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Department of Transportation

STRATEGIC INTERMODAL SYSTEM HIGHWAY COMPONENT STANDARDS AND CRITERIA

AUTHORITY:

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

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://fdotsp.dot.state.fl.us/sites/TransportationSupport/OrgDev/PPM/SitePages/Home.aspx

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 SHS (Topic No. 000-525-015)

Florida Department of Transportation Design Manual (FDM)

(https://www.fdot.gov/roadway/fdm/Default.shtm) (Topic No, 625-000-002)

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

New or Modified Interchanges (Topic No. 525-030-160)

Urban Boundaries and Functional Classification of Roadways (Topic No. 525-020-311)

Note: References shall be to the latest editions, in particular for the Department's **Quality/*Level of Service Handbook***, the Transportation Research Board's (TRB) ***Highway Capacity Manual,*** and the ***FDOT Design Manual (FDM)***.

PURPOSE:

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

SCOPE:

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

DEFINITIONS:

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

CONTEXT CLASSIFICATION is used by FDOT to describe land use and transportation context of a facility, which informs planning and design of that facility. See FDM 200 for FDOT's Contex Classification system.

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.

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 multimodal network of high priority transportation facilities that move people and goods, generally supporting the major flows of interregional, interstate and international trips. Both the "Strategic Intermodal System" and "Strategic Growth" are a formal part of the "SIS" Network. The highway component includes all designated SIS Highway Corridors, SIS and Strategic Growth Intermodal Connectors and Military Access Facilities (MAFs). The SIS Network encompasses other facilities of statewide and interregional significance including Waterway and Railway Corridors and Connects, Seaports, Airports, Spaceports, and Freight Rail Terminals.

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 urbanized areas.

SIS HIGHWAY INTERMODAL CONNECTORS are existing, or planned, state, county and city roads providing a direct connection from SIS Hubs to the nearest or most appropriate SIS Corridor.

SIS MILITARY ACCESS FACILITIES are Strategic Highway Network (STRAHNET) roadways serving main entrance(s) of U.S. Department of Defense military installations with at least 4% of total U.S. military and civilian personnel in the State of Florida or Governor's Continuity of Government site(s).

STRATEGIC GROWTH is a SIS designation type awarded to a hub, waterway corridor, or intermodal connector that is determined by FDOT to be of a compelling state interest such as, economic connectivity, supporting underserved or niche geographic and economic communities, or projected to meet SIS minimum thresholds within three years of being designated. In addition, these facilities prove to meet all planning requirements and

Community and Environmental Screening Criteria as set forth by FDOT before receiving designation.

SYSTEMS IMPLEMENTATION 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, intermodal logistics centers, 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, freight rail terminals and intermodal logistics centers.

(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 three subsets of existing or planned facilities that meet adopted criteria for designation:

- SIS Highway Corridors
- SIS Highway Intermodal Connectors
- SIS Military Access Highway Facilities

The SIS highway component, like other categories of SIS facilities, may include planned facilities that are not yet constructed or operational but are anticipated to meet the SIS designation criteria within three years of becoming fully operational. The SIS highway component also may include existing facilities that are intended for de-designation once a planned facility serving the same general connection becomes operational. The Department will regularly monitor the status of the planned and existing facilities to ensure that only those facilities meeting the adopted criteria are designated as part of the SIS.

SIS designation criteria and thresholds are adopted by the Department and are available from the Department Website at: http://www.fdot.gov/planning/sis/policyplan/criteria-insert.pdf.

2. SIS Highway Component Standards and Criteria

2.1 Geometric Design Criteria

The ***FDOT Design Manual (FDM)***, ***Topic No. 625-000-002***, provides design criteria designated for SIS Highway Component facilities on the SHS.

2.1.1 Design Speed

SIS Highway Component facilities shall be designed to safely accommodate high volume travel at the highest context-appropriate speed. See the ***FDM*** for Design Speed criteria and the process for establishing Design Speed.

2.1.2 Access Management

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

2.2 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 criteria. However, occasionally it becomes necessary to deviate from the
Design Speed criteria when improving existing or constructing new SIS highway facilities. Whenever this is necessary for SHS facilities, a Design Exception or Design Variation is required. All potential Design Exceptions and Design Variations for Design Speed shall follow the process outlined in ***FDM 122*** and be identified in the earliest possible planning or production phase. These Design Exceptions and Design Variations require approval from the Chief Engineer.

If the impacts of a Design Exception or Design Variation are determined to be significant by the Department's Chief Planner 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 Strategic 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 approval from the Chief Engineer.

2.3 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***.

2.4 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 as outlined in ***Assignment of Access Management Classification to the State Highway System (Topic No. 525-030-155)***.

2.4.1 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 ***FDM***.

(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 ***New or Modified Interchanges (Topic No. 525-030-160)*** and the Department's *Interchange Access Request User's Guide*.

(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 Access Request User's Guide***. 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.

2.4.2 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 ***FDM.*** 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 ***Access Management Guidebook*** and the ***Manual on Intersection Control Evaluations*** for additional details.

(C) Deviation from Median Opening Standards

Deviation from median opening standards shall follow the **Department's *Median Opening and Access Management (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 transportation enhancement alternatives to provide for the mobility required to adequately serve high speed, high volume travel and facilitate interstate and regional commerce. These identified enhancements may represent 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 criteria. 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 an alternative corridor alignment(s) 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 supported by the Alternative Corridor Evaluation (ACE) process prior to the project development and environmental (PD&E) study. Through this process the alternative corridor alignment or alignments recommended to advance to PD&E can obtain appropriate concurrences from FDOT, MPO and consideration by other agencies and stakeholders. Typically, the SIS corridor plan will incorporate results of the ACE. The PD&E phase will identify the final preferred alternative by conducting a detailed engineering analysis and complete the environmental analysis for the alternative corridor alignment.

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

5. FORMS

None required.