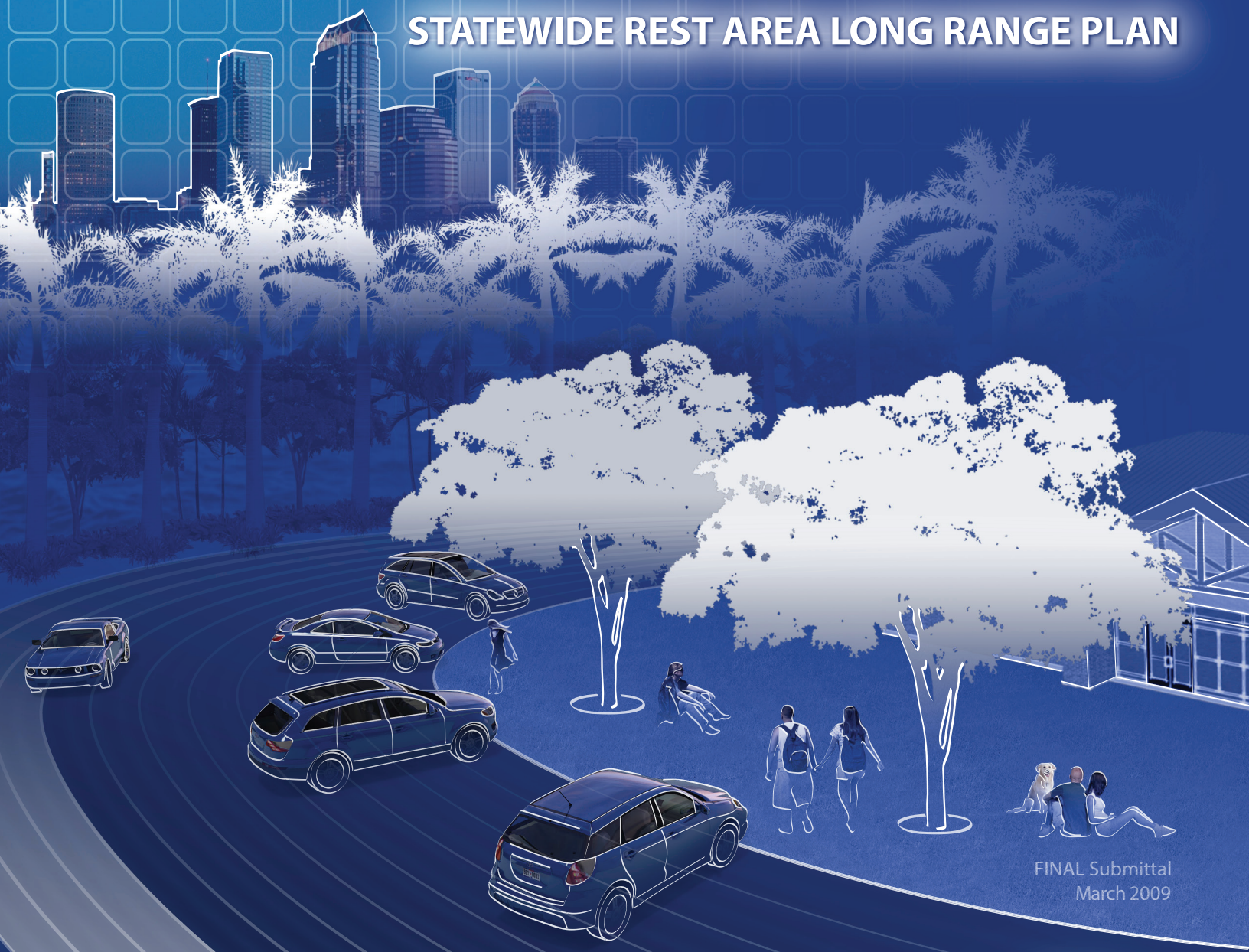
# STATEWIDE REST AREA LONG RANGE PLAN



FINAL Submittal
March 2009

## Florida Department of Transportation

Central Office GEC
Contract C8074
FPID: 190258-1-32-37
Task Work Order #5

JACOBS™

# TOC Table of Contents

## List of Tables

## List of Figures

# Abbreviations

| | |
|---|---|
| AADT | Annual Average Daily Traffic |
| AASHTO | American Association of State Highway and Transportation Officials |
| ADA | Americans with Disabilities Act of 1991 |
| ANSI | American National Standards Institute |
| CABO | Council of American Building Officials |
| CEQ | Council on Environmental Quality |
| CFR | Code of Federal Regulations |
| DHS | Department of Homeland Security |
| DOT | Department of Transportation |
| FDOT | Florida Department of Transportation |
| FEMA | Federal Emergency Management Agency |
| FHWA | Federal Highway Administration |
| FLAUSA | Visit Florida, Inc. |
| FAC | Florida Administrative Code |
| FTP | Florida Transportation Plan |
| GPS | Global Positioning Systems |
| IM | Interstate Maintenance |
| ITS | Intelligent Transportation Systems |
| MdTA | Maryland Transportation Authority |
| MISA | Motorist Information and Services Association |
| NEPA | National Environmental Policy Act of 1969 |
| NHS | National Highway System |
| NHTSA | National Highway Transportation Safety Administration |
| NHTS | National Household Travel Survey |
| NIMBY | Not in my backyard |
| NIOSH | National Institute of Occupational Safety and Health |
| OOM | Office of Maintenance |
| O&M | Operations and Maintenance |
| PPP | Public-Private Partnerships |
| RV | Recreational Vehicle |
| SAFETEA-LU | Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users |
| Sea-Tac | Port of Seattle |
| SIS | Florida's Strategic Intermodal System |
| SRA | Safety Rest Area |
| STIP | State Transportation Improvement Program |
| STP | Surface Transportation Program |
| TDD/TTY | Text telephones |
| TE | Transportation Enhancement |
| TRIP | A national transportation research group |
| TxDOT | Texas Department of Transportation |
| UA | Urbanized Area |
| UC | Urban Cluster |
| USC | United States Code |
| USDOT | United States Department of Transportation |
| VII | Vehicle Infrastructure Integration |
| WSDOT | Washington State Department of Transportation |
| 2005 RAAS | 2005 Florida Department of Transportation Rest Area Assessment Study |

# ES Executive Summary



This study provides a statewide long-range plan for rest area facilities for the Florida Department of Transportation (FDOT). FDOT is headquartered in Tallahassee, has seven districts, and employs over 7,450 employees statewide. Oversight is provided by the Florida Transportation Commission.

## ES.1 Project Purpose and Scope

The purpose of this project is to reevaluate the overall goals and priorities for the Florida Rest Area Program and recommend a Long-Range Plan for comprehensively addressing the whole system.

The scope of this study supports the following purposes:

- An investigation into the state-of-the-art practices for rest area facilities and services
- A determination of the capability of Florida rest areas to serve projected needs of travelers
- Recommendations for a plan for future rest area improvements

## ES.2 Project Goals & Objectives

The goal of this project is to ***develop a Statewide Rest Area Long-Range Plan to meet the future needs of the traveling public***.

The planning objectives developed in support of the project goal are as follows:

**Objective 1.1**: Prepare existing trend and alternative benchmarks for determining future needs of rest area users, including commercial truck traffic, to assess the adequacy of the rest area system.

**Objective 1.2**: Prepare existing trend and alternative benchmarks for evaluating availability, number, and location of rest areas over a 20-25 year horizon.

**Objective 1.3**: Prepare near and long-term recommendations to address known and potential funding mechanisms for rest area development and maintenance, including user fees and PPP's.

**Objective 1.4**: Evaluate advanced technology and ITS applications for rest areas and welcome centers.

**Objective 1.5**: Evaluate public safety, security, and emergency management aspects related to rest area and welcome center usage.

**Objective 1.6**: Prepare a policy level set of recommendations for the Department to integrate with other statewide modal and related plans.

**Objective 1.7**: Prepare a series of scenario-based conditions for the future of rest areas in Florida, considering federal and state regulations.

**Objective 1.8**: Develop a summary-style plan, which presents the challenges and opportunities for the state's rest area program and provides the Department with alternatives for future policy and priority changes.

# ES.3 Study Area Overview

This project encompasses the entire state of Florida and is focused on interstates I-10, I-75, I-95 and I-4. In addition to the 52 safety rest areas and three welcome centers that FDOT operates on the Florida interstate system, the Department operates one non-interstate welcome center on U.S. 231 in Jackson County #2 and one non-interstate rest area on U.S. 27 in Taylor County #15.

Table ES-1 illustrates the distribution of rest areas throughout the state, and Figure ES-1 illustrates the physical site locations.

**Figure ES-1: Florida Rest Area Locations Map**


**Table ES-1: Florida Rest Area Locations Chart**

| | Rest Area | | | | | | Welcome Center | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| District | I-10 | I-75 | I-275 | I-95 | US 27 | I-4 | I-10 | I-75 | I-95 | US 231 | I-4 |
| 1 | | 3 | 1 | | | 2 | | | | | |
| 2 | 6 | 4 | | 4 | 1 | | | 1 | 1 | | |
| 3 | 12 | | | | | | 1 | | | 1 | |
| 4 | | 1 | | 4 | | | | | | | |
| 5 | | 4 | | 4 | | 2 | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | 4 | 1 | | | | | | | | |
| Sub-Totals | 18 | 16 | 2 | 12 | 1 | 4 | 1 | 1 | 1 | 1 | 0 |
| TOTALS | 53 | | | | | | 4 | | | | |

## ES.4 Benchmarking

One of the three main purposes of this long-range plan was to investigate state-of-the-art practices for rest area facilities and services.

Several key sources were evaluated to assist in developing the benchmarks:

- Research of peer states (programs and procedures)
- Personal interviews of key staff within those peer states
- Site visits of facilities in the peer states
- Attendance at the 2008 National Rest Area Conference

## ES.5 Future Considerations

The current and emerging benchmarks provided key elements to consider in developing the future scenarios for the rest area long-range plan.

Benchmark considerations were evaluated and vetted against the following topics:

- Rest Area System Adequacy
- Rest Area Facilities Availability
- PPP's
- ITS Opportunities
- Emergency Operations Facilities and Services

**Table ES-2: Rest Area Elements Emphasized in Peer States**

| Facilities / Operations Element | MD | TX | WA [2] | FL |
|---|---|---|---|---|
| Historical/Cultural | * | * | * | * |
| Regional Vernacular (bldg) | * | * | * | * |
| Family Restrooms | * | * | * | * |
| Playgrounds | * | * | | |
| Truck Parking | * | * | * | * |
| Wi-Fi Internet Connections | *[1] | * | | |
| Private Sector Maintenance | | * | | * |

1 – Maryland is initiating Wi-Fi in many new facilities, but is not implementing it system-wide

2 – Washington is completing a strategic plan for its safety rest area program in Fall 2008.

Table ES-2: Rest Area Elements Emphasized in Peer States presents rest area elements that are currently emphasized in rest area/welcome center development in several states.

Table ES-3: Rest Area Emerging Trends presents several rest area elements that multiple states are developing or considering. These trends are considered in the near-term improvements for Florida's rest areas. They also provide some insight for the direction the state's rest areas should take in the long-term ( greater than ten years).

Lastly, future considerations for the development of the long-range plan include some basic and traditional rest area planning parameters, as well as additional non-traditional considerations.

Traditional Rest Area Parameters

- Traffic volume based needs assessments (calculations)
- Truck traffic volume needs assessments (calculations)
- 60-mile spacing of rest areas
- Basic services (restrooms, parking, information)

Non-traditional rest area parameters

- Advanced technology applications (beyond Wi-Fi)
- Special commercial truck applications (truck-only lanes, PPP)
- Congestion management application to rest areas

**Table ES-3: Rest Area Emerging Trends**

| Emerging Trends | MD | TX | WA | FL |
|---|---|---|---|---|
| **Technology** | | | | |
| Wi-Fi Communications | * | * | * | |
| Information Kiosks | * | * | * | * |
| ITS Applications | | * | | * |
| **Commercial Vehicles** | | | | |
| Expanded Parking | * | * | * | * |
| Idle Emissions Reduction | | | | |
| Truck Only Rest Areas | * | * | | * |
| Public / Private Partnerships | | * | * | * |
| **Length of Stay Extension** | | | | |
| Cultural / Arts Exhibits | * | * | * | * |
| Playgrounds / Exercise | * | * | | |
| Tourist Information | * | | * | * |

## ES.6 Program Concepts

Several program concepts were outlined to assist in predicting how economic, environmental, and technological changes will impact the long-range plan. They included:

- Integration of "sustainable" planning and design principles
- Utilization of Advance technology (ITS, VII vehicles, idling trucks)
- Promotion of tourism
- Recognition of local, vernacular exhibits and history
- Integration of commercial food service / fuel sales
- Creation of a sense of destination
- Integration of multimedia/information systems

## ES.7 Program Scenario Development

The Florida Department of Transportation embarked on this 2008 Rest Area Long-Range Plan with a general open book approach. In other words, the objectives for the plan were not predicated on a particular outcome such as expanding or contracting the rest area program or addressing budget constraints as a prerequisite.

Therefore, rather than providing the Department with a single recommended direction for the rest area system, this plan has presented three scenarios that contain recommendations for how to modify current procedures and policies to better address ongoing and potential future conditions at Florida's rest areas.

Figure ES-2 illustrates the methodology employed to develop the program scenarios. Essentially, three program benchmarks were identified which created their individual set of program recommendations. The program recommendations provided the foundation for the program scenario development which yielded three distinct courses of action; a basic service, modified service and enhanced service scenario.

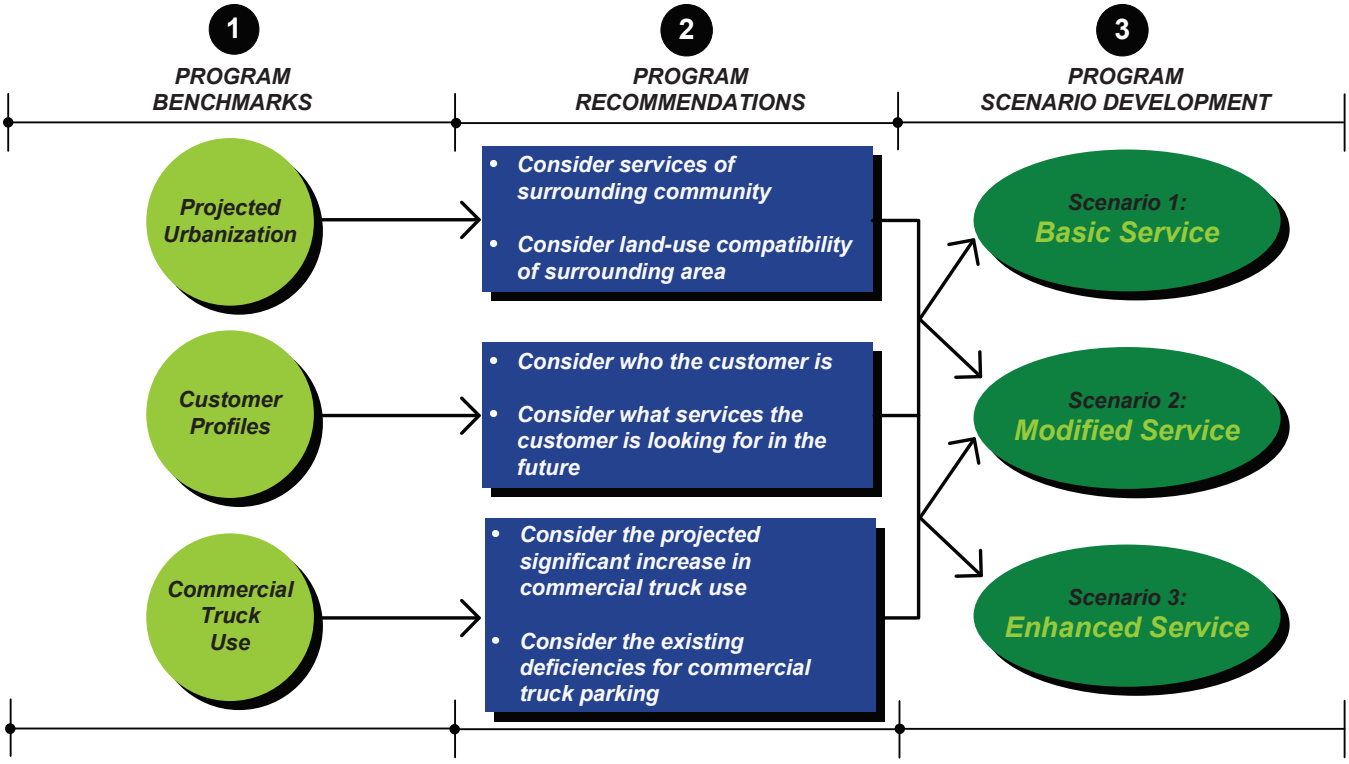



**Figure ES-2: Overview of Program Scenario Development**

## Scenario 1: Basic Service

### Business Strategy

The Basic Service alternative will affect rest areas in all classifications. The premise of this strategy is that the current rest area system is sufficient to adequately meet the needs of its customers. Thus, Scenario 1 provides for a status quo approach, current facilities are maintained with the same amenities. Current federal and state regulations do not require any changes in Scenario 1 rest areas.

**Table ES-4: Scenario 1 Overview**

| Scenario 1: *BASIC SERVICE* | Large Urbanized Areas | Small Urbanized Areas | Rural Areas | Total |
|---|---|---|---|---|
| Current | 4 | 16 | 37 | 57 |
| Future Changes | No Change | No Change | No Change | No Change |

## Scenario 2: Modified Service

### Business Strategy

The Modified Service scenario will shift the focus from maintaining the current rest area system in each population density category to a focus on maintaining facilities only in small urban areas and rural areas. The premise of this strategy is that rest areas in the large urban areas are not utilized at the same level as those in smaller urban areas and rural areas, and therefore, may be eliminated. Travelers may opt to stop at readily available local convenience stores for gas or food, instead of using the rest area facilities. Benchmarking peer state Texas is currently using this strategy; TxDOT considers closing some rest areas near urban areas within 60 minutes drive time of a major metropolitan area.

Also, this strategy does not appear to be a new concept for the Florida rest area system. FDOT does not maintain any rest area or welcome facilities anywhere in the Miami metro area. Facilities in or near Tampa, Orlando, Sarasota, and Jacksonville could be determined to be unnecessary and used for other purposes.

Several options are possible if rest areas in the larger urban areas are determined to be no longer needed. First, the facilities and land could be sold, which would generate revenue that could be reinvested into the remaining facilities. Alternatively, the facilities could be converted to truck-only facilities, perhaps sponsored by a third party other than FDOT.

Scenario 2 is not affected by current federal or state regulations, and so it does not involve any changes in amenities offered at Florida's rest areas. However, FDOT would need to address refunds to FHWA and/or private operations within the limited access right-of-way.

**Table ES-5: Scenario 2 Overview**

| Scenario 2: *MODIFIED SERVICE* | Large Urbanized Areas | Small Urbanized Areas | Rural Areas | Total |
|---|---|---|---|---|
| Current | 4 | 16 | 37 | 57 |
| 2040 Rest Area Sites | 16 | 20 | 21 | 57 |
| Future Changes | Close or Re-Use | No Change | No Change | 41-57 |

# Scenario 3: Enhanced Service

## Business Strategy

Enhanced Service involves providing improved facility amenities equivalent to those offered at a full-service travel plaza. This scenario switches the focus of the rest area system to locate facilities only in rural areas or key strategic areas and to change the facility template to offer more services. This strategy could only be implemented if the federal and state rules referenced in Section 2.7 are modified to allow commercialization of rest areas or public rights-of-way.

The current rest area locations are sited based on mileage spacing and population. Many rest area facilities appear to be located on the "outskirts" of metropolitan areas and are spaced at 45-minute intervals in rural areas. This scenario shifts the focus to address why the traveling public or customers may want to stop at rural travel plazas and to what services will attract them to stop.

Leisure travelers are anticipated to stop every few hours for rest breaks, food, gas, or tourist information available. Thus, having more food available, gas, and tourist information at the travel plazas would be important to them. Partnering with many of Florida's attractions could also be attractive. For example, many families choosing to drive down I-95 would find the Jacksonville area a convenient stop with two hours remaining on their drive to visit the theme parks in the Orlando area. Perhaps having a partnership with Disney, Universal, and others to sell tickets or to provide more information would be beneficial. This partnering strategy could also be applied to a rest area at the I-10/1-75 interchange for attractions in the Tampa Bay area.

Business travelers in Florida could view the rural travel plazas as an extension of their mobile office. Thus, providing Wi-Fi and private areas for a conference call with electricity would offer business travelers a convenient stop. This practice is currently being implemented in Iowa, which offers Wi-Fi. Additionally, Iowa DOT employees use the available Wi-Fi connection to increase their productivity and interaction when they are outside their traditional office spaces.

The surrounding communities could also use a comfortable mobile office and/or conferencing space in the service plazas. Service organizations could use them for monthly or weekly meetings. State agencies could use these facilities as meeting areas to reduce travel expenses, if having employees meet at a midway location would eliminate the need for an overnight stay. Benchmarking peer state Maryland is treating portions of its rest area locations as civic space, which can be rented out for a variety of local events, such as conferences or weddings.

More information about the benefits and business case aspects of offering Wi-Fi at rest areas is presented on Benchmarking partner Washington's website. http://www.wsdot.wa.gov/partners/nsrac2008/PDFs/A1_6-Internet.pdf Several options for funding are presented, as well as how Wi-Fi can be used to increase customer satisfaction and safety.

Commercial drivers frequent commercial travel plazas. Such offerings as showers, ample truck parking, and 24-hour restaurants are common. The amenities offered at these private-sector businesses could be mirrored at rural Scenario 3 interstate travel plazas. Interstate travel plazas should be located to avoid adversely affecting existing, private-sector travel plazas.

**Table ES-6: Scenario 3 Overview**

| Scenario 3: *ENHANCED SERVICE* | Large Urbanized Areas | Small Urbanized Areas | Rural Areas | Total |
|---|---|---|---|---|
| Current | 4 | 16 | 37 | 57 |
| 2040 Rest Area Sites | 16 | 20 | 21 | 57 |
| Future Changes | Close or Re-Use | No Change | Add Travel Plazas | 41-57; plus any additional travel plazas |

# 1 Introduction



This study provides a statewide long-range plan for rest area facilities for the Florida Department of Transportation (FDOT). FDOT is headquartered in Tallahassee, has seven districts, and employs over 7,450 employees statewide. Oversight is provided by the Florida Transportation Commission.

FDOT's mission is to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities. The vision for the Department is to serve the people of Florida by delivering a transportation system that is fatality and congestion free. FDOT values the fundamental principles that guide the behavior and actions of its employees and the organization.

FDOT is responsible for an extensive transportation system, consisting of 41,000 lane miles, 6,381 bridges, 29 fixed-route transit systems, 14 seaports, and 2,707 railway miles. The Department currently manages four welcome centers, 53 rest areas, and 16 truck comfort stations.

## 1.0 Safety and Rest Areas

Increased safety for the traveling public is the primary purpose of the rest area system. According to the American Association of State Highway and Transportation Officials (AASHTO's) Guide for Development of Rest Areas on Major Arterials and Freeways, "The primary goal of a rest-area development program is to establish and maintain a comprehensive system responsive to safety and service needs of commercial and recreational motorists. Comprehensive, ongoing, statewide rest-area program planning allows agencies effective management of their development, operation, and rehabilitation needs."

A 2003 publication issued by the National Institute of Occupational Safety and Health (NIOSH), titled "Work-Related Roadway Crashes - Challenges and Opportunities for Prevention," states that "driver fatigue has been identified as a leading contributor to roadway crashes among workers, as well as the general population." The National Safety Council estimated in 2006 that the average cost to society of a fatal motor vehicle crash is $1,210,000.

The 2025 Florida Transportation Plan (FTP) identifies goals, objectives, and strategies to guide transportation decisions in Florida over the next 20 years. The FTP addresses how Florida's transportation system can meet the mobility needs of our growing population, help make our economy more competitive, help build great communities, and help preserve our natural environment. The FTP also addresses how to ensure that our transportation system is safe and secure in a time of heightened public concern about security.

One of the goals, and its long and short-range supporting objectives from the FTP that directly impact the Florida rest area system are:

- **Goal**: A safer and more secure transportation system for residents, businesses, and visitors.
- **Long-Range Supporting Objective:** Reduce the rates of motor vehicle, bicycle, and pedestrian fatalities and serious injuries through design techniques and the application of the "4 E's" - engineering, education, enforcement, and emergency response strategies.
- **Short-Range Supporting Objective:** Annually reduce the highway fatality rate per 100 million vehicle miles traveled to a level within five percent of the national average by 2015.

## 1.1 Project Purpose and Scope

FDOT's original goal for developing its Rest Area Program was to provide safe rest stops for Florida's motoring public. The system was planned to located rest areas a maximum of 45 minutes of traveling time apart, on the interstate system which was adhered to when the system was implemented, with few exceptions.

Many of the current facilities in the system are aging and in need of improvement to sustain the required level of service. The remaining facilities are in good repair, but are of an inadequate capacity to handle the current traffic demand.

The purpose of this project is to reevaluate the overall goals and priorities for the Florida Rest Area Program and recommend a Long-Range Plan for comprehensively addressing the whole system.

The scope of this study supports the following purposes:

- An investigation into the state-of-the-art practices for rest area facilities and services
- A determination of the capability of Florida rest areas to serve projected needs of travelers
- Recommendations for future rest area improvements

This project was conducted in two phases with a series of technical memorandums, which were submitted as components when completed. A detailed explanation of the planning process is in Section 1.2.

### 1.1.1 Key Issues

Several key issues were identified during client input sessions with FDOT. These key issues address both existing system challenges and incorporation of potential new elements to the rest areas in an effort to improve the services that are provided for the traveling public.

- Development of strategies to address truck traffic overloading and parking on interstate ramps
- Exploration of tandem truck parking and staging areas
- Potential emergency management issues, such as generators and one-way evacuation traffic
- Go beyond federal requirements for rest areas and plan to go beyond the "minimum requirements"
- Potential integration of commercial food services, private concessions, and/or fuel sales
- Integration of "sustainable" planning principles
- Advancement of technology, such as Intelligent Transportation Systems (ITS), Vehicle Infrastructure Integration (VII), and idling trucks
- Integration of multimedia and information systems
- Research into the incorporation of technology at the rest areas, such as Wi-Fi and internet connections
- Determination of travel time savings related to rest areas versus off-interstate facilities, as well as the safety of the traveler entering unfamiliar local streets, the impact on local congestion, and maneuvering, such as U-turns
- Promotion of both regional and local tourism
- Recognition of local, vernacular exhibits and history
- Creation of a sense of destination

### 1.1.2 Rest Area Functions

The overall function of the Florida rest area system is to meet the basic needs of the traveling public on Florida's interstates. A series of functions was identified during the course of this study that articulate the intention of the rest area system, namely to provide:

- Safety
- A place to rest
- Restroom facilities
- Parking facilities for personal vehicles and trucks
- A place to receive nourishment and refreshment
- An area for physical activity (exercise and play)
- Facilities for pets
- An area for communication
- Orientation and information for the traveling public
- A welcome center for local or regional interests

### 1.1.3 FDOT Study Issues Matrix

FDOT initially developed a list of issues that the Department wanted addressed in the scope of this study. This list included a wide range of components in various levels of detail, spanning high level issues, such as "distribution of rest areas" to specific maintenance and operational issues such as "hours of operation."

The list was subsequently re-evaluated in an effort to keep this study focused on providing "big picture" solutions. Table 1-1 is an FDOT-approved matrix that lists how potential issues are addressed in this study.

**Table 1-1: FDOT Rest Area Long-Range Plan: Issues List for Inclusion in Plan Document**

| Rest Area Adequacy | Yes | To Some Extent | No |
|---|---|---|---|
| Services appropriate to need | ✔ | | |
| Restrooms, Vending, Picnic Areas, Other | | ✔ | |
| Safety/Security | | ✔ | |
| CPTED-Crime Prevention Through Enviromental Design | ✔ | | |
| Security Staffing (public vs private) | | | ✔ |
| Electronic monitoring/recording (cameras, etc, local-remote) | ✔ | | |
| Service of expected quality/quantity | | | ✔ |
| Cleanliness | | | ✔ |
| Hours of service | | | ✔ |
| Facilities appropriate for services | | | ✔ |
| Type/number/location of facilities (parking spaces, restrooms, vending,etc) | | ✔ | |
| Additional services desired/expected | ✔ | | |
| Visitor information (real time/static)/WiFi/Interactive Touch Screen, etc | | ✔ | |
| Emergency/law enforcement services opportunities | | ✔ | |
| Link to mainline ITS (traffic, road work, weather, etc.) | ✔ | | |
| **Rest Area Facilities Available** | | | |
| Number of rest areas | ✔ | | |
| Too many/too few | ✔ | | |
| Distribution of rest areas | ✔ | | |
| Spacing/Gaps | ✔ | | |
| Rural/Urban proximity | ✔ | | |
| Locations/regions within Florida | | ✔ | |
| Coordination of public and private services | | | ✔ |
| Adjacency to similar private services | | | ✔ |
| Impact on local business | | ✔ | |
| **Public-Private Partnerships (PPP)** | | | |
| PPP appropriate for public rest areas | ✔ | | |
| Advantages/Disadvantages | ✔ | | |
| Which facilities/services | ✔ | | |
| Association with nearby truck stops/travel plazas | | ✔ | |
| Opportunities to "share" services | ✔ | | |
| Which services | | ✔ | |
| Federal limitations/incentives for PPP | ✔ | | |
| Product sales other than vending machines, etc. | ✔ | | |
| Services currently provided vs service opportunities | | ✔ | |
| Private interest in Public/Private Partnership | | ✔ | |
| For-profit vs not-for profit | | | ✔ |
| Business income expectations | | | ✔ |
| Local competition for similar services | | | ✔ |
| **Intelligent Transportation Systems (ITS) Opportunities** | | | |
| Coordination with "real time" traffic information | ✔ | | |
| Entry-exit monitoring/"Smart" parking services | ✔ | | |
| Coordination with truck stops/travel plazas | ✔ | | |
| **Emergency Operations Facilities & Services** | | | |
| Opportunities for weather-related evacuations | ✔ | | |
| Opportunities for emergency services operations | ✔ | | |
| Coordination with State Emergency Operations Centers | ✔ | | |

## 1.2 Planning Process

A collaborative approach was used to gather data, conduct analysis, and make informed recommendations for the future of the FDOT Rest Area Program. This strategy considered FDOT's goals and program needs balanced with the challenges and opportunities presented by the existing rest area system.

The planning process applied to this project included:

### Phase 1: Project Mission, Vision, Goals, Existing Conditions, Benchmarking, and Program Objectives

- Development of the project mission, vision, and goals, which establish the clients' aspirations for the project and set a direction for the planning process.
- An existing conditions inventory, which covers pertinent data and assumptions that are accepted as given for the project.
- A benchmarking analysis, which spanned a national conference and several peer state site visits, to develop a progressive baseline for this study that is on the cutting edge of rest area planning.
- Development of program objectives that articulate action statements derived from information gathered in the visioning, existing conditions, and benchmarking tasks.

### Phase 2: Needs Assessment, Findings, and Recommendations

- A needs assessment, based on Phase 1 findings, which determines service adequacy, future service demand, and operations and maintenance models.
- Overall findings and recommendations for the long-range plan for Florida rest areas, which are presented in a series of scenarios.

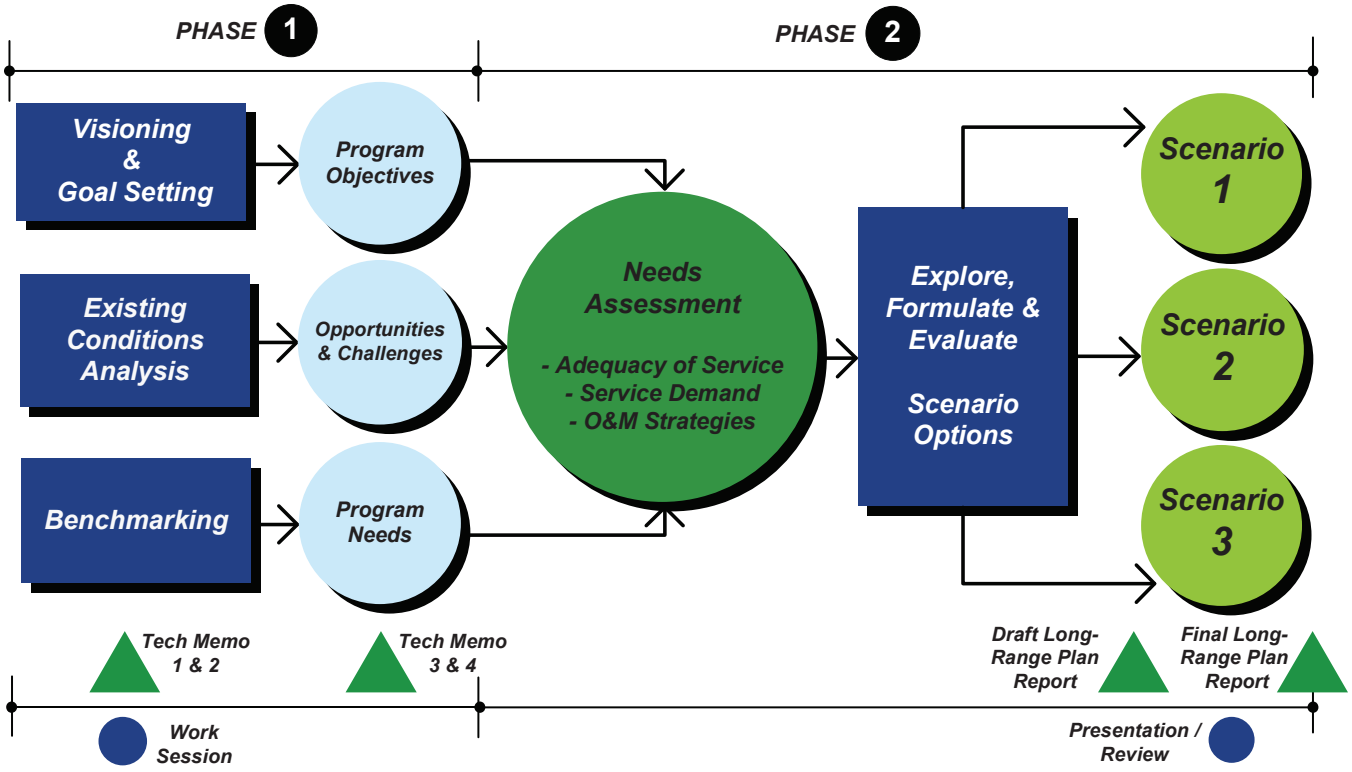



**Figure 1-1: Planning Process**

## 1.3 Project Goals & Objectives

An overall goal and specific planning objectives provide a framework for the long-range rest area plan. This goal is broad in nature, provides macro-level guidance, and transcends all components and aspects of the long-range plan.

The goal of this project is to ***develop a Statewide Rest Area Long-Range Plan to meet the future needs of the traveling public***.

As the project goal is broad in nature, the supporting objectives are more specific and detailed. They further develop the goal and make it specifically relevant to addressing the programmatic needs identified for the rest area system. The more detailed planning objectives recognize the requirements of a progressive rest area system, the changing nature of the traveling public, and the potential for incorporating state-of-the-art components into the rest area system. Each objective is addressed in varying levels of detail in this document and can be further detailed based on the overall direction FDOT determines for the rest area system.

The planning objectives developed in support of the project goal are as follows:

**Objective 1.1**: Prepare existing trend and alternative benchmarks for determining future needs of rest area users, including commercial truck traffic, to assess the adequacy of the rest area system.

- This objective is addressed in Sections 4.8 Commercial Truck Parking and 5.2 Program Benchmarks, which outline detailed improvements for updating the existing Florida rest area system and which is overviewed in this document.

**Objective 1.2**: Prepare existing trend and alternative benchmarks for evaluating availability, number, and location of rest areas over a 20-25 year horizon.

- This objective is addressed in Section 5.2 Program Benchmarks.

**Objective 1.3**: Prepare near and long-term recommendations to address known and potential funding mechanisms for rest area development and maintenance, including user fees and PPP's.

- This objective is addressed in Section 5.5 General Funding Opportunities.

**Objective 1.4**: Evaluate advanced technology and ITS applications for rest areas and welcome centers.

- This objective is addressed in Section 3 Benchmarking and Section 4.7 Future Rest Area Trends.

**Objective 1.5**: Evaluate public safety, security, and emergency management aspects related to rest area and welcome center usage.

- This objective is addressed in Section 5.5.2 Future Funding.

**Objective 1.6**: Prepare a policy level set of recommendations for the Department to integrate with other statewide modal and related plans.

- This objective is addressed in Section 5.2 Program Benchmarks and Section 5.3 Program Recommendations.

**Objective 1.7**: Prepare a series of scenario-based conditions for the future of rest areas in Florida, considering federal and state regulations.

- This objective is addressed in Section 5.4 Program Scenario Development.

**Objective 1.8**: Develop a summary-style plan, which presents the challenges and opportunities for the state's rest area program and provides the Department with alternatives for future policy and priority changes.

- This objective is addressed by this overall document.

# 2 Existing Conditions



Existing conditions describes both the physical and operational environment of the Florida rest area system that may impact future development. This section is focused on the rest area conditions as they currently exist. Later sections in this document describe the physical and operational conditions related to programmatic needs and scenario development.

An understanding of existing conditions was achieved though a review of previous planning documents, specifically the 2005 RAAS, existing available information, input from key FDOT staff, and general knowledge about the workings of the current system.


## 2.1 Project Context

This project encompasses the entire state of Florida. Figure 2-1 shows FDOT's seven districts and the district offices. The central office is located in Tallahassee.

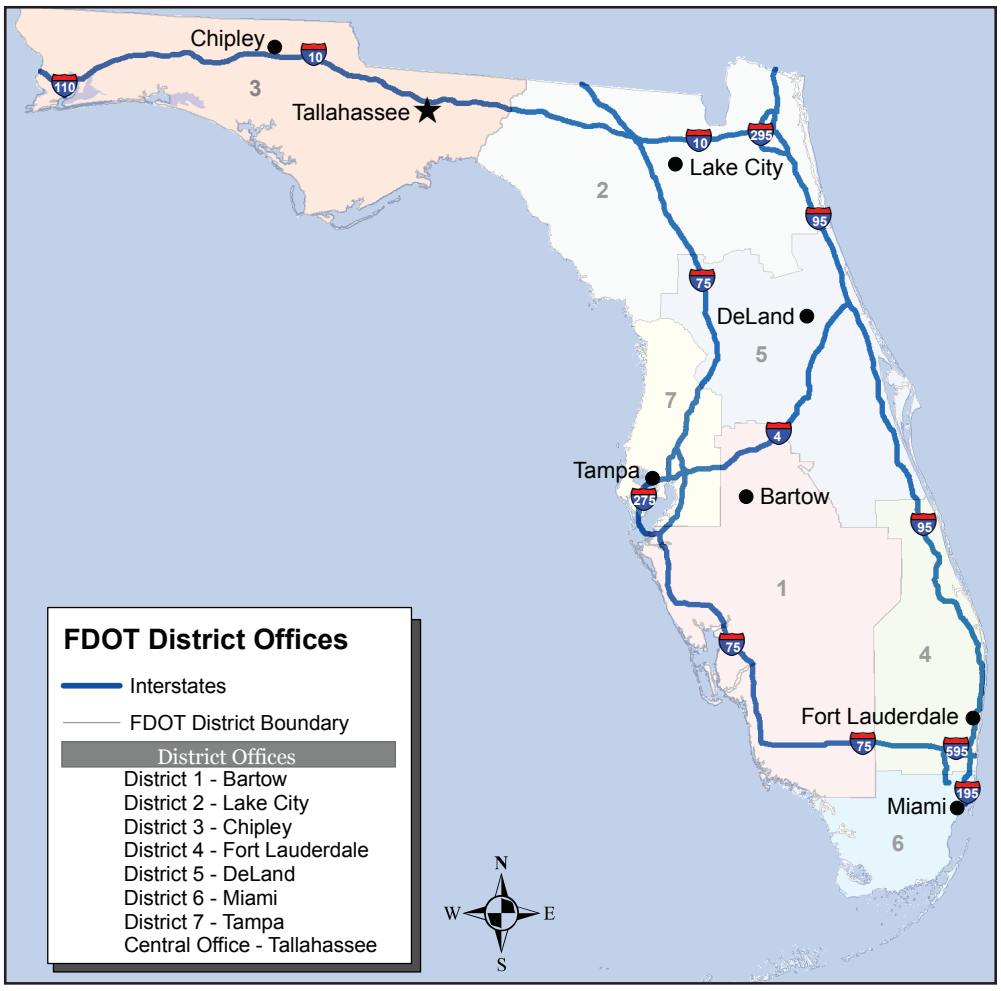



**Figure 2-1: FDOT Districts and District Office Locations**

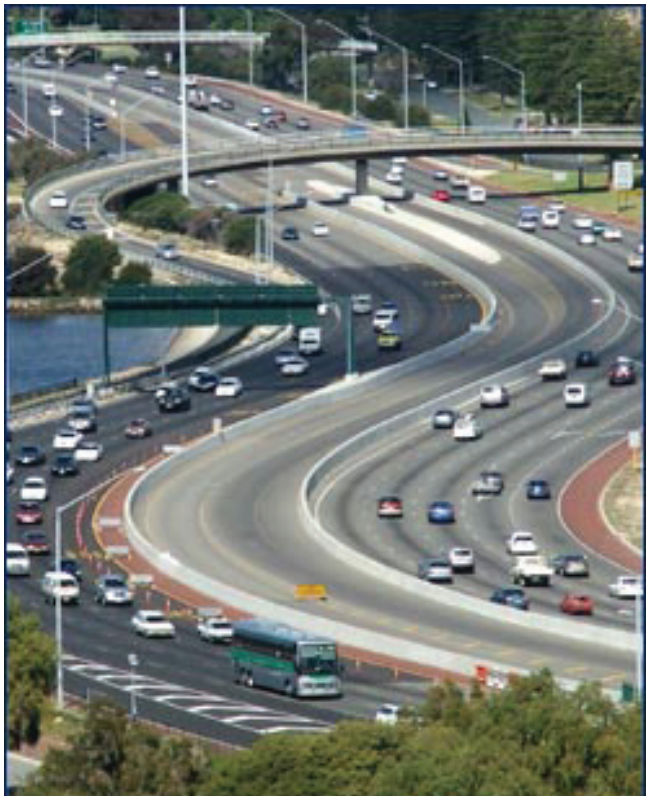
## 2.1.1 Current Interstate System

Construction of the interstate system in Florida began in 1956 and was mostly completed by 1986, according to a study that TRIP, a national transportation research group, conducted in 2006. Four major interstate routes run the length and breadth of the state, connecting major urban areas. Florida has 1,471 miles of interstates.

The Florida interstate system turned 50 years old in 2006. It has remained the most critical link in the state's transportation network, yielding Florida residents billions annually in safety benefits, saved time, reduced fuel, and lower consumer costs. The TRIP report, entitled *Saving Lives, Time and Money: A report on the condition, impact, use and future needs of Florida's Interstate Highway System,* estimates that the additional safety features of the interstate highway system have saved approximately 9,600 lives in Florida since 1956. In addition to saving lives, the interstate system's improved traffic safety saves each Florida resident $70 annually ($1.2 billion statewide) as a result of saved time and fuel.

The four major routes that comprise the Florida interstate system are:

- I-10, which runs east-west through the panhandle, extends from Alabama on the west and runs the entire northern portion of the state, connecting Pensacola, Tallahassee, and Jacksonville.
- I-75, which runs north-south, extends from Georgia on the north and runs along the western portion of the state, connecting Gainesville, Tampa, Sarasota, and Fort Myers, reaching the southern tip of Florida near Naples, where it jogs east towards Miami.
- I-95, which runs north-south, extends from the eastern coast of Georgia and runs along the eastern coast of Florida, connecting Jacksonville, Daytona Beach, West Palm Beach, Fort Lauderdale, and Miami.
- I-4, which runs east-west through the central portion of the state, connects Tampa, Orlando, and Daytona Beach.



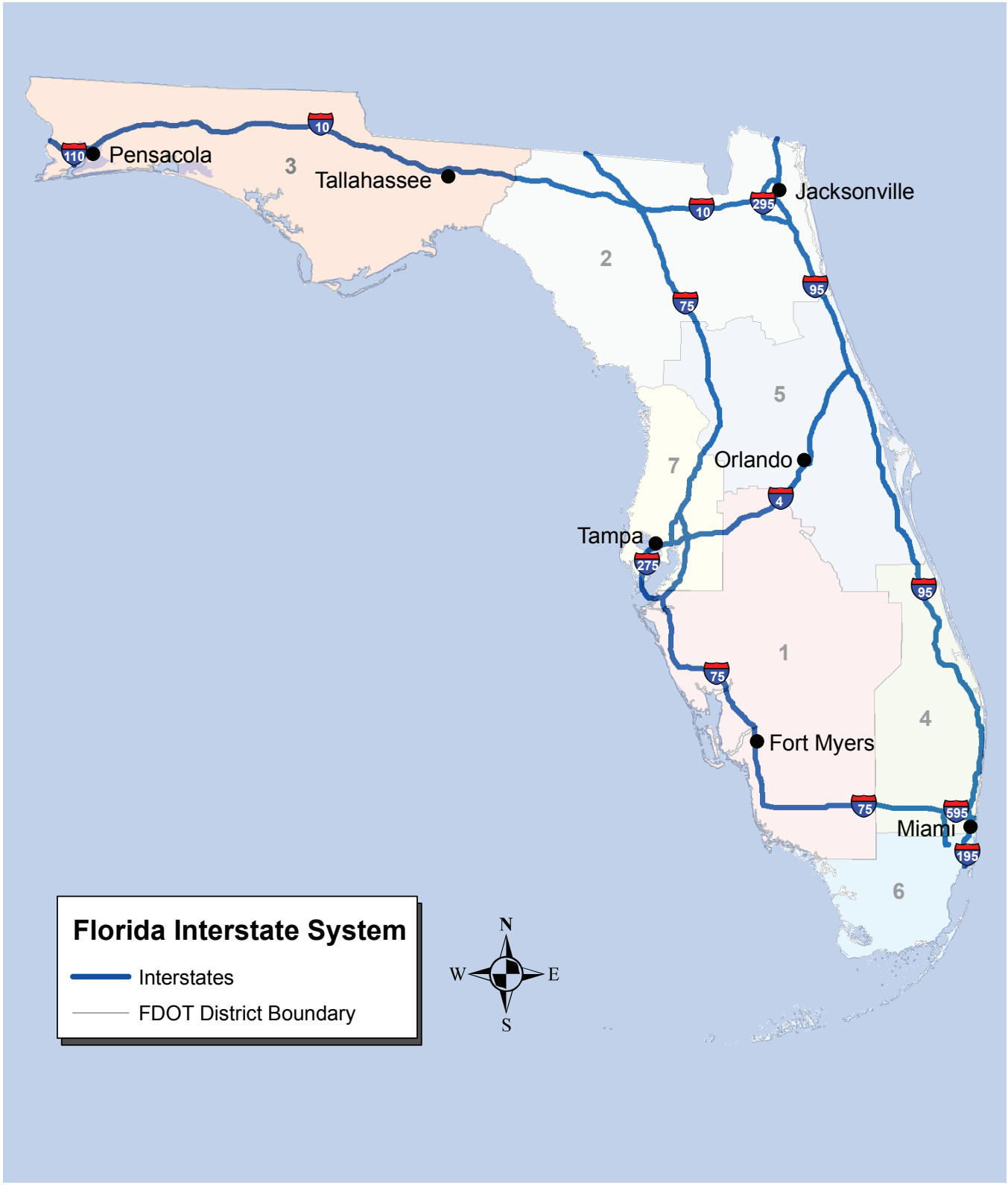



**Figure 2-2: Florida Interstate System**

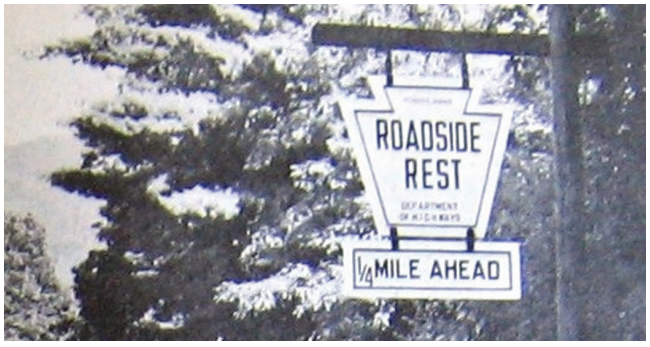
## 2.1.2 Florida Rest Area System: Historical Overview

Rest areas have become an indispensable part of our interstate highway system. From an economic development and tourism standpoint, rest areas are often the first contact visitors have with a state and may strongly affect their opinion of the state and whether they will return.

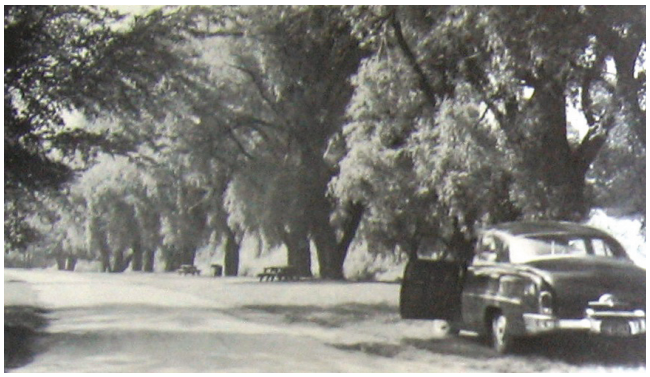
The earliest highway rest areas appeared around 1938 and were built entirely with state funds. Enthusiastic public acceptance and use of early rest areas encouraged the states to place more emphasis on their rest area programs and to request federal funding. The Federal-Aid Highway Act of 1938 was the first such legislation that allowed the states to use highway funds for safety rest areas and other facilities. ("[T]he States, with the aid of Federal funds, may include… such sanitary and other facilities as may be deemed necessary to provide for the suitable accommodations of the public.") Subsequently, the Federal-Aid Highway Act of 1956 and the Highway Beautification Act of 1965 (which doubled the number of rest areas planned) have given authority, funding, and substance to the rest area program. Over 2,000 rest areas are located on the nation's roads today.

Most roads outside of Florida cities were two lanes wide with occasional multi-lane segments prior to the construction of the interstate system. Roadside parks, consisting of a driveway to pull off the road and a picnic table, were located in rural areas.

The drive from St. Petersburg to the Georgia state line could take most of a day in the early 1950s. U.S. routes, such as 301, 41, 1, and 441, were the major routes in and out of the state. Roads were often congested and speed was low. Various commercial establishments that developed along these routes provided for the traveler's need for rest and restrooms. Chains, such as Stuckey's, offered fuel, food, gifts, and restrooms; and gas stations usually had a toilet out back. Cottages and later motels were abundant in the many towns one drove through.



Typical signage for rest areas in the 1950s


Drivers would pull off to the side of the roadway to rest prior to the creation of the rest area and interstate system

Example of a private food and fuel facility used for rest stops prior to the interstate system


Example of a private fuel facility used for rest stops prior to the interstate system

However, things changed with the opening of the interstate highways, which were constructed in predominantly rural areas and bypassed towns. As a result, many businesses whose revenue depended on travelers, eventually closed. Today, you can still see many of these closed motels and shops. The interstate highways implemented a relatively new phenomenon, controlled access right-of-way. As a result, private facilities could only be located and accessed at the interchanges, which were often spaced far apart and did not have any facilities, at least initially. Rest areas were constructed with access from the mainline and spaced about a 45-minute drive apart. Initially, only minimal facilities were provided.

Today, rest areas have expanded and often include picnic tables, pet walks, vending machines, map kiosks, and, of course, restrooms. "Family restrooms" for travelers who may need companion assistance to make use of the facilities have been added in recent years along with baby changing tables in both men's and women's restrooms. Text telephones (TDDs/TTYs) for use by travelers who are deaf are available at all public pay phones located at welcome centers and rest areas. Each rest area facility is protected by security personnel during evening and nighttime hours.

When rest areas are reconstructed now, the facilities are significantly upgraded and reflect some aspect of local history. An example is the southbound I-75 rest area at Paynes Prairie south of Gainesville. It is constructed in a "Florida Cracker Style" and includes an overlook designed in the shape of a snake. The Florida Cracker style is typically a one-story structure on pier and pile foundation with a steep hipped metal roof leading to wide overhangs and front porches to provide protection from sun or rain. This style of house is typically raised off the moist ground on concrete piers and chimneys are of brick, stucco, or stone. Florida Cracker designs have numerous windows to allow air to move freely through the structure.

Paynes Prairie northbound rest area reconstructed in the 1990s


Iconic roadside advertising in the 1940-50s


The Stuckey's franchise became an icon for the traveling public


Typical private fuel and food facility that served as a rest stop for travelers

# 2.2 Rest Area Locations

## 2.2.1 Statewide Locations

In addition to the 52 safety rest areas and three welcome centers that FDOT operates on the Florida interstate system, the Department operates one non-interstate welcome center on U.S. 231 in Jackson County #2 and one non-interstate rest area on U.S. 27 in Taylor County #15. The rest area system was originally planned to locate rest areas a maximum 45-minute drive apart. This planning criterion was mostly adhered to, with a few exceptions.

The rest area facilities are open, maintained, and secured 24 hours a day, seven days a week. Picnic areas are provided in most locations and visitors may stay up to three hours. Overnight camping is not permitted.

Florida tops the Best Rest Stops list for the fourth time in a row, according to an article in "etrucker.com." (http://www.etrucker.com/ January 2004, Long, Bumpy Road, by Laura Crackel) Tourist information can be found in the welcome centers from 8:00 am to 5:00 pm, seven days a week, including most holidays. Welcome centers are operated by Visit Florida, Inc. (FLAUSA), the state's official travel planning agency.

Table 2-1 illustrates the distribution of rest areas throughout the state, and Figure 2-2 illustrates the physical site locations.

A more detailed look at the rest area locations by District follows this section. The physical rest area locations are articulated on an enlarged map of the specific District as well as the total annual average daily traffic (AADT) and truck traffic breakout. A supporting table, based on the 2005 RAAS, describes the rest area location number, name, facility type, location, and what is the primary reason for customers stopping at the facility.

Brevard Rest Area #38 in District 5

Jackson Welcome Center #2 in District 3

**Table 2-1: Florida Rest Area Locations**

| | Rest Area | | | | | | Welcome Center | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| District | I-10 | I-75 | I-275 | I-95 | US 27 | I-4 | I-10 | I-75 | I-95 | US 231 | I-4 |
| 1 | | 3 | 1 | | | 2 | | | | | |
| 2 | 6 | 4 | | 4 | 1 | | | 1 | 1 | | |
| 3 | 12 | | | | | | 1 | | | 1 | |
| 4 | | 1 | | 4 | | | | | | | |
| 5 | | 4 | | 4 | | 2 | | | | | |
| 6 | | | | | | | | | | | |
| 7 | | 4 | 1 | | | | | | | | |
| Sub-Totals | 18 | 16 | 2 | 12 | 1 | 4 | 1 | 1 | 1 | 1 | 0 |
| TOTALS | 53 | | | | | | 4 | | | | |

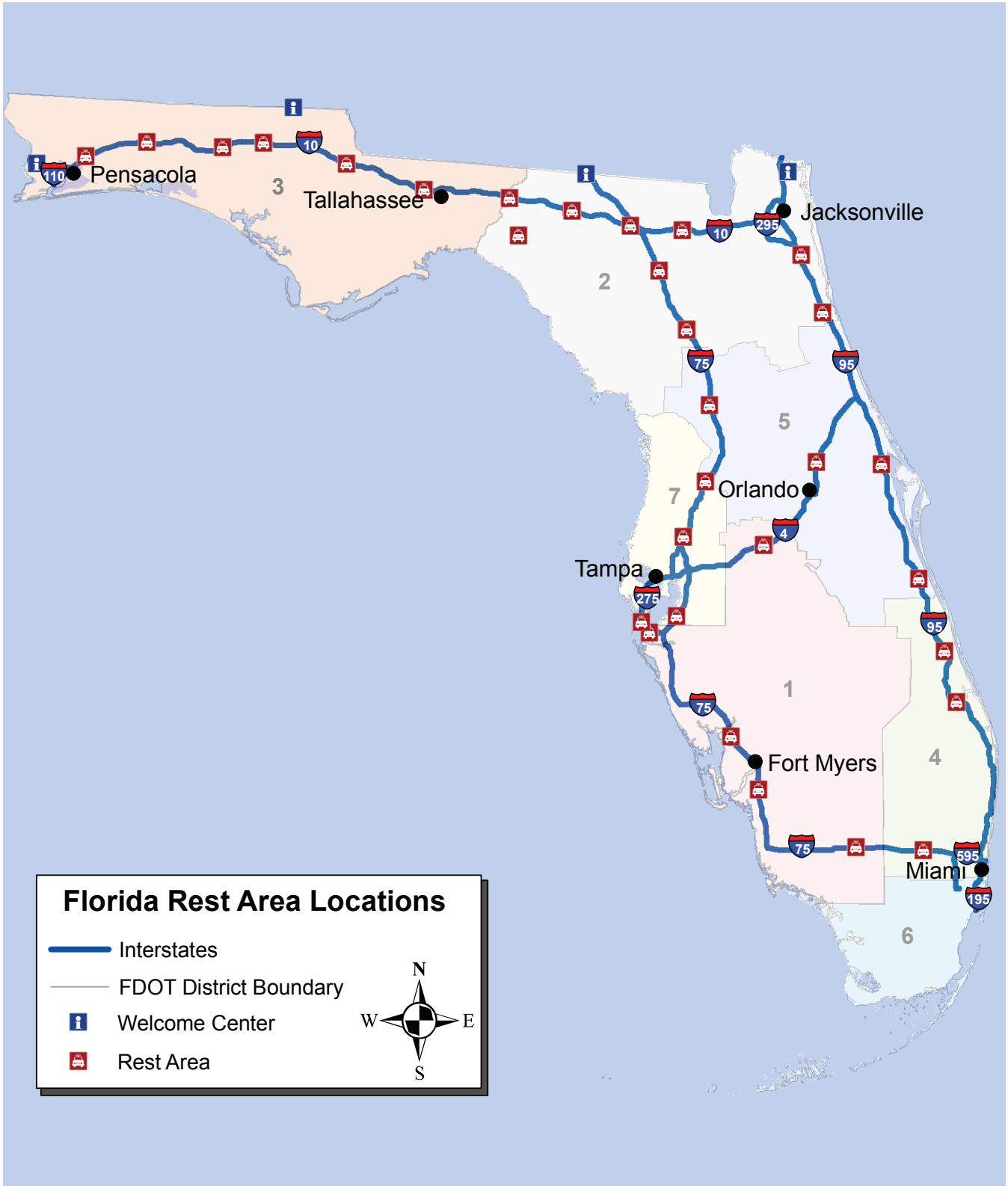



**Figure 2-3: Florida Rest Area Locations**

## 2.2.2 District One Locations

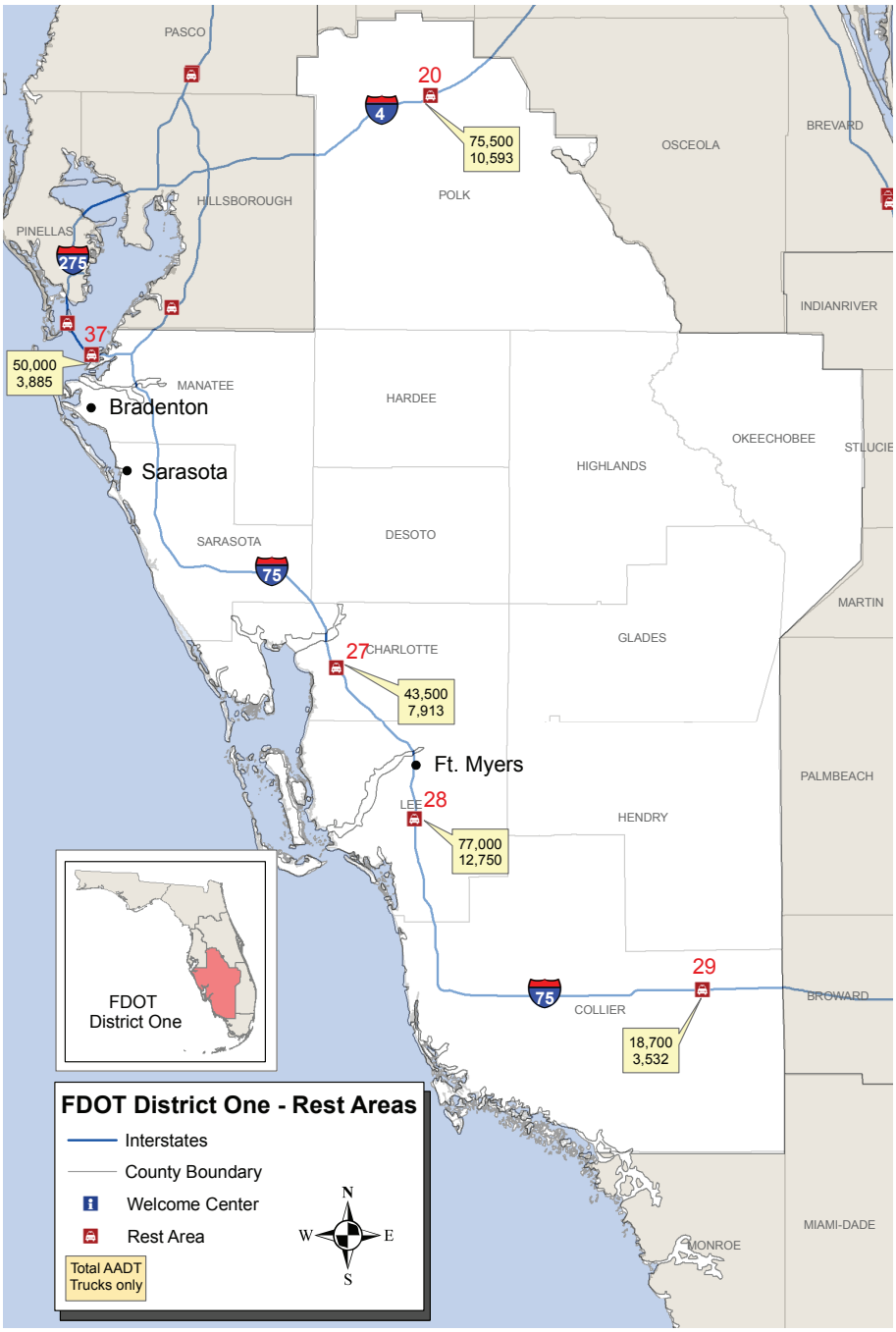



**Figure 2-4: District One Rest Area Locations**

**Table 2-2: District One Rest Area Information**

| ID # | Name | Welcome Center | Rest Area | Interstate | Direction | Primary Reason for Stopping |
|---|---|---|---|---|---|---|
| 20 | Polk | | X | I-4 | East | Restroom 67% |
| 20 | Polk | | X | I-4 | West | Restroom 54% |
| 27 | Charlotte | | X | I-75 | North/South | Restroom 54% |
| 28 | Lee | | X | I-75 | North/South | Restroom 45%, Rest 27% |
| 29 | Collier | | X | I-75 | North/South | Restroom 54% |
| 37 | Manatee | | X | I-275 | North/South | Restroom 33%, Rest 27% |

## 2.2.3 District Two Locations

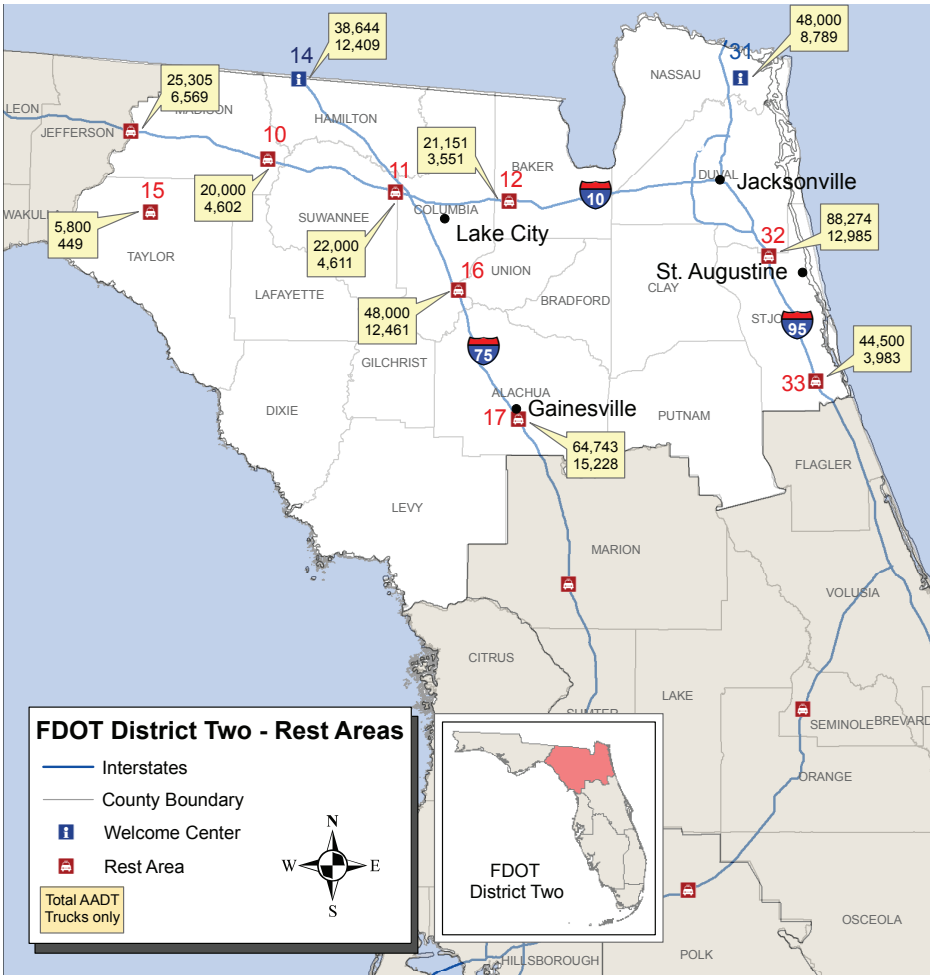



**Figure 2-5: District Two Rest Area Locations**

**Table 2-3: District Two Rest Area Information**

| ID # | Name | Welcome Center | Rest Area | Interstate | Direction | Primary Reason for Stopping |
|---|---|---|---|---|---|---|
| 10 | Madison | | X | I-10 | East | Restroom 50% |
| 10 | Madison | | X | I-10 | West | Restroom 50% |
| 11 | Suwannee/Columbia | | X | I-10 | East | Restroom 46% |
| 11 | Suwannee/Columbia | | X | I-10 | West | Restroom 67% |
| 12 | Baker | | X | I-10 | East | Restroom 70% |
| 12 | Baker | | X | I-10 | West | Restroom 67% |
| 14 | Hamilton | X | | I-75 | South | Restroom 29%, Travel Info 29% |
| 15 | Taylor | | X | US 27 | Both | No survey information |
| 16 | Columbia | | X | I-75 | North | Restroom 70% |
| 16 | Columbia | | X | I-75 | South | Restroom 50%, Rest 42% |
| 17 | Alachua | | X | I-75 | North | Restroom 56% |
| 17 | Alachua | | X | I-75 | South | Restroom 64% |
| 31 | Nassau | X | | I-95 | South | Restroom 41%, Travel Info 29% |
| 32 | St. Johns | | X | I-95 | North | Restroom 57% |
| 32 | St. Johns | | X | I-95 | South | Restroom 50% |
| 33 | St. Johns | | X | I-95 | North | Restroom 67% |
| 33 | St. Johns | | X | I-95 | South | Restroom 80% |

## 2.2.4 District Three Locations

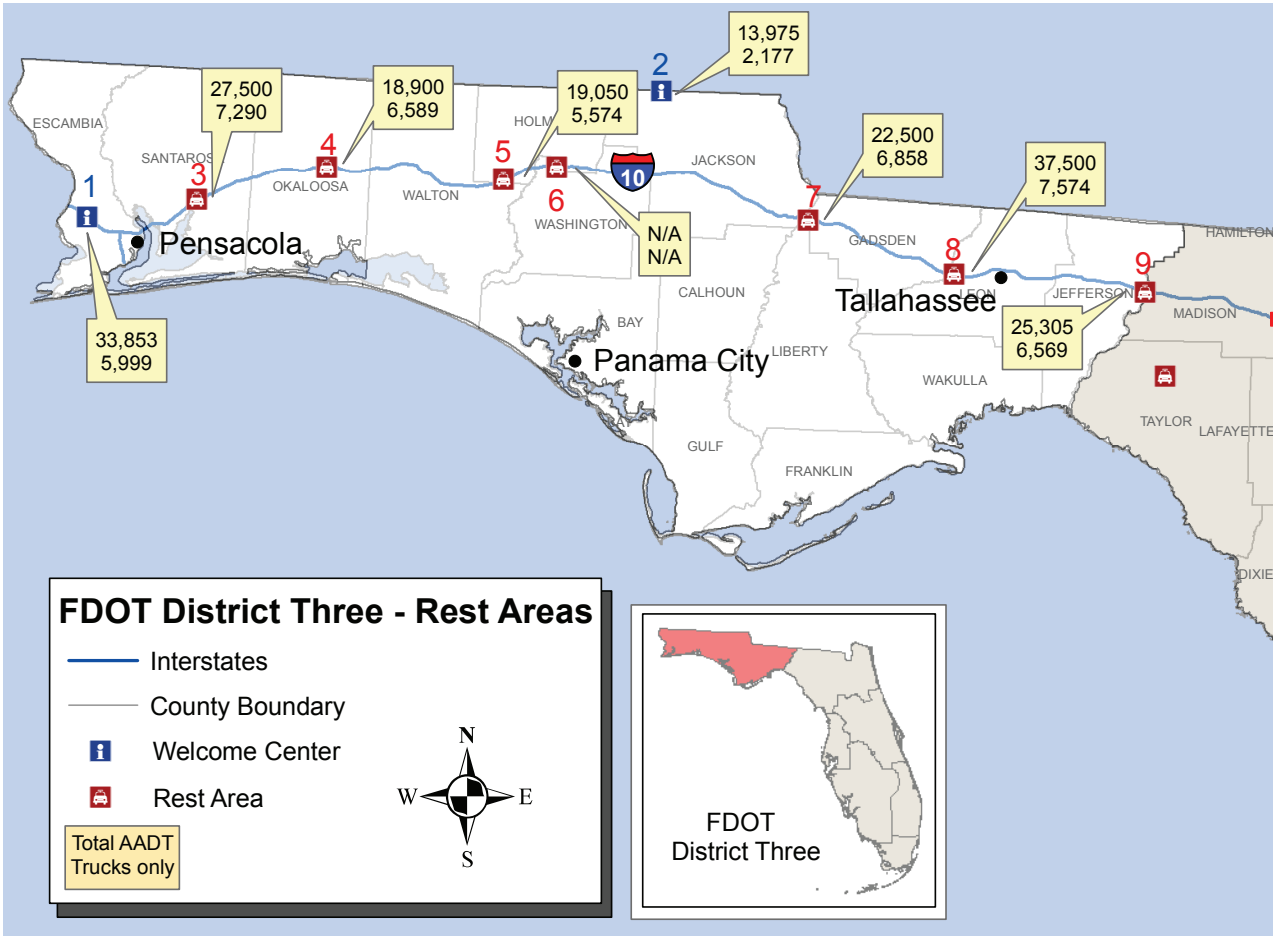



***Figure 2-6: District Three Rest Area Locations***

**Table 2-4: District Three Rest Area Information**

| ID # | Name | Welcome Center | Rest Area | Interstate | Direction | Primary Reason for Stopping |
|---|---|---|---|---|---|---|
| 1 | Escambia | X | | I-10 | East | Restroom 42%, Travel Info 25% |
| 2 | Jackson | X | | US 231 | North/South | Restroom 36%, Travel Info 29% |
| 3 | Santa Rosa | | X | I-10 | East | Restroom 83% |
| 3 | Santa Rosa | | X | I-10 | West | Restroom 50% |
| 4 | Okaloosa | | X | I-10 | East | Restroom 53% |
| 4 | Okaloosa | | X | I-10 | West | Restroom 71% |
| 5 | Holmes | | X | I-10 | East/West | Restroom 73% |
| 6 | Jackson | | X | I-10 | East | Restroom 62% |
| 6 | Jackson | | X | I-10 | West | Restroom 58% |
| 7 | Gadsden | | X | I-10 | East/West | Restroom 64% |
| 8 | Leon | | X | I-10 | East | Restroom 45%, Rest 36% |
| 8 | Leon | | X | I-10 | West | Restroom 69% |
| 9 | Jefferson | | X | I-10 | East | Restroom 54% |
| 9 | Jefferson | | X | I-10 | West | Restroom 64% |

## 2.2.5 District Four Locations

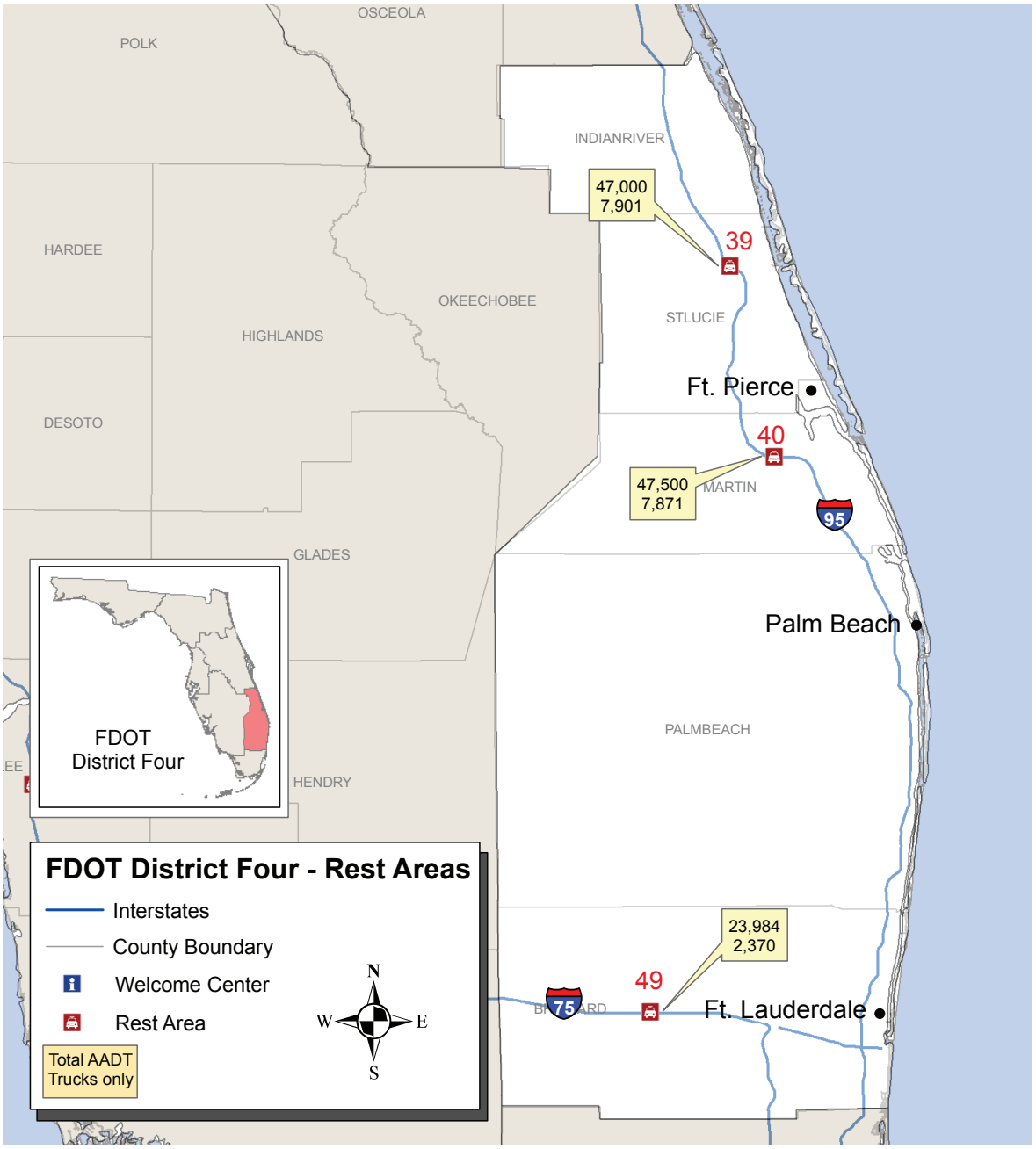



**Figure 2-7: District Four Rest Area Locations**

**Table 2-5: District Four Rest Area Information**

| ID # | Name | Welcome Center | Rest Area | Interstate | Direction | Primary Reason for Stopping |
|---|---|---|---|---|---|---|
| 39 | St. Lucie | | X | I-95 | North | Restroom 64% |
| 39 | St. Lucie | | X | I-95 | South | Restroom 50% |
| 40 | Martin | | X | I-95 | North | Restroom 31%, Snack 46% |
| 40 | Martin | | X | I-95 | South | Restroom 62%, Snack 23% |
| 49 | Broward | | X | I-75 | North/South | Restroom 75% |

## 2.2.6 District Five Locations

## 2.2.7 District Six Locations

District Six does not have any rest areas or welcome centers.

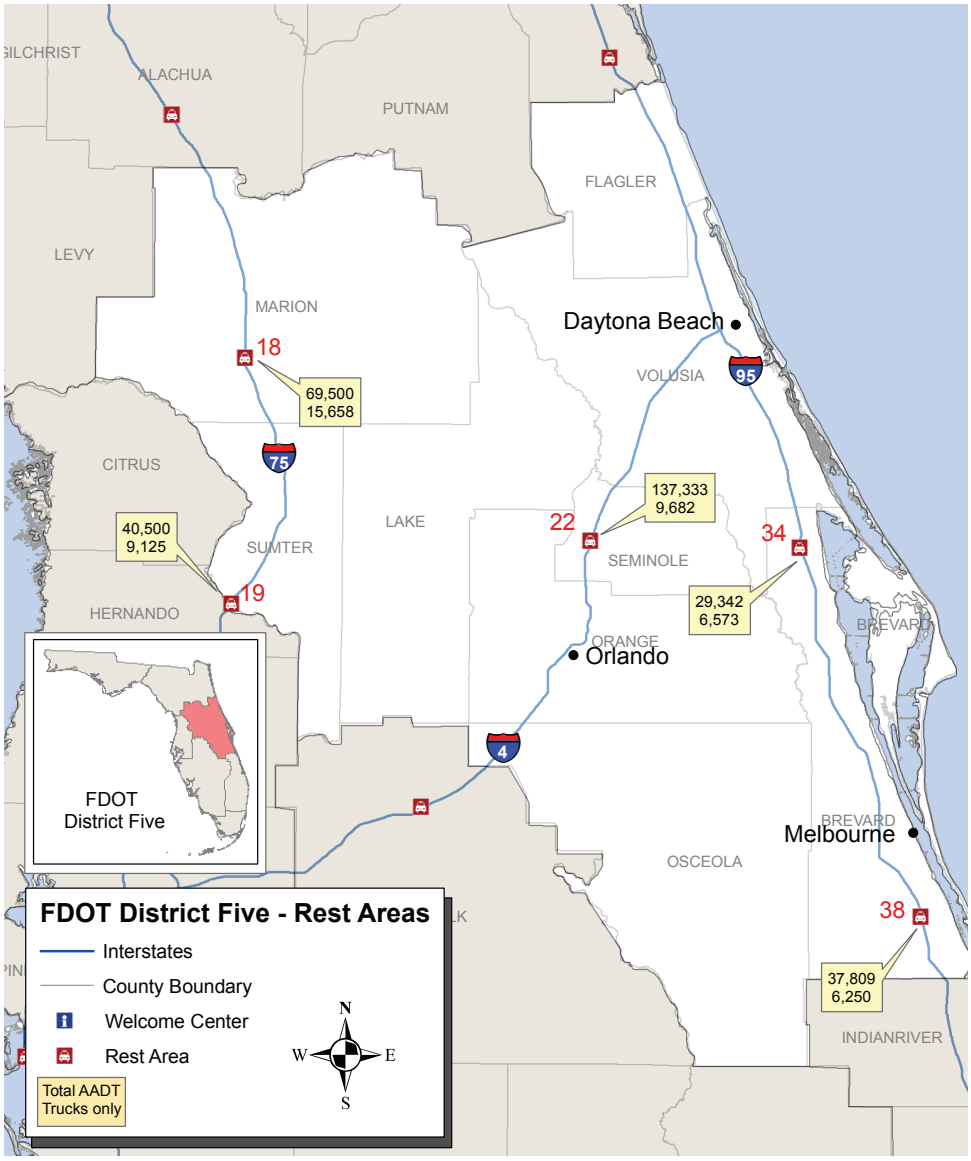



**Figure 2-8: District Five Rest Area Locations**

**Table 2-6: District Five Rest Area Information**

| ID # | Name | Welcome Center | Rest Area | Interstate | Direction | Primary Reason for Stopping |
|---|---|---|---|---|---|---|
| 18 | Marion | | X | I-75 | North | Restroom 54% |
| 18 | Marion | | X | I-75 | South | Restroom 64% |
| 19 | Sumter | | X | I-75 | North | Restroom 46%, Rest 23% |
| 19 | Sumter | | X | I-75 | South | Restroom 62% |
| 22 | Seminole | | X | I-4 | East | Restroom 45%, Snack 36% |
| 22 | Seminole | | X | I-4 | West | Restroom 53% |
| 34 | Brevard | | X | I-95 | North | Restroom 46%, Rest 31% |
| 34 | Brevard | | X | I-95 | South | Restroom 57% |
| 38 | Brevard | | X | I-95 | North | Restroom 63% |
| 38 | Brevard | | X | I-95 | South | Restroom 62% |

## 2.2.8 District Seven Locations

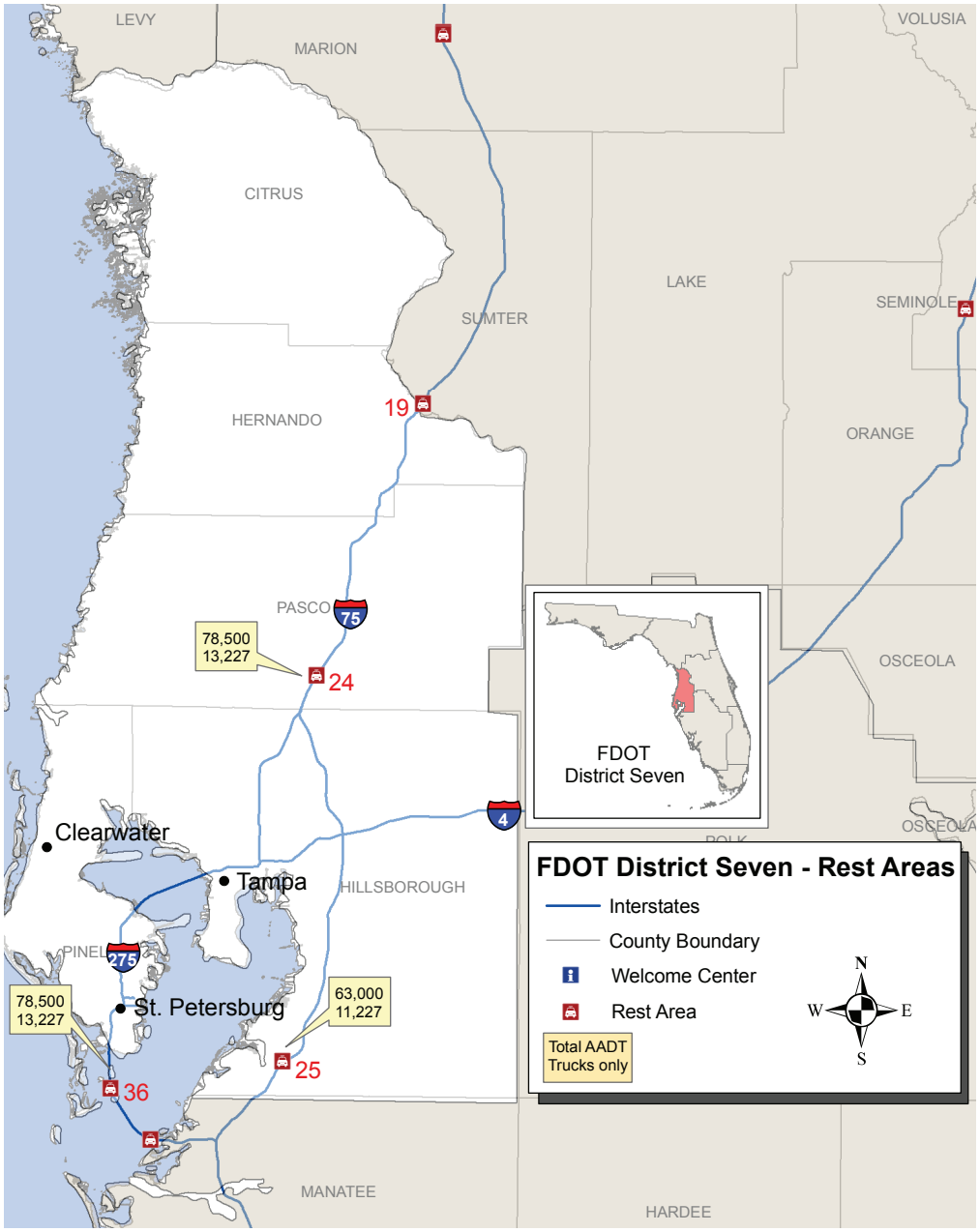



**Figure 2-9: District Seven Rest Area Locations**

**Table 2-7: District Seven Rest Area Information**

| ID # | Name | Welcome Center | Rest Area | Interstate | Direction | Primary Reason for Stopping |
|---|---|---|---|---|---|---|
| 24 | Pasco | | X | I-75 | North | Restroom 54%, Rest 23% |
| 24 | Pasco | | X | I-75 | South | Restroom 50%, Rest 25% |
| 25 | Hillsborough | | X | I-75 | North | Restroom 38%, Snack 23% |
| 25 | Hillsborough | | X | I-75 | South | Restroom 77% |
| 36 | Pinellas | | X | I-275 | North/South | Restroom 33%, Rest 27%, Scenery 27% |

# 2.3 Existing Corridor Travel Demand

Florida's interstate system carries around 17 percent of all vehicle travel in the state with traffic volumes on the interstate system reaching over 200,000 AADT. The following sections describe the existing corridor travel demand on each individual interstate.

## 2.3.1 I-95 Corridor

- The AADT at the Florida Welcome Center #31 in Nassau County which is located on the southbound side of I-95, south of the Florida/Georgia state line, is 48,000 vehicles per day.
- Florida does not have a northbound rest area north of Jacksonville since Georgia has a large welcome center north of the Georgia/Florida state line.
- Traffic volume at rest area #32 in northern St. Johns County is 88,274 and 44,500 at the south end of St. Johns County at rest area #33.
- Traffic volume in the central portions of the corridor varies from 86,000 AADT in urban areas, such as Melbourne, to 29,342 in rural segments, such as at rest area #34 in Brevard County.
- Traffic volume on the southern portions of the corridor reaches 279,000 in the Fort Lauderdale area dropping to 93,500 AADT at the south end of I-95.

## 2.3.2 I-75 Corridor

- Traffic volume is 38,644 AADT at the Florida Welcome Center #14 in Hamilton County which is located on the southbound side of I-75 and serves traffic entering Florida. Florida does not have a northbound rest area north of I-10 since Georgia has a large welcome center north of the Georgia/Florida state line. Northern traffic volumes vary from 46,843 south of I-10 to 64,743 in Gainesville at the Paynes Prairie Rest Area #17 in Alachua County.
- Traffic volumes in the central portions of the corridor range from 78,500 at rest area #24 in Pasco County to a high of 123,500 north of I-4, and 63,000 at rest area #25 in southern Hillsborough County.
- Traffic volumes in the southern portion of the corridor range from 43,500 at rest area #27 in Charlotte County north of Fort Myers to 77,000 at rest area #28 in Lee County north of Naples.
- I-75 reaches its lowest volume of 18,700 in eastern Collier County at rest area #29. The highest volume on I-75 is 154,500 at its southernmost point in Miami-Dade County.
- Traffic volume on the interstates increases significantly near urban areas on the I-75 corridor because the interstate is used as a local commuter road from the outlying suburbs into the population centers. Therefore, not all of the AADT should be considered as relevant to the demand for rest areas. For example, I-75 north of SR 52 in Pasco County has an AADT of 43,500 (12,859 trucks), but in the segment north of I-4 traffic volume is 123,500 and the first segment in Manatee County has an AADT of 59,500 (8,883 trucks). Commuters tend to use rest areas significantly less frequently than do motorists traveling long distances.

## 2.3.3 I-4 Corridor

- I-4 has only one rest area, #20 in Polk County, located between Tampa and Orlando. It serves both westbound and eastbound traffic. Traffic volume is 75,500 AADT in the vicinity of that rest area.
- Traffic incidents resulting in delays are routine on I-4 between Tampa and Orlando. When this occurs it can take more than the desired 45 minutes to reach the rest area.
- Traffic on I-4 north of Orlando has a volume of 208,000. The nearest rest area is #22 in Seminole County. Traffic volume in that area is 137,333.

## 2.3.4 I-10 Corridor

- The first rest area in Florida is Welcome Center #1 in Escambia County which is located on the eastbound side of the I-10 corridor. Traffic volume is 33,853 at Escambia County Welcome Center #1. There is no westbound rest area in that location since Alabama has a large welcome center west of the Alabama/Florida state line.
- East of Pensacola, at rest area #4 in Okaloosa County, traffic volume is 18,900. At rest area #8 in Leon County, located east of Tallahassee, traffic volume is 37,500 vehicles per day.
- At rest area #12, located in the Osceola National Forest in Baker County, traffic volume is 21,151.
- Traffic volume is 160,000 at the eastern end of I-10 in the vicinity of I-95 in Jacksonville.

## 2.3.5 General Observations

The AADT traffic data shows that the interstates serve as commuter roads in the vicinity of cities. Two opposing observations can be made from that determination. The first is that the demand for rest areas may not be as great from commuters as it is for motorists who are passing through the population centers and have been traveling for several hours.

The second alternating observation is that it can be stressful for a motorist to drive through an urban area with multiple, condensed interchanges and a greater number of travel lanes to navigate. A safety rest area located at the edge of an urban area can be a welcome respite from the drive through the urbanized area.

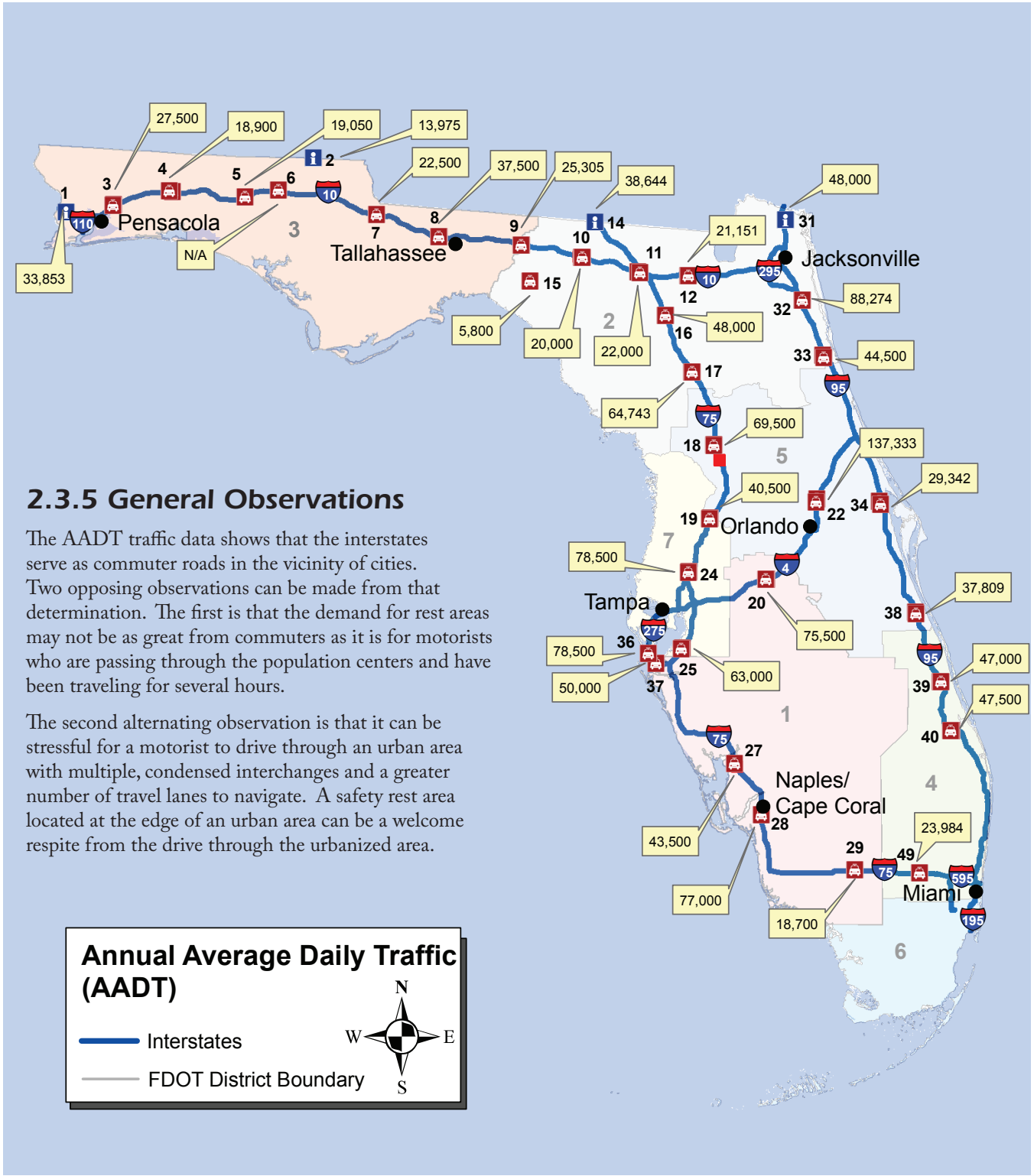



**Figure 2-10: Annual Average Daily Traffic (AADT) at Florida Rest Areas and Welcome Centers**

# 2.4 State Urbanization

## 2.4.1 Florida Residents

Tens of thousands of people move to and are born in Florida each year. The population of Florida grew from 12,937,926 in 1990 to 18,328,340 in 2008, according to the U.S. Census Bureau, which represents a growth of over five million people.

Florida experienced a population growth of 13.2 percent between 2000 and 2006, compared to the national average of 6.4 percent. Table 2-8 illustrates the State of Florida's growth in population and Table 2-9 illustrates the five most populated counties.

**Table 2-8: Historical Population Growth in Florida**

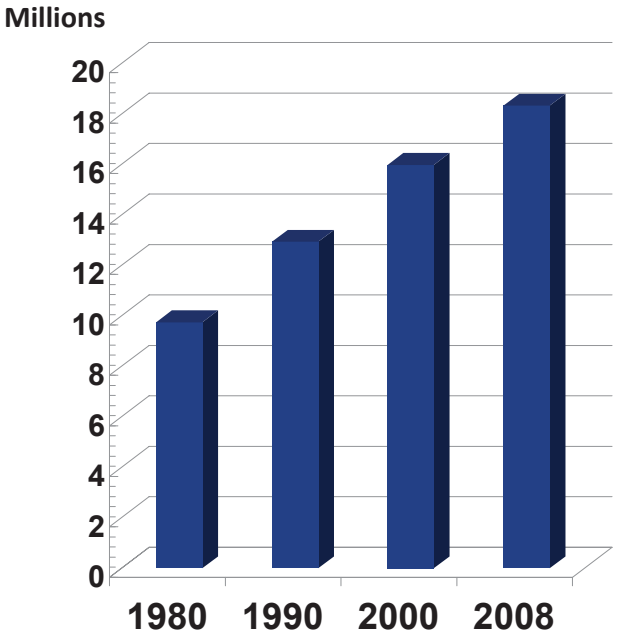
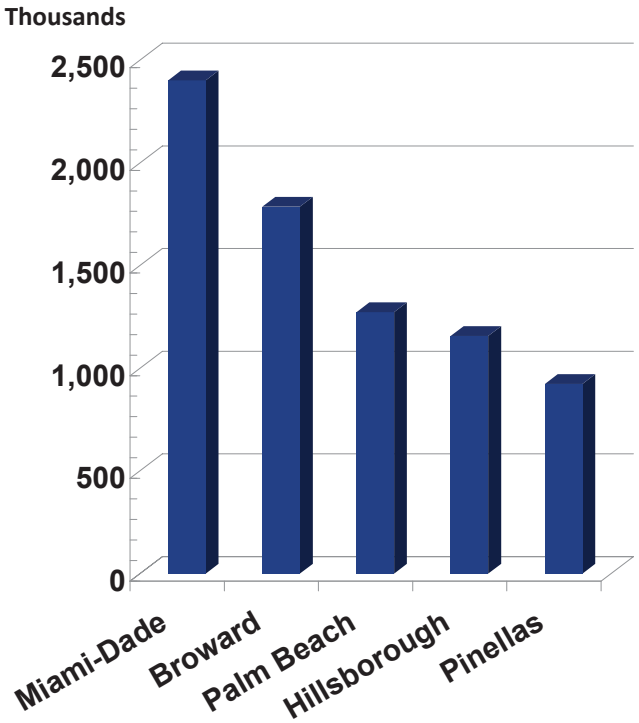



**Table 2-9: Most Populated Counties, 2006**



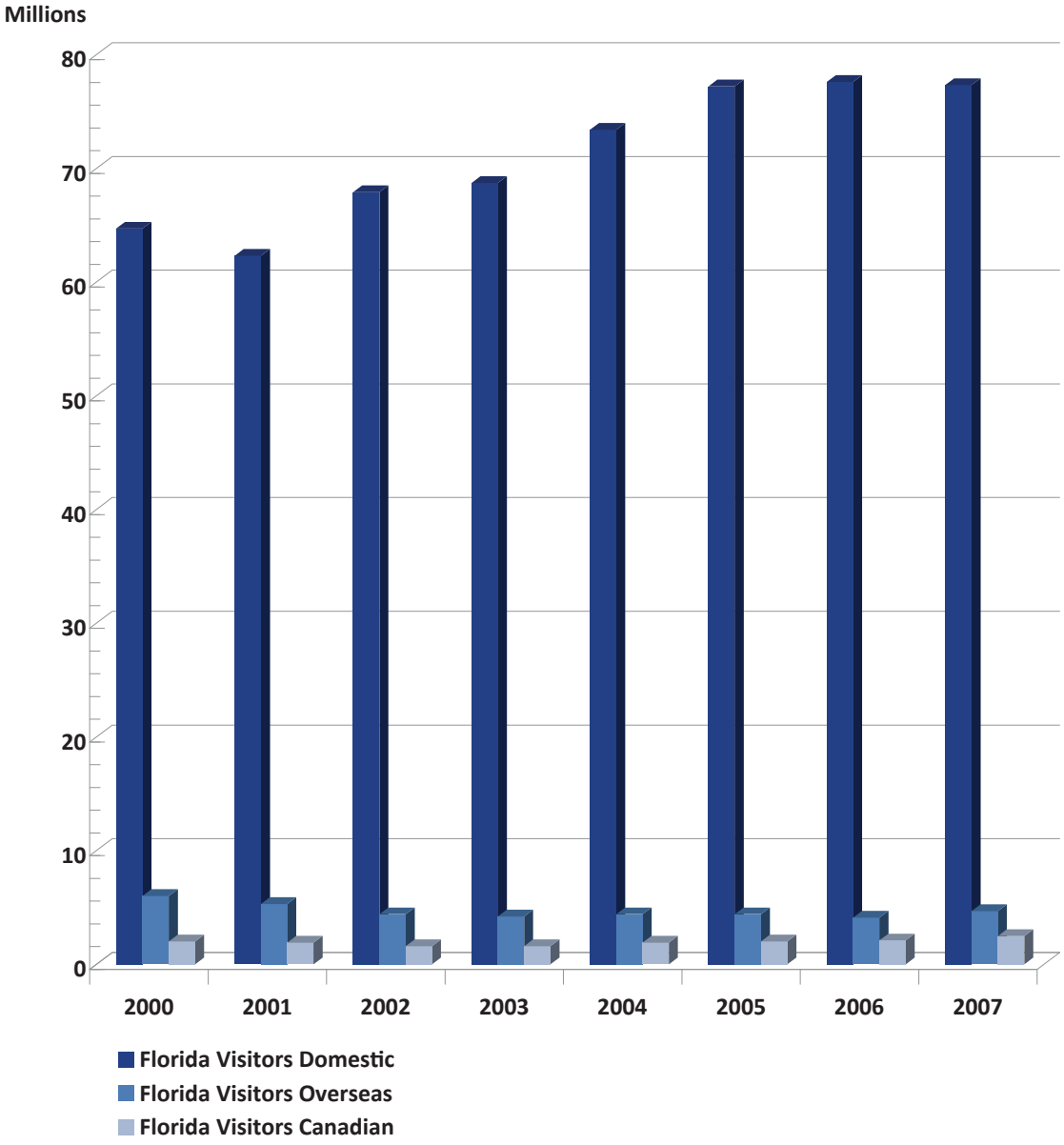
## 2.4.2 Florida Visitors

The sunny climate and sandy beaches are not only an amenity and attraction for existing and potential Florida residents, but they also attract millions of visitors each year.

Today, tourism is one of the most important factors driving Florida's economy. According to *Visit Florida Research,* around 84.5 million people visited Florida in 2007 of which 47.8 percent were non-air visitors. Tourism generated $65.5 billion dollars in spending, $3.9 billion dollars in state sales tax revenue, and 991,300 direct tourism jobs in 2007, according to *Visit Florida Research.* As tourism continues to grow, so will Florida.

The top origin states by percentage of total domestic visitors in 2007 were Georgia, followed by New York, New Jersey, and Illinois. Canada is the top international market by number of visitors, followed by the United Kingdom, South America, and Germany. Table 2-10 illustrates the relationship between domestic, overseas, and Canadian visitors.

**Table 2-10: Florida Visitors by Type in Recent Years**



## 2.4.3 Urbanization Classifications

Urban areas in the state need to be defined for the purposes of this Rest Area Long-Range Plan. Only existing urbanization is illustrated in this section; however, in Section 5, future projections of urban areas are illustrated as a basis for recommendations and scenario building.

The U.S. Census Bureau defines urban areas as follows.

*For Census 2000, the Census Bureau classifies as "urban" all territory, population, and housing units located within an urbanized area (UA) or an urban cluster (UC). It delineates UA and UC boundaries to encompass densely settled territory… [while] classification of "rural" consists of all territory, population, and housing units located outside of UAs and UCs.*

http://www.census.gov/geo/www/ua/ua_2k.html

Definitions for urbanized areas have been used from the Census Bureau with slight modifications for this report. The following definitions are used for this study:

### Larger Urban Area

This classification defines larger urbanized areas as those with populations over 500,000, using only the Census Bureau's UAs not the UCs. Currently, Miami, Jacksonville, Orlando, and Tampa are in this category.

### Smaller Urban Area

This classification includes all UAs under the 500,000 and over the 100,000 threshold. This grouping ranges from Sarasota to Brooksville and includes Tallahassee, Pensacola, St. Petersburg and Daytona.

### Rural

Any area not fitting into the above classifications.

Urbanization in Florida impacts the way rest areas are utilized

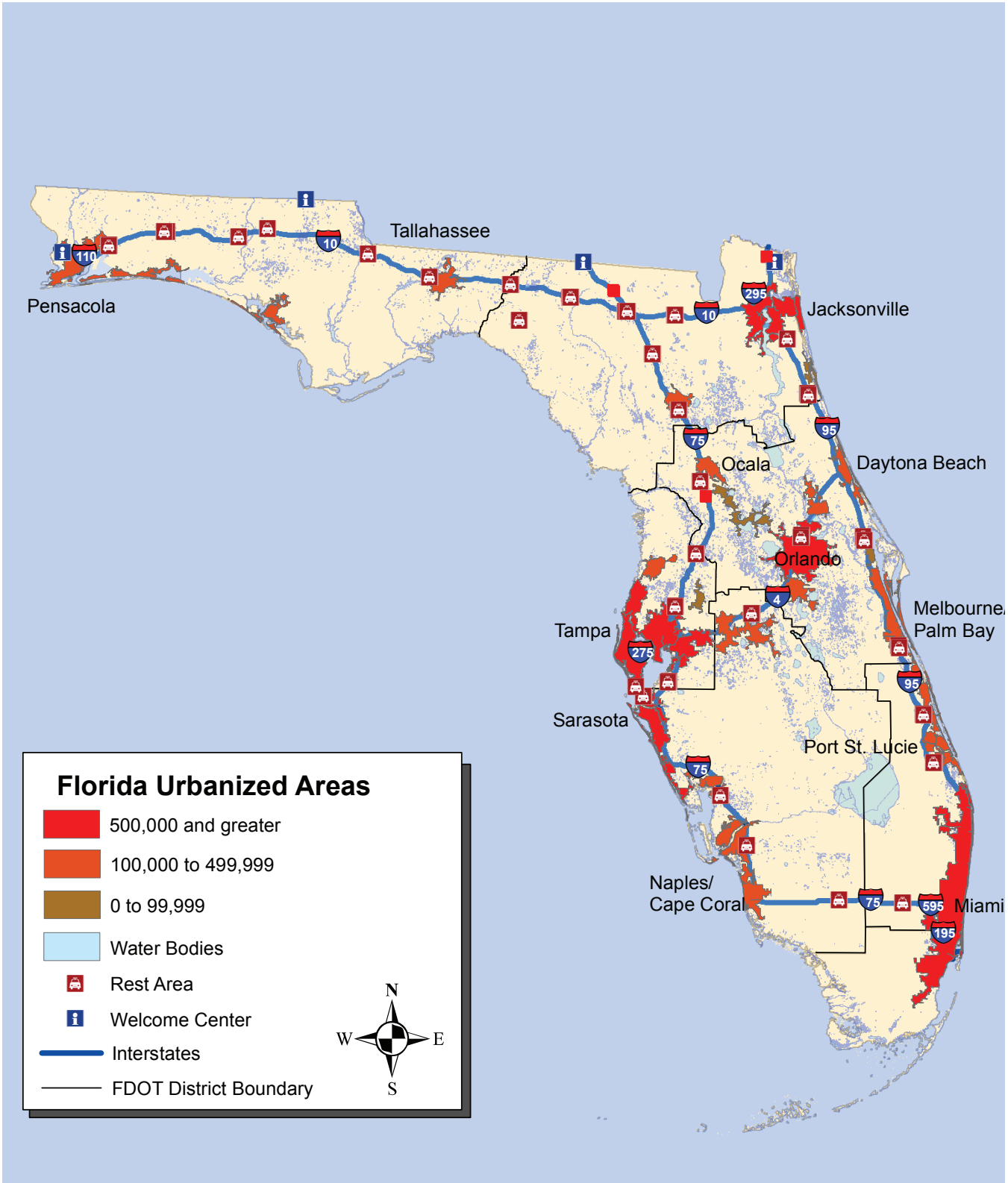



**Figure 2-11: Florida Urbanized Areas**

# 2.5 Current State of the Rest Area Program

The current state of the Florida rest area program was evaluated as part of the existing conditions inventory. This evaluation included consideration of organizational responsibility for FDOT rest areas, what the budget and funding sources are for the program, and an overview of all the federal and state regulations that currently apply to the rest area program.

## 2.5.1 FDOT Rest Area Organizational Responsibility

FDOT is decentralized, which puts the responsibility for rest area maintenance and planning at the District level. The District Maintenance Engineers oversee the rest areas in their districts.

## 2.5.2 Operational Model

The operational model basically runs on a four-phased process, which reflects FDOT's desire to be proactive in monitoring customer satisfaction at rest areas.

A procedure was implemented in January 2003 to obtain "Rest Area Customer Comments." Comment cards are placed at all FDOT-maintained rest areas, welcome centers, and truck comfort stations. Information collected from these cards is used to assess how well each rest area, welcome center, and comfort station is being maintained, and how the motoring public views this effort.

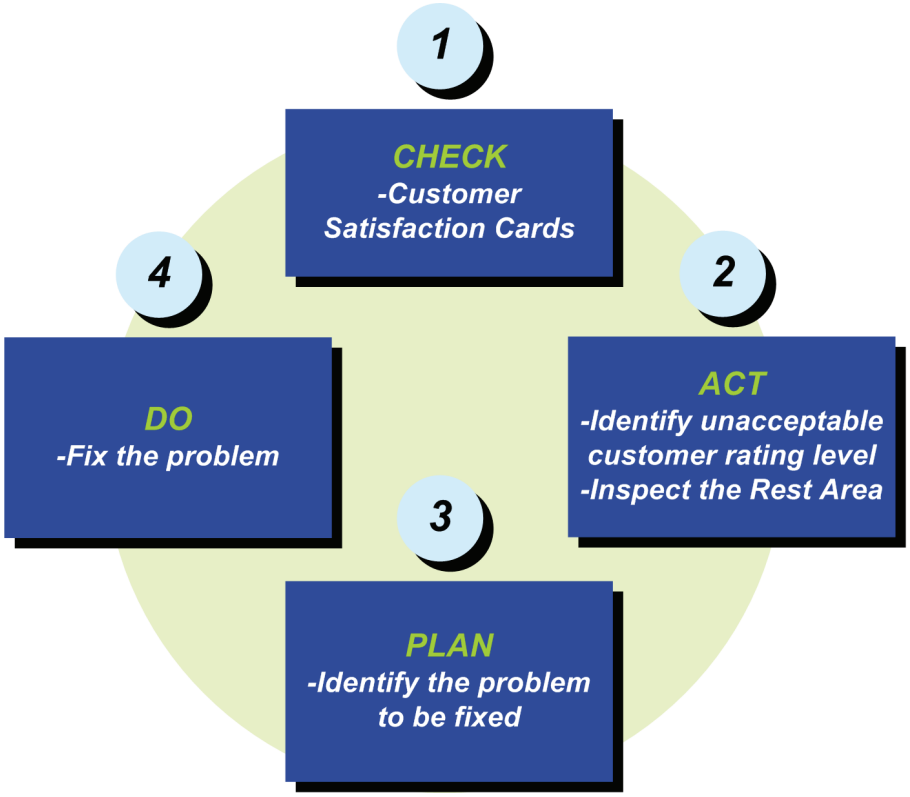



**Figure 2-12: Rest Area Operational Model**

The District Maintenance Engineer is responsible for supplying the rest areas with comment cards, collecting them, and mailing them to the Office of Maintenance (OOM). The OOM calculates and posts a monthly customer satisfaction facility rating, see Figures 2-13 and 2-14, for each rest area, welcome center, and truck comfort station on the OOM intranet site.

If the facility rating falls below an acceptable OOM-established level, the District must inspect the facility, identify the unacceptable condition, and fix it (see Figure 2-15).

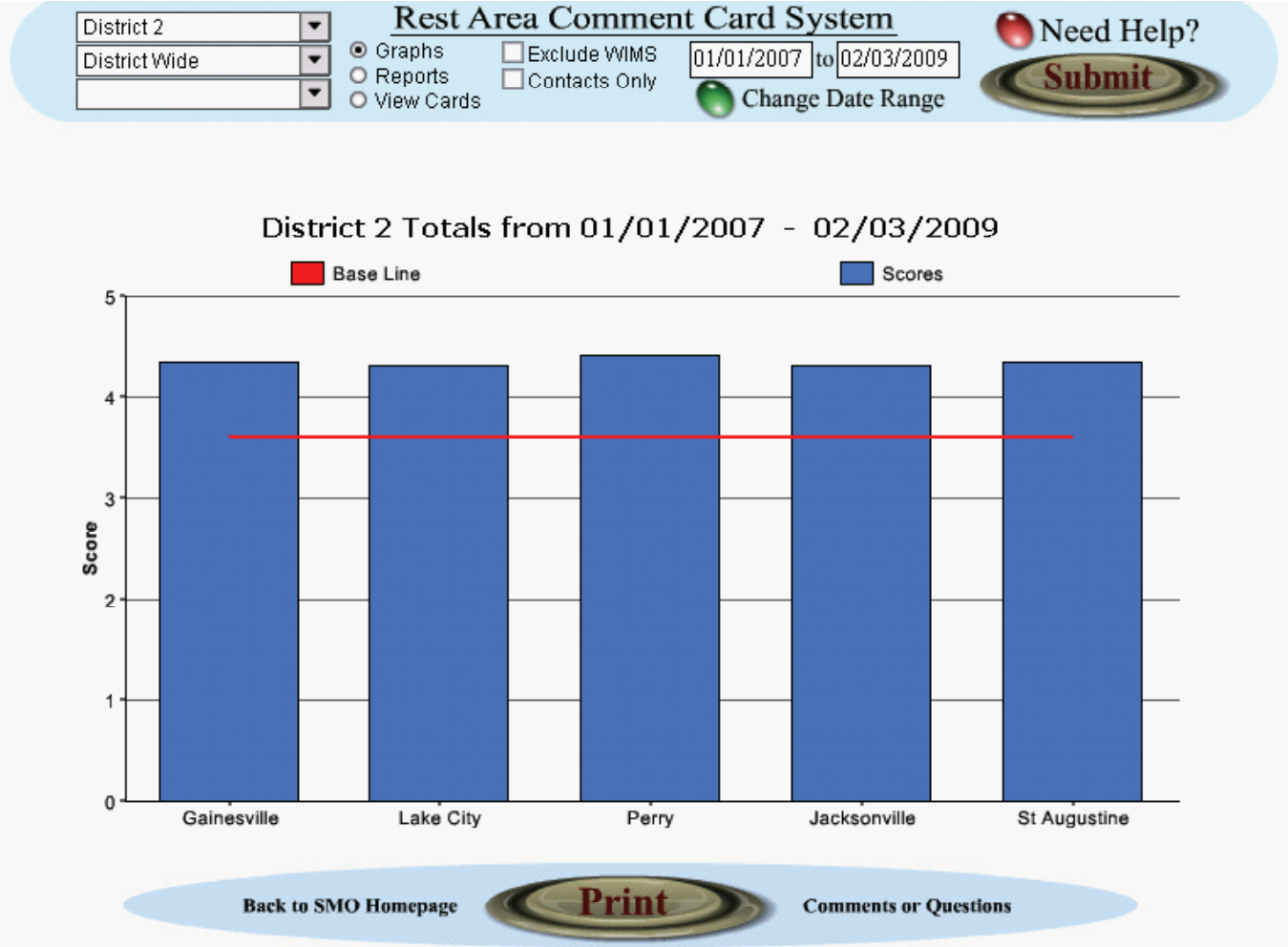
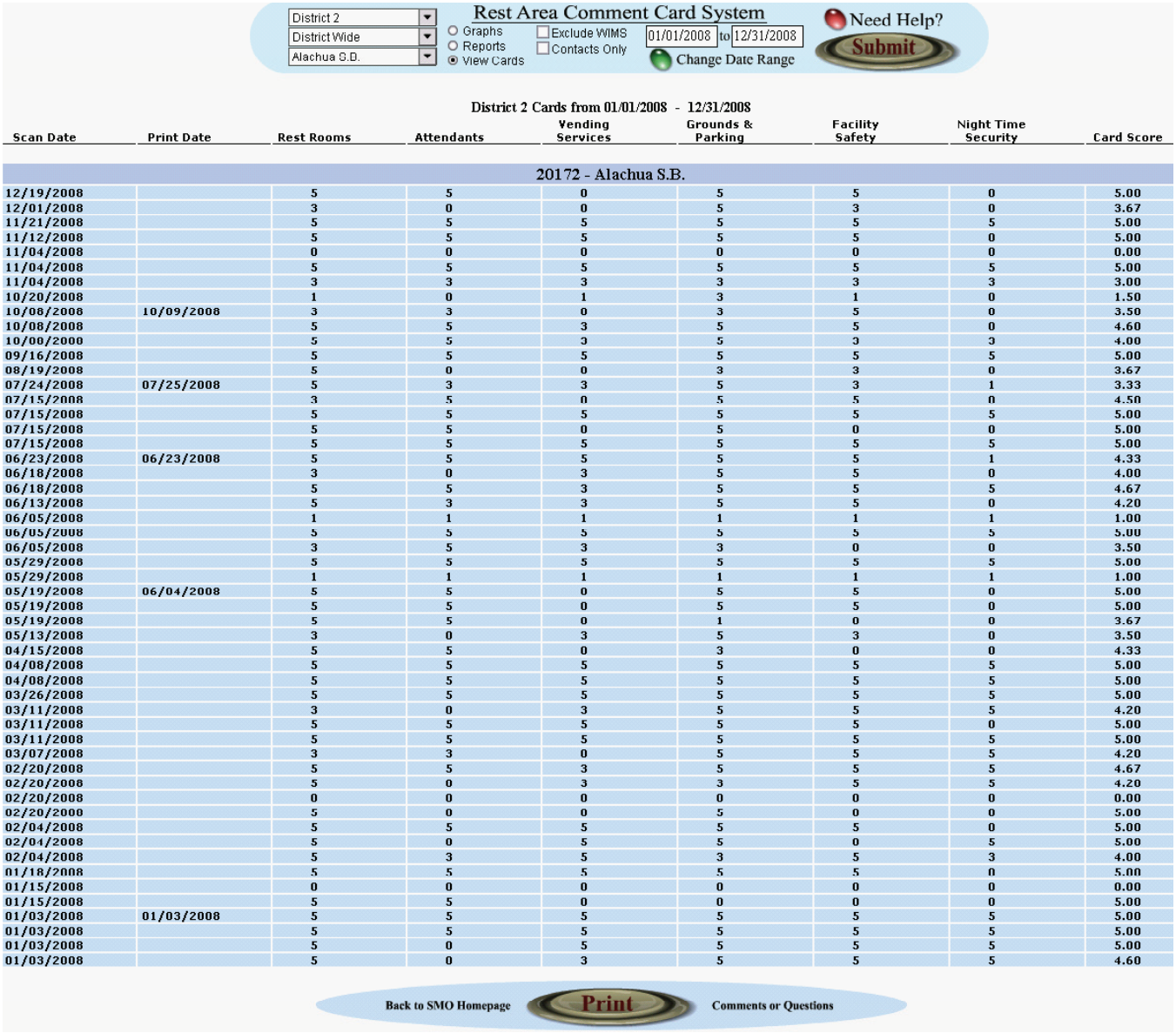



**Figure 2-13: Rest Area Comment Card Scoring System - District Totals**



District 2 | District Wide | Alachua S.B. | Graphs | Reports | View Cards | Exclude WIMS | Contacts Only | 01/01/2008 to 12/31/2008 | Change Date Range | Need Help? | Submit

Rest Area Comment Card System

District 2 Cards from 01/01/2008 - 12/31/2008

| Scan Date | Print Date | Rest Rooms | Attendants | Vending Services | Grounds & Parking | Facility Safety | Night Time Security | Card Score |
|---|---|---|---|---|---|---|---|---|
| 20172 - Alachua S.B. | | | | | | | | |
| 12/19/2008 | | 5 | 5 | 0 | 5 | 5 | 0 | 5.00 |
| 12/01/2008 | | 3 | 0 | 0 | 5 | 3 | 0 | 3.67 |
| 11/21/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 11/12/2008 | | 5 | 5 | 5 | 5 | 5 | 0 | 5.00 |
| 11/04/2008 | | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 11/04/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 11/04/2008 | | 3 | 3 | 3 | 3 | 3 | 3 | 3.00 |
| 10/20/2008 | | 1 | 0 | 1 | 3 | 1 | 0 | 1.50 |
| 10/08/2008 | 10/09/2008 | 3 | 3 | 0 | 3 | 5 | 0 | 3.50 |
| 10/08/2008 | | 5 | 5 | 3 | 5 | 5 | 0 | 4.60 |
| 10/00/2000 | | 5 | 5 | 3 | 5 | 3 | 3 | 4.00 |
| 09/16/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 08/19/2008 | | 5 | 0 | 0 | 3 | 3 | 0 | 3.67 |
| 07/24/2008 | 07/25/2008 | 5 | 3 | 3 | 5 | 3 | 1 | 3.33 |
| 07/15/2008 | | 3 | 5 | 0 | 5 | 5 | 0 | 4.50 |
| 07/15/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 07/15/2008 | | 5 | 5 | 0 | 5 | 0 | 0 | 5.00 |
| 07/15/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 06/23/2008 | 06/23/2008 | 5 | 5 | 5 | 5 | 5 | 1 | 4.33 |
| 06/18/2008 | | 3 | 0 | 3 | 5 | 5 | 0 | 4.00 |
| 06/18/2008 | | 5 | 5 | 3 | 5 | 5 | 5 | 4.67 |
| 06/13/2008 | | 5 | 3 | 3 | 5 | 5 | 0 | 4.20 |
| 06/05/2008 | | 1 | 1 | 1 | 1 | 1 | 1 | 1.00 |
| 06/05/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 06/05/2008 | | 3 | 5 | 3 | 3 | 0 | 0 | 3.50 |
| 05/29/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 05/29/2008 | | 1 | 1 | 1 | 1 | 1 | 1 | 1.00 |
| 05/19/2008 | 06/04/2008 | 5 | 5 | 0 | 5 | 5 | 0 | 5.00 |
| 05/19/2008 | | 5 | 5 | 0 | 5 | 5 | 0 | 5.00 |
| 05/19/2008 | | 5 | 5 | 0 | 1 | 0 | 0 | 3.67 |
| 05/13/2008 | | 3 | 0 | 3 | 5 | 3 | 0 | 3.50 |
| 04/15/2008 | | 5 | 5 | 0 | 3 | 0 | 0 | 4.33 |
| 04/08/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 04/08/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 03/26/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 03/11/2008 | | 3 | 0 | 3 | 5 | 5 | 5 | 4.20 |
| 03/11/2008 | | 5 | 5 | 5 | 5 | 5 | 0 | 5.00 |
| 03/11/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 03/07/2008 | | 3 | 3 | 0 | 5 | 5 | 5 | 4.20 |
| 02/20/2008 | | 5 | 5 | 3 | 5 | 5 | 5 | 4.67 |
| 02/20/2008 | | 5 | 0 | 3 | 3 | 5 | 5 | 4.20 |
| 02/20/2008 | | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 02/20/2000 | | 5 | 0 | 0 | 5 | 0 | 0 | 5.00 |
| 02/04/2008 | | 5 | 5 | 5 | 5 | 5 | 0 | 5.00 |
| 02/04/2008 | | 5 | 0 | 5 | 5 | 0 | 5 | 5.00 |
| 02/04/2008 | | 5 | 3 | 5 | 3 | 5 | 3 | 4.00 |
| 01/18/2008 | | 5 | 5 | 5 | 5 | 5 | 0 | 5.00 |
| 01/15/2008 | | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 |
| 01/15/2008 | | 5 | 5 | 0 | 0 | 0 | 0 | 5.00 |
| 01/03/2008 | 01/03/2008 | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 01/03/2008 | | 5 | 5 | 5 | 5 | 5 | 5 | 5.00 |
| 01/03/2008 | | 5 | 0 | 5 | 5 | 5 | 5 | 5.00 |
| 01/03/2008 | | 5 | 0 | 3 | 5 | 5 | 5 | 4.60 |

Back to SMO Homepage | Print | Comments or Questions

**Figure 2-14: Rest Area Operational Model - District Detail**

STATE OF FLORIDA - DEPARTMENT OF TRANSPORTATION

## REST AREA INSPECTION CHECKLIST

FORM 850-045-02
MAINTENANCE
10/02

Location _____ Date _____ Time _____

Contractor _____ Security _____ Inspector _____

| | PASS | FAIL |
|---|---|---|
| **RESTROOMS: (Factor = 20)** | | |
| 1. Counter Tops | | |
| 2. Sinks | | |
| 3. Toilets/Urinals | | |
| 4. Toilet Paper Dispensers | | |
| 5. Toilet Partitions | | |
| 6. Floors | | |
| 7. Walls | | |
| 8. Hand Dryers | | |
| 9. Soap Dispenser | | |
| 10. Baby Changing Table | | |
| 11. Mirrors | | |
| 12. Lights, interior/exterior | | |
| 13. Odor | | |
| 14. Family Restroom | | |
| **TOTAL PASSED / # INSPECTED X 20 =** | | |
| | | |
| **BUILDINGS: (Factor = 20)** | | |
| 1. Roofs | | |
| 2. Gutters | | |
| 3. Walls | | |
| 4. Doors | | |
| 5. Foyer Areas | | |
| 6. Water Fountain | | |
| 7. Utility Area | | |
| 8. Emergency Generator | | |
| 9. Signs | | |
| 10. Facility Available to Public | | |
| 11. Waste Water Treatment Facilities | | |
| 12. Well and Potable Water Treatment Facilities | | |
| **TOTAL PASSED / # INSPECTED X 20=** | | |
| | | |
| **ATTENDANT: (Factor = 10)** | | |
| 1. Uniform | | |
| 2. Available | | |
| 3. Supplies and Equipment properly stored | | |
| **TOTAL PASSED / # INSPECTED X 10 =** | | |

| | PASS | FAIL |
|---|---|---|
| **ROADWAY: (Factor = 10)** | | |
| 1. Pavement Condition | | |
| 2. Highway Lighting | | |
| 3. Signs/Delineators | | |
| 4. Striping/Symbols | | |
| 5. Shoulders | | |
| 6. Litter/Sweeping | | |
| 7. Drainage | | |
| **TOTAL PASSED / # INSPECTED X 10 =** | | |
| | | |
| **GROUNDS: (Factor = 20)** | | |
| 1. Turf Condition | | |
| 2. Vegetation/Landscaping | | |
| 3. Litter | | |
| 4. Trash Receptacle | | |
| 5. Lights | | |
| 6. Sidewalks | | |
| 7. Edging and Trimming | | |
| 8. Recycle Receptacle | | |
| 9. Tree Trimming | | |
| 10. Picnic Slabs | | |
| 11. Picnic Table | | |
| 12. Picnic Shelters | | |
| 13. Fences | | |
| **TOTAL PASSED / # INSPECTED X 20=** | | |
| | | |
| **CUSTOMER SERVICES: (FACTOR = 10)** | | |
| 1. Bulletin Boards | | |
| 2. Phones | | |
| 3. Comment Cards/Brochures | | |
| 4. Newspaper/Vending | | |
| 5. Vending Machine Area | | |
| **TOTAL PASSED / # INSPECTED X 10=** | | |
| | | |
| **SECURITY GUARD: (FACTOR = 10)** | | |
| 1. Uniform/Equipment | | |
| 2. License | | |
| 3. Available | | |
| 4. Vehicle | | |
| **TOTAL PASSED / # INSPECTED X 10=** | | |

**FINAL SCORE = Summation of totals: _____**

**Comments: Use back of sheet**

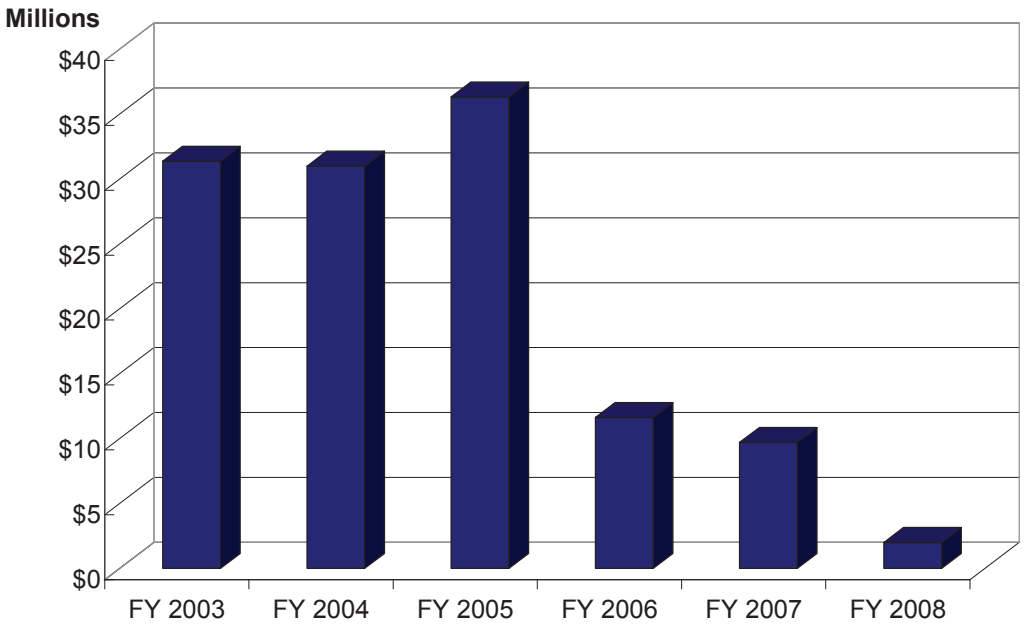
***Figure 2-15: Rest Area Inspection Checklist***

# 2.6 Budget Information

## 2.6.1 FDOT Work Program Funding

FDOT provided the Rest Area Work Program Funding from years 2003-2008 as shown in Table 2-11 to show the Department's historic spending on rest areas.

**Table 2-11: FDOT Rest Area Work Program Funding FY 2003-2008**




## 2.6.2 State Transportation Improvement Program

A review of the 2009 State Transportation Improvement Program (STIP) was conducted and the following information was obtained.

- Federal Aid Management
- State Transportation Improvement Program
- (FY 2009 STIP covering State FY 08/09 - 11/12)

The federally-mandated STIP is approved annually by the Federal Highway Administration (FHWA) and it is amended periodically throughout the course of the federal fiscal year (October thru September). This document covers a period of four state fiscal years, included are both state and federally-funded projects.

Non-turnpike rest area expenditures of $120,709,938 account for 0.32 percent of the total funds in the STIP. Of the total federal funds in the STIP, 0.02 percent or $1,846,465 were programmed for rest areas. Non-federal funds account for 98.47 percent of rest area funding in the STIP, and federal funds account for 1.53 percent of non-turnpike rest area funding.

**Table 2-12: Florida State Transportation Improvement Program (STIP) 2009**

| Fund Type | STIP All Projects | % by Source | Rest Areas | Rest Area % |
|---|---|---|---|---|
| Federal | $10,329,320,094 | 27.14% | $1,846,465 | 0.02% |
| Non-Federal | $27,733,051,950 | 72.86% | $118,863,473 | 0.43% |
| TOTALS | $38,062,372,044 | 100.00% | $120,709,938 | 0.32% |

**Table 2-13: Florida Stat0e Transportation Improvement Program (STIP) 2009 - Rest Area Breakout**

| Fund Type | Preliminary Engineering | Right-of-Way | Construction | Maintenance | Security | TOTAL | Percent |
|---|---|---|---|---|---|---|---|
| Federal | $275,972 | $139,963 | $1,430,530 | $0 | $0 | $1,846,465 | 1.53% |
| Non-Federal | $6,407,044 | $204 | $81,386,301 | $27,103,994 | $3,965,930 | $118,863,473 | 98.47% |
| TOTALS | $6,683,016 | $140,167 | $82,816,831 | $27,103,994 | $3,965,930 | $120,709,938 | 100.00% |

**Table 2-14: Non-Turnpike Rest Area Projects in the Florida State Transportation Improvement Program (STIP), 2009**

| COUNTY | DESCRIPTION | FED_ID_NBR | FUND | TYPE FUND | $PE | $ROW | $CONSTRUCTION | $GRANTS & MISC | | $ ROW TOTAL |
|---|---|---|---|---|---|---|---|---|---|---|
| BREVARD | I-95 REST AREA 9MI N INDIAN RIVER CO LINE BOTH SIDE | 9999-178-A | NH | FEDERAL | 0 | 0 | 40,261 | 0 | | $40,261 |
| DIST/ST-WIDE | REST AREAS RESERVE | | EBNH | FEDERAL | 0 | 0 | 308,870 | 0 | | $308,870 |
| DIST/ST-WIDE | REST AREAS RESERVE | | IMAC | FEDERAL | 0 | 0 | 966,287 | 0 | | $966,287 |
| DIST/ST-WIDE | REST AREAS RESERVE | | NHAC | FEDERAL | 1 | 0 | 33,462 | 0 | | $33,463 |
| DIST/ST-WIDE | REST AREA STUDY | 9999-203-A | NHAC | FEDERAL | 6,441 | 0 | 0 | 0 | | $6,441 |
| MARTIN | I-95/SR-9/MARTIN CO NB/SB REST AREA RECONSTRUCTION | 0951-575-I | NHAC | FEDERAL | 0 | 0 | 81,650 | 0 | | $81,650 |
| PASCO | I-75 PASCO (NB) REST AREA REHABILITATION BY CM@RISK CONTINGENT | 0751-142-I | IMAC | FEDERAL | 132,570 | 0 | 0 | 0 | | $132,570 |
| PASCO | I-75 PASCO (SB) REST AREA REHABILITATION BY CM@RISK CONTINGENT | 0751-143-I | IMAC | FEDERAL | 136,960 | 0 | 0 | 0 | | $136,960 |
| SANTA ROSA | SR 8 (I-10) NEW SANTA ROSA COUNTY REST AREA FACILITY | 0101-187-I | IM | FEDERAL | 0 | 139,963 | 0 | 0 | | $139,963 |
| BAKER | I-10 REST AREA SEWAGE DISPOSAL | | DIH | NON-FEDERAL | 39,044 | 0 | 0 | 0 | | $39,044 |
| BAKER | I-10 REST AREA SEWAGE DISPOSAL | | DRA | NON-FEDERAL | 800,000 | 0 | 0 | 0 | | $800,000 |
| BROWARD | I-75 REST AREA,BROW. AT MIAMI CANAL MP 30.05 | | DSB2 | NON-FEDERAL | 0 | 0 | 1,464 | 0 | | $1,464 |
| CHARLOTTE | I-75 REST AREA LANDSCAPING AT NORTH JONES LOOP RD INTERCHANGE | | DIH | NON-FEDERAL | 0 | 0 | 1,000 | 0 | | $1,000 |
| CHARLOTTE | I-75 REST AREA ROOF REPLACEMENT AT NO. JONES LOOP ROAD INTERCHANGE | | DI | NON-FEDERAL | 0 | 0 | 15,000 | 0 | | $15,000 |
| CHARLOTTE | I-75 REST AREA ROOF REPLACEMENT AT NO. JONES LOOP ROAD INTERCHANGE | | DIH | NON-FEDERAL | 0 | 0 | 1,000 | 0 | | $1,000 |
| COLLIER | I-75(ALLEY) AT NORTH REST AREA | | DSB2 | NON-FEDERAL | 10,000 | 0 | 0 | 0 | | $10,000 |
| COLLIER | I-75 REST AREA 11.5 MILES WEST OF BROWARD COUNTY LINE | | DI | NON-FEDERAL | 0 | 0 | 52,000 | 0 | | $52,000 |
| COLLIER | I-75 REST AREA 11.5 MILES WEST OF BROWARD COUNTY LINE | | DIH | NON-FEDERAL | 0 | 0 | 1,000 | 0 | | $1,000 |
| DIST/ST-WIDE | REST AREAS RESERVE | | DI | NON-FEDERAL | 0 | 0 | 3,087,856 | 0 | | $3,087,856 |
| DIST/ST-WIDE | REST AREAS RESERVE | | DRA | NON-FEDERAL | 500,000 | 0 | 2,226,580 | 0 | | $2,726,580 |
| MADISON | I-10/ MADISON CO REST AREAS/BOTH SIDES CMAR | | DIH | NON-FEDERAL | 0 | 0 | 705 | 0 | | $705 |
| PASCO | I-75 PASCO (NB) REST AREA REHABILITATION BY CM@RISK CONTINGENT | | DIH | NON-FEDERAL | 0 | 0 | 63,641 | 0 | | $63,641 |
| PASCO | I-75 PASCO (NB) REST AREA REHABILITATION BY CM@RISK CONTINGENT | | DRA | NON-FEDERAL | 1,684,000 | 0 | 13,186,031 | 0 | | $14,870,031 |
| PASCO | I-75 PASCO (SB) REST AREA REHABILITATION BY CM@RISK CONTINGENT | | DRA | NON-FEDERAL | 1,684,000 | 0 | 0 | 0 | | $1,684,000 |
| PASCO | I-75 PASCO (SB) REST AREA REHABILITATION BY CM@RISK CONTINGENT | 0751-146-I | DIH | NON-FEDERAL | 0 | 0 | 60,953 | 0 | | $60,953 |
| PASCO | I-75 PASCO (SB) REST AREA REHABILITATION BY CM@RISK CONTINGENT | 0751-146-I | DRA | NON-FEDERAL | 0 | 0 | 11,678,389 | 0 | | $11,678,389 |
| PINELLAS | I-275 SKYWAY ROOF REPLACEMENT AT NORTH AND SOUTH REST AREAS | | DI | NON-FEDERAL | 0 | 0 | 50,000 | 0 | | $50,000 |
| PINELLAS | I-275 SKYWAY ROOF REPLACEMENT AT NORTH AND SOUTH REST AREAS | | DIH | NON-FEDERAL | 0 | 0 | 1,000 | 0 | | $1,000 |
| POLK | I-4 REST AREA EAST OF CR 557A | | DI | NON-FEDERAL | 0 | 0 | 12,000 | 0 | | $12,000 |
| POLK | I-4 REST AREA EAST OF CR 557A | | DIH | NON-FEDERAL | 0 | 0 | 1,000 | 0 | | $1,000 |
| SANTA ROSA | SR 8 (I-10) NEW SANTA ROSA COUNTY REST AREA FACILITY | | DIH | NON-FEDERAL | 0 | 204 | 0 | 0 | | $204 |
| BAKER | I-10 REST AREA SEWAGE DISPOSAL | | DIH | NON-FEDERAL | 40,000 | 0 | 0 | 0 | | $40,000 |
| DIST/ST-WIDE | REST AREAS RESERVE | | DRA | NON-FEDERAL | 80,000 | 0 | 11,678,000 | 0 | | $11,758,000 |
| COLLIER | I-75(ALLEY) AT NORTH REST AREA | | DSB2 | NON-FEDERAL | 1,570,000 | 0 | 0 | 0 | | $1,570,000 |
| DIST/ST-WIDE | REST AREAS RESERVE | | DRA | NON-FEDERAL | 0 | 0 | 19,268,682 | 0 | | $19,268,682 |
| DIST/ST-WIDE | REST AREAS RESERVE | | DRA | NON-FEDERAL | 0 | 0 | 20,000,000 | 0 | | $20,000,000 |
| DIST/ST-WIDE | REST AREA MAINTENANCE TOTAL ASSET MANAGEMENT | | D | NON-FEDERAL | 0 | 0 | 0 | 5,999,000 | | $5,999,000 |
| SEMINOLE | REST AREA SEMINOLE | | D | NON-FEDERAL | 0 | 0 | 0 | 205,998 | | $205,998 |
| DIST/ST-WIDE | REST AREA MAINTENANCE TOTAL ASSET MANAGEMENT | | D | NON-FEDERAL | 0 | 0 | 0 | 6,460,000 | | $6,460,000 |
| ESCAMBIA | ROAD RANGERS SERVICE PATROL IN ESCAMBIA CO INTERSTATE | | D | NON-FEDERAL | 0 | 0 | 0 | 358,000 | | $358,000 |
| SEMINOLE | REST AREA SEMINOLE | | D | NON-FEDERAL | 0 | 0 | 0 | 205,998 | | $205,998 |
| DIST/ST-WIDE | REST AREA MAINTENANCE TOTAL ASSET MANAGEMENT | | D | NON-FEDERAL | 0 | 0 | 0 | 6,460,000 | | $6,460,000 |
| ESCAMBIA | ROAD RANGERS SERVICE PATROL IN ESCAMBIA CO INTERSTATE | | D | NON-FEDERAL | 0 | 0 | 0 | 369,000 | | $369,000 |
| SEMINOLE | REST AREA SEMINOLE | | D | NON-FEDERAL | 0 | 0 | 0 | 205,998 | | $205,998 |
| DIST/ST-WIDE | REST AREA MAINTENANCE TOTAL ASSET MANAGEMENT | | D | NON-FEDERAL | 0 | 0 | 0 | 6,460,000 | | $6,460,000 |
| ESCAMBIA | ROAD RANGERS SERVICE PATROL IN ESCAMBIA CO INTERSTATE | | D | NON-FEDERAL | 0 | 0 | 0 | 380,000 | | $380,000 |
| DIST/ST-WIDE | DISTRICTWIDE REST AREAS SECURITY GUARDS | | D | NON-FEDERAL | 0 | 0 | 0 | 950,000 | | $950,000 |
| DIST/ST-WIDE | DISTRICTWIDE SECURITY REST AREAS | | D | NON-FEDERAL | 0 | 0 | 0 | 489,000 | | $489,000 |
| DIST/ST-WIDE | SECURITY GUARD SERVICES AT SEMINOLE REST AREA ON I-4 | | D | NON-FEDERAL | 0 | 0 | 0 | 276,465 | | $276,465 |
| DIST/ST-WIDE | DISTRICTWIDE SECURITY REST AREAS | | D | NON-FEDERAL | 0 | 0 | 0 | 489,000 | | $489,000 |
| DIST/ST-WIDE | SECURITY GUARD SERVICES AT SEMINOLE REST AREA ON I-4 | | D | NON-FEDERAL | 0 | 0 | 0 | 276,465 | | $276,465 |
| DIST/ST-WIDE | D/W SECURITY REST AREAS | | D | NON-FEDERAL | 0 | 0 | 0 | 600,000 | | $600,000 |
| SEMINOLE | SECURITY GUARD SERVICES AT SEMINOLE REST AREA ON I-4 | | D | NON-FEDERAL | 0 | 0 | 0 | 285,000 | | $285,000 |
| DIST/ST-WIDE | D/W SECURITY REST AREAS | | D | NON-FEDERAL | 0 | 0 | 0 | 600,000 | | $600,000 |
| | | | | | | | | | | |
| | | | | | | | | | | $120,709,938 |

## Table 2-15: Rest Area Program Budgets: Repair & Replacement Only as of July 1, 2008

**Information provided by FDOT Central Office (Not for official use)*

| BD | ItemSeg | Ph | Sq | Description | Wkmx | Fund | Area | Vr | Amt_2009 | Amt_2010 | Amt_2011 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | 200746-1 | C2 | 01 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 0 | 0 | 0 |
| 01 | 200746-1 | 31 | 02 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 0 | 0 | 70,000 |
| 01 | 200746-1 | 31 | 02 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 10,000 | 0 | 0 |
| 01 | 200746-1 | 32 | 01 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 0 | 0 | 1,500,000 |
| 01 | 200746-1 | 52 | 01 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 0 | 0 | 0 |
| 01 | 200746-1 | 56 | 01 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 0 | 0 | 0 |
| 01 | 200746-1 | 61 | 01 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 0 | 0 | 0 |
| 01 | 200746-1 | 62 | 01 | I-75(ALLEY) | 0109 | DSB2 | EVGLCO | AD | 0 | 0 | 0 |
| 01 | 424243-1 | 61 | 01 | I-75 REST AREA | 0109 | DIH | | AD | 1,000 | 0 | 0 |
| 01 | 424244-1 | 52 | 01 | I-75 REST AREA | 0109 | DI | | AD | 52,000 | 0 | 0 |
| 01 | 424244-1 | 61 | 01 | I-75 REST AREA | 0109 | DIH | | AD | 1,000 | 0 | 0 |
| 01 | 424245-1 | 52 | 01 | I-4 REST AREA | 0109 | DI | | AD | 12,000 | 0 | 0 |
| 01 | 424245-1 | 61 | 01 | I-4 REST AREA | 0109 | DIH | | AD | 1,000 | 0 | 0 |
| 01 | 424261-1 | 52 | 01 | I-75 REST AREA ROOF | 0109 | DI | | AD | 15,000 | 0 | 0 |
| 01 | 424261-1 | 61 | 01 | I-75 REST AREA ROOF | 0109 | DIH | | AD | 1,000 | 0 | 0 |
| 01 | 424262-1 | 52 | 01 | I-275 SKYWAY ROOF | 0109 | DI | | AD | 50,000 | 0 | 0 |
| 01 | 424262-1 | 61 | 01 | I-275 SKYWAY ROOF | 0109 | DIH | | AD | 1,000 | 0 | 0 |
| Total: 01 | | | | | | | | | 144,000 | 0 | 1,570,000 |
| 02 | 213004-2 | 31 | 01 | I-10 REST AREA | 0109 | DIH | | AD | 0 | 40,000 | 0 |
| 02 | 213004-2 | 31 | 01 | I-10 REST AREA | 0109 | DIH | | AD | 39,044 | 0 | 0 |
| 02 | 213004-2 | 32 | 01 | I-10 REST AREA | 0109 | DRA | | AD | 800,000 | 0 | 0 |
| 02 | 213004-2 | 52 | 01 | I-10 REST AREA | 0109 | DRA | | AD | 0 | 0 | 0 |
| 02 | 213004-2 | 61 | 01 | I-10 REST AREA | 0109 | DIH | | AD | 0 | 0 | 0 |
| 02 | 213004-2 | 62 | 01 | I-10 REST AREA | 0109 | DRA | | AD | 0 | 0 | 0 |
| 02 | 213004-2 | 62 | 21 | I-10 REST AREA | 0109 | DRA | | AD | 0 | 0 | 0 |
| 02 | 213004-2 | 62 | 40 | I-10 REST AREA | 0109 | DRA | | AD | 0 | 0 | 0 |
| 02 | 213442-1 | 61 | 01 | I-10/ MADISON CO | 0109 | DIH | | AD | 705 | 0 | 0 |
| Total: 02 | | | | | | | | | 839,749 | 40,000 | 0 |
| 03 | 407111-1 | 41 | 01 | SR 8 (I-10) | 0109 | DIH | | AD | 204 | 0 | 0 |
| 03 | 407111-1 | 43 | 01 | SR 8 (I-10) | 0109 | IM | | AD | 139,963 | 0 | 0 |
| Total: 03 | | | | | | | | | 140,167 | 0 | 0 |
| 04 | 231541-1 | 61 | 02 | I-75 REST AREA,BROW. | 0109 | DSB2 | EVGLBR | AD | 1,464 | 0 | 0 |
| 04 | 405504-1 | 61 | 01 | I-95/SR-9/MARTIN CO | 0109 | NHAC | | AD | 77,943 | 0 | 0 |
| 04 | 405504-1 | 61 | 01 | I-95/SR-9/MARTIN CO | 0109 | NHAC | | AD | 3,707 | 0 | 0 |
| Total: 04 | | | | | | | | | 83,114 | 0 | 0 |
| 05 | 242318-1 | 61 | 01 | I-95 REST AREA | 0109 | NH | | AD | 40,261 | 0 | 0 |
| 07 | 407944-1 | 31 | 01 | I-75 PASCO (NB) | 0109 | IMAC | | AD | 132,570 | 0 | 0 |
| 07 | 407944-1 | 32 | 01 | I-75 PASCO (NB) | 0109 | DRA | | AD | 1,684,000 | 0 | 0 |
| 07 | 407944-1 | 52 | 01 | I-75 PASCO (NB) | 0109 | DRA | | AD | 11,970,000 | 0 | 0 |
| 07 | 407944-1 | 61 | 01 | I-75 PASCO (NB) | 0109 | DIH | | AD | 63,641 | 0 | 0 |
| 07 | 407944-1 | 62 | 01 | I-75 PASCO (NB) | 0109 | DRA | | AD | 1,216,031 | 0 | 0 |
| 07 | 407944-2 | 31 | 01 | I-75 PASCO (SB) | 0109 | IMAC | | AD | 136,960 | 0 | 0 |
| 07 | 407944-2 | 32 | 01 | I-75 PASCO (SB) | 0109 | DRA | | AD | 1,684,000 | 0 | 0 |
| 07 | 407944-2 | 52 | 01 | I-75 PASCO (SB) | 0109 | DRA | | AD | 10,552,500 | 0 | 0 |
| 07 | 407944-2 | 61 | 01 | I-75 PASCO (SB) | 0109 | DIH | | AD | 60,953 | 0 | 0 |
| 07 | 407944-2 | 62 | 01 | I-75 PASCO (SB) | 0109 | DRA | | AD | 1,125,889 | 0 | 0 |
| Total: 07 | | | | | | | | | 28,626,544 | 0 | 0 |
| 40 | 418881-1 | 32 | 01 | REST AREA STUDY | 0109 | NHAC | | AD | 6,441 | 0 | 0 |
| 89 | 190441-1 | 32 | 01 | REST AREAS RESERVE | 0109 | DRA | | AD | 0 | 80,000 | 0 |
| 89 | 190441-1 | 32 | 01 | REST AREAS RESERVE | 0109 | DRA | | AD | 500,000 | 0 | 0 |
| 89 | 190441-1 | 32 | 01 | REST AREAS RESERVE | 0109 | NHAC | | AD | 1 | 0 | 0 |
| 89 | 190441-1 | 52 | 01 | REST AREAS RESERVE | 0109 | IMAC | | AD | 966,287 | 0 | 0 |
| 89 | 190441-1 | 52 | 01 | REST AREAS RESERVE | 0109 | EBNH | | AD | 308,870 | 0 | 0 |
| 89 | 190441-1 | 52 | 01 | REST AREAS RESERVE | 0109 | DI | | AD | 57,184 | 0 | 0 |
| 89 | 190441-1 | 52 | 01 | REST AREAS RESERVE | 0109 | DRA | | AD | 0 | 0 | 19,268,682 |
| 89 | 190441-1 | 52 | 01 | REST AREAS RESERVE | 0109 | DRA | | AD | 0 | 0 | 0 |
| 89 | 190441-1 | 52 | 01 | REST AREAS RESERVE | 0109 | DRA | | AD | 2,226,580 | 11,678,000 | 0 |
| 89 | 190441-1 | 52 | 01 | REST AREAS RESERVE | 0109 | NHAC | | AD | 1 | 0 | 0 |
| 89 | 190441-1 | 52 | 02 | REST AREAS RESERVE | 0109 | DI | | AD | 1,873,465 | 0 | 0 |
| 89 | 190441-1 | 62 | 01 | REST AREAS RESERVE | 0109 | DI | | AD | 79,499 | 0 | 0 |
| 89 | 190441-1 | 62 | 02 | REST AREAS RESERVE | 0109 | NHAC | | AD | 33,461 | 0 | 0 |
| 89 | 190441-1 | 62 | 02 | REST AREAS RESERVE | 0109 | DI | | AD | 1,077,708 | 0 | 0 |
| Total: 89 | | | | | | | | | 7,123,056 | 11,758,000 | 19,268,682 |
| **Grand Total** | | | | | | | | | **37,003,332** | **11,798,000** | **20,838,682** |

| Description | Amt_2012 | Amt_2013 | Amt_2014 | Amt_2015 | Amt_2016 | Amt_2017 | Amt_2018 | Total |
|---|---|---|---|---|---|---|---|---|
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 0 | 1,665,437 | 1,665,437 |
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 70,000 |
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,000 |
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,500,000 |
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 0 | 21,629,923 | 21,629,923 |
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 300,000 | 0 | 300,000 |
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 0 | 97,342 | 97,342 |
| I-75(ALLEY) | 0 | 0 | 0 | 0 | 0 | 0 | 2,504,531 | 2,504,531 |
| I-75 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 |
| I-75 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 52,000 |
| I-75 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 |
| I-4 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 12,000 |
| I-4 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 |
| I-75 REST AREA ROOF | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 15,000 |
| I-75 REST AREA ROOF | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 |
| I-275 SKYWAY ROOF | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 50,000 |
| I-275 SKYWAY ROOF | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,000 |
| | 0 | 0 | 0 | 0 | 0 | 300,000 | 25,897,233 | 27,911,233 |
| I-10 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40,000 |
| I-10 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 39,044 |
| I-10 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 800,000 |
| I-10 REST AREA | 0 | 0 | 6,439,356 | 0 | 0 | 0 | 0 | 6,439,356 |
| I-10 REST AREA | 0 | 0 | 193,196 | 0 | 0 | 0 | 0 | 193,196 |
| I-10 REST AREA | 0 | 0 | 643,986 | 0 | 0 | 0 | 0 | 643,986 |
| I-10 REST AREA | 0 | 0 | 267,397 | 0 | 0 | 0 | 0 | 267,397 |
| I-10 REST AREA | 0 | 0 | 64,399 | 0 | 0 | 0 | 0 | 64,399 |
| I-10/ MADISON CO | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 705 |
| | 0 | 0 | 7,608,334 | 0 | 0 | 0 | 0 | 8,488,083 |
| SR 8 (I-10) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 204 |
| SR 8 (I-10) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 139,963 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 140,167 |
| I-75 REST AREA,BROW. | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,464 |
| I-95/SR-9/MARTIN CO | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 77,943 |
| I-95/SR-9/MARTIN CO | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 3,707 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 83,114 |
| I-95 REST AREA | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 40,261 |
| I-75 PASCO (NB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 132,570 |
| I-75 PASCO (NB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,684,000 |
| I-75 PASCO (NB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11,970,000 |
| I-75 PASCO (NB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 63,641 |
| I-75 PASCO (NB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,216,031 |
| I-75 PASCO (SB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 136,960 |
| I-75 PASCO (SB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,684,000 |
| I-75 PASCO (SB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 10,552,500 |
| I-75 PASCO (SB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 60,953 |
| I-75 PASCO (SB) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,125,889 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 28,626,544 |
| REST AREA STUDY | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6,441 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 80,000 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 500,000 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 966,287 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 308,870 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 57,184 |
| REST AREAS RESERVE | 20,000,000 | 20,000,000 | 0 | 20,000,000 | 20,000,000 | 20,800,000 | 0 | 120,068,682 |
| REST AREAS RESERVE | 0 | 0 | 12,584,862 | 0 | 0 | 0 | 21,632,000 | 34,216,862 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 13,904,580 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,873,465 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 79,499 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33,461 |
| REST AREAS RESERVE | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1,077,708 |
| | 20,000,000 | 20,000,000 | 12,584,862 | 20,000,000 | 20,000,000 | 20,800,000 | 21,632,000 | 173,166,600 |
| | **20,000,000** | **20,000,000** | **20,193,196** | **20,000,000** | **20,000,000** | **21,100,000** | **47,529,233** | **238,462,443** |

# 2.7 Federal and State Regulation Adherences

Numerous federal and state statues apply to rest areas.

## 2.7.1 Federal Law

As previously noted, rest areas were first addressed at the federal level in the Federal-Aid Highway Act of 1938 and subsequently in the Federal-Aid Highway Act of 1956 and the Highway Beautification Act of 1965.

**23 CFR § 752.5 Safety Rest Areas**

"(a) Safety rest areas should provide facilities reasonably necessary for the comfort, convenience, relaxation, and information needs of the motorist. Caretakers' quarters may be provided in conjunction with a safety rest area at such locations where accommodations are deemed necessary. All facilities within the rest area are to provide full consideration and accommodation for the handicapped.

(b) The State may permit the placement of vending machines in existing or new safety rest areas located on the rights-of-way of the Interstate system for the purpose of dispensing such food, drink, or other articles as the State determines are appropriate and desirable, except that the dispensing by any means, of petroleum products or motor vehicle replacement parts shall not be allowed. Such vending machines shall be operated by the State.

(c) The State may operate the vending machines directly or may contract with a vendor for the installation, operation, and maintenance of the vending machines. In permitting the placement of vending machines the State shall give priority to vending machines which are operated through the State licensing agency designated pursuant to section 2(a)(5) of the Randolph-Sheppard Act, U.S.C. 107(a)(5).

(d) Access from the safety rest areas to adjacent publicly owned conservation and recreation areas may be permitted if access to these areas is only available through the rest area and if these areas or their usage does not adversely affect the facilities of the safety rest area.

(e) The scenic quality of the site, its accessibility and adaptability, and the availability of utilities are the prime considerations in the selection of rest area sites. A statewide safety rest area system plan should be maintained. This plan should include development priorities to ensure safety rest areas will be constructed first at locations most needed by the motorist. Proposals for safety rest areas or similar facilities on Federal-aid highways in suburban or urban areas shall be special case and must be fully justified before being authorized by the FHWA Regional Administrator.

(f) Facilities within newly constructed safety rest areas should meet the forecast needs of the design year. Expansion and modernization of older existing rest areas that do not provide adequate service should be considered.

(g) No charge to the public may be made for goods and services at safety rest areas except for telephone and articles dispensed by vending machines. [43 FR 19390, May 5, 1978, as amended at 48 FR 38611, Aug. 25, 1983]"

## 2.7.2 State Law

**Florida Law 14-28.002 Public Use of Rest Areas and Welcome Centers**

Rest areas and welcome centers are provided as safety rest stops for travelers to use on a first come, first served basis. Persons using rest areas and welcome centers must comply with the following requirements:

(1) Group functions are prohibited.

(2) Camping is prohibited.

(3) Using alcoholic beverages and drugs is prohibited.

(4) Parking for periods greater than three hours is prohibited. This does not apply to solicitations permitted under Rule 14-28.005, F.A.C.

(5) All vehicles must be parked in the proper manner at locations designated by FDOT.

(6) Animals must be kept on a leash or in other appropriate restraining devices, e.g. cages, and shall not be taken into any shelters or other buildings. This provision is not applicable to animals used by persons with disabilities.

(7) No person shall disturb or injure birds, nests, eggs, squirrels, or any other animals within the area.

(8) No person may pick any flowers, foliage, fruit; or cut, break, dig up, or in any way mutilate or injure any tree, shrub, plant, grass turf, railing, seat, fence, structure, or anything within the area; or cut, carve, write, paint, or paste on any tree, stone, fence, wall, building, monument or other object therein, any bill, advertisement, or inscription whatsoever.

(9) No person shall dig up or remove any dirt, stones, rocks, or other objects; make any excavation, quarry any stones, or lay or set off any blast, or cause or assist in doing any of these activities within the area.

(10) Fires may be made only in fire places or grills provided for this purpose, and any person building a fire will be responsible for completely extinguishing the fire before leaving the area.

(11) No article or object may be offered for sale within the area.

(12) Bottles, broken glass, ashes, waste paper or other rubbish shall be left only at such places provided for disposal.

(13) No person shall hook up his or her vehicle to electrical and water outlets.

Specific Authority 334.044(2), 337.405, 337.406 FS. Law Implemented 334.044(13), 335.02(1), 337.405, 337.406 FS. History–New 9-2-82, Formerly 14-28.02, Amended 10-25-89, 8-28-91, 7-6-93, 11-19-07.

Anyone traveling Florida's interstates can see that the state's rest areas exceed the federal requirements in amenities, appearance, and overall function. However, issues, such as truck parking and urban encroachment, remain to be addressed.

## 2.7.3 Other Federal and State Statutes:

- The following are some of the associated statutes that apply to rest areas:
- United States Code, Title 23 - Highways (23 USC)
- Code of Federal Regulations, Title 23 Highways (23 CFR)
- National Environmental Policy Act (NEPA): 42 USC, 4321-4347; 23 CFR 771 as amended
- Environmental Impact and Related Procedures, 40 CFR 1500-1508 CEQ Regulations
- National Historic Preservation Act of 1966 as amended: 16 USC
- Americans with Disabilities Act (ADA) of 1991
- Clean Water Act
- Safe Drinking Water Act
- Council of American Building Officials (CABO) / American National Standards Institute (ANSI)
- National, state, and local building codes
- Federal Register, Vol. 60 No. 154: Guidance for Presidential Memorandum on Environmentally and Economically Beneficial Landscape Practices on Federally Landscaped Grounds

# 2.8 Overview of the 2005 Rest Area Assessment Study

Pertinent previous studies related to the Florida rest area system were reviewed as part of the due-diligence task during the existing conditions phase of this project. The most relevant study related to the scope of this project was the 2005 RAAS.

The 2005 study was an update to the original 1993 study. The 1993 study was determined to be obsolete in 2005, and a new assessment was requested because of the state's rapid population and traffic growth, as well as updated district and statewide priorities.

## 2.8.1 Study Components

The 2005 RAAS was organized to address both the physical and operational characteristics of the total Florida rest area system and included the following four tasks:

1. Review study recommendations from the 1993 report
2. Investigate current conditions of existing Florida rest areas
3. Evaluate the current and projected needs of the traveling public
4. Provide prioritization of rest areas for use in a rehabilitation/development plan

The assessment included interviews of FDOT district coordinators, management, contractors, and maintenance staff, in addition to security personnel. The study provided answers and recommendations for a series of questions about topics, ranging from operational conditions, parking, and wastewater management to future expectations and facility adequacy.

Detailed site visits were conducted at 52 rest areas and four welcome centers in the Florida interstate system in 2005, and the following areas were inventoried for detailed analysis:

- General Information
- Building
- Site
- ADA Compliance
- Water Plant & Wastewater Treatment Facilities

Several products were developed from the extensive existing conditions inventory effort:

- A comprehensive scoring workbook
- A general comment worksheet to document known deficiencies
- Digital photographs, which linked into and supported the scoring workbook
- On-site security personnel interviews
- Consumer feedback
- Recommendations for each facility
- Cost breakdowns for the recommended improvements at each facility

## 2.8.2 Facility Evaluation

Twelve components were analyzed for each facility in order to conduct a complete evaluation of the rest area site features. Table 2-16 details key components reviewed during the site visits, and Figure 2-16 is an example of the comprehensive facility review worksheets completed for each facility.

**Table 2-16: Key Components in 2005 RAAS**

| Key Components | | | |
|---|---|---|---|
| **Site** | **Building** | **ADA Compliance** | **Water Plant & Wastewater Treatment** |
| **Subcomponents** | | | |
| Approach & Existing Signage | Roof | ADA Guidelines | 3 Yrs. Discharge Monitoring Reports |
| Ramps | Exterior | FL Bldg. Code Ch. 11 Requirements | |
| Interior Roadway | Interior | | |
| Rest Area Signage | Fixtures | | Permits |
| Auto Parking | Mechanical | | Annual FDEP Inspection Reports |
| RV & Truck Parking | Lighting & Electrical | | |
| Drainage | Plumbing | | |
| Sidewalks | | | |
| Ancillary Facilities | | | |
| Grounds & Landscaping | | | |
| Lighting | | | |
| Safety & Security | | | |

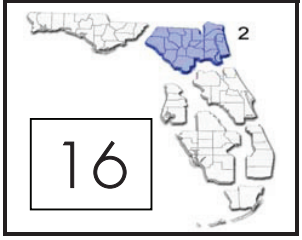
REST AREA NO.: 20140
DISTRICT NO.: 2
COUNTY: HAMILTON
INTERSTATE NO.: I-75
DIRECTION: SOUTHBOUND
MILE POST: 470

Site, Building, and ADA Compliance Visit: Dec 19, 2006

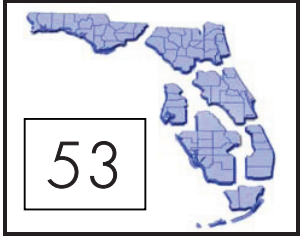
Consumer Comments:

- 100% of consumers felt the rest area signage was adequate.
- 35% of consumers' primary reason for stopping was to use the restroom, 29% was to use the travel information boards.
- 100% of consumers felt the rest area as very clean.
- 100% of consumers felt the parking was adequate.
- 100% of consumers felt the rest area was very safe.

DISTRICT PRIORITY




STATE PRIORITY




1.3 Major Deficiencies

| Item No. | Section | Sub-Section | Description | Cost |
|---|---|---|---|---|
| 1.3.1 | Site | Ramps | Significant shoulder damage was noted along the on-ramp. | $41,727 |
| 1.3.2 | Site | Truck & RV Parking | Did not meet the required number of parking spaces based on current criteria. | $1,433,846 |
| | | | Subtotal | $1,475,573 |
| | | | Major Deficiencies Repair Total | $1,475,573 |

1.4 Minor Deficiencies

| Item No. | Section | Sub-Section | Description | Cost |
|---|---|---|---|---|
| 1.4.1 | Site | Safety & Security | No post-mounted emergency phone provided. | $1,500 |
| | | | Subtotal | $1,500 |
| 1.4.2 | Building | Interior | Signage for women's restroom was hard to see when entering from auot parking area. | $403 |
| | | | Subtotal | $403 |
| 1.4.3 | ADA | Telephones | No TDD signage was provided for accessible telephone. | $32 |
| | | | Subtotal | $32 |
| | | | Minor Deficiencies Repair Total | $1,935 |

Estimated Total Repair and Improvement Costs $1,477,508

**Figure 2-16: Example of a Comprehensive Facility Review Worksheet from the 2005 RAAS**

## 2.8.3 Study Findings

### General Information

Florida rest areas are in good condition and visitors will generally find a clean facility, which offers access to restrooms and other services. The older facilities, however, do not meet the full needs of the traveling public.

### Geographical Findings

The geographical findings included a discussion of rest areas in the rural areas of the state and in Seminole County at rest area #22. The urban areas of Florida were found to have a generally ample supply of service stations and food establishments along the interstates to serve high levels of commuter-based traffic needs.

The report recommends that future resource and planning efforts focus on the more rural areas, such as the Panhandle (D3); North Florida (D2); and the central part of Florida's East Coast between Jacksonville and West Palm Beach (D5/D4).

The Seminole County rest areas #22 located near Longwood have the highest traffic volumes (AADT) in the state and fail to meet parking and fixture needs. Encroachment from residential and industrial land uses is significant, and the study recommends closing this rest area in both directions. In its place, the study recommends adding a new rest area east along I-4 near DeLand because without the Longwood Seminole County rest area #22 facilities, only the Polk County rest areas #20 between Tampa and Daytona Beach would be available for I-4 motorists.

### Site Findings

Site findings varied greatly throughout the state, based principally on the age of the facilities. The rest area facilities were generally considered adequate from a site standpoint, with one exception, truck parking. In fact, the report states that truck traffic is the "number one issue facing Florida facilities," particularly at the older rest areas. Less than 50 percent of the 56 facilities met requirements for truck parking. While the number of truck parking spaces is the main deficiency, this deficiency causes other impacts, such as parking on ramps, interior roads, and entrance/exit ramps at adjacent interchanges. All of these conditions create a safety issue for truck operators and the traveling public.

While more recently constructed weigh stations offer truck parking and even restrooms for the drivers, they are not fully utilized either because drivers are not aware of this resource or because they fear random inspections from weigh station staff. The 2005 RAAS recommends implementing an awareness campaign and partnering with private truck centers to provide additional parking areas.

Another common site finding is the need for storage sheds to house maintenance equipment. This demand is more applicable for older rest areas where the storage sheds are in poor condition or have inadequate space. As a result, equipment and materials are sometimes left outside and unsecured.

Security, specifically as related to incidents at picnic pavilions, represents a concern for an isolated number of rest areas. The inclusion of nighttime security and the closure of picnic loop roads during the nighttime hours have solved many of these issues.

## Building Findings

Building findings are generally not common to multiple rest areas across the state, but rather they involve case-by-case conditions. The comprehensive workbooks completed for each rest area detail specific building-related issues, such as roof and bathroom fixtures. One issue regarding emergency generators was discussed in some detail. As a general finding, the report recommends installing permanent emergency generators at all rest areas to be able to maintain full services during emergency evacuations.

Accessibility compliance was scored high for accessible features and fixtures. Noted exceptions included detectable warnings at the primary curb ramp areas with contrasting colors for ramps and Braille and raised characters on signage at buildings.

## Water Plant & Wastewater Treatment Findings

Water plant and wastewater treatment findings represent a continuing issue of importance for FDOT. The concerns include the treatment of wastewater and dealing with specific levels of nitrates, discharge points, and evaluating the connection to public systems when feasible. Pressurized hydropneumatic tanks are a common source for drinking water and maintenance and inspection should be increased.

## Consumer Survey Findings

The addition of consumer surveys represented a significant addition to the previous 1993 study. Over 560 rest area consumers were interviewed during the 2005 study and yielded important data about the opinions of respondents and the services provided. About 85 percent of respondents rated rest areas as "very important" to the traveling public. Ninety percent of respondents rated the restrooms as being "very clean," and 89 percent rated the rest area facilities as being "very safe." The primary-reasons-to-stop question generated the following responses: 57 percent stopped to use the restrooms, 18 percent stopped to rest, and nine percent stopped to get water or a snack. Lastly, survey respondents generally indicated that the distance between rest areas is about right when compared to a distance of 41-60 miles apart.

# 3 Benchmarking



## 3.1 Investigation into State-of-the-Art Practices

One of the three main purposes of this long-range plan, as stated in the scope of work, is to investigate state-of-the-art practices for rest area facilities and services. This section focuses on the benchmarking that was accomplished to understand progressive practices used in current rest area systems and emerging trends in rest area facilities and operations. The benchmarks identified in this effort represent key standards, or areas of interest, that served as guidance for developing implementation scenarios and drawing the conclusions and recommendations presented in this long-range plan.


Unique regional attractions at a Washington State Rest Area

### 3.1.1 Methodology

Several key sources were evaluated to assist in developing the benchmarks:

- Research of peer states (programs and procedures)
- Personal interviews of key staff within those peer states
- Site visits of facilities in the peer states
- Attendance at the 2008 National Rest Area Conference

These sources provided a general overview of benchmarking practices and included the collection of individual documents, discussions, and materials.

The benchmarks are presented in the following three subject areas:

- Facilities and Operations
- Emerging Trends
- Future Considerations


Research of peer states included a visit to Maryland rest areas

## 3.1.2 Benchmarking Partners

The states of Maryland, Texas, and Washington were selected for research based on their progressive practices. This research effort consisted of site visits and meetings with key staff of varying levels of responsibility to understand the rest area programs in these three states.

The following is a brief summary of the reasons for selecting Maryland and the findings from the site visits and discussions:

### Maryland

Maryland was selected as a benchmarking peer state for several reasons:

- Maryland incorporates welcome centers into their rest areas at both State interstate entry points and interior locations.
- The Maryland Transportation Authority (MdTA) tolls parts of I-95 and includes the No. 1 and No. 3 most visited travel plazas in the nation.
- The Maryland Department of Transportation (DOT), MdTA, and the Maryland Office of Tourism Development have strong and supportive working relationships.

The above key reasons, plus Maryland's active redevelopment of major rest areas and provision of truck-only rest areas, provide helpful insights into both operational and facility considerations.

**Maryland Welcome Centers**

Providing 13 welcome centers throughout the state, including several along non-interstate highways, is a unique element in the state's rest area program. The Office of Tourism Development operates these centers and is proud that Maryland is one of the few states to fully staff its welcome centers with travel counselors who are nationally certified by the Travel Industry Association of America.

Clearly, Maryland views its welcome centers/rest areas as important components for promoting and expanding tourism. Discussions with staff revealed that they believe that a traveler extends their visitation to the state as a direct correlation to the fact that they stop and use the welcome center.

A comical quote from a staff member included a reference to "converting pee-ers into see-ers" with the extensive and comprehensive information services available at Maryland welcome centers. Economic benefits to extending or expanding visitors' stays may become a consideration for Florida.

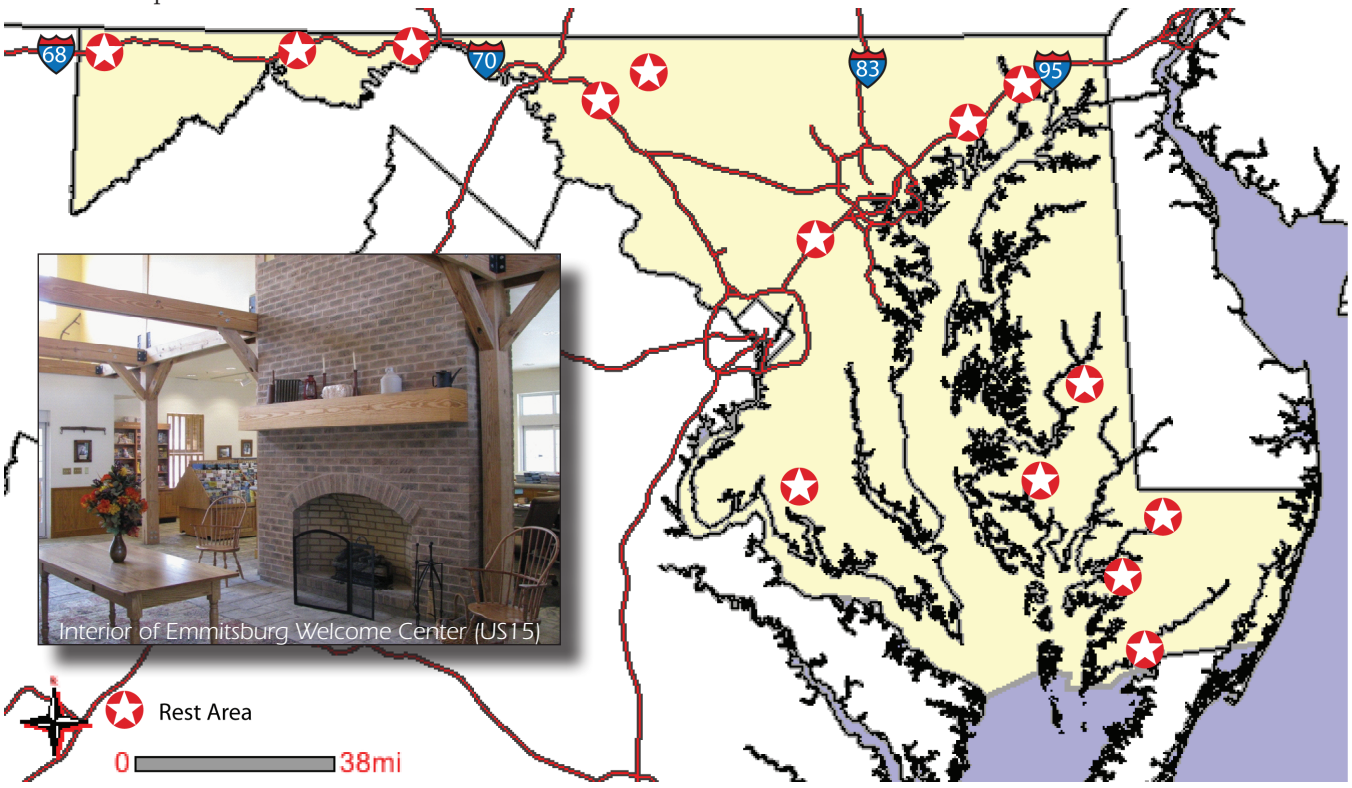



**Figure 3-1: Maryland Rest Area Locations**

Additionally, Maryland operates welcome centers on non-interstate facilities, such as the recently completed US 15 Welcome Center in Emmitsburg, just south of Gettysburg, Pennsylvania. This facility provides the traveler with restrooms, vending, a playground, travel information, and community meeting/museum space. The US 15 Welcome Center provides more of the traditional services of a center located near the state line. However, this center, as well as others currently under development, are themed to relate to the geographic area where they are located and they are planned to serve potential community functions, such as festivals and art exhibits. Maryland, like many other states, is installing Wi-Fi internet services at many locations.

Maryland House vendors


Exterior facade of Maryland House

**Maryland Tolls on I-95**

Another unique aspect of Maryland is the use of tolls on portions of I-95. Portions of I-95 in Jacksonville, Florida were also tolled up until 1989 when tolls were replaced with a local option sales tax. The significance of tolls for interstate rest areas is that as a toll road, rest areas/welcome centers can expand services, such as restaurants, fuel sales, and other for-fee services, similar to Florida's Turnpike Enterprise.

Furthermore, two service plazas, Chesapeake House and Maryland House located along the northern portions of I-95, represent two of the most visited welcome/information centers in the nation.

Chesapeake House (welcome) is located 12 miles south of the Delaware state line, and Maryland House (information) is located just 14 miles farther south. These two facilities when combined, generated over $40 million in revenue from fuel, food, and merchandise sales in 2007. Clearly, this level of concessions represents opportunities for revenue for the operating toll agency and attracts private-sector interest for Public-Private Partnership (PPP).

Historic marker at Emmitsburg Welcome Center

## Texas

Texas was selected as a benchmarking peer state for several reasons:

- Texas is currently undertaking a comprehensive rest area redevelopment program to include aesthetic, historical, and culturally unique facility designs.
- The Texas Department of Transportation (TxDOT) was a national leader in utilizing Transportation Enhancement (TE) funds to construct rest areas and to install Wi-Fi internet system-wide.
- Texas adopted a policy stance that urban areas along the interstate system could serve rest area functions and may close rest areas near major cities.

These key reasons, plus Texas' extensive public participation in facility design and the state's commercial truck parking considerations, provide helpful insights into both operational and facility considerations.

Recycling plaque at Columbus rest area

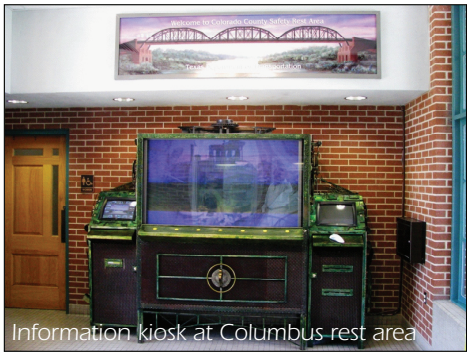

Information kiosk at Columbus rest area




**Figure 3-2: *Texas Rest Area Locations***

**Progressive Planning and Design Guidelines**

TxDOT developed a rest area improvement plan for the state's safety rest areas in 1999. The state also developed a set of design goals for building new rest areas and rehabilitating existing rest areas. Design elements include scenic location, pedestrian features, landscaping, historic preservation, regional vernacular architectural design, safety/educational activities, and environmental issues.

A key design element is a regional vernacular approach for architecture and site design. The diverse geography of Texas lends itself to providing unique rest areas, which are themed, using the physical and historic significance of the area surrounding each rest area.


Entry pylon at Guadalupe County rest area

To date, Texas has constructed several sets of rest areas along some of its major interstates. All of the rest areas, while unique in style and size, contain playgrounds, truck parking, pet exercise paths, family restrooms, and exhibition space. The state employs a thorough design process involving the public and strives to present historically and culturally significant features of the region. The state believes strongly that interesting rest areas will provide the traveler with an extended resting period and therefore reduce driver fatigue.

Regional vernacular architecture example

**Funding Strategy**

Given the magnitude of its rest area system, TxDOT developed a funding approach to redevelop its rest areas that utilizes TE funds. The federally-mandated ten percent minimum set-aside for the TE program represents a significant and reliable source of funding for TxDOT's extensive rest area redevelopment program.

Current construction estimates budget approximately $16-18 million per rest area pair. This cost includes the construction of a minimum of 28 truck parking spaces per rest area on ten-inch thick concrete parking surfaces. Maintenance costs average $20,000 per month for each rest area. Examples of recently-completed new rest areas include the Guadalupe and Colorado County rest areas on I-10 between San Antonio and Houston.

**State Urbanization Strategy**

With more than 82 active rest areas and 12 tourist information centers, and an additional 740 picnic areas statewide, Texas decided that the urbanization of areas along the interstates could play a role in serving the traveling public. Texas uses a 60-mile spacing criterion in non-urbanized areas, and the state uses commercialized interchanges in major metropolitan areas to provide the public with rest area services there.

**Progressive Amenities**

Additional features of the Texas rest area program include the use of closed-circuit cameras with video playback to show the public that the cameras are active. Security offices/counters are also installed in the interiors to allow law enforcement personnel access to the rest areas.

Dual sets of restrooms and family restrooms are provided at new rest areas and extensive lighting to specific standards is provided in all paved and improved areas. Not all of the rest areas are slated for replacement, and, in fact, the state has an extensive rehabilitation program for many rest areas to include upgraded facilities, including extensive tile artworks, Wi-Fi, and improved utility systems.

## Washington

Washington was selected as a benchmarking peer state for several reasons:

- Washington is currently advancing a strategic plan for its safety rest area (SRA) program, which includes aesthetic, historical, and culturally unique facility designs.
- Washington has significant truck parking concerns, particularly near major ports and manufacturing/ distribution facilities.
- Seattle hosted the National Safety Rest Area Conference September 30 to October 3, 2008.

Washington is a geographically diverse state with coastal areas, mountain ranges, and vast areas of timberlands, among other distinctive areas. Washington has been a high growth state for decades and includes one of the country's busiest deep water ports, in Seattle-Tacoma (Sea Tac). Washington, like Florida, has also been a national leader in statewide and local comprehensive planning requirements and growth management.


**Figure 3-3: Washington Rest Area Locations**

**Washington Safety Rest Area Program Strategic Plan**

The Washington State Department of Transportation (WSDOT) has not released its safety rest area program strategic plan; however, a plan briefing was obtained and includes the following highlights:

- Four to seven new safety rest areas are needed in the next ten years.
- Criteria has been developed for new SRAs, based on traffic volumes, fatigue-related collision data, and the societal costs of these collisions.
- Construction of a new SRA is expected to reduce fatigue-related collisions by ten to 30 percent.
- Infrastructure deficiencies are planned to be reduced by 12.5 percent every two years.
- Developing a master plan for each SRA is a major deliverable.
- Implementing a computerized maintenance management system is programmed.

**Truck Parking Needs Evaluation**

Washington is currently evaluating truck parking needs in its metropolitan areas, particularly along the interstates entering the greater Seattle area. Seattle is experiencing significant truck parking demands as a result of its large port, Sea-Tac, and its major industries, including Boeing and other aviation support businesses.

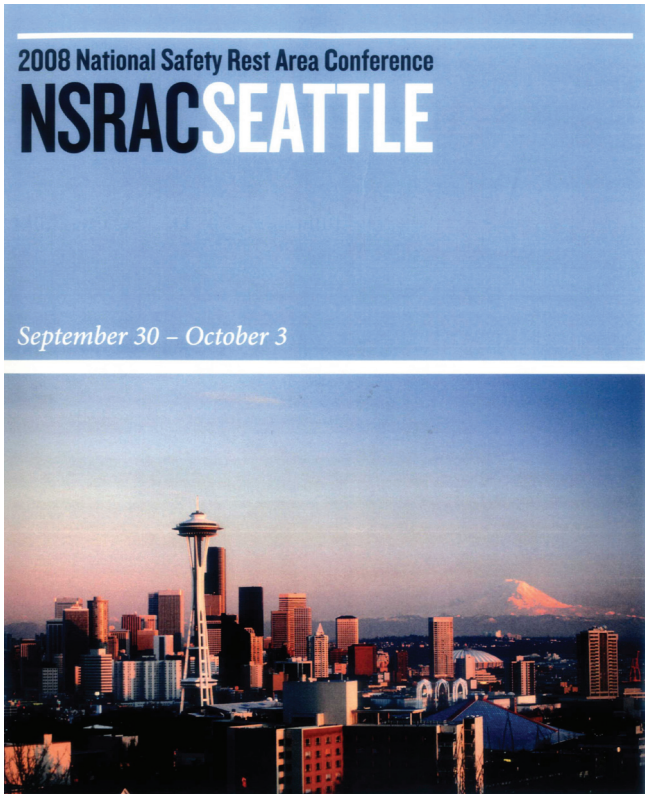
Complex issues involving weather, such as severe freezing temperatures and icy roadways, complicate safety rest area solutions.

Iron Goat Trail facilities at one of Washington's rest areas

## 3.1.3 Conference Overview

As part of our due diligence, consultant staff attended the bi-annual safety rest area conference. The 2008 conference was held in Seattle, Washington September 30-October 3, 2008. This conference was held at the same site as the Motorist Information and Services Association (MISA) conference and included a joint day of presentations. The conference agenda included presentations on topics, including rest area maintenance, safety concerns, tourism, ADA issues, internet access, art in rest areas, and new technologies. Information pertinent to the 2008 Rest Area Long-Range Plan is included in the various report sections.

Information regarding truck idling reduction technology, driver fatigue public campaigns, and rest area sponsorship programs were the primary topics included in this study. The conference primarily focused on current topics related to safety rest areas, with limited long-range planning discussion or topics presented. Site visits to several Washington rest areas were also completed during the conference.




Conference overview brochure

# 3.2 Facilities and Operations

Safety rest areas, welcome centers, and travel information centers represent different types of highway facilities developed to provide for the safety (rest) and service needs of traveling motorists and commercial vehicle drivers.

Florida's rest areas and welcome centers have been ranked at or near the top in terms of overall quality and services for the past several years, according to various private travel publications. Anecdotal information and comments collected during our research and discussions with other states support this assessment. Florida was consistently mentioned as a national leader in the provision of clean, safe, and quality rest areas. User surveys of the Florida rest area system demonstrated that users consistently perceived the Florida rest areas to be clean and safe. While Florida is among the nation's leaders, the purpose of this benchmarking review is to learn from other states and to evaluate industry standards in order to identify contributions for further enhancements in Florida.

The current state of the practice for rest area facilities and operations varies by state and region, based on many factors, including the age of the facilities, climate (snow/arid), and budgets. Many states, particularly high growth states, such as Florida, Texas, Georgia, California, Washington, and Colorado, among others, are and will continue to experience high usage of their interstate rest areas.

A recurring issue in these states and other coastal states with deep water ports is the demand for truck parking facilities. This topic continues to be at the top of the list for state planners as truck traffic continues to increase on virtually all interstates nationwide.


Commercial truck parking at capacity

**Table 3-1: Survey Responses to the Statement "rest areas were safe"**

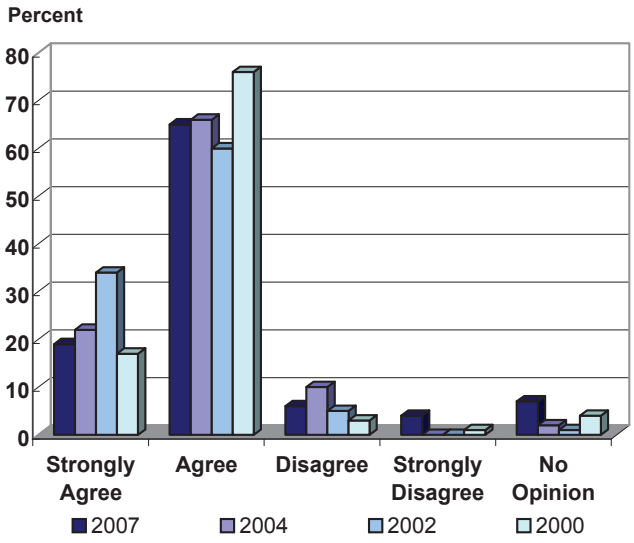
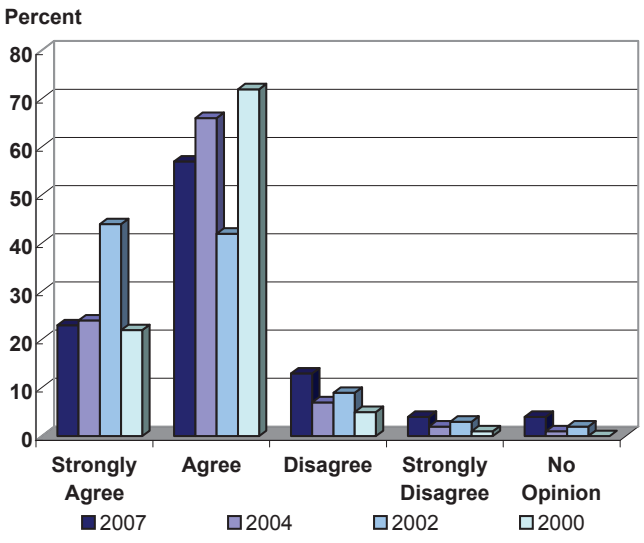



**Table 3-2: Survey Responses to the Statement "rest areas were clean"**



## 3.3 Emerging Trends

Safety rest areas and welcome centers have traditionally provided basic traveler services, such as restrooms, vending, maps/brochure materials, vehicle parking (resting), and pet walking facilities. A number of non-traditional services or amenities have been added to rest areas around the nation during the past several years.

Further detail is provided in this section regarding several key emerging trends occurring or being considered for interstate rest areas. Other states are also implementing or evaluating similar emerging trends.

### 3.3.1 Technology

The three listed technology trends represent potential applications for Florida's rest areas. Wi-Fi/communication applications are now being expanded beyond providing internet connections to include connection and interfacing with vehicle navigation, global positioning systems (GPS) equipment, and telecommunications.

Information kiosks are being employed to provide real-time traffic information, route determination, and trip planning services. These kiosks also help to reduce staffing needs and provide electronic data collection regarding their usage. ITS applications are also expanding beyond traditional uses. For example, the use of Smart Park systems is increasing, whereby available truck parking space information is communicated to commercial vehicles via signage or low frequency radio broadcasts. This information can be provided for rest areas and for other private truck plazas, as well.

### 3.3.2 Commercial Vehicles

The consistent and continual growth in the commercial trucking industry has given rise to related trends occurring at interstate rest areas. Expanded parking areas are becoming a major topic of consideration for state rest area programs. Nearly all the states contacted indicated that expanded truck parking is considered for any new or rehabilitated rest area. Some states are "capping" the number of spaces provided regardless of demand because adequate sites and funds are not available to meet demand. In addition, idle emission reduction facilities or applications are being investigated at rest areas. Federal statutes (23 USC 111) allow states to provide alternative power sources for driver comfort while their trucks are parked. Fees can be charged or for-fee permits can be issued, as long as the number of truck parking spaces is not reduced. It should be noted that a Federal amendment restricting electrification at rest areas was enacted in 2008, however, industry interest are currently lobbying to reinstate this program.

### 3.3.3 Truck-Only Rest Areas

Truck-only rest areas is another emerging trend in many states. While a few truck-only rest areas have been built for this purpose, these facilities tend to be developed at abandoned rest areas, primarily in urban areas. These rest areas do not typically provide any facilities and are viewed as rest-only in most cases. Trash receptacles and portable restroom facilities are provided. Even the most minimal facilities can create maintenance and upkeep needs as shown in the photos with full trash receptacles.


Maintenance concerns with truck-only rest areas

## 3.3.4 Public-Private Partnerships

PPP's are also under consideration for rest area programs in many states. These partnerships have been limited to operations and maintenance and security staffing for the most part. Other applications include the provision of technology, such as Wi-Fi service providers, and could include other fee-based services, such as the idle emissions applications referenced above. The state could benefit from the private sector installing and maintaining its own equipment and thereby improving on the quality of the services under a performance-based contract.

Several states have utilized the federal Interstate Oasis Program, which was initiated in 2006, to fund PPP-type projects. Essentially, the Interstate Oasis Program allows states to either provide or enter into a PPP to provide off-interstate right-of-way rest area facilities for the traveling public. Some basic standards, such as a three-mile distance criterion, parking provisions, and 24-hour restroom access, and personnel are required. This program could serve as a conduit for addressing truck parking shortfalls.

## 3.3.5 Length of Stay Extension

A fundamental "need" that rest areas provide is the provision of a safe, off-highway place to rest during trips. While many people choose to take short naps at rest areas, they often do not linger at the facilities. Driver fatigue can be attributed to other conditions beyond lack of sleep, such as sheer bordom. This can occur from the monotony of the trip and repetitive landscapes that many times exist along long stretches of interstates. One way to combat this situation is to provide additional elements of interest at rest areas.

Australia has taken an aggressive stand on driver fatigue, especially the condition known as "micro sleep." Micro-sleep is the condition where the human body shuts down for seconds at a time with the blink of an eye. This condition is sometimes referred to as "dozing off" in the United States.

Many states believe that a rest area can provide a change of pace and give the driver an option to take a break from driving, if a rest area provides "something of interest" to encourage them to extend their length of stay. Examples of length of stay elements include cultural and art exhibits, playground and exercise facilities and informational kiosks. These components are described in more detail on the following page.

Driver resting at a safety rest area

Iron Goat Trail Historic Snow Wall (WA)

## Cultural / Art Exhibits

Cultural/art exhibits can offer travelers a reason to extend their "rest time" at a rest area. Both Texas and Maryland have integrated regional, cultural characteristics into their new rest areas and welcome centers. The facilities in both states have been embraced by the local communities, and in some cases, provide unique recreational opportunities for the locals and tourists.

Washington takes a natural approach to many of its cultural exhibits. The Iron Goat Trail, a project of the Volunteers for Outdoor Washington and the U.S. Forest Service, preserved a concrete wall remnant of a snowshed and incorporated a hiking trail and signage to detail the history of the snowsheds and the railroad. Limited safety rest area facilities are provided at this site.

Exhibits inclusive of technology (TX)

Strategically-located playground equipment (TX)

## Playground / Exercise Facilities

Playgrounds/exercise facilities provide an out-of-vehicle experience, reduce the stress of travel, and offer the traveler an option for rest and recharge. These facilities must be provided at a high level of quality and safety, using heat resistant materials, and sites must be located for visual safety.

Several safety rest areas in Washington have been combined with historical resources, such as historic rail corridors.

The above-referenced Iron Goat Trail is a converted rails-to-trails corridor located north of Seattle at the famous Stevens Pass. This combination historic resource and recreational trail includes paved and unpaved trail stretches through alpine forests and a vintage caboose car at the trail head.

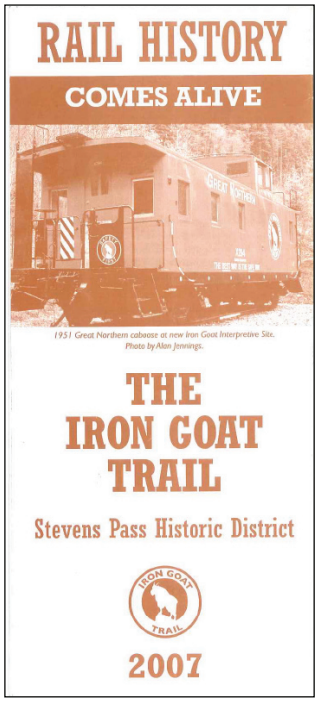
## Information Kiosks

Tourist information provides the opportunity to expand the length of stay at a rest area, and it provides an added benefit of potential economic development for area attractions, restaurants, and commerce.

The Travel Information Council in Oregon operates travel information kiosks in 13 heavily-used rest areas across the state. These open and inviting kiosks provide millions of travelers with valuable information while inspiring them to make the most of their Oregon experience.

Visitors will find attractive illuminated panel advertisements in a kiosk from area hotels, restaurants, wineries, golf courses, museums, and other attractions. In addition, most kiosks offer brochure display that can be combined with a back-lighted panel, or be incorporated separately.

Finally, kiosks offer a special poster display for local Convention & Visitors Bureaus and Chambers of Commerce.



# 3.4 Future Considerations

The current and emerging benchmarks presented in this section provided key elements to consider in developing the scenarios in Section 5 Findings and Recommendations.

Benchmark considerations are evaluated and vetted against the following topics:

- Rest Area System Adequacy
- Rest Area Facilities Availability
- PPP's
- ITS Opportunities
- Emergency Operations Facilities and Services

Table 3-3: Rest Area Elements Emphasized in Peer States presents rest area elements that are currently emphasized in rest area/welcome center development in several states. These elements are evaluated in Section 4.0 Needs Assessment in the context of near-term (less than ten years) improvements to be considered in Florida's rest areas.

Table 3-4: Rest Area Emerging Trends presents several rest area elements that multiple states are developing or considering. These trends are considered in the near-term improvements for Florida's rest areas. They also provide some insight for the direction the state's rest areas should take in the long-term ( greater than ten years).

Lastly, future considerations for the development of the long-range plan include some basic and traditional rest area planning parameters, as well as additional non-traditional considerations.

Traditional Rest Area Parameters

- Traffic volume based needs assessments (calculations)
- Truck traffic volume needs assessments (calculations)
- 60-mile spacing of rest areas
- Basic services (restrooms, parking, information)

Non-traditional rest area parameters

- Advanced technology applications (beyond Wi-Fi)
- Special commercial truck applications (truck-only lanes, PPP)
- Congestion management application to rest areas

While many states are currently developing rest area plans and programs, Florida appears to be out the leading edge on the topic of rest area long-range planning. The Department's long-range plan will provide policy direction for the next 20-25 years.

**Table 3-3: Rest Area Elements Emphasized in Peer States**

| Facilities / Operations Element | MD | TX | WA[2] | FL |
|---|---|---|---|---|
| Historical/Cultural | * | * | * | * |
| Regional Vernacular (bldg) | * | * | * | * |
| Family Restrooms | * | * | * | * |
| Playgrounds | * | * | | |
| Truck Parking | * | * | * | * |
| Wi-Fi Internet Connections | *[1] | * | | |
| Private Sector Maintenance | | * | | * |

1 – Maryland is initiating Wi-Fi in many new facilities, but is not implementing it system-wide

2 – Washington is completing a strategic plan for its safety rest area program in Fall 2008.

**Table 3-4: Rest Area Emerging Trends**

| Emerging Trends | MD | TX | WA | FL |
|---|---|---|---|---|
| **Technology** | | | | |
| Wi-Fi Communications | * | * | * | |
| Information Kiosks | * | * | * | * |
| ITS Applications | | * | | * |
| **Commercial Vehicles** | | | | |
| Expanded Parking | * | * | * | * |
| Idle Emissions Reduction | | | | |
| Truck Only Rest Areas | * | * | | * |
| Public / Private Partnerships | | * | * | * |
| **Length of Stay Extension** | | | | |
| Cultural / Arts Exhibits | * | * | * | * |
| Playgrounds / Exercise | * | * | | |
| Tourist Information | * | | * | * |

# 4 Needs Assessment



This Needs Assessment section establishes the basic requirements for developing findings and recommendations for the Long-Range Rest Area Plan. The needs assessment carefully considers the opportunities and challenges of the existing rest area system, trends and benchmarking for future incorporation, planning criteria to apply to the proposed system, and the service demand for the system to the year 2035.

A needs assessment workshop was conducted on September 22, 2008 and is the foundation for this section.

## Worksession Overview

The Jacobs project team held a workshop on September 22, 2008 with FDOT representatives, including Dean Perkins, Architect (FDOT ADA Coordinator) and Michael Sprayberry, Professional Engineer (State Administrator for Maintenance Contracting). The purpose for the worksession was to review previous work efforts, to brainstorm program objectives, and to develop guidance for creating the long-range plan.

Photo of those who participated in the worksession

Three questions were carried forward from the 2005 RAAS for additional consideration in framing program objectives.

- What are the expectations for future Florida rest areas?
- Can the Department work with private businesses to provide these services?
- Is adequate parking available for current and future traffic loads?

The worksession participants brainstormed several facets of the program objectives to answer these questions. The outcomes were categorized into the following five topics:

- Rest Area Functions
- Planning Opportunities and Challenges
- Planning Criteria
- Program Concepts
- Adaquacy of Service

Key elements for each of the five areas were documented for use in preparing the long-range plan. The information was collected and annotated on a series of cards to organize the ideas and team suggestions. These cards, which were displayed on the walls during the workshop, are reproduced in Appendix 6.2

## 4.1 Rest Area Functions

A series of functions were identified during the course of this study that articulate the intention of the rest area system, namely to provide:

- Safety
- A place to rest
- Restroom facilities
- Parking facilities for personal vehicles and trucks
- A place to receive nourishment and refreshment
- An area for physical activity (exercise and play)
- Facilities for pets
- An area for communication
- Orientation and information for the traveling public
- A welcome center for local or regional interests.

## 4.2 Planning Opportunities and Challenges

Opportunities and challenges were identified that FDOT will face as it implements the long-range plan. Defining these opportunities and challenges also helps to more clearly understand the current environment in which the Department operates and the future environment in which it will operate.

These opportunities and challenges represent ideas that could be evaluated and integrated in future concepts for rest area design

**Table 4-1: *Planning Opportunities and Challenges***

| Opportunities | Challenges |
|---|---|
| Rest areas integrated with the state and county open space system | Integration of security requirements |
| | Urbanization of state may reduce need for rest areas |
| Rest areas as tourist attractions (botanical gardens, community functions) | Existing federal and state regulatory environment |
| Redevelopment opportunities for no-longer-needed rest areas | Potential refund to FHWA |
| | Land acquisition needs and cost |
| Potential revenue generating opportunity | Identification and anticipation of trends for the next 25 years |
| Rest areas can function as traffic and/or emergency management centers | Balance facility condition improvements with market demand and new characteristic |
| Expand truck parking | Impact of truck parking duration policy |
| Length of stay at rest areas | Addressing mitigation of fatigue factors |

## 4.3 Planning Criteria

Planning criteria provide a framework to accommodate the future growth of the rest area system. This framework is traditionally driven by traffic volumes. It is also guided by other factors that need to be considered when developing scenarios to meet the future needs of the traveling public.

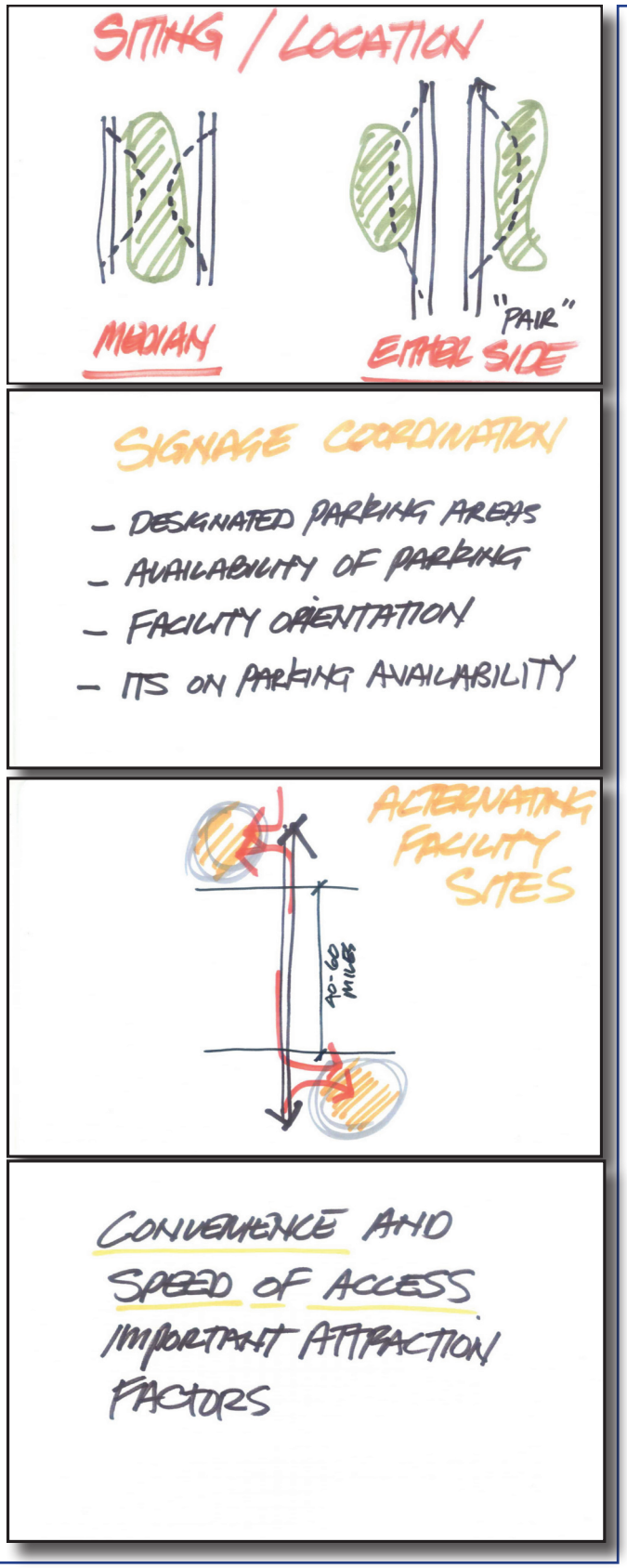
The project team brainstormed a set of planning criteria to correctly design, implement, and manage the current and future rest areas in Florida. These criteria transcend a variety of planning topics, each with a special focus and message. They are organized by category.

- Rest Area Interval/Spacing
- Site Location
- Signage Coordination
- Alternative Facility Sites
- Convenience and Speed of Access

## 4.4 Program Concepts

The project team outlined potential program concepts to monitor. The information will assist in predicting how economic, environmental, and technological changes will impact the long-range plan. More information is included on several of these concepts later in this section.

- Integrate "sustainable" planning and design principles
- Advance technology (ITS, VII vehicles, idling trucks)
- Promote tourism
- Recognize local, vernacular exhibits and history
- Integrate commercial food service / fuel sales
- Create a sense of destination
- Integration of multimedia/information systems



## 4.5 Adequacy of Service

Users and travel industry groups consider Florida's rest area system of 52 safety rest areas along the four interstates to be one of the nation's best. Florida's system consistently receives high marks for cleanliness and safety.

FDOT's 2005 RAAS study, surveyed rest area patrons, addressed and the adequacy of service in terms of facility spacing, cleanliness, and safety. An additional survey question asked patrons "How important are rest areas to you? (Not Important, Semi-Important, or Very Important)."

Eighty-five percent of respondents rated rest areas as "Very Important." The 2005 RAAS states that "The response from consumers for this particular question solidifies the need to continue to maintain and develop rest areas throughout the state. Even though Florida continues to see ever expanding urbanized areas and commercial services provided adjacent to interstates, people visiting rest areas still find them important for travel." Perhaps this response alone can speak to the overall question of "what should the adequacy of service be for Florida's 2035 Rest Area System?"

The fundamental adequacy-of-service question is "Should safety rest areas continue to be provided on Florida's interstate system?" The answer to this question is definitely a "yes," based on the 2005 RAAS and on other states' expanding and/or improving safety rest area programs.

However, the rest areas of 2035 could take on one of several varying service and location scenarios because of the expected high growth in Florida and along the State's interstates, coupled with anticipated technology advancements in automobiles and in communication technologies. Section 5 presents these scenarios.

Baker County Rest Area #12, I-10

Santa Rosa County Rest Area #3, I-10

Okaloosa County Rest Area #4, I-10

## 4.5.1 Facility Availability

Facility availability is generally defined by the spacing between rest areas. National standards presented earlier in this report suggest spacing of 40-60 miles between rest areas. Spacing criteria can vary, depending on the location context, such as rural areas versus urbanized areas. The national spacing standards were developed during the construction build-up of the interstates during the 1950s, 1960s, and 1970s. Vast rural and desolate sections of interstates existed within nearly every state, including Florida, during the early periods of the interstates.

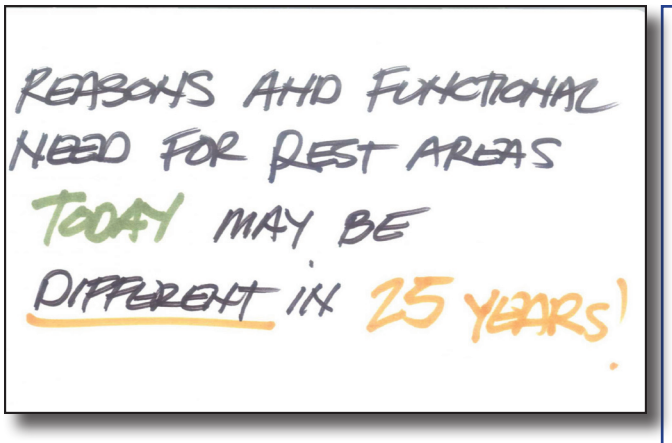
Facility spacing for Florida's existing 53 rest areas ranges from 23 miles to 73 miles, with an average spacing of 43 miles between facilities. Spacing exceeds 40-60 miles at a few rest areas.

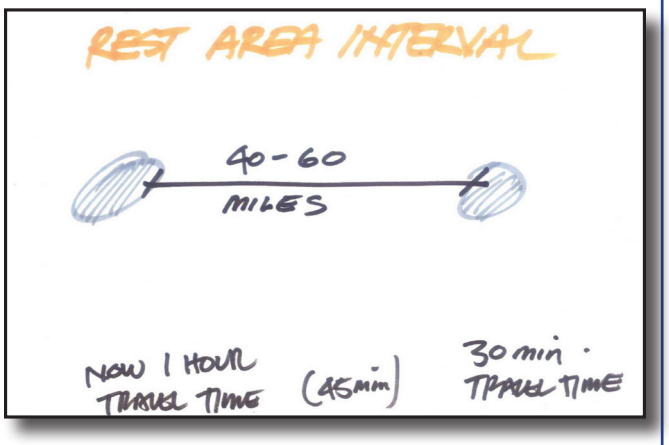
Mileage between rest areas should continue to be a primary criterion for determining facility availability. However, other factors should be considered in determining facility availability, given the rapid urbanization of the state and the forecasted level of interstate traffic.

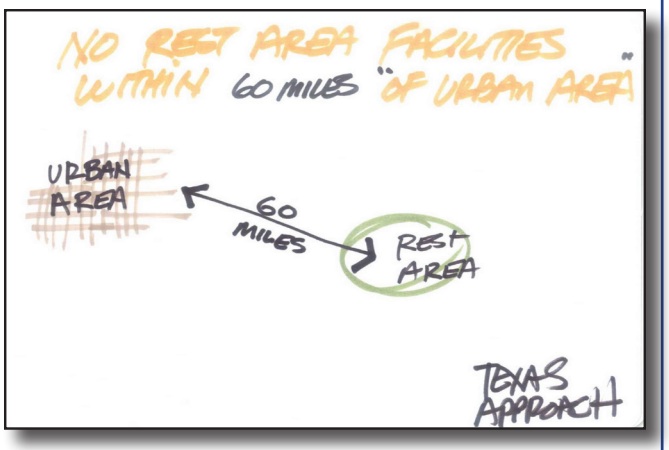
These factors include:

- Urbanized area boundaries;
- Proximity to interstate interchanges; and
- Proximity to commercial facilities at adjacent interchanges.

These factors are discussed further in Section 5 of this report.



# 4.6 Planning Horizon: Year 2035

The Rest Area Long-Range Plan is developed to assess potential conditions for the State's safety rest area system 25 years in the future. The year 2035 was selected as the planning horizon for the purpose of this plan. The purpose of the 2005 RAAS was to update the previous 1993 facilities study and to develop a work program type plan for the continued development and maintenance of the state's rest areas over the next five to ten years.

## 4.6.1 2035 Interstate System

Florida's interstate system in 2035 is projected to consist primarily of the existing facility segments, but with significant capacity expansion (widening). Florida's I-10, I-75, I-95, and I-4 are included, by definition, in Florida's Strategic Intermodal System (SIS).

## 4.6.2 Projected Corridor Travel Demand

Traffic volumes along Florida's interstates are expressed as AADT. Traffic volumes near rest area facilities generally do not represent the highest traffic levels. The variance between the interstate ranges and those near rest areas generally results because a significant number of rest areas are located in more rural areas.

Figure 4-1 depicts projected 2035 traffic levels for Florida's interstates and includes rest area locations.

### 2030/2035 Projected Traffic

Figures 4.2-4.7 depict interstate traffic levels near rest area locations by FDOT Districts. Traffic projections are included for 2035.

**District 1**: Figure 4-2 shows 2035 AADT traffic levels near its six rest areas, ranging from 45,209 to 86,935 AADT.

**District 2**: Figure 4-3 shows 2035 AADT traffic levels near its 15 rest areas and two welcome centers, ranging from 32,132 to 116,536 AADT.

**District 3**: Figure 4-4 shows 2035 AADT traffic levels near its 12 rest areas and two welcome centers, ranging from 30,888 to 83,697 AADT.

**District 4**: Figure 4-5 shows 2035 AADT traffic levels near its five rest areas, ranging from 45,040 to 67,000 AADT.

**District 5**: Figure 4-6 shows 2035 AADT traffic levels near its ten rest areas, ranging from 52,063 to 150,457 AADT.

**District 6** currently does not include any rest areas.

**District 7**: Figure 4-7 shows 2035 AADT traffic levels near its five rest areas, ranging from 45,209 to 79,801 AADT.

These traffic projections represent planning level forecasts and should be viewed for order of magnitude only. Generally, these projections are based on statewide traffic modeling. More localized models maintained by Metropolitan Planning Organizations (MPOs) should be considered during any detailed corridor level evaluation as recommended later in this section.

However, key aspects of these 2035 forecasts include the significant increases projected for commercial truck traffic. In many cases, the number of commercial trucks are projected to increase by three to five times the current levels.

A second key aspect is that commercial truck traffic levels are projected to represent upwards of 30-40 percent of total traffic along specific interstate segments. This presents operational challenges along the interstates and their respective interchanges which should be evaluated during corridor specific studies.

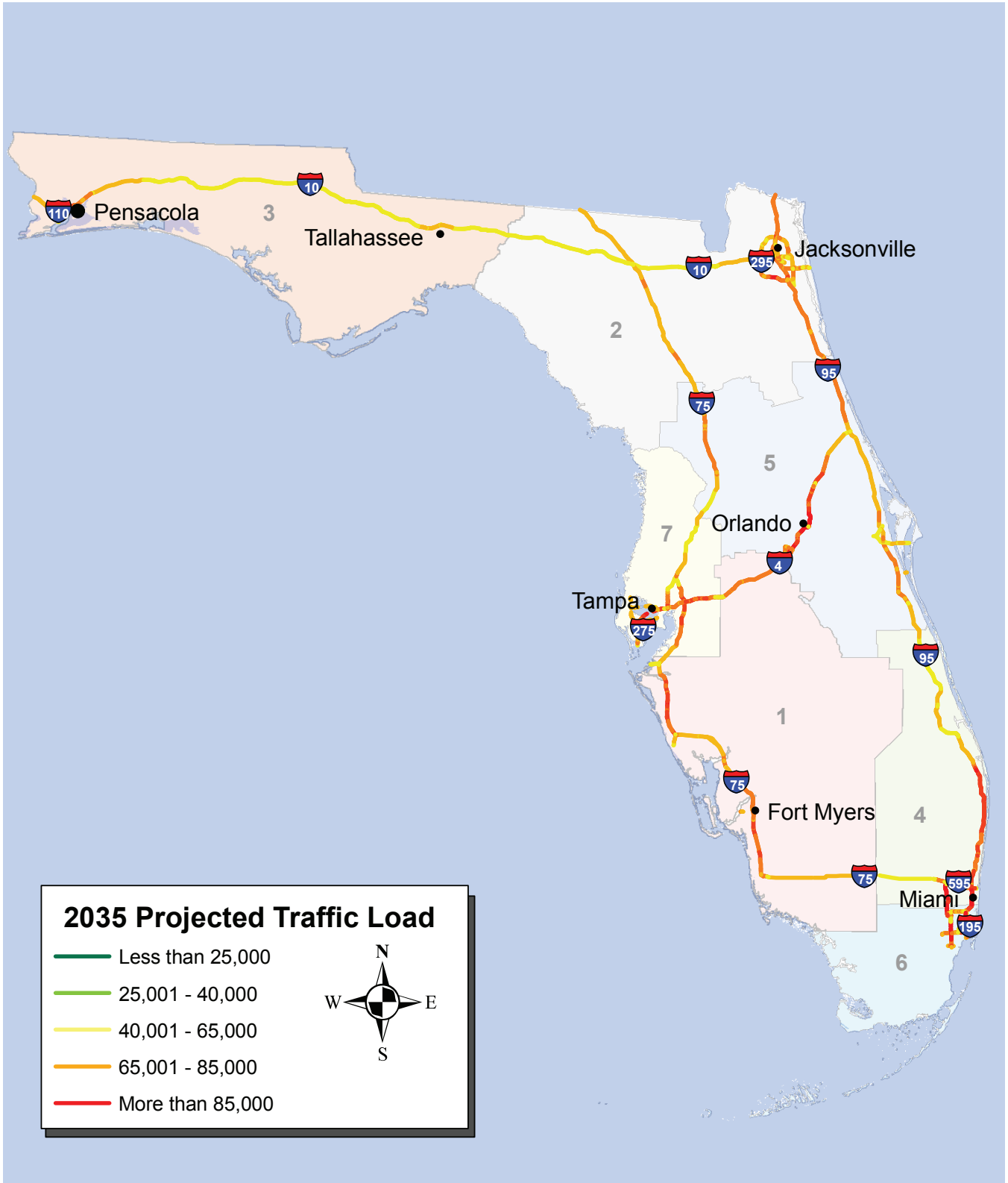



**Figure 4-1: Statewide 2035 Projected Traffic Load**

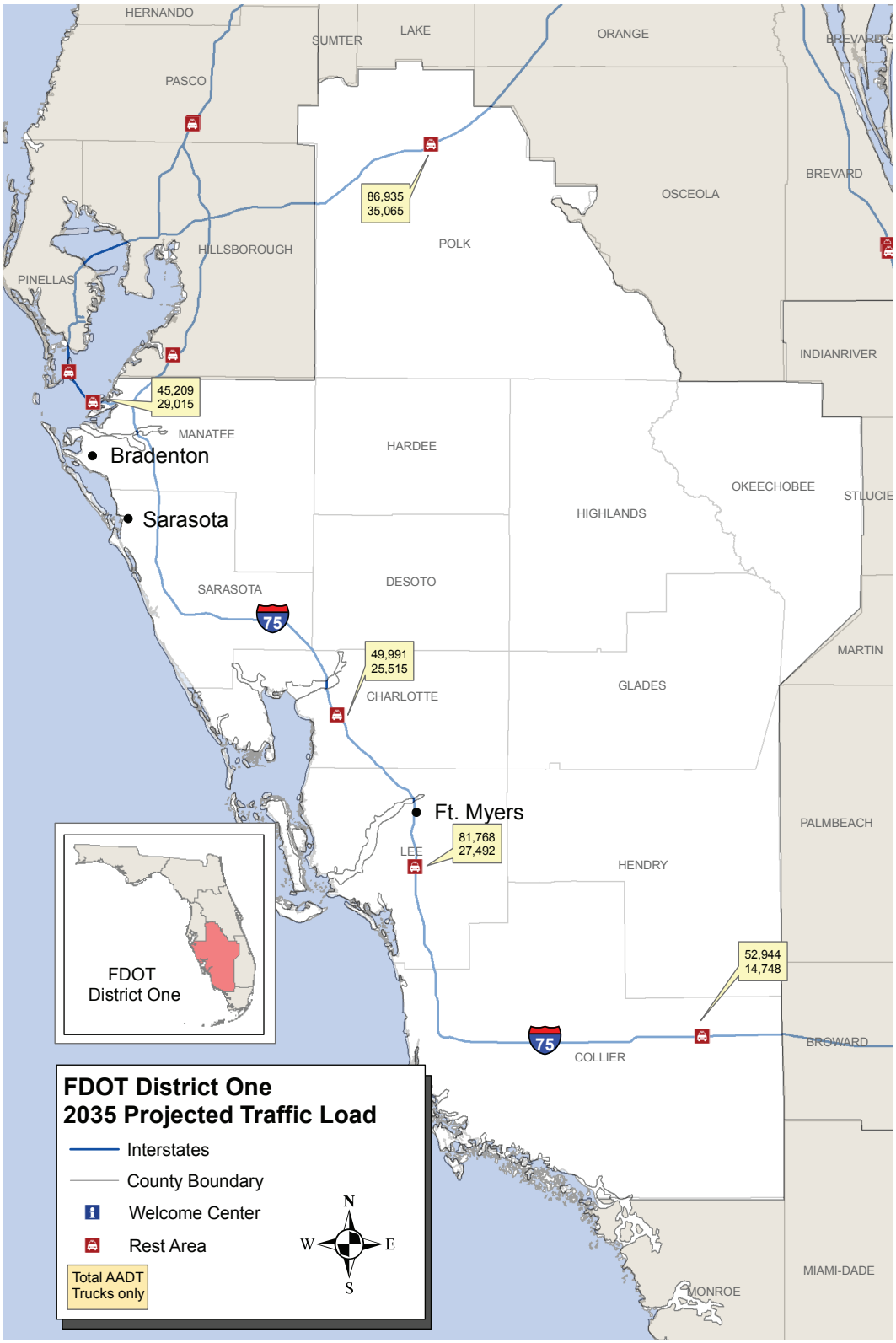



**Figure 4-2: District One 2035 Projected Traffic Load**

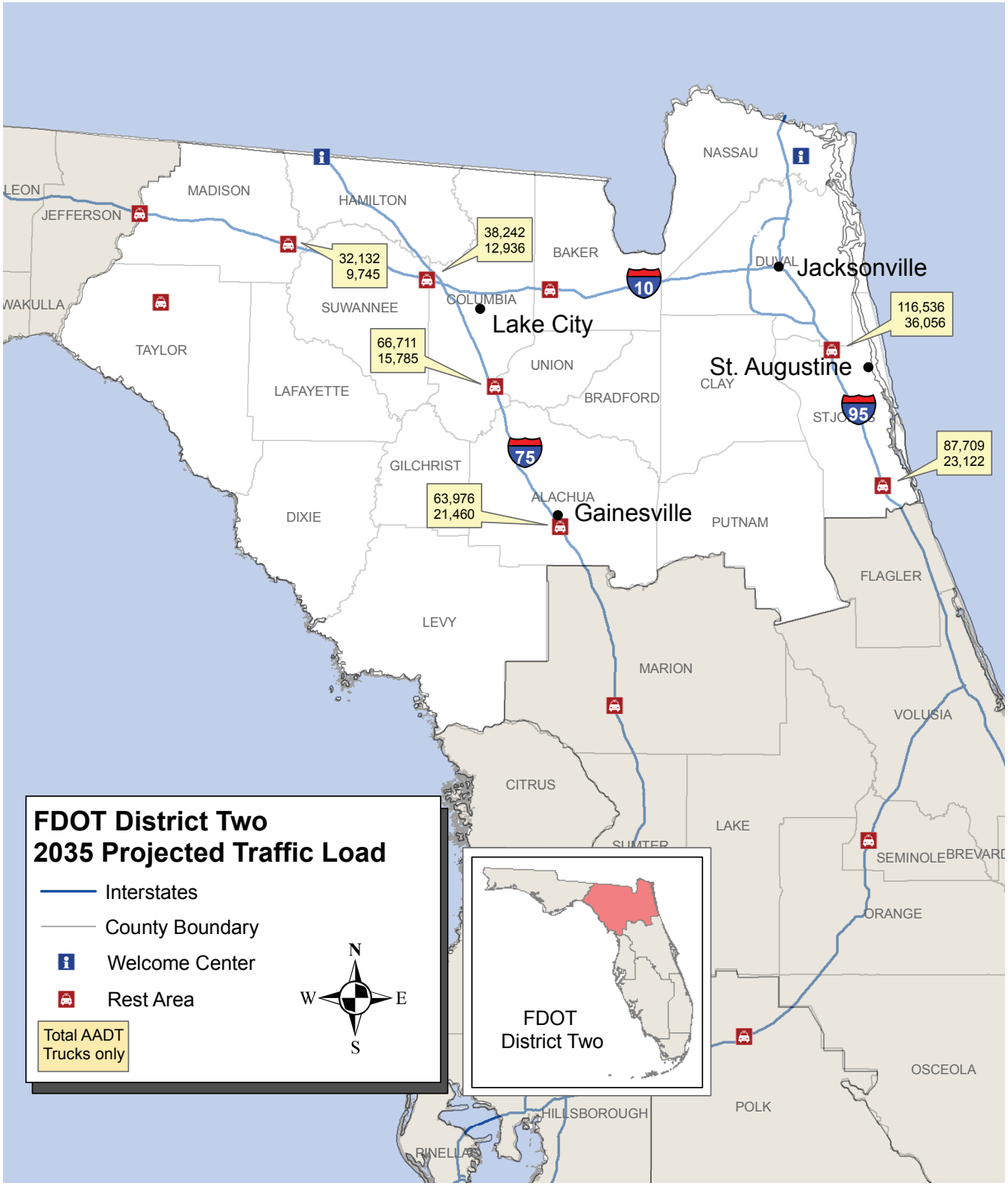



**Figure 4-3: District Two 2035 Projected Traffic Load**

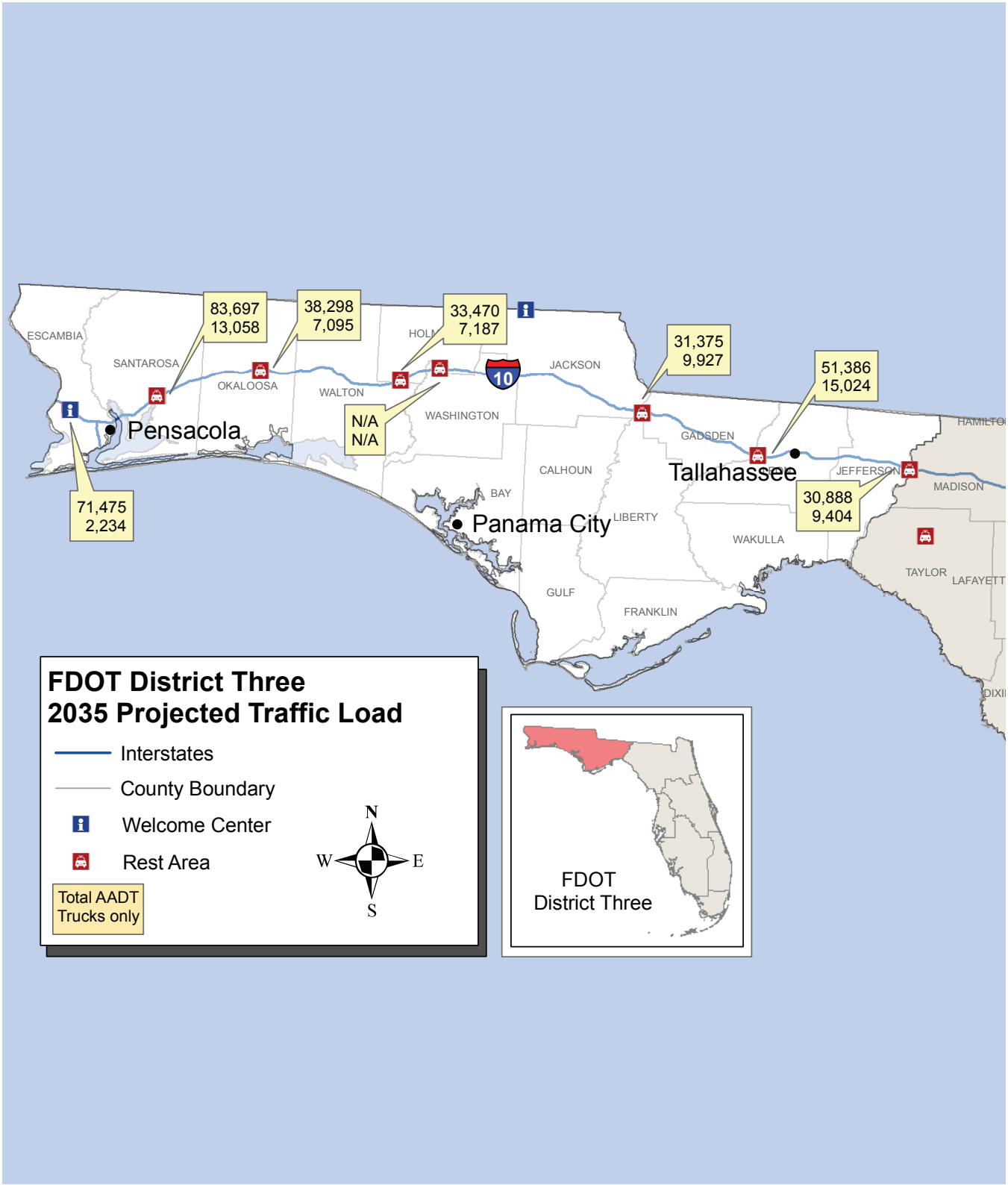



**Figure 4-4: District Three 2035 Projected Traffic Load**

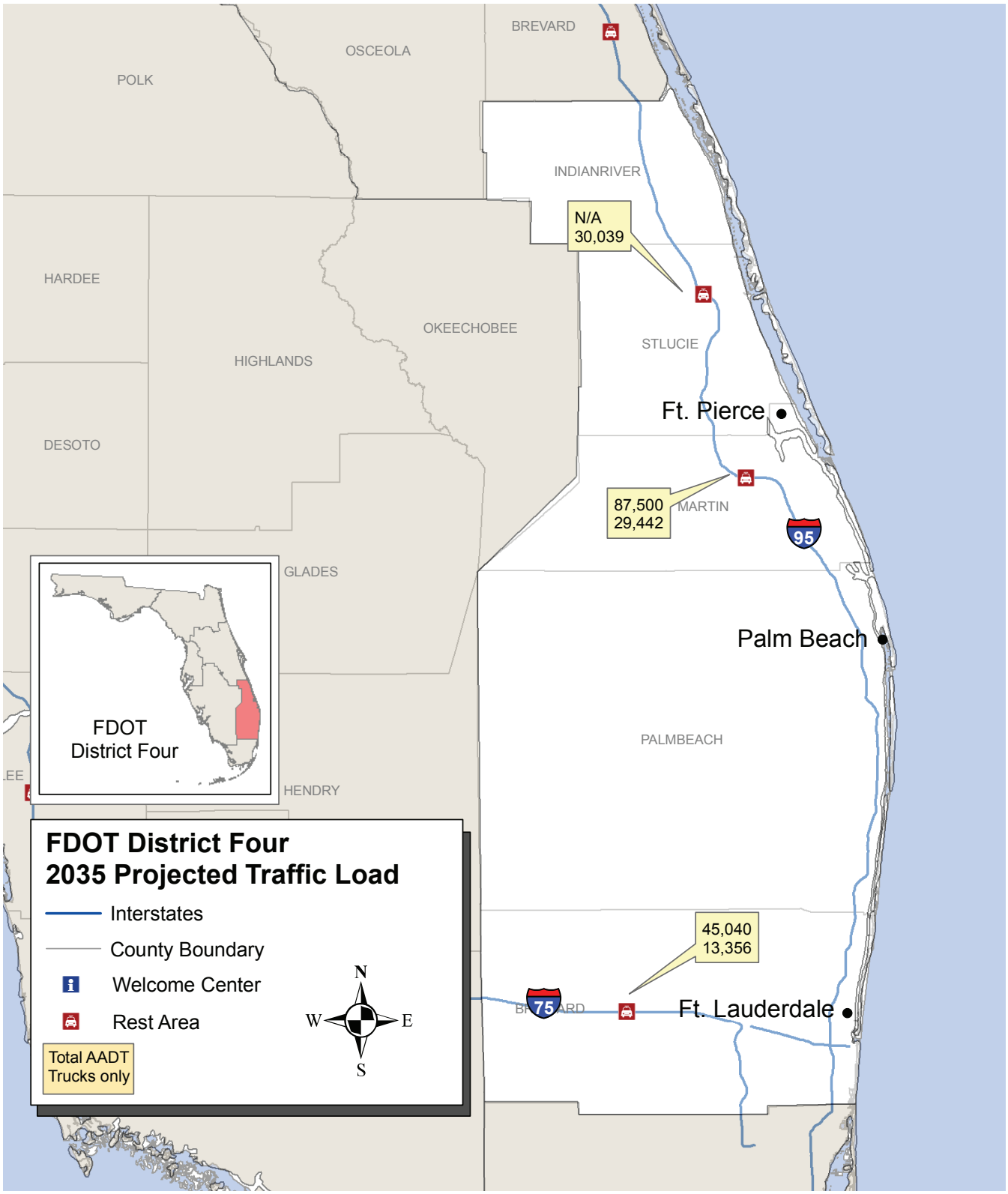



**Figure 4-5: District Four 2035 Projected Traffic Load**

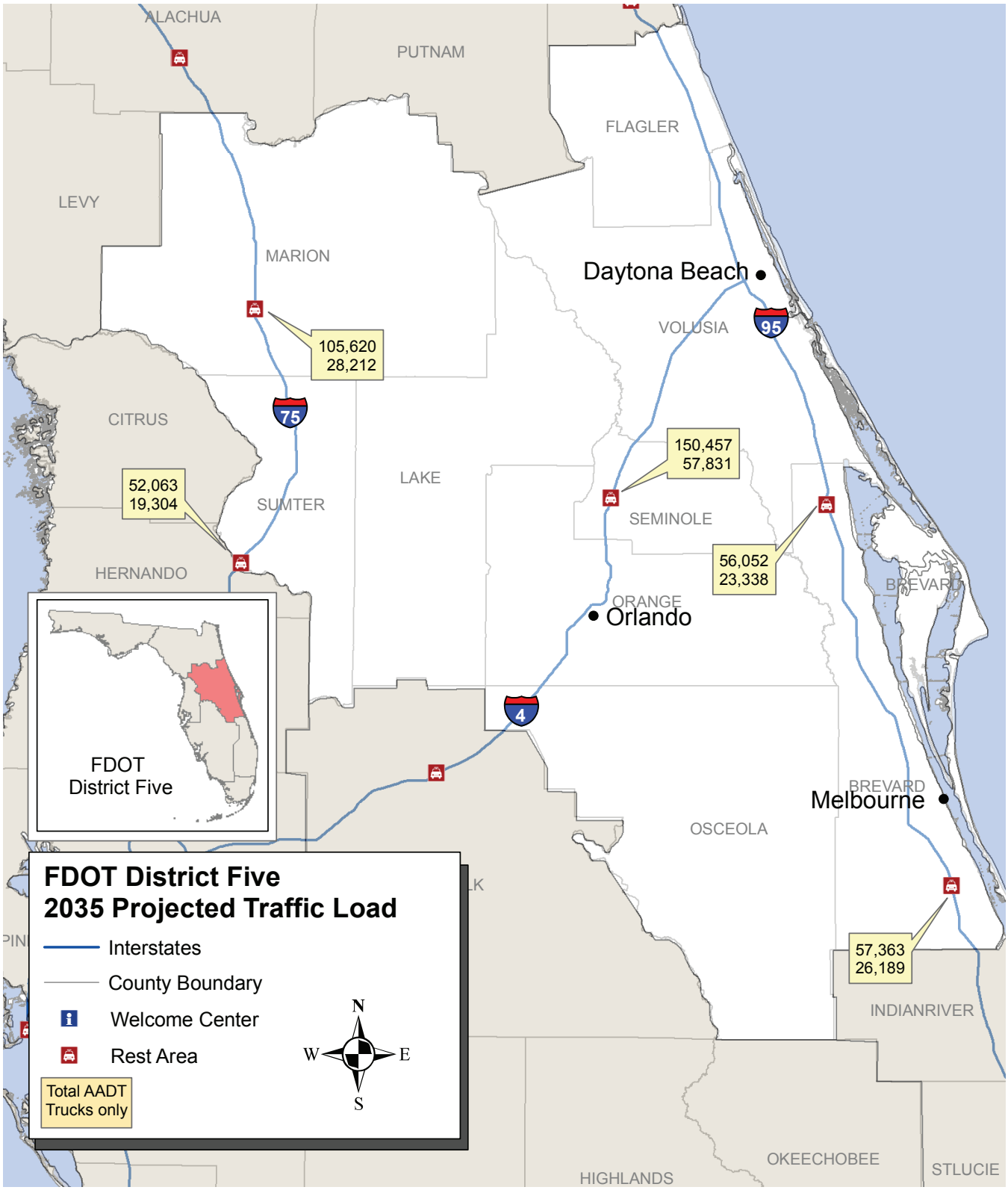



**Figure 4-6: District Five 2035 Projected Traffic Load**

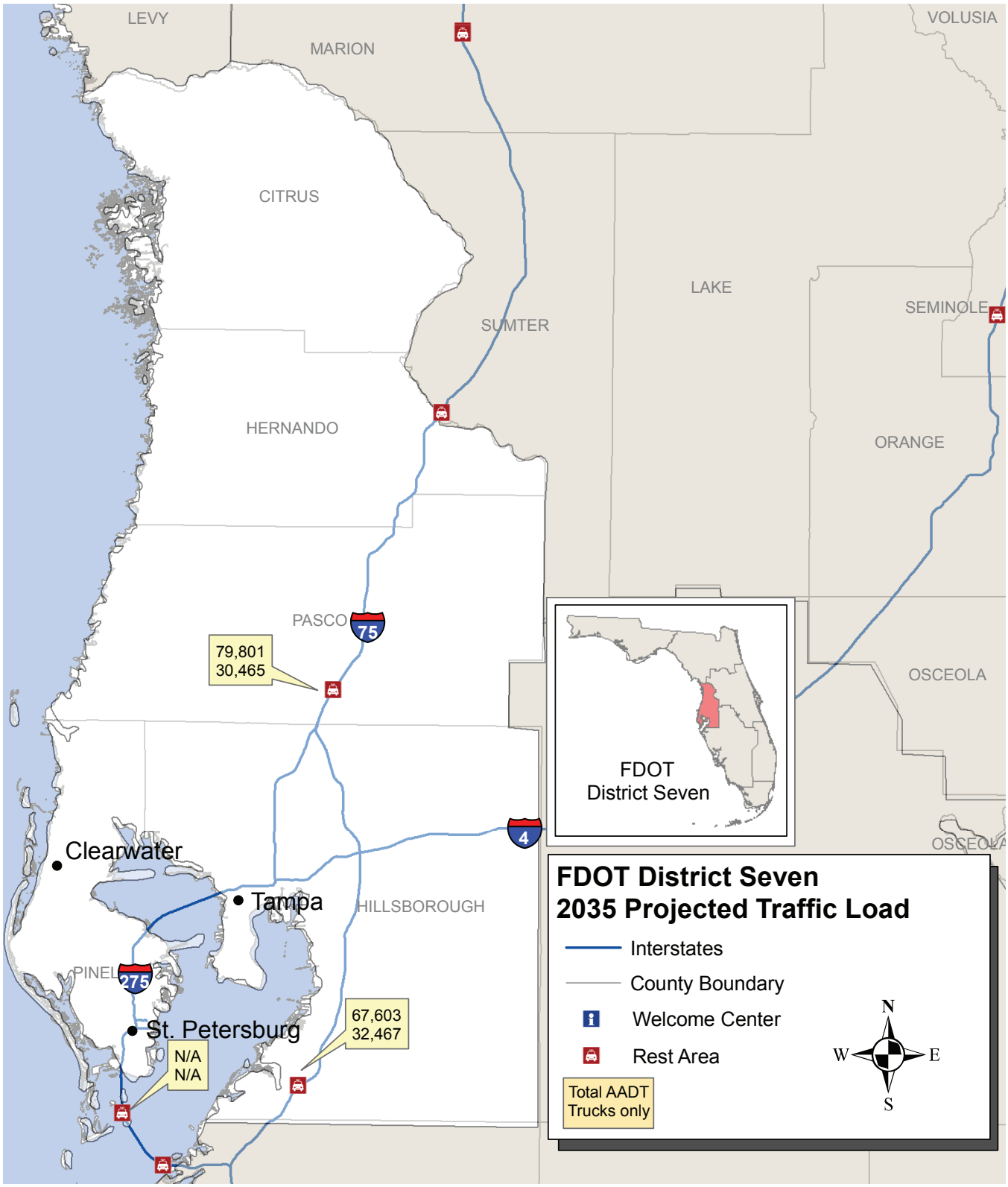



**Figure 4-7: District Seven 2035 Projected Traffic Load**

## 4.6.3 Projected Urbanized Areas

Florida is a state with significant urbanized areas, see Figure 4-8. 1000 Friends of Florida prepared a study, entitled *Florida 2060: A Population Distribution Scenario for the State of Florida (2006)*, that shows projected urban growth through the year 2060.

This study shows that most of Florida is projected to experience significant urbanization in the next 20-30 years. Figures 4-9 and 4-10 project urbanized coverage depicted for 2020 and 2040 horizons.

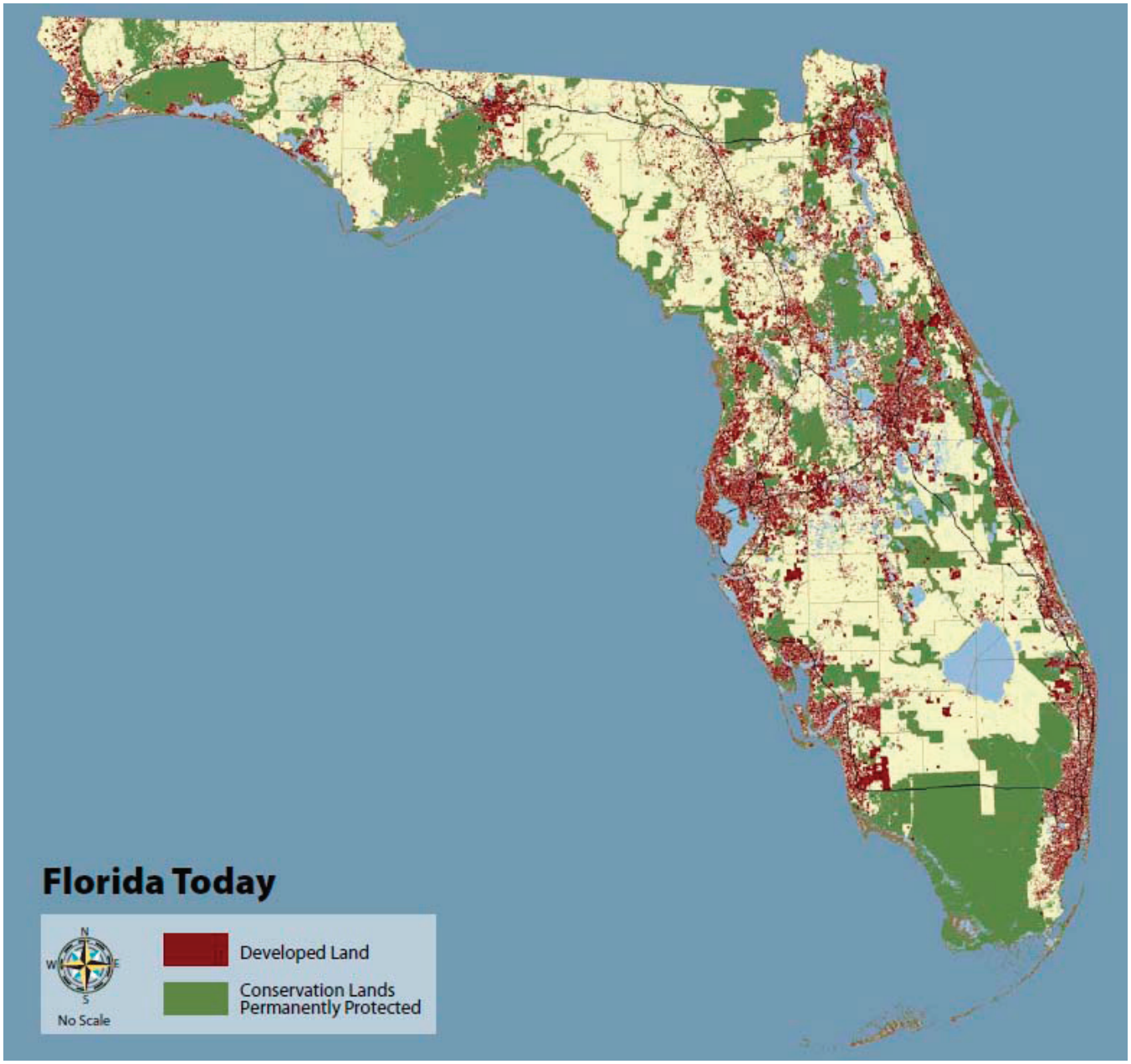



**Figure 4-8: Existing Urbanization in Florida (source: 1000 Friends of Florida)**


**Figure 4-9: 2020 Projected State Urbanization (source: 1000 Friends of Florida)**

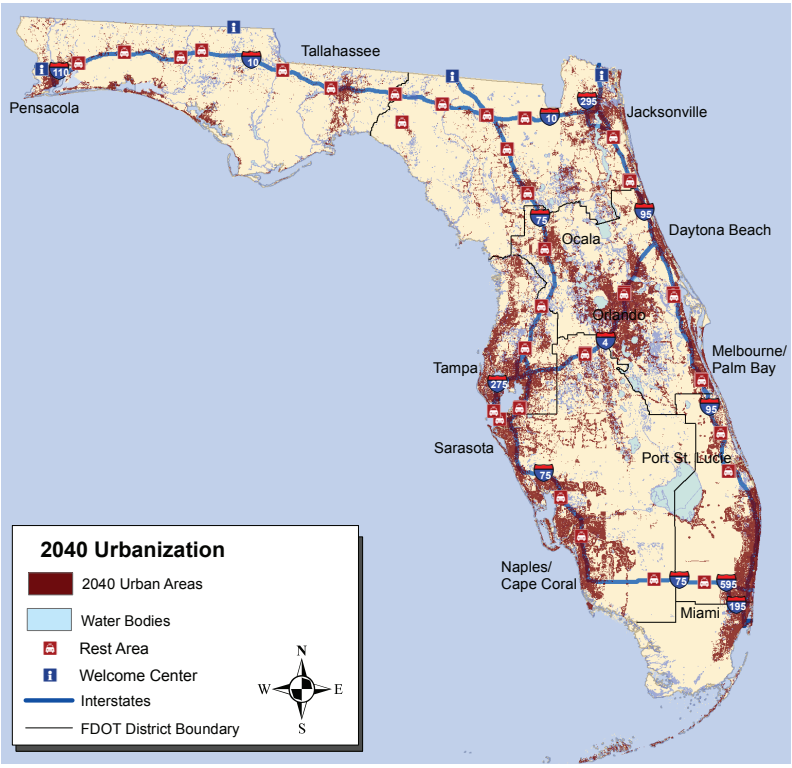



**Figure 4-10: 2040 Projected State Urbanization (source: 1000 Friends of Florida)**

## 4.7 Future Rest Area Trends

Potential future trends for rest areas frequently mirror future trends for the transportation industry in general, such as the availability of Wi-Fi services in public places and in retail establishments, and the inclusion of family restrooms. Specialty trends directly related to rest areas include the following:

- Idle reduction technology for trucks and RV (recreational vehicles) long-term parking needs;
- ITS applications for information on truck parking, weather, rest area services, traffic, incident management, and area visitor information;
- Electric/hydrogen vehicle hook-ups for recharge;
- Wi-Fi or next generation of wireless internet technology;
- VII – the next generation of vehicle information technology, which includes in-vehicle real time information, vehicle-to-vehicle communications, and satellite applications.

Collectively, these trends involve travel information and more specifically, real-time travel information. Weather, congestion, route planning, and local area information are topics that the traveling public and industry experts desire to "bring in" to rest area user vehicles through technology.

## 4.8 Commercial Truck Parking

Commercial truck parking at interstate safety rest areas is a national concern. Several national studies have been conducted on truck parking with varying results. The key truck parking issues at Florida's rest areas are as follows:

- Inadequate capacity (number of spaces) provided for truck parking
- Overnight truck parking without regard for, and in violation of, Florida's three-hour limit
- Safety considerations, involving ramp parking, truck driver fatigue, and social/environmental concerns
- Significant projected increases in truck traffic volumes on Florida's interstates

Each of the above issues entails multiple sub-issues, including safety, adequacy of service, FDOT responsibilities, maintenance, and others. The purpose of this evaluation is not to address each of the sub-issues in detail, but rather to present pertinent information that will assist the Department in gaining a better understanding of its potential options for addressing the issues.

Electric vehicle charging stations


Trucks parked illegally in lot

### Inadequate capacity (number of spaces) reserved for truck parking

The 2005 RAAS concluded that less than 50 percent of the 57 comprehensively-reviewed rest area facilities (53 rest areas and four welcome centers) met the requirements for truck parking. This condition continues today and may be worsening, based on recent observations at rest areas statewide, especially at rest areas near urban areas. A total of approximately 1,924 truck parking spaces are provided at the rest areas along Florida's interstates.

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) includes a Truck Parking Facilities Grant Initiative program (Section 1305). This program directs the Secretary of the United States Department of Transportation (USDOT) to establish a pilot program to address the shortage of long-term parking for commercial and loaded vehicles on the national highway system. Funding levels for this program are at $6.25 million per year and are set to expire in 2009, pending reauthorization of SAFETEA-LU. While this pilot program is not robust from a funding level, it none the less acknowledges the truck parking issue at the federal level.

### Overnight truck parking without regard for Florida's three-hour limit

Over-capacity conditions for truck parking can be observed frequently with trucks parked along the perimeter of the lots and along the shoulders of both exit and entry ramps. Overnight parking occurs at rest areas for several primary reasons, including: (1) drivers have reached their maximum "behind the wheel" time, currently ten hours; (2) rest area locations are convenient to their destination the following day; and (3) nearby truck stops/travel centers are at capacity.

### Safety considerations involving ramp parking, truck driver fatigue, and social/environmental concerns.

The 2005 RAAS and current observations confirm that truck parking on rest area ramps and in undesignated areas within rest areas occurs and is a growing concern for FDOT. This condition creates a safety issue, involving sight and lateral obstructions for motorists entering and exiting the ramps, particularly at night.

Truck drivers walking to/from their vehicles along ramps and within the truck driving aisle present a safety concern, as well. In addition, the truck parking damages the ramps and shoulders and increases Department maintenance costs.

Truck parking on ramp shoulders is also occurring at nearby interchanges, especially those near private truck stops/travel centers, causing similar safety and maintenance issues.

**Relieving driver fatigue** is a primary purpose for safety rest area systems nationally and in Florida. Truck drivers are especially susceptible to fatigue, given their long, daily hours of driving. Clearly, the challenge for FDOT is how to improve safety along the highways and interstates using current assets (rest areas) and/or investing in other initiatives, systems, or programs. Truck driver fatigue, specifically, presents multiple additional considerations for FDOT since it affects travel safety and rest area operations.

Australia initiated an innovative program to address driver fatigue several years ago that involved an extensive public ad campaign about sleep deprivation, a condition labeled "micro sleep" in the campaign. This condition occurs when a driver enters the sleep mode for seconds or fractions of a second. This condition might be considered nodding off, when a driver catches himself and tries to stimulate himself back awake. Rolling the window down, turning the radio up, and other measures are used to try to improve attention to stay awake.

The Australian program featured a doctor explaining the "micro sleep" condition, and the ads focused on the distance a car can travel within a few seconds and the ineffectiveness of the staying awake efforts. Statistics collected over a period of time supported the conclusion that the program was effective at reducing sleep-related accidents in the specific region of the country where it was focused.

**Social/environmental concerns** related to overnight truck parking at rest areas include social issues, involving truck drivers being approached by criminal interests, the lack of proper hygiene facilities, such as showers, and general safety concerns for drivers. These social concerns are likely to increase as overnight parking continues, especially at rest areas located in urbanized areas, and as encroachment occurs from developments adjacent to rest areas.

This condition occurred at the Seminole County/Longwood rest areas #22 in a situation where residential subdivisions were developed adjacent to the rest areas. Area residents were generally opposed to expanding these facilities, which were at capacity and located on high-volume interstate segments. The 2005 RAAS recommended the closure of these facilities as the demand exceeded the facility capacity and the encroaching surrounding land uses are considered incompatible (residential).

**Environmental concerns** at rest areas include issues related to wastewater effluent, solid waste, and other typical rest area characteristics. The 2005 RAAS addressed these issues sufficiently, and they are not the subject of further study here. However, idling trucks for extended periods of time, which often occurs with overnight truck parking, adversely affects air quality, wastes fuel, and has other related transportation cost implications.

Clearly, idling dozens of diesel engines for eight or more hours generates substantial air pollution and noxious fumes, which are hazardous to truck drivers, rest area patrons, and adjacent land uses, as well, especially in urbanized areas.

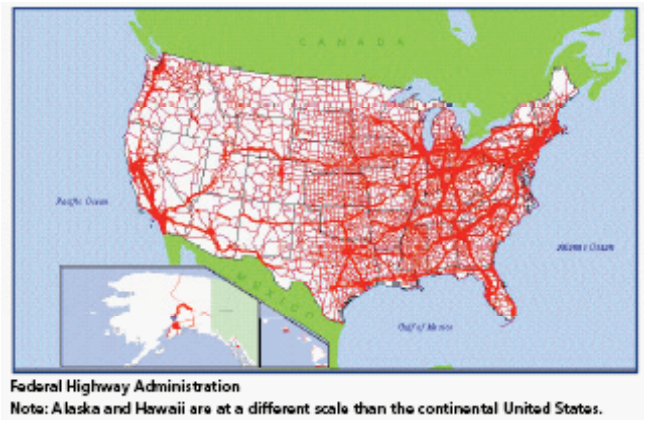
SAFETEA-LU includes the Idling Reduction Facilities in Interstate Rights-of-Way program (Section 1412). This program's purpose is to allow states to provide facilities in interstate rights-of-way that allow truck operators to reduce idling or that allow states to provide alternative power to support driver comfort while drivers are parked in rest or recreational areas. The idling reduction facilities may not reduce the number of truck parking spaces at a given rest or recreational area. Interestingly, states may charge a fee, or permit a concessionaire to charge a fee for parking spaces actively providing idling reduction measures.

It should be noted that a Federal amendment restricting electrification at rest areas was enacted in 2008. However, industry interest are currently lobbying to reinstate this program.

Idle reduction electrification equipment
*Credit: Shorepower Technologies

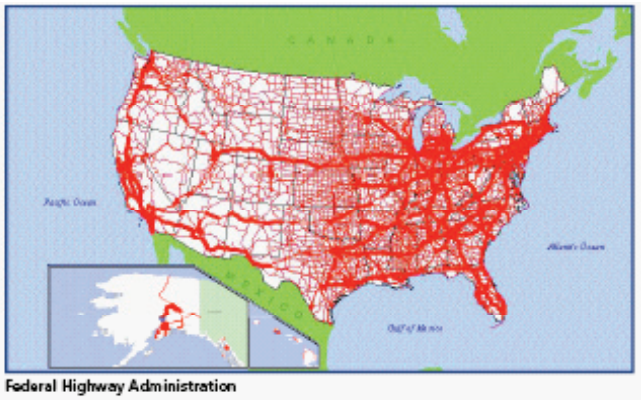
## 4.9 Commercial Truck Traffic

Freight volumes will increase 65 percent between 1998 and 2020, according to the Office of Freight Management and Operations of the FHWA and as presented in the October 2002 publication Freight News Freight Analysis Framework. Trucking accounted for 71 percent or freight tonnage and 80 percent of freight value in 1998. The increase in freight movement by truck between 1998 and 2020 is expected to grow by 73.6 percent. Trucks are expected to move 75 percent of all tonnage on our nation's roadways by 2020. The figures below reflect the projected change in truck volumes.




Federal Highway Administration
Note: Alaska and Hawaii are at a different scale than the continental United States.

**Figure 4-11: Freight Flows by Truck 1998 (daily truck volumes)**




Federal Highway Administration
Note: Alaska and Hawaii are at a different scale than the continental United States.

**Figure 4-12: Freight Flows by Truck 2020 (daily truck volumes)**

Occupants killed in vehicular crashes overall increased by less than 1 percent between 2004 and 2005, according to data released in April 2006 by the National Highway Transportation Safety Administration (NHTSA). However, in this same period fatalities of occupants of both light and heavy trucks involved in crashes increased by 4.3 percent.

The trends in Florida appear to be similar to national trends. According to the Florida Transportation Plan 2025 draft update (November 25, 2006), vehicle miles traveled in Florida increased by 36 percent over the last ten years, while lane-miles of roadway increased less than 10 percent resulting in an increase in delays of over 60 percent. Meanwhile, freight movement in, out, and within Florida has increased significantly.

In 2003 575 million tons of product were moved within Florida, 200 million tons were imported into Florida and 72 million tons were exported out of Florida. Freight volumes are estimated to reach 1.5 billion tons annually, by 2025, with trucking continuing to be the dominant mode of transport. Annual Average Daily Truck Traffic is expected to grow significantly between 2000 and 2030 as shown on the figures below. In particular, corridors with heavy truck traffic include: I-95 in southeast Florida; I-95 and I-295 in northeast Florida; I-4 between Tampa and Orlando; I-75 from Wildwood to Lake City. Truck traffic will continue to grow in these corridors, as well as on US 27 and portions of SR 60 and US 301.

While specific statistics were not identified for traffic volumes, truck volumes, accidents and incidents, the national trends and state trends reflect continued growth in miles traveled and delays from congestion and truck traffic volumes. This combination of trends suggests an increased need for means to address growing truck traffic and safety related issues, including the need for adequate rest area facilities.

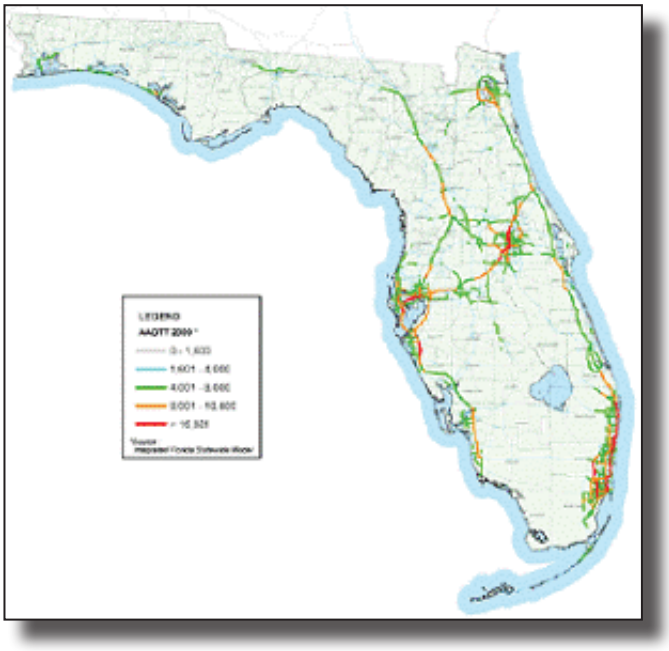


**Figure 4-13: Florida Truck Traffic 2000**

**Figure 4-14: Florida Truck Traffic 2030**

# 5 Findings & Recommendations



## 5.1 Future Rest Area Development

Florida's Rest Area system is considered one of the best systems in the nation. However, the Department recognizes that in the next 20-30 years the makeup of the traveling public will likely take on differing characteristics and require the addition of differing needs and services.

While Florida clearly represents a leader in the nation regarding rest area planning and operations, the current planning approaches and metrics used to determine system adequacy, services, and facilities should be evaluated. Research and assessments of rest area systems in peer states, coupled with detailed evaluations contained in the 2005 RAAS, and existing system realities have led to the development of additional benchmarks for planning Florida's future rest area system for 2030-40.

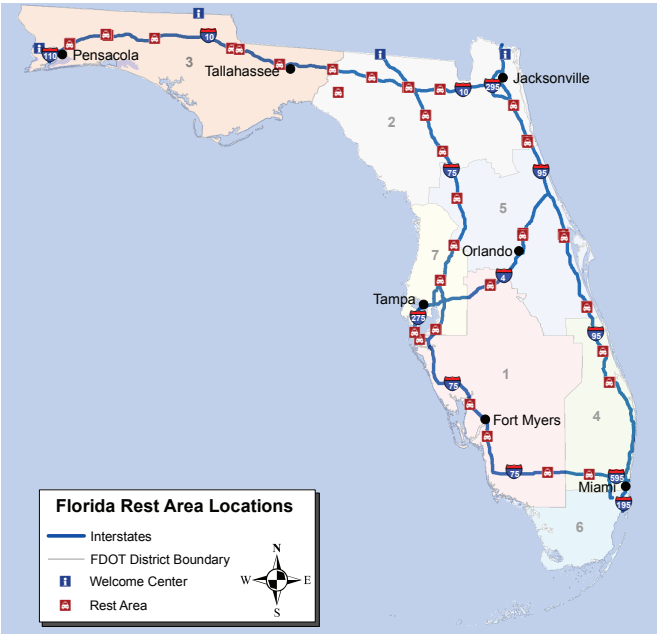



**Figure 5-1: Existing Rest Area Locations**

## 5.2 Program Benchmarks

As presented in previous report sections, several peer states and research were evaluated as well as the current conditions for Florida's rest areas (2005 RAAS). Currently, Florida's rest area system is generally complete from the standpoint of meeting program objectives of proper spacing, required facilities and services, and an overall favorable opinion of the rest areas.

While these existing procedures have served the Department well in the past, there are additional program benchmarks recommended for consideration for determining Florida's future rest area system. The recommended program benchmarks include:

1. **Projected Urbanization**
2. **Rest Area Customer Profiles**
3. **Commercial Truck Use**

The above recommended program benchmarks are proposed as rest area program drivers and should be considered in addition to current planning policies and tools.

## 5.2.1 Projected Urbanization

Florida is projected to become significantly more urban over the next quarter century as discussed in Section 4.0. Figure 5.2, which shows the current level of statewide urbanization, provides a baseline with which to compare projected urbanization in 2040 as shown in Figure 5-3.

Future (2040) urbanization is based on the 1000 Friends of Florida study, entitled, *Florida 2060 A Population Distribution Scenario for State of Florida (2006)*. This study included population distribution scenarios for several planning horizon including 2020, 2040, and 2060.

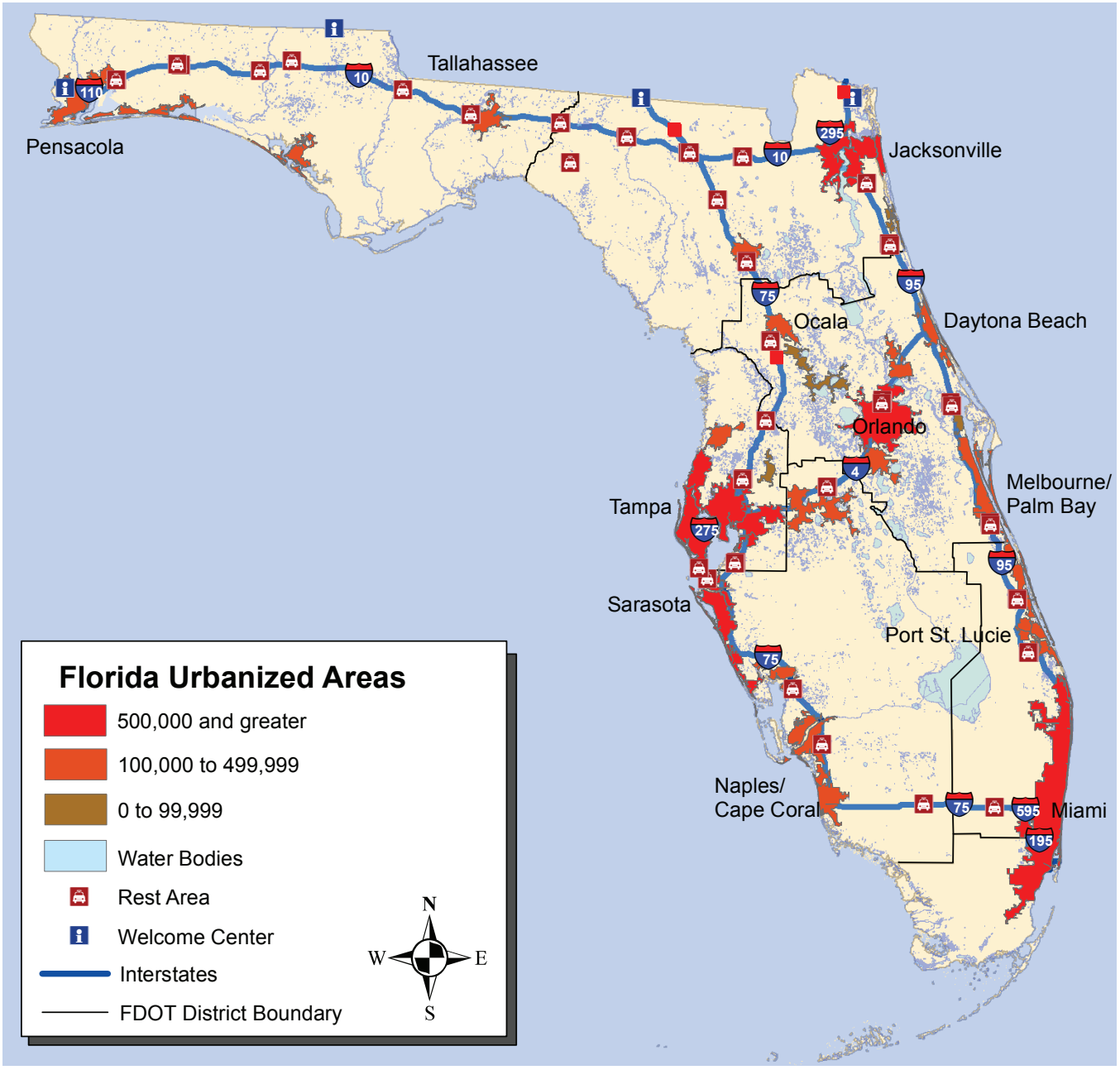



**Figure 5-2: Current Florida Urbanized Areas**

It is important to note that the projected scenarios represent planning level evaluations based on current conditions of development patterns and should not be viewed as approved development plans.

In many cases, existing rest areas in the future will be located within urbanizing areas especially those located around Florida's major metropolitan areas such as Tampa Bay, Orlando, SE Florida, and NE Florida, as depicted in Figure 5-3.

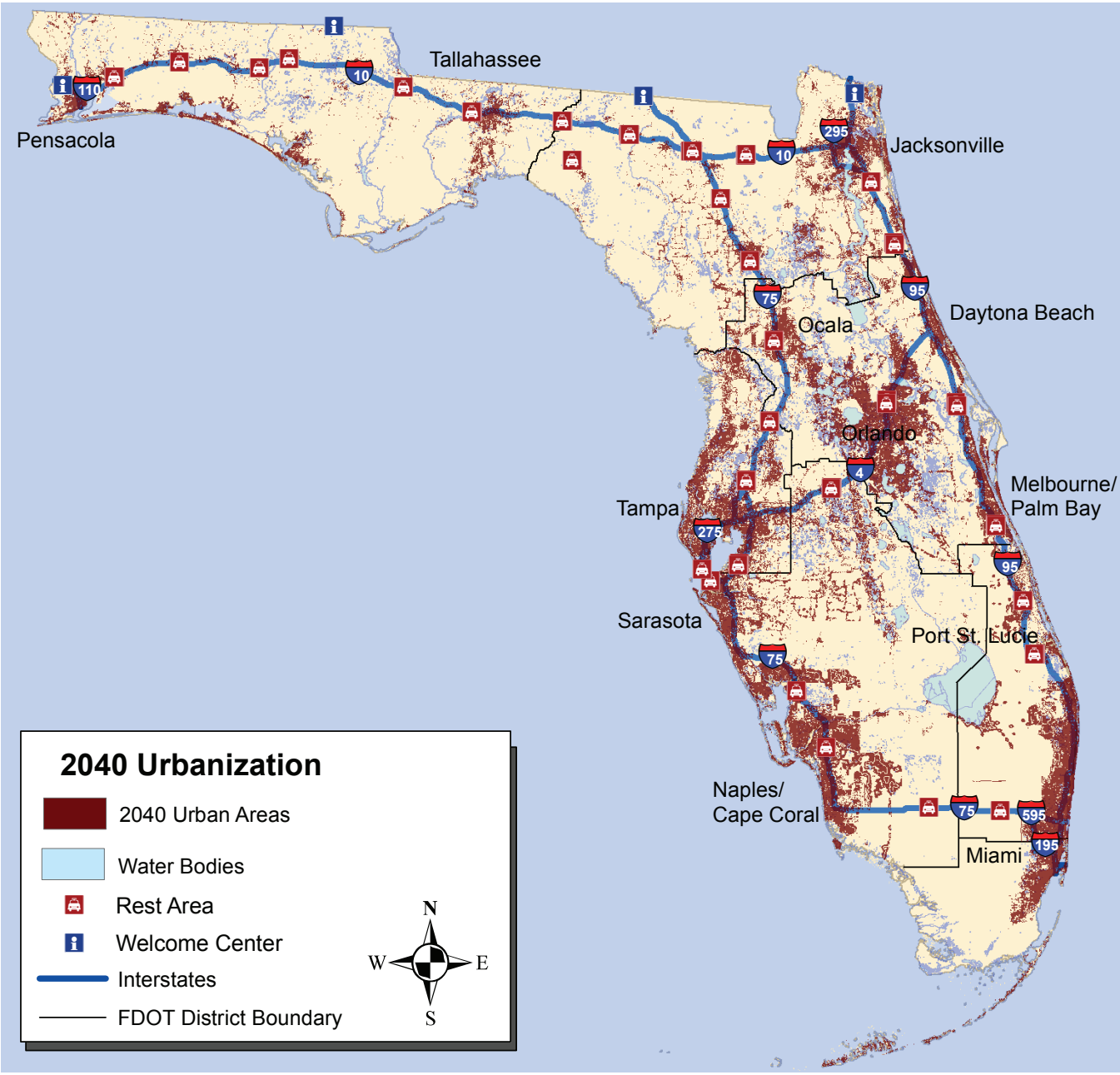



**Figure 5-3: Projected 2040 Florida Urbanized Areas**

## Why is Projected Urbanization in Florida a future benchmark for the State's rest area program?

As depicted in Figure 5-2 for 2006, and Figure 5-3 for 2040, many of the State's rest areas are likely to be surrounded by urbanization. In fact, using the 1000 Friends distribution scenario as a base, by 2040 an additional 16 rest areas could be classified as contained in an urbanized area.

This is an important consideration for two primary reasons:

- (1) surrounding/adjacent land use and interchanges will contain many of the services and opportunities found at rest areas; and
- (2) land uses immediately adjacent to these rest areas may contain incompatible land use such as residential.

Areas that are urbanized with private commercial land uses such as restaurants, retail, fuel sales, and visitor interests represent intervening opportunities to the traveling public and rest area user groups. These intervening opportunities will be a draw to rest area patrons given the broader services offered versus rest areas.

It should be noted that traveling within urban areas provides much more stimulus to the driver. Providing a host of alternatives to the rest area for rest (non-sleep), bathroom breaks, food, and fuel services reduces rest area patrons.

The second reason noted above is based on areas "growing up" around previous rural rest areas. This condition is occurring all over the nation and Florida in particular will experience this in coming decades at an advanced pace. The primary issue here is the community finding itself with a rest area facility within and adjacent to land uses deemed incompatible such as residential, institutional, and commercial uses.

A case in point is the previously discussed Seminole County rest areas on I-4 at Longwood Florida. Significant growth at the adjacent SR 434 exit to the west and the expanding Lake Mary and Heathrow exits to the east clearly provide intervening opportunities to the rest areas. Additionally, in this situation the surrounding areas adjacent to both the eastbound and westbound rest areas are primarily residential and community concern with the location of rest areas adjacent revolve around noise, 24 hours of activity, and concerns about potential crime and commercial trucks.

FDOT considered expanding and upgrading these rest areas and met with political and community "not in my backyard" (NIMBY) resistance. This project is on hold and the 2005 RAAS recommended closing these facilities and relocating them further east along I-4. The above case includes both the intervening opportunities and adjacent land use incompatibility conditions and many of the State's rest areas will experience similar conditions as urbanization continues, especially along Florida's interstates.

Seminole County rest area near local interchange


Semonole County rest area: westbound

## 5.2.2 Rest Area Customer Profiles

Florida's rest areas have always been maintained with a focus on the users. This focus ensures that the rest areas meet the expectations of the users or customers. Customer surveys have been published showing results by customer group. These groupings were Florida residents, commercial drivers, elders and Florida visitors. Groupings are centered on residence, age and profession. http://www.dot.state.fl.us/planning/customers/2007all.pdf

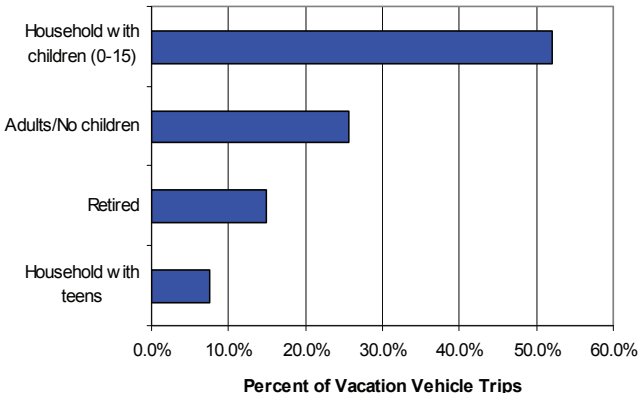
### Why is Rest Area Customer Profile a future benchmark for the State's rest area program?

Viewing users of the rest areas as customers is not a new trend. However, a new layer on the customer grouping would be to profile customers as not just by whom they are but by what services that they are seeking. This twist in thinking can help with looking at what the customers' needs may be in the future. This will establish an important benchmark for the state to ensure that Florida's rest areas continue to provide the services desired by the changing needs of their customers.

The customer profiles are broadly defined as:

- leisure travelers,
- commercial drivers, and
- business travelers

**Table 5-1: Percent of Vehicle Trips for Vacation by Life Cycle of the Household (Trips of 50 miles or more) *Source: 2001 NHTS Long-Distance File**




**Leisure travelers –** The National Household Travel Survey (NHTS) reported on the demographics of leisure travelers in August 2008. Leisure travelers are anticipated to stop every few hours for rest breaks, food, gas, or tourist information. Table 5-1 presents detailed demographic information about leisure travelers.

Households with children under 15 years old, represent over 50% of the vacation vehicle trips of 50 miles or more. Adults (not retired) traveling without children represents about 25%, with retired travelers at 15% and households with teens around 8%. While this is a national survey, we could expect some variation for Florida, however this survey clearly depicts specific details relative to an important rest area customer, the leisure traveler.

**Commercial drivers –** These user groups are well known customers of rest areas as their profession places them constantly on our nation's roads. Rest areas can provide these users the needed and legally required breaks from driving. The commercial driver customer group plays a significant role in the future of rest areas as parking concerns and time restrictions for stops continue to remain important issues for the FDOT to consider.

Commercial truck drivers work under time commitments and restraints as it pertains to their daily activity of route determination, behind the wheel time, and staging location for "just in time" deliveries. Early morning deliveries can dominate commercial truck schedules. Therefore the staging of trucks just outside of delivery locations at private truck stops/travel centers and rest areas becomes a nightly occurrence.

**Business travelers –** These travelers could view the rest areas as an extension of their mobile office. They may need a break to review items before a meeting, attend a conference call or check e-mail on their smartphones. This grouping of customers can include Florida residents and non-residents as many businesses in neighboring states of Georgia and Alabama may have regional territories that include Florida.

In the future, given trends toward home offices, telecommuting, remote employees and the general advancements in telecommunications, the business travelers in Florida could represent a growing user group that requires careful consideration in future services at rest areas. Clearly, Wi-FI or the next generation of wireless connectivity will be an essential service demand from this user group. Congestion levels at adjacent interchanges and roadways, coupled with the easy on-off ramp operations at rest areas are other factors that could play a role in utilization rates for this group.

## 5.2.3 Commercial Truck Use

Historically, rest areas have served the general traveling public as a principal user, and commercial truck users at a somewhat reduced level of service. Parking for commercial trucks may or may not be provided at all rest areas and until recently, parking for trucks was comingled with auto users at many locations. Over the past 10-15 years, the desire to separate truck access and parking from the autos has been driven by increased levels of rest area use for both users as well as safety, operations, and maintenance issues.

However, as presented in Section 4.9, commercial truck traffic levels along Florida's interstates are projected to increase as the freight volumes are estimated to reach 1.5 billion tons annually by 2025, from 575 million tons in 2003. Commercial trucking is expected to be the dominant mode of transport with Annual Average Daily Truck Traffic expected to grow significantly.

### *Why is Commercial Truck Use a future benchmark for the State's rest area program?*

As presented in subsequent report sections, commercial truck traffic along Florida's interstates is projected to increase by significant levels during the next several decades.

Table 5-3 summarizes the existing parking supply (1,924 sp) and calculated demand (1,887 sp) for 2006. These 2006 figures would suggest that Florida's rest areas currently provide a sufficient number of truck/RV parking spaces.

The projected number of spaces needed for 2025 was calculated using current methodologies (4,124 sp). As shown, using current methodologies, a 2,200 space deficit is projected by 2025. However, based on field observations, this projected deficit could in fact be substantially underestimated for many of the State's rest areas, especially those located near large urban areas.

**Table 5-2: Truck Parking Comparison**

| | 2006 Truck/RV Spaces Provided | 2006 Truck/RV Spaces Needed | 2025 Truck/RV Spaces Needed | Surplus/Deficit (2025) |
|---|---|---|---|---|
| **FDOT District** | | | | |
| **District 1** | 152 | 251 | 756 | -604 |
| **District 2** | 507 | 580 | 1054 | -547 |
| **District 3** | 406 | 440 | 705 | -299 |
| **District 4** | 262 | 122 | 316 | -54 |
| **District 5** | 402 | 334 | 839 | -437 |
| **District 7** | 195 | 160 | 454 | -259 |
| **State Total** | **1,924** | **1,887** | **4,124** | **-2,200** |

Source: 2005 RAAS

Trucks parked illegally in lot


Trucks parked at ramps

The current computation formulas are not inclusive of several additional factors that should be considered to determine the parking space demand. These factors include:

- (1) proximity considerations of rest areas relative to delivery locations such as distribution centers, intermodal rail facilities, private truck stop/travel centers, and ports; and
- (2) overnight parking realities occurring at rest areas regardless of State's three hour limit.

An example of inaccuracies using current computations can be found at the I-95 northbound St. Johns County rest area #32 located just south of the Duval County line (mile post 331). Based on current calculations, the existing number of truck/RV parking spaces of 73 exceeds the calculated demand of 38 spaces required.

Field observations at this rest area during 2008 suggest a different condition as the number of trucks parked at the rest area consistently exceed the 73 space count with a significant number of trucks parked illegally in the lot or along the entry/exit ramps to the rest area. These conditions are depicted in the photos shown on page 5-6.

It should be noted that the St. Johns County rest area example is further exaggerated by the fact that at the interchange two miles south of this rest area there are two private truck stops/travel centers containing a total of 167 truck parking spaces. These locations are consistently at or near capacity. In fact, the interchange ramps at these facilities experienced overflow truck parking prior to strict enforcement measures being enforced.

This condition occurs at many other rest areas locations throughout the state, especially those on the outskirts of major metropolitan areas where distribution centers, intermodal centers and ports are located.

**Table 5-3: St. Johns County Rest Area #32 Truck Parking Analysis**

| Rest Area Example | Existing Truck/RV Spaces 2006 | Required Truck/RV Spaces | Surplus/ Deficit (2006) | Spaces at Truck Stops Travel Centers (MP 329) | Comments |
|---|---|---|---|---|---|
| I-95 St. Johns County Rest Area (MP331) | 67 | 38 | +29 | 167 | Observed overflow conditions at rest area and truck stops/travel centers (see photos) |

Source: 2005 RAAS

Trucks parked at a truck stop at capacity

Trucks searching for a space at a truck stop

## 5.2.4 Alternative Uses for Closed Rest Area Sites

In the future, specific sites may be closed as functioning rest areas for any number of reasons including lack of use, obsolescence of structures, urbanization and encroachment, public or local government's request, or FDOT policy modification. As presented in this plan, rest area sites along Florida's interstates could be viewed as assets and the State should conduct a detailed disposition evaluation before closing a rest area.

Clearly, evaluating alternative uses for closed rest area will require significant coordination and approval from FHWA prior to taking action. However, for the purpose of long range planning, several alternative use concepts are presented to stimulate the conversation among the various departments at FDOT, other state agencies, and interested parties in the private sector. It is important to be inclusive in these discussions as ideas outside of the Department may offer opportunities to forward the mission, goals, and objectives of FDOT in terms of highway safety, maximizing the use of existing infrastructure/investments, and reducing congestion, among others.

Current reuses of closed rest areas in the State and nationally include:

- Truck Rest Area – these facilities typically include limited or no services such as restrooms, trash receptacles, lighting, and security. In some cases, there are virtually no services offered.
- Construction materials and/or maintenance equipment storage – this may include temporary or permanent uses and requires some level of security (fences, access, electrical power, etc.).

### Why should alternative uses of closed rest areas be evaluated ?

Florida's interstates represent the transportation bones of the state, with nearly all interstates serving as the backbones for many urban areas and communities. As such, the interstates continue to be the focus of capacity expansion projects such as widening, interchange improvements, and transit applications such as commuter rail, light rail, and other multi-modal technologies.

In other words, the interstate corridors themselves are viable assets to the state and are considered vital to its future. Because the future urbanization of the state is projected to be widespread, it is reasonable to consider that the existing rest area sites are likely to be located in close proximity to new growth and offer unique characteristics.

Characteristics unique to Florida's rest area sites include:

1. Interstate access via on/off ramps;
2. Adjacency to high levels of traveling public;
3. Access to nearly all types of travelers and users;
4. Urban, transitioning, and rural type sites exist in the State; and
5. Sites are physically located within the priority transportation corridors of the State.

These characteristics warrant the detailed evaluation of potential reuse of rest area sites when they are no longer needed for their current use. Again, Federal, State, and local regulations will need to be considered and addressed before any reuse is possible. However, the following concepts are presented here for consideration and review when developing the future rest area system for the state. It should be noted, these concepts are not to be considered recommendations, but only ideas for consideration.

**Truck-Only Facility** – this facility could differ from current truck-only rest areas in that these sites could include amenities such as idle reduction or vehicle electrification equipment, communications and ITS applications connected to delivery destinations such as

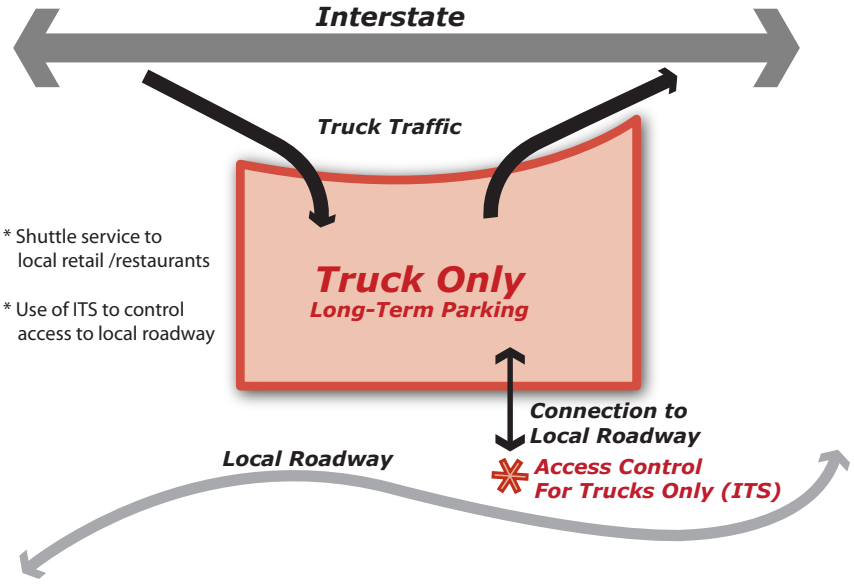



**Figure 5-4: Truck-Only Reuse Diagram**

distribution centers and ports. These facilities could include direct access to non-interstate surface roadways that provide access to the surrounding communities, truck stop/ travel plazas, retail, and restaurants. In these cases, shuttle services could be provided to allow trucks to remain at the facility, minimize congestion, and maintain "down time" rest requirements of the drivers. ITS applications that allow for only commercial truck use could be used to prevent unauthorized use of these facilities to access the interstate via local roadway connections.

**Benefits**

- Provide safety and economic development benefits to the State and surrounding communities.
- Reductions in overnight illegal commercial truck parking and congestion at nearby interchanges are possible.
- Local economies could be developed to include either specific commercial truck services or provide a more seamless interface with general public.

**Multi-Modal Center** – this facility could provide park-and-ride lots for future transit systems either along the interstate right-of-way or adjacent rail lines. The concept here is that the rest area sites could be developed as standard park-and-ride lots, combined with transit stations (rail platforms, etc.); or full transit oriented developments with additional land uses such as restaurants, offices, and retail.

For rest area pairs, a grade separated bridge could be constructed to connect both travel directions to the transit facilities. Connections to non-interstate roadways, similar to the truck-only facility would be more difficult with this concept. Controlling access to the interstate through the site would need to be thoroughly evaluated. Public-Private Partnerships (PPP) are potential funding options with this concept and may be viable given the public transportation purpose of the transit system.

**Benefits**

- Provide multi-modal capacity, safety and economic development benefits to the State and surrounding communities. The overall concept here is providing person trip capacity in the interstate corridor as opposed to vehicle based capacity.

**Future Interstate Planning** - The interstates in Florida are truly corridors that should be evaluated in a multimodal context. Several states including Florida are conducting such long term evaluations of interstates, and rest area sites could play an important role in forwarding these studies.

In fact, an agreement was recently signed as part of the Corridors of the Future Program and is part of the USDOT's national plan to relieve congestion. The agreement commits five states to the reconstruction and expansion of a 1,054 mile stretch of the 1,917 mile long I-95 corridor from Florida to Virginia which will accommodate future demand, safety, and reliability.

The project is specifically designed to accelerate the development of multi-state, regional approaches to reducing congestion and improving freight delivery. The benefits of the program include priority access to the Department's credit assistance and tolling programs, consistent with existing law. This type of long term, multi-faceted planning could include the evaluation of interstates' rights-of-ways and rest areas.

Other alternative uses of rest area sites could include typical service plaza facilities (i.e. turnpike), park-and-ride facilities for carpools and access to scenic or environmental resources. In the case of the latter, there are a select few rest area sites that may offer proximity to natural or cultural resources for purely recreational or tourism benefits to the local communities.

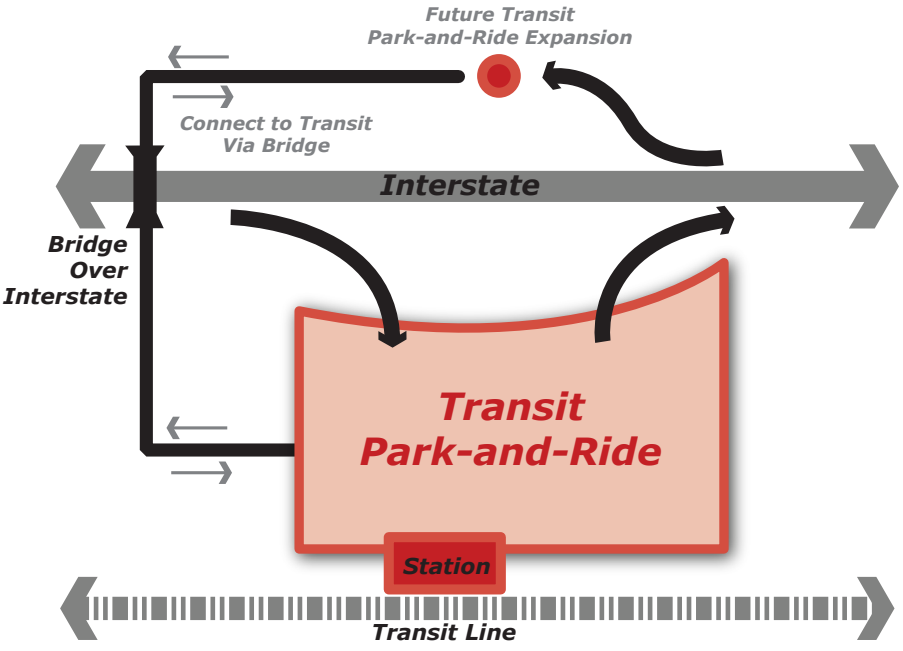



**Figure 5-5: Transit Park-and-Ride Reuse Diagram**

# 5.3 Program Recommendations

The program recommendations are for the development and application of program benchmarks as presented in Section 5.2. These future program benchmarks will enable the Department to respond more effectively to current rest area concerns, and more appropriately provide the Department with new metrics by which to evaluate the potential future of Florida's rest area system.

Additional recommendations are presented as part of posing policy questions related to the three (3) Program Benchmarks:

1. **Future Urbanization of Florida;**
2. **Rest Area Customer Profiles; and**
3. **Commercial Truck Use.**

The following program recommendations provide FDOT a series of next steps to facilitate the needed data collection, analysis and initiatives required to assist the Department in policy direction for the State's rest area program beyond 2020.

## 5.3.1 FDOT Policy Question: Future Urbanization of Florida

### *How will urbanization change or further develop the FDOT Rest Area system?*

As Florida urbanizes around many of the existing rest areas, the Department will be required to involve local stakeholders in its decisions regarding new rest areas, and expansion or disposition (closing) of existing rest areas. As demonstrated with the Seminole County rest area, local stakeholders may in fact provide significant influence over these decisions.

The future pressures from local communities to be included in rest area discussions are but one reason to expand the consideration of urbanization in regards to the future rest area system. The justifications for using future urbanization as a future benchmark were covered in previous subsection.

**Recommendations/Opportunities**

FDOT has several options to consider in regards to advancing the inclusion of urbanization into the planning of the future rest area system.

(1) Develop a refined classification system for rest areas to include the evaluation of adjacent land uses (existing and future); adjacent interchange assessment of traveler services; and future plans potentially affecting rests areas on a site by site basis.

(2) Determine temporal distributions of all rest area patrons to include classification traffic counts at all entry and exit ramps. Coordinate with annual traffic count program to expand the data set with mainline counts.

(3) Conduct a study of potential alternative uses (reuse) for rest area sites that may be closed in the future. This evaluation should include issues regarding FHWA involvement, Limited Access Right-of-Way considerations, and uses by other state and local agencies.

## 5.3.2 FDOT Policy Question: Customer User Profiles

### *Why are future customer user profiles of rest area patrons important?*

A case can be made to consider rest areas a product for the traveling public and its patrons. As with any product, it is important to understand the potential or existing customers to better design, market, and deliver the product to market/customers. FDOT surveys and user comments provide the Department with information on cleanliness, security, and overall impressions of its rest areas.

The changing nature of travelers such as the aging population and advancements in technology, when combined with the projected high levels of trucks and general congestion, supports the need for a more comprehensive understanding of rest area users (customers).

**Recommendations/Opportunities**

FDOT has several options to consider in regards to advancing the detailed evaluation of its rest area users or customers into the planning of the future system.

(1) Expand the current survey instruments used for rest areas, welcome centers and other customer satisfaction surveys to include questions on future services such as fuel and food sales at rest areas.

(2) Conduct a collaborative study with other FDOT departments and related state and local agencies to better define the existing interstate users at a corridor level to include origins, purposes, commercial trucks, and travel habits.

(3) Convene a workshop with affected and interested parties such as Visit Florida, local tourist development councils, chambers of commerce, and other state agencies to assess available information and develop a cooperative agreement of information sharing.

## 5.3.3 FDOT Policy Question: Commercial Truck Use

### *Should FDOT revise current policy, planning and operations to expand truck parking at rest areas?*

While not a direct responsibility of the State to provide long term parking at rest areas, how can the State assist in addressing this growing concern? Each rest area should provide a number of truck parking spaces based on a volume based calculation related to the interstate traffic levels near the rest areas.

However, these calculations do NOT assume overnight parking, but are based on turnover of parking spaces throughout the day. Clearly, when overnight parking occurs, parking spaces cannot serve multiple trucks during the day and therefore the parking capacity is significantly reduced.

**Recommendations/Opportunities**

FDOT has several options to consider in regards to truck parking at rest areas.

(1) FDOT should formalize discussions with private truck stop/travel center operators to discuss cooperative actions to address existing overcrowding of truck parking at rest areas and private facilities.

(2) FDOT should conduct an extensive corridor level evaluation of commercial truck traffic and parking needs, including rest areas, private truck stops/travel centers, local governments, private trucking operators, and freight interests including Florida's 14 Deep Water Ports and Class I Railroads.

(3) Evaluate implementation and integration of Intelligent Transportation Systems (ITS) applications such as SmartPark and other real-time information systems regarding parking availability. This should include the evaluation of integrating these applications into the existing interstate ITS systems.

As with the Future Benchmark Recommendations, the above recommendations and opportunities are presented to the Department for consideration for the advancement of planning Florida's future rest area system beyond 20 years.

# 5.4 Program Scenario Development

The Florida Department of Transportation embarked on this 2008 Rest Area Long Range Plan with a general open book approach. In other words, the objectives for the plan were not predicated on a particular outcome such as expanding or contracting the rest area program or addressing budget constraints as a prerequisite.

Therefore, rather than providing the Department with a single recommended direction for the rest area system, this plan has presented recommendations for how to modify current procedures and policies to better address ongoing and potential future conditions at Florida's rest areas.

Based on the existing conditions, system assessment, and findings and recommendations, a series of alternative scenarios are presented as options for the Department to consider for the future rest area system.

The outlined scenarios are presented for comparison purposes only and do not represent recommended actions. However, it is anticipated that should the Department initiate the recommendations of this report, then scenario type development similar to above would be refined and help guide the future policy directions for the rest area program.

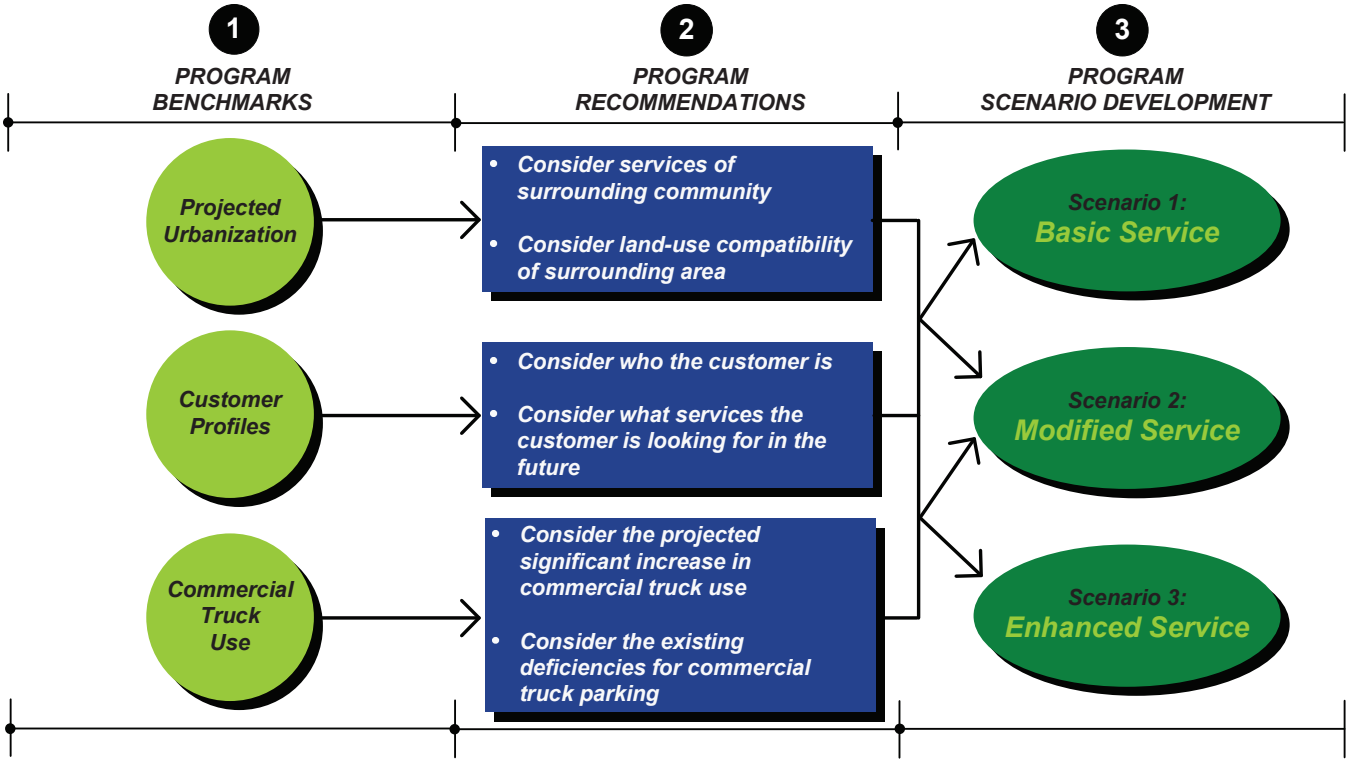



**Figure 5-6: Overview of Proposed Scenarios**

## 5.4.1 Scenario 1: Basic Service

### Business Strategy

The Basic Service alternative will affect rest areas in all classifications. The premise of this strategy is that the current rest area system is sufficient to adequately meet the needs of its customers. Thus, Scenario 1 provides for a status quo approach, current facilities are maintained with the same amenities. Current federal and state regulations do not require any changes in Scenario 1 rest areas.

### 2030-2040 Planning Horizon

Future growth in population and expanding urbanized areas (UA's) are assumed to not affect this strategy. This is a no-growth strategy; it does not add any new facilities. The table below shows current urbanization classifications for rest areas and welcome centers. Scenario 1 does not include any change in strategy as a result of increasing urbanization, and thus, the number of rest areas remains unchanged in the future.

### Benchmarking Metrics

**Future Urbanization of Florida** – as areas surrounding rest areas are more urbanized, more services will be offered that could reduce the use of the rest area. Surrounding populations may not view rest areas as an attribute to their community. This metric would essentially be monitored to support the closing of rest areas without the reuse of these sites.

**Rest Area Customer Profile** – changing needs of the customer profiles could be addressed in this scenario by adding additional amenities. These services would only include those allowed under current regulations.

**Commercial Truck Use** – no change in number of truck parking spaces except at selected locations to address severe safety concerns. Cooperative efforts with private truck stop/travel center operators and others should occur, but the Department would not take on additional responsibilities regarding truck parking needs.

**Table 5-4: Scenario 1 Overview**

| Scenario 1: *BASIC SERVICE* | Large Urbanized Areas | Small Urbanized Areas | Rural Areas | Total |
|---|---|---|---|---|
| Current | 4 | 16 | 37 | 57 |
| Future Changes | No Change | No Change | No Change | No Change |

## 5.4.2 Scenario 2: Modified Service

### Business Strategy

The Modified Service scenario will shift the focus from maintaining the current rest area system in each population density category to a focus on maintaining facilities only in small urban areas and rural areas. The premise of this strategy is that rest areas in the large urban areas are not utilized at the same level as those in smaller urban areas and rural areas, and therefore, may be eliminated. Travelers may opt to stop at readily available local convenience stores for gas or food, instead of using the rest area facilities. Benchmarking peer state Texas is currently using this strategy; TxDOT considers closing some rest areas near urban areas within 60 minutes drive time of a major metropolitan area.

Also, this strategy does not appear to be a new concept for the Florida rest area system. FDOT does not maintain any rest area or welcome facilities anywhere in the Miami metro area. Facilities in or near Tampa, Orlando, Sarasota, and Jacksonville could be determined to be unnecessary and used for other purposes.

Several options are possible if rest areas in the larger urban areas are determined to be no longer needed. First, the facilities and land could be sold, which would generate revenue that could be reinvested into the remaining facilities. Alternatively, the facilities could be converted to truck-only facilities, perhaps sponsored by a third-party other than FDOT.

Scenario 2 is not affected by current federal or state regulations, and so it does not involve any changes in amenities offered at Florida's rest areas. However, FDOT would need to address refunds to FHWA and/or private operations within the limited access right-of-way.

### 2030-2040 Planning Horizon

Future population growth will affect the execution of this strategy. Rest areas that are currently classified as rural or in small UAs could become located in part of a larger UA as urbanized areas grow or shift. Figure 5-5 depicts the 2020 and 2040 urbanization growth patterns. These future growth patterns are used as a proxy for projected UA boundaries. Thus, a rest area may not be needed in the planning horizon in these areas when they become much more urbanized. The current large UAs are indicated in yellow. Areas with projected future growth, which are currently part of a smaller UA group, are shown in red.

An examination of future UA growth in 2020 and 2040 shows that several rest areas may potentially be reclassified. They are: Palm Bay, Naples/ Cape Coral, Port St. Lucie, Ocala, and Tallahassee. Daytona Beach would also be included in this grouping, but it does not currently have a rest area. Also, some rural areas will be reclassified as smaller UAs in the future.

Table 5-5 shows current and 2040 urbanization classifications for rest areas in Scenario 2. This scenario responds to changes in urbanization and thus, affects the number or types of rest area system facilities.

### Benchmarking Metrics

**Future Urbanization of Florida** – metric addressed as rest areas in larger UAs would be used for other purposes and customer could find many amenities such as food, gas and resting areas throughout the urbanized area.

**Rest Area Customer Profile** – changing needs of the customer profiles could be addressed in this scenario by adding additional amenities to existing rest areas.

**Commercial Truck Use** – rest areas in larger UAs could be converted to truck-only facilities to alleviate parking concerns. It is anticipated that a more robust implementation of the recommendations would be employed.

**Table 5-5: Scenario 2 Overview**

| Scenario 2: *MODIFIED SERVICE* | Large Urbanized Areas | Small Urbanized Areas | Rural Areas | Total |
|---|---|---|---|---|
| Current | 4 | 16 | 37 | 57 |
| 2040 Rest Area Sites | 16 | 20 | 21 | 57 |
| Future Changes | Close or Re-Use | No Change | No Change | 41-57 |


**Figure 5-7: Scenario 2 Rest Area Locations**

## 5.4.3 Scenario 3: Enhanced Service

### Business Strategy

Enhanced Service involves providing improved facility amenities equivalent to those offered at a full-service travel plaza. This scenario switches the focus of the rest area system to locate facilities only in rural areas or key strategic areas and to change the facility template to offer more services. This strategy could only be implemented if the federal and state rules referenced in Section 2.7 are modified to allow commercialization of rest areas or public rights-of-way.

The current rest area locations are sited based on mileage spacing and population. Many rest area facilities appear to be located on the "outskirts" of metropolitan areas and are spaced at 45-minute intervals in rural areas. This scenario shifts the focus to address why the traveling public or customers may want to stop at rural travel plazas and to what services will attract them to stop.

Leisure travelers are anticipated to stop every few hours for rest breaks, food, gas, or tourist information available. Thus, having more food available, gas, and tourist information at the travel plazas would be important to them. Partnering with many of Florida's attractions could also be attractive. For example, many families choosing to drive down I-95 would find the Jacksonville area a convenient stop with two hours remaining on their drive to visit the theme parks in the Orlando area. Perhaps having a partnership with Disney, Universal, and others to sell tickets or to provide more information would be beneficial. This partnering strategy could also be applied to a rest area at the I-10/1-75 interchange for attractions in the Tampa Bay area.

Business travelers in Florida could view the rural travel plazas as an extension of their mobile office. Thus, providing Wi-Fi and private areas for a conference call with electricity would offer business travelers a convenient stop. This practice is currently being implemented in Iowa, which offers Wi-Fi. Additionally, Iowa DOT employees use the available Wi-Fi connection to increase their productivity and interaction when they are outside their traditional office spaces.

The surrounding communities could also use a comfortable mobile office and/or conferencing space in the service plazas. Service organizations could use them for monthly or weekly meetings. State agencies could use these facilities as meeting areas to reduce travel expenses, if having employees meet at a midway location would eliminate the need for an overnight stay. Benchmarking peer state Maryland is treating portions of its rest area locations as civic space, which can be rented out for a variety of local events, such as conferences or weddings.

More information about the benefits and business case aspects of offering Wi-Fi at rest areas is presented on Benchmarking partner Washington's website. http://www.wsdot.wa.gov/partners/nsrac2008/PDFs/A1_6-Internet.pdf Several options for funding are presented, as well as how Wi-Fi can be used to increase customer satisfaction and safety.

Commercial drivers frequent commercial travel plazas. Such offerings as showers, ample truck parking, and 24-hour restaurants are common. The amenities offered at these private-sector businesses could be mirrored at rural Scenario 3 interstate travel plazas. Interstate travel plazas should be located to avoid adversely affecting existing, private-sector travel plazas.

### 2030-2040 Planning Horizon

The service plaza concept is not new; it is used in many states along tollways and turnpikes. Proposed travel plazas would be located in rural areas or in key strategic areas. These are roughly indicated by green stars depicted in Figure 5-6.

Suggested areas for these travel plazas, based on the 2020 and 2040 growth projections, are: I-75 between Miami and Naples, I-10 in between Pensacola and Tallahassee, I-95 north or south of Jacksonville, I-75 near Ocala, the I-10/I-75 interchange, and the I-4/I-95 interchange.

The rest area classifications for Scenario 3 have the same counts as Scenario 2; however, the addition of travel plazas could impact the total count.

### Benchmarking Metrics

**Future Urbanization of Florida** – metric addressed as rest areas in larger UAs would be used for other purposes and customer could find many amenities such as food, gas and resting areas throughout the urbanized area.

**Rest Area Customer Profile** – changing needs of the customer profiles is comprehensively addressed in this scenario by adding additional amenities to existing rest areas and the travel plazas which would add services for each customer profile.

**Commercial Truck Use** – rest areas in larger UAs could be converted to truck-only facilities to alleviate parking concerns. Travel plazas will also increase the number of truck spaces and amenities. These are also located in rural areas that will have less impact to populations surrounding them.

**Table 5-6: Scenario 3 Overview**

| Scenario 3: *ENHANCED SERVICE* | Large Urbanized Areas | Small Urbanized Areas | Rural Areas | Total |
|---|---|---|---|---|
| Current | 4 | 16 | 37 | 57 |
| 2040 Rest Area Sites | 16 | 20 | 21 | 57 |
| Future Changes | Close or Re-Use | No Change | Add Travel Plazas | 41-57; plus any additional travel plazas |


**Figure 5-8: Scenario 3 Rest Area Locations**

# 5.5 General Funding Opportunities

A continual review of funding strategies is important as states look to balance budgets and ensure the safety of the traveling public. Investment in the nation's highway system reduces delays, improves safety, reduces emissions, and lowers vehicle operating and maintenance costs, according to the American Association of State Highway and Transportation Officials (AASHTO). In fact, for every $1 spent on the nation's highways, there is $5.69 in economic benefit, according to AASHTO.

## 5.5.1 Current Funding

National Highway System (NHS) funds are the standard funding source for construction of new rest areas. Maintenance or rehabilitation is funded from interstate maintenance (IM) or NHS funding. Montana's rest area plan incorporated a nationwide survey of state rest area managers. Survey respondents listed the following sources for funding rest area maintenance: IM, NHS, Surface Transportation Program (STP), highway beautification, scenic highway, motorist safety or transportation enhancement.

TxDOT is currently rehabilitating or constructing new rest areas using Transportation Enhancement (TE) funds following application to and approval by FHWA for this statewide application of TE funds. This option is available to FDOT should it so choose to redirect TE funding for rest area purposes.

## 5.5.2 Future Funding

Alternative funding sources could include taxes and cooperative agreements between state and local agencies or other related partners.

### Public-Private Partnerships

Public-Private Partnerships (PPP) is also an alternative. Implementing this option to the fullest extent to include retail, food, and fuel sales, would require changing state and federal laws. However, having PPPs permitted at rest areas could help bring in needed funds to continue maintenance activities and expand the systems services.

These partnerships are not new to transportation authorities and turnpikes. Using a PPP to design, build, operate, and finance rest areas or, more likely, service plazas will continue to be a viable alternative for future funding sources. Again, federal and state regulations would need to be modified to allow commercialization on public right-of-way. The Florida Turnpike Enterprise is currently soliciting for a private partnership for its eight service plazas and would provide an excellent model for this type of funding option in the future.

### Taxes

Portions of state gas tax funds, hotel room taxes (bed taxes), or tourist development taxes could be marked for rest area maintenance or construction. This condition could occur should the rest area program develop a stronger relationship with local and regional visitor advocates/groups. For example, Maryland includes welcome centers in several rest areas located internal to the state. These more local or regional welcome centers include partnerships with local or county level tourist development organizations to promote local or regional tourism. Florida has several unique regional areas that could benefit from such a relationship.

## Agency Partnering

Partnering with other state agencies for use of the rest areas could provide an opportunity to expand funding sources. For example, if the closest rest area to a port is designated as a truck-preferred location, then funding from the Port Authority could be used for development or operations/maintenance (O&M). The Federal Emergency Management Agency (FEMA) and the Department of Homeland Security (DHS) could also use rest areas in times of crisis and allocate a portion of their funds for the use of rest area facilities.

Maryland is currently using the Mason Dixon Discovery Center (Emmitsburg Rest Area/Welcome Center) as a Disaster Relief Center. The state used cost sharing to install additional electric to handle computer servers and a portable air conditioner to cool the locked area in which it resides.

Maryland's new Interstate 70 Welcome Centers will become the Disaster Relief Centers when complete in 2009. Electrical circuitry will be installed to handle computer servers in a locked area with cooling equipment. Special conference tables with built-in projection of laptop images onto flat panel TV's and centralized speaker system to project outside as well as inside. Additional phone/data/electric outlets will be inset into the floor and added to the media room to accommodate additional personnel working during an emergency.

In the case of Florida, formal arrangements to allow the use of rest areas as disaster response command centers or potentially evacuation centers could be evaluated. This could include temporary fuel sales or other services during evacuations.

## Rest Area Sponsorship

Sponsorship at rest areas is a viable option for additional revenue. This practice is currently in use in Iowa and meets the federal and state highway advertising and signage laws. Revenue streams can support technology installation, operation and maintenance, safety messages and general maintenance. The opportunities for sponsorship are varied at rest areas including:

- Wi-Fi splash or home pages
- Kiosks
- LCD monitors
- Backlit displays
- Hardware and electronic branding
- Phone coupons
- Low frequency radio for weather and traffic information


Examples of partnership signage

Iowa has focused its sponsorship to offering Wi-Fi at rest areas. Several options for funding are presented, as well as how Wi-Fi can be used to increase customer satisfaction and safety.

Texas Department of Transportation is planning to use sponsorships to help offset the costs of Wi-Fi and maintenance of safety rest areas. Sponsorship signs will be placed per FHWA approved standards. These sponsorship signs are in the form of acknowledgement signs that are a way of recognizing an individual, company, business, volunteer group or other jurisdiction that provides a highway-related service. Acknowledgement signs include sponsorship signs for Adopt-A-Highway, maintenance of a parkway or interchange, and other highway maintenance or beautification sponsorship programs. Texas' program includes specific criteria for the placement, design, and legibility of the signs and requires a sponsorship agreement be entered into with TxDOT.

Minnesota's DOT researched the issue of sponsorship in a 2004 Omnibus Study. The survey results showed that eight out of 10 of respondents supported the sponsorship of rest areas by private business. An interesting trend was noted that with decreasing respondent age, there is an increase in the support of business sponsorship. The type of business that would sponsor a rest area did not influence a respondent's support unless the sponsor's business was gambling, a special interest group, a religious/political organization or adult-oriented. A final statistic showed that for nine out of 10 respondents that sponsorship was preferred versus shutting down a facility due to lack of funding.

These programs and research indicate that other states are evaluating alternative and fairly simple approaches to offsetting maintenance at rest areas or finding a funding source for additional services such as Wi-Fi connectivity.

# 6 Appendix



## A.1 Technical Memorandums

## A.2 Worksession Card Scans

JACOBS
245 Riverside Avenue
Suite 300
Jacksonville, FL 32202

Voice 904.636.5432
Fac 904.636.5433
www.jacobs.com

# Technical Memorandum No. 1:
# 2005 FDOT Rest Area Assessment Study

The purpose of this summary is to provide an overview of the *2005 Florida Department of Transportation Rest Area Assessment Study* (2005 RAAS) prepared by Bentley Architects + Engineers (BAE). This assessment study was in fact an update to the *1993 Interstate Rest Area Facilities Condition Assessment and Needs Study* which was intended to be a 30-year plan. The 2005 RAAS was commissioned due to high growth in the State's population and interstate traffic, as well as changes in FDOT priorities.

## 2005 RAAS Components

The assessment was organized around both physical and operational characteristics to include the following four (4) tasks including:

1. Review current study recommendations
2. Investigate current conditions of existing Florida rest areas
3. Evaluate the current and projected needs of the traveling public
4. Provide prioritization of rest areas for use in a rehabilitation/development plan

The assessment included interviews of FDOT district coordinators, management contractors and maintenance staff in addition to security personnel. The FDOT asked the consultant to provide answers and recommendations to a series of questions ranging from operational conditions, parking, and wastewater management to future expectations and facilities adequacy.

Each of the 52 rest areas and 4 welcome stations were evaluated with a detailed site visit and included scoring for key components:

- Site
- Building
- ADA Compliance
- Water Plant & Wastewater Treatment Facilities

The ADA Compliance area represented a key expansion to the 1993 study. These components were further divided into many subsections to fully evaluate the overall

facilities. **Table 1: 2005 RAAS Site Review Elements** details key components reviewed during the site visits.

**Table 1: 2005 RAAS Site Review Elements**

| Key Components | Subsections |
|---|---|
| Site | Approach & Exiting Signage; Ramps; Interior Roadway; Rest Area Signage; Auto Parking; RV & Truck Parking; Drainage; Sidewalks; Ancillary Facilities; Grounds & Landscaping; Lighting; and Safety & Security |
| Building | Roof; Exterior; Interior; Fixtures; Mechanical; Lighting & Electrical; and Plumbing |
| ADA Compliance | Americans with Disabilities Act Guidelines; Florida Building Code Chapter 11 requirements. |
| Water Plant & Wastewater Treatment | 3 Years Discharge Monitoring Reports; Permits; Annual FDEP Inspection Reports |

As depicted by the components and subsections listed in Table 1, the 2005 RAAS provided a detailed assessment of all rest areas and welcome stations in regards to the physical nature of the facilities.

### 2005 RAAS Overall Findings

The overall findings were organized into the same four key areas in Table 1 and included general information and geographical discussions as well. **General Information** findings stated that Florida rest areas were in good condition and visitors will generally find a clean facility which offers sage access to restrooms and other facilities. It was noted that the older facilities do not meet the full needs of the traveling public**.**

**Geographical Findings** included a discussion on rest areas in the rural areas of the state and Seminole County. It was concluded that the urban areas of Florida tend to have an ample supply of service stations and food establishments along the interstates that serve high levels of commuter based traffic needs. The report recommends that future resources and planning efforts focus on the more rural areas such as the Panhandle (D3); North Florida (D2); and Central part of Florida's East Coast between Jacksonville and West Palm Beach (D5/D4). The Seminole County rest areas located near Longwood have the highest traffic volumes (AADT) in the state and fail to meet parking and fixture needs. Encroachment from residential and industrial land uses is significant and the study recommends closing this rest area (both directions). However, this closing would leave only the Polk County rest areas between Tampa and Daytona Beach, therefore the study recommends adding a new rest area east along I-4 near DeLand.

**Site Findings** varied greatly throughout the state based principally on the age of the facilities but were generally considered adequate from a site standpoint, with one

exception, truck parking. In fact, the report states that ***truck traffic*** is the "number one issue facing Florida facilities", particularly at the older rest areas. Less than 50% of the 56 facilities met the current requirements for truck parking. While the number of truck parking spaces is the main deficiency, this influences other impacts such as parking on ramps, interior roads, and entrance/exit ramps at adjacent interchanges. All of these create a safety issue for truck operators and the traveling public. While more recently constructed weigh stations offer truck parking and even restrooms for the drivers, they are not fully utilized either due to lack of knowledge or the drivers' fears of random inspections from weigh station staff. The 2005 RAAS recommends an awareness campaign and partnering with private truck centers to provide additional parking areas.

***Storage Sheds*** is another common response for improvement at many rest areas. This issue here is for older rest areas, these storage sheds are in poor condition or there was inadequate space and equipment and materials are left unsecured. ***Picnic Pavilions*** represent an isolated issue at only a few rest areas. The inclusion of security and closing the picnic loop roads during the nighttime hours has solved many of the previous issues.

**Building Findings** are more on a case by case basis and the comprehensive workbooks completed for each rest area detail specific building related issues such as roofs and bathroom fixtures. One issue regarding emergency generators was discussed in some detail. As a general finding, the report recommends the installation of permanent generators at all rest areas to accommodate full use during emergency evacuations and maintain services. **Accessibility Compliance** was reported to be scored very high in regards to accessible features and fixtures. Noted exceptions included detectable warnings at the primary curb ramp areas with contrasting colors for ramps and Braille and raised characters on signage at buildings.

**Water Plant & Wastewater Treatment Findings** represent a continuing important issue for FDOT. The issues revolve around the treatment of the wastewater and dealing with specific levels of nitrates, discharge points, and evaluating the connection to public systems when feasible. Pressurized hydropneumatic tanks are a common source for drinking water and maintenance and inspection should be increased.

### 2005 RAAS Consumer Responses

The addition of consumer surveys represented a significant addition to the previous 1993 study. Over 560 rest area consumers were interviewed during the study and yielded important data in regards to opinions and services provided. Around 85% of respondents rated rest areas as "very important" to the traveling public. Regarding cleanliness, 90% rated the restrooms as being "very clean" with 89% rating the rest area facilities as being "very safe". The *Primary Reasons to Stop* question generated responses whereby 57% stopped for the use of restrooms, with 18% stopping to rest, and 9% to get water or snack. Lastly, survey respondents indicated generally that the distance between rest areas is about right when compared to a distance of 41-60 miles apart.

## 2005 RAAS Priority of Rest Area Improvements

The comprehensive assessments of the 56 facilities (52 rest areas/4 welcome stations) were compared and contrasted to arrive at a series of priority rankings. Since water and wastewater facilities are high cost and multifaceted elements, independent funding for these improvements are common and sometimes outside of budgets used for other improvement types. Therefore, a specific priority listing is provided relating to water plant and wastewater facilities. Statewide Overall Priority Rankings includes the following top 10:

**Table 2: Statewide Overall Priority Rankings**

| State Priority | Rest Area # | FDOT District | County | Direction | Interstate |
|---|---|---|---|---|---|
| 1 | 10370 | 1 | Manatee | NB/SB | I-275 |
| 2 | 70360 | 7 | Pinellas | NB/SB | I-275 |
| 3 | 30091 | 3 | Jefferson | EB | I-10 |
| 4 | 10280 | 1 | Lee | NB/SB | I-75 |
| 5 | 30092 | 3 | Jefferson | WB | I-10 |
| 6 | 20111 | 2 | Suwannee | EB | I-10 |
| 7 | 70242 | 7 | Pasco | SB | I-75 |
| 8 | 30070 | 3 | Gadsden | EB/WB | I-10 |
| 9 | 30081 | 3 | Leon | EB | I-10 |
| 10 | 20332 | 2 | St Johns | SB | I-95 |

Source: 2005 Florida Department of Transportation Rest Area Assessment Study (Table 6.1A, pg 31)

While Table 2 details the overall rankings, individual rankings based on Site, Building, ADA compliance, and Water Plant & Wastewater components are also provided in the 2005 RAAS.

In summary, the 2005 RAAS provided a much needed physical plant update on Florida's rest areas and welcome stations and will provide an invaluable resource for *FDOT's Rest Area Long Range Plan*.

JACOBS
245 Riverside Avenue
Suite 300
Jacksonville, FL 32202

Voice 904.636.5432
Fac 904.636.5433
www.jacobs.com

# Technical Memorandum No. 2:
# Project Goals & Objectives
# 2008 Rest Area Long-Range Development Plan

The purpose of this technical memorandum is to present the *Project Goals & Objectives* for the *2008 Rest Area Long-Range Development Plan* as it relates to the initial tasks conducted and anticipated outcomes of the study. The Project Goal & Objectives are intended to be revisited and/or validated following *Phase One* completion (Task 3) and prior to commencing *Phase Two* of the plan development.

Three (3) key sources were evaluated to assist in developing the goals and objectives:

- **Questions of Study**: 2005 Rest Area Assessment Study;
- **Scope of Services:** 2008 Rest Area Long-Range Development Plan; and
- **Project Kick-Off Meeting** (May 2, 2008)

The three sources provide an overview of the components considered including a general discussion of the intent and purpose of the individual documents and concluding with a set of Project Goals & Objectives for the *2008 Rest Area Long-Range Development Plan.*

## 2005 Rest Area Assessment Study (2005 RAAS)

Prior to the initiation of the 2005 RAAS, the Florida Department of Transportation provided the project team with a set of ten (10) questions to be answered and to include specific recommendations to the Department. These ten questions are as follows:

1. Has the rest area operational environment changed?
2. What are the expectations for future Florida rest areas?
3. What facilities and services need to be provided?
4. Are the existing facilities adequate to provide these services?
5. What facilities need to be added/removed?
6. Can the department work with private businesses to provide these services?
7. Is parking adequate to serve the current and future traffic loads?
8. Are utility services (waste management) available?
9. Are available utilities adequate to meet future rest area demands?
10. Are there any interstate roadway/bridge projects planned that may affect the future development of rest areas?

As can be seen from the above questions, the overall intent of the 2005 RAAS was to update and evaluate the physical components of Florida's rest area and welcome stations and provide an assessment of the rest areas in meeting the range of needs of the traveling public.

Of the ten questions from above, questions #2, #6, and #7 were determined relevant to the objectives for the *2008 Rest Area Long-Range Development Plan* and are repeated here as follows:

**2005 RAAS Questions**

2. What are the expectations for future Florida rest areas?
6. Can the department work with private businesses to provide these services?
7. Is parking adequate to serve the current and future traffic loads?

It does not appear as though these three questions were completely answered in the 2005 RAAS although the issue of existing parking was sufficiently evaluated and documented. In particular, the deficiencies in truck/RV parking at Florida's rest areas will certainly provide insight to the team when developing study goals and objectives.

- **Scope of Services:** 2008 Rest Area Long-Range Development Plan

The second source evaluated to develop the project goals and objectives included the scope of services prepared for this project itself. The scope includes statements related to general expectation of the study such as:

***"…FDOT desires to move beyond considering specific recommendations to address existing facilities, and establish a comprehensive Rest Area Long-Range Development Plan."***

***"The plan should also discuss the prospect of public-private partnerships for rest area operations and truck parking"***

***"The long-range plan is expected to direct rest area planning for approximately 20-25 years"***

The scope of services includes an ***Issues List***. This list includes the following issues areas:

1. Rest Area System Adequacy
2. Rest Area Facilities Availability
3. Public-Private Partnerships
4. ITS – Intelligent Transportation System Opportunities
5. Emergency Operations Facilities & Services

Additionally, forty-three (43) sub-issues were listed under the above five topics. The five issues areas were reviewed and incorporated into the development of the project objectives.

- **Project Kick-Off Meeting** (May 2, 2008)

At the project kick-off meeting, Jacobs staff and FDOT's Project Manager Dean Perkins discussed the overall intent of the *2008 Rest Area Long-Range Development Plan* including current issues and previous work efforts. Topics discussed included:

1. Truck traffic overloading and parking on interstate ramps.
2. Technology at the rest areas such as Wi-Fi/internet connections.
3. Tandem truck parking and staging areas.
4. Emergency management issues such as generators and contra-flow traffic.
5. Private concessions at rest areas.
6. Travel time savings related to rest areas versus off-interstate facilities.

It was reiterated at the meeting that the Department desires a planning document that can serve a long-term horizon and one that "thinks out of the box" regarding the future uses and services at Florida's rest areas and welcome stations.

- **Project Goals & Objectives**

As stated earlier, these project goals and objectives will be revisited at the end of Phase One, and to respond to changes in Department policy or direction. Based on the evaluation of the three sources reviewed above, the following represents the recommended project goal & objectives:

## Goal 1: To develop a Statewide Rest Area Long-Range Development Plan to meet the future needs of the traveling public.

Objective 1.1: Prepare existing trend and alternative benchmarks for determining future needs of rest area users, including commercial truck traffic, to assess the adequacy of the rest area system.

Objective 1.2: Prepare existing trend and alternative benchmarks for evaluating availability, number, and location of rest areas in the 20-25 year horizon.

Objective 1.3: Prepare near-term and long-term recommendations to address known and potential funding mechanisms for rest area development and maintenance including user fees and public-private partnerships.

Objective 1.4: Evaluate advanced technology and Intelligent Transportation System (ITS) applications for rest areas and welcome stations.

Objective 1.5: Evaluate public safety, security, and emergency management aspects related to rest area and welcome station usage.

Objective 1.6: Conduct a review, including peer states, to determine national trends for alternate services, uses and potential reuses for Florida's rest areas and welcome stations.

Objective 1.7: Prior to Phase Two, prioritize the areas to be included in the *2008 Rest Area Long-Range Development Plan*.

**NOTE:** This goal and its corresponding objectives are not intended to be encompassing of all potential tasks or work efforts, but to provide a guideline of intent for conducting the study and developing the plan. The *2008 Rest Area Long-Range Development Plan* will include goals, objectives, and actions specific to the plan and its expected use and outcomes.

JACOBS
245 Riverside Avenue
Suite 300
Jacksonville, FL 32202

Voice 904.636.5432
Fac 904.636.5433
www.jacobs.com

# Technical Memorandum No. 3:

## Summary of Benchmarking Findings
## 2008 Rest Area Long-Range Development Plan

The purpose of this technical memorandum is to present the *Summary of Benchmarking Findings* for the *2008 Rest Area Long-Range Development Plan*. These benchmarks represent key standards or areas of interest that will serve as guidance during the development of the plan.

Three (3) key sources were evaluated to assist in developing the benchmarks:

1. **Research of Peer States (programs/procedures)**;
2. **Personal interviews of key staff with peer states**; and
3. **Site Visits of facilities in peer states**

The three sources provide an overview of the components considered including a general discussion of the intent and purpose of the individual documents, discussions, and materials, concluding with a set of benchmarks for the *2008 Rest Area Long-Range Development Plan*. The benchmarks are presented in the following three (3) areas or groupings:

- **Facilities and Operations**
- **Emerging Trends**
- **Future Considerations**

While there is some overlap between the groupings, the benchmarks are presented within the areas to maintain order for subsequent use and consideration. It should be noted that the benchmarks presented in this technical memorandum may be modified during the study as new and unconsidered information is brought to bear during the study and review processes. The project goal is restated here to serve as a reminder of the overall intent for the development of the *2008 Rest Area Long-Range Development Plan:*

> Goal 1: To develop a Statewide Rest Area Long-Range Development Plan to meet the future needs of the traveling public.

## Peer States Site Visits – Maryland, Texas, Washington

Three peer states were selected for site visits and meetings with key staff with various responsibilities regarding their State's rest area programs. Following is a brief summary of the findings from the site visits and discussions:

***Maryland (July 17-18 2008)***

Maryland was selected as a peer state for several reasons including:

1. State incorporates welcome centers into thirteen (13) rest areas at both State entry points and interior locations.
2. Portions of Interstate 95 are tolled by the Maryland Transportation Authority (MDTA) and include the #1 and #3 ranked visited travel plazas in the nation.
3. Strong and supportive working relationships between the Maryland DOT, MDTA, and Maryland Office of Tourism Development.

The above key reasons, in addition to several others including an active redevelopment of major rest areas and the provision of truck-only rest areas, provide helpful insights to both operational and facility based elements.

1. Providing thirteen (13) welcome centers throughout the state, including several along non-interstate highways is a unique element to the state's rest area program. The Office of Tourism Development operates these centers and is proud they are one of the few states to staff Welcome Centers with Nationally Certified Travel Counselors by the Travel Industry Association of America.

Clearly, Maryland views its welcome centers/rest areas as important components to promoting and expanding tourism. Rest area staff believes that there appears to be a direct relationship between stopping at a rest area and the length of a visit to the state.

A comical quote from a staff member included their approach to "converting pee-ers into see-ers" with their extensive and comprehensive information services at welcome centers. Economic benefits to extending or expanding visitors' stays may become a consideration for Florida.

**2.** Another unique aspect of Maryland is the use of tolls on portions of Interstate 95. A similarity to Florida is the fact that portions of I-95 in Jacksonville were also tolled up until 1989 when tolls were replaced with a local option sales tax. The connection to this characteristic with interstate rest areas is that as a toll road, rest areas/welcome centers can expand services such as restaurants, fuel sales, and other for-fee services, similar to Florida's Turnpike Enterprise. As stated earlier, these tolled portions of I-95 are managed by the Maryland Transportation Authority (MDTA).


Furthermore, two (2) service plazas, Chesapeake House and Maryland House located along the northern portions of I-95 represent two of the most visited welcome/information centers in the nation.

Chesapeake House (Welcome) is located 12 miles south of the Delaware state line, and the Maryland House (Information) located just 14 miles further south recently combined to generate over $40 million in revenue from fuel, food and merchandise sales. Clearly, this level of concessions represents opportunities for revenue for the agency and attracts private sector interest for Public Private Partnerships (PPP).

Additionally, Maryland operates welcome centers on non-interstate facilities such as the recently completed US 15 Welcome Center in Emmitsburg, just south of Gettysburg, Pennsylvania. This facility provides the traveler with restrooms, vending, playground, travel information, and community meeting/museum space. The US 15 Welcome Center provides more of the traditional services of a center located near the state line. However, this center, as well as others currently under development are themed to relate to the geographic area they are within and are planned to serve potential community functions such as festivals and art exhibits. Maryland, like many other states is installing Wi-Fi internet services at many locations.

***Texas (July 30-31 2008)***

Texas was selected as a peer state for several reasons including:

1. State is currently undertaking a comprehensive rest area redevelopment program to include aesthetic, historical, and culturally unique facility designs.
2. TxDot was a national leader in utilizing Transportation Enhancement funds for rest area construction and installing Wi-Fi internet system wide.
3. State adopted a policy stance that urban areas along the interstate system could serve rest area functions and has closed several rest areas near cities.

The above key reasons, in addition to several others including extensive public participation in facility design and commercial truck parking consideration, provide helpful insights to both operational and facility based elements.

1. In 1999 TxDot developed a Rest Area Improvement Plan for the 110 safety rest areas in the state. The state also developed a set of design goals for new rest areas as well as the rehabilitation of existing rest areas. Design elements include scenic location, pedestrian features, landscaping, historical preservation, regional vernacular, safety/educational activities and environmental issues.

A key design element is the regional vernacular regarding the architecture and site design. The diverse geography of Texas lends itself to providing unique rest areas themed around the physical and historical significance of the area surrounding each rest area.


To date the state has constructed several sets of rest areas along some of the major interstates. All of the rest areas, while unique in style and size, contain playgrounds, truck parking, pet exercise paths, family restrooms and exhibition space. The state employs a thorough design process involving the public and strives to present historically and culturally significant features of the region. The state has a strong belief in the concept that interesting rest areas will provide the traveler with an extended resting period and therefore reduce driver fatigue.

**2.** Given the magnitude of the rest area system, TxDot developed a funding approach for the redevelopment of its rest areas that utilizes Transportation Enhancement (TE) funds. The federally mandated 10% minimum set-aside for the TE program represented a significant and reliable funding source from which to base this extensive redevelopment program.

Current construction estimates require approximately $16-18 million per rest area pair. This cost includes the construction of a minimum of 28 truck parking spaces per rest area on 10 inch concrete parking surfaces. Maintenance costs average $20k/month per rest area. Examples of completed new rest areas include the Guadalupe County and Colorado County rest areas on Interstate 10 between San Antonio and Houston.

**3.** With more than 82 active rest areas and 12 Tourist Information Centers, and an additional 740 picnic areas statewide, it was determined that the urbanization of areas along the interstates could play a role in serving the traveling public. Using a 60 mile spacing criteria, the state uses major metropolitan areas with commercialized interchanges to provide the public with rest area services. This is to say that rest areas inside the urbanized areas have been or will be closed.


Additional features of the Texas rest area program include the use of close circuit cameras with video playback to illustrate to the public that the cameras are active. Security offices/counters are also installed in the interiors to allow law enforcement personnel access to the rest areas.

Dual sets of restrooms and family restrooms are provided at new rest areas and extensive lighting is provided in all paved and improved areas to specific standards. Not all of the rest areas are slated for replacement, and in fact the state has an extensive rehabilitation program for many rest areas to include upgraded facilities including extensive tile artworks, Wi-Fi, and improved utility systems.

***Washington (October 1-3 2008)***

Washington was selected as a peer state for several reasons including:

1. State is currently undertaking a strategic plan for safety the rest area (SRA) program to include aesthetic, historical, and culturally unique facility designs.
2. State has significant truck parking concerns, particularly near major ports and manufacturing/distribution facilities.
3. Seattle hosted the 2008 National Safety Rest Area Conference Sept 30-Oct 3.

Washington is a diverse state that includes coastal areas, mountain ranges, and vast areas of timberlands among other types of geographies. Washington has been a high growth state for decades and includes one of the nation's busiest deep water ports in Seattle-Tacoma. Washington, like Florida has also been a national leader in statewide and local comprehensive planning requirements and growth management.

**1.** The Washington State Department of Transportation (WSDOT) has not released its Safety Rest Area Program Strategic Plan, however a plan briefing was obtained and includes the folowing highlights:

- 4-7 new safety rest areas needed in next 10 years
- Criteria for new SRAs has been developed based on traffic volumes, fatigue-related collision data, and societal costs of these collisions.
- Construction of a new SRA is expected to reduce fatigue-related collisions by 10-30%.
- Infrastructure deficiencies are planned to be reduced by 12.5% each biennium.
- Development of a Master Plan for each SRA is a major deliverable.
- Implementation of a Comuterized Maintenance Management System.

**2.** Washington is currently evaluating truck parking needs in the metropolitan areas, particularly the Interstates entering the greater Seattle area. With a large port, Seattle-Tacoma (SeaTac) and significant industries including Boeing and other aviation support industries, Seattle is experiencing significant truck parking demands.


Complex issues around weather such as severe freezing temperatures and icy roadways complicate this safety rest component.

## ☐ Facilities and Operations

Safety Rest Areas, Welcome Centers, and Travel Information Centers all represent types of highway facilities developed to provide for safety (rest) and service needs for traveling motorists and commercial vehicles. For the past several years, Florida's rest areas and welcome centers are ranked at or near the top in terms of overall quality and services according to various private travel publications.

Anecdotal information and comments collected during our research and discussions with other states, support this assessment as Florida was consistently mentioned as a national leader in the provision of clean, safe and quality rest areas. While Florida is among the nation's leaders, the purpose of this benchmark memorandum is to provide a review of other states and industry standards which could contribute to further enhancements.

**Table 1: Rest Area Elements Emphasized in Peer States**

| Facilities/Operations Element | Maryland | Texas | Washington[2] | Florida |
|---|---|---|---|---|
| Historical/Cultural | ✸ | ✸ | ✸ | ✸ |
| Regional Vernacular (bldg) | ✸ | ✸ | ✸ | ✸ |
| Family Restrooms | ✸ | ✸ | ✸ | ✸ |
| Playgrounds | ✸ | ✸ | | |
| Truck Parking | ✸ | ✸ | ✸ | ✸ |
| Wi-Fi Internet Connections | ✸[1] | ✸ | | |
| Private Sector Maintenance | | ✸ | | |

1 – Maryland is initiating Wi-Fi in many new facilities, but is not implemented system wide
2 – Washington is completing a strategic plan for its safety rest area program in Fall 2008.

Current state of the practice for rest area facilities and operations vary by state and region based on many factors including the age of the facilities, climate (snow/arid) and budgets. Many states, particularly high growth states such as Florida, Texas, Georgia, California, Washington, and Colorado, among others, are and will continue experiencing high usage of their interstate rest areas.

A recurring issue in these states and other coastal states with deep water ports is the demand for truck parking facilities. This topic continues to be at the top of the list for state planners as truck traffic continues to increase on virtually all interstates nationwide.

## □ Emerging Trends

Safety rest areas and welcome centers have traditionally provided basic traveler services such as restrooms, vending, maps/brochure materials, vehicle parking (resting), and pet walking facilities. During the past several years, a number of non-traditional services or amenities have been added to rest areas around the nation.

Table 2 details several key emerging trends occurring or being considered for interstate rest areas. It should be noted that other states are also implementing or evaluating similar trending elements. For the purpose of this tech memo, the emerging trends have been grouped into three (3) categories: *Technology*, *Commercial Vehicle*, and *Length of Stay Extension.*

**Table 2: Rest Area Emerging Trends**

| Trends | Maryland | Texas | Washington[2] | Florida |
|---|---|---|---|---|
| ***Technology*** | | | | |
| Wi-Fi/ Communications | ✸[1] | ✸ | ✸ | |
| Information Kiosks | ✸ | ✸ | ✸ | ✸ |
| ITS Applications | | ✸ | | ✸ |
| ***Commercial Vehicles*** | | | | |
| Expanded Parking | ✸ | ✸ | ✸ | ✸ |
| Idle Emissions Reduction | | | | |
| Truck Only Rest Areas | ✸ | ✸ | | ✸ |
| Public/Private Partnerships | | ✸ | ✸ | ✸ |
| ***Length of Stay Extension*** | | | | |
| Cultural/Art Exhibits | ✸ | ✸ | ✸ | ✸ |
| Playgrounds/Exercise | ✸ | ✸ | | |
| Tourist Information | ✸ | | ✸ | ✸ |

1 – Maryland is initiating Wi-Fi in many new facilities, but is not implemented system wide
2 – Washington is completing a strategic plan for its safety rest area program in Fall 2008.

***Technology*** - Regarding technology, the three listed trends represent potential applications for Florida's rest areas. **Wi-Fi/ Communication** applications are now being expanded beyond providing internet connections to include connection and interfacing with vehicle navigation, GPS, equipment and telecommunications.

**Information Kiosks** are also being employed to provide real-time traffic information, route determination, and trip planning services. These kiosks also serve to reduce staffing needs and provide electronic data collection regarding their usage. **ITS Applications,** or Intelligent Transportation Systems, are also expanding beyond

traditional uses. For example, the use of *Smart Park* systems whereby available truck parking spaces are communicated to commercial vehicles via signage or low frequency radio broadcasts. This information could be related to the rest areas and other private truck plazas as well.

***Commercial Vehicles –*** The consistent and continual growth in the commercial trucking industry has given rise to related trends occurring at interstate rest areas. **Expanded Parking** areas are becoming a major topic of discussion for state rest area programs. Nearly all the states contacted indicated that expanded truck parking is considered for any new or rehabilitated rest area. Some states are "capping" the number of spaces provided regardless of demand for the simple fact that adequate sites and funds are not available to meet demand. Beyond parking spaces are the **Idle Emission Reduction** facilities or applications at rest areas. Federal statutes (23 USC 111) allow states to provide these services by way of alternative power sources for driver comfort while parked. Fees can be charged or for fee permits can be issued as long as the number of truck parking spaces is not reduced.

**Truck Only Rest Area**s is another emerging trend in many states. While there are a few purpose built truck only rest areas, these tend to be developed at abandoned existing rest areas primarily in urban areas. These rest areas do not typically provide any facilities and are viewed in most cases as rest only facilities. In some cases trash receptacles and portable restroom facilities are provided. As noted in the photo, even the minimum amount of facilities can create maintenance and upkeep needs.

**Public Private Partnerships (PPP)** is also under consideration in many states for rest area programs. For the most part, these partnerships have been limited to operations and maintenance and security staffing. Other applications include the provision of technology such as Wi-Fi service providers and could include other fee based services such as the idle emissions applications presented earlier. In both cases, the state could benefit from the private sector installing and maintaining their own equipment and thereby improving on the quality of the services under a performance based contract.

While the Interstate Oasis Program was initiated in 2006, several states have utilized this federal funding to implement this PPP type project. Essentially, the Interstate Oasis Program allows states to either provide or enter into a PPP to have off-interstate right-of-way rest area facilities provided to the traveling public. There are some basic standards such as 3 mile distance criteria, parking provisions, and 24 hour rest room access and personnel. This program could serve as a conduit for addressing truck parking shortfalls.

***Length of Stay Extension –*** A fundamental "need" that rest areas provide is the provision of a safe, off-highway place to rest during trips. While many people choose to take short naps at rest areas, driver fatigue can be attributed to other conditions beyond lack of sleep. Driver fatigue can occur from the monotony of the trip and repetitive landscapes that many times exist along long stretches of interstates. Shear boredom can contribute to driver fatigue.

Australia has taken an aggressive stand regarding driver fatigue, especially the condition known as "micro sleep". Micro-sleep is the condition whereby the human body shuts down for seconds at a time with the blink of an eye. This condition is sometimes referred to as dozing off here in the United States. Additional information on this topic will be included in the final report.

Many states believe that a rest area can provide a change of pace and give the driver an option to take a break from driving if a rest area provides "something of interest."

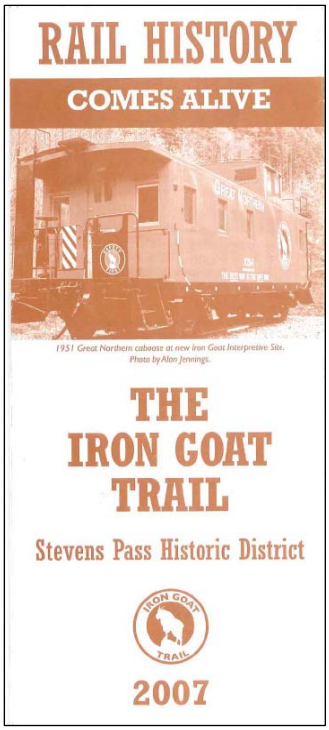
**Cultural/Art Exhibits** can offer a driver and traveler in general a reason to extend their "rest time" at a rest area. Texas and Maryland have both integrated regional cultural characteristics into their new rest areas and welcome centers. In both states, the facilities have been embraced by the local communities and in some cases, provide unique recreation opportunities for the locals and tourists.

Washington takes a natural approach to many of its cultural exhibits. At the Iron Goat Trail, a project of the *Volunteers for Outdoor Washington* and the US Forest Service, a concrete wall remnant of a snowshed has been preserved with a hiking trail constructed and signage installed to detail the railroad history of the snowsheds and the railroad. Limited Safety Rest Area facilities are provided at this site.

**Playgrounds/Exercise** facilities are provided to again provide an out of vehicle experience, reduce the stresses of travel, and offer the traveler an option for rest and recharge. These facilities must be provided at a high level of quality and safety using heat resistant materials and sites located for visual safety.

In Washington, several safety rest areas have been combined with historical resources such as historic rail corridors.

The Iron Goat Trail is a converted rail-to-trail corridor located north of Seattle at the famous Stevens Pass. This combination recreation trail includes paved and unpaved trail portions thru alpine forests and a vintage caboose car at the trail head.




**Tourist Information** also provides the opportunity to expand the length of stay at a rest area and provides an added benefit of potential economic development for area attractions, restaurants, and commerce.

In Oregon, the Travel Information Council operates Travel Information Kiosks in 13 heavily used rest areas across the state. These open and inviting Kiosks provide millions of travelers with valuable information while inspiring them to make the most of their Oregon experience.


In a kiosk, visitors will find attractive illuminated panel advertisements from area hotels, restaurants, wineries, golf courses, museums, and other attractions. In addition, most Kiosks offer brochure display that can be combined with a back-lit panel, or separately.

Finally, Kiosks offer a special poster display for local Convention & Visitors Bureaus or Chambers of Commerce.

## ☐ Future Considerations

For the development of Florida's Rest Area Long Range Plan, the current and emerging benchmarks presented herein will provide some key elements to consider during the plan development. All benchmarks or considerations will be evaluated and vetted against the following areas:

1. Rest Area System Adequacy
2. Rest Area Facilities Availability
3. Public-Private Partnerships
4. ITS – Intelligent Transportation System Opportunities
5. Emergency Operations Facilities & Services

**Table 1: Rest Area Elements Emphasized in Peer States** presented rest area elements that are currently emphasized in rest area/welcome center development in several states. These elements will be evaluated in the context of ***near-term*** (<10 yrs) improvement to be considered in Florida's rest areas.

**Table 2: Rest Area Emerging Trends** presented several rest area elements that are under development or consideration by many states. These trends will also be considered in the ***near-term*** improvements for Florida's rest areas, but will also provide some insight as to the direction the state's rest area should be guided in the ***long-term*** (>10 yrs).

Lastly, future considerations for the development of the Rest Area Long Range Plan will also include some basic and traditional rest area planning parameters as well as additional non-traditional considerations.

**Traditional Rest Area Parameters**

1. Traffic volume based needs assessments (calculations).
2. Truck traffic volume needs assessments (calculations).
3. Sixty (60) mile spacing of rest areas.
4. Basic services (restroom, parking, information).

**Non-Traditional Rest Area Parameters**

1. Advance technology applications (beyond Wi-Fi).
2. Special commercial truck applications (truck only lanes, PPP).
3. Congestion Management application to rest areas.

While many states are currently developing rest area plans and programs, Florida appears to be out front on this topic of long range rest area planning. The Department's Rest Area Long Range Plan will provide policy direction for the next 25 years.

JACOBS™

# Technical Memorandum No. 4:
## Plan Objectives
## 2008 Rest Area Long-Range Development Plan

The purpose of this technical memorandum is to present the REVISED *Project Objectives* for the *2008 Rest Area Long-Range Development Plan*.

Three (3) key sources were evaluated to assist in defining the program objectives:

- **Technical Memorandum No. 2: Project Goals & Objectives**
- **Project Team Workshop held September 22, 2008 (Tallahassee);** and
- **Technical Memorandum No. 3: Summary of Benchmarking Findings**

The three above sources provide an overview of the rest area components evaluated during Phase 1 of this project. The **Project Objectives** included herein will serve to provide guidance for the *2008 Rest Area Long-Range Development Plan.*

## Technical Memorandum No. 2: Project Goals & Objectives

This tech memo detailed a set of interim Project Goals & Objectives for Phase 1 of the project. The development of these goals and objectives included the evaluation of the *2005 FDOT Rest Area Assessment Study* (2005 RAAS); the scope of services for this 2008 plan; and information from the project kick-off meeting (May 2, 2008).

The following three (3) questions were carried forward from the 2005 RAAS for additional consideration for project objectives.

**2005 RAAS Questions Considered for Project Objectives**

2. What are the expectations for future Florida rest areas?
6. Can the department work with private businesses to provide these services?
7. Is parking adequate to serve the current and future traffic loads?

The topic of private sector involvement in the State's rest area program beyond general maintenance and the supply and demand of exiting and future truck/RV parking at Florida's rest areas will both be addressed when developing the long range plan.

The second source evaluated to develop the project goals and objectives included the scope of services prepared for this project itself. The scope includes statements related to general expectation of the study such as:

***"…FDOT desires to move beyond considering specific recommendations to address existing facilities, and establish a comprehensive Rest Area Long-Range Development Plan."***

***"The plan should also discuss the prospect of public-private partnerships for rest area operations and truck parking"***

***"The long-range plan is expected to direct rest area planning for approximately 20-25 years"***

The scope of services includes an ***Issues List***. This list includes the following issues areas: (1) Rest Area System Adequacy; (2) Rest Area Facilities Availability; (3) Public-Private Partnerships; (4) ITS – Intelligent Transportation System Opportunities; and (5) Emergency Operations Facilities & Services. Additionally, forty-three (43) sub-issues were listed under the above five topics. The five issues areas were reviewed and incorporated into the development of the interim project objectives and the project goal is restated below:

> Goal 1: To develop a Statewide Rest Area Long-Range Development Plan to meet the future needs of the traveling public.

## Project Team Workshop held September 22, 2008 (Tallahassee)

The project team held a workshop on September 22, 2008 with Jacobs staff and FDOT representatives including Dean Perkins, Architect (FDOT ADA Coordinator) and Michael Sprayberry, PE (State Administrator for Maintenance Contracting).

The purpose for the workshop was to brainstorm previous work efforts conducted and develop guidance for developing the long range plan and Phase 2.

Information, ideas and concepts developed in the workshop included several "areas of interest" and planning criteria.

Specifically, the outcomes of the workshop were categorized into the following areas:

1. Rest Area Functions
2. Planning Criteria
3. Planning Opportunities
4. Planning Challenges
5. Ideas and Vision Concepts

Key elements for each of the five (5) areas are presented below and will be integrated/addressed in the development of the long range plan during Phase 2. This information was collected and annotated on a series of cards which were displayed on walls to organize the ideas and team suggestions.

These cards will be included in the appendix of the final report as well as a tabular presentation.

## 1. REST AREA FUNCTIONS

Safety – Rest
Rest Rooms functions
Truck parking facilities
Orientation/Information transfer
Nourishments/refreshments
Exercise/play area (physical)
Pet facilities
Communications
Welcome Center for local or regional interests

## 2. PLANNING CRITERIA

Rest Area interval (spacing)
Site location
Signage coordination
Alternating facility sites
Convenience and speed of access

## 3. PLANNING OPPORTUNITIES

Integrated Rest Areas with State/ County open space system
Rest Areas as tourist attractions (Botanical Gardens, community functions)
Redevelopment opportunities for existing rest areas no longer needed
Potential revenue ($) generating opportunity
Rest Area can function as Traffic and/or Emergency Management centers

## 4. PLANNING CHALLENGES

Urbanization of State may reduce need for rest areas
Existing Federal and State regulatory environment
Land acquisition needs/costs
Identify and anticipate trends for next 25 years
Balance need for Facility Condition Improvement with market demand / new characteristics
Integration of security requirements
Impact of truck parking duration policy
Addressing mitigation of fatigue factors

## 5. IDEAS AND VISION CONCEPTS

Integrate "sustainable" planning and design principles
Advancement of technology (ITS, VII vehicles, idling trucks)
Promotion of tourism (regional/local)
Recognize local vernacular, exhibits and history
Integration of commercial food service/fuel sales
Create sense of destination
Integration of multimedia / information systems

## Technical Memorandum No. 3: Summary of Benchmarking Findings

This tech memo presented the summary of benchmarks used in select peer states in regards to safety rest area functions, components, and current state of the practice in rest area planning and operations. Benchmarks for existing rest area elements and functions are described in this memo, and will serve as baseline considerations for developing the long-range plan.

However, it is the emerging trends in rest area design and operations that will play a more prominent role in the development of the plan. These trends are generally categorized into the following three (3) key areas:

***Technology***

Wi-Fi/ Communications
Information Kiosks
ITS Applications

***Commercial Vehicles***

Expanded Parking
Idle Emissions Reduction
Truck Only Rest Areas
Public/Private Partnerships

***Length of Stay Extension***

Cultural/Art Exhibits
Playgrounds/Exercise
Tourist Information

Research conducted during Phase 1 of this project revealed that the vast majority of the rest area programs throughout the nation are focused on existing deficiencies at these facilities and developing plans and programs with horizons of 5-15 years. These plans (peer states) are again focused on the development or redevelopment of rest areas needed for existing or near-term traveling public needs.

## Plan Objectives

The *2008 Rest Area Long-Range Plan* will include goals, objectives, and actions specific to the plan and its expected use and outcomes. The following objectives have been developed for the initiation of Phase 2 of this project and are subject to modifications as the plan is prepared. The overall plan goal is repeated again here for ease of reading.

Goal 1: To develop a Statewide Rest Area Long-Range Development Plan to meet the future needs of the traveling public.

Objective 1.1: Prepare existing trend and alternative benchmarks for determining future needs of rest area users, including commercial truck traffic, to assess the adequacy of the rest area system.

Objective 1.2: Prepare existing trend and alternative benchmarks for evaluating availability, number, and location of rest areas in the 20-25 year horizon.

Objective 1.3: Prepare near-term and long-term recommendations to address known and potential funding mechanisms for rest area development and maintenance including user fees and public-private partnerships.

Objective 1.4: Evaluate advanced technology and Intelligent Transportation System (ITS) applications for rest areas and welcome stations.

Objective 1.5: Evaluate public safety, security, and emergency management aspects related to rest area and welcome station usage.

Objective 1.6: Prepare a policy level set of recommendations for the Department to integrate with other statewide modal and related plan.

Objective 1.7: Prepare a series of scenario based conditions regarding the future of rest areas in the State considering Federal and State regulations.

Objective 1.8: Develop a summary style plan that presents the challenges and opportunities regarding the State's rest area program and provides the Department with alternatives for future policy and priority changes.

The above plan objectives will be used in the development of the *2008 Rest Area Long-Range Plan* and may be modified during the plan preparation based on direction and policy changes at the Department.

# OVERALL PLANNING GOALS

PROMOTE SAFETY IN DRIVING BY PROVIDING ~~PROVIDING~~ REST OPPORTUNITIES

PROVIDE OPPORTUNITY FOR REST ROOM BREAK

PROVIDE VISITOR ORIENTATION TO STATE AND REGION

PARKING FOR

ACCOMMODATE V AUTO, RV

TRUCK AND MOTORCYCLE

MODES OF TRAVEL

SUSTAINABLE

CONVENIENT PROVIDE SAFE, SECURE,

AND ADEQUATE ~~AREA~~

FOR REST ~~AREA~~

FUNCTIONS

REST AREA

PROMOTE V CHARACTERISTICS THAT ADDRESS ANTICIPATED TRENDS IN THE NEXT 25 YEARS

PROVIDE PLANNING AND DESIGN FRAMEWORK THAT ACCOMMODATES ANTICIPATED DEMAND.

INTEGRATE SUSTAINABLE PRINCIPLES TO THE MAXIMUM EXTENT TO OFFSET ENERGY COSTS AND REDUCE ENVIRONMENTAL IMPACT.

# EVALUATION CRITERIA

VOLUME

VS.

DISTANCE

BASED

# USAGE FACTOR

- HOW
- VOLUME

SAFE, SECURE, CONVENIENT

AND ANALYZE

APPLY ACCIDENT RATES

AS SITE SELECTION

CONFIRMATION

i.e. WHAT CAUSES ACCIDENTS AND CAN REST AREAS MITIGATE ACCIDENT TYPES

HOW DO TRUCK REQUIREMENTS AFFECT REST AREA FUNCTIONALITY?

# PLANNING IDEAS / VISION / CONCEPTS

RECOGNIZE LOCAL VERNACULAR AND HISTORY TO THEN BE INTEGRATED INTO REST AREA DESIGN AND IMAGE

INTEGRATE SUSTAINABLE PLANNING AND DESIGN PRINCIPLES

VARY ARCHITECTURAL EXPRESSION AND VISUAL DESIGN OF EACH REST AREA

VARY ARCHITECTURAL EXPRESSION AND VISUAL DESIGN OF EACH REST AREA

CONCEPT OF FAMILY RESTROOMS

/NTEGRATION / ACCOMMODATION
COMMERCIAL FOOD SERVICE/
GASOLINE

PROMOTION OF
TOURISM

CREATE SENSE OF DESTINATION

REST AREAS AS SOURCES OF REVENUE GENERATION

MARYLAND EXAMPLE

$ 45M FROM 2 FACILITIES

PROMOTE CENTER MEDIAN CONCEPT FOR SITING FOR EFFICIENCY AND COST SAVINGS

INTEGRATION OF MULTI MEDIA / INFORMATION SYSTEMS

# INTEGRATION OF MURALS AND INTERACTIVE INTERPRETIVE EXHIBITS

# PLANNING CHALLENGES

EXISTING FEDERAL AND STATE REGULATORY ENVIRONMENT

- TOLL VS. INTERSTATE

LAND ACQUISITION NEEDS

LAND DISPOSITION -
i.e. PROXIMITY TO URBANIZED AREAS —
(RE-USE OPPORTUNITIES)
RE-LOCATION OPPORTUNITIES

IDENTIFY / ANTICIPATE TRENDS THAT WILL / CAN BE ACCOMMODATED OVER NEXT 25 YEARS

IDENTIFY / ANTICIPATE TRENDS THAT WILL / CAN BE ACCOMMODATED OVER NEXT 25 YEARS

BALANCE NEED FOR FACILITY CONDITION IMPROVEMENT WITH INTEGRATION OF "MARKET DEMAND" / NEW CHARACTERISTICS.

# INTEGRATION OF SECURITY REQUIREMENTS

- PLANNING/DESIGN
- PERSONNEL - NIGHT TIME IN FLA.
  2 - 8hr. SHIFTS

# IMPACT OF PARKING DURATION POLICY ON PARKING AREA REQUIREMENTS

# ADDRESSING MITIGATION OF FATIGUE FACTOR

- COMMERCIAL SERVICES

VS.

- REST/EXERCISE/OTHER FUNCTIONS

# HOW DO ADDRESS INTEGRATION/ACCOMMODATION OF TRUCK PARKING.

- AREA REQUIREMENTS.
- VISUAL IMPACTS
- SOUND IMPACTS
- SECURITY/SAFETY FACTORS

URBANIZATION RATE MAY MINIMIZE NEED FOR REST AREAS

# DESIRED REST AREA FUNCTIONS

SAFETY - REST FATIGUE RELEASE

- ROADWAY SAFETY
- TIRE CHANGE/MAINT.

ORIENTATION /
/NFORMATION TRANSFER

REST ROOM
FUNCTIONS

REST ROOM
FUNCTIONS

NOURISHMENT /
COFFEE / REFRESHMENTS

# EXERCISE / PLAY AREAS

# DOG WALKING

COMMUNICATIONS

WELCOME
CENTER

TRUCK PARKING FACILITIES ?

PRIMARY OBJECTIVE !

# PLANNING OPPORTUNITIES

REST AREAS COULD BE INTEGRATED WITH STATE/COUNTY OR OPEN SPACE SYSTEM

REST AREAS COULD BECOME OPPORTUNITIES FOR BOTANICAL GARDENS OR OTHER TOURIST ATTRACTIONS

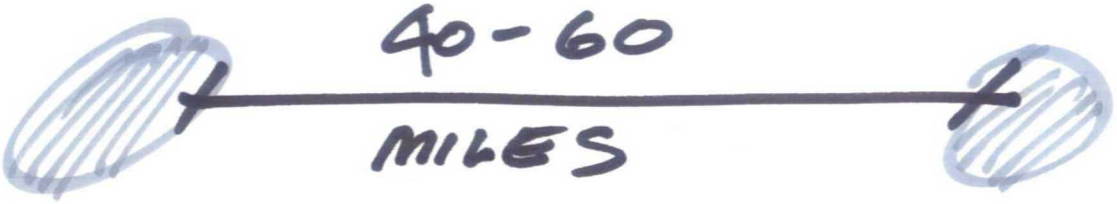
REDEVELOPMENT OPPORTUNITIES FOR EXISTING REST AREAS NO LONGER NEEDED —

$ REVENUE GENERATING OPPORTUNITY!

REST AREAS CAN FUNCTION AS TRAFFIC MANAGEMENT SOLUTION_

# PLANNING CRITERIA

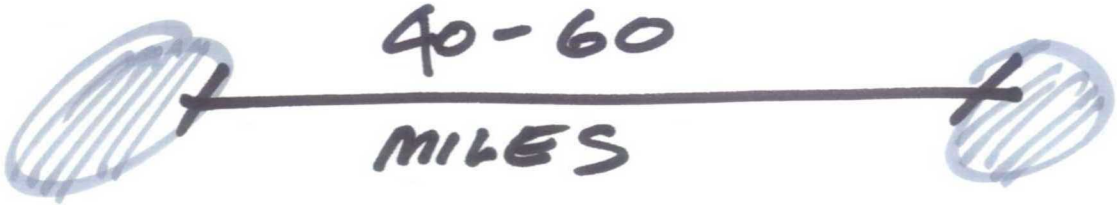
## REST AREA INTERVAL




NOW 1 HOUR TRAVEL TIME (45 min)

30 min. TRAVEL TIME

# REST AREA INTERVAL




NOW 1 HOUR TRAVEL TIME (45 min) 30 min. TRAVEL TIME

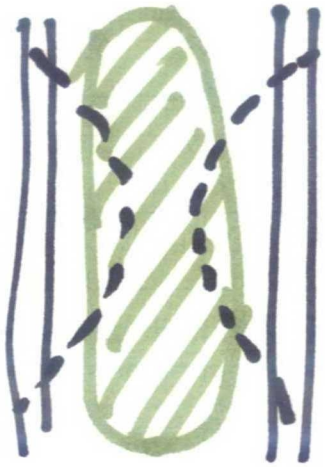
# BUDGET:

## $15-18 MILLION PER FACILITY

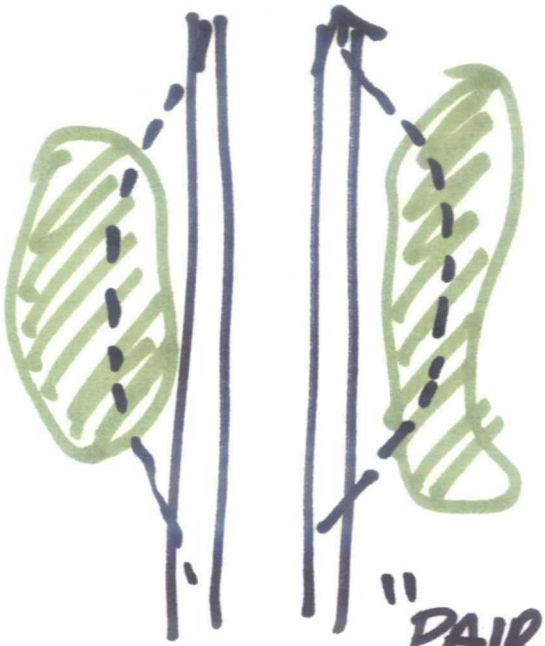
# NO REST AREA FACILITIES WITHIN 60 MILES "OF URBAN AREA"


TEXAS APPROACH

# SITING / LOCATION



MEDIAN



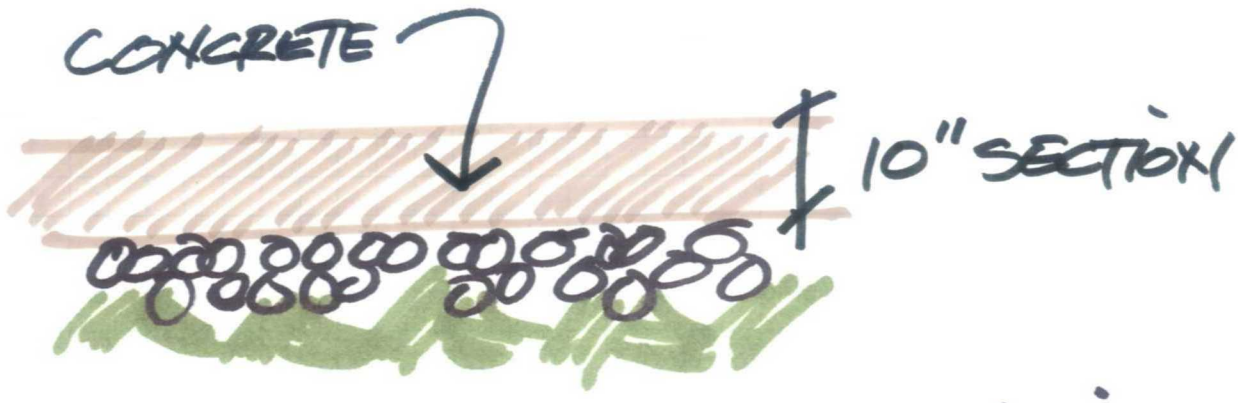

EITHER SIDE

# SIGNAGE COORDINATION

- DESIGNATED PARKING AREAS
- AVAILABILITY OF PARKING
- FACILITY ORIENTATION
- ITS ON PARKING AVAILABILITY

# ALTERNATING FACILITY SITES

# PAVEMENT SECTION




- PARKING
- CIRCULATION
- RAMPS

## CONVENIENCE AND SPEED OF ACCESS IMPORTANT ATTRACTION FACTORS

# ISSUES / QUESTIONS

SHOULD TRUCK PARKING FACILITIES BE PROVIDED

SHOULD/CAN COMMERCIAL REVENUE GENERTING SERVICES BE ACCOMMODATED

WHAT SHOULD PARKING/ VISIT DURATION BE?

3 HOUR LIMIT?

WHAT SHOULD PARKING/
VISIT DURATION BE?

3 HOUR LIMIT?

SHOULD REST AREAS
BE POINTS OF
DESTINATION
VERSUS
PRIMARY REST AREA
PURPOSE & FUNCTION

SHOULD REST AREAS BE POINTS OF DESTINATION

VERSUS

PRIMARY REST AREA PURPOSE & FUNCTION

WILL REST AREAS BE REQUIRED IN THE NEXT 25 YEARS?

WHAT ARE THE IMPACTS OF NOT HAVING REST AREAS?

COST IMPACTS? TO TRAFFIC

WHAT WILL REST AREAS LOOK LIKE IN NEXT 25 YEARS?

SHOULD ALL REST AREAS BE DESIGNED WITH SAME FUNTIONS AND LOOK & FEEL?

ARE REST AREAS REALLY REQUIRED GIVEN PROXIMITY OF EXITS WITH COMMERCIAL CONCENTRATIONS?

DO WE WANT TO INCREASE REST AREA VISITATION?

WHAT IS OPTIMAL VISIT TIME TO ACCOMPLISH REST OBJECTIVE?

REASONS AND FUNCTIONAL NEED FOR REST AREAS TODAY MAY BE DIFFERENT IN 25 YEARS!

WHAT ARE THE CHARACTERISTICS OF A REST AREA THAT WILL MAKE VISITORS FEEL SAFE AND STOP?

TREND: IMPACT OF INCREASE IN TRUCK TRAFFIC ON REST AREA REQUIREMENTS

IMPACT / INTERRELATIONSHIP OF TRUCK STOPS VS. REST AREAS.

WHAT IS TRUCK STATEWIDE PLAN AND IMPACT TO REST AREA PLANNING.?

# IDEAS FROM BENCHMARKING

INTEGRATION OF INDIGENIOUS ARCHITECTURE AND INTERPRETIVE OPPORTUNITIES

# WIRELESS INTERNET AND OTHER COMMUNICATIONS SERVICES

RESPOND TO
AUTOMOTIVE TECHNOLOGY.

- CARAVAN CARS
- HYBRID CARS -
- ELECTRIC CARS -
- PLUG-IN SPOTS -
- AUTOMATED NAVIGATION

PROMOTION OF
POSITIVE IMAGE/
IDENTITY

INTEGRATION WITH
MULTI-MODAL —
TRANSIT CONNECTIONS

REST AREAS HAVE
POSITIVE ECONOMIC
EFFECT ON STATE
ECONOMY!

INFORMATION TECHNOLOGY TO PUSH INFO ON REST AREAS TO VEHICLES ON ROADWAY - ITS SIGNAGE

CONCEPT OF AUTOMATIC GUIDANCE SYSTEMS FOR VEHICLES -

ALSO AUTOMATIC SYSTEMS TO MONITOR FATIGUE AND POSSIBLY GUIDE VEHICLE TO NEXT REST AREA -

ASSIGN "THEMES" TO EACH REST AREA – INCORPORATE CORPORATE SPONSORSHIPS, I.E. MAINTENCE COSTS – WITH RECOGNITION

CONCEPT OF "OASIS" VS. "REST AREA"

INTEGRATE SOLAR PANELS AS OPTION TO POWER REST AREA FACILITIES.

ALSO CONSIDER WIND POWER

INTEGRATE BIO FUEL TECHNOLOGY AS SELF SUSTAING ENERGY PROVIDER.


JACOBS™