



**KNOLL MARINE
SERVICES**
Marine Surveying & Consulting

Hobe Sound, FL

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Damage Survey
Tug "OLD GLORY" and Her Tow, Barge "COLE" Allision with "PETER P. COBB MEMORIAL"
East Bridge Fender

Survey Report Number: 20071

Date: August 25, 2020

This is to certify that the undersigned marine surveyor did, at the request of Mr. Jerry Hanna, and on behalf of River Ventures, inspect:

"PETER P. COBB MEMORIAL" East Bridge Fender

Purpose of Survey: Determine the cause, nature and extent of damage alleged to have resulted from the barge "COLE" having an allision with the East bridge fender while the barge was under the tow of the tug "OLD GLORY".

Date of Survey: August 25, 2020

Date/ Time of Incident: August 19, 2020, at approximately 02:55.

Location of Survey: Seaway Dr./ Highway A1A, Ft. Pierce, FL., Peter P Cobb Memorial Bridge.

Personnel Attending Survey: Matthew Knoll, undersigned marine surveyor.

A. Bridge & Fender Description

Bridge Description: Bridge connects South Hutchinson Island to Ft. Pierce, crossing over the ICW and Indian River. Fixed span, concrete construction, 65' vertical clearance, 90' channel width. The bridge is administered by Florida Department of Transportation.

Fender Description: Bridge is protected by fender systems on both sides of the ICW channel. The fenders are oriented North/ South. The East side fender is constructed out of (11) separate sections, each approximately 16' long, and consisting of Four (4) horizontal 10" x 10" timber/ plastic whalers which are supported by 18" x 18" concrete vertical piles with 18" x 18" concrete batter piles. Whalers are bolted to the piles, and piles are joined with wire ties. A wood decking walkway sits on top of the fender.

B. Description of Allegation

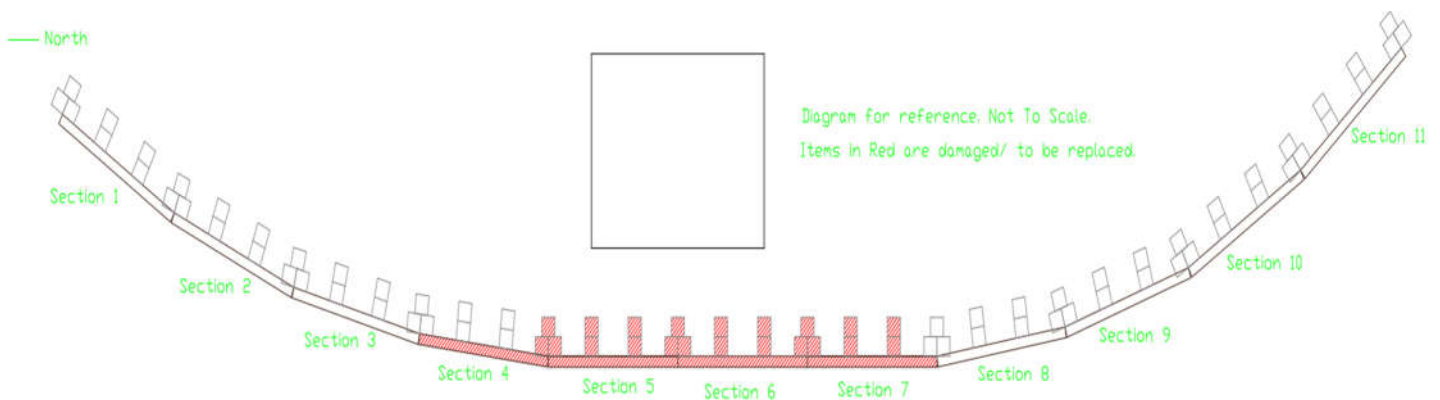
The following description is offered for context, and is not intended to be construed as an accident investigation. The undersigned did not perform an accident investigation. The descriptions offered below were provided by River Ventures.

The Tug "OLD GLORY" was North bound with the barge "COLE". Allegedly the tow had an allision with the East bridge fender.

C. Survey

Dimensions and specifications are approximate.

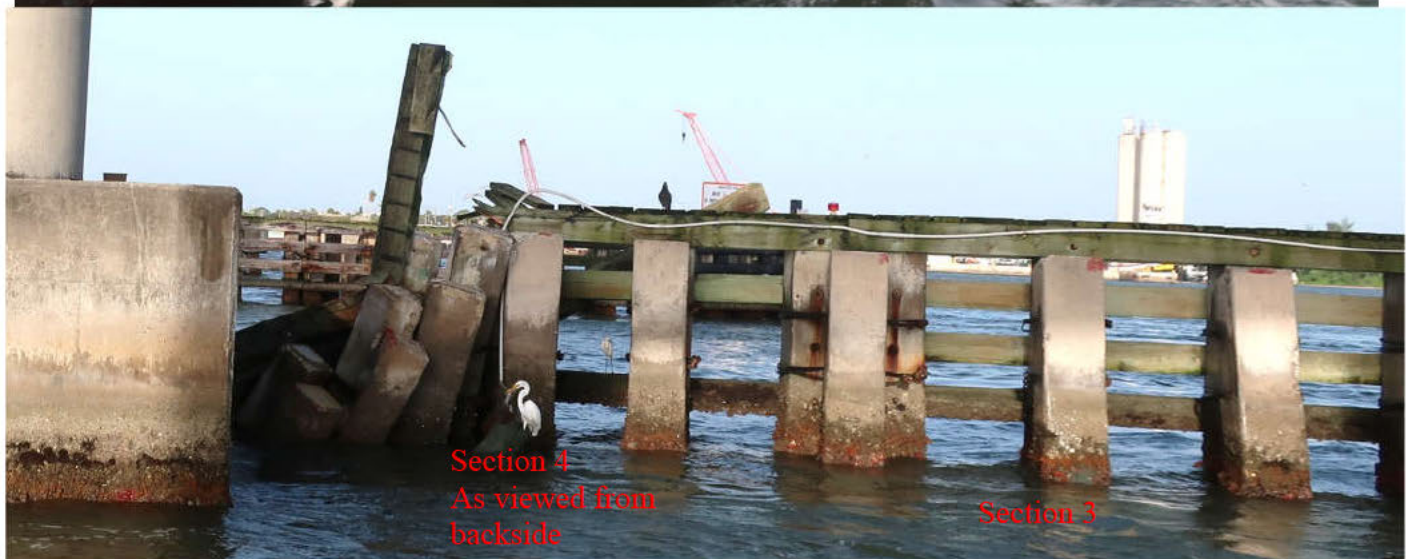
Found:	Recommended:
<p>1. The East bridge fender was found with whaler sections #4 - 7 pushed over towards the East. Sections #5 – 6 pilings are partially or completely submerged. The whalers at section #4 are damaged, and the Southmost piling of section #4 is pushed over.</p> <p>The damage extends for approximately 55'0" long.</p> <p>The bridge lights, PVC conduit, and electrical junction box in way are damaged, but were not completely visible to determine their original state and extent of damage.</p> <p><i>Additional damage may exist which was not visible at the time of this survey.</i></p>	<p>1. Remove and replace:</p> <p>(12) Vertical piles, 18" x 18" x estimated 50'0" prestressed concrete.</p> <p>Nine (9) Batter piles, 18" x 18" x estimated 50'0" prestressed concrete.</p> <p>(16) Whalers, 10" x 10" x estimated 16'0", treated timber or plastic as specified by FDOT.</p> <p>Walkway, approximately 3'0" x 55'0" treated timber deck.</p> <p>All associated fasteners, hardware, wire lashings, etc.</p> <p>Lights and electrical, scope to be determined.</p> <p>Work to be permitted as required by local, state, and federal authorities.</p> <p>Work to be completed to the satisfaction of FDOT.</p>





Photos of damage below:









D. General Notes

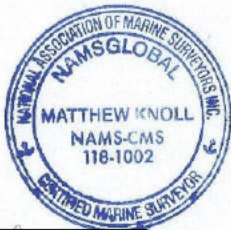
A bid for repair has been submitted by Florida Drawbridges Inc. (FDI Services). The scope of work outlined by FDI or their subcontractor Brothers' Construction Inc. includes Two (2) additional pilings in section 4, and Three (3) additional pilings at section 8. The undersigned found no damage to these pilings, and therefore has specified Five (5) less pilings that detailed in the bid by FDI Services.

FDI/ Brothers' Construction stated in their bid that they have experience performing previous repairs to fenders at this bridge.

To obtain competitive bids from other contractors, it may be necessary to obtain drawings of the fender construction, piling depths, rip rap, etc.

This report is subject to revision based on new, or additional information.

This report is issued without prejudice to the rights of interested parties and is for the benefit of River Ventures.



Matthew Knoll
NAMS Global-CMS