



Florida Department of Transportation

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ROADWAY DESIGN BULLETIN 06-02

DATE: January 20, 2006

TO: District Design Engineers, Plans Preparation Manual Holders

FROM: David C. O'Hagan, PE, State Roadway Design Engineer

COPIES: Robert Greer, Brian Blanchard, Sharon Holmes, William Nickas, Duane Brautigam, Chris Richter, FHWA

SUBJECT: Deflection Space Requirements for Temporary Concrete Barrier Design Standards Index 415 Temporary Concrete Barrier

REQUIREMENTS:

Effective with the July 2006 letting, Index 415 Sheet 1 of 10 Temporary Concrete Barrier is revised to show deflection space requirements for Index 415 Barrier on roadways that differ from the standard 2' requirement previously used. Revised deflection space requirements are as follows:

When Shielding Above Ground Hazards:

Design Speed	Deflection Space
45 mph or Less	2'
50 mph and Greater	4'

When Shielding Dropoffs:

Design Speed	Deflection Space
45 mph or Less	2'
50 mph and Greater	
a. Dropoffs 4' or Less and No Traffic Below	2'
b. All dropoff conditions other than 'a'.	4'

When used as a Temporary Median Barrier separating opposing traffic lanes:

Design Speed	Offset to Travelway
45 mph or Less	0' minimum, 2' preferred
50 mph and Greater	2'

These deflection space requirements also apply to approved options to the 415 barrier identified in General Note 1 of Index 415, Sheet 1 of 10.

The requirement for 2' clear space between overlapping barrier runs shown in Index 415 Sheets 6 thru 8 of 10 is unchanged.

COMMENTARY:

Note that the above deflection space requirements are identical to requirements for Type K Temporary Concrete Barrier freestanding roadway installations. For roadway situations where space is restricted and the above deflection space requirements cannot be met, a Type K staked down roadway installation should be considered. Use of the Type K staked down installation reduces the required deflection space to 1'. However, when calling for the Type K staked down installation, availability and cost should be considered. Also note that use of the Type K staked down installation does not apply to median barrier applications separating opposing traffic since it has only been tested and approved for staking on one side.

BACKGROUND:

This change is being made to provide consistency with requirements when using the Type K Barrier system. Deflection space requirements for the Type K Barrier System are based on NCHRP Report 350 crash test results.

IMPLEMENTATION:

A revision to Index 415 Sheet 1 of 10 to reflect the above requirements is included in the Design Standards Modifications dated July 1, 2006 which will be effective with the July 2006 letting. The Design Standards Modifications dated July 1, 2006 can be accessed at the following web site:

<http://www.dot.state.fl.us/rddesign/Design%20Standards/Standards.htm>

All projects in design that include temporary concrete barrier must be reviewed for needed adjustments to meet these requirements. It is apparent this revision will primarily impact projects using temporary concrete barrier where speeds are 50 mph and greater. Projects in Final Design where it is determined not practical to make changes to accommodate the above

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requirements may be designed based on the previous requirement, subject to the approval of the District Design Engineer. In these cases, the contract plans must clearly identify the required deflection space that the design is based on.

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