

The Florida Senate
BILL ANALYSIS AND FISCAL IMPACT STATEMENT

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

Prepared By: The Professional Staff of the Transportation Committee

BILL: SB 684

INTRODUCER: Senator Bullard and others

SUBJECT: Barriers/Highways, Canals and Bodies of Water

DATE: April 18, 2008 REVISED: _____

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Davis	Meyer	TR	Pre-meeting
2.			CA	
3.			TA	
4.				
5.				
6.				

I. Summary:

Senate Bill 684 requires each limited access facility in an area that has a high volume of canals or narrow roadways adjacent to bodies of water to have a system of guardrails, retention cables, or other barriers installed and maintained in conformance with standards established by the Florida Department of Transportation (FDOT). In addition, the barriers must be installed on or before December 31, 2011, for limited access facilities in existence on July 1, 2008.

This bill creates an undesignated section of law.

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’s median guardrail installation for the Turnpike’s entire length from Wildwood to Homestead has been completed ahead of schedule. The FDOT is currently working on cable barrier installations for canal protection in Miami-Dade, Palm Beach, and St Lucie counties. The remaining right of way is planned to have cable barriers installed for canal protection in segments from 2008 through 2015, with total costs estimated at \$47,641,320. Typically the guardrails or cable systems are installed as part of a construction or maintenance project.

III. Effect of Proposed Changes:

The bill requires each limited access facility in an area that has a high volume of canals or narrow roadways adjacent to bodies of water to have a system of guardrails, retention cables, or other barriers installed between the highway and the water body. The guardrail, retention cable, or barrier system must be installed and maintained pursuant to FDOT standards, which must be signed 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. In addition, the bill provides for installation of barriers by December 31, 2011 for any limited access facility in existence as of July 1, 2008.

IV. Constitutional Issues:

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

V. Fiscal Impact Statement:

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

According to FDOT staff, the fiscal impact for the bill as written is approximately \$37.5 million. Aside from some new work contemplated as written, the cost of implementation is heavily influenced by two items; (1) acceleration of the Turnpike's Canal Protection Program so that it is completed by December 31, 2011 is an estimated \$30 million, and (2) the replacement on non-crashworthy barriers along District 1's I-75 (Alligator Alley) is an estimated \$5 million.

VI. Technical Deficiencies:

None.

VII. Related Issues:

None.

VIII. Additional Information:

A. Committee Substitute – Statement of Substantial Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.