



## Florida Department of Transportation

RICK SCOTT  
GOVERNOR

605 Suwannee Street  
Tallahassee, FL 32399-0450

ANANTH PRASAD, P.E.  
SECRETARY

July 20, 2012

**ROADWAY DESIGN BULLETIN 12-14  
DESIGN STANDARDS REVISION R1303  
DCE MEMORANDUM 23-12  
(FHWA Approved: 7/20/12)**

**This Memo Has Expired**

**TO: DISTRICT DESIGN ENGINEERS  
DISTRICT CONSTRUCTION ENGINEERS  
PLANS PREPARATION MANUAL HOLDERS**

**FROM:** Frank Sullivan, P.E., State Roadway Design Administrator  
David A. Sadler, P.E., Director, Office of Construction

**CC:** District Directors of Operations, Brian Blanchard, Tom Byron, Duane Brautigam, Tim Lattner, Rudy Powell, Chad Thompson, Heather Dean, Rafiq Darji, Chris Richter, Bob Bureson

**SUBJECT: HIGH VISIBILITY SAFETY APPAREL – Index 600, Sheet 3  
DESIGN STANDARDS REVISION (R1303), DATED JULY 23, 2012**

### BACKGROUND:

Effective July 1, 2012, Index 600 Sheet 3 of 13, under the heading “High-Visibility Safety Apparel” reads:

“All high-visibility safety apparel shall meet the requirements of the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) for High-Visibility Safety Apparel, and labeled as **ANSI/ISEA 107-2010**”.

However, it is acceptable to allow High-Visibility Safety Apparel labeled as ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010.

### DESIGN IMPLEMENTATION:

Design Standards Revision (R1303), dated July 23, 2012 (attached) is implemented on all projects LET July 23, 2012, to December 31, 2012, and reads:

“All high-visibility safety apparel shall meet the requirements of the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) for

High-Visibility Safety Apparel”, and labeled as ANSI/ISEA 107-2004 or ANSI/ISEA 107-2010.

**CONSTRUCTION IMPLEMENTATION:**

For projects let July 1, 2012, to July 23, 2012, this memorandum serves as a blanket approval to process a \$0.00 contract change to amend this language. A copy of this memorandum should be attached to the Work Order or Supplemental Agreement.

**CONTACTS:**

Design related issues: Ezzeldin Benghuzzi at 850-414-4352 or [Ezzeldin.Benghuzzi@dot.state.fl.us](mailto:Ezzeldin.Benghuzzi@dot.state.fl.us)

Construction related issues: Stefanie D. Maxwell at 850-414-4314 or [Stefanie.Maxwell@dot.state.fl.us](mailto:Stefanie.Maxwell@dot.state.fl.us)

Attachment

## CLEAR ZONE WIDTHS FOR WORK ZONES

The term 'clear zone' describes the unobstructed relatively flat area, impacted by construction, extending outward from the edge of the traffic lane. The table below gives clear zone widths in work zones for medians and roadside conditions other than for roadside canals; where roadside canals are present, clear zone widths are to conform with the distances to canals as described in Volume I, Chapter 4, Section 4.2 and Exhibit 4-A and 4-B of the Plans Preparation Manual.

CLEAR ZONE WIDTHS FOR WORK ZONES		
WORK ZONE SPEED (MPH)	TRAVEL LANES & MULTILANE RAMPS (feet)	AUXILIARY LANES & SINGLE LANE RAMPS (feet)
60-70	30	18
55	24	14
45-50	18	10
30-40	14	10
ALL SPEEDS CURB & GUTTER	4' BEHIND FACE OF CURB	4' BEHIND FACE OF CURB

## SUPERELEVATION

Horizontal curves constructed in conjunction with work zone traffic control should have the required superelevation applied to the design radii. Under conditions where normal crown controls curvature, the minimum radii that can be applied are listed in the table below.

MINIMUM RADII FOR NORMAL CROWN	
WORK ZONE POSTED SPEED	MINIMUM RADIUS
MPH	feet
65	3130
60	2400
55	1840
50	1390
45	1080
40	820
35	610
30	430
Superelevate When Smaller Radii is Used	

## LENGTH OF LANE CLOSURES

Lane closures shall not exceed 2 miles in total length (taper, buffer space and work space) in any given direction on the Interstate or on state highways with a posted speed of 55 MPH or greater.

## OVERWEIGHT/OVERSIZE VEHICLES

Restrictions to Lane Widths, Heights or Load Capacity can greatly impact the movement of over dimensioned loads. The Contractor shall notify the Engineer who in turn shall notify the State Permits Office, phone no. (850) 410-5777, at least seven calendar days in advance of implementing a maintenance of traffic plan which will impact the flow of overweight/oversized vehicles. Information provided shall include location, type of restriction (height, width or weight) and restriction time frames. When the roadway is restored to normal service the State Permits Office shall be notified immediately.

## LANE WIDTHS

Lane widths of through roadways should be maintained through work zone travel ways wherever practical. The minimum widths for work zone travel lanes shall be as follows: 11' for Interstate with at least one 12' lane provided in each direction, unless formally excepted by the Federal Highway Administration; 11' for freeways; and 10' for all other facilities.

## HIGH-VISIBILITY SAFETY APPAREL

All high-visibility safety apparel shall meet the requirements of the International Safety Equipment Association (ISEA) and the American National Standards Institute (ANSI) for High-Visibility Safety Apparel", and labeled as ANSI/ISEA 107-2004 or 107-2010. The apparel background (outer) material color shall be either fluorescent orange-red or fluorescent yellow-green as defined by the standard. The retroreflective material shall be orange, yellow, white, silver, yellow-green, or a fluorescent version of these colors, and shall be visible at a minimum distance of 1,000 feet. Class 3 apparel may be substituted for Class 2 apparel. Replace apparel that is not visible at 1,000 feet.

**WORKERS:** All workers within the right-of-way shall wear ANSI/ISEA Class 2 apparel. Workers operating machinery or equipment in which loose clothing could become entangled during operation shall wear fitted high-visibility safety apparel. Workers inside the bucket of a bucket truck are not required to wear high-visibility safety apparel.

**UTILITIES:** When other industry apparel safety standards require utility workers to wear apparel that is inconsistent with FDOT requirements such as NFPA, OSHA, ANSI, etc., the other standards for apparel may prevail.

**FLAGGERS:** For daytime activities, Flaggers shall wear ANSI/ISEA Class 2 apparel. For nighttime activities, Flaggers shall wear ANSI/ISEA Class 3 apparel.

## REGULATORY SPEEDS IN WORK ZONES

Traffic Control Plans (TCP's) for all projects must include specific regulatory speeds for each phase of work. This can either be the posted speed or a reduced speed. The speed shall be noted in the TCPs; this includes indicating the existing speed if no reduction is to be made. Regulatory speeds are to be uniformly established through each phase.

In general, the regulatory speed should be established to route vehicles safely through the work zone as close as to normal highway speed as possible. The regulatory speed should not be reduced more than 10 mph below the posted speed and never below the minimum statutory speed for the class of facility. When a speed reduction greater than 10 mph is imposed, the reduction is to be done in 10 mph per 500' increments.

Temporary regulatory speed signs shall be removed as soon as the conditions requiring the reduced speed no longer exist. Once the work zone regulatory speeds are removed, the regulatory speed existing prior to construction will automatically go back into effect unless new speed limit signing is provided for in the plans.

On projects with interspaced work activities, speed reductions should be located in proximity to those activities which merit a reduced speed, and not "blanketed" for the entire project. At the departure of such activities, the normal highway speed should be posted to give the motorist notice that normal speed can be resumed.

If the existing regulatory speed is to be used, consideration should be given to supplementing the existing signs when the construction work zone is between existing regulatory speed signs. For projects where the reduced speed conditions exist for greater than 1 mile in rural areas (non-interstate) and on rural or urban interstate, additional regulatory speed signs are to be placed at no more than 1 mile intervals. Engineering judgement should be used in placement of the additional signs. Locating these signs beyond ramp entrances and beyond major intersections are examples of proper placement. For urban situations (non-interstate), additional speed signs are to be placed at a maximum of 1000' apart.

When field conditions warrant speed reductions different from those shown in the TCP the contractor may submit to the project engineer for approval by the Department, a signed and sealed study to justify the need for further reducing the posted speed, or, the engineer may request the District Traffic Operations Engineer (DTOE) to investigate the need. It will not be necessary for the DTOE to issue regulations for regulatory speeds in work zones due to the revised provisions of F.S. 316.07451(2) (b). Advisory Speed plates will be used at the option of the field engineer for temporary use while processing a request to change the regulatory speed specified in the plans when deemed necessary. Advisory speed plates cannot be used alone but must be placed below the construction warning sign for which the advisory speed is required.

For additional information refer to the FDOT Plans Preparation Manual, Volume I, Chapter 10.

LAST REVISION 07/01/12	DESCRIPTION: R1303-- Added "107/2004 or " to HIGH-VISIBILITY SAFETY APPAREL.	 <b>FDOT DESIGN STANDARDS FY 2012/2013</b>	<b>GENERAL INFORMATION FOR TRAFFIC CONTROL THROUGH WORK ZONES</b>	INDEX NO. <b>600</b>	SHEET NO. <b>3</b>
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ANANTH PRASAD, P.E.  
SECRETARY

July 18, 2012

### MEMORANDUM

**TO:** Rudy Powell, State Construction Engineer  
Doug Martin, Construction Systems Engineer

**FROM:** David A. Sadler, Director, Office of Construction

**COPIES:** Heather Hicks, Administrative Assistant

**SUBJECT:** DELEGATION OF SIGNATURE AUTHORITY

A handwritten signature in blue ink, likely belonging to David A. Sadler, the Director of the Office of Construction.

This is to delegate signature authority for documents (excluding personnel actions) to you for when I am out of the office or on travel status from this date through July 31, 2013.

Ms. Hicks is also delegated authority for administrative type actions.

Please insure that my office receives a copy of all correspondence signed by you for these dates.

DS/hh