

RESOLUTION NO. 88-130

WHEREAS, County Bridge Number 784038, which carries Pablo Road over a lagoon in Ponte Vedra has been closed to traffic due to safety considerations, and

WHEREAS, the said bridge was built in 1936 and is considered past its useful life, and

WHEREAS, the said bridge has recently been inspected by professional engineers and declared unsafe without major repairs, and

WHEREAS, the most prudent course of action according to the professional engineers appears to be complete replacement, and

WHEREAS, the said bridge is a vitally needed link in firefighting, school bus, and emergency traffic routes in Ponte Vedra.

WHEREAS, this Board finds in accordance with Chapter 81-483 2(e) Laws of Florida that procurement of a replacement bridge is needed to alleviate an existing emergency, and that such procurement cannot be obtained in sufficient time if bids, public notice and advertisement are required,

NOW THEREFORE BE IT RESOLVED, that speedy replacement of the County Bridge No. 784038 is declared a matter of public welfare and need and an emergency requiring suspension of normal bidding requirements, that the County Public Works Department is directed to proceed posthaste with the procurement of a replacement.

PASSED AND ADOPTED this 10th day of May, 1988, by the Board of County Commissioners of St. Johns County, Florida.

BOARD OF COUNTY COMMISSIONERS
OF ST. JOHNS COUNTY, FLORIDA

BY: Lawrence O. Hartley
Its Chairman

ATTEST: CARL "BUD" MARKEL, CLERK

BY: Lynn M. McDonald
Deputy Clerk



COUNTY COURTHOUSE
ST. AUGUSTINE, FLORIDA
Oldest City in the United States

BOARD OF COUNTY COMMISSIONERS

Historical St. Johns County, Florida

COUNTY ADMINISTRATOR


P. O. DRAWER 349
ST. AUGUSTINE, FLORIDA
32085-0349

TELEPHONE: 829-5666
TELEPHONE: 824-8131.
EXT. 403

May 2, 1988

MEMORANDUM

TO: Dan Castle, County Administrator

FROM: Bud Harriss, Director of Public Works 

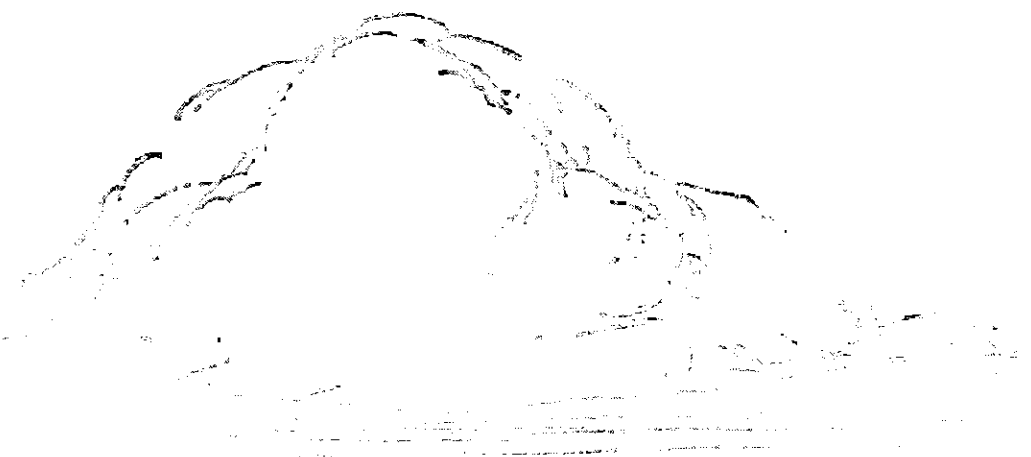
SUBJECT: Pablo Road Bridge

As you're already aware, based on the DOT's consultant's report (Attachment 'A') this bridge has been closed to all traffic except pedestrians. This closure has, as expected caused a serious inconvenience to residents in the area, transient visitors using the facilities of the Ponte Vedra Inn, and does pose a delay to emergency response vehicles. In my opinion the closure should be viewed as an emergency and declared as such by the Board, allowing repairs to proceed without preparation of complete specifications.

Attachment 'B' is the report from Dr. Alan Ozell, P.E. describing the conditions of Pablo Road Bridge, in Ponte Vedra. In this report Dr. Ozell discusses two separate approaches to this specific bridge repair.

Dr. Ozell's simple "band-aid" approach is estimated to cost \$10,000, but will only result in extending the problem further down the road, when this bridge will have to be rebuilt. The second approach, that is, immediate rebuilding, is by far the preferred rehab alternative, and is estimated to cost not more than \$55,000, rather than Dr. Ozell's estimate of \$100,000.

Please present this to the Board on May 10th for their approval.





Risinger Campo and Associates Corp.

ENGINEERS / PLANNERS

LAND SURVEYORS

J. M. CAMPO, P.E.
PRESIDENTP.O. BOX 25261
TAMPA, FLORIDA 33622 - 5261ALLEN F. KIBINGER, P.L.S.
(1904-1981)ASSOCIATES
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ROBERT E. ODOM, V.P.
JOSE LARUSSA, P.E., P.L.S.

March 23, 1988

Mr. Lonnie A. O'Steen
Project Manager, District Two
Fla. Dept. of Trans.
P.O. Box 1089
Lake City, Florida 32056-1089

RE: Local Government Bridge Inspection, Interim inspection
Bridge #784038, on Pablo Road in St. Johns County

Dear Lonnie:

Interim inspection of March 1988 with subsequent review of the previous inspection rating, indicates this bridge should be closed to all vehicles.

Based on the inventory rating and the design vehicle rating, both under three tons, I recommend closing this bridge to vehicular traffic.

AASHTO Manual for Inspection of Bridges, Item 4.7.2, states "No bridge will be limited to a weight of less than three tons." "A bridge should be closed if not capable of carrying three tons."

Considering the critical nature of this bridge, the AASHTO directive, and the potential danger to the public, I recommend closing the bridge until satisfactory repairs can be completed.

Sincerely,

E. D. Burkett,
Vice President

EDB:la

Encl.

PABLO ROAD BRIDGE
PONTE VEDRA, FLORIDA
BRIDGE NO. 784038

Date of Inspection: April 12, 1988

Present Conditions:

The Pablo Road Bridge is located in Ponte Vedra area south of Jacksonville Beach, Florida. The bridge, which is about 90 feet long, has six spans each 15 feet from one pile bent to the next. The bridge which runs in an east-west direction is located about two blocks west of Ponte Vedra Boulevard. It is a timber bridge with a roadway width of about 18 feet from curb to curb. It has timber handrails on each side. The wearing surface is asphalt and has been repaired from time to time by placing additional layers of asphalt to give a smoother wearing surface as well as covering the pavement cracks to prevent further water intrusion and damage to the timber decking underneath.

The bridge deck structure consists of nine stringers which span between pile bents. Two exterior stringers on each side are 4" x 12" timber beams and all the others are 6" x 12". These are spaced at about 24" on centers. The timber planks which run transversely on top and across these stringers and support the pavement are 3" x 8" decking. There are two large water mains which are suspended from the bridge in the space between the

stringers as well as other smaller ducts which probably carry telephone and/or power lines.

There are four stringers which exhibit extensive decay and deterioration such as splitting and rotting of the wood. These are:

1. Third stringer (from the south edge) in the first bay (span)
2. Fifth stringer (from the south edge) in the third bay
3. Fourth stringer (from the south edge) in the fourth bay
4. Second stringer (from the north edge) in the fifth bay

One other unsafe structural condition which was observed involves the center pile of the first pier counting from the east end of the bridge. The 12" x 12" pile cap beam which rests on the top of the piles is about one inch shy of bearing on the center pile. This beam supports the deck stringers and distributes the vehicular load to all the piles and if some shimming is not placed to enable the beam to bear fully on the center pile, structural failure of the beam will result because the beam cannot span between the two exterior piles which are about 12 feet apart.

The 12" diameter piles which support the bridge appear to be in fairly good condition. Each pile bent is composed of three plumb piles spaced at about six feet on centers. Minor deterioration

was observed of the exposed portions of the piles above the water line and even in the tidal zone (tidal zone here is only a few inches). It is believed that submerged portions of the piles are also in good condition as reported earlier. However, the cross bracings which tie these piles together need some minor repair work.

The bulkheads of the east and west end bents are in good condition. Only minor deterioration was observed in the timber sheeting and horizontal cribbing. Some earthwork to improve the stability of approach slopes is desirable.

Probable Consequences of Structural Deficiencies:

The previous field inspection of this bridge was conducted on November 13, 1986, and the underwater portions on December 19, 1986, by a Miami engineering firm for St. Johns County. The inspection report classified this bridge as follows:

1. Bridge surfacing and handrails: minor deficiencies
2. Piling and abutments: minor deficiencies
3. Stringers and bridge decking: poor and critical

In its conclusion, the report recommended the posting of this bridge to a reduced weight limit from the "5 tons" which was then posted to only 3 tons.

According to the latest development, as reported by an official of St. Johns County, the Florida Department of Transportation has informed the County that the Pablo Road Bridge be closed to vehicular traffic and henceforth only pedestrians and golf carts be allowed to use it.

Recommended Future Structural Improvements:

There are two alternatives to making structural repairs to the bridge elements so that vehicular traffic once again can safely use the Pablo Road Bridge. One alternative is to replace all the damaged stringers and any bridge decking which may be damaged by water penetrating through the cracks of bridge pavement and the necessary repairs to the cross bracing of the pile bents; the shimming of the center pile of the first bent; and any other cosmetic repair work to improve the appearance of the bridge.

Such repair work mentioned above would increase the safe load carrying capability of this bridge to 8 to 10 ton trucks - such as small fire and/or concrete trucks. However, it should be noted that continued use of this bridge even with such limited vehicular load could result in vibration and impact damage coupled with further deterioration of the timber elements, especially to the piling. Also, the present handrails do not conform to the present safety criteria. Even small vehicles

impacting these handrails could fall off the bridge into the canal with resultant liability because of the safety hazard.

The estimated cost of above repair work would be about \$10,000.

The second alternative is to undertake a major bridge renovation to bring it up to the present vehicle weight and safety standards.

This could be accomplished by making the following renovations:

1. Widen the bridge to provide two 12-foot traffic lanes with or without additional sidewalk on one side and bicycle lane on the other.
2. Install safety barrier walls instead of handrails to meet the present safety criteria.

The renovations mentioned above can be accomplished by replacing the existing bridge deck completely and removing all the stringers, decking and the pile cap beams. However, the existing piling will be left alone and be reused. Since the proposed bridge will be about ten feet wider, it will be necessary to add one row of battered piles along each side of the bridge and a longer pile cap beam for deck support. There will need to be new 3" x 10" stringers (places side by side) which will span from one

pile bent to the next. A new wearing surface of either concrete or asphalt could be used for the bridge and provide much better drainage than at present. The abutments will also be improved with new extended bulkhead construction. The estimated cost of this option is about \$100,000.

Respectfully submitted,

Alan M. Ozell, Ph.D., P.E.
Connelly & Wicker Inc.
Consulting Engineers