Florida Department of Transportation

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SECRETARY

ROADWAY DESIGN BULLETIN 12-18
DESIGN STANDARDS REVISION R2013-02

DATE: October 26, 2012

TO: District Design Engineers, District Traffic Operations Engineers, Plans Preparation Manual Holders

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

CC: Brian Blanchard, Tom Byron, Duane Brautigam

SUBJECT: Removal of Chevrons in Interstate Gores Areas and at Raised Urban Islands Design Standards Revision (R2013-02), Dated January 1, 2013

REQUIREMENTS

New interstate gore areas will be marked with 12" white channelizing lines and raised retro-reflective pavement markers. New raised urban islands will be marked with 8" white channelizing lines and raised retro-reflective pavement markers. Index 17345, sheets 1 thru 5 have been revised to indicate the new gore area markings for interstate gore areas. Index 17346 sheet 4 has been revised to indicate the new marking at raised urban islands.

Any exceptions to this policy must be approved by State Traffic Standards Engineer.

COMMENTARY

The Manual of Uniform Traffic Control Devices (MUTCD) indicates chevrons on expressways and freeways gore areas as optional markings. The MUTCD only requires that gore areas be marked with wide or double solid white channelizing lines.

BACKGROUND

This issue began as a cost savings issue. Chester Henson prepared a presentation for the Management Team indicating how our current design compared to the MUTCD requirements. Our current design utilizes 18" chevrons spaced on 20' centers with an 8" channelizing line. This design differs from the MUTCD in that chevrons are optional and that a 12" channelizing line was required. The Department's use of the 8" channelizing line was justified based on

engineering judgment that the chevrons and raised retro-reflective pavement markings provided more delineation than the requirements in the MUTCD. The presentation also included the cost of the current design and the cost of only the MUTCD requirements. The cost of the current gore treatment design for a standard 4° diverging exit ramp gore was $1,310 per gore. The cost for only the MUTCD design with raised retro-reflective pavement markers for the same gore was $932 per gore. An alternative was presented using our current design but with chevrons spaced on 40' centers with an estimated cost of $1,008 per gore. The presentation also showed examples of long gore areas wide enough for vehicles to use as a travel lane and the concern that vehicles might use the gore area for a travel lane if the chevrons were removed.

Numerous examples of how other states marked the gore areas were also presented by David Sadler. There were numerous examples where many states did not use chevrons or used them only for exit ramps and did not use them for entrance ramps.

The Management team made the decision to discontinue the routine use of chevrons in interstate gores and around raised urban islands but would allow them on exit ramps if there were instances where a significant concern was raised. The State Traffic Standards Engineer would approve any exceptions to this policy.

IMPLEMENTATION

1) Construction Plans - These requirements may be implemented immediately on all projects LET prior to March 2013 at the discretion of the District. These changes are required for all projects with LET dates on or after March 1, 2013.
2) Plans Preparation Manual – No changes required.
3) Construction Specifications – No changes required.
4) Basis of Estimates Manual – No changes required.
5) CADD – No changes required.
6) Design and Analysis Software – No changes required.
7) CPAM – No changes required.

New Index Drawings and Design Standards Revisions can be accessed at the following web site: http://www.dot.state.fl.us/rddesign/DesignStandards/Standards.shtm

CONTACTS

For design related issues, contact: Chester Henson at 850-414-4117 or Chester.Henson@dot.state.fl.us