



Federal Highway Administration
Florida Division
227 N. Bronough Street, Suite 2015
Tallahassee, FL 32301
(850) 942-9650



July 17, 2000

REPLY REFERTO: HTS-FL

Mr. Freddie Simmons
State Highway Engineer
Florida Department of Transportation
Tallahassee, Florida 32399

JUL 19 2000

Attention: Mr. Thomas Bane

Dear Mr. Simmons:

Subject: NCHRP 350 - Phase Out Dates for Continued use of Work Zone Safety
Hardware and Temporary Concrete Barrier Shapes

This is a combined response to several letters regarding the dates set by Florida DOT to phase out the use of work zone devices not meeting the test requirements of NCHRP 350 and to questions raised by the contracting industry about continued long-term use of the New Jersey (NJ) or F-shape barrier.

Phase-out period: Mr. Thomas Bane's letter of July 10 proposed a phase-out period of 10-years for temporary concrete barrier after considering the impacts to the contracting industry. We consider the 10-year phase-out period, beginning October 1, 2002, for continued use of contractor's existing stock of temporary concrete barriers (meeting NCHRP 230 criteria) to be acceptable. Of course, all newly purchased or contractor fabricated barrier after October 1, 2002 would have to meet NCHRP 350 test criteria.

Due to the long phase-out period, we are concerned some contractors may attempt additional fabrication of the old (NCHRP 230) design as a way to prolong use of their old forms. We request that the Department emphasize to the contractors that as their existing stock reaches the end of its service life, at any time before the phase-out date; they must replace the worn out barrier with newly purchased or in-house fabricated devices that meet NCHRP 350.

A phase-out period of 4-years, until June 30, 2004, was previously proposed and agreed to for other types of currently used in-stock work zone devices. As you know, the date established nationally for all newly purchased/fabricated devices to meet NCHRP 350 is October 1, 2000. Enclosed is a chart we developed which shows both the NCHRP 350 compliance dates for new devices and the phase-out dates you have established for existing devices by category and type of work zone device. Please note

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Copy to Thomas Bane
attached ...

Mr. Freddie Simmons
July 17, 2000

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that a date needs to be established for phase out of the temporary 9" curb. We suggest 4 years since there is not a lot of use of this item, thus contractors have a small inventory.

Temporary Concrete Barrier Shape: Mr. Thomas Bane's letter of May 15 raised several questions relative to the continued use of NJ-Shape or F-Shape concrete barrier. During the Department's meetings with industry, they expressed concern that FHWA may limit the continued use of NJ-shape barrier. We discussed this topic with our headquarters staff, and this is to confirm that the FHWA has no plans to limit the use of the NJ-shape or require the use of F-shape barrier; although, based on past crash tests for permanent barrier installations, the F-shape does offer performance advantages over the NJ-shape since there is less vehicle roll and climb. However; because temporary barrier, unlike permanent barrier, deflects upon impact; there is not as much difference in the performance of the two barriers when used in a temporary configuration. Because the barrier is not anchored the lateral deflection reduces vehicle climb and roll. Accordingly, the FHWA will allow the use of either shape barrier that has passed the testing requirements of NCHRP 350.

We understand the Department is evaluating new barrier designs, including those already shown to have passed NCHRP 350, to replace the current design on Standard 415. Please be advised that the crash testing to date has shown that barrier end connections made of wire rope loops have not performed successfully due to being more flexible than bent rebar loops. We also have learned that recent tests have shown that solid steel bar performs better than bent rebar loops. With the new design, we believe eliminating wire rope as an option to rebar in the Department's standards may become necessary.

We greatly appreciate your efforts to implement the changes caused by moving to the NCHRP test requirements. If you need additional information, please contact us.

Sincerely yours,


For: James E. St. John
Division Administrator

Enclosure

cc: Mr. Alan Lafferty, FDOT, MS-75

Florida MOT Devices - Phase Out Dates

Device Type	NCHRP 350 Deadline (new purchase*)	FDOT Phase out date (existing stock**)	Device Description
<hr/>			
<u>Category I</u>	Small Lightweight Devices Without Lights		
	10/1/1998	6/30/2004	Drums, cones, tubes, delineators
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<u>Category II</u>	Devices Producing Minimum Velocity Change But Otherwise May Be Hazardous		
	10/1/2000	6/30/2004	Any device currently using- large warning light (drums, barricades, signs with lights)
		6/30/2004	Type I & II Barricades, vertical panels - with or without lights
		6/30/2004	Type III barricades
		6/30/2004	Portable Sign Supports
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<u>Category III</u>	Heavy Devices Expected To Cause Significant Velocity Change		
	10/1/98	6/30/2004	Truck mounted attenuators, Portable crash cushions
	10/1/2000	9/30/2012	Portable concrete barrier meeting NCHRP 230 - (with anchored- pin/loop connection, i.e., Florida Snake Pins)
	10/1/2002	does not apply	Portable concrete barrier - meeting NCHRP 350
	10/1/2002	???	Temporary 9"barrier curb, index 600, sheet 7 (Adopt low profile Texas barrier ??)
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<u>Category IV</u>	Heavy Devices - Reasonable Crash Worthy Technology Does Not Yet Exist		
	Not determined - FHWA will determine date for compliance with NCHRP 350 by 10/1/2000		Any portable trailer mounted device such as variable message signs, arrow panels, lighting supports, temporary signals

* New purchases include in-house contractor fabricated or agency-built devices.

** As the contractor's or agency's existing stock reaches the end of its service life before the phase out date, all newly purchased or fabricated devices must meet NCHRP 350.



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, Florida 32399-0450

THOMAS F. BARRY, JR.
SECRETARY

July 10, 2000

Mr. Chris Richter P.E.
Federal Highway Administration
227 N. Bronough St. Suite 201
Tallahassee, FL. 32301

Dear Chris:

RE: Phase-Out Period for Temporary Concrete Barrier Wall not meeting NCHRP 350

On May 15, 2000, Jim Mills, John Grant, Cheryl Adams and I met with John Chiarelli and representatives from the concrete barrier industry to discuss the move to temporary barrier that will meet NCHRP-350 criteria. During the meeting the subject of a phase-out period for temporary concrete barrier not meeting NCHRP 350 was discussed.

During this discussion the Department and industry representatives agreed that a reasonable phase out period for the existing barriers has to be established. The industry representatives said that they have a 5% annual attrition rate that would deplete their existing stock of barriers in about twenty years. However, assuming that FHWA will continue to allow the NJ-Shape to be used, the industry was in agreement that a ten-year phase-out period would not be a problem. Also, the Department and industry agreed to devise a method to inventory and track the phase-out efforts until the phase-out period has expired at which time only temporary barrier that will meet NCHRP-350 criteria will be allowed on projects.

The Department requests FHWA's agreement with this proposed ten-year phase-out period. We are looking forward to your response. Please call me at 414-4379 if you have any questions.

Sincerely:

Thomas R. Bane P.E.
Roadway Design Office
Mail station - 32

c.c. Billy Hattaway, John Chiarelli, Jim Mills, John Grant, Cheryl Adams, Clark Scott, File
TB/tb



Florida Department of Transportation

JEB BUSH
GOVERNOR

605 Suwannee Street
Tallahassee, Florida 32399-0450

THOMAS F. BARRY, JR.
SECRETARY

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RE: Temporary Concrete Barriers Shapes

Mr. Chris Richter P.E.
FHWA, 227 N. Bronough St. Suite 201
Tallahassee, FL. 32301

Dear Chris:

Today, Jim Mills, John Grant and I met with John Chiarelli and representatives from the concrete barrier industry to discuss the move to temporary barrier that will meet NCHRP-350 criteria. During the meeting the subject of barrier shapes was discussed.

Florida's industry currently has forms for casting barriers in the NJ-Shape and hope to modify them to cast barriers that meet NCHRP 350. If the NJ-Shape is not acceptable, industry would have to build new forms and scrap the old ones. As it stands now, FHWA does not mandate the exclusive use of the F-Shape barrier over the use of the NJ-Shape barrier; however, our concern is that FHWA will mandate this in the near future. The following are industry's concerns:

1. If modifications can be made and FHWA does not move toward disallowing the NJ-Shape, existing forms may be modified to meet NCHRP-350 and the industry will only be burdened with a minimal retooling cost.
2. If the NJ-Shape will not be acceptable then it will obviously take more time to build all new forms and phase out the old ones. This will burden industry with high retooling costs.
3. FDOT could require the F-Shape anticipating that FHWA would eventually phase out the NJ-Shape. But, if FHWA does not phase out the NJ-Shape, then FDOT would have unnecessarily burdened the industry with high retooling costs.
4. The worst case would be if FHWA accepts the NJ-Shape as meeting NCHRP-350 but later disallows the NJ-Shape forcing the industry to build F-Shape forms after they just modified their NJ-shape forms. This would burden the industry with both retooling costs.

The Department and industry need to know what FHWA's position is on phasing out the NJ-Shape in favor of the F-Shape and are looking to you to provide us with that information. I'm sure you can appreciate our predicament and your assistance will be greatly appreciated.

Sincerely,


Thomas R. Bane P.E.

c.c. Billy Hattaway, John Chiarelli, Jim Mills, John Grant, File
TB/tb