

The Florida Senate
PROFESSIONAL STAFF ANALYSIS AND ECONOMIC IMPACT STATEMENT

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: Transportation Committee

BILL: CS/SB 324

INTRODUCER: Transportation Committee and Senator Bullard

SUBJECT: Highways and Adjacent Canals/Guardrails

DATE: April 17, 2007

REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Boyd	Meyer	TR	Fav/CS
2.			CA	
3.			TA	
4.				
5.				
6.				

I. Summary:

This CS requires each limited access facility in Miami-Dade County adjacent to a canal or other water body to have a system of guardrails, barrier cables, or other barrier installed and maintained to Florida Department of Transportation (FDOT) standards between the highway and the water body. In addition the CS provides for installation of barriers by December 31, 2010 for any limited access facility in existence as of July 1, 2007. The CS further provides for this pilot program to be repealed on December 31, 2011 unless reviewed and saved from repeal by the Legislature.

II. Present Situation:

Public and private research on guardrails, cable barriers, clay beams, and other types of structural highway barriers indicates, if properly placed and maintained, these systems improve the safety of public roads. The Federal Highway Administration, with assistance from the American Association of State Highway and Transportation Officials (AASHTO), other engineering associations, and state transportation agencies, continue to research and modify existing requirements for barrier systems.

The need for well-engineered guardrail and other highway barrier structures varies from state-to-state, as well as by the road's type, speed limit, and surrounding topographical features. One such feature common to Florida roadways is the location of natural water bodies, canals, or drainage ditches adjacent to highways.

National and statewide statistics for traffic fatalities caused by, or related to, the absence or failure of highway barrier systems and involving water are not readily available. However, the

FDOT was able to collect specific data on traffic fatalities on the State Highway System involving vehicles submerged in water. In 2005, 89 fatal crashes occurred where the vehicles ran off the road and into an adjacent body of water. In 2004, there were 65 crashes where the vehicles ran off the road and into an adjacent body of water.

According to the accident reports, some of these accidents were caused by drunken, medicated, speeding, or careless drivers. The reports also show, in some accidents, the vehicle went over, under, or through guardrails or fences before going into the water.

Federal Highway Administration research reports dating back to 1987 indicate the value of guardrail and other barrier systems in preventing traffic accidents and fatalities. These barrier systems can take many forms – metal guardrails, thick metal cables, concrete barricades, and earthen berms – and to be effective must be engineered to address a highway's particular features and the type of traffic comprising the majority of use. AASHTO has developed a number of nationally accepted standards for barrier systems for federal and state transportation agencies. These standards are continually being tested and updated.

FDOT has an active highway-barrier installation program, installing more than 2,645.5 miles of guardrails along state highways and the Florida Turnpike and 552 miles of barrier walls. The Turnpike has committed by 2007 that guardrails will run the Turnpike's entire length from Wildwood to Homestead. Typically the guardrails or cable systems are installed as part of a construction or maintenance project.

III. Effect of Proposed Changes:

This CS requires each limited access facility in Miami-Dade County adjacent to a canal or other water body to have a system of guardrails, barrier cables, or other barrier installed between the highway and the water body. The guardrail or barrier system must be installed and maintained pursuant to FDOT standards, which must be designed to protect against loss of life from out-of-control vehicles running off highways and into water. The standards should take into account such factors as the width, depth, or proximity of the water body to the highway.

CS/SB 324 provides an effective date of July 1, 2007.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

CS/SB 324 mandates municipalities, authorities, and county government within Miami-Dade County to erect and maintain guardrails and barriers on limited access highways under their jurisdiction, adjacent to canals or other bodies of water.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Economic Impact and Fiscal Note:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

According to FDOT staff, the cost of implementing CS/SB 324 is an estimated \$5.3 million, which already is included in the FY 2007-2012 Five-Year Work Program. The effects on city and county governments are indeterminate.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Summary of Amendments:

None.

This Senate Professional Staff Analysis does not reflect the intent or official position of the bill's introducer or the Florida Senate.
