CITY OF TAMPA

Bob Buckhorn, Mayor **CONTRACT ADMINISTRATION DEPARTMENT**

David L. Vaughn, AIA, Director

ADDENDUM NO. 1

DATE: July 8, 2014

Contract 14-C-00048; Hillsborough River Dam Walkway Steel Girder and Concrete Repairs

Bidders on the above referenced project are hereby notified that the following addendum is made to the Contract Documents. BIDS TO BE SUBMITTED SHALL CONFORM TO THIS NOTICE.

Item 1: The Site Visit for the above referenced project will be Thursday, July 10, 2014 at 9:00 a.m. at the Dam located at 7801 N. 30th Street, Tampa, FL.

Item 2: Attached is the Hillsborough River Dam Steel Girder Assessment dated September 10, 2013.

Item 3: Attached for reference is the pre-bid meeting sign-in sheet.

All other provisions of the Contract Documents and Specifications not in conflict with this Addendum shall remain in full force and effect. Questions are to be e-mailed to Contract Administration@tampagov.net.

Jim Greiner

Jim Greiner, P.E., Contract Management Supervisor

VIA EMAIL

September 10, 2013

Mr. John A. Rañon, P.E.
Project Engineer
City of Tampa Water Department

Email: John.Ranon@ci.tampa.fl.us

Subject: Structural Engineering Services
Steel Girder Assessment - Hillsborough River Dam
TWD W.O. 7149
Tampa, Florida

Project Information

According to the *Hillsborough River Dam Walkway & Electrical Improvements Steel Girder Condition Assessment and Report Scope of Consulting Services* request dated February 11, 2013, prepared by the City of Tampa Water Department, the steel structural framing supporting the walkway across the subject dam has recently undergone an abrasive cleaning and re-painting procedure. During this work, damaged steel was revealed. Biller Reinhart Structural Group, Inc. (BillerReinhart) was contracted to conduct a condition survey of the subject dam and platform, produce a condition survey report, make opinions of the cause of the damage and recommend available techniques in order to repair and mitigate future damage to the dam/platform steel.

Structure Description

Tampa Water Department provided some available record drawings of the original dam crest improvements from circa 1961 (C8-5, C8-6, C8-7 and C8-8 dated October 7, 1960, produced by Robert and Company Associates) for review. Document review is not to be construed as a detailed design evaluation of the existing structure. The record drawings were provided to assist in the condition survey and formulate general repair recommendations.

BillerReinhart also reviewed the *Structural Steel Section Loss Survey Report* prepared by Protective Coating Solutions dated December 16, 2012, to prepare for our condition survey.

Based on our site observations and available record drawings, the structure is generally comprised of the following:

- Cast-in-place concrete pier end walls (approximately 8'-3" deep by 2'-7 ½" wide)

- Cast-in-place concrete intermediate piers (approximately 8'-3" deep by 2'-3" wide)

- Cast-in-place concrete spill weirs and steel plate operable weirs

- Steel framing elements defined as follows:
  - Wide Flange "I"-shaped steel girder beams designated as 18 WF 64 (W18x64) – 18-inch deep section weighing approximately 64 pounds per linear foot
  - "I"-shaped steel stringers designated as 6 I 12.5 – 6-inch deep section weighing approximately 12.5 pounds per linear foot
  - Channel (or C-shaped) steel members designated as 12 C 20.7 – 12-inch deep section weighing approximately 20.7 pounds per linear foot.

- The Wide Flange 18 WF 64 (W18x64) steel girders span between the above described piers

- The "I"-bar 6 I 12.5 steel stringers span perpendicular to the girder sections

- Steel channels 12 C 20.7 for previously retired traveling hoist (welded to the top of the 18 WF 64)

- 6-inch reinforced concrete walkway slab (supported by the "I"-bar 6 I 12.5 stringers)

Figure 1 and *Figure 2* below depict typical elevations and a platform section respectively of the subject dam and platform structure from the provided record drawings.

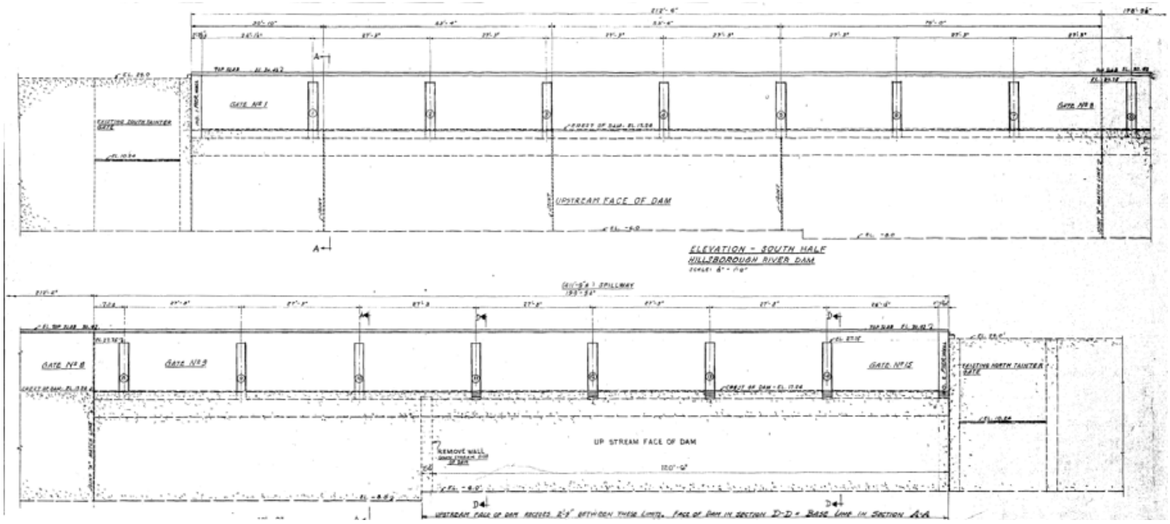

Figure 1: Dam and Platform Plan View

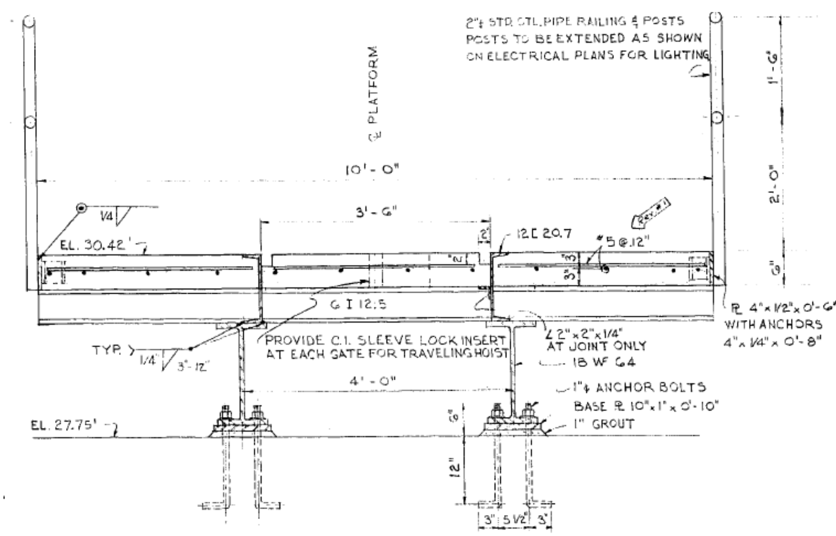

Figure 2: Platform Section

Survey of the Dam/Platform Framing

On May 9, 2013 Shane Maxemow, Brian Walter, and Kraig Cook of BillerReinhart, with the assistance of a City of Tampa operated watercraft, conducted a visual survey of the dam and platform structure (from south end bay to north). Bays are designated as South End Bay followed by Bays #1 through #15 sequentially toward the North End Bay. Stringers are typically designated as #1 through #5, with #1 being the south end of the bay and #5 at the north end of the bay. Observations made are summarized in

Table A – Dam/Platform Observations. Refer to *Appendix A* for the referenced photographs. Note that due to the repetitive nature of the observations (recurring similar damage conditions in varying locations) the items listed below are selected representative damage instances.

Table A – Dam/Platform Observations	
Conditions Observed	**Reference Photos**
Overall	
East elevation looking northward	*Figure A-1*
South End Bay (Concrete Construction)	
Concrete spalling was observed along the bottom portion of the west concrete support beam. The reinforcing steel was exposed.	*Figure A-2*
Concrete spalling was observed along the bottom portion of the east concrete support beam.	*Figure A-3*
Bay #1	
Overall 18WF64 east girder view.	*Figure A-4*
Flange deterioration was observed along the flange section of stringer #3 of the bay. The deterioration was located near the stringer to girder connection point.	*Figure A-5*
Flange deterioration was observed along the flange section of stringer #5 of the bay. The deterioration was located near the stringer to girder connection point.	*Figure A-6*
Bay #2	
Flange deterioration was observed along the flange section of stringer #3 of the bay. The deterioration was located near the stringer to girder connection point.	*Figure A-7*
Web deterioration was observed along the web section of stringer #1 of the bay. The deterioration was located near the stringer to girder connection point.	*Figure A-8*
Bay #3	
Web and flange deterioration was observed along the web and flange sections of stringer #3 of the bay. The deterioration was located near the stringer to girder connection point.	*Figure A-9*
Web deterioration was observed in the west C-channel of the bay, in between stringers #2 and #3. Full thickness section loss was observed.	*Figure A-10*
Web deterioration was observed in the east C-channel of the bay, in between stringers #2 and #1.	*Figure A-11*

Table A – Dam/Platform Observations	
Conditions Observed	**Reference Photos**
Bay #4	
Web and flange deterioration was observed along the web and flange sections of stringer #4 of the bay. The deterioration was located near the stringer to girder connection point. Full thickness section loss was observed.	*Figure A-12*
Web deterioration in the east C-channel was observed near stringer #2	*Figure A-13*
Web and flange deterioration was observed along the web and flange sections of stringer #3 of the bay. The deterioration was located near the stringer to girder connection point. Full thickness section loss was observed.	*Figure A-14*
Bay #5	
Web and flange deterioration was observed along the web and flange sections of stringer #4 of the bay. The deterioration was located near the stringer to girder connection point. Full thickness section loss was observed.	*Figure A-15*
Deterioration/Pitting in the girder section was observed along the east girder in between stringer #2 and #3.	*Figure A-16*
Web and flange deterioration was observed along the web and flange sections of stringer #2 of the bay. The deterioration was located near the stringer to girder connection point. Full thickness section loss was observed.	*Figure A-17*
Bay #6	
Flange deterioration was observed along the flange section of stringer #4 of the bay. The deterioration was located near the stringer to girder connection. Full thickness section loss was observed.	*Figure A-18*
Deterioration/Pitting was observed along the web section of stringer #3 of the bay.	*Figure A-19*
Bay #7	
Flange deterioration was observed along the flange section of stringer #4 of the bay. The deterioration was located near the stringer to girder connection. Full thickness section loss was observed.	*Figure A-20*
Web and flange deterioration was observed along the web and flange sections of stringer #3 of the bay. The deterioration was located near the stringer to girder connection.	*Figure A-21*

Table A – Dam/Platform Observations

Conditions Observed	Reference Photos
Bay #8	
Web deterioration was observed along the web of stringer #4 and the adjacent C-channel section. Full thickness loss was observed.	*Figure A-22*
Flange deterioration was observed along the flange of stringer #2 of the bay. The deterioration was located near the stringer to girder connection.	*Figure A-23*
Bay #9	
Typical girder to concrete pier connection.	*Figure A-24*
Web and flange deterioration was observed along the web and flange sections of stringer #2 of the bay. Full thickness section loss was observed.	*Figure A-25*
Flange deterioration was observed along the flange section of stringer #4 of the bay. Full thickness loss was observed.	*Figure A-26*
Minor web buckling was observed along the bearing end of the girder, adjacent to stringer #5 of the bay.	*Figure A-27*
Bay #10	
Flange deterioration was observed along the flange section of stringer #4 of the bay. Full thickness loss was observed.	*Figure A-28*
Flange deterioration was observed along the flange section of stringer #3 of the bay. Full thickness loss was observed.	*Figure A-29*
Bay #11	
Flange deterioration was observed along the flange section of stringer #2 of the bay. Full thickness loss was observed.	*Figure A-30*
Bay #12	
Cracking in the concrete pier was observed below the east base plate. The section was previously repaired.	*Figure A-31*
Web and flange deterioration was observed along the flange section of stringer #2 and web of the adjacent C-channel.	*Figure A-32*
Bay #13	
Web and flange deterioration was observed along the flange section of stringer #4 and the web of the adjacent C-channel.	*Figure A-33*
Flange deterioration was observed along the flange section of stringer #2 of the bay. Full thickness loss was observed.	*Figure A-34*

Table A – Dam/Platform Observations	
Conditions Observed	**Reference Photos**
Bay #14	
Concrete deck cracking was observed in the bottom of the concrete deck along the deck edge and edge of the grate hatch angle support.	*Figure A-35*
Web deterioration was observed along the web section of stringer #2 of the bay. Full thickness loss was observed.	*Figure A-36*
Bay #15	
Web and flange deterioration was observed along the web and flange sections of stringer #2 of the bay. Full thickness section loss was observed.	*Figure A-37*
North End Bay (Concrete Construction)	
Concrete spalling was observed along the west deck edge. The spalling was adjacent to a guardrail base connection plate.	*Figure A-38*
Concrete spalling was observed in the bottom of the concrete deck along the western portion of the bay.	*Figure A-39*

Survey Conclusions/Recommendations

Based on the observations of our condition survey of discernible elements of the steel dam platform, BillerReinhart regards the structural components to be in reasonably fair condition. The reasonably fair condition correlates from a subjectively structural integrity point of view and considers the age of the structure and the localized element corrosion in various stages (surface pitting to section loss). Also, visual evidence of immediate impending structural failure of any component was not observed at the time of our site visit. The structure is performing under the original design intent. However, observed deterioration of both structural steel and concrete components should be addressed in the near future to extend the life and intended use of the overall structure. Concrete repairs are recommended as a priority as the structural steel has been recently coated.

The deterioration/corrosion of the structural steel elements was most likely due to a combination of environmental conditions, the extended age of the sections and extended exposure to water at the element connection locations (water collecting at element collections). The deteriorated/corroded steel layers along the sections and at the connections were detached by the abrasive cleaning process removing the lead based paint coating that was concealing and/or partially adhering the deteriorated/corroded steel layers. The deteriorated/corroded steel would have been removed along with the paint coating during the abrasive cleaning process, leaving behind a pitted/deteriorated surface. The extent of the steel deterioration had been concealed and not readily discernible prior to the abrasive cleaning process.

Spalling, cracking and other deterioration of the concrete deck and support beams was observed at multiple locations through the structure and is likely due to water intrusion into the elements resulting in corrosion and expansion of reinforcement bars contained in the components (refer to the applicable information and photographs referenced in the text above).

Corrosion of the steel reinforcement of the concrete elements impairs the structural integrity of the system. The corrosion process that takes place in concrete is electrochemical in nature. Steel in concrete normally does not corrode because of the formation of a passive oxide film on the surface of the steel due to the initial corrosion reaction. The process of hydration of cement in freshly placed concrete develops a high alkalinity, which in the presence of oxygen stabilizes the film on the surface of the embedded steel, ensuring continued protection while alkalinity is retained. The term pH is a measure of the alkalinity or acidity, ranging from highly alkaline at 14 to highly acidic at zero, with neutrality at 7. In good quality concrete, steel is passivated when pH is about 12 to 13. When steel is depassivated and the environment is acidic or mildly alkaline, corrosion begins if moisture and oxygen gain access into the concrete. Corrosion begins when pH is less than or equal to approximately 9.5.

Carbonation is a process in which carbon dioxide from the atmosphere diffuses through the porous concrete and neutralizes the alkalinity of concrete. The carbonation process will reduce the pH to approximately 8 or 9 in which the oxide film is no longer stable. With adequate supply of oxygen and moisture, corrosion will start. The rate at which carbon dioxide can penetrate into the concrete is a relatively slow process. The rate of penetration primarily depends on the porosity and permeability of the concrete. Carbonation is rarely a problem on structures that are built with good quality concrete with adequate cover over the reinforcing steel.

Chloride ions are considered to be the major cause of premature corrosion of steel reinforcement. Chloride ions are common in nature and small amounts are often unintentionally contained in the concrete mix. Reinforced concrete with significant gradients in chloride ion content is vulnerable to corrosion, especially if subjected to cycles of wetting and drying. Smaller concentrations of chloride ions are needed to cause corrosion as carbonation lowers the pH of concrete.

Steel materials that corrode significantly expand resulting in cracking, spalling and delamination of the concrete cover.

Observed deteriorated conditions in reinforced concrete members include the following:

1. Cracking and spalling of concrete beams
2. Cracking in the concrete pier was observed below the east base plate, Bay #12
3. Multiple cracks and spalls of the concrete slab (underside surfaces)

Recommended repairs to consider include, but are not limited to, the following:

1. For members with section loss (mainly the stringer beams) in the flange and the web: BillerReinhart recommends that the deteriorated flange be cut out and an angle section abutted to and welded to the stringer (back and front) to create a continuous metal section. The angle would need to extend past the area in question to create a solid sustainable repair. The flange cut out would accommodate the radial cove between the vertical web and the horizontal bottom flange. Below is a before and after diagram depicting the described repair (*Figures 3* and *4* below).

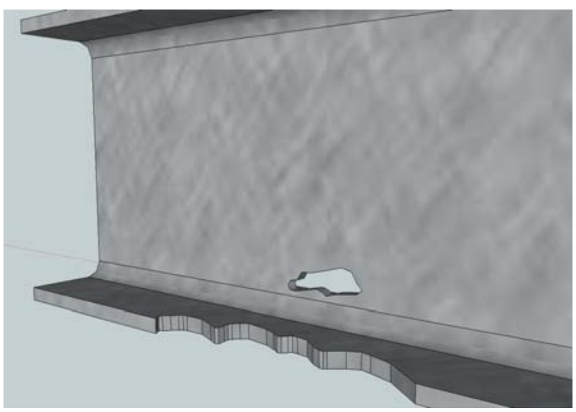

Figure 3: Typical Stringer Prior to Repair

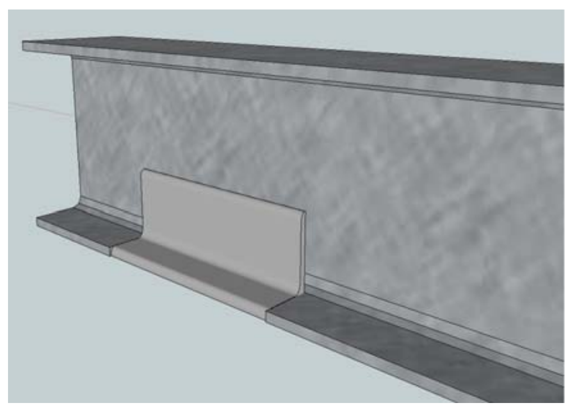

Figure 4: Typical Web and Flange Repair

2. For members with section loss (mainly the stringer beams) in the web section only, it is recommended that the deteriorated web be either reinforced with a welded abutted angle as previously stated or flat plate over the deteriorated section to create a continuous metal section. The angle or plate would need to extend past the area in question in order to create a solid sustainable repair. Below is a before and after diagram depicting the described repair (*Figures 5* and *6* below).

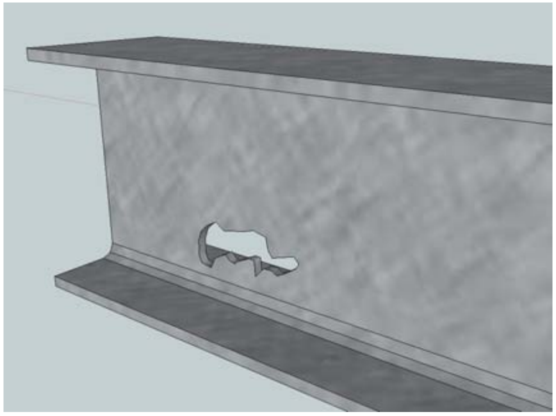

Figure 5: Typical Stringer Prior to Repair

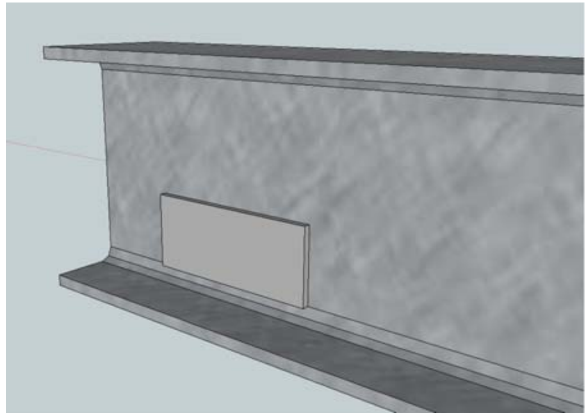

Figure 6: Typical Stringer Web Repair

3. Slight buckling of the girder web section was observed in Bay #9 adjacent to stringer #5. Refer to *Figure A-27* in Appendix A. The cause of damage is unknown but was assumed to be damaged during either transport or construction processes. The web damage has likely caused the beam to lose a portion of its originally design strength capacity and is recommended to be repaired/strengthened. Web stiffeners can be added to both sides of the girder section. Below is a before and after diagram depicting the desired web stiffener repair (*Figures 7* and *8* below).

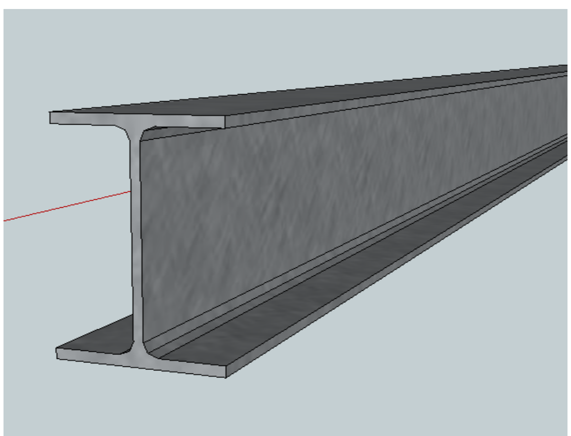

Figure 7: Typical Girder Section

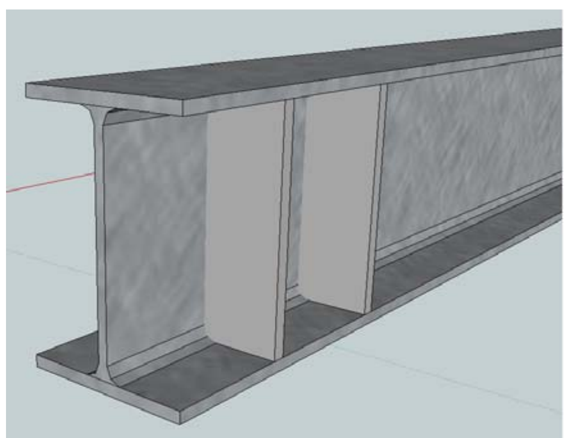

Figure 8: Typical Web Stiffener Repair

4. Protecting the exposed steel from water (and particularly standing water) is considered as a main concern to mitigating any future deterioration issues that exacerbate susceptible conditions. For the current configuration of the platform steel, the stringers extend to the edge of the concrete deck. The platform construction appears to allow water to flow off of the edge of the concrete deck,

migrate along the extended steel stringers to the bearing location. The water appears to be pooling and causing a majority of the deterioration at these bearing locations. To mitigate this condition, a drip cove/groove for the underside of the concrete deck edge is recommended. For example, a groove could be saw-cut (1/8-inch to 1/4-inch deep, hand-held Dremel®-type saw) on the underside of the slab starting at the exterior end of the stringer flange at a 45-degree angle inward to about 4 inches from the deck edge then run parallel to the deck edge. The saw-cut would then angle back out toward the deck exterior edge approaching the next end of the stringer flange (*Figures 9* and *10* below). A drip groove in the underside of the slab edge promotes water to drop off on the outer edge instead of drawing back and running to supporting elements underneath the deck.

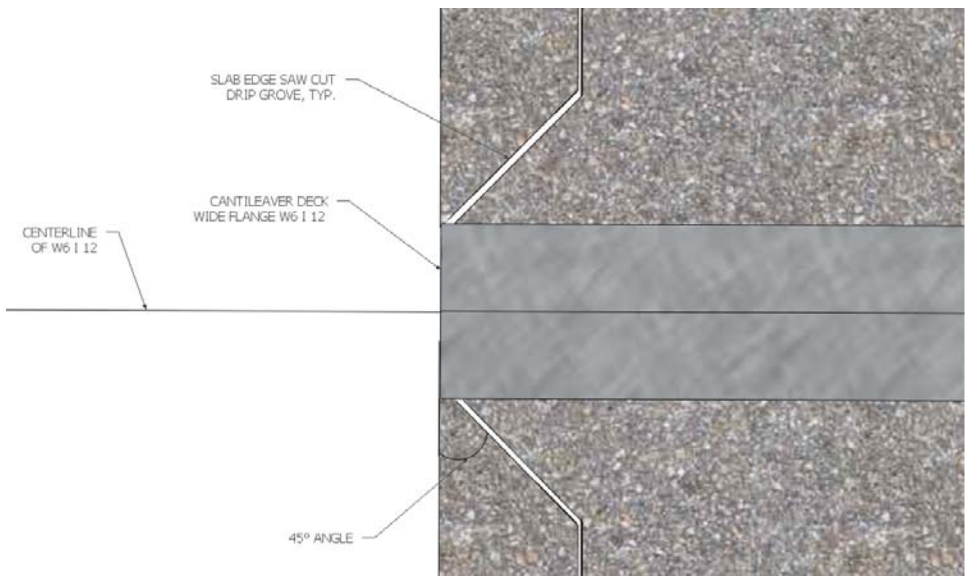

Figure 9: Drip Notch Edge Detail (Underside Plan View)

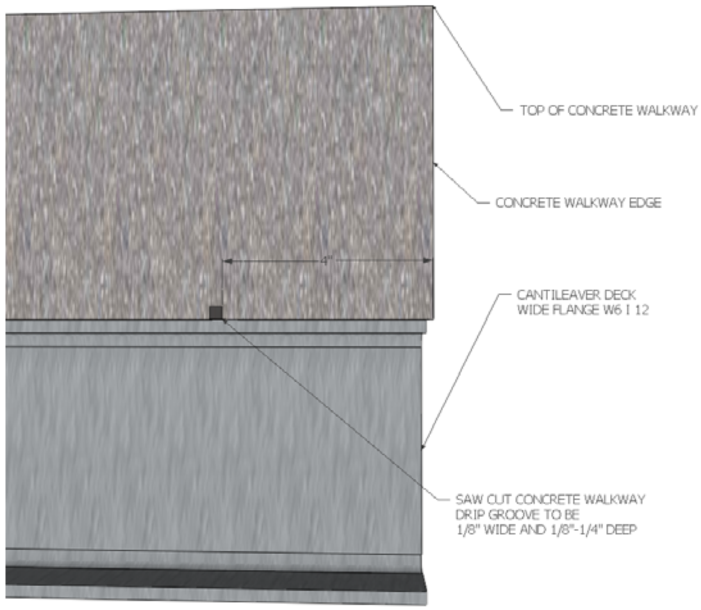

Figure 10: Drip Edge Detail (Section Cut)

5. The expansion joints in the deck at the support piers may be another source for water intrusion through the deck to the supporting steel. These expansion joints have recently been sealed and are recommended to be monitored as a regular maintenance protocol.

6. Although outside the scope of this project, BillerReinhart recommends that the concrete components of the north and south walkway bays be physically sounded. *Physical Sounding* is the process of tapping and/or dragging a relatively heavy metal object (such as a hammer or club) on the concrete surface in order to audibly evaluate discernible pitch/tonal differences. A "solid sound" is audibly apparent and is indicative of secured/adequate concrete. A "hollow sound" is also readily audibly apparent and is indicative of damaged/dislodged concrete often caused by the expansion of corroding steel reinforcement. Physical soundings are useful to evaluate the extent of damage and to develop a repair extent. Representative damage can be seen in *Figures A-2* and *A-3* of Appendix A. A similar recommendation applies to the multiple bottom deck cracks and spalls observed throughout the survey. Refer to *Figures A-35*, *A-38* and *A-39* of Appendix A.

7. Although outside this project scope, BillerReinhart recommends that the concrete piers be physically sounded (see explanation above for this process) to evaluate the extent of damage and to develop a repair. Representative damage can be seen in *Figure A-31* of Appendix A.

Ongoing corrosion of the structural steel can lead to impaired structural integrity of the system and eventually an unsafe structure. The corrosion process of steel structure, in this case the dam walkway platform, is most likely due to two major factors, age of the steel and environmental exposure. A periodic (every two years) maintenance protocol of visual condition surveys and evaluations of waterproof coatings and sealants is recommended.

Opinions of Cost

The following outlines the estimated cost per specific repair protocol:

1. **Repair Protocol #1**, depicted in *Figure 3* and *Figure 4* above, includes cutting out the deteriorated flange section and abutting to and welding an angle section to the undamaged wide flange section. BillerReinhart estimates a cost of $50 to $60 per linear foot of repair. This cost would include the material (angle section) and the labor (surface prep, cutting/grinding, welding and coating). From the limited survey conducted by BillerReinhart, approximately 75-100 repairs utilizing Repair Protocol #1 are estimated. Typical repair lengths would be approximately 2 feet in length, allowing the welding to an undamaged metal section.

    a. Repair Protocol #1 Estimate……………………….$7,500 - $12,000
    **This price does not include mobilization, profit, contingency, etc.*

2. **Repair Protocol #2**, depicted in *Figure 5* and *Figure 6* above, includes welding a steel plate section overtop the deteriorated section along the wide flange web section. BillerReinhart estimates a cost of $20 to $30 per linear foot of repair. This cost would include the material (angle section) and the labor (surface prep, cutting/grinding, welding and coating). From the limited survey conducted by BillerReinhart, approximately 75-100 repairs utilizing Repair Protocol #2 are estimated. Typical repair lengths would be approximately 2 feet in length, allowing the welding to an undamaged metal section.

    a. Repair Protocol #2 Estimate……………………….$3,000 - $6,000
    **This price does not include mobilization, profit, contingency, etc.*

3. **Repair Protocol #3**, depicted in *Figure 7* and *Figure 8* above, includes welding a steel plate section as a web stiffener along the web and flange sections. BillerReinhart estimates a cost of $150 to $200 per repair. This cost would include the material (angle section) and the labor (surface prep, cutting/grinding, welding and coating). From the limited survey conducted by BillerReinhart, approximately 2-3 repairs utilizing Repair Protocol #3 are estimated.

    a. Repair Protocol #2 Estimate……………………….$300 - $600
    **This price does not include mobilization, profit, contingency, etc.*

4. **A Concrete Repair Plan*** will need to be developed for the damage to the concrete framing members and concrete deck, such as the damage documented along the north and south walkway bays (*Figures A-2, 3, 39,* and *39*). A typical project for concrete restoration would include, but is not limited to, removing unsound concrete, cleaning/grinding corroded/deteriorated reinforcing steel, splicing/supplementing reinforcing steel, installing sacrificial galvanic anodes within repair areas, applying a corrosion inhibitor, and applying/patching top surface coating. The following items would address the standard concrete repair protocol.

    a. Repair of delaminated areas, spalls and exposed reinforcing bars, in horizontal direction. The unit cost for this repair is approximated to be $300 per cubic foot.

    b. Repair of delaminated areas, spalls and exposed reinforcing bars, in vertical and overhead directions. The unit cost for this repair is approximated to be $325 per cubic foot.

    c. Installation of sacrificial galvanic anodes, which help to prevent further damage to concrete and steel reinforcement by drawing the alkalinity to and neutralizing the corrosion process. The unit cost per sacrificial anode is approximately $45/anode.

    d. Applying a corrosion inhibitor would be approximately $2/square foot

    e. Patching deck coating would be approximately $10/square foot.

    f. Saw-cut underside of slab (hand-held Dremel®-type saw) for drip groove, depicted in *Figure 9* and *Figure 10* above, would be approximately $2,000.

    **The concrete framing members were not sounded or measured for extents of damage; this was outside the current scope.*

An order of magnitude cost for repairing steel members and repairing concrete elements is estimated to be approximately $29,000 to $39,000. The anticipated estimate for a movable work platform to be provided by the selected contractor for the repair work is $15,000. Therefore, the repair work total order of magnitude cost is approximately $44,000 to $54,000. Our opinion of costs is based on *RS Means Building Construction Data* and recent contractor data of similar concrete restoration projects. Opinion of cost does not include mobilization, profit, contingency, etc. Please note that actual costs are dependent on bids from qualified contractors and current prices for construction materials. Costs will also vary between the contractors. A *Blended Estimate of Costs* is attached that combines our order of magnitude cost with

City of Tampa Water Department's anticipated contractual fees for a grand total range of **$69,464 to $85,251.**

BillerReinhart Structural Group, Inc. reserves the right to update the information contained in this report if deemed necessary due to modified site conditions or the availability of new/additional information.

Thank you for offering us the opportunity to provide our services for this project. Please contact our office if you have any questions regarding this report.

Sincerely,

BillerReinhart Structural Group, Inc.
State of Florida Certificate of Authorization No. 9149

Robert J. Reinhart, P.E.	Shane Maxemow, E.I.
Principal Structural Engineer	Structural Engineer
Florida P.E. No. 50076	

**Neither the survey nor this report is intended to cover hidden defects, mechanical, electrical, or architectural features, nor environmental concerns. Unauthorized use of this report, without the permission of Biller Reinhart Structural Group, Inc., shall not result in any liability or legal exposure to Biller Reinhart Structural Group, Inc.*

Appendix A

Photographic Documentation

Figure A- 1: East Elevation looking northward

Figure A- 2: South Bay

Figure A- 3: South Bay

Figure A- 4: Bay #1

Figure A- 5: Bay #1

Figure A- 6: Bay #1

Figure A- 7: Bay #7

Figure A- 8: Bay #7

Figure A- 9: Bay #3

Figure A- 10: Bay #3

Figure A- 11: Bay #3

Figure A- 12: Bay #4

Figure A- 13: Bay #4

Figure A- 14: Bay #4

Figure A- 15: Bay #5

Figure A- 16: Bay #5

Figure A- 17: Bay #5

Figure A- 18: Bay #6

Figure A- 19: Bay #6

Figure A- 20: Bay #7

Figure A- 21: Bay #7

Figure A- 22: Bay #8

Figure A- 23: Bay #8

Figure A- 24: Bay #9

Figure A- 25: Bay #9

Figure A- 26: Bay #9

Figure A- 27: Bay #9

Figure A- 28: Bay #10

Figure A- 29: Bay #10

Figure A- 30: Bay #11

Figure A- 31: Bay #12

Figure A- 32: Bay #12

Figure A- 33: Bay #13

Figure A- 34: Bay #13

Figure A- 35: Bay #14

Figure A- 36: Bay #14

Figure A- 37: Bay #15

Figure A- 38: North End Bay

Figure A- 39: North End Bay

Blended Estimate of Costs
BillerReinhart and Tampa Water Department
Repair of Steel and Concrete Along Walkway
Hillsborough River Dam

9/10/2013

Item	Unit	Range of Unit Costs		Range of No. of Repairs		Length of Ea. Repair	Range of Total Repair Length		Range in Cost		
Steel Repairs											
Protocol 1 - Flanges	LF	$50	$60	75	100	2	150	200	$7,500	$12,000	**BillerReinhart**
Protocol 2 - Webs	LF	$20	$30	75	100	2	150	200	$3,000	$6,000	
Protocol 3 - Web Stiffner	EA	$150	$200	2	3				$300	$600	
								Sub-total	$10,800	$18,600	
Concrete Repairs											
Horizontal	CF		$300								
Vertical	CF		$325								
Galvanic Anodes	CF		$45								
Rust Inhibitor	SF		$2								
Patch Deck	SF		$10								
Drip Groove	LS		$2,000								
								Sub-total	**$18,200**	**$20,400**	
Work Platform											
								Sub-total	**$15,000**	**$15,000**	
								Total, Steel & Concrete Repairs	**$44,000**	**$54,000**	
Mobilization/Demobilization	10%								**$4,400**	**$5,400**	**Tampa Water Dept**
								Total Actual Construction	**$48,400**	**$59,400**	
Risk and Liability Insurance	2%								**$968**	**$1,188**	
Performance and Payment Bonds	2%								**$968**	**$1,188**	
								Total Construction & Fees	**$50,336**	**$61,776**	
General Conditions	5%								**$2,517**	**$3,089**	
Overhead	5%								**$2,517**	**$3,089**	
Profit	10%								**$5,034**	**$6,178**	
								Total Contractor Cost	**$60,403**	**$74,131**	
Contingency	15%								**$9,060**	**$11,120**	
								Grand Total	**$69,464**	**$85,251**	

CONTRACT 14-C-00048; HILLSBOROUGH RIVER DAM WALKWAY STEEL GIRDER & CONC. REPAIRS-PRE-BID CONF. 7-8-14

E-Mail to **Register as a Plan Holder** and E-Mail All **Questions** to; **ContractAdministration@tampagov.net**

Sign-In Sheet Please Print

City of Tampa, Contract Administration Department

	Name	Organization	E-Mail OR Phone
1	Jim Greiner, PE	Tampa Contract Administration Dept.	Jim.Greiner@tampagov.net
2	Phil Foti	L&S Concrete Restoration, Inc.	pfoti.lsconcrete@TOPCOR.COM
3	KEVIN GRANGER	GRANGER MAINT. & CONST.	kevingranger@grangermaint.com
4	Daniel Decker	JSJ-Solutions	daniel@jsjcoatings.com
5	Frank Carroll	JSJ-Solutions	Frank@JSJ Solution.com
6	LES MOUZON	TAGARELLI CONST.	LES@TAGARELLI.com
7	Robert Reinhart	Biller Reinhart Structural	rreinhart@billerreinhart.com
8	Krofton Owen	Sherwin Williams	swrep6198@sherwin.com
9	Randy Johnson	Seacoast, Inc	randy@seacoastinc.net
10	FRANK WOODARD	COT - CAD	FRANK.WOODARD@TAMPAGOV.NET
11	DAN HEINTZE	D.S. Construction	HEINTZE@tampabay.RR.com
12	ALEX ZETTEL	RTD CONSTRUCTION	BIDS@RTDCONSTRUCTION.COM
13	John A. Karim	COT-Water	
14	Emanuel Ginnis	ENG Manufacturing Inc	emanuel@engwelding.Com
15	Emmanuel Kavoukis	ENG " "	" "
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