

The total estimated project budget for the University Pedestrian Overpass is $5,430,000. The construction cost is estimated at $3,211,000 and right-of way cost estimated at $1,523,000. The environmental document (Categorical Exclusion) has been completed and forwarded to FTA (on April 20, 2006) for approval. Such approval will qualify for the application of federal funding.

The Conceptual Study was completed on March 15, 2006. A Pedestrian Safety Access Committee was established as an interim solution to pedestrian safety until the overpass project is complete. The committee focused on immediate and mid-term solutions for safety enforcement plans, public awareness, shuttle service, safety studies, and the further development of the pedestrian overpass. Committee recommendations implemented to date include the installation of a fence along US 1 near University Station; tree trimming; improved signage and signal timing; and public awareness campaigns (conducted on the University of Miami campus).

MDT has started the County procurement process to procure a consultant to perform final design and prepare construction documents for the pedestrian overpass. The project was advertised on April 21, 2006 through a Notice to Professional Consultants (NTPC) for the final design. The consultant notice to proceed (NTP) to the consultant was scheduled for December 22, 2006. Final Design is expected to be complete in November 2007 and the construction is expected to be complete in November 2009.

CHAPTER 5.0 COMMUNITY CONSIDERATIONS

To obtain community input, several tools and techniques were employed. A survey was sent to selected stakeholders. Other stakeholders were interviewed in person or by telephone. The survey/interview inputs were reviewed by the Consultant and City staff. In a number of cases, respondents were interviewed in a follow-up. City Commissioners were interviewed in person and asked to complete a survey. A Community Workshop in January 2007 was conducted for residents to voice their views. A meeting was held with the Community Redevelopment Agency and its invited residents. Technical committee meetings were conducted and involved City, County, and Florida DOT staff to discuss technical matters.

Area Stakeholders

Stakeholders who returned forms or were interviewed are:

Chris Morrison, City of Coral Gables Traffic Advisory Board
Janette Gavarrete and Charles McGregor, University of Miami – Hurry Cane Shuttle
Ana Larzabal, City of South Miami Senior Center
Alex Abril, Downtown South Miami Merchants Group
Kevin Jones, South Miami General Hospital
Denise Speller, The Shops at Sunset Place
Ziada Diaz and Catrina Martin, South Miami Middle School

Interviews were conducted with these stakeholders, mainly in persons, but also by telephone. Surveys were sent to the hospitals and shopping areas to quantify their existing travel conditions and perceived problems (see *Appendix F, Activity Center Survey*). Only one survey was returned and follow-up calls were made to other sites by City staff.

Input and perspectives of the surveyed stakeholders were recorded and are summarized as follows:

1. The City of Coral Gables has initiated a feasibility study of a route that would service the Ponce de Leon corridor. Southbound, the route would connect the Douglas Road Metrorail Station via the University Station, crossing South Dixie Highway to South Alhambra Circle and proceeding to Sunset Drive. It would return north via Red Road to Ponce de Leon and stop at the Douglas Road and University Metrorail stations. The City of Coral Gables, the University of Miami, the City of south Miami, and the Citizen's Independent Transportation Trust have all been involved in these discussions.

2. The Senior Center sees merit in serving the Center's clientele at SW 62nd Avenue. The service needs to start earlier in the day than what was offered as part of the Pilot Trolley program. The Center operates two vans, but they are in poor working condition.[6] Shopping and medical trips are important to senior life-style activities. About one-half of the seniors drive and have their own transportation, but a considerable number do not. The pilot service did not provide a schedule and was confusing for seniors to use.

3. The Downtown Merchants Association sees no benefit arising out of the Pilot trolley demonstration. The Merchant Association indicates that customers or employees did not use the shuttle. University of Miami students may have used the service. Lower paid workers typically us Metrorail or Metrobus. Weekends are not perceived as having mobility issues since most patrons drive to the area for shopping and dining. The City's new parking garage is a tremendous asset for reducing access to the downtown area.

4. The University of Miami's *Hurry Cane Shuttle* operates from the campus to The Shops on Sunset on Friday nights, carrying approximately 100 riders. Buses run every 30 minutes from 8:00 PM to 2:00 AM via the University Metrorail station. University officials see a need for better Monday through Friday service from the campus to the Sunset Drive commercial area. Even through the distance is not far, crossing South Dixie Highway and the unfriendly pedestrian environment, encourages students, faculty, and staff to drive. The Sunset Business

[6] Since this survey, the Senior Center has received a new van.

District is favored by University-based travelers during the week. Approximately 50 percent of students residing on campus own automobiles.

5. A survey of key employers and commercial areas was conducted. The Downtown Merchants Association provided verbal feedback. Surveys indicated:
   - South Miami Hospital, with nearly 2,400 employees returned a survey of transportation conditions at that facility. The hospital has about 1,000 employees at work at any given time on weekdays and weekends. The hospital has weekday parking congestion; 70 percent of the employees drive to work, most in single occupant autos on weekdays. The parking problem is not as critical at other times. The hospital does not perceive that a shuttle bus/circulator service will provide a solution for their access issues.
   - No other group returned survey forms.

6. South Miami Middle School, located on Ludlum Road (SW 67th Avenue) near 60th Street, adjacent to Palmer Park, is a magnet school with 1,100 students. Most students do not live in the City of South Miami and the surrounding area. School administrators estimate that 30-40 percent of the students reside in the South Miami, virtually all west of South Dixie Highway.

EXHIBIT 5-1: South Miami Middle School
This magnet school for the arts serves children in South Miami and a wide area beyond the City

- School hours are from 8:00 AM to 3:00 PM. Students would use a circulator bus to go to the South Miami library, the Community Center, and the Sunset Drive and Sunset Place commercial areas. School regulations require students to live more than two miles from the school to be eligible for school bus service. South Miami resident students live within a two-mile radius so do not qualify. The lack of continuous sidewalks is a problem for some students walking to the school.
- Some students reside as far away as the Overtown area and ride Metrorail to the South Miami station and transfer to Metrobus to the middle school. Students often wait up to 30 minutes for the bus to return home at the end of the school day. A bus shelter is not provided at the Metrobus middle school stop. A number of students from the Dadeland area attend the school. Although most of these students reside just within the two-mile radius, they are eligible for school bus service.
- Evening adult and community education classes and after-school activities could benefit from a circulator bus service. Students and adults participating in these programs come from a dispersed area.
- If a circulator service is provided to the middle school, operations should begin at 7:00 AM. Afternoon peak service would occur 2:00 PM to 3:00 PM. The school crossing guard is on duty from 2:00 PM to 3:00 PM. Police traffic control is needed after 3:00 PM to assist students crossing Ludlum Road.

Community Workshop

On January 17, 2007 a Community Workshop was held at City Hall. Minutes of the meeting and presentation are in Appendix B. About 20-25 residents and City employees attended. A number of attendees spoke. Comments, issues, and concerns were recorded as follows:

South Dixie Highway Traffic. The heavy traffic volumes at Sunset Road and South Dixie Highway are dangerous for pedestrians. It was suggested that an eastbound Sunset Drive to northbound South Dixie Highway movement be instituted to reduce congestion.

Bus Access for the Elderly and Disabled. All buses used for a circulator service must be equipped accessibility by Seniors and disabled residents.

School Transportation. A circulator bus schedule should serve school transportation needs, particularly to the South Miami Middle School, and operate during school hours. As pictured in EXHIBIT 5-1, the middle school is a Magnet School for the Arts.

Service to Dadeland and the Dadeland Metrorail Station(s). Better connections to the Dadeland Mall complex and the Metrorail stations to the south of South Miami are needed.

Weekday Service. Weekday (Monday through Friday) service is more important than weekend service on Saturdays and Sundays.

Service on Sunset West of 62nd Avenue. If the trolley operates further west on Sunset, more residents will be served and would use a circulator bus.

Middle School and High School Service. Children attending the senior and middle schools should be the primary consideration for a circulator service.

Connections to Coral Gables. Connecting to the Coral Gables area is very desirable.

Information and Communication Needs. Any transit service requires good outreach to residents so they are aware of the service, frequencies, stops, route changes, and schedules.

Free Service. The service should be free.

City Commission

In March 2007, individual meetings were held with members of the South Miami City Commission. Commissioners were given a survey prior to the meeting to solicit their feedback about their views and expectations of a circulator system (see *Appendix G, South Miami Trolley*

Study City Commissioner Survey). The meetings were productive. The most significant opinions and views are summarized below.

All of the Commissioners mentioned the following:

- The Pilot project was neither well conceived nor operated. Poor public information, lack of community input and marketing, the lack of a schedule, and unreliability were cited as reasons for its failure. The system was advertised by word of mouth and not generally known by the larger community. A new trolley or circulator service must not be operated like the Pilot project.
- Any new service needs strong marketing and branding. One Commissioner stated, *"...the service should be worthy of having in the community, or it was not worth doing."*
- It is worthwhile to investigate another trolley/circulator project to see if it makes sense.
- The Coral Gables trolley shuttle is a good example of the type of service they would like. Connections to the Coral Gables system and/or University of Miami shuttle systems makes sense.
- A future service should be operated by a private contractor.

Commissioners raised differing opinions about the following issues. **MAP 5-1** locates some of the sites raised by City Commissioners.

- Service from the east side of the City near South Dixie Highway toward the South Miami Middle School and South Miami Senior High School is the highest priority.
- Connection to the Metrorail stations, high employment service areas (e.g., South Miami and Larkin hospitals), and the Sunset Drive commercial area is important.
- The Community Center, hospitals, elementary schools, Senior Center, and City parks need access. A connection from the Senior Center to the Winn-Dixie and the CVS in the Sunset Drive commercial district was mentioned. After school activity venues, youth centers, and parks need service.
- Service should connect to the Coral Gables shuttle. Commissioners were not necessarily aware of the City of Coral Gables' proposed Riviera circulator trolley concept.

MAP 5-1

CITY OF SOUTH MIAMI - CITY COMMISSIONER MAJOR POINTS OF INTEREST

Major Points of Interest

1. South Miami Senior High School
2. Brewer Park
3. South Miami Middle School
4. Palmer Park
5. University of Miami
6. University Commons
7. City of South Miami Senior Center
8. Marshall Williams Park
9. All-America Park at Cocoplum Terrace
10. City of South Miami Community Center
11. Murray Park
12. Jean Willis Park
13. South Miami Metrorail Station
14. The Shops at Sunset Place
15. Ludlam Elementary School
16. South Miami Hospital
17. Van Smith Park
18. Fuchs Park

City of South Miami Trolley Study

Major Points of Interest

NORTH

Metrorail

Metrorail Station

Scale 1.5"=1/2 Mile

- The City helped the Senior Center get a new bus for its immediate transportation needs. Seniors are an important group to be served by a circulator system.
- Citizens would use a circulator if it is well run, regardless of the routing. Routing is very important. Several routes or services should cover most of the City. A more focused service in critical areas is important.
- Based on the pilot project results, different service hours or routes are needed, particularly earlier service and better connections to other parts of the City.

Other issues and comments raised by Commissioners include:

- Rowdy schoolchildren were a problem on the Pilot bus.
- The Red/Bird commercial area needs service (SW 57th Avenue and SW 40th Street); a connection to Dadeland would be valuable.
- The vehicle should have a bell or similar alert so people will know it is approaching.
- Joint promotion with the private sector should be investigated to enhance information dissemination and to system financing.
- The service could be beneficial when the new mixed-use/commercial development on Red Road (Red Road Commons) across from the University of Miami opens. There could be provisions for financial assistance included to alleviate congestion in and around that development.
- The Pilot buses were often empty and did not show great promise.
- A new circulator service needs to meet basic cost-effectiveness thresholds and service standards.
- Service workers in the Sunset Drive Commercial district would benefit from a transit connection since there are many restaurants currently located in the area and more are planned for the near future.
- That South Miami Hospital needs service.

South Miami Community Redevelopment Agency (CRA)

On March 16, 2007, the CRA invited participants to attend a group discussion of transportation needs within South Miami. Attendance was not recorded. The group offered their

ideas regarding a trolley or circulator bus service.

1. Public transportation service requirements include:
   - Children going to and from school should be a primary service target, particularly for those attending South Miami Middle and Senior High schools. Service to elementary schools was mentioned.
   - Travel to Coral Gables is important and should be considered.
   - A circulator to the Metrorail stations in South Miami, the University of Miami, and Dadeland could be valuable.
   - Seniors traveling to the Winn-Dixie and the CVS in Sunset Drive commercial area need service.

2. A connection to Coral Gables is important for access to the retail and business areas and the Helen B. Bentley Clinic (3090 SW 37th Avenue, Miami, FL 33133).

3. The Pilot project service was confusing. A bi-directional service with connections across South Dixie Highway at Sunset Drive would better serve the community. Better information, service, and community awareness of a circulator bus service was discussed.

4. On-board bus security suggestions included use of the CRA-funded community police officer to assist in reducing disruptive student behavior. Other community police priorities were discussed.

5. Service is needed for SW 59th Place, SW 66th Street, SW 57th Court, and SW 64th Street areas.

6. Service is needed to access area hospitals.

7. Service needs to begin earlier than that operated during the Pilot program.

8. Service is needed throughout and outside the City of South Miami.

CHAPTER 6.0 TRANSPORTATION NEEDS AND OPTIONS

In reviewing the comments from the public and key interest groups, the major expectations for a circulator service are:

1. Weekdays service (Monday-Friday) is most desirable for the majority of the residents.

2. Residents want service for schoolchildren attending the middle and high schools. Both campuses are located on Ludlam Road (SW 67th Avenue). Service hours should be oriented to serve student travel time periods

3. Business interests do not perceive a demand for circulator service for their employees and customers. The South Miami Hospital has service needs for employees 24 per day. Parking is a problem only on weekdays. A circulator bus service is not seen as a solution to these problems.

4. Merchants do not think there will be a parking problem once the new City garage is built. Sunset Place, Larkin Hospital, and other major area employers responded to the surveys.

5. The Senior Center identified a need for service to the grocery store, pharmacy, and shopping area east of South Dixie Highway. They noted they operate van service, although the vehicles are in poor operating condition.

6. The University of Miami believes a mid-day service from the campus to the Sunset business area would be valuable and would reduce traffic. It could potentially attract more retail business from University students and employees. The University shuttle only connects the campus and business area on Friday and Saturday nights, carrying approximately 100 riders each night.

7. The City of Coral Gables has proposed a bus service loop from the Douglas Road Metrorail Station to the University Metrorail Station to the east side of South Dixie Highway and the South Miami business district. Connections to the Gables trolley on Ponce de Leon could be made at the Douglas Road Metrorail Station. There is no estimate of South Miami riders that would be served, but the given the routing, it is likely to be minimal.

8. Services outside the City of South Miami into Coral Gables or Dadeland are desirable.

Summation of Findings

The service requirements and concepts are supported by varying interests. A single service cannot be adequately developed to meet all the proposed needs and operate as a community circulator bus system. Most City residents think the local circulator bus service should be oriented toward school and senior citizen transportation needs. While these are legitimate needs, they are not inter-community or sub-regional services since both are strictly local concerns for South Miami residents. Operating a community circulator bus system may not be the most appropriate solution to address school and senior citizen problems. Other options to address transportation local deficiencies might be better addressed by:

- Providing more sidewalks for pedestrians to avoid waiting in the street;
- Providing additional and protective bus shelters near schools, senior centers, and other high activity areas;
- Obtaining reliable vans for Senior Center use; and
- Working cooperatively with the University of Miami and/or Coral Gables to establish financial and route sharing responsibilities for a multi-jurisdictional transit service.

Suggestions from Coral Gables and the University of Miami have merit, but neither addresses the concerns raised by City residents. Appropriate solutions to consider in developing a successful circulator service must address:

School Service Hours. If the primary purpose of a circulator service is to provide better school access, then service between 7:00 AM and 8:00 AM and 2:00 PM and 4:00 PM is

required. Such a service requires further consideration as to how limited service hours address the needs of others.

Service Area. Schoolchildren reside throughout the community, so route service planning is problematic. Service to the area between South Dixie Highway and NW 62nd Avenue showed promise during the pilot phase. Service to other parts of the City needs to be investigated.

Sidewalks and Shelters. The lack of sidewalks in many areas for pedestrians to walk to bus stops and shelters is a major issue. Middle School officials noted there are no bus shelters near the school. Shelters are a City responsibility. PTP funds can be used to install bus shelters. **EXHIBITS 6-1, 6-2, and 6-3** illustrate sidewalk and bus shelter needs within the City of South Miami.

EXHIBIT 6-1
Many residential areas do not have sidewalks

EXHIBIT 6-2
Bus shelters are not currently installed near primary activity centers (e.g., Middle School, Winn-Dixie, Senior Center)

EXHIBIT 6-3
Sidewalks are under construction on several major streets, but many residential areas between Red Road and Ludlum Road have single walks on one side of the street or no sidewalks

Mid-Day Service. The University of Miami concept for a mid-day service from the campus to downtown South Miami could potentially be integrated with the early morning/mid-afternoon school service.

Coral Gables Connection. The City of Coral Gables concept could serve the same purpose as the University of Miami concept. Its 8 to 10 hour day operating schedule could potentially be altered to vary the route and service frequencies to respond to some City of South Miami interests if an intercity transit service collaboration is desired. The proposed service does not address desired school, hospital, Senior Center, Sunset Business District stops.

Senior Center. Circulator service to the senior center on 62nd Avenue requires a direct connection to the Sunset Drive business area, the most requested destination cited by senior advocates.

Metrorail Access. While not mentioned by residents, other interests have noted that the circulator should connect to the South Miami Metrorail station. Providing roadway/sidewalk access to this station from the south would alleviate the current circuitous routing for buses and pedestrians. MDT Metrobuses currently operate an extra 5 minutes to access this station.

Performance Standards. Performance and evaluative standards should be established so City officials can monitor and analyze if service components perform satisfactorily. Service characteristics can be enhanced, modified, or terminated, based on actual system performance and effectiveness. A route should show that it is being used, and operated efficiently and cost-effectively. A circulator system needs to have the promise of strong rider interest and efficient operation.

CHAPTER 7.0 OPTIONS CONSIDERED

The objective of a community-based transit service is to meet the needs that are not being otherwise met. In working with the community, perceived needs were revealed. These are described in *Chapter 6.0, Transportation Needs and Options*. Four basic service needs were cited by stakeholders and the community:

- Service to the middle high school area;
- Service that links the area around the Senior Center to the Sunset Drive Business District;
- Service that links the University of Miami area to the Sunset Drive Business District; and
- Service that connects the South Miami Metrorail Station with other community activity centers, particularly the hospitals and the Sunset Drive Business District.

The City does not have empirical data to quantify these needs. Data from the 2005 Pilot Project show the heaviest boardings in the SW 62nd to SW 60th Avenue area; the Sunset Drive Business District; and the middle school area. Several important components need to be incorporated into route planning:

1. School services are very time limited to early morning and late afternoon. Mid-day service is not needed. School service is seasonal and has major breaks several times during the year.

2. Data from the middle school show most students live outside South Miami.

3. University of Miami has similar daily service periods as the middle school, except it is heavily concentrated during the middle of the day. Access is needed from the campus to the Sunset Drive Business District.

4. Access to the South Miami Metrorail station is highly compromised. The pedestrian bridge will not be in place until 2010. Pedestrian and vehicular access from Sunset Drive was eliminated as part of the redevelopment scheme. Even though that concept has been abandoned, these connections have not been restored. Pedestrian access to South Miami

General Hospital, City Hall, and the library require circuitous access. MDT buses can only access the station from South Dixie Highway.

5. The City's infrastructure (sidewalks, bus shelters, lighting) is weak and not transit user friendly. Adequate infrastructure must be place to attract new transit users.

If the City sees a need to provide transit services, the Service Concept described below offers the best conditions to attract riders. Many other factors affect transit use, including service quality, convenience, safety, attractiveness, user information, travel time, user cost, and other travel options. The City needs to monitor costs, use, and service quality for any circulator service developed.

Service Concept

A critical aspect of designing transit service is to identify a real transportation need or deficiency and design a system to meets that need. This need could be for a connection between places that doesn't exist; an upgraded service compared to an existing one; or often a time-of-day service need that may exist only sporadically (rush-hour, school-hours, weekends, etc,) Sometimes these needs are very distinct; other times they converge. The more reasons a new transport connection is needed, the stronger the likelihood for success…especially in community based transit service. The "build-it and they will use it" school of planning – often is unsuccessful because it does not address specific needs for using a new transit service. Unless there is obvious benefit people travel in their old patterns or times…even if the connection is free. There can be latent demand that is untapped until a new transportation connection is created, but these are both hard to identify and rarely substantial compared to existing or documented traveler needs.

In addition, there are background conditions that are needed to support any transit service. Are there good bus stops; does the public understand the schedules; is the equipment clean and attractive; does service frequency match traveler needs; do users feel safe getting to and from vehicles or while on the vehicle.

Based upon citizen input and discussions with others, the following concept emerged. There was no great unmet travel need within the City limits that multiple interests groups could identify that in fact did not have some exiting connection. Metrorail and Metrobus connect South Miami to adjacent communities like Coral Gables or the University of Miami. The Sunset Drive business community did not see the need for a new transit service; nor did the major employers.

The Middle School staff saw a transit need, but this was for connection outside the City limits. Several needs were cited but at least one or two interest groups:

- To move middle and high school students from the Red Road area to the Ludlam Road area;
- To offer better shopping opportunities for seniors from the Senior Center on SW 62nd Avenue;
- To provide a better link from the University of Miami campus to the Sunset Drive (SW 72nd Street) business area;
- To connect with the Coral Gables trolley system at the Douglas Road Metrorail station;
- To connect the South Miami Metrorail Station with South Miami General and Larkin Hospitals.
- Crossing South Dixie Highway at Red Road or Sunset Drive is a major pedestrian problem.

The reasoning and quantification for these needs vary. Some needs have some quantification, while others do not. Substantiation of these needs include those issues, facts, or observations made in **TABLE 7-1**. Of the five services proposed above there appears to be substantiation for four problems. Three of these problems might be addressed by circulator service, while another two problems could better addressed by upgrading streets and roads.

TABLE 7-1
SOUTH MIAMI CIRCULATOR FEASIBILITY STUDY
Unmeet Needs Description

Community Need	Substantiation
To move middle and high school students from the Red Road area to the Ludlam Road area.	The school district does not provide busing this close to the schools. The Middle School estimated 3-400 students lived in the City and did not have bus service.
To offer better shopping opportunities for seniors from the Senior Center on SW 62nd Avenue.	The closest grocery stores, pharmacy and other essential services are all located east of South Dixie Highway in the Sunset Drive business district. There are no similar retail services west of the highway. A need to get residents across the major highway is needed.
To provide a better link from the University of Miami campus to the Sunset Drive (SW 72nd Street) business area;	The University runs a shuttle connection on Friday and Saturday nights from the campus to the Sunset Drive business area with substantial use. The University believes upgrading this connection – particularly during weekday lunch-hours – will be beneficial to traffic congestion and creating a link that does not exist.
To connect with the Coral Gables trolley system at the Douglas Road Metrorail station	This need was mentioned by several interests. Existing Metrorail and Metrobus service link South Miami, the South Miami Metrorail Station to the Douglas Road Metrorail Station. It was not clear that there was an unmet demand, other than the presumption of a free service versus existing paid fare service. During peaks, Metrorail runs every six minute; however the two or three connecting Metrobus routes run every 30-minutes.
To connect the South Miami Metrorail Station with South Miami General and Larkin Hospitals.	It is about 3-4 blocks from the South Miami Metrorail station to South Miami General Hospital and a bit longer to Larkin. The survey returned South Miami Hospital did not see a major travel deficiency and no survey was returned by Larkin. An obvious connectivity problem from the Metrorail station to South Miami General Hospital. The abandoned redevelopment scheme for the parcel south of the station eliminated southerly access from Sunset Drive to the Station…even for pedestrians. Now both pedestrians and buses have circuitous access causing much longer access times.
Crossing South Dixie Highway at Red Road or Sunset Drive is a major pedestrian problem	These two crossings are major problems for pedestrians and vehicles. However, a grade crossing will be opened from the Metrorail station over the highway in 2010 and other issues need to address in a traffic study.

Based on the above, the circulator service problems can be seen as:

1. That a service oriented towards school and senior needs be run early in the morning and late in the afternoon.

2. A service oriented towards Senior citizen needs to cross South Dixie Highway for shopping trips.

3. Meeting a demand for University students, facility and staff to connect the University of Miami campus with South Miami's SW 72nd Street business district. By contrast, there does not appear to be much need to go further north towards the Douglas Road Metrorail station since those links exist from South Miami or the University via Metrorail or Metrobus services, except for having a free service rather than a fare-required service.

4. The need to restore access from the south to the South Miami Metrorail station for both pedestrians and vehicles, but with the purpose of creating a pleasing and convenient connection for the short distance from South Miami General Hospital to the station.

5. Making optimal use of the South Miami Metrorail pedestrian crossing over South Dixie Highway when it is completed in 2010 for as many pedestrians as possible.

Service Solutions

The reason for this split has to do with unique travel pattern of different groups.

- Students need to get to and from school, approximately 7-9 in the morning and 2-4 in the afternoon. There is no midday demand for school service. Most students walk or are driven by their parents to middle school or elementary school. The route proposed (Route A) connects the Community Redevelopment Area (CRA) with the Ludlam Road area where the South Miami Middle School and South Miami Senior High Schools are located. Running service only when most students are traveling to and from school will benefit that group of riders.

- The senior center has expressed a need for earlier, daytime service to the super-market and other services. Both Routes A and B service the Senior Center – with identical service paths from the Senior Center to the Sunset Drive Business Area. This will provide service from 7 AM to 4 PM daily at the Senior Center.

- The Sunset Drive (72nd Street) commercial strip starts operating between 9-10 AM daily, with a lunchtime peak until about 2 PM as locals and University workers and students go to local restaurants for lunch or errands. Valet parking, $5.00 or more during lunch hour, shows that there is demand for transportation and a parking problem since almost all access is now carried out by private auto. Developing a shuttle from the University Metrorail Station to the Sunset business area could attract more customers and reduce auto traffic in the congested area.

- The blend of the two distinct purposes and time requirements creates a 9-hour service day, with the two routes serving distinct time sensitive travel needs, but overlapping to provide daylong service along 62nd Avenue to the Sunset Drive area.

- This service concept can a have a number of variations, but in all cases adding service for both routes along 62nd Avenue will service the Senior Center, Lee Elementary School, the South Miami Metrorail station and the Sunset Drive business area from 7 AM to 4 PM daily. No weekend or late evening service is call-for. The Pilot program saw over 50 percent of riders were between 10 AM and 2 PM. Ridership dwindled rapidly later in the day.

- The routes can have distinct names, such as the "mid-day shuttle" or "trolley" and the "round-town circulator" and can be color coded for easy identification as shown in Exhibits E, F and G.

EXHIBIT 7-1
There are 5 color-coded routes at this City of Aventura circulator bus stop

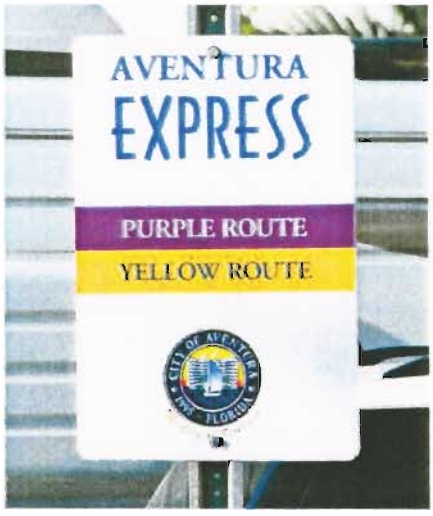


EXHIBIT 7-2
This Aventura stop has only 2 routes stopping by

EXHIBIT 7-3
San Antonio's CBD multi-route transit circulator system shows several different colored routes that also have different service hours

- Drive-time tests show that either service can easily be met by one vehicle every 30-minutes. Two vehicles would create 15-minute service.
- Service could be a one-way loop (one or two buses), or two-ways with two buses in service.

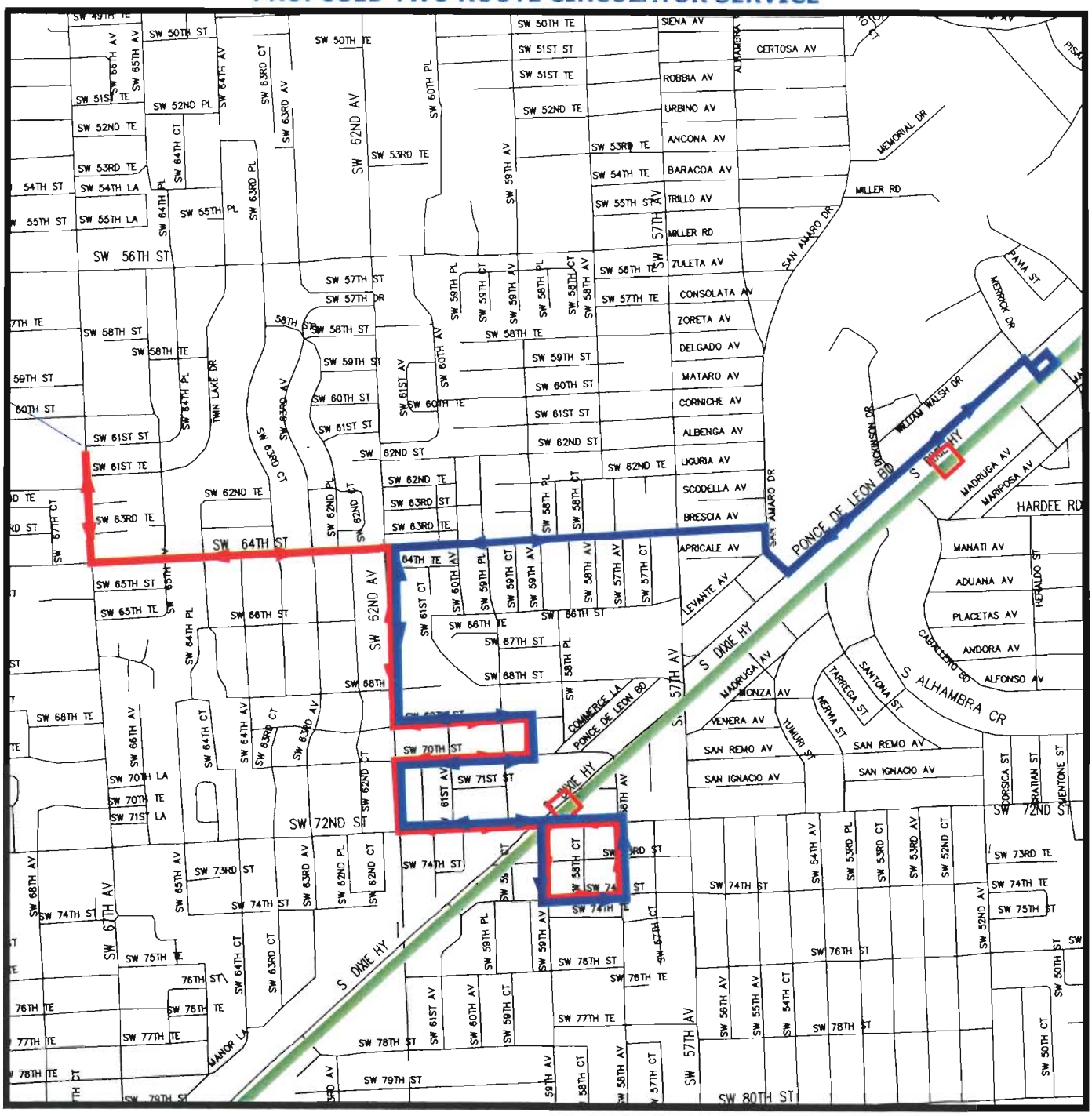
- The routes need distinctive stops and identification for user identification – the front vehicle head and other logos or livery can be used to identify the two distinct services.
- Workers along the core route – 62nd Avenue and Sunset Drive are covered in both alignments – might be attracted to the service.
- The public library, City Hall, South Miami Metrorail station, community center and two hospitals are accessible via either route.
- There is no access to the South Miami Metrorail station from the south and all Metrobus routes use the South Dixie Highway entrance. This maneuver would greatly add time to a community circulator route.

No other local shuttles operate on weekends or late evenings except in some very congested tourist areas like South Beach or Downtown Fort Lauderdale. Most community-based services operate weekdays during business hours. This has been caused by greatly reduced weekend congestion and the greater demand for work, school or medical trips weekdays.

Routes and Service Characteristics

MAP 7-1 shows the two proposed circulator routes. Each route is approximately 2.5 miles long and depending on time of day will take about 20-25 minutes to operate. There is substantial route overlap so that from SW 64th Street and SW 62nd Avenue there will be constant day long service. The routes vary by time of day so that there is service towards the Middle and Senior High Schools early in the day and then when school lets out. During mid-day 10 AM to 2 PM, the route changes to connect to the University of Miami and the University Metrorail station as a connecting point with the Hurry Cane shuttle system.

MAP 7-1
PROPOSED TWO ROUTE CIRCULATOR SERVICE



City of South Miami Trolley Study

Proposed South Miami Trolley Routes

NORTH

Route A
Route B
Metrorail
Metrorail Station

MIAMI-DADE MPO

PARSONS

Scale 2.0"=1/2 Mile

CITY OF SOUTH MIAMI INCORPORATED 1927 FLORIDA

Service Provisions and Capital and Operating Costs

To keep maximum flexibility – and consistent with input from the City – the use of private contractors to provide vehicles and operate the service should be pursued. This means that the City should prepared to request bids to operate this service from local service providers. The provider would furnish the following – or the City could provide support as shown in **TABLE 7-2** below:

TABLE 7-2
CITY OF SOUTH MIAMI
Contractor and City Circulator Responsibility Options

Issues	Contractor	City	Comments
Vehicle	▪ Provided by contractor ▪ City could request bids for a specific vehicle type: low floor vehicle, a trolley, or a generic vehicle; or permit a vendor to offer alternatives. ▪ City can set standards to be met: ADA access; On-board public address system; bells or signal; lighting, air conditioning, energy efficiency, etc. ▪ City can set maintenance standards.	▪ City could offer fuel to vendor as a cost saving.	▪ City must monitor system to be certain vendor complies with contract requirements.
Operations	▪ RFP should set out basic service required; but request prices if service grows or is cut during the contract period. This permits contract can be flexible. ▪ City can sets standards for operator pay; safety record, security, on-time performance and user satisfaction. ▪ Operator can provide information and public outreach materials for distribution by the City. ▪ The operator can propose a public information and marketing campaign as part of the response to a City request for proposal.	▪ City needs to monitor contract performance. ▪ City could set data collection required by contractor – or hire a third party to monitor contract. ▪ There needs to be an informal technical group that can quickly make system changes if conditions warrant, rather than contract adjustments.	
Facilities	▪ The contractor could install and maintain stops signs and jointly work with the City on locations, layovers and other facility issues.	▪ The City could make signs and install them – or provide them to the contractor. ▪ Only the City can make sure that stops are located where signs, safe access and waiting areas, lighting, etc are available and acceptable to neighbors.	▪ Because transit vehicles have different service characteristics, stop locations, layovers, and turn-arounds need to be designed based on specific equipment. ▪ There should be stop coordination with Metrobus. ▪ Industry practices of stops no more often than 3-400 feet apart should be followed so that the service is not too slow.
Contract Matters	The small nature of this service and the high level of citizen interest will require a contractor that meets City standards rather than a set price so there can be a good match between the City's expectations and the contactors qualifications.	The City needs to define how it will monitor the contractor; the operating standards it desires and support it will give to the vendor.	Changing service conditions (not terms) should be included in the contract so service modifications can be easily made.

Using a base of $50.00 per vehicle hour – commonly cited by other small city services in Miami-Dade County, the City can get a vehicle, driver, fuel, insurance and some data collection from a vendor. Specialty vehicles – like old time trolleys could cost slightly more, as could use of very sleek modern vehicles. But open competitive bids should offer the City a transparent selection program. Because other needs may also be expected of the vendor, such as public information, stop maintenance, etc, the bid may involve qualitative as well as quantitative aspects. The City does need to make sure that a vendor can expand or contract service with reasonable notice. The City can offer fuel to a vendor to reduce direct payments – or perhaps have other cost reduction inducements.

Operating Standards and Evaluation Criteria

1. Both route A and B can operate within a 30-minute window for a round-trip – or two trips per hour. If two buses are used to provide service, then there can be 4-round-trips each hour – meaning a bus about every 15-minutes. The frequency needs to be decided by the City. Adjustments could be made to increase or reduce service if included in the contract.

2. Having the contractor provide all equipment – and be responsible for operations and schedule adherence is critical in a small circulator system.

3. The City can request Contractors provide bids using different types of equipment so comparisons can be made. All equipment must be ADA accessible. Use of faux trolley vehicles, modern vehicles or even low-emission vehicles can be compared.

4. The City needs to work with the selected contractor – and the selected vehicle – to develop precise schedules, stop spacing, turn-arounds, and layovers. The City needs to work with the University of Miami regarding a turn-around north of the University Metrorail station. The City needs to develop a turn-around near South Miami Middle School. If transit access is important, it needs to have priority over parked or waiting private cars.

5. The City needs to work to develop a solid information and "branding" campaign for the system. The City website, City local program access, City home notices can all help inform citizens of the service and modifications. Schedule development needs to be developed by the contractor. Both the City and contractor need to agree to stop locations and number. Before issuing an Request for Proposal (RFP) or bid document the City needs to decide if it will be responsible for bus stop signs, graphics, public outreach, bus stop maintenance, etc versus what is expected of a Contractor. The City can require that the contractor maintain and update the website and other public outreach materials.

6. The City needs to monitor contractor performance based on selected criteria. Many communities reward good contractor performance – or try to penalize bad performance – as specified in the contract. The former is usually easier. Criteria need to be known and agreed to by the contractor for satisfactory performance. Data related to system effectiveness is not Contractor driven, but based on the City's service and cost-effectiveness guidelines. Some data can be collected by the contractor (periodic rider surveys, counts, schedule adherence). This should be checked by the City. Other information regarding complaints, user satisfaction surveys, cost-effectiveness data, use patterns etc. should be conducted by the City using standard procedures for transit rider checks.

Other Policy Issues

1. Funding from other agencies or partners who want service should be a goal given the City's limited PTP resources. In return these funding partners should have a role in managing or operating the shuttle, especially regarding service quality and related issues. The route should not become a "spaghetti" alignment because of funding opportunities if service to the core consistency is compromised. Funding from the Community Redevelopment Agency; the Sunset Drive Merchants Associations, hospitals, or the University of Miami to pay for basic service or enhanced services could be desirable, providing that over service integrity is maintained.

2. There need to be benchmarks for service effectiveness, even if money to run the service is not an option, so that the use of public resources is open and transparent and used in the best way.

3. Monitoring the circulator service on a regular basis should help to make route and service changes and aid in deciding if the service is being well used.

4. The City has an obligation to provide shelters, sidewalks, lighting and other amenities throughout the community for all public transit users and to enhance use of existing MDT and City services.

5. Restoration of access for pedestrians and transit vehicles from Sunset Drive into the South Miami Metrorail station should be a City priority.

6. The City should work with MDT so that the future pedestrian crossing over South Dixie Highway is well marked and used by transit riders and regular pedestrians to avoid a very busy and congested intersection.

CHAPTER 8.0 RIDERSHIP ESTIMATE

Small area transit use is very difficult to estimate, but there are some demographic indicators that can be used to roughly estimate daily ridership for the proposed service. In **TABLE 8-1** below key demographics for 2005 for the core service area for the circulator bus area are shown based on Traffic Analysis Zones (TAZ) (Appendices C and D show added detail). These TAZ demographic estimates are prepared by the Miami-Dade County Department of Planning and Zoning prepared for the Metropolitan Planning Organization (MPO). In addition, census data from 2000 are included in the Executive Summary provide another data cross check.

TABLE 8-1
MIAMI-DADE COUNTY DEPARTMENT OF PLANNING AND ZONING
Circulator Bus Service Area Demographics

Traffic Analysis Zone (TAZ)	Population	Resident Workers	TAZ Autos	Auto Availability Ratio	TAZ Employment
1089			University of Miami*		
1090			University of Miami*		
1091			University of Miami*		
1098	872	720	922	1.06	184
1099	1108	567	726	0.66	274
1100	1103	716	918	0.83	1878
1101	809	526	674	0.83	1092
1102	80	52	66	0.83	1023
1103	1213	788	1010	0.83	1745
1104	811	527	675	0.83	7179
	5996	3896	4991	0.83	13375

Source: Miami-Dade County Planning and Zoning – 2005 Estimates
**No data included for these zones*

As can be seen, there are no real areas with very low auto ownership or access levels. In every tract there are more autos than workers, and overall more than .8 autos per resident. This is consistent with the income and travel patterns recorded by the 2000 census. Census data report only 6 percent of residents use transit to get to work and 3 percent walk or use a bicycle.

As shown previously in *Table 3-3, MDT Transit Ridership*, there are about 3400 daily riders at the Metrorail Station without a circulator bus system (a higher ridership than Douglas or University Stations). The South Miami Middle School reported that there were about 3-400

students from the City enrolled there, while the University of Miami's existing evening weekend shuttle to the Sunset Drive Business Area carries about 100 riders nightly.

While all TAZs show some employment, over half the jobs in the circulator service area are associated with the zone containing South Miami General Hospital (No. 1104) and related service employment. While the hospital is within 3-4 blocks of the South Miami Metrorail, access from the hospital is circuitous since connections to from the Metrorail Station and Sunset Drive were severed. In addition there is the Senior Center, Larkin Hospital and the Sunset Business District on the proposed circulator routes.

Using these inputs, an estimate of daily ridership potential by travel purpose is shown in **TABLE 8-2**. The difference in the number of riders per vehicle hour represents whether one or two vehicles are used However, since ridership is service sensitive, the quality of the service and experience will be the key variable in real use of the system. With few of these trips being longer than 10-15 minutes walk-time, use of the circulator system will be service quality and frequency sensitive (30-minute frequency versus 15-minutes). In particular direct access to the Sunset Drive/SW 62 Avenue intersection to service the hospital could be greatly enhanced if better connections were in place between the Metrorail Station and Sunset Drive.

TABLE 8-2
CITY OF SOUTH MIAMI CIRCULATOR
Estimated Ridership

	AM 2.5 Hours	Mid-day 4.5 Hours	PM 2 Hours	Circulator Transit Use Rate (Market Share)
Middles School Students	30		30	20%
Resident Worker Transit Riders	20	20	20	10%
Workers and Visitors to So. Miami	40	40	40	1%
Senior Center trips	10	10	10	NA
University of Miami Mid-day Sunset Drive		100		University of Miami Discussions
Combined Estimate	100	170	100	
Per Vehicle Service Hour	10-20 riders per vehicle service hour	9-18 riders per vehicle hour	12-25 riders per vehicle service hour	

As shown in **APPENDIX I, Community Circulator Bus Services**, 10-20 riders per vehicle hour is the range for most other municipal shuttles in Miami-Dade County. Only Hialeah and

Coral Gables have significant work trip use, while the others are aimed at other travel purposes. The South Miami proposed circulator route aims to serve several potential markets including school trip, non-home based trips, work trips, etc.

CHAPTER 9.0 FINDINGS AND RECOMMENDATIONS

Findings

1. No major unmet transit need has been well defined inside the City that would benefit from a local circulator bus service. Many perceived deficiencies can be met through improvements other than other types of improvements – better sidewalks, bus stops lighting, signs, pedestrian overpasses etc. These improvements will be needed with or without a circulator bus system.

2. Meetings with local interest groups and business uncovered the following issues:
   - Workers can access the Sunset Drive Business area from the South Miami Metrorail station – but crossing South Dixie Highway is a problem. Station access to the west – towards South Miami Hospital - is difficult because access from 72nd Street to the station has been cut for both pedestrians and vehicles. Pedestrian connections to the west from the station are easily twice as long as before the access road was removed for the redevelopment project.
   - No business thought that a circulator bus would improve customer access.
   - Residents along 60th Avenue thought access to the South Miami Middle School and South Miami High School was important for their community. The Middle School staff described how this part of the city was within the walking distance designated by the School Board (about 1-mile) and that City residents made up only 30 percent of enrollment.
   - The Monday-Friday daytime route extension proposed by the City of Coral Gables would only service a few blocks of the Sunset Business District east of South Dixie Highway, but could be beneficial overall by connecting the University of Miami campus with the Sunset Drive business area. While travel from South Miami to Coral Gables was mentioned by residents, the Technical Advisory Committee commented that several MDT bus routes already did this as did Metrorail, and that circulator would be a free connection rather than a new service.

- The University of Miami felt a mid-day transit connection from the University Station to the Sunset Drive business district would be useful and that trips made by auto could be diverted to a frequent shuttle service. Mid-day congestion in the business area is very evident. The University shuttle only connects to the Sunset Drive business area Friday and Saturday nights, with about 100-riders each evening.
- The Senior Center noted that connections to the Winn-Dixie and the Sunset Drive Business District were important to their residents. They commented that circulator service hours needed to be known and that service Monday-Friday and service in the earlier part of the day would be best.

3. The Pilot project provided little useful data for establishing a new Circulator service. However a number of comments from citizens and City Commissioners indicated some lessons learned from the Pilot. These include:
   - Public outreach, "branding," and information will be needed to sell a new service.
   - Service hours should be earlier and during week-days, rather than Friday and Saturday.
   - There needs to be a set of operating standards and periodic evaluations to show how well the service is working and to help make service adjustments. Cost per rider, use, Origin-destination counts and other service effectiveness and efficiency indicators should be used for evaluation.

Recommendations

1. A unique hybrid routing is proposed:
   - One route would connect the Sunset Drive Business District via the South Miami Metrorail station to SW 60th and SW 62nd Avenue, travel along SW 64th Street to the South Miami Middle School. Because school attendance require service very early in day and in the late afternoon, service hours for this route should be from 7 AM –9 AM and then again from 2:30 - 4 PM.
   - The second route would be the same as the first to SW 64th Street where from 9:30 AM to 2:00 PM it would cross over Red Road near the University Village on to Ponce de Leon and connect to the University Station. There students, facility and staff from the

University can get on the circulator to the Sunset Drive Business District for lunch time activity.

2. The service and equipment should be operated by a private contactor.

3. An inclusive private contractor service should cost about $50.00 per service hour and each of the routes will get service about 30-minutes with one bus; or, every 15-minutes with two buses. Rather than a "trolley" type vehicle, the City should consider a low-floor vehicle (with ADA access) so seniors can have easy on and off entry and exit. This type bus used at rental-car centers with places for packages, standees and comfortable seats and a public announcement system might be a good fit for City needs.

4. The City can consider offering fuel to a contractor to reduce operating costs.

5. Either the City or the private contractor needs to dedicate staff and resources to public information efforts, data collection and regular progress reports.

6. Service quality – timeliness- schedule adherence - and vehicle cleanliness - are important to most transit users. These services aspects need to be monitored. Residents stated that there were problems with unruly students on the Pilot system. Security issues therefore need to be addressed.

7. Too many stops and circuitous routes slow bus operations and do not add extra riders in most cases.

8. Before service can start., the City needs to work with the University of Miami and the City of Coral Gables so a bus turn-around just north of University Metrorail station at the existing Hurry Cane shuttle stop can be created to permit buses to use the bus stop and turn south on to Ponce de Leon.

9. An afternoon bus-turn around near the South Miami Middle School needs to be created – using the Palmer Park parking area, so shuttle buses can turn around.

10. The branding concept can be extensive and should be thought out before service starts and adjusted as more information is obtained. Vehicle stops signs, colors, brochures, logo, etc can be coordinated as part of a branding effort.

11. The City should periodically contact other Miami-Dade County municipalities to compare costs and service effectiveness and efficiency so that decision-makers can study the overall effectiveness of the circulator system. Currently, comparable City circulator systems in the County cost $3-5 per rider. Appendix I has recent data from several other municipal circulator systems in the country.

12. Most other City circulator systems in the county use municipal PTP funds and local general funds to pay for operations. All are free except for the City of Hialeah and the Miami Beach route operated by MDT with municipal financial support.
13. The circulator program needs to select a contractor who not only can operate the system but can help with the ancillary support activities mentioned above.
14. Service changes should be expected and made as needed to optimize a local circulator service. Even MDT changes routes as needed. It is very difficult to design a perfect route that never needs adjustments and modifications.

APPENDICES

Appendix A
City of South Miami Trolley Study
Rider Activity - 6 Month Pilot Project
Jan-June 2005

		Bus Stops																																
Date	Day	Ponce de Leon Parking Lot	Brewer Park	South Miami Middle School	Hardee @ 57th Court-North	Madison Square North	Sr Citizen Building\ J.R. Lee School	Larkin Community Hospital	South Miami Library\City Hall	South Miami Hospital	Winn-Dixie	SW 73rd St\SW 58th Avenue	CVS Drugs	Post Office @ SW 59th Pl	South Miami Market (East)	Community Center	68th St @ 60th Avenue	So Miami Market (west)	Metrorail Station & P.O. @ SW 73rd St	Metrorail Station	Winn-Dixie	SW 73rd St\SW 58th Avenue	CVS Drugs @ 58th Ave	South Miami General Hospital	Larkin Community Hospital	Sr Citizen Building\ J.R. Lee School	Madison Square North	Hardee @ 57th Court-North	Shops at Sunset Place	Total	Sunday	Friday	Saturday
2-Jan	Sunday	1								5				1			28				2					2		1		40	40		
7-Jan	Friday	13			1		1			2		12					19	1			2				3			4		56		56	
8-Jan	Saturday					1				1	3		5				10		1											21			21
14-Jan	Friday	1				1				3	1	2		2	13		6	5							5			1		40		40	
15-Jan	Saturday	1				1					1		1				10	12							1	2				29			29
21-Jan	Friday	3			2	4	6				4		1	3	5											2				30		30	
22-Jan	Saturday	3			2	4	2				4	1					4													20			20
28-Jan	Friday	2				5				2					4				2					2						17		17	
29-Jan	Saturday	5			4			3		6	4			6			6	3	8		6			2		5	5	16		79			79
		29	0	0	9	16	9	3	0	19	17	15	7	12	22	0	83	21	11		10	0	0	4	9	11	5	22	0	334	40	143	149
4-Feb	Friday	2				8	15			1	13	29		1	1	1	13	1	3											88		88	
5-Feb	Saturday									25	4	7	3		1	3	5	1	30											79			79
6-Feb	Sunday							17		17	5	14				5		30	7					1						96	96		
11-Feb	Friday							31		1	33	1	1	5	3	2	6	5	4						4					99		99	
12-Feb	Saturday	1			2	2		4		1	15		1	6	12	12	14		2					2						85			85
18-Feb	Friday	4			6	3	6	4		9	12		19	10	18	32		19	10					2						155		155	
19-Feb	Saturday				7			17			25	3	8	4	52	16	30	3	12					4						189			189
25-Feb	Friday						5			3	1	1		11	35	5	5	6	4						5					91		91	
26-Feb	Saturday	1			1		12	5		3	10		5	2	3		8	13	4							2	1			71			71
		8	0	0	16	13	38	78	0	60	118	55	37	39	125	76	81	78	76	0	34	0	0	9	11	1	0	0	0	953	96	433	424
4-Mar	Friday	1						3						16	5			15	14		6									60		60	
5-Mar	Saturday						1	3						16	31			19	3		8									81			81
6-Mar	Sunday														3			11			1									15	15		
11-Mar	Friday	2							6					3	5	18		5	2	15	2									58		58	
12-Mar	Saturday	2	4	8			6	2	4					22	11	13		12	7		11	2								104			104
18-Mar	Friday						1	2	5					18	12	3		14											3	58		58	
19-Mar	Saturday	2					5	5	7					10	11	6		48	22		14								9	139			139
25-Mar	Friday	1					9	10						4	17			15	18		35	4	17						10	140		140	
26-Mar	Saturday	1		1			11	3						17	16			11		4	14									78			78
		9	4	9	0	0	33	28	22	0	0	0	0	106	111	40	0	150	66	19	91	6	17	0	0	0	0	0	22	733	15	316	402
1-Apr	Friday		1	26			20	12						4	8			18	22		6									117		117	
2-Apr	Saturday		1	1			3	1	2					6	1			6			14									35			35
3-Apr	Sunday		3	3			11	5	6					6	7	3		7	9	8	12	4							5	89	89		
8-Apr	Friday	23	40	10			14	6						10	1			12	2		1								2	121		121	
9-Apr	Saturday		11				3	1	5					6	2	1		15	8		19	8							10	89			89
15-Apr	Friday		39	3			7	1						36	14				3		11									114		114	
16-Apr	Saturday		1	4			11	6						3	27			2	6		24	2							11	97			97
22-Apr	Friday		6	2					8					12	19	17		8			1	1								74		74	
23-Apr	Saturday	3	4	2			5	5	2					12	3	4		19	1		9	1								70			70
29-Apr	Friday	1		42			39							1		9		9			7	2								110		110	
30-Apr	Saturday			5			14	5	8					10	12	14					6									74			74
		27	106	98	0	0	127	42	31	0	0	0	0	106	94	48	0	96	51	8	110	18	0	0	0	0	0	0	28	990	89	536	365
1-May	Sunday			1			1	3						3		12		6	1	13	9		2							51	51		
6-May	Friday	15	27	9			11	10						2	10	6			1		2									93		93	
7-May	Saturday			3			7	1	1						8			2	4	3	1								8	38			38
13-May	Friday	3	1	71			3	3	2					7	14	14		1			6								2	127		127	
14-May	Saturday	2	9	8			7	3	6						37				5	4		5								86			86
20-May	Friday	2	6	59			5	2	15					8					7	1										105		105	
21-May	Saturday		3				5							9	43	2			5		2									69			69
27-May	Friday		3	56			12		9					2	33	28			3											146		146	
28-May	Saturday			14			6	2	9					5	25	18		2											1	82			82
		22	49	221	0	0	57	24	42	0	0	0	0	36	170	80	0	11	26	21	20	5	2	0	0	0	0	0	11	797	51	471	275
3-Jun	Friday	4	7	16			9	2	8					5	39	40		2	2											134		134	
4-Jun	Saturday		4	13			2	2	1					5	35	24													5	91			91
5-Jun	Sunday																		10	12	10	13	11							56	56		
10-Jun	Friday			2										3		22					1								1	29		29	
11-Jun	Saturday						3	1	6					2	55						12									79			79
17-Jun	Friday			2					1						5	22					6								1	37		37	
18-Jun	Saturday	2		1			1	3	13					3	24															47			47
24-Jun	Friday		1				5							17		29				5										57		57	
25-Jun	Saturday			12			5	11	6					6	28			1			2									71			71
		6	12	46	0	0	25	19	35	0	0	0	0	41	186	137	0	3	12	17	31	13	11	0	0	0	0	0	7	601	56	257	288
January - February		37	0	0	25	29	47	81	0	79	135	70	44	51	147	76	164	99	87	0	44	0	0	13	20	12	5	22	0	1287	136	576	573
March-June		64	171	374	0	0	242	113	130	0	0	0	0	289	561	305	0	260	155	65	252	42	30	0	0	0	0	0	68	3121	211	1580	1330
Grand Totals		101	171	374	25	29	289	194	130	79	135	70	44	340	708	381	164	359	242	65	296	42	30	13	20	12	5	22	68	4408	347	2156	1903
Stop Use		*2.29%*	*3.88%*	*8.48%*	*0.57%*	*0.66%*	*6.56%*	*4.40%*	*2.95%*	*1.79%*	*3.06%*	*1.59%*	*1.00%*	*7.71%*	*16.06%*	*8.64%*	*3.72%*	*8.14%*	*5.49%*	*1.47%*	*6.72%*	*0.95%*	*0.68%*	*0.29%*	*0.45%*	*0.27%*	*0.11%*	*0.50%*	*1.54%*		*7.87%*	*48.91%*	*43.17%*
																													Avg Day	57.8	93.7	82.7

Source: City of South Miami

Appendix B
City of South Miami Trolley Feasibility Study
Community Workshop
January 17, 2007 @ 6:00 PM

1. **First Speaker** **Larry Foutz (MPO)**
   - MPO set study to implement circulator for the City of South Miami
   - Participating Agencies
     - The City of South Miami
     - Florida Department of Transportation
     - Miami-Dade County Department of Transit
   - Capital Funds
     - People's Transportation Plan
   - Operating Expenses
     - People's Transportation Plan
     - Florida Department of Transportation (Will assist for the first three years)

2. **Second Speaker**
   Fred Silverman (Parsons)
   - The purpose of this workshop
     - All parties involved want to describe to the residents the development of this study.
     - All parties involved want to know the residents thoughts and needs regarding the South Miami Trolley.
   - Pilot Project
     - A 6-month effort in 2005
     - Same hours of operation with a larger route
       - Friday and Saturday (10:00 AM to 11:00 PM)
       - 1st Sunday of the Month
     - Modified alignment from March until June
     - Quick Route (Sunset Place to Metrorail Station)
   - Service Results
     - 4,400 to 4,500 riders for the monitored period
     - It was assumed that where riders get off, they will get back on.
   - Influences for this Circulator
     - Survey of shop owners showed no need
     - University of Miami thought it could see a need because their circulator does not enter the City of South Miami.
     - The South Miami Marketplace (SW 59th Place and SW 68th Street) had about 25% of the Pilot boardings
     - Saturday and Friday boardings were almost equal during the Pilot project.
   - Additional Comments
     - It is very difficult to cross US-1 from the Metrorail station to South Miami (Sunset Place)
     - Miami-Dade County is planning to build skyways to cross US-1 at the South Miami Station and the University Station.

Community Discussion

- Claudia Harry (Resident)
  - Items to include in the workshop
  - Traffic coming east on Sunset Drive should be able to turn left onto US-1.
  - Timing for the traffic signals at the University Station and at the South Miami Station have made crossing US-1 easier, but people still cross US-1 where it is not allowed.
  - Need transportation for the elderly.
  - The trolleys need to accommodate for the elderly to get on and off.
  - There needs to be a safe stop for the metro bus transit. The trolley has safe stops, but the residents are not aware of this circulator.

Levy Kelly (Resident)

- The trolley should be operated to facilitate children from South Miami Middle School and South Miami High School. Therefore, it needs to start earlier.
- The pilot project was short in distance. The route should reach Dadeland and the Dadeland Station.
- The weekends were good, but the focus should be on use during the entire week.

Rev. Gregory V. Gay, Sr. (Resident)

- Thanked the City and all participants for preparing the workshop.

Steven Davis

- The City should make the residents aware and keep them informed about the South Miami Marketplace.

Bill Stiskley

- The residents that live farther west would benefit from this circulator, if the trolley went farther west and into Dadeland, Dadeland Station, and Sunset Place.
- If school children could use this trolley to commute between school and home, this would benefit the residents and the community.

James McCants

- The main concerns are the middle school children, the high school children, the senior center, grocery stores, Dadeland, and Dadeland Station.
- Connectivity with other trolley systems would a great benefit.

Cesar Garcia (The City of South Miami Parks and Recreation Director; Resident)

- The University of Miami trolleys have closed circuit Televisions that inform riders of routes and stops. This could also be used for marketing purposes.
- Earlier hours of operation to help school children would help the community.

All residents agreed that the trolley should be free.

Appendix C

City of South Miami - Trolley\Circulator Feasibility Study

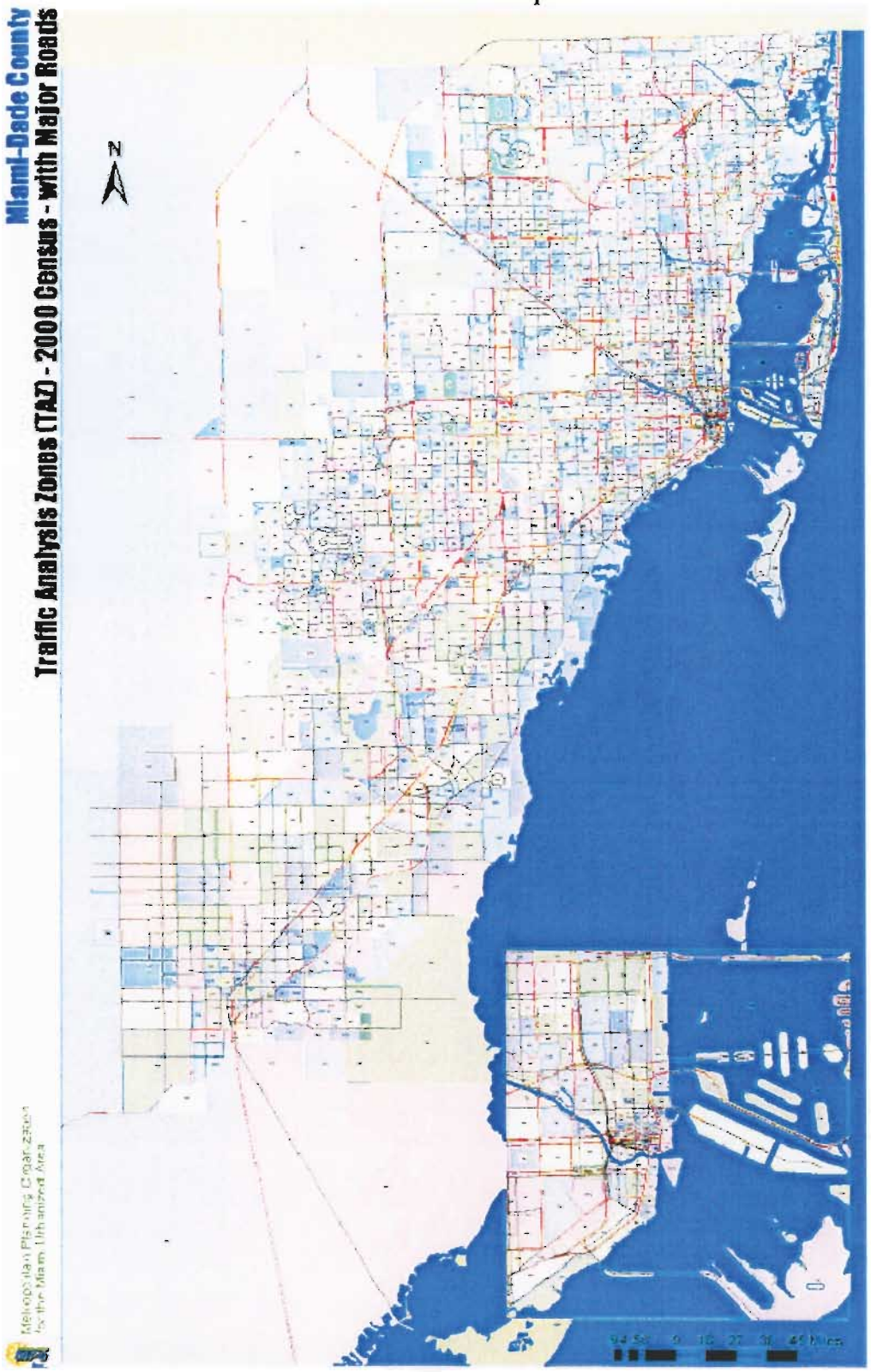
Estimated So. Miami Area Demographic Conditions - 2005

Traffic Zone Number	Residential Population							
	Households		Persons		Auto Households		Workers	
	Total	Children	Total	Children	Total	Children	Total	Children
1094	368	190	858	757	714	546	558	359
1095	1406	353	3278	1407	2730	1013	2131	667
1096	401	191	935	761	779	549	607	361
1097	264	124	616	494	513	356	400	235
1098	475	171	1108	681	922	490	720	323
1099	374	164	872	654	726	470	567	310
1100	473	162	1103	646	918	464	716	307
1101	347	170	809	677	674	487	526	321
1102	34	0	80	0	66	0	52	0
1103	520	38	1213	151	1010	109	788	72
1104	348	123	811	490	675	353	527	232
1110	275	174	641	693	534	499	417	329
Totals	**5285**	**1860**	**12324**	**7411**	**10261**	**5336**	**8009**	**3516**
Household Size		*2.3318827*	*persons*					
Autos per household		*1.9415326*	*autos*					
Workers per household		*1.515421*	*workers*					
Children per household		*1.4022706*	*children ages 0-18*					

Traffic Zone Number	Employment				K-12 School Enrollment
	Industrial	Commercial	Service	Total	
1094	11	82	219	312	588
1095	26	728	411	1165	74
1096	100	13	400	513	2856
1097	3	56	16	75	0
1098	7	0	177	184	365
1099	2	2	270	274	1673
1100	135	13	1730	1878	53
1101	16	249	827	1092	158
1102	3	959	61	1023	0
1103	42	854	849	1745	0
1104	299	286	6594	7179	623
1110	11	20	378	409	74
Totals	655	3262	11932	15849	6464

Source: Miami-Dade County Dept of Planning and Zoning
Miami-Dade Metropolitan Planning Organization

Appendix D
TAZ Structure Map



Appendix E

MDT Bus Stops – With Routes		
SM- 1.0000 SW 57 AV/SW 50 ST	S-N: 72.	0
SM- 3.0000 SW 57 AV/SW 66 ST	S-N: 72.	20011736
SM- 4.0000 SW 57 AV/SW 68 ST	S-N: 72.	20040922
SM- 5.0000 SW 57 AV/SW 72 ST	S-N: 57.	20062949
SM- 6.0000 SW 57 AV/SW 74 TE	S-F: 57.	1265
SM- 7.0000 SW 57 AV/SW 77 TE	S-N: 57.	1266
SM- 8.0000 SW 57 AV/SW 80 ST	S-N: 57.	0
SM- 9.0000 SW 57 AV/SW 83 ST	S-F: 57.	20040489
SM- 10.0000 SW 57 AV/SW 88 ST	S-N: 57.	20052591
SM- 12.0100 SW 59 PL/SW 64 ST	S-F: 37.	20061599
SM- 13.0000 SW 59 PL/SW 67 ST	S-N: 37, 48, 152.	20061600
SM- 14.0000 SW 59 PL/SW 69 ST	S-F: 37, 48, 152.	20040708
SM- 17.0000 SW 59 PL/SW 69 ST	N-N: 37, 48, 152.	20062546
SM- 18.0000 SW 59 PL/SW 68 ST	N-F: 37, 48, 152.	20061596
SM- 19.0000 SW 59 PL/SW 66 ST	N-N: 37, 48, 152.	20061597
SM- 19.0100 SW 59 PL/SW 64 ST	N-N: 37.	20061598
SM- 20.0100 SW 62 AV/SW 64 ST	S-F: 37.	20061603
SM- 22.0000 SW 62 AV/SW 68 ST	S-N: 37.	20061604
SM- 22.0100 SW 62 AV/SW 70 ST	S-F: 37, 52, 57, 72.	20060043
SM- 22.0300 SW 62 AV/SW 72 ST	S-F: 52.	20062256
SM- 23.0000 SW 62 AV/SW 73 ST	S-M: 52.	20062254
SM- 24.0000 SW 62 AV/SW 73 ST	N-N: 52.	20062255
SM- 24.0100 SW 62 AV/SW 72 ST	N-N: 52.	20062253
SM- 24.0200 SW 62 AV/SW 70 ST	N-F: 37.	20061605
SM- 24.0300 SW 62 AV/SW 68 ST	N-F: 37, HUR.	20061606
SM- 24.0400 SW 62 AV/SW 64 ST	N-N: 37.	20061607
SM- 25.0000 SW 67 AV/SW 60 ST	S-F: 73.	20040317
SM- 25.0200 SW 67 AV/SW 64 ST	S-N: 73.	20040794
SM- 25.0400 SW 67 AV/SW 65 TE	S-F: 73.	0
SM- 25.0600 SW 67 AV/SW 67 ST	S-M: 73.	0
SM- 26.0000 SW 67 AV/SW 69 TE	S-F: 73.	910010
SM- 27.0000 SW 67 AV/# 7000	S-F: 73.	0
SM- 28.0000 SW 67 AV/SW 72 ST	S-F: 73.	1316
SM- 29.0000 SW 67 AV/SW 75 TE	S-N: 73.	20030069
SM- 30.0000 SW 67 AV/SW 77 TE	S-N: 73.	890477
SM- 31.0000 SW 67 AV/SW 80 ST	S-N: 73.	0
SM- 32.0000 SW 67 AV/SW 80 ST	N-F: 73.	20040055
SM- 32.0100 SW 67 AV/SW 78 TE	N-F: 73.	20040054
SM- 33.0000 SW 67 AV/SW 76 TE	N-F: 73.	990508
SM- 34.0000 SW 67 AV/SW 74 ST	N-F: 73.	20040052
SM- 34.0100 SW 67 AV/SW 72 ST	N-F: 73.	1315

SM- 35.0000 SW 67 AV/SW 69 TE	N-F: 73.	20011579
SM- 36.0000 SW 67 AV/SW 67 ST	N-N: 73.	1306
SM- 37.0000 SW 67 AV/SW 65 TE	N-N: 73.	20051064
SM- 38.0000 SW 67 AV/SW 64 ST	N-N: 73.	0
SM- 39.0000 SW 67 AV/SW 62 TE	N-N: 73.	940012
SM- 40.0000 SW 67 AV/SW 61 ST	N-F: 73.	0
SM- 40.0100 SW 67 AV/SW 60 ST	N-F: 73.	940013
SM- 41.0000 SW 67 AV/SW 57 TE	N-N: 73.	20060251
SM- 42.0000 SW 67 AV/SW 54 ST	N-N: 73.	20050714
SM- 42.0100 SW 67 AV/SW 52 TE	N-N: 73.	20050713
SM- 42.0300 SW 67 AV/SW 50 TE	N-N: 73.	20050712
SM- 42.0500 SW 67 AV/SW 48 ST	N-N: 73.	981625
SM- 43.0000 US 1/SW 70 ST	S-N: 500.	20040359
SM- 44.0000 US 1/SW 80 ST	S-N: 52.	1906
SM- 45.0000 US 1/SW 70 ST	N-F: 500.	20053149
SM- 47.0000 SW 40 ST/SW 64 AV	E-F: 40.	20051573
SM- 47.0100 SW 40 ST/SW 62 CT	E-N: 40.	20051574
SM- 48.0000 SW 40 ST/SW 59 AV	E-F: 40.	20060729
SM- 50.0000 SW 40 ST/SW 57 AV	E-N: 40.	20060727
SM- 52.0000 SW 56 ST/SW 65 AV	E-F: 56.	990365
SM- 53.0000 SW 56 ST/SW 64 AV	E-F: 56.	20020501
SM- 54.0000 SW 56 ST/SW 63 AV	E-N: 56.	990367
SM- 55.0000 SW 56 ST/SW 62 AV	E-N: 56.	990368
SM- 56.0000 SW 56 ST/SW 58 AV	E-N: 56.	900815
SM- 58.0000 SW 56 ST/SW 64 PL	W-N: 56.	990369
SM- 58.0050 SW 56 ST/SW 67 AV	W-N: 56.	991297
SM- 58.0100 SW 64 ST/SW 60 AV	W-F: 37.	20061601
SM- 58.0400 SW 64 ST/SW 60 CT	E-F: 37.	20061602
SM- 59.0000 SW 66 ST/SW 58 PL	E-F: 48, 152.	0
SM- 60.0100 SW 66 ST/SW 57 AV	E-N: 48, 152.	980760
SM- 60.9900 SW 66 ST/SW 57 CT	W-N: 48, 152.	931566
SM- 61.0100 SW 66 ST/SW 58 AV	W-F: 48, 152.	921175
SM- 62.0000 SW 66 ST/SW 59 AV	W-F: 48, 152.	921030
SM- 64.0000 SW 72 ST/SW 68 CT	E-F: 72.	960450
SM- 65.0000 SW 72 ST/SW 67 AV	E-F: 72.	20031060
SM- 66.0000 SW 72 ST/SW 64 CT	E-N: 72.	0
SM- 67.0000 SW 72 ST/SW 62 PL	E-N: 72.	20040137
SM- 68.0000 SW 72 ST/SW 61 CT	E-F: 37, 52, 57, 72.	20061608
SM- 69.0000 SW 72 ST/SW 58 AV	E-N: 37, 57.	20061610
SM- 72.0000 SW 72 ST/SW 58 AV	W-N: 37, 57.	20061611
SM- 72.0500 SW 72 ST/SW 61 AV	W-N: 37.	20061609
SM- 73.0000 SW 72 ST/SW 62 AV	W-F: 72.	990773
SM- 74.0000 SW 72 ST/SW 63 CT	W-N: 72.	930703
SM- 75.0000 SW 72 ST/SW 65 AV	W-N: 72.	20011737
SM- 76.0000 SW 72 ST/SW 67 AV	W-N: 72.	950482

SM- 77.0000 SW 72 ST/SW 68 CT	W-F: 72.	951252
SM- 78.0000 SW 72 ST/SW 69 CT	W-F: 72.	1219
SM- 79.0000 SW 80 ST/SW 67 AV	W-N: 52.	990625
SM- 79.0100 SW 80 ST/SW 68 AV	W-N: 52.	980936
SM- 79.0200 SW 80 ST/SW 69 AV	W-N: 52.	20040142
SM- 80.0000 SOUTH MIAMI STA/5949 SW 72 ST 20062393	T-T: 37, 48, 52, 57, 72, 152.	

Appendix F

City of South Miami Shuttle Bus Study
Activity Center Survey

Site Name:_____ Date:_____

Contact Person:_____ Phone Number:_____ E-Mail:_____

Questionnaire	**Comments (Attach additional sheets if necessary)**
Total Employees at your site?	
Are there daily work shifts? Yes ☐ No ☐	
Please describe your work shifts, numbers of employees, special access problems by shift, or time of day, if any.	
Do you know how your employees get to work? By Percent? Drive Alone _____% Carpool _____% Walk\Bicycle _____ % Metrobus _____ % Metrorail _____ % Are weekends much different? Yes ☐ No ☐ (If, yes, please describe) What other access issues impact your workers?	
Is there a bus stop or shelter near your facility? Yes ☐ No ☐ What is the location?	
Tell us about your visitor travel patterns on a typical weekday? Drive Alone ☐ Carpool ☐ Walk\Bicycle ☐ Metrobus ☐ Metrorail ☐ Are weekends much different? If, yes, please describe. Yes ☐ No ☐ What other access issues impact visitors?	
Is there a parking problem? For workers Yes ☐ No ☐	

Questionnaire	Comments (Attach additional sheets if necessary)
Weekdays ☐ Nights ☐ Weekends ☐ Visitors Yes ☐ No ☐ Weekdays ☐ Nights ☐ Weekends ☐ Are there other related parking issues?	
Do you have data regarding parking entries and exits? (All types of parkers - workers, visitors, etc.) Activity type _____ Time of day: in_____\ out _____ Type of parker: _____ Amount paid:_____ Facility percent occupied: _____% Could you provide the City or Consultant with this information? Yes ☐ No ☐	
Do you have information about your work force by place of residence or by zip code? Yes ☐ No ☐ Could this be shared with the City in a summarized form? Yes ☐ No ☐ Do you have the same information for visitor places of residence by zip code? Yes ☐ No ☐ Could this be shared with the City in a summarized form? Yes ☐ No ☐	
Does your group participate in the Metro employee pass program? Yes ☐ No ☐	
If there is any way in which a City of South Miami shuttle bus could help your facility transportation problem, please explain.	
Additional Comments, Ideas, Etc.	
Please return survey (by November 30, 2006) to: Gregg Netto, P.E. City of South Miami - Public Works Dept 4795 SW 75th Avenue City of South Miami, FL Phone: 305-663-6350 Fax 305-668-7208	

Appendix G

South Miami Trolley Study
City Commissioner Survey
February 2007

The survey is part of the South Miami Trolley-Circulator Study now being prepared by Parsons Transportation Group under contract with the Miami-Dade Metropolitan Planning Organization (MPO). Decision-maker input is one element of the study's review of the need and purpose for a circulator system in the City of South Miami. Your views are helpful in guiding this study and any possible future circulator service.

(Use another sheet of paper, or the back of this form, if more room is needed to respond to any question or to make a comment). Forms should be returned to the City Manager by March 1, 2007).

1. In 2005, the City had a Pilot Project that operated a trolley circulator for 6-months. Please describe what lessons you believe the City learned from the Pilot Project when this system was in operation? Please describe:

2. What are the City's objectives in running a circulator bus system? Please describe:

3. Do you think there are markets, groups or areas of the City not being well served by existing transit services that could benefit from a circulator system? Please describe

4. In the space provided, please describe any ideas you have regarding the alignment, operations, or other features of a new City circulator system?

5. Do you have views on whether the City should directly operate the system or contract out for services? Please describe:

6. In the space below, please let us know about any other issues or concerns that you have with operating a new circulator system or other transit issues.

Appendix H

South Miami Area MDR Bus Ridership – Boardings 2004 COBA

Factor	Route	Segment Name		Weekday			
				AM Peak	PM Peak	Off Peak	Night
	37 NB	SOUTH MIAMI STA/5949 SW 72 ST	EDGEWATER DR/#200	25	19	13	2
	37 SB	SOUTH MIAMI STA/5949 SW 72 ST	EDGEWATER DR/#200	16	7	10	N/A
	48 NB	SOUTH MIAMI STA/5949 SW 72 ST	UNIVERSITY STA/5000 PONCE DE LEON B	7	10	10	N/A
	48 SB	UNIVERSITY STA/5000 PONCE DE LEON B	SOUTH MIAMI STA/5949 SW 72 ST	8	17	26	N/A
	52-12,121 NB	DADELAND SOUTH STA/9150 DADELAND BD	SOUTH MIAMI STA/5949 SW 72 ST	32	32	20	21
	52-12,121 SB	SOUTH MIAMI STA/5949 SW 72 ST	DADELAND SOUTH STA/9150 DADELAND BD	N/A	N/A	N/A	N/A
	52-12,131 NB	DADELAND SOUTH STA/9150 DADELAND BD	SOUTH MIAMI STA/5949 SW 72 ST	9	N/A	5	N/A
	52-12,131 SB	SOUTH MIAMI STA/5949 SW 72 ST	DADELAND SOUTH STA/9150 DADELAND BD	N/A	41	13	8
	56 EB	SW 56 ST/SW 107 AV	UNIVERSITY STA/5000 PONCE DE LEON B	18	23	26	23
	56 -2 EB	SW 56 ST/SW 107 AV	UNIVERSITY STA/5000 PONCE DE LEON B	32	34	31	N/A
	57 NB	SW 111 ST/SW 57 AV	SOUTH MIAMI STA/5949 SW 72 ST	19	32	10	N/A
	57 SB	SOUTH MIAMI STA/5949 SW 72 ST	SW 111 ST/SW 57 AV	48	3	15	N/A
	72 EB	SW 72 ST/SW 87 AV	SOUTH MIAMI STA/5949 SW 72 ST	34	29	30	4
	72 WB	SOUTH MIAMI STA/5949 SW 72 ST	SW 72 ST/SW 87 AV	49	32	24	8
	73 NB	DADELAND SOUTH STA/9150 DADELAND BD	SW 67 AV/SW 24 ST	27	39	20	15
	73 SB	SW 67 AV/SW 24 ST	DADELAND SOUTH STA/9150 DADELAND BD	40	23	24	43
	152 NB	SOUTH MIAMI STA/5949 SW 72 ST	UNIVERSITY STA/5000 PONCE DE LEON B	8	9	6	6
	152 SB	PONCE DE LEON BD/MERRICK ST	SOUTH MIAMI STA/5949 SW 72 ST	7	8	7	4

Exhibit I

COMMUNITY CIRCULATOR BUS SERVICES
MIAMI-DADE COUNTY - 2006

4/12/2007

City	City O&M Cost	PTP Funds	City Funds	State	Base Fare	Maximum Buses
Coral Gables	$1,378,574	$1,303,574	$0	$75,000	Free	6
Hialeah	$2,000,000	$1,440,000	$500,000	$60,000	$1.25	8
Miami Beach (1)	$1,217,900	$524,000	$693,000	$0	$0.25	6
Aventura	$701,000	$365,000	$335,000	$0	Free	5
Sunny Isles	$316,202	$300,000	$16,012	$0	Free	3
North Miami	$500,000	$220,000	$0	$280,000	Free	4

City	Service Hours	Annual Riders	Cost/Hr	Cost/Rider	Riders/Hr	City Owned Buses
Coral Gables	21,303	867,000	$64.71	$1.59	40.70	yes
Hialeah	35,000	667,000	$57.14	$3.00	19.06	(1)
Miami Beach (1)	50,860	1,546,744	$66.85	$2.20	30.41	no
Aventura	11,500	146,000	$60.96	$4.80	12.70	no
Sunny Isles	9,180	59,140	$34.44	$5.35	6.44	yes
North Miami	14,500	180,000	$34.48	$2.78	12.41	?

City	Operations		Comments
	M-F	*Weekends*	
Coral Gables	yes	no	1 route - being extended - All work contracted
Hialeah	yes	Saturday	Full-sized buses; City fuels & maintains buses; privately run
Miami Beach (1)	yes	yes	Operated by MDT for the City - special buses; 15% fare box return
Aventura	yes	Saturday	All work contracted
Sunny Isles	yes	yes	Operates to Aventura Mall (no service in Aventura) - City owns buses
North Miami	yes	no	All work contracted

(1) - MDT reports total cost for the service is $3,400,000 - with the City share as $1,217,900 - other operations data are from MDT.

(2) purchase from contractor included in O&M cost