

# JTA Skyway 2017 Routine Inspection of Bridge Structures



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Final Draft Report



## EXECUTIVE SUMMARY

This JTA Skyway 2017 Biannual Inspection Report includes summary of findings made during the routine inspection of the aerial structures. This project was performed under a Task Work Order for the JTA Skyway Modernization Program for which RS&H is the prime consultant and FIT Engineering is a subconsultant. The structural inspection was performed beginning in February through March 2017 and took 31 field days with a crew of 2-4 inspectors.

The body of this report is divided into sections. Each section summarizes the condition of a Skyway component and highlights both typical and significant deficiencies along with repair and maintenance recommendations. Detailed backup data is located in the Appendices. Appendix D contains comprehensive tables detailing individual deficiencies and their locations.

Overall the structure is in good condition with a few deficiencies. It is important that JTA perform regular maintenance to ensure safe operation and maintain the structure in good condition to maximize the potential service life. Items that are indicated to be performed in the near term should be performed as soon as possible. Items that are indicated as longer term should be incorporated into a longer term maintenance and funding plan. It may be appropriate to perform several of these during the anticipated conversion of the existing infrastructure as part of the skyway modernization plan.

Order of Magnitude cost estimates are presented for the 60 maintenance recommendations that are summarized within the relevant sections of the report. A summary of expected costs for each of the items is presented in table format along with unit costs, total expected costs, and whether the item is designated as near-term (0 to 5 years) or long-term maintenance. Where applicable, cost estimates use FDOT Pay Item historical cost information for the year 2017. All assumptions made are detailed in the report itself. These estimates are for planning purposes only and more detailed updated estimates should be prepared as plans are developed to address deficient areas.

Items recommended to be completed in the near term include:

- Clean out of drains and material removal along expansion joints
- Electrical maintenance items
- Vegetation Trimming
- Install emergency walkway cover plates
- CFRP (Carbon Fiber Reinforced Polymer) wrap repair in 4 spans
- Removal of organic material inside steel box beams.

The maintenance recommendations summary in the report shows cost estimations for each line item. The estimated cost for the near term repairs is approximately \$100,000 and the long term items which include concrete repairs, superstructure painting, and joint repairs is approximately \$9,900,000.



# JTA Skyway 2017 Routine Inspection of Bridge Structures

## TABLE OF CONTENTS

INTRODUCTION.....	4
DESCRIPTION OF THE SKYWAY INFRASTRUCTURE .....	4
NOMENCLATURE.....	5
ELEMENT QUANTITIES AND CONDITION STATES.....	6
NON-STRUCTURAL RELATED CONCERNS.....	9
Deck Drainage System.....	9
Electrical .....	14
Encroachment and Vegetation Growth.....	16
DECK ELEMENTS.....	17
Emergency Walkway .....	17
Expansion Joints .....	19
Deck & Tee Beam Top Flanges .....	24
Sidewalls.....	27
Guidebeam .....	29
SUPERSTRUCTURE ELEMENTS .....	32
Concrete Tee Beams.....	32
Steel Box Girders and Pier Cross Girder .....	39
Bearings.....	43
SUBSTRUCTURE ELEMENTS .....	47
ACOSTA BRIDGE SECTION .....	54
RECOMMENDATIONS AND ESTIMATES .....	56

# JTA Skyway 2017 Routine Inspection

## LIST OF APPENDICIES

APPENDIX A – Skyway Plan & Elevation Sheets

APPENDIX B – JTA Skyway Span Layout

APPENDIX C – Applicable FHWA/FDOT Bridge Elements and Element Defects

APPENDIX D – Field Inspection Notes

- D - 1 Drainage
- D - 2 Electrical
- D - 3 Vegetation
- D - 4 Emergency Walkway
- D - 5 Expansion Joints
- D - 6 Deck and Tee Beam Top Flanges
- D - 7 Sidewalls
- D - 8 Guidebeam
- D - 9 Concrete Tee Beams
- D - 10 Steel Box Girders and Pier Cross Girder
- D - 11 Coating of Steel Elements
- D - 12 Bearings
- D - 13 Substructure Elements

APPENDIX E – Excerpts From FDOT Acosta Bridge Inspection Report

APPENDIX F – CFRP Wrap Locations

## INTRODUCTION

This document is a report of the findings made during the 2017 routine inspection of the JTA Skyway. This project was performed under a Task Work Order for the JTA Skyway Modernization Program for which RS&H is the prime consultant and FIT Engineering is a subconsultant. The body of this report is divided into sections. Each section summarizes the condition of a skyway component and highlights both typical and significant deficiencies along with repair and maintenance recommendations. The bulk of the data is located in the Appendices. Appendix D contains comprehensive tables detailing individual deficiencies and their locations.

The inspection took 31 field days between 2/14/2017 and 3/27/2017 with a crew of 2-4 inspectors as follows:

- 2 inspectors for the above deck inspection on weekend days (non-operational days)
- 3 inspectors for the concrete span inspections
- 4 inspectors for the steel box beam span inspections

A bucket truck was used to inspect the structure from underneath and traffic control (performed by ACME Barricades) was utilized along city streets and state routes where lane closures were needed. Rope access was used to gain hands on access to the bearings at two locations on the north side of the river above the river walk. The interiors of the steel box beams were accessed through hatches located at the expansion piers. These boxes are considered permit required confined spaces; gas monitors, radios, and confined space permits were used.

## DESCRIPTION OF THE SKYWAY INFRASTRUCTURE

The guideway was built in five sections beginning in the mid 1980's and is located in the heart of downtown Jacksonville. See the map in Figure 1 below. Plan & Elevation sheets for each section are provided in Appendix A and a tabulated span layout is presented in Appendix B.

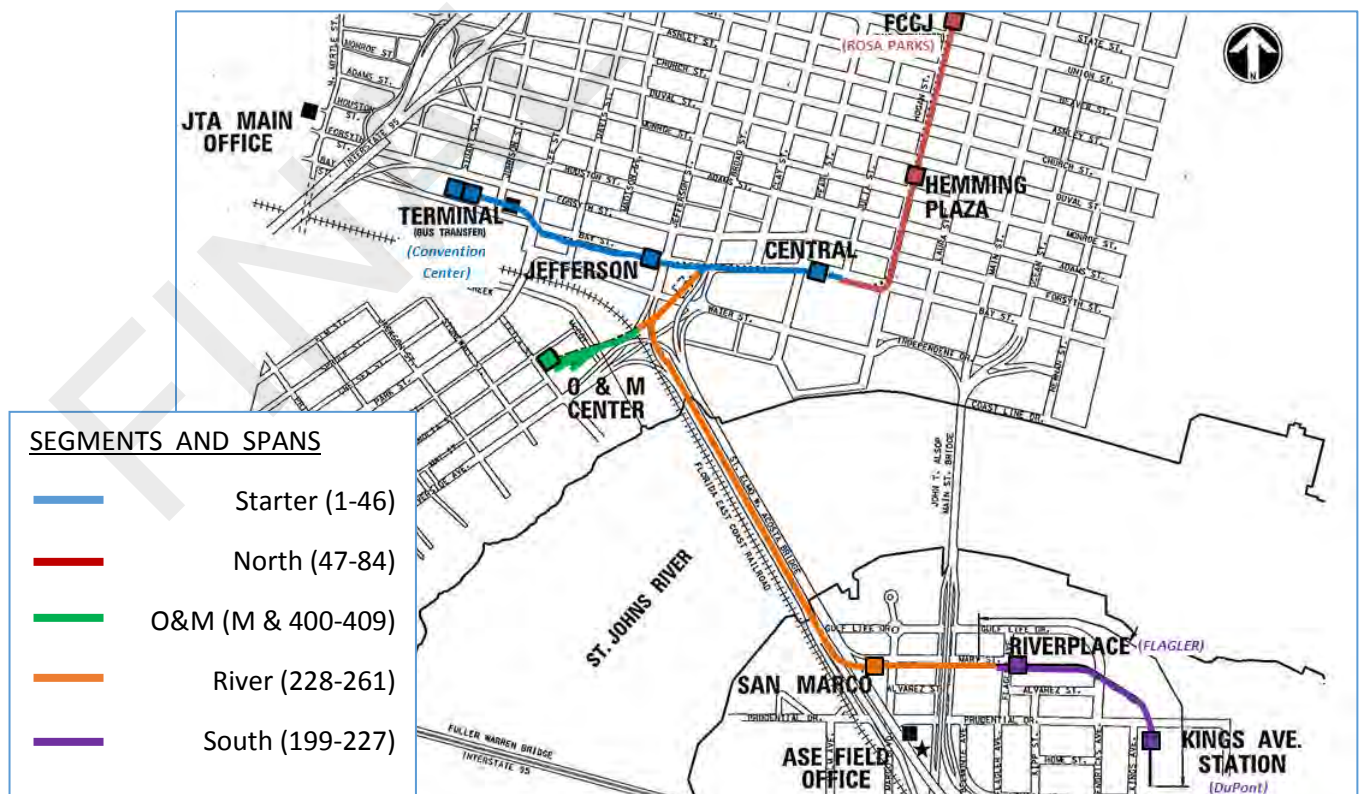


Figure 1. Guideway Map

The system consists of two elevated parallel guideways that carry monorail style trains which ride on a concrete guidebeam. The superstructure type varies throughout the system, but is mostly composed of prestressed concrete tee beams for the shorter spans and steel box girders for the longer spans and most of the curved spans. A summary of the superstructure elements is given in the table below.

<b>Summary of Guideway Superstructure Elements</b>				
Superstructure Type	# of Spans	Avg. Span Length	Max Span Length	Total Length (along BL)
Double Tee – Prestressed Concrete	215	69	94	14,848
Double Tee – Reinforced Concrete	9	65	83	587
Double Tee – PT Stems (curved stems)	6	81	92	484
Pile Supported Slab	1	332	332	332
Slab on Grade (O&M Spurs)	4	27	28	106
Steel Box Girders	89	108	150	9,628
Acosta Bridge	10	329	650	3,290
<b>Totals</b>	<b>334</b>			<b>29,275</b>

The most common substructure unit is a reinforced concrete cap on a concrete column. There are pier caps on the north side of the river that are post tensioned and there are a few steel pier cross girders, but because they sit above the bearings, they are considered part of the superstructure, not the substructure.

## NOMENCLATURE

The span and pier identifications used in this report are taken directly from the As-Built Plan & Elevation drawings, provided in Appendix A. In describing the locations of deficiencies, everything is based on the direction of stationing, regardless of cardinal directions and regardless of span or pier identification. Looking toward the forward station, locations are described using “left”, “right”, “rear” and “forward”. This method provides a measure of consistency as the skyway changes direction. See Figure 2 below for examples.

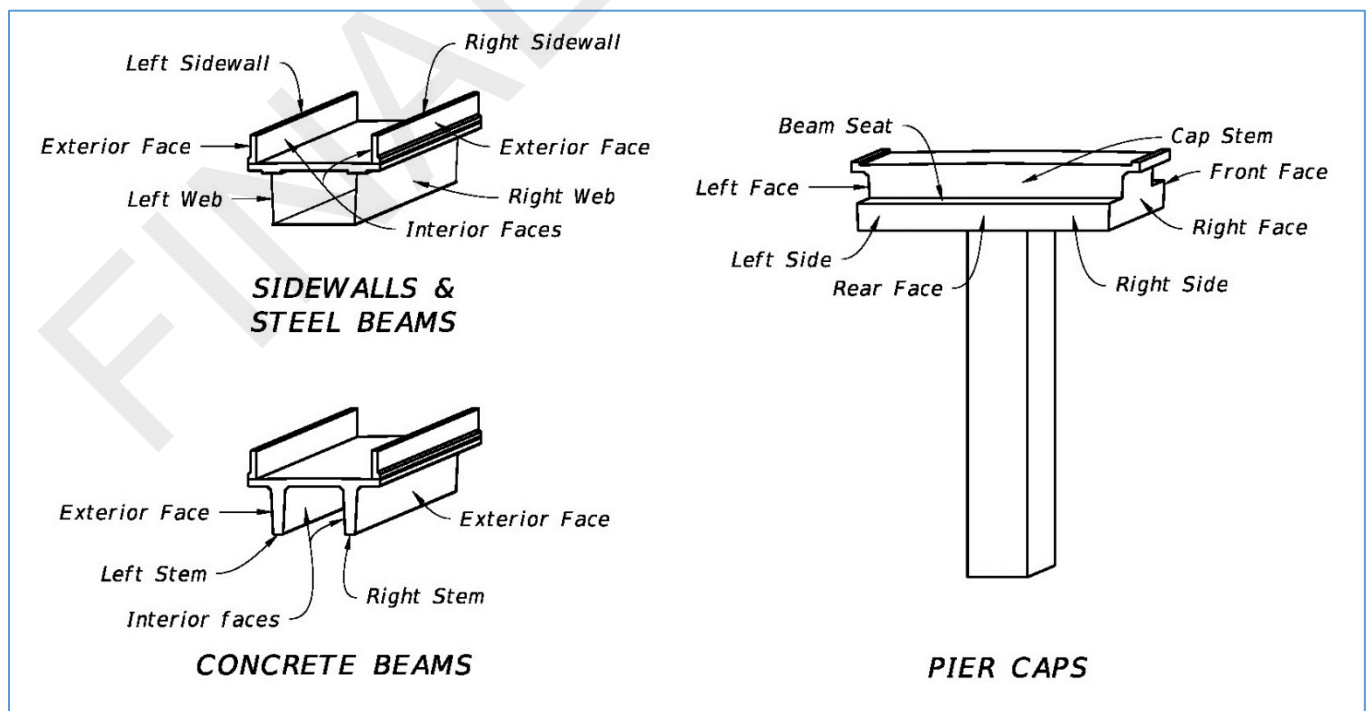


Figure2. Skyway Element Nomenclature



## ELEMENT QUANTITIES AND CONDITION STATE SUMMARIES

The field inspection and data gathering was based on the AASHTO Manual for Bridge Element Inspection as adopted and augmented by FDOT. In short, this process entails dividing the structure into component elements. Each of these elements is then individually inspected and evaluated according to a national set of condition state standards – uniquely developed for each specific element with regard to the element’s material and expected deterioration and failure modes. This type of inspection results in a more detailed, consistent, and methodical bridge inspection; and one that can be tracked and monitored, cycle after cycle.

The tables below provide summaries of the element quantities and associated defect quantities that were found during the inspection. The tables show each parent element and the associated defect (or child) elements. For example, Element 12- Reinforced Concrete Deck is a parent element. The sub-rows, Delaminations / Spall / Patch; Exposed Rebar; Efflorescence; and Cracking, are all defects associated with the parent element. The defect quantities are divided into condition state, and rolled up into the total quantities for the parent element.

See Appendix C for a guide to what each condition state represents. Note that the tables below only pertain to the “bridge elements” and therefore do not include all elements that were inspected, like the drainage system for example. See the rest of this report of a comprehensive assessment of all inspected elements.

### Deck Elements

No.	Element / Defect Element		Total	Unit	Element Condition State			
					CS1 - Good	CS2 - Fair	CS 3 - Poor	CS4 - Severe
12	R/C Deck (Steel Spans)		107,481	SF	105,249	2,144	88	-
	1080	Delamination / Spall / Patch			-	45	25	-
	1090	Exposed Rebar			-	42	-	-
	1120	Efflorescence			-	84	-	-
	1130	Cracking			-	1,973	63	-
15	P/S Tee Beam Top Flange		168,663	SF	168,142	505	16	-
	1080	Delamination / Spall / Patch			-	67	16	-
	1110	Cracking			-	67	-	-
	1120	Efflorescence			-	371	-	-
16	R/C Tee Beam Top Flange		6,457	SF	6,386	66	5	-
	1080	Delamination / Spall / Patch			-	5	5	-
	1120	Efflorescence			-	56	-	-
	1130	Cracking			-	5	-	-
38	Concrete Slab (O&M Spurs, Acosta, PSS)		14,781	SF	14,770	10	1	-
	1080	Delamination / Spall / Patch			-	-	1	-
	1130	Cracking			-	10	-	-
105	R/C Guidebeam		29,275	SF	28,404	825	46	-
	1080	Delamination / Spall / Patch			-	16	17	-
	1120	Efflorescence			-	21	-	-
	1130	Cracking			-	785	29	-
	1190	Abrasion / Wear			-	3	-	-
331	R/C Sidewalls		56,721	FT	55,502	1,147	72	-
	1080	Delamination / Spall / Patch			-	459	50	-
	1090	Exposed Rebar			-	273	-	-
	1120	Efflorescence			-	28	-	-
	1130	Cracking			-	387	22	-
321	Approach Slabs (At O&M Center)		480	SF	479	-	1	-
	1080	Delamination / Spall / Patch			-	-	1	-

## Expansion Joints

No.	Element / Defect Element		Total	Unit	Element Condition State			
					CS1 - Good	CS2 - Fair	CS3 - Poor	CS4 - Severe
302	Joint - Compression Seal		2,109	FT	216	592	277	1,024
	2320	Seal Adhesion			-	105	60	1,000
	2330	Seal Damage			-	2	4	24
	2350	Debris			-	479	210	-
	2360	Adjacent Deck or Header			-	6	3	-
305	Assembly Joint w/out Seal (Modular)		283	FT	165	111	7	-
	2350	Adjacent Deck or Header			-	46	5	-
	2360	Metal Deterioration or Damage			-	65	2	-

## Bearings

No.	Element / Defect Element		Total	Unit	Element Condition State			
					CS1 - Good	CS2 - Fair	CS3 - Poor	CS4 - Severe
310	Bearings - Elastomeric		154	EA	144	9	1	-
	2230	Bulging, Splitting, or Tearing			-	4	-	-
	2240	Loss of Bearing Area			-	5	1	-
311	Bearings - Movable		132	EA	53	75	4	-
	1000	Corrosion			-	61	-	-
	1020	Connection			-	1	-	-
	2240	Loss of Bearing Area			-	13	4	-
313	Bearings - Fixed		8	EA	-	8	-	-
	1000	Corrosion			-	4	-	-
	1020	Connection			-	4	-	-
314	Bearings - Pot		74	EA	37	37	-	-
	1000	Corrosion			-	6	-	-
	1020	Connection			-	27	-	-
	2240	Loss of Bearing Area			-	4	-	-

## Superstructure

No.	Element / Defect Element		Total	Unit	Element Condition State			
					CS1 - Good	CS2 - Fair	CS3 - Poor	CS4 - Severe
102	Steel Box Beams and Pier Cross Girders		9,771	FT	8,785	984	2	-
	1000	Corrosion			-	984	2	-
8516	Steel Protective System, Paint (Exterior)		156,336	SF	-	1,353	154,983	-
	3410	Chalking			-	-	154,821	-
	3420	Peeling / Bubbling / Cracking			-	1,022	12	-
	3440	Effectiveness			-	331	150	-
8516	Steel Protective System, Paint (Interior)		156,336	SF	-	156,299	37	-
	3410	Chalking			-	151,065	-	-
	3420	Peeling / Bubbling / Cracking			-	4,768	-	-
	3440	Effectiveness			-	466	37	-
109	Tee Beams - Prestressed		15,333	FT	14,277	398	658	-
	1080	Delamination / Spall / Patch			-	93	18	-
	1110	Cracking			-	301	640	-
	1120	Efflorescence			-	4	-	-
110	Tee Beams - Reinforced Concrete		587	FT	201	198	188	-
	1080	Delamination / Spall / Patch			-	32	3	-
	1130	Cracking			-	166	185	-

## Substructure

No.	Element / Defect Element		Total	Unit	Element Condition State			
					CS1 - Good	CS2 - Fair	CS 3 - Poor	CS4 - Severe
205	Column - Reinforced Concrete		234	EA	141	84	9	-
	1080	Delamination / Spall / Patch			-	13	3	-
	1090	Exposed Rebar			-	3	-	-
	1120	Efflorescence			-	3	-	-
	1130	Cracking			-	65	6	-
220	R/C Pile Cap (M1(s), M2, M3 and M4)		102	FT	102	-	-	-
226	Prestressed Concrete Pile		8	FT	8	-	-	-
233	Pier Cap - Prestressed Concrete		566	FT	526	37	3	-
	1080	Delamination / Spall / Patch			-	15	3	-
	1090	Exposed Rebar			-	6	-	-
	1110	Cracking			-	11	-	-
	1120	Efflorescence			-	5	-	-
234	Pier Cap - Reinforced Concrete		3,833	FT	3,085	720	28	-
	1080	Delamination / Spall / Patch			-	59	13	-
	1090	Exposed Rebar			-	12	-	-
	1120	Efflorescence			-	13	-	-
	1130	Cracking			-	636	15	-
8475	Retaining Wall (PSS Span in CSL Lot)		711	FT	601	109	1	-
	1080	Delamination / Spall / Patch			-	-	1	-
	1130	Cracking			-	109	-	-

## NON-STRUCTURAL RELATED CONCERNS

### Deck Drainage System

#### Description

Components of the deck drainage system are located at almost every pier. For piers in which the top surface of the pier cap is flush with the deck riding surface (most common), the drainage system is composed of 4 in. PVC pipes cast within the pier cap and column. At locations where the pier cap is not flush with the top of deck (where the steel box girder is continuous over the pier), the pipe either runs down through the box and into the column or is affixed to the outside of the structure. See Figure 3 for typical deck drainage details.

Most of the deck scuppers are topped with 4 in. atrium grates, but there are a few flat floor drain grates in the system as well.

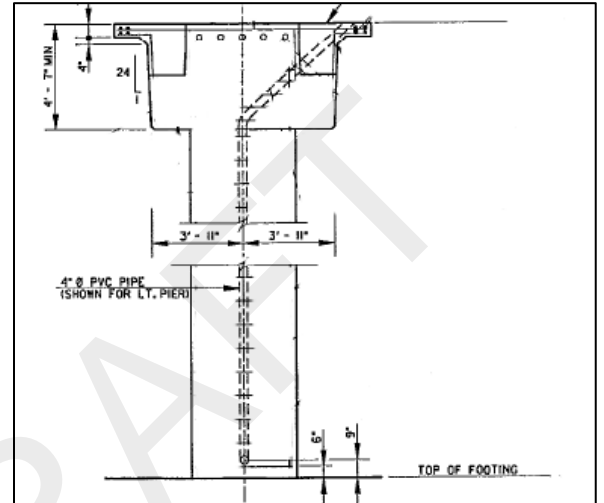
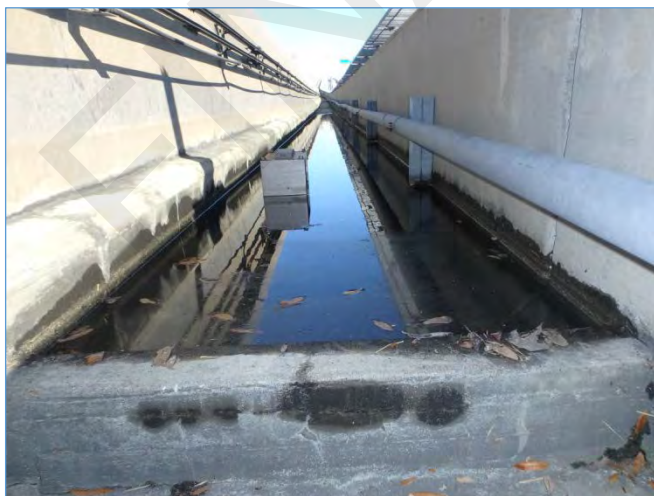


Figure 3. Typical Deck Drainage Details

#### Drainage Problems Which Can Be Corrected With Proper Maintenance

There are multiple locations along the guideway in which water ponds on the deck surface. To be certain, there are a number of drainage system related issues, but the most widespread reason for ponding water is due to the presence of soil and debris on the top of the deck. The deck surface is full of soil and debris which accumulates around drainage scuppers and transverse pipes, preventing the normal flow of water. An example of this is in Span 245L above Pier 245. After a rain event, inspectors measured 6 in. x 30 ft. of standing water on both sides of the guidebeam, filled up to the very top of the flow dam. Using hand tools, the debris surrounding the atrium grate was removed and water immediately began rushing down the drain pipe. A return visit to the area a few days later confirmed that all of the water had drained away. Below are side by side photos showing the span before the cleaning and after the cleaning.



Span 245L Before Partial Debris Removal



Span 245L After Partial Debris Removal

The three photos below were taken at a time when there had not been a rain event for weeks. These illustrate a significant amount of soil accumulation at the drains which is fairly typical throughout the system.



Buried Drain Cap at Pier 247, LT Guideway



Missing Drain Cap and Clogged Pipe above Pier 255, RT Guideway



Buried Drain Cap at Pier 409R

In addition to the soil and debris accumulation, there are a number of locations with broken or missing drain caps and riser pipe caps. See the photos below.



Missing Cap and Clogged Pipe at Pier 12, LT Guideway



Broken Riser Pipe Cap at Pier 256L

*Drainage Problems Which Will Require Rehabilitation Solutions*

There are a number of locations in the system in which water ponds at a low spot on the deck and there is no apparent means to convey the water off the deck. One example is at Pier 242. This pier carries a curved section of steel box girders and is super-elevated, with the low side on the right. Figure 4 shows that the drainage scuppers are located on the inside deck of each guideway section, which is on the high side of the super for the Right Guideway. Water ponds on the low side. See the photo below.

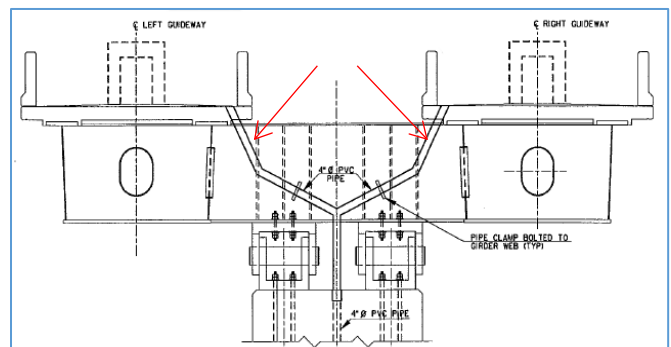


Figure 4. Pier 242 Drainage Details



Pier 242 RT. Guideway, Looking Back

Another example is in Span 75R. There is standing water up to 3 in. high before the first switch beam pedestal which is located 10 ft. behind Pier 76R. There is no evident means of conveyance to the drain pipe at the pier.



Span 75R Before Pier 76, Water Ponding Behind Switch Beam Pedestal #1 and Underneath Switch Beam

A third example is the Right Guideway at the San Marco Station. In Span 240R there is standing water for the full length of span on the left side of the guidebeam only. There is a series of metal conduits that cross the guideway transversely, about 5 ft. from Pier 240. The conduits sit almost right on top of the deck (1/8in. max gap, filled with debris) and so water cannot get to Pier 240 to drain. See the photo below.



Span 240R: Ponding Water Left of the Guidebeam Blocked By Debris and Transverse Conduits on the Deck

Shown in the photo below is an area of erosion between two slab-on-grade finger spans at the O&M Facility. Concrete was poured between the slabs in an effort to stop the erosion, but that just moved the affected area further back. This area is between M1B3 and M1B4 and measures 3.5' L x 14" W x 9" D. A similar area of erosion is present between M1B2 and M1B3.



Erosion Between Slab-on-Grade Spans M1B3 and M1B4 at the O&M Center

For a complete list of drainage related deficiencies noted during the 2017 routine inspection, refer to Appendix D-1.

*Short Term Recommendations*

- Remove the soil and debris from the top of the deck, especially at the scupper locations. This should be done on a regular basis.
- Repair/replace the deck drain grates at the following locations: Pier 8 (N), Pier 12 (N&S), Pier 24N, Pier 24S, Pier 65R, Pier 66R, Span 253 (RT), Pier 255 (RT), Pier 406L, Pier 204L.
- Repair/replace the riser pipes and/or caps at ground level at the following piers: 214, 228, 230, 256L, 258R.
- Clean out clogged drain pipes at the following locations: Pier 12 (N&S), Span 253 (RT), Pier 255 (RT).
- Repair the eroded areas between the slab-on-grade spans at the O&M facility. Provide a means to convey the stormwater and prevent further erosion.

*Mid to Long Term Recommendations*

- Inventory the locations with water ponding issues that cannot be alleviated with the maintenance solutions listed above.
- At each location, investigate an engineered solution. Perhaps this entails piping through the guidebeam pedestal or coring through the deck and installing additional means of conveyance.



## Electrical

Although this project did not include an inspection of the mechanical and electrical components of the Skyway, there were some structural defects noted that pertain to the electrical system.

Many of the electrical conduits that run transversely across the deck have moderate to severe corrosion and section loss due to standing water and debris accumulation on the deck. Conduits at San Marco Station have the most significant deterioration, with 100% section loss and exposed wires as shown in the photo below.



Span 238L – 100% Section Loss of Transverse Conduits, Exposing Wires

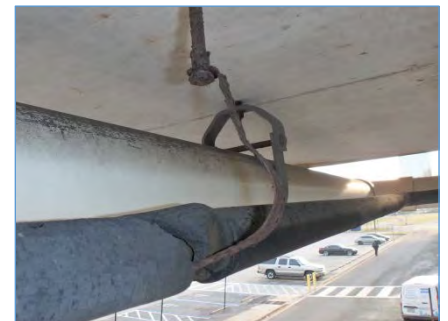
There are other locations throughout the system in which components exhibit surface corrosion which are not related to the standing water and debris accumulation on the deck. Below are six examples.



Surface Corrosion on Electrical Control Cabinet in Span 204R



Surface Corrosion on Power Rail Bracket in Span 206R



Broken Pipe Hanger Due To Surface Corrosion in Span 1N



Non-galvanized Nuts for Cable Tray Brackets, Starter Line



Surface Corrosion on Cable Tray Support Brackets in Span M2



Surface Corrosion on Traffic Signal Post Anchor Bolts in Span M2.

The cable trays that are attached to the inside faces of the sidewalls have isolated areas in need of repair. For instance, in Span 55L, there are three broken attachment brackets which are causing 30' of the tray to lean downward. See the photos below.



Span 55L Cable Tray with Three Broken Attachment Brackets

Many of the piers along Hogan Street have electrical outlets on the pier columns and a number of these are missing the outlet cover.

For a complete list of deficiencies noted during the 2017 routine inspection, refer to Appendix D-2.

#### *Short Term Recommendations*

- Remove soil and debris that has accumulated at transverse conduits on the deck.
- Replace conduit with 100% section loss and exposed wires at the San Marco Station.
- Repair electrical cable tray defects at the following locations: Span 55L, Span 200R, Span 232R, and Span 239L.
- Clean and spot paint areas of corrosion on the electrical control cabinets located throughout the system.
- Replace the non-galvanized nuts for the cable tray support brackets in the Starter Line with galvanized nuts. Also replace the non-galvanized nuts and washers for the electrical control cabinet support brackets in Span 409L with galvanized hardware.
- Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to metal straps, brackets, hardware, and power rail attachment brackets at locations with corrosion.
- Replace broken and severely corroded pipe hangers in Span 1N, Exterior.
- Tighten the nuts for the traffic light attachment over Hogan Street and clean and coat the nuts and bolts to prevent further corrosion.
- Install electrical outlet covers where missing on the pier columns along Hogan Street.

#### *Long Term Recommendation*

- Elevate the transverse conduits off the deck to prevent debris entrapment and subsequent occurrence of standing water.

## Encroachment and Vegetation Growth

There is thick vegetation growing beneath and around the spans leading from the O&M facility, making inspection difficult. See Photo 1 in the collage below.

Vines are attached to four pier columns and caps in the spans leading from the O&M facility. See Photo 2 in the collage below.

There are numerous landscaping trees growing underneath and beside the guideways on Bay Street, Hogan Street, Mary Street and at Kings Avenue Station. Many of these trees have been trimmed previously, but are again in contact with the beams and sidewalls. See Photos 3 and 4 in the collage below.

Small palm plants are growing through the joint between the sidewalls and deck at isolated locations throughout the Acosta Bridge spans. See Photo 5 in the collage below.



○ M3      ○○ 403      ○○ 30N      ○○ 204R      ○○ R3

For a complete list of locations noted during the 2017 routine inspection, refer to Appendix D-3.

### Recommendations

- Remove the vegetation growing beneath and around the spans leading from the O&M facility.
- Remove the vines growing on the pier columns leading from the O&M facility.
- Landscaping trees in contact with the guideway beams or sidewalls should be trimmed back or removed as necessary.

# DECK ELEMENTS

## Emergency Walkway

### Description

The galvanized emergency walkway is present everywhere throughout the system except at the stations, where passengers can exit directly onto the station platforms. The walkways are attached to the sidewalls in two different configurations. Where the guideways are adjacent to one another, a common walkway is present, supported by sidewalls on both guideways. Where they are separated, each guideway has an independent walkway supported on brackets anchored to one of the sidewall. See Figure 5.

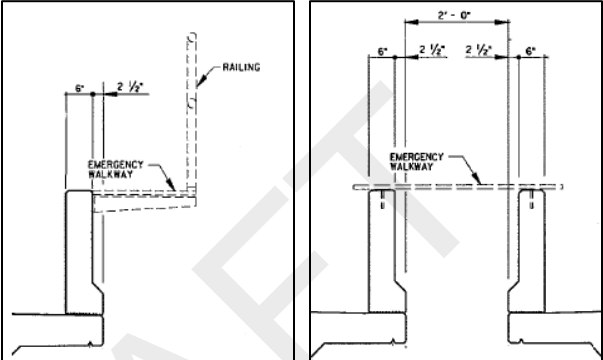


Figure 5. Typical Emergency Walkway Details

### Condition

There is light to moderate surface corrosion on the emergency walkway grating, grating clips, and railings at various locations throughout the system, indicating a breakdown of the galvanization. While a number of these have been painted, many remain untreated. Numerous brackets supporting the cantilevered type walkways have moderate to severe surface corrosion at the connection to the sidewalls. See Figure 6 below.

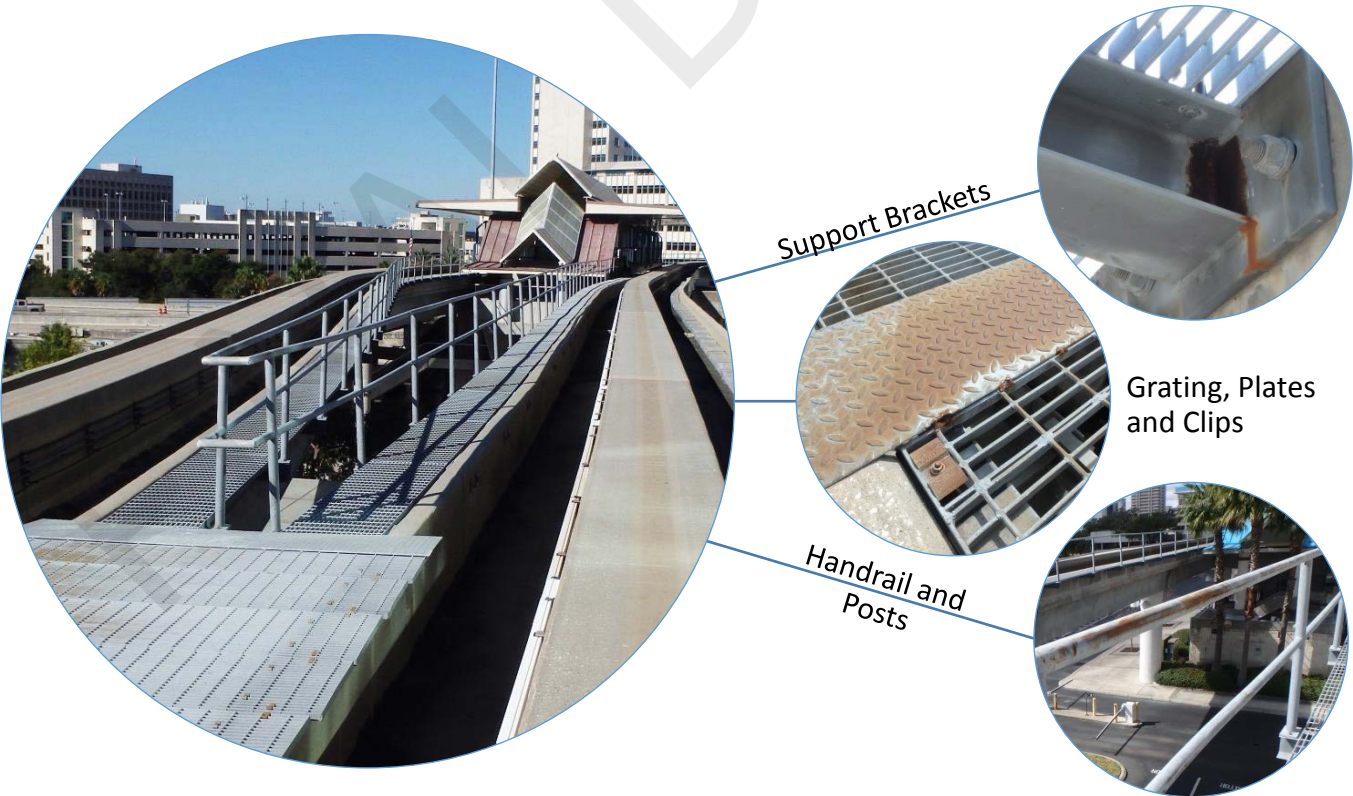


Figure 6. Typical Emergency Walkway Surface Corrosion Locations

At the Acosta Bridge Piers R-1 and R-6, the grating cover plates are not wide enough to fully cover the expansion joint gaps produced by the bridge deck contraction. See the photo below.



Pier R-1 LT, Emergency Walkway Joint Expanded Beyond Expansion Plate

For a complete list of deficiencies noted during the 2017 routine inspection, refer to Appendix D-4.

*Recommendations:*

- Install new (wider) cover plates at the four Acosta Bridge expansion joints located at Piers R-1 and R-6.
- Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to the grating, grating clips, bolts and railing with moderate surface browning and surface corrosion.
- At the cantilevered walkway support brackets with moderate to heavy surface corrosion, clean the brackets with a wire brush and apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray*.

## Expansion Joints

### Description

There are three sets of expansion joints at most expansion piers. Because the top of pier cap is level with the top of deck (or tee beam top flange), an expansion joint is needed at each deck/cap interface, one for the back span and one for the forward span. These deck joints have compression seals. The third expansion joint location is at the centerline of the pier and this is where all of the components above the deck have a joint. This includes the sidewalls, the guidebeam, and either the guidebeam pedestal and for the older lines, the second pour and running surfaces.

The guidebeam expansion joint is composed of sliding steel plates on the top surface and finger joints on the sides of the guidebeam.

Because the joints in the elements *above* the deck do not line up with the joints *in* the deck, neoprene pad bond breakers are present between the pier cap and the above deck elements, so that the elements above the deck can slide back and forth with the expansion and contraction of the decks themselves. This arrangement has caused deterioration of the guidebeam pedestals; see the Guidebeam section of this report for more information. Figure 7 below shows the expansion joint configurations at a typical pier.

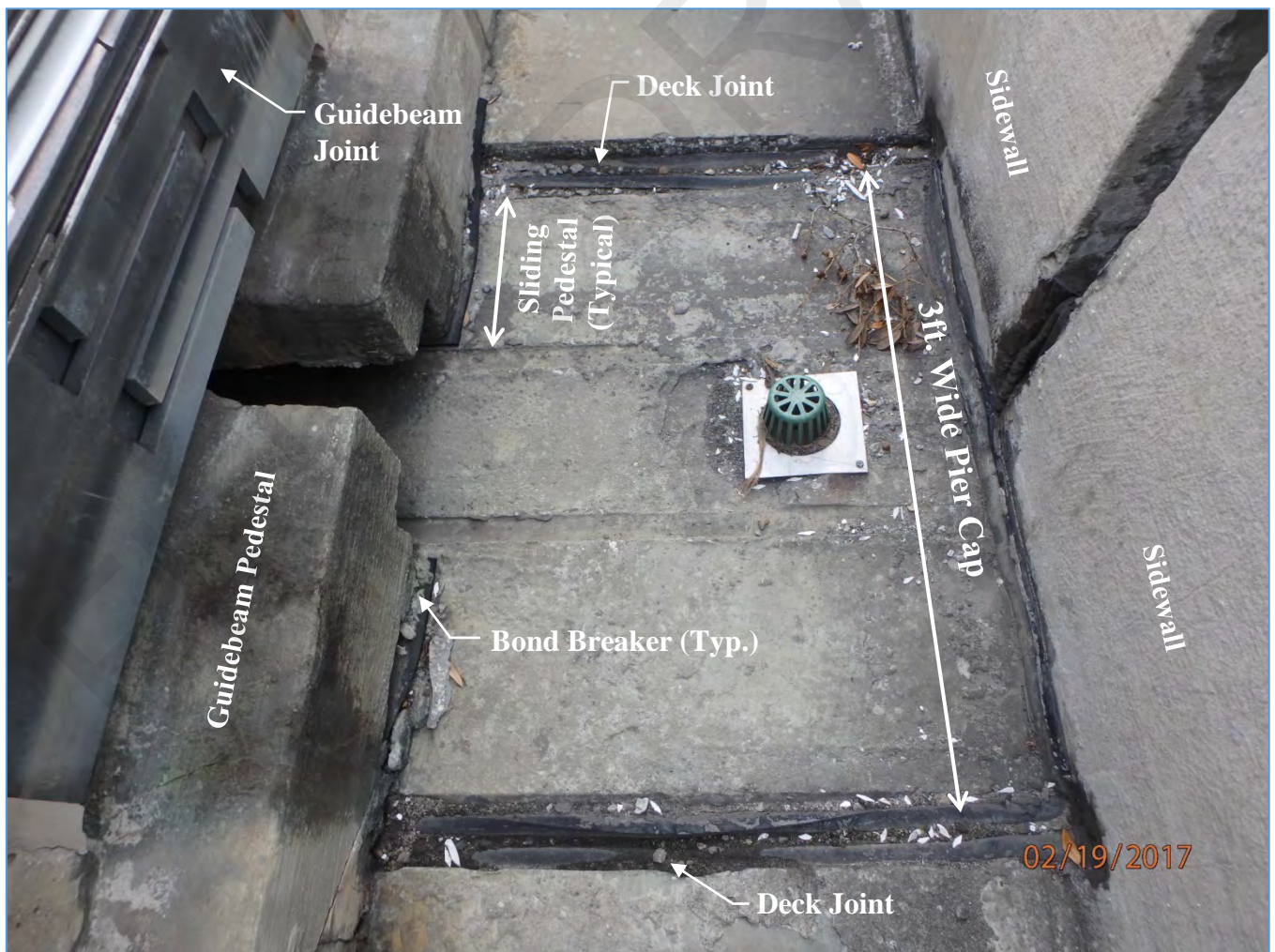


Figure 7. Typical Expansion Joint Configuration

*Condition – Deck Expansion Joints*

Many deck joints throughout the system are filled with soil and debris. See the photo below.



Pier 223L: 1-1/4" Joint filled with soil and debris.

Of the 192 compression seals in the system, 84 were found with adhesion loss for nearly the full length of the joint and 23 more had partial adhesion failures. At a number of the piers, there is a gap between the seal and either the deck or pier cap. Gaps were noted between 1/8" and 1/2" wide. See the photos below. Two compression seals are hanging down; one at 81L and the other at Pier 228R. The compression seal at Pier 52A, for the rear span, is missing altogether (was likely never installed).



Pier 232R: Joint Width Exceeds Seal Capacity



Pier 210R: Typical Seal Adhesion Failure

The top of pier cap and top of deck elevations were designed to be even. However, there are locations in which there is a vertical offset between the two. The worst case was noted at Pier 228R. See the photo below.



Pier 228R: 1-1/4" Elevation Difference Between Top of Deck and Top of Pier Cap

*Condition - Guidebeam Expansion Joints*

Vertical offsets of the sliding plates were noted at a few locations. The largest elevation difference was found at Pier 210L. See the photo below.



Pier 210L: 1/2" Elevation Difference Between Guidebeam Sliding Plates

There are multiple locations in which the concrete closure pours (pourbacks), to which studs for the expansion components are embedded, have spalling, delaminations, patches or cracking. See the photo below.



Pier 29N: Spalling and Delaminations on Forward Pourbacks



At the Acosta Bridge Piers R-1 and R-6, the finger joints on the sides of the guidebeams are overly expanded such that there is not much embedded plate surface left for the ends of the fingers to slide against. The worst case is at Pier R-6L, where only 7/8" of remaining embedded plate surface was measured on the right side at a temperature of 66 degrees. At both Pier R-6 guidebeams, retrofit steel plates have been welded on the insides of the guidebeam openings to provide additional plate surface for the fingers to slide against. However, at both guideways, two of eight of these expansion extension plates have fallen off.

See the photo below showing the fallen retrofit extension plates, the 7/8" available embedded plate for finger expansion, and one of five broken fingers.



Pier R-6L, Guidebeam Expansion Joint, Right Side

For a complete list of joint deficiencies noted during the 2017 routine inspection, refer to Appendix D-5.

#### *Recommendations – Deck Joints*

Remove the soil and debris within and around the joints.

The compression seal deck joints throughout the system are in poor condition and the best repair solution will depend on the design of the future system – namely if the guidebeam will stay in place or be removed.

If the guidebeam is intended to remain and there will be no vehicle contact with the joints, then the most economical solution will be to apply a neoprene seal over the existing failed joints. This has already been done at Piers 62 and 66; see the photo below. This solution is not feasible though, if the future design calls for a vehicle to run directly on top of the deck. If that becomes the case, then the existing compression seals should be removed and replaced once the guidebeam, pedestals, and second pours are removed.



Pier 62L: Joint Covered With Neoprene Seal

Additionally, if it is decided that a vehicle will run directly on top of the deck, then the locations with uneven deck/pier cap interfaces will also need to be addressed.

#### *Recommendations – Guidebeam Expansion Joints*

- Reinstall the retrofit expansion extension plates at Pier R-6.
- Patch the spalls in the concrete pourbacks; locations are listed in Appendix D-5.
- Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to areas on the steel plates and fingers with surface corrosion that do not come in contact with the train tires.
- In the long term if the guidebeam is to remain, an engineered solution to retrofit the joints should be investigated due to the deterioration of the pedestals (see the Guidebeam section of this report). Perhaps this could involve replacing the single joint with two that coincide with the deck joints. Another option would be to retrofit the current configuration by replacing the bond breakers with thin sliding plate bearings.

## Deck and Tee Beam Top Flange

### Description

Both the Starter and North lines were built prior to the conversion to the current bombardier trains and guidebeam system. The decks along these lines had to be retrofitted to accommodate the new system.

The figures below show the older and newer typical sections. In the old configuration, there was a 5" concrete second pour on top of the deck, with two 6 ½" x 14" running surfaces, automatic train control rails, a negative return rail, and guide rails connected to the sidewalls. In the current system, there is a guidebeam on a pedestal that runs along the center of the guideway with low voltage and high voltage power rails attached to the sides of the guidebeam (not shown in the figure).

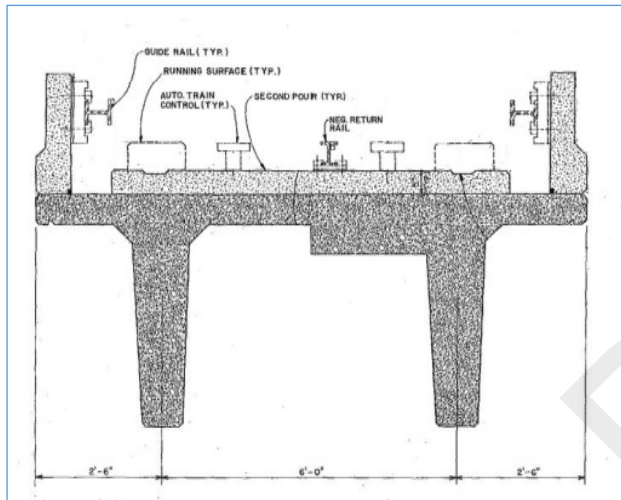


Figure 8: Old Typical Section

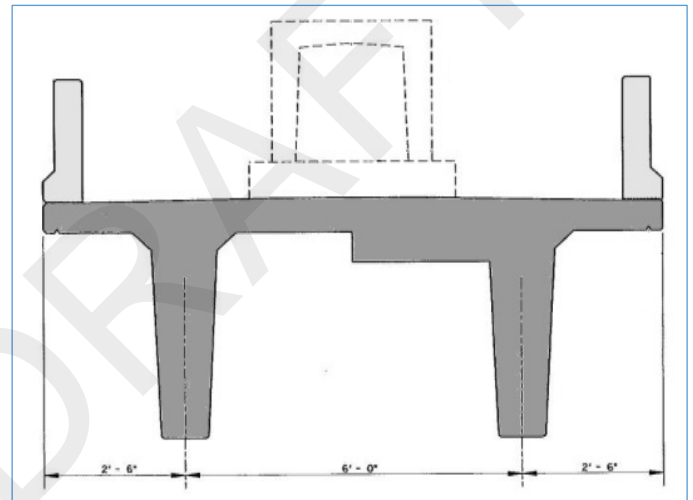


Figure 9: Current Typical Section

### Condition

In the Starter and North Lines, most of the top surfaces of the decks and tee beam top flanges cannot be seen due to the presence of the second pour. Throughout these lines, the train control rails and portions of the riding surfaces and second pour have been removed, leaving roughened surfaces. There are numerous spalls and cracks in these elements, but these deficiencies are considered incidental, as these elements are relics from the old design. See the photo below.



Typical Deck Top in the Starter and North Lines Showing Removal of Relic Riding Surface

Comments in the previous inspection report pertaining to cracks and spalling of the riding surfaces were not addressed or carried over to this report, as those deficiencies are irrelevant. Similarly, comments pertaining to defects in the second pour that were a result of deliberate concrete removal during the system modification were not carried over to this report. Defects in the second pour not necessarily pertaining to the modification are carried over into this report as it does serve the structural purpose of supporting the guidebeam pedestal.

Similar concrete removal was also performed on the South Line, where portions of the guidebeam pedestal were removed and the pedestal exists in segments and the guidebeam spans from segment to segment. See the photo below.



Typical Roughened Deck Top in the South Line Due to Intermittent Removal of Guidebeam Pedestal

There is soil and debris build-up on top of the deck surface throughout the system; see the photo below. This debris traps moisture and results in drainage problems and corroded steel conduits. More information on these issues was presented in the Drainage and Electrical sections of this report.



Span 213L: Wet Debris for 20' over Pier 214

The undersides of the CIP deck overhangs at the switch beam locations have transverse hairline cracks with efflorescence. Transverse cracking up to 1/32" wide of the top surface of the cast in place decks is present throughout the South, River, and O&M Lines (everywhere the top surface is visible). Also, the second pour concrete over the Acosta Bridge exhibits hairline transverse cracks. See the photos below.



Span 75R: Transverse Cracking on the CIP Deck Underside



Span 241: Transverse Cracking on Deck Top Surface

Concrete spalling and delaminations are present throughout the deck area. Most of the deterioration on the Starter and North Lines is of the old second pour, and often at a pier location. See the photo to the right.

Spalling is also present at isolated locations throughout the system on the undersides of the CIP decks and the undersides of the tee beam top flanges.

For a complete list of deck related deficiencies noted during the 2017 routine inspection, refer to Appendix D-6.



Second Pour Delaminations Above Pier 38

### Recommendations

- Remove the debris and any loose concrete from on top of the deck.
- Patch all deck and tee beam top flange spalls listed in Appendix D-6 with depths 1in. or greater. Second pour spalls that do not affect the bearing of the guidebeam pedestals could be ignored.
- Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to exposed reinforcing.
- Seal all cracks listed in Appendix D-6 with widths 0.016in. or greater.

## Sidewalls

### Description

The sidewalls are the concrete barrier walls that run along both sides of each guideway. These walls were cast in place and made integral with the decks by reinforcement cast within the tee beam flanges or within the deck above the steel boxes. See Figure 10 for typical details. There is a decorative treatment on the exterior faces of the outboard sidewalls in the North Line (Spans 47-84).

### Condition

Vertical cracking of the sidewalls is prevalent throughout the system. Many of these cracks are reflective on both sides and cross over the top of the walls and a small portion of these cracks exhibit minor efflorescence. The majority of the cracking in the South, River, and O&M lines are Condition State 1 cracks, meaning cracks with widths less than 0.012 in. wide or with spacing greater than 3 ft. The majority of the cracking in the Starter and North lines are Condition State 2 cracks, meaning widths between 0.012 in. and 0.05 in. or spaced between 1 and 3 feet. See the photo below.

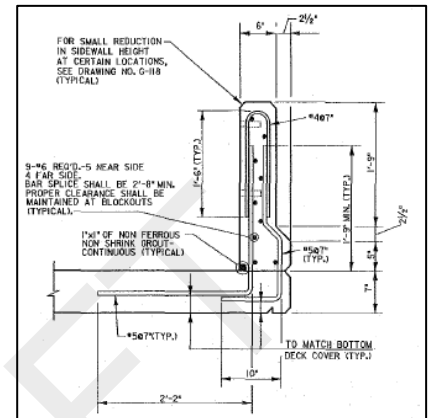


Figure 10. Sidewall Details



Typical Condition State 2 Cracking in the Sidewalls of the North Line

Another typical deficiency in the sidewalls is spalling, often the result of insufficient cover with exposed and corroded reinforcement. There are seven spans noted with between 10 and 40 shallow spalls, all along the same face of one sidewall; all seven spans are in the South Line. Many of the spalls with exposed reinforcement have been painted, but in some cases, the corrosion is reactivating. See the Photo below.



Shallow Spalls Due to Insufficient Cover in the Exterior Face of the Right Sidewall in Span 210R

Other defects were noted at various locations, such as the atypical cracking and larger than typical spalls pictured below.



Hairline Map Cracking for 10ft.,  
Span 250R



12in. x 6in. x 6in. Spall in Sidewall  
Bottom Edge Over Pier 78



Spall with Exposed and Corroded  
Rebar, Span 5N

For a complete list of sidewalls deficiencies noted during the 2017 routine inspection, refer to Appendix D-7.

### Recommendations

- For the spalls listed in Appendix D-7 with depths less than 1in. that have exposed rebar, apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to the steel. This could be added to the scope of services for the inspectors to do during the next routine inspection. (Many, but not all were sprayed during this 2017 inspection.)
- Patch all spalls listed in Appendix D-7 with depths 1in. or greater.
- Seal all cracks listed in Appendix D-7 with widths 0.016in. or greater.

## Guidebeam

### Description

The guidebeam is a hollow concrete beam that sits upon a longitudinal pedestal and runs on top of the deck. It is the riding surface of the skyway passenger trains. Power rails are attached along both sides of the guidebeam. One side is the low voltage side carrying the signal loop, grounding bus rail and 120 volt bus rail. The other side is the high voltage side carrying three bus rails for 3 phase 480 volt power. See Figure 11 for a typical section of the guidebeam itself (power rails not shown).

Switches are located strategically throughout the system to allow for guidebeam directional changes. There are cross-over switches that allow the trains to transfer from one track to its parallel counterpart and there are switches to facilitate the merging between the O&M Line and the River Line and the merging between the River Line and the Starter Line.

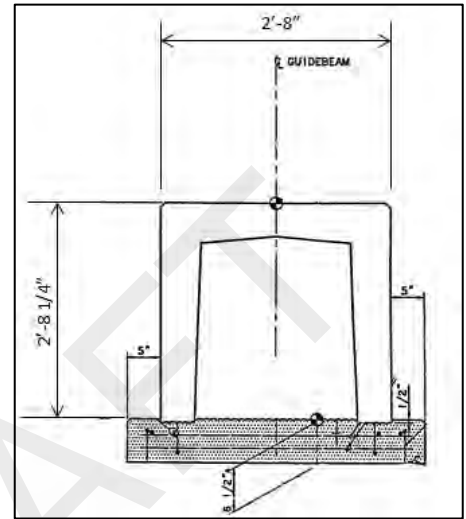


Figure 11. Typical Guidebeam

At the switches, the guidebeams, referred to as as switchbeams, rotate on tracks to make the crossover or merge connection. Because of this rotation and beam curvature, the switchbeams are built of painted steel shells, rather than concrete.

### Condition

The guidebeams exhibit cracking typical of conventionally reinforced concrete members. There are hairline longitudinal cracks on the top face at the centerline of the beam, essentially full length of the system. Likewise, hairline vertical and transverse cracks are present, spaced three or more feet apart. These types of cracks are typical for reinforced concrete in "good" condition. There are isolated locations throughout the system in which the cracking is wider and/or more densely spaced. The worst cracking in the guidebeam is present in Span 253, which is a 334' pile supported slab section that is on a tight curve. See the photos below



Span 253: Vertical Cracking in Guidebeam



Span 253: Longitudinal Cracking in Guidebeam



As described in the Deck Joint section of this report, there are three joints at most expansion piers – the deck joint at the rear face of the pier, the deck joint at the forward face of the pier and the guidebeam joint which is above the center of the pier. This configuration requires that the end 18 inches of the guidebeams slide back and forth with the expansion and contraction of the decks. Even though a neoprene bond breaker is present between the cap and the guidebeam, this configuration has led to significant cracking, delaminations and spalling of the pedestals. See the photos below.



Pier 207: Guidebeam Pedestal Cracking



Pier 237: Guidebeam Pedestal Delamination

The paint on the steel guidebeams and switchbeams is in poor condition. The paint is very chalky, which is accelerated by direct UV degradation. There is surface corrosion on many of the switchbeam mechanism support brackets, plate and hardware. Spot painting is evident, but there are locations where corrosion is active and causing significant section loss. See the photo below.



Span 213L: Surface Corrosion and Section Loss on Switchbeam Machinery Support Brackets

For a complete list of guidebeam deficiencies noted during the 2017 routine inspection, refer to Appendix D-8.

*Recommendations*

- At the expansion joints, remove all unsecure pedestal concrete and thoroughly clean out the joint areas.
- At the switchbeam locations, remove active corrosion and recoat areas of failed paint on the switchbeam mechanism support plates brackets and bolts.
- Develop a plan to re-paint the steel guidebeams and switchbeams.
- Patch all spalls listed in Appendix D-8 that are on the top edges of the guidebeam.

FINAL DRAFT

## SUPERSTRUCTURE ELEMENTS

### Concrete Tee Beams

#### Description

Over 50% of the Skyway is supported with prestressed concrete tee beams. The beams are typically grouped in three or four span units made continuous over the piers by post tensioning tendons that run through the beam top flanges and through the pier cap. See Figures 12 and 13 below. There are also a six tee beam spans with post tensioned curved stems and ten spans that are cast-in-place concrete beams, mostly associated with the crossover spans.

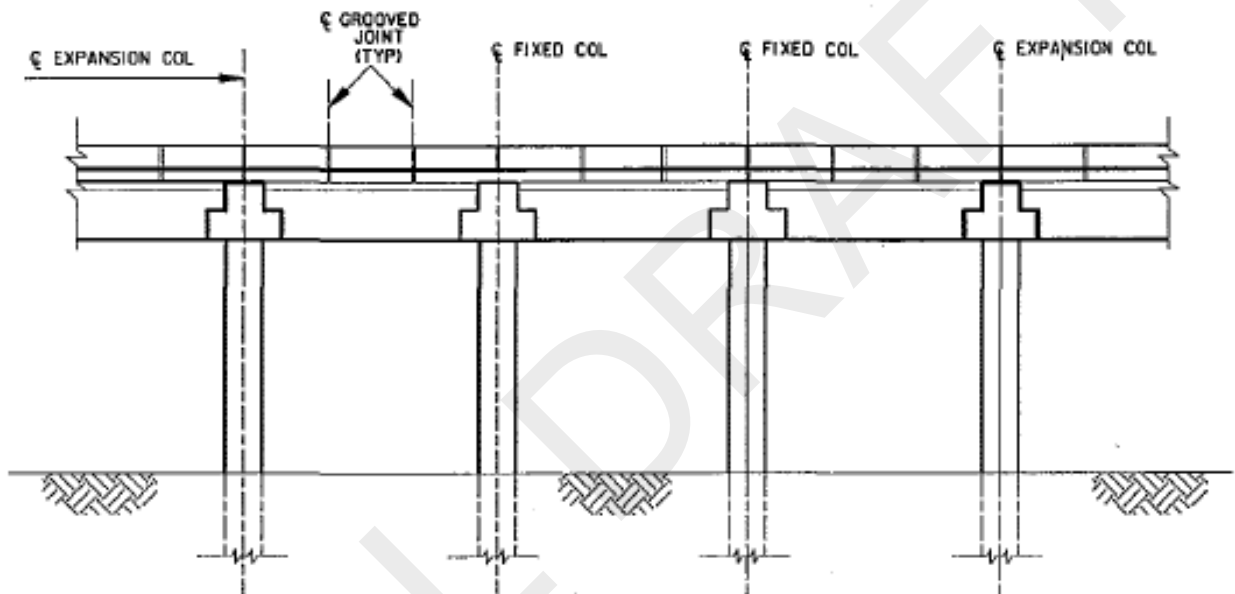


Figure 12. Typical Tee Beam Unit Elevation – 3 Continuous Spans

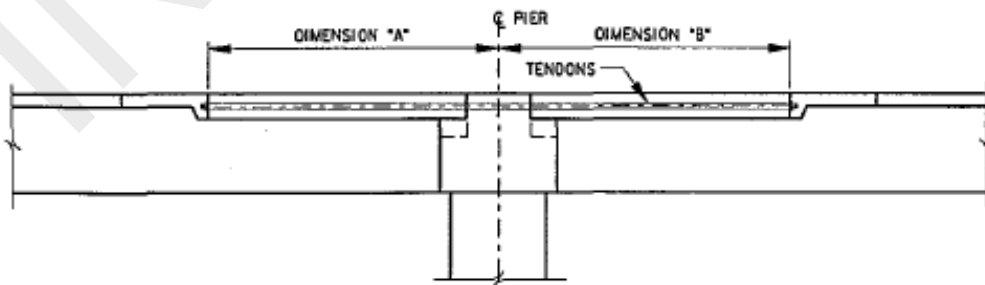


Figure 13. Typical Tendon Layout Through Fixed Piers

#### Condition

The primary issue of concern with the tee beams is the shear cracking of the stems at the dapped ends. The cracks are diagonal and radial in orientation and are more prominent at the expansion ends. See Figure 14 below.

In beam design, regions of a beam with complex variation in strain are called D-Regions (for disturbed or discontinuity). These regions include areas with abrupt changes in geometry or locations of concentrated forces. The behavior of these regions and associated combined stress states are highly complex and the design is typically based on empirical approaches and common detailing practices.

The dapped end of a beam is a classic case of a D-Region. Because of the reinforcing complexities and the tendency for cracking, the FDOT no longer permits the design of dapped beam ends (See section 4.1.6 of the FDOT Structures Design Guidelines which can be found online).

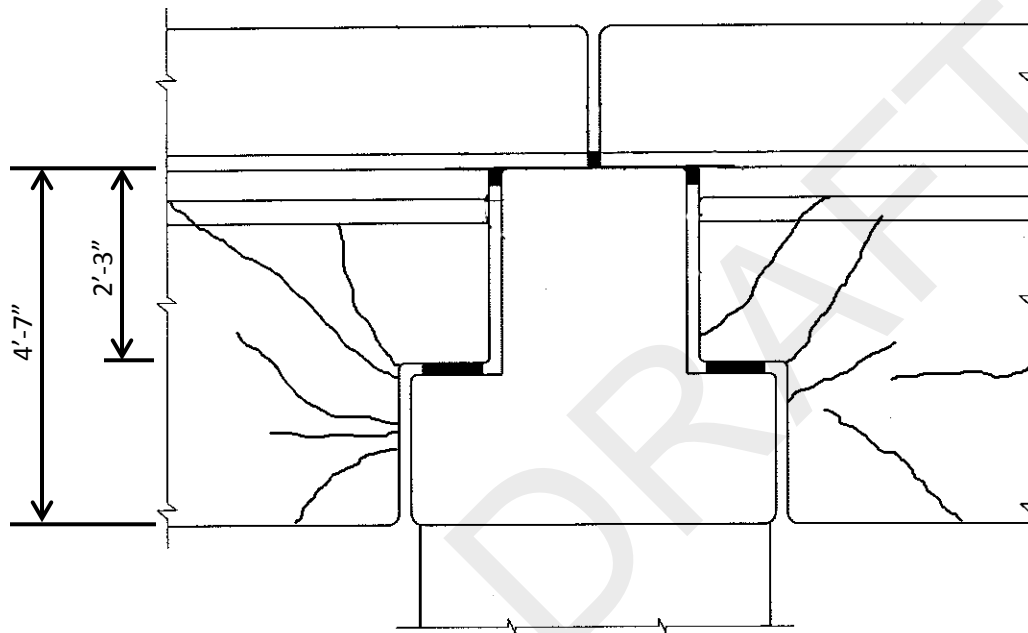


Figure 14. Typical Crack Location and Orientation at Tee Beam Ends

This type of shear and radial cracking is present at an estimated 80% of the stem ends in the system. Some of the cracks are up to 5 feet in length and many extend into the top flange. Also, many of the stem cracks are reflective on the other side of the stem indicating that the crack fully extends through the stem at these locations. Most of the cracks are hairline (less than 0.009 inch wide), however there are a significant number of cracks with maximum widths ranging between 0.01 and 0.02 inches. Two beams have cracks that were measured up to 0.03 inches wide for the initial 3 inches of the crack length. These are Span 24S, both stems and Span 46N, right stem.

According to the AASHTO Manual for Bridge Element Inspection, cracks in prestressed concrete:

- Ranging from 0.004 to 0.009 inches wide are considered “moderate” and result in a condition of “fair”.
- Greater than 0.009 inches wide are considered “wide” and result in a condition of “poor”.

Based on the crack widths measured during the 2017 routine inspection, approximately 75% of the cracks are considered moderate and 25% are considered wide. The two beams with stems up to 0.03 inches wide may be considered “severe”. See the photos below.



Span 18N: Shear Cracking up to 0.02" Wide on Right Stem End at Pier 18N.



Span 24S: Full Depth Shear Cracking up to 0.03" Wide on Left Stem End at Pier 25S.

Carbon Fiber Reinforced Polymer (CFRP) wraps have been utilized to strengthen the ends of 130 beam stems at many of the expansion piers. The lengths of the wraps range between 10 and 20 feet. See Appendix F for the locations of the wraps. A number of these wraps in the North Line are only half height and do not extend above the dapped end notch, where cracking is still present and visible.

Nearly all of the CFRP wraps have small bulges at isolated locations. These bulges are mostly solid and are likely filled with hardened resin. There are a few locations in the system in which the bulges are delaminated and feel soft, spongy or hollow. The beam with the most delaminations is Span 47R with 24 delaminated blisters, up to 5" x 2". This is a new wrap which was added since the previous inspection. See the photo below.



Span 47R: Delaminated Blisters on CFRP Wrap, Right Stem at Pier 47R

There is one location in which the wrap is failing altogether (material failure) and that is at Span 227L. The CFRP on the exterior face of the left stem is cracked and popping off 2'-6" L x 9" H, 18 feet from Pier 228 and 8" L, 10 feet from Pier 228. Also the wrap is delaminated nearly completely over the last 6 feet with peeled and cracked areas. There are numerous delaminations on both left and right stems. Attempts to repair these locations with epoxy injection have been ineffective. See the photo below.

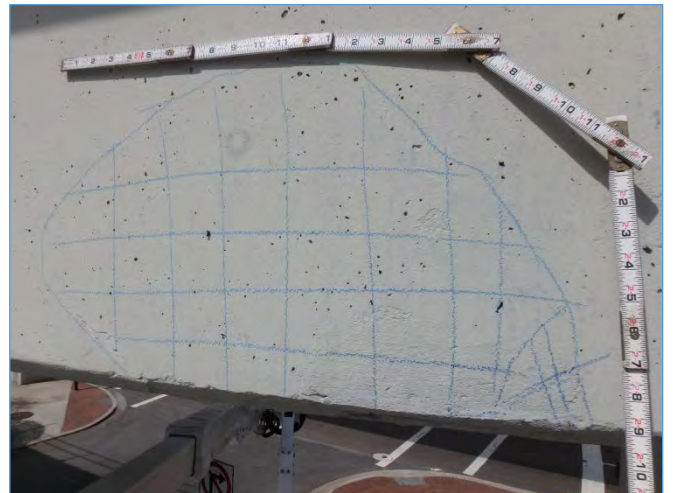


Span 227L: CFRP Failure in at Pier 228

Other common deficiencies noted on the stems were spalling and delamination of the concrete, most of which are located along the bottom edges of the stems. There were no exposed prestressed tendons noted other than end exposure at spalls located on the front or rear face of the stem above an expansion pier. The photos below illustrate the worst cases of each deficiency type.

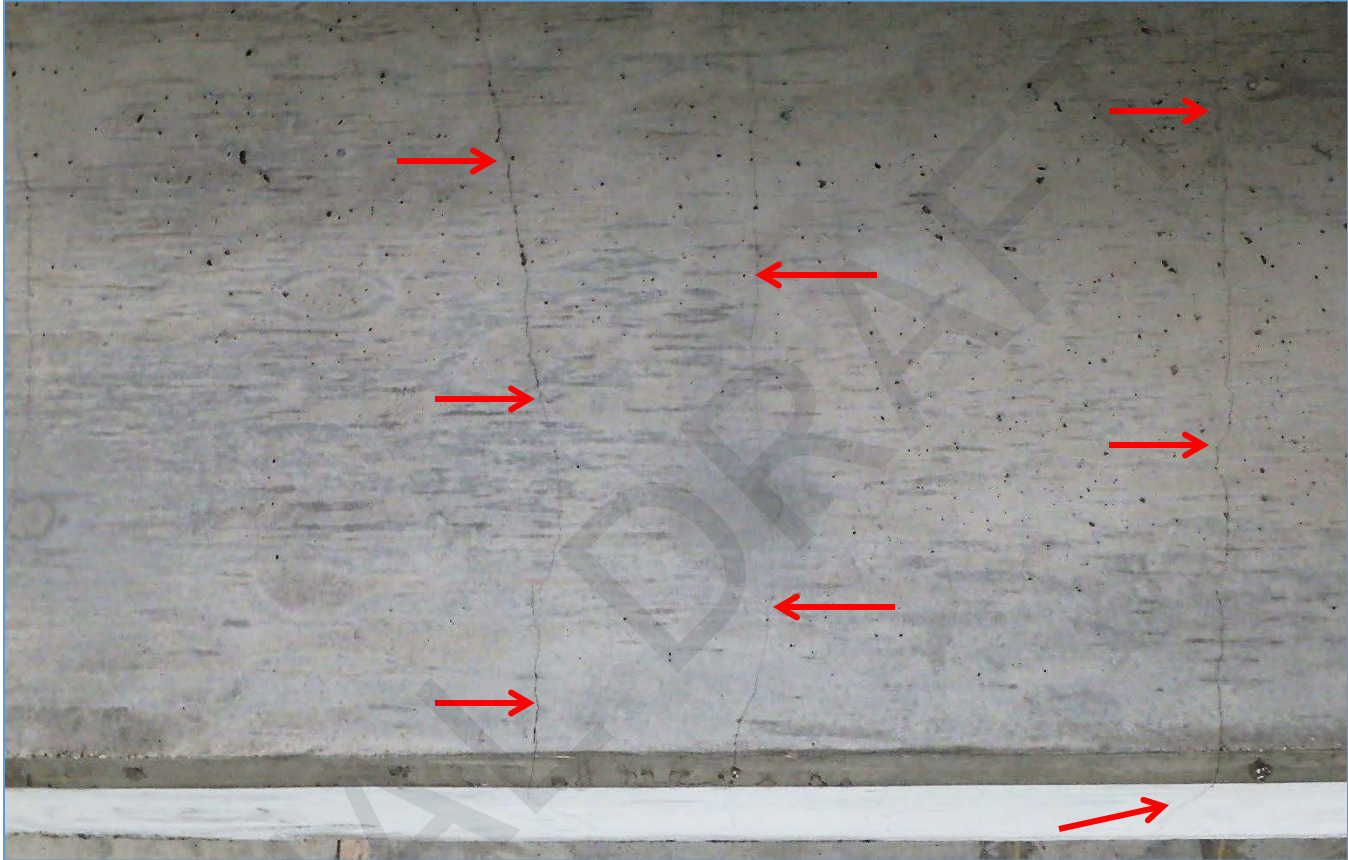


Span 75R: 10-1/2"x9"x1-1/2" Spall,  
Left Stem Near Pier 76R



Span 47R: 24" x 14" Delamination,  
Right Stem Near Pier 48R

Ten spans in the system have cast-in-place concrete tee beams. These beams typically exhibit the same shear and radial cracking at the dapped ends as the prestressed beams, but in addition, they have cracking throughout the full beam lengths. One example is Span 42S, Crossover, located just west of Central Station. This beam has diagonal shear cracking in the end 1/4 L and vertical flexural cracking within the middle 1/2 L. Cracks are up to 0.016" wide, are spaced 10"-16" apart and wrap under the stem and extend up nearly full height on both faces. A portion of these cracks have been surface and epoxy sealed. See the photos below.



Span 42S – Cross: Typical Unsealed Flexural Cracking in Beam Stems



Span 42S – Cross: Typical Sealed Flexural Cracking in Beam Stems



According to the AASHTO Manual for Bridge Element Inspection, cracks in conventionally reinforced concrete:

- Less than 0.012 inches wide are considered “narrow” and result in a condition of “good”
- Ranging from 0.012 to 0.05 inches wide are considered “moderate” and result in a condition of “fair”.
- Greater than 0.05 inches wide are considered “wide” and result in a condition of “poor”.

Based on the crack widths measured in the conventionally reinforced spans during the 2017 routine inspection, approximately 70% of the cracks are considered narrow and 25% are considered moderate.

For a complete list of tee beam deficiencies noted during the 2017 routine inspection, refer to Appendix D-9.

#### *Short Term Recommendations*

- Replace the failing CFRP wraps in Span 227L at Pier 228.
- Consider installing CFRP wraps at the expansion end of Span 24S, both stems and Span 46N, right stem.
- Patch all spalls listed in Appendix D-9 with depths 1in. or greater.
- Seal all cracks listed in Appendix D-9 with widths 0.016in. or greater.

#### *Mid Term to Long Term Recommendations*

Continue to monitor cracks during routine inspections for increased widths and propagation. If further cracking is noted, consider performing more comprehensive analysis to better determine the design strength of the beam ends. This necessity is especially true if it is determined that the system shall continue to function as-is for the long term or if it is determined that the system will be upgraded with a new operational system which will require the spans to carry additional dead and/or live load. Should either of these scenarios play out, it is likely that measures will have to be taken to ensure the continued safety and serviceability of the system. This could be managed in two ways. One is to strengthen and add capacity to the beams themselves and another is to provide additional bearing surface at the piers. A more detailed discussion on these topics was provided in the *Guideway Infrastructure Assessment Report* submitted in 2014 as part of an overall assessment lead by Lea+Elliott.

## Steel Box Girders and Pier Cross Girders

### Description

89 of the 334 spans are framed with steel box girders; representing about 27% of the superstructure. Steel boxes are used at most curved sections and at the long span tangent sections of the Guideway. The average steel box span length is 108 feet, which is longer than the maximum double tee span length. The boxes are roughly seven feet wide by four feet tall and have internal cross frame diaphragms spaced about every ten feet with upper lateral bracing framed between them. See Figure 15.

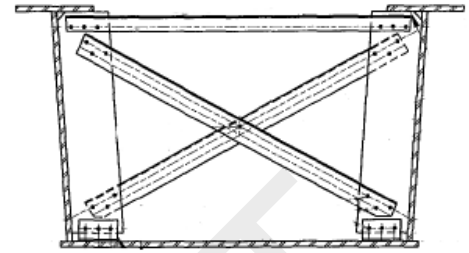


Figure 15. Typical Steel Box

Steel cross girders are utilized at Piers 241 and 242, on the south approach to the Acosta Bridge, and at Piers 9, 10, 11, 30, and 31 along Bay Street in the North Segment. Figure 16 below shows the basic configurations of these elements. These members may be construed as pier caps, but because they sit above the bearings rather than support the bearings, these members are actually part of the superstructure.

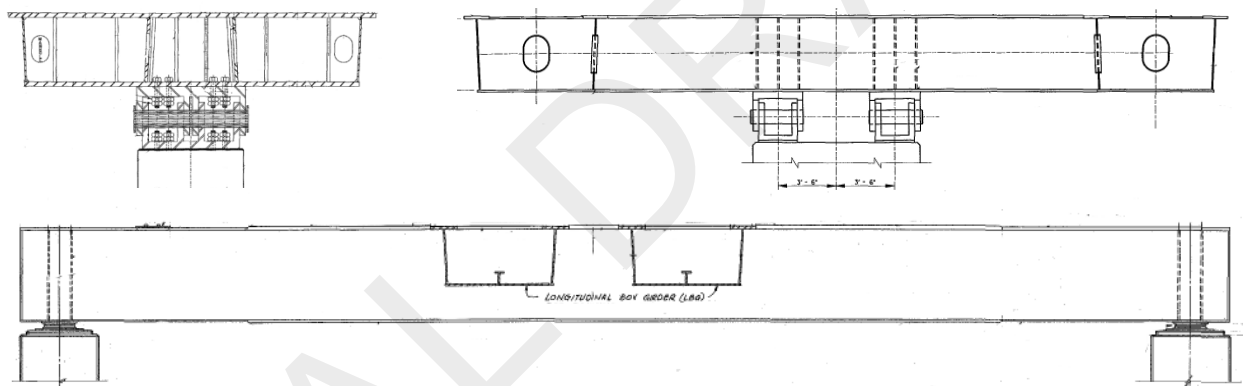


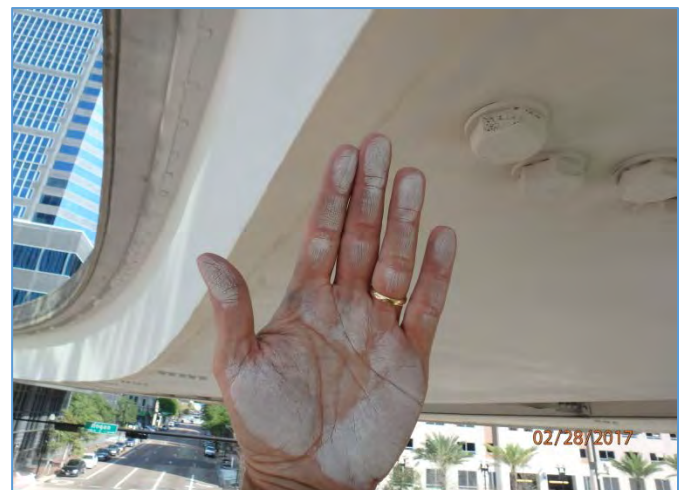
Figure 16. Steel Box Cross Girder Variations

### Condition - Exterior

The steel beams are in good condition overall with no significant structural deficiencies found during the inspection.

The coating system however, is reaching the end of its service life. According to the FHWA Steel Bridge Design Handbook Vol. 19, 3-coat, zinc-rich primer paint systems data suggest performance of 25 years in less aggressive, non-marine environments. With the system being built between the late 80's and late 90's, the current coating system is as much as 30 years old.

The exterior surface coating is breaking down and is very chalky. See the photo to the right.



Very Chalky Paint Exterior – Typical Throughout

Active surface corrosion is present at isolated locations throughout the system, with the worst conditions noted in the Starter Line (although this section supposedly received a refinishing approximately 12 years ago). Nearly all splice plates in the system have light to moderate corrosion and in the Starter Line, active surface corrosion is present at isolated locations on the members themselves. See the photos below. Bubbling and peeling paint exposing primer was also noted on the exteriors of the boxes in the Starter Line at isolated locations.



Span 31N: Surface Corrosion on LT Top Flange



Span 405R: Surface Corrosion on Exterior Splice Bolts

#### *Condition - Interior*

A number of spans near the river have a significant amount of bird droppings, nesting materials, organic debris, and dead bird carcasses. There were no live birds found inside the spans; all access hatches and exterior portal holes that were noted during previous inspections as being open, have been closed. However, the organic debris left behind is significant, noted up to 2" deep in some locations. See the photo below. This debris is hazardous to inspectors, corrosive to the steel, and prevents proper inspection of the bottom welds.



Span R-6 LT: Organic Debris up to 2" Deep

The interior faces of the Starter Line boxes and pier cross girders (Spans 6-11 and 29-31) have a substantial amount of peeling paint, exposing primer. This interior coating failure was not found anywhere else in the system. See the photos below.



Span 9N: Peeling Paint Exposing Primer



Pier 11 Cross Girder

Light to moderate surface corrosion was noted at very isolated locations in the interiors of the boxes, most commonly at the splices and on the bearing stiffeners near expansion ends of beams. The only location noted with measurable section loss caused by the corrosion is the bottom flange splice bolts in Span 52A LT. See the photo to the right.



Span 52A LT, Bay 1 Splice (Up to 15% Loss on Nuts)

Additional box girder deficiencies include:

- Pinhole flaws in the welds
- Thin top coat
- Small gouges in the steel
- Loose bracing bolts
- Slight warps and bulges in the webs
- Minor bends/deformations in the bottom flanges and bracing members
- Build-up of concrete deck overpour, up to 1" (rendering some of the internal welds uninspectable)
- Surface corrosion and efflorescence on the SIP forms

For a complete list of box beam deficiencies noted during the 2017 routine inspection, refer to Appendix D-10. For a breakdown of the coating failure modes and locations, see Appendix D-11.

### *Recommendations*

- Clean out the insides of the boxes that have organic debris. This material is hazardous and will need to be performed by a specialty contractor that can safely remove the organics, likely with vacuum tubes.
- Clean and spot paint the interiors of the boxes at locations in which the corrosion is considered “moderate” or “heavy”.
- Clean and spot paint the exteriors of the boxes at locations in which the corrosion is considered “moderate” or “heavy”.
- Develop a plan for a full coating replacement of the exteriors of all boxes and cross girders. Include the re-painting of the top coat on the interior faces of the spans in the Starter Line.

FINAL DRAFT

## Bearings

There are six different types of beam bearings found within the guideway system. Descriptions of each type and associated deficiencies are presented below.

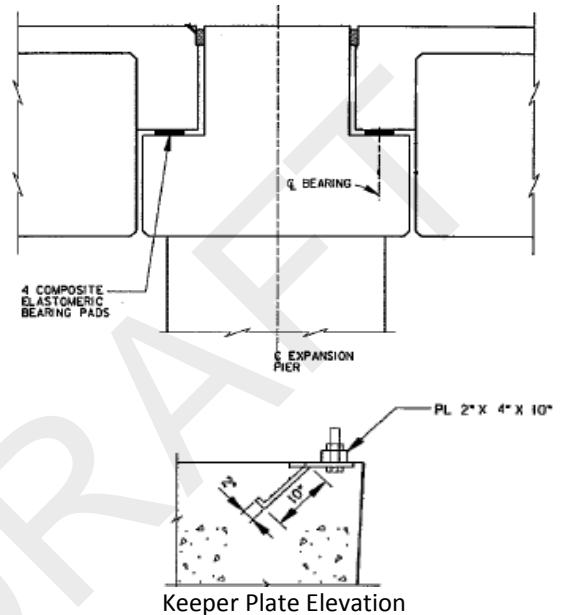
### 1) Elastomeric Bearing Pad and Pier Mounted Keeper Plate

LOCATIONS:

Expansion ends of prestressed tee beams units

DEFICIENCIES:

- Corrosion on keeper plate and/or shim plate
- Keeper plates missing bolts, washers, have loose nuts or is all together missing (typically due to close proximity of beam stem).
- Gap between beam stem and shim plate
- Uneven bearing surface
- Gap between bearing pad and stem
- Overcompressed bearing pad
- Overhanging elastomeric bearing pad



Keeper Plate Nut Missing Washer



Keeper Plate Bolt Missing Nut



Keeper Plate Missing Anchor Bolt

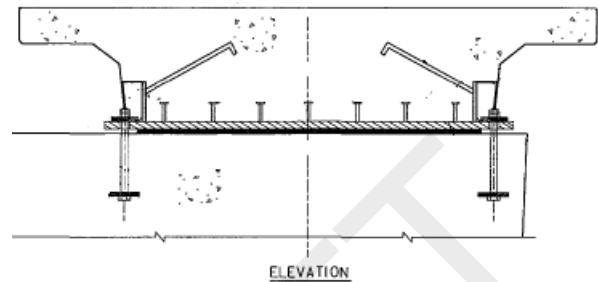


Span 202R: 1/4" Gap Between Left Stem and Bearing Pad at Pier 202R

## 2) Elastomeric Bearing Pad with Embedded Bearing Plate and Anchor Bolts

### LOCATIONS:

- Tee beam expansion end at Piers 47 Right (special cast-in-place concrete section)
- Tee beam fixed end at Pier 52 (slightly different than drawing shown)
- Tee beam expansion end at Pier 240 (21' long beams)



### DEFICIENCIES:

- Nuts not fully engaged
- Surface corrosion on anchor bolts



Span 239L at Pier 240L: Surface Corrosion on Bearing Plate Anchor Bolt

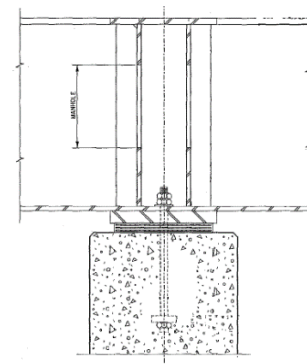
## 3) Elastomeric Bearing Pads for Steel Boxes

### LOCATIONS:

Fixed Piers 7N and 7S (center piers for units composed of two continuous short spans)

### DEFICIENCIES:

- Elastomeric pads overhang pedestal up to 1/4".
- Light surface corrosion on underside of sole plates

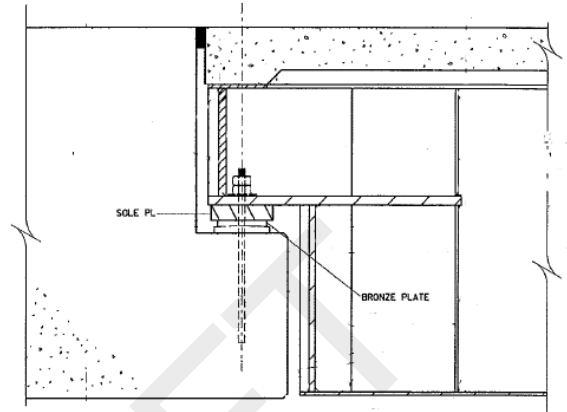


#### 4) Sliding Plate Bearings

LOCATIONS: Expansion ends of steel box units

DEFICIENCIES:

- Anchor bolt nuts not flush; cannot hand tighten
- Missing jam nuts
- Surface corrosion on sole plate and/or masonry plate
- Gaps between plate
- Bird debris on and around the anchor bolts
- At Pier R6, the right anchor bolt for the left bearing is loose and can be rotated 1/2".



Span 205L at Pier 205L: Anchor Bolt Nuts Not Flush With Washers. Missing Jam Nuts.



Span 206L at Pier 207L: Surface corrosion on Sole Plate and Masonry Plate



Span 52A Left at Pier 52A: 1/4" Gap Between Sole Plate and Bronze Plate

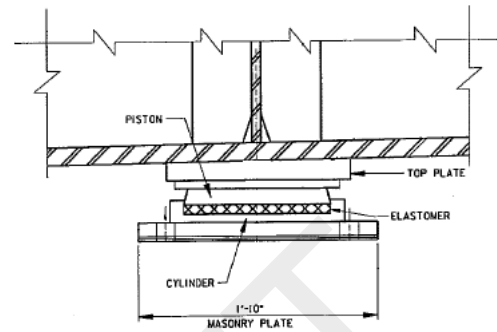


## 5) Pot Bearings

LOCATIONS: Most fixed piers for continuous steel boxes.

DEFICIENCIES:

- Peeling paint
- Surface corrosion
- Loose anchor bolt nuts
- Gap between masonry plate and top of cap



Pier 206L: Peeling Paint on Pot Bearing Cylinder



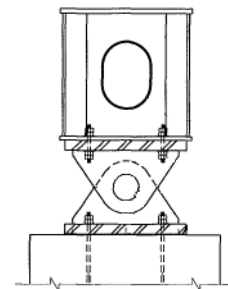
Pier 409L: Loose Bearing Anchor Bolt Nuts

## 6) Rocker Bearings

LOCATIONS: Fixed piers with continuous steel boxes and cross beams:  
Piers 9, 11, 30, 31, 241, and 242

DEFICIENCIES:

- Loose anchor bolt nuts
- Minor surface corrosion
- Gouge in casting



For a complete list of bearing deficiencies noted during the 2017 routine inspection, refer to Appendix D-12.

*Recommendations:*

- Clean and spot paint sliding plate bearings that are noted in Appendix D-12 to exhibit surface corrosion.
- Tighten all of the anchor bolt nuts for the pot bearings that are noted as loose in Appendix D-12.
- Clean and coat the anchor bolts for Spans 239L and 239R at Pier 240.
- Clean and coat the anchor bolts for Span 240R at Pier 240R (inside box).

## SUBSTRUCTURE ELEMENTS

There are 222 individual substructure units in the system, as follows:

- 205 piers
- 6 Acosta Bridge piers (6 per bridge, maintained by the FDOT)
- 7 bents associated with the first three spans of the O&M approach
- 2 end bents and 2 walls for Span 253, which is a pile supported slab span

### Condition - Caps

The piers are in good to fair condition. Hairline cracking is prevalent throughout, on both the pier caps and the pier columns. There are three types of pier cap cracks that recur quite often throughout the system.

Figure 17 to the right shows the side view of the vast majority of the piers in the the system. The caps are inverted-tees with beam seat ledges that the dapped ends of the beams bear on. Along the skyway system, there are numerous pier caps with cracking on the left and right faces similar to that drawn in Figure 17. These cracks extend downward from the rear and forward beam seat corners and are present at both expansion and fixed piers. The cracks at the expansion piers are typically more prevalent, longer, and wider. See the photo below.

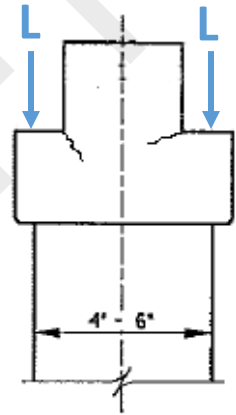
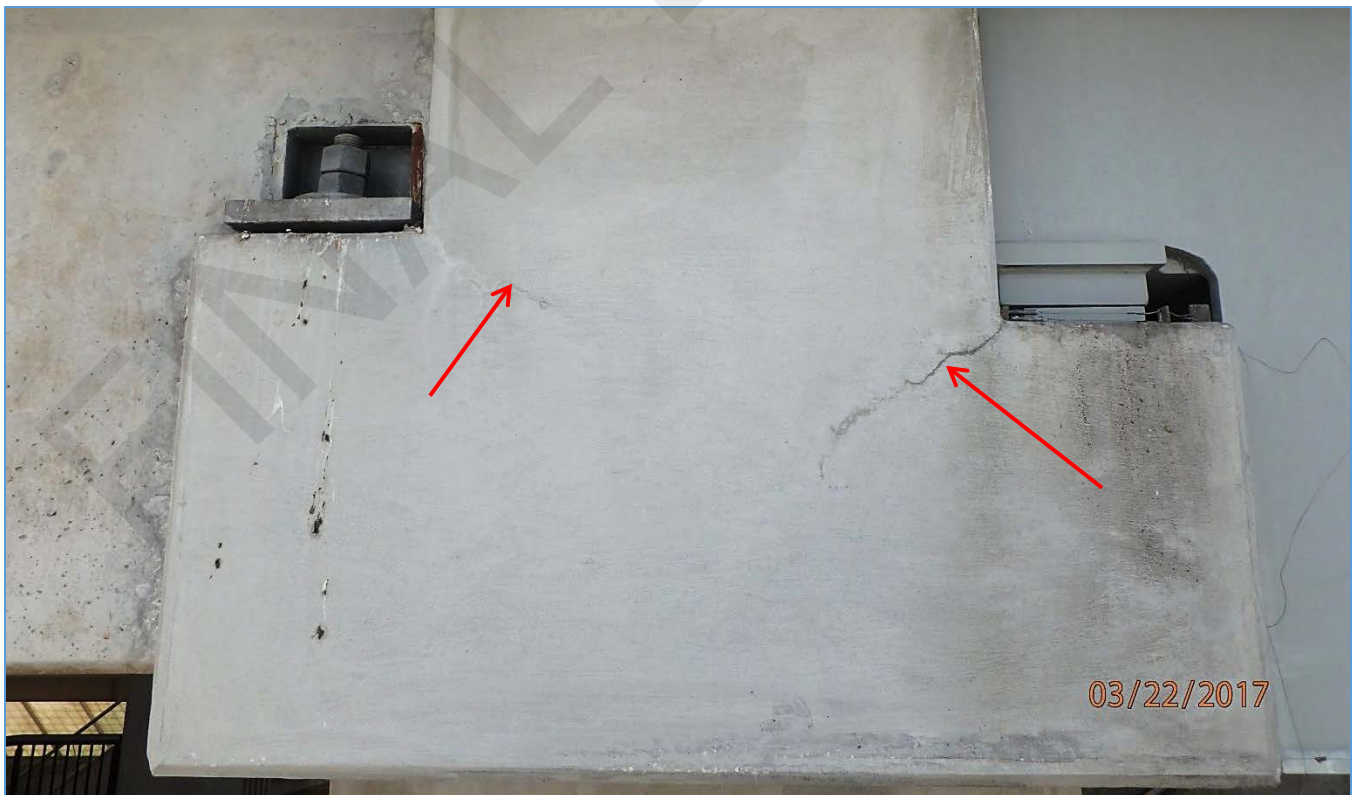


Figure 17. Pier Side View



Pier 240, Right Face of Cap: Typical Beam Seat Corner Cracks

Another prevalent crack type found throughout the system is flexural cracking on piers with hammerhead or “T” style pier caps. This configuration is quite common. See Figure 18.

There are variations in the shapes, depending on whether the pier is carrying concrete or steel beams, or is expansion or continuous, but the forces in the cap are similar and result in negative moment in the cap over the centerline of the column. See the photo below.

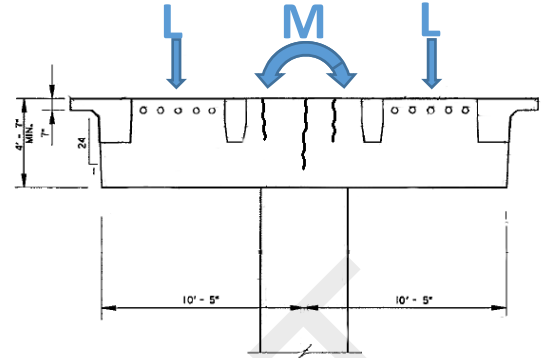


Figure 18. Pier Rear/Front View



Typical Negative Moment Crack, Full Depth of Cap, Front Face of Pier 212

The exception to this crack commonality with the “T” shaped piers is in the Starter Section. The “T” shaped caps in this section are similar but were designed with transverse post-tensioning and as a result, do not have the same negative moment cracking in the rear and front faces.

There are two common deficiencies associated with the post-tensioned pier caps in the starter line and they have to do with the precast covers attached to the left and right faces of the caps over the PT duct blockouts. Caulk, applied around the perimeter of the covers, is failing at a number of locations and as a result, there is efflorescence

leaching out from the bottom of the cover and there are gaps between the tops of the covers and the pier cap. See the photos below.



Pier 19N: Efflorescence Leaching from PT Cover



Pier 40N: 1/2" Gap at Top of PT Cover and Failed Caulk

The third common crack location isn't associated with a particular pier type, but rather a pier detail – 90° re-entrant corners on the rear and front faces of the pier caps. See Figure 19. This detail is present at locations in which the cap transitions from rectangular section to inverted-tee section.

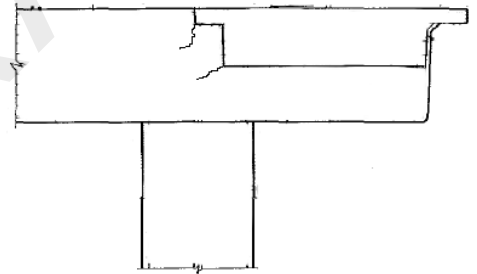


Figure 19. Pier Rear/Front View

This detail occurs on multiple pier types including both one and two column piers. See the photo below.



Pier 62: Diagonal cracks extending downward from the left beam seat corner and the top flange notch.

The worst substructure cracking in the system is located on the pier caps and load bearing struts at the San Marco Station; Piers 237 thru 240. Numerous shear, flexure and shrinkage cracks are present on the caps and the struts, noted up to 0.04" wide. The major design difference between these piers and those elsewhere throughout the system (including at other stations), is the unsupported length of caps. For nearly the same depth of section, these caps (and struts) are spanning much longer distances. Elsewhere in the system, the maximum cap length between column centerlines is about 35'. At the San Marco Station, the cap and strut lengths range between 47' and 57'. See the photos below.



Pier 238: Diagonal Shear Cracks on Strut at RT Column



Pier 238: Flexure/Shear Cracks Across Cap at RT Column



Pier 240: Diagonal Shear Cracks on the Front Face near the LT Column

A number of spalls and delaminations were noted on the pier caps. There are four locations with significant delaminations on the pier caps. All four are located below bearing elements for steel box girders. These are possibly the result of the bearing anchor bolts being cast too close to the face of the cap and when the steel beams expand and contract, they pull and push on the anchor bolts, which in-turn could cause the concrete to delaminate.

The locations in which a large delamination is noted at the bearings are:

1. 3'-0" x 1'-7" on the rear face of Pier 235, below the left span, left bearing  
(A portion of this area has been previously patched, but the patch is also delaminated.)
2. 2'-9" x 1'-2" on the rear face of Pier 258L, below the right bearing
3. 4'-0" x 4" on the rear face of Pier 258R, below the left bearing, extending 2" below masonry plate. See the photo below.
4. 2'-0" x 2" on the rear face of Pier 408R, below the left bearing  
(This has been patched previously, but the patch is starting to crack and delaminate)



Pier 258R: Large Delamination Below the Right Bearing, Rear Face

Water staining and organic growth (green or black algae, mold, or mildew) are common on the expansion pier caps and to a lesser extent, on the columns. This is a result of failed deck joints permitting rain water to drip onto the caps.

#### *Condition - Columns*

The pier columns are in good condition overall with mostly minor spalls and hairline cracking. These column cracks are mostly vertical in orientation although there are locations in which the cracks are horizontal or map/random. Map cracking is prevalent on the San Marco Station pier columns.

The most significant cracking was found on columns of cantilever piers in which the cap extends to one side and the column is offset underneath. These are flexure cracks that are manifested horizontally across the back side, which is the tension side of the column.



Pier 79R: Flexure Cracking in Column With Cantilever Cap



Close-up of Cracks

#### *Condition - Walls*

In general, the walls surrounding the pile supported slab span are in good condition. Minor structural defects exist such as cracking along cold joints, map cracking of the end bent cheek walls, and spalling up to 8"x6"x1" on the rustications of the wall faces. There is no exposed steel or rust staining to indicate rebar corrosion. The transverse wall faces are stained from runoff through the expansion joints.

#### *Condition – Bents*

The bents near the O&M building are also in good condition. The only deficiency noted was hairline cracking on the faces of the caps and some efflorescence. Again, there is no exposed steel or rust staining to indicate rebar corrosion.

For a complete list of deficiencies noted during the 2017 routine inspection, refer to Appendix D-13.

### *Recommendations*

- Although not a structural issue, it is recommended to remove the moderate to heavy staining and algae growth from the pier caps and columns.
- For the spalls listed in Appendix D-13 with depths less than 1in. that have exposed rebar, apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to the steel. This could be added to the scope of services for the inspectors to do during the next routine inspection. (Many, but not all were sprayed during this 2017 inspection.)
- Patch all spalls listed in Appendix D-13 with depths 1in. or greater.
- Seal all cracks listed in Appendix D-9 with widths 0.016in. or greater.
- Monitor the large pier cap delaminations associated with steel box beam bearings for growth or spalling.
- Consider an engineered repair of the pier cap delamination at Pier 258R.



## Acosta Bridge Section

Along the five main spans of the Acosta Bridge, the Guideway runs on top of the Acosta Bridge deck and was constructed by FDOT as part of the highway bridge contract. The only portions constructed by JTA were the second pour and the guidebeam. See the plans excerpt below.

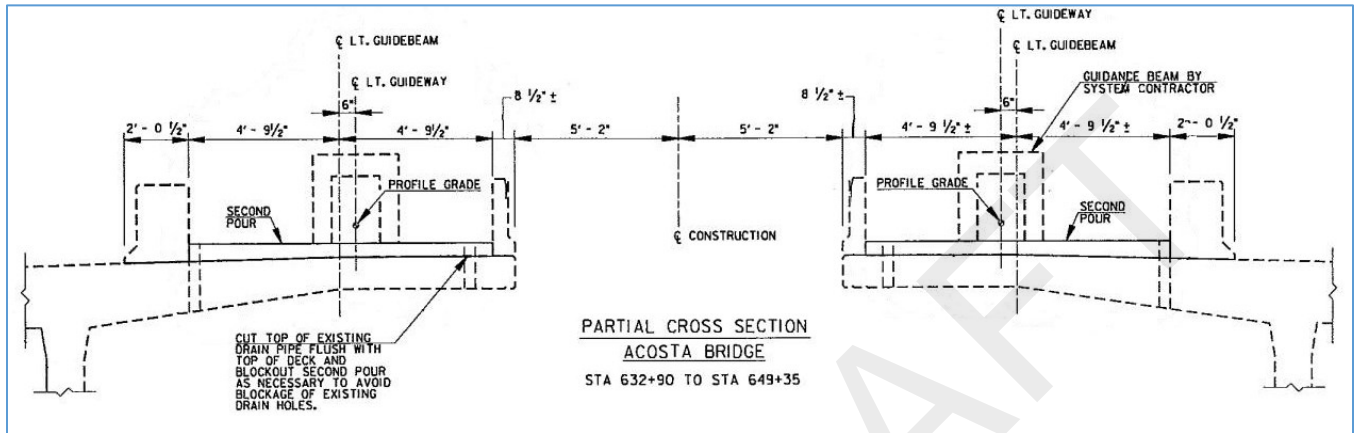
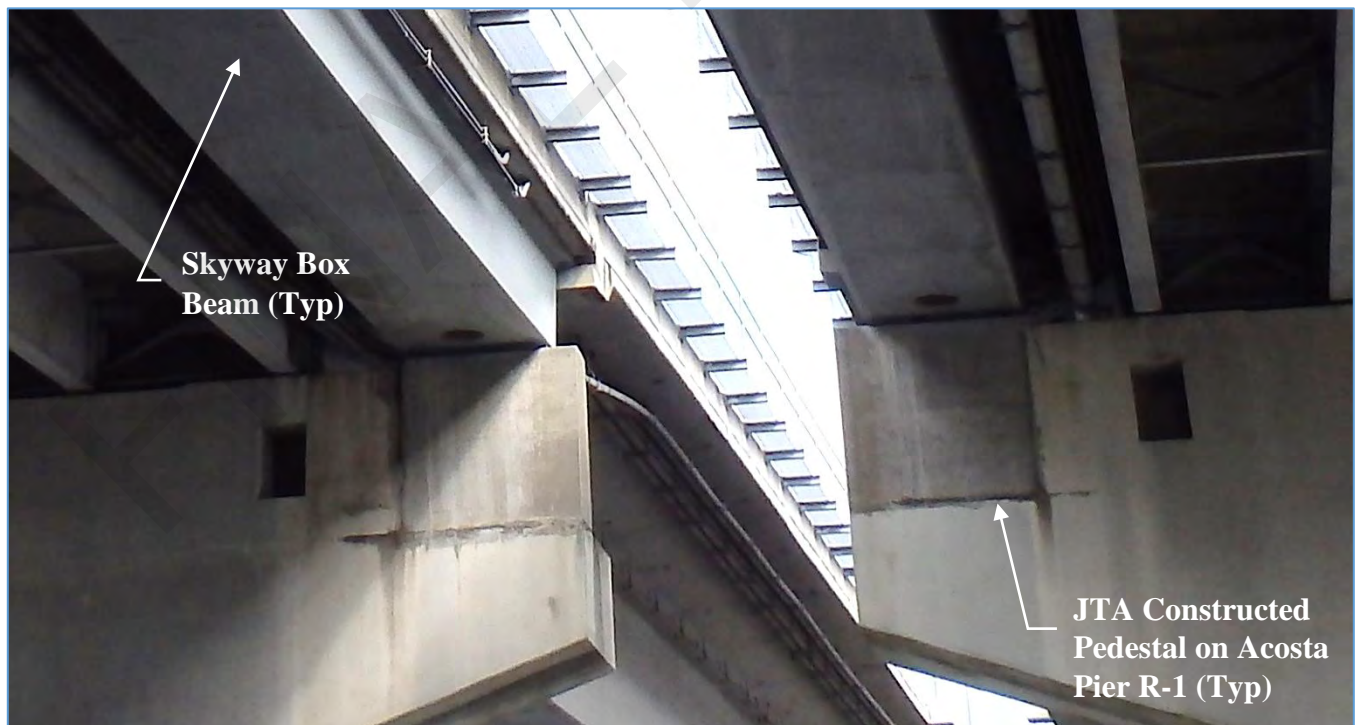


Figure 20: Excerpt from the River Crossing As Built Plans (1994)

At Acosta Bridge Piers R-1 and R-6, pedestals were constructed on the existing piers to support the approaching guideway superstructure. At Pier R-1, a section of the existing pier pedestal was removed and a new pedestal was constructed, measuring 7.6' tall x 8.7' wide x 2.5' thick. The new pedestal is connected to the existing pier with two rows of horizontal dowels with 9" embedment, spaced at 18" and vertical dowels with 12" embedment, spaced at 12". See the photo below. At Pier R-6, the existing pedestal was not removed, so the newly constructed pedestal is less than 1' tall.



Acosta Bridge Pier R-1 Supporting Guideway Superstructure

### Condition

At Pier R-1 Left, there is spalling along the vertical interface between the Guideway pedestal and the Acosta Bridge pedestal. On the front face, the spall is full height, but in the upper half, the spall is approximately 15" wide and 5" deep, exposing two horizontal dowels and one vertical dowel. See the photo below.



Acosta Bridge Pier R-1 Left, Rear Face

The Guideway pedestal was constructed with a top elevation 5" above the Acosta Bridge pedestal. There is a 7" wide lip that overhangs the Acosta Bridge pedestal as shown in the photo above. This lip is cracked, full width of the pedestal. The left ~3" of the masonry plate for the left bearing (which is 25" x 9") sits on top of this lip.

The rear face of the pedestal at Pier R-1 Left also has spalling along the interface, with the worst of the spalling occurring on the Acosta Bridge side, exposing two pieces of rebar. A section of the pedestal lip, measuring 7" x 5" x 3" has also spalled off.

The condition at Pier R-1 Right is better. The rear face exhibits a crack along the interface and there is minor spalling along the interface on the front face, including a section of the pedestal lip measuring 6" x 6" x 4" which has also spalled off.

No significant deficiencies were noted on the pedestals at Pier R-6. The rest of the Guideway components on the Acosta Bridge section, including the bearings, guidebeam, sidewalls, etc. are all addressed within their respective element section in this report.

Appendix E contains excerpts from the most recent and available FDOT Acosta Bridge inspection reports (inspection date 1/19/2016) that pertain to the Guideway connection to the bridge piers.

## RECOMMENDATIONS AND ESTIMATES

### INTRODUCTION

This section summarizes recommendations and includes order of magnitude cost estimates based on the findings made during the 2017 routine inspection. Please refer to the individual sections of the report for specifics related to the condition of various structural components. Details are included for both typical and significant deficiencies along with repair and maintenance recommendations. Additional back up data is located in the Appendices. Appendix D contains comprehensive tables detailing individual deficiencies and their locations.

Cost estimates for maintenance items cited in this inspection report were completed and are shown in the table below. While some of the items require immediate attention, others can be taken care of in the future along with the Skyway conversion. It is strongly recommended that all items (listed below as items 1 thru 60) be reviewed and understood by the Skyway personnel. Where applicable, FDOT pay items were used as a basis of estimate. When required, assumptions on unit costs and quantities are noted below each section of recommendations and are used to create the cost estimate summary in the table below. The estimates are order of magnitude and are for planning purposes only and more detailed estimates should be prepared as maintenance and repair plans are developed.

The summary table includes a reference to each recommendation number, the maintenance item, and quantity and unit price. The table also indicates which items should be completed in the near term with an N and which are longer term recommendations with an L.

The items included in near term are recommended to be performed as soon as funding permits with the long term items to be programmed and included as part of a longer term maintenance plan. Plans for implementation of the longer term items should be considered as part of the anticipated skyway conversion plan.

## Recommendations Summary Table

Recommendation Number(s)	Item	Quantity	Unit	Unit Price	Estimate	N/L
<b>Non-Structural Related Concerns</b>						
<i>Deck Elements</i>						
1,4, 8, 38	Clean out drains and joints	79	EA	\$ 600	\$ 47,400	N
2-3,5-7, 17	New drains & epoxy overlay	65	EA	\$ 4,055	\$ 263,600	L
<i>Electrical</i>						
9-16	Electrical maintenance	1	EA	\$ 20,000	\$ 20,000	N
<i>Vegetation</i>						
18-20	Initial tree trimming at piers	48	hr/crew	\$ 160	\$ 7,700	N
18-20	Recurring tree trimming	10	cycle	\$ 4,800	\$ 48,000	L
<b>Deck Elements</b>						
<i>Emergency Walkway</i>						
21	Misc Metal for walkway cover plates	4	EA	\$ 250	\$ 1,000	N
22-23, 33	Walkway corrosion inhibitor	39,000	SF	\$ 8	\$ 312,000	L
<i>Expansion Joints</i>						
24-30	Replace compression seals	2,109	FT	\$ 100	\$ 210,900	L
24-30	Replace modular seals	283	FT	\$ 920	\$ 260,400	L
<i>Deck and Tee Beam Top Flange/Sidewalls</i>						
31,32, 35-36, 41, 44, 46	Repair spalls	19.2	CF	\$ 271	\$ 5,300	L
31,32,34, 37, 45-46	Seal cracks	114	LF	\$ 123	\$ 14,100	L
<b>Superstructure</b>						
<i>Concrete Tee Beams</i>						
42-43	CFRP wrap repair	1,350	SF	\$ 150	\$ 202,500	L
44, 46	Patch spalls	3.5	CF	\$ 271	\$ 1,000	L
45-46	Seal cracks	825	LF	\$ 123	\$ 101,800	L
<i>Steel Box Girders and Pier Crossheads</i>						
47	Organic debris specialty removal (40,000 SF)	1	LS	\$500,000	\$ 500,000	L
11, 39-40, 48-54	Paint total exterior, spot interior and switchbeam, and bearing work	190,000	SF	\$ 29	\$ 5,553,700	L
<b>Substructure</b>						
<i>Substructure Elements</i>						
46, 56, 57, 59-60	Patch spalls	3.3	CF	\$ 271	\$ 1,000	L
46, 58, 60	Seal cracks	21	LF	\$ 123	\$ 2,600	L
Near Term Subtotal					\$ 76,100	
Contingency (Mobilization, Engineering, etc.)					30%	\$ 22,830
<i>Near Term Total</i>					\$ 98,930	
Long Term Subtotal					\$ 7,476,900	
Contingency (Mobilization, Engineering, etc.)					30%	\$ 2,243,070
<i>Long Term Total</i>					\$ 9,719,970	
<i>Overall Total</i>					\$ 9,818,900	

Note: N/R: Near or Long Term.

## NON-STRUCTURAL RELATED CONCERNS

### Deck Drainage System

#### Short Term Recommendations

1. Remove the soil and debris from the top of the deck, especially at the scupper locations. This should be done on a regular basis.
2. Repair/replace the deck drain grates at the following locations: Pier 8 (N), Pier 12 (N&S), Pier 24N, Pier 24S, Pier 65R, Pier 66R, Span 253 (RT), Pier 255 (RT), Pier 406L, Pier 204L.
3. Repair/replace the riser pipes and/or caps at ground level at the following piers: 214, 228, 230, 256L, 258R.
4. Clean out clogged drain pipes at the following locations: Pier 12 (N&S), Span 253 (RT), Pier 255 (RT).
5. Repair the eroded areas between the slab-on-grade spans at the O&M facility. Provide a means to convey the stormwater and prevent further erosion.

#### Mid to Long Term Recommendations

6. Inventory the locations with water ponding issues that cannot be alleviated with the maintenance solutions listed above.
7. At each location, investigate an engineered solution. Perhaps this entails piping through the guidebeam pedestal or coring through the deck and installing additional means of conveyance.

The inspection report cites 79 locations that require maintenance regarding the existing superstructure drainage system. This work includes clearing debris from the drains, unclogging of pipes, testing the drainage systems, and replacing missing and broken drainage pipes and caps. Assuming \$200 for material cost at each location, a total maintenance cost of \$47,400 is estimated based on the work of a two-man labor crew working for 4 hours at each location (\$100/hr).

For a proposed drainage system to be installed on the skyway superstructure, 65 drain locations (1 in every 4 spans) is estimated. Assuming \$20 per linear feet of 4" PVC pipe and a two-man crew working for 8 hours at each of these locations, the estimated cost is \$104,000. In addition, an epoxy overlay to correct cross-slopes and ensure positive drainage will be required. The cost per square yard of epoxy overlay is estimated at \$34 over the plan area of the track (FDOT Pay Item 400-136) and is estimated at \$159,600. Therefore, the total cost estimate for a drainage system overhaul is \$263,600.

## Electrical

### Short Term Recommendations

8. Remove soil and debris that has accumulated at transverse conduits on the deck.
9. Replace conduit with 100% section loss and exposed wires at the San Marco Station.
10. Repair electrical cable tray defects at the following locations: Span 55L, Span 200R, Span 232R, and Span 239L.
11. Clean and spot paint areas of corrosion on the electrical control cabinets located throughout the system.
12. Replace the non-galvanized nuts for the cable tray support brackets in the Starter Line with galvanized nuts. Also replace the non-galvanized nuts and washers for the electrical control cabinet support brackets in Span 409L with galvanized hardware.
13. Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to metal straps, brackets, hardware, and power rail attachment brackets at locations with corrosion.
14. Replace broken and severely corroded pipe hangers in Span 1N, Exterior.
15. Tighten the nuts for the traffic light attachment over Hogan Street and clean and coat the nuts and bolts to prevent further corrosion.
16. Install electrical outlet covers where missing on the pier columns along Hogan Street.

### Long Term Recommendation

17. Consider a means to elevate the transverse conduits further off the deck to help prevent trapped debris and standing water causing deterioration.

Maintenance Items 9-16 in the above recommendations are all classified as general electrical maintenance that needs to occur throughout the infrastructure system. This work has been assumed to cost \$20,000 and we recommend this be taken care of in the near-term. As for item 17, this work is part of the long term drainage solution.

## Encroachment and Vegetation Growth

### Recommendations

18. Remove the vegetation growing beneath and around the spans leading from the O&M facility.
19. Remove the vines growing on the pier columns leading from the O&M facility.
20. Landscaping trees in contact with the guideway beams or sidewalls should be trimmed back or removed as necessary.

The inspection report cites approximately 24 locations where it is necessary to remove the vegetation from the structure. For the near-term maintenance required, a total maintenance cost of \$7,700 is estimated based on the work of a four-man labor crew working for 2 hours at each location (\$160/hr).

In addition, a cost estimate was done for a long-term vegetation growth maintenance plan. It is assumed that 15 locations will require the work of the four-man crew each year. For this work, a total maintenance cost of \$48,000 is estimated based on the work of a four-man labor crew working for 2 hours at each location (\$160/hr). This \$48,000 is assumed to be equally distributed over 10 years and beginning after the vegetation issues noted in the inspection report are rectified.

## DECK ELEMENTS

### Emergency Walkway

#### Recommendations

21. Install new (wider) cover plates at the four Acosta Bridge expansion joints located at Piers R-1 and R-6.
22. Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to the grating, grating clips, bolts and railing with moderate surface browning and surface corrosion.
23. At the cantilevered walkway support brackets with moderate to heavy surface corrosion, clean the brackets with a wire brush and apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray*.

The inspection report cites the need to coat the emergency walkway as well as provide wider cover plates at the four Acosta Bridge expansion joints. Estimating \$8 per square foot of the corrosion inhibitor a cost estimate of \$312,000 for this work is included in this report. An estimation of \$250 per cover plate is assumed for a total cost of \$1,000. It is noted that an assumption has been made that computes the square footage of walkway coating needed as 50% of the overall walkway surface.

### Expansion Joints

#### Recommendations – Deck Joints

24. Remove the soil and debris within and around the joints.
25. The compression seal deck joints throughout the system are in poor condition and the best repair solution will depend on the design of the future system – namely if the guidebeam will stay in place or be removed.
26. If the guidebeam is intended to remain and there will be no vehicle contact with the joints, then the most economical solution will be to apply a neoprene seal over the existing failed joints. This has already been done at Piers 62 and 66; see the photo below. This solution is not feasible though, if the future design calls for a vehicle to run directly on top of the deck. If that becomes the case, then the existing compression seals should be removed and replaced once the guidebeam, pedestals, and second pours are removed. Additionally, if it is decided that a vehicle will run directly on top of the deck, then the locations with uneven deck/pier cap interfaces will also need to be addressed.

## Recommendations – Guidebeam Expansion Joints

27. Reinstall the retrofit expansion extension plates at Pier R-6.
28. Patch the spalls in the concrete pourbacks; locations are listed in Appendix D-5.
29. Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to areas on the steel plates and fingers with surface corrosion that do not come in contact with the train tires.
30. In the long term if the guidebeam is to remain, an engineered solution to retrofit the joints should be investigated due to the deterioration of the pedestals (see the Guidebeam section of this report). Perhaps this could involve replacing the single joint with two that coincide with the deck joints. Another option would be to retrofit the current configuration by replacing the bond breakers with thin sliding plate bearings.

The inspection report notes that the compression seals throughout the entire deck system are in poor condition and in need of replacement. Assuming that the future of the skyway utilizes the existing superstructure elements, it is estimated that replacement of these compression seals will cost \$210,900. This estimate is based on a unit price of \$100/LF of compression seal. The modular seals at the Acosta Bridge are also in need of replacement. For the 283 feet of modular joint, it is estimated that the cost of replacement will be \$260,400.

## Deck and Tee Beam Top Flange

### Recommendations

31. Remove the debris and any loose concrete from on top of the deck.
32. Patch all deck and tee beam top flange spalls listed in Appendix D-6 with depths 1in. or greater. Second pour spalls that do not affect the bearing of the guidebeam pedestals could be ignored.
33. Apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to exposed reinforcing.
34. Seal all cracks listed in Appendix D-6 with widths 0.016in. or greater.

## Sidewalls

### Recommendations

35. For the spalls listed in Appendix D-7 with depths less than 1in. that have exposed rebar, apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to the steel. This could be added to the scope of services for the inspectors to do during the next routine inspection. (Many, but not all were sprayed during this 2017 inspection.)
36. Patch all spalls listed in Appendix D-7 with depths 1in. or greater.
37. Seal all cracks listed in Appendix D-7 with widths 0.016in. or greater.



## Guidebeam

### Recommendations

38. At the expansion joints, remove all unsecure pedestal concrete and thoroughly clean out the joint areas.
39. At the switchbeam locations, remove active corrosion and recoat areas of failed paint on the switchbeam mechanism support plates brackets and bolts.
40. Develop a plan to re-paint the steel guidebeams and switchbeams.
41. Patch all spalls listed in Appendix D-8 that are on the top edges of the guidebeam.

The inspection report locates and describes a plethora of cracks and spalls that require attention in Appendix D-6, D-7, and D-8. Using FDOT Pay Item information, unit costs for spall repair (FDOT Pay Item 401-70-1) is \$271/CF and the unit cost for crack repair (FDOT Pay Item 411-2) is \$123/LF. Using these unit costs, it is estimated that the cost of these repairs total \$126,000. It is noted that an additional cost factor may need to be applied due to constant mobilization as these repairs are evenly dispersed throughout the system.

## SUPERSTRUCTURE ELEMENTS

### Concrete Tee Beams

#### Short Term Recommendations

42. Replace the failing CFRP wraps in Span 227L at Pier 228.
43. Consider installing CFRP wraps at the expansion end of Span 24S, both stems and Span 46N, right stem.
44. Patch all spalls listed in Appendix D-9 with depths 1in. or greater.
45. Seal all cracks listed in Appendix D-9 with widths 0.016in. or greater.

The inspection report cites 3 spans that are in need of CFRP rehabilitation. These locations are spans 227L, 24S, and 46N. Assuming a CFRP installation in the outer 15 ft of each end of beam, it is estimated that 1,250 sf of coating is required. A unit price of \$150/sf was chosen for this cost estimate and totaling a rehab cost of \$202,500. It is noted that CFRP is not a common means of beam strengthening for FDOT and unit costs may vary.

#### Mid Term to Long Term Recommendations

46. Continue to monitor cracks during routine inspections for increased widths and propagation. If further cracking is noted, consider performing more comprehensive analysis to better determine the design strength of the beam ends. This necessity is especially true if it is determined that the system shall continue to function as-is for the long term or if it is determined that the system will be upgraded with a new operational system which will require the spans to carry additional dead and/or live load. Should either of these scenarios play out, it is likely that measures will have to be taken to ensure the continued safety and serviceability of the system. This could be managed in two ways. One is to strengthen and add capacity to the beams themselves and another is to provide additional bearing surface at the piers. A more detailed discussion on these topics was provided in the *Guideway Infrastructure Assessment Report* submitted in 2014 as part of an overall assessment lead by Lea+Elliott.

## Steel Box Girders and Pier Crossheads

### Recommendations

47. Clean out the insides of the boxes that have organic debris. This material is hazardous and will need to be performed by a specialty contractor that can safely remove the organics, likely with vacuum tubes.
48. Clean and spot paint the interiors of the boxes at locations in which the corrosion is considered “moderate” or “heavy”.
49. Clean and spot paint the exteriors of the boxes at locations in which the corrosion is considered “moderate” or “heavy”.
50. Develop a plan for a full coating replacement of the exteriors of all boxes and crossheads. Include the re-painting of the top coat on the interior faces of the spans in the Starter Line.

**Item 47 noted above is of great importance. It is imperative that the organic debris located inside the steel box be removed as soon as possible. This work will need to be performed by a specialty contractor so that the organic matter is removed safely and also disposed of in the proper manner.**

**The inspection report locates areas that are in need of spot painting. A cost estimate has been done not only to include this work, but to paint the entire exterior steel beam system plus 20% of the interior of the steel beams. This cost estimate also includes all other incidental spot painting and coating mentioned in the inspection report. Per FDOT Pay Item 561-2, the unit cost per SF of coating is \$29.23 (FDOT Pay Item 561-2). The total estimated cost for steel coating is \$5,554,000. This work can be done as the skyway system is being converted and will only need to be done if the existing superstructure is utilized.**

## Bearings

### Recommendations

51. Clean and spot paint sliding plate bearings that are noted in Appendix D-12 to exhibit surface corrosion.
52. Tighten all of the anchor bolt nuts for the pot bearings that are noted as loose in Appendix D-12.
53. Clean and coat the anchor bolts for Spans 239L and 239R at Pier 240.
54. Clean and coat the anchor bolts for Span 240R at Pier 240R (inside box).

This work is assumed to be incidental to the painting cost estimate discussed in this report. It is assumed that items 51 through 54 will be completed at time of painting.

## SUBSTRUCTURE ELEMENTS

### Recommendations

55. Although not a structural issue, it is recommended to remove the moderate to heavy staining and algae growth from the pier caps and columns.
56. For the spalls listed in Appendix D-13 with depths less than 1in. that have exposed rebar, apply a corrosion inhibitor such as *Clearco Products High Performance Zinc Spray* to the steel. This could be added to the scope of services for the inspectors to do during the next routine inspection. (Many, but not all were sprayed during this 2017 inspection.)
57. Patch all spalls listed in Appendix D-13 with depths 1in. or greater.
58. Seal all cracks listed in Appendix D-9 with widths 0.016in. or greater.
59. Monitor the large pier cap delaminations associated with steel box beam bearings for growth or spalling.
60. Consider an engineered repair of the pier cap delamination at Pier 258R.

The inspection report locates and describes a plethora of cracks and spalls that require attention in Appendix D-6, D-7, and D-8. Using FDOT Pay Item information, unit costs for spall repair (FDOT Pay Item 401-70-1) is \$271/CF and the unit cost for crack repair (FDOT Pay Item 411-2) is \$123/LF. Using these unit costs, it is estimated that the cost of these repairs total \$126,000. It is noted that an additional cost factor may need to be applied due to constant mobilization as these repairs are evenly dispersed throughout the system.

## ACOSTA BRIDGE SECTION

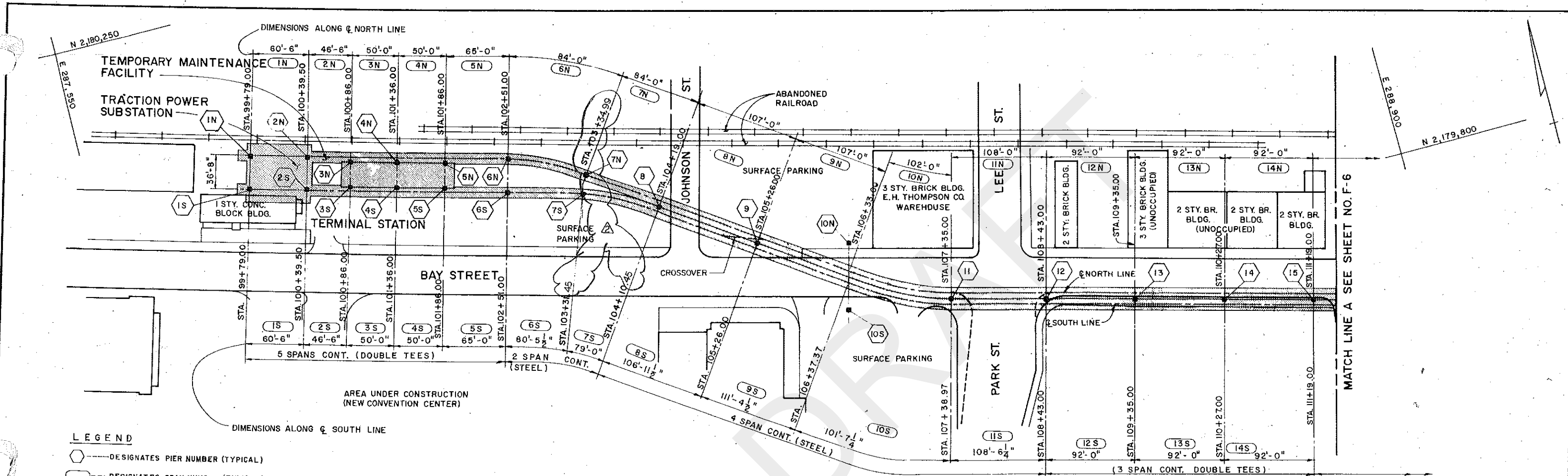
The Jacksonville Transportation Authority is responsible for the second pour and guideway elements along the Acosta Bridge. This section of the river crossing encompasses 10 spans and two pedestals, R-1 and R-6, for a total of 3,290 ft. of directional guidebeams.



# APPENDIX A

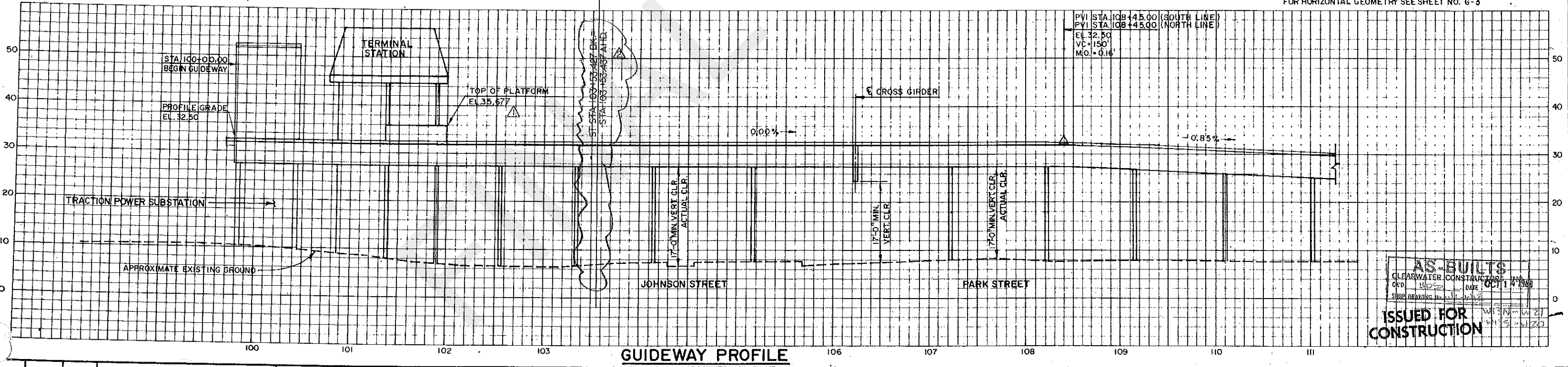
Skyway Plan & Elevation Sheets

FINAL DRAFT



**GUIDEWAY PLAN**

**NOTE:**  
 PROFILE GRADE SHOWN IS FOR THE NORTH LINE. SOUTH LINE PROFILE GRADE TO BE IN THE SAME PLANE.  
 FOR HORIZONTAL GEOMETRY SEE SHEET NO. G-3



**GUIDEWAY PROFILE**

**AS-BUILTS**  
 CLEARWATER CONSTRUCTION, INC.  
 DATE 03/14/88  
 ISSUED FOR CONSTRUCTION

2/03/89	D.G.L.	CHANGE ORDER NO. 018
01/27/89	D.G.L.	CHANGE ORDER NO. 017
DATE	BY	NO
APPROVAL		REVISIONS

**JTA** JACKSONVILLE TRANSPORTATION AUTHORITY  
 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - A STARTER LINE  
 JACKSONVILLE, FLORIDA

SUBMITTED BY:  
**RS&H**  
 Architects - Engineers - Planners  
 Jacksonville, Florida

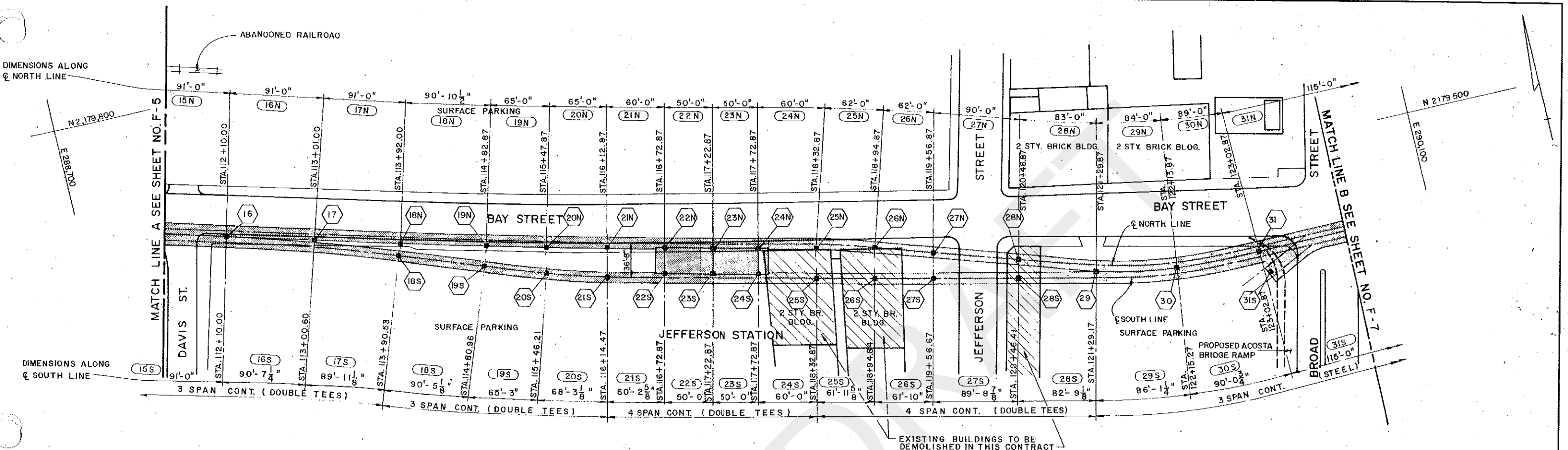
PREPARED BY:  
**RS&H**  
 Architects - Engineers - Planners  
 Jacksonville, Florida

DESIGNED	DATE
W.H.M.	01-87
DRAWN	DATE
E.S.R.	01-87
CHECKED	DATE
W.H.M.	03-87
APPROVED	DATE
W.H.M.	03-87

TITLE  
**PLAN AND PROFILE**  
**STRUCTURAL GUIDEWAY**

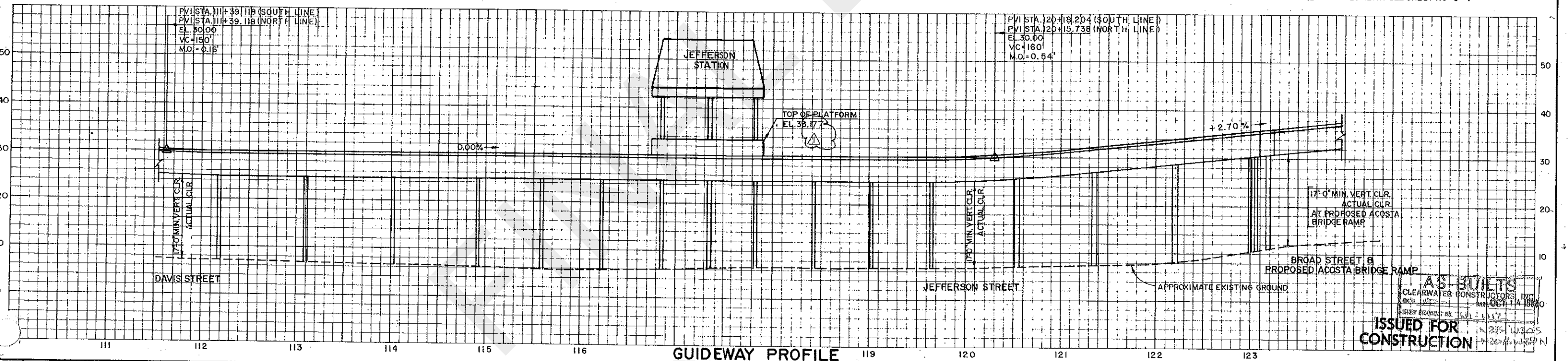
CONTRACT NUMBER: 3

DRAWING NUMBER	G-6
SHEET NUMBER	7 OF 358



**GUIDEWAY PLAN**

**NOTE:**  
 PROFILE GRADE SHOWN IS FOR THE NORTH LINE. SOUTH LINE PROFILE GRADE TO BE IN THE SAME PLANE.  
 FOR HORIZONTAL GEOMETRY SEE SHEET NO. G-4



**GUIDEWAY PROFILE**

**AS-BUILTS**  
 CLEARWATER CONSTRUCTORS, INC.  
 ISSUED FOR CONSTRUCTION

07-89	D.G.L.	CHANGE ORDER NO. 017
DATE	BY	NO
APPROVAL	DESCRIPTION	REVISIONS

**JACKSONVILLE TRANSPORTATION AUTHORITY**  
**AUTOMATED SKYWAY EXPRESS PROJECT**  
 PHASE ONE - A STARTER LINE  
 JACKSONVILLE, FLORIDA

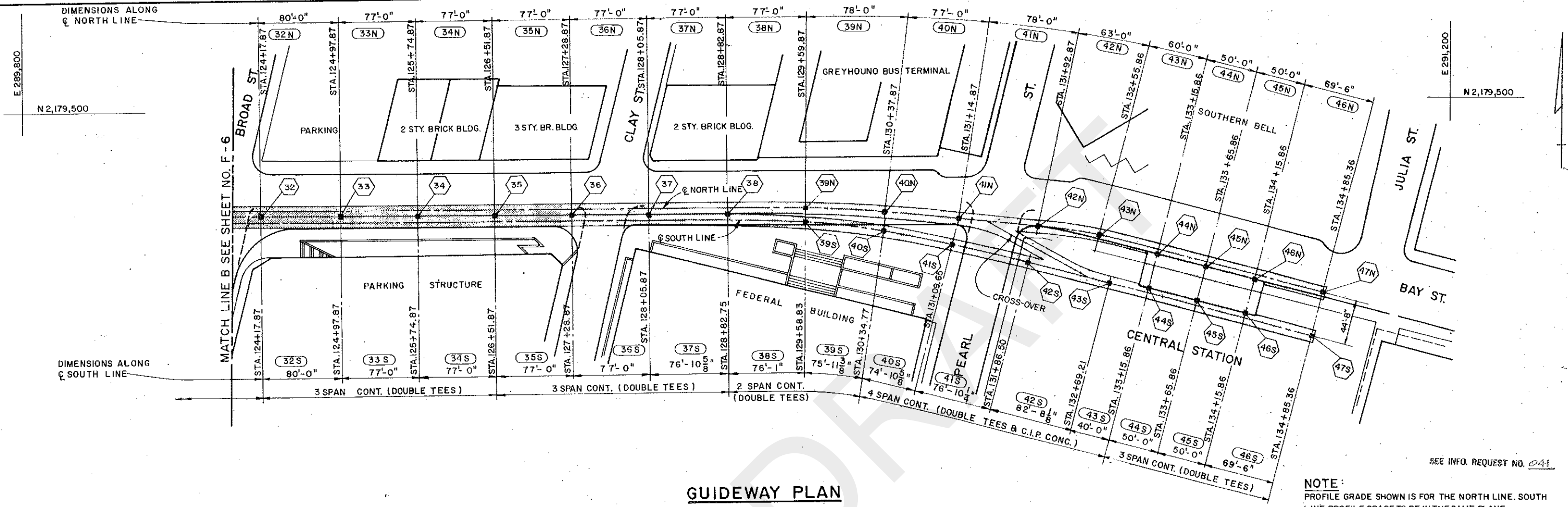
SUBMITTED BY:  
**RS&H**  
 Architects - Engineers - Planners  
 Jacksonville, Florida

PREPARED BY:  
**RS&H**  
 Architects - Engineers - Planners  
 Jacksonville, Florida

DESIGNED	DATE
W.H.M.	01-87
DRAWN	DATE
E.S.R.	01-87
CHECKED	DATE
W.H.M.	03-87
APPROVED	DATE
W.H.M.	03-87

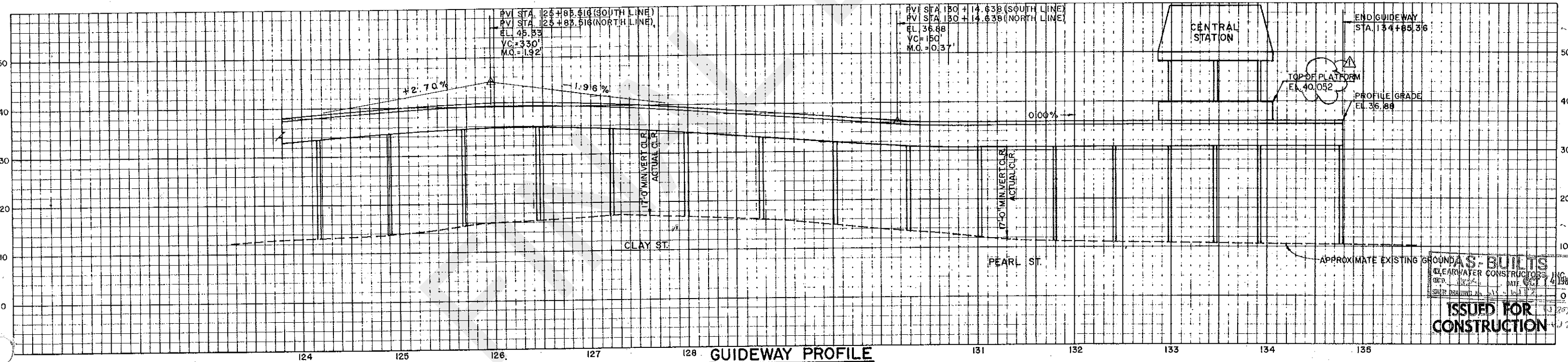
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**STRUCTURAL GUIDEWAY**  
 CONTRACT NUMBER: 3

DRAWING NUMBER	<b>G-7</b>
SHEET NUMBER	<b>8 of 358</b>



**GUIDEWAY PLAN**

NOTE:  
 PROFILE GRADE SHOWN IS FOR THE NORTH LINE. SOUTH LINE PROFILE GRADE TO BE IN THE SAME PLANE.  
 FOR HORIZONTAL GEOMETRY SEE SHEET NO. G-5



**GUIDEWAY PROFILE**

ISSUED FOR CONSTRUCTION

01-27-89	D.G.L.	NO	CHANGE ORDER NO. 017
DATE	BY	NO	DESCRIPTION
APPROVAL		REVISIONS	

**JTA** JACKSONVILLE TRANSPORTATION AUTHORITY  
 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - A STARTER LINE  
 JACKSONVILLE, FLORIDA

SUBMITTED BY:  
**RS&H**  
 Architects - Engineers - Planners  
 Jacksonville, Florida

PREPARED BY:  
**RS&H**  
 Architects - Engineers - Planners  
 Jacksonville, Florida

DESIGNED W.H.M. DATE 01-87  
 DRAWN E.S.R. DATE 01-87  
 CHECKED W.H.M. DATE 03-87  
 APPROVED W.H.M. DATE 03-87

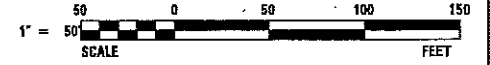
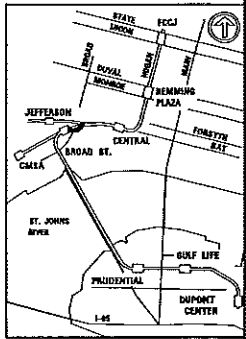
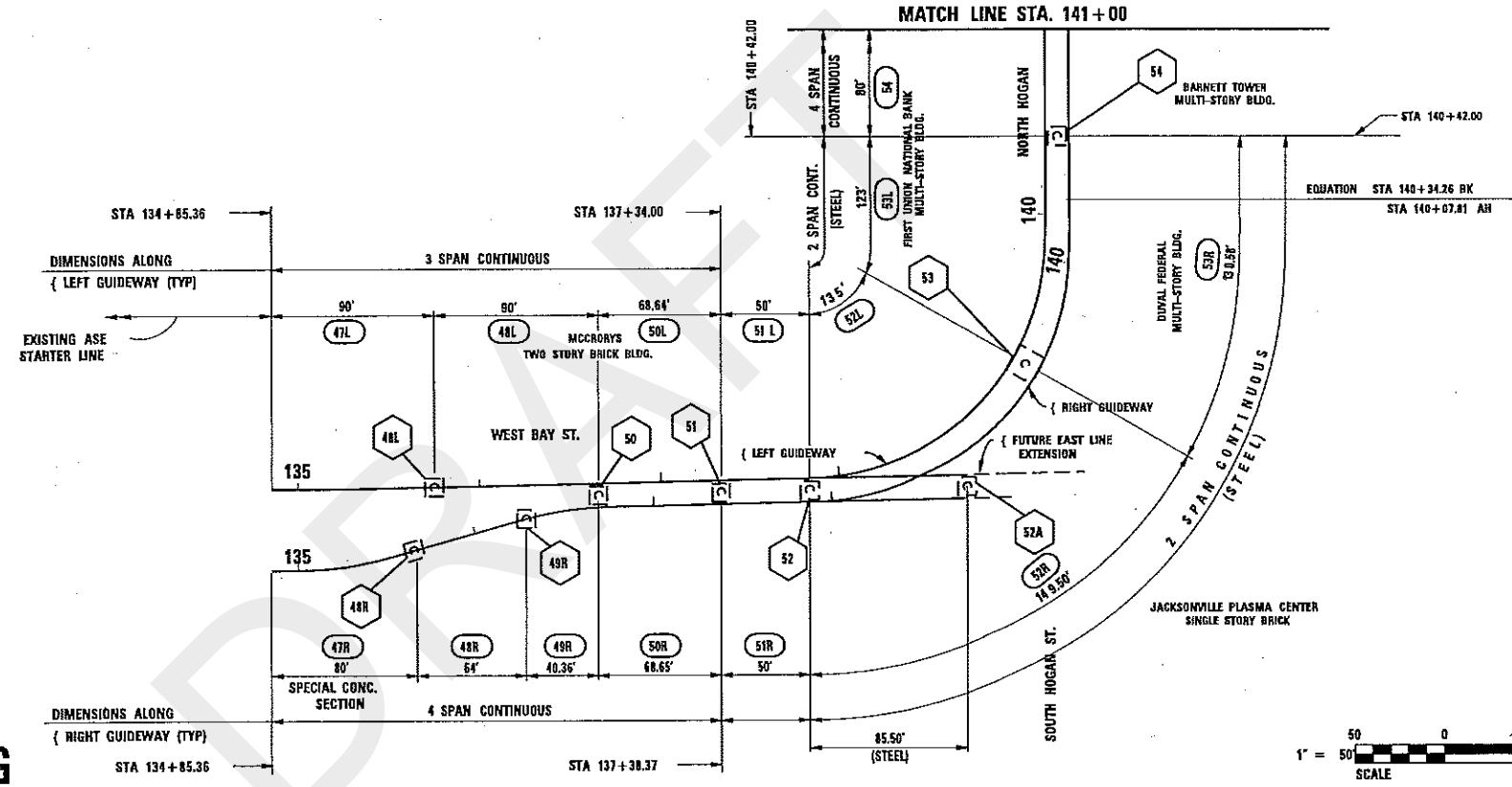
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 STRUCTURAL GUIDEWAY**

CONTRACT NUMBER: 3

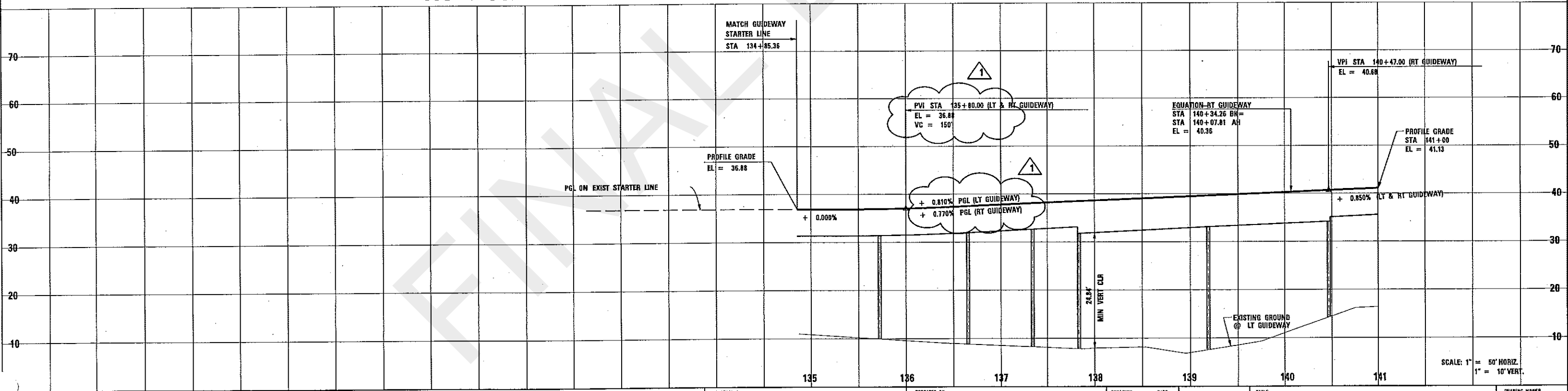
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SHEET NUMBER  
**9** OF **358**





**AS-BUILT DRAWING**



3-18-95	EEL	CONFORMED TO AS-BUILT DRAWINGS.
DATE	BY	NO
APPROVAL		REVISIONS

**JTA** JACKSONVILLE TRANSPORTATION AUTHORITY  
 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - B NORTH LINE  
 JACKSONVILLE, FLORIDA

SUBMITTED BY: **ICF KAISER ENGINEERS**

PREPARED BY: **ICF KAISER ENGINEERS**

DESIGNED	DATE
CHKD	DATE
CHECKED	DATE
APPROVED	DATE

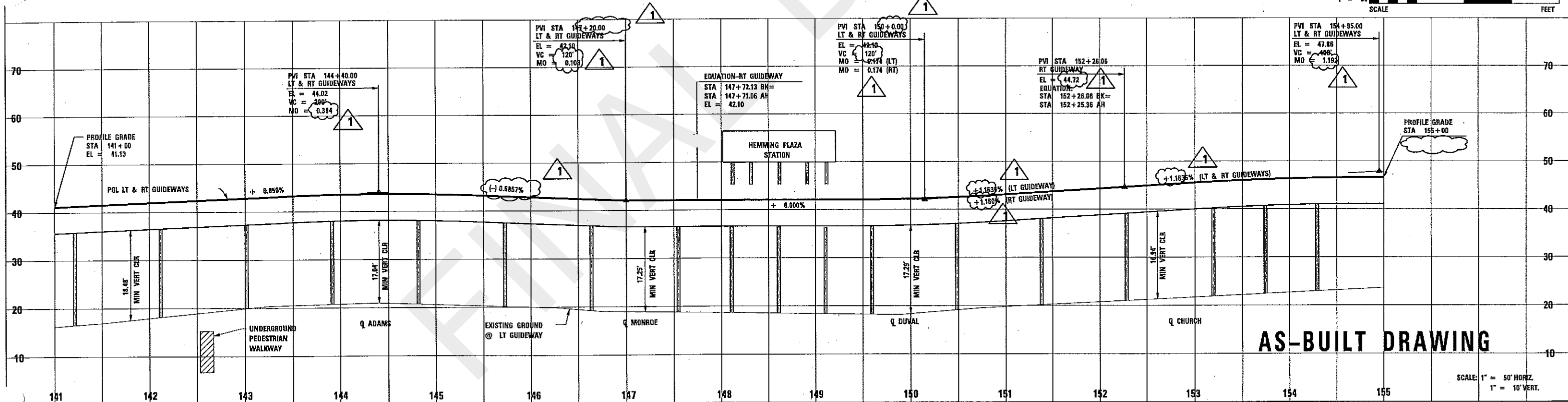
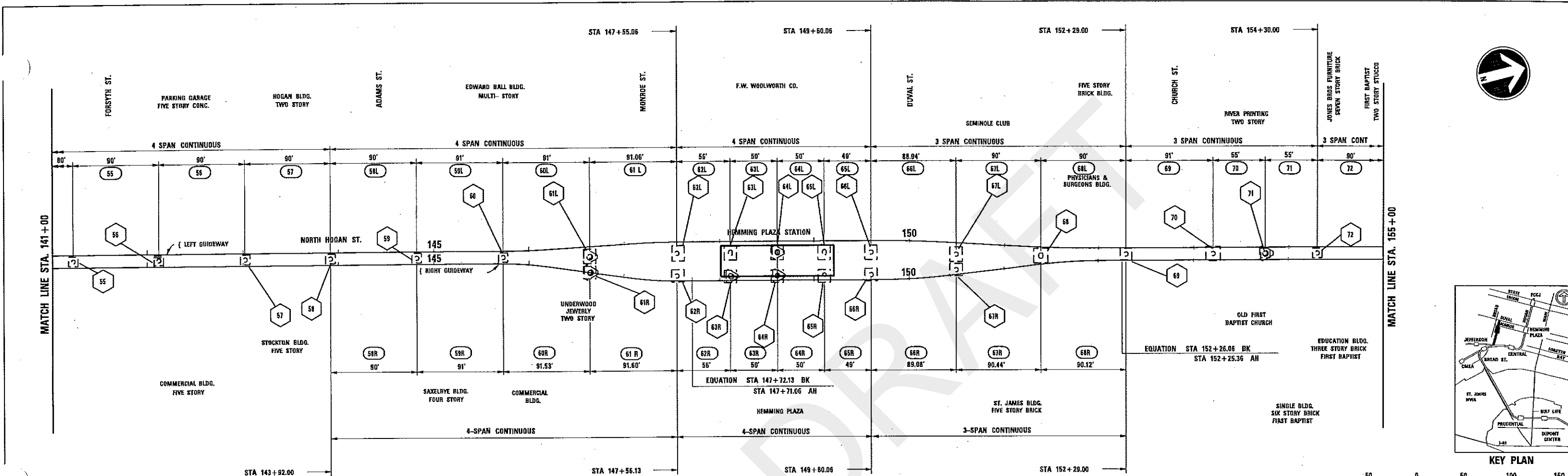
FILE: **GUIDEWAY PLAN AND PROFILE GUIDEWAY**

CONTRACT NO.

DRAWING NUMBER: **C-4-RI**

SHEET NUMBER: **17 of 341**

6M1926419\_AS-BUILT SCADD NORTH LINE 08/16/2008 THAS-BUILT 9



**AS-BUILT DRAWING**

SCALE: 1" = 50' HORIZ.  
1" = 10' VERT.

DATE	BY	NO	DESCRIPTION

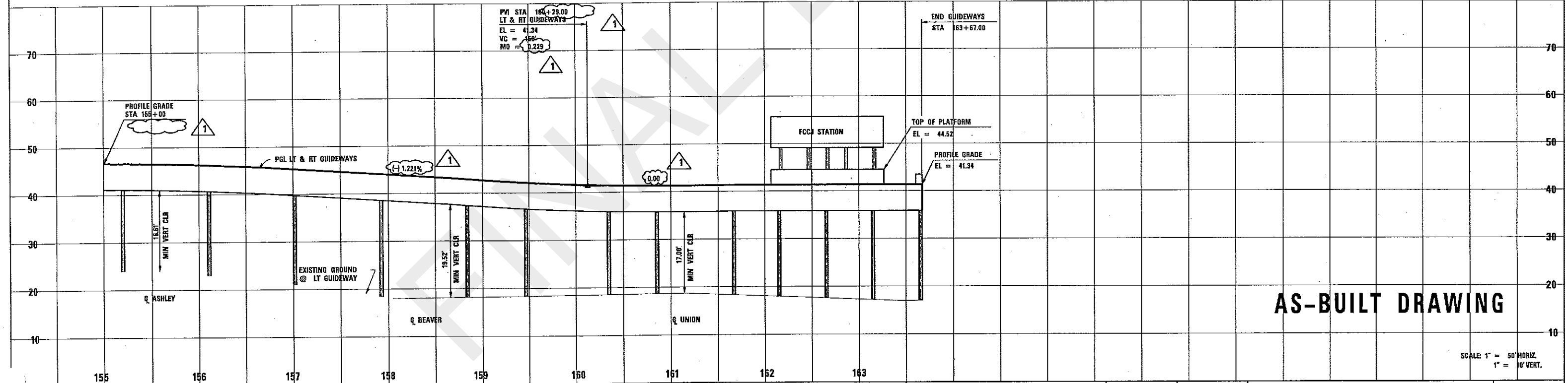
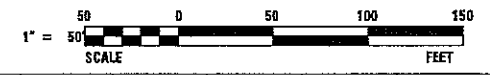
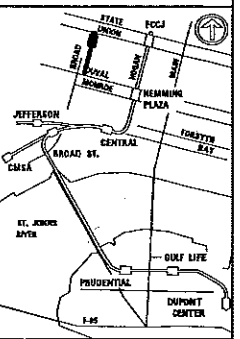
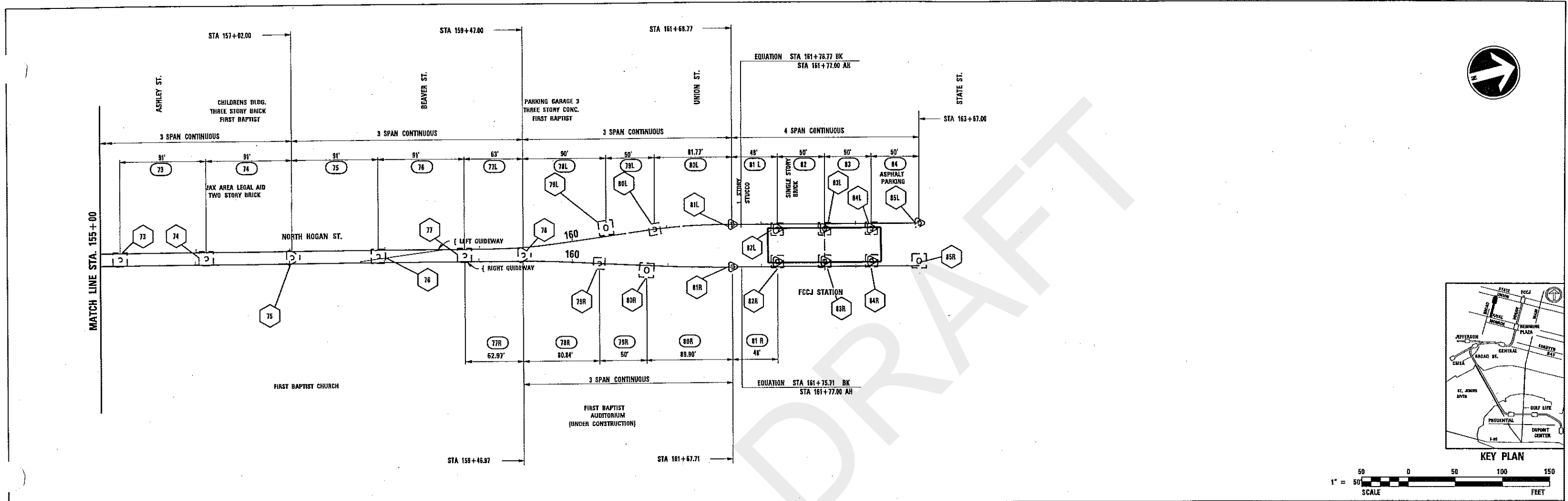
**JTA** JACKSONVILLE TRANSPORTATION AUTHORITY  
 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - B NORTH LINE  
 JACKSONVILLE, FLORIDA

SUBMITTED BY:  
**ICF KAISER ENGINEERS**

PREPARED BY:  
**ICF KAISER ENGINEERS**

DESIGNED	EMW	DATE	11/91
DRAWN	LWM	DATE	11/91
CHECKED	WHM	DATE	11/91
APPROVED	HCM	DATE	11/91

TITLE: GUIDEWAY PLAN AND PROFILE  
 GUIDEWAY  
 CONTRACT NO. 18 341



**AS-BUILT DRAWING**

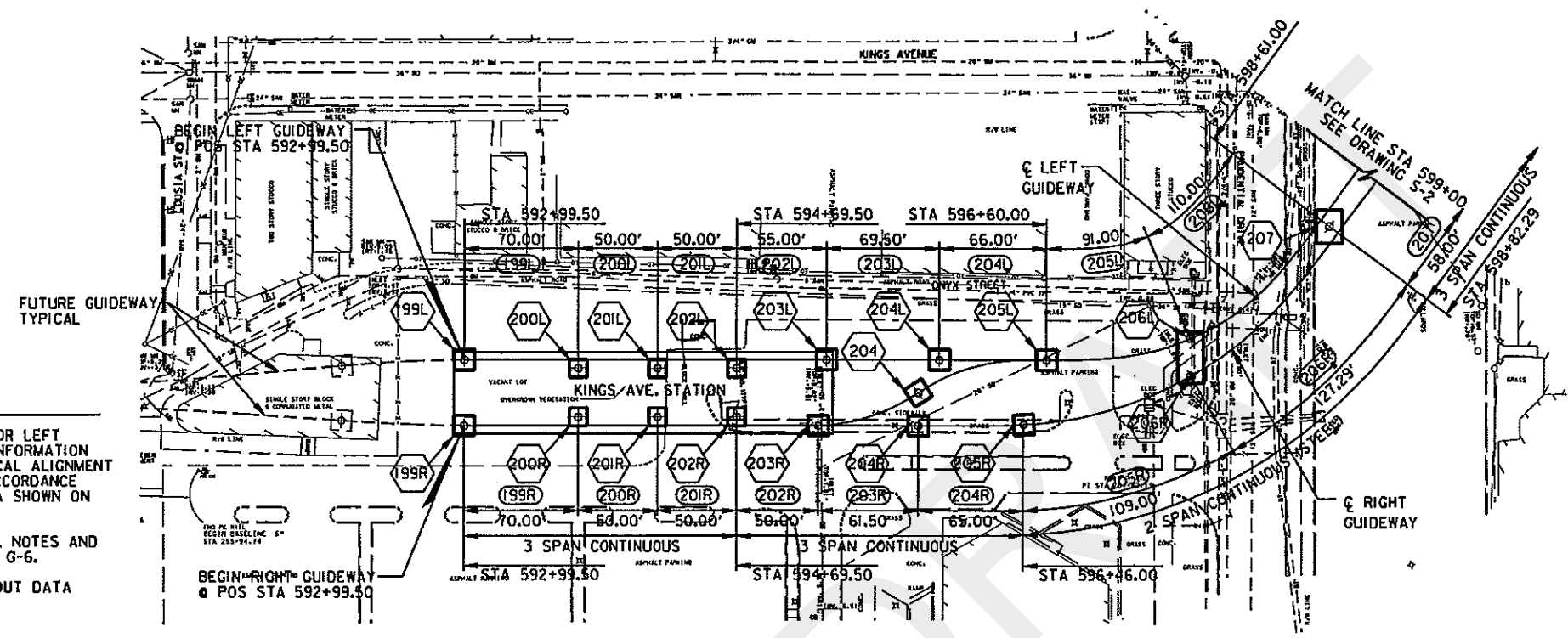
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1-18-96 DATE BY RD DESCRIPTION REVISIONS		<b>JACKSONVILLE TRANSPORTATION AUTHORITY</b> AUTOMATED SKYWAY EXPRESS PROJECT PHASE ONE - B NORTH LINE JACKSONVILLE, FLORIDA		SUBMITTED BY: <b>ICF KAISER ENGINEERS</b>		PREPARED BY: <b>ICF KAISER ENGINEERS</b>		DESIGNED: ABO DATE: 5-91 DRAWN: SL DATE: 6-91 CHECKED: RBH DATE: 7-91 APPROVED: DATE:		TITLE: <b>GUIDEWAY PLAN AND PROFILE GUIDEWAY</b>		DRAWING NUMBER: <b>C-6-RI</b> SHEET NUMBER: <b>19 of 341</b>	
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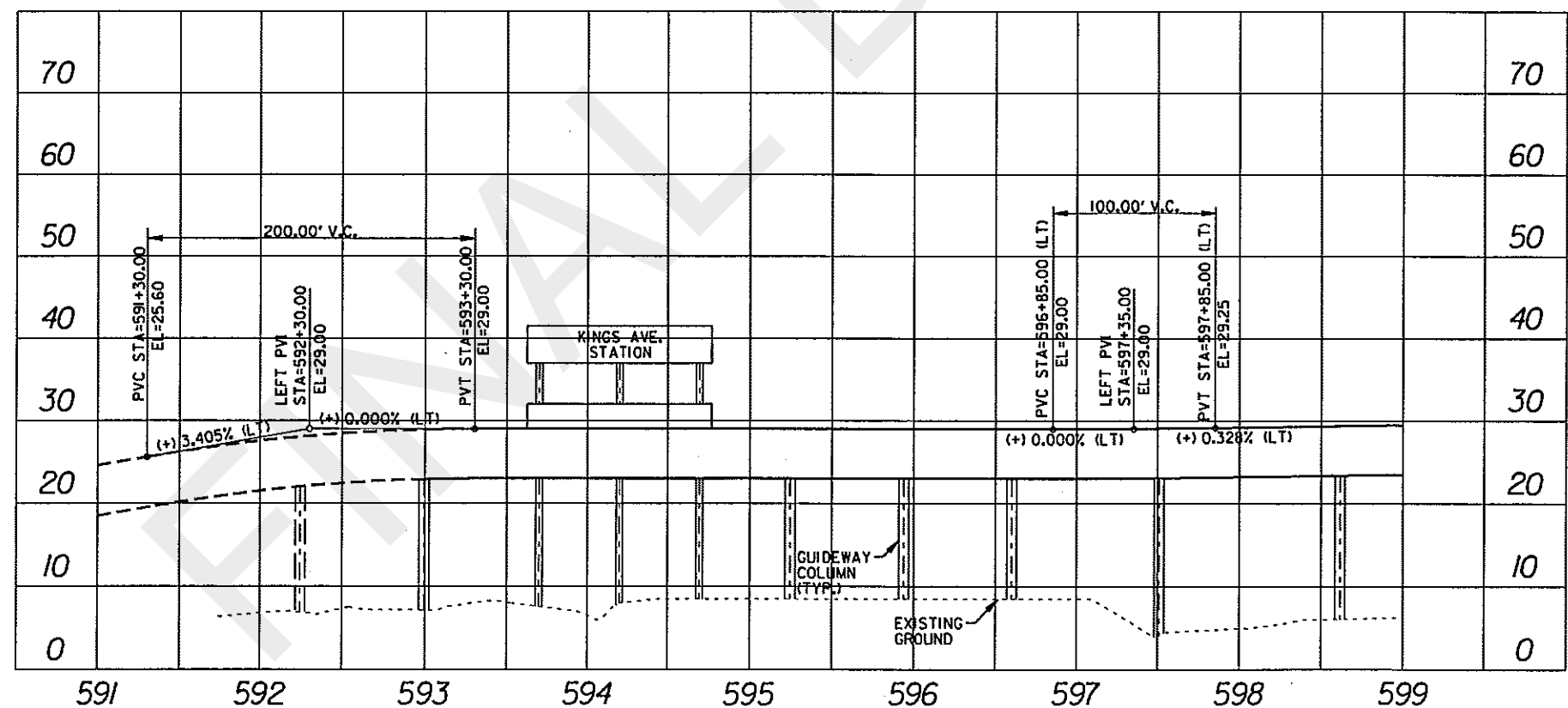
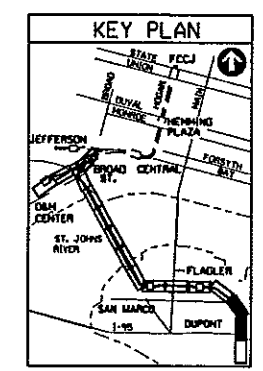


SCALE: 1" = 50'  
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**NOTES:**

1. VERTICAL ALIGNMENT DATA FOR LEFT GUIDEWAY IS PROVIDED FOR INFORMATION ONLY, HORIZONTAL AND VERTICAL ALIGNMENT OF GUIDEWAY SHALL BE IN ACCORDANCE WITH PLAN AND PROFILE DATA SHOWN ON THE CIVIL DRAWINGS.
2. FOR ABBREVIATIONS, GENERAL NOTES AND LEGEND SEE DRAWINGS G-5 & G-6.
3. FOR PIER LOCATION AND LAYOUT DATA SEE DRAWING S-82.



**AS BUILT DRAWING**

DATE	BY	NO	DESCRIPTION

**JTA** JACKSONVILLE TRANSPORTATION AUTHORITY  
 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - B KINGS AVE. STATION EXTENSION  
 JACKSONVILLE, FLORIDA

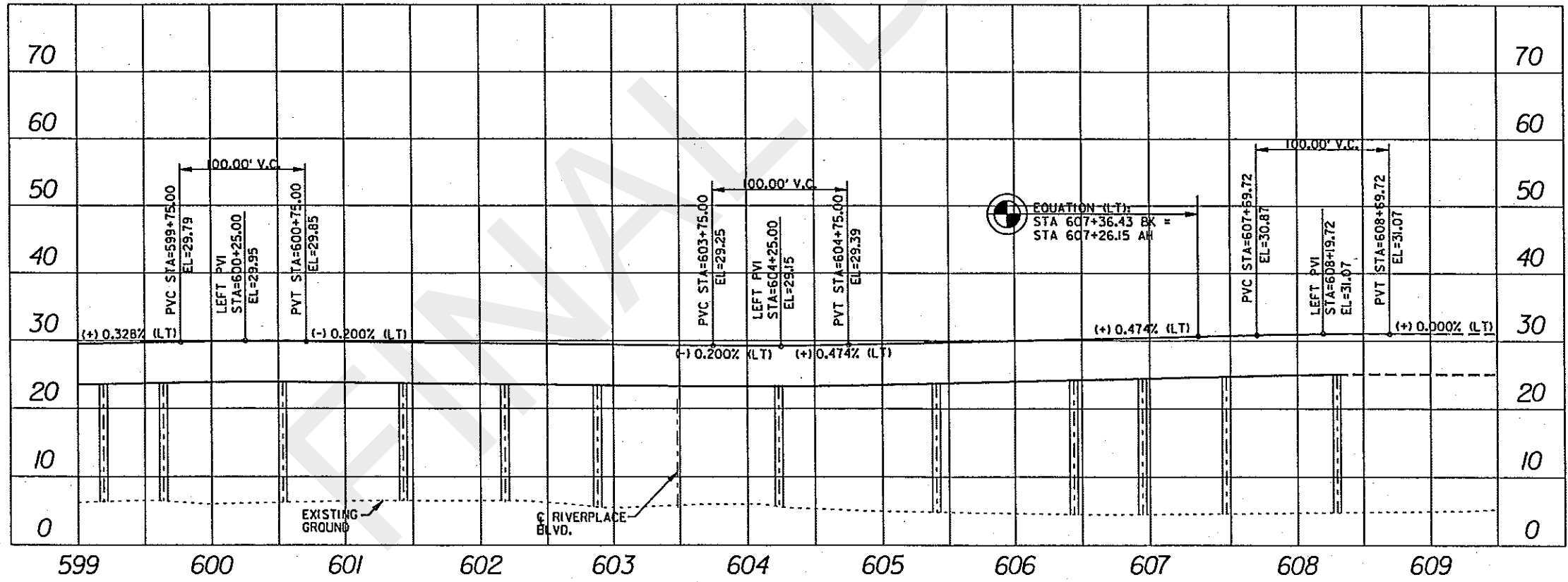
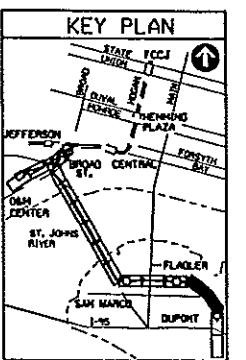
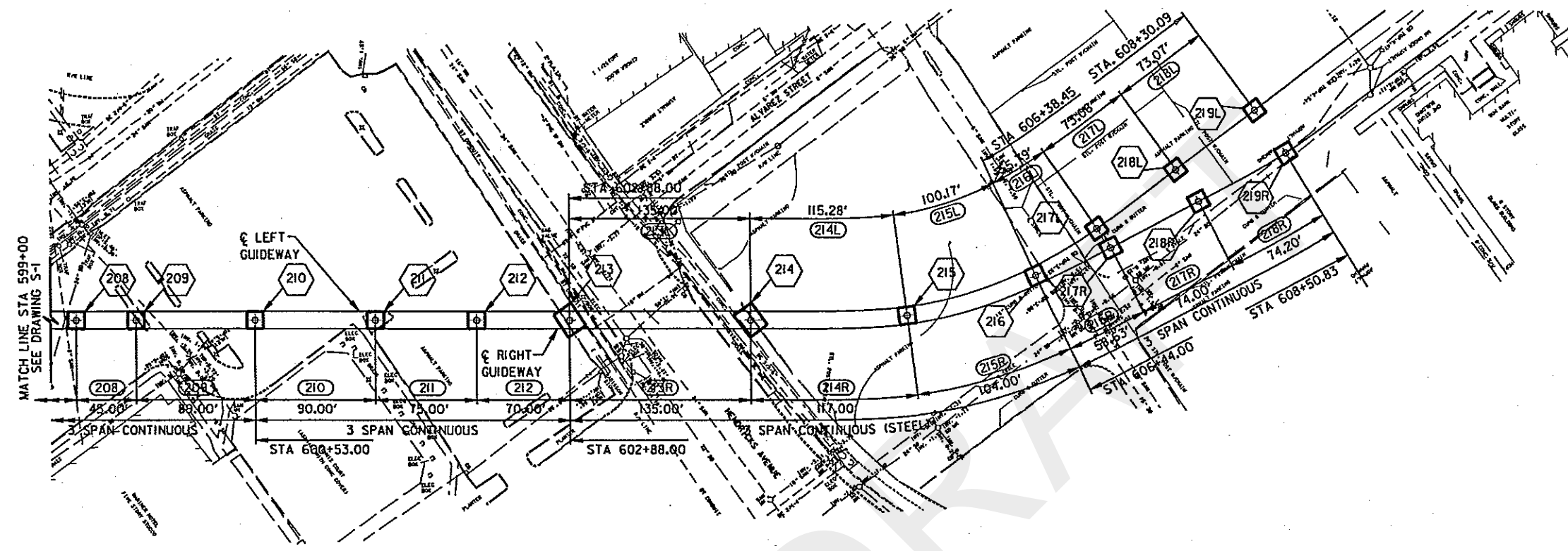
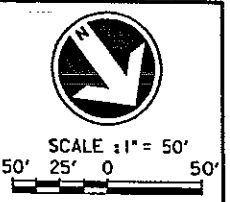
SUBMITTED BY:  
**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

PREPARED BY:  
**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

DESIGNED CY	DATE 11-97
DRAWN CWH	DATE 11-97
CHECKED WHM	DATE 2-98
APPROVED CY	DATE 3-98

TITLE: **KINGS AVE. STATION  
 EXTENSION  
 PLAN AND ELEVATION - I  
 GUIDEWAY**

DRAWING NUMBER <b>S-1</b>
SHEET NUMBER <b>50 318</b>



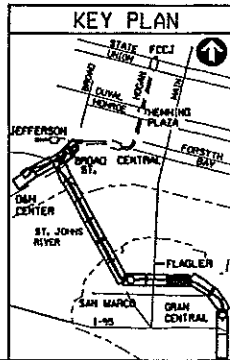
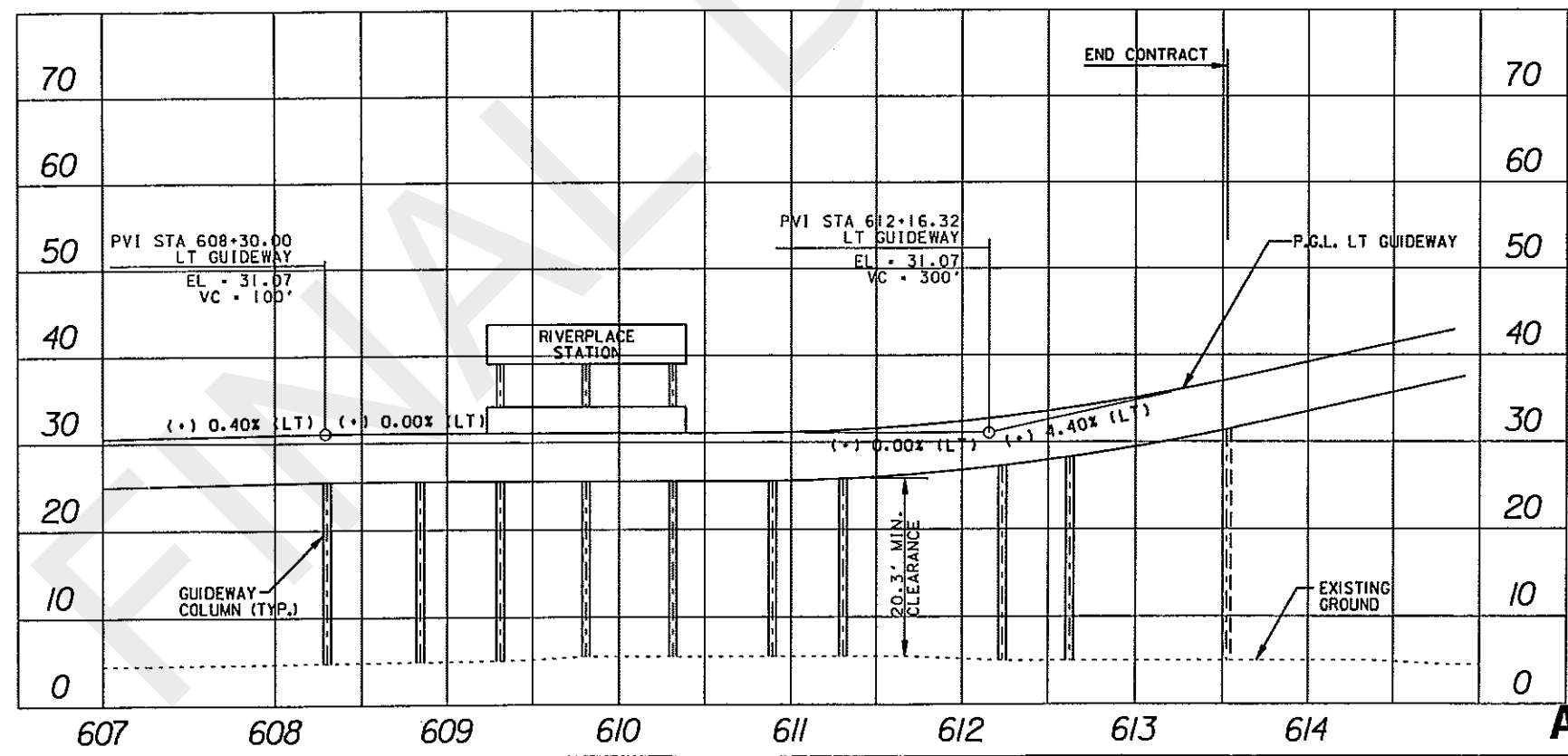
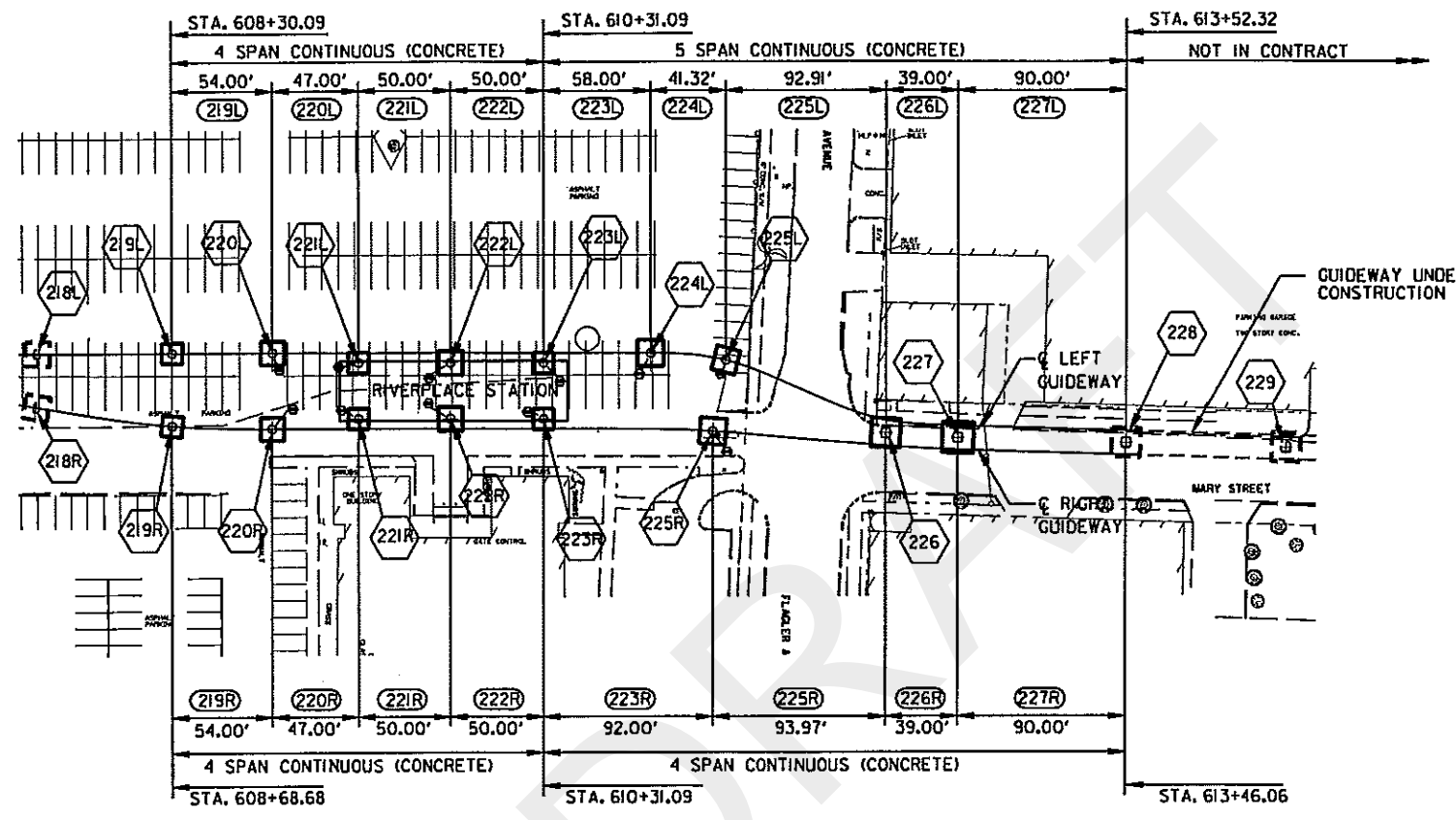
**AS BUILT DRAWING**

<b>JACKSONVILLE TRANSPORTATION AUTHORITY</b> AUTOMATED SKYWAY EXPRESS PROJECT PHASE ONE - B KINGS AVE. STATION EXTENSION JACKSONVILLE, FLORIDA		SUBMITTED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	PREPARED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	DESIGNED: CYJ DRAWN: CMH CHECKED: WHM APPROVED: CYJ	DATE: 11-97 DATE: 11-97 DATE: 2-98 DATE: 3-98	TITLE: <b>KINGS AVE. STATION          EXTENSION          PLAN AND ELEVATION - 2          GUIDEWAY</b>	DRAWING NUMBER: <b>S-2</b> SHEET NUMBER: <b>51 of 318</b>
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GV41926.439\_SOUTH LINE.ABVCADD\DP501608T-2001 15:37



SCALE: 1" = 50'  
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**AS BUILT DRAWING**

DATE	BY	NO	DESCRIPTION



JACKSONVILLE TRANSPORTATION AUTHORITY  
 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - B KINGS AVE. STATION EXTENSION  
 JACKSONVILLE, FLORIDA

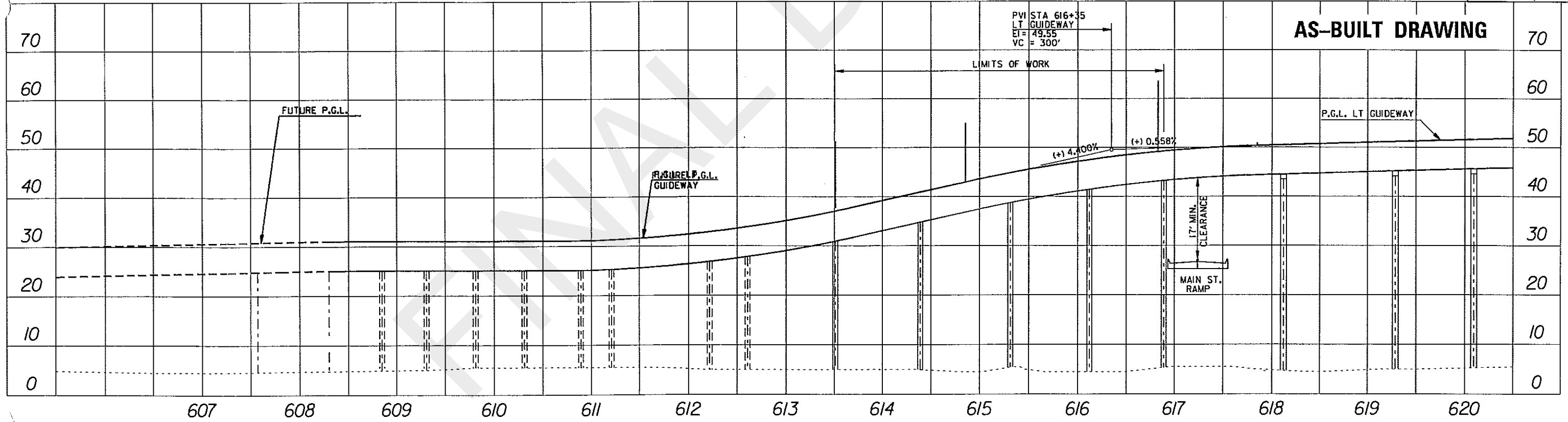
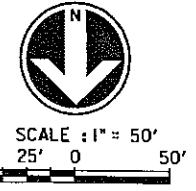
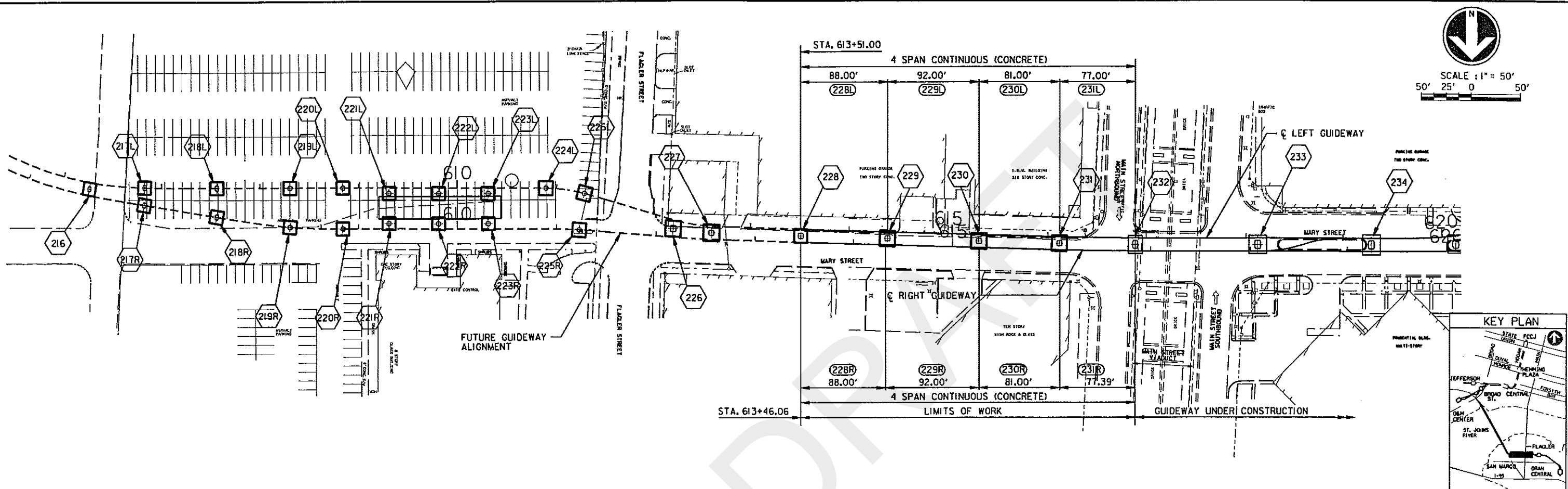
SUBMITTED BY:  
**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

PREPARED BY:  
**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

DESIGNED BY: NMAC DATE: 8-95  
 DRAWN BY: NMAC DATE: 8-95  
 CHECKED BY: CY DATE: 10-95  
 APPROVED BY: CY DATE: 3-98

TITLE: **KINGS AVE. STATION EXTENSION PLAN AND ELEVATION - 3 GUIDEWAY**

DESIGN NUMBER: S-3  
 SHEET NUMBER: 52 of 318



**AS-BUILT DRAWING**

DATE	BY	NO	DESCRIPTION

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 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - B RIVER CROSSING  
 JACKSONVILLE, FLORIDA

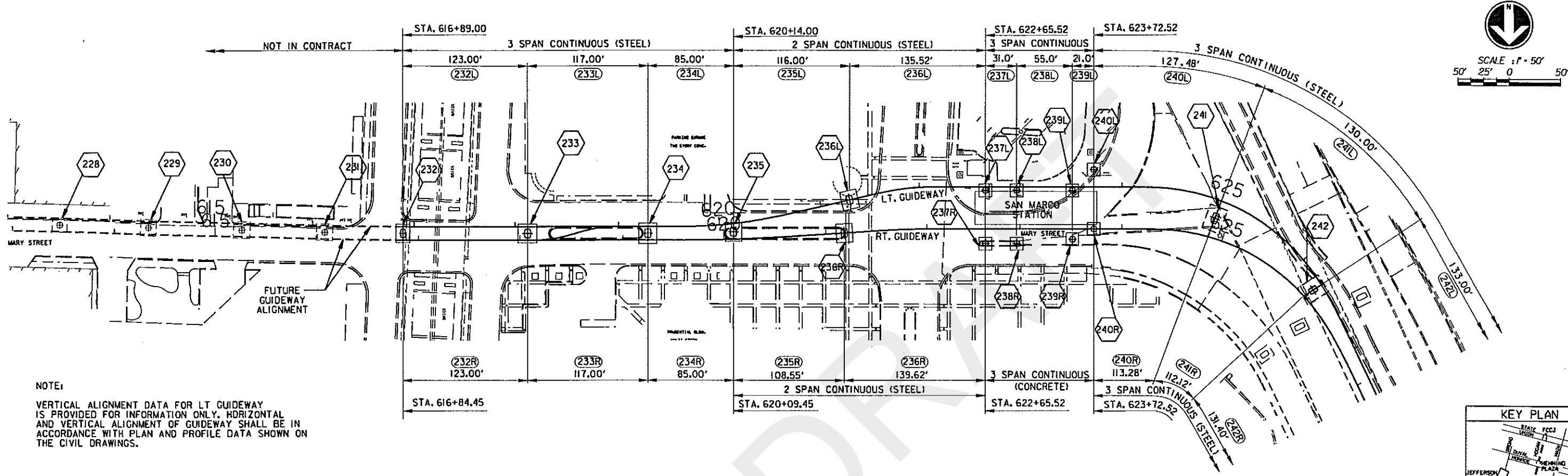
SUBMITTED BY: **ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

PREPARED BY: **ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

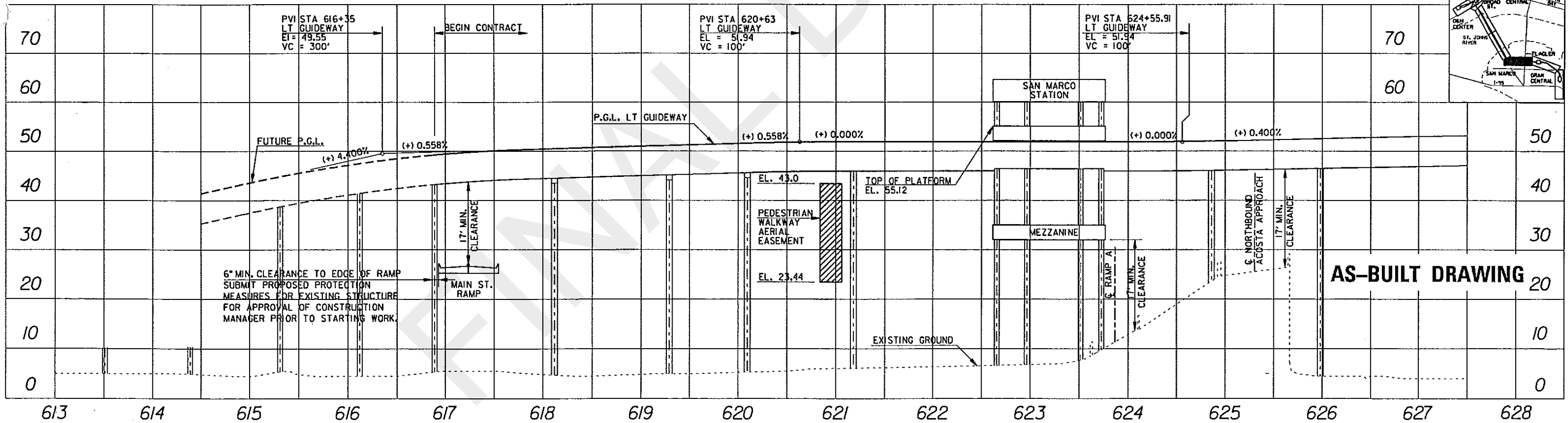
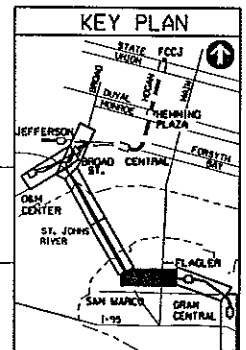
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 DRAWN: SMG DATE: 5/95  
 CHECKED: WHM DATE: 6/95  
 APPROVED: CYY DATE: 6/95

TITLE: PLAN AND ELEVATION  
 GUIDEWAY  
 CONTRACT NO. 435.457

DRAWING NUMBER: S-1A  
 SHEET NUMBER: 435.457



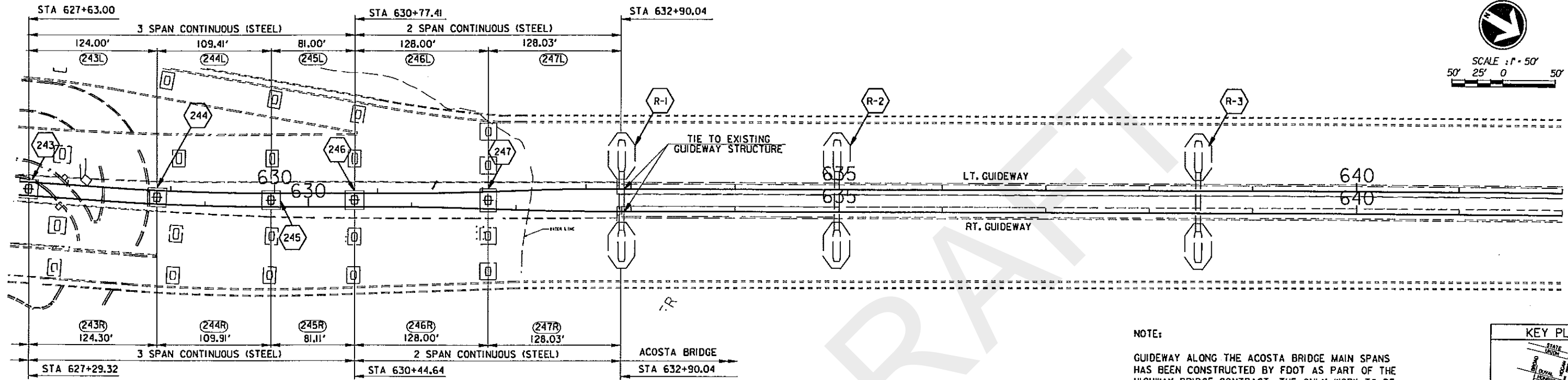
NOTE:  
 VERTICAL ALIGNMENT DATA FOR LT GUIDEWAY IS PROVIDED FOR INFORMATION ONLY. HORIZONTAL AND VERTICAL ALIGNMENT OF GUIDEWAY SHALL BE IN ACCORDANCE WITH PLAN AND PROFILE DATA SHOWN ON THE CIVIL DRAWINGS.



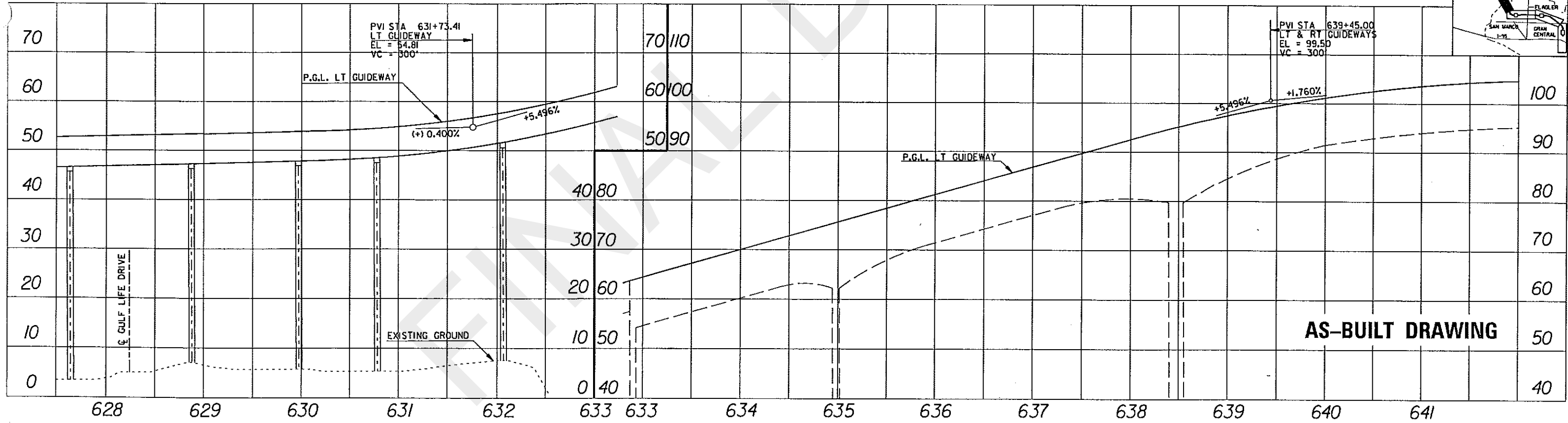
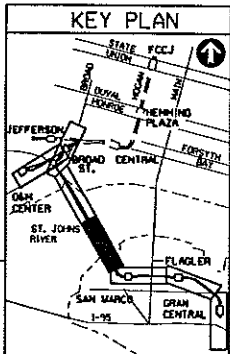
**AS-BUILT DRAWING**

<b>JACKSONVILLE TRANSPORTATION AUTHORITY</b> AUTOMATED SKYWAY EXPRESS PROJECT PHASE ONE - B RIVER CROSSING JACKSONVILLE, FLORIDA		SUBMITTED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	PREPARED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	DESIGNED: RSC DATE: 7-94 DRAWN: RSC DATE: 7-94 CHECKED: CY DATE: 8-94 APPROVED: CY DATE: 12-94	TITLE: <b>PLAN AND ELEVATION GUIDEWAY</b>	DRAWING NUMBER: <b>S-1</b> SHEET NUMBER: <b>72 OF 457</b>
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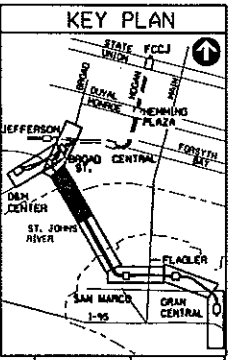
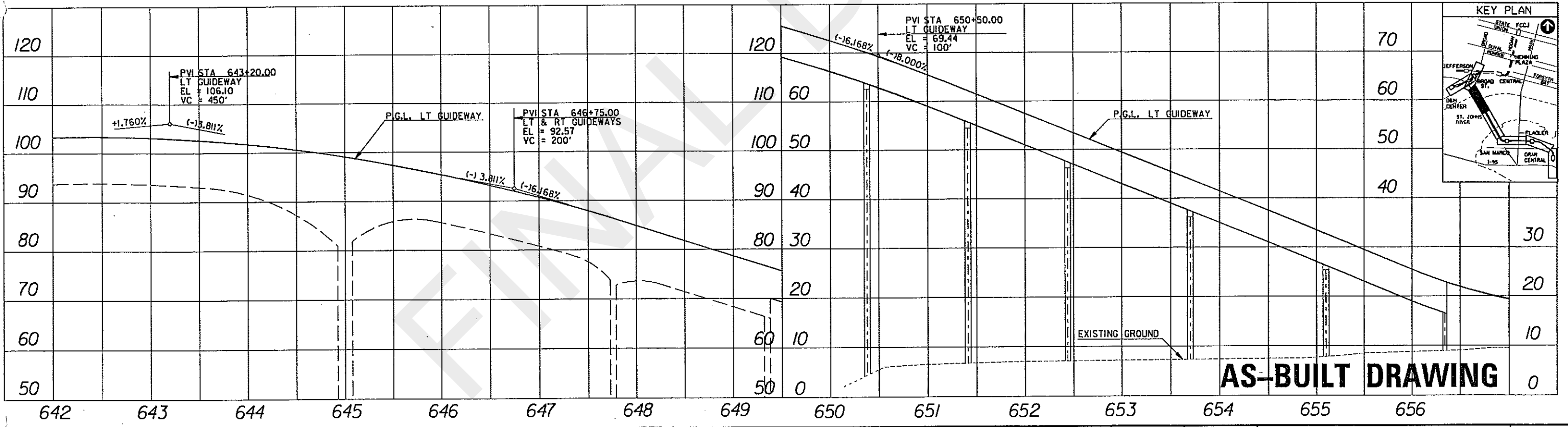
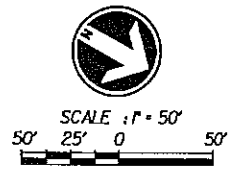
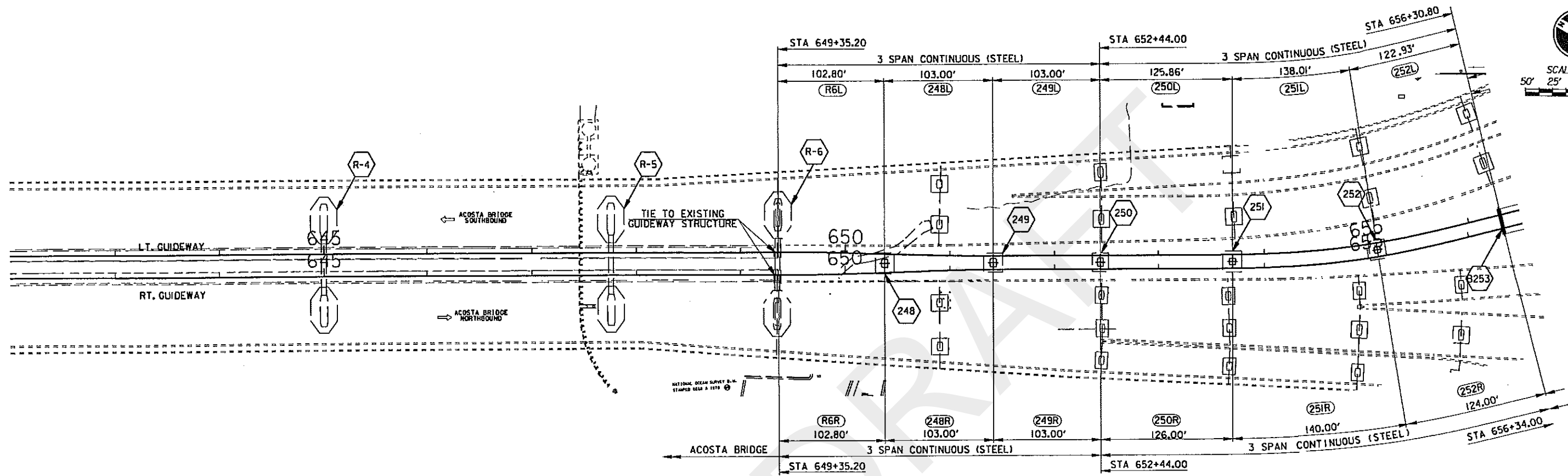


NOTE:  
 GUIDEWAY ALONG THE ACOSTA BRIDGE MAIN SPANS HAS BEEN CONSTRUCTED BY FOOT AS PART OF THE HIGHWAY BRIDGE CONTRACT. THE ONLY WORK TO BE PERFORMED AS PART OF THIS CONTRACT IS THE SECOND POUR AND GUIDANCE BEAM DOWELS AS SHOWN ON DRAWING S-117.



<b>JACKSONVILLE TRANSPORTATION AUTHORITY</b> AUTOMATED SKYWAY EXPRESS PROJECT PHASE ONE - B RIVER CROSSING JACKSONVILLE, FLORIDA		SUBMITTED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	PREPARED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	DESIGNED: RSC DATE: 7-94 DRAWN: RSC DATE: 7-94 CHECKED: CYY DATE: 8-94 APPROVED: CYY DATE: 12-94	TITLE: PLAN AND ELEVATION GUIDEWAY	DRAWING NUMBER: S-2 SHEET NUMBER: 73 of 457
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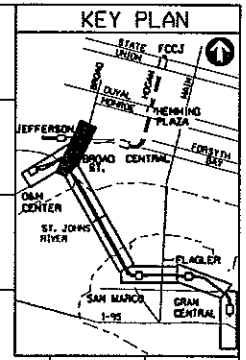
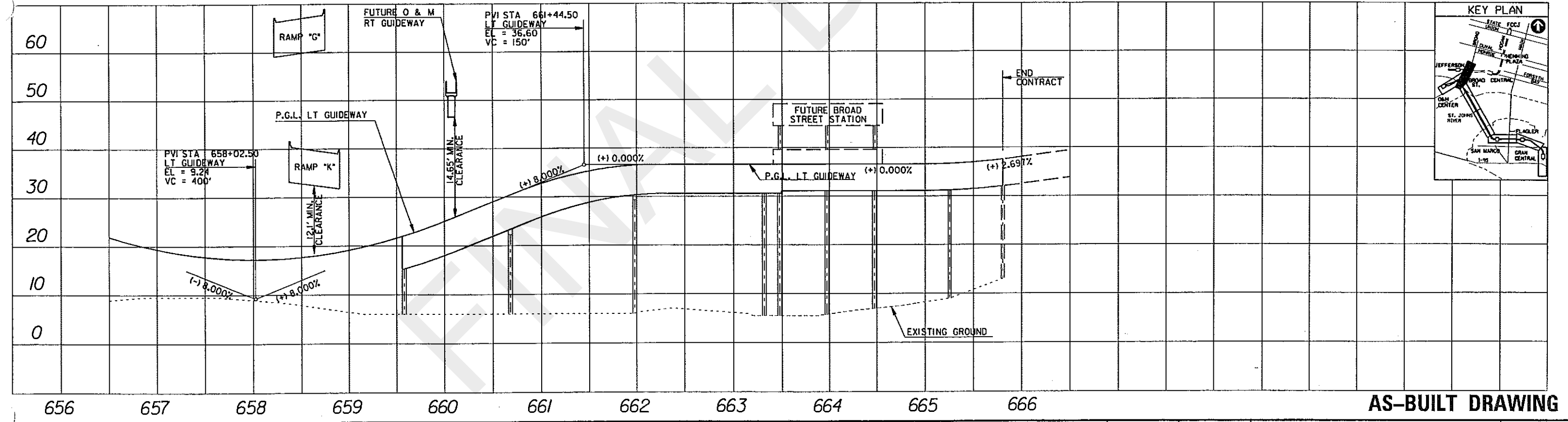
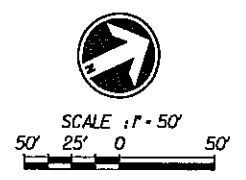
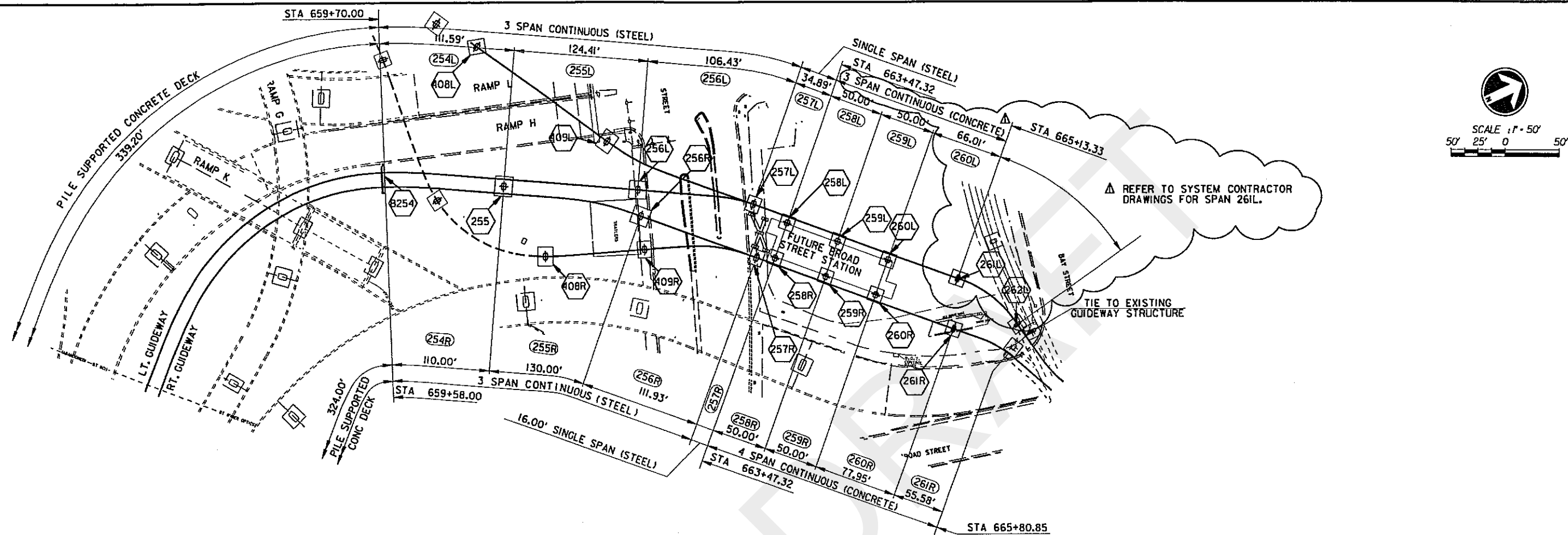


**AS-BUILT DRAWING**

		<b>JACKSONVILLE TRANSPORTATION AUTHORITY</b> <b>AUTOMATED SKYWAY EXPRESS PROJECT</b> PHASE ONE - B RIVER CROSSING JACKSONVILLE, FLORIDA		SUBMITTED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	PREPARED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	DESIGNED: RSC DATE: 7-94 DRAWN: RSC DATE: 7-94 CHECKED: CYY DATE: 8-94 APPROVED: CYY DATE: 12-94	TITLE: <b>PLAN AND ELEVATION</b> <b>GUIDEWAY</b>	DRAWING NUMBER: <b>S-3</b> SHEET NUMBER: <b>74 of 457</b>
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GA1926419\_AS-BUILT'S CADD/CF KE/ASE/BJ/03/2001 14:27

Appendix A



**AS-BUILT DRAWING**

5-98	CYY	CHANGES IN SPAN 260L & 261L PER SYSTEM CONTRACTOR.
	EKK	CONFORMED TO AS-BUILT DRAWINGS.
DATE	BY	NO
REVISIONS		

**JTA** JACKSONVILLE TRANSPORTATION AUTHORITY  
 AUTOMATED SKYWAY EXPRESS PROJECT  
 PHASE ONE - B RIVER CROSSING  
 JACKSONVILLE, FLORIDA

SUBMITTED BY:  
**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

PREPARED BY:  
**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

DESIGNED	RSC	DATE	7-94
DRAWN	RSC	DATE	8-94
CHECKED	CYY	DATE	9-94
APPROVED	CYY	DATE	12-94

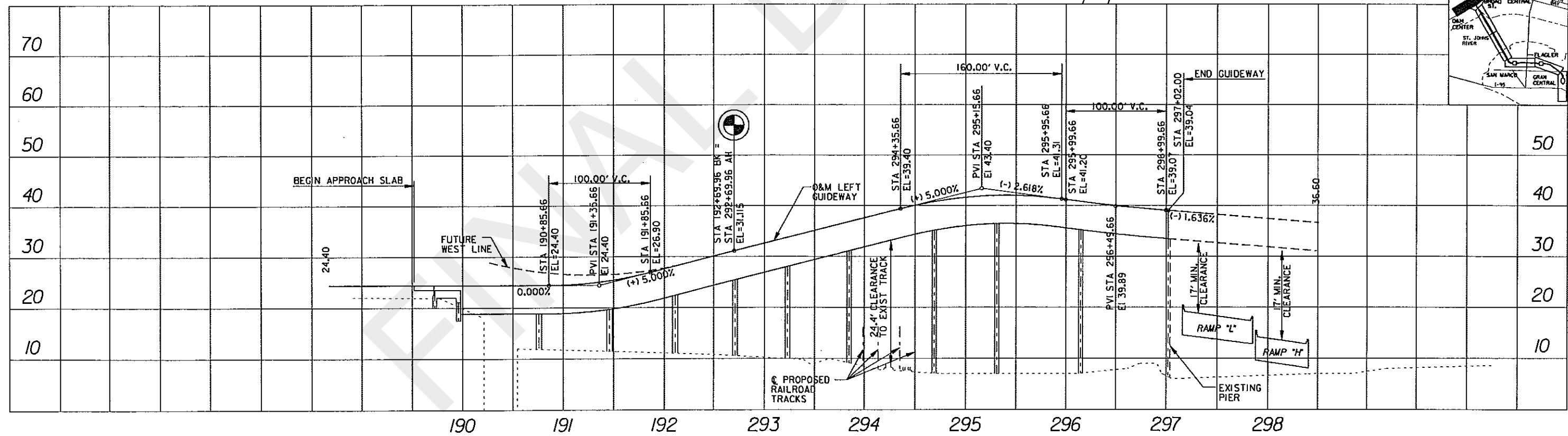
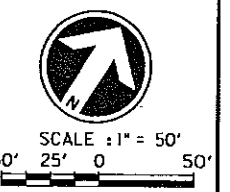
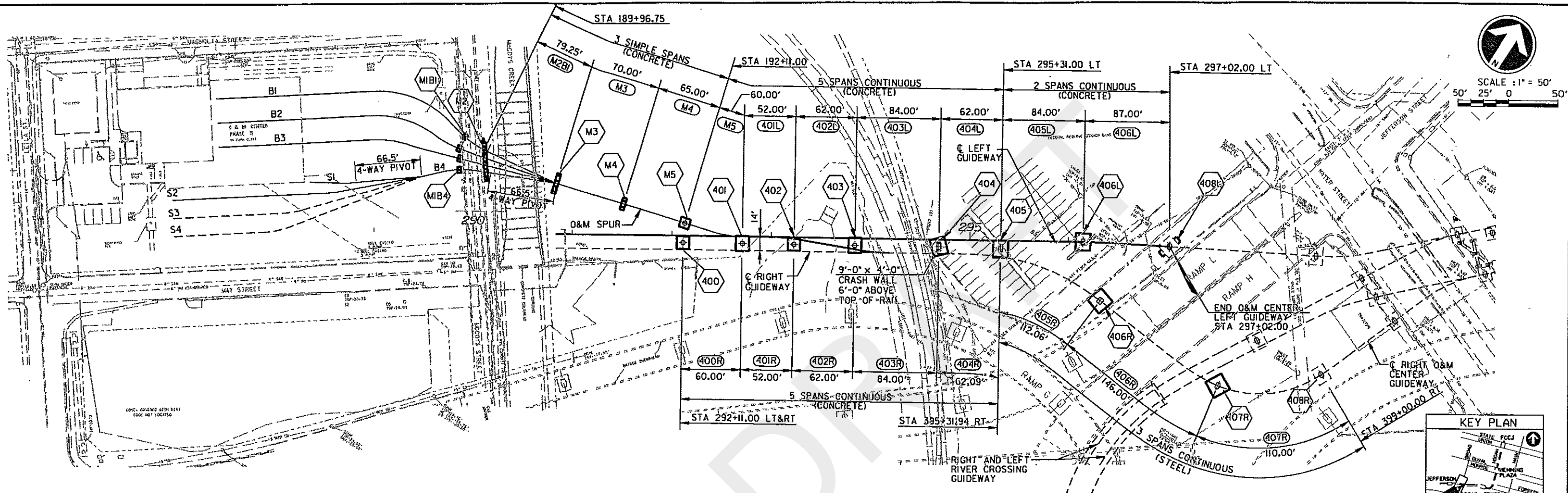
TITLE  
 PLAN AND ELEVATION  
 GUIDEWAY

CONTRACT NO.

DRAWING NUMBER  
 S-4

SHEET NUMBER  
 75 of 457

G:\1926\19\_AS\_BUILT\SCADD\CFK\EA\SE3\001\01 14:55

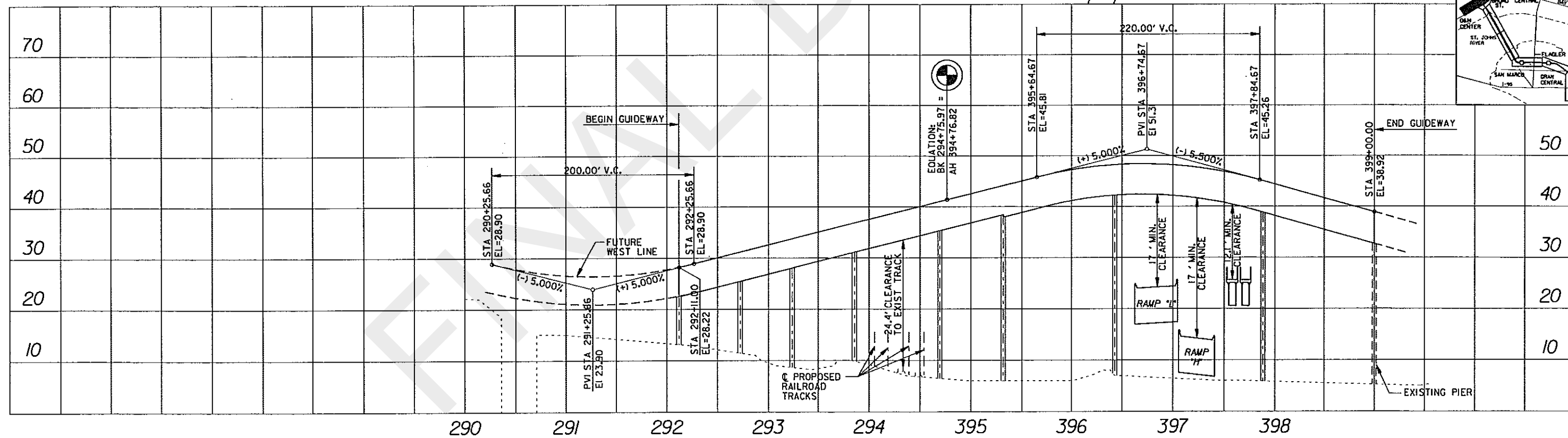
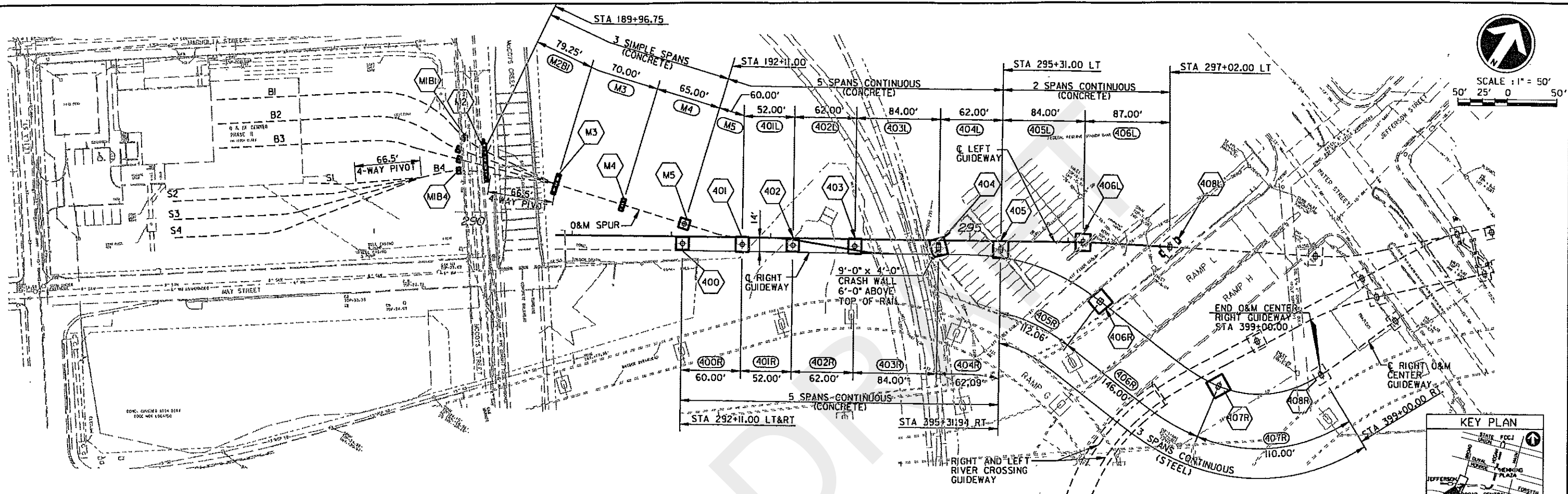


	<b>JACKSONVILLE TRANSPORTATION AUTHORITY</b> AUTOMATED SKYWAY EXPRESS PROJECT PHASE ONE - B O & M CENTER EXTENSION JACKSONVILLE, FLORIDA	SUBMITTED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	PREPARED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	DESIGNED: N.C.S. DATE: 5-97 DRAWN: L.F.H. DATE: 5-97 CHECKED: C.Y.Y. DATE: 5-97 APPROVED: C.Y.Y. DATE: 5-97	TITLE: <b>GUIDEWAY          PLAN AND ELEVATION          LEFT O&amp;M GUIDEWAY          AND O&amp;M SPUR</b>	DRAWING NUMBER: <b>S-1</b> SHEET NUMBER: <b>30</b> of <b>185</b>
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GM1926V429\_O&M&M&CADDGUIDEWAY&O&M&R&C&E&D&O&H 10.01

Appendix A

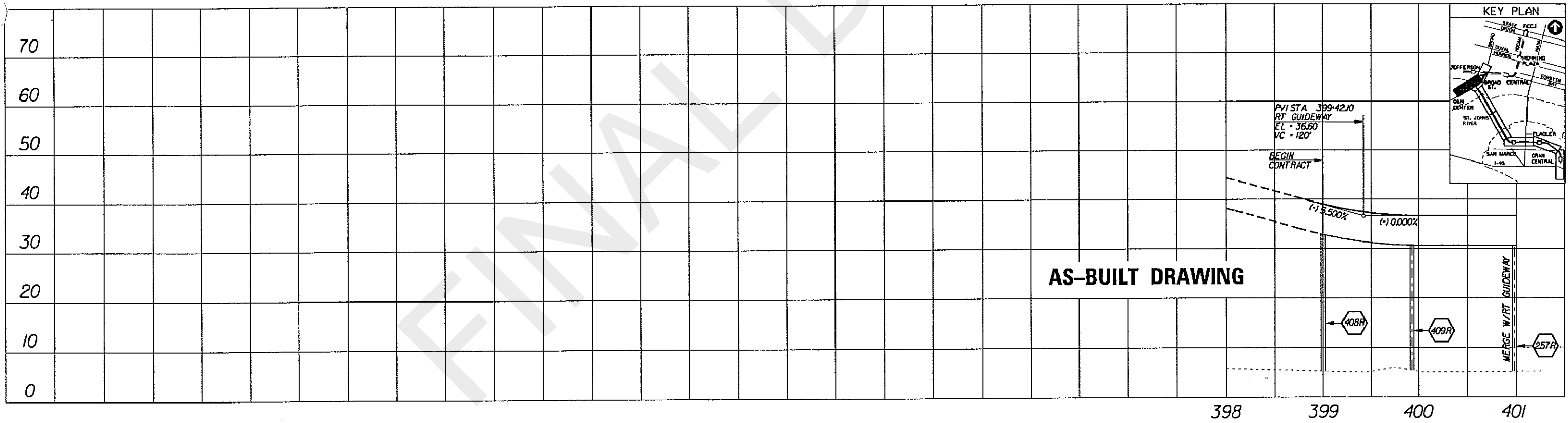
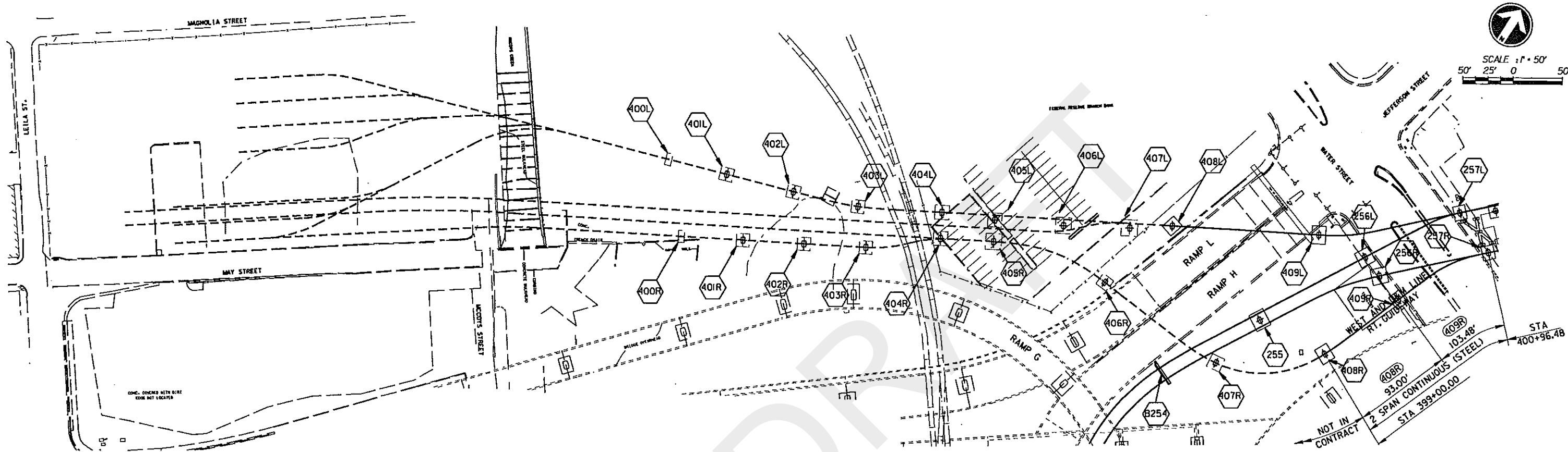
AS-BUILT DRAWING



<b>JACKSONVILLE TRANSPORTATION AUTHORITY</b> AUTOMATED SKYWAY EXPRESS PROJECT PHASE ONE - B O & M CENTER EXTENSION JACKSONVILLE, FLORIDA		SUBMITTED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	PREPARED BY: <b>ICF KAISER</b> ENGINEERING & CONSTRUCTION GROUP	DESIGNED: N.C.S. DRAWN: T.E.N. CHECKED: C.Y.Y. APPROVED: C.Y.Y.	DATE: 5-97 DATE: 5-97 DATE: 5-97 DATE: 5-97	TITLE: <b>GUIDEWAY          PLAN AND ELEVATION          RIGHT O&amp;M GUIDEWAY</b>	DRAWING NUMBER: <b>S-2</b> SHEET NUMBER: <b>31 of 185</b>
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Appendix A

AS-BUILT DRAWING



**AS-BUILT DRAWING**

DATE	BY	NO.	DESCRIPTION


**JACKSONVILLE TRANSPORTATION AUTHORITY**  
 PHASE ONE - B RIVER CROSSING  
 JACKSONVILLE, FLORIDA

SUBMITTED BY:  

**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

PREPARED BY:  

**ICF KAISER**  
 ENGINEERING & CONSTRUCTION GROUP

DESIGNED	RSC	DATE	7-94
DRAWN	RSC	DATE	7-94
CHECKED	CYY	DATE	8-94
APPROVED	CYY	DATE	12-94

TITLE:  
**WEST AND O & M LINE  
 RIGHT PLAN AND ELEVATION  
 GUIDEWAY**

DRAWING NUMBER: **S-5**  
 SHEET NUMBER: **76 of 457**



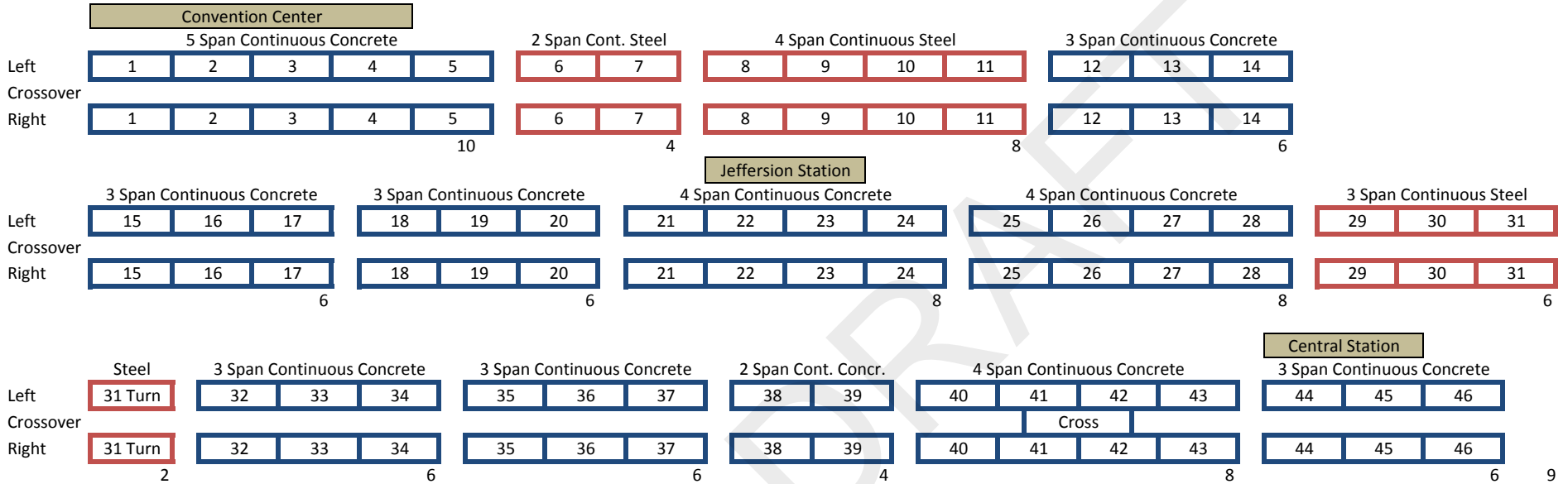
## APPENDIX B

JTA Skyway Span Layout

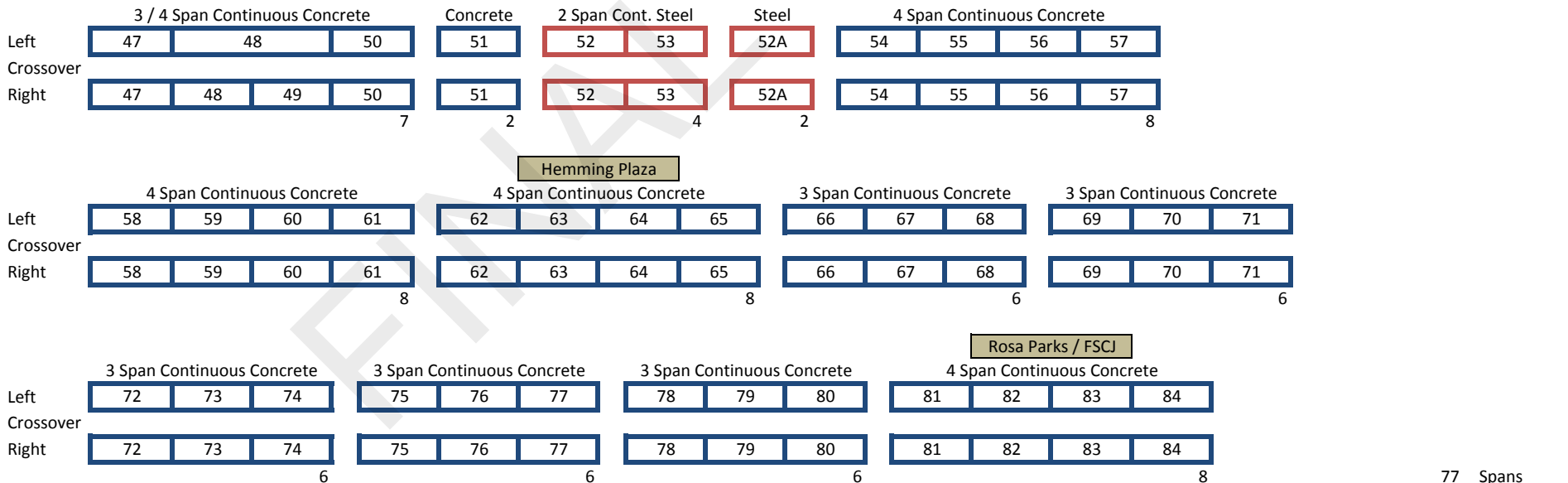
FINAL DRAFT



### Starter Line

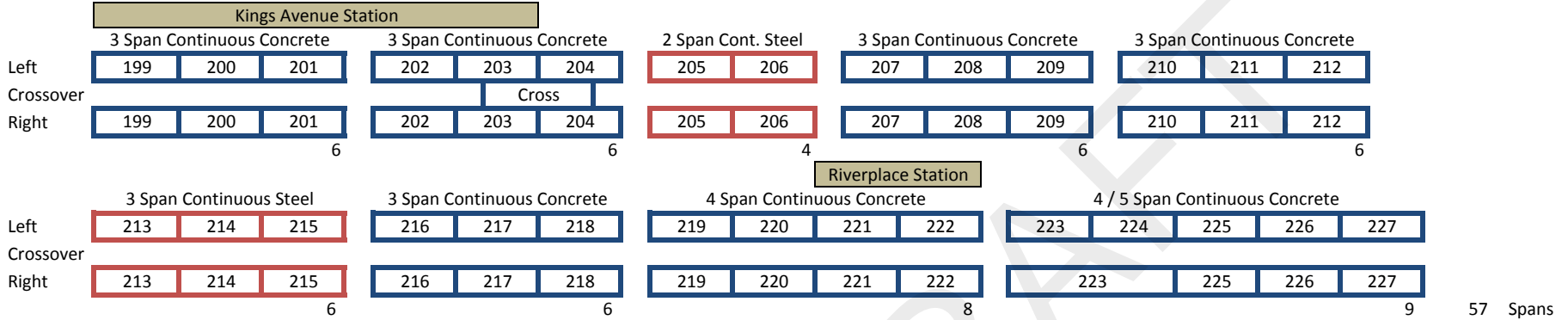


### North Line

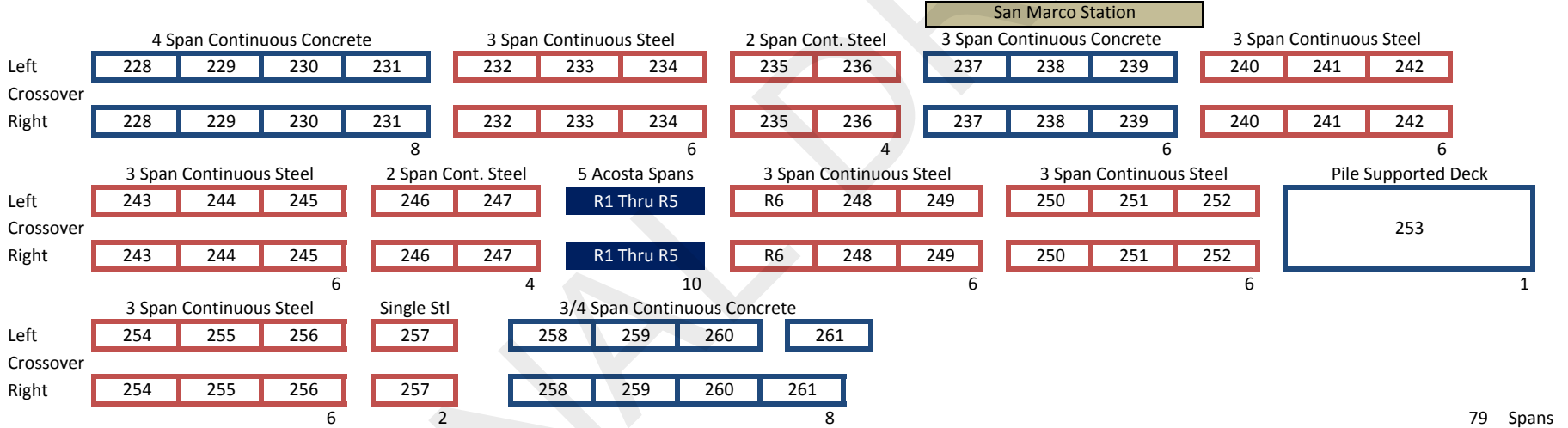


77 Spans

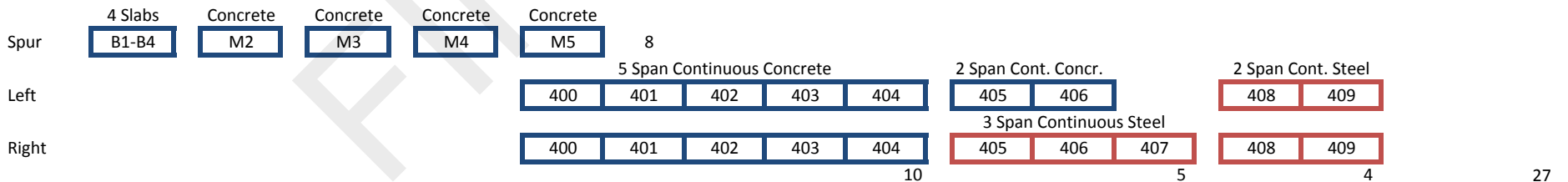
### South Line



### River Crossing



### O&M Line



## APPENDIX C

Applicable FHWA/FDOT Bridge Elements and Element Defects

FINAL DRAFT

## REINFORCED CONCRETE ELEMENTS

Cat.	Element No.	Element Description	Units	Element No.	Element Description	Units
DECK	12	Reinforced Concrete Deck	Sq Ft	8098	Conc. Deck on Precast Deck Panels	Sq Ft
	16	Concrete Top Flange	Sq Ft			
	38	Concrete Slab	Sq Ft			
RAIL	331	Reinforced Concrete Bridge Railing	FT			
Appr. Slab	321	Reinforced Concrete Approach Slab	Sq Ft			
SUPER	105	Closed Web/Box Girder	FT	144	Arch	FT
	110	Open Girder/Beam	FT	155	Floor Beam	FT
	116	Stringer	FT			
SUB-STRUCTURE	205	Column	EA	234	Pier Cap	FT
	210	Pier Wall	FT	8298	Pile Jacket	EA
	215	Abutment	FT	8388	Fender/Dolphin System	FT
	220	Pile Cap/Footing	EA	8394	Abutment Slope Protection	Sq Ft
	227	Pile	EA	8475	Wingwall/Retaining Wall	FT
Culv.	241	Reinforced Concrete Culvert	FT			

No.	Description	CS 1 - Good	CS 2 - Fair	CS 3 - Poor	CS 4 - Severe	
1080	Delamination / Spall / Patched Areas	None.	Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.	Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.	The condition warrants a structural review to determine the effect on strength or serviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.	
1090	Exposed Rebar	None.	Present without measurable section loss.	Present with measurable section loss but does not warrant structural review.		
1120	Efflorescence / Rust Staining	None.	Surface white without build-up or leaching without rust staining.	Heavy build-up with rust staining.		
1130	Cracking	Width less than 0.012 in. (1/83) or spacing greater than 3 ft.	Width 0.012-0.05 in. (1/83-1/20) or spacing 1-3 ft.	Width greater than 0.05 in. (1/20) or spacing less than 1 ft.		
1190	Abrasion / Wear <i>(Not for Railing, Super, Pier Cap, or FL Sub)</i>	None.	Abrasion or wear has exposed coarse aggregate but the aggregate remains secure in the concrete.	Coarse aggregate is loose or has popped out of the concrete matrix due to abrasion or wear.		
1900	Distortion <i>(Culvert Only)</i>	None.	Distortion not requiring mitigation or mitigated distortion.	Distortion that requires mitigation that has not been addressed but does not warrant structural review.		
4000	Settlement <i>(Appr. Slab, Sub. and Culv. only; not Pier Cap)</i>	None.	Exists within tolerable limits or arrested with no observed structural distress.	Exceeds tolerable limits but does not warrant structural review.		
6000	Scour <i>(Sub. and Culv. only; not Pier Cap)</i>	None.	Scour exists within tolerable limits or has been arrested with effective countermeasures.	Scour exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant a structural review.		
7000	Damage	Not applicable.	This element has impact damage. The specific damage caused by the impact has been captured in the applicable Condition State under the appropriate material defect entry.			

## PRESTRESSED CONCRETE ELEMENTS

Cat.	Element No.	Element Description	Units	Element No.	Element Description	Units
DECK	13	Prestressed Concrete Deck	Sq Ft	8097	P/S Reinforced Conc. (Hybrid) Slab	Sq Ft
	15	Prestressed Concrete Girder Top Flange	Sq Ft	8099	P/S Concrete Slab (Sonovoid)	Sq Ft
Appr. Slab	320	Prestressed Concrete Approach Slab	Sq Ft			
SUPER	104	Closed Web/Box Girder	FT	143	Arch	FT
	109	Open Girder/Beam	FT	154	Floor Beam	FT
	115	Stringer	FT			
SUB-STRUCTURE	204	Column	EA	8207	Hollow Core Pile	EA
	226	Pile	EA	8387	Fender/Dolphin Systems	FT
	233	Pier Cap	FT			
Culv.	245	Prestressed Concrete Culvert	FT			

No.	Description	CS 1 - Good	CS 2 - Fair	CS 3 - Poor	CS 4 - Severe
1080	Delamination / Spall / Patched Areas	None.	Delaminated. Spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.	Spall greater than 1 in. deep or greater than 6 in. diameter. Patched area that is unsound or showing distress. Does not warrant structural review.	The condition warrants a structural review to determine the effect on strength or serviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.
1090	Exposed Rebar	None.	Present without measurable section loss.	Present with measurable section loss but does not warrant structural review.	
1100	Exposed Prestressing	None.	Present without section loss.	Present with section loss but does not warrant structural review.	
1110	Cracking	Width less than 0.004 in. (1/250) or spacing greater than 3 ft.	Width 0.004-0.009 in. (1/250-1/111) or spacing 1-3 ft.	Width greater than 0.009 in. (1/111) or spacing less than 1 ft.	
1120	Efflorescence / Rust Staining	None.	Surface white without build-up or leaching without rust staining.	Heavy build-up with rust staining.	
1190	Abrasion / Wear <i>(Sub. and culv. only; not Pier Cap or Fender/Dolphin)</i>	None.	Abrasion or wear has exposed coarse aggregate but the aggregate remains secure in the concrete.	Coarse aggregate is loose or has popped out of the concrete matrix due to abrasion or wear.	
1900	Distortion <i>(Culvert Only)</i>	None.	Distortion not requiring mitigation or mitigated distortion.	Distortion that requires mitigation that has not been addressed but does not warrant structural review.	
4000	Settlement <i>(Appr. Slab, Sub. and Culv. only; not Pier Cap)</i>	None.	Exists within tolerable limits or arrested with no observed structural distress.	Exceeds tolerable limits but does not warrant structural review.	
6000	Scour <i>(Sub. and Culv. only; not Pier Cap)</i>	None.	Scour exists within tolerable limits or has been arrested with effective countermeasures.	Scour exceeds tolerable limits but is less than the critical limits determined by scour evaluation and does not warrant a structural review.	
7000	Damage	Not applicable.	This element has impact damage. The specific damage caused by the impact has been captured in the applicable Condition State under the appropriate material defect entry.		

## STEEL & METAL ELEMENTS

Cat.	Element No.	Element Description	Units	Element No.	Element Description	Units
DECK	28	Steel Deck with Open Grid	Sq Ft	30	Steel Deck Corrugated / Ortho. / Etc.	Sq Ft
	29	Steel Deck with Concrete Filled Grid	Sq Ft			
RAIL	330	Metal Bridge Railing	FT			
SUPER	102	Closed Web/Box Girder	FT	147	Main Cables	FT
	107	Open Girder/Beam	FT	148	Secondary Cables	FT
	113	Stringer	FT	152	Floor Beam	FT
	120	Truss	FT	161	Pin and/or Pin & Hanger Assembly	EA
	141	Arch	FT	162	Gusset Plate	EA
SUB-STRUCTURE	202	Column	EA	231	Pier Cap	FT
	207	Tower	FT	8386	Fender/Dolphin System	FT
	219	Abutment	FT	8474	Wingwall/Retaining Wall	FT
	225	Pile	EA			
Misc.	8397	Metal Drainage System	EA			
	8563	Access Ladders & Platform	EA			
Culv.	240	Steel Culvert	FT			

No.	Description	CS 1 - Good	CS 2 - Fair	CS 3 - Poor	CS 4 - Severe
1000	Corrosion	None.	Freckled rust. Corrosion of the steel has initiated.	Section loss is evident or pack rust is present but does not warrant structural review.	The condition warrants a structural review to determine the effect on strength or serviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.
1010	Cracking / Fatigue	None.	Crack that has self-arrested or has been arrested with effective arrest holes, doubling plates, or similar.	Identified crack that is not arrested but does not warrant structural review.	
1020	Connection	Connection is in place and functioning as intended.	Loose fasteners or pack rust without distortion is present but the connection is in place and functioning as intended.	Missing bolts, rivets, or fasteners; broken welds; or pack rust with distortion but does not warrant a structural review.	
1900	Distortion <i>(Not Deck or Misc.)</i>	None.	Distortion not requiring mitigation or mitigated distortion.	Distortion that requires mitigation that has not been addressed but does not warrant structural review.	
4000	Settlement <i>(Sub. and Culv. only; not Pier Cap)</i>	None.	Exists within tolerable limits or arrested with no observed structural distress.	Exceeds tolerable limits but does not warrant structural review.	
6000	Scour <i>(Sub. And Culv. only; not Pier Cap)</i>	None.	Scour exists within tolerable limits or has been arrested with effective countermeasures.	Scour exceeds tolerable limits but is less than the critic limits determined by scour evaluation and does not warrant a structural review.	
7000	Damage	Not applicable.	This element has impact damage. The specific damage caused by the impact has been captured in the applicable Condition State under the appropriate material defect entry.		

## DECK JOINTS

Cat.	Element No.	Element Description	Units
JOINTS	300	Strip Seal Expansion Joint	FT
	301	Pourable Joint Seal	FT
	302	Compression Joint Seal	FT
	303	Assembly Joint with Seal (Modular)	FT
	304	Open Expansion Joint	FT
	305	Assembly Joint w/out Seal (Modular)	FT
	306	Other Joint	FT

No.	Description	CS 1 - Good	CS 2 - Fair	CS 3 - Poor	CS 4 - Severe
2310	Leakage	None.	Minimal. Minor dripping through the joint.	Moderate. More than a drip and less than free flow of water.	Free flow of water through the joint.
2320	Seal Adhesion	Fully adhered.	Adhered for more than 50% of the joint height.	Adhered 50% or less of joint height but still some adhesion.	Complete loss of adhesion.
2330	Seal Damage	None.	Seal abrasion without punctures.	Punctured or ripped or partially pulled out.	Punctured completely through, pulled out, or missing.
2340	Seal Cracking	None.	Surface crack.	Crack that partially penetrates the seal.	Crack that fully penetrates the seal.
2350	Debris Impaction	No debris to a shallow cover of loose debris may be evident but does not affect the performance of the joint.	Partially filled with hard-packed material but still allowing free movement.	Completely filled and impacts joint movement.	Completely filled and prevents joint movement.
2360	Adjacent Deck or Header	Sound. No spall, delamination, or unsound patch.	Edge delamination or spall 1 in. or less deep or 6 in. or less in diameter. Patched area that is sound.	Spall greater than 1 in. deep or greater than 6 in. diameter. Exposed rebar. Delamination or unsound patched area that makes the joint loose.	Spall, delamination, unsound patched area, or loose joint anchor that prevents the joint from functioning as intended.
2370	Metal Deterioration or Damage <i>(Not for Pourable or Compression)</i>	None.	Freckled rust; metal has no cracks or impact damage, Connection may be loose but functioning as intended.	Section loss, missing or broken fasteners, cracking of the metal, or impact damage but joint still functioning.	Metal cracking, section loss, damage, or connection failure that prevents the joint from functioning as intended.
7000	Damage	Not applicable.	This element has impact damage. The specific damage caused by the impact has been captured in the applicable Condition State under the appropriate material defect entry.		

## BEARINGS

Cat.	Element No.	Element Description	Units
BEARINGS	310	Elastomeric Bearing	EA
	311	Movable Bearing (roller, sliding, etc.)	EA
	312	Enclosed/Concealed Bearing	EA
	313	Fixed Bearing	EA
	314	Pot Bearing	EA
	315	Disk Bearing	EA
	316	Other Bearing	EA

No.	Description	CS 1 - Good	CS 2 - Fair	CS 3 - Poor	CS 4 - Severe
1000	Corrosion	None.	Freckled rust. Corrosion of the steel has initiated.	Section loss is evident or pack rust is present but does not warrant structural review.	The condition warrants a structural review to determine the effect on strength or serviceability of the element or the bridge; OR a structural review has been completed and the defects impact strength or serviceability of the element or bridge.
1020	Connection	Connection is in place and functioning as intended.	Loose fasteners or pack rust without distortion is present but the connection is in place and functioning as intended.	Missing bolts, rivets, or fasteners; broken welds; or pack rust with distortion but does not warrant a structural review.	
2210	Movement	Free to move.	Minor restriction.	Restricted but not warranting structural review	
2220	Alignment	Lateral and vertical alignment is as expected for the temperature conditions	Tolerable lateral or vertical alignment that is inconsistent with the temperature conditions.	Approaching the limits of lateral or vertical alignment for the bearing but does not warrant a structural review.	
2230	Bulging, Splitting, or Tearing <i>(Elastomeric &amp; Pot Only)</i>	None.	Bulging less than 15% of the thickness.	Bulging 15% or more of the thickness. Splitting or tearing. Bulging's surfaces are not parallel. Does not warrant structural review.	
2240	Loss of Bearing Area	None.	Less than 10%.	10% or more but does not warrant structural review.	
7000	Damage	Not applicable.	This element has impact damage. The specific damage caused by the impact has been captured in the applicable Condition State under the appropriate material defect entry.		



## STEEL PROTECTIVE SYSTEMS

Cat.	Element No.	Element Description	Units
PROTECTION	515	Steel Protective Coating Parent Element	Sq Ft
	8516	Paint on Steel	Sq Ft
	8517	Weathering Steel Patina	Sq Ft
	8518	Galvanized or Metalized Steel	Sq Ft
	8519	Other Steel Protective Coatings	Sq Ft

No.	Description	CS 1 - Good	CS 2 - Fair	CS 3 - Poor	CS 4 - Severe
3410	Chalking	None.	Surface dulling.	Loss of pigment.	Not applicable.
3420	Peeling / Bubbling / Cracking	None.	Finish coats only.	Finish and primer coats.	Exposure of bare metal.
3430	Oxide Film Degradation Color / Texture Adherence	Yellow-orange or light brown from early development. Chocolate-brown to purple-brown for fully developed. Tightly adhered, capable of withstanding hammer or vigorous wire brushing.	Granular texture.	Small flakes, less than 1/2-in. diameter.	Dark black color. Large flakes, 1/2-in. diameter or greater or laminar sheets or nodules.
3440	Effectiveness	Fully effective.	Substantially effective.	Limited effectiveness.	Failed; no protection of the underlying metal.
7000	Damage	Not applicable.	This element has impact damage. The specific damage caused by the impact has been captured in the applicable Condition State under the appropriate material defect entry.		

**APPENDIX D**

Field Inspection Notes

FINAL DRAFT

Pier	Side	Above / Below	2017 Inspection Note	2013 Note Disposition	2017 Photo
2	N	Above	Span 2N - 2' of standing water inside guidebeam, in hole 6.5"x3.25". Need to drain and cap. Cannot tell how big open cavity is.	New	F15-1
3	N	Above	Span 2N - Trash and wet debris between left sidewall and second pour. Nearest drain is located near right sidewall at Pier 3.	New	J15-2
3	N	Above	Span 3N - Trash and wet debris between left sidewall and second pour. Nearest drain is located near right sidewall at Pier 3.	New	
5	N	Above	Span 4N - Trash and wet debris between left sidewall and second pour. Nearest drain is located near right sidewall at Pier 5.	New	
5	N	Above	Span 5N - Trash and wet debris between left sidewall and second pour. Nearest drain is located near right sidewall at Pier 5.	New	
7	N	Above	Span 6N - Up to 2.25" of standing water nearly full length of Span 6N, but fairly dry at the piers indicating a sag in the span. No drain at Piers 6N and 7N; only a square drainage cutout in the right sidewall, 2" above the deck at Pier 7.	New	F15-9, F15-10
8	N	Above	Scupper is missing grate and pipe has debris inside.	New	F15-15
8	S	Above	Standing water in the extended right deck overhang, 15' from Pier 8. Low area; drain located left of guidebeam at Pier 8.	New	J15-29
10	N	Above	Span 9N - Standing water along the left sidewall for 50' before Pier 10. No means for drainage at Pier 10.	New	J15-10
10	N	Above	Span 10N - Standing water up to 4", full length of Span 10. No means for drainage at Pier 10 or Pier 11	New	F15-16, J15-13
10	S	Above	Standing water between Piers 9 and 11, but dry at both. Design profile grade is 0%, but Pier 10 must be lower elevation. No means for drainage. A sidewall cutout is present in Span 9, but 2" above deck.	New	
12	N	Above	Scupper is missing grate and pipe is clogged and filled with water.	New	F15-18
12	S	Above	Scupper is missing grate and pipe is clogged and filled with water.	New	F15-62
17	N	Above	Moderate debris accumulation around the drainage scupper, preventing flow.	New	F15-27
19	N	Above	Moderate debris accumulation around the drainage scupper, preventing flow.	New	F15-30,31
20	N	Above	Standing water and debris for 50' around Pier 20N. Cannot locate drain at Pier 20N. There is a cutout in the right sidewall in Span 19, but located 2" above deck.	New	F15-33
22	N	Above	Standing water and debris for 15' around Pier 22N. Cannot locate drain at Pier 22N. There is a cutout in the right sidewall in Span 21, but 2" above deck.	New	
23	N	Above	There is a cutout in the sidewall over the pier, but it is 2" above deck. Moisture is present, but no significant standing water.	New	
24	N	Above	Scupper atrium grate is damaged.	New	F15-34
24	S	Above	Scupper atrium grate is inverted and full of debris.	New	F15-57
45	N	Above	All of Span 45N and half of Spans 44N and 46N have standing water on the right side. Cutouts are present in the sidewall, located 2" above the deck, at Pier 45 and 10' ahead of Pier 46.	New	J24-17
65	R	Above	Scupper atrium grate is missing.	New	F24-19
66	R	Above	Scupper atrium grate is missing.	New	
76	R	Above	Span 75R - Up to 3" of standing water behind the first switch beam pedestal, located 10' from Pier 76R. No means of drainage.	New	J24-56-59

Pier	Side	Above / Below	2017 Inspection Note	2013 Note Disposition	2017 Photo
199	R	Above	Moderate debris accumulation on the deck in Span 199R causing standing water and corroding the metal conduit straps.	New	F5-6
200	L	Above	Minor standing water to the left of the guidebeam in Span 200L. Perhaps a low spot; scupper on right side.	New	J5-52
204	L	Above	Scupper atrium grate is inverted and full of debris.	New	F5-58
205	R	Above	Light debris accumulation around the drainage scupper.	New	J5-15
211	R	Above	Light debris accumulation around the drainage scupper.	New	J5-31
214	-	Below	Riser pipe is cracked and cap is broken.	New	B16-34
214	R	Above	Heavy debris accumulation around the drainage scupper.	New	J5-32
218	R	Below	Riser pipe access cap installed upside down.	New	J2-2
224	L	Above	Up to 1" of wet debris over Pier 224L. No drain at this pier.	New	F10-46, F10-47
228	-	Below	Riser pipe is broken.	New	J3-2, J3-3
230	-	Below	Riser pipe cap is broken.	New	J3-5
236	L	Above	Floor drain grate, located under the guidebeam, is buried under 4" of debris.	New	J10-21, J10-22
236	L	Above	Standing water full length of span, but dry at the piers indicating a sag in the span.	New	J10-20
236	R	Above	Floor drain grate which is located under the guidebeam, is buried under 4" of soil and debris.	New	
237	R	Above	Standing water in the last 20' of span. No means for drainage at Pier 238.	New	
238	L	Above	Standing water full length of span. No means for drainage at Pier 238 or 239.	New	J10-17, F10-37
238	R	Above	Standing water full length of span. No means for drainage at Pier 238 or 239.	New	
239	R	Above	Standing water in first 10' of span. No means for drainage at Pier 239	New	
240	R	Above	Standing water full length of span, left of guidebeam only, stopped by transverse metal conduit, 5' from Pier 240. Water cannot get to Pier 240 to drain.	New	J10-34
242	L	Above	100' of standing water in Span 242L due to debris accumulation at Pier 242. (Drain pipe is NOT clogged.)	New	F10-22, 23, 24
242	R	Above	20' x 2" max of standing water on the right side of guidebeam. Deck is superelevated downward toward right and the drain is on the left side. Through hole under guidebeam is clear. Drain pipe is clear.	New	J10-35, J10-36
244	R	Above	Heavy debris accumulation around the drainage scupper, restricting flow.	New	
245	L	Above	30' of standing water in Span 245L due to debris accumulation at Pier 245. (Drain pipe is NOT clogged.)	New	J10-9, 10, F10-16, J29-2
245	R	Above	Heavy debris accumulation around the drainage scupper, restricting flow.	New	J10-38
247	L	Above	Large sand accumulation preventing water from draining. Up to 4" high for 5' back on both sides of the guidebeam. (Drain pipe is NOT clogged.)	New	J10-5, 6, F10-10

Pier	Side	Above / Below	2017 Inspection Note	2013 Note Disposition	2017 Photo
247	R	Above	Heavy debris accumulation around the drainage scupper, restricting flow. Also, the cross drain in the guidebeam is 4" above the deck causing standing water on the right side, drain on left.	New	J10-39
248	L	Above	Heavy debris accumulation around the drainage scupper.	New	J29-14
248	R	Above	Moderate debris accumulation around the drainage scupper.	New	
249	R	Above	Moderate debris accumulation around the drainage scupper.	New	
251	L	Above	Moderate debris accumulation around the drainage scupper.	New	J29-23
251	R	Above	Moderate debris accumulation around the drainage scupper.	New	
252	L	Above	Moderate debris accumulation around the drainage scupper.	New	
252	R	Above	Moderate debris accumulation around the drainage scupper.	New	
253	L	Above	Span 253L, moderate debris accumulation around the 2nd scupper, right side.	New	J29-28
253	R	Above	Span 253R, wet debris accumulation for 100' in the middle of the span (low section).	New	F29-43
253	R	Above	Span 253R, 1st drain pipe, right side has debris inside and is missing an atrium grate.	New	F29-44
253	R	Above	Span 253R, 2nd scupper, right side has a broken atrium grate.	New	F29-42
253	R	Above	Span 253R, 3rd drain pipe, right side has debris inside.	New	F29-41
255	L	Above	Moderate debris accumulation around the drainage scupper.	New	J29-32
255	R	Above	Scupper drain grate is missing. There is heavy debris accumulation around the drain and the pipe is clogged with debris.	New	J29-34
256	L	Below	Riser pipe cap is broken.	New	J19-26
256	L	Above	17" L x 4" H fracture in flow dam with 9" of exposed rebar	New	J29-33
258	R	Below	Riser pipe is broken, cap cannot be properly secured.	New	J9-4
259	L	Above	Evidence of standing water on deck top in Spans 258L and 259L. No means of drainage at Pier 259L	New	J30-26
259	R	Above	Evidence of standing water on deck top in Spans 258R and 259R. No means of drainage at Pier 259R	New	J30-30, 31
M1	-	Above	Area of erosion 4' L x 1.5' W x 1' D between M1B2 and M1B3.	New	F30-4,5
M1	-	Above	Area of erosion 3.5' L x 14" W x 9" D between M1B3 and M1B4.	New	F30-7
404	L	Above	Light debris accumulation around the drainage scupper.	New	F30-18
405	R	Above	Drain grate is located under the guidebeam and is covered with soil and the neoprene bond breaking pad for the guidebeam pedestal.	New	J30-39
406	L	Above	Scupper atrium grate is inverted and collecting debris.	New	F30-20
407	R	Above	Floor drain grate which is located under the guidebeam, is buried under 2" of soil and debris.	New	J30-35, 36, 37
409	L	Above	Floor drain grate which is located under the guidebeam, is buried under 3" of soil and debris.	New	F30-21,22
409	L	Above	Evidence of standing water on deck top in Span 409, possible low area.	New	J30-23

Pier	Side	Above / Below	2017 Inspection Note	2013 Note Disposition	2017 Photo
409	R	Inside	Span 408R (Bay 9) – The PVC pipe has a bend restricting the flow of water at Pier 409R.	No Change	F31-16
409	R	Above	Floor drain grate which is located under the guidebeam, is buried under 4" of soil and debris.	New	J30-34

FINAL DRAFT

Span	Side	Above / Below	Location	2017 Inspection Note	2013 Note Disposition	2017 Photo
1	N	Below	Throughout	One water pipe hanger is broken at Pier 2N due to section loss from corrosion. Similar corrosion and loss is present on other brackets in this span.	New	F7-8, 9
10	N	Above	Midspan	Electrical conduit tray exhibits surface corrosion up to 1'-6" L x 8" W.	No Change	
26	N	Below	Throughout	Starter Line cable tray anchor bolt nuts have significant corrosion, not galvanized.	New	F7-48
27	N	Below	Pier 27N	Conduit body type LB missing the cover under left overhang.	No Change	F8-5
30	N	Above		Electrical conduit tray exhibits minor surface corrosion.	No Change	
41	N	Above	Pier 42	Electrical conduit tray exhibits moderate surface corrosion up to 2'L x 6" W.		J24-9
41	S	Above	Throughout	Conduits exhibit heavy to severe corrosion in switching area due to ponding.	No Change	F24-4, 5
43	L	Above		Three (3) attachment brackets for the cable tray are broken causing the tray to lean downward for 30'.	New	J24-10-15
48	R	Below	Pier 48 R	The electrical outlet in the left face, 6' from the cap is missing one cover.	No Change	
49	R	Above		Electrical conduit tray exhibits moderate surface corrosion up to 8" L x 6" W.	No Change	
51	-	Below	Pier 51	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	
52	-	Below	Pier 52	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	F13-58
53	-	Below	Pier 53	The electrical outlet in the left face, 10' from the cap is missing a cover.	No Change	
55	L	Below		The traffic light attachment over Hogan St. exhibits minor surface corrosion and the nuts are not fully engaged.	No Change	F21-12, 13
56	R	Above	4' from Pier 56	Electrical conduit tray exhibits moderate surface corrosion up to 6" L x 6" W.	No Change	F24-14
56	-	Below	Pier 56	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	
57		Below	Pier 57	The electrical outlet in the left face, 6' from the cap is missing one cover.	No Change	F21-16
58	-	Below	Pier 58	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	
59	-	Below	Pier 59	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	
60	-	Below	Pier 60	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	
61	L	Below	Pier 61L	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	
64	L	Below	Pier 64L	The electrical outlet on the right face is missing both covers at ground level.	No Change	J22-5
64	R	Below	Pier 64R	The electrical outlet on the left face is missing both covers at ground level.	No Change	
65	R	Below	Pier 65R	The electrical outlet in the right face, 6' from the cap is missing one cover.	No Change	
67	L	Below	Pier 67L	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	

Span	Side	Above / Below	Location	2017 Inspection Note	2013 Note Disposition	2017 Photo
68	L	Below	Pier 68R	The electrical outlet in the left face, 6' from the cap is missing one cover.	No Change	
72	-	Below	Pier 72	The electrical outlet in the left face, 6' from the cap is missing both covers.	No Change	
75	-	Below	Pier 75	The electrical outlet in the left face, 6' from the cap is missing one cover.	No Change	
76	-	Below	Pier 76	The electrical outlet in the left face, 6' from the cap, the bottom cover is broken.	No Change	F23-13
80	L	Below	Pier 80	The electrical outlet in the left face, 6' from the cap is missing one cover.	No Change	F20-27
200	R	Above		Electrical cable tray is missing one strap and the cover cannot be secured.	New	F5-8
201	R	Above	10' from Pier 202R	Two conduit support brackets have completely corroded through on the right side.	Increase	F5-10, 11
203	L	Above	Near Pier 204L	Electrical control cabinet has peeling paint and moderate surface corrosion on the front face and door hinges.	New	F5-59
204	R	Above	Near Pier 204R	Electrical control cabinet has moderate surface corrosion on the supports.	New	J5-13
204	R	Above	Near Pier 204R	Electrical control cabinet support bracket nuts and washers have heavy surface corrosion, all three cabinets, not galvanized.	New	J5-11, 12
205	L	Above	Throughout	Light surface corrosion on the power rail attachment brackets.	New	J5-48
206	R	Above	Near Pier 207	Moderate surface corrosion on one power rail attachment bracket.	New	J5-23
219	R	Above	Pier 219R	Moderate surface corrosion on the camera mounting post straps	New	F5-43
220	L	Above	Near Pier 221L	Electrical control cabinet has moderate surface corrosion on the supports and the door hinges.	New	F5-42
221	R	Above	Throughout	Surface corrosion and minor section loss on transverse conduits and brackets due to standing water and debris accumulation on the deck.	New	F5-37, 39
223	R	Above	10' from Pier 223R	On the exterior face of the left sidewall, the bracket for the "Power Disconnect Box" exhibits a 1/2" gap between the bracket and the sidewall at the top.	No Change	
232	R	Above		Electrical cable tray is missing 6' of cover.	New	F10-53
237	L	Above	Throughout	Severe section loss on transverse conduits and brackets due to standing water and debris accumulation on the deck.	No Change	
237	R	Above	Throughout	Severe section loss on transverse conduits and brackets due to standing water and debris accumulation on the deck.	Increase	
238	L	Above	Throughout	100% section loss on transverse conduits and brackets with exposed wires due to standing water and debris accumulation on the deck.	Increase	J10-14, 16
238	R	Above	Throughout	Severe section loss on transverse conduits and brackets with exposed wires due to standing water and debris accumulation on the deck.	Increase	J10-33
239	L	Above		Electrical cable tray has a missing bracket for the attachment to the left sidewall causing the tray to sag.	New	F10-33, 34, 35



Span	Side	Above / Below	Location	2017 Inspection Note	2013 Note Disposition	2017 Photo
239	R	Above	Pier 239R	Surface corrosion and minor section loss on transverse conduits and brackets due to standing water and debris accumulation on the deck.	No Change	
240	L	Above	30' from Pier 240L	Surface corrosion and section loss on transverse conduits and brackets due to standing water and debris accumulation on the deck.	New	F10-27
240	R	Above	5' from Pier 240R	Surface corrosion and section loss on transverse conduits and brackets due to standing water and debris accumulation on the deck.	New	
242	R	Above	Pier 242	Surface corrosion and section loss on transverse conduits and brackets due to standing water and debris accumulation on the deck.	No Change	
245	L	Below	4' from Pier 246	Fiberglass conduit with a disconnected joint hanging from the underside of the right overhang, 4' from Pier 246.	No Change	
246	L	Above	Throughout	Heavy accumulation of sand at transverse conduits blocking water flow.	New	J10-7
246	L	Below	30' from Pier 247	Fiberglass conduit with a disconnected joint hanging from the underside of the right overhang, 30' from Pier 247.	No Change	J27-45
247	L	Above	Throughout	Heavy surface corrosion on electrical conduit brackets attached to the inside face of the left barrier, no significant section loss. Typical on Acosta Bridge and approach spans.	New	F10-7
R5	L	Above	Throughout	Heavy surface corrosion on electrical conduit brackets attached to the inside face of the left barrier, no significant section loss. Typical on Acosta Bridge and approach spans.	New	F29-14
249	L	Above	Pier 250	An electrical conduit is broken at a flexible conduit joint, exposing wires.	New	F29-21
254	R	Above	Pier 254	Light surface corrosion on one power rail attachment bracket weld.	No Change	J29-35
M2	-	Above		Traffic signal column anchor bolts and leveling nuts have surface corrosion and minor section loss below the base plates.	New	F30-12
M2	-	Above	Throughout	Electrical cable tray supports exhibit minor corrosion.	No Change	J30-7
M3	-	Above	Throughout	Electrical cable tray supports exhibit minor corrosion.	No Change	
M4	-	Above	Throughout	Electrical cable tray supports exhibit minor corrosion.	No Change	
409	L	Above		Electrical control cabinet support bracket nuts and washers have heavy surface corrosion, all three cabinets, not galvanized.	New	F30-23, 24, F19-20

Span	Side	2017 Inspection Note	2013 Note Disposition	2017 Photo
30	N	Large palm tree growing underneath the span and in contact with the box beam, 15' from Pier 31.	No Change	J9-1, 2
33	S	Trees encroaching the exterior side of the right sidewall.	New	F11-17
34	S	Trees encroaching the exterior side of the right sidewall.	New	
48	L	Trees growing underneath the span and in contact with the beam stems.	New	J12-4
67	R	Trees growing underneath the span and in contact with the beam stems.	No Change	J22-2,3
74	R	Trees encroaching the exterior side of the right sidewall.	No Change	F23-2
79	L	Trees are growing underneath and encroaching the exterior side of the left sidewall.	No Change	F20-31
199	R	Trees encroaching the exterior side of the right sidewall.	No Change	F5-5
200	R	Trees encroaching the exterior side of the right sidewall.	No Change	
204	R	Trees encroaching the exterior side of the left sidewall and emergency walkway.	New	J5-14, F3-38
228	L	Trees growing underneath the span and in contact with the beam stems.	New	F3-22, 23
R2	L	Palm vegetation growing at isolated locations in joint between right sidewall and deck	New	
R3	L	Palm vegetation growing at isolated locations in joint between right sidewall and deck	New	J29-6
R3	R	Palm vegetation growing at isolated locations in joint between right sidewall and deck	No Change	
R4	L	Palm vegetation growing at isolated locations in joint between right sidewall and deck	New	
M2	L	Trees encroaching the exterior sides of the left stem and sidewall.	No Change	F4-3
M2	R	Trees and bushes encroaching the exterior sides of the right stem and sidewall.	New	F4-9
M3	-	Vegetation growth on the front left side of the bent cap.	New	F4-20
M3	-	Trees and bushes encroaching Pier M3 and the exterior side of the right stem, Span M2 and M3.	New	J4-4
M4	-	Trees and bushes encroaching Pier M4 and the exterior side of the right stem, Span M3 and M4.	New	
M5	-	Vines attached to the pier column and cap.	New	J4-5
401	-	Vines attached to the pier column and cap.	New	J4-13
403	-	Vines attached to the pier column and cap.	No Change	J4-16
406	R	Vines attached to the pier column. bearings and the box beam.	New	J19-23, 24, F28-30

Span	Side	Above / Below	2013 Inspection Note	2013 Note Disposition	2017 Photo
1	N	Below	Several support brackets exhibit light surface corrosion at the sidewall connection.	New	F7-14
1	S	Below	Two support brackets exhibit moderate surface corrosion at the sidewall connection.	New	F8-9
13	-	Above	Spans 9 thru 17: Light to moderate surface browning on grating in indicating breakdown of galvanization. Clips have been painted.	New	F15-20,21
19	-	Above	Railing paint between Pier 18 and Jefferson Station has very chalky paint.	New	J15-18
24	N	Above	Moderate surface browning on grating clips.	New	
24	S	Above	Isolated areas of light surface corrosion on handrail.	No Change	
25	N	Above	Spans 24N thru 28N: Isolated areas of light surface browning on handrail indicating initial breakdown of galvanization.	New	F15-35
25	N	Above	Moderate surface browning on expansion cover plate over Pier 25N, indicating breakdown of galvanization.	New	F15-36
25	N	Above	Moderate surface browning on grating clips.	New	
25	S	Above	Isolated areas of light surface corrosion on handrail.	No Change	
26	S	Above	Isolated areas of light surface corrosion on handrail.	No Change	
27	N	Above	Isolated areas of light surface corrosion on handrail.	No Change	
28	N	Below	Support bracket under Post 9 has one missing bolt.	No Change	
28	S	Above	Isolated areas of light surface corrosion on handrail.	No Change	
29	-	Above	Moderate surface browning on expansion cover plate over Pier 29, indicating breakdown of galvanization.	No Change	
32	-	Above	Moderate surface browning on expansion cover plate over Pier 32, indicating breakdown of galvanization.	No Change	
35	-	Above	Moderate surface browning on expansion cover plate over Pier 35, indicating breakdown of galvanization.	No Change	F15-42
35	-	Above	Moderate surface browning and light corrosion on grating clips between Pier 32 and Central Station.	New	F15-42
38	-	Above	Moderate surface browning on expansion cover plate over Pier 38, indicating breakdown of galvanization.	No Change	
38	-	Below	Support plate attached to the left sidewall has one missing bolt.	No Change	J24-1, 2
47	L	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	New	
48	L	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	New	F12-43, 44, 45
60	L	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	New	F21-37
61	L	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	New	
199	R	Below	Light surface browning on support brackets and bolts indicating initial breakdown of galvanization.	New	J5-4
203	Cross	Above	One isolated location of moderate surface corrosion on railing.	No Change	J5-10
205	R	Above	Light surface browning on grating throughout the span indicating initial breakdown of galvanization.	New	J5-20
206	L	Above	Isolated areas of light surface corrosion on handrail.	New	J5-22
206	R	Above	Isolated areas of light surface corrosion on handrail.	New	J5-22
209	R	Above	Isolated locations of moderate to heavy surface corrosion on grating clip	New	J5-29

Span	Side	Above / Below	2013 Inspection Note	2013 Note Disposition	2017 Photo
215		Above	Grating is bent downward 1" over a length of 1.5'.	New	F5-46
217	L	Below	At numerous support brackets, the anchor bolts are too short to fully engage the nuts.	New	F2-6
217	L	Above	Isolated areas of light surface corrosion on handrail.	No Change	
217	L	Below	Seven support brackets exhibit moderate surface corrosion at the sidewall connection.	Increase	F2-9
217	R	Below	Three support brackets exhibit moderate surface corrosion at the sidewall connection.	No Change	F2-7
218	L	Above	Isolated areas of light surface corrosion on handrail.	No Change	
218	L	Below	Two support brackets exhibit moderate surface corrosion at the sidewall connection.	No Change	
218	R	Below	Four support brackets exhibit moderate surface corrosion at the sidewall connection.	Increase	
218	R	Above	Isolated areas of light surface corrosion on handrail.	No Change	J5-35
219	L	Below	One support bracket exhibits moderate surface corrosion at the sidewall connection.	New	
219	R	Above	Isolated areas of light surface corrosion on handrail.	No Change	
220	L	Above	Isolated locations of moderate surface corrosion on grating and clip bolts.	No Change	
223	L	Below	Two support brackets exhibit moderate surface corrosion at the sidewall connection.	New	J2-6
223	R	Below	One support bracket exhibits moderate surface corrosion at the sidewall connection.	New	
224	R	Below	Two support brackets exhibit moderate surface corrosion at the sidewall connection.	New	F3-4
232	L	Below	Four support brackets exhibit moderate surface corrosion at the sidewall connection.	No Change	
235	R	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	No Change	
242	R	Above	Isolated areas of light surface corrosion on handrail.	No Change	
R1	L	Above	Walkway joint has expanded beyond the length of the expansion plates at Pier R1. (1.5" measured at 52 degrees)	No Change	J10-4
R1	R	Above	Walkway joint has expanded beyond the length of the expansion plates at Pier R1.	No Change	
R5	L	Above	Isolated area of moderate surface corrosion on 3rd railing post from the end of the walkway.	New	J29-7
R6	L	Above	Walkway joint has expanded beyond the length of the expansion plates at Pier R6. (1" measured at 66 degrees)	No Change	J29-42
R6	L	Above	Isolated areas of light surface corrosion on handrail.	No Change	
R6	R	Above	Walkway joint has expanded beyond the length of the expansion plates at Pier R6.	No Change	
248	R	Below	One support bracket exhibits moderate surface corrosion at the sidewall connection.	New	J29-19
258	L	Above	Isolated areas of light surface corrosion on handrail, 10' from Pier 259.	No Change	
M4	-	Above	Moderate surface corrosion at the bottom of the last post, right side.	New	F30-14

Span	Side	Above / Below	2013 Inspection Note	2013 Note Disposition	2017 Photo
M4	-	Above	Minor surface corrosion on the outside face of the bottom rail between Posts 2 and 3, right side.	No Change	
407	R	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	No Change	
408	R	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	No Change	
409	R	Below	Several support brackets exhibit moderate surface corrosion at the sidewall connection.	New	F29-36,37

FINAL DRAFT

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
6	N	Rear	Comp.	1/2" gap between compression seal and deck.	F15-5	11.0	2.25	72					11							
6	N	Center	Finger	Rear pourback has 2 delaminations, 4"x5" and 7"x5".	F15-6	2.8	2	53										1.5		
6	N	Forward	Comp.			11.0	2	67					11							
6	S	Rear	Comp.	1/2" gap between compression seal and deck.		11.0	2.5	65					11							
6	S	Center	Finger	Forward pourback has a delamination 6"x4.5" between plates.		2.8	2	70										0.5		
6	S	Forward	Comp.			11.0	2.5	70									10			
8	N	Rear	Comp.	1/2" gap between compression seal and deck. Joint header spall, right side, 1'x4.5"x1.5".	J15-7, B18-7, F15-13,14	11.0	2.5	69					11							
8	N	Center	Finger			2.8	2.25	59												
8	N	Forward	Comp.			11.0	1.875	69					11							
8	S	Rear	Comp.			11.0	2	69				10								
8	S	Center	Finger	Rear pourback has one delamination, 5"x5" between plates. Forward pourback has 2 delaminations, 5"x3.5" and 5"x5" between plates.		2.8	1.75	70										1		
8	S	Forward	Comp.		B18-19	11.0	2.5	69					11							
12	N	Rear	Comp.			11.0	2	63					11							
12	N	Center	Finger	Rear pourback has a delamination, 10"x2" 1/8" elevation difference between sliding plates.	F15-19	2.8	2	61										1		
12	N	Forward	Comp.			11.0	2	63					11							
12	S	Rear	Comp.			11.0	2	63					11							
12	S	Center	Finger	Both pourbacks have hairline map cracking throughout.		2.8	1.75	70												
12	S	Forward	Comp.			11.0	2	63					11							

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
15	N	Rear	Comp.			11.0	2.25	73					11							
15	N	Center	Finger	Right face of the forward pourback has a 3" L x 3" W x 1/2" D spall and a 6"x3" delamination 1/8" elevation difference between sliding plates.	F15-23	2.8	2.125	68										1		
15	N	Forward	Comp.			11.0	1.875	73					11							
15	S	Rear	Comp.			11.0	2.25	73					11							
15	S	Center	Finger	Rear pourback has a delamination, 11"x3".		2.8	1.75	70										1		
15	S	Forward	Comp.			11.0	2.25	73					11							
18	N	Rear	Comp.	Joint seal has adhesion failure and is rotated 90°.	F15-29	11.0	2	66					11							
18	N	Center	Finger	Forward pourback has a 13"x2.5" delamination in the top and a 7"x3" delamination on the right side.	F15-28	2.8	1.875	70	1.8									1		
18	N	Forward	Comp.			11.0	2.5	66					11							
18	S	Rear	Comp.			11.0	2	63					11							
18	S	Center	Finger	Rear pourback has 2 delaminations, 12"x3" and 3"x2". Forward pourback has an area of cracking and delamination, 11"x5".		2.8	1.75	70										2		
18	S	Forward	Comp.			11.0	1.75	63					11							
21	N	Rear	Comp.			11.0	2.375	71					11							
21	N	Center	Finger			2.8	2	68												
21	N	Forward	Comp.			11.0	2.75	71					11							
21	S	Rear	Comp.			11.0	2.5	73					11							

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
21	S	Center	Finger	Both pourbacks have hairline map cracking throughout. The rear pourback has a delamination, 10"x2". The forward pourback has scaling with exposed aggregate.	F15-60,61	2.8	1.75	70											1	
21	S	Forward	Comp.	1/4" gap between compression seal and deck.		11.0	2.25	73					11							
25	N	Rear	Comp.			11.0	2	75					11							
25	N	Center	Finger			2.8	2.125	68												
25	N	Forward	Comp.			11.0	2.75	75					11							
25	S	Rear	Comp.	1/4" gap between compression seal and deck.		11.0	2.25	66					11							
25	S	Center	Finger	Forward pourback has a delamination 13.5"x4" and a spall 4"x3"x3/4" between the plates.		2.8	2	70											1.5	
25	S	Forward	Comp.			11.0	2	66					11							
29	N	Rear	Comp.	1/4" gap between compression seal and deck.	F15-37	11.0	2.5	68					11							
29	N	Center	Finger	No joint membrane is present between left sidewalls. Forward pourback has a spall and delamination on top 14"x7"x4" H on side.	J15-21, F15-38, 39	2.8	2.125	68	1.8										1	
29	N	Forward	Comp.			11.0	2	68					11							
29	S	Rear	Comp.	1/2" gap between compression seal and deck.	F15-53, F15-54	11.0	2.75	70					11							
29	S	Center	Finger	Rear pourback has a delamination, 13"x2" and 4"x2" on the right face Forward pourback has a delamination, 8"x4"		2.8	1.75	70											2	
29	S	Forward	Comp.			11.0	1.75	70									10			
31	S	Rear	Comp.	3/4" elevation difference between cap and span.		11.0	3	75									10			
31	S	Center	Finger			2.8	1.625	75												



Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
31	S	Forward	Comp.	2-1/2" elevation difference between cap and span.	J30-28	11.0	2.25	75			1					9				
32	N	Rear	Comp.			11.0	2.25	72								10				
32	N	Center	Finger	Rear pourback has a delamination 5"x6" between plates.		2.8	1.75	68										1		
32	N	Forward	Comp.	1/4" gap between compression seal and deck.	F15-41	11.0	2.875	72					11							
32	S	Rear	Comp.			11.0	2.25	72								10				
32	S	Center	Finger			2.8	1.875	70												
32	S	Forward	Comp.	Compression seal is debonded and overcompressed in the south side.		11.0	2.25	72					11							
35	N	Rear	Comp.	Compression joint seal has settled 1 1/2" at north end		11.0	1.75	75					11							
35	N	Center	Finger			2.8	2	69												
35	N	Forward	Comp.	3/8" gap between compression seal and deck.	F11-21, F15-43	11.0	3.25	75					11							
35	S	Rear	Comp.			11.0	2	75					11							
35	S	Center	Finger	Rear pourback has a delamination 4.5"x4" between plates. Forward pourback has a delamination 4.5"x5" between plates.		2.8	2	70										1		
35	S	Forward	Comp.	1/4" gap between compression seal and deck. Header spall measuring 6" L x 3" W x 1/4" D		11.0	2	75					11							
38	N	Rear	Comp.		F11-35	11.0	2	80					11							
38	N	Center	Finger	Right face of rear pourback has a delamination 10"x1.5"		2.8	2	69										1		
38	N	Forward	Comp.			11.0	2.75	80					11							
38	S	Rear	Comp.	3/8" gap between compression seal and deck.	F15-48	11.0	1.75	80					11							
38	S	Center	Finger			2.8	2	69												

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
38	S	Forward	Comp.	1/2" gap between compression seal and deck. Seal has settled 1"		11.0	2.75	80					11							
40	N	Rear	Comp.			11.0	2.75	64									2			
40	N	Center	Finger		J24-4	2.8	2	59	2.8											
40	N	Forward	Comp.	1/8" gap between compression seal and deck. Seal has settled 1"		11.0	1.875	64					11							
40	S	Rear	Comp.	1/2" gap between compression seal and deck. Seal has settled 1"	F24-3	11.0	2.75	64					11							
40	S	Center	Finger		F24-2	2.8	2.25	59												
40	S	Forward	Comp.			11.0	2	64					11							
44	N	Rear	Comp.			11.0	2	70					11							
44	N	Center	Finger			2.8	2	61												
44	N	Forward	Comp.			11.0	2	82									10			
44	S	Rear	Comp.	Seal has settled 3" and is falling on the right end	F13-22	11.0	2	72					11							
44	S	Center	Finger	Rear pourback has a delamination 2'-2" x 8".	F24-6	2.8	2	61										2		
44	S	Forward	Comp.			11.0	1.375	72			5						6			
47	N	Rear	Comp.	1/4" gap between compression seal and deck. Seal has settled 1/2"	J24-21	11.0	2.5	82					11							
47	N	Center	Finger			2.8	2.125	60												
47	N	Forward	Comp.	Seal is overcompressed for 2' at the right end.	J24-22	11.0	1.75	60									8			
47	S	Rear	Comp.	1/4" gap between compression seal and deck. Seal has settled 1"		11.0	2.25	76					11							
47	S	Center	Finger	Rear pourback has a delamination 10" x 4".	F24-8	2.8	1.75	61												
47	S	Forward	Comp.			11.0	1.5	76			5	5								
51	L	Rear	Comp.	Seal is overcompressed for 2' at the left end.	J24-25	11.0	1.5	85									10			
51	L	Center	Finger			2.8	1.875	63												

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
51	L	Forward	Comp.	Joint is overcompressed for 5'		11.0	1	86								5				
51	R	Rear	Comp.			11.0	1.5	85			5						5			
51	R	Center	Finger			2.8	2.25	63												
51	R	Forward	Comp.	Seal is overcompressed for 2' at the right end.	F24-9	11.0	1.25	86			5						3			
52	L	Rear	Comp.			11.0	2	86				5					5			
52	L	Center	Finger			2.8	2.25	63												
52	L	Forward	Comp.			11.0	2	63									10			
52	R	Rear	Comp.			11.0	1.5	86			10									
52	R	Center	Finger	Forward pourback has a delamination 10" x 3".		2.8	2.125	63										1		
52	R	Forward	Comp.	Compression seal does not extend all the way to the overhang.	F24-10	11.0					10									
52A	-	Rear	Comp.	Compression seal is missing.	J24-31	11.0	1.75	63							24					
54	L	Rear	Comp.	Joint is overcompressed, full length	J24-33	11.0	1.75	48												
54	L	Center	Finger		J24-32	2.8	2	63	2.8											
54	L	Forward	Comp.	1/4" gap between compression seal and deck.	F21-6, J24-34	11.0	2.5	48					11							
54	R	Rear	Comp.			11.0	2	72									10			
54	R	Center	Finger			2.8	2.25	63												
54	R	Forward	Comp.	1/8" gap between compression seal and deck.	F24-11	11.0	2.25	72					11							
58	L	Rear	Comp.			11.0	2.5	54								10				
58	L	Center	Finger			2.8	2	64												
58	L	Forward	Comp.	1/4" gap between compression seal and deck.	F21-21, J24-38	11.0	3.25	54					11							
58	R	Rear	Comp.			11.0	2.75	54					11							
58	R	Center	Finger			2.8	2.25	64												

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
58	R	Forward	Comp.	1/4" gap between compression seal and deck. Header spall 8" L x 4" W x 1" D, 1' from the right end.	F21-22, 24, F24-15, 16	11.0	3.5	54					10						1	
62	L	Rear	Comp.	Neoprene gland has been installed over the joint.	J24-41	11.0	2.5	40									2			
62	L	Center	Finger			2.8	2.125	65												
62	L	Forward	Comp.	Neoprene gland has been installed over the joint.		11.0	3.25	40									2			
62	R	Rear	Comp.	Neoprene gland has been installed over the joint.		11.0	2.75	38									10			
62	R	Center	Finger			2.8	2.25	64												
62	R	Forward	Comp.	Neoprene gland has been installed over the joint.		11.0	3.5	38												
66	L	Rear	Comp.	Neoprene gland has been installed over the joint.	J24-44	11.0	3.5	41									2			
66	L	Center	Finger			2.8	2	66												
66	L	Forward	Comp.	Neoprene gland has been installed over the joint.		11.0	2.25	41									2			
66	R	Rear	Comp.	Neoprene gland has been installed over the joint.		11.0	3.5	38									2			
66	R	Center	Finger	Forward pourback has a delamination 8" x 2".		2.8	1.75	66										1		
66	R	Forward	Comp.	Neoprene gland has been installed over the joint.		11.0	2.25	38									2			
69	L	Rear	Comp.	1/2" gap between compression seal and deck.	F22-31, J24-49	11.0	1.75	48					11							
69	L	Center	Finger			2.8	1.76	66												
69	L	Forward	Comp.			11.0	3.75	48					5					5		
69	R	Rear	Comp.	1/2" gap between compression seal and deck.	F22-25	11.0	1.75	48					11							
69	R	Center	Finger			2.8	2.125	66												
69	R	Forward	Comp.			11.0	2.5	48			5						5			
72	L	Rear	Comp.	1/2" gap between compression seal and deck.		11.0	3	52					11							
72	L	Center	Finger	1/8" elevation difference between sliding plates.	J24-53, 54	2.8	2	66												
72	L	Forward	Comp.			11.0	2	52					11							
72	R	Rear	Comp.	1/2" gap between compression seal and deck.		11.0	3	52					11							

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
72	R	Center	Finger	Both pourbacks have cracking, spalling and delaminations. Largest area is 10" L x 6" wide x 1" deep.	F24-20, 21	2.8	2	66											1	
72	R	Forward	Comp.			11.0	2	52					11							
75	L	Rear	Comp.			11.0	2.75	41					11							
75	L	Center	Finger	Rear pourback has 2 delaminations, up to 7"x2".	J24-55	2.8	2	66											1	
75	L	Forward	Comp.			11.0	2.25	41					11							
75	R	Rear	Comp.			11.0	2.25	41			5					5				
75	R	Center	Finger	Rear pourback has a spall on the left side, 6" L x 1 3/4" W x 1" D. Forward pourback has a spall, 12" L x 5" W x 1" D.	F24-24 & 25.	2.8	2	66											0.5	1
75	R	Forward	Comp.	1/2" gap between compression seal and deck.		11.0	3.25	41					11							
78	L	Rear	Comp.			11.0	2.5	41			5	5								
78	L	Center	Finger	Right side of guidebeam joint is missing one finger	J24-61	2.8	1.75	67		1										
78	L	Forward	Comp.			11.0	2.5	41			5	5								
78	R	Rear	Comp.			11.0	2	41					11							
78	R	Center	Finger	Tack weld on the top face at the right rear sliding plate has a hairline crack.	F24-27	2.8	1.75	66												
78	R	Forward	Comp.			11.0	2.75	41			5					5				
81	L	Rear	Comp.			11.0	2.25	59										10		
81	L	Center	Finger			2.8	1.875	66												
81	L	Forward	Comp.	Compression seal has fallen down on the right side	J20-1	11.0	2.75	59					11							
81	R	Rear	Comp.			11.0	2.75	59					11							
81	R	Center	Finger			2.8	1.875	66												
81	R	Forward	Comp.			11.0	2.25	59			5	5								
85	L	Rear	Comp.			11.0	1.875	59												

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
85	R	Rear	Comp.			11.0	1.75	59									10			
199	L	Forward	Comp.	3/4" elevation difference between cap and span.		11.0	4.25	77									10			
199	R	Forward	Comp.		F5-1	11.0	3.5	63								10				
202	L	Rear	Comp.	1" elevation difference between cap and span.		11.0	2.75	77								5	5			
202	L	Center	Finger			2.8	1.875	77												
202	L	Forward	Comp.	1" elevation difference between cap and span.		11.0	4	77								5	5			
202	R	Rear	Comp.	Sealant applied over joint.	J5-6	11.0	3.25	63												
202	R	Center	Finger		J5-5	2.8	1.75	63												
202	R	Forward	Comp.	Sealant applied over joint.	J5-6	11.0	3.5	63												
205	L	Rear	Comp.			11.0	3.25	76				1				9				
205	L	Center	Finger	3/16" elevation difference between sliding plates. Rear pourback has a delamination 30"x9" with map cracking throughout. Forward pourback has a delamination 4"x2". Forward pourback, left face has a 1/8" crack at the construction joint	F5-55, J5- 49	2.8	1.75	76										2		
205	L	Forward	Comp.			11.0	3.5	76				1				9				
205	R	Rear	Comp.			11.0	3.25	63								10				
205	R	Center	Finger	Typical fretting corrosion from sliding plate contact	J5-16, 17	2.8	2	63												
205	R	Forward	Comp.			11.0	3.25	63								10				
207	L	Rear	Comp.			11.0	3.25	76				3				4		1		
207	L	Center	Finger			2.8	2.25	76												
207	L	Forward	Comp.			11.0	2.5	76								10				
207	R	Rear	Comp.	1-1/4" elevation difference between cap and span.	F5-19, 20 J5-25	11.0	3	66				11								

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
207	R	Center	Finger	Rear pourback has map cracking a delamination 10"x2" on the ? side.	F5-18	2.8	2	66										1		
207	R	Forward	Comp.			11.0	3	66								10				
210	L	Rear	Comp.			11.0	2.75	76					4				5	1		
210	L	Center	Finger	1/2" elevation difference between sliding plates. Forward pourback has a delam	F5-52, 54	2.8	2.25	76												
210	L	Forward	Comp.			11.0	3.25	76					11							
210	R	Rear	Comp.		J5-30, F5-21	11.0	3	66					11							
210	R	Center	Finger	Both pourbacks have hairline map cracking throughout.		2.8	2.25	66												
210	R	Forward	Comp.			11.0	4	66				6	4							
213	L	Rear	Comp.		J5-4	11.0	3	75						2			8			
213	L	Center	Finger	1/4" elevation difference between sliding plates.		2.8	2	76												
213	L	Forward	Comp.			11.0	2.5	75								9		1		
213	R	Rear	Comp.		F5-24	11.0	3.25	66					5			2				
213	R	Center	Finger	1/4" elevation difference between sliding plates. Rear pourback has hairline map cracking throughout. Forward pourback has a delamination 13"L x 2" W x 1" D	F5-23	2.8	2.25	66										1		
213	R	Forward	Comp.		F5-25	11.0	3.25	66					11							
216	L	Rear	Comp.			11.0	3.25	75						1		4				
216	L	Center	Finger	Three delaminations in the pourbacks, 8.5"x4.5" and 16"x4.5" and 16"x6".	F5-44, 45	2.8	2	75										2.8		
216	L	Forward	Comp.			11.0	3.5	75					1	3		1				
216	R	Rear	Comp.			11.0	3	69				1	5				4			
216	R	Center	Finger	3/16" elevation difference between sliding plates.		2.8	1.75	69												

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
216	R	Center	Finger			2.8	2	69												
216	R	Forward	Comp.			11.0	3.25	69									10			
219	L	Rear	Comp.			11.0	3.25	74					11							
219	L	Center	Finger			2.8	1.75	74												
219	L	Forward	Comp.	1-1/8" elevation difference between cap and span. 1/4" gap between compression seal and deck.	J5-40	11.0	3.5	74					11							
219	R	Rear	Comp.	3/4" elevation difference between cap and span.		11.0	3.25	69								10				
219	R	Center	Finger	1/4" elevation difference between sliding plates. Forward pourback has a spall, 8" L x 4.25" W x 1.5" D and a delamination, 11"x2.5"	F5-32, 34, 35	2.8	1.75	74										1	1	
219	R	Forward	Comp.	1/2" elevation difference between cap and span.		11.0	3.25	69					4			6				
223	L	Rear	Comp.	1/2" elevation difference between cap and span.		11.0	1.75	74								10				
223	L	Center	Finger	Pourbacks have two delaminations, 7"x4.5" and 11"x4"	F5-38, 39	2.8	1.875	74										2		
223	L	Forward	Comp.	1/2" elevation difference between cap and span.	J5-38	11.0	3.125	74									10			
223	R	Rear	Comp.	3/4" elevation difference between cap and span.		11.0	2.75	72									10			
223	R	Center	Finger			2.8	2	72												
223	R	Forward	Comp.	3/4" elevation difference between cap and span.		11.0	3.5	72					11							
228	L	Rear	Comp.	1/8" gap between compression seal and deck.		11.0	2.75	64					5				5			
228	L	Center	Finger			2.8	1.875	64	2.8											
228	L	Forward	Comp.	3/4" elevation difference between cap and span.		11.0	2	64					2			8				
228	R	Rear	Comp.	Right end of compression seal is hanging down for the end 4'.	F10-74- 76	11.0	3	66					2				8			
228	R	Center	Finger			2.8	2	66												



Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
228	R	Forward	Comp.	1-1/4" elevation difference between cap and span.	F10-49	11.0	2.25	66					1			9				
232	L	Rear	Comp.			11.0	3.75	60								10				
232	L	Center	Finger			2.8	1.5	63	2.8											
232	L	Forward	Comp.			11.0	1.875	60					11							
232	R	Rear	Comp.	1/2" gap between compression seal and deck.	J10-27	11.0	5.25	60					11							
232	R	Center	Finger	1/8" elevation difference between sliding plates.	F10-50, 51	2.8	1.75	66	2.8											
232	R	Forward	Comp.			11.0	1.875	60					11							
235	L	Center	Comp.	1/2" gap between compression seal and deck.	F10-42	11.0	2.125	63					11							
235	L	Center	Finger			2.8	2.375	63	2.8											
235	R	Center	Finger	1/8" elevation difference between sliding plates.		2.8	2.25	67	2.8											
235	R	Center	Comp.	1/4" gap between compression seal and deck.		11.0	2	67					11							
237	L	Rear	Comp.	Joint is filled with a mastic sealant	J10-19	11.0	2	69					1			9				
237	L	Center	Finger			2.8	2	62												
237	L	Forward	Comp.	Joint is filled with a mastic sealant		11.0	1	69					1			9				
237	R	Rear	Comp.	Joint is filled with a mastic sealant	F10-56	11.0	2.5	69								10				
237	R	Center	Finger			2.8	2.125	70	2.8											
237	R	Forward	Comp.	4"x2" cracked and delaminated header, right side. 1-1/4" elevation difference between cap and span.	F10-57, 58	11.0	1.75	60								9			1	
240	L	Rear	Comp.	1-1/4" gap between compression seal and deck.	F10-31,32	11.0	1.5	62								10				
240	L	Center	Finger			2.8	2.25	58												
240	L	Forward	Comp.		J10-13	11.0	2.5	62					11							
240	R	Rear	Comp.			11.0	2	62								10				
240	R	Center	Finger	Rear pourback has a delamination 16" x.5"		2.8	2.375	70										1.5		

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
240	R	Forward	Comp.			11.0	2.25	60					11							
243	L	Center	Finger			2.8	2.25	55	2.8											
243	L	Forward	Comp.			11.0	2.75	55			2	1				7				
243	R	Center	Comp.			11.0	2.75	70				10								
243	R	Center	Finger	2 delaminations, 1 forward, 1 rear, 5"x5"	F10-64, 65	2.8	2.25	70	2.8									1		
246	L	Center	Finger	Rear pourback has a delam/spall, 6" x full width and wraps around the sides, 5' total, and a 6"x6" delamination between plates. Spall on left face, 7"x3"X11"D.	F10-14, F10-15	2.8	2.5	54	2.8											2.8
246	L	Center	Comp.		J10-8	11.0	3	54					11							
246	R	Center	Comp.			11.0	2.75	70				2	8							
246	R	Center	Finger	Rear pourback has hairline map cracking throughout. 3 delaminations, forward: 4"x5" and 14"x4.5". Rear: 4"x5"	F10-68, F10-69	2.8	2	70	2.8										2	
250	L	Center	Comp.			11.0	2.825	72					1				9			
250	L	Center	Finger		J29-22	2.8	2.25	72	2.8											
250	R	Center	Comp.			11.0	2.875	74								10				
250	R	Center	Finger	Rear pourback has hairline map cracking throughout.		2.8	2	74												
253	-	Mid Span Forward	Comp.	7"x3"X1/2" header spall on the left side of the left guidebeam	F29-34	26.0	1.5	72									26			1
253	-	Mid Span Rear	Comp.		F29-31	26.0	1.5	72									26			
253	L	Center	Finger			2.8	1.875	72	2.8											
253	L	Center	Comp.			11.0	1.75	72					11							
253	R	Center	Comp.			11.0	1.5	74				2					8			

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
253	R	Center	Finger	Rear pourback has hairline map cracking in a previously patched area. Forward pourback has hairline map cracking throughout.		2.8	2	74	2.8											
254	L	Center	Comp.			11.0	1.625	72					11							
254	L	Center	Finger	Rear and forward pourbacks have a delamination 5"x4" between plates.	J29-31, F29-35	2.8	2	72	2.8										1	
254	R	Center	Comp.			11.0	1.5	72					5				5			
254	R	Center	Finger	Right face of forward pourback has hairline map cracking throughout and efflorescence at the cold joint.		2.8	1.875	72	2.8											
R1	L	Center	Finger	Expansion fingers are bent outward up to 3/16". Expansion joint fingers have a minimum of 1" of plate left to slide against.	J10-3, F10-3, 5, 6	2.8	4.75	52	2.8											
R1	L	Center	Plate		J10-2	11.0	3	52												
R1	R	Center	Finger	Expansion joint fingers have a minimum of 2.5" of plate left to slide against. Rear pourback has hairline map cracking throughout.		2.8	4	70	2.8											
R1	R	Center	Plate			11.0	2.5	70												
R6	L	Center	Plate			11.0	3.25	66												
R6	L	Center	Finger	On the right side, one of the lower fingers is broken off. 2 of 8 retrofit expansion guide plates have fallen off. Expansion joint fingers have a minimum of 7/8" of plate left to slide against.	J29-9-13	2.8	5.125	66	1.8	1										

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
R6	R	Center	Finger	5/16" elevation difference between sliding plates. 2 of 8 retrofit expansion guide plates have fallen off. Expansion joint fingers have a minimum of 1-1/2" of plate left to slide against.	F29-48, J29-43,44	2.8	4.5	74												
R6	R	Center	Plate			11.0	2	74												
258	L	Rear	Comp.			11.0	2.5	72								10				
258	L	Center	Finger			2.8	2.125	73												
258	L	Forward	Comp.	1-3/4" elevation difference between cap and span.	F30-31	11.0	1.75	72								10				
258	R	Rear	Comp.			11.0	2.5	73									10			
258	R	Center	Finger	1/8" elevation difference between sliding plates.		2.8	1.75	75												
258	R	Forward	Comp.			11.0	2	73				2						9		
261	L	Rear	Comp.			11.0	2.6	69			2		2					6		
261	L	Center	Finger	Rear pourback has a delamination 5" x.2.75" between plates and a spall 3" L x 1" W x 1" D on the left side.		2.8	1.75	73	1.8										1	
261	L	Forward	Comp.			11.0	1	69										10		
M2	-	Center	Comp.			33.0	2	59			10						23			
M3	C	Center	Open	No joint sealant	J30-10	11.0	0	62												
M4	C	Center	Open	No joint sealant	J30-11	11.0	0	62												
M5	C	Rear	Comp.			11.0	3.75	62					11							
M5	C	Center	Finger	Rear pourback has a delamination, 12"x1.5".		2.8	1.875	62	1.8										1	
M5	C	Forward	Comp.			11.0	2	62			10									
400	L	Forward	Comp.			11.0	2	62			10									
400	R	Forward	Comp.			11.0	3	62			3		4							
405	L	Rear	Comp.	1/2" gap between compression seal and deck.	J19-21, J30-19	11.0	3.75	65					11							

Pier	Side	Location	Joint Type	Additional Notes (Other Than Captured in Defect Quantities)	Photos	Measurements			Metal Damage		Seal Adhesion			Seal Damage			Debris		Deck Header	
						L	W	Temp.	Surf. Corr.	SL, Crack, Break	<50% Ht	>50% Ht	100% Loss	Abras.	Punct. /Rip	Missing	Partial Fill	Complete Fill	< 1" D or < 6" Dia.	>1" D or > 6" Dia.
405	L	Center	Finger	Rear pourback has 2 delaminations, up to 14"x1.5". Forward pourback has a delamination, 2'-10"x2.5".	F30-19	2.8	2.125	68											2.8	
405	L	Forward	Comp.			11.0	2	65										7	3	
405	R	Rear	Comp.	Joint has been covered with a neoprene gland that is splitting.	J19-8, J30-41,42	11.0	5.75	65					11							
405	R	Center	Finger	Fingers on the left and right sides have surface corrosion.	J30-38, F30-36	2.8	1.875	75	2.8											
405	R	Forward	Comp.			11.0	2	65			5						5			
408	L	Rear	Comp.			11.0	1	70										10		
408	L	Center	Finger	Forward pourback has a corner spall/ delamination, 4"x3.5"x2".		2.8	2	69											0.5	
408	L	Forward	Comp.	1/4" gap between compression seal and deck.		11.0	2	70					11							
408	R	Center	Comp.			11.0	2.25	75			2	3					5			
408	R	Center	Finger	Rear pourback has a delamination 16"x1.5"		2.8	1.625	75											1.5	

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
2	N	Below	10' from Pier 2	crack	24	0.016	-		Within PT Pourback	No Change	F6-3			2			
2	S	Above	throughout	exposed steel		-	-	8	Second pour exhibits 4 exposed steel on the north side and 4 on the south side.	No Change							
3	S	Above	throughout	exposed steel		-	-	16	Second pour exhibits 16 exposed steel at the top surface.	No Change							
4	S	Above	throughout	exposed steel		-	-	16	Second pour exhibits 16 exposed steel on north side.	No Change							
5	S	Above	throughout	exposed steel		-	-	5	Second pour exhibits 5 exposed steel extending from top surface on north side.	No Change							
5	S	Above	12' from of Pier 5	spall	3	3	1	1	Second pour spall	No Change							
6	N	Below	overhang	crack	12	HL			Transverse cracks in the overhang. A crack exhibits minor efflorescence at Pier 7N.	No Change	B18-33	1		3			
6	N	Above	20' from Pier 7N	Patch cracking				?	Exterior left face	No Change						2	
6	N	Above	midspan	Patch cracking		0.016		1	with efflorescence, exterior left face	No Change						1	
6	N	Above	throughout	exposed steel				30	Second pour exhibits 14 exposed steel at the top surface on the left side, 16 on the right side.	No Change							
6	S	Below		crack	12	HL			Transverse cracks in the overhang.	New	B18-41			3			
6	S	Above	15' from Pier 6	spall	6	4	1/2	1	Exterior right face	No Change						1	
6	S	Above	throughout	exposed steel				4	Second pour exhibits 4 exposed steel extending from top surface on the left side.	No Change							
7	N	Above	along sides	exposed steel				19	Second pour exhibits exposed steel, 15 locations on right side and 4 locations on the left side.	No Change							
7	N	Above	Pier 8	Debris					Heavy buildup of oak leaves over Pier 8 and in Span 7	New	J15-8						
7	S	Below	25' from Pier 8	spall	15	5	2	1	Right overhang	No Change							1
7	S	Above	left side	exposed steel				4	Second pour exhibits 4 exposed steel extending from top surface on left side.	No Change							
8	N	Below	throughout	Delam	3	3		?	Several with efflorescence along the right overhang drip edge.	No Change						3	
8	N	Above	throughout	exposed steel				6	Second pour exhibits exposed steel at 6 locations.	No Change							
8	S	Below	50' from Pier 9	crack	20	HL		1	with efflorescence, left overhang	No Change		1					
9	N	Above	1/3 Span	spall	7	3	1	1	Second pour, left of the guidebeam	No Change							

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
9	S	Above	midspan	spall	4	2	1/2	1	Second pour, left of the guidebeam	No Change							
9	S	Above	throughout	crack					Second pour, transverse hairline cracks at random locations.	No Change							
10	N	Above	midspan	spall	8	3	1 1/2	1	Second pour, left of the guidebeam	No Change							
10	N	Above	Pier 10	spall	12	3	2	1	Second pour, right of the guidebeam	No Change							
10	N	Above	20' from Pier 10	spall	6	3	1/2	1	Second pour, right of the guidebeam	No Change							
10	N	Above	10' from Pier 10	spall	7	3	1 1/2	1	Second pour, left of the guidebeam	No Change	J15-12						
10	S	Above		exposed steel				2	Second pour exhibits 2 exposed rebar extending from top surface on left side.	No Change							
10	S	Above	throughout	crack				5	Second pour, transverse hairline cracks at random locations.	No Change							
11	S	Above	throughout	crack	18			6	Second pour, transverse hairline cracks at random locations on right side.	No Change							
11	S	Above	throughout	exposed steel				26	Second pour exhibits 26 exposed steel extending from top surface.	No Change							
12	S	Above	throughout	exposed steel				28	Second pour exhibits 7 exposed steel extending from top surface on the left side and 21 on the right side.	No Change							
12	S	Above	Pier 13	spall	4	4	1	1	Second pour, right of the guidebeam	No Change							
13	N	Above	20' from P14	spall	2	2	2	1	Second pour, right of the guidebeam	No Change							
13	S	Below	15' from Pier 14	crack	6	HL		1	Diagonal crack between stems	No Change				1			
14	N	Above	midspan	spall	5	3	3/4	1	Second pour, left of the guidebeam	No Change							
14	N	Above	20' from Pier 14	spall	5	2	1/2	1	Second pour	No Change							
14	N	Above	15' from Pier 14	spall	5	2	1/2	1	Second pour	No Change							
14	N	Above	10' from Pier 14	spall	5	2	1/2	1	Second pour	No Change							
14	S	Above	throughout	exposed steel				24	Second pour exhibits 2 exposed steel extending from top surface on the left side and 22 on the right side.	No Change							
14	S	Above	midspan	spall	6	4	1/2	1	Second pour, right of the guidebeam	No Change							
14	S	Above		crack		HL		1	Second pour, right of the guidebeam	No Change							
15	N	Above	Pier 15	spall	28	3	1/2	1	Second pour, left of the guidebeam	No Change							

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
15	S	Above	throughout	exposed steel				22	Second pour exhibits 22 exposed steel extending from top surface on the right side.	No Change							
15	S	Above	6' from Pier 16	spall	5	2	1	1	Second pour, left of the guidebeam	No Change							
15	S	Above	20' from Pier 16	spall	14	3	4	1	Second pour, right of the guidebeam	No Change							
16	S	Above	10' from Pier 16	spall	6	3	1	1	Second pour, left of the guidebeam	No Change							
16	S	Above	15' from Pier 16	spall	5	2	1	1	Second pour, left of the guidebeam	No Change							
16	S	Above	throughout	exposed steel				20	Second pour, left of the guidebeam	No Change							
16	S	Below	20' from Pier 17	Spall	12	2	1	1	Left face of top flange	No Change	F6-33						1
17	S	Above	12' from Pier 18	spall	4	3	1	1	Second pour, left of the guidebeam	No Change							
17	S	Above	17' from Pier 18	spall	6	2	1/2	1	Second pour, left of the guidebeam	No Change							
17	S	Above	20' from Pier 17	spall	6	2	1	1	Second pour, left of the guidebeam	No Change							
17	S	Above	throughout	exposed steel				19	Second pour exhibits 2 exposed steel extending from top surface on the left side and 17 on the right side.	No Change							
18	S	Above	throughout	exposed steel				26	Second pour exhibits 2 exposed steel extending from top surface on the left side and 24 on the right side.	No Change							
19	S	Above	throughout	exposed steel				17	Second pour exhibits 17 exposed steel extending from top surface on the right side.	No Change							
19	S	Above	24' from Pier 19	spall	4	2.5	1 1/2	1	Second pour, left of the guidebeam	No Change							
19	S	Above	19' from Pier 19	spall	7	2.5	1 1/4	1	Second pour, left of the guidebeam	No Change							
19	S	Above	13' from Pier 19	spall	5	2	1 1/4	1	Second pour, left of the guidebeam	No Change							
20	N	Above	8' from Pier 20	spall	7	3	1	1	Second pour, right of the guidebeam	No Change							
20	S	Above		exposed steel				21	Second pour exhibits 2 exposed steel extending from top surface on the left side and 19 on the right side.	No Change							
22	N	Above	25' from Pier 22	spall	12	6	3	1	Second pour	No Change							
23	S	Above	throughout	exposed steel				13	Second pour exhibits 2 exposed steel extending from top surface on the left side and 11 on the right side.	No Change							



Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
24	N	Above	Pier 25	spall	12	6	2	1	Second pour	No Change							
24	S	Below	Pier 25	crack	24	HL		1	Left overhang	No Change				2			
24	S	Above		exposed steel				14	Second pour exhibits 3 exposed steel extending from top surface on the left side and 11 on the right side.	No Change							
24	S	Above	Pier 25	spall	6	4	1	1	Second pour	No Change							
24	S	Above	midspan	spall	6	1	6	1	Second pour, right of the guidebeam	No Change							
24	S	Above	Pier 25	spall	3	3	1/2	1	Second pour, right of the guidebeam	No Change							
25	N	Above	15' from Pier 25	spall	15	4	2	1	Second pour, right of the guidebeam	No Change							
25	N	Above	10' from Pier 25	spall	2	2	1/4	1	Second pour, right of the guidebeam	No Change							
25	S	Above	throughout	exposed steel				14	Second pour exhibits 14 exposed steel extending from top surface on the right side.	No Change							
26	S	Above	throughout	exposed steel				14	Second pour exhibits 14 exposed steel extending from top surface on the right side.	No Change							
27	N	Above	throughout	exposed steel				5	Second pour exhibits 5 exposed steel at the surface on the left side.	No Change							
27	N	Above	throughout	exposed steel				5	Second pour exhibits 5 exposed rebar at the surface on the left side.	No Change							
27	S	Above	12' from Pier 28	spall	8	3.5	1 1/2	1	Second pour, left of the guidebeam	No Change							
27	S	Above	20' from Pier 27	spall	7	2	1/2	1	Second pour, left of the guidebeam	No Change							
28	N	Above	5' from Pier 28	spall	6	4	1/2	1	Second pour, left of the guidebeam	No Change							
28	N	Above	Pier 29	spall	5	3	1	3	Second pour, left of the guidebeam	No Change							
28	N	Above	5' from Pier 28	spall	3	2	1	1	Second pour, left of the guidebeam	No Change							
28	S	Above	throughout	exposed steel				20	Second pour exhibits 20 exposed steel extending from top surface on the right side.	No Change							
29	N	Below	15' from Pier 30	spall	11	4	3/4	1	Right overhang	No Change							1
29	N	Above	Pier 29	spall	2	2	1/2	1	Second pour, left of the guidebeam	No Change							
29	N	Above	Pier 30	spall	6	5	3	1	Second pour, right of the guidebeam	No Change							
29	N	Above	midspan	spall	3	3	1/2	1	Second pour, right of the guidebeam	No Change							

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
29	N	Above	15' from Pier 29	spall	5	2	1/2	1	Second pour, left of the guidebeam	No Change							
29	N	Above	10' from Pier 30	spall	6	2	1/2	1	Second pour, right of the guidebeam	No Change							
29	N	Above	9' from Pier 30	spall	3	2	1/4	1	Second pour, right of the guidebeam	No Change							
29	S	Below	6' from Pier 29	spall	8	8	1	?	Exterior right face	No Change							2
29	S	Below	midspan	spall	9	6	1 1/2	1	Right overhang	No Change							1
29	S	Above	Pier 29	spall	3	3	1/2	1	Second pour, right of the guidebeam	No Change							
29	S	Above	10' from Pier 29	spall	3	3	1/2	1	Second pour, left of the guidebeam	No Change							
30	N	Below	6' from Pier 30	spall	2	2	1/2	1	Exterior left face	No Change						1	
30	N	Below	throughout	crack	12	HL			Transverse cracks in overhangs on 1' to 2' centers.	No Change				45			
30	N	Below	10' from Pier 31	spall	12	3	3	1	Right overhang	No Change							1
30	N	Above	6' from Pier 31	spall	5	4	6	1	Second pour, left of the guidebeam	No Change							
30	N	Above	Pier 30	spall	4	3	1/2	1	Second pour, right of the guidebeam	No Change							
30	S	Below	throughout	crack	12	HL			Transverse cracks in overhangs on 1' to 2' centers.	No Change				45			
30	S	Below	midspan	spall	6	4	1	?	Deck underside at junction for Span 261L	No Change						2	
30	S	Below	20' from Pier 31	spall	12	3	1/2	1	Left overhang	No Change							1
30	S	Above	throughout	exposed steel				5	Second pour exhibits 5 corroded, exposed steel extending from top surface on the left side.	No Change							
31	-	Below	20' from Pier 31	exposed steel	12			1	Deck underside between boxes	No Change			1				
31	-	Below	25' from Pier 31	spall	12	4	1	1	Deck underside between boxes	No Change							1
31	-	Below	30' from Pier 31	spall	5	4	1	1	Deck underside between boxes	No Change						1	
31	-	Below	15' from Pier 32	spall	24	1	1	1	Deck underside between boxes	No Change							2
31	N	Above	throughout	exposed steel				41	Deck exhibits 41 exposed steel, right side	No Change			41				
31	N	Below	20' from Pier 31	spall	2	12	2	1	Exterior left side	No Change							1

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
31	N	Below	20' from Pier 31	spall / delam	24	12	1	1	Left exterior side	No Change						2	
31	N	Above	Midspan	spall	5	5	2	1	Second pour, right of the guidebeam	No Change							
31	N	Above	Pier 32	spall	6	1	1/2	1	Second pour, left of the guidebeam	No Change							
32	N	Above	Pier 32	spall	7	4	1/2	1	Second pour, right of the guidebeam	No Change							
32	N	Above	5' from Pier 32	spall	5	5	1/4	1	Second pour	No Change							
32	N	Above	Pier 32	spall	8	4	4	1	Second pour, left of the guidebeam	No Change							
32	S	Above	Pier 32	spall	12	5	6	1	Second pour	No Change							
33	N	Above	midspan	spall	8	2	1	1	Second pour, right of the guidebeam	No Change							
33	N	Above	throughout	exposed steel	1			?	Second pour exhibits several areas up to 1" of exposed steel at the surface on the right side.	No Change							
33	N	Below	10' from Pier 34	Spall	2	2	3/4	2	Located on the underside of top flange, adjacent to the inside face of the north stem	No Change	F11-18					1	
33	N	Below	18' from Pier 33N	Spall	5	5	1	1	Located on the underside of top flange, right side	No Change						1	
33	S	Above	throughout	exposed steel				2	Second pour exhibits 2 exposed steel extending from top surface on the left side.	No Change							
34	N	Above	Pier 35	spall	5	4	2	1	Second pour, right of the guidebeam	No Change							
35	N	Above	Pier 35	spall	5	4	2	1	Second pour, right of the guidebeam	No Change							
35	S	Above	10' from Pier 36	spall	4	3	1 1/2	2	Second pour, left of the guidebeam	No Change							
35	S	Above	15' from P36	spall/delam	12	6	1/2	1	Second pour, left of the guidebeam	No Change							
35	S	Above	10' from Pier 36	spall	6	3	1/2	1	Second pour, right of the guidebeam	No Change							
36	S	Above	Pier 36	spall	4	4	1	2	Second pour, right of the guidebeam	No Change							
37	N	Above	15' from Pier 38	spall	7	3	2	1	Second pour, left of the guidebeam	No Change							
37	N	Above	Pier 38	spall	3	2	1	1	Second pour, right of the guidebeam	No Change							
37	N	Above	15' from Pier 38	spall	2	2	1/2	1	Second pour, left of the guidebeam	No Change							
37	S	Above	Pier 38	Delam	18	6	1	2	Second pour, left of the guidebeam	No Change	F15-49,50						
37	S	Above	10' from Pier 37S	spall	3	3	1	1	Second pour, right of the guidebeam	No Change							

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
37	S	Above	throughout	exposed steel				4	Second pour exhibits 4 exposed steel extending from top surface on the left side.	No Change							
37	S	Below	Pier 38	Spall	6	6	1	1	Underside of top flange	New	F11-31					1	
38	S	Above	Pier 38	Spall	18	18	6	3	Second pour, left of the guidebeam	New	F24-1						
38	S	Above	20' from Pier 38S	spall	12	4	2	1	Second pour, right of the guidebeam	No Change							
38	S	Above	throughout	exposed steel				4	Second pour exhibits 4 exposed steel extending from top surface on the left side.	No Change							
38	S	Above	midspan	spall / delam	12	6	1	1	Second pour, left of the guidebeam	No Change							
39	S	Above	Pier 39S	spall	4	4	1/2	1	Second pour, left of the guidebeam	No Change							
40	N	Above	midspan	spall	3	3	1/2	1	Second pour, right of the guidebeam	No Change							
40	S	Above	Pier 40S	spall	5	3	2 1/2	1	Second pour	No Change							
40	S	Above	Pier 41S	spall	32	5	5	1	Second pour	No Change							
41	N	Below	throughout	crack	60	HL		5	Right overhang	New	F13-18,19	25					
41	N	Below	10' from Pier 41N	crack	12	HL		1	Between stems at PT pourback	New	F13-20-21	1					
41	N	Above	Pier 41	spall	3	5	1/2	1	Second pour, right of the guidebeam	No Change							
41	N	Above	throughout	exposed steel				40	Crossover beam second pour, right of the guidebeam	No Change							
41	N	Below	15' from Pier41	Spall	8	8	2	1	Underside of top flange	No Change							1
41	S	Above	Pier 42S	spall	2	1	1/4	?	Second pour	No Change							
42	N	Above	Pier 43	spall	6	6	3	1	Second pour, left of the guidebeam	No Change							
42	S	Below	6' from Pier 43	crack	60	0.016		1	Crossover Beam left overhang, crack with efflorescence	No Change	F13-7			5			
42	S	Below	throughout	Efflo.					Right overhang exhibits efflorescence between the slab and flange.	No Change	F13-8,9	10					
42	S	Below		Patch cracking	4	7		1	Left overhang							1	
42	S	Below		crack	48	HL		5	Right overhang	Increase		20					
42	S	Above	10' from Pier 42S	spall	4	3	7	1	Second pour, left of the guidebeam	No Change							
42	S	Above	throughout	exposed steel				?	Second pour exhibits exposed steel extending from top surface on the left side.	No Change							

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
43	N	Above	throughout	crack	43	HL		9	Second pour, transverse cracks	No Change							
43	N	Above	midspan	spall	5	3	1	1	Second pour, right of the guidebeam								
43	N	Above	throughout	exposed steel				5	Second pour exhibits 5 exposed steel at the surface on the right side.	No Change							
43	N	Below	6' from Pier 44N	Spall	12	12	1	1	Underside of top flange	No Change							1
43	S	Below	2' from Pier 43	crack	12	0.016		1	Diagonal crack with efflorescence in left overhang					1			
43	S	Above	midspan	spall	4	3	1	1	Second pour, left of the guidebeam	No Change							
44	N	Above		spall	6	2	1	1	Second pour, left of the guidebeam	No Change							
45	S	Above	Throughout	exposed steel				15	Second pour exhibits 2 exposed steel extending from top surface on the left side and 13 on the right side.	No Change							
46	N	Above	throughout	exposed steel				31	Second pour exhibits 31 exposed steel at the surface on the right side.	No Change							
46	N	Below	5' from Pier 46N	Protruding Bolt				1	4" L protruding steel bolt in the right face of the top flange	No Change	F12-34						
46	S	Above	Pier 47	spall	8	6	5	1	Second pour, left of the guidebeam	No Change							
47	L	Above	throughout	exposed steel				23	Second pour exhibits 23 exposed steel at the top surface on the right side.	No Change							
47	R	Above	throughout	debris					Deck is covered by debris up to 1" D right side.								
47	R	Above	Pier 48R	spall	8	4	2	1	Second pour, left of the guidebeam	No Change							
47	R	Above	midspan	spall	4	6	1/4	1	Second pour	No Change							
47	R	Above	throughout	exposed steel				11	Second pour exhibits 11 exposed steel extending from top surface on the left side.	No Change							
47	R	Below	Bay 5	Spall	4	2	1/2	1	Underside of left overhang, 10' from pier	No Change						1	
48	L	Below	Pier 50L	Patch cracking	6	6			Bottom of slab transition	No Change						1	
48	L	Above	throughout	exposed steel				3	Second pour exhibits 3 exposed steel at the surface on the right side.	No Change							
48	L	Below	Midspan	Spall	4	2	1/2	1	Underside of left overhang	No Change							1
48	R	Above	throughout	exposed steel				53	Second pour exhibits 32 exposed steel extending from top surface on the left side and 21 on the right side.	No Change							
48	R	Below	?	Spall	16	3.5	3/4	?	Underside of right overhang	No Change	F13-51						1

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
50	L	Below	midspan						Between the stems is a timber form still in place.	No Change							
50	L	Above	throughout	exposed steel				3	Second pour exhibits 3 exposed steel at the surface on the right side.	No Change							
50	R	Above	throughout	exposed steel				24	Second pour exhibits 15 exposed steel extending from top surface on the left side and 9 on the right side.	No Change							
51	L	Above	Pier 52	spall	10	6	3	1	Second pour	No Change							
51	R	Above	throughout	exposed steel				11	Second pour exhibits 8 exposed steel extending from top surface on the left side and 3 on the right side.	No Change							
51	R	Above	9' from Pier 52	spall	9	3	4	1	Second pour, left of the guidebeam	No Change							
51	R	Above		spall	12	12	1/2	1	Second pour, left of the guidebeam	No Change							
51	R	Below	Pier 51	Honey.	3.5	2	1/2	1	Located in south overhang	No Change							
52	-	Below	throughout	crack		HL		?	Transverse cracks in the deck underside between the steel boxes.	No Change							
52	L	Below	20' from Pier 53	spall	12	5	1/2	1	Right exterior face	No Change	F17-11						1
52	L	Below	40' from Pier 53	spall	10	3	1/2	1	Left overhang	No Change							1
52	L	Below	50' from Pier 53	spall	2	3	1	1	Left overhang	No Change						1	
52	L	Below	6' from Pier 53	spall	6	3	1/4	1	Right overhang	No Change						1	
53	L	Below	20' from Pier 53	spall	2	3	2	1	Right overhang	No Change						1	
54	R	Above	throughout	exposed steel				13	Second pour exhibits 9 exposed steel extending from top surface on the left side and 4 on the right side.	No Change							
54	R	Below	Throughout	Spall	6	3	1/2	?	Located throughout west overhang	No Change							1
55	L	Above	midspan	spall	6	3	2	1	Second pour, left of the guidebeam	No Change							
55	L	Above	midspan	spall	4	3	1 1/2	1	Second pour, left of the guidebeam	No Change							
55	L	Above	Pier 55	spall	12	7	6	1	Second pour, left of the guidebeam	No Change	J24-36						
55	L	Above	midspan	spall	120	3	4	1	Second pour, left of the guidebeam	No Change	J24-37						
55	L	Below	12' from Pier 56	Spall	3	1	1/2	1	Left face of top flange	No Change							1

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
55	L	Below	Both ends of span	Efflo.	48	HL		2	Transverse cracks exhibits minor efflorescence between stems along cold joint for PT blockouts	No Change		4					
55	R	Above	throughout	exposed steel				14	Second pour exhibits 5 exposed steel extending from top surface on the left side and 9 on the right side.	No Change							
56	L	Above	10' from Pier 56	spall	6	3	1	1	Second pour, right of the guidebeam	No Change							
56	R	Above	throughout	exposed steel				6	Second pour exhibits 6 exposed steel extending from top surface on the right side.	No Change							
56	R	Below	Near Pier 56	Efflo.	48	HL		4	Minor efflorescence along the perimeter of the cold joint for the PT blockout	No Change		4					
57	L	Below	4' from Pier 57	Spall	4	2	1/2	1	Overhang	No Change						1	
57	R	Above	throughout	exposed steel				14	Second pour exhibits 7 exposed steel extending from top surface on the left side and 7 on the right side.	No Change							
58	L	Above	throughout	exposed steel				4	Second pour exhibits 4 exposed steel at the surface on the left side.	No Change							
58	L	Below	15' from Pier 59	Spall	5	4	1/2	1	Top flange, west side	No Change						1	
58	R	Above	Pier 59	crack	36	HL		?	Deck exhibits hairline cracks	No Change				3			
58	R	Above	throughout	exposed steel				2	Second pour exhibits 2 exposed steel extending from top surface on the left side.	No Change							
59	L	Below	20' from Pier 59	Spall	4	3	1/2	?		No Change						1	
59	R	Above	throughout	exposed steel				5	Second pour exhibits 5 exposed steel extending from top surface on the left side.	No Change							
60	L	Below	Pier 61L	Spall	4	2	1/4	1	Located in the left overhang	No Change						1	
60	R	Above	2' from Pier 61	spall	13	3	3	1	Second pour, left of the guidebeam	No Change							
60	R	Above	2' from Pier 61	spall	6	3	1/2	1	Second pour, right of the guidebeam	No Change							
60	R	Below	20' from Pier 60	Spall	6	3	1/2	1	Located in the right overhang	No Change						1	
61	R	Above	Pier 62R	spall	10	4	2	3	Second pour, left of the guidebeam	No Change							
61	R	Below	Pier 61R	Spall	2	4	1/4	1	Right overhang drip edge	No Change						1	
62	L	Above	2' from Pier 63L	spall	8	3	1/2	1	Second pour, right of the guidebeam	No Change							
62	L	Below	Pier 62L	Spall	12	3	3/4	1	Right overhang	New							1

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
62	R	Above	Pier 62R	spall	18	4	3	1	Second pour, left of the guidebeam		F24-17						
62	R	Above	12' from Pier 63	spall	18	4	3	1	Second pour, left of the guidebeam								
62	R	Above	Pier 62	Debris					Up to 3 " debris accumulation on both right and left sides.	New	F24-18						
62	R	Below	15' from Pier 63R	Spall	2	6	1/2	1	Right overhang drip groove	No Change						1	
62	R	Below	25' from Pier 62R	Spall	12	3	1/2	1	Right overhang	No Change							1
62	R	Below	Pier 62R	Spall	18	6	1 1/2	1	Left overhang. Three exposed rebar with heavy surface corrosion.	New	F22-6						2
63	L	Below	Pier 63L	Spall	6	2	1/2	1	Right face of top flange	No Change						1	
63	R	Below	Pier 63R	Spall	4	2	1	1	Right overhang?	No Change						1	
65	L	Above	Pier 66L	spall	8	2	1 1/2	2	Second pour	No Change							
65	R	Above	10' from Pier 65R	spall	15	5	5	1	Second pour, left of the guidebeam	No Change							
65	R	Above	10' from Pier 65R	spall	6	4	4	1	Second pour, right of the guidebeam	No Change							
65	R	Below	Near Pier 65	Crack	48	HL	-	2	Transverse cracks exhibits minor efflorescence between stems along cold joint for PT blackout	No Change		4					
66	R	Above	Pier 66R	spall	10	4	4	1	Second pour, right of the guidebeam	No Change							
67	L	Below	Pier 68	Patch Cracking		0.016		1	Located in top flange transition area	No Change						1	
67	R	Above	12' from Pier 67	spall	10	4	2	1	Second pour, right of the guidebeam								
68	L	Below	Midspan	Patch Cracking	8	0.06		-	Left overhang	No Change						1	
68	L	Below	Pier 69	Crack	60	HL	-	2	Transverse cracks in the underside of the top flange	No Change	F22-28			10			
69	R	Below	10' from Pier 69	Spall	3	3	1/4	1	Right face of top flange	No Change						1	
70	L	Below	Near Pier 71	Efflo.				-	3 hole patches in slab PT transition exhibit minor efflorescence	No Change		3					
70	R	Above		spall	72	5	1/2	1	Second pour, right of the guidebeam	No Change							
71	L	Below	8' from Pier 71	Spall	11	3	1	1	Bottom edge of left overhang	No Change	F22-34						1
71	R	Above		spall	72	2	2	1	Second pour, right of the guidebeam	No Change							



Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
72	R	Above	throughout	exposed steel				5	Second pour	No Change							
73	R	Above	Pier 73	spall	14	4	2	1	Second pour	No Change							
73	R	Above	Pier 74	crack		HL		2	Second pour, transverse cracks	No Change							
73	R	Below	15' from Pier 74	Spall	6	2	1/2	1	Located in the right overhang	No Change						1	
75	L	Below	Pier 75	Spall	2	2	1/4	1	In the diaphragm	No Change						1	
75	R	Below		crack	72	HL		4	Right overhang	No Change	F23-10	24					
75	R	Above	Pier 76	spall	8	2	6	1	Second pour	No Change							
76	-	Below	throughout	Efflo.	1080			2	Underside of closure pour deck, along cold joints	No Change		90					
76	-	Below	throughout	Efflo.	1080			2	Transverse hairline cracks are found at 4' centers along span.	No Change		90					
76	-	Below	10' from Pier 77	spall	12	4	1 1/2	1	Underside of closure pour deck	New							1
76	L	Below		crack	54	HL		3	Left overhang	No Change				22			
76	L	Below	Near Pier 77	Grout Loss					At the PT blackout, perimeter grout is cracked at random locations and has missing sections of grout along the interface of the stems and the top slab transition	No Change	F23-16, 17						
76	L	Below	Near Pier 77	Patch Cracking	2	2	1/4	4	4 patches in top slab transition exhibit cracking.	No Change						4	
76	R	Below	Near Pier 76	Delam.	20	7		1	Located in the right stem haunch at the PT blackout.	No Change	F23-15					2	
77	-	Below	throughout	Efflo.	756			2	Underside of closure pour deck, along cold joints	No Change		63					
77	-	Below	throughout	Efflo.	756			2	Transverse hairline cracks are found at 4' centers along span.	No Change		63					
77	L	Below		crack	74	HL		3	Left overhang with minor efflorescence, spaced ~3' apart	No Change				20			
77	L	Interior	Near Pier 77	Efflo.					Efflorescence and cracked grout exist in PT blackout haunch area	No Change							
78	L	Above	10' from Pier 78	spall	5	3	1/2	1	Second pour, right of the guidebeam	No Change							
78	L	Below	20' from Pier 78	Spall	4	3	1/2	1	Right overhang	No Change						1	
78	L	Below	Midspan	Spall	4	2	1/4	?	Right overhang	No Change						1	

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
78	R	Below	Near Pier 79R	Crack	48	HL	-	1	Transverse cracks exhibits minor efflorescence between stems along cold joint for PT blockouts	No Change		4					
79	L	Below	?	Efflo.	48			-	Efflorescence on the underside of the top flange at the post tension blockout.	New	F20-29	4					
79	L	Below	Pier 80L	Spall	5	3	1/2	1	Right overhang	No Change						1	
79	R	Below	Near Pier 80R	Crack	48	HL		2	Transverse cracks exhibits minor efflorescence between stems along cold joint for PT blockouts	No Change		4					
80	L	Above	midspan	spall	8	3	1/2	2	Second pour, right of the guidebeam	No Change							
80	R	Above		wire mesh exposed	36	1		1	Second pour exhibits exposed wire mesh	No Change							
81	L	Below	Pier 81L	Spall	2	1	1/2	1	Right overhang	No Change						1	
82	L	Below	Throughout	Spall	4	2	1/4	?	Left overhang	No Change	F20-5					1	
82	R	Above	throughout	exposed steel				62	Second pour exhibits 33 exposed steel extending from top surface on the left side and 29 on the right side.	No Change							
83	L	Below	18' from Pier 83L	Spall	4	2	1/4	4	Left overhang	Increase						4	
83	R	Above	throughout	exposed steel				72	Second pour exhibits 33 exposed steel extending from top surface on the left side and 39 on the right side.	No Change							
84	L	Below	?	Spall	2	2	1/4	2	Left overhang	New						1	
84	R	Above	throughout	exposed steel				94	Second pour exhibits 18 exposed steel extending from top surface on the left side and 76 on the right side.	No Change							
199	L	Below	Midspan	Spall	6	6	1/2	1	Underside of top flange	No Change						1	
199	L	Below	Midspan	Spall	4	2	1/2	1	Underside of top flange	No Change						1	
199	R	Above	2' from Pier 199R	Patch Spall	12	12	1/2	1	Lift point patch failure, right of guidebeam	New	F5-2					1	
199	R	Above	throughout	Debris					Large accumulation of oak leaves	New	F5-4						
199	R	Below	Pier 199R	Delam.	24	4		1	Left overhang	No Change	J1-8					2	
199	R	Below	Throughout	Patch					Underside of left overhang exhibits numerous minor grout patches	No Change						3	
201	L	Below	Midspan	Spall	6	2	1	1	Right overhang	No Change						1	

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
201	R	Above	2' from Pier 202R	Patch Delam	12	7		1	Lift point patch failure, right of guidebeam	New	F5-9					1	
202	L	Below	Pier 202L	Spall	12	6	2	1	Right overhang with 3" of exposed steel at the compression seal	No Change	F2-27, F2-28						1
202	R	Below	5' from Pier 203R	spall	6	6	1	1	Adjacent to a scupper drain	No Change							1
203	L	Below	10' from Pier 203L	Spall	4	2	1/2	1	Right overhang	No Change							1
203	L	Below	12' from Pier 203L	Spall	3	1	1/4	?	Left overhang	No Change							1
203	L	Below	15' from Pier 203L	Spall	6	2	1/2	1	Right overhang	No Change							1
203	L	Below	Pier 203L	Spall	3	3	1/2	1	Left overhang	No Change							1
203	R	Below		spall	6	6	1	1	Adjacent to a scupper drain	No Change							
203	R	Below	20' from Pier 203R	Spall	4	4	2	1	Left overhang	No Change							1
204	L	Below	Midspan	spall	8	8	1	1	Adjacent to a scupper drain	No Change							
204	L	Below		spall	4	4	1	1	Overhang, between scupper drains	No Change							
204	L	Below	15' from P205L	Spall	8	2	1	1	Right overhang, crossover span	No Change							1
205	L	Below	throughout	crack	24	0.016			Vertical cracks in left exterior face with minor efflorescence space ~ 3' apart	No Change				30			
205	L	Above	throughout	crack	114	0.013			Transverse cracks spaced ~2' apart.	New	J5-47			409.5			
205	R	Below	Midspan	Delam	12	6		1	Exterior face	No Change							1
205	R	Below	throughout	crack	24	0.016			Vertical cracks in left exterior face with minor efflorescence space ~ 3' apart	No Change				30			
205	R	Above	throughout	crack	114	0.013			Transverse cracks spaced ~3' apart.	New	F5-15			327			
205	R	Above	throughout	Debris					Soil and debris at isolated locations	New	J5-21						
208	R	Below	Near Pier 208	Efflo.	48			-	Along cold joints at PT blackouts	New	F1-9	4					
209	L	Below	Pier 210	Crack		HL		1	Transverse crack in the underside of the top flange	New	F1-22			4			
211	L	Below	Near Pier 211	Efflo.	48	HL		1	Efflorescence along the construction joint for the post tensioning block out	No Change		4					
213	L	Above	Pier 214	Debris					Wet debris for 20' over the pier	New	J5-43						
213	R	Below	Pier 213	Spall	2	3	6	1	Exterior left face	No Change							1

Span	Side	Above / Below	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Inspection Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
213	R	Below	throughout	crack		HL			Vertical cracks in the right exterior face with efflorescence.	No Change		10					
214	L	Above	throughout	crack	114	0.013			Transverse cracks at random locations throughout	New	F5-47, F5-48			54			
214	R	Above	throughout	crack	114	0.013			Transverse cracks at random locations throughout	New				54			
215	L	Above	throughout	crack	114	0.013			Transverse cracks at random locations throughout	New				54			
215	R	Above	throughout	crack	114	0.013			Transverse cracks at random locations throughout	New				54			
215	R	Below	Midspan	spall	3	3	1/4	1	Right overhang	No Change						1	
218	L	Below	10' from Pier 219L	Spall	5	5	1/2	?	Underside of top flange, from drill holes	No Change	F2-11						1
218	R	Below	Pier 218R	Spall	1	1	1/4	?	Left overhang	No Change							1
219	R	Below	Pier 219R	Spall	3	2	1	1	Left overhang	No Change							1
219	R	Below	Pier 219R	Spall	3	3	1	1	Left overhang	No Change							1
220	L	Above	Pier 221	Patch Spall	12	8	1/2	2	Lift point patch failure, both sides of the guidebeam	New	F5-41						1
220	R	Below	20' from Pier 220R	Spall	2	1	1/2	1	Left overhang	No Change							1
221	R	Below	10' from Pier 221R	Spall	2	2	1/4	1	Right face of top flange	No Change							1
222	L	Above	Pier 223	Patch Spall	12	12	1/2		Lift point patch failure, right of guidebeam	New	F5-40						
224	L	Below	Midspan	spall	6	5	1/4	1	Exterior right side	No Change							1
225	L	Above	15' from Pier 225L	exposed steel					Deck top exhibits a location with 1" L of exposed steel on the left side of deck	No Change							
227	L	Below	Within 20' of Pier 228	Patch Delam.	6	6		5			F3-11						1
227	R	Above	Pier 227	Overlay Failure	144	72			Cracked and delaminated overlay (filler for low spot?)	New	F10-48						
228	L	Below	20' from Pier 229	Spall	6	4	1	1	Underside of top flange	No Change							1

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
1	N	L	Rear	Cantilever extension	Exposed Reinforcing					Due to saw cut	New	F7-3		1				
1	N	R	Rear	Cantilever extension	Exposed Reinforcing					Due to saw cut	New			1				
3	N		Exterior	2' from Pier 3N	Spall	2	2	1/4	1		No Change						1	
5	N	R	Interior	Pier 5N	Spall	6	5	3/4	1		New	F15-3,4		1			1	
6	N	R	Exterior	4' from Pier 6N	Spall	3	3	1/2	2		No Change						2	
6	S	L	Exterior	Midspan	Spall	4	2	1/2	1		No Change			1			1	
7	N	R	Interior	Throughout	Cracking		0.02			Vertical cracking in Starter section is more prominent. Some cracks up to 0.020. Spacing varies between 1'-4'.	New	F15-11			84			
7	N	L	Exterior		Spall	2	2	1/2	2		No Change						2	
7	N	L	Exterior	20' from Pier 7N	Spall	5	3	1/2	2		No Change			2			2	
7	S		Interior	Midspan	Spall	12	5	2 1/2	1		No Change			1				1
7	S			12' from Pier 8	Spall / Delam	12	5	1	7		No Change			2				
12	N	L	Exterior	15' from Pier 12	Spall	2	2	1	1		No Change			1			1	
12	S	L	Exterior	Pier 13	Spall	5	4	1	1		No Change						1	
13	S	R	Exterior	15' from Pier 13	Spall	6	3	1/2	3		No Change	J15-27		3			3	
13	S	R	Exterior	12' from Pier 14	Spall	3	2	1/2	1		No Change			1			1	
14	N	R	Exterior	Pier 14	Spall	6	6	1	1	At grounding cable	No Change						1	
14	S	R	Exterior	10' from Pier 14	Spall	1	1	1/4	1		No Change			1			1	
14	N	L	Exterior	15' from Pier 15	Spall	3	2	1/2	2		No Change			2			2	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
14	S	L	Exterior	Midspan	Spall	3	3	1/2	1		No Change			1			1	
14	S	L	Exterior	1' from Pier 15	Spall	8	4	1	1		No Change							1
15	S	R	Exterior	15' from Pier 15	Spall	3	2	1/2	1		No Change			1			1	
15	S	R	Exterior	15' from Pier 16	Spall	2	1	1/2	1		No Change			1			1	
16	S	L	Exterior	Pier 16	Spall	1	3	1/4	2		No Change			2			2	
16	S	L	Exterior	20' from Pier 16	Spall	4	2	1/2	1		No Change			1			1	
16	S	L	Exterior	midspan	Spall	6	3	1/2	2		No Change	F6-34		2			2	
16	N	R	Exterior	20' from Pier 17	Spall	3	3	1/2	1		No Change			1			1	
17	S	L	Exterior	5' from Pier 17	Spall	6	4	1	1		No Change	F6-37					1	
17	S	R	Exterior	8' from Pier 17	Spall	2	2	1/4	1		No Change			1			1	
17	N	R	Exterior	4' from Pier 18N	Spall	4	3	1/2	1	At grounding cable	No Change						1	
17	N	R	Exterior	1' from Pier 18N	Spall	3	3	1/2	1		No Change						1	
18	S	R	Exterior	1' from Pier 18S	Spall	2	2	1/4	1		No Change			1			1	
18	S	L	Exterior	Post 2	Spall	6	3	1/4	2		No Change						2	
18	N	R	Exterior	6' from Pier 18N	Spall	4	1	1/4	2		No Change			2			2	
18	N	R	Exterior	15' from Pier 18N	Spall	6	2	1/2	2		No Change	F7-25, F7-26		2			2	
18	N	L	Exterior	30' from Pier 18N	Spall	5	2	1/2	1		No Change			1			1	
18	S	L	Exterior	Midspan	Spall	3	2	1/2	1		No Change			1			1	
18	S	L	Exterior	2' from Pier 19S	Spall	4	4	1/2	1	At grounding cable	No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
19	S	L	Exterior	12' from Pier 19S	Spall	4	3	1/2	1		No Change			1			1	
19	N	L	Exterior	20' from Pier 19N	Spall	6	3	1/4	1		No Change			1			1	
19	N	R	Interior	30' from Pier 19N	Patch Delam.	5	3		1		New	F15-32					1	
19	S	L	Top	24' from Pier 20N	Delam.	18	6		1		No Change						1.5	
19	N	R	Exterior	1' from Pier 20N	Spall	3	3	1/2	1	At grounding cable	No Change						1	
20	S	R	Exterior	12' from Pier 20S	Spall	4	2	1/2	1		No Change			1			1	
25	N			Pier 25N	Spall	3	3	1/4	1		No Change						1	
25	N	R	Top	5' from Pier 25N	Spall	4	3	1/2	1		New						1	
25	S	L	Exterior	1' from Pier 26	Spall	2	1	1/2	1		No Change			1			1	
25	N	R	Exterior	Pier 26	Spall	4	3	1/2	1	At grounding cable	No Change						1	
26	S	R	Top	Midspan	Spall	6	3	1	1		No Change						1	
26	N	R	Exterior	Pier 27N	Spall	6	3	1/2	1	At grounding cable	No Change						1	
27	N	L	Top		Spall	24	4	1/2	1		No Change	J15-19						2
27	S	L	Exterior	Pier 28S	Spall	5	5	1/2	1	At grounding cable	No Change						1	
29	S	R	Exterior	20' from Pier 29	Spall	3	3	1/4	1		No Change						1	
29	N	L	Exterior	25' from Pier 29	Spall	18	3	1	1		No Change							1.5
30	S	L	Exterior	Pier 30	Spall	3	2	1/2	1		No Change			1			1	
30	S	L	Exterior	4' from Pier 30	Spall	3	1	1/2	1		No Change						1	
30	S	L	Exterior	8' from Pier 30	Spall	3	1	1/2	1		No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
30	N	R	Exterior	Pier 31	Spall	5	3	1	1		No Change						1	
30	N	R	Exterior	Pier 31	Spall	6	5	1	1		No Change						1	
30	N			Pier 31	Spall	3	3	4	1		No Change							1
31	N	L	Interior	10' from Pier 32	Spall	6	5	1/2	2		No Change						2	
31	N	R	Exterior	8' from Pier 32	Spall	6	6	1	1		No Change						1	
31	N	R	Exterior	6' from Pier 32	Spall	5	5	1	1		No Change						1	
33	S	L	Exterior	Throughout	Spall	2	1	1/4	5		No Change			5			5	
33	N	R	Exterior	1' from Pier 33	Spall	6	5	1	1	At grounding cable	No Change						1	
33	N	L	Exterior	15' from Pier 33	Spall	4	2	1/2	1		No Change						1	
34	S	R	Exterior	Throughout	Spall	2	2	1/4	5		No Change			5			5	
34	S	L	Exterior	Pier 34	Spall	4	4	1/2	1	At grounding cable	No Change						1	
34	N	L	Exterior	20' from Pier 34	Spall	1	1	1/4	1		No Change			1			1	
35	N	L	Exterior	Pier 35	Delam.	3	3		1		No Change						1	
35	S	L	Exterior	2' from Pier 35	Spall	3	3	1/4	1		No Change			1			1	
35	S	L	Exterior	6' from Pier 35	Spall	6	3	1/2	2		No Change			2			2	
35	N	R	Exterior	20' from Pier 36	Spall	5	5	1/2	1		No Change						1	
35	N	R	Exterior	10' from Pier 36	Spall	2	2	1/4	2		No Change			2			2	
35	N	R	Exterior	6' from Pier 36	Spall	5	5	1/2	1		No Change			1			1	
35	N	L	Exterior	1' from Pier 36	Spall	2	1	1/4	1		No Change			1			1	



Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
36	S	L	Exterior	20' from Pier 36	Spall	3	1	1/4	2		No Change			2			2	
36	N	L	Exterior	Midspan	Spall	8	6	1/4	1		No Change							1
36	N	L	Exterior	Midspan	Spall	3	1	1/4	1		No Change			1			1	
36	N	R	Exterior	Midspan	Spall	5	4	1	1		No Change			1			1	
36	N	L	Exterior	Midspan	Spall	3	1	1/4	2		No Change			2			2	
36	S	L	Exterior	Midspan	Spall	5	5	1/4	2		No Change			2			2	
37	S	L	Interior	12' from Pier 37	Spall	3	1	1/4	1		No Change						1	
37	S	R	Interior	15' from Pier 37	Spall	4	2	1/4	1		No Change						1	
37	S	L	Exterior	20' from Pier 37	Spall	8	3	1/2	1		No Change							1
37	N	R	Top	2' from Pier 38	Exposed Reinforcing	1/2					No Change			1				
38	N	R	Exterior	1' from Pier 38	Spall	5	5	1/2	1	At grounding cable	No Change						1	
38	N	L	Exterior	10' from Pier 38	Spall	1	1	1/2	1		No Change			1			1	
38	N	R	Exterior	10' from Pier 38	Delam.	2	1		1		No Change						1	
38	N	R	Exterior	15' from Pier 38	Spall	3	3	1/4	1		No Change			1			1	
38	N	R	Exterior	20' from Pier 38	Spall	2	1	1/2	2		No Change			2			2	
39	S	L	Exterior	1' from Pier 39S	Spall	5	5	1/2	1	At grounding cable	No Change						1	
39	S	L	Exterior	1' from Pier 39S	Spall	2	1	1/4	1		No Change			1			1	
39	N	L	Exterior	15' from Pier 40N	Spall	2	2	1/4	1		No Change			1			1	
39	S	L	Exterior	Pier 40N	Spall	3	1	1/2	?		No Change			1			?	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
40	N	L	Exterior	Throughout	Cracking					Typical vertical cracking in the sidewall, hairline, spaced less than 3' apart.	New	F12-16			77			
40	N	R	Exterior	Throughout	Spall	2	1	1/4	5		No Change			5			5	
40	N	L	Exterior	Pier 40N	Spall	5	2	1/4	1	Inside Overflow Cutout	No Change	F12-15		1			1	
40	N		Top	8' from Pier 40N	Spall	3	2	1/4	1		No Change						1	
40	N		Exterior	Midspan	Spall	6	2	1/4	2		No Change			2			2	
40	S	R	Exterior	Midspan	Spall	2	2	1/4	2		No Change			2			2	
40	S	R	Exterior	20' from Pier 41S	Spall	5	3	1/2	1		No Change	F12-5		1			1	
40	S	L	Exterior	15' from Pier 41	Spall	5	3	1/2	2		Increase			2			2	
40	S	R	Exterior	8' from Pier 41S	Spall	4	1	1/2	1		No Change			1			1	
40	S	L	Exterior	1' from Pier 41S	Spall	6	5	1/2	1	At grounding cable	No Change						1	
41	S	L	Exterior	10' from Pier 41S	Spall	3	1	1/4	1		No Change			1			1	
41	N	R	Exterior	15' from Pier 42N	Bolts					Two 3" L protruding bolts for cable tray that does not extend that far. Not Significant.	No Change							
42	N	L	Exterior	6' from Pier 43N	Spall	2	1	1/4	?		No Change			1			?	
43	N	R	Exterior	1' from Pier 43N	Spall	6	6	1/2	1	At grounding cable	No Change						1	
44	N	R	Exterior		Spall	6	6	2	1		No Change							1
44	N	L	Exterior	Midspan	Spall	2	1	1/4	1		No Change			1			1	
44	S	R	Exterior	Midspan	Spall	3	3	1/2	1		No Change			1			1	
45	S	R	Exterior	5' from Pier 45S	Spall	2	2	1/4	1		No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
46	S	L	Exterior	3' from Pier 46S	Exposed Reinforcing	2					No Change			1				
46	S	L	Exterior	10' from Pier 46S	Spall	5	3	1	1		No Change						1	
46	S	L	Top	20' from Pier 47S	Spall	12	4	1/2	1		No Change							1
46	N	R	Exterior	12' from Pier 47N	Spall	4	2	1/4	1		No Change			1			1	
46	N	R	Exterior	4' from Pier 47N	Spall	2	1	1/4	1		No Change			1			1	
46	N	L	Exterior	Pier 47N	Spall	3	2	2	1		No Change							1
46	N	R	Exterior	Pier 47N	Exposed Reinforcing	6	3	1/2	1		No Change	J24-19		1				
47	L	R	Exterior	Pier 47N	Spall	6	5	2	1		No Change							1
47	R	L	Exterior	10' from Pier 47S	Spall	4	4	1	1		No Change						1	
47	R	L	Exterior	1' from Pier 48R	Spall	3	2	1/2	1		No Change						1	
48	L	L	Exterior		Spall	2	1.5	1/2	1		No Change						1	
48	L	R	Exterior	1' from Pier 48L	Spall	6	4	1/2	1	At grounding cable	No Change						1	
49	R	R	Exterior	Throughout	Cracking		HL			Hairline vertical cracking at 2' centers.	No Change				40			
50	R	R	Exterior	Throughout	Cracking		HL			Hairline vertical cracking at 2' centers.	No Change				68			
50	R	L	Exterior	Pier 50	Spall	8	4	1	1		No Change							1
50	L			Midspan	Cracking					5' L x 1'-8" W patch exhibits map cracking.	No Change				5			
50	R	L	Exterior	Midspan	Spall	6	3	1/2	1		No Change			1			1	
50	L	R	Exterior	3' from Pier 51L	Spall	6	5	1	1	At grounding cable	No Change						1	
50	R	R	Exterior	Pier 51	Spall	18	4	2	1		No Change							1.5

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
51	R	R	Exterior	Throughout	Cracking		HL			Hairline vertical cracking at 2' centers.	No Change				50			
51	L	L	Exterior		Spall	12	2	1/2	2		No Change	J24-28,29		2				1
51	R	L	Exterior	4' from P51	Spall	2	1	1/2	1		No Change			1			1	
51	R	L	Exterior	10' from Pier 52	Spall	6	3	1/2	2		No Change			2			2	
52	L	R	Exterior	3' from Pier 53	Spall	3	3	1/4	1		No Change						1	
52	R	L	Exterior	3' from Pier 53	Spall	5	5	1/2	1		No Change						1	
53	R	L	Exterior	Midspan	Spall	4	2	1/2	1		No Change			1			1	
53	R	L	Exterior	4' from Pier 54	Spall	4	1	1/4	2		No Change			2			2	
54	L	R	Exterior	20' from Pier 54	Spall	5	3	1/2	1		No Change			1			1	
54	R	L	Exterior	2' from Pier 55	Spall	5	5	1/2	1	At grounding cable	No Change						1	
55	L	R	Exterior		Spall	5	2	1/2	3		Increase			3			3	
55	R	L	Exterior	4' from Pier 55	Spall	3	1	1/2	1		No Change			1			1	
56	L	R	Exterior	6' from Pier 56	Spall	2	1	1/4	1		No Change			1			1	
56	R	L	Exterior	6' from Pier 56	Spall	1	1	1/4	1		No Change			1			1	
56	R	L	Exterior	6' from Pier 56	Spall	6	6	1	1		No Change						1	
56	L	L	Exterior	Midspan	Spall	8	2	1/4	1		No Change			1				1
56	R	L	Exterior	Pier 57	Spall	3	3	1/2	1	At grounding cable	No Change						1	
57	L	R	Exterior	Pier 57	Spall	3	3	1	1	At grounding cable	No Change						1	
57	L	R	Interior	Pier 57	Spall	3	3	1	1	At grounding cable	No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
57	R	L	Exterior	5' from Pier 57	Spall	5	5	1/2	1	At grounding cable	No Change						1	
57	R	L	Exterior	20' from Pier 57	Spall	15	4	1/4	2		No Change							1
57	R	L	Exterior	2' from Pier 58	Spall	6	3	1/2	1		No Change			1			1	
57	R	L	Exterior	Pier 58	Spall	6	3	3/4	1		Increase	F21-18		1			1	
57	L		Exterior	Pier 58	Spall	3	2.5	5	1		New	F21-19						1
58	R	L	Exterior	3' from Pier 58	Spall	2	2	1/2	1		No Change						1	
58	L	R	Exterior	Midspan	Spall	3	2	1/2	1		No Change			1			1	
59	L	L	Exterior	Pier 59	Spall	4	3	1/2	1	At grounding cable	No Change						1	
60	L	R	Interior	Throughout	Cracking					Typical vertical hairline cracks	New	J24-40						
60	L	R	Exterior	Pier 60	Spall	4	4	1/2	1	At grounding cable	No Change						1	
60	R	L	Exterior	Pier 60	Spall	3	3	1/2	1	At grounding cable	No Change						1	
60	R	L	Exterior	2' from Pier 60	Spall	6	3	1	1		No Change						1	
60	L	R	Exterior	5' from Pier 60	Spall	3	2	1/2	1		No Change			1			1	
60	L	R	Exterior	6' from Pier 60	Spall	3	2	1	2		No Change						2	
61	R	L	Exterior	1' from Pier 61R	Spall	4	3	1/2	1	At grounding cable	No Change						1	
61	L	L	Exterior	3' from Pier 62L	Spall	6	5	1/2	1	At grounding cable	No Change						1	
61	R	L	Exterior	1' from Pier 62R	Spall	6	3	1/2	1		No Change						1	
62	L	R	Interior	Pier 62L	Spall	3	3	1/2	1		No Change						1	
62	L	R		10' from Pier 62L	Drill Hole	2					No Change			1				

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
66	L	R		Pier 66	Drill Holes				2		No Change							
66	R	R	Exterior	Pier 66R	Spall	2	2	1/2	2		New			2			2	
66	L	R	Exterior	3' from Pier 66	Spall	6	4	1/2	1		No Change						1	
66	R	L	Exterior	3' from Pier 66R	Spall	4	3	1/2	1	At grounding cable	No Change						1	
66	L	R	Exterior	Midspan	Spall	5	3	1/2	1		No Change			1			1	
67	L	R	Exterior	1' from Pier 67L	Spall	8	6	1/2	1	At grounding cable	No Change							1
67	R	L	Exterior	1' from P67R	Spall	5	5	1/2	1		No Change						1	
67	L	R	Exterior	1' from Pier 68	Spall	12	6	1/2	1		No Change							1
68	L	R	Exterior	Throughout	Spall	6	6	1	5		No Change	F22-24		5			5	
68	R	L	Exterior	1' from Pier 68	Spall	6	5	1/2	1	At grounding cable	No Change						1	
68	R	L	Exterior	Midspan	Spall	3	2	1/2	1		No Change			1			1	
69	L	R	Exterior	Throughout	Drill Holes				14	1" Diam x 6" D	No Change							
69	L	R	Exterior	3' from Pier 69	Spall	6	6	1/2	1	At grounding cable	No Change						1	
69	R	L	Exterior	3' from Pier 69	Spall	6	6	1/2	1		No Change						1	
69	L	R	Exterior	Midspan	Spall	4	3	1/2	2		No Change			2			2	
69	L	R	Exterior	25' from Pier 70	Spall	12	4	1/2	2		No Change			2				2
69	L	R	Exterior	15' from Pier 70	Spall	4	4	1/4	2		No Change			2			2	
69	R	R	Exterior	15' from Pier 70	Spall	3	2	1/2	1		No Change			1			1	
70	L	R	Exterior	Throughout	Drill Holes					1" Diam. x 4" D	No Change							

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
70	R	L	Exterior	1' from Pier 70	Spall	3	1	1/4	1	At grounding cable	No Change						1	
70	L	R	Exterior	20' from Pier 70	Spall	4	3	1/2	1		No Change			1			1	
71	L	R	Exterior	1' from Pier 71	Spall	8	6	1	1	At grounding cable	No Change							1
71	R	L	Exterior	1' from Pier 71	Spall	5	5	1/2	1		No Change						1	
72	L	L		Throughout	Drill Holes				2	1" Dia. X 6" D.	No Change							
72	R	R	Exterior	Pier 72	Spall	5	4	1/2	1		No Change						1	
72	L	L	Exterior	1' from Pier 72	Spall	12	6	1/2	1		No Change							1
72	L	R	Exterior	Midspan	Spall	4	3	1/2	1		No Change			2			1	
72	R	L	Exterior	15' from Pier 73	Spall	5	3	1/4	2		No Change			2			2	
72	L	R	Exterior	10' from Pier 73	Spall	4	3	1/2	1		No Change			2			1	
73	R	R	Exterior	1' from Pier 73	Spall	4	5	1/2	1	At grounding cable	No Change						1	
73	R	L	Exterior	1' from Pier 73	Spall	6	6	1	1		No Change						1	
74	L	R	Exterior	2' from Pier 74	Spall	5	5	1/2	1		No Change						1	
74	R	L	Exterior	2' from Pier 74	Spall	3	3	1/2	1	At grounding cable	No Change						1	
74	L	R	Exterior	Midspan	Spall	4	2	1/4	1		No Change			1			1	
74	L	L	Exterior	Pier 75	Spall	8	4	2	1		No Change	F23-4						1
75	L	L	Exterior	3' from Pier 75	Spall	4	3	1/2	1		No Change						1	
75	L	R	Exterior	4' from Pier 75	Spall	7	5	1/2	1	At grounding cable	No Change							1
77	L	R		Throughout	Drill Holes					1" Dia. x 6" D	No Change							

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
77	R	R		Throughout	Drill Holes					1" Dia. x 6" D	No Change							
77	R	L		Throughout	Drill Holes					1" Dia. x 6" D	No Change							
77	R	R	Exterior	3' from Pier 78R	Spall	9	3	1/2	1		No Change							1
78	R	R	Exterior	Pier 78R	Spall	6	4	1/2	1		No Change						1	
78	R	L	Exterior	Pier 78	Spall	12	6	6	1		No Change	F23-23						1
78	L	R	Exterior	6' from Pier 78L	Spall	3	3	1/2	2		No Change			2			2	
78	R	L	Exterior	Midspan	Drill Holes					2" dia. x 1/2" D, misdrilled walkway holes.	No Change	F21-1						
78	L	R		Midspan	Drill Holes					1" Dia. x 6" D	No Change							
78	R	R	Interior	Midspan	Spall	8	5	1/2	2		No Change							1
78	L	R	Interior	20' from Pier 79L	Ground					Cable not attached	No Change	J24-63						
78	R	L		3' from Pier 79R	Drill Holes					1" Dia. x 6" D	No Change							
78	R	L	Exterior	Pier 79R	Spall	6	3	1/2	1		No Change						1	
79	L	R		Throughout	Drill Holes					1" Dia. x 6" D	No Change							
79	L	L	Exterior	25' from Pier 80	Spall	3	2	3/4	1		New						1	
80	L	R	Exterior	Pier 80L	Spall	8	8	1	1	At grounding cable	No Change							1
80	L	R	Exterior	1' from Pier 80L	Spall	8	6	1/2	1	At grounding cable	No Change							1
80	R	L	Exterior	3' from Pier 81R	Spall	7	4	1/2	1	At grounding cable	No Change							1
81	R	R	Exterior	10' from Pier 82R	Spall	7	3	1	1		New	F20-13		1				1



Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
83	L	L	Exterior	Throughout	Cracking					Typical vertical cracking in decorative sidewall, spaced less than 3' apart	New	F20-6			50			
83	L	L	Exterior	Pier 83L	Spall	4.5	2.5	1	1		New	F20-7		1			1	
83	L	L	Exterior	11' from Pier 83L	Spall	2.5	2.5	3/4	1		New			1			1	
84	L	R	Front	Pier 85L	Spall	6	3	1/2	1		No Change						1	
199	L	L	Exterior	Pier 199L	Delam.	24	5	1	1		New	J1-11					2	
200	L	L	Exterior		Silicone Patches				6		No Change							
200	L	R	Exterior	Pier 201L	Honeycombing						No Change							
201	L	L	Exterior		Silicone Patches				8		No Change							
202	L	R	Exterior	Pier 203L	Cracking		HL			with efflorescence	No Change		5					
202	L	R	Exterior	5' from Pier 202L	Spall	18	18	1/4	1		No Change							1.5
202	L	R	Interior	6' from Pier 203L	Cracking		HL			Random hairline cracking	New	F5-60				6		
204	L	L	Interior		Spall	6	5	1/2	1		No Change						1	
204	R	R	Top		Delam.	7	5		1		New	F5-14					1	
204	R	R	Top		Cracking		0.012			Transverse cracking	New	F5-14				5		
205	R	L	Interior	Throughout	Cracking		0.03			Typical vertical cracks. Average width is hairline, max is 0.03"	New	J5-19			5			
205	R	R	Interior	Throughout	Cracking		0.03			Typical vertical cracks. Average width is hairline, max is 0.03"	New	F5-17			5			
206		L	Exterior	8' from Pier 207	Spall	4	4	1	1		No Change						1	
206	R			Pier 207R	Spall	15	1	3	1		No Change							1

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
207	R	L	Interior	Throughout	Cracking		HL			Typical hairline vertical cracking	New	J5-27						
207	R	L	Exterior	10' from Pier 207	Spall	2	1	1/4	2		No Change			1			2	
207	R		Exterior	20' from Pier 208	Cracking		0.015			2' L vertical crack	No Change				1			
208	L	L	Exterior		Spall	3	3	3/4	11		New	F1-14		7			11	
208	L	R	Exterior	Pier 209	Spall	6	1	1/2	1		No Change			1			1	
208	R	R	Exterior	Throughout	Cracking		HL			Typical hairline vertical cracking with efflorescence	New	F1-8	3					
209	L	R	Exterior	Pier 209	Spall	1	3	1/2	6		Increase	F1-15, 16, 17		5			6	
209	R	R	Exterior	6' from Pier 209	Spall	4	2	1/4	2		No Change			1			2	
209	L		Interior	6' from Pier 210	Spall	6	4	2	1		No Change							1
210	R	R	Exterior	Throughout	Spall	3	1	1/4	20		No Change	F1-26, F1-27		20			20	
210	R	R	Exterior	20' from Pier 210	Cracking		HL			Hairline cracking up to 6" L	No Change							
210	L	L	Exterior	6' from Pier 211	Spall	6	4	3/4	3		Increase						3	
211	L	L	Exterior	Throughout	Cracking		HL			with efflorescence	New	F1-28	8					
211	R	R	Exterior	Throughout	Spall	3	1	1/4	30		No Change			20			30	
212	R	L	Exterior	15' from Pier 212	Spall	12	4	1/2	3		No Change			3				1
212	R	R	Exterior	Midspan	Spall	3	1	1/4	2		Increase			1			2	
213	L	R	Interior	Throughout	Spall	2	2	1/4	40		New	F5-49, 50, 51		20			40	
214	L	L	Exterior	20' from Pier 214	Spall	2	2	1/4	2		No Change			2			2	
214	L	L	Exterior		Spall	4	1	1/2	1		No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
214	L	L	Exterior		Cracking		0.03			2' L vertical crack	No Change				1			
215	L	L	Exterior		Cracking	6	HL			Located on the lower portion of the wall.	No Change							
217	R	R	Interior		Cracking		HL			with efflorescence	New	F5-30	11					
218	R	R	Exterior	12' from Pier 218R	Spall	4	2	1/4	2		No Change			2			2	
218	R	R	Exterior	20' from Pier 219R	Spall	4	2	1/4	5		No Change			5			5	
218	R	L	Front	Pier 219R	Spall	5	1	1	1		No Change						1	
219	R	L	Rear	Pier 219R	Spall	12	2	1	1		No Change			1				1
219	R	R	Rear	Pier 219R	Exposed Reinforcing					Shallow Cover	New	F5-33		1				
220	R	R	Exterior	20' from Pier 221R	Spall	5	2	1/4	2		No Change	F2-36		2			2	
221	R	R	Exterior	10' from Pier 222R	Spall	4	3	1/4	1		No Change			1			1	
222	L	L	Exterior	Throughout	Spall	4	3	1/2	10		No Change			5			10	
222	R	R	Exterior	Throughout	Spall	5	2	1/4	40		New	F3-1		20			20	
223	R	R	Interior	Throughout	Spall	4	3	1/2	5		No Change						5	
223	L	R	Exterior	14' from Pier 224L	Spall / Delam	3	3	1/2	15		No Change	J2-5					7	
223	L	R	Exterior	12' from Pier 224L	Spall	1	1	1/4	1			J2-5		1			1	
225	R	L	Interior	Pier 225R	Delam.	7	2		1		New						1	
225	R	L	Interior	4' from Pier 225R	Delam.	8	3		1		No Change						1	
225	R	R	Interior	Midspan	Spall	3	3	1/2	4	At drill holes	Increase						4	
226	L	L	Exterior	6' from Pier 227	Spall	2	1	1/4	1		No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
226	R	R	Exterior		Cracking		HL			Typical vertical hairline cracks.	No Change							
227	L	L	Exterior	Pier 228	Spall	18	4	1/4	1		No Change	J10-26						1.5
229	L	L	Exterior	Pier 229	Cracking		HL			Random hairline cracking	No Change							
230	R	R	Interior	8' from Pier 230	Spall	4	5	1/2	1		No Change						1	
231	R	R	Interior	15' from Pier 231	Spall	4	4	1/2	2		Increase						2	
235	R	L	Exterior	3' from Pier 236R	Spall	3	3	1/2	1		No Change						1	
237	R	R	Exterior	4' from Pier 237R	Spall	6	4	1	1		No Change						1	
240	R	R	Interior	10' from Pier 240R	Corrosion					Two bolts with corrosion	No Change	F10-61						
240	L	R	Exterior	1' from Pier 241	Spall	3	3	1/2	1	At grounding cable	No Change						1	
241	R	R	Interior	25' from Pier 242	Spall	2	2	1/2	1		No Change						1	
241	R	L	Exterior	2' from Pier 242	Spall	6	6	1	1	At grounding cable	No Change						1	
243	L	R	Exterior	1' from Pier 243	Spall	4	5	1/2	1	At grounding cable	No Change						1	
243	R	L	Interior	Midspan	Spall	4	2	1/2	3		New	J10-37		3			3	
244	R	R	Interior	25' from Pier 245	Spall	3	1	1/2	1		New			1			1	
244	L	R	Exterior	1' from Pier 245	Spall	6	4	1	1	At grounding cable	No Change						1	
245	R	R	Interior	midspan	Spall	2	2	1/2	2		No Change			2			2	
247	R	L	Exterior	4' from Pier 247	Spall	6	6	1/2	1	At grounding cable	No Change						1	
247	L	R	Front	Pier R-1	Spall	18	3	4	1		No Change	J10-1						1.5
250	R	L	Exterior	1' from Pier 250	Spall	6	6	1/2	1	At grounding cable	No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
250	R	L	Interior	20' from Pier 251	Cracking		HL			significant hairline map cracking for 10'.	New	J29-41				10		
250	L	R	Exterior	Pier 251	Spall	6	6	1/2	1	At grounding cable	No Change						1	
252	L	R	Exterior	10' from Pier 252	Exposed Reinforcing	1					No Change			1				
252	L	R	Interior	50' from Pier 252	Spall	6	6	1/2	1		No Change						1	
254	R	R	Interior	Pier 255	Spall	7	1	1/2	1	Associated with a full height wrap over crack up to 0.013" wide.	New	F29-38						1
255	L	R	Exterior	1' from Pier 256L	Spall	4	5	1	1		No Change						1	
256	R	L	Exterior	Pier 256R	Spall	4	4	1	1		No Change						1	
257	R	R	Exterior	Pier 257R	Cracking		HL			Transverse	No Change		1					
257	L	L	Interior	Pier 258L	Cracking		0.06			Full height, wraps over	New	F30-29,30				1		
R5	R	L	Top	10' from Pier R-6	Spall	19	3	3	1	At walkway support bracket	Increase	J29-46						2
258	L	L	Exterior	15' from Pier 259L	Spall	1	1	1/4	1		No Change			1			1	
259	L	R	Exterior	1' from Pier 259L	Spall	8	4	1/2	1	At grounding cable	No Change							1
261	L	R	Exterior	2' from Pier 261L	Spall	3	3	1/2	1	At grounding cable	No Change						1	
M4	-	R	Exterior	1' from Pier M5	Spall	8	8	1	1		No Change	F4-26						1
M5	-	L	Top	Pier M5	Spall / Delam	360	6	1/2	1		Increase	J30-12,13					30	
400	R	R	Exterior	Pier 400	Spall	4	4	3/4	1		Increase						1	
402	L	L	Exterior	1' from Pier 402	Spall	4	4	1/2	1		No Change						1	
403	L	L	Exterior	Midspan	Spall	2	2	1/2	1		No Change						1	

Span	Side	Side-wall	Face	Location	Deficiency Type	Max Length (in)	Ht/Wi (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	CS2 Crack (LF)	CS3 Crack (LF)	Spall /patch (CS2)	Spall (CS3)
404	L	L	Exterior	5' from Pier 404L	Spall	8	5	1	1		No Change							1
408	R	R	Exterior	10' from Pier 408R	Spall	8	8	1	1		No Change							1
409	L	R	Interior	At Merge	Cracking		0.02			Full height, wraps over	New	F30-25			1			

FINAL DRAFT

Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
1	N	Pier 1N	corrosion					Steel base plate for the guidebeam bumper stop has moderate surface corrosion around the perimeter	No Change	J15-1							
4	S		crack	84				7' of greater than typical cracking on top, transverse and longitudinal	New	F15-67,68			7				
8	-		corrosion					Switchbeam paint is very chalky and there is minor surface corrosion over 10% of the top surface.	No Change								
8	-		corrosion					A number of the switchbeam pedestal plate anchor bolts exhibit light to moderate surface corrosion.	No Change								
8	N		crack		0.125			Crack in the guidebeam pedestal 1 at the base plate left side.	No Change	J15-9							
9	-		corrosion					Switchbeam paint is very chalky and there is minor surface corrosion over 10% of the top surface.	No Change	J15-11							
9	-		corrosion					A number of the switchbeam pedestal plate anchor bolts exhibit light to moderate surface corrosion.	No Change								
9	S	right side	spall	4	5	6	1	Guidebeam pedestal, adjacent to electrical control box.	No Change							1	
10	N		crack	96	0.016		2	Vertical/transverse cracks in guidebeam	New	F15-17							
15	N	Pier 15	spall	16	6	2	1	right side of pedestal		F15-22						1	
16	N		crack	36			1	Vertical crack with efflorescence in the guidebeam	New	J15-15,16	1						
17	S	8' from Pier 17	spall	4	2	2	1	right bottom edge of guidebeam	New	J15-25						1	
17	S		crack	12	HL		?	Vertical cracking exists beneath bracket.	No Change								
17	S		crack	24	HL		?	Vertical cracks exist in both the left and right faces	No Change								
18	S	7' from Pier 18	spall	4	4	4	1	Guidebeam pedestal	No Change							1	
18	S	Pier 18	spall	4	4	1/2	1	Left side of guidebeam pedestal	No Change						1		

Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
21	N	Pier 21	Efflo.					Guidebeam cold joint exhibits efflorescence on both sides.	No Change		1						
23	S	6' from Pier 23	spall	6	3	2	1	Right side of guidebeam pedestal	No Change							1	
23	S		crack	96	0.02		5	Wider than typical vertical/transverse cracking	New	F15-58, J15-23			3				
24	S	20' from Pier 24	spall	6	2	3	1	Right side of guidebeam pedestal	No Change							1	
31	S		Corrosion					Surface corrosion with pitting up to 1/8" on motor actuator assembly brackets for switchbeam, located mid span of switchbeam.	New	F15-40, 51, 52							
31	S		spall	19	4	2 1/2	1	There is a fracture in the right rear edge of the 3rd pedestal for the O&M right switch beam.	New	J30-27							
36	N	33' from Pier 36	spall/delam	36	2	2	1	Top left edge of guidebeam. Previous patch	New	J15-22						3	
37	N		Delam	5	2.5		1	Right side of guidebeam pedestal	No Change						1		
38	N		Delam	6	2		1	Left side of guidebeam pedestal	No Change						1		
41	N							Paint scrapes with surface corrosion on the top edges of the guidebeam	New	J24-8							
41	N		crack	10	0.125		1	Pedestal 1 for the cross beam, right rear corner.	New	J24-7							
44	S		crack	96	0.02		5	Wider than typical vertical/transverse cracking	New	F24-7			5				
44	N		crack	96	0.02		5	Wider than typical vertical/transverse cracking	New	J24-20			5				
47	L	Midspan	spall	3	3	1	1	Left side of guidebeam pedestal	No Change						1		
51	L	Pier 51	crack	12	0.02		1	Vertical crack in guidebeam pedestal at Pier 51, right side	New	J24-26			1				
51	L	Midspan	spall	3	4	2	1	Right side of guidebeam pedestal	No Change							1	
58	L	Pier 58	Crack	24	HL		1	Vertical crack with efflorescence in guidebeam pedestal at Pier 58, left side	New	J24-39	1						



Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
64	L		crack	12	HL		6	Guidebeam pedestal exhibits 6 transverse hairline crack spaced 1' apart on the left side.	No Change				6				
64	L		crack	180	0.013		1	Wider than typical longitudinal cracks on top surface.	New	J24-42,43			15				
68	L	Pier 68L	crack	96	0.03		1	Wider than typical vertical/transverse cracking	No Change	J24-47, J24-48			1				
77	R	Above	spall	3	2	3	1	Switch beam pedestal, adjacent to anchor bolt.		F24-26							
78	L	20' from Pier 78	spall	2	2	1/2	1	Top left edge of guidebeam	No Change	J24-62					1		
84	L	Pier 85	corrosion					Steel base plate for the guidebeam bumper stop has moderate surface corrosion around the perimeter	New	J24-64, 66							
199	R	Pier 199R	corrosion					Light surface corrosion on guidebeam bumper stop components	New	J5-1							
199	R		crack		HL			5' of map cracking on the left face of guidebeam	New	J5-3			5				
199	L	Pier 199L	corrosion					Moderate surface corrosion on guidebeam bumper stop components	New	J5-53							
203	R		corrosion					Switch beam plate 1 exhibits corrosion on the brackets and bolts at the right side, possible low spot in deck, sand buildup. Corrosion on the top surface, left side	New	F5-12, F5-13, J5-8							
203	R	Pier 203R	corrosion					Guidebeam exhibits moderate corrosion at Pier 203R.	No Change	J5-9							
204	L		corrosion					Light surface corrosion on guidebeam	New	J5-50							
204	L		corrosion					Surface corrosion switchbeam pedestal bumper post, left side.	New	J5-51							
204	L	5' from Pier 205L	Delam	8	2	3/4	1	Top right edge of guidebeam	New						1		

Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
205	R	Throughout	crack	36	0.013			Wider than typical vertical cracks in the guidebeam, spaced 3-4' in curved section	New	F5-16			30				
204	R	Pier 205	Crack	12	0.013		1	Typical vertical crack in guide pedestal at expansion joint	New	J5-18			1				
207	R	Pier 207	Delam	18	6		1	The left guidebeam pedestal has an 18" long area of cracking and delaminations at the expansion joint	New	J5-24					2		
209	R		crack	12	HL		6	Vertical cracks in guidebeam pedestal, spaced ~1' apart	New	J5-28				6			
214	R		crack	96	HL		4	Vertical / Transverse cracks spaced 1'-3'	New	F5-26			4				
215	R	Pier 215	crack	96	HL		6	Vertical / Transverse cracks spaced 1'-3'	New	J5-34, F5-29			6				
218	R		abrasion	12				Small area of more than typical scaling/abrasion	New	F5-31							1
220	R	10' from Pier 220R	exposed steel				1	The cold joint exhibits 4" L of exposed steel wire	No Change	F5-36							
231	R		crack	10	HL		1	Vertical crack in the right face of the guidebeam extending into pedestal, with efflorescence	No Change		1						
232	L		corrosion					Steel plates exhibit surface corrosion just ahead of Pier 232	New	F10-45							
232	R	Pier 232	spall	2	3	2	1	Left top edge of guidebeam, previously patched	New	J10-28					1		
233	L		paint failure					Switchbeam paint is very chalky.	New	J10-23							
233	L		corrosion					Switchbeam and machinery support plates exhibit areas of random failed paint with surface corrosion	New	J10-24, J10-25							
233	R		corrosion					Guidebeam exhibits 10% paint failure and surface corrosion of the steel section.	No Change	J10-29							

Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
233	R		corrosion					Switchbeam motor bracket on the right side exhibits 12 bolts with nearly 100% section loss. Moderate to heavy corrosion on motor bracket also.	Increase	J10-30							
233	R		crack	9	0.13		3	1/8" wide cracks on right side of Pedestal 7, 8 and 9	New	J10-31							
234	R	10' from Pier 234R	crack		HL		6	Guidebeam pedestal exhibits 3 vertical cracks with minor efflorescence on the left and right sides	No Change		3						
236	L	Pier 237	Delam	10	6	6	1	Right side of guidebeam pedestal	New	J10-18					1		
236	L	Pier 237	Spall	20	10	5	1	Left side of guidebeam pedestal	New	F10-38, 39						2	
237	R	Pier 238	Delam	5	7	7	1	Left side of guidebeam pedestal	New	J10-32					1		
237	R	Pier 239	Spall	14	27	6 1/2	1	Right side of guidebeam pedestal	New	F10-59						2	
238	L	Midspan	abrasion	24	12		1	Heavier than normal scaling	New	J10-15							2
240	L	Pier 240						Leveling epoxy deteriorated, delaminated and partially removed	New	F10-29							
241	R	10' from Pier 242	Delam	6	5	1/2	1	Right face of guidebeam	New						1		
244	L		crack	120	0.016		1	Longitudinal crack on the top face.	New	F10-18, 19			10				
247	L	Throughout	crack	96	0.02		10	Vertical/transverse cracks in guidebeam, up to 0.020", randomly spaced	New	F10-11			10				
R3	R		crack	96	0.125		2	There are cracks up to 1/8" W along the cold joint.	No Change					1			
R5	L	map	crack		HL		20	Guidebeam exhibits surface map cracks on top and side of guidebeam beam.	No Change				20				
249	R	5' from Pier 249R	Efflo.	36	HL		2	Guidebeam cold joint on both left and right sides exhibit efflorescence	No Change	J29-39, 40	1						

Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
250	R	10' from Pier 251R	crack	14	HL		3	Vertical cracks spaced 1' apart with efflorescence in left and right pedestals	No Change		3						
251	L	Throughout	crack	96	0.16		?	Wider than typical vertical / transverse cracks spaced ~3' apart	New	F29-25			46				
251	R	Midspan	Efflo.	24	HL		2	Guidebeam cold joint on both left and right sides exhibit efflorescence	No Change	J39-40	2						
251	R	20' from Pier 252	Efflo.	24	HL		2	Guidebeam cold joint on both left and right sides exhibit efflorescence	No Change		2						
252	R	Pier 253	crack	24	HL		2	Guidebeam cold joint on both left and right sides exhibit efflorescence	No Change		2						
252	R	20' from Pier 252	crack	18	HL		2	Guidebeam cold joint on both left and right sides exhibit efflorescence	No Change		2						
253	L	Midspan	crack	96	0.02		12	Vertical / transverse cracks in the guidebeam spaced less than 1' apart, at one of the two midspan construction joints	New	F29-30				12			
253	L	Midspan	spall	4	1.5	1	2	Guidebeam pedestal spalls on the left side at midspan construction joint 2	New	F29-33					2		
253	L	Midspan	crack	96	0.02		8	Vertical / transverse cracks in the guidebeam spaced less than 1' apart, at one of the two midspan construction joints	New	J29-29				8			
253	R	Midspan	spall	8	6	6	1	Broken guidebeam pedestal at the 2nd midspan joint, right side	New	F29-40						1	
253	R	Midspan	Delam	7	4	4	1	Top right edge of guidebeam, located at first interior joint	New	F29-45					1		
253	R	Midspan	spall	11	7	2 1/2	2	At the first interior joint, right rear pedestal	New	F29-46, J29-37						1	

Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
253	R	Midspan	Delam	11	7	2 1/2	2	At the first interior joint, forward pedestals	New	F29-46, J29-37						1	
253	L				0.016			Longitudinal cracking in guidebeam top.	New	J29-30							
253	L	Throughout	crack	96	0.016			Vertical/Transverse cracking is more prominent than in other spans, wider and spaced 1'-3'	New	J29-36			300				
253	R	Throughout	crack	96	0.016			Vertical/Transverse cracking is more prominent than in other spans, wider and spaced 1'-3'	New	J29-36			300				
254	R	10' from 255R	crack	24	HL		2	Guidebeam exhibits a vertical crack with minor efflorescence extending into pedestal on both left and right faces			1						
256	L		corrosion					Switchbeam plates and anchor bolts have been painted but surface corrosion is reactivating	New	J30-24							
258	R	Pier 258R	crack	14	HL		6	Dense cracking in guidebeam pedestal at expansion joint	New	J30-32				2			
259	R	Pier 260R	crack	24	HL		2	Guidebeam cold joint on both left and right sides exhibit efflorescence	No Change		1						
260	L	Throughout	crack		HL			Map cracking on top of guidebeam.	No Change				10				
M2	-	Throughout	corrosion					Guidebeam support plates and anchor bolts exhibit minor to moderate corrosion.	No Change	F30-8,9, J30-5							
M5	-	Throughout	corrosion					Switchbeam plates and bolts exhibits minor to moderate surface corrosion.		J30-14,15 F30-16							
401	-	Throughout	Corrosion					Minor surface corrosion on left guidebeam	New	J30-17							
401	L	Throughout	corrosion					Moderate surface corrosion on right side of guidebeam	New	F30-38							
402	-	Throughout	Corrosion					Minor surface corrosion on left guidebeam	New								

Span	Side	Location	Deficiency Type	Max Length (in)	Max Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)	Abrasion (CS2)
402	-	Throughout	corrosion					Minor surface corrosion and the plates and bolts in the switch area.	No Change	F30-37							
403	R	Throughout	corrosion					The switch beam exhibits minor surface corrosion on the plates and bolts.	No Change								
406	R	Midspan	crack	24	HL		2	Guidebeam cold joint on both left and right sides exhibit efflorescence	No Change	J30-20							
408	L	25' from Pier 408L	spall	6	3	1	1	Top left edge of the guidebeam	New	J30-21,22					1		
409	L		Honey					1/4" D honeycombing, full width of guidebeam x 3"W at cold joint just before the Span merge	New	F30-26							

FINAL DRAFT

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
1	N	-	-	Pier 1N	Crack	?	34	HL	-	Diagonal cracks in diaphragm.	No Change							
1	N	L	Exterior	Pier 2N	Crack	1	18	HL	-	Diagonal shear crack	No Change				2			
1	N, Ext.	L	Exterior	Pier 1N	Crack	2	24	HL	-	One diagonal shear crack and one horizontal crack	Increase	F7-5						
1	N, Ext.	L	Interior	Pier 1N	Crack	2	24	HL	-	One diagonal shear crack and one horizontal crack	Increase							
1	N, Ext.	L	Exterior	Pier 1N	Crack	2	24	HL	-	One diagonal shear crack and one horizontal crack	Increase							
1	N, Ext.	R	Interior	Pier 1N	Crack	2	24	HL	-	One diagonal shear crack and one horizontal crack	Increase							
1	N, Ext.	R	Interior	Pier 2N	Crack	1	12	HL	-	Diagonal shear crack	New							
1	N, Ext.	L	Interior	Pier 2N	Crack	1	15	HL	-	Diagonal shear crack	New							
1	N, Ext.	L	Exterior	Pier 2N	Crack	2	18	HL	-	One diagonal shear crack and one horizontal crack	New							
1	N, Ext.	R	Exterior	Pier 2N	Crack	1	12	0.02	-	vertical/diagonal crack above the spall.	New	F7-6, F7-7						
1	N, Ext.	R	Exterior	Pier 2N	Spall	1	4	3	1/2	Bottom of stem at the end	New	F7-6, F7-7					1	
1	S	R	Exterior	Pier 2S	Crack	1	20	HL	-	Diagonal shear crack	No Change				2			
1	S, Ext.	R	Interior	Pier 1S	Crack	1	18	HL	-	Horizontal crack, 14" from the bottom	New							
1	S, Ext.	R	Exterior	Pier 1S	Crack	1	18	0.013	-	Horizontal crack, 14" from the bottom	New							
1	S, Ext.	L	Interior	Pier 1S	Crack	1	24	0.013	-	Horizontal crack, 14" from the bottom	New	J8-2						
1	S, Ext.	R	Exterior	Pier 2S	Crack	1	12	0.016	-	Diagonal shear crack	New							
1	S, Ext.	R	Interior	Pier 2S	Crack	1	12	0.013	-	Diagonal shear crack	New							
2	N	L	Exterior	Pier 3N	Crack	1	12	HL	-	Downward diagonal crack	New				1			
2	S	R	Interior	Pier 2S	Efflo.					At junction with pier cap	No Change							
2	S	R	Exterior	Pier 2S	Grout Crack	1	30	HL	-	Vertical grout crack	New							
2	S	R	Exterior	Pier 3S	Crack	2	12	HL	-	Diagonal shear crack	No Change					1		

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
3	N	Both	Both	Throughout	Crack	-	-	HL	-	Shrinkage map cracks on 10% of the surface	No Change							
3	N	L	Exterior	Pier 4N	Crack	1	5	HL	-	Diagonal shear crack	New				1			
3	S	Both	Both	Throughout	Crack	-	-	HL	-	Shrinkage map cracks on 10% of the surface	No Change							
3	S	R	Exterior	Pier 3S	Crack	2	18	HL	-	Diagonal shear cracks	Increase							
3	S	L	Interior	Pier 3S	Crack	?	8	0.013	-	Numerous diagonal shear cracks starting from the bottom of the stem, extending for 6' from the pier.	New					6		
3	S	R	Interior	Pier 3S	Crack	?	8	0.013	-	Numerous diagonal shear cracks starting from the bottom of the stem, extending for 6' from the pier.	New	F8-11						
3	S	R	Exterior	Pier 3S	Grout Crack	1	32	HL	-	Vertical grout crack	New							
3	S	R	Exterior	Pier 4S	Crack	1	9	HL	-	Diagonal shear crack	No Change				1			
4	N	L	Exterior	Pier 4N	Crack	1	12	HL	-	Diagonal shear crack	New				1			
4	N	L	Exterior	Pier 5N	Crack	1	15	HL	-	Diagonal shear crack	No Change							
4	N	R	Exterior	Pier 5N	Crack	1	18	HL	-	Diagonal shear crack	No Change					1.5		
4	N	L	Interior	Pier 5N	Crack	1	12	HL	-	Diagonal shear crack	New							
4	S	Both	Both	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 5% of the surface	No Change							
4	S	R	Exterior	Pier 4S	Crack	1	8	HL	-	Diagonal shear crack	No Change							
4	S	R	Interior	Pier 4S	Crack	2	10	HL	-	Diagonal shear cracks	New					1		
4	S	R	Exterior	Pier 4S	Grout Crack	1	30	HL	-	Vertical grout crack	New							
4	S	R	Interior	Pier 5S	Crack	1	10	HL	-	Diagonal shear crack	No Change					1		
4	S	L	Interior	Pier 5S	Crack	1	9	HL	-	Diagonal shear crack	No Change							
4	S	R	Exterior	Pier 5S	Crack	1	10	HL	-	Diagonal shear crack	New							
5	N	L	Exterior	Pier 5N	Crack	2	36	HL	-	Diagonal shear and radial cracks	No Change					3		



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
5	N	R	Exterior	Pier 5N	Crack	1	18	HL	-	Diagonal shear and radial crack	Increase							
5	N	L	Interior	Pier 5N	Crack	2	18	HL	-	Diagonal shear cracks	New							
5	N	R	Interior	Pier 5N	Crack	3	32	HL	-	Diagonal shear and radial cracks	New							
5	N	L	Exterior	Pier 5N	Grout Crack	1	48	HL	-	Vertical grout crack. Crack turns diagonal into the beam.	New							
5	N	L	Exterior	Pier 6N	Crack	4	30	0.016	-	Diagonal shear and radial cracks	No Change					3		
5	N	L	Interior	Pier 6N	Delam.	1	3	1.5			New						1	
5	N	R	Interior	Pier 6N	Crack	2	36	0.013	-	Diagonal shear cracks with radial surface cracks also present.	New							
5	N	L	Interior	Pier 6N	Crack	2	36	0.013	-	Diagonal shear cracks	New							
5	N	R	Exterior	Pier 6N	Crack	3	33	0.013	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 2"L, otherwise, cracks are up to 0.013" W.	No Change	F8-15						
5	S	Both	Both	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 10% of the surface	No Change							
5	S	L	Exterior	Pier 5S	Crack	1	32	HL	-	Diagonal shear crack	New							
5	S	L	Interior	Pier 5S	Crack	1	36	HL	-	Diagonal shear crack	New					3		
5	S	R	Exterior	Pier 5S	Crack	1	24	HL	-	Diagonal shear crack	Increase							
5	S	L	Exterior	Pier 6S	Crack	4	36	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 2" L, otherwise, cracks are up to 0.013" W.	Increase							
5	S	L	Interior	Pier 6S	Crack	2	36	0.013	-	Diagonal shear cracks	New							
5	S	R	Interior	Pier 6S	Crack	5	42	0.013	-	2 diagonal shear cracks, 2 horizontal cracks	New					4		
5	S	R	Exterior	Pier 6S	Grout Crack	1	42	0.013	-	Vertical grout crack that turns diagonal into the stem.	New							
5	S	R	Exterior	Pier 6S	Crack	3	42	0.016	-	Diagonal shear cracks	No Change	F8-14						
12	N	L	Rear	Pier 12	Spall	1	10	8	3/4		New	F6-16						1

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
12	N	L	Interior	Pier 12	Crack	5	42	0.016	-	Diagonal and radial shear cracks	New							
12	N	R	Interior	Pier 12	Crack	4	42	0.016	-	Diagonal shear cracks	New							
12	N	R	Exterior	Pier 12	Crack	4	48	0.02	-	Diagonal shear cracks	Increase					4		
12	N	L	Exterior	Pier 12	Crack	5	42	0.016	-	Diagonal shear cracks	Increase	F6-17						
12	N	L	Exterior	Pier 13	Poor Patch	1	8	5			New							
12	N	L	Interior	Pier 13	Crack	2	12	HL	-	Downward diagonal cracks	New							
12	N	R	Interior	Pier 13	Crack	1	16	HL	-	Downward diagonal crack	New	F6-23						
12	N	L	Exterior	Pier 13	Crack	-	72	HL	-	Diagonal and radial shear cracks	No Change	F6-24				6		
12	S	L	Interior	Pier 12	Crack	4	54	0.016	-	Diagonal shear cracks	New					5		
12	S	R	Interior	Pier 12	Crack	3	36	0.013	-	Diagonal shear cracks	New							
12	S	R	Exterior	Pier 12	Crack	4	42	0.02	-	Diagonal shear cracks	Increase	F6-19						
12	S	L	Exterior	Pier 12	Crack	4	48	0.016	-	Diagonal shear cracks	No Change							
12	S	R	Exterior	Pier 13	Poor Patch	1	16	6			New	F6-22						
12	S	R	Interior	Pier 13	Crack	1	10	HL	-	Downward diagonal crack	New					1		
13	N	L	Exterior	Pier 13	Poor Patch	1	8	5			New							1
13	N	L	Interior	Pier 14	Poor Patch	1	8	5			New							
13	N	R	Interior	Pier 14	Crack	3	18	HL	-	Diagonal shear cracks	New							
13	N	R	Exterior	Pier 14	Crack	2	12	HL	-	Diagonal shear cracks	New							
13	N	L	Interior	Pier 14	Crack	4	24	HL	-	Diagonal shear cracks	New					2		
13	N	R	?	Pier 14	Crack	1	6	HL	-	Diagonal crack at the bottom corner of the stem	No Change							
13	S	R	Interior	Pier 13	Crack	1	19	HL	-	Downward diagonal crack	New					2		
13	S	R	Exterior	Pier 13	Crack	1	12	HL	-	Diagonal shear cracks	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
13	S	L	Interior	Pier 14	Crack	3	12	HL	-	Diagonal shear cracks	New							
13	S	R	Interior	Pier 14	Crack	4	36	HL	-	Diagonal shear cracks	New					3		
13	S	R	Exterior	Pier 14	Crack	?	14	HL	-	Diagonal shear cracks	Increase							
14	N	R	Interior	Pier 14	Crack	2	18	HL	-	Downward diagonal cracks	New				1			
14	N	L	Interior	Pier 15	Crack	3	42	0.016	-	Diagonal shear cracks	New							
14	N	R	Interior	Pier 15	Crack	3	48	0.013	-	Diagonal shear cracks	New					4		
14	N	R	Exterior	Pier 15	Crack	5	42	0.016	-	Diagonal shear cracks	Increase	F6-27						
14	N	L	Exterior	Pier 15	Crack	5`	48	0.013	-	Diagonal shear cracks	Increase	F6-29						
14	S	R	Exterior	Pier 14	Crack	2	18	HL	-	Diagonal shear cracks	Increase					1.5		
14	S	L	?	Pier 14	Crack	1	18	HL	-	Horizontal crack, mid height	Increase							
14	S	L	Exterior	Pier 15	Crack	5	48	0.016	-	Diagonal shear cracks	New					4		
14	S	L	Interior	Pier 15	Crack	3	48	0.016	-	Diagonal shear cracks	New							
14	S	R	Interior	Pier 15	Crack	4	36	0.016	-	Diagonal shear cracks	New	F6-26						
14	S	R	Exterior	Pier 15	Crack	4	48	0.02	-	Diagonal shear cracks	Increase	F6-25						
15	N	L	Rear	Pier 15	Spall	1	3	3	3/4		Increase							
15	N	L	Interior	Pier 15	Crack	4	48	0.013	-	Diagonal shear cracks	New					4		
15	N	L	Interior	Pier 15	Crack	2	18	HL	-	Downward diagonal cracks	New							
15	N	R	Interior	Pier 15	Crack	4	36	0.013	-	Diagonal shear cracks	New							
15	N	R	Interior	Pier 15	Crack	2	18	HL	-	Diagonal shear cracks	New							
15	N	R	Exterior	Pier 15	Crack	2	18	HL	-	Horizontal cracks	New							
15	N	L	Exterior	Pier 15	Crack	6	48	HL	-	Diagonal shear cracks with numerous radial shrinkage cracks also present	Increase	F6-30						
15	N	R	Exterior	Pier 15	Crack	3	36	HL	-	Diagonal shear and radial cracks	No Change	F6-31						

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
15	N	L	Exterior	Pier 16	Crack	2	30	HL	-	Diagonal shear cracks with numerous radial shrinkage cracks also present	No Change					3		
15	N	L	Both	Pier 16	Crack	-	-	-	-	Shrinkage map cracking at the end 10'.	No Change							
15	S	R	Rear	Pier 15	Spall	1	4	3	1/4		New							
15	S	L	Exterior	Pier 15	Crack	3	42	HL	-	Diagonal shear cracks	New	F6-32				4		
15	S	R	Interior	Pier 15	Crack	2	10	HL	-	Downward diagonal cracks	New							
15	S	R	Exterior	Pier 15	Crack	6	42	0.016	-	Diagonal shear cracks	New							
15	S	R	Exterior	Pier 15	Crack	4	36	0.016	-	Diagonal shear cracks	No Change							
15	S	L	Interior	Pier 15	Crack	3	36	HL	-	Diagonal shear cracks	No Change							
15	S	R	?	Pier 16	Crack	2	15	HL	-	Diagonal shear cracks	Increase					1.5		
15	S	R	?	Pier 16	Crack	-	60	HL	-	Shrinkage map cracking at the end 5'.	No Change							
16	N	L	Exterior	Pier 16	Poor Patch	1	8	5			New							
16	N	L	Interior	Pier 16	Crack	1	18	HL	-	Downward diagonal crack	New					2		
16	N	R	Exterior	Pier 16	Crack	1	12	HL	-	Diagonal shear crack	New							
16	N	R	Interior	Pier 16	Crack	1	18	HL	-	Diagonal shear crack	New							
16	N	L	Exterior	Pier 16	Crack	1	14	HL	-	Diagonal shear crack	Increase							
16	N	L	Interior	Pier 17	Crack	2	36	HL	-	Diagonal shear cracks	New					3		
16	N	R	Exterior	Pier 17	Crack	1	12	HL	-	Diagonal shear crack	New							
16	N	R	Interior	Pier 17	Crack	1	20	HL	-	Diagonal shear crack	New							
16	N	L	Exterior	Pier 17	Crack	3	30	HL	-	Diagonal shear and radial cracks	No Change							
16	S	R	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 10% of the surface	No Change							
16	S	R	Interior	Pier 16	Crack	2	18	HL	-	Diagonal shear cracks	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
16	S	L	Exterior	Pier 16	Crack	1	18	HL	-	Diagonal shear crack	New							
16	S	R	Exterior	Pier 16	Crack	5	24	HL	-	Diagonal shear cracks	No Change					2		
16	S	L	Interior	Pier 16	Crack	3	18	HL	-	Diagonal shear cracks	No Change							
16	S	L	?	Pier 16	Crack	-	-	-	-	Shrinkage map cracking at the end	No Change							
16	S	R	Interior	Pier 17	Crack	2	18	HL	-	Downward diagonal cracks	New							
16	S	L	Interior	Pier 17	Crack	1	24	HL	-	Horizontal crack starting 1' from the cap.	Increase					2		
16	S	R	Exterior	Pier 17	Crack	1	8	HL	-	Diagonal shear crack	No Change							
17	N	R	Exterior	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 20% of the surface	No Change							
17	N	L	Exterior	Pier 17	Crack	3	12	HL	-	Diagonal shear cracks	New							
17	N	L	Interior	Pier 17	Crack	1	12	HL	-	Downward diagonal crack	New							
17	N	R	Interior	Pier 17	Crack	2	18	HL	-	Downward diagonal cracks	New					1.5		
17	N	L	Exterior	Pier 18N	Crack	6	42	0.02	-	Diagonal shear cracks	New	F6-45						
17	N	R	Interior	Pier 18N	Crack	4	36	HL	-	Diagonal shear cracks	New							
17	N	L	Interior	Pier 18N	Crack	6	42	0.013	-	Diagonal shear cracks	Increase							
17	N	R	Exterior	Pier 18N	Crack	3	45	0.013	-	Diagonal shear cracks	No Change	F6-43				4		
17	S	R	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 30% of the surface	No Change							
17	S	L	Bottom	Pier 17	Spall	1	4	2	3/4		New	F6-35, F6-36						
17	S	R	Exterior	Pier 17	Crack	1	12	HL	-	Diagonal shear crack	New				1			
17	S	L	Exterior	Pier 18S	Crack	7	54	0.013	-	Diagonal shear cracks. Hairline radial surface cracks are also present	New					5		
17	S	R	Interior	Pier 18S	Crack	3	48	0.013	-	Diagonal shear cracks	New							
17	S	L	Interior	Pier 18S	Crack	5	51	0.013	-	Diagonal shear cracks	No Change	F6-38						

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
17	S	R	Exterior	Pier 18S	Crack	4	34	0.013	-	Diagonal shear cracks	No Change	F6-41						
18	N	?	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 10% of the surface	No Change							
18	N	L	Interior	Pier 18N	Crack	5	42	0.013	-	Diagonal shear cracks	New					4		
18	N	R	Exterior	Pier 18N	Crack	5	42	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 3"L, otherwise, cracks are up to 0.013" W.	New	F7-22						
18	N	R	Interior	Pier 18N	Crack	3	30	0.013	-	Diagonal shear and radial cracks; crack extending from beam notch is 0.02" W for 3" L, otherwise, cracks are up to 0.013" W.	No Change							
18	N	L	Exterior	Pier 18N	Crack	6	42	0.02	-	Diagonal shear and radial cracks; crack extending from beam notch is 0.02" W for 5" L, otherwise, cracks are up to 0.013" W.	Increase	F7-23						
18	N	L	?	25' from Pier 18N	Popout	1	1	1	1/4	Corrosion staining	No Change						1	
18	N	R	Bottom	25' from Pier 18N	Gouge	1	12	4	1/4		No Change	F7-27						
18	N	L	Interior	Pier 19N	Crack	2	24	HL	-	Diagonal shear cracks	New					2		
18	N	L	Interior	Pier 19N	Crack	1	12	HL	-	Diagonal shear crack	New							
18	N	R	Interior	Pier 19N	Crack	1	18	HL	-	Downward diagonal crack	New							
18	N	R	Exterior	Pier 19N	Crack	2	18	HL	-	Diagonal shear cracks	No Change							
18	S	R	Exterior	Throughout	Crack	-		HL	-	Shrinkage map cracks on 50% of the surface	New	F7-16, 17, 18						
18	S	R	Interior	Beam End?	Spall	1	2	1	1/2		No Change							
18	S	L	Interior	Pier 18S	Crack	3	4	0.013	-	Diagonal shear cracks	New							
18	S	R	Exterior	Pier 18S	Crack	3	48	0.013	-	Diagonal shear cracks	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
18	S	R	Exterior	Pier 18S	Crack	6	41	0.013	-	Diagonal shear cracks	No Change	F7-19						
18	S	L	Exterior	Pier 18S	Crack	5	54	0.02	-	Diagonal shear and radial cracks; crack extending from beam notch is 0.02" W for 3" L, otherwise, cracks are up to 0.013" W.	Increase	F7-20				5		
18	S	R	Exterior	Midspan	Corr. Bleed	1				Due to insufficient cover	No Change	F7-24	1					
18	S	R	Exterior	Pier 19S	Poor Patch	1					New							
18	S	R	Exterior	Pier 19S	Crack	2	12	HL	-	Diagonal shear cracks	New					1		
19	N	L	Exterior	Pier 19N	Crack	1	8	HL	-	Downward diagonal crack	New					1		
19	N	L	Exterior	Pier 20N	Crack	3	24	HL	-	Diagonal shear cracks	New							
19	N	R	Interior	Pier 20N	Crack	1	12	HL	-	Diagonal shear crack	New							
19	N	L	Interior	Pier 20N	Crack	3	24	HL	-	Diagonal shear cracks	No Change							
19	N	R	Exterior	Pier 20N	Crack	3	36	HL	-	Diagonal shear cracks	Increase					3		
19	S	L	Exterior	Pier 19S	Crack	1	10	HL	-	Diagonal shear crack; surface map cracking also present	No Change					1		
19	S	R	Exterior	Pier 19S	Crack	1	8	HL	-	Diagonal shear crack; surface map cracking also present	No Change	F7-56						
19	S	Both	?	Pier 20S	Honey.	?	18	7	1/4		No Change							
19	S	R	Interior	Pier 20S	Crack	3	18	HL	-	Diagonal shear and radial cracks	New					1.5		
19	S	R	Exterior	Pier 20S	Crack	2	18	HL	-	Diagonal shear cracks	Increase							
19	S	L	Exterior	Pier 20S	Crack	2	14	HL	-	Diagonal shear cracks	No Change							
20	N	L	Interior	Pier 20N	Crack	5	24	HL	-	Diagonal shear and radial cracks	New							
20	N	R	Interior	Pier 20N	Crack	4	18	HL	-	Diagonal shear and radial cracks	New							
20	N	R	Exterior	Pier 20N	Crack	2	36	HL	-	One diagonal shear crack and one horizontal crack	Increase					3		

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
20	N	L	Exterior	Pier 20N	Crack	3	24	HL	-	Diagonal shear cracks	Increase							
20	N	L	Interior	Pier 21N	Crack	2	36	0.013	-	Diagonal shear cracks	New							
20	N	R	Interior	Pier 21N	Crack	4	36	HL	-	Diagonal shear and radial cracks	New							
20	N	L	Exterior	Pier 21N	Crack	4	39	0.013	-	Diagonal shear cracks	Increase					3.5		
20	N	R	Exterior	Pier 21N	Crack	3	36	0.016	-	Diagonal shear cracks	Increase							
20	S	L	Exterior	Pier 20S	Crack	1	12	HL	-	Diagonal shear crack	Increase					1		
20	S	R	Exterior	Pier 20S	Crack	1	12	HL	-	Diagonal shear crack; surface map cracking also present	Increase							
20	S	R	Interior	Pier 21S	Delam.	1	7	3		Delamination on north face of south stem, 7"x 3"	New	F7-52						
20	S	L	Interior	Pier 21S	Crack	1	18	HL	-	Downward diagonal crack	New							
20	S	L	Interior	Pier 21S	Crack	4	30	HL	-	Diagonal shear cracks	New							
20	S	R	Interior	Pier 21S	Crack	3	36	0.016	-	Diagonal shear cracks	New					3		
20	S	L	Bottom	Pier 21S	Spall	1	5	4	1 1/2		No Change							
20	S	L	Exterior	Pier 21S	Crack	3	32	0.016	-	Diagonal shear cracks								
20	S	R	Exterior	Pier 21S	Crack	5	30	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 2" L, otherwise, cracks are up to 0.013" W.	Increase	F7-53						
21	N	L	Exterior	Pier 21N	Honey.	1	6	6	1/4		New	F7-30						
21	N	L	Interior	Pier 21N	Crack	2	42	0.016	-	Diagonal shear cracks	New					4		
21	N	R	Interior	Pier 21N	Crack	1	30	0.016	-	Diagonal shear crack	New							
21	N	L	Exterior	Pier 21N	Crack	3	36	0.016	-	Diagonal shear cracks	No Change							
21	N	R	Exterior	Pier 21N	Crack	3	36	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 4" L, otherwise, cracks are up to 0.013" W.	Increase	F7-31						



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
21	N	L	Bottom	8' from Pier 21N	Spall	1	3	2	1/4		No Change						1	
21	N	L	Bottom	20' from Pier 21N	Gouge	?	24	2	1/4		No Change						2	
21	N	R	Exterior	Pier 22N	Delam.	1	8	7	2 1/2	located at the bottom edge of the stem	New	F7-33						
21	N	L	Exterior	Pier 22N	Crack	3	24	HL	-	Diagonal shear cracks	Increase					2		
21	N	R	Exterior	Pier 22N	Crack	2	24	HL	-	Diagonal shear cracks	No Change							
21	S	R	Bottom	Pier 21S	Spall	1	2	3	1/4		No Change							
21	S	L	Interior	Pier 21S	Crack	1	24	0.013	-	Diagonal shear crack	New							
21	S	R	Interior	Pier 21S	Crack	1	30	0.013	-	Diagonal shear crack	New							
21	S	L	Exterior	Pier 21S	Spall	1	4	4	1	Adjacent to bearing plate	No Change	F7-49						
21	S	L	Exterior	Pier 21S	Crack	3	36	0.016	-	Diagonal shear cracks	No Change							
21	S	R	Exterior	Pier 21S	Crack	3	36	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 6" L, otherwise, cracks are up to 0.013" W.	Increase	F7-54				3		
21	S	L	Interior	Pier 22S	Crack	1	24	HL	-	Diagonal shear crack	New							
21	S	R	Interior	Pier 22S	Crack	1	24	HL	-	Diagonal shear crack	New							
21	S	R	Exterior	Pier 22S	Crack	2	36	HL	-	Diagonal shear cracks	No Change					3		
21	S	L	Exterior	Pier 22S	Crack	2	21	HL	-	Diagonal shear cracks	Increase							
22	N	R	Interior	Pier 22N	Crack	2	12	0.016	-	Diagonal shear cracks	New						1	
22	N	L	Exterior	Pier 23N	Crack	2	18	HL	-	Diagonal shear cracks with shrinkage map cracking also present	Increase					1.5		
22	S	L	Interior	Pier 22S	Crack	2	18	HL	-	Diagonal shear and radial cracks	New							
22	S	R	Interior	Pier 22S	Crack	2	18	HL	-	Diagonal shear cracks	New							
22	S	L	Exterior	Pier 22S	Crack	2	12	HL	-	Diagonal shear cracks	Increase							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
22	S	R	Exterior	Pier 22S	Crack	2	26	HL	-	Diagonal shear cracks	Increase					2.5		
22	S	R	Interior	Pier 23S	Crack	1	10	HL	-	Diagonal shear crack	New							
22	S	R	Exterior	Pier 23S	Crack	2	12	HL	-	Diagonal shear cracks	Increase					1		
22	S	L	Interior	Pier 23S	Crack	1	10	HL	-	Diagonal shear crack	Increase							
23	S	L	Bottom	Pier 23S	Honey.	1	4	2	1/2		New							
23	S	R	Exterior	Pier 23S	Crack	2	6	HL	-	Diagonal shear cracks	No Change					1		
23	S	R	Exterior	Pier 23S	Grout Crack	1	24	HL	-	Vertical grout crack	No Change							
23	S	L	Interior	Pier 24S	Crack	1	12	HL	-	Diagonal shear crack	New							
23	S	R	Interior	Pier 24S	Crack	1	18	HL	-	Diagonal shear crack	New							
23	S	L	Both	Pier 24S	Grout Crack	1	24	HL	-	Vertical grout crack	No Change					1		
23	S	R	Exterior	Pier 24S	Crack	2	9	HL	-	Diagonal shear cracks	No Change							
23	S	L	Exterior	Pier 24S	Crack	2	9	HL	-	Diagonal shear cracks	No Change							
24	N	L	Interior	Pier 24N	Crack	2	12	HL	-	Diagonal shear cracks	New							
24	N	R	Interior	Pier 24N	Crack	3	18	HL	-	Diagonal shear cracks	New							
24	N	R	Exterior	Pier 24N	Crack	1	36	HL	-	Diagonal shear crack	No Change					3		
24	N	L	Exterior	Pier 24N	Crack	3	24	HL	-	Diagonal shear cracks	Increase							
24	N	L	Bottom	10' from Pier 24N	Spall	1	5	2	1/2		No Change	F7-37					1	
24	N	?	?	6' from Pier 25N	Crack	-	-	-	-	Shrinkage map cracking	No Change							
24	N	L	Interior	Pier 25N	Crack	2	36	0.013	-	Diagonal shear cracks	New							
24	N	R	Interior	Pier 25N	Crack	2	36	0.016	-	Diagonal shear cracks with numerous shrinkage cracks also present	New	F7-41						
24	N	R	Exterior	Pier 25N	Crack	3	30	0.016	-	Diagonal shear cracks	No Change							
24	N	L	Exterior	Pier 25N	Crack	3	42	0.016	-	Diagonal shear cracks	Increase	F7-4				4		

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
24	S	Both	Both	Throughout	Crack	-	-	-	-	Shrinkage map cracking	No Change							
24	S	L	Interior	Pier 24S	Crack	2	20	HL	-	Diagonal shear and radial cracks	New							
24	S	R	Interior	Pier 24S	Crack	6	12	0.013	-	Diagonal shear and radial cracks	New	F8-7						
24	S	R	Both	Pier 24S	Grout Crack	-	-	-	-	Vertical grout crack	No Change							
24	S	R	Exterior	Pier 24S	Crack	4	24	HL	-	Diagonal shear and radial cracks	Increase							
24	S	L	Exterior	Pier 24S	Crack	2	36	HL	-	Diagonal shear cracks	No Change					3		
24	S	L	Interior	Pier 25S	Crack	2	42	0.016	-	Diagonal shear cracks	New					4		
24	S	R	Interior	Pier 25S	Crack	2	30	0.016	-	Diagonal shear cracks	New							
24	S	R	Exterior	Pier 25S	Crack	4	30	0.03	-	Diagonal shear cracks; crack extending from beam notch is 0.03" W for 2" L, otherwise, cracks are up to 0.013" W.	Increase	F8-1						
24	S	L	Exterior	Pier 25S	Crack	2	31	0.03	-	Diagonal shear cracks; crack extending from beam notch is 0.03" W for 3" L, otherwise, cracks are up to 0.013" W.	Increase	F8-2						
25	N	Both	Both	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 20% of the surface	No Change							
25	N	L	Interior	Pier 25N	Crack	3	42	0.013	-	Diagonal shear and radial cracks	New					4		
25	N	R	Interior	Pier 25N	Crack	2	36	HL	-	Diagonal shear cracks with numerous shrinkage cracks also present	New							
25	N	R	Exterior	Pier 25N	Crack	5	36	0.016	-	Diagonal shear and radial cracks	New	F7-44						
25	N	R	Bottom	Pier 25N	Delam.	1	12	4		Accompanied by a wrap under crack	No Change						1	
25	N	R	Exterior	Pier 25N	Spall	1	2	1	1/2		New						1	
25	N	R	Exterior	Pier 25N	Crack	3	28	0.016	-	Diagonal shear cracks	No Change							
25	N	R	?	Pier 25N	Crack	1	10	HL	-	Bottom corner of stem	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
25	N	L	Exterior	Pier 25N	Crack	2	27	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 4" L, otherwise, cracks are up to 0.013" W.	Increase							
25	N	L	Interior	Pier 26N	Crack	2	12	HL	-	Diagonal shear and radial cracks	New							
25	N	R	Interior	Pier 26N	Crack	2	12	HL	-	Downward diagonal cracks	New							
25	N	L	Exterior	Pier 26N	Crack	2	36	HL	-	Diagonal shear cracks	No Change					3		
25	N	R	?	Pier 26N	Crack	1	6	HL	-	Horizontal crack at the bottom corner of south stem	No Change							
25	N	R	?	Pier 26N	Delam.	1	7	4	3 1/2	Bottom corner of south stem	No Change							
25	N	?	?	Pier 26N	Crack	1		HL	-	Horizontal crack extending from the dapped end notch	No Change							
25	N	R	Exterior	Pier 26N	Crack	2	36	HL	-	Diagonal shear cracks	No Change	F7-45						
25	S	Both	Both	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 40% of the surface	No Change							
25	S	L	Interior	Pier 25S	Crack	3	24	HL	-	Diagonal shear and radial cracks	New							
25	S	L	Interior	Pier 25S	Crack	4	36	0.013	-	Diagonal shear and radial cracks	New							
25	S	R	Interior	Pier 25S	Crack	4	42	0.013	-	Diagonal shear and radial cracks	New					4		
25	S	R	Exterior	Pier 25S	Crack	3	36	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 2" L, otherwise, cracks are up to 0.013" W.	No Change							
25	S	L	Exterior	Pier 25S	Crack	3	36	0.016	-	Diagonal shear cracks	No Change							
25	S	Both	Both	Pier 25S	Crack	-	-	-	-	Shrinkage map cracking at the end 4'.	No Change							
25	S	R	Interior	Pier 26S	Crack	3	24	HL	-	Diagonal shear and radial cracks, numerous shrinkage cracks also present	New					2		
25	S	L	Exterior	Pier 26S	Crack	3	24	HL	-	Diagonal shear and radial cracks	Increase							
25	S	R	Exterior	Pier 26S	Crack	4	20	0.013	-	Diagonal shear cracks	Increase							
25	S	Both	Both	Pier 26S	Grout Crack	2		HL	-	Vertical grout crack	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
26	N	L	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 20% of the surface	No Change							
26	N	L	Interior	Pier 26N	Crack	2	30	HL	-	Diagonal shear and radial cracks	New							
26	N	R	Interior	Pier 26N	Crack	1	30	HL	-	Diagonal shear crack	New							
26	N	R	Both	Pier 26N	Grout Crack	1		HL	-	Vertical grout crack	No Change							
26	N	L	Exterior	Pier 26N	Crack	2	42	HL	-	Diagonal shear cracks	Increase					4		
26	N	R	Exterior	Pier 26N	Crack	3	18	HL	-	Diagonal shear and radial cracks	Increase							
26	N	R	Both	Pier 26N	Grout Crack	1		HL	-	Vertical grout crack	No Change							
26	N	R	?	20' from Pier 26N	Spall	1	2 1/2	3.5	1/2		No Change						1	
26	N	L	Interior	Pier 27N	Crack	-		HL	-	Typical radial shrinkage cracks	New							
26	N	R	Interior	Pier 27N	Crack	2	18	HL	-	Diagonal shear and radial cracks	New							
26	N	R	Both	Pier 27N	Grout Crack	1		HL	-	Vertical grout crack	No Change							
26	N	R	Both	Pier 27N	Grout Crack	1		HL	-	Vertical grout crack	No Change							
26	N	L	Exterior	Pier 27N	Crack	2	30	HL	-	Diagonal shear cracks	No Change					3		
26	N	R	Exterior	Pier 27N	Crack	2	12	HL	-	Diagonal shear cracks	No Change							
26	S	R	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 10% of the surface	No Change							
26	S	L	Interior	Pier 26S	Crack	2	18	HL	-	Diagonal shear and radial cracks	New							
26	S	R	Interior	Pier 26S	Crack	2	14	HL	-	Diagonal shear cracks with numerous shrinkage cracks also present	New							
26	S	L	?	Pier 26S	Crack	-	-	-	-	Shrinkage map cracking at the end 6'.	No Change							
26	S	R	Exterior	Pier 26S	Crack	2	20	HL	-	Diagonal shear cracks	No Change							
26	S	L	Exterior	Pier 26S	Crack	2	24	HL	-	Diagonal shear cracks	No Change					2		
26	S	Both	Both	Pier 26S	Grout Crack	1		HL	-	Vertical grout crack	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
26	S	L	Exterior	Pier 27S	Crack	3	16	HL	-	Diagonal shear cracks with numerous radial shrinkage cracks also present	New							
26	S	L	Interior	Pier 27S	Crack	2	18	HL	-	Diagonal shear and radial cracks with numerous shrinkage cracks also present	New					1.5		
26	S	R	Interior	Pier 27S	Crack	2	14	HL	-	Diagonal shear cracks with numerous radial shrinkage cracks also present	New							
26	S	R	Exterior	Pier 27S	Crack	1	6	HL	-	Diagonal shear crack with shrinkage radial cracking also present	No Change							
27	N	?	?	Throughout	Crack	-		HL	-	Shrinkage map cracks on 50% of the surface	No Change							
27	N	L	Interior	Pier 27N	Crack	2	18	HL	-	Diagonal shear and radial cracks	New							
27	N	R	Exterior	Pier 27N	Crack	2	48	HL	-	Diagonal shear cracks	Increase					4		
27	N	L	Exterior	Pier 27N	Crack	2	11	HL	-	Diagonal shear and radial cracks	Increase							
27	N	R	Interior	Pier 27N	Crack	2	24	HL	-	Diagonal shear and radial cracks	No Change							
27	N	L	Exterior	Pier 27N	Crack	1	84	0.01	-	Horizontal crack extending from the dapped end notch	No Change	F8-6						
27	N	L	Interior	Pier 28N	Crack	1	12	HL	-	Downward diagonal crack	New							
27	N	R	Exterior	Pier 28N	Crack	5	36	0.013	-	Diagonal shear and radial cracks	Increase					3		
27	N	R	?	Pier 28N	Crack	-		HL	-	Shrinkage map cracking at the end 4'.	No Change							
27	N	L	Exterior	Pier 28N	Patch Cracking	1	12	HL		bottom of stem	No Change							
27	N	L	Exterior	Pier 28N	Crack	3	30	0.013	-	Diagonal shear and radial cracks	Increase							
27	N	L	Exterior	Pier 28N	Crack	-		HL	-	Shrinkage map cracking at the end 4'.	No Change							
27	S	L	Exterior	Pier 27S	Crack	1	12	HL	-	Diagonal shear crack	New							
27	S	L	Interior	Pier 27S	Crack	1	12	HL	-	Downward diagonal crack	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
27	S	R	Interior	Pier 27S	Crack	2	36	HL	-	Downward diagonal cracks	Increase					3		
27	S	R	Exterior	Pier 27S	Crack	4	24	HL	-	Diagonal shear and radial cracks with shrinkage radial cracking also present	No Change	F8-4						
27	S	R	?	15' from Pier 28S	Gouge	1	15	2			No Change					1		
27	S	L	Interior	16' from Pier 28S	Spall	3	11	4	1/2		No Change	F9-56						3
27	S	L	Interior	Pier 28S	Crack	2	36	HL	-	Diagonal shear and radial cracks	New					3		
27	S	R	Interior	Pier 28S	Crack	2	36	HL	-	Diagonal shear and radial cracks	New							
27	S	R	Exterior	Pier 28S	Crack	2	24	HL	-	Diagonal shear cracks	No Change							
27	S	L	Exterior	Pier 28S	Crack	5	30	HL	-	Diagonal shear and radial cracks	Increase							
28	N	L	Exterior	Pier 28N	Crack	1	12	HL	-	Diagonal shear crack	New							
28	N	R	Exterior	Pier 28N	Crack	2	18	HL	-	Diagonal shear and radial cracks	New					1.5		
28	N	L	Interior	Pier 29	Crack	3	30	HL	-	Diagonal shear cracks	New							
28	N	R	Interior	Pier 29	Crack	4	36	HL	-	Diagonal shear cracks	New							
28	N	R	Exterior	Pier 29	Crack	5	37	0.016	-	Diagonal shear cracks	No Change					3.5		
28	N	L	Exterior	Pier 29	Crack	4	32	0.016	-	Diagonal shear cracks	No Change	F9-53						
28	S	R	Exterior	Pier 28S	Poor Patch	1				Sandy patch is cracking	No Change							
28	S	L	Exterior	Pier 28S	Crack	1	12	HL	-	Diagonal shear crack	New							
28	S	L	Interior	Pier 28S	Crack	1	18	HL	-	Downward diagonal crack	New							
28	S	R	Exterior	Pier 28S	Crack	2	24	HL	-	Diagonal shear and radial cracks with shrinkage map cracking also present	No Change					2		
28	s	L	Interior	Pier 29	Crack	5	42	0.013	-	Diagonal shear and radial cracks	New							
28	S	R	Interior	Pier 29	Crack	5	42	HL	-	Diagonal shear and radial cracks	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
28	S	R	Exterior	Pier 29	Crack	5	54	0.013	-	Diagonal shear cracks	Increase	F9-50				5		
28	S	L	Exterior	Pier 29	Crack	6	42	0.013	-	Diagonal shear cracks with shrinkage map cracking also present	No Change	F9-52						
32	N	L	Rear	Pier 32	Spall	1	6	4	1		No Change	F11-15						
32	N	L	Exterior	Pier 32	Crack	6	42	0.013	-	Diagonal shear cracks	No Change	F11-16						
32	N	L	Interior	Pier 32	Crack	3	48	0.013	-	Diagonal shear and radial cracks	New					4		
32	N	R	Interior	Pier 32	Crack	3	48	0.013	-	Diagonal shear cracks	New							
32	N	R	Exterior	Pier 32	Crack	4	36	HL	-	Diagonal shear cracks	New							
32	N	L	Interior	Pier 33	Crack	1	18	HL	-	Diagonal shear cracks	New					1.5		
32	N	R	Interior	Pier 33	Crack	1	18	HL	-	Downward diagonal crack	New							
32	S	R	Exterior	Pier 32	Crack	7	36	0.013	-	Diagonal shear cracks	Increase	F11-13				3		
32	S	L	Exterior	Pier 32	Crack	3	36	0.02	-	Diagonal shear cracks	No Change							
32	S	L	Interior	Pier 32	Crack	2	36	0.013	-	Diagonal shear cracks	New							
32	S	R	Interior	Pier 32	Crack	2	36	0.013	-	Diagonal shear cracks	New							
32	S	R	Exterior	Pier 33	Crack	1	18	HL		Diagonal shear cracks	No Change				1			
33	N	R	Interior	Pier 33	Crack	1	12	HL	-	Downward diagonal crack	New							
33	N	L	Exterior	Pier 33	Crack	2	24	HL	-	Diagonal shear and radial cracks	Increase					2		
33	N	R	Exterior	Pier 33	Crack	1	29	HL	-	Diagonal shear crack	No Change							
33	N	L	Interior	Pier 34	Crack	2	24	HL	-	Diagonal shear and radial cracks	New							
33	N	R	Interior	Pier 34	Crack	1	24	HL	-	Downward diagonal crack	New							
33	N	L	?	Pier 34	Crack	3	24	HL	-	Diagonal shear and radial cracks	No Change					2		
33	N	R	Exterior	Pier 34	Crack	1	18	HL	-	Downward diagonal crack	No Change							



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
33	S	R	Interior	Pier 33	Crack	1	12	HL	-	Horizontal crack extending from the dapped end notch	New							
33	S	R	Exterior	Pier 33	Crack	1	12	HL	-	Downward diagonal crack	New							
33	S	L	Interior	Pier 33	Crack	1	12	HL	-	Downward diagonal crack	No Change					1		
33	S	L	Exterior	Pier 34	Crack	1	30	HL	-	Downward diagonal crack	New							
33	S	L	Interior	Pier 34	Crack	1	24	HL	-	Downward diagonal crack	New							
33	S	R	Interior	Pier 34	Crack	2	24	HL	-	Diagonal shear and radial cracks	New							
33	S	R	Exterior	Pier 34	Crack	3	30	HL	-	Diagonal shear and radial cracks	No Change					3		
34	N	L	Interior	Pier 34	Crack	1	18	HL	-	Downward diagonal crack	New							
34	N	R	Interior	Pier 34	Crack	1	18	HL	-	Downward diagonal crack	New							
34	N	L	Exterior	Pier 34	Crack	2	20	HL	-	Diagonal shear cracks	No Change					2		
34	N	L	Interior	Pier 35	Crack	5	30	0.013	-	Diagonal shear and radial cracks	New							
34	N	R	Interior	Pier 35	Crack	5	24	HL	-	Diagonal shear cracks	New							
34	N	L	Exterior	Pier 35	Crack	4	36	0.013	-	Diagonal shear and radial cracks	Increase					3		
34	N	R	Exterior	Pier 35	Crack	4	36	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 2" L, otherwise, cracks are up to 0.013" W.	Increase							
34	S	L	Interior	Pier 34	Crack	1	12	HL	-	Downward diagonal crack	No Change							
34	S	R	Exterior	Pier 34	Crack	2	18	HL	-	Diagonal shear cracks	No Change					1.5		
34	S	Both	?	Pier 34	Crack	-	-	-	-	Shrinkage map cracking at the end 3'.	No Change							
34	S	L	Interior	Pier 35	Crack	4	36	0.016	-	Diagonal shear and radial cracks; crack extending from beam notch is 0.016" W for 3"L, otherwise, cracks are up to 0.013" W.	New							
34	S	R	Interior	Pier 35	Crack	5	36	0.013	-	Diagonal shear and radial cracks	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
34	S	R	Exterior	Pier 35	Crack	4	36	0.016	-	Diagonal shear cracks	No Change	F11-19						
34	S	L	Bottom	Pier 35	Spall	1	8	12	1		No Change							
34	S	L	Exterior	Pier 35	Crack	3	39	0.016	-	Diagonal shear cracks	No Change					3.5		
35	N	Both	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 5% of the surface	No Change							
35	N	L	Interior	Pier 35	Crack	3	30	0.013	-	Diagonal shear cracks	New							
35	N	R	Interior	Pier 35	Crack	3	36	0.013	-	Diagonal shear cracks	New					3		
35	N	L	Interior	Pier 35	Crack	2	18	HL	-	Diagonal shear and radial cracks	New							
35	N	R	Interior	Pier 35	Crack	1	24	HL	-	Downward diagonal crack	New							
35	N	L	Exterior	Pier 35	Crack	4	36	0.013	-	Diagonal shear cracks	Increase							
35	N	R	Exterior	Pier 35	Crack	2	36	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 2" L, otherwise, cracks are up to 0.013" W.	No Change							
35	N	R	Exterior	Pier 36	Crack	1	12	HL	-	Diagonal shear crack	New							
35	N	L	Exterior	Pier 36	Crack	2	10	HL	-	Diagonal shear cracks	Increase					1		
35	S	L	Interior	Pier 35	Crack	2	24	0.013	-	Diagonal shear cracks	New							
35	S	R	Interior	Pier 35	Crack	1	20	HL	-	Downward diagonal crack	New							
35	S	R	Interior	Pier 35	Crack	2	36	0.013	-	Diagonal shear cracks	New							
35	S	L	Exterior	Pier 35	Crack	5	60	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 3" L, otherwise, cracks are up to 0.013" W.	No Change	F11-23				5		
35	S	L	Exterior	Pier 35	Crack	3	18	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 2" L, otherwise, cracks are up to 0.013" W.	No Change							
35	S	R	Exterior	Pier 36	Crack	1	12	HL	-	Diagonal shear crack	New					1		
35	S	L	Exterior	Pier 36	Crack	1	12	HL	-	Diagonal shear crack	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
36	N	R	Interior	Pier 36	Crack	3	18	HL	-	Diagonal shear and radial cracks	New					1.5		
36	N	L	Exterior	Pier 36	Crack	1	14	HL	-	Diagonal shear crack	No Change							
36	N	L	Interior	Pier 36	Crack	3	18	HL	-	Diagonal shear and radial cracks	No Change							
36	N	R	Exterior	Pier 36	Crack	3	18	HL	-	Diagonal shear and radial cracks	Increase							
36	N	R	Interior	Pier 37	Delam.	1	7	6	3	located at the bottom edge of the stem	No Change	F11-28						
36	N	R	Interior	Pier 37	Crack	2	24	HL	-	Downward diagonal cracks	New							
36	N	L	Interior	Pier 37	Crack	2	24	HL	-	Diagonal shear and radial cracks	New							
36	N	R	Exterior	Pier 37	Crack	2	18	HL	-	Diagonal shear and radial cracks	New							
36	N	L	Interior	Pier 37	Crack	1		HL	-	Shrinkage map cracking at the end 4'.	No Change							
36	N	L	Exterior	Pier 37	Crack	3	26	HL	-	Diagonal shear and radial cracks	No Change					2.5		
36	S	R	Interior	Pier 36	Crack	1	19	HL	-	Downward diagonal crack	No Change				2			
36	S	R	Interior	Pier 37	Crack	1	18	HL	-	Downward diagonal crack	New							
36	S	L	Interior	Pier 37	Crack	1	12	HL	-	Diagonal shear crack	New							
36	S	R	Exterior	Pier 37	Crack	1	24	HL	-	Diagonal shear crack	No Change	F11-27				2		
36	S	R	Exterior	Pier 37	Crack	1	9	HL	-	Transverse crack on the underside of the stem that runs upward for 3" on the south face.	New	F11-27						
37	N	L	Interior	Pier 37	Crack	3	18	HL	-	Downward diagonal cracks	New					1.5		
37	N	L	Exterior	Pier 37	Crack	1	18	HL	-	Diagonal shear crack	Increase							
37	N	L	Bottom	Pier 37	Delam.	1	8	8	5		New							
37	N	R	Interior	Pier 37	Crack	3	12	HL	-	Downward diagonal cracks	New							
37	N	L	Interior	Pier 38	Crack	4	42	0.013	-	Diagonal shear and radial cracks	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
37	N	R	Interior	Pier 38	Crack	4	42	HL	-	Diagonal shear cracks	New							
37	N	R	Exterior	Pier 38	Crack	3	48	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 3" L, otherwise, cracks are up to 0.013" W.	Increase	F11-33				4		
37	N	L	Exterior	Pier 38	Crack	3	39	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 4" L, otherwise, cracks are up to 0.013" W.	No Change							
37	S	?	?	Throughout	Crack	-		HL	-	Shrinkage map cracks on 10% of the surface	No Change							
37	S	R	Interior	Pier 37	Crack	2	24	HL	-	Diagonal shear and radial cracks	Increase					2		
37	S	L	Exterior	Pier 38	Crack	3	24	0.013	-	Diagonal shear cracks	New							
37	S	L	Interior	Pier 38	Crack	3	30	0.013	-	Diagonal shear cracks	New							
37	S	R	Interior	Pier 38	Crack	3	24	0.013	-	Diagonal shear and radial cracks	New							
37	S	L	?	Pier 38	Spall	1	8	4	1/2		No Change							
37	S	R	Exterior	Pier 38	Crack	5	34	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 4" L, otherwise, cracks are up to 0.013" W.	Increase					3		
38	N	L	Interior	Pier 38	Crack	4	42	0.013	-	Diagonal shear and radial cracks	New					4		
38	N	R	Interior	Pier 38	Crack	4	30	HL	-	Diagonal shear cracks	New							
38	N	R	Bottom	Pier 38	Crack	1	8	HL	-	Diagonal crack in bottom end stem repair.	New	F11-39						
38	N	L	Exterior	Pier 38	Crack	2	30	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 3" L, otherwise, cracks are up to 0.013" W. There is also a minor amount of unconsolidated concrete in the dapped corner.	No Change	F11-38						
38	N	R	Exterior	Pier 38	Crack	4	42	0.013	-	Diagonal shear and radial cracks	Increase							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
38	N	R	Bottom	Midspan	Spall	1	14	4	5/8		No Change	F11-40						1
38	N	L	Exterior	Pier 39N	Crack	1	18	HL	-	Downward diagonal crack	New					1.5		
38	N	L	Interior	Pier 39N	Crack	1	12	HL	-	Downward diagonal crack	No Change							
38	S	L	Exterior	Pier 38	Crack	4	48	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 3"L, otherwise, cracks are up to 0.013" W.	New					4		
38	S	L	Interior	Pier 38	Crack	3	24	HL	-	Diagonal shear cracks	New							
38	S	R	Interior	Pier 38	Crack	4	24	HL	-	Diagonal shear and radial cracks	New							
38	S	R	Exterior	Pier 38	Crack	4	30	0.013	-	Diagonal shear and radial cracks	No Change							
38	S	R	Interior	Pier 39S	Crack	3	18	HL	-	Diagonal shear and radial cracks	New						1.5	
38	S	R	Exterior	Pier 39S	Crack	2	18	HL	-	Diagonal shear and radial cracks	No Change							
38	S	L	Both	Pier 39S	Grout Crack	1		HL	-	Vertical grout crack	No Change							
39	N	L	Exterior	Pier 39N	Crack	1	18	HL	-	Diagonal shear crack	New						1.5	
39	N	L	Interior	Pier 39N	Crack	2	12	HL	-	Downward diagonal cracks	New							
39	N	R	Interior	Pier 39N	Crack	2	12	HL	-	Downward diagonal cracks	New							
39	N	L	Interior	Pier 40N	Crack	2	36	0.013	-	Diagonal shear cracks	New							
39	N	R	Interior	Pier 40N	Crack	2	36	0.013	-	Diagonal shear cracks	New							
39	N	R	Exterior	Pier 40N	Crack	5	36	0.013	-	Diagonal shear cracks with shrinkage map cracking also present	Increase					3		
39	N	?	?	Pier 40N	Crack	-	-	-	-	Shrinkage map cracking at the end 3'.	No Change							
39	N	L	Exterior	Pier 40N	Crack	3	18	0.016	-	Diagonal shear cracks	Increase							
39	S	?	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 10% of the surface	No Change							
39	S	R	Exterior	Pier 39S	Crack	1	8	HL	-	Diagonal shear crack	Increase				1			

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
39	S	L	Exterior	Pier 40S	Crack	4	30	HL	-	Diagonal shear cracks	No Change							
39	S	L	Interior	Pier 40S	Crack	4	36	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 3" L, otherwise, cracks are up to 0.013" W.	Increase				3			
39	S	R	Exterior	Pier 40S	Crack	6	30	0.013	-	Diagonal shear cracks	Increase							
39	S	R	Interior	Pier 40S	Crack	5	30	0.013	-	Diagonal shear cracks	Increase							
40	N	?	?	Throughout	Crack	-		HL	-	Shrinkage map cracking at the end 3'.								
40	N	R	Exterior	?	Crack	3	36	0.013	-	Diagonal shear cracks	No Change							
40	N	L	Interior	Pier 40N	Crack	4	36	0.013	-	Diagonal shear cracks	New					3		
40	N	R	Interior	Pier 40N	Crack	4	30	0.013	-	Diagonal shear and radial cracks	New							
40	N	L	Exterior	Pier 40N	Crack	3	36	0.013	-	Diagonal shear and radial cracks	No Change							
40	N	R	Exterior	Pier 41N	Crack	1	18	HL	-	Diagonal shear crack	New				1.5			
40	S	Both	Both	Throughout	Crack	-		HL	-	Shrinkage map cracks on 10% of the surface								
40	S	L	Interior	Pier 40S	Crack	4	36	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 3"L, otherwise, cracks are up to 0.013" W.	New							
40	S	R	Interior	Pier 40S	Crack	3	36	0.013	-	Diagonal shear cracks	New							
40	S	L	Exterior	Pier 40S	Crack	4	54	0.016	-	Diagonal shear cracks	No Change	F12-4				5		
40	S	R	Rear	Pier 40S	Spall	1	5	4	1/2		No Change							
40	S	R	Exterior	Pier 40S	Crack	5	24	0.013	-	Diagonal shear cracks	Increase							
40	S	L	Interior	Pier 41S	Crack	1	12	HL	-	Downward diagonal crack	New							
40	S	R	Interior	Pier 41S	Crack	2	12	HL	-	Downward diagonal cracks	New							
40	S	R	Exterior	Pier 41S	Crack	2	14	HL	-	Diagonal shear cracks	Increase	F12-9				1.5		
40	S	L	Exterior	Pier 41S	Crack	-		HL	-	Radial shrinkage cracks	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
41	N	L	Exterior	12' from Pier 42N	Crack	4	48	HL	-	Diagonal shear cracks	New	F12-25			-			
41	N	L	Bottom	15' from Pier 41	Spall	1	6	2	1/2	4" of exposed rebar due to insufficient cover.	No Change						1	
41	N	L	Bottom	Pier 41	Spall	1	5	2	1/2	4" of exposed rebar due to insufficient cover.	No Change	F12-19					1	
41	N	L	Exterior	Throughout	Patch Failure	?	2.5	2.5		There is a row of patches 2.5"x2.5" space 2' apart at the top and bottom of the stem. 10 are spalled off. Some with exposed steel.	New	F12-21			-		23	
41	N	Both	Both	Throughout	Crack	-	Full Height	0.016	-	Vertical flexural cracks that wrap under, spaced ~1.5' (6" spacing mid span)	No Change	F12-22, F12-23			52			
41	N-Cross	Both	Both	Throughout	Crack	-	Full Height	0.02	-	Vertical flexural cracks in the middle 2/3L that wrap under, spacing is 6" or less in the middle 20'.	No Change	F13-10-16			-			
41	S	R	Interior	Pier 41S	Crack	2	18	HL	-	Diagonal shear and radial cracks	New							
41	S	L	Interior	Pier 41S	Crack	3	12	HL	-	Diagonal shear and radial cracks; shrinkage cracks also present	New							
41	S	L	Exterior	Pier 41S	Crack	3	30	0.013	-	Diagonal shear and radial cracks	No Change						3	
41	S	R	Exterior	Pier 41S	Crack	2	18	HL	-	Diagonal shear and radial cracks	No Change							
41	S	R	Exterior	Pier 42S	Crack	2	9	0.013	-	Downward diagonal cracks	New						1	
42	N	R	Interior	Pier 42N	Crack	1	24	HL	-	Diagonal shear crack	New					2		
42	N	L	?	6'-8' from Pier 42N	Crack			HL	-	Shrinkage map cracking	No Change							
42	N	R	?	8' from Pier 43N	Crack			HL	-	Shrinkage map cracking	No Change							
42	N	R	Interior	Pier 43N	Crack	1	12	HL	-	Downward diagonal crack	New							
42	N	L	Interior	Pier 43N	Crack	2	12	HL	-	Diagonal shear cracks	New							
42	N	R	Exterior	Pier 43N	Crack	2	30	HL	-	Diagonal shear cracks	New						3	

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
42	N	L	L	Pier 43N	Crack	1	18	HL	-	Diagonal shear crack	No Change							
42	N	L	Both	Pier 43N	Grout Crack	1		HL	-	Vertical grout crack	No Change							
42	S	-	-	Bay ?	Crack	?	36	HL	-	Second diaphragm west of Pier 43S exhibits diagonal hairline cracks up to 3'L.	No Change							
42	S	-	-	Bay ?	Crack	1	10	HL	-	First diaphragm west of Pier 43S exhibits a crack x 10" L with efflorescence at the underside of deck transition.	No Change							
42	S	Both	Both	Throughout	Crack	-	Full Height	0.016	-	Diagonal shear cracking in the end 1/4 L and vertical flexural cracking within the middle 1/2L. Cracks are 0.010-0.016" W, spaced 8-12" wrap under and are nearly full height on both faces. Including intersection blockout. A portion of these cracks have been sealed.	New	J13-1 general, F13-1-2				82		
42	S-Cross	Both	Both	Throughout	Crack	-	Full Height	0.016	-	Diagonal shear cracking in the end 1/4 L and vertical flexural cracking within the middle 1/2 L. Cracks are spaced 10-16" and wrap under and are nearly full height on both faces. Including triangular junction with Span 42S. A portion of these cracks have been sealed.	New	F13-3,4						
43	N	L	Interior	Pier 43N	Crack	5	18	HL	-	Diagonal shear cracks	New							
43	N	R	Exterior	Pier 43N	Crack	4	18	HL	-	Diagonal shear cracks	New							
43	N	L	Exterior	Pier 43N	Crack	3	18	HL	-	Diagonal shear cracks	New							
43	N	L	?	Pier 43N	Crack	-	-	-	-	Shrinkage map cracking at the end 6'.	No Change							
43	N	R	Interior	Pier 43N	Crack	4	20	HL	-	Diagonal shear and radial cracks	No Change					2		



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
43	N	L	Interior	Pier 44N	Crack	3	42	0.013	-	Diagonal shear and radial cracks	New					4		
43	N	R	Interior	Pier 44N	Crack	3	42	0.013	-	Diagonal shear and radial cracks	New							
43	N	L	Exterior	Pier 44N	Crack	4	24	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.16" W for 3" L, otherwise, cracks are up to 0.013" W.	No Change							
43	N	R	Exterior	Pier 44N	Crack	5	18	HL	-	Diagonal shear and radial cracks	No Change							
43	S	?	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 20% of the surface	No Change							
43	S	R	Interior	Pier 44S	Crack	2	12	HL	-	Diagonal shear cracks	New							
43	S	L	Exterior	Pier 44S	Crack	1	18	HL	-	Diagonal shear crack	New							
43	S	L	Interior	Pier 44S	Crack	2	18	HL	-	Diagonal shear cracks	New					1.5		
43	S	R	Exterior	Pier 44S	Crack	2	18	HL	-	Diagonal shear cracks								
44	N	L	Exterior	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 50% of the surface	No Change							
44	N	R	Exterior	?	Crack	3	20	HL	-	Diagonal shear and radial cracks	No Change							
44	N	L	Interior	Pier 44N	Crack	1	18	HL	-	Diagonal shear crack	New							
44	N	R	Interior	Pier 44N	Crack	2	30	HL	-	Diagonal shear and radial cracks	New							
44	N	L	Exterior	Pier 44N	Crack	2	36	HL	-	Diagonal shear cracks	No Change					3		
44	N	L	Exterior	Pier 45N	Crack	3	12	HL	-	Diagonal shear cracks	New							
44	N	L	Interior	Pier 45N	Crack	1	24	HL	-	Diagonal shear crack	New					2		
44	N	R	Interior	Pier 45N	Crack	1	24	HL	-	Diagonal shear crack	New							
44	N	L	Exterior	Pier 45N	Crack	3	18	HL	-	Diagonal shear cracks	No Change							
44	S	Both	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 30% of the surface	No Change							
44	S	L	Exterior	Pier 44S	Crack	2	18	HL	-	Diagonal shear cracks	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
44	S	L	Exterior	Pier 44S	Crack	2	36	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 6"L, otherwise, cracks are up to 0.013" W.	New							
44	S	R	Interior	Pier 44S	Crack	2	36	0.013	-	Diagonal shear cracks	New							
44	S	R	Exterior	Pier 44S	Crack	2	36	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 6" L, otherwise, cracks are up to 0.013" W.	Increase	F13-23						
44	S	L	Interior	Pier 44S	Crack	3	36	0.01	-	Diagonal shear cracks	No Change					3		
44	S	L	Exterior	Pier 44S	Crack	3	36	0.01	-	Diagonal shear cracks	No Change							
44	S	L	Interior	7' from Pier 45S	Crack	3	24	0.013	-	Diagonal shear cracks	New	F13-24				2		
44	S	R	Exterior	Pier 45S	Crack	2	12	HL	-	Diagonal shear cracks	Increase					1		
45	N	L	Exterior	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 30% of the surface	No Change							
45	N	L	Exterior	Pier 46N	Crack	2	24	HL	-	Diagonal shear cracks	New					2		
45	N	R	Interior	Pier 46N	Crack	1	12	HL	-	Diagonal shear crack	No Change							
45	S	?	?	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 30% of the surface	No Change							
45	S	R	Exterior	Pier 45S	Crack	2	24	HL	-	Diagonal shear and radial cracks	Increase					2		
45	S	R	Interior	Pier 46S	Crack	1	12	HL	-	Downward diagonal crack	New							
45	S	R	Exterior	Pier 46S	Crack	1	15	HL	-	Diagonal shear crack	No Change					1.5		
46	N	L	Interior	Pier 46N	Crack	2	30	HL	-	Diagonal shear and radial cracks	New					3		
46	N	R	Interior	Pier 46N	Crack	1	12	HL	-	Downward diagonal crack	New							
46	N	R	Exterior	Pier 46N	Crack	1	12	HL	-	Downward diagonal crack	New							
46	N	L	Exterior	Pier 46N	Crack	5	18	HL	-	Diagonal shear and radial cracks	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
46	N	R	Interior	Pier 47N	Crack	4	42	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 7"L, otherwise, cracks are up to 0.013" W.	New					4		
46	N	L	Interior	Pier 47N	Crack	3	36	0.016	-	Diagonal shear cracks; crack extending from beam notch is 0.016" W for 6"L, otherwise, cracks are up to 0.013" W.	New	F12-36						
46	N	R	Exterior	Pier 47N	Crack	3	30	0.03	-	Diagonal shear cracks; crack extending from beam notch is 0.03" W for 3" L, otherwise, cracks are up to 0.013" W.	Increase	F12-35						
46	N	R	Exterior	Pier 47N	Spall	1	3	1.5	3/4	Adjacent to the keeper plate.	No Change							
46	N	L	Exterior	Pier 47N	Crack	3	30	0.02	-	Diagonal shear cracks; crack extending from beam notch is 0.02" W for 3" L, otherwise, cracks are up to 0.013" W.	Increase							
46	S	L	Exterior	Pier 46S	Crack	3	30	0.013	-	Diagonal shear and radial cracks	New					3		
46	S	R	Interior	Pier 46S	Crack	4	18	HL	-	Diagonal shear and radial cracks	New							
46	S	R	Exterior	Pier 46S	Crack	2	24	HL	-	Diagonal shear and radial cracks	No Change							
46	S	L	Interior	Pier 46S	Crack	3	18	0.013	-	Diagonal shear and radial cracks	New							
46	S	L	Both	Pier 47S	CFRP	-				CFRP wrap on north stem at P47S	New	F13-36						
46	S	R	Interior	Pier 47S	Crack	2	30	HL	-	Diagonal shear cracks	New							
46	S	R	Exterior	Pier 47S	Crack	8	34	0.01	-	Diagonal shear and radial cracks	Increase	F13-25				3		
47	L	L	Rear	Pier 47N	Spall	1	6	7	3/4	1/2" of exposed steel, tendon end?		F12-38						1
47	L	L	Exterior	Pier 48L	Patch Cracking	?		HL			No Change							
47	L	R	Interior	Pier 48L	Delam.	1	18	8.5				F12-39						
47	L	R	Exterior	Pier 48L	Crack	1	30	HL	-	Diagonal shear cracks	No Change					3		
47	L	L	Exterior	Pier 48L	Crack	?	18	HL	-	Diagonal shear cracks	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
47	R	-	-	Bay 1	Delam.	1	3	1		Rear diaphragm has a delamination and several hairline cracks.	No Change						1	
47	R	-	-	Bay 1	Crack	1	58	0.016	-	Diagonal crack in forward diaphragm; crack has been partially sealed.	No Change	F13-9						
47	R	L	Interior	Bay 2	Crack	?	96	0.013	-	Diagonal hairline cracks extend up from rear diaphragm into bottom of deck slab and continue eastward along left stem for 8'.	No Change	F13-40						
47	R	-	-	Bay 2	Crack	?		HL	-	Multiple cracks into haunch near forward diaphragm. The portions in the stems have been sealed.	New							
47	R	-	-	Bay 2	Crack	?		HL	-	Random hairline cracking in forward diaphragm.	No Change							
47	R	-	-	Bay 3	Crack	?		HL	-	Random hairline cracking in rear diaphragm.	No Change							
47	R	-	-	Bay 5	Crack	4	30	0.013	-	Diagonal cracks in rear diaphragm, shrinkage map cracking also present	New							
47	R	R	Exterior	Bay 5	Crack	-		HL	-	Diagonal cracking showing through the coating, between 10' and 24' from Pier 48S, spaced 10-12" apart.	New	F13-49, 50						
47	R	L	Interior	Bay 5	Crack	1	36	0.016	-	Diagonal crack extending from the top of the rear diaphragm.	New							
47	R	R	Interior	Pier 47R	CFRP Delam	9	3	2			New							
47	R	R	Exterior	Pier 47R	CFRP Delam	24	5	2			New	F13-27, 28,29, 30						
47	R	L	Interior	Pier 47R	Crack	6	84	0.03	-	Diagonal shear cracks extending into haunch and the deck underside. Cracks have been mostly sealed and appear to be epoxy injected.	New	F13-31,32, 33						

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
47	R	R	Exterior	Pier 48R	Delam.	1	24	14		Located at the bottom of the stem	Increase	F13-47,48					2	
47	R	Both	Both	Throughout	Crack	-		HL	-	Stems have been coated. Cracks in stems have been sealed and are hard to identify, but numerous flexural cracks are apparent as some can be seen above the coating in the fillet and others can be seen through the coating.	New	F13-37, 38, 41, 42, 43			40			
48	L	L	Interior	Pier 48L	Scrape	4	180	6	1/8	Longitudinal scrapes at the bottom of the stem	No Change	F12-42						
48	L	L	Exterior	Pier 48L	Crack	1	30	HL	-	Diagonal shear crack	No Change				3			
48	L	R	Exterior	Pier 48L	Crack	1	30	HL	-	Diagonal shear crack	No Change							
48	L	L	Exterior	Pier 50	Delam.	1	4	1		Grout delamination								
48	L	L	Exterior	Pier 50	Crack	1	36	HL	-	Diagonal shear crack	No Change				3			
48	L	R	Exterior	Pier 50	Crack	1	30	HL	-	Diagonal shear crack	No Change							
48	L	Both	Both	Pier 50	Grout Crack	1	36	HL	-	Vertical grout crack	No Change							
48	R	L	Exterior	Pier 49R	Crack	1	24	HL	-	Diagonal shear crack	New					2		
48	R	?	Both	Pier 49R	Grout Crack	1	48	0.016	-	Vertical grout crack	No Change							
48	R	R	Exterior	Pier 49R	Crack	1	18	HL	-	Diagonal shear crack	Increase							
49	R	R	Interior	Pier 49R	Crack	1	14	HL	-	Downward diagonal crack	New							
49	R	L	Interior	Pier 49R	Crack	1	24	HL	-	Downward diagonal crack	New					2		
49	R	R	Exterior	Pier 49R	Crack	1	14	HL	-	Downward diagonal crack	New							
49	R	R	Exterior	Pier 50	Crack	-		HL	-	Random cracking in spall repair	No Change							
49	R	R	Interior	Pier 50	Grout Crack	1	24	0.016	-	Vertical grout crack	New	F12-46						
49	R	R	Exterior	Pier 50	Crack	2	12	HL	-	One vertical and one horizontal crack	New					1.5		

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
49	R	L	Interior	Pier 50	Crack	?	15	HL	-	Random cracking for 2'	No Change	F12-47						
49	R	L	Both	Pier 50	Grout Crack	1	48	0.016	-	Vertical grout crack	No Change	F12-47						
50	L	L	Exterior	Pier 50	Crack	1	24	HL	-	Diagonal shear crack	No Change				2			
50	L	R	Interior	12' from Pier 51	CFRP Delam	1	2	5				F12-51						
50	L	R	Exterior	Pier 51	CFRP Delam	4	2	2		Located between 4.5' and 10' from the cap.	Increase	F12-51						
50	R	Both	Both	Pier 50	Grout Crack	?		HL	-	Vertical grout crack	No Change							
51	L	R	Interior	Pier 51	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New					1		
51	L	L	Exterior	Pier 51	Crack	2	8	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	Increase	F12-53						
51	L	L	Rear	Pier 51	Spall	1	6	6	1		No Change						1	
51	L	R	Exterior	Pier 51	Crack	2	24	HL	-	Diagonal shear cracks	No Change					2		
51	L	R	Exterior	Pier 52	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
51	R	L	Exterior	Pier 51	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
51	R	L	Interior	Pier 51	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
51	R	R	Interior	Pier 51	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
51	R	R	Exterior	Pier 51	Crack	2	14	HL	-	Diagonal shear cracks extending from the dapped end notch above the half height CFRP wrap	New					1.5		
51	R	L	Bottom	Pier 51	Spall	1	2.5	2	1/2		No Change							
51	R	L	Exterior	Pier 52	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
51	R	L	Interior	Pier 52	Crack	1	4	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
51	R	R	Interior	Pier 52	Crack	1	4	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
51	R	R	Exterior	Pier 52	Crack	2	12	HL	-	Diagonal shear cracks extending from the dapped end notch above the half height CFRP wrap	New					1		
51	R	L	Exterior	Pier 52	Crack	1	8	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	No Change							
54	L	L	?	Pier 54	Spall	1	4	3	1		No Change						1	
54	L	L	Exterior	Pier 55	Crack	1	12	HL	-	Diagonal shear crack	New				1			
54	R	R	Exterior	Pier 55	Crack	1	12	HL	-	Diagonal shear crack	New				1			
55	L	L	Exterior	Pier 55	Spall	1	3	2	1/2		No Change							
55	L	L	Exterior	Pier 55	Crack	1	27	HL	-	Diagonal shear crack	No Change				2			
55	L	R	Interior	4' from Pier 55	Crack	1	42	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change				4			
55	L	R	Both	5' from Pier 56	Crack	1	34	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
55	L	L	Exterior	Pier 56	Crack	1	22	HL	-	Diagonal shear crack	New				2			
55	R	R	Exterior	Pier 55	Crack	2	14	HL	-	Diagonal shear crack	No Change					1.5		
55	R	L	Both	Pier 55	Grout Crack	1	?	HL	-	Vertical grout crack	No Change							
55	R	R	?	4' from Pier 55	Gouge	1	12	1	1/4		No Change							
55	R	R	Interior	4.5' from Pier 55	Crack	1	52	HL	-	Crack is vertical for half of the stem height and extends diagonally.	New					5		
55	R	L	Exterior	4.5' from Pier 55	Crack	1	52	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change							
55	R	L	Exterior	15' from Pier 55	Spall	1	4	4	1		No Change						1	
55	R	L	Both	4.5' from Pier 56	Crack	1	37	HL	-	Crack is vertical for half of the stem height and extends diagonally.	New							
55	R	R	Both	4.5' from Pier 56	Crack	2	37	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change	F21-14				3		
55	R	R	Exterior	Pier 56	Crack	1	24	HL	-	Diagonal shear crack	No Change				2			
56	L	L	Exterior	Pier 56	Crack	1	26	HL	-	Diagonal shear crack	No Change				2			
56	L	L	Both	4.5' from Pier 56	Crack	1	47	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change					4		
56	L	R	Both	4.5' from Pier 56	Crack	1	41	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change							
56	L	R	Both	4.5' from Pier 57	Crack	1	44	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change				4			
56	L	L	Bottom	15' from Pier 57	Spall	1	1	1	1/4		No Change						1	
56	L	L	Interior	Pier 57	Spall	1	1	1	1/2	One protruding nail	No Change							
56	L	L	Exterior	Pier 57	Crack	1	27	HL	-	Diagonal shear crack	New				2			
56	L	R	Exterior	Pier 57	Spall	3	4	3	1/2		No Change							



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
56	L	R	Interior	Pier 57	Spall	2	2	2	1/2	Three protruding nails	No Change							
56	R	R	Exterior	Pier 56	Spall	1	15	5	1		No Change	F21-15						
56	R	R	Exterior	Pier 56	Crack	2	21	HL	-	Diagonal shear cracks	No Change					2		
56	R	R	Both	4.5' from Pier 56	Crack	1	45	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change				4			
56	R	R	Both	4.5' from Pier 57	Crack	1	47	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change				4			
56	R	L	?	Pier 57	Spall	2	6	3	1/2	Mid-height of stem	No Change							
56	R	L	Exterior	Pier 57	Crack	1	10	HL	-	Diagonal shear crack	No Change							
56	R	R	Exterior	Pier 57	Crack	1	20	HL	-	Diagonal shear crack	No Change					2		
57	L	L	Exterior	Pier 57	Crack	1	26	HL	-	Diagonal shear crack	No Change				2			
57	L	L	Both	4.5' from Pier 57	Crack	1	40	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change					4		
57	L	R	Both	4.5' from Pier 57	Crack	1	36	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change							
57	L	L	Interior	4.5' from Pier 58	CFRP Tear	1	2.5	2.5			New	F21-20						
57	L	?	Interior	Pier 58	Crack	?	39	HL	-	Cracks extending up from CFRP repairs	No Change							
57	L	R	Exterior	Pier 58	Crack	4	27	HL	-	Cracks extending up from CFRP repairs	No Change							
57	L	L	Exterior	Pier 58	Crack	5	11	HL	-	Cracks extending up from CFRP repairs	No Change							
57	R	R	Exterior	Pier 57	Crack	1	10	HL	-	Diagonal shear crack					1			
57	R	R	?	4.5' from Pier 57	Crack	2	24	HL	-	Horizontal cracks?	No Change					2		
57	R	L	Bottom	16' from Pier 58	Gouge	2	2	4	1/4		No Change						1	

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
57	R	Both	Interior	Pier 58	Crack	2	36	HL	-	Diagonal cracks on inside faces of stems extending above CFRP repairs and meet in the underside of the flange	No Change	F12-17						
58	L	R	Interior	25' from Pier 58	Spall	2	3	3	1/4		No Change						1	
58	L	L	Exterior	Pier 58	Crack	3	11	HL	-	Cracks extending up from CFRP repairs	No Change							
58	L	?	Interior	Pier 58	Crack	2	32	HL	-	Cracks extending up from CFRP repairs	No Change							
58	L	R	Exterior	Pier 58	Crack	3	6	HL	-	Cracks extending up from CFRP repairs	No Change							
58	R	?	Interior	Pier 58	Crack	15	44	0.016	-	Cracks extending up from CFRP repairs	No Change							
58	R	R	Exterior	25' from Pier 59	Spall	1	6	3	1/2		No Change						1	
58	R	L	Interior	25' from Pier 59	Spall	?	5	2	1/4		No Change						2	
58	R	R	Interior	4.5' from Pier 59	Crack	1	38	HL	-	Horizontal crack	New				3			
58	R	R	Exterior	Pier 59	Crack	1	20	HL	-	Diagonal shear crack	New				2			
59	L	R	Interior	Pier 59	Grout Spall	1	2	2	1/4		No Change							
59	L	L	Exterior	Pier 59	Crack	1	21	HL	-	Diagonal shear crack	No Change				2			
59	L	R	bottom	15' from Pier 60	Spall	1	3	2.5	1/4		No Change						1	
59	L	L	Exterior	Pier 60	Crack	1	16	HL	-	Diagonal shear crack	No Change				1.5			
59	R	L	Both	Pier 59	Grout Crack	1		HL	-	Vertical grout crack	No Change							
59	R	R	Exterior	Pier 59	Crack	1	10	HL	-	Diagonal shear crack	Increase				1			
59	R	L	Both	5' from Pier 59	Crack	1	40	0.016	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change	F21-26,27				4		
59	R	R	Both	5' from Pier 59	Crack	1	39	0.013	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
59	R	R	Both	5' from Pier 60	Crack	1	43	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change					4		
59	R	L	Both	5' from Pier 60	Crack	1	36	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change							
59	R	R	Bottom	Pier 60	Spall	1	3	2	1/2		New							
59	R	R	Exterior	Pier 60	Crack	1	10	HL	-	Diagonal shear crack	No Change				1			
60	L	L	Exterior	Pier 60	Crack	1	16	HL	-	Diagonal shear crack	New				1.5			
60	L	R	?	10' from Pier 60	Patch Cracking	1	6	0.03			No Change						1	
60	L	L	Exterior	Pier 61L	Crack	1	12	HL	-	Diagonal shear crack	New							
60	L	L	Exterior	Pier 61L	Crack	1	18	HL	-	Diagonal shear crack	No Change					1		
60	R	R	Exterior	Pier 60	Spall	1	7	3	3/4	Located at the bottom of the stem	Increase	F21-30						1
60	R	L	Interior	Midspan	Spall	1	4	2.5	1	Located at the bottom of the stem	Increase	F21-31					1	
60	R	R	Exterior	Pier 61R	Delam.	1				Exterior face of right stem has a delamination, 6"Lx3"H, 1' from Pier 61.	New	F21-33						
60	R	R	?	Pier 61R	Spall	1	7	3	1/4		No Change							1
61	L	L	Exterior	Pier 61L	Crack	1	20	HL	-	Diagonal shear crack	No Change					2		
61	L	R	Exterior	Pier 61L	Crack	1	19	HL	-	Diagonal shear crack	No Change							
61	L	R	Both	4.5' from Pier 61L	Crack	1	40	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change					4		
61	L	L	Both	5' from Pier 61L	Crack	1	38	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change							
61	L	R	Bottom	25' from Pier 61L	Spall	?	2	2	1/4		No Change						2	
61	L	L	Bottom	20' from Pier 62L	Spall	1	3	1	1/4		No Change						1	
61	L	?	Interior	Pier 62L	Crack	3	7	HL	-	Cracks extending up from CFRP repairs	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
61	R	R	Exterior	?	Crack	1	12	HL	-	Vertical hairline crack above the bearing plate	New				1			
62	L	L	Exterior	Pier 62L	Crack	1	12	HL	-	Diagonal shear crack	Increase				1			
62	R	L	Exterior	Pier 62R	Crack	2	10	HL	-	Diagonal shear cracks extending from the dapped end notch above the half height CFRP wrap	New							
62	R	R	Exterior	Pier 62R	Crack	2	30	HL	-	Diagonal shear cracks extending from the dapped end notch above the half height CFRP wrap	New					3		
62	R	R	Exterior	Pier 63R	Crack	1	4	HL	-	Diagonal shear crack	New				1			
63	L	L	Exterior	Pier 63L	Crack	1	10	HL	-	Diagonal shear crack	Increase				1			
63	L	L	Exterior	Pier 64L	Crack	1	6	HL	-	Diagonal shear crack	No Change				1			
63	L	?	?	Pier 64L	Grout Crack	1	48	HL	-	Vertical grout crack	No Change							
63	R	R	Exterior	Pier 63R	Crack	1	12	HL	-	Downward diagonal crack	New				1			
64	L	L	Exterior	Pier 64L	Crack	1	18	HL	-	Diagonal shear crack	No Change				1			
64	R	R	Both	Pier 64R	Grout Crack	1	48	HL	-	Vertical grout crack	No Change							
64	R	R	Exterior	Pier 65R	Crack	1	12	HL	-	Diagonal shear crack	No Change				1			
65	L	L	Exterior	Pier 66L	Crack	2	18	HL	-	Diagonal shear cracks	New					1.5		
65	L	R	Exterior	Pier 66L	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	No Change							
65	R	R	Exterior	Pier 66R	Crack	1	14	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New				1.5			
65	R	?	Interior	Pier 66R	Crack	?	9	HL	-	Cracks extending up from CFRP repairs	No Change							
66	L	R	Exterior	Pier 66L	CFRP Delam	2	2	1			Increase	F22-18						

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
66	L	?	Interior	Pier 66L	Crack	?	8	HL	-	Cracks extending up from CFRP repairs	No Change							
66	L	L	Rear	Pier 66L	Spall	?	1	1	1/2		No Change						1	
66	L	L	?	15' from Pier 66L	Spall	1	2	4	1/4		No Change						1	
66	L	R	?	18' from Pier 66L	Patch Cracking	1		0.016			No Change						1	
66	L	L	?	Midspan	Spall	1	6	2	1/4		No Change						1	
66	L	R	Both	4.5' from Pier 67R	Crack	1	51	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change				5			
66	L	L	Exterior	Pier 67L	Crack	1	25	HL	-	Diagonal shear crack	No Change							
66	L	Both	Both	Pier 67L	Grout Crack	2		HL	-	Vertical grout crack	No Change							
66	L	R	Exterior	Pier 67L	Crack	1	30	HL	-	Diagonal shear crack	Increase					3		
66	R	R	Exterior	Pier 66R	Crack	1	24	HL	-	Diagonal shear crack	New				2			
66	R	-	-	Pier 66R	Crack	1	12	0.016	-	Diaphragm crack	No Change							
66	R	L	Bottom	15' from Pier 66R	Spall	1	8	2	1		No Change							1
66	R	L	Bottom	18' from Pier 66R	Spall	1	5	3	1/2		No Change						1	
66	R	R	?	25' from Pier 66R	Spall	1	4	2	1/2		No Change						1	
66	R	L	Exterior	Pier 67R	Crack	1	12	HL	-	Downward diagonal crack	New					1		
66	R	R	Exterior	Pier 67R	Crack	1	9	HL	-	Downward diagonal crack	New							
67	L	L	Exterior	Pier 67	Crack	1	20	HL	-	Diagonal shear crack	No Change				2			
67	L	R	Interior	4' from Pier 67	Crack	1	42	HL	-	Horizontal crack	New				4			
67	L	L	Interior	4.5' from Pier 67	Crack	1	24	HL	-	Horizontal crack	New							
67	L	L	Bottom	15' from Pier 67	Spall	1	4	2	1/4		No Change						1	
67	L	R	Bottom	20' from Pier 67	Spall	1	2	3	1/4		No Change						1	

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
67	L	L	Exterior	Pier 68	Crack	1	15	HL	-	Diagonal shear crack	No Change				1.5			
67	R	R	Bottom	Pier 67R	Spall	2	3	2	1/4		No Change						2	
67	R	R	Exterior	8' from Pier 67R	Crack	1	20	HL	-	Horizontal crack, 1'-6" up from bottom of the stem	No Change				2			
67	R	L	Bottom	15' from Pier 67R	Spall	1	2	2	1/4		No Change						1	
67	R	L	Both	Pier 68	Grout Crack	1	48	HL	-	Vertical grout crack	No Change							
67	R	R	Exterior	Pier 68	Crack	1	27	HL	-	Diagonal shear crack	No Change				2			
68	L	?	Interior	Pier 69	Crack	11	36	HL	-	Cracks extending up from CFRP repairs	No Change							
68	L	R	Exterior	Pier 69	Crack	5	19	HL	-	Cracks extending up from CFRP repairs	No Change							
68	R	L	Interior	?	Crack	1	12	HL	-	Downward diagonal crack	New							
68	R	R	Interior	?	Crack	1	18	HL	-	Downward diagonal crack	New					1.5		
68	R	L	?	Pier 68	Spall	1	4	2	1		No Change						1	
68	R	Both	Interior	Pier 68	Spall	?	1	1	1/4	Spalls have protruding nails	No Change						2	
68	R	L	Exterior	Pier 69	Crack	-		HL	-	9SF of random hairline cracking	New							
68	R	-	-	Pier 69	Crack	1	14	0.016	-	Vertical crack in diaphragm	No Change							
69	L	R	Exterior	Pier 69	CFRP Delam	1	2	2			New							
69	L	L	Exterior	Pier 69	Crack	4	8	HL	-	Cracks extending up from CFRP repairs	No Change							
69	L	R	Exterior	Pier 69	Crack	4	9	HL	-	Cracks extending up from CFRP repairs	No Change							
69	L	?	Interior	Pier 69	Crack	1	66	HL	-	Cracks extending up from CFRP repairs	No Change							
69	L	?	Interior	Pier 69	Crack	8	18	HL	-	Cracks extending up from CFRP repairs	No Change							
69	L	R	Both	4.5' from Pier 70	Crack	1	48	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change				4			
69	L	L	?	Midspan	Spall	1	4	4	1		No Change						1	

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
69	L	L	Exterior	Pier 70	Crack	1	24	HL	-	Diagonal shear crack	New							
69	L	L	?	Pier 70	Crack	1	24	HL	-	Diagonal shear crack	No Change							
69	L	R	?	Pier 70	Crack	1	26	HL	-	Diagonal shear crack	No Change					2.5		
69	R	L	Exterior	Pier 69	CFRP Delam	1	3	1			New							
69	R	L	Exterior	Pier 69	Crack	4	8	HL	-	Cracks extending up from CFRP repairs	No Change							
69	R	L	Exterior	Pier 69	Crack	3	10	HL	-	Cracks extending up from CFRP repairs	No Change							
69	R	Both	Interior	Pier 69	Crack	1	62	HL	-	Transverse crack in the underside of the top flange extending up from CFRP repairs in each stem	No Change							
69	R	R	Both	4' from Pier 70	Crack	1	50	HL	-	Crack is vertical for half of the stem height and extends diagonally.	New				5			
69	R	R	Exterior	Pier 70	Crack	2	36	HL	-	Diagonal shear cracks	New					3		
69	R	R	Exterior	Pier 70	Crack	1	26	HL	-	Diagonal shear crack	No Change							
70	L	R	Bottom	15' from Pier 70	Spall	2	2	3	1/2		No Change						2	
70	L	L	Both	Pier 71	Grout Crack	1	48	HL	-	Vertical grout crack	No Change							
70	L	L	Exterior	Pier 71	Crack	1	12	HL	-	Diagonal shear crack	No Change				1			
70	R	R	Exterior	Pier 70	Crack	1	20	HL	-	Diagonal shear crack	New					2		
70	R	R	Interior	Pier 70	Crack	1	14	HL	-	Diagonal shear crack	New							
70	R	R	Bottom	8' from Pier 71	Spall	1	2	2	1/4		No Change						1	
70	R	R	Both	Pier 71	Grout Crack	1	48	HL	-	Vertical grout crack	No Change				4			
71	L	L	Exterior	Pier 71	Crack	1	9	HL	-	Diagonal shear crack	No Change							
71	L	Both	Both	Pier 71	Grout Crack	1	48	HL	-	Vertical grout crack	No Change							
71	L	R	Exterior	Pier 71	Crack	1	20	HL	-	Diagonal shear crack with minor efflorescence	No Change					2		

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
71	L	L	?	Pier 72	Crack	1	21	HL	-	Diagonal crack	No Change							
71	L	R	Exterior	Pier 72	Crack	1	28	HL	-	Diagonal shear crack	No Change					2.5		
71	L	R	Interior	Pier 72	Crack	1	21	HL	-	Vertical crack at corner of stem and end diaphragm, extending into haunch.	No Change							
71	L	L	Exterior	Pier 72	Crack	1	28	HL	-	Diagonal shear crack	No Change							
71	R	L	Exterior	Pier 71	Crack	1	6	HL	-	Diagonal shear crack	New							
71	R	R	Exterior	Pier 71	Crack	1	10	HL	-	Diagonal shear crack	No Change					1		
71	R	R	Exterior	Pier 72	Crack	1	20	HL	-	Vertical crack extending from the dapped end notch	No Change				2			
72	L	?	?	Pier 72	Crack	1	8	HL	-	Cracks extending up from CFRP repairs	No Change							
72	L	?	?	Pier 72	Crack	3	8	HL	-	Cracks extending up from CFRP repairs	No Change							
72	L	Both	Interior	Pier 72	Crack	1	62	HL	-	Transverse crack in the underside of the top flange extending up from CFRP repairs in each stem	No Change							
72	L	L	?	Midspan	Spall	1	2	2	1/4		No Change						1	
72	L	R	?	40' from Pier 73	Patch Cracking	1	3	0.03			No Change						1	
72	L	L	?	4' from Pier 73	Spall	2	2	2	1/4		No Change						2	
72	L	L	Exterior	Pier 73	Crack	1	9	HL	-	Diagonal shear crack	New					1		
72	L	R	?	Pier 73	Crack	1	8	HL	-	Crack with minor efflorescence	No Change							
72	R	Both	Interior	Pier 72	Crack	1	60	HL	-	Transverse crack in the underside of the top flange extending up from CFRP repairs in each stem	No Change							
72	R	R	Exterior	Pier 72	Crack	2	7	HL	-	Cracks extending up from CFRP repairs	No Change							
72	R	L	Exterior	Pier 72	Crack	2	6	HL	-	Cracks extending up from CFRP repairs	No Change							
72	R	L	Exterior	4' from Pier 72	CFRP Delam	1	1	1			No Change							



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
72	R	R	Interior	10' from Pier 72	Crack	1	6	HL	-	Crack extending up from CFRP repairs	No Change							
72	R	L	Interior	10' from Pier 72	Crack	1	6	HL	-	Crack extending up from CFRP repairs	No Change							
72	R	L	Exterior	4' from Pier 73	Crack	1	30	HL	-	Crack is vertical for half of the stem height and extends diagonally.	New				3			
72	R	R	?	Pier 73	Crack	1	15	HL	-	Diagonal shear crack	No Change				1.5			
73	L	R	Bottom	Midspan	Gouge	1	2	6	1/4		No Change							
73	L	L	Both	4.5' from Pier 73	Crack	1	37	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change				3			
73	L	L	Exterior	Pier 73	Crack	1	24	HL	-	Diagonal shear crack	New				2			
73	R	R	Exterior	Pier 73	Crack	1	24	HL	-	Diagonal shear crack	No Change					2		
73	R	L	?	Pier 73	Crack	1	15	HL	-	Diagonal shear crack	No Change							
73	R			Throughout	Gouge	4	15	2	1/4	Located at 1', 5' and (2) at 12' from Pier 73.	No Change							
74	L	L	?	Pier 74	Gouge	1	2	2	1/4		No Change							
74	L	L	Exterior	Pier 74	Crack	1	24	HL	-	Diagonal shear crack	No Change				2			
74	L	R	Exterior	Pier 75	Crack	2	9	HL	-	Cracks extending up from CFRP repairs	No Change							
74	L	L	Interior	Pier 75	Crack	1	11	HL	-	Cracks extending up from CFRP repairs	No Change							
74	L	R	Interior	Pier 75	Crack	1	11	HL	-	Cracks extending up from CFRP repairs	No Change							
74	L	L	Exterior	Pier 75	Crack	?	7	HL	-	Cracks extending up from CFRP repairs	No Change							
74	L	Both	Interior	Pier 75	Crack	1	64	HL	-	Transverse crack in the underside of the top flange extending up from CFRP repairs in each stem	No Change							
74	R	R	Exterior	Pier 74	Crack	1	17	HL	-	Diagonal shear crack	No Change				1.5			
74	R	L	Interior	4' from Pier 74	Crack	1	30	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	New				3			

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
74	R	R	Exterior	Pier 75	Crack	4	6	HL	-	Cracks extending up from CFRP repairs	No Change							
74	R	R	Interior	Pier 75	Crack	1	6	HL	-	Cracks extending up from CFRP repairs	No Change							
74	R	L	Interior	Pier 75	Crack	1	6	HL	-	Cracks extending up from CFRP repairs	No Change							
74	R	L	Exterior	Pier 75	Crack	2	6	HL	-	Cracks extending up from CFRP repairs	No Change							
74	R	Both	Interior	Pier 75	Crack	1	46	HL	-	Transverse crack in the underside of the top flange extending up from CFRP repairs in each stem	No Change							
75	L	L	Exterior	Pier 75	Crack	4	10	HL	-	Cracks extending up from CFRP repairs	No Change							
75	L	L	Interior	Pier 75	Crack	3	32	HL	-	Cracks extending up from CFRP repairs	No Change							
75	L	R	Interior	Pier 75	Crack	2	32	HL	-	Cracks extending up from CFRP repairs	No Change							
75	L	R	Exterior	Pier 75	Crack	6	10	HL	-	Cracks extending up from CFRP repairs	No Change							
75	L	L	Exterior	Pier 76	Crack	1	20	HL	-	Diagonal shear crack	No Change							
75	L	L	Interior	Pier 76	Crack	1	24	HL	-	Diagonal shear crack	No Change					2		
75	R	L	Exterior	Pier 75	Crack	3	9	0.03	-	Cracks extending up from CFRP repairs	No Change							
75	R	L	Interior	Pier 75	Crack	3	44	HL	-	Cracks extending up from CFRP repairs	No Change							
75	R	R	Interior	Pier 75	Crack	3	44	HL	-	Cracks extending up from CFRP repairs	No Change							
75	R	R	Exterior	Pier 75	Crack	4	8	HL	-	Cracks extending up from CFRP repairs	No Change							
75	R	L	Bottom	Pier 76	Spall	1	10.5	9	1 1/2		No Change	F23-9						
75	R	R	Exterior	Pier 76	Crack	1	16	HL	-	Diagonal shear crack	No Change				1.5			
76	L	R	Interior	Pier 76	Crack	1	150	HL	-	Longitudinal crack along top inside corner	No Change	F23-14				150		
76	L	L	Exterior	Pier 76	Crack	1	20	HL	-	Diagonal shear crack	No Change							
76	L	?	Both	Pier 76	Grout Crack		48	HL	-	Vertical grout crack	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
76	L	R	Exterior	4' from Pier 76	Crack	1	12	HL	-	Horizontal crack	New				1			
76	L	R	Interior	Pier 77	Grout Crack	1	48	0.016	-	Vertical grout crack	No Change							
76	L	L	Both	Pier 77	Grout Crack	1	48	0.016	-	Vertical grout crack	No Change							
76	L	L	Exterior	Pier 77	Crack	1	24	HL	-	Diagonal shear crack	No Change				1			
76	R	R	Exterior	Throughout	Crack			HL	-	Shrinkage map cracks on 20% of the surface	No Change							
76	R	L	Exterior	?	Crack	1	24	HL	-	Diagonal shear crack	New					2		
76	R	R	Exterior	Pier 76	Crack	1	23	HL	-	Diagonal shear crack	No Change							
76	R	L	Both	4.5' from Pier 77	Crack	1	43	HL	-	Crack is vertical for up to half of the stem height and extends diagonally.	No Change	F23-19						
76	R	R	Exterior	Pier 77	Crack	1	20	HL	-	Diagonal shear crack	No Change				2			
76	R	L	?	Pier 77	Spall	1	4	2	1/2		No Change							
76	R	R	Both	Pier 77	Grout Crack	1	48	0.016	-	Vertical grout crack with minor efflorescence	No Change							
77	L	L	Interior	Pier 77	Crack	1	120	HL	-	Longitudinal crack along top inside corner with efflorescence	No Change	F23-20			120			
77	L	L	Exterior	Pier 77	Crack	1	19	HL	-	Diagonal shear crack	No Change							
77	L	R	Exterior	Pier 77	Scrape	1	36			Along bottom edge of stem	New							
77	L	R	Interior	Pier 78	Crack	1	6	HL	-	Crack extending up from CFRP repairs	No Change							
77	L	L	Exterior	Pier 78	Crack	1	4	HL	-	Crack extending up from CFRP repairs	No Change							
77	R	R	Exterior	Pier 77	Crack	1	14	HL	-	Diagonal shear crack	No Change				1			
77	R	L	Exterior	Pier 77	Efflo.					Moderate efflorescence between stem and cap	No Change	F23-21						
77	R	R	Exterior	Pier 78	Crack	2	6	HL	-	Cracks extending up from CFRP repairs	No Change							
77	R	L	Interior	Pier 78	Crack	1	42	HL	-	Crack extending up from CFRP repairs	No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
77	R	R	Interior	Pier 78	Crack	2	42	HL	-	Cracks extending up from CFRP repairs	No Change							
77	R	L	Exterior	Pier 78	Crack	1	5	HL	-	Crack extending up from CFRP repairs	No Change							
78	L	L	Exterior	Pier 78	Crack	1	6	HL	-	Crack extending up from CFRP repairs	No Change							
78	L	L	Interior	Pier 78	Crack	3	13	HL	-	Cracks extending up from CFRP repairs	No Change							
78	L	R	Interior	Pier 78	Crack	2	6	HL	-	Cracks extending up from CFRP repairs	No Change							
78	L	-	-	Pier 78	Crack	1	20	HL	-	Crack in diaphragm bottom edge	No Change							
78	L	R	Exterior	Pier 78	Crack	3	12	HL	-	Cracks extending up from CFRP repairs	No Change							
78	L	R	Exterior	Pier 79L	Grout Crack	1	24	0.016	-	Vertical grout crack	No Change							
78	R	L	Exterior	Pier 78	CFRP Delam	2	3	1.5			No Change	F23-26						
78	R	-	Exterior	Pier 78	Crack	1	6	HL	-	Crack in diaphragm bottom edge	No Change							
78	R	R	Exterior	Pier 79R	Crack	1	20	HL	-	Diagonal shear crack	No Change							
78	R	L	Exterior	Pier 79R	Crack	1	30	HL	-	Diagonal shear crack	No Change					3		
79	L	L	Bottom	Throughout	Scrape		Full length	3.5	1/4	Associated gouges exist on inside bottom corner up to 2' long. Bottom face has exposed wires or chairs space 6"		F20-30, 33, 34,35						
79	L	L	Exterior	Pier 80L	Spall	?	2	2	1/4		No Change					2		
79	L	L	Both	Pier 80L	Grout Crack	1		HL	-	Vertical grout crack	No Change							
79	L	R	Interior	Pier 80L	Patch Cracking	1	4	0.016			No Change							
79	R	L	Exterior	?	Crack	1	7	HL	-	Diagonal shear crack	New							
79	R			Pier 79R	Crack	1	15	HL	-	Diagonal shear crack	No Change							
79	R			Pier 79R	Crack	1	16	HL	-	Diagonal shear crack	No Change				1.5			
80	L	R	Exterior	Pier 80L	Spall	2	3	3	1/4		No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
80	L	L	Interior	Pier 80L	Exposed Nails	2					No Change							
80	L	R	Bottom	Pier 80L	Delam.	1	12	6			No Change							
80	L	R	Exterior	Pier 80L	Crack	1	12	HL	-	Downward diagonal crack	New					1		
80	L	R	Bottom	Pier 80L	Crack	1	10	0.02	-	Vertical crack that wraps around the bottom of the stem.	New							
80	L	L	Exterior	25' from Pier 80L	Spall	1	4	4	1	Bottom of the stem	New						1	
80	L	L	Exterior	Pier 81L	Crack	1	6	HL	-	Diagonal shear crack	New				1			
80	R	L	Exterior	Pier 80R	Crack	1	16	HL	-	Diagonal shear crack	No Change				1.5			
80	R	R	Exterior	Pier 81R	CFRP Delam	1	2	2			New	F20-12						
80	R	R	Exterior	Pier 81R	Crack	3	8	HL	-	Cracks extending up from CFRP repairs	No Change							
80	R	R	Interior	Pier 81R	Crack	3	12	HL	-	Cracks extending up from CFRP repairs	No Change							
81	L	L	Exterior	Pier 81L	Crack	2	14	HL	-	Diagonal shear and radial cracks	No Change					1.5		
81	L	R	Bottom	20' from Pier 82	Spall	1	4	2	1/4		No Change						1	
81	R	R	Exterior	Throughout	Crack	-	-	-	-	Shrinkage map cracks on 60% of the surface	No Change	F20-14						
81	R	R	Exterior	Pier 81R	Crack	1	26	HL	-	Diagonal shear crack	No Change					2.5		
81	R	L	Exterior	Pier 81R	Crack	1	16	HL	-	Diagonal shear crack	No Change							
81	R	R	Bottom	Pier 82R	Spall	1	7	2	1/2		New	F20-15						1
82	L	R	Bottom	20' from Pier 82L	Spall	1	4	2	1/4		No Change						1	
82	L	L	Exterior	Pier 82L	Grout Crack	1		0.016	-	Vertical grout crack	No Change	F20-3						
82	L	R	Both	Pier 82L	Grout Crack	1	48	HL	-	Vertical grout crack	No Change	F20-4						
82	L	L	Exterior	Pier 82L	Crack	1	8	HL	-	Diagonal shear crack	No Change				1			
82	R	R	Both	Pier 82R	Grout Crack	1	48	HL	-	Vertical grout crack	No Change	F20-16						

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
82	R	R	Exterior	Pier 82R	Crack	1	12	HL	-	Diagonal shear crack	No Change				1			
82	R	R	Exterior	Pier 83R	Crack	1	13	HL	-	Diagonal shear crack	No Change				1			
82	R	L	Both	Pier 83R	Grout Crack	1	48	HL	-	Vertical grout crack	No Change							
83	L	L	Exterior	Pier 83L	Crack	1	19	-	-	Diagonal shear crack	No Change				1			
83	L	L	Both	Pier 83L	Grout Crack	1	48	HL	-	Vertical grout crack	No Change							
83	L	L	Bottom	Pier 84L	Spall	1	3	2.5	1/2		New	F20-9, 10						
83	L	R	?	Pier 84L	Gouge	1	1	4	1/4		No Change						1	
83	L	L	Both	Pier 84L	Grout Crack	1		0.016	-	Vertical grout crack	No Change	F20-8						
83	R	R	Interior	Pier 83R	Scrape	1	3	0.75	3/8		New							
83	R	R	R	Pier 83R	Crack	1	10	HL	-	Diagonal shear crack	No Change				1			
83	R	R	Both	Pier 83R	Grout Crack	1	48	-	-	Vertical grout crack	No Change							
83	R	R	Exterior	Midspan	Spall	1	7	3	1		New	F20-18						1
83	R	R	Exterior	Pier 84R	Crack	1	48	HL	-	Diagonal shear crack	No Change				4			
84	L	L	Exterior	Pier 84L	Crack	1	12	HL	-	Diagonal shear crack	New				1			
84	L	R	?	Midspan	Gouge		6	4	1/4		No Change						1	
84	L	R	Bottom	20' from Pier 85L	Spall	1	2	2	1/4		No Change						1	
84	L	L	Exterior	Pier 85L	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap.	New					1		
84	L	R	Exterior	Pier 85L	Crack	1	9	HL	-	Diagonal shear crack	New							
84	R	R	Exterior	Pier 84R	Crack	3	24	HL	-	Diagonal shear and radial cracks	New	F20-20				2		
84	R	R	Exterior	Pier 85R	CFRP Delam	12	2.5	1			Increase	F20-21, 22						

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
84	R	L	Exterior	Pier 85R	Crack	1	6	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap.	New				1			
199	R	R	Exterior	Pier 199R	Spall	1	6	5	1 1/2		No Change							1
199	R	L	Interior	Pier 199R	CFRP Delam	1	4	4			No Change							
199	R	L	Bottom	Pier 200	Efflo.	1	48	HL		Efflorescence in construction joint crack between the bottom of the beam stem and the cap.	New	F1-3	1					
200	L	L	Exterior	Pier 201L	Crack	1	13	HL	-	Diagonal shear crack	New	F1-42, F1-43			1			
201	L	L	Exterior	Pier 202L	Crack	1	13	HL	-	Diagonal shear crack	New				1			
201	R	R	Exterior	Pier 202R	Crack	4	30	HL	-	Diagonal shear cracks	New	J1-10				3		
202	L	R	Exterior	Pier 202L	Crack	2	29	HL	-	Diagonal shear cracks	New	F2-29				2.5		
202	L	L	Exterior	Pier 202L	Crack	2	24	HL	-	Diagonal shear cracks	New	F1-43, F1-44, F1-45						
202	L	R	Interior	Pier 203L	Crack	1	18	HL	-	Diagonal shear crack	New				1.5			
203	L	L	Exterior	Pier 203L	Crack	1	12	HL	-	Diagonal shear crack	New					1		
203	L	L	Interior	Pier 203L	Crack	1	9	HL	-	Downward diagonal crack	New							
203	L	R	Interior	Pier 203L	Crack	1	9	HL	-	Downward diagonal crack	New							
203	L	R	?	12' from Pier 203L	Spall	1	2	2	1/4		No Change						1	
203	L	R	Exterior	Pier 204 L	Crack	1	16	HL	-	Diagonal shear crack	New				1.5			
203	R	Both	Both	Throughout	Crack	-		0.013	-	Vertical flexural cracks throughout. Cracks wrap under and are up to full height, spaced 3'-5' apart.	New	F3-33, 35			15.25			

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
203	R-Cross	Both	Both	Throughout	Crack	-		0.01	-	Several vertical, hairline flexural cracks throughout. Cracks are up to full height, spaced 8'-10' apart.	New							
203	R-Cross	R	Bottom	20' from Pier 204	Scrape	-				There are minor scrape marks on the underside of the right stem, 20' from Pier 204. Scrapes have been epoxy repaired.	New	F3-36, F3-37						
204	L	R	Exterior	15' from Pier 205L	Spall	1	3	3	1	Grout patch spall	No Change						1	
204	L	R	Exterior	Pier 205L	Spall	1	6	3.25	2 1/2	Bottom front edge	New	F3-46						1
204	L	R	Exterior	Pier 205L	Crack	3	16	HL	-	Diagonal shear and radial cracks	New	F3-47						
204	L	L	Exterior	Pier 205L	Crack	4	16	HL	-	Diagonal shear cracks	New							
204	L	Both	Both	Throughout	Crack	-		0.01	-	Several vertical, hairline flexural cracks throughout. Cracks are up to full height, spaced 2'-4' apart.	New				22			
204	L-Cross	Both	Both	Throughout	Crack	-		0.013	-	Several vertical, hairline flexural cracks throughout. Cracks are up to full height, spaced 3'-5' apart.	New							
204	R	L	Exterior	Pier 204R	Spall	1	10	9	3/4		No Change							1
204	R	L	Interior	Pier 205R	CFRP Delam	1	3	1			No Change							
204	R	R	Exterior	Pier 205R	CFRP Bulges	97				Bulges are solid.	No Change							
207	R	R	Interior	Pier 208	Efflo.	-	48			Between the stem and the bottom of the cap	New	F1-3	1					
208	R	R	Interior	Pier 208	Efflo.	-	48			Between the stem and the bottom of the cap	New	F1-7	1					
208	R	R	Interior	10' from Pier 209	Spall	1	4	2	3/4	On bottom edge	New	F1-10, 11					1	
209	L	L	Interior	Pier 210	CFRP Delam	2	?	?			No Change	F1-21						
209	L	L	Exterior	Pier 210	CFRP Delam	5	?	?			No Change							



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
209	L	R	Interior	Pier 210	CFRP Delam	2	?	?			No Change							
209	R	R	Interior	Pier 210	CFRP Delam	5	?	?			No Change							
209	R	L	Interior	Pier 210	CFRP Delam	?	?	?			No Change							
209	R	R	Exterior	Pier 210	CFRP Tear	6				Six small impact tears from overheight vehicle.	New	F1-18, F1-19, and F1-20						
210	L	R	Exterior	Pier 210	CFRP Delam	3	?	?			No Change							
210	R	R	Interior	Pier 210	CFRP Delam	6	?	?			No Change							
210	R	L	Interior	Pier 210	CFRP Delam	3	?	?			No Change							
210	R	L	Exterior	Pier 210	CFRP Delam	6	?	?			No Change							
212	L	L	Exterior	15' from Pier 213	CFRP Delam	1	2	2			No Change							
212	R	L	Exterior	15' from Pier 213	CFRP Delam	1	2	2			No Change							
217	L	L	Exterior	Pier 217L	Crack	1	6	HL	-	Diagonal shear crack	New	F2-5			1			
217	L	L	Exterior	8' from Pier 217L	Spall	1	3	1	1/4		No Change	F2-4					1	
217	L	L	Exterior	Pier 218L	Crack	1	22	HL	-	Diagonal shear crack	New	F2-8				2		
217	L	R	Exterior	Pier 218L	Crack	1	17	HL	-	Diagonal shear crack	New							
217	R	L	Exterior	Pier 218R	Crack	1	9	HL	-	Diagonal shear crack	New				1			
218	L	R	Exterior	Midspan	Spall	1	4	3	1/4		No Change	F2-10					1	
218	L	L	Interior	Pier 219L	CFRP Delam	3	4	1			No Change							
218	L	L	Exterior	Pier 219R	CFRP Delam	1	1	1			No Change							
218	R	L	Exterior	Pier 218R	Spall	1	2	2	1/4		No Change						1	

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
218	R	L	Exterior	Pier 219R	CFRP Delam	1	3	1			No Change							
218	R	-	-	Pier 219R	Spall	1	24	12	1	In the back side of the diaphragm	No Change							
219	L	R	Exterior	Pier 219L	Crack	4	22	HL	-	Diagonal shear cracks	New							
219	L	L	Exterior	Pier 219L	Crack	3	36	0.016	-	Diagonal shear cracks	No Change	F2-12, F2-13				3		
219	R	R	Exterior	Pier 219R	Crack	1	17	HL	-	Diagonal shear crack	New				1.5			
219	R	L	Exterior	Pier 219R	Spall	1	3	2	1		No Change							
219	R	L	Interior	15' from Pier 220R	Spall	3	1	1	1/2	Due to drill holes	No Change							
219	R	R	Interior	15' from Pier 220R	Spall	4	2	1	1/2	Due to drill holes	No Change	F2-34, F2-35					4	
220	R	L	Exterior	25' from Pier 220R	Spall	1	3	3	1/2	bottom edge of stem	No Change						1	
220	L	L	Bottom	Pier 221	Gouge	1	15	1	1/4		No Change						1.5	
221	L	L	Bottom	Midspan	Scrape	1	14	1.5	1/8		New	F2-21						
221	R	R	Exterior	15' from Pier 222R	Spall	2	3	2	1/4	bottom edge of stem	No Change						2	
222	L	R	Bottom	Pier 222L	Spall	1	3	3	1/4		No Change	F2-23, F2-24, F2-25					1	
222	L	R	Bottom	15' from Pier 222L	Spall	1	2	2	1		No Change						1	
222	R	R	Exterior	Pier 222R	Crack	1	20	HL	-	Diagonal shear crack	New				2			
223	L	R	Exterior	Pier 223L	Crack	2	32	HL	-	Diagonal shear cracks	New					3		
223	L	R	Bottom	Pier 223L	Honey.	1	6	4	1/2		No Change							
224	L	R	Bottom	Midspan	Spall	1	1	1	1/2		New						1	
225	R	R	Bottom	Pier 225R	Spall	1	3	3	1		No Change	F3-2					1	

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
225	L	L	Bottom	15' from Pier 226	Spall	2	2	2	1		No Change						2	
225	R	L	Both	Pier 226	Crack	1	88	HL	-	Horizontal crack on the interior face of stem, midway up, extending from the pier cap. Crack is reflected for 4'-3" on the exterior face. Possible previous repaired area.	New	F3-5, 6, 7				7.5		
227	L	R	Exterior	Pier 228	Flaking		4	1		Area of the skim coat beginning to flake off	No Change							
227	L	Both	Both	Pier 228	CFRP Delam					CFRP repair exhibits numerous delaminations on both left and right stems adjacent to Pier 228. Attempts to repair these locations with epoxy injection appear to be ineffective.	No Change	F3-10						
227	L	L	Exterior	Pier 228	CFRP Failure		18	4		CFRP is cracked and popping off 2'-6" L x 9" H, 18' from Pier 228 and 8" L, 10' from Pier 228. Also the wrap is delaminated nearly completely over the last 6' with peeled and cracked areas.	No Change	F3-12, F3-13, F3-14, F3-18						
227	L	L	Interior	Pier 228	Wires					Dislodged and unattached electrical wires in beam.	No Change	F3-15, F3-16, F3-17						
228	L	L	Interior	Pier 228	Patch	1				No significant deficiencies	No Change							
228	L	R	Exterior	Pier 228	Patch	1	36	6		No significant deficiencies	No Change						3	
228	R	L	Exterior	Pier 228	Patch	1	36	6		No significant deficiencies	No Change							
228	R	R	Exterior	Pier 228	Patch	1	24	12		No significant deficiencies	No Change							
228	L	R	Interior	25' from Pier 229	Spall	1	2	1	1/2		No Change						1	

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
229	R	R	Exterior	Pier 229	Crack	1	24	HL	-	Diagonal shear crack	New				2			
229	R	R	Interior	20' from Pier 229	Spall	1	4	2	1/2		No Change						1	
229	L	R	Exterior	30' from Pier 230	Honey.	1	96	3			No Change							
229	L	R	Exterior	Pier 230	Spall	1	2	2	1/2		No Change						1	
229	R	L	Exterior	Pier 230	Spall	1	2	2	1/2		No Change							
229	R	R	Exterior	Pier 230	Crack	1	19	HL	-	Diagonal shear crack	New				2			
230	L	R	Bottom	Pier 230	Spall	1	2	2	1/4		No Change						1	
230	R	R	Interior	4' from Pier 230	Crack	1	44	HL	-	Horizontal hairline crack, 11" from the bottom of the stem	No Change				4			
230	R	R	Exterior	20' from Pier 231	Spall	1	1	1	1/2		No Change	F3-29					1	
230	R	R	Exterior	Pier 231	Crack	1	16	HL	-	Diagonal shear crack	New				1.5			
231	L	R	Exterior	Pier 232	Delam.	2	6	1		Above CFRP repair	No Change						1	
237	L	R	-	Pier 237L	Exposed Reinf.	1				One exposed vertical bar at the end of the beam, beam not fully cast around bar.	New	F14-14						
237	L	R	R	Pier 237L	Crack	1	24	HL	-	Diagonal shear crack	New					2		
237	L	L	Exterior	Pier 237L	Crack	1	12	HL	-	Diagonal shear crack	New							
238	L	L	Exterior	Pier 238L	Crack	1	12	HL	-	Diagonal shear crack	New				1			
238	L	L	Exterior	Pier 239L	Crack	1	14	HL	-	Diagonal shear crack	New				1			
238	R	R	Exterior	Pier 238R	Crack	1	18	HL	-	Diagonal shear crack	New				1.5			
238	R	R	Exterior	Pier 239R	Crack	1	10	HL	-	Downward diagonal crack	New				1			
239	L	L	Exterior	Pier 240L	Crack	1	8	HL	-	Diagonal shear crack	New				1			
239	L	L	Exterior	Pier 240L	Spall	1	2	2	1/4		No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
258	L	L	Exterior	Pier 258L	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New					1		
258	L	L	Interior	Pier 258L	Crack	1	7	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
258	L	R	Exterior	Pier 258L	Crack	1	6	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
258	L	L	Interior	8' from Pier 258L	CFRP Patch	1				Mid-height of stem	No Change							
258	L	L	Exterior	Pier 259L	Crack	1	12	HL	-	Diagonal shear crack	New				1			
258	R	L	Exterior	Pier 258R	Crack	1	12	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
258	R	L	Interior	Pier 258R	Crack	1	24	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
258	R	R	Interior	Pier 258R	Crack	1	24	HL	-	Diagonal shear crack extending from the dapped end notch above the half height CFRP wrap	New							
258	R	R	Exterior	Pier 258R	Crack	2	33	HL	-	Diagonal shear cracks extending from the dapped end notch above the half height CFRP wrap	New					36		
259	L	L	Exterior	Pier 259L	Exposed Nails	10					No Change	F9-33						
259	L	L	Exterior	Pier 259L	Crack	1	18	HL	-	Diagonal shear crack	New				1.5			
259	L	L	Exterior	15' from Pier 259L	Spall	1	5	1	1/4	Also a scrape, 1' -3" L	No Change						1	
259	L	L	Exterior	Pier 260L	Exposed Nails	8					No Change							
260	L	L	Exterior	Pier 260L	Exposed Nails	7					No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
260	L	L	Bottom	Pier 260L	Spall	1	3	3	1/4		No Change						1	
260	L	L	Interior	Pier 260L	Grout Crack	1	42	HL	-	Vertical grout crack that turns diagonal into the stem.	New							
260	L	L	Exterior	Pier 260L	Grout Crack	1	42	HL	-	Vertical grout crack that turns diagonal into the stem.	New	F9-1						
260	L	R	Bottom	Pier 261	Spall	1	12	6	2	Includes exposed rebar; spall has been covered with epoxy mastic.	No Change	F9-27						1
260	R	R	Exterior	Pier 260R	Exposed Nails	5					New							
260	R	L	Exterior	Pier 260R	Crack	1	5	HL	-	Downward diagonal crack	New							
260	R	R	L	Pier 260R	Grout Crack	1	24	HL	-	Vertical grout crack	New							
260	R	L	Exterior	Pier 260R	Crack	1	12	HL	-	Diagonal shear crack	New							
260	R	R	Exterior	Pier 260R	Exposed Nails	9					No Change							
260	R	R	Exterior	Pier 260R	Crack	1	18	HL	-	Diagonal shear crack	New					1.5		
260	R	L	Exterior	Pier 260R	Delam.	1	5	5	1/2	Bottom of stem	New							
260	R	R	Exterior	Pier 261R	Exposed Nails	5					New							
260	R	L	Exterior	Pier 261R	Crack	1	7	HL	-	Diagonal shear crack	New							
260	R	L	Exterior	Pier 261R	Exposed Nails	8					No Change							
260	R	R	Exterior	Pier 261R	Crack	1	10	HL	-	Diagonal shear crack	New					1		
261	R	Both	Both	Throughout	Crack	-		HL	-	Vertical hairline flexural cracks, spaces ~1-2' apart, ranging full length of beam, starting a couple feet from each pier.	New				37			
261	L	L	Exterior	Pier 261L	Crack	2	32	HL	-	Diagonal shear cracks	New	F9-25				3		
261	R	R	Exterior	Pier 261R	Exposed Nails	4					New							
261	R	L	Exterior	Pier 31S	Crack	1	24	0.013	-	Diagonal shear crack	New	F9-5						

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
261	R	R	Exterior	Pier 31S	Crack	1	12	HL	-	Diagonal shear crack	New	F9-6						
261	R	L	Both	Throughout	Crack	-		HL	-	Vertical flexural cracks, spaces <1' apart, ranging full length of beam, starting a couple feet from each pier. Cracks at midspan are full height.	New	F9-2, F9-3			60			
M2	-	Both	Both	Throughout	Patch	-				All beams exhibit patches on both faces, 18' from M2 and 20' from M3. Perhaps from some previous attachments.	New	F4-8				2		
M2	C	-	Left	10' from Pier M2	Spall	2	8	4.5	1 1/2	Bottom of stem		F4-6, F4-7					2	
M2	C	-	Right	10' from Pier M2	Spall	2	5	2	1 1/2	Bottom of stem		F4-6, F4-7						
M2	C	-	Right	Pier M2	Spall	1	2	1	1/2	2 exposed nails also	No Change						1	
M2	C	-	Both	Throughout	Crack	-		HL	-	Vertical flexural cracks are present, spaced ~2' apart.	New	F4-16, F4-17			40			
M2	L	L	Exterior	10' from Pier M2	CFRP Patch	1					No Change							
M2	L	L	Exterior	10' from Pier M3	Delam.	1	2	1			No Change						1	
M2	L	R	Interior	20' from Pier M2	CFRP Delam	1	2.5	1			New	F4-5						
M2	L	L	Interior	Pier M2	CFRP Delam	1	2.5	1			New							
M2	R	R	Interior	Midspan	Spall	1	5	5	1		No Change	F4-11, F4-12, F4-13					1	
M2	R	-	-	Pier M2	Patch	1	10	6		Diaphragm patch, solid	New							
M2	R	-	-	Pier M2	Crack	5	12	HL		Vertical cracks in diaphragm	No Change	F4-4						
M2	R	R	Interior	Pier M2	CFRP Delam	1	2	1			No Change							
M2	R	R	Interior	Pier M2	CFRP Patch	1					No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
M2	R	L	Interior	Pier M2	CFRP Patch	1					No Change							
M2	R	L	Exterior	Pier M2	CFRP Patch	1					No Change							
M2	R	R	Interior	Pier M3	CFRP Delam	1	2	1			No Change							
M3	-	R	Rear	Pier M3	Delam.	1	10	12	3/8		New							
M3	-	L	Bottom	Pier M3	Patch Failure	1	10	5	1 1/2		No Change	F4-21						
M3	-	R	Interior	Pier M3	Crack	1	9	HL	-	Diagonal shear crack	New	F4-22						
M3	-	R	Exterior	Pier M3	Crack	2	27	HL	-	Diagonal shear cracks	New					2.5		
M3	-	L	Exterior	Pier M4	Crack	3	22	0.013	-	Diagonal shear cracks	New	F4-23						
M3	-	R	Interior	Pier M4	Crack	1	9	HL	-	Diagonal shear crack	New							
M3	-	R	Exterior	Pier M4	Crack	4	24	0.013	-	Diagonal shear cracks	New	F4-24				2		
M3	-	Both	Interior	Throughout	Honey.	-				The haunch between the inside faces of the stems and the underside of the flange has minor honeycombing throughout.	New	J4-3						
M4	-	L	Exterior	Pier M4	Crack	1	12	HL	-	Diagonal shear crack	New							
M4	-	R	Exterior	Pier M4	Crack	1	14	HL	-	Diagonal shear crack	New					1.5		
M4	-	R	Interior	20' from Pier M5	Spall	1	12	12	1/2		No Change							1
M4	-	L	Exterior	20' from Pier M5	Spall	1	12	3	1/2		No Change	J4-6						
M4	-	L	Exterior	15' from Pier M5	Spall	1	3	3	1/4		No Change						1	
M4	-	R	Exterior	Pier M5	Spall	1	4	3	1	Front bottom edge	No Change							
M4	-	R	Exterior	Pier M5	Popout	1	1.5	1.5	1/2	One exposed nail	No Change							
M4	-	L	?	Pier M5	Spall	1	3	2	1/4		No Change							
M4	-	L	Interior	Pier M5	Crack	1	12	HL	-	Diagonal shear crack	New							



Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
M4	-	L	Exterior	Pier M5	Crack	3	30	0.013	-	Diagonal shear cracks	New	F4-27				3		
M4	-	R	Exterior	Pier M5	Crack	3	30	0.013	-	Diagonal shear cracks	New	F4-25						
M5	-	L	?	15' from Pier 401	Spall	1	4	2	1/2	Adjacent to the steel plate	No Change						1	
M5	-	L	Interior	2' from midspan diaphragm	Spall	1	2	1	1/4	1" of exposed steel	No Change						1	
M5	-	L	Interior	Pier M5	Crack	1	3	HL	-	Diagonal shear crack	New							
M5	-	L	Exterior	Pier M5	Crack	1	7	HL	-	Diagonal shear crack	New							
M5	-	L	Both	Throughout	Skewed & Bent Bolts					A number of the bolts for the bottom stem plate are skewed causing the nuts not to be fully seated, though nuts are tight.	New	F4-28, J4-10, 11						
400	L	R	Exterior	Pier 400	Crack	1	9	HL	-	Diagonal shear crack	New							
400	L	L	Exterior	Throughout	Skewed & Bent Bolts					A number of the bolts for the bottom stem plate are skewed causing the nuts not to be fully seated, though nuts are tight.	New							
400	R	L	Interior	Pier 400	Crack	1	48	HL	-	Diagonal shear crack from the bottom of the diaphragm, 24" long that propagates longitudinally along the flange haunch for another 24".	New							
400	R	L	Exterior	Pier 400	Crack	3	30	HL	-	Diagonal shear cracks	New	F4-30						
400	R	R	Exterior	Pier 400	Crack	2	42	HL	-	Diagonal shear cracks	New	F4-31						
401	L	L	Exterior	Pier 401	Spall	1	3	3	1		No Change						1	
403	L	L	Exterior	Pier 403	Crack	1	7	HL	-	Diagonal shear crack	New	F4-34			1			
403	L	L	Interior	Pier 404	Spall	1	6	9	1/2		New	J19-4						1
404	L	R	Front	Pier 405	Spall	1	6	3	1/2		No Change							

Span	Side	Stem	Face	Location	Deficiency Type	Qty	Max Len. (in)	Max Width (in)	Depth (in)	Additional notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
404	L	L	Exterior	Pier 405	Crack	1	18	HL	-	Diagonal shear crack	New	J19-13			1			
404	R	R	Front	Pier 405	Spall	1	10	4	1/2	Front bottom edge	Increase	J19-5						1
404	R	R	Exterior	Pier 405	Exposed Nails	5					No Change	J19-6						
405	L	L	Bottom	20' from Pier 406L	Exposed Wire	1	2				No Change							
405	L	R	Exterior	Pier 406L	Exposed Nails	3					No Change							
406	L	R	Exterior	10' from Pier 408L	CFRP Delam	2	1	1			No Change							
406	L	L	Exterior	Pier 406L	Exposed Nails	3					No Change							

FINAL DRAFT

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
6	N	Exterior	Throughout	Light freckling corrosion is present at isolated locations on the webs and flanges throughout	New	B18-4
6	N	Interior	Throughout	Peeling paint is typical inside the boxes on the webs, top flanges and lateral bracing. Average is 8 SF in each bay.	New	J18-2
6	N	Interior	Throughout	Typical concrete overpour, up to 1"H x 8"W along the bottom flange. Often covers up weld, so can't be inspected.	New	J18-3
6	N	Interior	Bay 2	Pinhole flaw in rear vertical stiffener, left side.	No Change	
6	N	Interior	Bay 3	Nearly 100% of the bottom flange paint is peeled, exposing the primer in the forward half of Bay 3, all of Bay 4, and half of Bay 5.	New	J18-4
6	N	Interior	Bay 5	Left web just below the top flange in Bay 5, 5' from Bay 4 exhibits 2 crescent moon gouges up to 3" long, slightly ground.	No Change	J18-5
6	N	Interior	Bay 6	Pinhole flaw in upper fillet weld right side adjacent to 1st stiffener at 1/3 bay length.	No Change	
6	N	Interior	Bay 6	7 inches of vertical fillet weld for the left stiffener at Bay 5 exhibits pinhole flaws	No Change	J18-6
6	S	Exterior	Pier 6	Moderate surface corrosion along rear face of bottom flange	New	B18-36
6	S	Interior	Throughout	Several locations of peeling top coat.	New	F18-1
6	S	Interior	Bay 3	Two pinhole flaws in the left side top flange, 2' from Bay 2.	No Change	
6	S	Interior	Bay 5	Pinhole flaw in right top weld at midspan.	No Change	
6	S	Exterior	Pier 7	Light surface corrosion and bubbling paint on the underside of the bottom flange	New	B18-31
7	N	Exterior	Throughout	Light surface corrosion on bottom flange at isolated locations, full length	New	B18-12
7	N	Interior	Throughout	Peeling paint is typical inside the boxes on the webs, top flanges and lateral bracing. Average is 10 SF in each bay.	New	
7	N	Interior	Bay 1	The 1st vertical stiffener for the left web exhibits several pinhole flaws in the welds, along both sides	No Change	
7	N	Interior	Bay 1	The top weld exhibits a pinhole flaw, 3" from Bay 2 on the left side.	No Change	
7	N	Exterior	Bay 3	Light surface corrosion on splice plates and bolts	No Change	B18-23
7	N	Interior	Bay 6	Heavy surface corrosion on top flange plate at Pier 8, likely from failed deck joint.	New	J18-7, J18-8
7	N	Interior	Bay 7	3 pinhole flaws exist in right top fillet weld at mid point and 1 exists at 3/4 of the bay length.	No Change	
7	N	Exterior	Pier 8	Moderate surface corrosion on the underside of the top flange at Pier 8, both flanges, up to 4' L.	New	B18-13

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
7	S	Exterior	Throughout	Light surface corrosion along right and left top flange, isolated locations, full length.	New	B18-16, 18
7	S	Exterior	Throughout	Light surface corrosion along left bottom flange, full length.	New	B18-17
7	S	Interior	Throughout	Up to 1 1/2" deep concrete accumulation at random locations. Other minor debris noted.	New	F18-4
7	S	Interior	Throughout	Peeling top coat on webs, bottom flange and cross frames.	New	F18-2
7	S	Interior	Bay 2	4 pinhole flaws exist in top flange fillet welds at random locations in the left side.	No Change	F18-3
7	S	Exterior	Bay 3	Light surface corrosion on slice plates and bolts	New	B18-22
7	S	Exterior	Midspan	1" of exposed steel with surface corrosion at midspan, ? bottom flange and web.	No Change	B18-21
7	S	Exterior	Pier 8	Moderate surface corrosion on both top flange	New	B18-14
7	S	Exterior	Pier 8	Moderate to heavy corrosion on the forward edge of the bottom flange	New	B18-15
8	N	Exterior	Pier 8	The rear face of the bottom flange exhibits minor surface corrosion.	New	B18-43
8	N	Interior	Pier 8	SIP formwork failure 8' L x 4' W x 1' D (collapse during construction) 1' from Pier 8.	No Change	J18-10
8	N	Exterior	Pier 8	Right top flange exhibits moderate surface corrosion for 3'.	New	B18-48
8	N	Exterior	throughout	Paint along ? weld is chipped at isolated locations.	No Change	
8	N	Interior	Throughout	Typical concrete overpour, up to 1"H x 8"W along the bottom flange. Often covers up weld, so can't be inspected.	New	
8	N	Exterior	Midspan	The bottom flange exhibits minor surface corrosion up to 1'-6" L at midspan.	No Change	
8	N	Exterior	27' from Pier 8	Gouge in bottom face of bottom flange which exhibits moderate corrosion.	New	B18-49
8	N	Interior	Bay 3	Exhibits 5 pinhole flaws in the right top flange fillet weld at 1/4 of bay length.	No Change	
8	N	Interior	Bay 3	Exhibits pinhole flaws in the left top flange, 5 at 3/4 bay and 1 at 1/4 bay.	No Change	
8	N	Interior	Bay 4	Exhibits 5 pinhole flaws in the right top flange fillet weld at 3/4 of bay length.	No Change	
8	N	Interior	Bay 4	There are 3 pinhole flaws in the left top flange, 6' from Bay 5.	No Change	
8	N	Interior	Bay 6	1 SF of peeling paint on the top of bottom flange at Bay 7.	New	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
8	N	Interior	Bay 7	4 pinhole flaws in the left side at the 2nd vertical stiffener, west side.	No Change	
8	N	Interior	Bay 7	Bay 7 and 8 - There is staining for 12' on the bottom flange along the right web with light surface corrosion on the fillet weld, indicating previous water intrusion at the splice plate.	New	J18-11
8	N	Interior	Bay 8	There are two bolts in the underside of the right top flange that have been torched during construction to fit at the splice plate.	New	
8	N	Exterior	15' from Pier 9	15' from Pier 9, 10 small smooth gouges on right web.	No Change	
8	N	Exterior	Pier 9	Light surface corrosion on splice plates and bolts	No Change	B18-50
8	N	Exterior	Pier 9	Left web exhibits 21 small gouges at Pier 9.	No Change	B18-52
8	S	Exterior	Pier 8	Left top flange exhibits moderate surface corrosion for 3'.	New	B18-47
8	S	Interior	Bay 2	Pinhole defects exist in top right fillet weld at 2/3 of the bay length.	No Change	
8	S	Interior	Bay 3	Corrosion on SIP form full width of deck near rear cross frame	New	F18-5
8	S	Interior	Bay 4	2 pinhole defects exist in top right fillet weld at mid bay length and 1 at 3/4 bay length.	No Change	
8	S	Interior	Bay 4	3 pinhole defects exist in top left fillet weld.	No Change	
8	S	Interior	Bay 5	A pinhole defect exists in top flange right fillet at 3/4 bay length.	No Change	
8	S	Interior	Bay 6	5 pinhole defects exist in top right flange fillet weld throughout.	No Change	F18-6
8	S	Interior	Bay 8	4 top flange splice bolts have been torch to fit.	New	F18-7
9	Pier Cross Girder	Interior	Throughout	Peeling paint exposing primer is present throughout	No Change	
9	Pier Cross Girder	Interior	Throughout	The top flange exhibits minor surface corrosion up to 4' L x 2' W.	No Change	J18-12
9	Pier Cross Girder	Interior	Throughout	The vertical stiffeners exhibit minor surface corrosion at the top.	No Change	J18-13
9	N	Exterior	Pier 9	Minor surface corrosion on splice plates and bolts.	No Change	
9	N	Interior	Throughout	Typical concrete overpour, up to 1"H x 8"W along the bottom flange. Often covers up weld, so can't be inspected.	New	
9	N	Interior	Throughout	This span exhibits significant peeling and bubbling paint throughout, up to 80 SF per bay.	New	J18-14
9	N	Interior	Bay 7	Left side top weld at flange exhibits 2 pinhole flaws, midspan.	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
9	N	Interior	Bay 8	3 pinhole flaws in top left flange fillet weld at edge of fillet, midspan.	No Change	
9	N	Exterior	Pier 10	Left web connection to the cross beam exhibits three bolts with a slight gap.	New	J18-19
9	S	Interior	Throughout	Concrete from deck pour accumulated on bottom flange up to 1" deep on top of the bottom flange and on splice plates.	New	F18-10
9	S	Interior	Throughout	Top coat paint peeling in multiple bays in the webs and on some cross bracing, bottom flange on the longitudinal beam.	New	F18-9
9	S	Interior	Bay 1	One top flange splice bolt head has been torch cut to fit.	New	F18-8
9	S	Interior	Bay 10	3 bolt heads on both right and left top flange splice bolts have been torch to fit	New	
9	S	Interior	Bay 2	Pinhole defect at right top fillet weld at midspan.	No Change	
9	S	Interior	Bay 6	SIP form sagging down approximately 1 1/2".	New	F18-12
9	S	Exterior	Pier 10	Minor surface corrosion on splice plates and bolts.	No Change	B18-54
10	Pier Cross Girder	Exterior	Throughout	Left end exhibits paint cracking along bottom flange weld with minor corrosion.	No Change	
10	Pier Cross Girder	Exterior	Throughout	The front and rear bottom flange exhibit gauges up to 8" L.	No Change	
10	Pier Cross Girder	Exterior	Throughout	Rear face exhibits minor surface corrosion along the web to bottom flange. NO CHANGE	No Change	B18-64
10	Pier Cross Girder	Interior	Throughout	Primary paint coating is failing (peeling and bubbling) at random locations throughout interior. The top coat is very thin and poorly applied throughout.	No Change	J18-15, 18
10	Pier Cross Girder	Interior	Throughout	Paint flakes and debris are present throughout the bottom flange	No Change	J18-16
10	Pier Crosshead	Exterior	Column 10N	Front face exhibits 2 SF of peeling paint with moderate surface corrosion.	No Change	B18-65
10	Pier Cross Girder	Interior	Column 10N	There is minor surface corrosion on the left end perimeter weld. There is also minor surface corrosion on the vertical fillet welds for the two left end stiffeners.	New	
10	Pier Cross Girder	Exterior	Column 10S	Minor surface corrosion at the corners of the top flange and the web, in the right rear face.	No Change	
10	Pier Cross Girder	Interior	Column 10S	There is minor surface corrosion on the right end perimeter weld. There is also minor to moderate surface corrosion in the vicinity of the vertical fillet welds for the two right end stiffeners.	New	J18-17
10	Pier Cross Girder	Interior	midspan	There is light surface corrosion at isolated locations on the stiffeners at the box beam junctions.	New	
10	N	Exterior	Pier 10	Minor surface corrosion on connection plates and bolts at Pier 110	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
10	N	Exterior	Pier 10	Right web connection to the cross head exhibits two bolts with a slight gap.	New	J18-19
10	N	Interior	throughout	Typical concrete overpour, up to 1"H x 8"W along the bottom flange. Often covers up weld, so can't be inspected.	New	
10	N	Interior	throughout	This span exhibits significant peeling and bubbling paint throughout, up to 100 SF per bay.	New	J18-20
10	N	Exterior	Pier 11	Minor surface corrosion on splice plates and bolts.	No Change	B18-67
10	S	Exterior	throughout	Right web is slightly warped in several locations.	No Change	B18-69
10	S	Interior	Throughout	Peeling top coat of paint in webs, on cross frames and some areas on bottom flange.	New	F18-17, 18
10	S	Interior	Bay 1	Minor surface corrosion at the splice plate and 2 unpainted bolts on the top right side 3 web splice bolts and 1 flange bolt torched to fit and exhibiting surface corrosion		F18-13
10	S	Both	Bay 3	Right web exhibits a 2 3/4" long outward bulge/gouge, 1' from Bay 2 and a 2" L area of no paint/separation at base of the weld.		F18-14, 15 & 16.
10	S	Interior	Bay 4	A pinhole flaw on the right side, 3' from Bay 3	No Change	
10	S	Interior	Bay 5	A pinhole flaw in the right side, 3' from Bay 6.	No Change	
10	S	Interior	Bay 7	Left web exhibits a pinhole flaw at midspan.	No Change	
10	S	Interior	Bay 8	Several (5) pinhole flaws throughout, right side.	No Change	F18-19
10	S	Exterior	Pier 11	Minor surface corrosion on splice plates and bolts.	No Change	B18-68
11	Pier Crosshead	Interior	Throughout	The inside of the cross head exhibits peeling paint on 50% of the surface throughout	No Change	J18-21
11	N	Exterior	Pier 11	Minor surface corrosion on splice plates and bolts.	No Change	B18-71
11	N	Interior	Throughout	Bay 5 exhibits 100 SF of peeling paint - on the right web and on the bottom flange. Otherwise, approximately 20 SF per bay.	New	
11	N	Interior	Throughout	Typical concrete overpour, up to 1"H x 8"W along the bottom flange. Often covers up weld, so can't be inspected.	New	
11	N	Interior	Bay 8	Pinhole flaw in the left side at midspan	No Change	
11	N	Interior	Bay 9	#1 anchor bolt nut is not fully engaged at Pier 12.	No Change	
11	N	Interior	Bay 9	#4 anchor bolt nuts is covered in concrete overpour.	No Change	
11	S	Exterior	Pier 11	Minor surface corrosion on splice plates and bolts.	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
11	S	Interior	Throughout	Up to 1 1/2" deep concrete spillage on top flange from deck pour.	New	F18-20
11	S	Interior	Throughout	Peeling top coat of paint in webs, on cross frames and some areas on bottom flange and on the longitudinal stiffener at the bottom flange.	New	F18-21
11	S	Interior	Bay 4	There are 3 pinhole flaws in the weld of the 1st vertical stiffener	No Change	
11	S	Interior	Bay 9	Splice bolts exhibit minor corrosion.		
11	S	Interior	Bay 9	Light to moderate corrosion web stiffeners above dapped end.	New	F18-22
11	S	Interior	Bay 9	SIP form clips exhibit minor corrosion.	No Change	
11	S	Exterior	10' from P12	Bottom flange exhibits 1' diameter of peeling paint exposing primer.	No Change	B18-73
29	N	Interior	Throughout	Multiple locations of peeling paint exposing primer on webs and bottom flange. Approximately 5 SF per bay.	New	
29	N	Interior	Bay 1	Lateral bracing in first bay exhibits minor surface corrosion.	No Change	J17-13
29	N	Interior	Bay 1	Moderate surface corrosion on the underside of the top flange plate above the bearing stiffeners.	New	J17-14
29	N	Interior	Bay 1	Build up, up to 1/2" deep of cement material and saw dust.	New	J17-15
29	N	Interior	Bay 2	Top flange to left stiffener weld between Bay 2 and 3 exhibits poor quality weld termination due to improper fusion.	No Change	
29	N	Interior	Bay 2	There is a pinhole flaw in the right flange in the top, midspan.	No Change	
29	N	Interior	Bay 7	There are three bolts in the underside of the right top flange that have been torched during construction to fit at the splice plate.	No Change	J17-16
29	N	Exterior	Pier 30	Light surface corrosion on splice plates	New	F17-33, 34
29	S	Interior	Throughout	Bottom internal fillet welds cannot be inspected in numerous areas due to excess concrete deck pour drainage inside box girder on bottom surface.	No Change	
29	S	Interior	Bay 1	1" deep powdery substance throughout bay.	New	F17-15
29	S	Interior	Bay 1	Peeling top coat exposing primer coat.	New	F17-16&17
29	S	Interior	Bay 1	Light corrosion on top flange of the end web.	New	F17-19
29	S	Interior	Bay 2	Pinhole flaw in the right side of weld, 3/4 length.	No Change	
29	S	Interior	Bay 3	Pinhole flaw in the right top flange weld.	No Change	F17-20



Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
29	S	Interior	Bay 5	Pinhole flaw in the left flange weld.	No Change	
29	S	Interior	Bay 6	Top coat paint peeling on top of cross frame.	New	F17-21
29	S	Interior	Bay 7	Top coat paint peeling on right web splice plate. Also concrete build up on bottom flange splice plate.	New	F17-22
29	S	Interior	Bay 7	Bolted splice connection exhibits 3 torched bolt heads.	No Change	
29	S	Exterior	Pier 30	Light surface corrosion on splice plates	New	
30	Pier Cross Girder	Interior	throughout	The left faces of all the stiffeners between boxes are missing a top coat of paint	New	J17-17
30	Pier Crosshead	Exterior	Rear Face	5 SF area of blistering paint on the rear face	New	F9-11, F9-12
30	N	Interior	Throughout	Multiple locations of peeling paint exposing primer on webs and top flange. Approximately 4 SF in bays 5 thru 8, with nearly 10 SF on the rear face of the diaphragm at Pier 31.	New	J17-19
30	N	Interior	Throughout	Typical concrete buildup on the bottom flange along the webs	New	
30	N	Exterior	15' from Pier 30	Left face exhibits 2 gouges up to 2" L x 1 1/2" W x 1/8" D	No Change	
30	N	Exterior	3.5' from Pier 31	84) Span 30N (Exterior) - Lower flange on left side exhibits gouges 4" L x 1" W x 1/8" D, 3'-6' from Pier 31. NO CHANGE	No Change	
30	N	Exterior	30' from Pier 31	Bottom face of bottom flange exhibits 20 SF of peeling paint exposing primer	New	
30	N	Exterior	35' from P31	Right bottom flange has a bend, 4" L x 1 1/8" x 1/4" D (1/8" loss).	No Change	F9-13
30	N	Exterior	35' from P31	Right bottom flange has a bend, 6" L x 1" x 1/4" D,	New	F9-20, F9-21
30	N	Exterior	4.5' from ?	Lower flange on right side exhibits a gouge 3" L x 1" W x 1/8" D,	No Change	
30	N	Interior	Bay 3	Top right fillet weld exhibits pinhole flaw at 2/3 distance of the bay length.	No Change	
30	N	Interior	Bay 5	Top right fillet weld exhibits 1 pinhole flaw at mid span and 3 in the right forward stiffener vertical weld.	No Change	J17-18
30	N	Interior	Bay 6	Top right fillet weld exhibits 4 pinhole flaws at 1/3 the distance of the bay length.	No Change	
30	N	Interior	Bay 7	There is a pinhole flaw in the right flange at the top, midspan.	No Change	
30	N	Interior	Bay 8	There are two bolts in the right top flange splice that have been torched to fit	No Change	
30	N	Exterior	Midspan	Light surface corrosion in the web and the bottom flange, left side, midspan.	No Change	F17-35

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
30	N	Exterior	midspan	Bottom right edge of the flange is scraped, exposing primer for 4', mid span.	New	F17-38
30	N	Exterior	midspan	Light surface corrosion on bottom flange near midspan	New	F17-39
30	N	Exterior	Pier ?	A bolt in the left web exhibits a 1/8" gap.	No Change	
30	N	Exterior	Pier 30	Splice plates and bolts at Pier 30 exhibits minor surface corrosion.	No Change	F17-32
30	S	Interior	Throughout	Top coat has peeling paint in multiple bays in the webs and on some cross bracing	New	F17-23
30	S	Interior	?	Bolted splice connection exhibits 3 torched bolt heads.	No Change	
30	S	Exterior	30' from Pier 31	Bottom face of bottom flange, bottom face of the top right flange and the right face of right web exhibit 35 SF of peeling paint exposing primer.	New	F9-15 -F9-19, F9-22
30	S	Interior	Bay 3	The SIP form is sagging up to 3" down over the cross frame.	No Change	F17-25
30	S	Interior	Bay 3	There is a pinhole flaw in the top weld 2/3 length in the right flange.	No Change	
30	S	Interior	Bay 6	Concrete from deck pour accumulated on bottom flange up to 3" deep.	New	F17-24
30	S	Exterior	Pier 30	Bottom flange exhibits 6 gouges up to 5" L x 1" W x 3/16" D between the splice plate at Pier 30 and mid span.	No Change	F17-37, 17-38
30	S	Exterior	Pier 30	Minor surface corrosion on the splice plate and bolts at Pier 30.	No Change	
31	Pier Cross Girder	Interior	Throughout	The bottom flange exhibits paint peel with minor surface corrosion, areas missing top coat and debris up to 1", including bird carcasses.	No Change	J17-20
31	N	Interior	Throughout	Multiple locations of peeling paint exposing primer on webs and top flanges. Average of 6 SF per bay.	New	J17-21
31	N	Exterior	Throughout	Webs exhibit bubbling paint at numerous isolated locations, nearly full length.	New	B17-25
31	N	Exterior	3/4 Span	30 SF area of blistered paint, on exterior right web and bottom flange.	New	
31	N	Interior	Bay 2	There are 2 pinhole flaws in the 1st vertical stiffener in the left flange.	No Change	
31	N	Interior	Bay 6	Pinhole flaw in right flange top weld.	No Change	
31	N	Interior	Bay 8	3 Pinhole flaws exist in right top flange fillet weld at 1/4 bay length.	No Change	
31	N	Interior	Bay 9	Pinhole flaw in the left side vertical stiffener, rear face.	No Change	
31	N	Interior	Bay 9	Moderate surface corrosion on the internal bearing stiffener and on the underside of the top flange plate.	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
31	N	Exterior	Pier 31	Minor surface corrosion at the splice plate at Pier 31.	No Change	
31	N	Exterior	Pier 32	Surface corrosion on left top flange for 5'	New	F11-2
31	S	Interior	throughout	Large areas of peeling top coat	New	F17-27
31	S	Interior	throughout	Concrete over pour up to 3" deep on top of bottom flange at several locations.	New	F17-28
31	S	Both	Throughout	Isolated locations of minor corrosion along top flange.	No Change	
31	S	Exterior	Throughout	Webs exhibit bubbling paint at numerous isolated locations, nearly full length.	New	
31	S	Interior	Bay 1	Missing bolt in right top splice plate	No Change	F17-26
31	S	Interior	Bay 9	Intermediate web stiffener exhibits minor surface corrosion along the stiffener to top flange weld.	No Change	F17-30
31	S	Exterior	Pier 31	Minor surface corrosion at the splice plate	New	
31	S	Exterior	Pier 32	Bottom flange, right edge there is a 2 1/2" x 1/2" x 1/8" nick, 9" from end of beam.	New	F11-6
31	S	Exterior	Pier 32	1 SF blistering paint, on exterior right web	New	
31	N. Turn.	Exterior	1/4 span	2' of paint bubbling on right web	New	B17-12
31	N. Turn.	Interior	Bay 1	Nearly 100% of surface area has peeling paint exposing primer.	New	J17-10
31	N. Turn.	Interior	Bay 1	Left splice plate has numerous unpainted bolts	New	J17-11
31	N. Turn.	Interior	Bay 1	Typical concrete buildup on bottom flange and splice	New	J17-12
31	S. Turn.	Interior	Throughout	Up to 1/2" of concrete over pour on the bottom flanges along webs.	New	J17-8
31	S. Turn.	Exterior	1/4 span	2' of paint bubbling on left web	New	B17-18
31	S. Turn.	Exterior	1/4 span	4' H x 10' L peeling paint on left web plate at 1/4 span. Also 2sf on left web near Pier 31.	Increase	B17-22
31	S. Turn.	Interior	Bay 1	Inside face of left web exhibits 10 sf of peeling paint, exposing primer. 1 sf on right web. 4 sf in bearing area.	New	J17-7
31	S. Turn.	Interior	Bay 3	4'x6' area of peeling paint exposing primer on the inside face of the left web.	New	J17-9
31	S. Turn.	Exterior	Pier 31S	Light surface corrosion on bottom face of bottom flange at Pier 31S.	New	B17-28

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
52	L	Interior	Bay 1	Bearing stiffeners at the bottom flange have moderate surface corrosion.	New	J16-25
52	L	Interior	Bay 1	Bearing stiffeners at the dapped bottom flange at the right anchor bolt exhibit isolated laminating corrosion with up to 1/16" section loss, in two areas up to 2 square inches.	New	J16-26
52	L	Interior	Bay 15	Left top fillet weld exhibits a pinhole flaw at the center of bay. Right side similar at the first 1/3 of bay.	No Change	
52	L	Interior	Bay 3	Leaves and styrofoam debris on top of the bottom flange	New	J16-27
52	L	Interior	Bay 7	Pinhole flaw in weld of cross bracing connector plate weld at end of weld. NO CHANGE	No Change	
52	L	Interior	Bay11	Minor surface corrosion on bolts in splice plate.	No Change	J16-28
52	L	Interior	Bay13	Right top fillet weld exhibits a pinhole flaw, 1' past stiffener 14-2.	No Change	
52	R	Exterior	Throughout	Cross-bracing between the left and right spans exhibit minor surface corrosion.	No Change	F17-13
52	R	Interior	Bay 15	Portal diaphragm exhibits a vertical weld at the left web junction of diaphragm and web lacking a primer and final paint coat.	No Change	F16-26/27
52	R	Interior	Bay 15	Efflorescence stains with light corrosion on SIP forms along the top of both webs	New	F16-31
52	R	Interior	Bay 2	Minor surface corrosion on the nuts.	No Change	
52	R	Interior	Bay 7	Rear top cross bracing has a bend 3" L x 1/4".	No Change	F16-25
52A	L	Interior	Bay 1	Moderate surface corrosion on all splice bolts with up to 15% section loss on nuts.	No Change	F17-1 & 2
52A	L	Interior	Bay 1	There is an area of minor corrosion at the bottom of the 1st vertical stiffener, south face.	No Change	
52A	L	Interior	Bay 2	Light corrosion on bottom of end web stiffeners	New	F17-4
52A	L	Interior	Bay 2	Minor surface corrosion on all splice bolts.	No Change	
52A	L	Exterior	Pier 52A	Light to moderate corrosion on splice plate and bolts	New	F12-69
52A	R	Interior	Bay 1	Light surface corrosion on all splice bolts.	No Change	J17-1
52A	R	Interior	Bay 2	Minor surface corrosion on all splice bolts.	No Change	
52A	R	Interior	Bay 5	There are left over metal pieces that have significant corrosion on the bottom flange and dapped mid flange.	New	J17-2,3
52A	R	Interior	Bay 5	There is light surface corrosion on the bearing stiffeners above the mid flange.	New	J17-4

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
53	L	Interior	Bay 1	Right top fillet weld exhibits a pinhole defect at the first 1/3 of bay.	No Change	
53	L	Interior	Bay 10	There is a pinhole flaw in the 1st vertical stiffener in the left flange at the top	No Change	
53	L	Interior	Bay 5	Minor surface corrosion on splice bolts.	No Change	
53	L	Exterior	Pier 54	The bottom bolts for the 3rd cross frame from Pier 54 exhibit light surface corrosion	New	B17-1
53	L	Exterior	Pier 54	Moderate surface corrosion on the underside of the bottom flange and on the access hatch latch	New	J16-29
53	R	Interior	Bay 1	Sawdust and other debris accumulation up to 1/4" deep in Bays 1 & 2.	New	F16-29
53	R	Interior	Bay 1	Efflorescence and light corrosion along edges of SIP forms at the top flange both left and right sides.	New	F16-30
53	R	Interior	Bay 5	Moderate surface corrosion on tops of splice bolts where paint is missing.	New	F16-32
53	R	Exterior	Bay 5	Bolts in the web splice exhibit minor surface corrosion.	No Change	
53	R	Interior	Bay 8	There are several bolts and nuts in the right flange that exhibit minor surface corrosion.	No Change	F16-33
53	R	Exterior	Pier 54	The underside of the bottom flange exhibits surface corrosion at the hatch.	New	B17-2
53	-	Exterior	Pier 53	Diaphragm bolts and plate exhibit minor surface corrosion.	No Change	F17-7
53	Both	Exterior	throughout	Cross bracings between the left and right spans exhibit minor corrosion on the members and bolts.	New	F17-14, J16-30
205	L	Interior	Throughout	Minor amounts of concrete over pour buildup is present on the bottom flange, throughout, some of which is covering the welds making them difficult to inspect.	No Change	J16-2, J16-4
205	L	Interior	Bay 1	Light surface corrosion on bearing stiffeners	New	J16-3
205	L	Exterior	Bay 6	Light to moderate surface corrosion on splice plate bolts.	New	
205	L	Interior	Bay 6	Staining on the bottom flange which may indicate water intrusion. Top of right web at the SIP form exhibits corrosion from possible water leak.	No Change	J16-5
205	L	Interior	Bay 6	Very light surface corrosion on splice plates	New	J16-6
205	L	Interior	Bay 7	Light staining on the bottom flange which may indicate water intrusion.	No Change	
205	L	Interior	Bay 9	Moderate surface corrosion at SIP form drain opening.	Increase	J16-7
205	R	Interior	Throughout	Concrete over pour is present on the bottom flange, throughout.	No Change	F16-3

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
205	R	Exterior	Bay 7	Light to moderate surface corrosion on splice plate bolts.	New	
206	L	Interior	Throughout	Mortar leakage on the bottom flange weld at various locations.		J16-8
206	L	Interior	Bay 10	Light debris accumulation on dapped bottom flange at anchor bolts	New	J16-10
206	L	Exterior	Bay 3	Light to moderate surface corrosion on splice plate bolts.	New	B16-11
206	L	Interior	Bay 3	Very light surface corrosion on splice plate bolts.	New	J16-9
206	R	Interior	?	Light scattered spot corrosion	New	F16-6
206	R	Exterior	Bay 4	Light to moderate surface corrosion on splice plate bolts.	New	B16-10
213	L	Interior	Throughout	There is up to ½" of concrete over flow present on the bottom flange, isolated locations throughout.	New	
213	L	Exterior	Bay 10	Light to moderate surface corrosion on splice plate bolts.	New	
213	L	Interior	Bay 10	Light surface corrosion on splice plates and bolts and on bottom flange for 2'x6'.	New	J16-14
213	L	Interior	Bay 12	Weld at top of rear cross bracing, right side exhibits no paint for 1".	No Change	J16-15
213	L	Interior	Bay 12	Light sheen of surface corrosion on the top of the bottom flange in this bay, 10' L x 6' W.	New	J16-16
213	L	Interior	Bay 2	Bottom flange, right side at rear cross frame has an area of light surface corrosion 10'x1'.	New	J16-13
213	R	Exterior	Bay 10	Light to moderate surface corrosion on splice plate bolts.	New	
213	R	Interior	Bay 10	Concrete spill from deck pour has covered some splice bolts.	No Change	F16-8
214	L	Interior	Throughout	There is up to ½" of concrete over flow present on the bottom flange, throughout.	No Change	
214	L	Interior	Bay 1	A light sheen of surface corrosion on the top of the bottom flange in this bay, 18' L x 6' W.	New	
214	L	Interior	Bay 10	Some leftover metal pieces have created minor corrosive marks on the bottom flange.	No Change	
214	L	Interior	Bay 10	Light to moderate surface corrosion on the top face of the bottom flange, right side in Bays 10 and 11.	New	J16-17
214	L	Exterior	Bay 4	Light to moderate surface corrosion on splice plate bolts.	New	
214	L	Interior	Bay 4	Light surface corrosion on the splice plates and bolts	New	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
214	R	Interior	Throughout	Concrete overpour up to 1" on bottom flange throughout.	No Change	F16-11
214	R	Exterior	Bay 1	The bottom flange adjacent to the bearing exhibits peeling paint.	No Change	
214	R	Exterior	Bay 11	The bottom flange adjacent to the bearing exhibits peeling paint.	No Change	
214	R	Interior	Bay 3	Top right edge of SIP form exhibits minor surface corrosion and efflorescence in Bays 3 and 4.	No Change	F16-9
214	R	Exterior	Bay 4	Light to moderate surface corrosion on splice plate bolts.	New	
214	R	Interior	Bay 4	Lateral bracing at the splice location has minor corrosion on top right corner.	No Change	
214	R	Interior	Bay 4	Splice connection exhibits minor surface corrosion and concrete over pour on splice bolts and plates.	No Change	F16-10
215	L	Interior	Throughout	There are isolated areas of concrete over pour buildup 1/2" on the bottom flange.	No Change	
215	L	Exterior	Throughout	There is light surface corrosion on the canopy bolts.	No Change	
215	L	Exterior	Bay 1	The right bottom flange exhibits peeling paint up to 12" L.	No Change	B16-51, 52
215	L	Exterior	Bay 2	Light to moderate surface corrosion on splice plate bolts.	New	
215	L	Interior	Bay 4	A slight upward deformation (hardly perceptible) noted in the bottom flange, middle of bay.	No Change	J16-20
215	L	Interior	Bay 9	Minor surface corrosion on last right web stiffener	No Change	J16-21
215	R	Exterior	Throughout	Right web of span exhibits splattered concrete originating from the construction of an adjacent high rise building.	No Change	
215	R	Both	Throughout	Both sides of the webs exhibit 1/4" drilled hole used to hold the template for the canopy drill holes.	No Change	
215	R	Exterior	Throughout	There is light surface corrosion on the canopy bolts.	No Change	
215	R	Interior	Throughout	Concrete over pour up to 1" deep on top of bottom flange at several locations.	New	F16-19
215	R	Exterior	Bay 2	Light to moderate surface corrosion on splice plate bolts.	New	
215	R	Interior	Bay 2	Light to moderate surface corrosion on splice plate bolts.	No Change	
215	R	Interior	Bay 8	Right side drill hole for canopy through weld at stiffener.	No change	F16-20, 21
215	R	Interior	Bay 9	The grounding system is attached to the steel box.	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
232	L	Interior	Bay 1	Live roaches	New	
232	L	Interior	Bay 10	SIP forms exhibit light surface corrosion and have efflorescence buildup.	New	
232	L	Interior	Bay 11	SIP forms exhibit light surface corrosion and have efflorescence buildup.	New	
232	L	Interior	Bay 12	SIP forms exhibit light surface corrosion and have efflorescence buildup.	New	
232	L	Exterior	Bay 9	Splice plate bolts exhibit minor surface corrosion.	New	
232	L	Interior	Bay 9	The splice plate bolts exhibit light surface corrosion.	New	J26-2
232	L	Interior	Bay 9	SIP forms exhibit light surface corrosion and have efflorescence buildup.	New	J26-3
232	L	Interior	Bay 9	The lateral bracing connection plates exhibit light surface corrosion.	No Change	J26-4
232	R	Interior	Throughout	Concrete spillage on top of the bottom flange throughout from deck placement.	New	F26-6
232	R	Exterior	Bay 9	Splice plate bolts exhibit minor surface corrosion.	New	
232	R	Interior	Bay 9	Corrosion with efflorescence on SIP forms	New	F26-5
232	R	Interior	Bay 9	Light corrosion on bolt heads of splice plates	New	F26-5
233	L	Interior	Bay 11	The rear cross bracing is bent up 1/4".	No Change	
233	L	Interior	Bay 4	Moderate surface corrosion along the bottom edge of the lateral bracing, vertical leg.	New	J26-5
233	L	Interior	Bay 4	Splice plate bolts exhibit light surface corrosion.	New	
233	R	Exterior	Throughout	Cross bracing between the left and right spans exhibit minor corrosion on the bolts.	No Change	
233	R	Interior	Throughout	Minor concrete spillage along the bottom flange mainly along the web wall from deck construction.	New	F26-9
233	R	Interior	Bay 5	Corrosion with efflorescence on SIP forms	New	F26-8
233	R	Interior	Bay 9	Corrosion with efflorescence on SIP forms	New	
234	L	Interior	Bay 3	The splice plate bolts exhibit light surface corrosion.	New	
234	L	Exterior	Bay 3	The splice plate bolts exhibit light surface corrosion.	New	J26-13



Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
234	L	Interior	Bay 3	Lateral bracing above the splice exhibits moderate corrosion at the bottom of the vertical leg.	No Change	J26-6
234	R	Interior	Throughout	Concrete from deck pour up to 1" deep on top of the bottom flange.	New	
234	R	Exterior	Bay 3	The splice plate bolts exhibit light surface corrosion.	New	
234	R	Interior	Bay 3	Corrosion with efflorescence on SIP form at the splice connections and along the centerline	New	F26-10
234	R	Interior	Bay 3	The splice plate bolts exhibit light surface corrosion.	New	
234	R	Interior	Bay 3	Lateral bracing above the splice exhibits moderate corrosion at the bottom of the vertical leg.	No Change	
234	R	Interior	Bay 8	There is evidence of water stains with light debris accumulation throughout on the bottom flange at the last bay before pier 235	New	F26-11
235	L	Interior	Bay 11	Minor corrosion and efflorescence on SIP forms at the drain pipe.	New	J26-17
235	L	Interior	Bay 11	Damp debris in the forward right corner under drain, causing minor corrosion at the bottom of the right web.	New	J26-18
235	L	Interior	Bay 7	Splice plate bolts have light surface corrosion.	New	
235	L	Exterior	Bay 7	Splice plate bolts have light surface corrosion.	New	
235	R	Exterior	Bay 6	Splice plate bolts have light surface corrosion.	New	
235	-	Exterior	Pier 235	Steel spans were constructed with a lateral offset of 1-1/2" between Span 234 and Span 235 at this location.	No Change	F26-12, 14, J26-8, 11
236	L	Interior	Bay 12	Light surface corrosion between stiffeners above dapped end.	New	J26-21
236	L	Interior	Bay 4	Splice plate bolts have light surface corrosion.	New	
236	L	Interior	Bay 9	(4) 6" diameter pipe supports. Reason unknown	New	J26-19, 20
236	L	Exterior	Pier 237L	20" x 3" area of moderate to heavy surface corrosion on the underside of the right top flange, with 6 square inches of light pitting.	New	F14-9
236	R	Interior	Bay 12	End diaphragm stiffener on the left side exhibits areas of corrosion.	No Change	F26-21 & 22
236	R	Interior	Bay 4	Lateral bracing, bottom of vertical leg exhibits peeling paint and corrosion.	No Change	F26-19
236	R	Interior	Bay 4	Corrosion and efflorescence on SIP panel above the bracing.	No Change	F26-19
236	R	Interior	Bay 4	Light to moderate corrosion on bolts and nuts in bottom flange splice	New	F26-20

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
240	L	Interior	Throughout	Minor concrete spillage along the bottom flange mainly along the web wall from deck construction.	New	J25-3,4
240	L	Exterior	Throughout	Thin top coat on exterior faces of both boxes in this Span	New	F25-11,12
240	L	Exterior	Bay 11	Splice plate bolts exhibit light surface corrosion.	New	
240	L	Interior	Bay 4	The forward cross bracing is bent up to 1" at the bottom left corner.	No Change	J25-2
240	L	Interior	Bay 5	The forward cross bracing is bent up to 1" at the bottom left corner.	No Change	
240	L	Interior	Bay 6	The forward cross bracing is bent up to 1" at the bottom left corner.	No Change	
240	R	Interior	Throughout	Minor concrete spillage along the bottom flange mainly along the web wall from deck construction.	New	
240	R	Exterior	Throughout	Thin top coat on exterior faces of both boxes in this Span	New	F25-11,12
240	R	Exterior	Bay 10	Splice plate bolts exhibit light surface corrosion.	No change	F25-7,8, 9, 16, 17
241	Pier Cross Girder	Exterior	Throughout	Minor surface corrosion along the edges of the cross girder, full length.	No Change	F25-10
241	Pier Cross Girder	Exterior	Throughout	There is a thin paint top coat on the exterior face of the steel cross girder.	No Change	F25-14
241	L	Exterior	Throughout	Thin top paint coat, throughout the span	New	F25-13
241	L	Interior	Bay 1	Very light surface corrosion on splice bolts	New	
241	L	Exterior	Bay 1	Splice plate bolts exhibit light surface corrosion.	New	
241	L	Exterior	Bay 11	Splice plate bolts exhibit light surface corrosion.	New	
241	L	Interior	Bay 3	Minor surface corrosion in the SIP forms.	No Change	
241	L	Interior	Bay 4	Minor surface corrosion in the SIP forms.	No Change	J25-6
241	L	Interior	Bay 5	Minor surface corrosion in the SIP forms.	New	
241	L	Interior	Bay 6	Minor surface corrosion in the SIP forms.	New	
241	L	Exterior	Bay 8	Splice plate bolts exhibit light surface corrosion.	New	
241	R	Interior	Throughout	The bottom flange exhibits concrete over pour and sawdust buildup, throughout.	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
241	R	Interior	Throughout	Minor concrete spillage on the bottom flange mainly along the web walls.	New	F25-24
241	R	Exterior	Throughout	Thin top paint coat, throughout the span	New	F25-13
241	R	Exterior	Bay 1	Splice plate bolts exhibit light surface corrosion.	New	
241	R	Exterior	Bay 11	Splice plate bolts exhibit light surface corrosion.	New	
241	R	Exterior	Bay 8	Splice plate bolts exhibit light surface corrosion.	New	
242	L	Interior	Bay 11	Dead birds, nesting materials and droppings up to 1" deep are present in Bays 11-13.	New	J25-7
242	L	Interior	Bay 13	Minor surface corrosion in the steel SIP forms.	New	
242	L	Interior	Bay 4	Minor surface corrosion in the steel SIP forms.	New	
242	L	Interior	Bay 6	There is a 1/8" gap in the top left bolt of the rear bracing.	No Change	
242	R	Interior	Bay 13	There is a 1 SF area of peeling paint at the bottom of the web.	No Change	F25-26
243	R	Exterior	Bay 9	Splice plate bolts exhibit light surface corrosion.	New	B25-16
244	L	Interior	Throughout	Concrete pour and saw dust is present on the bottom flange, throughout.	No Change	
244	L	Interior	Bay 4	The bottom flange exhibits a bolt with peeling paint at the splice plate.	No Change	
244	L	Exterior	Bay 4	Splice plate and bolts exhibit minor corrosion.	New	B25-21
244	L	Interior	Bay 9	The rear cross bracing has a bolt on the right side with a 1/8" gap.	No Change	
244	R	Interior	Bay 4	Minor corrosion with efflorescence stains on SIP form, right side at top flange splice connection	New	F25-29
244	R	Exterior	Bay 4	Splice plate and bolts exhibit minor corrosion.	New	B25-20
245	L	Interior	Throughout	Dead birds, nesting materials and droppings up to 1" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	
245	L	Interior	Bay 8	Bird feces is causing moderate surface corrosion on the bottom of the right web	New	J25-10,11
245	R	Interior	Throughout	Dead birds, nesting materials and droppings up to 1" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	F25-30 & 31

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
245	R	Exterior	Bay 3	Light to moderate surface corrosion on splice plate bolts	New	
245	L	Exterior	Bay 3	Light to moderate surface corrosion on splice plate bolts	New	
246	L	Interior	Throughout	Dead birds, nesting materials and droppings up to 1" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	
246	L	Interior	Bay 10	Surface corrosion along the bottom left and right web, full bay due to bird debris buildup and possibly previous water staining.	New	
246	L	Interior	Bay 11	Surface corrosion along the bottom left and right web, full bay due to bird debris buildup and possibly previous water staining.	New	
246	L	Interior	Bay 12	Surface corrosion along the bottom left and right web, full bay due to bird debris buildup and possibly previous water staining.	New	
246	L	Interior	Bay 12	There is concrete overpour at the portal to Span 247L.	No Change	J27-22
246	L	Interior	Bay 2	Surface corrosion along the bottom left and right web, full bay due to bird debris buildup and possibly previous water staining.	New	J27-20
246	L	Interior	Bay 8	Light surface corrosion on splice plate bolts.	New	
246	L	Interior	Bay 9	Surface corrosion along the bottom left and right web, full bay due to bird debris buildup and possibly previous water staining.	New	J27-21
246	R	Interior	Throughout	Concrete over pour is present on the bottom flange, throughout.	New	
246	R	Interior	Bay 8	There are two unpainted nuts at the splice plate in the bottom face.	No Change	F27-31
246	R	Interior	Throughout	Dead birds, nesting materials and droppings up to 1" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	F27-32
246	R	Exterior	Bay 8	Light to moderate surface corrosion on splice plate bolts	New	J27-48
246	L	Exterior	Bay 8	Light to moderate surface corrosion on splice plate bolts	New	J27-47
247	L	Interior	Throughout	Dead birds, nesting materials and droppings up to 2" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	J27-23-30
247	L	Interior	Throughout	It appears as if water was flowing through at some point in history because there are flow lines through the organic debris. There is no standing water now.		J27-28, 29
247	R	Interior	Bay 1	Bay 1 and 2: Up to 1" deep debris accumulation and evidence of water accumulating up to bottom of the portal and sides of the web walls to approximately 10".	New	F27-33 & 34
247	R	Interior	Bay 5	Light corrosion on nuts and washers of bottom flange splice.	New	F27-35

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
247	R	Interior	Bay 5	Bay 5 thru Bay 11: Dead birds, nesting materials and droppings up to 1" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	F27-36/37
R-6	L	Interior	throughout	There is a significant amount of bird droppings (up to 2") and carcasses throughout this Span. Lower welds cannot be inspected. Debris is causing corrosion on the bottoms of the webs and on the splice plates.	New	J31-26-28
R-6	L	Interior	Bay 1	Heavy surface corrosion on access hatch cover	New	J31-24
R-6	R	Interior	Bay 3	Bay 3 - Bay 10: Up to 2" of bird droppings covering mostly full width of bays.	New	F31-39, 40
R-6	R	Exterior	Bay 8	Light to moderate surface corrosion on splice plate bolts	New	
R-6	L	Exterior	Bay 8	Light to moderate surface corrosion on splice plate bolts	New	
248	L	Interior	Bay 1	Minor concrete overpour on the bottom flange		
248	L	Interior	Bay 4	Light surface corrosion on the lateral bracing gusset plates.	New	
248	R	Exterior	Bay 4	Light to moderate surface corrosion on splice plate bolts	New	
248	R	Interior	Bay 9	3/16" gap in between top left bolt and top angle right side of rear cross frame	New	F31-41
248	L	Exterior	Bay 4	Light to moderate surface corrosion on splice plate bolts	New	
249	L	Interior	Bay 1	Concrete pour is present up to 1" high.	No Change	
249	R	Interior	Bay 2	The cross bracing top left side exhibits a 1/16" gap between the bolt head and forward bracing	No Change	
249	R	Exterior	Bay 3	Light to moderate surface corrosion on splice plate bolts	New	
249	R	Both	Bay 3	One (of 88) bottom flange splice bolts is missing	No Change	J28-3, F31-42
249	L	Exterior	Bay 3	Light to moderate surface corrosion on splice plate bolts	New	
250	L	Exterior	Bay 9	Minor surface corrosion on splice plates and bolts.	New	B31-43
250	R	Interior	Bay 5	Left over construction material (boards) are present	New	F31-44
250	R	Exterior	Bay 9	Minor surface corrosion on splice plates and bolts.	New	B31-42
251	L	Interior	Bay 10	Forward cross bracing between is bent down 1/4" on the left side.	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
251	L	Exterior	Bay 11	Minor surface corrosion on splice plates and bolts.	New	B31-38,40
251	L	Interior	Bay 12	Bay 12 - Bay 15: Concrete over pour is present at isolated locations	No Change	
251	L	Exterior	Bay 5	Minor surface corrosion on splice plates and bolts.	New	B31-39,41
251	L	Interior	Bay 6	One bolt has a 1/16" gap between the nut and washer at the connection of the rear cross bracing and the left vertical stiffener.	No Change	
251	R	Exterior	Bay 11	Minor surface corrosion on splice plates and bolts.	New	B31-38,40
251	R	Interior	Bay 11	Minor corrosion with efflorescence on bottom of SIP form	New	
251	R	Interior	Bay 2	Rear cross bracing in the right top exhibits a 1/8" gap between the bolt head and diaphragm angle.	No Change	
251	R	Interior	Bay 4	Forward cross bracing in the right top exhibits a bolt with a 1/8" gap between the bolt head and the diaphragm top angle.	No Change	F31-46
251	R	Exterior	Bay 5	Minor surface corrosion on splice plates and bolts.	New	B31-39,41
251	R	Interior	Bay 5	Minor corrosion on several splice bolt nuts.	New	F31-47
251	R	Interior	Bay 5	Minor corrosion with efflorescence on bottom of SIP form	New	F31-48
252	L	Interior	Throughout	Concrete over pour is present throughout	No Change	
252	L	Exterior	6'-20' from Pier 253	There are numerous insignificant scrapes on the underside of the bottom flange	New	F31-13
252	L	Interior	Bay 2	The forward left vertical stiffener is bent forward 1/4"	No Change	
252	L	Exterior	Bay 4	Minor surface corrosion on splice plates and bolts.	New	B31-15
252	R	Exterior	30' from Pier 253	Failed paint with moderate surface corrosion for 1' along the ? bottom flange	New	B31-37
252	R	Exterior	Bay 4	Minor surface corrosion on splice plates and bolts.	New	B31-14
254	L	Interior	Bay 1	One missing washer at the rear cross bracing, bottom right.	New	J31-5
254	L	Interior	Bay 11	There is concrete overpour on the bottom flange up to 1" at the portal for Pier 255L.	No Change	J31-8
254	L	Interior	Bay 8	There is concrete covering the bottom splice plate bolts.	No Change	J31-6
254	L	Interior	Bay 8	Right top flange splice has two unpainted bolts, right web splice has one bolt that is torched at the end.	New	J31-7

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
254	R	Interior	Bay 11	There is concrete overpour up to 4" H adjacent to the portal at Pier 255.	No Change	J28-8
254	R	Interior	Bay 8	Top flange, right splice plate has one bolt unpainted and with surface corrosion.	New	J28-5
254	R	Interior	Bay 8	SIP forms have light surface corrosion and efflorescence.	New	J28-6
254	R	Interior	Bay 8	Lateral bracing gusset plates and welds exhibit minor corrosion.	No Change	J28-7
254	R	Exterior	Pier 254	Bottom flange exhibits four scratches near the pier	No Change	J31-3
255	L	Interior	Bay 10	One pinhole flaw is present in the weld on the top corner of the left web.	No Change	
255	L	Interior	Bay 4	Very light surface corrosion on splice bolts and lateral bracing gusset plates.	New	
255	L	Exterior	Bay 4	Light surface corrosion on splice bolt heads	New	
255	L	Interior	Bay 5	One pinhole flaw is present in the weld on the top corner of the right web.	No Change	
255	L	Exterior	Bay 9	Light surface corrosion on splice bolt heads	New	
255	L	Interior	Bay 9	Lateral bracing gusset plates exhibit minor corrosion.	No Change	
255	L	Interior	Bay 9	Light surface corrosion on splice bolts.	New	J31-11,12
255	R	Interior	Bay 10	26) Span 255R (Bay 10) - Minor corrosion is present on cross bracing bolts at rear end. NO CHANGE	No Change	
255	R	Interior	Bay 4	Light surface corrosion and efflorescence on SIP forms.	New	
255	R	Exterior	Bay 4	Light surface corrosion on splice bolt heads	New	F19-22
255	R	Exterior	Bay 9	Light surface corrosion on splice bolt heads	New	
255	R	Interior	Bay 9	Wasps are present in this bay	New	
255	R	Interior	Bay 9	Light surface corrosion on splice bolts.	New	J28-9
256	L	Interior	Bay 2	One pinhole flaw is present in the weld on the top corner of the right web.	No Change	
256	L	Interior	Bay 3	Light surface corrosion is present on the SIP forms, near the right web.	New	J31-13,14
256	L	Interior	Bay 4	One pinhole flaw is present in the weld on the top corner of the left web.	No Change	

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
256	L	Interior	Bay 5	One pinhole flaw is present in the weld on the top corner of both the left web and right web.	No Change	
256	L	Interior	Bay 6	Light surface corrosion on splice bolts.	New	
256	L	Interior	Bay 6	Forward cross frame exhibit 19 unpainted bolts.	No Change	J31-15
256	L	Interior	Bay 7	Light surface corrosion on splice bolts.	New	
256	L	Interior	Bay 7	Moderate corrosion is exhibited on the lateral bracing connection plates.	No Change	J31-16
256	L	Interior	Bay 8	Because of an almost full height diaphragm between Bays 7 & 8 there is no physical access to the last few feet of the span except to take photo below the diaphragm.	New	
256	R	Exterior	Bay 3	Light surface corrosion on splice bolts	New	
256	R	Interior	Bay 3	Minor corrosion is present on the lateral bracing bolts at the forward end.	New	
256	R	Interior	Bay 4	One pinhole flaw is present in the weld on the top corner of the right web.	No Change	
256	R	Interior	Bay 5	One pinhole flaw is present in the weld on the top corner of the right web.	No Change	
256	R	Interior	Bay 7	One pinhole flaw is present in the weld on the top corner of the right web.	No Change	
256	R	Interior	Bay 9	One pinhole flaw is present in the weld on the top corner of the right web.	No Change	
257	L	Interior	Throughout	Minor concrete spillage along the bottom flange mainly along the web wall from deck construction.	New	F28-21
257	L	Exterior	Bay 1	Light surface corrosion on splice bolts	New	
257	L	Interior	Bay 1	Minor corrosion on bottom row of web splice plate bolt nuts both webs.	New	F28-22
257	L	Both	Bay 1	There is a vertical offset of up to 1/4" between the bottom flanges between Spans 409L and 257L over Pier 257L at the splice location (no bottom plate splice).		F28-13
257	L	Exterior	Pier 258L	1 SF of light surface corrosion on the bottom face of the bottom flange	New	
257	R	Both	Bay 1	There is a vertical offset of up to 3/8" between the bottom flanges between Spans 256R and 257R over Pier 257R at the splice location (no bottom plate splice).	No Change	J28-12, 17, 18
257	R	Interior	Bay 1	Light surface corrosion on splice bolts.	New	
257	R	Exterior	Bay 1	Light surface corrosion on splice bolts	New	
405	R	Exterior	Throughout	Finish coat of paint is very thin along this span.	No Change	J19-16-18, 22



Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
405	R	Interior	Bay 10	Light corrosion with efflorescence on SIP form at the portal bracing	New	F19-4
405	R	Exterior	Bay 7	Light to moderate surface corrosion on splice plate bolt heads.	New	J19-25
405	R	Interior	Bay 9	The rear cross bracing exhibits minor surface corrosion up to 5" L x 2" W on the right bottom face.	No Change	F19-3
406	R	Both	Throughout	Finish top coat is thin throughout this span	No Change	F19-5
406	R	Interior	Bay 1	The top flange at the left side adjacent to the gusset plate exhibits area of surface corrosion 4" x 1".	No Change	
406	R	Interior	Bay 11	Splice plate bolts exhibit light surface corrosion.	No Change	
406	R	Interior	Bay 11	One bolt is unpainted at the bottom flange right side splice.	No Change	F19-7
406	R	Exterior	Bay 11	Splice plate bolts exhibit moderate surface corrosion.	New	
406	R	Interior	Bay 3	The rear cross bracing exhibits minor surface corrosion up to 6" L x 2" L in the bottom face	No Change	
406	R	Interior	Bay 4	Splice plate bolts exhibit light surface corrosion.	No Change	F19-6
406	R	Exterior	Bay 4	Splice plate bolts exhibit moderate surface corrosion.	New	J28-21
407	R	Interior	Throughout	There is a thin paint top coat throughout.	No Change	F19-10
407	R	Interior	Bay 8	Bird droppings up to 1" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	F19-8 & 9
408	L	Interior	throughout	Minor corrosion with efflorescence on SIP forms along the girder webs	New	F28-2
408	L	Interior	Bay 10	The ? vertical stiffener on the rear cross bracing is bent 1/4" x 4" L.	No Change	F28-3, 4
408	L	Interior	Bay 13	Corrosion on the underside of the top flange	New	F28-1
408	L	Interior	Bay 8	Minor corrosion stain on the left vertical stiffener at the end of bay.	No Change	
408	L	Exterior	Bay 9	Light surface corrosion on splice bolt heads	New	J19-27
408	R	Interior	Bay 1	Bay 1 - Bay 3 and Bay 6: Dead birds, nesting materials and droppings up to 1" deep are present on the bottom flange throughout. This debris is covering bottom welds, preventing proper inspection. Droppings are also present on the cross bracing members.	New	F31-14
408	R	Exterior	Bay 6	Light surface corrosion on splice bolt heads	New	F19-28

Span	Side	Exterior / Interior	Location	Inspection Notes	2013 Note Disposition	2017 Photo
408	R	Interior	Bay 7	Rear cross bracing, top right side exhibits a bolt gap 1/16".	No Change	
409	L	Exterior	throughout	Thin top coat. Can see primer coat through.	New	F19-17
409	L	Interior	throughout	Concrete from deck construction located along sides of top of bottom flange at random locations.	New	F28-11
409	L	Interior	Bay 10	Bolted connection plate for Span 256L on the right web exhibits a gap up to 1/8" between the plate and the bolt heads.	No Change	F28-12
409	L	Interior	Bay 4	Discontinuous weld on top of right web adjacent to field splice. Weld appears to be satisfactory.	No Change	F28-6
409	L	Exterior	Bay 5	Light surface corrosion on splice bolt heads	New	
409	L	Interior	Bay 5	SIP deck form exhibits corrosion due to possible water leak on both sides.	No Change	F28-7/8
409	L	Interior	Bay 5	The splice plate exhibits minor surface corrosion.	No Change	F28-8
409	L	Interior	Bay 5	Left web splice has a bolt that has not been painted and exhibits corrosion.	No Change	F28-9
409	L	Interior	Bay 6	Rear cross bracing bottom right vertical support is bent 4" L x 1/4"	No Change	F28-10
409	R	Interior	Bay 5	The splice in Bay 5 and Bay 6 exhibits minor surface corrosion and concrete over pour.	No Change	F31-17
409	R	Interior	Bay 5	The forward cross bracing has 19 unpainted bolts.	No Change	F31-18
409	R	Exterior	Bay 5	The left top flange exhibits moderate surface corrosion for 2' adjacent to deck spalls.	No Change	J19-29
409	R	Interior	Bay 6 cross bracing	Washer missing on top center bolt on each side of bay 6 side of cross bracing.	New	F31-19
409	R	Interior	Bay 8	Because of an almost full height diaphragm between Bays 7 & 8 there is no physical access to the last few feet of Span 409 except to take photo below the diaphragm.	New	F31-20 & 21

Span	L / R N / S	Interior / Exterior	2017 Photo	Light-Mod Corrosion (LF)	Mod. Corrosion (LF)	Section Loss (LF)	Minor Chalky (%)	Very Chalky (%)	Peel /Bub /Crack - Top Coat (SF)	Peel /Bub /Crack - Metal Exposed (SF)
6	N	Exterior	B18-4	20				100		
6	N	Interior					100		228	
6	S	Interior	F18-1				100		30	
6	S	Exterior		10	1			100	2	
7	N	Interior			1		100		70	
7	N	Exterior		20	4			100		
7	S	Exterior	B18-17	79	4			100		
7	S	Interior	F18-2				100		35	
8	N	Interior			10		100		2	
8	N	Exterior		20	10			100		1
8	S	Exterior		10				100		
8	S	Interior					100			
9	Pier Crosshead	Interior		8					50	
9	Pier Crosshead	Exterior						100		
9	N	Interior					100		800	
9	N	Exterior		10				100		
9	S	Exterior		20				100		
9	S	Interior	F18-9				100		130	
10	Pier Crosshead	Interior			6				700	
10	Pier Crosshead	Exterior			7			100	2	
10	N	Interior							1,000	
10	N	Exterior		10				100		
10	S	Interior	F18-17, 18	1			100		200	
10	S	Exterior		10				100		
11	Pier Crosshead	Interior					100		50	
11	Pier Crosshead	Exterior						100		
11	N	Interior					100		240	
11	N	Exterior		10				100	50	
11	S	Exterior		20				100	200	10
11	S	Interior			1		100		300	
29	N	Interior			1		100		40	
29	N	Exterior		2				100		
29	S	Interior	F17-16 & 17	1					17	
29	S	Exterior		2				100		
30	Pier Crosshead	Interior							25	
30	Pier Crosshead	Exterior							5	
30	N	Interior					100		26	
30	N	Exterior		12				100	25	
30	S	Interior	F17-23						28	
30	S	Exterior		2				100	35	

Span	L / R N / S	Interior / Exterior	2017 Photo	Light-Mod Corrosion (LF)	Mod. Corrosion (LF)	Section Loss (LF)	Minor Chalky (%)	Very Chalky (%)	Peel /Bub /Crack - Top Coat (SF)	Peel /Bub /Crack - Metal Exposed (SF)
31	Pier Crosshead	Interior		5					10	
31	Pier Crosshead	Exterior								
31	N. Turn.	Exterior		0				100	50	
31	N. Turn.	Interior							340	
31	N	Interior			1		100		54	
31	N	Exterior		1	5			100	300	
31	S. Turn.	Exterior		1				100	50	
31	S. Turn.	Interior					100		40	
31	S	Interior	F17-27 & 29 & 31						350	
31	S	Exterior		1				100	300	
52	L	Interior		1	1	1	100			
52	L	Exterior	F12-65- 66		9			100		
52A	L	Interior		19		1	100			
52A	L	Exterior			2			100		
52	R	Exterior			9			100		
52	R	Interior		2			100			
52A	R	Interior		12			100			
52A	R	Exterior			2			100		
53	L	Interior		2			100			
53	L	Exterior			8			100		
53	R	Interior	F16- 32/33		4		100			
53	R	Exterior			6			100		
205	L	Interior		2			100			
205	L	Exterior		2				100		
205	R	Exterior			1			100		
205	R	Interior		2			100			
206	L	Interior		2			100			
206	L	Exterior		2				100		
206	R	Exterior			1			100		
206	R	Interior	F16-6	2			100			
213	L	Interior		26			100		1	
213	L	Exterior						100		
213	L	Exterior		2				100		
213	R	Exterior		2				100		
213	R	Interior		2			100			
214	L	Interior		30			100			
214	L	Exterior		2				100		
214	R	Exterior		2				100	2	
214	R	Interior		2			100			
215	L	Interior		1			100			
215	L	Exterior		2				100	1	
215	R	Exterior		2				100		
215	R	Interior		4			100			
232	L	Interior		6			100			

Span	L / R N / S	Interior / Exterior	2017 Photo	Light-Mod Corrosion (LF)	Mod. Corrosion (LF)	Section Loss (LF)	Minor Chalky (%)	Very Chalky (%)	Peel /Bub /Crack - Top Coat (SF)	Peel /Bub /Crack - Metal Exposed (SF)
232	L	Exterior		2				100		
232	R	Exterior		2				100		
232	R	Interior		2			100			
233	L	Interior		3	3		100			
233	L	Exterior			3			100		
233	R	Exterior			3			100		
233	R	Interior		2			100			
234	L	Interior		2			100			
234	L	Exterior		2				100		
234	R	Exterior		2				100		
234	R	Interior		2			100			
235	L	Interior		2	3		100			
235	L	Exterior		2				100		
235	R	Interior		2			100			
235	R	Exterior		2				100		
236	L	Interior		3			100			
236	L	Exterior			2			100		
236	R	Interior			3		100			
236	R	Exterior						100		
240	L	Interior					100			
240	L	Exterior		2				100		
240	R	Exterior		4				100		
240	R	Interior					100			
241	Pier Crosshead	Interior					100			
241	Pier Crosshead	Exterior			30			100		
241	L	Interior		3			100			
241	L	Exterior		5				100		
241	R	Exterior		4				100		
241	R	Interior					100			
242	Pier Crosshead	Interior					100			
242	Pier Crosshead	Exterior						100		
242	L	Interior					100			
242	L	Exterior						100		
242	R	Exterior						100		
242	R	Interior	F25-26				100		1	
243	L	Interior					100			
243	L	Exterior						100		
243	R	Exterior		2				100		
243	R	Interior					100			
244	L	Interior					100		1	
244	L	Exterior		2				100		
244	R	Exterior		2				100		
244	R	Interior					100			
245	L	Interior		1	2		100			
245	L	Exterior			2			100		
245	R	Exterior			2			100		
245	R	Interior					100			

Span	L / R N / S	Interior / Exterior	2017 Photo	Light-Mod Corrosion (LF)	Mod. Corrosion (LF)	Section Loss (LF)	Minor Chalky (%)	Very Chalky (%)	Peel /Bub /Crack - Top Coat (SF)	Peel /Bub /Crack - Metal Exposed (SF)
246	L	Interior		51			100			
246	L	Exterior			2			100		
246	R	Exterior			2			100		
246	R	Interior					100			
247	L	Interior		115			100			
247	L	Exterior			2			100		
247	R	Exterior			2			100		
247	R	Interior		2			100			
R-6	L	Exterior			2			100		
R-6	R	Exterior			2			100		
R-6	L	Interior		100			100			
R-6	R	Interior					100			
248	L	Exterior			2			100		
248	R	Exterior			2			100		
248	L	Interior		2			100			
248	R	Interior					100			
249	L	Interior		2			100			
249	R	Interior					100			
249	L	Exterior			2			100		
249	R	Exterior			2			100		
250	L	Interior					100			
250	L	Exterior		2				100		
250	R	Exterior		2				100		
250	R	Interior					100			
251	L	Interior					100			
251	L	Exterior		2				100		
251	R	Exterior		2				100		
251	R	Interior		1			100			
252	L	Interior					100			
252	L	Exterior		2				100		
252	R	Exterior		2	1			100		1
252	R	Interior					100			
254	L	Interior					100			
254	L	Exterior						100		
254	R	Interior		4			100			
254	R	Exterior						100		
255	L	Interior		8			100			
255	L	Exterior			4			100		
255	R	Interior		6			100			
255	R	Exterior		1	4			100		
256	L	Interior		10			100			
256	L	Exterior						100		
256	R	Exterior						100		
257	L	Exterior		2				100		
257	L	Interior	F28-22	1			100			
257	R	Interior		1			100			
257	R	Exterior		1				100		
405	R	Exterior			2			100		
405	R	Interior					100			
406	R	Exterior			4			100		

Span	L / R N / S	Interior / Exterior	2017 Photo	Light-Mod Corrosion (LF)	Mod. Corrosion (LF)	Section Loss (LF)	Minor Chalky (%)	Very Chalky (%)	Peel /Bub /Crack - Top Coat (SF)	Peel /Bub /Crack - Metal Exposed (SF)
406	R	Interior		4	1		100			
407	R	Exterior		1				100		
407	R	Interior					100			
408	R	Exterior		1	2			100		
408	R	Interior					100			
408	L	Exterior		2				100		
408	L	Interior	F28-1	2			100			
409	R	Interior		2			100			
409	L	Exterior	F19-18, 21	2				100		
409	L	Interior	F28-9	3			100			
409	R	Exterior			2			100		

FINAL DRAFT

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
6	S	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
6	S	Rear	Elastomeric	-	Left stem keeper plate has one nut that is not fully engaged.		No change								
6	N	Rear	Elastomeric	-	Keeper plates for both stems have one nut that is not fully seated.		No change								
6	N	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
6	S	Front	Sliding Plate	Exterior	Both bearings exhibit light surface corrosion on the sole plates and masonry plates	B18-37	New	2							
6	S	Front	Sliding Plate	Exterior	The right bearing has shim plates between the sole plate and the bronze plate.	B18-40	New								
6	N	Front	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on the sole plates and masonry plates	B18-1, 5	New	2							
7	S	-	Elastomeric	Exterior	Both bearings exhibit light surface corrosion on the undersides of the sole plates.	B18-30	New								
7	S	-	Elastomeric	Exterior	Left bearing elastomeric pad is not fully seated on the pedestal, with up to 1/4" overhang on the exterior side.	B18-28	No change							1	
7	N	-	Elastomeric	Exterior	Both bearings exhibit light surface corrosion on the undersides of the sole plates.	B18-35	New								
7	N	-	Elastomeric	Exterior	Elastomeric pads for both bearings are not fully seated on the pedestal, with up to 1/4" overhang on each exterior side.	B18-25, 26	No change							2	
8	N	Rear	Sliding Plate	Interior	1 of 4 anchor bolts exhibits light surface corrosion.	J18-9	New	1							
8	N	Rear	Sliding Plate	Exterior	Left bearing exhibits light surface corrosion on the masonry plate	B18-10	No change	1							
8	S	Front	Sliding Plate	Exterior	Both bearings exhibits light surface corrosion on the sole plates and masonry plates	B18-42, 46	New	2							
9	-	-	Rocker Bearing	Exterior	The interior side of the casting exhibits gouges up to 6" L x 2" W x 1/2" D. Upper? Lower? Left? Right?	B18-56	New								
9	-	-	Rocker Bearing	Exterior	The rocker bearing castings exhibit light, freckled corrosion throughout	B18-57,58	New	1							



Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
10	S	-	Pot Bearing	Exterior	The masonry plate exhibits moderate surface corrosion around the bottom perimeter. There is light surface corrosion on the sole plate and cylinder.	B18-66	New	1							
10	N	-	Pot Bearing	Exterior	The masonry plate exhibits moderate surface corrosion around the bottom perimeter.	B18-60	No change	1							
10	N	-	Pot Bearing	Exterior	There are small gaps between the masonry plate and the pedestal, for 6" L in the forward right corner and along the full length of the left edge.	B18-63	No change							1	
11	-	-	Rocker Bearing	Exterior	There is light surface corrosion around the bottom perimeter of the lower casting	B18-70	No change	1							
12	Both	Rear	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on the sole plates and masonry plates	F6-7, F6-10	No change	2							
12	S	Front	Elastomeric	-	Right stem keeper plate is missing washers.		New								
12	N	Front	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
12	N	Front	Elastomeric	-	Left stem keeper plate has one nut that is not fully seated.	F6-15	No change								
15	Both	Both	Elastomeric	-	7 of the 8 keeper plates are missing washers. Only the keeper for Span 14L, left stem is present.		New								
17	S	Rear	Elastomeric	-	The right stem keeper plate is missing washers.	F6-40	No change								
18	S	Rear	Elastomeric	-	The left stem keeper plate has one skewed bolt causing a 1/4" gap.	F6-39	No change								
18	N	Rear	Elastomeric	-	The left stem keeper plate is positioned between the stem and the anchor bolts because the bolts were cast too far to the exterior.	F6-44	No change								
18	N	Rear	Elastomeric	-	The right stem keeper plate is missing both bolts.	F6-42	No change								
18	S	Front	Elastomeric	-	The left stem keeper plate is missing washers.		New								
18	S	Front	Elastomeric	-	The right stem keeper plate has a cutout and is missing washers	F7-21	New								
18	N	Front	Elastomeric	-	The left stem keeper plate is missing both bolts.		New								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
21	S	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
21	S	Rear	Elastomeric	-	The left stem keeper plate is missing one anchor bolt nut.	F7-51	No change								
21	N	Rear	Elastomeric	-	Both nuts for the right keeper plate are not fully seated.		No change								
21	N	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
21	N	Rear	Elastomeric	-	Left keeper plate has one skewed bolt		No change								
21	S	Front	Elastomeric	-	Both anchor bolt nuts for the left stem keeper plate exhibit light surface corrosion		No change								
21	S	Front	Elastomeric	-	Left stem keeper plate is missing washers.		New								
21	N	Front	Elastomeric	-	Both nuts for the left keeper plate are not fully seated.		No change								
21	N	Front	Elastomeric	-	Left stem keeper plate is missing washers.		New								
25	S	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
25	N	Rear	Elastomeric	-	Right stem keeper plate is missing washers.		New								
25	S	Front	Elastomeric	-	Left stem keeper plate is missing washers.		New								
25	N	Front	Elastomeric	-	Left stem keeper plate is missing washers.		New								
29	S	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		New								
29	N	Rear	Elastomeric	-	Left keeper plate is missing both anchor bolt nuts, due to the close proximity to the beam stem.	F9-53	No change								
29	S	Front	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on the sole plates and masonry plates	B17-3, 6	No change	2							
30	-	-	Rocker Bearing	Exterior	The upper casting exhibits light surface corrosion between the interior plates.	F17-40	No change	1							
31	S	Front	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on the sole plates and heavy surface and delaminating corrosion on the masonry plates	B17-9,10	New	2							

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
31	-	-	Rocker Bearing	Exterior	There is light surface corrosion between the interior plates of the upper casting, around the bolts and on the front face. Painted over pitting up to 1/16" deep is also present on the front face.	B17-26, 27, 29	New	1							
32	S	Rear	Sliding Plate	Exterior	Left bearing exhibits moderate surface corrosion on the masonry plate	F11-4	New	1							
32	S	Rear	Sliding Plate	Exterior	The right bearing bronze plate and masonry plate are rotated with respect to the sole plate. There are gaps up to 1/8" between the sole plate and the bronze plate, between the bronze plate and the masonry plate, and between the masonry plate and the pier cap.	F11-7-10	No change								1
32	N	Rear	Sliding Plate	Exterior	Left bearing exhibits light surface corrosion on the sole plate and masonry plate	F11-1	New	1							
32	S	Front	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
32	N	Front	Elastomeric	-	Keeper plates for both stems are missing washers.		New								
35	S	Rear	Elastomeric	-	Left keeper plate exhibits light surface corrosion.		No change								
35	S	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		New								
35	N	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		New								
35	S	Front	Elastomeric	-	Right stem keeper plate is missing washers.		New								
35	N	Front	Elastomeric	-	Left stem keeper plate is missing washers.		New								
38	S	Rear	Elastomeric	-	Left keeper plate has one nut that is not fully seated.		No change								
38	S	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		New								
38	N	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		New								
38	S	Front	Elastomeric	-	Left stem keeper plate is missing washers.		New								
38	S	Front	Elastomeric	-	Right keeper plate is not fully seated on the pier cap.		No change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
38	N	Front	Elastomeric	-	Left stem keeper plate is missing washers.		New								
38	Both	Front	Elastomeric	-	All four keeper plates exhibit light surface corrosion.		No change								
40	S	Front	Elastomeric	-	Right keeper plate is not fully seated on the pier cap with a 1/8" gap and the anchor bolt nuts are not fully threaded.		No change								
44	S	Rear	Elastomeric	-	Right keeper plate has one nut not fully seated due to a skewed anchor bolt.		No change								
44	S	Front	Elastomeric	-	Delaminating corrosion up to 1/2" on left stem keeper plate	F13-44	No change								
44	N	?	Elastomeric	-	Right keeper plate has one nut not fully seated due to a skewed anchor bolt.		No change								
47	S	Rear	Elastomeric	-	Left keeper plate has one nut not fully seated due to a skewed anchor bolt.	F13-34	No change								
47	S	Front	Elastomeric	-	Right keeper plate is missing one anchor bolt.	F13-26	No change								
47	N	Front	Elastomeric	-	Keeper plates for both stems have one missing anchor bolt.	F12-37	No change								
51	R	Rear	Elastomeric	-	Right beam stem, the keeper plate is not installed because there is not enough space between the anchor bolts and the beam stem.	F12-48	No change								
51	R	Front	Elastomeric	-	The web plate at the left stem keeper plate exhibits moderate surface corrosion.	F13-53	New								
52	R	Rear	Elastomeric	-	Left stem, left side anchor bolt and shim plates exhibit light to moderate surface corrosion.	F13-54, F13-55	New								
52	L	Rear	Elastomeric	-	Left end of left stem bearing is missing the anchor bolt.	F12-54-60	No change								
52	R	Front	Sliding Plate	Exterior	Bearing plate exhibits severe scaling with minor surface corrosion. Sole plate exhibits minor scaling. ???		No change	1							
52	L	Front	Sliding Plate	Exterior	Left bearing exhibits moderate surface corrosion on the sole plate and masonry plate	F12-63, 64	No change	1							
52	L	Front	Sliding Plate	Exterior	There is a 1" steel plate welded to the back of the girder, resulting in no room for further beam expansion.	F12-63, 64	No change								
52A	L	Rear	Sliding Plate	Exterior	Left bearing has a gap up to 1/4" between the bronze plate and the sole plate.	F12-67-69	New							1	

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
52A	-	Rear	Sliding Plate	Exterior	Right bearing sole plate has corrosion bleeding through the new paint on the exterior face.	B16-61	No change	1							
52A	L	Rear	Sliding Plate	Interior	The bearing nuts are not fully engaged with a gap up to 1/8".	F17-3	No change								
52A	R	Rear	Sliding Plate	Interior	The bearing nuts are not fully engaged with a gap up to 1/8". No jam nuts are present	J17-4	No change								
53	Both	-	Pot Bearing	Exterior	All four bearings exhibit light to moderate surface corrosion on the weld between the undersides of the beams and the sole plates.		New	4							
53	Both	-	Pot Bearing	Exterior	Anchor bolts for all four bearings are two short resulting in nuts not fully threaded. A number of the bots are also skewed, resulting in gaps between the nuts and the washers.	F17-8,9	No change								
53	Both	-	Pot Bearing	Exterior	Top of pier cap surface is uneven causing small gaps between the bearing masonry plates and cap.		New							2	
54	L	Rear	Sliding Plate	Exterior	Both bearings exhibit moderate to heavy surface corrosion on the sole plates and masonry plates	J16-31, F21-8	New	2							
54	L	Front	Elastomeric	-	Left keeper plate has one nut that is not fully seated due to close proximity of the stem.	F21-7	New								
58	R	Front	Elastomeric	-	Left keeper plate is cut in half and missing both anchor bolt nuts, due to the close proximity to the beam stem. Plate is welded at the bottom	F21-23	No change								
62	R	Rear	Elastomeric	-	The middle elastomeric bearing pad is protruding out approximately 4" from the pier cap.	F22-3	No change								1
62	L	Rear	Elastomeric	-	Right keeper plate is cut in half and missing both anchor bolts, due to the close proximity to the beam stem. Plate is welded at the bottom	F22-10	New								
62	R	Front	Elastomeric	-	Top of pier cap surface is uneven causing gaps up to 1/2" between right keeper plate and cap.	F22-4, 5	No change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
62	R	?	Elastomeric	-	34) Pier 62R - The keeper shim plate for the ? Stem has moderate corrosion and there is heavy debris build up around the bearing	F22-2, 12	No change								
66	L	Rear	Elastomeric	-	The right keeper plate is missing one anchor bolt nut and the other is not fully seated, both due to the close proximity of the beam stem.	F22-14	No change								
66	L	Rear	Elastomeric	-	The right keeper plate is missing one anchor bolt nut and the other is not fully seated.		No change								
66	R	Front	Elastomeric	-	Right keeper plate is cut in half and missing both anchor bolts, due to the close proximity to the beam stem. Plate is welded at the bottom	F22-7	No change								
66	L	Front	Elastomeric	-	The right keeper plate has moderate corrosion and there is debris buildup around the bearing area.		No change								
66	L	Front	Elastomeric	-	The right keeper plate is missing one anchor bolt nut.	F22-21	New								
69	L	Rear	Elastomeric	-	Left keeper plate is cut in half and missing both anchor bolt nuts, due to the close proximity to the beam stem. Plate is welded at the bottom.	F22-30	New								
69	R	Front	Elastomeric	-	The left stem keeper plate is missing both anchor bolts. Plate is welded at the bottom.		New								
72	R	Front	Elastomeric	-	The left stem keeper plate is missing both anchor bolts. Plate is welded at the bottom.		New								
72	L	Front	Elastomeric	-	The right stem keeper plate is missing both anchor bolts. Plate is welded at the bottom.		New								
75	R	Rear	Elastomeric	-	The right stem keeper plate is cut in half and missing both anchor bolts, due to the close proximity to the beam stem. Plate is welded at the bottom.		No Change								
75	L	Rear	Elastomeric	-	The left stem keeper plate is cut in half and missing both anchor bolts, due to the close proximity to the beam stem. Plate is welded at the bottom.	F23-3	No Change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
75	R	Front	Elastomeric	-	The right stem keeper plate is cut in half and missing both anchor bolts, due to the close proximity to the beam stem. Plate is welded at the bottom.		No Change								
75	L	Front	Elastomeric	-	The right stem keeper plate is cut in half and missing both anchor bolts, due to the close proximity to the beam stem. Plate is welded at the bottom.		No Change								
78	R	Rear	Elastomeric	-	The right stem keeper plate is missing both bolts.		New								
78	R	Front	Elastomeric	-	The left stem keeper plate is missing 1 of 2 anchor bolts and the nut for the other bolt.		No Change								
78	R	Front	Elastomeric	-	The right stem keeper plate is missing both bolts.		No Change								
78	-	Front	Elastomeric	-	One nut for the right stem keeper plate has been torched to fit.		No change								
81	R	Rear	Elastomeric	-	One nut for the right stem keeper plate has been torched to fit.	F20-23	New								
85	R	Rear	Elastomeric	-	The right stem keeper plate has one anchor bolt nut that is not fully seated and cannot be turned down.		New								
199	R	Front	Elastomeric	-	Left stem keeper plate is missing washers.	J1-7	New								
202	R	Rear	Elastomeric	-	Keeper plates are missing washers for both stems.	F1-35	No change								
202	R	Rear	Elastomeric	-	Left bearing shim plate exhibits surface corrosion and appears to be loose with a 1/4" gap exists between the stem and the shim plate (plans call for 1/16" gap).	F1-34	No change								
202	L	Rear	Elastomeric	-	Left stem keeper plate is missing both washers.		No change								
202	R	Front	Elastomeric	-	Left bearing has a gap between the bearing pad and the bottom of the beam stem, measured up to 1/4" for up to 12" L.	F1-36-38	Increase							1	
202	R	Front	Elastomeric	-	Left stem keeper plate is missing both washers.	F1-35	No change								
202	R	Front	Elastomeric	-	Right bearing shim plate exhibits surface corrosion and a 1/4" gap exists between the stem and the shim plate (plans call for 1/16" gap).		No change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
205	L	Front	Sliding Plate	Exterior	Right bearing has a gap up to 1/4" between the bronze plate and the sole plate.	F3-43, 44, 45	No change								1
205	R	Front	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on sole plates and masonry plates	F3-39, 40, and 41	New	2							
205	L	Front	Sliding Plate	Interior	Anchor bolt nuts for both bearings are not flush with washers. Also, jam nuts are missing.	J16-1	No change								
205	L	Front	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on sole plates and masonry plates	F3-42	New	2							
206	L	-	Pot Bearing	Exterior	Both bearing cylinders have peeling paint.	B16-7	No change								
207	R	Rear	Sliding Plate	Interior	Left anchor bolt nuts are not flush with washers. Also, jam nuts are missing.		No change								
207	R	Rear	Sliding Plate	Exterior	Right bearing exhibits moderate surface corrosion on sole plate and masonry plate	B16-5	No change	1							
207	L	Rear	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J16-10	New								
207	L	Rear	Sliding Plate	Exterior	Left bearing exhibits minor surface corrosion on sole plate and masonry plate	B16-4	No change	1							
207	R	Front	Elastomeric	-	Left stem keeper plate is missing one washer.	J1-2	No change								
210	R	Front	Elastomeric	-	Left stem keeper plate is missing washers.	F1-23	No change								
210	Both	Front	Elastomeric	-	The bearing pads are slightly over compressed due to an uneven bearing surface.		No change				2				
213	L	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		No change								
213	R	Front	Sliding Plate	Interior	One of two anchor bolt nuts for the left bearing is not flush with the washer.	F16-7	New								
213	L	Front	Sliding Plate	Interior	All four anchor bolts are skewed and the nuts are not fully turned down. One of four bolts is missing a washer.	J16-11,12	No change								
213	L	Front	Sliding Plate	Exterior	Left bearing exhibits minor surface corrosion on the sole plate.	B16-12	No change	1							
214	R	-	Pot Bearing	Exterior	Right bearing anchor bolt nuts are not flush with washers and one of four bolts is slightly skewed.	B16-27	No change								



Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
214	R	-	Pot Bearing	Exterior	Top of pier cap surface is uneven causing minor gaps between both masonry plates and cap.		No change								
214	L	-	Pot Bearing	Exterior	Left bearing anchor bolt nuts are not flush with washers	B16-26	No change								
215	R	-	Pot Bearing	Exterior	2 of 4 anchor bolt nuts for the left bearing are not flush with washers.	B16-38	No change								
215	R	-	Pot Bearing	Exterior	2 of 4 anchor bolt nuts for the right bearing are not flush with washers.	B16-39	No change								
215	L	-	Pot Bearing	Exterior	Anchor bolt nuts on both left and right bearings are not flush with washers.	B16-36	No change								
216	R	Rear	Sliding Plate	Interior	All four anchor bolts are skewed. Bolts are not long enough for jam nuts.	F16-22-24	No change								
216	R	Rear	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on sole plates and masonry plates.		No change	2							
216	L	Rear	Sliding Plate	Interior	All four anchor bolts are skewed. Bolts are missing jam nuts.	J16-22,23	No change								
216	L	Rear	Sliding Plate	Exterior	Both bearings exhibit moderate surface corrosion on sole plates and masonry plates		No change	2							
216	L	Rear	Sliding Plate	Exterior	Left bearing shows signs of movement up to 3/4". The bronze plate is also slightly displaced.	B16-47	No change								
216	R	Front	Elastomeric	-	Left stem keeper plate is missing washers.		No change								
216	L	Front	Elastomeric	-	Keeper plates for both stems are missing washers.	F2-1	Increase								
216	L	Front	Elastomeric	-	Left bearing has a gap between the bearing pad and the bottom of the beam stem, measured up to 1/4" for up to 10" L.	F2-2, F2-3	New							1	
219	R	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		No change								
219	R	Rear	Elastomeric	-	Right bearing shim plate exhibits moderate surface corrosion.	F2-31, F2-32	No change								
219	R	Front	Elastomeric	-	Left bearing has a gap between the bearing pad and the bottom of the beam stem, measured up to 1/8" for up to 12" L.		No change								
219	R	Front	Elastomeric	-	Right stem keeper plate is missing washers.		No change								
223	R	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		No change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
223	R	Rear	Elastomeric	-	Right bearing has a gap between the bearing pad and the bottom of the beam stem, measured up to 1/8" for up to 10" L.		No change								
223	L	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		No change								
223	R	Front	Elastomeric	-	Left stem keeper plate has minor surface corrosion.		No change								
223	R	Front	Elastomeric	-	Right stem keeper plate is missing washers.		No change								
223	L	Front	Elastomeric	-	Keeper plates for both stems are missing washers.		No change								
223	L	?	Elastomeric	-	Right bearing has a gap between the bearing pad and the bottom of the beam stem, measured up to 1/4" for up to 9" L.		New								
228	L	Rear	Elastomeric	-	Left stem bearing is uneven exhibiting a gap up to 1/8" between the bearing pad and bottom of stem.		No change								
228	R	Front	Elastomeric	-	One of two right stem keeper plate anchor bolts is slightly skewed.		No change								
228	Both	Both	Elastomeric	-	7 of the 8 keeper plates are missing washers. Only the keeper for Span 228L, left stem is present.		New								
232	R	Front	Sliding Plate	Interior	Anchor bolt nuts are not flush with washers at both the left and right bearings.		No change								
232	R	Front	Sliding Plate	Exterior	Top of pier cap surface is uneven causing gaps up to 1/2" between right bearing masonry plate and cap. Surface corrosion is present on the front face of the sole plate.	F26-1,2	No change	1						1	
232	L	Front	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.		New								
232	-	Front	Sliding Plate	Exterior	Left bearing exhibits a gap up to 1/8" between bearing plates, uneven seat.		No change							1	
233	R	-	Pot Bearing	Exterior	Right bearing anchor bolt nuts are not flush with washers	B26-1	No change								
233	L	-	Pot Bearing	Exterior	Left bearing anchor bolt nuts are not flush with washers		No change								
234	L	-	Pot Bearing	Exterior	1 of 4 anchor bolt nuts for the left bearing are not flush with washers		No change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
235	L	Rear	Sliding Plate	Interior	Bird debris up to 1/2" thick is present on and around the bearing anchor bolts.	J26-7	New								
235	L	Rear	Sliding Plate	Exterior	Left bearing exhibits minor surface corrosion on the sole plate	J26-12	No change	1							
235	L	Rear	Sliding Plate	Interior	One of two anchor bolt nuts for the left bearing is not flush with the washer.	J26-7	New								
235	L	Front	Sliding Plate	Interior	Bird debris up to 1" thick is present on and around the bearing anchor bolts.	J26-16	No change								
235	R	Both	Sliding Plate	Exterior	Front left and rear right bearing exhibit gaps up to 1/2" between the bronze plate and the sole plate.	F26-15	No change							1	
235	R	Both	Sliding Plate	Exterior	Left front and rear bearings exhibit gaps up to 1/4" between the bronze plate and the sole plate.									1	
236	R	-	Pot Bearing	Exterior	Anchor bolt nuts on both left and right bearings are not flush with washers.										
236	R	-	Pot Bearing	Exterior	The grout below the front right bearing does not fill the entire gap between the plate and top of cap.		No								
236	L	-	Pot Bearing	Exterior	All four anchor bolts for both the left and right bearing assemblies are missing washers and the nuts are loose.	F26-24,25	No change			2					
236	L	-	Pot Bearing	Exterior	The grout below both left and right masonry plates does not fill the entire gap between the plate and top of cap.	F26-26	No change								
237	R	Rear	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.		New								
237	R	Rear	Sliding Plate	Exterior	Both bearings exhibit light to moderate surface corrosion on the masonry plate	F27-7	New	2							
237	L	Rear	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J26-21	New								
237	L	Rear	Sliding Plate	Exterior	Left bearing exhibits light surface corrosion on the sole plate and masonry plate.	J29-1	New	1							
237	L	Rear	Sliding Plate	Exterior	Right bearing exhibits moderate surface corrosion on the sole plate and masonry plate.	F14-8	New	1							
237	R	Front	Elastomeric	-	Right beam stem, the keeper plate is not installed because there is not enough space between the anchor bolts and the beam stem.	F27-16	No Change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
237	L	Front	Elastomeric	-	Right beam stem, one of two keeper plate anchor bolt nuts is not fully seated and cannot be hand tightened.	F14-12,13	New								
240	R	Rear	Elastomeric	-	The double nuts on the right side are not fully engaged with 1/4" gap.		No change								
240	L	Rear	Elastomeric	-	Left anchor bolt has surface corrosion.	F29-4,5,6	New								
240	L	Rear	Elastomeric	-	The double nuts on the right side are not fully engaged with 1/2" gap. Right anchor bolt has surface corrosion.	F14-24, 25	New								
240	R	Front	Sliding Plate	Exterior	Left bearing exhibits minor surface corrosion on the sole plate and masonry plate	J27-17, 18	New	1							
240	R	Front	Sliding Plate	Exterior	Right bearing exhibits minor surface corrosion on the front face of the sole plate	F27-29	New	1							
240	R	Front	Sliding Plate	Interior	The anchor bolt nuts for both bearings exhibit gaps up to 1/4" and the nuts and bolt exhibit heavy surface corrosion.	F25-22, 23	New	2							
240	L	Front	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J25-1	New								
240	L	Front	Sliding Plate	Exterior	Both bearings exhibit light surface corrosion on the front faces of the sole plates	F14-26, 28	New	2							
241	Both	-	Rocker Bearing	Exterior	Bearing assembly anchor bolt nuts are loose and not flush with washers, with up to 3/16" gap.	F25-2, 6	No change			2					
241	Both	-	Rocker Bearing	Interior	Jam nuts for both boxes are not turned down.	J25-5	New			-					
241	L	-	Rocker Bearing	Exterior	Neoprene pad between column and lower casting appears to have rotated toward the left, 2".	F25-32 & 33	New								
242	R	-	Rocker Bearing	Interior	Jam nuts for both boxes are not turned down.	F25-25	New			2					
242	Both	-	Rocker Bearing	Exterior	Light surface corrosion is present around the bottom perimeter of the lower castings.	B25-15	No change	-							
243	R	Rear	Sliding Plate	Exterior	Right bearing exhibits light surface corrosion from the sole plate.	B25-3	New	1							
243	L	Rear	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J25-9	New								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
243	L	Rear	Sliding Plate	Interior	Bird debris up to 1/4" thick is present on and around the bearing anchor bolts.	J25-9	New								
243	R	Front	Sliding Plate	Interior	One of two anchor bolts for the left bearing is missing a jam nut.	F25-28	No change								
243	L	Front	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J25-8	New								
243	L	Front	Sliding Plate	Interior	Bird debris up to 1/4" thick is present on and around the bearing anchor bolts.	J25-8	New								
244	R	-	Pot Bearing	Exterior	1 of 4 anchor bolt nuts for the left bearing are not flush with washers.		No change								
244	L	-	Pot Bearing	Exterior	7 of 8 anchor bolt nuts are not flush with washers.		No Change								
245	L	-	Pot Bearing	Exterior	1 of 4 anchor bolt nuts for the right bearing are not flush with washers.		No change								
245	L	-	Pot Bearing	Exterior	All four left bearing anchor bolt nuts are not flush with washers.		No change								
246	R	Rear	Sliding Plate	Interior	3 of 4 anchor bolts are missing jam nuts.	F25-32 & 33	New								
246	L	Rear	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J25-10,11	New								
246	L	Rear	Sliding Plate	Interior	Bird debris up to 1/4" thick is present on and around the bearing anchor bolts.	J25-10,11	New								
246	L	Front	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.		New								
246	L	Front	Sliding Plate	Interior	Bird debris up to 1/4" thick is present on and around the bearing anchor bolts.		New								
246	R	Both	Sliding Plate	Exterior	All four bearings exhibit light surface corrosion on the sole plates and masonry plates	J27-42	No change	4							
246	L	Both	Sliding Plate	Exterior	All four bearings exhibit light surface corrosion on the sole plates and masonry plates	J27-40	No change	4							
247	R	-	Pot Bearing	Exterior	5 of 8 anchor bolt nuts are not flush with washers.	F27-56	No change								
247	L	-	Pot Bearing	Exterior	2 of 8 anchor bolt nuts are not flush with washers.	F27-54	No change								
R1	L	-	Sliding Plate	Exterior	Left bearing exhibits light surface corrosion from the sole plate	J27-34	New	1							
R6	R	-	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.		New								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
R6	R	-	Sliding Plate	Exterior	Both bearings exhibit light surface corrosion on the sole plates and masonry plates	F31-28,29	New	2							
R6	R	-	Sliding Plate	Exterior	Left bearing has a gap up to 1/8" between the bronze plate and the sole plate.	F31-29	New							1	
R6	R	-	Sliding Plate	Interior	The right anchor bolt of the left bearing is loose and can be rotated up to 1/2".	F31-38	New			1					
R6	L	-	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J31-25	New								
248	R	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	J29-15,16	New			2					
248	L	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	J29-17,18	New			2					
249	R	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	J29-20	New			2					
249	L	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	J29-21	New			2					
250	L	Rear	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.	J31-29-31	New								
250	L	Rear	Sliding Plate	Interior	Bird debris up to 4" thick is present on and around the bearing anchor bolts.	J31-29-31	New								
250	L	Front	Sliding Plate	Interior	Anchor bolts for both bearings are missing jam nuts.		New								
250	L	Front	Sliding Plate	Interior	Bird debris up to 1" thick is present on and around the bearing anchor bolts.		New								
250	?	?	Sliding Plate	Exterior	? bearing has a gap up to 1/8" between the bronze plate and the sole plate.	B31-21	No change							1	
251	R	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	B31-25,26	No change			2					
251	L	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	B31-25,26	No change			2					
252	R	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	B31-30,31	No change			2					
252	L	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose.	B31-30,31	No change			2					
253	L	Rear	Sliding Plate	Exterior	Right bearing has a gap up to 3/32" between the bronze plate and the sole plate on the right rear corner.	F31-3	New							1	
254	R	-	Sliding Plate	Exterior	Anchor bolts for both bearings are up to 8 degrees out of plumb and they are missing jam nuts	J28-4	New								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
254	R	-	Sliding Plate	Exterior	Left bearing exhibits light surface corrosion on the sole plate and masonry plate	F31-4	New	1							
254	L	-	Sliding Plate	Exterior	Anchor bolts for both bearings are missing jam nuts.	J31-4	New								
254	L	-	Sliding Plate	Exterior	Right bearing has a gap up to 5/16" between the bronze plate and the sole plate.	F31-6, 7	No change								1
255	-	-	Pot Bearing	Exterior	Top of pier cap surface is uneven causing a gap up to 1/4" between right bearing masonry plate and the cap.	F31-25, 26	No change							1	
256	R	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose		No change			2					
256	L	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose		No change			2					
257	R	Rear	Sliding Plate	Interior	3 of 4 anchor bolts are missing washers. 2 of 4 anchor bolt nuts are not fully turned down and cannot be hand tightened. All four bolts are missing jam nuts	J28-10, 11	New								
257	L	Rear	Sliding Plate	Interior	Far right anchor bolt nut is loose.		No change								
257	L	Rear	Sliding Plate	Exterior	Left bearing exhibits light surface corrosion on the sole plate and masonry plate	F28-23	New	1							
257	L	Rear	Sliding Plate	Interior	Anchor bolt nuts are covered with broken concrete debris.	F28-17	No Change								
258	R	Rear	Sliding Plate	Exterior	Left bearing has a gap up to 1/4" between the bronze plate and the sole plate and a gap up to 3/16" between the masonry plate and the pier cap.	F9-43, 46, 47, 48	New							1	
258	R	Rear	Sliding Plate	Exterior	Right bearing has a gap up to 1/4" between the bronze plate and the sole plate and a gap up to 3/16" between the masonry plate and the pier cap.	F9-38, 39	No change							1	
258	L	Front	Elastomeric	-	Left stem keeper plate is missing washers.		No change								
258	L	Front	Elastomeric	-	Right keeper plate has a nut that is not flush with the washer.	F9-35	New								
261	L	Rear	Elastomeric	-	The left and right keeper plate anchor bolt nuts are loose.		No change								

Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
M3	L	Rear	Elastomeric	-	Left bearing has a gap between the bearing pad and the bottom of the beam stem, measured up to 1" for up to 15" L.	F4-18	No change								
M4	-	Both	Elastomeric	-	No keeper plates were noted at this location.		No change								
M5	-	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		No change								
M5	-	Front	Elastomeric	-	Keeper plates for both stems are missing washers.		No change								
400	R	Front	Elastomeric	-	Bearing pad is slightly over compressed at random locations.		No change					1			
400	R	Front	Elastomeric	-	Right stem keeper plate is missing washers.		No change								
400	L	Front	Elastomeric	-	Keeper plates are missing washers, and keeper has been cut to fit.		No change								
405	R	Rear	Elastomeric	-	Keeper plate for right stem is missing both washers and one nut and the other nut cannot be hand tightened.	J19-7	No change								
405	L	Rear	Elastomeric	-	Bearing pad is slightly over compressed under the left stem.	J19-12	No change					1			
405	L	Rear	Elastomeric	-	Keeper plates for both stems are missing washers.		No change								
405	L	Rear	Elastomeric	-	The web plate at the right stem keeper plate exhibits minor surface corrosion.	J19-10	New								
405	R	Front	Sliding Plate	Interior	Left bearing anchor bolts are missing nuts	F19-1 & 2	New								
405	R	Front	Sliding Plate	Exterior	Left bearing exhibits light surface corrosion on the sole plate and masonry plate	J19-19	New	1							
405	R	Front	Sliding Plate	Exterior	Right bearing exhibits gaps between the sole plate and the bronze plate and between the bronze plate and the masonry plate, totaling up to 5/16". 4 shim plates are present.	J19-14,15	No change								1
405	L	Front	Elastomeric	-	Keeper plates for both stems are missing washers.		No change								
406	R	-	Pot Bearing	Exterior	2 of 8 anchor bolt nuts are loose.		No change			1					
407	R	-	Pot Bearing	Exterior	Right bearing anchor bolt nuts are not fully engaged and wedge washers are present.	F31-22,23	New								



Pier	Side	Rear / Front	Bearing Type	Box Exterior / Interior	2013 Inspection Note	2017 Photo	2013 Note Disposition	Corrosion		Connection		Bulge/Split/Tear		Loss of Bearing	
								Lt-Mod (CS 2)	S.L. (CS 3)	Loose Fasteners	Missing / Broken	<15% T (CS 2)	>15% T (CS 2)	<10% (CS 2)	>10% (CS 3)
408	R	Rear	Sliding Plate	Interior	Anchor bolt nuts are not flush with washers at both the left and right bearings.										
408	R	Rear	Sliding Plate	Exterior	Left bearing exhibits a gap up to 1/4" x 6" L between the sole plate and the bronze plate as well as a small gap between the bronze plate and the masonry plate.	B31-9	No change							1	
408	R	Rear	Sliding Plate	Exterior	Left bearing exhibits cracked paint and light surface corrosion on the masonry plate	B31-10	New	1							
408	L	Rear	Elastomeric	-	A 1/2" shim plate is present below the left stem bearing pad and a 1/4" shim plate is present below the right stem bearing pad.	F28-29	No change								
408	L	Rear	Elastomeric	-	Left stem keeper plate is missing washers.		No change								
408	L	Rear	Elastomeric	-	Right stem keeper plate is missing nuts		New								
408	L	Front	Sliding Plate	Exterior	Both left and right bearings have a gap up to 1/8" between the bronze plate and the sole plate.	F28-27	New							2	
408	L	Front	Sliding Plate	Exterior	Right bearing exhibits light surface corrosion on the sole plate and masonry plate		New	1							
409	R	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose		No change			2					
409	L	-	Pot Bearing	Exterior	All anchor bolt nuts on both left and right bearings are loose	F19-12	No change			2					

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
1	N	Cap	Rear	Spall	8	6	1 1/2	1	Located in the bottom left corner	New	F7-2						1
1	N	Cap	Rear & Front	Crack	24	0.016		?	Diagonal and vertical cracks in both faces of the cap overhang, to the left of the column.	No Change				5			
2	N	Cap	Left	Crack		HL		?	Vertical cracks throughout face					1			
2	N	Cap	Rear	Crack	18	HL		1	Vertical crack extending down from beam left overhang	No Change							
2	N	Cap	Rear	Spall	4	3	1/2	1	Below exterior beam south stem with a vertical crack up to 1' L extending from spall.	No Change						1	
2	N	Cap	Front	Crack	24	HL		1	Vertical crack extending down from beam left overhang	New							
2	N	Cap	Front	exposed steel					Several exposed steel threaded bars up to 1" L.	No Change							
2	S	Cap	?	Crack	24	HL		1	Vertical crack extending down from beam right overhang	New							
3	N	Cap	Left	Crack		HL			Map cracking over approximately 20% of surface.	No Change				1			
3	N	Cap	Rear	Crack	24	HL		1	Diagonal crack extending down from beam right overhang	No Change							
3	Ctr	Cap	Rear & Front	Crack	48	0.02			Vertical, diagonal and random map cracks throughout.	No Change	F7-13			20			
3	S	Cap	Rear	Crack	18	HL		1	Diagonal crack extending down from beam left overhang	New							
3	S	Cap	Front	Crack	18	HL		1	Diagonal crack extending down from beam left overhang	New	F8-12						
4	N	Cap	Rear	Crack	30	0.016		1	Diagonal crack extending down from beam right overhang	No Change							
4	Ctr	Cap	Rear & Front	Crack	54	HL		7	Vertical and diagonal ranging from 2" to 4'-6", from the centerline of the column toward the south, all originating from the top	New	F7-12			7			
4	S	Cap	Rear	Crack	30	HL		1	Diagonal crack extending down from beam left overhang	New							
4	S	Cap	Front	Crack	30	HL		1	Diagonal crack extending down from beam left overhang	New							
5	N	Cap	Rear	Crack	30	HL		1	Diagonal crack extending down from beam right overhang.	No Change							
5	N	Cap	Rear	Delam.	3	3			Bottom left corner	New						1	

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
5	N	Cap	Front	Crack	8	HL			Diagonal crack extending down from beam right overhang. Random hairline cracking is also present, south of the beam.	New							
5	S	Cap	Right	Crack		HL			Random map cracking over approximately 50% of surface area.	No Change				1			
5	S	Cap	Rear & Front	Crack	36	HL		2	Vertical crack extending down from beam left overhang, on both cap faces	Increase							
5	S	Cap	Rear & Front	Crack	60	HL			Random map cracking with vertical cracks to the left of the beam.	No Change				5			
5	S	Cap	Rear & Front	Crack	36	HL		2	Horizontal crack between the stems of the beam, both cap faces	New							
6	S	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New	B18-38			1			
6	S	Cap	Rear	Crack	54	HL		1	full height vertical crack in the center	New							
6	S	Cap	Bottom	Crack	6	HL		1	Diagonal crack	No Change							
7	N	Column	Left	Crack	19	HL		1	Vertical crack in the pedestal & column originating under the middle of the bearing	No Change							
7	N	Column	Right	Hole					2" diameter cored hole 8" below top of column with #10 gauge wire extending out up to walkway.	No Change							
7	S	Column	Left	Crack	12	0.016		1	Vertical crack in the pedestal & column originating under the middle of the bearing	No Change				1			
7	S	Column	Right	Crack	12	0.016		1	Vertical crack in the pedestal & column originating under the middle of the bearing	No Change	B18-27, B18-29			1			
7	N	Column	Right	Crack	19	HL		1	Vertical crack in the pedestal & column originating under the middle of the bearing	New	B18-32						
8	N	PT Cap	Left	Crack					Map cracking with efflorescence throughout and surface cracking on post-tension block	No Change	B18-9, 11						
8	S	PT Cap	Right	Crack		HL			Map cracking throughout	No Change	B18-44						
8	S	PT Cap	Bottom	Exposed steel					Rebar support chairs exposed and exhibit moderate corrosion.	New	B18-45						
8	-	Column	Rear & Front	Crack	240	HL			Full height vertical crack in the center	New							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
10	N	Column	all faces	Crack					Minor random cracking throughout.	New	B18-61			1			
10	N	Column	all faces	Crack	3	0.016		5	Vertical cracks in the pedestal	No Change				1			
10	S	Column	Rear	Staining					Minor surface staining on the column.	No Change							
10	S	Column	all faces	Crack		HL			Minor random cracking throughout.	No Change				1			
11	-	Column	all faces	Crack		HL			Minor random cracking throughout.	No Change				1			
12	N	PT Cap	Left	Delam.	4	2.5	1 1/2	1	Front corner	New						1	
12	N	PT Cap	Left	Patch failure	10	10	1/2		10" exposed steel	No Change	F6-14		1				
12	N	PT Cap	Front	Crack		HL			At left end of pier stem	New	F6-18			2			
12	Ctr	PT Cap	Rear	Spall	2	1	1/2	2	With exposed rebar	New	F6-9					1	
12	Ctr	Column	Rear	Crack		HL			Random cracking throughout. Horizontal cracking spaced 1' apart, upper 10' of the column, cracks wrap around to right face	New	J6-2, 3, F6-11			1			
12	Ctr	PT Cap	Bottom	Honey.	24	8	1/4		Front face	No Change							
12	Ctr	PT Cap	Bottom	Honey.	12	8	1/4		Rear face	No Change							
12	S	PT Cap	Rear	Debris					On beam seat behind beam, there is debris including concrete and reinforcing bars.	No Change	F6-13						
12	S	PT Cap	Right	Crack	2	0.016			Diagonal cracks extending from both beam seat corners.	No Change				1			
12	S	PT Cap	Right	Crack	24	HL			Diagonal cracks, one extending down from each beam seat.	No Change	F6-8			1			
12	S	PT Cap	Bottom	Patch delam	6	6			Right overhang	New	F6-12					1	
12	S	PT Cap	Bottom	Crack		HL			Map cracking, right overhang	New	F6-12			2			
14	N	PT Cap	Left	Efflo.					Minor efflorescence at north face of post-tension block out.	No Change							
14	-	Column	Rear	Crack		HL		5	Horizontal cracks spaced 1' apart in the top 5 feet.	No Change				1			
15	N	PT Cap	Left	Crack	4	0.01			Diagonal cracks extending from both beam seat corners.	Increase							
15	N	PT Cap	Bottom	Exposed steel					6" of exposed steel underneath the left beam	New	J6-4, F6-28		1				

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
15	S	PT Cap	Right	Crack	6	0.016			Diagonal crack extending from the rear beam seat corner.	No Change							
15	S	PT Cap	Right	Crack		HL			Map cracking on PT cover	No Change							
16	N	PT Cap	Left	Efflo.					Minor efflorescence below PT cover	No Change							
16	N	PT Cap	Front	Crack	24	HL			Horizontal crack between the beam stems.	New							
16	Ctr	PT Cap	Rear	Crack	24	HL		1	Diagonal crack adjacent to right beam	No Change							
16	Ctr	PT Cap	Bottom	exposed steel	0.5				At the rear face	No Change			1				
16	S	PT Cap	Right	Gap					1/4" gap along the top of the PT cover	No Change							
17	N	PT Cap	Left	Crack	10	HL		2	Diagonal cracks, one extending down from each beam seat.	No Change				1			
17	N	PT Cap	Front	Delam.	11	7		1	At the left edge	New						1	
17	Ctr	PT Cap	Rear	Crack	48	HL		1	Horizontal crack, mid-height	New							
17	-	Column	Rear	Crack	60	HL		2	Horizontal cracks, 1' from the cap	New				1			
18	N	PT Cap	Left	Crack	18	HL		1	Diagonal crack under forward beam	No Change	F6-46						
18	N	PT Cap	Left	Delam.	5	3		1	5"x3" delamination at the top of the forward beam seat.	New	F6-46						
18	N	PT Cap	?	Spall	2	2	1	1	Corner spall	No Change						1	
18	S	Column	Left	Crack	24	HL		1	Horizontal crack at the forward corner, 10" below cap	New				1			
18	S	PT Cap	Right	Crack	12	HL		1	Diagonal crack extending from the forward beam seat corner.	Increase							
19	N	PT Cap	Right	Crack	24	HL		1	Vertical crack below the PT cover	New	F7-28						
19	N	PT Cap	Right	Efflo.					Moderate efflorescence below the PT cover	No Change	F7-28	1					
19	N	Column	Right	Crack	108	HL			Horizontal flexure cracks spaced 1 foot apart that wrap around to the front and rear faces.	Increase	F7-29			1			
19	S	Cap	Left	Crack		HL			Shrinkage map cracking throughout	No Change				1			
19	S	Column	Rear	Spall	2	2	1/2		left corner, 4' above ground	New						1	
19	S	Column	Front	Crack	24	HL			Horizontal crack at the right edge that wraps around, 1' below the cap.	New							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
20	N	Column	Right	Crack	108	HL			Horizontal flexure cracks spaced 1 foot apart that wrap around to the front and rear faces.	New				1			
20	N	PT Cap	Right	Efflo.					Minor efflorescence below the PT cover	No Change		1					
21	N	PT Cap	Left	Efflo.					Minor efflorescence below the PT cover	No Change		1					
21	N	PT Cap	Right	Efflo.					Minor efflorescence below the PT cover	No Change		1					
21	N	Column	Right	Crack	108	HL			Horizontal flexure cracks spaced 1 foot apart that wrap around to the front and rear faces.	New				1			
21	N	PT Cap	Front	exposed steel					Two 6" L exposed steel wire behind the south stem.	No Change							
21	N	PT Cap	Front	Spall	6	6	1 1/4	1	At the top corner next to the south flange of the beam.	New	F7-32					1	
21	N	PT Cap	all faces	Crack		HL			Map cracking exists over 20% of all cap faces.	No Change							
21	N	PT Cap	Left & Right	Crack	6	HL		4	Diagonal cracks extending from both beam seat corners.	New				1			
21	S	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
21	S	Cap	Front	Staining					Stains and algae, corrosion from failed joint	New	F7-50						
21	N	PT Cap	Left	Crack	26	HL			Curved crack below the cover	New							
22	N	Cap	Rear & Front	Crack	24	0.013		2	Vertical crack extending down from beam right overhang	Increase							
22	Ctr	Cap	Rear & Front	Crack	48	HL			Vertical cracking, spaced at 2'-4' centers along cap between columns	No Change				20			
22	S	Cap	Right	Crack	48	HL		1	Full height hairline crack at center	No Change							
22	S	Cap	Rear & Front	Crack	36	HL		2	Horizontal hairline crack between the stems, both cap faces.	Increase							
22	S	Cap	Rear & Front	Crack	36	HL		2	Vertical crack extending down from beam left overhang	New							
23	N	Cap	Rear	Crack	24	HL		1	Vertical crack extending down from beam right overhang	No Change							
23	N	Cap	Rear & Front	Crack	24	HL		4	Vertical and diagonal cracks extending from the top of the cap, typical both faces	New				4			
23	S	Cap	Left	Crack		HL			Shrinkage map cracking throughout	No Change				1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
23	S	Cap	Rear	Delam.	4	6			Left top corner with a crack up to 0.016".	No Change							
23	S	Cap	Right	Crack		HL			Shrinkage map cracking throughout	No Change				1			
23	S	Cap	Front	Crack	54	0.013		2	Two vertical cracks extending down from the beam left overhang	No Change							
23	S	Cap	Front	Crack		HL			Vertical and diagonal cracks extending from the top of the cap	New				4			
24	N	Cap	Rear & Front	Crack	4	HL		2	Vertical crack extending down from beam left overhang	New							
24	Ctr	Cap	Rear & Front	Crack	48	HL			Vertical cracks up to full height located every 3' to 4' along cap length. Cracks also exists at the south stem overhang on both faces with efflorescence . NO CHANGE	Increase	F7-38				5		
24	S	Cap	Right	Crack		HL			Shrinkage map cracking throughout	No Change							
24	S	Cap	Rear & Front	Crack	4	HL		2	Vertical crack extending down from beam right overhang	No Change							
24	S	Cap	Rear & Front	Crack	36	HL		2	Horizontal crack between the stems, both faces.	New							
25	N	PT Cap	Left	Crack	48	HL		2	Crack that extends from bearing to bearing and a 4" diagonal crack from the forward beam seat corner	Increase				1			
25	N	PT Cap	Right	Efflo.					Minor efflorescence below the PT cover	No Change							
25	N	PT Cap	Front	Spall	12	3	1/2	1	Behind the south stem with 8" of exposed steel.	No Change	F7-42, 43						1
25	N	PT Cap	all faces	Crack		HL			Map cracking exists over 20% of all cap faces.	No Change							
25	N	Column	s face	Crack	84	HL		9	Horizontal flexure cracks spaced 2 foot apart that wrap around to the front and rear faces.	Increase	F7-39, 40			1			
25	S	Cap	Left & Right	Crack		HL			Shrinkage map cracking throughout					2			
26	N	Cap	Left	Crack	12	HL		3	Diagonal cracks extending from both beam seat corners and a vertical crack x 12" starting from the bottom of cap	New				1			
26	N	Cap	Right	Crack	12	HL		3	Diagonal cracks extending from both beam seat corners and a vertical crack x 12" starting from the bottom of cap	New				1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
26	N	Cap	all faces	Crack		HL			Shrinkage map cracking throughout	No Change							
26	S	Cap	Left	Crack	28	HL		2	Diagonal cracks extending from both beam seat corners to the bottom of the cap.	No Change	F8-3			1			
26	S	Cap	Rear	Crack		HL		1	In cap stem	No Change							
26	S	Cap	Right	Crack	28	HL		2	Diagonal cracks extending from both beam seat corners to the bottom of the cap.	No Change	F8-3			1			
26	S	Column	Front	Crack	240	HL			Full height vertical crack at the center Shrinkage map cracking at the top 3' of the column on the right and front faces	New				1			
27	N	Cap	Left	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.	No Change				1			
27	N	Cap	Right	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.	No Change				1			
27	N	Cap	Front	Crack	24	HL		1	Vertical hairline crack in the center which wraps underneath the cap toward the column	New							
27	S	Cap	Left	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
27	S	Cap	Right	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
27	S	Cap	Front	Crack	?	HL		1		No Change							
28	N	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
28	N	Column	Rear	Crack		HL			Random cracking throughout.	New				1			
28	N	Column	Rear	Crack	20	6	3/4		Bottom left corner	New	J9-5						1
28	N	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
28	N	Cap	Front	Crack	40	HL		1	Vertical crack at the centerline	New							
28	S	Cap	Left	Crack	24	HL			Diagonal crack extending from the forward beam seat corner. Random hairline cracking is also present.	Increase							
28	S	Cap	Right	Crack		HL			Random shrinkage cracking throughout.	No Change				10			



Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
28	S	Cap	Front	Crack		HL			Map cracking throughout.	No Change							
29	S	PT Cap	Right	Efflo.					Moderate efflorescence below the PT cover	No Change	B17-7	1					
29	S	PT Cap	Right	Spall	7.5	4	1 1/2	1	Failure of previous repair, forward top flange corner	Increase	F9-51, B17-5						1
30	-	Column	Front	Delam.	5	2		1	Top right corner	New						1	
31	S	PT Cap	Rear	Crack	30	HL		1	Horizontal crack just below beam seat	No Change	B17-8						
31	S	PT Cap	Front	Crack	24	0.02		1	Vertical crack, 1' from left end	No Change	B17-13						
31	S	Column	all faces	Crack		HL			Wrap around crack, 7' above the sidewalk.	New				1			
31	S	PT Cap	Bottom	exposed steel					There is 1" of exposed stirrup in the bottom of the cap.	No Change	B17-17		1				
31	-	Column	Left	Crack	18	HL		2	Vertical cracks extending down from bearing pedestal	No Change	B17-19			1			
31	-	Column	Front	Spall	12	1	1 1/2	1	Bottom left corner	No Change							1
32	Ctr	PT Cap	Rear	Delam.	36	12	5	1	On top edge at beam seat.	New	F11-3					3	
32	Ctr	PT Cap	?	Spall	4	2.5	1	1	Adjacent to the north beam, south overhang	Increase						1	
32	S	PT Cap	Rear	Crack	5	HL		2	Cap stem at right corner	New				1			
32	S	PT Cap	Front	Spall	6	3.5	1 1/2	1	Behind the south stem, with exposed rebar.	New	F11-12		1				
32	-	Column	Rear & Front	Crack		HL			Map cracking throughout	New	J11-1			1			
34	Ctr	PT Cap	Rear	Patch Cracking					1 SF patch on top near south beam flange has map cracking throughout.							1	
34	-	Column	Rear	Crack	12	HL		1	left corner, 2.5' below cap.	New							
35	L	PT Cap	Left	Crack		HL			Map cracking throughout	No Change							
35	ctr	PT Cap	Front	Spall	12	7	1	1	Behind the left flange of the right beam.	Increase	F11-22						1
35	R	PT Cap	Right	Crack	3	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
35	-	Column	Front	Patch delam		12	12	1	Right edge, 10' above the ground.	New						1	
36	N	PT Cap	Left	Gap					1/8" gap along the top of the PT cover	New	F11-44, 45						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
38	L	PT Cap	Front	Spall	2.5	1.5	1		Behind the left stem of the left beam	New						1	
38	L	PT Cap	Bottom	Spall					3 locations of exposed steel due to popouts from insufficient cover on the underside of the cap, north of the column.	New	F11-36-37		1				
38	-	PT Cap	Left	Crack	24	HL			1/2" gap along the top of the PT cover Hairline map cracking with efflorescence is also present		F11-33, F11-34						
39	N	PT Cap	Left	Gap					Typical failed caulk around the PT cover	New	F12-11						
39	N	PT Cap	Bottom	Spall	2	2	1/4	?	Several spalls located?	No Change						3	
39	S	Column	Rear	Spall	3	1	1/4	1	Right corner, 6' below cap.	No Change						1	
40	N	PT Cap	Left	Gap					1/2" gap along the top of the PT cover	New	F12-12						
40	N	PT Cap	Rear	Crack	6	HL		1	Diagonal crack extending down from beam right overhang. Surface map cracking also present	New							
40	N	Column	Right	Crack	108	HL			Horizontal flexure cracks spaced 1 foot apart that wrap around to the front and rear faces.	Increase	F12-13			1			
40	N	PT Cap	Right	Efflo.					Moderate efflorescence below the PT cover. Deteriorated caulk around PT cover.	Increase	F12-14						
40	N	PT Cap	Front	Crack	12	HL		1	Diagonal crack extending down from beam right overhang.	New							
40	N	PT Cap	Bottom	Honey.					1/2 SF of 1/2" deep honeycombing on the underside of the cap	New							
40	S	Column	Left	Spall / Delam.	24	18	1/2	1	Located on the top face of the north step	New	J12-2						
40	S	Column	Left	Spall	3	3	1/2	1	North face above step exhibits a 3" diameter x 1/2" deep spall with exposed rebar	New	J12-1						
40	S	Cap	Rear	Spall	5	4	3/4	2	Spall with 1 exposed rebar, left of the left stem. Also a 2" diameter x 1/2" spall behind the left stem.	New	F12-2		1				
40	S	Column	all faces	Crack		HL			Horizontal cracks wrap around the column at all four corners, throughout.	New				1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
40	S	Cap	Bottom	exposed steel				2	Up to 2" L in the underside of the left and right sides	No Change			2				
40	S	Cap	Left & Right	Crack	6	HL		4	Diagonal cracks extending from both beam seat corners. Map cracking is also present.	Increase	F12-3			2			
41	N	Column	Rear	Crack		0.13		3	Hairline wrap around cracks, spaced 8-10", top half of the column.		F12-17				1		
41	N	Cap	Right	Patch delam	20	6				No Change	F12-18						
41	N	Cap	Right	Wire					An electrical wire, approximately 10 gauge, is extending out from cap and is not connected to anything	No Change	F12-18						
41	S	Cap	Left	Spall	4	3	3/4	1	In overhang with 2" of exposed rebar	New	F12-10					1	
41	S	Column	Right	Crack	12	HL		?	Horizontal wrap around cracks on the rear and front corners every 2', full height.	Increase				1			
43	N	Cap	Left	Crack		HL			Surface cracking throughout skim coating	No Change							
43	N	Cap	Right	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners.	New							
43	S	Cap	Left	Patch Cracking	6	6			Underside of left overhang	No Change						1	
43	S	Cap	Rear	Crack		HL			Random cracking throughout	No Change				6			
43	S	Column	Multiple	Crack	24	HL		6	Horizontal cracks, located 3" and 1' below the cap on the left, front, and right faces (2 cracks per face)	No Change				1			
44	N	Cap	Left	Crack	4	HL		2	Diagonal cracks extending from both beam seat corners.	Increase							
44	N	Cap	Rear	Crack	9	HL		1	Diagonal crack extending downward from the beam seat corner.	No Change							
44	Ctr	Cap	Front	Debris					Bird nest and debris on top of the beam seat adjacent to the left beam	No Change	F12-27						
44	S	Cap	Right	Delam.	14	7	4	1	Below the forward keeper plate.	Increase	F13-23					1	
44	S	Cap	Right	Crack		HL			Map cracking throughout face	No Change							
44	S	Cap	Front	Debris					Debris up to 1" deep on beam seat at left stem bearing	New	F13-44						
44	S	Cap	Rear & Front	Crack	14	HL		2	Diagonal crack extending downward from the beam seat corner, both faces.	Increase							
45	N	Cap	Rear	Crack	24	HL		1	Vertical crack extending down from beam right overhang	New	F12-28						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
45	N	Cap	Front	Crack	30	HL		1	Vertical crack extending down from beam right overhang	No Change	F12-33						
45	N	Cap	Front	Crack	48	HL			Full height vertical cracks up to full height	No Change				5			
45	S	Cap	Front	Crack	30	HL		3	Vertical cracks extending down from the top of the cap, to the left of the column	No Change				3			
45	S	Cap	Front	Crack		HL			Map cracking at random locations	No Change							
45	S	Cap	Rear & Front	Crack	36	HL		2	Vertical crack extending down from beam left overhang	New	F13-45						
46	N	Cap	Left	Crack	30	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				1			
46	N	Cap	Rear	Crack	36	HL		1	Vertical crack below beam right drip edge	No Change							
46	N	Cap	Front	Crack	20	HL		1	Diagonal hairline crack extending from south stem bearing	No Change							
46	N	Cap	Front	Crack		HL			Random cracking throughout	No Change				5			
46	S	Cap	Rear	Crack	24	HL		1	Vertical crack extending down from beam left overhang	No Change							
46	S	Cap	Right	Crack		HL			Random map cracking throughout.	No Change							
46	S	Cap	Front	Crack	24	HL		1	Vertical crack extending down from beam left overhang	No Change							
46	S	Cap	Rear & Front	Crack		HL			Random cracking throughout	No Change				5			
47	N	Cap	Rear	Crack	24	HL		1	Vertical crack	No Change							
47	N	Cap	Right	Crack	5	HL		2	Diagonal cracks extending from both beam seat corners.	New							
47	N	Column	all faces	Crack	192	HL		2	Horizontal cracks located 2' and 4' below, around full perimeter (above and below a repaired area)	No Change				1			
47	S	Cap	Right	Crack		HL			Map cracking throughout	New							
47	S	Column	Front	Crack	60	HL		2	Horizontal cracks approximately 3' and 6' from top of column.	No Change				1			
47	S	Cap	?	Crack	12	0.016		1	Vertical crack below the north keeper plate.	No Change							
48	L	Cap	Left	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking is also present.		F12-40			1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
48	L	Cap	Rear	Crack	42	HL		5	Full height vertical and diagonal hairline cracks	Increase				4			
48	L	Cap	Right	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners and a vertical crack x 24" starting from the bottom of pier cap. Random map cracking also present	No Change				1			
48	L	Cap	Front	Crack	40	HL		1	Vertical crack between beam stems. Random map cracking is also present.	No Change							
48	R	Cap	Front	Crack		HL			Map cracking throughout	New							
48	R	Cap	Left & Right	Crack	18	HL		4	Diagonal cracks extending from both beam seat corners.					2			
49	R	Cap	Left & Right	Crack	18	HL		4	Diagonal cracks extending from both beam seat corners. Random shrinkage cracks also present.	No Change				2			
50	L	Cap	Left	Crack	18	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.	Increase							
50	R	Cap	Front	Crack	18	HL		1	Between beam stems	No Change							
51	Ctr	Cap	Rear & Front	Crack	96	HL		2	Negative moment crack that wraps over cap and extends down both faces up to 2.5'.	No Change				2			
51	-	Cap	Left & Right	Crack	8	HL		4	Diagonal cracks extending from both beam seat corners. Random shrinkage cracks also present.	New				2			
52	Ctr	Cap	Rear	Crack		HL			Random cracking in cap stem	No Change				5			
52	Ctr	Cap	Rear	Crack	14	HL		3	Vertical cracks	New							
52	Ctr	Cap	Front	Spall	3	6	1/2	1	Below the right stem of the left beam.	No Change							1
52	Ctr	Cap	-	Spall	6	4	1	?	Spalls inside pier stem blockout	No Change	F13-56-57						
52	R	Cap	Right	Crack	10	HL		2	Diagonal cracks extending from both beam seat corners.	New							
52	?	Cap	Bottom	Exposed steel					Rebar support chairs exposed.	New	B16-54						
52A	Ctr	Cap	Rear	Crack		HL			Vertical cracks throughout face	No Change	B16-60						
52A	R	Cap	Front	Crack		HL		3	Vertical cracks	No Change	B16-						
52A	?	Cap	Bottom	Exposed steel					Rebar support chairs exposed.	New	B16-58, 59						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
53	-	Cap	Rear & Front	Crack	180	HL		3	Negative moment cracks that wrap over the cap and extend down both faces up to 5'.	Increase	F17-5, 6			3			
54	L	Cap	Left	Crack	24	HL		3	14" diagonal cracks extending from both beam seat corners and a vertical crack x 24" starting from the bottom of pier cap.	New				1			
54	L	Column	Left	Spall	12	12	1	1	At location of previous street light connection	No Change	J21-2						
54	L	Cap	Front	Crack	30	HL		4	Vertical hairline cracks below beam	Increase				4			
54	Ctr	Cap	Rear	Crack	60	HL		4	Full height vertical cracks in the cap and stem , some with efflorescence, between the beams	Increase	J16-32			-			
54	Ctr	Cap	Front	Crack	60	HL		6	Full height vertical cracks in the cap and stem, between the beams	New	F21-9			6			
54	R	Cap	Right	Crack	24	HL		3	24" diagonal cracks extending from both beam seat corners and a vertical crack x 24" starting from the bottom of pier cap.	Increase							
54	R	Cap	Front	Crack	30	HL		4	Vertical hairline cracks below beam	Increase				4			
55	L	Cap	Left	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				1			
55	Ctr	Cap	Rear	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	No Change				2			
55	Ctr	Cap	Rear	Exposed steel					There is a steel bar 1" L protruding out of the rear face under the right overhang of the left beam.	No Change							
55	Ctr	Cap	Front	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	No Change							
55	Ctr	Cap	Rear & Front	Crack	180	HL		3	Negative moment cracks that wrap over cap and extend down both faces up to 5'.	No Change	F21-10, J24-35			3			
56	L	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.	Increase				1			
56	Ctr	Cap	Rear	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	No Change				2			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
56	Ctr	Cap	Front	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	No Change							
56	Ctr	Cap	Rear & Front	Crack	138	HL		1	Negative moment crack that wraps over cap and extends down both faces up to 3'-2".	No Change							
56	R	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				1			
57	L	Cap	Left	Crack	18	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
57	Ctr	Cap	Rear	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	No Change				1			
57	Ctr	Cap	Front	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	No Change				1			
57	Ctr	Cap	Rear & Front	Crack	180	HL		1	Negative moment crack that wraps over cap and extends down both faces up to 5'.	No Change				1			
57	R	Cap	Right	Crack	24	HL		3	Horizontal crack between beam seat corners and a vertical crack 2' L up from the bottom at the midpoint.	New				1			
57	-	Column	Rear	Delam.	3	3		1	At the rear light bracket	No Change						1	
57	-	Column	?	Crack	?	HL		1	Horizontal hairline crack, 1' down from the cap.	No Change							
58	L	Cap	Left	Crack	9	HL		1	Diagonal crack extending from the forward beam seat corner.	New							
58	Ctr	Cap	Rear	Delam.	8	2		1	At the left keeper plate for the right beam	New						1	
58	Ctr	Cap	Rear & Front	Crack	120	HL		6	Negative moment cracks that wrap over cap stem and extend down both faces up to 2.5'.	Increase				4			
59	L	Cap	Left	Crack	18	HL		3	18" diagonal cracks extending from both beam seat corners and a vertical crack starting from the bottom of pier cap.	No Change				1			
59	L	Cap	Front	Crack	30	HL		1	Vertical hairline crack between the beam stems.	No Change							
59	Ctr	Cap	Rear	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	New				1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
59	Ctr	Cap	Front	Crack	16	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	New							
59	R	Cap	Right	Delam.	6	3		1	Below forward beam keeper plate with cracking up to 1/16" for 9".	New	F21-25					1	
59	R	Cap	Right	Crack	15	HL		2	Diagonal cracks extending from both beam seat corners.	New							
59	-	Cap	Rear & Front	Crack	132	HL		2	Negative moment cracks that wrap over cap and extend down both faces up to 3'.	No Change				2			
60	Ctr	Cap	Rear	Crack	54	HL		2	Full height vertical crack in the center and a 2'-6" vertical crack from the left beam overhang.	No Change				1			
60	Ctr	Cap	Front	Crack	54	HL		2	One vertical crack extending down from each beam overhang	Increase	F21-28			2			
60	Ctr	Cap	Bottom	Spall	3	1	1/2	1	In front of the column with an exposed wire.	New						1	
61	Ctr	Cap	Front	Crack	12	0.016		1	Horizontal crack extending from the bearing area of the left beam inboard stem	No Change							
61	Ctr	Cap	Rear & Front	Crack	138	HL		10	Negative moment cracks above the left column that wrap over cap and extend down both faces up to 3'.	Increase	F21-32, 34, 36				10		
61	R	Cap	Rear	Delam.	6	4	5		At top right corner	New	F21-34					1	
61	R	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
61	R	Cap	Front	Crack	48	HL		?	Vertical and diagonal cracks between beam stems	No Change				3			
62	L	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
62	L	Cap	Front	debris					Bearing area is covered with bird nests and debris.	No Change	F22-12						
62	L	Cap	Front	Crack	12	HL		1	Diagonal crack with minor efflorescence extending downward from the beam seat corner.	Increase							
62	L	Column	Through out	Crack		HL			Random cracking throughout	New				1			
62	Ctr	Cap	Rear	Crack	30	HL		2	Diagonal cracks with efflorescence extending downward from the left beam seat corner and the top flange notch.	New	F22-11			1			



Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
62	Ctr	Cap	Rear & Front	Crack	24	HL		6	Negative moment cracks above the left column that wrap over cap and extend down both faces up to 2'.	Increase	F22-1			6			
62	Ctr	Cap	Rear & Front	Staining					Minor water staining on the cap.	No Change	J22-16						
62	R	Cap	Rear	debris					Bearing area is covered with bird nests and debris.	No Change							
62	R	Cap	Right	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
62	R	Column	Through out	Crack		HL			Random cracking throughout	New				1			
63	L	Cap	Left	Crack	6	HL		1	Diagonal crack extending from the forward beam seat corner.	New							
63	Ctr	Cap	Rear & Front	Crack	138	0.013		8	Negative moment cracks above the left column that wrap over cap and extend down both faces up to 3'.	Increase				8			
63	R	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
64	L	Cap	Left	Crack	8	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
64	L	Cap	Rear & Front	Crack	114	HL		4	Negative moment cracks that wrap over cap and extend down both faces up to 2'.	Increase				4			
64	R	Cap	Right	Crack	10	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
65	L	Cap	Rear & Front	Crack	114	HL		5	Negative moment cracks that wrap over cap and extend down both faces up to 2'.	No Change				5			
66	L	Cap	Left	Delam.	16	3.5	3	1	Under the forward beam keeper plate	New	F22-17					1	
66	L	Cap	Left	Crack	14	HL		2	Diagonal cracks extending from both beam seat corners.	Increase							
66	Ctr	Cap	Rear	Crack	30	HL		2	Diagonal cracks extending downward from the left beam seat corner and top flange notch.	Increase	F22-15			2			
66	Ctr	Cap	Front	Crack	30	HL		2	Diagonal cracks extending downward from the left beam seat corner and top flange notch.	Increase	F22-20						
66	Ctr	Cap	Front	Crack	12	HL		1	Diagonal crack extending downward from the right beam seat corner.		F22-8						
66	Ctr	Cap	Rear & Front	Crack	138	HL		6	Negative moment cracks above left column, spaced at ~2' that wrap over cap and extend down both faces up to 3'.	No Change	F22-16			6			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
66	R	Cap	Right	Crack	42	HL		3	18" diagonal cracks extending from both beam seat corners and a vertical crack x 42" starting from the bottom of pier cap.	New				1			
66	R	Column	Front	Crack	72	HL		1	Vertical crack at the bottom of the column	No Change				1			
67	L	Cap	Left	Crack	8	HL		1	Diagonal crack extending from the forward beam seat corner.	New							
67	L	Cap	Rear & Front	Crack	138	HL		6	Negative moment cracks above the left column that wrap over cap and extend down both faces up to 3'.	No Change	F22-22, 23, J24-45,46			6			
67	R	Column	Left	Spall	12	12	1/4	1	4' from the ground.	No Change	J22-4					1	
67	R	Cap	Right	Crack	15	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
68	L	Cap	Left	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.					1			
68	Ctr	Cap	Front	Crack	36	HL		1	Diagonal crack adjacent to right stem of left beam	Increase							
68	Ctr	Cap	Rear & Front	Crack	167	0.01		3	Negative moment cracks that wrap over cap and extend down both faces up to 4.5'.	Increase				3			
68	R	Cap	Right	Crack	36	HL		3	Horizontal crack between beam seat corners and 12" L diagonal cracks extending from both beam seat corners.	New				1			
68	-	Column	Front	Delam.	30	30		1	4' from ground	New						1	
69	L	Cap	Left	Delam.	7	5.5	1	1	Beneath the rear keeper plate	New	F22-30					1	
69	L	Cap	Left	Crack	12	HL		2	Diagonal cracks with minor efflorescence extending from both beam seat corners.	New				1			
69	Ctr	Cap	Rear	Popouts	2	2	1/2	10	10 popouts up to 2" diameter between beams.	New	F22-27, 28					10	
69	Ctr	Cap	Front	Exposed steel					10 sets of exposed chairs due to insufficient cover	New	F22-32						
69	Ctr	Cap	Rear & Front	Crack	72	HL		3	Negative moment cracks that wrap over the stem and extend down both faces up to 1.5'.	Increase				3			
69	Ctr	Cap	Rear & Front	Staining					Minor water staining on the cap.	No Change							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
69	R	Cap	Right	Crack	12	HL		2	Diagonal cracks with minor efflorescence extending from both beam seat corners.	Increase				1			
69	-	Column	Front	Delam.	4	4		1	Located at the street light	No Change							
69	-	Column	Through out	Crack	228	HL		3	Vertical cracks up to full height in the rear, right, and front faces	New				1			
70	L	Cap	Left	Crack	8	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
70	Ctr	Cap	Rear	Crack	36	HL		1	Vertical crack extending down from right overhang of left beam	No Change				1			
70	Ctr	Cap	Front	Crack	18	HL		1	Vertical crack extending down from left overhang of right beam	New				1			
70	Ctr	Cap	Rear & Front	Crack	138	0.013		1	Negative moment crack at the centerline that wraps over the cap and extends down both faces up to 3'.	Increase				1			
70	R	Cap	Right	Crack	36	HL		1	Horizontal crack between beam seat corners	New							
70	-	Column	Through out	Crack	228	HL		3	Full height vertical cracks on the rear, right, and front faces.	New	J22-6			1			
71	L	Cap	Left	Crack	9	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
71	Ctr	Cap	Rear & Front	Crack	138	0.01		1	Negative moment crack that wraps over cap and extends down both faces up to 3'.	No Change							
72	L	Cap	Left	Crack	9	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
72	L	Cap	Left	Crack	14	HL		1	Horizontal crack under the rear beam bearing.	New							
72	Ctr	Cap	Rear & Front	Crack	116	HL		2	Negative moment cracks that wrap over cap stem and extend down both faces up to 2'-4".	No Change				2			
72	R	Cap	Right	Crack	9	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
73	L	Cap	Left	Crack	15	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
73	Ctr	Cap	Rear	Crack	18	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam		F22-35,36			2			
73	Ctr	Cap	Front	Crack		HL			Surface map cracking throughout	No Change				1			
73	Ctr	Cap	Rear & Front	Crack	156	HL		1	Negative moment crack that wraps over cap and extends down both faces up to 3'-9".	No Change				1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
73	R	Cap	Right	Crack	15	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
73	-	Column	Front	Crack	8	HL		1	At the top of the light base.	No Change							
74	L	Cap	Left	Crack	10	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.	New				1			
74	Ctr	Cap	Rear & Front	Crack	138	HL		3	Negative moment cracks with efflorescence that wrap over the cap and extend down both faces up to 3'.		F23-1			3			
74	R	Cap	Right	Crack	36	HL		2	Diagonal cracks extending from both beam seat corners that meet in the middle	No Change				1			
75	L	Cap	Left	Crack	7	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
75	L	Cap	Front	Spall	24	2	2	1	Along the compression joint	No Change	F23-7						1
75	Ctr	Cap	Rear	Spall	2	2	1/4	1	With 1" of exposed steel	No Change						1	
75	Ctr	Cap	Rear & Front	Crack	102	HL		5	Negative moment cracks that wrap over the cap stem and extend down both faces up to 1'-6".	Increase				5			
75	R	Cap	Right	Crack	8	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
75	R	Cap	Front	Spall	24	2	2	1	Along the compression joint	No Change	F23-8						1
75	-	Column	Right	Crack	240	HL		1	Full height crack with efflorescence.	No Change	J23-1	1					
75	-	Cap	Rear & Front	debris					Debris and water standing exist in the bearing areas for both beams, both faces	No Change							
76	L	Cap	Rear	Crack	28	HL		2	Vertical cracks between beam stems	No Change				2			
76	Ctr	Cap	Rear	Crack	15	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	Increase				1			
76	Ctr	Cap	Front	Crack	15	HL		2	Diagonal crack extending down from the bearing area of the inboard stem of each beam	Increase				1			
76	Ctr	Cap	-	debris					Bird nesting material and feces in block out.	No Change							
76	Ctr	Cap	Rear & Front	Crack	90	HL		2	Negative moment cracks that wrap over the cap and extend down both faces to the blockout.	No Change				2			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
76	R	Cap	Right	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
76	R	Cap	Right	Crack	15	HL		4	1'-3" diagonal cracks extending from both beam seat corners and two vertical cracks starting from the bottom of pier cap.	Increase				1			
76	-	Column	Rear	Spall	8	2	1/4	2	10' below the cap	No Change	F23-12					1	
76	-	Column	Through out	Crack	252	HL		2	Full height vertical cracking is present on the rear and left faces.	New				1			
77	L	Cap	Left	Crack	5	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
77	Ctr	Cap	Rear & Front	Crack	118	HL		3	Negative moment cracks that wrap over cap and extend down both faces up to 2'-2".					3			
77	R	Cap	Right	Crack	16	HL		1	Diagonal crack extending from the rear beam seat corner.	New				1			
78	L	Cap	Left	Crack	8	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
78	L	Cap	Front	Patch Cracking	12	HL			crack along the edge of a patch at the left end	No Change							
78	Ctr	Cap	Rear	Spall	11	4	1/2	1	Top of beam seat adjacent to the right beam	Increase	F23-22						1
78	Ctr	Cap	Front	Spall	5	2	1/2		Top of beam seat adjacent to the right beam	New						1	
78	Ctr	Cap	Rear & Front	Crack	90	HL		2	Negative moment cracks that wrap over cap stem and extend down both faces up to 2'-3".	No Change	F23-24,25			2			
78	R	Cap	Right	Delam.	16	6	5	1	Beneath the forward bearing	No Change						1	
78	R	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
78	Left	Cap	Front	Spall	11	3	1/2	1	Top of beam seat adjacent to the left stem of the left beam	No Change							1
79	L	Column	Left	Crack		HL			Flexural cracks, spaced 5" apart, full height	New	J20-3,4				1		
79	L	Cap	Left	Crack	18	HL		2	Vertical cracks	New				1			
79	L	Cap	Rear	Crack	36	0.013			Diagonal crack extending down from the bearing area of the left stem	No Change							
79	L	Cap	Rear	Crack		HL			Map cracking over approximately 30% of surface between beam stems.	No Change				5			
79	L	Cap	Rear	Crack	36	HL			Diagonal crack extending down from beam left overhang	New							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
79	L	Column	Rear	Crack	240	HL			Full height vertical crack	New							
79	L	Cap	Right	Crack	30	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
79	L	Cap	Bottom	Scaling					Isolated areas of minor scaling, up to 1/8" deep.		F20-32						
79	L	Cap	Rear & Front	Crack	90	HL		3	Negative moment cracks to the right of the column that wrap over cap and extend down both faces up to 1'.	New				3			
79	L	Column	Through out	Gap					Typical gap between column and brick ring, caulk failed	New	J21-1						
79	R	Cap	Left	Crack	36	HL			Horizontal crack between beam seat corners	No Change							
79	R	Cap	Right	Crack	36	HL		2	Horizontal crack between beam seat corners and a 2' L vertical crack extending up from the bottom at the midpoint	New				1			
79	R	Cap	Front	Crack		HL			Random cracking throughout	New				5			
80	L	Cap	Left	Crack	30	HL			Horizontal crack between beam seat corners	No Change							
80	L	Cap	Right	Crack	3	HL			Diagonal crack extending from the forward beam seat corner and map cracking throughout.	Increase				1			
80	L	Column	Through out	Crack		HL			Light vertical hairline cracks throughout	New				1			
80	R	Cap	Left	Crack	30	HL			Horizontal crack between beam seat corners	New							
80	R	Cap	Rear	Crack	30	HL			Diagonal crack extending down from beam right overhang	New	F21-2,3						
80	R	Cap	Right	Crack	56	HL		1	Full height vertical crack.	New							
80	R	Column	Through out	Crack		HL			Right face exhibits light flexural horizontal cracks and a full height vertical crack. Random cracking is present throughout, all faces	New				1			
81	L	Cap	Left	Delam.	12	2	3/4	1	Under rear beam seat	New	F20-1					1	
81	L	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
81	L	Cap	Right	Crack	8	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
81	R	Cap	Left	Delam.	4	2	1/4		Under rear beam seat	New						1	

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
81	R	Cap	Left	Crack	8	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
81	R	Cap	Rear	Crack	30	HL		1	Diagonal crack extending upward from the bottom of the cap at the right beam stem.	New							
81	R	Cap	Right	Patch delam	15	2	2		Under rear beam seat	New	F20-11					1	
81	R	Cap	Right	Crack	8	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
81	R	Cap	Front	Crack	48	HL		1	Full height vertical crack at the cap centerline	New							
82	L	Cap	Left	Crack	18	HL		2	Diagonal cracks extending from both beam seat corners.	New	F20-2			1			
82	L	Cap	Rear	Crack	48	HL		1	Vertical crack extending down from left beam, right overhang	New							
82	L	Cap	Front	Crack	24	HL		1	Vertical crack extending down from left beam, right overhang	New							
82	Ctr	Cap	Rear	Crack	24	HL		1	Diagonal shear crack to the right of the left column.	New							
82	Ctr	Cap	Front	Crack	48	HL		1	Diagonal shear crack to the right of the left column.	New							
82	R	Cap	Rear	Crack	12	HL		1	Vertical crack extending down from right beam, left overhang	New							
82	R	Cap	Right	Crack	7	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
82	R	Cap	Front	Crack	48	HL		1	Diagonal shear crack to the left of the right column.	New							
83	L	Cap	Left	Crack	9	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.	New	F20-2			1			
83	L	Cap	Rear	Crack	12	HL			Vertical crack extending down from the left beam, right overhang	No Change							
83	L	Cap	Rear & Front	Crack	114	HL		2	Negative moment cracks over the left column that wrap over the cap and extend down both faces up to 2'.	New	F20-24, 25			2			
83	Ctr	Cap	Front	Crack	30	HL			Diagonal shear crack to the right of the left column.	New							
83	R	Cap	Right	Crack	20	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
83	R	Cap	Right	Delam.	6	5	1/2	2	One below each beam seat	New						1	
83	R	Cap	Rear & Front	Crack	120	HL		2	Negative moment cracks over the right column that wrap over the cap and extend down both faces up to 2'.	New				2			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
84	L	Cap	Left	Patch delam	6	5	3/4	2	Rear and forward beam seats	New						1	
84	L	Cap	Left	Crack	30	HL		3	Horizontal crack between beam seat corners and 12" diagonal cracks extending down from both beam seat corners.					1			
84	L	Cap	Rear	Crack	24	HL		3	Cracking to the right of the left beam: Two diagonal cracks up to 2' L and a 2' horizontal crack. NO CHANGE					2			
84	L	Cap	Front	Crack	10	0.016			Diagonal crack extending down from the bearing area of the right stem								
84	L	Cap	Front	Crack	72	HL		4	Cracking to the right of the left beam: two horizontal cracks, one 2'-8" L and one 6', and a diagonal crack, 12", and a vertical crack 2'L. Random cracking also present.	New				4			
84	R	Cap	Rear	Crack	48	HL		3	Cracking to the left of the right beam: 2 horizontal cracks up to 1.5' L and a 4' diagonal crack. Random cracking also present.	New							
84	R	Cap	Right	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners.	No Change	F20-19			1			
84	R	Cap	Right	Patch delam	6	3	3/4	2	Rear and forward beam seats	New						1	
84	R	Cap	Front	Crack	96	HL		4	Cracking to the left of the right beam: two horizontal cracks, one 2'-8" L and one 8', and two vertical cracks up to 2.5'L. Random cracking also present.	New				6			
85	L	Cap	Left	Crack	7	HL		1	Diagonal crack extending from the rear beam seat corner.	New							
85	L	Cap	Left	Grout crack	10	0.016		1	Grout on top of rear beam seat exhibits a crack.	No Change							
85	L	Cap	Right	Spall	36	8	1	1	Drip groove in right overhang was likely field cut, exposing aggregate; no significant deficiencies.	No Change	F20-26						
85	R	Cap	Left	Crack	6	0.01		1	Diagonal crack extending from the rear beam seat corner.	No Change							
85	R	Cap	Left	Delam.	12	2	3/4	1	Below rear beam seat	New						1	
85	R	Cap	Rear	Crack	48	HL		2	Full height vertical cracks	New				2			
85	R	Cap	Right	Crack	8	HL		1	Diagonal crack extending from the rear beam seat corner. Map cracking also present	No Change							



Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
85	R	Cap	Front	Crack		HL			Vertical cracks with efflorescence	No Change		1					
199	L	Cap	Rear	Crack	27	HL		1	Full height vertical crack at the centerline of the cap	New				1			
200	L	Cap	Right	Crack	12	HL		1	Vertical crack with minor efflorescence.	No Change				1			
201	L	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				1			
201	R	Cap	Rear	Crack	55	HL		1	Full height vertical crack, 5' from the left edge.	No Change				-			
201	R	Cap	Right	Crack	?	HL		2	Transverse cracks in the overhang extending from haunch towards the drip line.	No Change				3			
202	L	Cap	Rear	Crack	16	HL		1	Diagonal crack extending downward from the beam seat corner.	New	F2-26			1			
202	R	Cap	Right	Crack	8	HL		1	Diagonal crack extending from the rear beam seat corner.	New				2			
202	R	Cap	Front	Crack	16	HL		1	Diagonal crack extending downward from the beam seat corner.	New	F1-39, 40			-			
203	L	Cap	Left	Patch Cracking		HL		1	Patches on the left and bottom left surfaces have hairline map cracking	No Change				2			
203	R	Cap	Rear	Crack	36	HL		1	Vertical crack at the centerline of column extending from the beam top flange.	New				-			
203	R	Cap	Right	Spall	6	3	1	1	Spall with a 8" L hairline crack adjacent to the rear span.	No Change				-			1
203	R	Cap	Front	Crack	36	HL		2	Vertical cracks located one foot on either side of the centerline of the column.	No Change				2			
204	L	Column	Rear	Crack		HL			Top 1/3 of the column exhibits circumference cracks spaced 8" apart.	No Change				1			
204	L	Cap	Rear	Crack	40	HL		1	Vertical hairline crack.	No Change				-			
204	L	Cap	Front	Crack	24	HL		5	Three vertical and two diagonal cracks.	New				3			
204	R	Cap	Rear	Crack	36	HL		2	Two vertical cracks with minor efflorescence at the centerline of the cap.	Increase				2			
204	Mid	Cap	Right	Crack	34	HL		1	Vertical crack with minor efflorescence extending from the overhang drip line to the middle of the cap.	No Change				2			
205	R	Cap	Rear	Crack	16	HL		1	Vertical crack at the centerline of the cap.	New				1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
206	L	Column	Front	Spall	4	2	1/4	3	1' from the ground.	No Change						1	
206	R	Cap	Left	Crack	51	HL		1	Orientation?	No Change				4			
206	R	Cap	Rear	Crack	20	HL		3	Vertical cracks in skim coat.	No Change				-			
206	R	Cap	Front	Crack	14	HL		3	Vertical cracks in skim coat.	No Change				-			
207	Ctr	Cap	Rear	Crack	17	HL		2	Vertical cracks.	New	B16-1,2			4			
207	Ctr	Cap	Rear	Spall	29	8	1	1	On beam seat.	No Change	J1-1		1	-		2	
207	Ctr	Cap	Front	Crack	27	HL		1	Vertical crack a the centerline of cap	No Change				-			
207	Ctr	Cap Stem	Front	Crack	60	HL		4	Vertical cracks, some with efflorescence.	New	J1-3			-			
207	R	Cap	Right	Staining					Water staining from leaking joints	No Change				-			
207	-	Column	Rear face	Crack	48	HL		1	Vertical crack at the ground.	New	J1-6			-			
208	L	Cap	Left	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.	No Change	F1-12, 13			-			
208	Ctr	Cap	Rear	Crack	16	HL		2	Vertical cracks with minor efflorescence extending down from beam top flanges	No Change	F1-1, 2			3			
208	Ctr	Cap	Front	Crack	8	HL		1	"C" shaped crack in the skim coating.	No Change	F1-4, 5, 6			-			
208	-	Column	Front	Spall	4	3	1/4	1	2' from the ground.	No Change	J1-5					1	
209	L	Cap	Left	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				-			
209	Ctr	Cap	Rear & Front	Crack	138	HL		1	Negative moment crack that wraps over cap and extends down both faces up to 3'.	No Change				3			
209	R	Cap	Left	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				-			
210	L	Cap	Left	Crack	12	HL		1	Diagonal crack extending from the rear beam seat corner.	No Change				-			
210	Ctr	Cap	Rear	Crack	32	HL		1	Horizontal / diagonal with minor efflorescence extending from under the right stem of left beam.	No Change				-			
210	Ctr	Cap Stem	Rear	Crack	28	HL		4	Vertical cracks	No Change				-			
210	Ctr	Cap	Front	Crack	27	HL		3	Vertical and diagonal cracks with minor efflorescence.	No Change				5			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
210	R	Cap	Right	Delam.	12	2		1	At the rear beam seat with a horizontal hairline crack x 8" L.	Increase	F1-24, 25			-			1
210	-	Column	Right	Spall	2	2	1/4	2	1' from above the ground.	No Change						1	
211	L	Cap	Left	Crack	?	HL		2	Diagonal and vertical cracks extending up from the bottom at the center.	No Change				-			
211	Ctr	Cap	Rear & Front	Crack	138	HL		4	Negative moment cracks that wrap over the cap and extend down both faces up to 3'.	No Change	F1-29			4			
211	-	Column	through out	Crack	36	HL		?	Vertical cracks x 3' L throughout the column.	No Change				1			
212	L	Cap	Left	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				-			
212	Ctr	Cap	Rear	Crack	36	HL		1	Vertical crack	No Change				3			
212	Ctr	Cap	Front	Crack	42	HL		2	Vertical cracks	No Change				-			
213	L	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	No Change							
213	L	Cap	Rear	Delam.	5	5	2	1	On top of beam seat at left keeper plate.	No Change							1
213	Ctr	Cap	Rear	Staining					Watermarks and fungal buildup.	No Change							
213	Ctr	Cap	Rear	Crack	30	HL		2	Vertical cracks, 6" from each stem.	No Change							
213	Ctr	Cap	Front	Crack	21	HL		4	Vertical cracks with minor efflorescence.	No Change	B16-19						
213	Ctr	Cap	Front	exposed steel	6				Rebar chairs	No Change	B16-16						
213	-	Column	Front and Rear	Crack	full height	0.015		1	Vertical crack and random hairline cracks throughout.	No Change	F1-30, 31, 32			1			
214	L	Cap	Left	Crack		HL			Vertical cracks	No Change				-			
214	Ctr	Cap	Rear	Crack	72	HL		3	Vertical	No Change				5			
214	Ctr	Cap	Front	Crack	36	HL		4	Vertical	No Change				-			
214	-	Column	Front & Rear	Crack	full height	HL		2	Vertical crack	New	B16-20			1			
214	-	Column	through out	Staining					Minor surface staining on the column.	No Change							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
215	Ctr	Cap	Rear & Front	Crack	204	HL		3	Negative moment cracks that wrap over cap and extend down both faces up to 6'.	No Change				1			
216	Ctr	Cap Stem	Front	Crack	26	HL		1	Vertical crack at the centerline of the cap.	No Change							
216	R	Cap	Right	Crack	9	HL		1	Diagonal crack extending from the rear beam seat corner.	No Change							
216	R	Cap	Front	Crack	12	HL		1	Below left stem	No Change							
216	-	Column	Front & Rear	Crack	full height	HL		2	Vertical crack, with random transverse cracking throughout	New	J2-1			1			
217	L	Column	Rear	Crack	36	0.016		2	Adjacent to the underside of the cap.	No Change				1			
217	L	Cap	Front	Crack	60	HL		1	Transverse crack in patchwork at the junction of pier cap and the top flange.	No Change							
217	R	Cap	Rear	Crack	12	HL		2	Minor cracks in patchwork	No Change				1			
218	L	Cap	Rear	Crack	15	HL		2						2			
218	L	Cap	Front	Crack	15	HL		2						2			
218	L	Column	through out	Crack		HL			Random hairline cracking throughout	New	J2-3			1			
218	R	Cap	Rear	Crack	44	HL		1	Vertical crack extending from the top corner. Map cracking in a patch.	No Change				1			
219	L	Cap	Rear	Delam.	9	7	7		Under right keeper plate	New	F2-14					1	
219	L	Cap	Front	Crack	17	HL		5	Vertical cracks					5			
219	L	Cap	Front	Patch	11	5			Left end							1	
219	L	Cap	Front	Patch Delam	12	4		1	Under right keeper plate		F2-16					-	
219	R	Cap	Front	Delam.	12	9	2 1/2	1	Under left keeper plate	New						1	
219	R	Cap	Bottom	exposed steel					Rebar chairs, left end	No Change	F2-30, 33						
220	L	Cap	Left	Crack	33	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				1			
220	L	Cap	Rear	Crack	24	HL		1	Vertical crack extending up from the bottom of the cap at the centerline.	New							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
220	R	Cap	Left	Crack	24	HL		1	6" diagonal cracks extending from both beam seat corners and a vertical crack x 24" starting from the bottom of pier cap.	No Change				1			
220	R	Cap	Front	Crack	18	HL		1	Vertical crack extending up from the bottom of the cap at the centerline.	New							
220	R	Cap	Right	Crack	24	HL		3	Diagonal cracks extending from both beam seat corners and a vertical crack starting from the bottom of pier cap.	No Change				1			
221	L	Cap	Left	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.	No Change				1			
221	L	Cap	Left	Crack	15	HL		1	Crack in overhang with minor efflorescence.	No Change		1					
221	L	Cap	Rear	Crack	60	HL		1	Crack with minor efflorescence, 3' from the right stem. Efflorescence is also present along the exterior side of the right stem.	No Change	F2-17	1					
221	L	Cap	Front	Crack	60	HL			Horizontal crack between stems, 1' below the beam flange.	New	F2-18						
221	L	Cap	Front	Staining					Light fungal buildup, efflorescence, and water stains.	No Change	F2-19	1					
222	L	Cap	Left	Crack	32	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking is also present on the surface.	New	F2-21			1			
222	L	Cap	Rear	Crack	18	HL		1	Diagonal crack extending up from the column toward the right beam stem.	New							
222	L	Cap	Rear & Front	Staining					Minor fungal buildup, efflorescence, and water stains adjacent to the right beam stem.	New		1					
222	R	Cap	Right	Crack	60	HL		2	Diagonal cracks extending from both beam seat corners that meet and extend to the bottom of the cap.	No Change							
222	R	Cap	Rear & Front	Staining					Minor fungal buildup, efflorescence, and water stains adjacent to the right beam stem.	New		1					
223	L	Cap	Left	Crack	12	HL		5	6" diagonal cracks extending from both beam seat corners and horizontal cracks x 1' L with minor efflorescence, 9" below ? keeper plate.					1			
223	L	Cap	Front	Crack	12	HL		1	Diagonal crack extending downward from the beam seat corner.	New							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
223	L	Cap	Rear	Crack	12	HL		2	Diagonal crack extending downward from the beam seat corner. There is also a horizontal crack just below the right stem bearing.	New				2			
223	R	Cap	Right	Delam.	9	9	3	1	Below rear keeper plate.							1	
223	R	Cap	Front	Staining					Right cap overhang exhibits water marks with fungal buildup on front surface.	No Change							
224	L	Cap	Left	Staining					Fungal buildup and water stains attributed to a 1" diameter hole in the overhang.								
224	L	Cap	Front	Spall	7	1	1/2	2	One adjacent to the exterior face of the left stem, the other adjacent to the inside face of the right stem.	New						2	
224	L	Cap	Front	Crack	6	HL		1	Adjacent to the inside face of the right stem.	No Change							
225	R	Cap Stem	Front	Crack	6	HL		4	Along the right edge	No Change	F3-3			1			
226	Ctr	Cap	Rear	Crack	34	HL		1	Vertical hairline crack extending from the top edge.								
227	L	Cap	Front	Patch Delam	3	3		1	At the bottom of the left stem.	No Change						1	
227	Ctr	Cap	Rear	Crack	30	HL		2	Diagonal hairline crack x 2' L extending down from the left beam overhang. 2'-6" vertical crack at the centerline.	Increase				1			
227	Ctr	Cap	Front	Crack	30	HL		2	Diagonal hairline crack x 2' L extending down from the right beam overhang. 2'-6" vertical crack at the centerline extending up from the bottom.	New				-			
227	-	Column	Rear	Crack	84	HL		1	1' from the bottom of cap, left corner	No Change	F3-8						
228	Ctr	Cap	Rear	Crack	16	HL		2	One at the centerline, one 1' from the right beam.	Increase							
228	Ctr	Cap Stem	Rear	Crack	28	HL		6	Full height	Increase	F3-19			6			
228	Ctr	Cap Stem	Front	Crack	26	HL		4	Full height	No Change				-			
228	Ctr	Cap	Front	Crack	22	HL		?	Vertical hairline cracks	No Change							
228	Ctr	Cap	Front	Delam.	18	10	1	1	On beam seat.	New	F3-20						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
228	-	Column	Front	Crack		HL			Radom hairline cracking in a 4 SF area just below the cap	New				1			
229	L	Cap	Rear	Crack	48	HL		4	One vertical and 3 diagonal cracks between beam stems	Increase	F3-24			4			
229	L	Cap	Front	Crack	30	HL		1	Vertical crack between beam stems	New				-			
229	Ctr	Cap	Rear	Crack	36			5	Random and map cracks up to 3' long with efflorescence.	No Change				5			
229	Ctr	Cap	Front	Crack	36	HL		4	Vertical cracks with efflorescence extending from the top. Map cracking is also present.	New	F3-26			-			
229	R	Cap	Rear	Crack	18	HL		1	Vertical hairline crack x 1'-6" L, 6" between beam stems	No Change							
229	R	Cap	Front	Crack	18	HL		3	Diagonal hairline crack between beam stems	New				3			
229	-	Column	Rear	exposed steel	2				Exposed steel wire, 1' below the cap.	No Change	F3-25						
229		Column	Front	Crack		HL			Radom cracking in a 4 SF area just below the cap	New				1			
230	L	Cap	Rear	Crack	22	HL		1	Vertical crack between beam stems	No Change	F3-27						
230	Ctr	Cap	Rear	Crack	36	HL		4	Vertical cracks with minor efflorescence	No Change	F3-28			4			
230	Ctr	Cap	Front	Crack	48	HL		4	Two vertical cracks x 4' L with minor efflorescence and two 1' L diagonal cracks.	Increase				-			
230	R	Cap	Rear	Crack	30	HL		1	Vertical crack between beam stems	New				-			
230	R	Cap	Right	Crack	14	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
230	R	Cap	Front	Crack	30	HL		2	Vertical crack x 2'-6" L and a 1' diagonal crack	Increase				2			
231	Ctr	Cap	Rear	Crack	20	HL		2	One vertical crack extending down from each beam overhang	No Change				2			
231	Ctr	Cap	Front	Crack	48	HL		2	One vertical crack extending down from each beam overhang	No Change	F3-31			-			
231	R	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.	New				1			
231	R	Cap	Front	Crack	24	HL		1	Diagonal crack extending from the ? stem bearing	No Change							
231	-	Column	Right	Crack	120	0.016		1	Vertical crack at the top of the column.	No Change	F3-30						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
232	L	Cap	Left	Crack	36	HL		3	Horizontal crack between beam seat corners and a vertical crack up to 1' L down from each corner	New				1			
232	L	Cap	Left	Delam.	9	7	4 1/2	1	Front left corner; extends under the masonry plate for 2"x2.5".	No Change	F26-3					1	
232	L	Cap	Left	Delam.	12	6	2	1	Rear left corner under keeper plate	No Change	F26-4					-	
232	Ctr	Cap	Rear	Crack	28	HL		1	Vertical crack	No Change							
232	-	Column	Rear	Scrapes					Minor scrapes and gouges on the right corner in the bottom 4.5'.	New							
232	-	Column	through out	Staining					Minor surface staining	No Change							
233	L	Cap	Rear	Crack	60	HL		4	4 vertical cracks extending from the top of cap.	No Change				5			
233	L	Cap	Front	Crack	60	HL		5	5 vertical cracks extending from top of cap.	No Change				-			
233	Ctr	Cap	Rear & Front	Crack	204	HL		1	Negative moment crack that wraps over cap and extends down both faces up to 6'.	No Change	B26-3, 5			1			
233	R	Cap	Rear	Crack	36	HL		6	4 vertical cracks and 2 horizontal cracks	No Change	B26-2			5			
233	R	Cap	Front	Crack	48	HL		6	4 vertical cracks and 2 diagonal cracks	No Change	B26-4			-			
233	-	Column	?	Crack	60	HL		1	Horizontal crack with efflorescence in the cold joint, 20' from the top of the column.	No Change				1			
233	-	Column	?	Crack	120	HL		?	Vertical hairline cracks at the top of the column.	No Change				-			
234	L	Cap	Rear	Crack	60	HL		2	Vertical cracks	No Change				3			
234	L	Cap	Front	Crack	42	HL		3	2 vertical cracks and a horizontal crack up to 3'-6" L at mid height of cap.	No Change				-			
234	Ctr	Cap	Front	Crack	60	HL		2	Vertical cracks extending from the top of cap.	No Change	F26-17			2			
234	R	Cap	Rear	Crack	48	HL		3	Vertical cracks extending from the top of cap.	No Change				6			
234	R	Cap	Front	Crack	36	HL		6	Vertical cracks extending from the top of cap.	No Change				-			
235	L	Cap	Rear	Delam.	36	19		1	Below left bearing	Increase	F26-16					3	
235	L	Cap	Rear	Crack	36	HL		3	Vertical cracks	No Change				3			



Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
235	L	Cap	Front	Crack	29	HL		2	Vertical cracks	No Change				-			
235	Ctr	Cap	Rear	Crack	60	HL		2	Vertical cracks extending from the top of cap.	No Change				2			
235	R	Cap	Rear	Crack	60	HL		4	Vertical cracks, map cracking also present.	No Change				4			
235	R	Cap	Rear	Efflo.					At crack between column and right cap	No Change	J26-10	1					
235	-	Column	Rear	Staining					Minor surface staining	No Change	J26-14						
235	-	Column	?	Crack		HL			Cold joint exhibits a crack with efflorescence, 20' from the ground.	No Change		1					
236	L	Column	Left	Crack	12	HL		1	Vertical crack extending from top of column	No Change				-			
236	L	Column	Right	Crack	24	HL		1	Vertical crack extending from top of column	No Change				-			
236	L	Column	Front	Crack	480	HL		?	Vertical cracks x full height of column.	No Change				1			
236	R	Column	Rear	Crack	84	HL		2	Vertical cracks extending from top of column	Increase				1			
236	R	Column	Front	Crack	480	HL		2	Vertical cracks x full height of column.	No Change				-			
236	R	Column	Rear & Front	Crack					Minor surface map cracking	No Change				-			
237	L	Cap	Left	Crack	6	HL		1	Diagonal crack extending from the forward beam seat corner.	New							
237	L	Cap	Left	Delam.	14	2	1	1	Below left keeper plate	New	F29-1					1	
237	L	Cap stem	Rear	Crack	16	HL		?	Vertical and diagonal cracking	New				5			
237	L	Cap	Rear	Crack	42	HL		4	One diagonal hairline shear crack x 3.5' L just to the right of the column. 3 vertical cracks x up to 1'-6" L, 5' to the right of the column.	Increase				4			
237	L	Cap	Rear	Staining					Below right bearing area and running down column.	No Change	J14-2						
237	L	Strut	Rear	Crack	48	HL		2	18" L vertical crack with efflorescence extending down from top corner at column connection. Full height diagonal crack, extending up from the bottom strut connection to the column.	New	F14-3,4						
237	L	Column	Front	exposed steel	3				Right side exhibits 4" of exposed steel wire, 6' from the ground.	No Change	F14-1						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
237	L	Cap stem	Front	Crack	16	HL		1	Vertical crack	New				-			
237	L	Cap	Front	Crack	42	HL		2	Two diagonal shear cracks x up to 3'-6" L, extending up from the column. 16" vertical crack extending down from the beam seat corner.	Increase	F14-11			-			
237	L	Column	through out	Staining					Minor surface staining on the column and strut.	No Change	F14-2						
237	Ctr	Cap	Rear & Front	Crack	60	HL		?	Random cracks throughout cap between columns	New				10			
237	R	Strut	Rear	Crack	48	HL		9	Vertical with minor efflorescence extending from the top surface downward, near the column	Increase							
237	R	Cap	Rear	Crack	84	HL		1	Diagonal shear crack with moderate efflorescence extending from the left side of the column, onto the beam seat and continuing into pier stem behind beam	Increase	F27-4	2					
237	R	Cap	Rear	Staining					Below left bearing area and down onto glass frame causing corrosion, and down onto strut.	No Change	J14-1 F27-8, 11, J27-1, 2						
237	R	Cap	Right	Crack	66	HL			Full width horizontal crack, located 2' from the bottom of the cap. Random map cracking is also present.	New	F27-14						
237	R	Strut	Front	Crack	36	HL		7	Vertical with minor efflorescence extending from the top surface downward, near the column	Increase	J27-7						
237	R	Cap	Front	Crack	36	HL		1	Diagonal crack with minor efflorescence extending down from right stem bearing toward column	No Change	J27-6	1					
237	R	Cap	Rear & Front	Crack	156	0.04		8	Cracks that wrap over cap and extend down both faces up to 4', located between beam and right end	No Change	F27-5, 6, J27-4 6			8			
237	R	Column	through out	Staining					Minor surface staining on the column and strut	No Change							
237	R	Column	through out	Crack		HL			Random hairline cracks, vertical and map on all faces.	New				1			
238	L	Cap	Left	Crack	4	HL		1	Diagonal crack extending from the ? beam seat corner	New							
238	L	Column	Rear	Crack	468	HL		1	Full height vertical crack with efflorescence	Increase	F14-5,6,7	1					

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
238	L	Cap	Rear	Crack	30	HL		3	30" vertical crack with efflorescence that splits at the top, located 1' from right flange overhang 20" diagonal cracks with efflorescence extending from the right stem bearing area	Increase	F14-15			3			
238	L	Cap	Front	Crack	48	HL		3	36" vertical crack extending down from the right flange overhang 30" diagonal crack extending from right stem bearing area. 48" full height diagonal shear crack with efflorescence, extending from column	No Change	F14-16-18			4			
238	Ctr	Cap	Rear & Front	Crack		HL			Random cracking throughout.	New							
238	Ctr	Cap	Rear & Front	Crack	24	HL		?	Random vertical hairline cracks between the columns	No Change							
238	R	Cap	Rear	exposed steel	7				1' to the right of the right beam stem	No Change	F27-17		1				
238	R	Cap	Front	Crack	36	HL		1	Diagonal crack extending down from beam right overhang.	No Change							
238	R	Strut	Rear & Front	Crack	72	HL		6	Diagonal shear cracks extending up from the column, many of which wrap over the top of the strut.	No Change	F27-20						
238	R	Cap	Rear & Front	Crack	96	0.0.0		8	Vertical cracks up to 0.030 with minor efflorescence that wrap over the top of the cap and extend down on both faces up to 2'	Increase	J27-8-10, 13			8			
238	R	Column	Through out	Crack		HL			Random cracks, vertical and map on all faces.	New	J27-11,12			1			
239	L	Cap	Rear	exposed steel					Rear and bottom of cap exhibit exposed rebar chairs adjacent to the exterior face of the beam right stem.	No Change							
239	L	Cap	Rear	Crack	48	0.016		3	Two 18" diagonal hairline cracks extending from the beam exterior right stem bearing area 4' diagonal shear crack extending up from the column up to 0.016" 4' vertical hairline crack with moderate efflorescence, extending down from the exterior face of the right beam stem	New	F14-19			4			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
239	L	Strut	Rear	Crack	48	0.016		1	Diagonal shear crack extending from the left column.	No Change							
239	L	Column	Right	Crack		HL		?	Map cracking x up to 3' L.	No Change				-			
239	L	Column	Front	Crack	120	HL		?	Vertical cracks in the grooved area of column.	No Change				1			
239	L	Cap	Front	Crack	48	HL		1	18" downward diagonal crack extending from beam right stem bearing area 4' vertical crack with moderate efflorescence, extending from beam right stem bearing area	New	F14-21			-			
239	L	Cap	Front	Crack	15	HL		1	Horizontal crack with efflorescence between the beam stems.	No Change		1					
239	Ctr	Cap	Rear & Front	Crack		HL			Random vertical and diagonal cracks between beams	New							
239	Ctr	Strut	Rear & Front	Crack		HL			Random cracks between the columns.	New							
239	R	Strut	Rear	Crack	30	HL		2	Vertical cracks, 10' from the right column.	Increase							
239	R	Cap	Rear	Crack	48	HL		1	Vertical hairline crack, 4' to the left of the left beam stem.	No Change				-			
239	R	Cap	Rear	Spall	1	1	1/4	3	Between beam stems	No Change						1	
239	R	Cap	Rear	Staining					Minor water staining	No Change	J27-14, 15						
239	R	Cap	Right	Crack	60	HL			Full width horizontal crack, located 2' from the bottom of the cap. Random map cracking is also present.	New				1			
239	R	Cap	Front	Crack	30	HL		4	Vertical hairline cracks, 6' to the left of the left beam stem.	No Change				4			
239	R	Cap	Front	Crack		HL			Numerous areas with surface map cracking.	No Change							
239	R	Strut	Rear & Front	Crack	132	HL		5	Diagonal shear cracks near the column that extend up and wrap over the top of the strut.	Increase	F27-21						
239	R	Cap	Rear & Front	Crack	120	HL		3	6 vertical hairline cracks that wrap over and extend down both faces up to 2'-6" L with minor efflorescence.	Increase	F27-25			6			
239	R	Column	through out	Crack		HL			Random cracks, vertical and map on all faces.	New				1			
240	L	Column	Left	Crack		HL			Horizontal cracks and map cracking in the top 10'.	New	F14-22, 23			1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
240	L	Cap	Rear	Crack	24	HL			Diagonal crack extending downward from the beam seat corner.	New							
240	L	Cap	Rear	Crack	42	HL		2	10" diagonal crack extending downward from the left beam seat corner. There is also a 3.5' L diagonal hairline shear crack above it.	New	F29-2,3			2			
240	L	Cap	Front	Crack	72	0.02		4	Diagonal shear cracks with minor efflorescence extending up from the bottom of the cap at the left column. Longest one extend through the beam stem corner and up the pier stem, behind the beam.	No Change	F14-27, 29,30, F29-7,8			6			
240	L	Cap	Front	Crack	36	HL		4	Vertical cracks with minor efflorescence extending down from the top of the cap at the left column.	No Change	F29-7			4			
240	L	Cap	Bottom	exposed steel					Exposed chairs with minor surface corrosion, 10' from Column 240L.	No Change							
240	Ctr	Cap	Rear & Front	Crack		HL			Random vertical and diagonal cracks between the beams.	New							
240	R	Cap	Rear	Debris					Top of beam seat has 2.5" of debris buildup, left side of left stem.	New							
240	R	Column	Right	Delam.	30	20		1	Just below the cap at the forward corner.	New	F27-28						
240	R	Cap	Right	Crack	15	0.02		2	Diagonal cracks extending from both beam seat corners.	New	J27-16			1			
240	R	Cap	Front	Crack	12	HL		1	Vertical crack, 6' left of the ? stem.	No Change							
240	R	Cap	Front	Staining					Moderate staining below bearings	No Change	F27-30						
240	R	Cap	Bottom	exposed steel					4" of exposed steel, 2' left of column with minor surface corrosion.	No Change			1				
240	R	Column	through out	Crack		HL			Random cracks, vertical and map on all faces.	New				1			
241	-	Column	through out	Crack	360	0.016		?	Full height vertical cracks on the front, left, and rear faces.	New			-				
241	-	Column	through out	Crack	60	0.016		?	Vertical cracks extending from the top of the column on all faces. Front and rear faces each have a crack which runs over the top for 2.5'.	Increase	F25-1, 4,5, 15		1				
242	-	Column	Right	Crack	8	HL			Vertical crack extending from the top of the column.	New	B25-11						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
242	-	Column	Front	Crack	20	HL			Horizontal crack, 1' from top of column.	New	B25-13						
242	-	Column	Front	exposed steel					7" of exposed rebar at the ground level, right corner.	New	J28-2						
242	-	Column	Rear & Front	Crack	444	HL		?	Extending from the top of the column, 20'L to full height	No Change	B25-12			1			
243	L	Cap	Front	Crack	42	HL		2	Vertical cracks below right bearing	No Change	B25-6			2			
243	Ctr	Cap	Rear	Crack	48	HL		4	Vertical cracks extending down from top	No Change	B25-8			4			
243	Ctr	Cap	Front	Crack	48	HL		2	Vertical cracks extending down from top	No Change	B25-4, 8			-			
243	R	Cap	Front	Crack	46	HL		1	Vertical crack with minor efflorescence extending down from top	No Change	B25-7						
243	-	Column	Front	Delam.	3	3		2	10' from the top of cap	No Change	B25-5						
243	-	Column	Rear & Front	Crack					Full height vertical cracks	New				1			
244	Ctr	Cap	Front	Crack	84	HL		3	Vertical cracks extending down from the top of the cap	No Change	B25-19						
244	R	Cap	Rear	Crack	24	HL		1	Vertical crack extending down from the top of the cap	No Change	B25-22						
244	R	Cap	Front	Crack	72	HL		1	Horizontal crack	No Change	B25-23						
245	Ctr	Cap	Rear	Crack	72	0.016		?	Vertical cracks extending from the top of cap.	No Change	B25-24						
245	Ctr	Cap	Front	Crack	72	HL		3	Vertical cracks extending from the top of cap.	No Change	B25-26						
245	R	Cap	Front	Crack	48	HL		1	Vertical crack extending from the top of cap.	No Change							
245	-	Column	Rear & Front	Spall	4	3	1/2	2	3' from the ground.	No Change							
246	L	Cap	Left	Crack	24	HL		1	Vertical crack extending down from the top of the cap	New							
246	Ctr	Cap	Rear	Crack	36	HL		1	Vertical crack extending down from the top of the cap	No Change							
246	Ctr	Cap	Front	Crack	24	HL		1	Horizontal crack x 2' L, 3' from the top		J27-41						
246	-	Column	Rear	Spall	1	1	1/4	?	10' from the top of column	No Change							
246	-	Column	Rear	exposed steel					2' of exposed wire, 10' above the ground.	New	J27-43						

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
247	L	Cap	Rear	Crack	60	0.016		1	Diagonal crack below the right bearing	No Change	J27-44						
247	Ctr	Cap	Rear & Front	Crack	84	HL		3	Negative moment crack that wraps over cap and extends down both faces up to 7'.	Increase	F27-55			3			
247	R	Cap	Rear	Crack	60	0.013		1	Diagonal crack below the left bearing								
247	-	Column	Right	exposed steel				4	Four steel vertical rods which are exposed intermittently, full height	New	J27-46		1				
R1	L	Cap	Front	Spall	92	15	5	1	Spalling at the interface of the Guideway pedestal and the Acosta Bridge pedestal	New	J10-40, 41, F10-73, 74		3				
R1	L	Cap	Rear	Spall	69	17	3	1	Spalling at the interface of the Guideway pedestal and the Acosta Bridge pedestal	New	J27-33, 36-39, F27-46		2				
R1	R	Cap	Rear	Spall	16	HL		1	Crack along interface of the Guideway pedestal and the Acosta Bridge pedestal	New	F27-41,43,44,50,51,52						
R1	R	Cap	Front	Spall					Spalling at the interface of the Guideway pedestal and the Acosta Bridge pedestal	New	J10-42, F10-72						
R6	R	Cap	Front	Crack	12	HL		2	Two hairline vertical cracks on forward face of pedestal	New	F31-30-34						
248	Ctr	Cap	Rear	Crack	168	HL		3	Negative moment cracks that wrap over cap and extend down both faces up to 5'.	New	F29-20			3			
248	R	Cap	Front	Crack	48	HL		1	Diagonal crack below the left bearing								
249	Ctr	Column	Rear	Crack	60	HL		1	Vertical crack extending down from the top of the cap	New							
249	-	Column	Rear & Front	exposed steel	4				Numerous pieces of up to 4" L exposed steel wire.	No Change							
250	L	Cap	Rear	Crack	48	HL		2	Vertical cracks extending from the top of the cap.	No Change				-			
250	L	Cap	Front	Crack	48	0.0313		3	Vertical cracks extending from the top of the cap.	No Change	B31-17			3			
250	R	Cap	Rear	Crack	48	HL		2	Vertical cracks extending from the top of the cap.	No Change				-			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
250	R	Cap	Front	Crack	36	HL		2	Vertical cracks extending from the top of the cap.	No Change	B31-18			2			
250	R	Cap	Bottom	Spall	3	2	1/4	1	Spall with 2" of exposed rebar	New	B31-19		1				
251	Ctr	Cap	Rear & Front	Crack	228	HL		3	Negative moment cracks that wrap over cap and extend down both faces up to 7'.	No Change	B31-22,24,27			3			
251	R	Cap	Rear	Crack	48	HL		1	Vertical crack extending down from the top of the cap	No Change	B31-23						
251	R	Cap	Front	Crack	24	HL		1	Vertical crack extending down from the top of the cap	No Change	B31-28						
252	L	Cap	Front	Crack	60	HL		1	Horizontal crack, mid-height of cap	New	B31-35						
252	Ctr	Cap	Front	Staining					Water stains are present at the top of the cap	No Change	B31-33						
252	Ctr	Cap	Rear & Front	Crack	204	HL		7	Negative moment cracks that wrap over cap and extend down both faces up to 6'.	No Change	B31-29,34			7			
253	L	Wall	Left	Crack	60	0.03		1	7' from the ground at the cold joint for the cheek wall at Pier 253	No Change	J31-1						
253	Ctr	Wall	Rear	Crack	15	HL		2	Vertical cracks extending down from the rear wall	No Change				2			
253	R	Wall	Right	Crack	60	0.016		1	7' from the ground at the cold joint for the cheek wall at Pier 253	No Change							
253	-	Wall	Left	Spall	10	6	1 1/2	1	50' from Pier 253.	No Change	F29-28, J31-34,55						1
253	-	Wall	Right	Broken Barbed Wire					There is broken barbed wire on the barrier wall on the left and right sides at several locations.	No Change	F31-10,11						
253	-	Wall	Right	Crack	96	HL		30	Between the two middle cold joints there are numerous vertical cracks with efflorescence in the right face of the deck, extending down the right face of the wall, spaced ~3' apart.	New	F31-12			100			
253	-	Wall	Right	Crack	15	HL		2	Extending from the 2nd cold joint, starting 2' below the deck	New	F31-8,9						
254	Ctr	Wall	Front	Crack	24	HL		4	Vertical cracks extending down from the front wall	No Change				4			
254	R	Wall	Right	Crack		HL			Cheek wall exhibits minor random hairline cracks.	No Change				3			



Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
254	R	Wall	Front	Debris					Up to 3" of debris behind the left bearing	New	F31-5						
254	R	Wall	Front	Crack	108	HL		1	Horizontal crack that wraps around the forward right corner, located 4' above ground	New	J31-2						
255	L	Cap	Rear	Crack	54	HL		3	Vertical cracks extending down from the top of the cap under the bearings	Increase				3			
255	L	Cap	Front	Crack	36	HL		3	Vertical cracks extending down from the top of the cap under the bearings	New							
255	Ctr	Cap	Rear & Front	Crack	204	HL		5	Negative moment cracks that wrap over cap and extend down both faces up to 6'.	Increase	F31-27			5			
255	R	Cap	Rear	Crack	60	HL		1	Vertical crack extending down from the top of the cap	Increase							
255	R	Cap	Right	Spall	4	2	1		Front bottom corner	New						1	
255	R	Cap	Front	Crack	60	HL		2	Diagonal cracks	New							
255	-	Column	Rear	Crack	120	HL		1	Vertical crack at the bottom of the column	New							
256	L	Column	Left	Crack	15	HL		2	Vertical cracks extending down from the top of the column	No Change				1			
256	L	Column	Rear	Crack		HL			2 SF of map cracking on the at the top right corner.	New				1			
256	L	Column	Right	Crack	9	HL		1	Vertical crack extending down from the top of the column.	Increase							
256	R	Column	Left	Crack	24	HL		2	Vertical cracks extending down from middle and rear of bearing	No Change				1			
256	R	Column	Right	Crack	16	0.03		2	Vertical cracks extending down from middle and rear of bearing	Increase	F19-25,26				1		
256	R	Column	Front	Crack	9	HL		1	Vertical crack extending down from the top of the column at the right corner.								
257	L	Column	Right	Crack	24	HL		1	Vertical crack extending down from the middle of the bearing	New							
257	R	Column	Right	Crack	18	HL		1	Vertical crack extending down from the bearing	New	J28-19						
258	L	Cap	Left	Staining					Minor water staining below bearings	No Change							
258	L	Cap	Left	Crack	24	HL		2	Diagonal cracks extending from both beam seat corners.	No Change				1			
258	L	Cap	Left	Delam.	9	1.5		1	Below forward keeper plate	New	F9-34					1	

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
258	L	Cap	Rear	Delam.	33	13	2	1	Under the right bearing, extending 1" under the masonry plate. Area inaccessible for conventional spall repair.	No Change	F9-36, 37					3	
258	L	Cap	Front	Spall	3	3	1	1	To the right of the left stem.	No Change						1	
258	L	Column	Front face	Spall	4	2	1/2	1	10' below the cap	No Change			1			1	
258	Ctr	Cap	Rear	Crack	408	HL		1	Horizontal crack across the full length of the cap between columns at mid height of cap.	No Change							
258	Ctr	Cap	Bottom	Spall	2	1	1/4	?	Shallow spalls at random locations between columns.	No Change						5	
258	R	Cap	Rear	Crack	24	HL		2	Diagonal and horizontal cracks extending from the beam seat corner.	New	F9-49			2			
258	R	Cap	Rear	Crack	30	HL		1	Diagonal crack extending downward from the beam seat corner.	No Change							
258	R	Cap	Rear	Debris					Debris and birds nest between the cap stem and the rear steel beam	New	F9-40						
258	R	Cap	Rear	Spall / Delam.	48	4	3	1	Top edge of the beam seat below the left bearing	No Change	F9-43, 45, 46						4
258	R	Cap	Right	Crack	36	HL		1	Horizontal crack between beam seat corners	New							
258	R	Cap	Front	Crack	14	HL		1	Diagonal crack extending downward from the beam seat corner.	No Change							
258	R	Cap	Rear & Front	Staining					Water stains on both faces and standing water on the forward beam seat.	No Change	F9-41, 42						
259	L	Cap	Left	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.	No change				-			
259	L	Cap	Rear	Crack		HL		4	Full height vertical cracks, spaced 2-3', some with minor efflorescence to the right of the beam	Increase				-			
259	L	Cap	Right	Crack	48	HL		1	Vertical crack, map cracking also present	No Change				-			
259	L	Cap	Rear & Front	Crack		HL			Map cracking present throughout both faces.	No Change				22			
259	L	Column	Through out	Crack		HL		1	Wrap around hairline crack, 7' from ground.	New							
259	R	Cap	Rear	Crack	48	HL		4	4 vertical cracks on the left overhang. Surface map cracking also present.	No Change				11			
259	R	Cap	Rear	Crack	24	HL		1	Vertical hairline crack between the beam stems.	No Change							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
259	R	Cap	Right	Crack	36	HL		5	Numerous diagonal and horizontal cracks, two extending from the rear bearing notch to the forward bearing notch. NO CHANGE	Increase				1			
259	R	Cap	Front	Crack	48	HL		3	3 vertical cracks on the left overhang. Surface map cracking also present.	No Change							
260	L	Cap	Left	Crack	4	HL		2	Diagonal cracks extending from both beam seat corners. Map cracking also present.					1			
260	L	Cap	Rear	Crack	36	HL			Vertical crack extending downward from the right flange overhang.	New							
260	L	Column	Right	Crack		HL			Map cracking throughout face	New				1			
260	L	Cap	Front	Crack	54	HL			Full height vertical crack above the right edge of the column.	New							
260	Ctr	Cap	Rear & Front	Crack	54	HL			Full height hairline vertical cracking, spaced 2' OC, full length between columns. Surface map cracking present throughout both faces, between columns.	No Change							
260	R	Cap	Rear	Efflo.					Minor efflorescence along the exterior face of the left beam stem.			1					
260	R	Cap	Right	Crack	12	HL		2	Diagonal cracks extending from both beam seat corners.	Increase				1			
260	R	Cap	Bottom	-					To the right of the column there is an exposed piece of 2x4 end.	New	F9-31						
260	R	Column	Through out	Crack		HL			Map cracking on the back, front and right faces within the upper third of the column.	New				1			
261	L	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.					1			
261	L	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.					1			
261	L	Cap	Rear & Front	exposed steel					3 small pieced of exposed steel on each face	New	F9-28						
261	R	Cap	Left	Crack	36	HL			Horizontal crack between beam seat corners	New							
261	R	Cap	Rear	Crack	48	0.01		3	Vertical cracking	New				3			
261	R	Cap	Right	Crack	36	HL			Horizontal crack between beam seat corners	New							
261	R	Column	Through out	Crack		HL			Random cracking throughout rear and right faces.	New				1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
262	L	Column	Through out	Crack		HL			Hairline map cracking throughout.	New				1			
M2	L	Pile Cap	Left	Crack	10	HL		1	Vertical crack	No Change							
M5	L	Cap	Left	Crack	7	HL		1	Diagonal crack extending from the forward beam seat corner.	New	J4-9						
M5	R	Cap	Right	Crack	3	HL		1	Diagonal crack extending from the forward beam seat corner.	New	J4-8						
400	Ctr	Cap	Front	Debris					Sand and debris on bridge seat	New	F4-29						
401	L	Cap	Rear	Crack	48	HL		2	One vertical and one diagonal crack between beam stems	No Change				2			
401	L	Cap	Bottom	Crack	24	HL		1	With moderate efflorescence	Increase	F4-33	1					
401	L	Cap	Front	Crack	42	HL		1	Diagonal crack between beam stems	New							
401	Ctr	Cap	Rear & Front	Crack	138	HL		2	Negative moment cracks that wrap over cap and extend down both faces up to 3'.	Increase				2			
401	R	Cap	Right	Crack	6	HL		2	Diagonal cracks extending from both beam seat corners.								
401	R	Cap	Right	Delam.	16	7		1		No Change							
402	R	Cap	Right	Crack	7	HL			Diagonal crack extending from the forward	New							
403	Ctr	Cap	Rear	Crack	29	HL		1	Vertical hairline crack	No Change							
403	-	Column	Front	Spall	3	3	1/2	2	1' from the ground.	No Change							
403	-	Column	Rear	Spall	8	3	1/2	1	3' from the ground.	No Change							1
404	L	Cap	Left	Crack	6	HL		4	One horizontal and one vertical crack extending from each beam seat corner	New				1			
404	Ctr	Cap	Rear	Crack	60	0.013		2	Vertical cracks with efflorescence, one extending from each top flange drip line.	Increase	J19-2			2			
404	Ctr	Cap	Front	Crack	58	HL		2	Vertical cracks with efflorescence, one extending from each top flange drip line.	Increase	J19-3			-			
404	R	Cap	Right	Crack					Diagonal crack extending from the forward	New							
405	L	Cap	Left	Crack	9	HL		1	Diagonal crack extending from the rear bea	No Change	J19-11						
405	Ctr	Cap	Rear	Crack	24	HL		1	Horizontal crack at the top	No Change							

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
405	Ctr	Cap	Rear	exposed steel	3				Exposed steel wire, below left beam seat	No Change	J19-9						
405	Ctr	Cap	Front	Crack	7	HL		2	Diagonal cracks extending from the left beam seat corner and cap stem notch	New	J19-20			1			
406	L	Cap	Left	Delam.	3	3		2	Center of face	New						1	
406	L	Cap	Right	Spall	3	3	3/5	1	One exposed rebar	New						1	
406	L	Column	Through out	Crack	360	HL			Full height vertical cracks on all faces	New				1			
406	R	Column	Top	exposed steel	4			1	Steel hook extending up from the top of the cap between bearings	No Change	F28-34						
407	R	Column	Front	Exposed steel					Exposed steel wires	New	B31-12						
408	L	Cap	Left	Crack	6	HL		2	Diagonal cracks extending from both beam	No Change				1			
408	L	Cap	Rear	Crack	12	HL		1	At left stem bearing	No Change							
408	L	Cap	Right	Crack	24	HL		3	6" diagonal cracks extending from both beam seat corners and a vertical crack x 24" starting from the bottom of pier cap.	No Change				1			
408	L	Column	Rear	Crack	360	HL		2	Full height vertical cracks in rear face	New				1			
408	L	Column	Right	Spall	8	4	1/2	2	5' from the ground.	No Change	J28-20						
408	R	Column	Front	Crack	28	HL		1	Horizontal crack	No Change	B31-1						
408	R	Column	Left	Crack	36	HL		1	Vertical crack extending down from the top of the column	No Change	B31-2						
408	R	Column	Rear	Crack	24	HL		1	Vertical crack extending down from the top of the column	No Change	B31-8						
408	R	Column	Front	Crack	19	0.016		1	Vertical crack extending down from the top of the column under the right bearing	No Change	B31-3						
408	R	Column	Rear	Patch Delam	24	0.07		2	The top left corner has a spall repair that is delaminating and cracking. Cracks run underneath the rear 2" of the left bearing	No Change	B31-4,5,6,7					1	
409	L	Column	Front	Crack	6	HL		1	Vertical crack extending down from the top of the column	No Change							
409	L	Column	Left	Crack	24	0.013		2	Vertical crack extending down from the top of the column	No Change	F19-11			1			

Pier	Side	Element	Face	Deficiency Type	Max Length (in)	Width (in)	Depth (in)	Qty	Additional Notes	2013 Note Disposition	2017 Photo	Efflor. (CS2)	Rebar (CS2)	Crack (CS2)	Crack (CS3)	Spall /patch (CS2)	Spall (CS3)
409	L	Column	Rear	Crack	16	HL		1	Vertical crack extending down from the top of the column	No Change							
409	R	Column	all faces	Crack	60	0.016			Vertical cracks in all faces	No Change				1			
409	R	Column	Left	Crack	38	HL		2	Vertical crack extending down from the middle of the bearing	No Change							
409	R	Column	Right	Crack	30	HL		1	Vertical crack extending down from the middle of the bearing	Increase							
409	R	Column	Rear	Crack	18	HL		3	Two horizontal cracks and one vertical crack, near the top.	New				1			

FINAL DRAFT

## APPENDIX E

Excerpts from FDOT Acosta Bridge Report

FINAL DRAFT

**FLORIDA DEPARTMENT OF TRANSPORTATION  
BRIDGE MANAGEMENT SYSTEM**

**Inspection Report with PDF attachment(s)**

BRIDGE ID: 720570  
DISTRICT: 02 Lake City

PAGE: 11 OF 15  
INSPECTION DATE: 8/16/2016 IWIU

**All Elements**

**UNIT: 0 SUBSTRUCTURE**

ELEMENT/ENV: 234/4 R/Conc Cap		235 lf.	ELEM CATEGORY: Substructure
CONDITION STATE (4)	DESCRIPTION	QUANTITY	
3	Some delaminations, moderate cracks, spalls and/or scaling may be present and some reinforcing may be exposed. Corrosion of rebar may be present but loss of section is incidental and does not significantly affect the strength and/or serviceability of either the element or the bridge.	1 lf.	

**ELEMENT INSPECTION NOTES:**

Pier Cap 1, South face, (Pier 8 of Structure #720576) adjacent to the Monorail skyway express pedestal cap, is spalling along the bearing seat beneath the left bearing. Cracking/spalling extends into the bearing seat beneath the bearing. Deficiencies are as follows:  
 South face, spalled, 69 in. x 17 in. x up to 3 in. See Appendix A, Photo 24 for view.  
 North face, spall, 92 in. x 15 in. x 5 in. with exposed rebar. See Appendix A, Photo 25 for view. Top face, cracking/spalling in a 30 in. area extending thru the bearing seat which is 5 in. high. The effected area extends beneath the left end of bearing approximately 4 in. on the South side and 3 1/2 in. on the North side (photo could not be obtained due to limited access). The bearing measurement is 25 in. x 9 in. The Bridge Structural Engineer reviewed these areas on 04/25/16 and recommended to continue to monitor and areas pose no problem at this time.

ELEMENT/ENV: 389/4 Timber Fender/Dolphi		266 lf.	ELEM CATEGORY: Substructure
CONDITION STATE (4)	DESCRIPTION	QUANTITY	
2	Decay, insect/marine borer infestation, abrasion, splitting, cracking, checking or crushing may exist but none is sufficiently advanced to affect strength or serviceability of the element.	266 lf.	

**ELEMENT INSPECTION NOTES:**

Diver's were required to inspect Element 389. See Appendix A, Underwater Bridge Inspection Report for diver's comments and recommendations.



BRIDGE NO.	720570	FLORIDA DEPARTMENT OF TRANSPORTATION ***** BRIDGE INSPECTION REPORT	LOCATION	SR-13 SB (ACOSTA) OVER ST. JOHNS RIVER
COUNTY SECTION NO.	72160448		INSPECTION DATE	08/16/2016
STATE ROAD NO.	SR-13		LEAD INSPECTOR	D. GARZA
U.S. ROAD NO.	N/A		MILE POST NO.	0.477



PHOTO 23 – ELEMENT 220  
TYPICAL VIEW OF THE INSIGNIFICANT SIZE LONGITUDINAL, TRANSVERSE AND DIAGONAL CRACKS IN THE TOP OF FOOTINGS

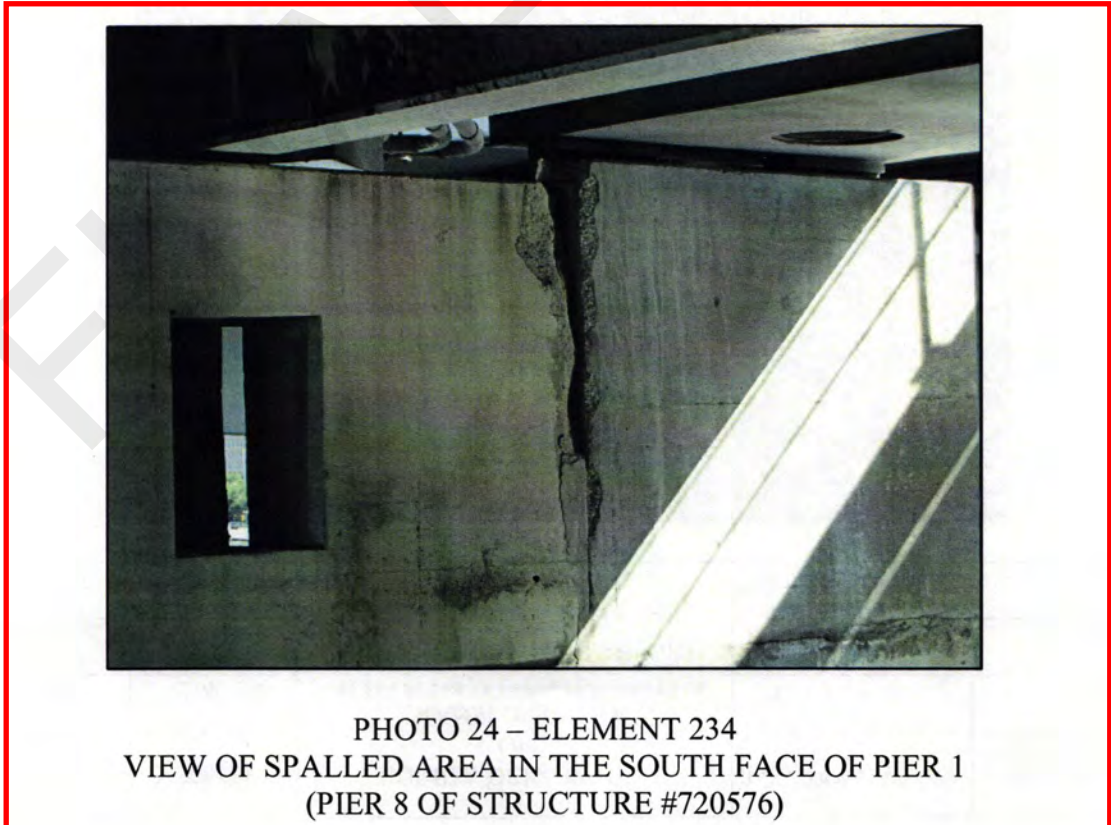


PHOTO 24 – ELEMENT 234  
VIEW OF SPALLED AREA IN THE SOUTH FACE OF PIER 1  
(PIER 8 OF STRUCTURE #720576)

BRIDGE NO.	720570	FLORIDA DEPARTMENT OF TRANSPORTATION ***** BRIDGE INSPECTION REPORT	LOCATION	SR-13 SB (ACOSTA) OVER ST. JOHNS RIVER
COUNTY SECTION NO.	72160448		INSPECTION DATE	08/16/2016
STATE ROAD NO.	SR-13		LEAD INSPECTOR	D. GARZA
U.S. ROAD NO.	N/A		MILE POST NO.	0.477



PHOTO 25 – ELEMENT 234  
 VIEW OF SPALLED AREA IN THE NORTH FACE OF PIER 1,  
 UNDER THE PEOPLE MOVER

**FLORIDA DEPARTMENT OF TRANSPORTATION  
BRIDGE MANAGEMENT SYSTEM**

ACOSTA BRIDGE NB

**Inspection Report with PDF attachment(s)**

BRIDGE ID: 720571  
DISTRICT: 02 Lake City

PAGE: 10 OF 16  
INSPECTION DATE: 1/19/2016 VIBQ

**All Elements**

**UNIT: 0 SUBSTRUCTURE**

**ELEMENT/ENV: 220/4 R/C Sub Pile Cap/Ftg 6 ea. ELEM CATEGORY: Substructure**

CONDITION STATE (4)	DESCRIPTION	QUANTITY
2	Minor cracks, spalls and scaling may be present but there is no exposed reinforcing or surface evidence of rebar corrosion.	5 ea.
3	Some delaminations, moderate cracks, spalls and/or scaling may be present and some reinforcing may be exposed. Corrosion of rebar may be present but loss of section is incidental and does not significantly affect the strength and/or serviceability of either the element or the bridge.	1 ea.

**ELEMENT INSPECTION NOTES:**

Divers were required to inspect Piers 1 thru 6. See Appendix A, Underwater Bridge Inspection Report for diver's remarks and recommendations.

**ELEMENT/ENV: 234/4 R/Conc Cap 302 lf. ELEM CATEGORY: Substructure**

CONDITION STATE (4)	DESCRIPTION	QUANTITY
1	The element shows little or no deterioration. There may be discoloration, efflorescence, and/or superficial cracking but without affect on strength and/or serviceability.	298 lf.
2	Minor cracks, spalls and scaling may be present but there is no exposed reinforcing or surface evidence of rebar corrosion.	4 lf.

**ELEMENT INSPECTION NOTES:**

(New) South face of Pier Cap 1 has a 16 in. vertical crack (possible incipient spall), adjacent to the cast-in-place cap for the "People Mover". See Appendix A, Photo 21 for view. Due to limited access, inspectors could not get close enough for hands-on inspection/investigation.

North face of Pier 1 Cap has insignificant size horizontal and diagonal cracks exhibiting efflorescence below Bearing 1-1. See Appendix A, Photo 22 for view.

BRIDGE NO.	720571	FLORIDA DEPARTMENT OF TRANSPORTATION ***** BRIDGE INSPECTION REPORT	LOCATION	SR-13 NB (ACOSTA) OVER ST. JOHNS RIVER
COUNTY SECTION NO.	72160448		INSPECTION DATE	01/19/16
STATE ROAD NO.	SR-13		LEAD INSPECTOR	D. GARZA
U.S. ROAD NO.	N/A		MILE POST NO.	0.477



PHOTO 21 – ELEMENT 234  
 VIEW OF 16 IN. VERTICAL CRACK, SOUTH FACE OF PIER CAP 1,  
 ADJACENT TO PEOPLE MOVER EXTENSION



PHOTO 22 – ELEMENT 234  
 VIEW OF NORTH FACE OF PIER 1 CAP WHICH HAS INSIGNIFICANT  
 HORIZONTAL AND DIAGONAL CRACKS WITH EFFLORESCENCE  
 BELOW BEARING 1-1

APPENDIX F

CFRP Wrap Locations

FINAL DRAFT

# CFRP Locations - Starter Line

Three boxes per stem of each concrete tee beam. A "Y" in a box indicates that a CFRP wrap is present on the stem end.

Convention Center																			
1 2 3 4 5					12 13 14			15 16 17											
5 Span Continuous Concrete					3 Span Continuous Concrete			3 Span Continuous Concrete											
N. Span, L Stem																			
N. Span, R Stem																			
S. Span, L Stem																			
S. Span, R Stem																			

Jefferson Station																				
18 19 20			21 22 23 24				25 26 27 28				32 33 34									
3 Span Continuous Concrete			4 Span Continuous Concrete				4 Span Continuous Concrete				3 Span Continuous Concrete									
N. Span, L Stem																				
N. Span, R Stem																				
S. Span, L Stem																				
S. Span, R Stem																				

Central Station																	
35 36 37			38 39		40 41 42 43				44 45 46								
3 Span Continuous Concrete			2 Span Cont. Concr.		4 Span Continuous Concrete				3 Span Continuous Concrete								
N. Span, L Stem																	
N. Span, R Stem																	
Crossover - N. Stem																	
Crossover - S. Stem																	
S. Span, L Stem																	
S. Span, R Stem																	Y

# CFRP Locations - North Line

Three boxes per stem of each concrete tee beam. A "Y" in a box indicates that a CFRP wrap is present on the stem end.

	47	48	49	50	51	54	55	56	57	58	59	60	61
	3 / 4 Span Continuous Concrete				Concrete	4 Span Continuous Concrete				4 Span Continuous Concrete			
L. Span, L Stem	Y				Y	Y	Y						Y
L. Span, R Stem	Y				Y	Y	Y						Y
R. Span, L Stem					Y	Y	Y						
R. Span, R Stem	Y				Y	Y	Y						Y

Hemming Plaza

	62	63	64	65	66	67	68	69	70	71
	4 Span Continuous Concrete				3 Span Continuous Concrete			3 Span Continuous Concrete		
L. Span, L Stem	Y				Y			Y		
L. Span, R Stem	Y				Y			Y		
R. Span, L Stem	Y							Y		
R. Span, R Stem	Y							Y		

Rosa Parks

	72	73	74	75	76	77	78	79	80	81	82	83	84
	3 Span Continuous Concrete			3 Span Continuous Concrete			3 Span Continuous Concrete			4 Span Continuous Concrete			
L. Span, L Stem	Y			Y			Y						Y
L. Span, R Stem	Y			Y			Y						Y
R. Span, L Stem	Y			Y			Y						Y
R. Span, R Stem	Y			Y			Y						Y





# CFRP Locations - O&M Line

Three boxes per stem of each concrete tee beam. A "Y" in a box indicates that a CFRP wrap is present on the stem end.

	M2	M3	M4	M5	400	401	402	403	404	405	406			
	Concrete	Concrete	Concrete	Concrete	5 Span Continuous Concrete					2 Span Cont. Concr.				
L. Span, L Stem	Y		Y							Y				Y
L. Span, R Stem	Y		Y							Y				Y
R. Span, L Stem	Y		Y											
R. Span, R Stem	Y		Y											

FINAL DRAFT