



## Florida Department of Transportation


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TO: District Directors of Operations, District Directors of Production, District Design Engineers, District Structures and Facilities Engineers, District Geotechnical Engineers, District Maintenance Engineers, District Construction Engineers, District Structures Design Engineers, District Materials Engineers

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SUBJECT: Temporary Design Bulletin C05-06  
Interim Policy for Prefabricated Pedestrian Steel Truss Bridges  
Effective July 2005 Lettings

### **Requirement:**

#### **Add the following new language to Chapter 8.7 of the PPM :**

7. All pedestrian bridge facilities shall: a) be fully designed and detailed in the plans, b) be designed in compliance with all Department design criteria, c) utilize the AASHTO Standard Specifications, 17<sup>th</sup> Edition, and the 1997 AASHTO Guide Specification for the Design of Pedestrian Bridges, d) be non-proprietary, e) be reviewed by SDO if designed to be steel. Do not include designs or specifications for prefabricated steel truss structures in the contract documents. A note may be added to the plans stating: Any VECP of the bridge design using proprietary prefabricated bridges shall comply with all Department design criteria including compliance with the AASHTO Guide Specification for the Design of Pedestrian Bridges.

By definition, truss bridges are defined as Category 2 structures. Until complete design criteria and policies have been developed, the use of prefabricated steel truss bridges requires coordination and approval of the SDO.

**Background:** Requests for pedestrian bridges are becoming more common. Unique policy and technical issues have been identified for these structures. The Department has a standing agreement with contractors to not require them to solicit designs for major components of the work except for design-build projects. Placing plans from a single vendor into the contract plans is not in accordance with the Department's policies on competitive bidding practices. Simply placing design criteria, aesthetic/shape requirements and construction specifications/special

provisions into the bid documents for these structures is not in accordance with the Department's engineering liability policies.

**Commentary:** The intent of this bulletin is to establish a policy for the use of proprietary pedestrian bridges and to assure that any proposed proprietary designs meet the requirements of the Department. Development and implementation of policy and procedures governing the design and construction of proprietary designs is anticipated to take about 12 months. Until the policy is fully developed, proprietary designs shall not be included in the contract documents.

Some of the vendors supplying proprietary structures utilize LRFD designs and some still use LFD. The fabricators may not have QA/QC procedures in place as required in the Department's standard construction specifications for fabrication shops constructing non-proprietary structures. This may create an unfair cost advantage for proprietary designs. Proprietary designs generally utilize round or square tubes which require unique welding details and methods which have not been reviewed by the Department. Tubular sections are not currently included in the bridge welding code and thus would not be constructed to the requirements currently required by the Department for steel structures. The Department also must make special arrangements to shop inspect these facilities. At this time the designers of these structures are not pre-qualified with the Department as required by Florida Administrative Rule 14-75. The 1997 AASHTO Guide Specification for the Design of Pedestrian Bridges amends the standard specifications and there is no LRFD companion document at this time.

**Implementation:** This requirement is valid immediately and is to be implemented on all projects beginning with the July 2005 letting. Development of a full implementation plan will take 12 months. Criteria will be developed to allow for the pre-approving of proprietary design methodologies and for the inclusion of these designs into future projects. This issue will be discussed in the July 05 TAG meeting. Complete design criteria, new specifications and pay items will be developed for the fabrication and construction of these types of bridges.

WNN/rvr