

CHAPTER 1 – PLANNING PROJECT MANAGEMENT

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Introduction

The term Project Manager (PM) is a general term for the Florida Department of Transportation (FDOT) employee responsible for managing the project. In the context of this chapter, unless specifically indicated otherwise, PM refers to the FDOT Planning PM.

A diverse range of studies and projects fall under the “planning” umbrella. Figure 1, **Types of Planning Projects**, identifies the general types of planning projects performed by the Department. Although this diversity precludes the development of a single, simple work plan for use in conducting and managing all of these projects and studies, several common features can be identified. Four are addressed in this chapter: coordination with other entities, public involvement, cost estimates and work programs. This chapter presents guidelines for the successful completion of planning objectives. A brief overview of typical studies is also included. FDOT guidelines are available for the Project Development and Environmental (PD&E) phase (the [PD&E Manual](#)), and for the Design phase (Volume 1 of the [Plans Preparation Manual](#)), which outline well-defined procedures and methods. However, no such guidelines exist for *planning* projects. The diversity of kinds of projects and study types undertaken precludes the development of a single set of basic work guidelines. Therefore, the PM relies on academic training in the fields of planning or transportation engineering for necessary technical knowledge and expertise. The PM gains both technical know-how and management skills from work experience and training. The [Planning Office](#) website provides valuable information. Perhaps the most critical management function in accomplishing the FDOT planning phase of Project Management is coordinating. Outside entities are often involved in planning projects. Multiple entities at various levels must reach consensus to ensure each plan or study comes together effectively. The PM must be able to effectively coordinate the many activities of everyone who plays a role in planning. Effective coordination requires good management skills, especially in communication, leadership and consensus-building.

Figure 1
Types of Planning Projects

Modal Planning
Area Studies
Long Range Transportation Plans
Transportation Modeling
Corridor Studies
Development of Regional Impact (DRI)
Other Studies:
Interchange Justification Report (IJR)
Interchange Modification Report (IMR)
Strategic Intermodal System (SIS) Master Plans/Actions
Level of Service (LOS) Studies
Access Management/Median Openings
Local Government Comprehensive Plan (LGCP)
Bicycle/Pedestrian Studies

Long Range Planning

The Florida Transportation Plan (FTP) defines the state’s long range transportation goals and objectives, which are to be accomplished over a period

of at least 20 years. They must fall within the context of the State Comprehensive Plan, and any other statutory mandates and authorization. The goals and objectives must be based on these principles:

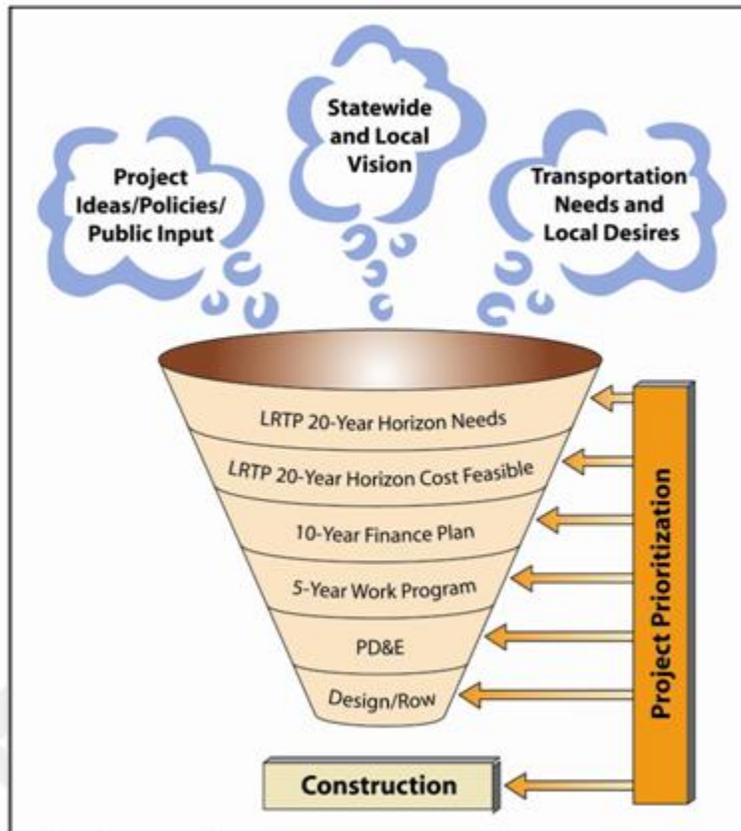
- Preserving the existing transportation infrastructure
- Enhancing Florida's economic competitiveness
- Improving travel choices to ensure mobility
- Expanding the state's role as a hub for trade and investment

The FTP shall consider the needs of the entire state transportation system and examines the use of all modes of transportation to meet such needs effectively and efficiently.

This FTP must be developed in cooperation with Metropolitan Planning Organizations (MPOs) and reconciled, to the maximum extent feasible, with the long range transportation plans developed by MPOs pursuant to Section 339.175, F.S. In addition, the FTP must be developed in consultation with affected local officials in non-metropolitan areas and with any affected Indian tribal governments. The plan must provide an examination of transportation issues likely to arise during the next 20 years. The FTP shall be updated every five years (more often if necessary) to reflect substantive changes to federal or state law.

The FDOT establishes a major work group that is responsible for long range (greater than 10 years) planning. The primary function of this work group is to plan for future transportation on state roadways that will support economic growth and vitality in the state. The FDOT also provides support to local agencies and jurisdictions by providing technical expertise to assist their long range transportation planning efforts. Specific study types that might be conducted include: LRTPs, Area Studies, Public Transportation, Master Plans, Comprehensive Plans, and Florida Strategic Intermodal System (SIS) studies. Several of these study types also have short range goals and objectives. However, their main purpose is to develop a long-term road map (or game plan) for maintaining and enhancing the state transportation system. The Long Range Planning process that leads to project construction is outlined in Figure 2, **Long Range Planning Funnel**.

Figure 2
Long Range Planning Funnel



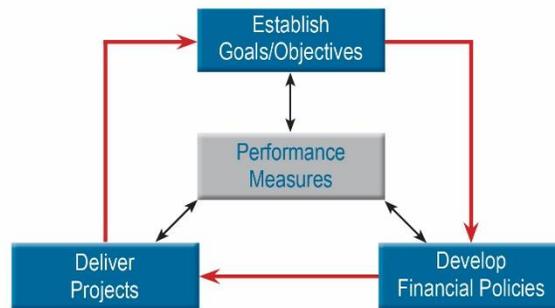
Annual Performance Report

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 Annual Performance Report documents the department’s objectives and strategies to implement the goals and objectives of the 2060 FTP.

Measures Matter - Performance measures quantify progress toward attaining goals and objectives. FDOT uses performance measures to:

- Assess how well the transportation system is operating
- Provide information to support decisions
- Assess the effectiveness and efficiency of transportation project and service delivery
- Demonstrate transparency and accountability to Florida’s citizens

Performance-Based Planning Process



Performance measures are part of FDOT’s business practices on three distinct levels:

1. **At the strategic level** – Performance measures are used to establish goals and objectives, and to monitor progress towards achieving the State’s long-range transportation goals. These long-term goals are part of the [2060 Florida Transportation Plan](#).
2. **At the decision-making level** – Performance measures are used to inform the financial policies that determine how funds are allocated across numerous programs such as highway preservation, system expansion, and public transportation in an effort to measure their effectiveness. These programs are defined in the [Program and Resource Plan](#).
3. **At the project delivery level** – Once projects have been selected, performance measures are used to monitor the efficiency and effectiveness of projects and services in the [Five Year Work Program](#). The measures are also used in supporting organizational and operational improvements.

The Annual Performance Report includes the following objectives to implement the goals of the 2060 FTP:

Safety & Security

- Reduce by 5 percent annually, the highway fatality and serious injury rate per 100 million vehicle miles traveled
- Update emergency response plans and readiness procedures for disaster response and conduct regular training exercises

Maintenance & Operations

- Ensure that 80 percent of pavement on the State Highway System meets Department standards
- Ensure that 90 percent of Department-maintained bridges meet standards while keeping all Department-maintained bridges open to the public safe
- Achieve 100 percent of the acceptable maintenance standard on the State Highway System
- Improve system efficiency by deploying Intelligent Transportation Systems (ITS) technology on critical state corridors

Economic Competitiveness & Mobility

- Make strategic investments that support statewide and inter-regional mobility
- Allocate up to 75 percent of new discretionary capacity funds to the Strategic Intermodal System (SIS)
- Maintain the average growth rate in person-hours of delay on Florida Strategic Intermodal System (SIS) highways at or below 5 percent
- Support efforts to enable Florida to expand its role as a hub for international and domestic trade
- Maximize the use of existing facilities
- Develop/redevelop multi-modal corridors to support future mobility
- Participate in statewide and regional visioning efforts
- Increase transit ridership at twice the average rate of population growth

Quality of Life & Environmental Stewardship

- Make transportation decisions in the context of community interests, plans, values and visions
- Enhance the Florida travel experience
- Deliver a transportation system that supports quality of life and environmental stewardship

More detailed information on the relationships among 2060 FTP goals and objectives, focus areas, lead programs and performance measures is available on the [Office of Policy Planning](#) website.

Planning Project Types

Modal Planning: The FDOT coordinates statewide intermodal planning and planning for each transportation mode. Modal plans include the following:

- Strategic Intermodal System (SIS)
- Transit Strategic Plan
- Florida Aviation System Plan
- Rail System Plan
- Florida Seaport Mission Plan

The overall purpose of modal systems planning is to coordinate the movement of people and goods throughout Florida by looking at the facilities on a statewide basis and coordinating with owners and providers of transportation facilities and services. More discussion on modal plans can be found in Part I, Chapter 8, of this handbook, and cited internet references.

Area Study: Performed in cooperation with local jurisdictions, area studies involve multiple corridors, emerging neighborhoods and communities that are experiencing high population and traffic growth or significant existing transportation capacity deficiencies. Area studies are usually sub-county, with 5-15 year planning horizons. These studies often result in several actions:

- New capacity enhancement projects for the FDOT's Work Program.
- Modifications to the local Comprehensive Plan.
- Capacity enhancement projects for the local government Capital Improvements Program.
- Updates to the Long Range Transportation Plan (LRTP).

Study elements and activities include involve public involvement, land use assessment, roadway and traffic data collection, existing and future condition assessments, projection of future traffic, alternatives, analysis, recommendations and documentation.

Long Range Transportation Plan (LRTP): The agency responsible for LRTP is the local Metropolitan Planning Organization (MPO). To achieve planning and programming objectives MPOs develop and regularly update a 20-year long range transportation plan. These plans document key transportation issues, establish planning goals and objectives, and outline a course of action for addressing those issues. The FDOT is a cooperating agency and often provides transportation modeling support and support in developing a long range revenue forecast. Modeling involvement differs by district, and by MPO area within a district. Activities might include calibrating the model, updating both the specific trip generation equations and the network, and reviewing oversight for MPO staff. A key role of FDOT planning staff is to ensure that the LRTP and the

Transportation Improvement Plan (TIP), discussed in Part I, Chapter 8, of this handbook, are consistent with the projects in the FDOT Work Program and the SIS Cost Feasible Plan. The Work Program instructions provide a procedure which defines the schedule for coordination and how it is to take place.

As an MPO resource, the FDOT reviews analysis techniques, results and recommendations. Usually the FDOT requests a review of all technical analysis completed for the state roadway facilities within the plan update limits. Additionally, the FDOT is a resource to the MPO in support of financial funding identification for the cost-feasible analysis. The FDOT also supports the public involvement program by providing guidance, support staff and assistance in the preparation and conduct of this program.

Transportation Modeling: The FDOT develops and maintains the adopted transportation model used throughout the state, the Florida Standard Urban Transportation Model Structure (FSUTMS). District staff is involved in all aspects of model development including data collection, validation and application. The FSUTMS is the backbone of the long range forecasting process that guides the development of long range plans which ultimately identify projects for the work programs of the FDOT and local agencies.

Corridor Studies: Corridor studies fall into one of the following six types:

- Multi-modal or investment studies
- SIS master plans and action plans
- Corridor management studies
- Access management reviews/studies
- Congestion Management System (CMS) or Transportation Systems Management (TSM) studies
- Concept analysis reports

The overall objective of corridor studies is to develop an enhancement or improvement plan for immediate and multi-year (5, 10 and 20-plus) capacity and safety needs of the study corridor. Access management, CMS, and TSM, studies typically focus on immediate or short term improvements related to traffic operational improvements rather than significant capacity enhancements. While comprehensive, multi-modal, SIS, and concept analysis studies identify short term operational and safety improvements, their main objective is to address future capacity needs in a comprehensive framework. Subjects might include capacity enhancements, land-use considerations (in conjunction with local agencies), transit system needs, and accommodation of pedestrian and bicycle needs. These studies produce a master plan for the long-term management of a corridor. Several study types involve local governments and their processes for managing a transportation corridor. The results of these corridor studies will provide input to the next phase of project development.

Development Reviews. Section 380.061, Florida Statutes (F.S.), [The Florida Quality Developments Program](#), addresses general requirements for the application and approval of Developments of Regional Impact (DRIs). Specific DRI review requirements for are established by Rule 73C-27, Florida Administrative Code (F.A.C.), administered by the Florida Department of Economic Opportunity (DEO). The DRIs are identified developments based on specified land-use thresholds established within Rule 73C-27, F.A.C. Section 380.061, F.S., also addresses general requirements of Florida Quality Developments (FQDs), a type of expedited DRI. Rule 73C-42, F.A.C., establishes additional criteria to be followed when preparing an application for approval of an FQD. The FDOT planning staff reviews the technical analysis of the transportation study area as submitted by an applicant. The FDOT planning staff also evaluates direct and indirect potential impacts and recommends actions to mitigate negative effects on the state roadway system resulting from major developments. The [Transportation Impact Handbook](#) is the ready-reference tool to be used for conducting development reviews.

Other Studies: Definitions and references for several other planning study types are summarized on the following page:

- Interchange Justification Report (IJR) and Interchange Modification Report (IMR): Technical and administrative procedures for interchange justification/modification are in **Procedure 525-030-160**, [Interchange Justification](#) and described in the [Interchange Handbook](#) and associated training materials.
- SIS Master Plans/Action Plans: *These documents identify both short and long term capacity improvements to SIS facilities consistent with SIS standards. Master Plans are for limited access facilities and should identify potential new interchanges or modifications to existing ones. Action Plans are for controlled access facilities on the SIS. Requirements are in **Procedure 525-030-260**, [Strategic Intermodal System Highway Component Standards and Criteria](#).*
- Level of Service (LOS) Studies: *The FDOT's [Quality/Level of Service Handbook](#), implements the procedures required by Subsection 334.044(2), F.S., and Rule Chapter 14-94 F.A.C. The handbook provides a multimodal perspective. LOS studies are normally used as a part of another study. They are also done to determine how all or parts of the State Highway System (SHS) are performing. The Roadway Level of Service Handbook is consistent with the Transportation Research Board Highway Capacity Manual.*
- Access Management/Median Opening Studies: Technical details for these are presented in Rule 14-96, F.A.C., and Rule 14-97, F.A.C., and in several working documents prepared by the FDOT's Systems Planning Office, which can be found at the [Access Management](#) page. Typical

- studies include corridor-wide access management plans and access management information for PD&E and design projects.
- Strategic Intermodal System (SIS), *Section 339.64, F.S.* stipulates the department shall develop a SIS Plan that will include a needs assessment, a project prioritization process, a map of facilities designated as SIS, a finance plan based on reasonable projections of anticipated revenues, and an assessment of the impact proposed improvements to SIS corridors on military installations. The SIS Plan must be consistent with the FTP and must be updated at least once every five years, subsequent to FTP updates. *Section 339.64(3) a, F.S.*, outlines during the development of updates to the Strategic Intermodal System Plan, the department shall provide metropolitan planning organizations, regional planning councils, local governments, transportation providers, affected public agencies, and citizens an opportunity to participate in and comment on the development of the update.
 - Local Government Comprehensive Plan (LGCP): Chapter 163, F.S., addresses the primary land planning requirements for all Florida's local governments. It contains the FDOT's responsibilities for reviewing these documents. The most common FDOT reviews are Local Government Comprehensive Plan (LGCP) amendments, particularly those initiated by prospective developments in the form of Future Land-Use Change Maps change requests, and/or DRI amendments. The FDOT also reviews the Capital Improvement and Transportation elements of LGCPs. Chapter 163.3177, F.S., outlines LGCP requirements.
 - Bicycle/Pedestrian Studies: The primary function of the SIS is to provide for high-speed and high-volume traffic movement. The safe movement of bicycles and pedestrians must be carefully considered and accommodated so there will be no adverse impact on vehicular safety, capacity or speed. Accommodating bicycle and pedestrian traffic on roads intended for high-speed, high-volume vehicular traffic requires a careful balancing. The objective is meeting all three modes' needs. Separate, offsite, and/or parallel facilities shall be used where practical and feasible.

Development of a Coordination Plan

At the outset of a planning study, the PM should develop a Coordination Plan identifying the agencies and entities that will be involved in the study. The PM determines the nature and intensity of coordination efforts and the forum and other logistics of coordination with each entity. Specific contact people should be identified within each organization. Critical components of the Coordination Plan are also included in the project Schedule and Public Involvement Plans, as appropriate. Groups and agencies that may be involved in a planning project include but are not limited to:

- Federal, including Federal Highway Administration (FHWA), Army Corps of Engineers (ACOE), Environmental Protection Agency (EPA)
- County and local governments
- MPOs
- RPCs
- Other FDOT districts
- Turnpike Enterprise
- Expressway authorities
- Other state agencies including DEO, Enterprise Florida, the Department of Environmental Protection (DEP), and the Governor's Office of Tourism, Trade and Economic Development (OTTED)
- Statewide, regional and local modal groups for highways, trucking, shipping, aviation, public transportation, rail, seaports, space and bicyclists and pedestrians
- Statewide, regional and local environmental or preservation groups
- Citizen or homeowner groups
- Statewide, regional and local business groups including chambers of commerce and economic development boards
- Native American tribes either living in or having cultural affiliation with Florida

Figure 3, **Coordination Matrix**, lists the typical project types and agency coordination requirements. The PM must determine what groups should be involved in the project and then develop a plan to include these parties.

Figure 3
Coordination Matrix

Project Type	City/County	MPO/IRP/C	State Agency	Federal Agency	Public Involvement	Public hearing
Area Study	R	R	P		R	P
LRTP (1)	R	R	R		R	R
Transportation Modeling	R	R	P			
Corridor Study	R	R	P	P	P	
Public Transportation	R	R	P	P		
Multi-Modal	R	R	P	P		
Development Reviews	R	R	R	P		
IMR/IR (2)	R	R	R	P	P	
FIHS (3) Master Plans/Action Plans	R	R	P	R	R	P
LOS Study	R	R	P	P		
Access Management Plans	R	R	R		P	P
SIS (4)	R	R	R	P	P	P
Comprehensive Plans	R	R	R		P	P
Bicycle/Pedestrian Studies	R	R	P	P	P	P

R - Required coordination
P - Potential coordination
 (1) Long Range Transportation Plan
 (2) Interchange Modification Report (IMR), Interchange Justification Report (IR) - coordination and approval by FHWA required for interstate projects
 (3) Florida Intrastate Highway System
 (4) Strategic Intermodal System

Public Involvement

A PM may employ several techniques to effectively involve the public in planning projects, among them graphic presentations, small group meetings, advisory

committees, community events, newsletters, open-house workshops and websites. The Office of Policy Planning has many ready-reference materials available related to public involvement and public hearings and offers an on-line [Public Involvement Training](#) course.

When developing and implementing a public involvement plan, an excellent reference is the FDOT's [Public Involvement Handbook](#).

Public Policy/Local Support: Gaining local support for the smooth progress of any planned project is imperative. More and more, the public demands accountability for use of its tax dollars and wants to be informed of any plans affecting their daily lives. Transportation issues are always at or near the top of public opinion polls in terms of issues significantly affecting people's lives. Winning local governance support in developing and promoting public policy is essential. Much debate surrounding public policy development for transportation occurs at the local level.

Application/Project Complexity: Public involvement communication techniques to be used are dependent on the project complexity. A smaller project such as intersection improvement may require a level of coordination that involves only the localized vicinity businesses/residences over a short period of time. A large scale project such as a mile-long road widening may require intense activity from the earliest planning stage all the way through construction.

Documentation/Commitment Tracking: Key to this process is ensuring follow-through of any commitment made during the planning process from concept initiation through PD&E. Documentation of commitments made through the public involvement process is essential. Sources of documentation of both commitments and follow-through include the full text of relevant reports and meeting notes, but more important, executive summaries of all pertinent documents.

Other Coordination: Local governments and the general public are not the only groups involved in this process. External agencies such as Florida's Water Management Districts, ACOE, DEP, FHWA, serve critical roles in the development of public policy and permitting.

Long Range Estimate (LRE)

A solid LRE estimate is essential to ensuring reasonable budgets are prepared which reflect the true cost of a project. **Procedure No. 600-010-005, [Development and Review of The Five Year Work Program Construction Cost Estimates](#)**, describes the LRE process. The LRE computer system is used to estimate the costs of highways, bridges and related projects while in the conceptual and early planning stages, before actual plan quantities are available. Information about the LRE process and training opportunities can be found at the [Estimates Office](#) website. Planned projects must be estimated accurately and

then matched to anticipated revenue. The FDOT's [Revenue Forecast Handbook](#) provides information on revenue forecasting.

Work Program

Section 339.135, F.S., authorizes and specifies requirements for the FDOT to prepare, adopt, executive, and amend the State Transportation Five-Year Work Program. The Work Program is a statewide project-specific list of transportation activities and improvements that must meet the objectives and priorities of the FTP. To develop the Five-Year Work Program, the FDOT coordinates with its seven district offices, the Turnpike Enterprise Office (Turnpike), the Rail Enterprise, MPOs, local governments, and modal partners (e.g. seaports, airports, railroads). The intent of the Work Program is to maximize the FDOT's production and service capabilities through innovative use of resources, increased productivity, reduced cost, strengthened organizational effectiveness and efficiency. The development of the Work Program is a year round activity. In July, the FDOT begins the development of the Tentative Work Program for the five year period beginning the following July 1st to be adopted by the Secretary. Each district adjusts the first four years of its work program and adds a new fifth year through the gaming process. The Work Program is reviewed by the Florida Transportation Commission (FTC) and the DEO, to ensure compliance with applicable state laws and procedures.

Details of programming and Work Program management are described in Part I, Chapter 10, of the *Project Management Handbook*, and at the [Office of Work Program \(OWP\)](#) website in the Work Program Instructions.

Concept Planning

This functional area of planning involves a range of short term and corridor-specific projects. These projects are oriented to the specific needs of the state roadway system and involve corridor and pre-PD&E level efforts. Types of projects are: corridor or specific arterial studies, access management studies, IJR/IMRs, level of service studies and SIS Master or Action plans.

These projects require significant data collection and analysis to ensure that adequate and appropriate improvement concepts or action plans are produced. The PM must focus early coordination efforts on public entities and agencies and the general public to gather a full range of data including planning data sets, traffic and roadway characteristics, environmental, archaeological, and other area information, resources and concerns.

Figure 4, **Study Needs Matrix**, shows project types and what information and coordination will be relevant in conducting each type.

Concept-level planning can be viewed as the preparation and fatal-flaw screening mechanism to produce a "clean" project ready for project development

and entry into the work program cycle. Enough investigation and analysis is needed to screen the corridor or interchange area to obtain needed approvals or recommendations for advancement to more detailed study. As with long range planning efforts, much coordination is needed to successfully navigate the development of specific recommendations and appropriate next steps. Coordination for these study types has been described earlier in this chapter.

Figure 4
Study Needs Matrix

Project Type	Corridor Study	Pre-PD&E	Access Mgmt	IMR/IR	LOS Analysis	SIS MAPs
Traffic and Roadway Data	N	N	N	N	N	N
Land Use Data	N	N	N	N	N	P
Environmental Data	P	N		N		N
Archaeological/Historic/Social Data	P	N		N		N
Public Involvement	N	N	N	P		N
Detailed Alternatives Analysis	N	N		N	N	N
Public Hearing						P

N - Need
P - Potential Need
MAP - Master/Action Plan

Development/Project Reviews

The following projects fall under the umbrella of development or project reviews when the Planning PM is coordinating with or through another agency to provide reviews of potential impacts to the SHS. These review efforts occur when significant new land development projects are under way. An overview of major reviews is provided below. Discussion of IJR, IMR and Interchange Operational Analysis Reports (IOARs) is included to ensure that the analysis and recommendations in the DRI or the Site Plan development process are consistent with data represented in the reviews, studies or reports.

Development of Regional Impact (DRI): This site impact study represents any effort by the FDOT to prepare an analysis or conduct a review of an analysis prepared by another party. The purpose of the analysis is to estimate and quantify the specific transportation-related impact of a development proposal on the surrounding transportation network, regardless of who initiates the development proposal. The FDOT's impact assessment may be limited to the SHS or to any affected roadway system as determined by the specific type of review being conducted.

Interchange Modification Report (IMR): This report is required for all requests for modification to an existing and/or approved but not yet constructed interchange on SIS limited-access facilities. An Interchange Proposal must be developed and approved even if the proposed interchange is contained in a DRI Master Plan or PD&E study for the facility.

Interchange Justification Report (IJR): This report is required for all requests for a new interchange on existing SIS limited-access facilities. An Interchange Proposal must be developed and approved even if the proposed interchange is contained in a DRI Master Plan or PD&E study for the facility.

Interchange Operation Analysis Report (IOAR): This report may be required by FDOT or FHWA to analyze specific improvements of an interchange modification where the IMR is not required or to determine the specific year a proposed improvement to an interchange or facility is needed.

Florida Quality Development (FQD): This expedited DRI allows an alternative, expeditious and timely review process for DRIs that have been thoughtfully planned, take into consideration the protection of Florida's natural amenities, consider the cost to local government of providing services to a growing community and address the high quality of life Floridians desire.