

Approved:

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Department of Transportation

## **STRATEGIC INTERMODAL SYSTEM HIGHWAY COMPONENT STANDARDS AND CRITERIA**

### **PURPOSE:**

This procedure relates the Strategic Intermodal System (SIS) Highway Component to the design standards, design criteria, level of service standards, and processes used by the Florida Department of Transportation (Department).

### **AUTHORITY:**

Sections 20.23(3)(a), and 334.048(3), Florida Statutes (F.S.)

### **SCOPE:**

This procedure is for all offices of the Department involved with the SIS Highway component.

### **REFERENCES:**

Sections 335.02, 339.61, 339.62, 339.63, and 339.64, Florida Statutes (F.S.)

For current policies and procedures, see the Department's internet web site at <http://infonet.dot.state.fl.us/tlofp/#>

Rules of the Department of Transportation, Chapter 14-97  
(<https://www.flrules.org/gateway/ChapterHome.asp?Chapter=14-97>)

Approval of New or Modified Access to Limited Access Highways on the Strategic Intermodal System (Topic No. 000-525-015)

Plans Preparation Manual (PPM), Volume I (Topic No. 625-000-007)

Plans Preparation Manual (PPM), Volume II (Topic No. 625-000-008)

Assignment of Access Management Classification to the State Highway System (Topic No. 525-030-155)

New or modified interchanges (Topic No. 525-030-160)

FHWA Urban Boundary and Federal Functional Classification (Topic No. 525-020-311)

**Note:** References shall be to the latest editions, in particular for the Department's ***Level of Service Handbook***, the ***Highway Capacity Manual***, and the Department's ***Plans Preparation Manual (PPM) (Topic Nos. 625-000-007 and 625-000-008)***.

## **DEFINITIONS:**

The following definitions shall apply unless the context clearly indicates otherwise.

**ECONOMIC REGIONS** are the eight strategic planning areas defined by Enterprise Florida in Florida's Strategic Plan for Economic Development.

**FHWA URBAN CLUSTER** is an urban area as designated by the U.S. Bureau of Census having a population of 2,500 to 49,999, and not within any urbanized area. The boundaries shall encompass the entire urban area as designated by the U.S. Bureau of the Census *plus* that adjacent geographical area as agreed upon by local officials in cooperation with the State.

**FHWA URBANIZED AREA** is an area with a population of 50,000 or greater. The boundaries of the area shall encompass the entire urbanized area as designated by the U.S. Bureau of the Census *plus* that adjacent geographical area as agreed upon by local officials in cooperation with the State.

**INTERMODAL** denotes the seamless movement of people or cargo between transport modes. See Multimodal.

**METROPOLITAN PLANNING ORGANIZATION (MPO)** means an organization made up of local elected and appointed officials responsible for developing, in cooperation with the state and transit operators, transportation plans and programs in urbanized areas containing 50,000 or more residents, as required by federal law and ***Section 339.175, F.S.*** MPOs are responsible for the development of transportation plans and programs for metropolitan areas that provide for the operation and integrated management of transportation systems and facilities, including bike and pedestrian facilities.

**MULTIMODAL** denotes the use of more than one mode to serve transportation needs in a given area.

**NATIONAL HIGHWAY SYSTEM (NHS)** is comprised of approximately 160,000 miles of roadway important to the nation's economy, defense and mobility. The NHS includes Interstate highways and other major roadways, the Department of Defense's Strategic Highway Network (STRAHNET) and major connectors to military installations and intermodal facilities.

**RURAL AREAS** are those areas outside urban clusters and urbanized areas. Population centers of less than 2,500 persons are considered to be rural for purpose of this Procedure.

**RURAL AREAS OF OPPORTUNITY**– Are those areas designated by the Florida Governor pursuant to ***Section 288.0656(2)(d)F.S.***, these areas must be a rural community or region that has been adversely affected by an extraordinary economic event or a natural disaster,

or severe or chronic distress or that presents a unique economic development opportunity of regional impact.

**STATE HIGHWAY SYSTEM (SHS)** is a network of approximately 12,000 miles of highways owned and maintained by the State of Florida or state-created authorities. Major elements include Interstate highways, U.S. routes, state roads, Florida's Turnpike and other toll facilities operated by transportation authorities and arterial highways. SHS designation is defined in **Section 335.02, F.S.**

**STRATEGIC INTERMODAL SYSTEM (SIS)** – is the statewide network of high priority transportation facilities that meet high levels of people and goods movement, generally supporting the major flows of interregional, interstate, and international trips. Both “Strategic Intermodal System” and “Emerging SIS” are a formal part of “The SIS.” Also refers to a transportation system network comprised of both SIS and Emerging SIS facilities and services of statewide and interregional significance, including appropriate components of all modes. The highway component includes all designated SIS Highway Corridors, Emerging SIS Highway Corridors, SIS Intermodal Connectors and Military Access Facilities.

**SYSTEMS PLANNING OFFICE** is the office located within the Central Office of the Florida Department of Transportation with designated responsibility for statewide SIS planning.

## **1. THE STRATEGIC INTERMODAL SYSTEM**

This section provides an overview of the Strategic Intermodal System including the basic responsibility of the Department, SIS components and general policies.

### **1.1 BACKGROUND**

The SIS was established in 2003 to enhance Florida's economic competitiveness by focusing state resources on the transportation facilities most critical for statewide and interregional travel. The SIS is a statewide network of high priority transportation facilities, including the state's largest and most significant commercial service airports, spaceports, deepwater seaports, freight rail terminals, passenger rail and intercity bus terminals, rail corridors, waterways and highways.

The SIS is comprised of state highways owned by the Department as well as airports, spaceports, seaports, waterways, rail lines and terminals, and roads owned by local governments, independent authorities, and the private sector. All SIS facilities are eligible for state transportation funding, regardless of mode or ownership, with state funding covering varying shares of the project costs. The SIS is a primary focus of the Department and partner funding programs for state transportation capacity improvements; however, there is not a single funding source for all of capacity improvements.

### **1.2 DEPARTMENT RESPONSIBILITY**

**Sections 339.61, 339.62, 339.63, and 339.64 F.S.**, provide statutory authority and defines the Department's responsibility for the SIS.

### 1.3 COMPONENTS OF THE SIS

The SIS includes four different types of existing or planned facilities, each of which forms one component of an interconnected transportation system.

- (A) Hubs are ports and terminals that move goods or people between Florida regions or between Florida and other origin/destination markets in the United States and the rest of the world. These include commercial service airports, deep water seaports, spaceports, interregional rail and bus terminals and freight rail terminals.
- (B) Corridors are highways, rail lines, waterways and other exclusive-use facilities that connect major origin/destination markets within Florida or between Florida and other states or nations.
- (C) Intermodal connectors are highways, rail lines or waterways that connect hubs and corridors.
- (D) Military Access Facilities are transportation facilities linking SIS corridors to the state's strategic military installations. These are generally access facilities designated as part of the federal Strategic Highway Network and/or the Strategic Rail Corridor Network.

The scope of this procedure is focused on the highway facilities.

### 1.4 SIS HIGHWAY COMPONENTS

The SIS Highway Component consists of four subsets of existing or planned facilities: SIS Highway Corridors, Emerging SIS Highway Corridors, SIS Highway Intermodal Connectors and Military Access Highway Connectors. SIS designated highways corridors are heavily traveled facilities that move both people and goods with the majority of traffic flow being interregional or interstate. Emerging SIS corridors are not as heavily traveled as SIS highway corridors in either total traffic or truck traffic. The SIS Highway Intermodal Connectors are intended to provide safe, secure, efficient, reliable and direct access between SIS hubs and the nearest or most appropriate SIS corridor. Military Access Highway Connectors are roadways linking SIS/Emerging SIS corridors to the state's strategic military installations. A Planned SIS facility is a new or existing highway not yet meeting all applicable SIS designation criteria and thresholds and anticipated to meet SIS designation criteria and thresholds within three years of receiving the "Planned SIS" designation.

SIS designation criteria and thresholds are adopted by the Department and are available from the Department Website at: <http://www.dot.state.fl.us/planning/sis/strategicplan>.

#### 1.4.1 SIS Highway Corridors

The SIS Highway Corridors include existing or planned routes that meet SIS designation criteria and thresholds. Highways designated as "SIS" include all interstates, freeways, NHS facilities providing connections to major markets in another state, and certain limited and controlled access SHS corridors connecting two or more economic regions.

### 1.4.2 Emerging SIS Highway Corridors

Emerging SIS Highway Corridors include existing or planned routes meeting the same measures as the SIS designation criteria, but with lower thresholds. Emerging SIS Highway Corridors may include SHS corridors serving Florida’s Rural Areas of Opportunity meeting SIS designation criteria and thresholds.

### 1.4.3 SIS Highway Intermodal Connectors

SIS Highway Intermodal Connectors are existing, or planned, state, county and city roads providing a direct connection from SIS and Emerging SIS Hubs to the nearest or most appropriate SIS Corridor.

### 1.4.5 SIS Military Access Connectors

Military Access Connectors are Strategic Highway Network (STRAHNET) roadways serving main entrance(s) of U.S. Department of Defense military installations with at least 0.25% of total U.S. military and civilian personnel or Governor’s Continuity of Government site(s).

## 2. SIS Highway Component Standards and Criteria

### 2.1 Geometric Design Criteria

Geometric Design Criteria or SIS Highway Component facilities on the SHS, design criteria as designated in the Department’s Plans Preparation Manual (PPM) shall be used.

#### 2.1.1 Design Speed

SIS Highway Component facilities shall be designed to safely accommodate high volume travel at the highest practical speed. For all new facilities and for the reconstruction of existing facilities design speed standards shall be as follows:

		Minimum Design Speed (mph)			
		SIS Highway Corridor or Emerging SIS Highway Corridor		SIS Highway Intermodal Connector or SIS Military Access Connector	
		Access Class 1	Access Class 2 or 3	on SHS	off SHS*
Area Type	Rural	70	65	45	45
	Urban	70	50	45	45
	Urbanized	60	50	45	45

\*For facilities not on the SHS, Design Speeds less than the minimum may be approved by the District Design Engineer following a review by the District Planning (Intermodal Systems Development) Manager.

### **2.1.2 Access Management**

The access management standards for SIS Highway Corridors and Emerging SIS Highway Corridors shall not be lower than Access Class 3 as defined in Rule Chapter 14-97, F.A.C.

### **2.2 Level of Service Criteria**

SIS highway facilities shall be planned and designed to operate within the Department's adopted Level of Service Standards.

### **2.3 Design Exceptions and Design Variation Process for Design Speed Standards on the SIS Highway Component**

Improvements to existing SIS highway component facilities and new construction should meet the SIS Highway component Design Speed Standards. However, occasionally it becomes necessary to deviate from the design speed standards when improving existing or constructing new SIS highway facilities. Whenever this is necessary, a design exception or design variation is required. All potential design exceptions and design variations for design speed shall follow the process outlined in the Department's *Plans Preparation Manual, Topic No. 625-000-007, Chapter 23* and be identified in the earliest possible planning or production phase. These design exceptions and design variations require concurrence from the Chief Engineer.

When the design exception or design variation impacts are determined to be significant by the State Transportation Development Administrator so as to affect the viability of the facility as a SIS highway component corridor, the design exception or design variation will be reviewed with the Assistant Secretary for Intermodal System Development. As a result of this review, the Assistant Secretary may recommend to the Secretary that the facility is removed from the SIS, and may request designation of an alternative SIS highway corridor. In the event an existing SIS facility is removed from the SIS, the design exception or design variation will no longer require the concurrence from the Chief Engineer.

### **2.4 Level of Service Standards for Planning and Design**

SIS highway facilities shall be planned and designed to operate within the Department's adopted *Level of Service (LOS) Standards*.

### **2.5 Access Management Standards for Planning and Design**

**Section 339.61, F.S.**, authorizes the Department to develop the SIS highway component to safely provide for high-speed and high-volume traffic movements. The primary function of these corridors is to provide such traffic movements. Access to abutting land is subordinate to this function, and such access must be highly regulated. The following standards and techniques for access management are necessary to deal with the traffic conflicts associated with the provision of high-speed and high-volume facilities while providing public access. Access management standards shall be applied to all SIS

highway component planning and design processes ***Assignment of Access Management Classification to the State Highway System (Topic No. 525-030-155)***.

## **2.5.1 Access Management Standards for Limited Access Facilities**

### **(A) Standards**

Access management standards for limited access facilities shall be as described in ***Rule Chapter 14-97, F.A.C.***, and the Department's ***Plans Preparation Manual***.

### **(B) Requests for New or Modified Access to Existing Limited Access Facilities**

Approval of new access connections (interchanges) to existing limited access facilities shall be minimized consistent with the Department policy on ***Approval of New or Modified Access to Limited Access Facilities (Topic No. 000-525-015)***. Approval of modifications to existing access (interchanges) shall be based on a consideration of both operational and safety needs. Requests for new or modified access to limited access facilities shall be considered and reviewed consistent with the process and requirements of the Department's ***Interchange Justification Procedure (Topic No. 525-030-160)*** and the Department's ***Interchange Handbook***.

### **(C) Approval of Access for New Limited Access Facilities**

Planning and design of access connections to new limited access facilities which will be added to the SIS highway component, shall be consistent, to the maximum extent possible, with the interchange spacing standards as contained in ***Rule Chapter 14-97, F.A.C.***, and with the guidelines in the ***Interchange Handbook***. The proposed access shall also be consistent with the legislative intent for the SIS highway component, as set forth in ***Section 339.61 F.S.***, to be a high speed/high volume facility. There is no need to request an exception to spacing standards.

## **2.5.2 Access Management Standards for Controlled Access Facilities for Planning and Design**

### **(A) Standards**

The access management standards for controlled access segments of the SIS highway component shall be those contained in Access Class 2 or 3 as defined in Department ***Rule Chapter 14-97, F.A.C.***

### **(B) Design of Medians and Median Openings**

The minimum median width standards for the SIS highway corridor facilities should conform to the Department's latest ***Plans Preparation Manuals (Topic Nos. 625-000-007 and 625-000-008)***. Safe accommodation of left turns and U turns to ensure minimum interference with through traffic on controlled access facilities shall be

provided through greater than minimum median width to accommodate these movements or through other strategies. Other strategies may include the use of such techniques as flared approaches to accommodate U-turns, jug-handle designs or roundabouts when properly justified and which result in safe and efficient traffic operation. Refer to the Department's *Median Handbook* and the *Florida Roundabout Guide* for additional details.

### **(C) Deviation from Median Opening Standards**

Deviation from median opening standards shall follow the Department's *Median Opening and Access Management Decision Process (Topic No. 625-010-021)* which requires more analysis and justification when considering deviations from these standards for the SIS highway component.

### **(D) Access Around Interchanges and Intersections**

Access management in areas around interchanges with SIS limited access facilities and at at-grade intersections is extremely critical. These areas are specially treated in *Rule 14-97.003(3)(h), F.A.C.* Since the safe and efficient operation of the SIS highway component is dependent on the operation of these areas, it may be necessary to use strategies such as service roads, corridor management, coordination with local governments on site plans and land development regulations, and the purchase of additional limited access right of way in order to ensure good operation. Implementation of these strategies can be facilitated through coordination with local governments on site plans and land development regulations.

## **3. INDIVIDUAL SIS CORRIDOR PLANS**

SIS Corridor Plans shall be developed by the Department's planning offices to outline a course of action to improve user mobility by identifying and recommending Conceptual Mobility Enhancement Alternatives to provide the mobility that will adequately serve high speed, high volume travel facilitating interstate and regional commerce and long distance trips. Conceptual Mobility Enhancement Alternatives may incorporate a wide range of alternative actions and modal opportunities.

### **3.1 MASTER PLANS**

The preparation of a Master Plan is an integral part of the continuing process for the development of the SIS and the scheduling of any operational improvements, Project Development and Environmental (PD&E) studies, *Interchange Modification Reports (IMR)*, and *Interchange Justification Reports (IJR)* that the Master Plan may indicate as necessary.

The Master Plans shall contain a thorough analysis of Conceptual Mobility Enhancement Alternatives, and shall provide recommendations concerning a schedule for implementation, phasing, financing of construction, and cost estimates of the various components of each Master Plan.

### **3.2 ACTION PLANS**

Action Plans for controlled access corridors are developed by the Department's planning offices to provide detailed planning guidance on the design principles to be applied to corridor segments in the project development process. These segments are typically up to 150 miles in length. The plans identify preliminary typical sections for the corridor and define the controlling design criteria, such as design speed. The studies also make initial identification of multimodal opportunities within the corridor.

The Action Plan shall identify alternatives for capacity improvements, including multimodal, transit, and congestion management techniques. The Action Plan shall consider modification of existing facilities, construction of new facilities, intermodal linkages, use of alternative corridors or modes, and similar techniques to improve traffic services in the study segment corridor. The Action Plan shall also provide an anticipated schedule for improvements to the corridor.

Design deficiencies should be identified within the Action Plan, prior to full implementation. Where these deficiencies exist rehabilitation and reconstruction projects should be employed to make the facility consistent with SIS design standards. This portion of the Action Plan should address physical, environmental, jurisdictional and fiscally constrained segments of the corridor.

### **3.3 COOPERATION AND COORDINATION WITH MPOs, REGIONAL PLANNING COUNCILS, TRANSPORTATION AGENCIES AND LOCAL GOVERNMENTS**

Public involvement and coordination with MPOs, Regional Planning Councils, public transportation agencies (transit, airports and seaports) and local governments is required. During the planning process, all Master Plans and Action Plans shall be developed in cooperation with MPOs and local governments. Coordination shall be provided with local governments to ensure consistent land use planning and access regulation activities for abutting lands.

### **3.4 RELATIONSHIP OF SIS CORRIDOR PLANS TO PROJECT DEVELOPMENT AND ENVIRONMENTAL STUDIES**

SIS corridor plans shall be oriented to reaching general agreement on a preferred design concept and scope to be implemented for the corridor. The Department will not normally seek a Class of Action Determination for SIS Corridor Plans; however, planning products will be developed in consultation with Federal and State resource agencies and Tribes, as appropriate to facilitate adoption of planning products for future actions under the National Environmental Policy Act (NEPA) by a relevant agency. This shall be accomplished in the project development and environmental study (PD&E) phase along with refinement of the recommended preferred alternative identified in the corridor plan. Typically, the SIS corridor plan will present the preferred corridor alternative and perform fatal-flaw, order of magnitude environmental analysis. The PD&E phase will refine the recommended

preferred alternative (detailed engineering analysis) and complete the environmental analysis.

The ***Preliminary Engineering Report*** for a PD&E study may be used in lieu of a corridor Action Plan or Master Plan if such plans have not been completed prior to the PD&E Study.

## **4. TRAINING**

### **4.1 TECHNICAL ASSISTANCE**

The Systems Planning Office will provide technical assistance to the Districts as needed for implementation of this procedure.

## **5. FORMS**

None required.