



Florida Department of Transportation

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STRUCTURES DESIGN BULLETIN 16-10

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TO: District Directors of Transportation Operations, District Directors of Transportation Development, District Design Engineers, District Construction Engineers, District Structures Design Engineers, District Structures Maintenance Engineers

FROM: Robert V. Robertson, P.E. State Structures Design Engineer 

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SUBJECT: Developmental Design Standards: Index D30000 Series - FSB Superstructure Package; Index D20920 & D20930 - Approach Slabs (20Ft.)

This bulletin introduces the Florida Slab Beam (FSB) Superstructure Packages, ***Developmental Design Standards (DDS)*** which includes Indexes D30000, D30015, D30024, D30028, D30032 and D30040, and the associated ***Instructions for Developmental Design Standards (IDDS)***. The FSB Superstructure Packages allow the use of new 20 foot long Approach Slab ***Developmental Design Standards*** under Index D20920 and D20930.

The FSB Superstructure Package provides a standard set of superstructure plans utilizing the FSB ***DDS*** D20450 Series.

The use of the FSB Superstructure Packages will typically be restricted to off-system bridges with low Average Daily Traffic (ADT) and Average Daily Truck Traffic (ADTT).

REQUIREMENTS

Use the appropriate Index D20450 Series ***DDS*** and their associated ***IDDS*** when using ***DDS*** Index D30000, D30015, D30024, D30028, D30032 or D30040. Follow the process outlined in the "[Developmental Design Standards - Usage Process](#)".

Approval to use an FSB Superstructure Package D30000 Series ***DDS*** also serves as approval to use the FSB Developmental Design Standards D20450 Series, and the appropriate Approach Slabs (20 Ft.) Index D20920 or D20930 when requested. These documents are available for viewing on the [DDS webpage](#).

When using these ***DDS***, use ***Developmental Specifications*** listed in the ***IDDS*** for Index D20450 and ***Developmental Specification Dev400Tining*** which includes provisions that allow tining in lieu of grooving for decks and bridges on unpaved roadways. These specifications are available on the [Developmental Specifications webpage](#).

COMMENTARY

The Florida Slab Beam Superstructure Packages, are a new **DDS** series of fully designed superstructures. The **DDS** accommodates clear roadway widths between traffic railings of 15, 24, 28, 32 or 40 feet and nominal span lengths of 30, 40 and 50 feet; for a total of 15 superstructure packages. The **DDS** can be used for single or multiple span configurations.

The FSB Superstructure Package includes a completed Load Rating Summary Sheet. Design load rating calculations (As-Bid) are available on the [DDS webpage](#). The **IDDS** provides additional information on the load rating requirements for the FSB Superstructure Package.

Limiting the use of the FSB Superstructure Packages (**DDS** Index D30000 Series) to off-system bridges with low Average Daily Traffic (ADT) and Average Daily Truck Traffic (ADTT) will allow for potential improvements to be made to the standards prior to their use at more critical locations

The Approach Slabs (20 Ft.) **DDS**s, provide an economical option for these types of bridges, where an increase in longitudinal differential settlement effects may be tolerated due to lower speeds and/or traffic volume.

See the **IDDS** for additional information including design criteria, assumptions and limitations, plan content requirements, design aids and pay item information.

BACKGROUND

Off-system bridges in Florida are typically short span bridges carrying two lanes of traffic or less. These bridges have varying superstructure section types, requiring individual designs for each of the bridges and varying construction methods. Standardizing off-system bridge construction with a standard bridge superstructure package will decrease design costs and eventually construction costs.

The new standard bridge superstructure package utilizes the Florida Slab Beams (FSB), which is a recently introduced FDOT beam section intended for shorter span applications. See [Structures Design Bulletin 16-01](#) for background on the FSB development and implementation.

IMPLEMENTATION

These **DDS**s and associated **IDDS**s are available for use on applicable current or future off-system bridge projects with approval from the Structures Design Office following the process outlined in the "[Developmental Design Standards - Usage Process](#)". The FSB superstructure packages may be used at other locations where specifically approved by the State Structures Design Engineer.

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