



# Traffic Circulation

## Introduction

Between 1970 and 1990, Pinellas County's permanent population grew from 728,531 to 851,659, an increase of approximately 17 percent.<sup>1</sup> During this time, population density within the County increased from 2,602 to 3,041 persons per square mile. This high rate of population growth and the occurrence of severe backlogged conditions on the County's major roads that followed led to concerns that the transportation system was being overwhelmed by increasing demand. In response to this concern, Pinellas County embarked on an expansive program of infrastructure improvements throughout the County, but most particularly in the mid and northern sections. The major source of funding for this program came from the Penny for Pinellas infrastructure sales tax approved by voter referendum in 1989. Many of the improvements identified in the Comprehensive Plan, as adopted in 1989, have since been realized, although some have been delayed or down-sized due to various physical and policy constraints.

Population growth slowed to 8.2 percent between 1990 and 2000, from 851,659 to 921,495, and is projected to decrease to a 4.7 percent growth rate through 2010, when the County's estimated population reaches 964,477.<sup>2</sup> Along with the growth, vacant buildable land in the County has shrunk to 9,266 acres, 5.2% of the total land area compared to 15.6% in 1988.<sup>3</sup> With the County's population growth dramatically slowing and the limited supply of vacant land available, development patterns in the County today have become almost exclusively infill and redevelopment activity. Consequently, the fast-paced growth and accompanying land development activity in the County that have been the major causes of traffic congestion are expected to have less of an impact on future traffic demand.

One of the primary influences on increased traffic volumes in the County today is economic growth, which is encouraging more people to travel to Pinellas from other counties. In contrast to the slowdown in population growth, the County has been undergoing unprecedented job growth. Between 1990 and 2000, the County generated 108 thousand new jobs, a 30 percent increase.<sup>4</sup> This was also the second highest increase in the eight county West Central Florida region. Linked to this employment growth, was an increase in work force commuters coming to Pinellas from other counties, 10 to 14 percent from 1990 to 2000.<sup>5</sup> Within the West Central Florida region, only Hillsborough County imports more workers than Pinellas.

This "external" traffic demand, which increases vehicle miles traveled as well as energy costs, also results from factors such as increases in tourist activity and a shortage of affordable housing, which forces many Pinellas residents to seek lower cost housing in neighboring counties. The County's ability to rely on road expansion projects to meet these demands is substantially constrained by escalating material costs (e.g., concrete, steel, etc.) and physical and policy limitations, such as neighborhood and environmental concerns and right-of-way costs. This underscores the need for multi-modal and land use solutions that serve to increase the efficiency of the County's transportation system while reducing the demand for single occupant vehicle travel.

## Data Summary

The County's major road network includes 2,427 lane miles.<sup>6</sup> There are 1,037 lane miles of roadways under State jurisdiction and 871 under County jurisdiction. The remaining 519 are municipal.

### Existing Lane Arrangements

Figure 1-1 illustrates the existing lane configurations for the major roadways in Pinellas County. This map reflects road improvement projects that have been completed since the adoption of the Comprehensive Plan in 1989. These improvements were identified in the Comprehensive Plan as being necessary to alleviate existing LOS deficiencies. Table 1A below includes a list of major road construction projects implemented by Pinellas County through the Capital Improvement Program (CIP) as identified in the Capital Improvements Element (CIE) and by FDOT as identified in their five-year work programs since 1989.

**TABLE 1A**  
**County Roads**

| No. | Street                     | Project Segment                         | Improvement*                  |
|-----|----------------------------|---|-------------------------------|
|     | Trinity Blvd.              | E. Lake Rd. to Pasco/Pinellas Co. Line  | New construction – 4D         |
| 1   | CR 1                       | Tampa Rd. to Alderman Rd.               | Reconstructed/new const. - 2D |
| 1   | CR 1                       | Curlew Rd. to Tampa Rd.                 | Reconstructed to 4D           |
| 1   | Keene Rd.                  | Sunset Pt. Rd. to SR 580                | Reconstructed to 4D           |
| 1   | Keene Rd.                  | Druid Rd. to Gulf-To-Bay Blvd.          | Reconstructed to 4D           |
| 1   | Keene Rd.                  | Gulf-To-Bay Blvd. to Sunset Pt. Rd.     | New construction – 4D/6D      |
| 183 | Gulf Blvd.                 | Walsingham Rd. to Clearwater Pass       | Reconstructed to 2D           |
| 202 | 54 <sup>th</sup> Avenue N. | 66 <sup>th</sup> St. to Park St.        | Reconstructed to 4D           |
| 296 | 102nd Ave. N.              | Seminole Blvd. To Starkey Rd.           | Reconstructed to 4D/6D        |
| 296 | 118th Ave. N.              | US 19 to I-275                          | Reconstructed to 6D           |
| 296 | Bryan Dairy Rd.            | 66th St. to US 19                       | New Construct - 6P            |
| 296 | Bryan Dairy Rd.            | Starkey to 66th St.                     | Reconstructed to 4D           |
| 501 | Belcher Rd.                | Curlew Rd. to Alderman Rd.              | Reconstructed to 4D           |
| 501 | Belcher Rd.                | 54th Ave. to Park Blvd.                 | Reconstructed to 4D           |
| 528 | Drew St.                   | NE Coachman Rd. to McMullen-Booth Rd.   | Reconstructed to 4D           |
| 576 | Sunset Point Rd.           | Keene Rd. to McMullen-Booth Rd.         | Reconstructed to 4D           |
| 611 | 49th Street                | US 19 to Roosevelt Blvd.                | Reconstructed to 6D           |
| 611 | Bayside Bridge             | Roosevelt Blvd. to Gulf-To-Bay Blvd.    | New 6D Bridge Construction    |
| 611 | East Lake Road             | Tarpon Woods Blvd. to Pasco County Line | Reconstructed to 4D           |
| 611 | McMullen-Booth Rd.         | Curlew Rd. to Gulf-To-Bay Blvd.         | Reconstructed to 6D           |
| 667 | Forest Lakes Dr.           | SR 584 to Hills./Pinellas Co. Line      | New construction – 2D/4D      |
| 667 | Forest Lakes Dr.           | SR 584 to SR 580                        | Reconstructed 2D              |
| 752 | Tampa Road                 | US 19 to Curlew Rd.                     | Reconstructed to 6D           |
| 816 | Alderman Rd                | Alt. US Hwy 19 to US Hwy 19             | Reconstructed to 4D           |

| <b>County Roads</b> |                      |  |                                      |
|---------------------|----------------------|--|--------------------------------------|
| <b>No.</b>          | <b>Street</b>        | <b>Project Segment</b>                                       | <b>Improvement*</b>                  |
| 880                 | Klosterman Rd.       | Alt. US Hwy 19 to US Hwy 19                                  | Reconstructed to 4D                  |
| <b>State Roads</b>  |                      |  |                                      |
| <b>No.</b>          | <b>Street</b>        | <b>Project Segment</b>                                       | <b>Improvement*</b>                  |
|                     | I-275                | Gandy Blvd. to Big Island Gap (east of 4 <sup>th</sup> St.)  | Reconstructed to 8F                  |
| 55                  | US Hwy 19            | Tarpon Ave. to Pasco/Pinellas CL                             | Reconstructed to 6D                  |
| 55                  | US Hwy 19            | South of Countryside Blvd. to north of SR 580                | Reconstructed to 6P                  |
| 55                  | US Hwy 19            | North of E. Bay Dr. to 126 <sup>th</sup> Ave                 | Reconstructed to 6P                  |
| 55                  | US Hwy 19            | North of SR 580 to Tarpon Ave.                               | Add outside lanes.<br>Expanded to 8D |
| 55                  | US Hwy 19            | North of Gulf-To-Bay Blvd. to north of Drew St.              | Reconstructed to 6P                  |
| 60                  | Gulf-To-Bay Blvd.    | US Hwy 19 to Bayshore Blvd.                                  | Reconstructed to 6D                  |
| 580                 | SR 580               | East of Countryside Blvd. to east approach at Oldsmar Bridge | Reconstructed to 6D                  |
| 580                 | SR 580               | Tampa Rd. to Race Track Rd.                                  | Reconstructed to 8D                  |
| 580                 | SR 580/Skinner Rd.   | Alt. US 19 to Pinehurst Rd.                                  | Reconstructed to 4D                  |
| 584                 | Tampa Rd.            | SR 580 to Curlew Rd.   | Reconstructed to 6D                  |
| 586                 | Curlew Rd.           | US Hwy 19 to CR 1  | Reconstructed to 4D                  |
| 686                 | Bay Dr.              | 49 <sup>th</sup> St. to Missouri Ave.                        | Reconstructed to 6D                  |
| 693                 | 66 <sup>th</sup> St. | Bryan Dairy Rd. to Ulmerton Rd.                              | Reconstructed to 6D                  |
| 699                 | Blind Pass Rd.       | 75 <sup>th</sup> Ave. to Gulf Blvd.                          | Reconstructed to 4D                  |

\*Indicates number of lanes/road type (D = divided; P = partially controlled access; F = freeway)

### **Existing Level of Service**

The level of service (LOS) data contained in Table 1-1 reflects peak hour traffic conditions existing in 2006 on roads operating below the County's adopted LOS standard. Approximately 24 percent (584 lane miles) of the major road network in 2006 performed at peak hour LOS E or F or a volume to capacity (v/c) ratio of 0.9 (i.e., volume consuming 90 percent of road capacity) or higher. Pinellas County's LOS standard for roads is LOS C/D average daily/peak hour and v/c ratio 0.9. The 584 deficient lane miles is six miles less than 2005 and eight miles less than the 2004 total. It should be noted that these maps identify LOS conditions for major municipal facilities as well County and State roads.

The road segments listed in Table 1-1 are noted as constrained or are identified for improvements. The constrained facilities are precluded from undergoing improvements necessary to raise the LOS to an acceptable grade because of physical or policy constraints. Road segments identified for capacity improvements are backlogged facilities, meaning the scheduled or planned improvements are necessary to alleviate the deficient LOS conditions. These improvements may be scheduled in a work program or planned in the Metropolitan Planning Organization (MPO) Long Range Transportation Plan.

## **Work Program Improvements**

Scheduled road improvement projects on County jurisdictional facilities shown in Figure 1-4 and described in Table 1-2 are included in the 2007/08 six-year Capital Improvement Program (CIP) and the Capital Improvements Element (CIE). State jurisdictional road projects depicted in Figure 1-4 and Table 1-2 are identified in FDOT's FY 2008/09 Tentative Work Program and the Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP). In addition to alleviating existing LOS deficiencies, the County projects are focused on major north-south and east-west corridors, such as County Road 296 and County Road 1 (Keene Road/Starkey Road/Park Street). These projects are intended to relieve traffic demand on the more heavily traveled parallel State roads such as US Highway 19 and Ulmerton Road. This approach of providing "parallel relief" to the State roads has been a long-standing policy of the County's road building program since the adoption of the Comprehensive Plan in 1989. Should the implementation of the projects occur as scheduled, the horizon year of the current CIE/CIP will represent a major milestone for the County's road building program as all of the remaining parallel relief projects will be completed or underway. Major capacity projects in the CIP/CIE are listed below.

- Bryan Dairy Road (County Road 296), reconstruction to six lanes from Starkey Road to 72<sup>nd</sup> Street.
- Starkey Road (County Road 1), reconstruction to six lanes from East Bay Drive to 84<sup>th</sup> Lane.
- Sunset Point Road (County Road 576), reconstruction to a two-lane enhanced facility from Alternate US Highway 19 to Douglas Avenue, a two lane divided facility from Douglas Avenue to Highland Avenue and a four-lane divided facility from Highland Avenue to Keene Road.
- Park Street (County Road 1), reconstruction to six lanes from 84<sup>th</sup> Lane to Tyrone Boulevard.
- Keystone Road (County Road 582), reconstruction to a four-lane facility from US Highway 19 to East Lake Road.

Regarding State projects, a top priority of FDOT, the MPO and Pinellas County has been the conversion of US Highway 19 to a partially controlled access facility in its entirety from Gandy Boulevard to the Pasco/Pinellas County Line. A major milestone in this effort will be realized by 2010 when all the partially controlled access improvements planned for the facility that aren't already in place between 49<sup>th</sup> Street and Countryside Boulevard will have begun construction. Partially controlled access improvements are also planned for the segments north of State Road 580 up through Tarpon Avenue, but none of them are earmarked for construction funding.

The FDOT Five-Year Work Program includes five scheduled capacity improvements and one planned improvement expanding Ulmerton Road to a six lane facility from east of 119<sup>th</sup> Street to Interstate-275. Upon completion of the current scheduled and planned reconstruction of Ulmerton Road, it will be a six-lane facility, in its entirety, from Indian Rocks Road to Interstate-275.

## **2025 Level of Service**

Figure 1-5 provides a forecast of LOS conditions on the County's major road network in 2025. The LOS grades shown on the map are derived from data produced by the Tampa Bay Regional Planning Model (TBRPM), which is based on future land use, population, employment and school enrollment data. The model simulates future travel conditions on the 2025 road network, including scheduled and planned capacity improvements based on this data. These planned improvements exclude those identified in Table 1-3 as unfunded. Approximately 43 percent (1,045 lane miles) of the major road network is projected to operate at peak hour LOS E or F or a v/c ratio of 0.9 or greater in 2025, a 79 percent increase over the deficient lane miles reported for 2005. As discussed later in this Chapter, growth in average daily volumes on the County's major roads since 1990 has not been significant with the exception of the inter-County facilities. Therefore, it is anticipated that the 79 percent increase in deficient lane miles projected for 2025 will be concentrated on roads such as US Highway 19, the Bay area bridges, State Road 580 and East Lake Road.

## **Planned Road Improvements 2013-2025**

Figure 1-5 shows the road improvements scheduled for construction between 2013 and 2025. These improvements are also listed in Table 1-3. Most of these projects were identified in the 2025 MPO Long Range Transportation Plan that was adopted in 2004. Listed below are projects that were modified or eliminated from the County's scheduled/planned road projects. The MPO approved amendments to the Long Range Transportation Plan in February, 2008 that reflect these changes.

- 28<sup>th</sup> Street North, 38<sup>th</sup> Avenue North to 62<sup>nd</sup> Avenue North, reconstruction from a two lane undivided to a two lane divided facility, has been removed from the Pinellas County CIP.
- 54<sup>th</sup> Avenue North, from Haines Road to 44<sup>th</sup> Street, reconstruction from a four lane undivided road to a four lane divided road, has been removed from the CIP.
- 58<sup>th</sup> Street North, from 38<sup>th</sup> Avenue North to 70<sup>th</sup> Avenue North, reconstruction from two lane undivided to two and four lane divided, has been removed as a planned project.
- Lakeview Road, from Keene Road to Hercules Avenue, reconstruction to two lane enhanced has been removed as a planned project.
- Sunset Point Road is currently shown in the MPO Plan as planned for improvement from a two lane undivided road to a two-lane enhanced facility. This project was modified and added to the FY 2007/08 CIP. The modifications include reconstruction to a two-lane divided facility from Douglas Avenue to Highland Avenue and a four-lane divided facility from Highland Avenue to Keene Road.

Improvements to 142<sup>nd</sup> Avenue, 16<sup>th</sup> Avenue Southeast and 126<sup>th</sup> Avenue are examples of projects intended to draw local traffic from Ulmerton Road to these planned parallel facilities. Improvements to Keystone Road, Sunset Point Road and Indian Rocks Road are examples of projects proposed for enhancement. In contrast to the County projects planned for 2013 to 2025, the FDOT Work Program continues to address capacity needs on the major corridors providing for cross county and inter-county travel, particularly within mid-County. These projects include construction of the 118<sup>th</sup> Avenue Expressway and the expansion of Gandy Boulevard, Roosevelt Boulevard and the construction/expansion of State Road 686 (Roosevelt Boulevard/County Road 296 connector).

Pinellas County committed \$70 million of Penny for Pinellas revenue to the 118<sup>th</sup> Avenue project, which is currently estimated at \$200 million. This project was recently elevated on the MPO Project Priority list for Surface Transportation Program funding as Pinellas County is actively pursuing the acceleration of this project as well as the State's Roosevelt Boulevard/County Road 296 Connector project.

The construction/expansion of State Road 686 (Roosevelt Boulevard/County 296 Connector) partially controlled access facility, involves several projects. The reconstruction of Roosevelt Boulevard from a four-lane road between 49<sup>th</sup> Street and Ulmerton Road is planned for construction by 2025. The planned construction of a new road extending Roosevelt Boulevard south from Ulmerton Road to east of 40<sup>th</sup> Street is also planned for construction by 2025. Projects extending the planned facility from east of 40<sup>th</sup> Street to Interstate-275 are currently scheduled in the FDOT Work Program.

### Roadway Transportation Trends in Pinellas County

With the exception of the facilities serving regional travel (e.g., Tampa Bay bridges, US Highway 19, East Lake Road, etc.), traffic volume on the County's major roadways has paralleled the slowing population growth. Based on a sample of traffic volume data collected at 114 count stations around the County, the average daily traffic in Pinellas County increased by five percent from 1990 to 2000. This reflects the prevalence of redevelopment activity in Pinellas County where, rather than adding new trips to the surrounding road network, most of the traffic resulting from the projects typically replace trips that were generated by the previous use of the property.

#### *Inter-County Travel Demand*

In contrast, inter-county travel between Pinellas and its neighboring counties has been increasing dramatically. Shown on the following table is a list of major roadways connecting Pinellas to Pasco, Hillsborough and Manatee Counties. Between 1990 and 2000, average daily traffic has increased no less than 16 percent on these facilities while the combined average increase on them was 30 percent. Traffic count data from 2005 is shown in Table 1B to illustrate the continuance of this trend, notwithstanding Courtney Campbell Causeway, since 2000.

**TABLE 1B**

| Road                    | Adjoining Co. | Aver. Daily Traffic |          |         | Percent Increase |          |
|-------------------------|---------------|---------------------|----------|---------|------------------|----------|
|                         |               | 1990                | 2000     | 2005    | 90 to 00         | 00 to 05 |
| US Highway 19           | Pasco         | 47,180              | 54,651   | 66,500  | 16%              | 22%      |
| East Lake Road          | Pasco         | 18,745              | 27,829   | 31,529  | 48%              | 13%      |
| Courtney Campbell Cswy  | Hillsborough  | 39,509              | 55,056   | 51,000  | 39%              | -8%      |
| Howard Frankland Bridge | Hillsborough  | 93,732              | 108,489* | 130,000 | 16%              | 20%      |
| SR 580                  | Hillsborough  | 30,971              | 41,009*  | 52,500  | 32%              | 28%      |
| Gandy Bridge            | Hillsborough  | 24,942              | 29,975   | 31,500  | 20%              | 5%       |
| Skyway Bridge           | Manatee       | 23,538              | 30,561   | 44,500  | 30%              | 46%      |

\*1999 Count

## ***Interrelationship of Road Capacity and Demand<sup>7</sup>***

Although road building programs provide economic as well as mobility benefits, it is generally understood that additional road capacity generates new traffic.<sup>8</sup> Road expansion makes new trip destinations possible, increases trip frequencies due to easier access, encourages people to accept jobs further from their homes and brings additional strip commercial development which generates more vehicle trips.<sup>9</sup> In Pinellas County, this relationship has become more evident in recent years as indicated by rapid increases in traffic volumes occurring soon after the implementation of capacity improvements.

For example, the improvement of Gulf-To-Bay Boulevard from a four-lane undivided to a six-lane divided facility from US Highway 19 to Bayshore Boulevard was completed in September 1992. From 1988 to 1991, the average daily traffic count on this segment of Gulf-To-Bay Boulevard was 43,600 trips. In 1993, after the improvements were in place, the number of average daily trips rose to 63,000, far exceeding the physical capacity of the road. A later example involved the Bayside Bridge which was opened in July 1993. By 1994, there were over 48,000 vehicles using this facility. Daily traffic volumes on the parallel section of US Highway 19 fell by 13,000 trips during the same year, indicating that the McMullen-Booth Road/Bayside Bridge corridor was operating effectively as a parallel reliever to US 19, as intended. However, while the number of daily trips rose on the Bayside Bridge to 50,000 in 1995 and 1996, US Highway 19 traffic volumes increased as well from 65,000 in 1994 to 68,000 and 78,000 in 1995 and 1996, respectively.

## ***Construction Costs***

With the last major update of the Transportation Element in 1998, one of the major issues affecting the State and County road building programs was the dramatic increase in the cost of right-of-way acquisition. This continues to be a formidable issue in the implementation of road construction projects. In 1998, FDOT reported that for urban road projects, the average right-of-way cost was 20 percent of the total project cost.<sup>10</sup> In 2006, right-of-way costs for FDOT projects climbed to 66 percent of the total cost.<sup>11</sup> Pinellas County's costs currently reflect the same percentage for right-of-way acquisition.

An emerging trend in recent years related to road building costs is the sharp increase in the price of materials such as steel and concrete. This has largely been the result of increased energy and fuel costs, labor shortages and hurricane rebuilding efforts in Florida and the southeastern US.<sup>12</sup> Table 1C illustrates the magnitude of these cost increases in Florida. More recent estimates in 2006/07 indicate that the increase in these costs have slowed or declined as compared to the previous year although steel and asphalt prices continue their upward turn.

In Pinellas County, the average cost to construct one-lane mile of roadway, excluding right-of-acquisition, has increased from an average of \$2.2 million in 2004 to \$2.8 million in 2007.<sup>13</sup> The combination of the extreme increases in right-of-way acquisition and construction costs have prompted closer scrutiny of the feasibility and priority of scheduled and planned County and State road improvements.

**TABLE 1C**  
***Neighborhood and Environmental Impacts***

| Materials              | Unit | 03/04    | 04/05    | Change | 05/06    | Change | 06/07<br>(July-Feb.) | Change |
|------------------------|------|----------|----------|--------|----------|--------|----------------------|--------|
| Earthwork              | CY   | \$4.73   | \$5.66   | +19.7% | \$7.93   | +40.1% | \$7.43               | -6.31% |
| Asphalt                | TN   | \$57.62  | \$68.49  | +18.9% | \$90.81  | +32.6% | \$103.58             | +14.1% |
| Structural<br>Concrete | CY   | \$546.32 | \$653.43 | +19.6% | \$892.89 | +36.7% | \$778.40             | -12.8% |
| Structural<br>Steel    | LB   | \$1.51   | \$1.34   | -11.3% | \$1.68   | +25.4% | \$2.08               | +23.8% |
| Reinforcing<br>Steel   | LB   | \$0.67   | \$0.86   | +28.4% | \$0.96   | +11.6% | \$0.95               | -1.04% |

Note: CY = cubic yard; TN = ton; LB = pound

Source: [http://www.transportation.org/meetings/2007/washbrief/Rising\\_Construction\\_Costs\\_-\\_The\\_Florida\\_Story.pdf](http://www.transportation.org/meetings/2007/washbrief/Rising_Construction_Costs_-_The_Florida_Story.pdf)

Two other issues affecting road building projects in Pinellas County that were discussed in the 1999 update of the Transportation Element concerned neighborhood intrusion and environmental impacts. Several Comprehensive Plan amendments were approved in the 1990s to modify or eliminate planned road projects where concerns were raised regarding neighborhood and/or environmental impacts. Examples of amendments prompted by concerns about environmental impacts included the deletion of the planned extension of Forest Lakes Boulevard from State Road 584 to Keystone Road and the planned connector road between Linebaugh Avenue in Hillsborough County to the planned Forest Lakes Boulevard extension in 1992 and 1993.

Examples of amendments that were supported by citizens concerned about the impact proposed road projects would have on their neighborhoods included the deletion of a planned section of County Road 1 between Alderman Road and Alternate US Highway 19 and the downsizing of the planned improvement of County Road 1 from four to two lane divided between Tampa Road and Alderman Road in 1995. The same reduction in the planned construction of a four lane facility to a two lane divided facility was approved on Belcher Road/71<sup>st</sup> Street from 54<sup>th</sup> Avenue North to 38<sup>th</sup> Avenue North in 1996. Although environmental and neighborhood impacts were not the only issues that resulted in the Board of County Commissioner's action to approve the aforementioned amendments, they were among the primary considerations.

However, with most of the major road projects identified in the 1989 Comprehensive Plan having already been implemented or scheduled in the current CIP or State Work Program, the issues of neighborhood intrusion and environmental impacts are less of an issue than they have been in prior years. As Pinellas County and FDOT turn their attention toward the remaining capacity projects such as the expansion of Ulmerton Road, US Highway 19, County Road 296 and State Road 686, cost is the foremost concern.



## **Strategic Intermodal System**

In January 2005, FDOT adopted its Strategic Intermodal System (SIS) Plan. The SIS is a statewide system of high-priority regional transportation facilities. It includes the State's largest and most significant commercial service airports, spaceport, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways and highways. Pinellas County roadways currently included in the State's SIS network are US Highway 19 from Gandy Boulevard to the Pasco/Pinellas County Line, Gandy Boulevard from US Highway 19 to the Hillsborough/Pinellas County Line and the Interstate System. Also included as emerging SIS facilities are the St. Petersburg Clearwater International Airport and State Road 686 from the Airport entrance to US Highway 19. It should also be noted that, upon completion of the 118<sup>th</sup> Avenue Expressway from US Highway 19 to east of 40<sup>th</sup> Street, County Road 296 from US Highway 19 to Interstate 275 will become part of the County's SIS and US Highway 19 from County Road 296 to Gandy Boulevard as well as Gandy Boulevard from US Highway 19 to the Hillsborough/Pinellas County Line will be removed from the SIS.

The SIS Plan recognizes these facilities as top priorities for State discretionary capacity funding and calls for 75 percent of these monies to be allocated to SIS facility projects by 2015. While this policy would support the effort to continue the implementation of improvements on US Highway 19, it could draw funds away from other State roads that are not part of the SIS where needed improvements are not currently scheduled for construction. As more State revenue shifts toward SIS facilities, planned projects on non-SIS State roads may lose needed funding support.

## **Constrained Facilities**

As Pinellas County and FDOT pursue the implementation of capacity projects on US Highway 19 and in the mid-County area, traffic volumes on some facilities where improvements were completed after 1990 are approaching saturation levels. For County roads, this trend is most evident in north Pinellas. Average daily traffic volumes on Tampa Road, which was expanded to a six lane divided road from US Highway 19 to East Lake Road, and Keene Road, a four/six lane facility constructed from Gulf-to-Bay Boulevard to Sunset Point Road, have increased to nearly 90 percent of the road's physical capacity.

County Road 611, including McMullen Booth Road and East Lake Road, gives reason for more serious concern as peak hour conditions on this corridor have degraded to LOS F. McMullen Booth Road/East Lake Road was improved to a six-lane divided facility from Gulf-to-Bay Boulevard to Brooker Creek and East Lake Road from Brooker Creek Road to Keystone Road was improved to a four-divided facility in the 1990s. McMullen Booth Road and East Lake Road are currently designated in the Comprehensive Plan as constrained facilities.

Although right-of-way is available to expand all of East Lake Road to a six-lane facility, there are no plans for such an improvement based on concerns regarding neighborhood impacts. The scheduled and planned expansion of US Highway 19 from Clearwater to Tarpon Springs to a partially controlled access road is expected to relieve a significant level of demand for McMullen Booth Road and East Lake Road. However, in the short term, Pinellas County is working with the MPO to identify and implement other solutions to reducing travel demand on the corridor as well as increasing the efficiency of its current operations.

## **Concurrency Management**

Concurrency management rules enacted in Rule 9J-5, F.A.C., provide the backbone for the State's Omnibus Growth Management Act of 1985. In 1993, Chapter 163, F.S., was amended based on the findings of the Governor-appointed Environmental Land Management Study (ELMS) Commission. The ELMS Commission recognized the adverse influence of local concurrency rules on redevelopment and infill development in urban centers. They acknowledged the "leapfrog" effect that was resulting from development being drawn to areas with lower land prices rather than to established urban areas where the needed infrastructure was already in place.

Consequently, substantial changes to Rule 9J-5, F.A.C., followed that allowed local governments more flexibility in the implementation of concurrency management by introducing new approaches, including long term concurrency management, concurrency management areas and concurrency exception areas. Landmark legislation was also introduced in 2005 that created a proportionate fair share program allowing for development projects to contribute to capital improvements as a means to meet their concurrency requirements.

The 2005 amendments also called for increased coordination of local concurrency management systems in the legislation. This prompted the MPO to develop countywide concurrency management standards through the efforts of its Technical Coordinating Committee (TCC) in May, 2006. Pinellas County and municipal staff members actively participate on MPO transportation planning programs and projects through the TCC. As a result of the TCC's efforts, the MPO approved standard data sources for determining roadway performance grades, a LOS standard for County roads that is consistent with the Pinellas County Concurrency Management System, a methodology for evaluating developer sponsored traffic impact studies and a process for identifying and designating constrained roads. In October, 2006, the Board of County Commissioners approved a resolution supporting the MPO action.

The TCC also developed model language for local proportionate fair share provisions to be used by Pinellas County's local governments. This language was approved for use by the County's local governments by the MPO in October, 2006. The language developed by the TCC was based on a model ordinance authored by the Center for Urban Transportation Research (CUTR) at the University of South Florida, published in February, 2006. The Board of County Commissioners adopted amendments to their Land Development Code, incorporating the model proportionate fair share provisions approved by the MPO, in November, 2006.

## **Level of Service Standards**

In accordance with Rule 9J-5, FAC, Pinellas County has established LOS standards for public services and facilities under the jurisdiction of the Board of County Commissioners. These adopted LOS standards are contained in the Concurrency Test Statement Section of the Pinellas County Land Development Code and in the Comprehensive Plan as goals, objectives and policies.

## **Roadways**

Excluding constrained and backlogged corridors, the County's LOS standard for State and County roads is C average daily/D peak hour and a volume-to-capacity ratio less than 0.9 (i.e., where traffic volumes consume less than 90 percent of a roadway's physical capacity). Attaining the LOS standard on State and County roads is important to meeting the goal of the Transportation Element to provide for a safe, convenient and energy efficient transportation system.

In addition, implementation of the LOS standard serves to increase mobility and to limit impacts on air quality. This LOS standard is equally important to other elements of the Comprehensive Plan as well. For example, maintaining the standard helps to ensure that the transportation system can support the planned land use patterns of the Future Land Use and Quality Communities Element/Future Land Use Map. The roadway LOS standard also supports the Coastal Management Element by ensuring that the capacity of hurricane evacuation routes will be sufficient to allow for the orderly evacuation of County residents and visitors in the event of a hurricane.

It should also be noted that the MPO recognized the County's LOS standard for all roads under County jurisdiction, including sections that are within municipal boundaries, as part of its action to approve the countywide concurrency standards in May, 2006. The LOS standard for roads is implemented through the application of the Concurrency Management System, which imposes floor area/dwelling unit restrictions on projects affecting corridors operating below the adopted LOS standard.

Pursuant to the Senate Bill 360 growth management legislation in 2005, local governments are required to implement the State's LOS standard on SIS and Florida Intrastate Highway System (FIHS) facilities and Transportation Regional Incentive Program (TRIP) funded roads. For urban areas with over 500 thousand people, such as Pinellas County, the LOS standard on these roads is peak hour LOS D.<sup>14</sup>

## **Mass Transit**

For mass transit, the LOS standard requires that the Pinellas Suncoast Transit Authority (PSTA) strive to provide transit access for all major traffic generators and attractors with no more than 30 minute headways (service frequency) in the peak hour and no more than 60 minutes in the off-peak period. The intent of this LOS standard is to increase the frequency of service in order to attract more users to the system. Increasing mass transit usage is critical to meeting the goal of the Transportation Element to reduce the incidence of single-occupant vehicles and the associated air quality impacts.

Implementation of this LOS standard also helps to increase the accessibility of citizens, particularly those who are low income and/or who do not have access to a personal automobile, to job sites, schools, shopping centers, medical appointments, etc. Implementation of this LOS standard occurs through planning strategies and operational improvements designed to optimize the efficiency and effectiveness of PSTA services.

## ***Application of Concurrency Management in Pinellas County***

Facilities operating at peak hour LOS E and F and/or a volume-to-capacity ratio of 0.9 or higher fall into one of the following categories: constrained; congestion containment; or long term concurrency management. Constrained facilities include roads that cannot be improved as necessary to alleviate deficient LOS conditions due to physical or policy limitations. Congestion containment corridors include backlogged roads that are scheduled or planned for an improvement, needed to alleviate deficient LOS conditions, after the first three years of the CIP/CIE or State Five-Year Work Program. The only long term concurrency management corridor in the County is US Highway 19.

Development projects within each of these corridors are subject to a 50 percent reduction in floor area/units allowed under the presiding zoning district. Development projects are permitted to exceed the 50 percent density/intensity maximum providing they implement transportation management plan (TMP) strategies. These strategies include, for example, intersection improvements, access management, construction of sidewalk and/or bicycle facilities and mass transit or ride-sharing incentive programs. They are designed to minimize the impacts of development on the surrounding traffic circulation system and to increase mobility within the affected corridor.

### ***US Highway 19 - Long Term Concurrency Management***

As indicated previously, US Highway 19 from Gandy Boulevard to the Pasco/Pinellas County Line is designated as an SIS. As such, it is strategically important as a high speed and high volume inter-city and inter-regional road. Approximately 23 miles in length, the SIS segment of US Highway 19 traverses through four cities as well as the unincorporated County. It is the most heavily used north-south corridor in the County and has experienced severe backlogged conditions for the past two decades.

Recognizing the deficient operating conditions and the importance of US Highway 19 to the County and the region, FDOT District 7 recommended in 1996 that the County establish a long-term concurrency management system for this facility covering a 15-year period, from 1998 to 2013. In accordance with Chapter 163, F.S., this designation allows development projects that add trips to a long term concurrency management facility to proceed without traffic mitigation requirements providing the local government commits to the implementation of a 15 year schedule of capital improvements that will allow the facility to operate at the adopted LOS standard. Until such time when the capital improvements are implemented, local governments must adopt an interim LOS standard.

For Pinellas County, an interim LOS standard of “maintain” was adopted with the long term concurrency management system on US Highway 19. This standard is based on a maximum allowable annual average daily traffic (aadt) volume that is 10 percent greater than the 1998 traffic counts published by the MPO. This LOS standard allows for development to proceed in accordance with the Pinellas County Concurrency Management System providing that the aadt of the impacted roads is less than the 10 percent threshold. Under the maintain standard, a 10 percent increase in aadt volumes is established as a measure whereby significant degradation in traffic conditions on urban roadways would occur.<sup>15</sup>

Changes to Rule 14-94, F.A.C., that followed the Senate Bill 360 amendments in 2005 eliminated the maintain LOS standard. As a result, during the process of reviewing the EAR-based amendments to the Comprehensive Plan in February, 2008, FDOT directed that Pinellas County adopt a peak hour LOS D on US Highway 19 as well as all other SIS roads pursuant to the requirements of Rule 14-94, F.A.C. This effectively eliminated the need to continue the long term concurrency management system on US Highway 19. In order to implement the peak hour LOS D standard, development projects will need to implement capacity improvements necessary to mitigate their trips or exercise their option to utilize the proportionate fair share provision in the Land Development Code which calls for them to fund a portion of a CIE capacity improvement scheduled for construction after the first three years of the work program. Following FDOT's review comments, policy 1.1.14 was added to the Transportation Element as part of the EAR-based amendments. The policy directs that the Pinellas County Land Development Code as well as the Comprehensive Plan be amended by April 1, 2009 to implement the peak hour LOS D standard and to remove the long term concurrency management designation on US Highway 19.

### ***US Highway 19 Operating Conditions***

The Countywide Existing Level of Service Map (Figure 1-3) indicates the segments within the US Highway 19 FIHS corridor that are currently operating under deficient LOS conditions. Table 1-4 provides LOS, traffic volume and volume-to-capacity (v/c) ratio information for the section of US Highway 19 designated in the Comprehensive Plan as a long term concurrency management corridor, from Klosterman Road to Whitney Road. With the exception of the segment between State Road 580 and Sunset Point Road, part of which is a partially controlled access facility, and Belleair Road to Whitney Road, this section of US Highway 19 is operating at LOS F and an existing v/c ratio that exceeds 1.0.

### ***Capital Improvement Needs***

Following the adoption of the 2010 MPO Long Range Transportation Plan in 1984, the MPO established that the portion of US Highway 19 currently designated as an SIS facility needed to be reconstructed to a partially-controlled access road in order to operate at an acceptable LOS on a long-term basis. The 2025 MPO Plan adopted in 2004 identified the needed improvements, which included interchanges at major intersections with service roads running parallel to the roadway. These improvements are included in Table 1-5, which is the US Highway 19 Long Term Schedule of Capital Improvements used in the implementation of the long term concurrency management system.

It should be noted that this Table is also included in the Capital Improvements Element (Table 16) as part of the adopted Comprehensive Plan. The improvements listed in these tables include projects that are scheduled in the State Five-Year Work Program and the MPO TIP as well as the planned improvements identified in the 2025 MPO Plan. The projects are funded primarily through various State sources (e.g., gas tax, toll revenue) and SAFETEA-LU monies.

In addition to the reconstruction projects designed to convert the facility into a partially controlled access road, operational and small-scale physical improvements have also been implemented. Some of these projects, including intersection improvements at Nebraska Avenue, Klosterman Road and Alderman Road, were prescribed in the 1998 US Highway 19 Corridor Action Plan developed by FDOT in conjunction with the MPO and Pinellas County. The recommended improvements to the Klosterman Road and Nebraska Avenue intersections were implemented in 2005 through the County's CIP. In addition, FDOT added continuous right turn lanes to the facility, from Tarpon Avenue to Republic Drive, in 2001/02 and will be closing medians at 298<sup>th</sup> Avenue, north and south of Tampa Road and at Highland Boulevard in 2007/08.

### ***Future Level of Service***

To provide a clearer picture of the future LOS of US Highway 19 as a partially-controlled access road, a detailed study was conducted by Tindale-Oliver and Associates, Inc., an MPO general planning consultant firm, in 1999. Projected travel times and speeds, as well as LOS grades, were generated for US Highway 19, between Curlew Road and the Pasco/Pinellas County Line. Because the MPO and FDOT LOS programs hold partially-controlled access roads to higher performance standards, the standard letter grade system of measuring LOS can be misleading when applied to these types of facilities. In this case, the study projected a LOS E and F for the section between Curlew and Klosterman.<sup>16</sup>

However, with interchanges and overpasses in place of at-grade intersections, driveway connections and median openings, the average speed for this section was 54 miles per hour with an average total travel time of 5.6 minutes.<sup>17</sup> In contrast, with the addition of only at-grade improvements including continuous right turn lanes implemented in 2003 and the intersection improvements identified in the Action Plan, the average speed for this section was projected at 29 miles per hour with a combined travel time of 11 minutes.<sup>18</sup>

Enhanced performance standards that measure other aspects of roadway performance such as travel speeds and travel times are necessary to more accurately reflect operating conditions on partially-controlled access facilities such as US Highway 19. Pinellas County is committed to working with the MPO to develop more detailed roadway performance data in order to more accurately depict operating conditions on facilities such as US Highway 19.

## Endnotes

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### Chapter One

1. Pinellas County Planning Department, February, 2007.
2. Ibid.
3. Ibid.
4. MPO Long Range Transportation Plan, 2004, p. 21.
5. Ibid.
6. Roadway inventory and level of service information in this section is based on the 2007 Metropolitan Planning Organization Level of Service Report.
7. Level of service data source used for this section: annual MPO Level of Service Reports, 1993 to 1997. Traffic volume data source used in this and subsequent sections: MPO Traffic Count Program.
8. P. Hall, Great Planning Disasters, (London: Weibenfeld and Nicolson, 1980), p. 66. D.R. Porter, "The Future Doesn't Work", Transportation Research News, December 1987, p. 14. Cynthia L. Hoyle, Traffic Calming, Planning Advisory Service Report 456, July 1995, p. 4.
9. Hoyle, p. 4.
10. Florida Department of Transportation, Office of Policy Planning, 2002 Transportation Costs, March, 2003, p. 11.
11. Information provided by Florida Department of Transportation District 7 Office, 2006.
12. Ananth Prasad, Rising Construction Costs – The Florida Story, Florida Department of Transportation, 2007.
13. Figure is an average of Pinellas County and FDOT cost estimates.
14. Chapter, 14-94, F.A.C., Minimum Level of Service Standards.
15. Florida Department of Transportation 2002 Quality/Level of Service Manual, p. 130.
16. Tindale-Oliver and Associates, Inc. US 19 Level of Service Analysis Technical Memorandum, September 1, 1999, p. 14.
17. Ibid.
18. Ibid.