



Florida Department of Transportation

**JEB BUSH
GOVERNOR**

605 Suwannee Street
Tallahassee, FL 32399-0450

**JOSE ABREU
SECRETARY**

November 4, 2003

MEMORANDUM

TO: District Structures Design Engineers
(Gerard Moliere, Rod Nelson, Keith Shores, John Danielsen, Neil Kenis, Kim Saing, Jose Rodriguez, and Agnes Spielmann)
District Directors of Production
(Mike Williams, Dave Byrd, Gene Martin, Gerry O'Reilly, Noranne Downs, Javier Rodriguez, Donald Skelton, Nancy Clements)
District Directors of Operations
(Debbie Hunt, Jim MacLaughlin, Jimmy Rodgers, James Wolfe, George Gilhooley, Gus Pego, John Temple, Bruce Seiler)
District Structures and Facilities Engineers
(Pepe Garcia, Keith Campbell, John Locke, Jorge Martos, Ron Meade, Frank Guyamier)
District Construction Engineers
(Jon Sands, Henry Haggerty, Steve Benak, Jennifer Olson, Frank O'Dea, Mark Croft, Jim Moulton, Jr., Thomas Driscoll)

FROM: William Nickas, P.E., State Structures Design Engineer

COPIES: Bob Greer, Freddie Simmons, John Harris, Sharon Holmes, Richard Kerr, Jean Ducher, Bill Domico, Larry Sessions, Jack Evans, Marcus Ansley, Doug Edwards (FHWA), Steve Plotkin, Tom Andres, Robert Robertson, Tony Mireles, Captain Greg Shapley USCG, Jerry Scarborough, Chief, Coastal and Navigation Branch, US Army Corps of Engineers

SUBJECT: Temporary Design Bulletin CO3-09
Horizontal Navigational Clearance of Future Movable Bridges

REQUIREMENTS:

Minimum navigational clearances are established by the United States Coast Guard (USGC) and published in the Federal Registry. These minimum clearances are required for all bridges over navigable waterways.

The Corp of Engineers is responsible for dredging to maintain channel depths and they establish a minimum horizontal channel clearance along the waterways. Therefore all movable bridges over navigable waterways or near deep water ports shall provide an appropriate horizontal clearance up to 110 ft. as requested by the Corps. The Corps of Engineers lock and dam horizontal width is set at 110 ft.; therefore, horizontal clearances over 110 ft. between fenders for movable bridges must be approved by the State Structures Design Engineer and approval will be based on economic or safety issues.

COMMENTARY:

Bridge clearance at other fixed bridge locations shall continue to meet the requirements of the USGC and Corps of Engineers.

BACKGROUND:

Since 1967 the exclusive control of navigable waters in the U.S. has been under the direction of the USCG. The USGC is required to consult with other agencies, which may have navigational impacts, before approving USGC permits for bridges over navigable waterways.

On a recent project over the Miami River, the USGC was contacted by the Corps of Engineers expressing their needs for a wider channel along the Miami River, due to future dredging operations proposed by the Corps. After consultation between FDOT, USGC and Corps it was agreed that a 110 ft. horizontal channel clearance, between fenders, would be provided on future crossings of the Miami River in locations designated as navigable. This requirement for movable bridges would also apply to other waterways, which might be subject to dredging by the Corps to maintain water depths.

The 110 ft. clearance was established as equal to the Corps of Engineers designs for locks along the major rivers in the United States.

It is anticipated that where no known dredging operations are required by the Corps, smaller horizontal clearances as established by the USGC and published in the Federal Registry will still be permitted by the USGC. Since the cost of movable bridges vary roughly by the square of the span length, these smaller horizontal clearances should be submitted for approval where dredging is not anticipated. The USGC and Corps of Engineers has committed to working with the FDOT before making the final decision on required clearances.

WNN/ea