DRAFT

HOMETOWN INTERMODAL TRANSPORTATION STUDY

DRAFT TECHNICAL MEMORANDUM #3: TRANSPORTATION MASTER PLAN

Prepared for:

City of South Miami

South Miami
All-America City
2001

Prepared by:

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INTRODUCTION

The City of South Miami's vision calls for a transportation system that reduces vehicular trips and congestion by providing attractive alternatives to single-occupant vehicles. The purpose of this study is to develop a multimodal mobility plan for the area surrounding the South Miami Metrorail Station including the City's "Hometown District," the "Transit Oriented Development District," civic uses, an industrial district, residential neighborhoods, and South Miami and Larkin Hospitals.

The "Hometown" study area represents a major activity center on the Metrorail corridor in need of multimodal transportation solutions. Envisioned are alternative modes of transportation, wider sidewalks to accommodate pedestrians, parking as a district-wide resource, and mixed-use development to reduce vehicular traffic generation. Short and long term strategies will be developed to address vehicular circulation and parking, pedestrian/bicyclist movements, and public transportation.

This technical memorandum is the third in a series of reports documenting the work, findings, and recommendations of this study. The first technical memorandum summarized a "Review of Previous Work" – related transportation studies in the study area were reviewed and their findings were summarized. The second technical memorandum summarized the collection of data and an analysis of existing transportation and land use conditions including traffic, transit, bicycle/pedestrian, parking, zoning, and areas with development/redevelopment potential. This technical memorandum:

- Documents the study area's multimodal transportation needs
- Develops and prioritizes short and long term strategies
- Outlines the desired course of action in an implementation plan
- Establishes a mechanism to evaluate strategies after implementation

The product of this technical memorandum is a multimodal transportation master plan for the "Hometown" study area.

MULTIMODAL TRANSPORTATION NEEDS AND STRATEGIES

Based on an analysis of transportation data and land use patterns, needs in the areas of traffic operations, transit, bicycle/pedestrian movements, neighborhood traffic management, parking, and redevelopment were identified. A number of short and long term multimodal transportation strategies were then identified to address these deficiencies and encourage the use of mass and non-motorized transit in the "Hometown" study area. These strategies were developed into a "project bank" of recommended improvements to satisfy the "Hometown" study area's mobility needs.

Traffic Capacity/Operations Enhancements

This portion of the "project bank" identifies improvements to address capacity deficiencies in the "Hometown" study area. Although the primary focus of this study was to identify strategies to increase the use and maximize the efficiency of mass transit and alternative modes, several traffic capacity/operations enhancements were deemed necessary. In particular, both Sunset Drive and Red Road experience recurring congestion, so operational enhancements to enhance traffic flow are recommended on these facilities. Without operational enhancements, as congestion worsens on these arterials cut-through traffic will increase in surrounding residential neighborhoods negatively impacting quality of life for the local residents.

The recommended traffic capacity/operations enhancements for the "Hometown" study area are presented in Figure 1 and include the following:

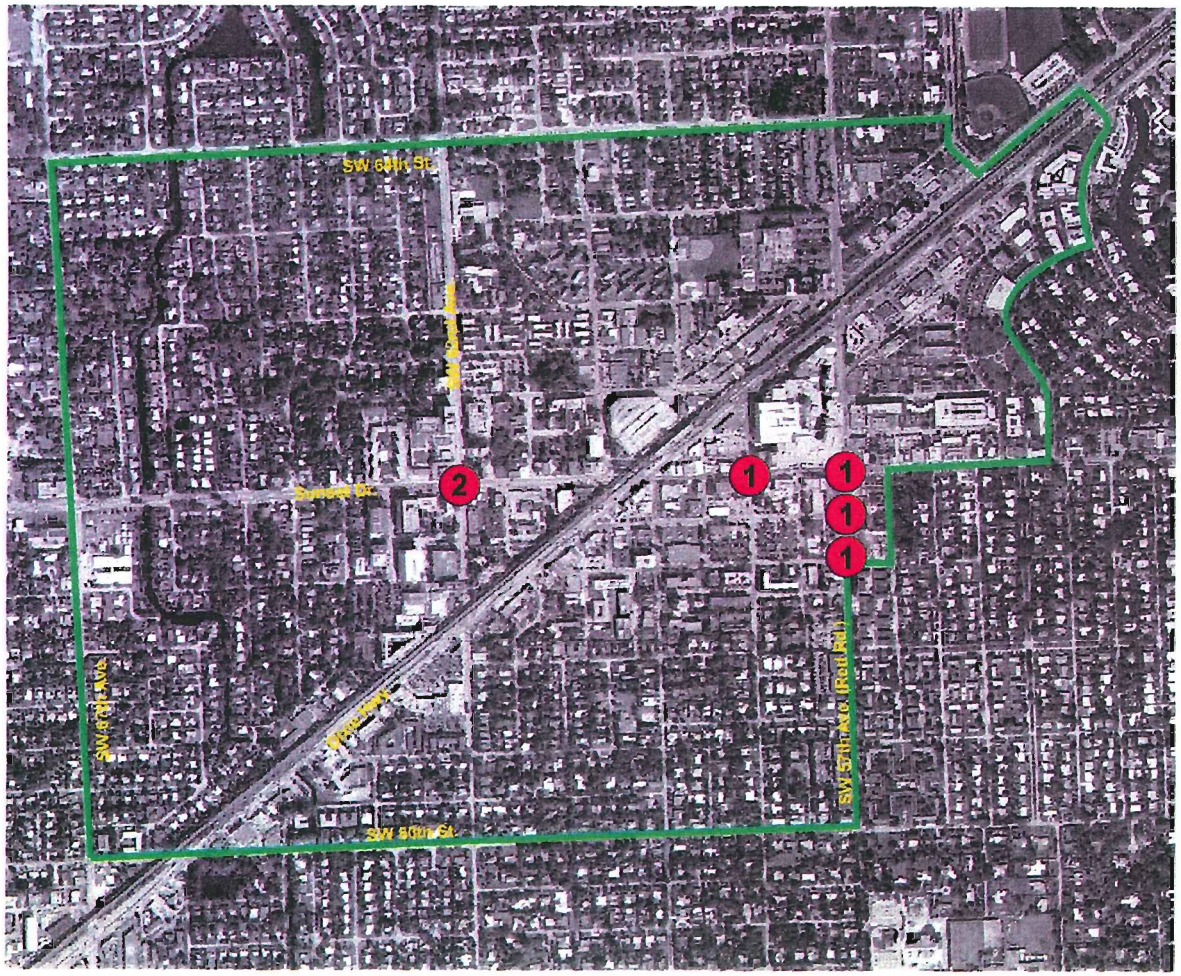
1. Implement traffic signal timing modifications and operational recommendations from the Downtown Traffic Engineering Study to improve traffic flow on Sunset Drive and Red Road. The recommendations affect the following intersections:

   - SW 73rd Street at Red Road – Restrict eastbound traffic to right-turn only
   - Sunset Drive at SW 58th Avenue – Implement minor adjustments to signal timing
   - Sunset Drive at Red Road – Implement signal timing modifications

2. Implement operational enhancements at the intersection of Sunset Drive and SW 62nd Avenue including adding a second eastbound left-turn lane and directional signage

Proposed Project Bank

South Miami Intermodal Study



Traffic Capacity/Operations Enhancements

1. Implement Traffic Signal Timing Modifications and Operational Recommendations to Improve Traffic Flow on Sunset Drive and Red Road
2. Implement Operational Improvements at the Intersection of Sunset Drive and SW 62nd Avenue

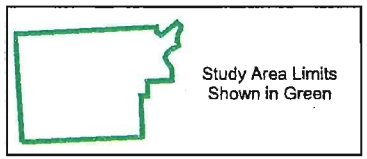


Figure 1

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for U.S. 1 northbound. These improvements will encourage eastbound motorists seeking to access U.S. 1 northbound – eastbound left-turns are prohibited at the intersection of Sunset Drive and U.S. 1 – to turn left off Sunset Drive at SW 62nd Avenue and access U.S. 1 via SW 70th Street. Reducing the amount of through traffic on Sunset Drive between SW 62nd Avenue and U.S. 1 may contribute to a more attractive pedestrian environment along Sunset Drive in the vicinity of City Hall, the public library, and the South Miami Metrorail Station.

Transit Improvements

This portion of the "project bank" identifies transit improvements for the "Hometown Study Area." Existing transit service provided by Miami-Dade Transit (MDT) includes several Metrobus routes and the Metrorail rapid transit system. The Metrobus routes primarily travel along major thoroughfares and the service focuses primarily on regional travel. The South Miami Metrorail Station functions as the study area's transit focal point and serves as a hub for the Metrobus routes. Although the County's transit system provides a transportation alternative, some residents of the "Hometown" study area cannot easily access the system and local trips within the community are not well served.

One option to accommodate trips not served by the County's transit system is to provide a community transit circulator or shuttle. These types of services can serve local trips within the community and neighborhoods not served by the County's transit system. The City of South Miami previously provided a circulator service connecting the "Hometown District" with the South Miami Metrorail Station; however, this service was discontinued until a more effective route is developed.

The recommended transit enhancements for the "Hometown" study area include the following:

1. Reestablish circulator transit service. The circulator service should complement the transit service offered by MDT by providing access to the South Miami Metrorail Station and serving local trips within the community, such as shopping and medical trips. A detailed study is recommended to determine specific route alignments, headways, hours of operation, and other service characteristics.

2. Provide amenities at bus stops such as shelters, benches, and transit information. A variety of amenities can be provided to enhance the attractiveness of public transportation. Designing waiting facilities with amenities that increase passenger's comfort levels and feelings of security can encourage travelers to use public transit. Bus stop locations that are designed with shelters, benches, and lighting can furnish comfortable, safe waiting areas for transit users. Bus stops also can be designed to make transit more convenient, accessible and aesthetically appealing to transit users. Providing items such as transit information kiosks or advanced traveler information systems (ATIS), which provide real-time arrival/departure information to transit users, can further increase the appeal of public transportation.

Bicycle Improvements

Most streets in the "Hometown" study area are primarily designed for motorized vehicles at the expense of non-motorized modes of travel. This component of the "project bank" begins to address bicycle travel as a legitimate mode of travel within South Miami. Currently, the lack of safe, convenient, and appropriate bicycle facilities in the area often leads to bicyclists riding in unsafe conditions. An objective of this study is to increase the number and share of bicycle trips by providing an attractive and safe means for travel. However, the wide range of bicyclists' abilities and reason for travel must be understood before targeting transportation improvements for bicyclists.

The Florida Department of Transportation's (FDOT's) *Bicycle Facilities Planning and Design Book* classifies bicycle travel into two categories, utilitarian and recreational. A utilitarian trip is primarily concerned with reaching a specific destination quickly, with few interruptions. A recreational trip is less concerned with travel time to a specific destination and is more influenced by the presence of attractive, safe paths and the existence of amenities at stops along the way. Specific improvements aimed at bettering the conditions for both trip purposes are identified in the "project bank."

Bicyclists also differ widely in their abilities and in their preferences for riding environments. In transportation planning, bicyclists are often separated into three levels of bicycling ability. An improvement deemed adequate for one group may not be suitable for another group. Therefore,

user profiles are established and basic design features are identified to help local officials target appropriate bicycle improvements. Three profile user groups for bicyclists are:

- **Experienced:** Experienced riders can handle most traffic conditions. Some experienced riders ride mainly for recreation while others use the bicycle for primary transportation. This group is comfortable riding on collector and arterial streets and is best served by direct access destinations via the existing street system. Requirements include sufficient width on the roadway or shoulder so that neither the motorist nor the cyclist needs to change positions when passing.

- **Basic:** The majority of adult or teenage riders are considered basic cyclists. This group uses bicycles too infrequently to develop advanced cycling skills and prefers comfortable direct access to destinations via low volume streets or designated bicycle facilities. Most basic riders ride for recreation; however, for some members of this group bicycles may be the primary means of transportation to school or work.

- **Children:** Children and preteen riders lack experience mixing with vehicular traffic and their bicycle use is primarily for recreation and may be monitored by their parents. This group prefers residential streets with low motor vehicle speed limits and traffic volumes. Well-defined separation of bicycles and motor vehicles on arterial and collector streets is required as a minimum. Ideally, separate bike paths should be provided.

The recommended enhancements to improve the bicycle environment for all cyclists in the "Hometown" study area are presented in Figure 2 and include the following:

1. Improve the M-Path connection between the South Miami Metrorail Station and SW 70th Street. The M-Path is currently missing a segment of trail between SW 70th Street and the South Miami Metrorail Station. Bicyclists, pedestrians, joggers, and in-line skaters are forced to take a circuitous route that includes several blind corners and sharing the fire station driveway west of the Metrorail tracks on SW 70th Street. A more direct connection could be made between SW 70th Street and Sunset Drive by building a short section of trail between the Metrorail station and rail power plant.

Proposed Project Bank

South Miami Intermodal Study

Bicycle Improvements

1. Improve M-Path Connection between the South Miami Metrorail Station & SW 70th Street
2. Extend M-Path South of SW 67th Avenue to Dadeland South Metrorail Station & South Dade Trail
3. Add Bicycle Lanes to Local Roadways
4. Improve Crossing Conditions for Bicyclists along M-Path
5. Establish Educational & Safety Programs
6. Establish Citywide 25-mph Speed Limit for Residential Areas
7. Create Bicycle Parking Ordinance

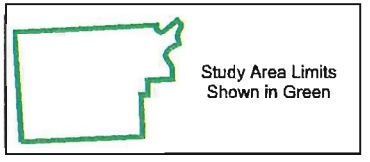

Figure 2

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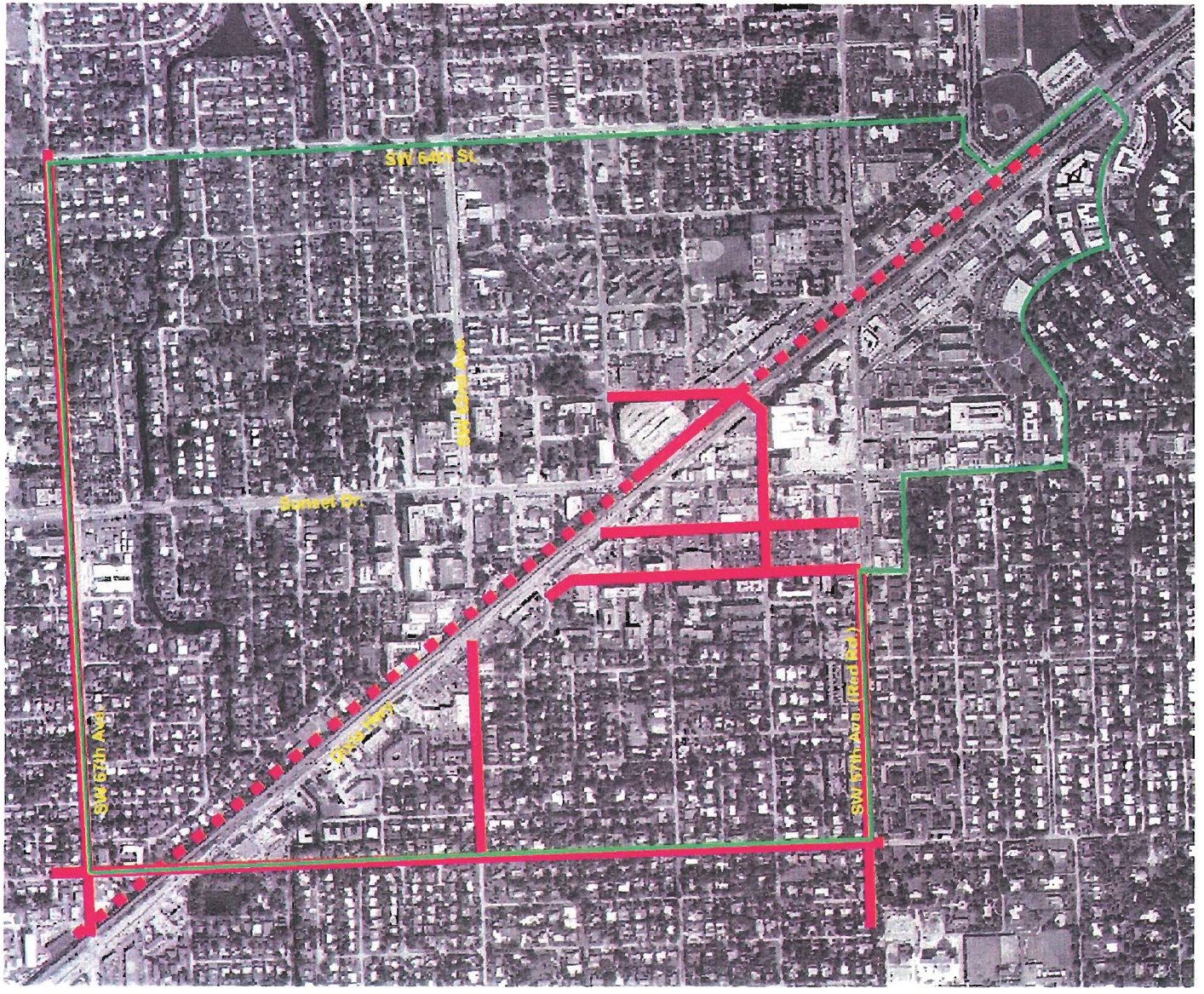
2. Extend the M-Path south of SW 67th Avenue to the Dadeland South Metrorail Station and South Dade Trail. The southern terminus of the M-Path is currently at SW 67th Avenue. Extending this facility south to the Dadeland South Metrorail Station would provide a connection to the South Dade Trail, an existing bicycle trail that runs along the South Dade Busway to Cutler Ridge. One significant challenge associated with extending the M-Path will be crossing the Snapper Creek Expressway.

3. Improve the crossing conditions for bicyclists at intersections along the M-Path. One of the main conflict points between bicyclists and motorists occurs at intersections. When two-way shared use paths are located immediately adjacent to roadways, such as is the case with the M-Path, conflict is intensified. The shift of bicyclists out of the travel lane may create sight distance problems that place a motorist and bicyclist in direct conflict immediately after a vehicle makes a right turn at an intersection. The alignment, crosswalks, and signage at intersections along the M-Path should be examined for measures to improve crossing conditions for bicyclists. In particular, improvements are recommended for the M-Path's intersections with SW 62nd Avenue and Sunset Drive.

4. Add bicycle lanes to local roadways to create a network of bicycle facilities. Bicycle lanes provide a safer environment for the cyclist by increasing the separation between bicycle and motor vehicle and designating an appropriate place for bicycles to be used. Marking a bike lane also changes the way the facility is treated in law. Motorists are not allowed to park, except momentarily, in a bike lane and motorists entering a roadway from a side street are required to yield to bicyclists within a bike lane. In addition, when arterial or collector roadways are not improved for bicycling, many novice (basic) bicyclists are likely to make use of sidewalks. In doing so, they endanger pedestrians and subject themselves and motorists to conflicts that neither is expecting, especially at driveways and intersections.

   The need for bicycle lanes within the "Hometown" study area was identified with input from the Miami-Dade Metropolitan Planning Organization (MPO). Additionally, the Miami-Dade Public Works Department provided a potential bicycle corridor map (see Figure 3) for the City of South Miami. A primary objective in the development of bicycle facilities should be to provide connections to the South Miami Metrorail Station. In general, bicycle lanes should be considered for the following roadways:



Hometown Intermodal Transportation Study, South Miami

Potential Bicycle Network

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Study Area Boundaries
M-PATH (Existing)
Potential Bicycle Lanes

Figure 3

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- SW 80th Street
- SW 74th Street between SW 61st Avenue and Red Road
- SW 73rd Street between U.S. 1 and Red Road
- SW 70th Street between SW 62nd Avenue and U.S. 1
- Ludlum Road (SW 67th Avenue)
- SW 62nd Avenue between SW 80th Street and U.S. 1
- SW 58th Avenue between of 74th Street and U.S. 1
- SW 57th Avenue (Red Road) between the Snapper Creek Canal and SW 74th Street

The City of South Miami should coordinate with the Miami-Dade MPO and the Miami-Dade County Public Works Department to ensure that bicycle lanes are included as part of future roadway improvement projects.

5. Establish area-wide 25-miles per hour (mph) speed limits for residential neighborhoods. The local grid street network provides residents with short blocks and frequent connections between the neighborhoods and the downtown area, often running parallel to major traffic thoroughfares. Unfortunately, field visits to the "Hometown" study area revealed that a majority of the residential streets in the city are narrow. The limited travel lane width provided on these streets often precludes the addition of bicycle lanes. Nevertheless, these streets may still be attractive to the novice bicyclists ("basic" and "children") that feel more comfortable on lower volume streets. At speed limits posted below 25 mph, bicyclists could easily mix with the low volume traffic on local residential streets without requiring separate bicycle lanes. In order to provide more balance between travel modes, the City of South Miami should begin efforts to establish a 25-mph speed limit for local streets in residential neighborhoods.

6. Establish educational and safety programs for bicyclists. The City of South Miami should promote and actively participate in existing annual events sponsored by the Miami-Dade County MPO including Bike Month (May) and Bike to Work Week (in May). The Florida Traffic Safety Education Program sponsored by FDOT teaches school children in 3rd through 5th grades bicycle traffic safety skills.

7. Establish a bicycle parking ordinance. Studies have found that bicycle parking facilities are essential to encourage all types of bicycling. The City of South Miami should consider adopting a bicycle parking ordinance similar to the Miami-Dade County Bicycle Parking Ordinance, which requires that bicycling parking be provided by future commercial and office developments that also provide parking for motor vehicles. Provisions in a newly adopted bicycle parking ordinance could also encourage the retrofitting of existing uses to include bicycle parking, especially within the downtown.

Pedestrian Enhancements

The success of transit and other alternative travel modes are highly dependent on the state of pedestrian facilities and amenities. As a travel mode and recreational activity, walking offers the potential to reduce traffic congestion, improve air quality, and contribute to healthier citizens. In the "Hometown" study area, sidewalk deficiencies and a largely inhospitable pedestrian environment contributes to a reliance on the automobile even for short trips. A goal of this element of the "project bank" is to increase the number and share of walking trips for all trip purposes as a means of (1) increasing personal enjoyment, (2) enhancing the urban quality of life, and (3) reducing vehicular trips on local roadways.

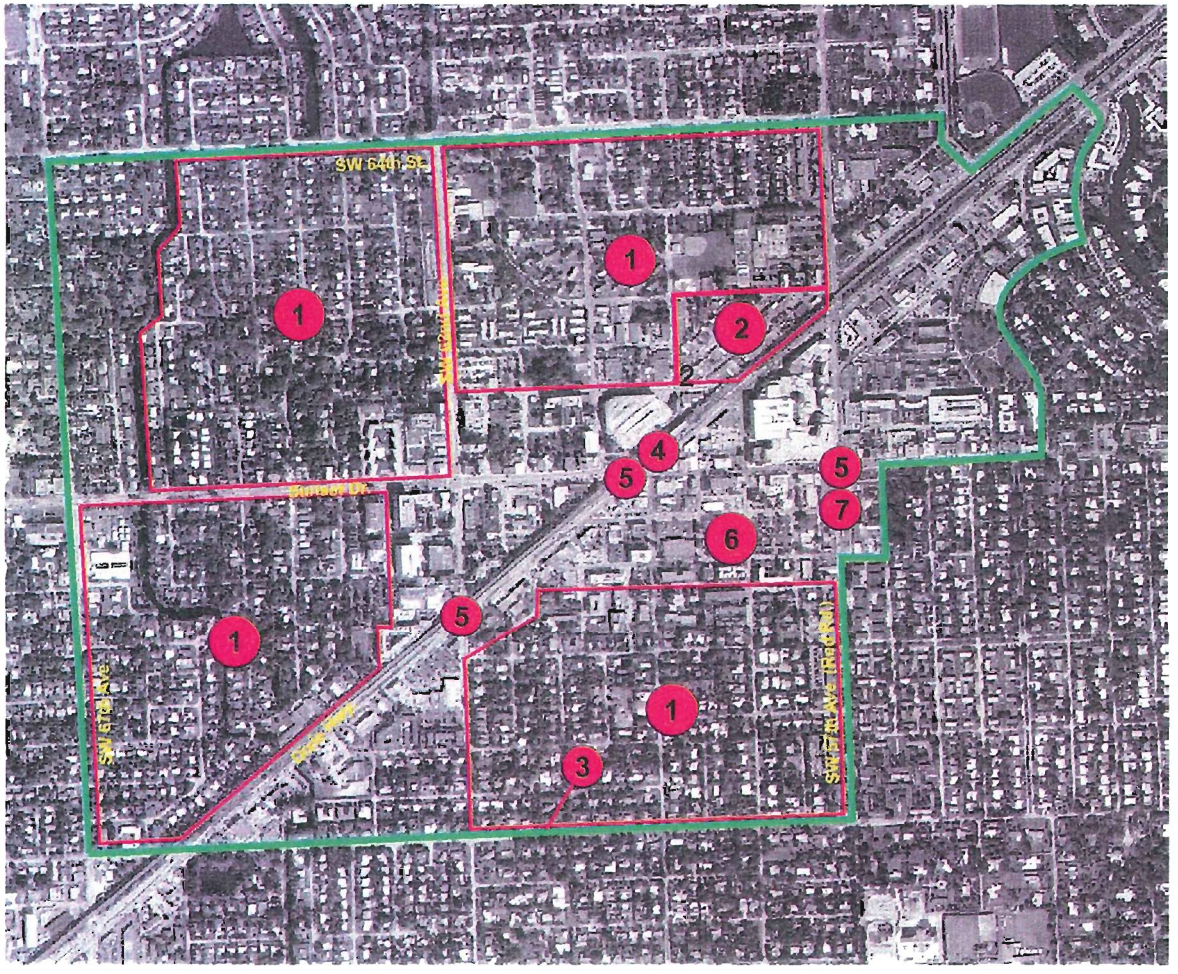
Recommendations to improve the pedestrian environment in the "Hometown" study area are presented in Figure 4 and are summarized below.

1. Add sidewalks in residential neighborhoods. An inventory of existing pedestrian facilities within the "Hometown" study area found that the majority of residential streets do not have sidewalks. Sidewalks increase pedestrian safety by separating pedestrians from vehicular traffic. One recent Federal Highway Administration (FHWA) study cited the presence of sidewalks in residential areas as the physical factor in the roadway environment that has the greatest impact on pedestrian safety.

   The City of South Miami should begin exploring options for installing sidewalks on all residential streets within the "Hometown" study area. These sidewalks could provide direct pedestrian connections between residential areas and activity centers such as the downtown and the South Miami Metrorail Station.

Proposed Project Bank

South Miami Intermodal Study



Pedestrian Improvements

1. Add Sidewalks in Residential Neighborhoods
2. Add Sidewalks in Industrial Area North of South Miami Metrorail Station
3. Add Sidewalks to SW 80th Street
4. Construct U.S. 1 Pedestrian Overpass
5. Pedestrian Safety Improvements at Intersections within Study Area
6. Create Network of Pedestrian Paths within Downtown
7. Provide Pedestrian Crossing on Red Road South of Sunset Drive

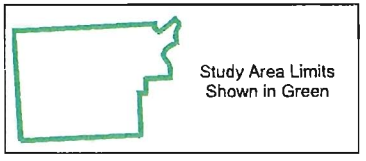


Figure 4

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2. Add sidewalks in the industrial area north of the South Miami Metrorail Station. The industrial area on the west side of U.S. 1 to the north of SW 70th Street is within the Transit Oriented Design District (TODD) and convenient walking distance to the South Miami Metrorail Station. This general area is beginning to be redeveloped with pedestrian scale projects including the mixed-use joint development venture at the South Miami Metrorail Station and University Place, a residential development planned for the northwest corner of the intersection of SW 70th Street and SW 59th Place. Future roadway improvements to this area should include the addition of sidewalks.

3. Add sidewalks to SW 80th Street. The opportunity to walk to a destination or along a particular route is completely dependent upon continuous access. Therefore, any gap or interruption in the route will effectively create a barrier to walking. The City of South Miami should target sidewalk improvements along SW 80th Street between SW 57th Avenue (Red Road) and U.S. 1 to begin establishing this route as a pedestrian corridor.

4. Construct the U.S. 1 pedestrian overpass. U.S. 1 acts as a physical and psychological barrier impeding pedestrian movement between the "Hometown" study area's activity centers on either side. The City of South Miami is in the process of finalizing conceptual plans for a pedestrian bridge over U.S. 1 that will connect to the South Miami Metrorail Station.

5. Implement pedestrian safety improvements at intersections within the "Hometown" study area. Intersections, particularly signalized intersections, are the most dangerous part of the roadway network for pedestrians. At signalized intersections, the level of attention given to pedestrians is often a function of motorists' travel speed, acceptance gap when turning right or left, traffic volumes, and presence and speed of other vehicles at the intersection. Within the "Hometown" study area several intersections designed to efficiently process large amounts of traffic, especially along U.S. 1, create unfavorable conditions for pedestrians.

   The City of South Miami should conduct pedestrian safety studies at key intersections within the "Hometown" study area to identify suitable pedestrian safety improvements, beginning with the following intersections:

- U.S. 1 at SW 62nd Avenue
- Sunset Drive and U.S. 1
- Sunset Drive and Red Road

6. Create a network of pedestrian paths within the downtown. In order to create an environment that is not reliant on the automobile, pedestrians must be able to move easily and safely within the downtown. This pedestrian friendly environment requires the creation of a pedestrian network that provides continuous access to all areas of the downtown. In the City of South Miami, the short blocks and grid street network provide convenient access to most properties within the downtown. The primary pedestrian system should coincide with the street system; however, more direct connections may be considered between buildings or in alleyways.

   Improvements aimed at transforming the existing automobile oriented streets into a more pedestrian friendly environment are already underway in South Miami. Recent streetscape improvements to Dorn Avenue and to Sunset Drive east of U.S 1 have attracted notable attention to the City of South Miami's efforts to create a pedestrian-oriented downtown. The City of South Miami has also recently completed a streetscape improvement plan for SW 73rd Street between U.S 1 and Red Road. Common design elements for all these streets include wider sidewalks, street trees, better pedestrian crossing opportunities, traffic calming, and enhanced street lighting.

   The City of South Miami should continue working towards creating a comprehensive pedestrian network that connects all areas of the downtown. Immediate improvements should be identified that better connect available parking opportunities in the downtown with pedestrian activity centers. Opportunities to connect to the residential neighborhood south of downtown should also be explored.

7. Provide a pedestrian crossing on Red Road south of Sunset Drive. The parking demand generated by businesses on the east of Red Road south of Sunset Drive often exceeds the available parking supply. Although parking is available on the west side of Red Road, the existing design of Red Road acts as a pedestrian barrier. A pedestrian crossing should be provided on Red Road at SW 73rd Street to accommodate pedestrian needs in this area.

8. Check traffic signal timings to verify that adequate time is allotted for pedestrian crossings. The City of South Miami should evaluate all traffic signals within the study area and work with the Miami-Dade County Public Works Department to ensure that adequate pedestrian walk and clearance time is provided. Also, as a general rule pedestrians are anxious to get back underway within approximately 30 seconds of waiting for a walk indication. Although it is not always practical to accommodate pedestrians with this short of a wait time, every effort should be made to keep the wait to the minimum.

Neighborhood Traffic Management/Livability

This element of the "project bank" was created in response to growing concerns over traffic intrusion into local residential neighborhoods. The predominate street pattern found in the residential neighborhoods is comprised of a grid network providing short blocks and frequent connections to major arterial and collector roadways. This street configuration provides residents and citizens of South Miami convenient access and circulation alternatives, but it also cultivates cut-through traffic in the neighborhoods.

Recommendations for mitigating cut-through traffic and improving the quality of life for residents are summarized below. The locations of these projects are identified in Figure 5.

1. Implement traffic calming measures in the residential neighborhood south of downtown. This neighborhood is generally bound by SW 62nd Avenue on the west, Red Road on the east, SW 80th Street on the south, and SW 74th Street. A conceptual traffic calming plan for this was developed in 2002. The City of South Miami should move forward and begin implementing traffic control measures, especially along SW 58th Avenue and SW 59th Avenue.

2. Implement traffic calming measures in the residential neighborhood north of Sunset Drive and east of the Brewer Canal. This neighborhood is generally bound by the Brewer Canal on the west, SW 62nd Avenue on the east, Sunset Drive on the south, and SW 64th Street on the north. A traffic calming plan for this was developed in 2001. The City of South Miami should move forward and begin implementing these traffic control measures to address cut-through traffic problems.

Proposed Project Bank

South Miami Intermodal Study

Neighborhood Traffic Management/Livability

1. Traffic Calm Residential Neighborhood South of Downtown
2. Traffic Calm Residential Neighborhood North of Sunset Drive and East of Brewer Canal
3. Traffic Calm Residential Neighborhood South of Sunset Drive and East of SW 67th Avenue
4. Implement Streetscape Improvements from Hometown Plan Area 2
5. Establish Citywide 25-mph Speed Limit for Residential Areas
6. Add Sidewalks in Residential Neighborhoods

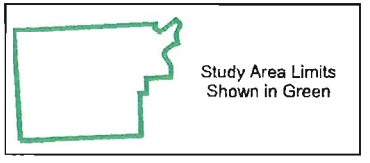

Figure 5

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3. Implement traffic calming measures in the residential neighborhood south of Sunset Drive and east of SW 67th Avenue. This neighborhood is generally bound by SW 67th Avenue on the west, SW 62nd Avenue on the east, U.S. 1 on the south, and Sunset Drive on the north. Local residents have raised concerns over the amount of cut-through traffic in their neighborhood. In response, the City of South Miami collected traffic data in the area to determine the extent of the problem. In particular, Manor Lane and SW 63rd Avenue were identified as a cut-through route used to avoid congestion on U.S. 1. The City of South Miami should begin to identify traffic calming solutions to address this problem.

4. Implement streetscape improvements in the "Hometown Plan" Area 2. This neighborhood is generally bound by SW 62nd Avenue on the west, Red Road on the east, U.S. 1 on the south, and Miller Drive on the north. In 1994, the City of South Miami created a vision for improving the quality of life in this neighborhood. The document, known as *The "Hometown Plan" Area 2*, identified several streetscape and traffic calming improvements aimed at creating streets that function as public spaces designed for people, and not just cars. Recommendations from the study include:

    - Plant street trees and implement traffic calming measures along SW 59th Place (Church Street).
    - Plant street trees along Red Road.
    - Plant street trees, build a landscaped median with shade trees where right-of-way is available, and implement traffic calming measures along SW 64th Street (Hardee Drive).
    - Raise the intersection at SW 59th Place and SW 64th Street and add textured paving to help create a public plaza tentatively identified as "Madison Square."

5. Establish area-wide 25-miles per hour (mph) speed limits for residential neighborhoods. The City of South Miami should begin efforts to establish a 25-mph speed limit for all residential areas to promote a better balance between the travel modes. The Florida State Uniform Traffic Control Law allows municipalities to set a speed limit of 20- or 25-mph on local streets in residential areas after an investigation determines that such a limit is

reasonable. Once this determination is made, it is not necessary to conduct a separate investigation for each residential district (Florida Statutes 316.183(2)).

Aerial photography and a windshield survey found that narrow streets and lack of sidewalks in the "Hometown" study area's residential neighborhoods force bicyclists and pedestrians to share the road with automobiles. Lower automobile travel speeds allow drivers to better anticipate conflicts and have more time to react to bicyclists and pedestrians (see Figure 6). Research documented by FDOT shows that the speed of the motorist and pedestrian detection is directly correlated. As motorists' speeds increase, the ability to see a pedestrian, especially at night, drops significantly. Additionally, at speeds posted below 25 mph, bicyclists could better mix with traffic on low volume local streets without requiring separate bicycle lanes.

Parking Improvements

An aerial view of Downtown South Miami reveals that several parking garages are among the downtown's largest buildings. Also, quite obvious is that a sizable portion of the "Hometown" study area is made up of large surface parking lots, such as at the corner of SW 73rd Street and SW 58th Avenue. The location of several parking facilities is within convenient walking distance to many of the downtown's popular destinations. However, there is a public perception of a parking shortage because connections between off-site parking facilities and final destination often are not pedestrian friendly.

This element of the "project bank" targets improvements to provide both additional parking in the downtown and better connections between parking facilities and final destinations. Recommendations are presented in Figure 7 and are summarized below.

1. Planning is underway for a new parking garage in the Hometown District, which will be built as a joint development project between the City of South Miami and a private developer. The project is expected to include ground floor commercial retail. This facility will be located on the site of an existing surface parking lot on SW 73rd Street between SW 58th Court and SW 58th Avenue. The total number of parking spaces that will be provided has not been determined.

The driver's focus at different speeds.

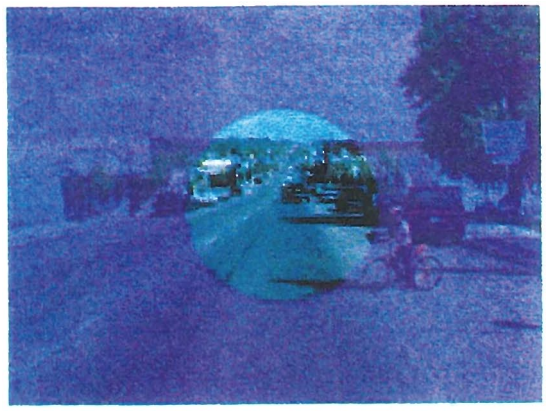
A low speed allows drivers to be more aware of their surroundings and to have time to react to other highway users.

The photos show how a driver's focus changes as their speed increases. The setting is a typical downtown in a small Oregon city. Shops and on-street parking line both sides of this 2-lane couplet. The highway is built to "full standard" because of the ample right-of-way.

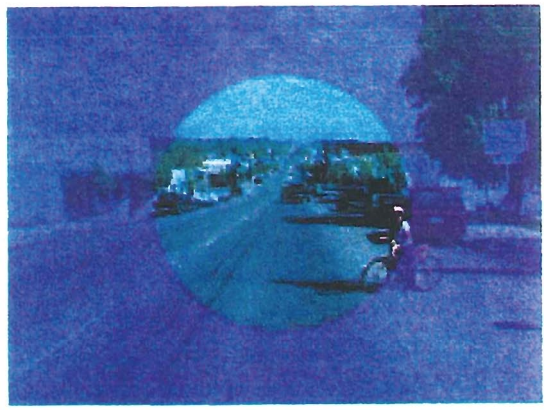
At the posted speed of 30 mph, many drivers have a difficult time seeing bicyclists and pedestrians, and stopping distance is nearly twice that of 20 mph.

To safely accommodate all users, this highway needs substantial design changes that tell the driver that this is not the open highway it was a few blocks before.

A good start would be wide planting strips with trees to narrow the roadway. A bike lane could be striped. Intersections could be narrowed even further with curb extensions.



At 40 mph the driver's focus is on the roadway in the distance.

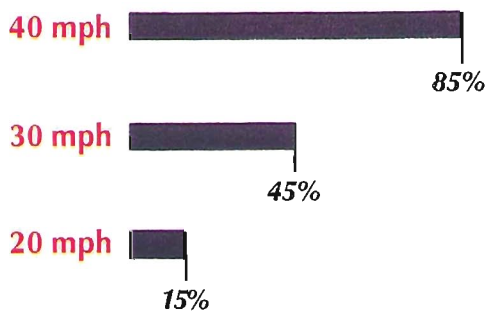


At 30 mph the driver begins to see things at the road edges in the background.

At 20 mph the foreground comes into focus.

At 15 mph the driver easily sees that this is a place where pedestrians and bicyclists are present.

When a person is struck by a motor vehicle, they have the following chances of death according to *Killing Speed and Saving Lives*, UK Department of Transportation:

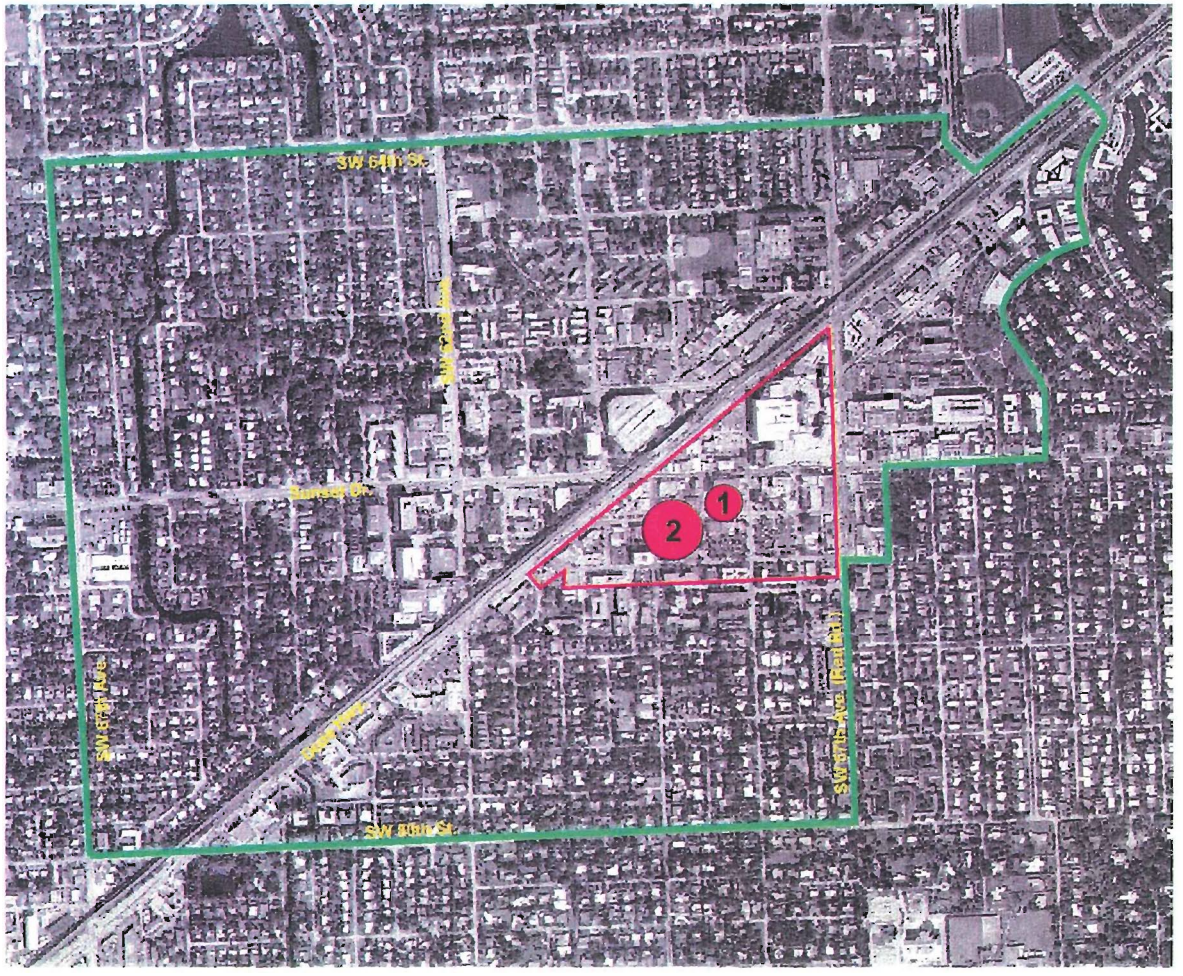


Source: Main Street...When a Highway Runs Through It: A Handbook for Oregon Communities

Figure 6

Proposed Project Bank

South Miami Intermodal Study



Parking Improvements

1. Hometown District Parking Garage
2. Provide Better Connections Between Parking Areas and Destinations:
   -- Wayfinding Signs
   -- Streetscape Improvements
   -- Pedestrian Bridge Between Metrorail Station and Sunset Drive
   -- Provide Pedestrian Crossing at Red Road South of Sunset Drive

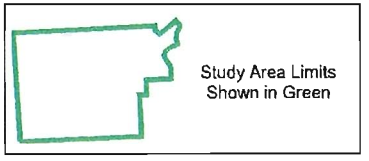


Figure 7

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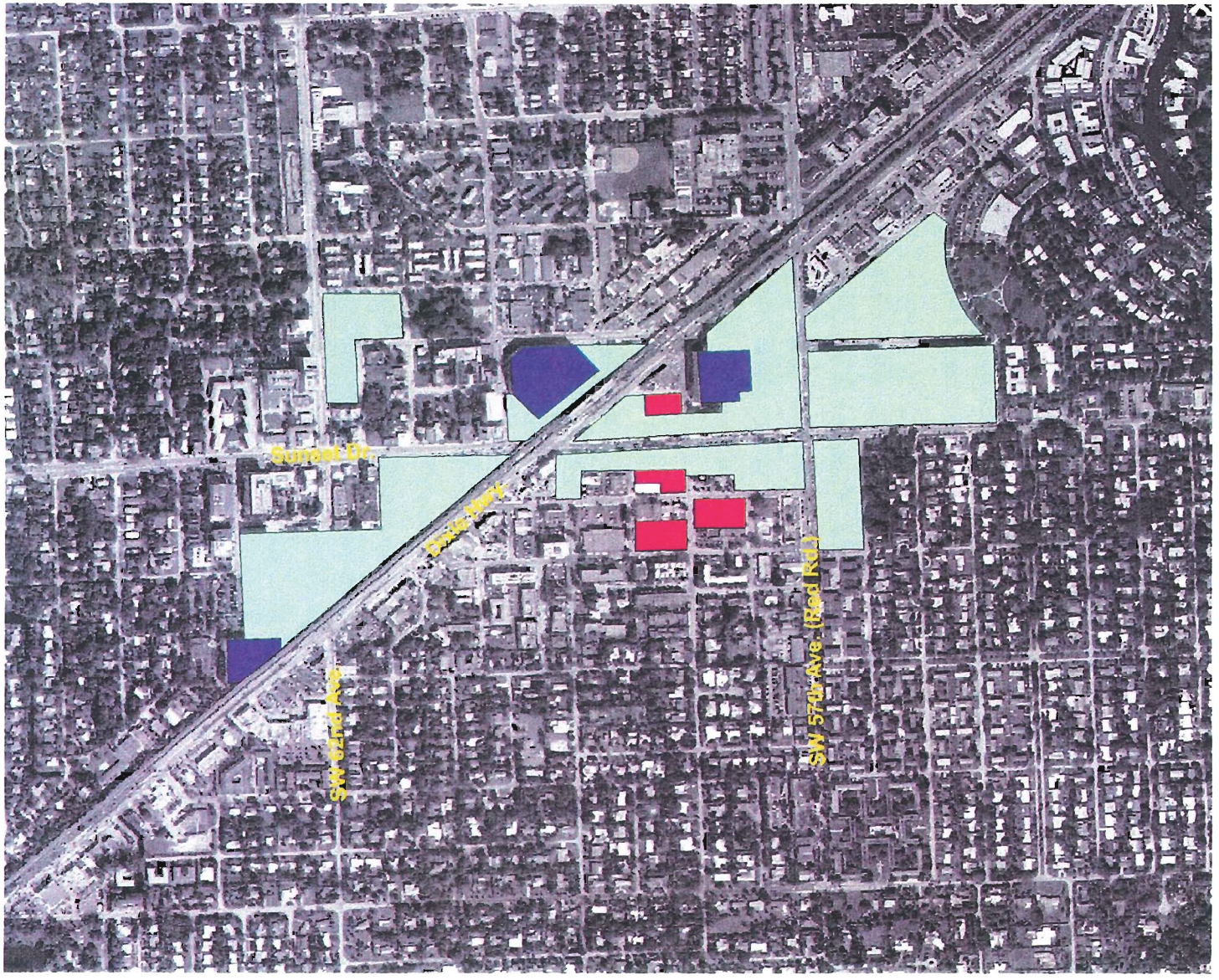
2. Provide better pedestrian connections between parking facilities and final destinations. Although an adequate number of parking spaces exists in Downtown South Miami, the public perception is that convenient parking spaces are hard to find. The problem is that many parking spaces are not well connected to the most popular destinations. Figure 8 shows both the location of parking facilities in the downtown and popular destinations. Four measures to help provide better connections between existing parking and popular destinations are summarized below:

   - Wayfinding Signs – A uniform signage program should be introduced that helps visitors quickly find parking opportunities close to their intended destination. Common design elements of the signage program should include parking identification, directional arrows, and nearby destinations that the particular parking facility serves. Care should be given to design a sign package that helps mold an identity for the City of South Miami. Additional signage should be installed at the actual parking facilities that point pedestrians to nearby destinations.

   - Streetscape Improvements – Streetscape improvements within the downtown area would provide a more conducive environment for short walking trips between parking facilities and final pedestrian destinations. Potential improvements include wider sidewalks, canopies, street trees, improved pedestrian crossings, traffic calming, and street lighting.

     An excellent example of transforming the streetscape into an active pedestrian environment already exists along Dorn Avenue. The City of South Miami has also recently completed a streetscape improvement plan for SW 73rd Street between U.S. 1 and Red Road. These efforts should be expanded to include:

     - SW 74th Street between Red Road and SW 60th Avenue
     - SW 62nd Avenue between U.S. 1 and SW 70th Street
     - SW 59th Avenue between SW 73rd Street and SW 74th Street
     - SW 58th Avenue between U.S. 1 and SW 74th Street
     - Red Road between SW 74th Street and Sunset Drive



Hometown Intermodal Transportation Study, South Miami

Proximity of Parking Opportunities to Pedestrian Activity Centers

N

Pedestrian Activity Centers
Public Surface Parking Lots
Parking Garages

Figure 8

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- U.S. 1 Pedestrian Overpass – Construct the U.S. 1 pedestrian overpass to provide a safe connection between the parking garage at the South Miami Metrorail Station and popular destinations on the east side of U.S. 1.

- Pedestrian Crossing on Red Road south of Sunset Drive – Provide a designated pedestrian crossing on Red Road south of Sunset Drive to provide a connection between available parking on the west side of Red Road and popular destinations on the east side of Red Road.

Land Use, Development, and Redevelopment Opportunities

This element of the "project bank" recognizes the synergy between land use planning and multimodal transportation opportunities. Urban design efforts have been initiated by the City of South Miami to reestablish the area as a place where the automobile ranks behind the overall "livability" of the community. City of South Miami officials should continue to promote goals, policies, and objectives aimed at returning the street to the community. Land use, development, and redevelopment opportunities are presented in Figure 9 and include the following:

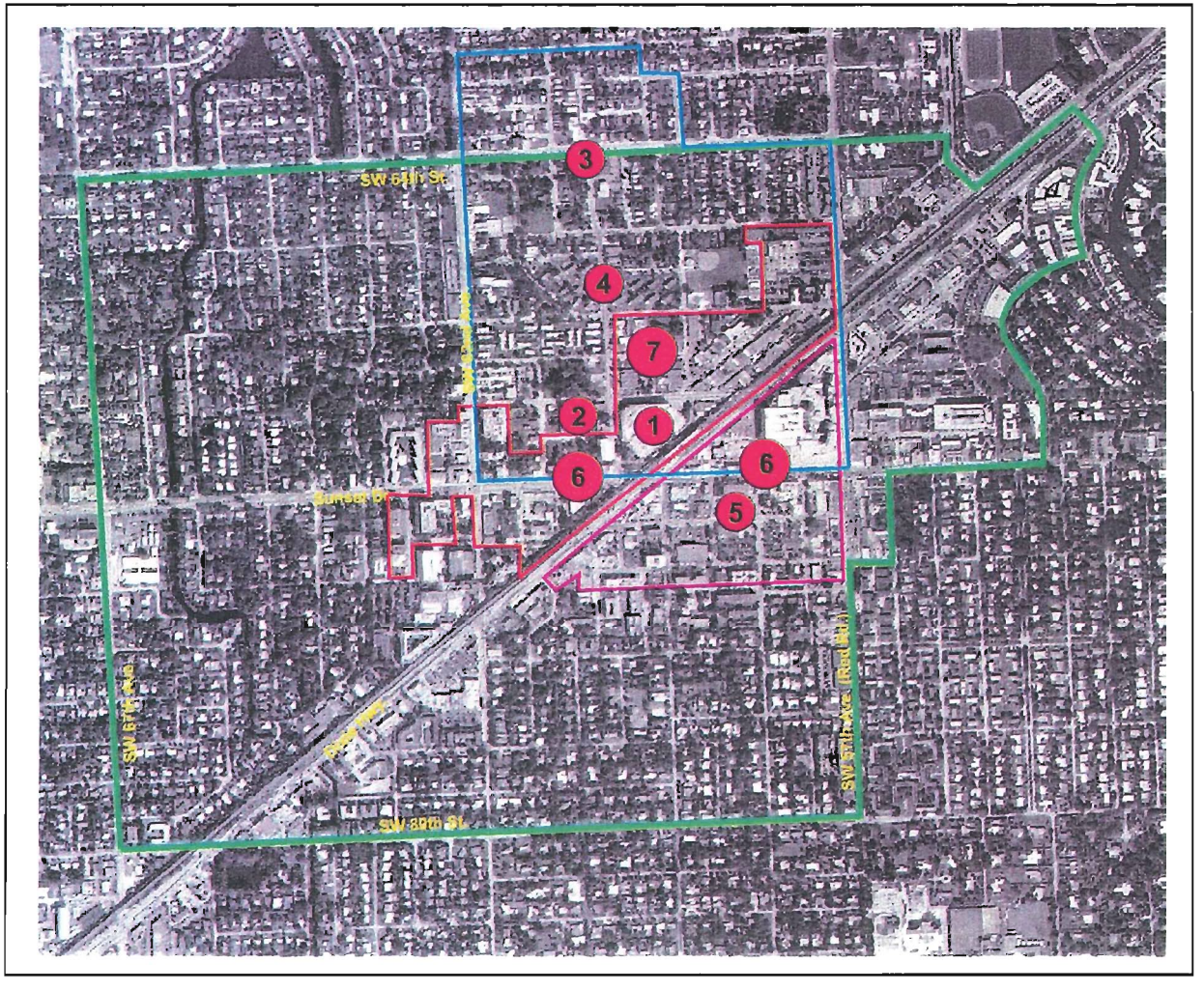
1. South Miami Metrorail Station Joint Development Project – A joint development project has been initiated for the South Miami Metrorail Station to create a mixed-use project in the area surrounding the station and the space above the rear of the parking garage. The project will include commercial and office land uses. A lease agreement with Hometown Station, Ltd. has already been completed for the project.

2. University Place – University Place is a residential development planned for the northwest corner of the intersection at SW 59th Place and SW 70th Street. The project will consist of 300 apartment units and a small retail component.

3. Madison Square Redevelopment – The intersection of SW 59th Place and SW 64th Avenue (Hardee Drive) was once a neighborhood center that provided daily needs for local residents including groceries, restaurants, and hair salons. The Hometown Plan Area 2 urban design effort recommended creating a special public plaza at the intersection tentatively called "Madison Square."

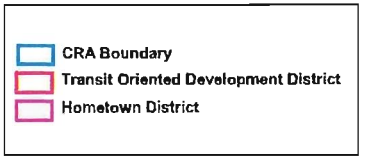
Proposed Project Bank

South Miami Intermodal Study



Land Use/Development/Redevelopment

1. South Miami Metrorail Station Joint Development Project
2. University Place
3. Madison Square Redevelopment
4. Miami-Dade Public Housing Redevelopment
5. Hometown District Parking Garage
6. Existing Overlay Districts Promote Future Redevelopment Opportunities:
   -- Hometown District
   -- Transit Oriented Development District (TODD)
7. Promote Development Efforts in the Community Redevelopment Area (CRA)



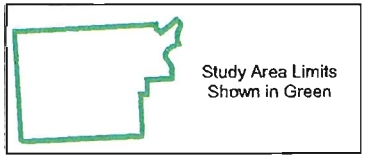


Figure 9

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4. Miami-Dade Public Housing Redevelopment – The Miami-Dade Housing Agency currently maintains public housing along SW 59th Place. The Department of Housing and Urban Development (HUD) in Washington has directed local offices to reduce its ownership and management of public housing. HOPE VI, administered through HUD, has helped transform public housing property into privately owned houses and townhouses across the country. The public housing stock in South Miami is a target for future redevelopment.

5. Hometown District Parking Garage – Planning is underway for a new parking garage in the "Hometown District," which will be built as a joint development project between the City of South Miami and a private developer. The project will include ground floor commercial retail. This development will be located at the site an existing surface parking lots on SW 73rd Street between SW 58th Court and SW 58th Avenue.

6. Promote Future Redevelopment Opportunities – In addition to the specific projects described above, several potential future redevelopment opportunities were identified within the "Hometown" study area. The City of South Miami should consider redevelopment opportunities on the following properties:

   - Properties that are vacant or occupied by single story structures within ½ mile of the Metrorail station unless the City's Land Development Code or Comprehensive Plan has certain restrictions that deter such redevelopment.
   - All other City or County owned property such as the County's Public Library, City Hall, and City Police Station. These properties could be redeveloped as public-private ventures that could provide benefit to the City.
   - Properties with houses or apartment buildings in a deteriorated condition in the residential neighborhood west of U.S. 1 and north of Sunset Drive.
   - The City owned parking lot north of Sunset Drive on SW 58th Avenue.

7. Existing Overlay Districts – The City of South Miami has already created two overlay zoning districts within the "Hometown" study area that provide incentives over existing zoning categories to promote the city's pedestrian oriented goals. The overlay zoning districts include:

- The **Hometown District** is a triangular shaped area bound by U.S. 1 on the north and west, Red Road on the east, and properties just south of SW 74th Street on the south. This zoning district was designated in October 1993.
- The **Transit Oriented Development District (TODD)** includes the area surrounding the South Miami Metrorail Station on the west side of U.S. 1. This zoning district was designated in April 1997.

8. Promote Development Efforts in the CRA – The City of South Miami has established a Community Redevelopment Agency (CRA) for parts of the Hometown District, Transit Oriented Development District, and the residential neighborhood west of U.S. 1 and north of Sunset Drive. The mission of the CRA is to improve the economic strength and the appearance of the area by pursuing grant money and establishing a tax increment financing (TIF) district.

Summary

A "project bank" of recommended improvements was developed to address transportation deficiencies in the "Hometown" study area and facilitate the use of mass and non-motorized transit. The "project bank" grouped improvements into the following project types:

- Traffic Capacity/Operations Enhancements
- Transit Improvements
- Bicycle Improvements
- Pedestrian Enhancements
- Neighborhood Traffic Management/Livability
- Parking Improvements
- Land Use, Development, and Redevelopment Opportunities

These projects will next be prioritized into an implementation plan that outlines a recommended course of action.

IMPLEMENTATION PLAN

The "project bank" developed in this study identifies a number of projects aimed at creating a transportation system that provides multimodal opportunities to reduce vehicular trips and congestion by providing attractive alternatives to the single-occupant automobile. The first step toward implementing these projects is to develop an implementation plan.

This section of the report provides a methodology for comparing the individual projects against the goals of this study and begins to provide order of magnitude planning level cost estimates for implementing these projects. This information should be used by the City of South Miami to establish a course of action for moving forward with the transportation opportunities presented in the "project bank."

"Project Bank" Evaluation

Improvements were originally categorized in the "project bank" by type including (1) traffic capacity/operations enhancements, (2) transit improvements, (3) bicycle improvements, (4) pedestrian enhancements, (5) neighborhood traffic management/livability, (6) parking improvements, and (7) land use, development, and redevelopment opportunities. A project comparison system was then developed to position the improvements identified in the "project bank" into four prioritization categories. The criteria that were considered in the qualitative evaluation of the "project bank" improvements were:

- Improves Quality of the User's Experience: The project makes the experience of the driver, transit passenger, pedestrian, or bicyclist more enjoyable by reducing travel times, improving aesthetics, or providing amenities such as bus stops, signage, or streetscape.

- Promotes the Use of Alternative Modes: The project encourages the use of transit, walking, or bicycling through the improvement or creation of facilities for these modes of travel.

- Improves Sense of Place: The project creates, reinforces, or encourages improvements to the urban fabric aimed at improving the character of the local environment.

- Discourages Neighborhood Traffic Intrusion: The project discourages cut-through traffic affecting local neighborhoods by making cut-through routes less desirable to motorists or improving collector or arterial routes to improve traffic flow on these facilities.

- Improves Safety: The project generally improves transportation safety through such strategies as separating modes of travel or correcting existing deficiencies in how the facility operates.

- Promotes Favorable Development Pattern: The project promotes or facilitates the preferred development patterns and typologies consistent with the objectives of the *Hometown Plan*, Transit Overlay Development District, or Community Redevelopment Area.

- Satisfies More Than One Project Category: The implementation of a single project satisfies multiple project types within the "project bank." For example, a project could both enhance traffic capacity/operations and neighborhood traffic management/livability by providing increased capacity on a major thoroughfare thereby reducing cut-through traffic in a residential neighborhood.

Projects were assigned a score between 0 and 2 based on their ability to satisfy the evaluation criteria. The scores were determined as follows:

- 0 = The project does not meet or has an unfavorable relationship to the criterion.
- 1 = The project partially meets or has a moderately favorable relationship to the criterion.
- 2 = The project meets or has a favorable relationship to the criterion.

The scores for the individual evaluation criteria were added together to determine an overall score for each "project bank" improvement. A project comparison matrix was developed to present the results of the evaluation of "project bank" improvements and assist in the prioritization of improvements. This project comparison matrix is presented as Table 1.

Table 1
SOUTH MIAMI "HOMETOWN INTERMODAL TRANSPORTATION STUDY"
"Project Bank" Comparison Matrix

	Improves Quality of User's Experience	Promotes Use of Alternative Travel Modes	Improves Sense of Place	Discourages Neighborhood Traffic Into Intrusion	Improves Safety	Promotes Favorable Development Pattern	Satisfies More Than One Project Category	Total Score
Traffic Capacity/Operations Enhancements								
Implement Traffic Signal Timing Modifications and Operational Recommendations To Improve Traffic Flow on Sunset Drive and Red Road	2	0	1	2	1	0	1	7
Implement Operational Improvements at the Intersection of Sunset Drive and SW 62nd Avenue	1	0	1	2	0	0	1	5
Transit Improvements								
Reestablish Circulator Transit Service	1	2	1	0	0	1	0	5
Provide Amenities at Bus Stops (i.e. Shelters, Benches, and Transit Information)	2	2	2	0	0	0	0	6
Bicycle Improvements								
Improve M-Path Connection between the South Miami Metrorail Station and SW 70th Street	2	2	1	0	1	0	0	6
Extend M-Path South of SW 67th Avenue to Dadeland South Metrorail Station and South Dade Trail	1	2	0	0	1	0	0	4
Add Bicycle Lanes to Local Roadways	2	2	1	0	1	0	0	6
Improve Crossing Conditions for Bicyclists along M-Path	1	2	0	0	2	0	0	5
Establish Bicycle Education and Safety Programs	0	2	0	0	2	0	0	4
Establish Citywide 25-mph Speed Limit for Residential Areas	1	1	2	2	2	1	2	11
Create Bicycle Parking Ordinance	1	2	1	0	0	1	0	5
Pedestrian Improvements								
Add Sidewalks in Residential Neighborhoods	2	2	2	0	2	1	2	11
Add Sidewalks in Industrial Area North of South Miami Metrorail Station	2	2	2	0	2	1	1	10
Add Sidewalks to SW 80th Street	2	2	2	0	2	0	1	9
Construct U.S. 1 Pedestrian Overpass	2	2	1	0	2	1	2	10
Pedestrian Safety Improvements at Intersections within Study Area	2	1	1	0	2	0	0	6
Create Network of Pedestrian Paths within Downtown	2	1	2	0	1	2	2	10
Provide Pedestrian Crossing on Red Road South of Sunset Drive	2	1	1	0	1	1	2	8
Neighborhood Traffic Management/Livability								
Traffic Calm Residential Neighborhood South of Downtown	1	0	2	2	2	0	0	7
Traffic Calm Residential Neighborhood North of Sunset Drive and East of Brewer Canal	1	0	2	2	2	0	0	7
Traffic Calm Residential Neighborhood South of Sunset Drive and East of SW 67th Avenue	1	0	2	2	2	0	0	7
Implement Streetscape Improvements in the Hometown Plan Area 2	2	0	2	1	1	2	0	8
Establish Citywide 25-mph Speed Limit for Residential Areas	1	1	2	2	2	1	2	11
Add Sidewalks in Residential Neighborhoods	2	2	2	0	2	1	2	11
Parking Improvements								
Hometown District Parking Garage	1	0	1	0	0	1	2	5
Provide Better Connections Between Parking Areas and Destinations	2	1	2	0	1	2	2	10
Land Use/Development/Redevelopment								
South Miami Metrorail Station Joint Development Project	1	2	2	0	0	2	2	9
Madison Square Redevelopment	1	0	2	0	0	2	0	5
Hometown District Parking Garage	1	0	1	0	0	1	2	5

Note:

The score recorded for each project was based on a qualitative evaluation of how well it satisfied each of the seven evaluation criteria. A point value was assigned to each cell using the following point system:

0 = The project does not meet/has an unfavorable relationship to the criterion.

1 = The project partially meets/has a moderately favorable relationship to the criterion.

2 = The project meets/has a favorable relationship to the criterion.

"Project Bank" Order of Magnitude Cost Estimates

Preliminary order of magnitude cost estimates were developed for the "project bank" improvements and are presented in Table 2. These cost estimates were generally based on the costs of local projects of similar scale. The purpose of these cost estimates is to assist in the prioritization of the improvements. As the specific projects are developed and what actually needs to be constructed is specifically determined, more detailed engineering cost estimates should be prepared to identify the required funds that should be programmed.

"Project Bank" Prioritization

The "project bank" improvements were grouped into four categories based on the evaluation presented in the project comparison matrix and the preliminary order of magnitude cost estimates. The projects were initially assigned to one of four priority levels based on the scores obtained in the project comparison matrix. Projects earning total scores of 10 or 11 points were classified as Priority Level One Projects; projects earning total scores of 8 or 9 points were classified as Priority Level Two Projects; projects earning total scores of 6 or 7 points were classified as Priority Level Three Projects; projects earning total scores of 4 or 5 points were classified as Priority Level Four Projects. No projects earned a score higher than 11 points or lower than 4 points.

After the initial grouping of projects into priority levels based on the score obtained in the project evaluation matrix, the preliminary order of magnitude cost estimates were also taken into consideration. The more costly projects generally scored higher in the project evaluation matrix because these larger scale projects tended to satisfy several evaluation criteria, while less costly projects scored lower in the project evaluation matrix because these smaller scale projects tended to satisfy less of the evaluation criteria. Therefore, several projects were shifted into a different priority level to allow some lower cost projects that offer benefits to be implemented while funding is secured for some of the higher cost projects. Table 3 presents the recommended prioritization schedule for the "project bank" improvements.

Table 2
SOUTH MIAMI "HOMETOWN INTERMODAL TRANSPORTATION STUDY"
"Project Bank" Order of Magnitude Cost Estimates

	Order of Magnitude Cost Estimate
Traffic Capacity/Operations Enhancements	
Implement Traffic Signal Timing Modifications and Operational Recommendations To Improve Traffic Flow on Sunset Drive and Red Road	$10,000
Implement Operational Improvements at the Intersection of Sunset Drive and SW 62nd Avenue	$100,000
Transit Improvements	
Reestablish Circulator Transit Service	$300,000 (1)
Provide Amenities at Bus Stops (i.e. Shelters, Benches, and Transit Information)	$15,000 per location
Bicycle Improvements	
Improve M-Path Connection between the South Miami Metrorail Station and SW 70th Street	$15,000
Extend M-Path South of SW 67th Avenue to Dadeland South Metrorail Station and South Dade Trail	$500,000
Add Bicycle Lanes to Local Roadways	$400,000
Improve Crossing Conditions for Bicyclists along M-Path	$30,000
Establish Bicycle Education and Safety Programs	no cost
Establish Citywide 25-mph Speed Limit for Residential Areas	$30,000
Create Bicycle Parking Ordinance	no cost
Pedestrian Improvements	
Add Sidewalks in Residential Neighborhoods	$600,000
Add Sidewalks in Industrial Area North of South Miami Metrorail Station	$25,000
Add Sidewalks to SW 80th Street	$75,000
Construct U.S. 1 Pedestrian Overpass	$5,000,000
Pedestrian Safety Improvements at Intersections within Study Area	$100,000
Create Network of Pedestrian Paths within Downtown	$2,000,000
Provide Pedestrian Crossing on Red Road South of Sunset Drive	$15,000
Neighborhood Traffic Management/Livability	
Traffic Calm Residential Neighborhood South of Downtown	$250,000
Traffic Calm Residential Neighborhood North of Sunset Drive and East of Brewer Canal	$250,000
Traffic Calm Residential Neighborhood South of Sunset Drive and East of SW 67th Avenue	$100,000
Implement Streetscape Improvements in the Hometown Plan Area 2	$1,000,000
Establish Citywide 25-mph Speed Limit for Residential Areas	$30,000
Add Sidewalks in Residential Neighborhoods	$600,000
Parking Improvements	
Hometown District Parking Garage	n/a (2)
Provide Better Connections Between Parking Areas and Destinations	$2,000,000
Land Use/Development/Redevelopment	
South Miami Metrorail Station Joint Development Project	n/a (2)
Madison Square Redevelopment	$100,000
Hometown District Parking Garage	n/a (2)

Notes:

(1) Cost including purchase of one vehicle and costs for operating one route for one year.

(2) Project funded by private sector.

Table 3
South Miami "Hometown Intermodal Transportation Study"
"Project Bank" Prioritization Schedule

Priority Level	Project Description	Project Evaluation "Score"	Planning Level Cost Estimate
1	Establish Citywide 25-mph Speed Limit for Residential Areas	11	$30,000
1	Add Sidewalks in Residential Neighborhoods	11	$600,000
1	Add Sidewalks in Industrial Area North of South Miami Metrorail Station	10	$25,000
1	Construct U.S. 1 Pedestrian Overpass	10	$5,000,000
1	Implement Traffic Signal Timing Modifications and Operational Recommendations To Improve Traffic Flow on Sunset Drive and Red Road	7	$10,000
1	Create Bicycle Parking Ordinance	5	no cost
2	Create Network of Pedestrian Paths within Downtown To Provide Better Connections Between Parking Areas and Destinations	10	$2,000,000
2	Add Sidewalks to SW 80th Street	9	$75,000
2	South Miami Metrorail Station Joint Development Project	9	n/a (1)
2	Implement Streetscape Improvements in the Hometown Plan Area 2	8	$1,000,000
2	Provide Pedestrian Crossing on Red Road South of Sunset Drive	8	$15,000
2	Establish Bicycle Education and Safety Programs	4	no cost
3	Traffic Calm Residential Neighborhood North of Sunset Drive and East of Brewer Canal	7	$250,000
3	Traffic Calm Residential Neighborhood South of Downtown	7	$250,000
3	Traffic Calm Residential Neighborhood South of Sunset Drive and East of SW 67th Avenue	7	$100,000
3	Add Bicycle Lanes to Local Roadways	6	$400,000
3	Pedestrian Safety Improvements at Intersections within Study Area	6	$100,000
3	Improve M-Path Connection Between the South Miami Metrorail Station and SW 70th Street	6	$15,000
3	Provide Amenities at Bus Stops (i.e. Shelters, Benches, and Transit Information)	6	$15,000 per location
4	Implement Operation Improvements at the Intersestion of Sunset Drive and SW 62nd Avenue	5	$100,000
4	Hometown District Parking Garage	5	n/a
4	Improve Crossing Conditions for Bicyclists Along M-Path	5	$30,000
4	Madison Square Redevelopment	5	$100,000
4	Reestablish Circulator Transit Service	5	$300,000
4	Extend M-Path South of SW 67th Avenue to Dadeland South Metrorail Station and South Dade Trail	4	$500,000

MONITORING PROCESS

An oversight committee comprised of representatives from the following agencies and groups should monitor implementation of the multimodal transportation plan developed in this study:

- City of South Miami
- Florida Department of Transportation (FDOT)
- Miami-Dade County Metropolitan Planning Organization (MPO)
- Miami-Dade Transit (MDT)
- Miami-Dade Public Works Department
- Local area stakeholders such as the Red/Sunset Merchants Association

This oversight committee would be responsible for guiding the development of the recommended master plan improvements through the project development and design process and into construction. The oversight committee could also assist in the identification of funding sources. The oversight committee should also serve as a coordinating forum to ensure that projects are implemented consistent with the vision defined in this study.

An annual report should be prepared documenting the status of the implementation of the projects identified in this study including a project schedule and funding sources. The prioritization of projects may need to be adjusted in response to changing needs in the community.

Projects should also be monitored after implementation to gauge their effectiveness in serving the public's mobility needs. Projects may need to be fine-tuned if they are not accomplishing their objectives.

CONCLUSION

This study developed a multimodal mobility plan for the area surrounding the South Miami Metrorail Station including the City's "Hometown District," the "Transit Oriented Development District," civic uses, an industrial district, residential neighborhoods, and South Miami and Larkin Hospitals. The product of this study is a multimodal transportation master plan for the "Hometown" study area.

Based on an analysis of transportation data and land use patterns, needs in the areas of traffic operations, transit, bicycle/pedestrian movements, neighborhood traffic management, parking, and redevelopment were identified. Multimodal transportation improvements were then identified to address mobility deficiencies and encourage the use of mass and non-motorized transit in the "Hometown" study area. These improvements were developed into a "project bank" of recommended improvements to satisfy the "Hometown" study area's mobility needs.

Improvements were originally categorized in the "project bank" by type including (1) traffic capacity/operations enhancements, (2) transit improvements, (3) bicycle improvements, (4) pedestrian enhancements, (5) neighborhood traffic management/livability, (6) parking improvements, and (7) land use, development, and redevelopment opportunities. A project comparison system was then developed to evaluate and prioritize the improvements into a phased implementation schedule. After an initial grouping of projects based on a primarily qualitative assessment, preliminary order of magnitude cost estimates were taken into consideration. Several projects were then shifted into a different priority level to allow some lower cost projects that offer benefits to be implemented while funding is secured for some of the higher cost projects.

The implementation of this study's recommendations should be overseen by a committee comprised of representatives from local agencies and stakeholders. An annual report should be prepared documenting the status of the implementation of the projects identified in this study including a project schedule and funding sources. Additionally, the phasing of projects should be adjusted over time in response to changing needs in the community.