2014 PHYSICAL CONDITIONS INSPECTION REPORT

CUY-490-0100
SFN 1811991

Ohio Department of Transportation

District 12

August 11 – September 26, 2014

RICHLAND ENGINEERING LIMITED

2014 PHYSICAL CONDITIONS INSPECTION REPORT
OF
ODOT BRIDGE NO. CUY-490-0100
OVER THE CUYAHOGA RIVER VALLEY
SFN 1811991

Prepared by

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Inspected between August 11 and September 26, 2014

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Prepared for

Ohio Department of Transportation
District 12

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CUY-490-0100

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2014 PHYSICAL CONDITIONS INSPECTION REPORT

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BRIDGE DESCRIPTION

Bridge No. CUY-490-0100 is located on Interstate 490 in Cuyahoga County, Ohio. The CUY-490-0100 bridge was opened to traffic in 1990 and rehabilitated in 2001 and 2007. The total bridge length is 3,462 feet. The two structures are separated by an open joint in the median barrier. The superstructures are divided into 6 units with five seated hinges. The bridge carries four lanes of traffic in each direction over the CSX Railroad, Norfolk Southern Railroad, the Cuyahoga River, Quigley Road, West 3rd Street, and Independence Road.

The eastbound (right) and westbound (left) structures consist of twenty-five (25) and twenty-four (24) spans, respectively. Each structure is comprised of six units as follows:

- Units 1L/1R - 4 span, continuous multiple rolled beams
- Unit 2L - 4 span, with a single cantilever, continuous multiple welded girders with a floor system of stringers on floorbeams
- Unit 2R - 5 span, with a single cantilever, continuous multiple welded girders with a floor system of stringers on floorbeams
- Unit 3L/3R - 3 span, with two cantilevers, continuous multiple haunched welded girders with a floor system of stringers on floorbeams
- Unit 4L/4R - 3 span, with a single cantilever, continuous multiple welded girders with a floor system of stringers on floorbeams
- Unit 5L/5R - 5 span, continuous multiple welded girders
- Unit 6L/6R - 5 span, continuous multiple welded girders

The ramp C-B exit to Broadway Avenue from the eastbound lanes is comprised of a 5-span, continuous multiple welded girder structure.

The superstructure consists of a variable width reinforced concrete deck with concrete New Jersey shaped safety barriers and chain link fence on each side; and a latex modified concrete overlay. Steel finger type deck expansion joints are located at the hinges and elastomeric strip seal or sliding plate type expansion joints are located at the abutments. The concrete deck is supported by continuous rolled steel stringers and continuous steel plate girders. Intermediate stringers in units 2, 3, and 4 are supported by trussed steel floorbeams between the steel plate girders. The steel superstructure members are ASTM A572, grade 50 steel.

The beams and steel plate girders are supported on reinforced concrete cap/column (51 locations) and tee type (1 location) piers and spill through abutments. The abutments and piers are supported on piles.

The current traffic (2013) on the CUY-490-0100 bridge is estimated at 67,320 vehicles per day with 5.5% trucks.

PROJECT HISTORY

The bridge was designed by Howard, Needles, Tammen and Bergendoff (HNTB Inc.) and opened to traffic in October 1990.

In 1995, a roll of steel fell from a truck near the gore area between eastbound I-490 and ramp C-B. This accident caused three holes through the deck, as well as damage to the barrier, fence and an overhead sign support. All damages were repaired.

There are large areas in the latex modified concrete overlay of spans 11L and 19R that were repaired in 1998. The abutment faces were also sealed to protect the concrete surfaces from water leakage.

The concrete parapets were sealed with epoxy-urethane (Project 296-01).

Several maintenance projects have been sold to clean, maintain and make minor repairs to the drainage system.

The structure is inspected annually by ODOT or consultants. The 2014 inspection was the first to use the Structure Management System (SMS) and included an element level inspection with quantities.

SUMMARY

The following Physical Conditions Report details the findings from Richland Engineering Limited's 2014 fracture critical inspection of CUY-490-0100. The overall condition of this bridge is rated a **6**, meaning that it is in **satisfactory** condition.

Significant findings include:

- The forward abutment expansion joints continue to leak and deteriorate. The sliding plate joints allow moisture onto the full length of the mainline forward abutment and abutment at ramp C-B. The steel elements are being corroded below the joint; and the concrete backwalls are heavily spalled and delaminated.

- The underside of the deck exhibits spalls with exposed reinforcing steel at deck construction joints. The deck is also saturated around access manholes.

- The concrete parapets and vandal protection fence have several areas deteriorated and/or damaged by vehicle impacts.

- The west (rear) abutment has several bearings with large rotations (>10°).

- Areas of delaminations and large spalls with exposed corroded reinforcing steel are located on piers 7R and 9R under the leaking transverse drainage troughs and deck access manholes.

- Several of the transverse drainage troughs under the finger expansion joints are plugged or have torn and spill drainage onto the steelwork and piers below. Several of the downspouts are also clogged from the ground up to the drainage troughs.

- There is surface corrosion and pack rust on the majority of the girder seated hinges due to leaking/overflowing drainage. The paint is also failing on the fascia girders, under the deck access manholes, and on the crossframes and girder ends at the abutments.

- There are several floorbeam connections with loose, missing, or misdrilled holes.

- There are several stringers that were not properly seated on the floorbeam tops chords during original construction and there is currently one active stringer to floorbeam connection weld crack in span 5R.

- There are cracks at the top of the vertical stiffener in the web of Girder M in span 8R and girder G in span 9R.

GENERAL

The data for this Physical Condition Inspection Report was obtained August 11 through September 26, 2014. The field inspection was performed by personnel from Richland Engineering Limited (REL). The inspection team members were as follows:

Jason D. Burgholder, PE	Richland Engineering Limited
Kent A. Kapustar, PE	Richland Engineering Limited
Robert W. Cunning, EI	Richland Engineering Limited
Richard J. Harding, Technician	Richland Engineering Limited

The inspection of this bridge was performed in accordance with the following documents:

1. *Manual of Bridge Inspection,* Ohio Department of Transportation (ODOT), 2014.
2. *Manual for Bridge Evaluation,* American Association of State Highway and Transportation Officials (AASHTO), 2010.
3. *Bridge Inspector's Reference Manual,* U.S. Department of Transportation, 2012.
4. *Inspection of Fracture Critical Bridge Members,* U.S. Department of Transportation, 1986.
5. *National Bridge Inspection Standards,* U.S. Department of Transportation, 2004.

The project scope involved an "arm's length" inspection of all fracture critical components of the structure and a visual inspection of the remaining elements. Previously documented comments have been updated to reflect current conditions. Inspection team members used a combination of traditional access methods (snooper, manlifts, ladders) and alternative access methods (industrial roped access, climbing with fall protection) to access the superstructure. The bridge substructure received a visual inspection from the snooper, tops of the pier caps, and from the ground.

Inspection findings were documented with sketches, color photographs, and field notes. No destructive testing was performed as part of this project.

Traffic control to close a single lane and shoulder at a time was provided by an ODOT District 12 traffic control team on August 11-14, 2014. The lane closures performed between 9:00 am and 3:00 pm were necessary to utilize the ODOT A-62 snooper. When the snooper was not present, traffic maintenance operations were not performed.

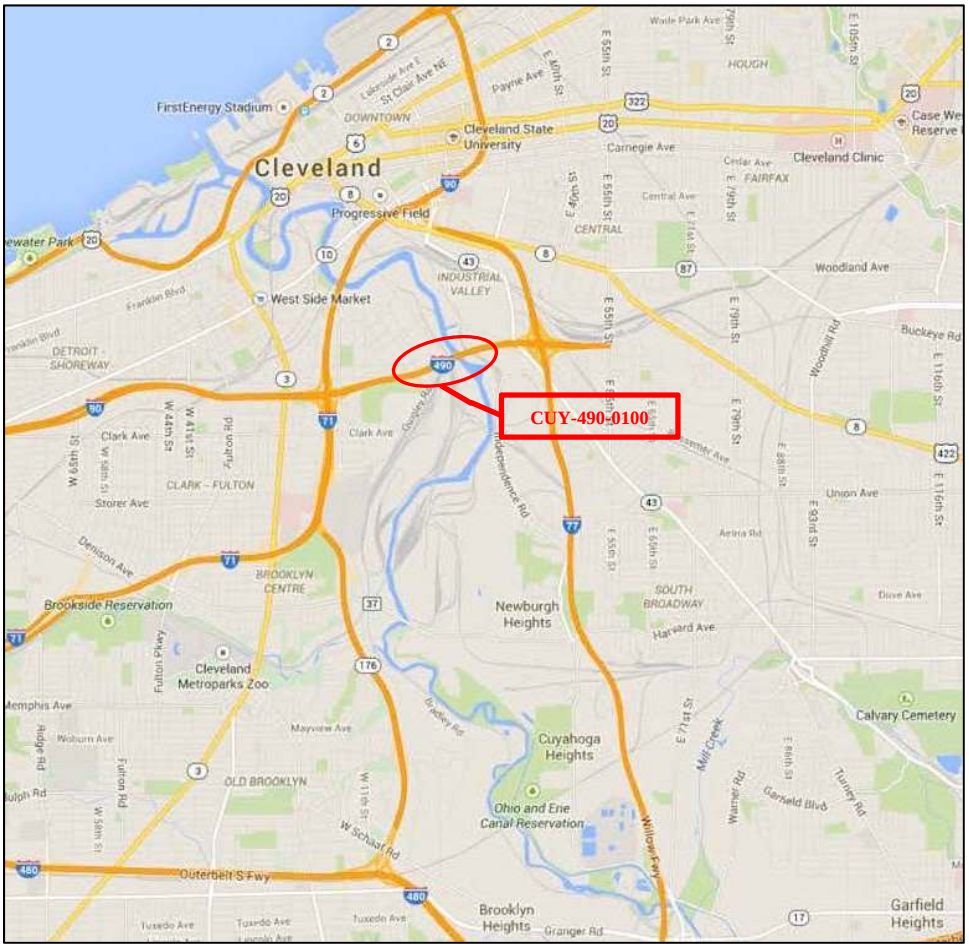
The condition ratings used in this report are based on the 2014 ODOT *Manual of Bridge Inspection* Condition Rating Guidelines.

Condition Rating Guide				
1-4 Individual Component	9-0 NBIS Summary		Inspector Guidelines (Quantitative comments include the Location, Extent & Severity of the deficiency)	
1-GOOD	**9 - Excellent**	No problems noted: no section loss, general deterioration.	Make brief comments as necessary. Communicate the predominant deficiency.	
	8 - Very Good			
	7 - Good	Some minor problems (ex. extent of concrete deterioration is up to 1% spalling or up to 5% saturation)		
2-FAIR	**6 – Satisfactory**	**Structural elements show some minor deterioration** (ex. extent of concrete deterioration is up to 5% spalling or up to 10% saturation)		
	5 -Fair	**Structural elements show deterioration but are sound** (ex. extent of concrete deterioration is up to 10% spalling or up to 20% saturation)	Document deficiencies quantitatively. Consider taking photos or making sketches.	
3-POOR	**4 - Poor**	**Advanced*** (ex. extent of concrete deterioration is more than 10% spalling or more than 20% saturation). Usually the load path appears to be affected for primary members or there are obvious structural changes since the as-built condition that are advanced.	Candidate to establish monitoring benchmarks to track the rate-of-change. Take photos, make sketches and document quantitatively in order to determine if a re-load rating is possible. Include in-service conditions to verify capacity	**Poor Structurally Deficient****
	3 - Serious	4-Poor. . . *And* **local failures possible**.	*Above*. . . *And* discuss the deficiency immediately with Control Authority.	
4-CRITICAL	**2 - Critical**	3-Serious. . . *And* Unless closely monitored it **may be necessary to close the bridge** until corrective action is taken.	*Above*. . . *And* the bridge is a candidate to dispatch road closure and/or immediate repairs and/or increased monitoring (Interim Inspections). Confirm in writing, critical finding.	
	1 -Imminent Failure	2-Critical. . . *And* Major deterioration is affecting stability. Bridge or lane(s) **shall be closed** to traffic but corrective action may put bridge back into light service.	*Above*. . . *And* Dispatch immediate lane or bridge closure. Contact the Control Authority. Stay at the bridge until the safety of the traveling public is achieved. Confirm in writing.	
	0 - Failed	1-Imm Failure. . . *And* Out of service - beyond corrective action.		

* ***Advanced*** –widespread deficiencies **or** a likely reduction to capacity **(more examples on following page).**

** ***Structurally Deficient (SD)*** –Bridge Deck, Superstructure, or Substructure Summary rated 4-Poor or below. A bridge can also be classified as structurally deficient if its load carrying capacity is significantly below current design standards or if a waterway below frequently overtops the bridge during floods.

LOCATION MAP



GENERAL APPRAISAL AND OPERATING STATUS

The overall condition rating of the bridge is **6**, meaning that it is in **satisfactory** condition.

The ratings of the summary items are as follows:

Item	Rating
Approach Summary	5 – Fair Condition
Deck Summary	7 – Good Condition
Superstructure Summary	6 – Satisfactory Condition
Substructure Summary	7 – Good Condition
Channel Summary	8 – Very Good Condition
Sign/Utility Summary	6 – Satisfactory Condition

APPROACH ITEMS

The approaches are rated a **5**, meaning that they are in **fair** condition. There are minor deficiencies in several of the approach slabs and relief joints. Two guardrail locations have been damaged by collisions.

The individual items are rated as follows:

Item	Transition Rating
Approach Wearing Surface	2.56 – Fair/Poor
Approach Slabs	1.58 – Good/Fair
Relief Joint	2.54 – Fair/Poor
Embankment	1.00 – Good
Guardrail	3.25 – Poor/Critical

Approach Wearing Surface

The approach pavement is rated **fair/poor**.

The approach wearing surface is monolithic concrete. The eastbound and westbound rear approaches, and the westbound forward approach have multiple concrete patches. Most of these patches have visible cracks. Portions of several patches have broken apart and are currently filled with asphalt concrete. (See Picture #1). The asphalt patching is less than 5% of the surface area of the approach slabs. The wearing surfaces on eastbound forward approach slab, and the Ramp C-B and Ramp B-C approach slabs are in good condition.

Picture #1: Westbound forward approach pavement exhibits cracks and asphalt patches.

Approach Slabs

The approach slabs are rated **good/fair**. The eastbound and westbound rear approach slabs, and the westbound forward approach slab have multiple concrete patches, typically with visible cracking in the patching concrete. These patches cover less than 10% of the slab. Several concrete patches have deteriorated and are currently filled with asphalt concrete (see Picture #2). The eastbound forward approach slab, and the Ramp C-B and Ramp B-C approach slabs are in good condition.

Picture #2: Westbound forward approach slab patches deteriorating, looking south.

Relief Joint

The pavement relief joints are in **fair/poor** condition. The eastbound ramp C-B joint slab is heavily cracked in the roadway shoulder and has settled in the travelled lanes. (See Picture #3). The westbound rear approach mainline joint has large cracks in the asphalt pavement across all traffic lanes. The westbound forward abutment joint is breaking up at its edges. The relief joint pavement for ramp N-W at the forward abutment has settled.

Picture #3: Cracking asphalt in the south shoulder and settled pavement in the lanes at the pavement relief joint at eastbound Ramp C-B to Broadway Avenue.

Embankment

The embankment for this bridge is rated **good**. No significant deficiencies were noted in the embankment.

Guardrail

The guardrail is rated **poor/critical**.

Five of the guardrail runs at the ends of the bridge are in good condition. Two locations have sustained collision damage and are in poor or serious condition. The guardrail to the inside of eastbound Ramp C-B has damaged rail and 4 posts damaged from a collision. It is in poor condition. The guardrail at mainline eastbound forward abutment has sustained a more serious collision and has three adjacent posts missing or broken (see Picture #4).

Picture #4: Three consecutive posts sheared off or missing at the eastbound forward approach, looking west.

DECK

The deck is rated a **7**, meaning that it is in **good** condition. A 1 ¼ inch latex-modified concrete overlay tops the reinforced concrete deck. The total deck thickness typically varies from 7 ¾ inches to 8 ¼.

The individual deck items are as follows:

Item	Transition Rating
Floor/Slab	1.37 – Good/Fair
Edge of Floor/Slab	1.09 – Good/Fair
Wearing Surface	1.37 – Good/Fair
Median	1.03 – Good/Fair
Railing	1.26 – Good/Fair
Drainage	2.25 – Fair/Poor
Expansion Joints	1.81 – Good/Fair

Floor/Slab

The floor is in **good/fair** condition. Regularly spaced cracking in the wearing surface allows moisture to penetrate the reinforced concrete deck. There are typically several transverse cracks exhibiting efflorescence and/or dampness on the underside of the deck in each span (see Picture #5). The most concentrated location was noted in span 10R. Nine transverse cracks were noted between the 4th and 7th crossframe from pier 10 in the bay between girders 3F and 3G.

Little spalling or delamination was noted on the underside of the deck, even at the deck pour construction joints. One exception is serious full-depth damage between girders 4-A and 4-B in span 14. This is located over the east edge of Independence Road. The concrete is saturated, cracked and spalled, exposing deck reinforcing steel. The surrounding area is delaminated, with about 6 feet of loose concrete present the full width of the bay between girder 4-B and stringer 4-3. (See Picture #6). The location corresponds to a deep asphalt patch on the top of the deck. The patch is breaking up and reinforcing steel is exposed in the cracks (see Picture #7). Traffic on the deck above can be heard thumping the patch, accelerating deterioration.

There is also typically dampness and saturation of the concrete in the vicinity of the access manholes over the piers (see Picture #8). An open core hole in the deck off girder 3-F in span 10, near pier 10 is also permitting moisture to leak through. Another core hole is only partially filled about 80 feet west of the abutment on Ramp C-B.

Picture #5: Typical leaking deck construction joint in span 6L between girders A and C, looking east. Note minor deterioration to stringer top flange.

Picture #6: Spalled and delaminated underside of deck between girder 4-B and stringer 4-3 in span 14L over Independence Road.

Picture #7: Exposed reinforcing steel in westbound deck patch over pier 14, looking south.

Picture #8: Typical deck saturation around pier access manhole. Eastbound deck over pier 14R shown, looking south.

Edge of Floor/Slab

The edge of floor/slab is in **good/fair** condition. The exterior deck edges were inspected from a snooper and the median deck edges were inspected from a manlift during this inspection.

The slab edges are protected by the concrete railings above. The exterior edges are also sealed with epoxy. Deficiencies include some full-width transverse deck cracks that extend to the edges of the slab; and several spalls along the interior median joint along the length of the bridge. (See Picture #9). One minor spall is located directly over Independence Rd. in span 14.

Picture #9: Multiple spalls in span 19 with exposed reinforcing steel, looking east.

Wearing Surface

The wearing surface was visually inspected from the outside lanes closed for snooper access and was found to be in **good/fair** condition. Sounding the wearing surface was not included in the scope for this inspection. The latex modified concrete overlay wearing surface is generally smooth and intact. The overlay does exhibit numerous transverse cracks; some of which extend the full width of the deck. The density of cracks was measured to be between three to five cracks every 12 feet (longitudinally) of deck. There are also random longitudinal cracks throughout the deck. (See Picture #10).

Picture #10: Typical cracking in wearing surface, unit 4, westbound deck, looking south.

Some of the cracks have a width exceeding 1/8". (See Picture #11) The majority of the broken up areas of the wearing surface have been previously patched, mainly with concrete. The patching is typically transverse to traffic at deck pour construction joints. Several additional sets of patches run along longitudinal construction joints in the deck. The concrete patches are typically intact; however, some have continued to break up and have been filled with asphalt. Several of the locations have loose chunks of concrete sitting in the potholes that will present hazards to traffic when they eventually work out of the holes. (See Picture #12) A few of the deteriorated patches now have reinforcing steel exposed. (See Picture #7) The top mat of deck reinforcing steel is visible at 1005+90, eastbound deck, and at pier 14, westbound deck.

The westbound wearing surface has a visibly uneven longitudinal construction joint running about 80 feet to the east, starting around Sta. 1001+16 in unit 3. There are also numerous locations where raised pavement markers are missing from the wearing surface.

Picture #11: Full width 1/8”crack in eastbound wearing surface near Sta. 990+60, looking north.

Picture #12: Deteriorating patch at full width transverse crack in westbound deck over pier 14, looking south.

Median

The reinforced concrete median parapets are in **good/fair** condition. There are multiple areas exhibiting old scaling of the concrete surfaces and/or loss of the protective epoxy coating. These are typically located in the vicinity of light poles and expansion joints. The length is typically about 15 feet long, with some damage as long as 35 feet. There is fire damage to the eastbound parapet in unit 2, near Sta. 992+00 (See Picture #13).

The joint material between the two median parapets is missing in several locations. There are also a few bolts missing from the steel median plates at the base of the overhead sign supports.

Picture #13: Fire damage to Unit 2 eastbound median barrier near Sta. 992+00, looking north.

Railing

The exterior reinforced concrete parapets are in **good/fair** condition. The parapets are 42-inch high reinforced concrete New Jersey-type parapets, topped with a 4'-0" tall vertical fence. The parapets have multiple areas with cracks and spalling, predominantly at the tops. Both parapets have random vertical cracks along their entire length. The light pole supports have varying degrees of rust and deterioration. Specific locations of concrete deterioration include:

Eastbound Railing:

- Expansion Joint 1 – Total of 13 feet of cracking and spalling at joint in unit 1 (see Picture #14). Four feet of cracked and spalled parapet on the unit 2 side of the joint.
- Unit 3 – Sta. 998+90 – 5 feet of top of parapet spalled and cracked at navigation light.
- Unit 4 – Sta. 1005+00 – 14 feet of top of parapet spalled and cracked at overhead sign.
- Unit 6 – Sta. 1017+60 – 8 feet of top of parapet spalled and cracked at light post.

Westbound Railing:

- Unit 1 – Sta. 986+60 – 9 feet of top of parapet spalled and cracked.
- Unit 3 – Sta. 995+31 – 4 feet of top of parapet spalled and cracked.
- Unit 3 – Sta. 998+50 – 4 feet of top of parapet spalled and cracked near navigation light.
- Unit 3 – Sta. 1000+65 – 4 feet of top of parapet spalled and cracked.
- Expansion Joint 3 – Total of 28 feet of top of parapet spalled and cracked; 13 feet in unit 3 and 15 feet in unit 4.
- Expansion Joint 4 – Total of 25 feet of cracked, spalled and scaled concrete in units 4 and 5 at joint. Exposed concrete surfaces of parapet in this area are unsound. (See Picture #15).
- Unit 6 – Sta. 1019+00 – 13 feet of top of parapet spalled and cracked.

Picture #14: Concrete deterioration on eastbound railing at expansion joint 1, looking east. Note the fence post is now unsupported.

Picture #15: Cracked, spalled, and scaled concrete on westbound railing at expansion joint 4, looking north.

The fence atop the parapets also has multiple deficiencies. Specific problems noted include:

Eastbound Fence:

- Various – Five locations with top or bottom fence splice fittings completely rusted.
- Unit 1 – Sta. 986+25 to 986+75 – Damaged fence including missing post.
- Unit 1 – Sta. 987+00 – 3 feet of impact damage. Post is bent, but intact.
- Expansion Joint 1 – End fence post anchor bolts are not attached to deteriorated top of parapet. 9'-4" fence cantilever can swing into the shoulder (see Picture #14).
- Unit 2 – Sta. 991+75 – Fence mesh is pushed out over 10 feet at top of parapet. Could allow objects to slip though bottom of fence.
- Unit 2 – Sta. 993+15 – Top of fence mesh is torn.
- Unit 2 – Sta. 994+40 – Bottom two feet of fence mesh torn over railroad.
- Unit 2 – Sta. 994+60 – Top fence rail is bent over 15 feet.
- Unit 4 – Sta. 1007+50 – Broken bottom rail connection to post.

Westbound Fence:

- Unit 4 – Sta. 1007+88 – 20 feet of damaged fence, including broken post. (See Picture #16).
- Unit 5 – Sta. 1010+30 – 30 feet of damaged fence, including bent post.
- Unit 6 – At Ramp C-B gore – There is no evidence that a lower rail was installed on the fence from the start of the gore to the 7th post to the east.

Picture #16: 20 feet of damaged westbound fence, including broken post, in Unit 4 at Sta. 1007+88, looking northwest.

Drainage

The drainage system is in **fair/poor** condition. The bridge roadway drainage system consists of scuppers, neoprene drain troughs under finger expansion joints and steel downspouts. The system generally removes water from the bridge, but several elements exhibit consistent problems and there are isolated problems throughout the system.

The scuppers on the deck are typically partially clogged in the collection boxes embedded into the deck. The vertical drainage pipes in the scuppers are typically clear. Vegetation is growing out of the scupper at expansion joint 4 along the eastbound median. Water ponds at a single location on the westbound deck along the outside railing (see Picture #17). The westbound outside shoulder also collects dirt over a 100 foot stretch starting at Sta. 1011+00.

The neoprene drainage troughs running transversely beneath the finger joints are clogged and overflowing with dirt and debris in several locations. The neoprene troughs are torn in a few locations allowing debris and drainage to fall onto the steelwork at the hinges. The neoprene couplers between downspouts are stretched and even pulled apart in a few locations due to the connections not lining up. Active corrosion is typical on the downspouts near the leaking joints

(see Picture #18). There are also several downspouts that have been cut near the ground to allow them to drain where the underground drainage is plugged.

Specific drainage deficiencies include:

- At roller 1L, there is a gap between the drainage trough and armor allowing water to leak through. The neoprene trough is also torn between girders F and G.
- The drainage trough at roller 1R is completely full.
- The neoprene downspout connection below girder 2-H at pier 4R is pulled apart and now drains to the ground.
- The downspouts at girders 2-H and 2-M near pier 4R are both clogged and full of debris. The downspout connection is also misaligned and the connection is leaking at this location.
- The drainage trough at roller 2R is torn between girders 2-H and 2-J and between girders 2-J and 2-K. The trough is full at this location also, especially near the south side. There are 5 broken neoprene flashing support bolts in bay 1 south.
- The trough is completely full at roller 2L. There is a tear in the neoprene near the south face of girder 2-G.
- There is a hole in trough over girder G at roller 3R. Trough is clogged and the neoprene is stretching/cracking over girder F, and from girder H to the south end of the joint. The steel retainer holding the neoprene also has 4 missing bolts at this joint between girders G and H.
- The drainage trough is leaking and full at roller 3L. The north end has failed and debris is spilling onto girder A seat. The south end also has a tear in the trough.
- The drainage trough at roller 4R was noted in previous reports as being full. The neoprene is now torn in several locations (see Picture #19).
- The drainage trough at roller 4L is ripped (see Picture #20) and the downspout is clogged on the north end of pier 15L.
- The attachment at the north end of the drainage trough at roller 5R is broken and the trough is full of debris (see Picture #21). The attachment is also broken at girder 5-S.

Picture #17: Ponding adjacent to two scuppers on westbound deck in Unit 1, looking east. Note the trees overhanging the fence onto the deck.

Picture #18: Downspout coupler separated near pier 9R, girder 3-K, looking north.

Picture #19: Failed neoprene trough at roller 4R, girder G, looking south.

Picture #20: Failed neoprene drainage trough at roller 4L, girder A, looking south.

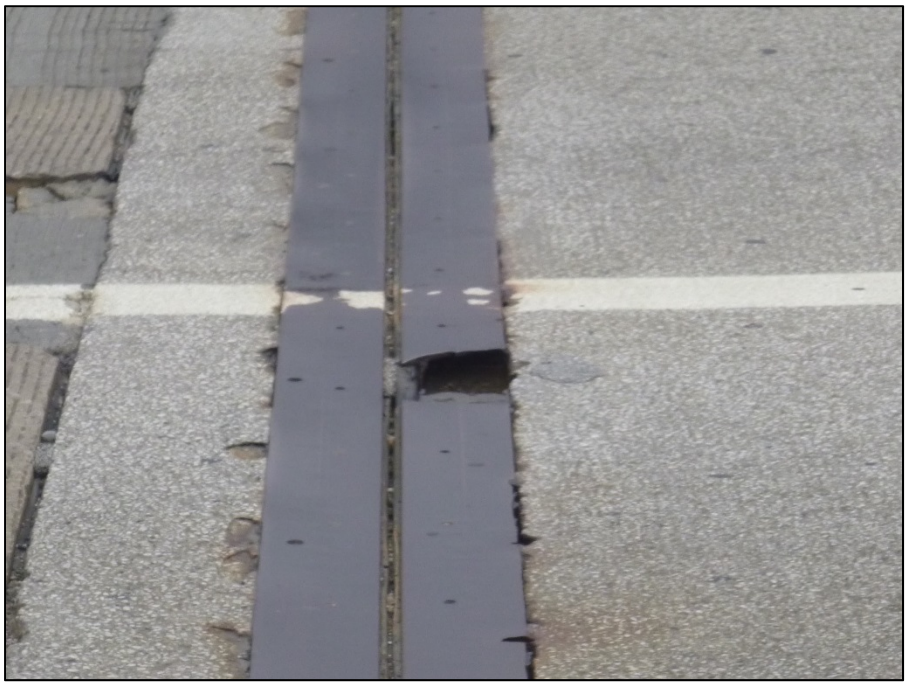
Picture #21: Failed neoprene trough support at roller 5R, looking northwest.

Expansion Joints

The expansion joints are rated in **good/fair** condition. The joint arrangement consists of elastomeric strip sealed joints at the rear abutments and ramp B-C abutment; sliding plate joints at the forward abutments and ramp C-B abutment; and finger-type joints at the intermediate deck joints over the hinges between bridge units.

The mainline eastbound rear abutment has several locations where the steel joint armor is missing at the roadway surface. One location appears to be wide enough to fit a vehicle tire in the gap. The concrete beneath the hole in the armor is missing and the hole appears to be fairly deep. This presents a driving hazard to vehicles in that lane. (See Picture #22 and Picture #23) Several areas of the steel joint armor are also missing at the westbound ramp B-C abutment joint. The underlying concrete is visible beneath the missing steel and the condition is not as serious as that of the mainline rear abutment.

Picture #22: Multiple holes in the eastbound rear abutment steel joint armor , looking north.



Picture #23: Deep hole below broken joint armor near lane 3/4 lane line at eastbound rear abutment, looking north.

The expansion joint concrete headers typically have minor shallow spalls. The mainline rear abutment and the adjacent abutment at ramp C-7 exhibit the worst active spalling in the concrete headers, with small spalls developing across the full width of the both abutments (see Picture #24).

Picture #24: Typical full width spalling on westbound abutment expansion joint headers, looking south along ramp C-7.

The intermediate finger joints are generally in good condition. There are several locations with small, active spalls in the concrete headers immediately adjacent to the steel finger plates. Several joints have much larger previously patched areas of deck adjacent the steel joint. These patches appear to be intact. The fingers in the joints are well aligned both vertically and horizontally. Four intermediate joints have a non-uniform gap between the fingers. A finger is missing, but based on the arrangement of the individual finger joint plate sections, it appears to be the result of original construction modification or fabrication necessary to mesh the fingers on each side of the joints. It does not appear that the individual fingers have been broken off recently (see Picture #25).

Picture #25: Missing finger in westbound intermediate expansion joint 2, lane 4, looking south.

Many of the finger joints have removable plates near the outside parapets. Several of the connection bolts holding down these plates are missing.

The mainline rear abutment and ramp C-7 elastomeric strip seals are watertight and generally prevent moisture from leaking onto the backwalls and abutments. There are gaps across the long rear mainline joint at construction joints in the backwall. The locations include between girder 1-E and 1-EA; and between girder 1-F and 1-G, with daylight visible through the latter gap. Debris and moisture are falling onto the abutment seat and steelwork at these locations.

The sliding plate joints at the mainline forward abutment and ramp C-B are missing the bitumen joint sealer and are leaking , which is accelerating the deterioration of the bridge deck, backwalls and corrosion of the structural steel under the joints.

Expansion joint details and comments are tabulated below.

Joint Location	Type	Opening	Condition
Rear Abutment Eastbound	Elastomeric Strip Seal	1 1/2” at 60°F	Four holes in the steel joint armor. Small spalls across full width of abutment header.
Unit 1 / Unit 2 Eastbound	Finger Joint	3 1/8” at 60°F	Single asphalt patch in east header is breaking up.
Unit 2 / Unit 3 Eastbound	Finger Joint	4 1/2” at 60°F	Finger missing on west side of joint, lane 4 from median. Few small spalls on east header.

Joint Location	Type	Opening	Condition
Unit 3 / Unit 4 Eastbound	Finger Joint	3 3/4” at 60°F	Finger missing on west side of joint, lane 3 from median
Unit 4 / Unit 5 Eastbound	Finger Joint	4 3/4” at 60°F	Good condition
Unit 5 / Unit 6 Eastbound	Finger Joint	3” at 65°F	Good condition.
Unit 5 / Ramp C-B Eastbound	Sliding Plate	3 3/4” at 65°F	Two spalls in header within lane.
Forward Abutment Eastbound	Sliding Plate	2 1/2” at 65°F	Sliding plates are functional, but do not provide a sealed joint. Minor spalls in abutment concrete header
Abutment Ramp C-B Eastbound	Sliding Plate	2” at 65°F	Sliding plates are functional, but do not provide a sealed joint.
Rear Abutment Westbound	Elastomeric Strip Seal	N/A	Small spalls across full width of abutment header
Abutment Ramp C-7 Westbound	Elastomeric Strip Seal	7/8” at 69°F	Small spalls across full width of abutment header
Unit 1 / Unit 2 Westbound	Finger Joint	2 1/4” at 69°F	Large patches at mainline lane 3 and exit ramp. Asphalt patches failing.
Unit 2 / Unit 3 Westbound	Finger Joint	4 3/8” at 69°F	Large, intact patches in west headers, lanes 3 and 4. Finger missing on west side, lane 4
Unit 3 / Unit 4 Westbound	Finger Joint	4 1/2” at 69°F	Multiple large, intact patches in headers. Some small concrete spalls adjacent steel joints. Finger missing on west side, lane 3 from median.
Unit 4 / Unit 5 Westbound	Finger Joint	3 1/4” at 69°F	Multiple intact patches in headers
Unit 5 / Unit 6 Westbound	Finger Joint	3” at 69°F	Good condition.
Forward Abutment Westbound	Sliding Plate	2 1/4” at 69°F	Sliding plates are functional, but do not provide a sealed joint. Multiple spalls and patches in abutment concrete header
Abutment B-C Westbound	Elastomeric Strip Seal	1 3/4” at 69°F	3 areas of steel joint armor broken out at deck surface.

Note: Measurements taken at outside lane line or curb line. Measurements in skewed openings taken as minimum dimension between steel retainers.

SUPERSTRUCTURE

The superstructure for the bridge is rated a **6**, meaning that it is in **satisfactory** condition.

The individual items are rated as follows:

Item	Transition Rating
Alignment	1.00 – Good
Beams/Girders	1.03 – Good/Fair
Diaphragms/Crossframes	1.14 – Good/Fair
Stringers	1.02 – Good/Fair
Floorbeams	3.00 – Poor
Bearing Devices	1.03 – Good/Fair
Protective Coating System	3.00 – Poor
Pins/Hangers/Hinges	1.95 – Good/Fair
Fatigue	1.00 – Good

Alignment

The alignment of the structure and members is **good**. For this inspection the alignment was checked by sighting along the bridge members and parapets. Several of the wind shear guides on the bottom of the girder bottom flanges at the hinges were noted to have slight misalignment and were wearing against their keeper plates (see Picture #26). There are also a few bottom flange deformations, up to 3/8", likely from original construction.

Picture #26: Shear key rubbing on south keeper plate of girder A in span 9L, looking west.

Beams/Girders

The rolled beams and welded girders are in **good/fair** condition. Some isolated corrosion exists around the top flange at deck construction joints. This has caused some minor spalling of the deck haunch around the top flange. There is active corrosion with minor section loss on the fascia girders at the splice plates (see Picture #27) and at the girder ends under the deck joints (see Picture #28). The deterioration under deck joints is typically within 10 feet of the joint. Away from the deck joints the beams/girders are generally in good condition.

There is a possible 1" crack at the top of the transverse stiffener on the north face of girder M in span 8R. This is near the compression flange at this location so the paint was not removed to further investigate. The tips of the suspected crack were marked to monitor in future inspections (see Picture #29). There is a similar location on the north face girder G at the top of the floorbeam 7 transverse stiffener in span 9R that appears to be a weld undercut, not a crack (see Picture #30).

There is a 1/16" deep gouge on the north face of girder A in span 9L. This occurred after the bridge was painted. No other distress was noted.

Picture #27: ¼" section loss to exterior half of girder M bottom flange in span 8R, looking north.

Picture #28: Section loss to girder F bottom flange in span 4L, looking north. Note bottom of transverse stiffener is nearly rusted through.

Picture #29: Possible 1” crack near girder M compression flange in span 8R, looking south.

Picture #30: Possible crack or weld undercut on girder G in span 9R, looking south.

Crossframes

The crossframes are in **good/fair** condition. Units 1, 5, 6 and ramp C-B have typical crossframes without sub-stringers. The girder crossframes in Units 2, 3 and 4 are also the floorbeams supporting the interior stringers. See the "Floorbeams" section below for additional details.

There are multiple locations of loose bolts, missing bolts, and misdrilled holes in the crossframe connections to the girder transverse stiffeners. These are likely all from original construction and are shown in the Partial Framing Plans in the Appendix. No distress was noted to surrounding members at any of these locations.

The crossframes under the deck expansion joints typically have active corrosion and minor section loss. There are a few crossframe members that have up to 50% section loss under deck joints (see Picture #31 and Picture #32). Away from the deck joints the crossframes are in good condition other than the original construction defects described above.

Picture #31: South bay hinge crossframe in span 24 C-B, looking west. Up to 50% section loss on members.

Picture #32: End crossframe in span 25R, between girders X and Y, looking east. Up to 50% section loss on bottom chord angle.

Stringers

The continuous rolled steel stringers are in **good/fair** condition. The stringers are in good condition away from the deck joints other than a few locations with minor corrosion to the stringer top flanges under leaking deck construction joints (see Picture #5).

There is a 1.75" crack in the stringer 2-13 to floorbeam 3 weld in span 5R (see Picture #33). The cracks does not extend into base metal of the stringer or floorbeam.

There are several locations where the stringers were not completely seated on the floorbeam top flange during construction. The stringers were field welded to make the connection, but a gap remains. The stringer 5 connection to floorbeam 6 in span 7L has a 3/4" gap between the stringer bottom flange and floorbeam top flange (see Picture #34). This doubles the span of this stringer. No distress was noted in any of the surrounding members.

There are loose bolts in the stringer 7 and stringer 8 splices in unit 3. This is likely from original construction.

Picture #33: 1.75" crack in stringer 13 to floorbeam 3 weld in span 5R, looking north.

Picture #34: 3/4” gap between stringer 5 and floorbeam 6 in span 7L, looking north.

Floorbeams

The floorbeams and their connections are in rated in **poor** condition. Note, this is the transition rating generated in SMS and seems low for the condition of the floorbeams and the quantities measured. The floorbeams under the deck joints typically have active corrosion resulting from the leaking joints, but no significant section loss was noted.

The bolted connections to the girder transverse stiffeners have several locations where bolt holes were misdrilled, bolt were not properly tightened (see Picture #35), and in a few cases bolts were never installed (see Picture #36). These conditions, likely from original construction, are driving down the rating of the floorbeams. See Partial Framing Plans in Appendix for specific locations of deficiencies.

Picture #35: All 4 bolts in floorbeam top chord connection to girder M loose, span 9R, looking southwest.

Picture #36: All 4 bolts in floorbeam top chord connection to girder J missing, span 11R, looking southeast. Note, this is the 1 foot of floorbeam rated critical.

Bearing Devices

The bearings on this bridge are in **good/fair** condition.

There is debris and rust around the rockers at the abutments (see Picture #37). The pier bearings are generally in good condition other than surface rust (see Picture #38). The rollers at the seated hinges in the girders have rust and debris around the rollers, but are operating normally.

The bearings at the west (rear) abutment have varied tilts. The rockers are laterally offset from the beam and the lead bearing pad working out of position in a few locations. Specific deficiencies include:

- West abutment – Bearing 1-C – Tilted 19° east at 75°F
- West abutment – Bearing 1-EA – Tilted 17° east at 75°F (see Picture #39)
- West abutment – Bearing 1-K – Lead bearing pad extruding
- West abutment – Bearing 1-N – Lead bearing pad is offset. Beam bounces with live load.
- West abutment – Bearing 1-P – Lead bearing pad extruding. Offset and tilt noted in 2011 report appear to have been corrected.
- West abutment – Bearing 1-Q – The rocker and steel load plate are offset 13/16" from the beam and the lead bearing pad (see Picture #40).
- West abutment – Bearing 1-X – Beam bounces with live load.

The pier bearings have loose bolts where the girder bottom flange is connected to the top of the bearing at the following locations:

- Pier 14L – Bearing 4 – A
- Pier 14L – Bearing 4 – B
- Pier 14L – Bearing 4 – C
- Pier 14L – Bearing 4 – D
- Pier 14R – Bearing 4 – J
- Pier 15L – Bearing 4 – A

The girder M roller nest at pier 8R also has a loose bolt in the keeper plate.

The rocker bearings at the ramp B-C abutment are offset laterally from the girder on two of the three bearings. The offset is 3/8" on girder A and 5/16" on girder B. There is also dirt spilling onto the abutment seat and around the girder A bearing.

The rockers at the forward abutment are in line transversely and tilts are within normal range for the temperature measured.

Picture #37: Rust and debris around girder 6-G rocker at forward abutment, looking north.

Picture #38: Surface corrosion on girder J roller bearing at pier 9R, looking north.

Picture #39: West abutment bearing 1-EA leaning 17° east at 75°F, looking south.

Picture #40: West abutment rocker bearing 1-Q offset 13/16” north, looking west.

Protective Coating System

The zinc-vinyl-vinyl paint system completed in 1990 is in **poor** condition. There is active pack rust and corrosion at most fascia girder splices and sign supports. The paint is failing under the deck joints (see Picture #28**)**, under the deck access hatches (see Picture #8**)** and on the fascia girder bottom flange (see Picture #27) throughout the structure. There are also several areas of top coat peeling away from drainage related failures. Units 5 and 6 have a layer of dirt 1/8" to 1/4" thick making inspecting for cracks in the steel very difficult (see Picture #41).

Picture #41: Dirt build up on web of girder CB-A in span 24CB, looking east.

Hinges

The seated hinges are rated in **good/fair** condition. There is surface corrosion and the rollers have debris building up around them, but were all operating normally under thermal changes. No cracks were noted in the tri-axial welds at roller hinge 5. There is a missing bolt in the sole plate of the seated hinge of girder 3-K at roller 3R.

The toothed alignment plates on each end of the hinge rollers have several missing/broken bolts (see Picture #42). These are located at the following locations:

- Roller 2 – Girder F – South Face – 2 broken bolts in bottom alignment plate
- Roller 2 – Girder H – North Face – 1 broken bolt in bottom alignment plate
- Roller 3 – Girder B – North Face – 1 broken bolt in bottom alignment plate
- Roller 3 – Girder D – North Face – 1 broken bolt in bottom and 1 missing bolt in top alignment plates

- Roller 3 – Girder D – South Face – 1 broken bolt in bottom and 1 missing bolt in top alignment plates
- Roller 3 – Girder E – North Face – 1 broken bolt in bottom and 1 missing bolt in top alignment plates
- Roller 3 – Girder J – North Face – 1 broken bolt in bottom alignment plate

Picture #42: Broken/missing bolts on girder D roller 3 alignment plate, looking north.

Fatigue

The fatigue-prone details for this bridge are rated **good**.

The stringer bottom flange to floorbeam top flange weld connections are a Category E detail. See the "Stringers" section for details.

Roller hinges 1 through 4 were correctly detailed for a higher fatigue rating. The seated hinge detail at roller 5 was constructed with tri-axial welds (see Picture #43). The roller seat flange connection tri-axial welds to the girder webs at roller are a Category E' detail. No signs of distress were noted at these locations.

The longitudinal web stiffener to girder web welds, where the ends of the stiffeners do not have a radius with the weld ends ground out, are Category E details. No signs of fatigue cracking were noted in these details.

The transverse stiffener to girder web welds are a Category C' detail. There are two locations with possible cracks in the girder web at the top of the stiffeners (see Picture #29). See the "Beams/Girders" section for specific details.

The holes in the transverse stiffener on both the north and south face of girder J were misdrilled for the connection of floorbeam 2 in span 14R. A second transverse stiffener was tack welded (see Picture #44) to both faces of the girder web and new holes were drilled for the connection. No cracks were noted in the tack welds.

Picture #43: Tri-axial weld on girder V, span 21R, looking north.

Picture #44: Tack weld on web of girder J in span 14R, looking north.

SUBSTRUCTURE

The substructure for this bridge is rated a **7**, meaning that it is in **good** condition.

The individual items are rated as follows:

Item	Transition Rating
Abutment Walls	1.00 – Good
Abutment Caps	1.00 – Good
Pier Walls	1.06 – Good/Fair
Pier Caps	1.03 – Good/Fair
Pier Columns	1.13 – Good/Fair
Backwalls	1.19 – Good/Fair
Wingwalls	1.00 – Good
Scour	1.00 – Good
Slope Protection	1.00 – Good

Abutment Walls/Caps

The abutment walls and abutment caps are in **good** condition. The abutment walls have minor cracks with efflorescence and a few small spalls (see Picture #45). The abutment caps are covered in dirt and debris in several locations, but do not have any structural defects.

Picture #45: Deterioration to forward abutment wall between girders E and F, looking east.

Pier Walls/Caps/Columns

The pier walls, pier caps, and pier columns/bents are in **good/fair** condition. The piers were given a visual inspection from the ground, pier caps, and girders. A snooper and manlift were used to inspect areas with active deterioration, but the entire pier surfaces were not sounded as part of this inspection. The piers under deck joints and deck access manholes are in worse condition due to clogged and leaking drainage collection and drainage coming through the manholes.

Pier 9L is the only hammerhead pier on the bridge. It is generally in good condition with minor spalls and cracks with efflorescence.

The south end of the pier 7R cap is in poor condition with a 7.5 foot wide by 6 foot tall area delaminated with rusting reinforcing steel (see Picture #46). This is located directly above Quigley Road. All loose concrete was removed with use of the snooper at the time of the inspection.

The south column of pier 9R is in poor condition with large delaminations and exposed, rusting reinforcing steel (see Picture #47). The remainder of the pier columns are generally in good condition with minor spalls and cracks with efflorescence.

See the Pier Deterioration Drawings in the Appendix for specific locations of pier deterioration.

Picture #46: Deterioration to south end of pier 7R cap due to leaking deck access manhole, looking east.

Picture #47: Large delaminations, spalls, and cracks with rust staining and efflorescence on south column of pier 9R, looking south.

Backwalls

The backwalls are in **good/fair** condition. The rear abutment, ramp C-7 and ramp B-C backwalls, which are protected by elastomeric strip seals, are generally in good condition. The backwalls at the mainline forward abutment and ramp C-B have several deficiencies due to the leaking sliding plate expansion joints. The forward abutment backwall is approximately 10% spalled or delaminated The backwall at ramp C-B is almost completely delaminated or spalled, with reinforcing steel exposed (see Picture #48).

Picture #48: Large spalls and delamination on ramp C-B abutment backwall between girders D and E, looking east.

Wingwalls

The wingwalls are in **good** condition with isolated areas of minor spalls, cracks and efflorescence. No significant deficiencies were noted on the wingwalls.

Scour

Scour is rated **good** for this structure. Piers are located outside of the waterway and are above the normal high-water level for the channel.

Slope Protection

Slope protection for this bridge is rated **good**. The water leaking out of the clogged downspouts and drainage troughs near pier 4R has eroded the slope, but the structure is currently not affected. The concrete slope protection at the rear abutment and east of Independence Road is in good condition. Crushed aggregate slope protection at the forward abutment has minor erosion from the plugged underground drainage system.

CHANNEL

The channel is rated **8**, meaning that it is in **very good** condition.

The individual items are rated as follows:

Item	Transition Rating
Alignment	1.00 – Good
Protection	1.00 – Good
Hydraulic Opening	1.00 – Good
Navigation Lights	1.00 – Good

Alignment

The alignment of the Cuyahoga River is **good**. The channel has a straight alignment for more than 100 feet upstream and downstream with no deficiencies noted.

Protection

The Cuyahoga River channel protection is comprised of sheet piling and vegetation and is in **good** condition (see Picture #49).

Picture #49: General view of east bank bulkhead, looking east.

Hydraulic Opening

The hydraulic opening of the Cuyahoga River is **good**. There is no restriction in flow through the channel under the structure.

Navigation Lights

The navigation lights over the Cuyahoga River are in **good** condition. The lights were recently replaced with solar powered lights. All six lights are independent with their own photo cell and were functioning normally during the inspection. The upstream green light support was modified to be in a fixed position and can no longer be rotated up for maintenance.

SIGN/UTILITY

The individual items are rated as follows:

Item	Transition Rating
Signs	1.12 – Good/Fair
Sign Supports	1.43 – Good/Fair
Utilities	1.01 – Good/Fair

Signs

The signs are rated **good/fair**.

There are several signs on the bridge in both the eastbound and westbound directions. The cantilevered sign at Sta. 1005+00± over the eastbound outside lane has sustained minor collision damage to the bottom of the sign, but it is still effective.

Sign Supports

The sign supports are rated **good/fair**. The sign supports were inspected from a snooper and manlift during the 2014 inspection. Paint failing, minor section loss, and debris building up are typical conditions (see Picture #50).

Picture #50: Eastbound exit sign support in fair condition with debris and minor section loss, span 23R, looking east.

Utilities

The utilities are rated **good/fair**.

The superstructure grounding wire jumping across girder A at roller 1 is broken. The structure grounding wire embedded in pier 23L is either broken or was never attached to the superstructure.

The bridge has light poles along the median and at the exit ramps. There is a pole missing in the median in unit 6. Several access hatch cover plates on the light pole bases are missing. These include:

Eastbound Bridge

- Unit 2 – Sta. 991+35 – Access hatch in median parapet concrete missing cover.
- Unit 3 – Sta. 1000+25 – Center navigation light junction box cover missing.
- Unit 6 – Sta. 1017+60 – Light pole base missing cover.
- Ramp C-B – Sta. 9+00 – Light pole base missing cover.
- Ramp C-B – Sta. 10+80 – Light pole base missing cover.

Westbound Bridge

- Sta. 987+90 – Light pole base missing cover (See Picture #51).

Picture #51: Missing electrical cover plate exposing westbound light pole wiring at Sta. 991+35, looking north.

GENERAL

Trees and brush are protruding into the outside shoulders of the bridge which decreases sight distance and makes inspection access difficult. Locations include:

- Unit 1 westbound (Picture #17)
- Station 1011+00 to 1012+00, unit 5, westbound
- Unit 6 westbound
- On-ramp B-C, westbound
- Off-ramp C-B, eastbound

Inspection Access

The inspection handrails and cables along the interior faces of each girder are generally in good condition. There are a few deficiencies such as the safety cable not being properly anchored. Specific deficiencies include:

- Safety cable missing from the north face of girder 2-E between floorbeam 6 and 8 in span 6L.
- Safety cable anchored to handrail on the north face of girder 2-J in span 9R.
- Safety cable anchored to handrail on the south face of girder 3-A at floorbeam 9 in span 11L.
- Safety cable anchored to handrail on the south face of girder 3-D at floorbeam 7 in span 11L (see Picture #52).

- Safety cable anchored to handrail on the south face of girder 4-D at floorbeam 4 in span 13L.
- There is a 6 foot section of handrail missing from the south face of girder 4-J in the first floorbeam bay west of pier 13R, in span 13R.

Picture #52: Safety cable improperly attached to handrail on south face of girder D at floorbeam 7, span 11L, looking west.

RECOMMENDATIONS

To maintain this structure, recommendations have been divided into three categories: Priority, Maintenance, and Monitor. "Priority" repairs are work which should be completed as soon as possible to address an immediate safety hazard. "Maintenance" repairs are on-going maintenance items which can be accomplished either by an ODOT maintenance crew or a construction contract. "Monitor" items are tasks which should be investigated and recorded in subsequent inspections.

PRIORITY

- Repair deteriorated patches in the wearing surface. Chunks of concrete are working loose in some locations creating a hazard for motorists.
- Repair the holes in the mainline eastbound rear abutment expansion joint armor.

MAINTENANCE

Maintenance recommendations are intended to maintain the current level of service of the bridge until a future rehabilitation project. The following recommendations fall into the "Maintenance" category:

- Scuppers and downspouts should be cleaned to make sure the deck stays properly drained.
- Clean the drainage troughs and hoppers under the finger joints to keep water off the steelwork.
- Replace/replace the drainage troughs that have tears, gaps and/or broken connections.
- Patch wearing surface.
- Patch and seal deteriorated sections of concrete railing and median barriers.
- Replace/replace damaged vandal protection fence.
- Replace the bitumen sealant in the sliding plate expansion joints at the forward abutment and ramp C-B abutment to slow deterioration.
- Replace missing bolts and tighten loose bolts (mostly from original construction) in crossframes, floorbeams, bearings and seated hinges.
- Reset bearings at the west (rear) abutment.
- Abrasively clean and spot paint structural steel under deck joints and on both fascia girders including sign supports.
- Repair the inspection safety cables where they were not properly installed.
- Remove loose concrete from south end of pier 7R over Quigley Road. Re-seal area with epoxy urethane to slow deterioration due to leaking access hatch above.
- Clear the vegetation growing under and around the structure to improve driving site distances and inspection access.

MONITOR

The following items should be noted during future inspections of this structure:

- Monitor the deterioration to the structural steel under leaking deck joints for accelerated corrosion; specifically the girder seated hinges.
- Monitor cracks in girder webs for propagation.
- Monitor the bearings with large rotations for any significant changes.
- Continue to monitor all fatigue prone details.
- Monitor the end slopes and around pier 4 for additional erosion.

APPENDIX

Bridge Inspection Field Report

2014 FRACTURE CRITICAL ELEMENT LEVEL INSPECTION
BRIDGE INSPECTION FIELD REPORT

Structure File Number: 1811991 Inventory Bridge Number: CUY 00490 01.000 N Bridge Type: 3 - STEEL/6 - GIRDER (FLOOR SYSTEM)/3 - DECK

Sufficiency Rating: 89.3 Date Built: 7/1/1990

District: 12 Place Code (FIPS): CLEVELAND I-490 over CUYAHOGA RIVER Type of Service on: HIGHWAY

APPROACH ITEMS

	QTY.	1	2	3	4	cr TR
c1. Approach Wearing Surface (EA)	8	4	2	2	0	2.56
c2. Approach Slabs (SF)	11834	10801	565	468	0	1.58
c3. Relief Joint (LF)	473.4	289.1	64.7	119.6	0	2.54
c4. Embankment (EA) d	8	8	0	0	0	1.00
c5. Guardrail (EA)	7	5	0	1	1	3.25

N36. Safety Features: Tr, Gr, Tm — 36)B 1 36)C 1 36)D 1

c6. Approach Summary (9-0) 5

DECK ITEMS

	QTY.	1	2	3	4	cr TR
c7.1 Floor/Slab (SF)	510184	385945	122500	1715	24	1.37
c7.2 Edge of Floor/Slab (LF)	15105	14969	65	71	0	1.09
c8. Wearing Surface (SF)	518995	392886	124566	1431	112	1.37
c9. Curb/Sidewalk/Walkway (LF)						
c10. Median (LF)	6914	6753	161	0	0	1.03
c11. Railing (LF)	8192	8073	4	107	8	1.26

N36. Safety Features: Rail — 36)A 1

c12. Drainage (EA) d	35	1	32	2	0	2.25
c13. Expansion Joint (LF) d	1256	908	289	58	1	1.81

N58. Deck Summary (9-0) 7

SUPERSTRUCTURE ITEMS

	QTY.	1	2	3	4	cr TR
c14. Alignment (EA) d	54	54	0	0	0	1.00
c15.1 Beams/Girders (LF)	55590	550355	492	63	0	1.03
c15.2 Slab (SF)						
c16. Diaphragm/X-Frames (EA)	2341	2296	28	17	0	1.14
c17. Stringers (LF)	16943	167688	175	0	0	1.02
c18. Floorbeams (LF)	18629	184711	105	52	1	3.00
c19. Truss Verticals (EA)						
c20. Truss Diagonals (EA)						
c21. Truss Upper Chord (EA)						
c22. Truss Lower Chord (EA)						
c23. Truss Gusset Plate (EA) d						
c24. Lateral Bracing (EA)						
c25. Sway Bracing (EA)						
c26. Bearing Devices (EA) d	465.00	457	8	0	0	1.03
c27. Arch (LF)						
c28. Arch Column/Hanger (EA)						
c29. Arch Spandrel Walls (LF)						
c30. Prot. Coating System (LF) d	91162	0	859311	3172	2059	3.00
c31. Pins/Hangers/Hinges (EA) d	65	5	60	0	0	1.95
c32. Fatigue (LF) d	91162	911144	17	1	0	1.00

N59. Superstructure Summary (9-0) 6

SUBSTRUCTURE ITEMS

	QTY.	1	2	3	4	cr TR
c33. Abutment Walls (LF)	524.6	523.1	1.5	0	0	1.00
c34. Abutment Caps (LF)	524.6	524.6	0	0	0	1.00
c35. Abut. Columns/Bents (EA)	0	0				
c36. Pier Walls (LF)	25.3	24.3	1	0	0	1.06
c37. Pier Caps (LF)	3821.2	3801.9	13.3	6	0	1.03
c38. Pier Columns/Bents (EA)	132	131	0	1	0	1.13
c39. Backwalls (LF)	524.6	455.1	69.5	0	0	1.19
c40. Wingwalls (EA)	8	8	0	0	0	1.00
c42. Scour (EA) d	58	58	0	0	0	1.00
c43. Slope Protection (EA) d	6	6	0	0	0	1.00

N60. Substructure Summary (9-0) 7

CULVERT ITEMS

	QTY.	1	2	3	4	cr TR
c44. General (LF)						
c45. Alignment (LF) d						
c46. Shape (LF) d						
c47. Seams (LF) d						
c48. Headwall/Endwall (LF)						
c49. Scour (LF) d						
c50. Abutments (LF)	0					

N62. Culvert Summary (9-0) N

CHANNEL ITEMS

	QTY.	1	2	3	4	cr TR
c51. Alignment (LF) d	200.00	200	0	0	0	1.00
c52. Protection (LF) d	400	400	0	0	0	1.00
c53. Hydraulic Opening (EA) d	60	60	0	0	0	1.00
c54. Navigation Lights (EA) d	6	6	0	0	0	1.00

N61. Channel Summary (9-0) 8

SIGN/UTILITY ITEMS

	QTY.	1	2	3	4	cr TR
c55. Signs (EA) d	12	11	1	0	0	1.12
c56. Sign Supports (EA) d	9	6	3	0	0	1.43
c57. Utilities (LF) d	4600.00	4599	0	0	1	1.01

General Appraisal (9-0) 6

N41. Operating Status A

Inspector Name: Burgholder, Jason

Inspection Date/Type: 09/26/2014 In-Depth and Fracture Critical

PE Number: 69829

Reviewer Name: Kapustar, Kent

Review Date: 12/31/2014

PE Number: 64067

Structure File Number: 1811991 Inventory Bridge Number: CUY 00490 01.000 N Bridge Type: 3 - STEEL/6 - GIRDER (FLOOR SYSTEM)/3 - DECK

Sufficiency Rating: 89.3 Date Built: 7/1/1990

District: 12 Place Code (FIPS): CLEVELAND I-490 over CUYAHOGA RIVER Type of Service on: HIGHWAY

Key: "Qty" = Quantity for Element Level inspection; "(LF)" = Linear Feet; "(SF)" = Square Feet; "(EA)" = Each or count; "CR" = 1-4 Condition Rating or average of worst span unless Summary item 9-0, then the average of entire bridge influenced by the bold boxes; "TR" = Transition Rating or weighted average of condition states; "d" = dedicated or specific chart and guidance, all others use Material specific chart/guidance; "c" = condition prefix; "N" = NBIS rating

Inspection Procedures

Next Insp Cycle is in 2014 and Est. Hours is 30 and TTC is MT-95.31 and other TT notes include. . . VERIFY_PLCVERIFY_PLC . . . with 2014 lead insp. DT and truck req'd . . . 62

Comments

APPROACH

c1. Approach Wearing Surface

The wearing surface on the approaches is concrete. The eastbound and westbound rear approaches, and the westbound forward approach slab have multiple concrete patches. Most of these patches have visible cracks. Portions of several patches have broken apart and are currently filled with asphalt concrete. The asphalt patching is less than 5% of the surface area of the approaches. The wearing surfaces on the eastbound forward approach, and the Ramp C-B and Ramp B-C approaches are in good condition.

c2. Approach Slabs

The eastbound and westbound rear approach slabs, and the westbound forward approach slab have multiple concrete patches, typically with visible cracking in the patching concrete. These patches cover less than 10% of the slab. Several concrete patches have deteriorated and are currently filled with asphalt concrete. The eastbound forward approach slab, and the Ramp C-B and Ramp B-C approach slabs are in good condition.

c3. Relief Joint

The eastbound ramp C-B relief joint is heavily cracked in the roadway shoulder and has settled in the travelled lanes. The westbound rear approach mainline joint has large cracks in the asphalt pavement across all traffic lanes. The westbound forward abutment joint is breaking up at its edges. The relief joint pavement for ramp N-W at the forward abutment has settled.

c4. Embankment

The approach embankments behind the wingwalls is in good condition. There is erosion around pier 4 from the drainage system overflowing. This is currently not affecting the structure.

c5. Guardrail

Five of the guardrail runs at the ends of the bridge are in good condition. Two ends have sustained collision damage and are in poor or serious condition. The guardrail to the inside of eastbound Ramp C-B has damaged rail and 4 posts damaged from a collision. It is in poor condition. The guardrail at mainline eastbound forward abutment has sustained a more serious collision and has three adjacent posts missing or broken.

DECK

c7.1 Floor/Slab

Regularly spaced cracking in the wearing surface allows moisture to penetrate the

reinforced concrete deck. There are typically several transverse cracks exhibiting efflorescence and or dampness on the underside of the deck in each span. The most concentrated location was noted in span 10R.

Little spalling or delamination was noted on the underside of the deck, even at the fully cracked locations. One exception is full-depth damage between girders 4-A and 4-B in span 14. This is located over the east edge of Independence Road. The concrete is saturated, cracked and spalled, exposing deck reinforcing steel. The surrounding area is delaminated, with about 6 feet of loose concrete present the full width of the bay between girder 4-B and stringer 4-3. The location corresponds to a deep asphalt patch on the top of the deck. The patch is breaking up and reinforcing steel is exposed in the cracks.

There is also typically dampness and saturation of the concrete in the vicinity of the access manholes over the piers. An open core hole in the deck off girder 3-F in span 10, near pier 10 is also permitting moisture to leak through. Another core hole is only partially filled about 80 feet west of the abutment on Ramp C-B.

c7.2 Edge of Floor/Slab

The slab edges are protected by the concrete railing above. The exterior edges are also sealed with epoxy. Deficiencies include some full-width transverse deck cracks that extend to the edges of the slab; and several spalls along the interior median joint along the length of the bridge.

c8. Wearing Surface

The latex modified concrete overlay wearing surface is generally smooth and intact. The overlay does exhibit numerous transverse cracks, some of which extend the full width of the deck. The density of cracks was measured to be between three to five cracks every 12 feet (longitudinally) of deck. There are also random longitudinal cracks throughout the deck.

Some of the cracks have a width exceeding 1/8”. Broken up areas of the wearing surface have been previously patched, mainly with concrete. The concrete patches are typically intact, however; some continued to break up and have been filled with asphalt. A few of the previous patches have continued to break up, with reinforcing steel exposed in some areas. The top mat of deck reinforcing steel is visible at 1005+90, eastbound deck, and at pier 14, westbound deck. Several of the locations have loose chunks of concrete sitting in the potholes that will present hazards to traffic when they eventually work out of the holes. The patching is typically transverse to traffic; with several sets of patches running along longitudinal construction joints in the deck.

c10. Median

There are multiple areas exhibiting old scaling of the concrete surfaces and/or loss of the protective epoxy coating. These are typically located in the vicinity of light poles and expansion joints. The length is typically about 15 feet long, with some damage as long as 35 feet. There is fire damage to the eastbound parapet in unit 2, near station 992+00.

c11. Railing

The parapets have multiple areas with cracks and spalling, predominantly at the tops. There are also multiple deficiencies to the vandal protection on top of the parapets. See the REL Physical Conditions Report for specific locations.

c12. Drainage

The bridge roadway drainage system consists of scuppers, neoprene drain troughs and steel downspouts. The system generally removes water from the bridge deck.

The scuppers on the deck are typically partially clogged in the collection boxes embedded into the deck. Vegetation is growing out of the scupper at expansion joint 4 along the eastbound median. Water ponds at a single location on the westbound deck along the outside railing. The vertical drainage pipes in the scuppers are typically clear.

Dirt and debris has accumulated at various depths within the neoprene troughs below the finger joints at the intermediate expansion joints, except where the joints are torn and permit the dirt to fall freely onto the steelwork and ground.

c13. Expansion Joint

The mainline eastbound rear abutment has several locations where the steel bearing retainer plate at the roadway surface is missing. One location appears to be wide enough to fit a vehicle tire in the gap. The concrete beneath the hole in the retaining is missing and the hole appears to be fairly deep. This presents a driving hazard to those driving in that lane. Several areas of the steel bearing retainer are also missing at the westbound ramp B-C abutment joint. The underlying concrete is visible beneath the missing steel, but the condition is not as serious as that of the mainline rear abutment.

The mainline rear abutment and the adjacent abutment at ramp C-7 exhibit the worst active spalling in the concrete headers, with small spalls developing across the full width of the both abutments.

The intermediate finger joints are generally in good condition. The fingers in the joints are well aligned both vertically and horizontally. Four intermediate joints have a non-uniform gap between the fingers. A finger is missing; but based on the arrangement of the individual finger joint plate sections, it appears to be the result of original construction modification or fabrication necessary to mesh the fingers on each side of the joints. It does not appear that the individual fingers have recently broken off.

SUPERSTRUCTURE

c15.1 Beams/Girders

The beams and girders are in good condition away from the expansion joints. There is active deterioration and minor section loss under the deck joints. This is typically limited to an area within 10 feet of the joint.

One active 1" crack was found at the top of the transverse stiffener on the north face of girder M in span 8R. The crack is near the compression flange, but should be monitored during future inspections.

c16. Diaphragm/Cross Frames

There are loose and missing connection bolts as well as misdrilled holes in several locations. This is from original construction and no distress was noted in adjacent members. See REL Physical Conditions Report for specific locations.

c17. Stringers

The stringers are in good condition with only minor section loss next to the expansion joints. Stringer 5 is lifted 3/4" off of floorbeam 6 in span 7L (original construction).

This doubles the span length of this stringer, but no distress was noted. Several other stringers have smaller gaps and a few locations have cracked stringer to floorbeam welds. None of the cracks extend into the base metal of the members.

c18. Floorbeams

There are loose and missing connection bolts as well as misdrilled holes in several locations. This is from original construction and no distress was noted in adjacent members. See REL Physical Conditions Report for specific locations.

c26. Bearing Devices

Bearings are generally in good condition with minor surface rust and debris around several rockers. Slight misalignments are within design tolerances. Several bolts connecting girder bottom flanges to bearings where never fully tightened during original construction.

c30. Protective Coating System

Light surface rust and peeling top coat throughout. Paint has failed and corrosion is active under the deck joints. East end of the bridge is EXTREMELY dirty making it difficult to inspect girders for cracks.

c31. Pins/Hangers/Hinges

Typical covered in dirt and debris with active corrosion, but still functioning as intended. A few random missing bolts in sole plates and roller guides. See REL Physical Conditions Report for specific locations.

c32. Fatigue

There are a few tri-axial welds (due to poor fabrication) at hinges, but no cracks were noted. No cracks noted at the ends of the longitudinal stiffeners. One active 1" crack was found at the top of the transverse stiffener on the north face of girder M in span 8R. The crack is near the compression flange, but should be monitored.

SUBSTRUCTURE

c33. Abutment Walls

Minor cracks with efflorescence. A few spalls.

c34. Abutment Caps

Dirt and debris, but generally in good condition.

c38. Pier Columns/Bents

The south column of pier 9R is in poor condition with large delaminations and exposed rusting rebar. The remainder of the pier columns are generally in good condition with minor spalls and cracks with efflorescence.

c36. Pier Walls

Pier 9L is the only hammerhead pier on the bridge. It is generally in good condition with minor spalls and cracks with efflorescence.

c37. Pier Caps

The pier caps are generally in good condition. The south cantilever of pier 7R has a

large delaminated area with corroded rebar. This is directly below the pier access manhole in the deck and above Quigley Road. All loose concrete was removed during the snooper portion of this inspection to protect traffic. Piers 7L, 9L and 10L have a few spalls, but are in better condition than pier 7R.

c39. Backwalls

Several spalls and delaminations on the forward abutment backwall.

c40. Wingwalls

Wingwalls are all in good condition with minor cracks and efflorescence.

c43. Slope Protection

Concrete slope protection at rear abutment and east of Independence Road is in good condition. Crushed aggregate slope protection at forward abutment has minor erosion from plugged drainage.

CHANNEL

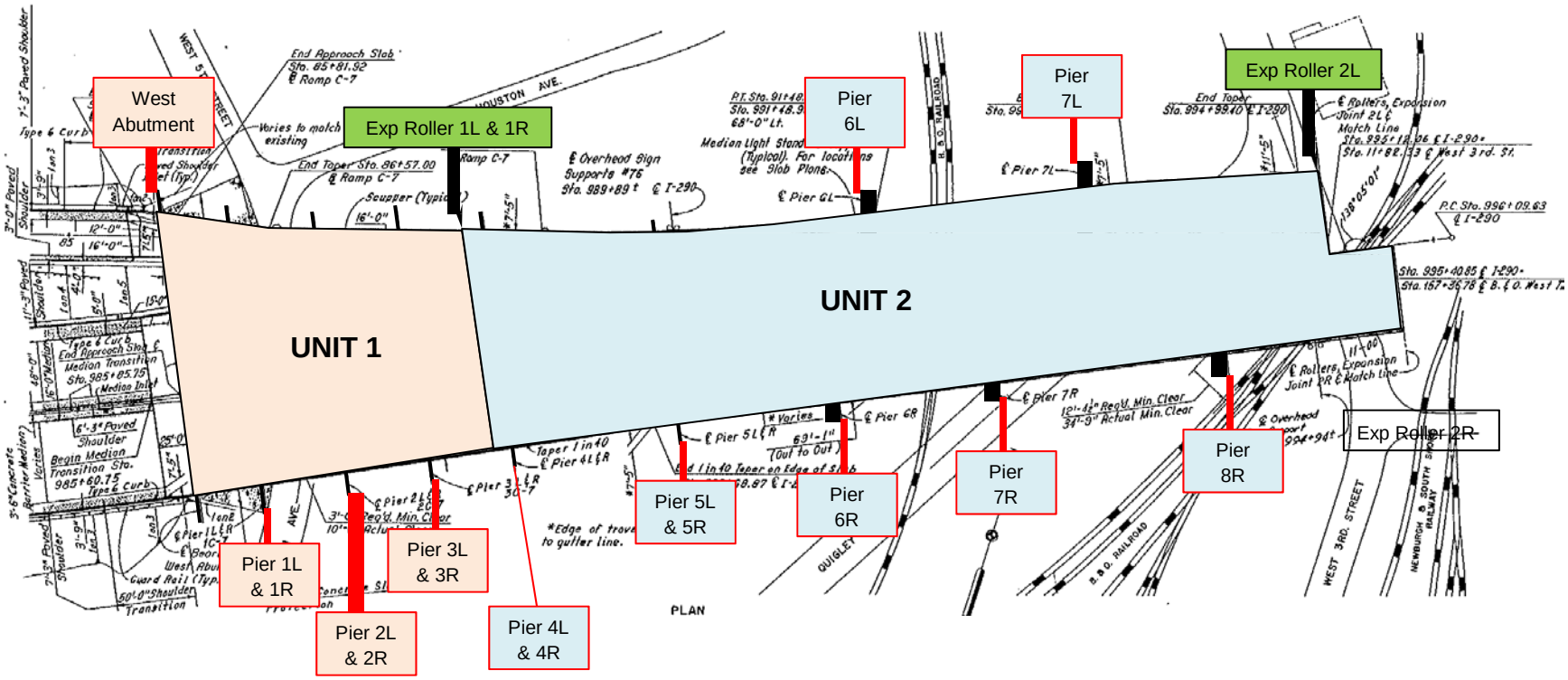
c54. Navigation Lights

New solar powered navigation lights were recently installed and operating normally.

Labeling of Spans (Units)

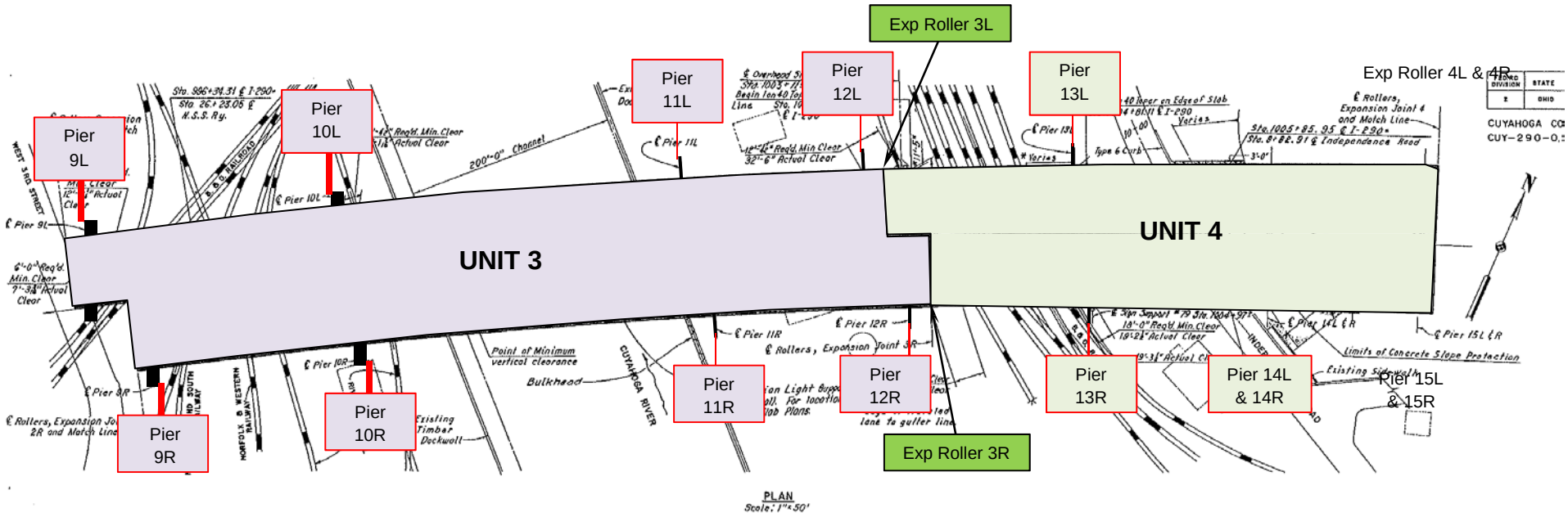
LABELING OF SPANS (UNITS)

UNITS 1 & 2



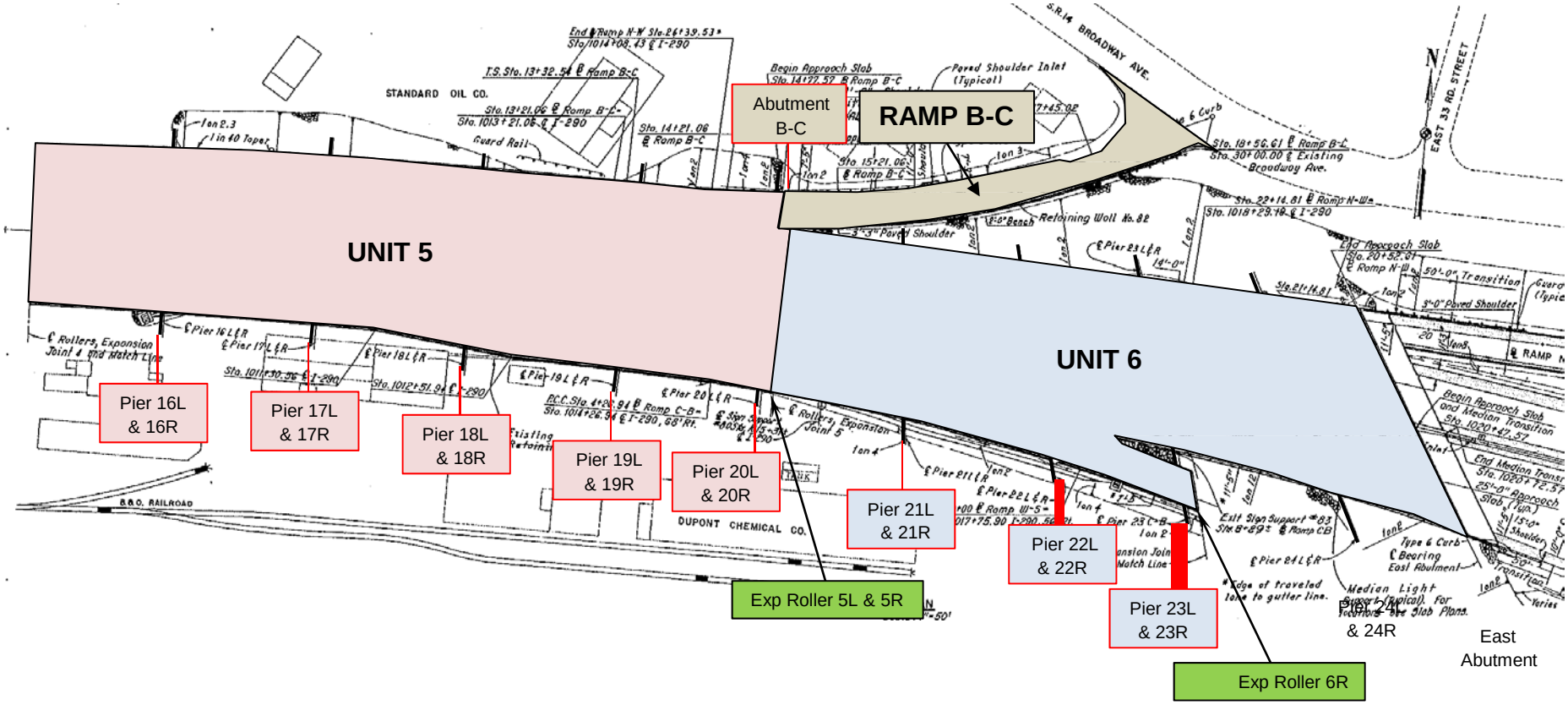
LABELING OF SPANS (UNITS)

UNITS 3 & 4



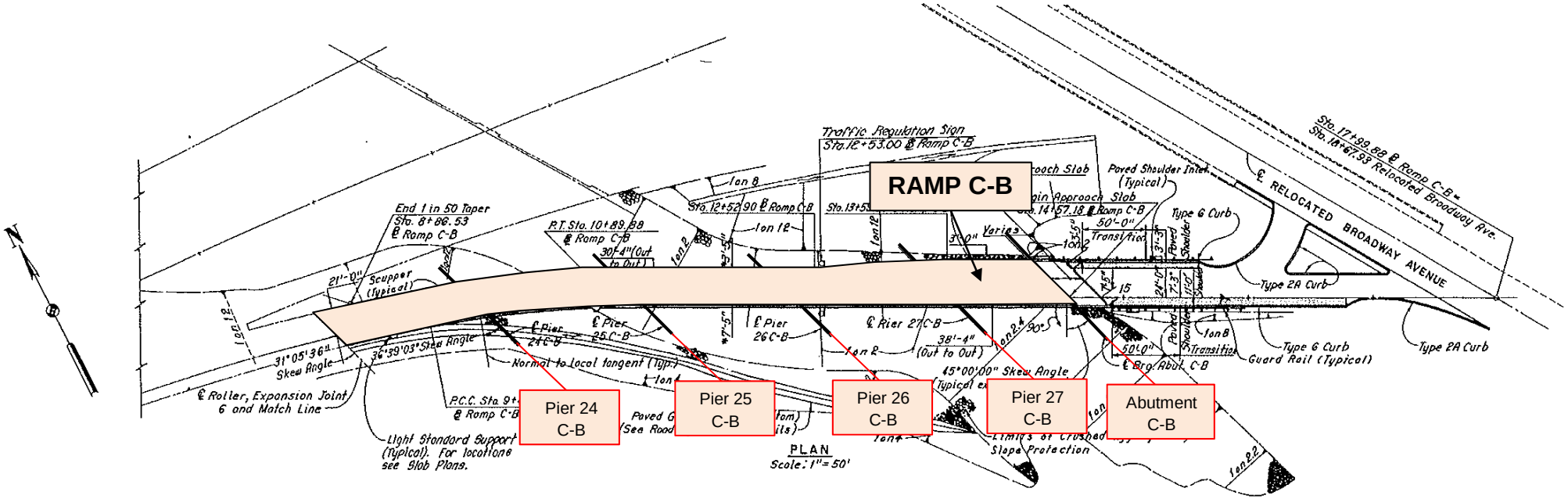
LABELING OF SPANS (UNITS)

UNITS 5, 6, and Ramp B-C



LABELING OF SPANS (UNITS)

Ramp C-B



Span Lengths and Girder Depths

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		Span	Left	Right	Ramp C-B		Beam Depth	# Beams	Access
UNIT 1	240.01	1	53.01	53.01			36"	27	80' Manlift
		2	67.00	67.00			36"	27	80' Manlift
		3	67.00	67.00			36"	25	80' Manlift
		4	53.00	53.00		supported	36"	24	80' Manlift
UNIT 2	688.00	4	15.00	15.00		cantilever	90"		Climb 8 Bays & Snooper 2 North Add Bays
		5	131.50	131.50			90"		Climb 8 Bays & Snooper 2 North Add Bays
		6	180.50	131.50			90"		Climb 8 Bays
		7	180.50	131.50			90"		Climb 8 Bays
		8R	0.00	182.50			90"		Climb 8 Bays
		9	180.50	147.00		supported	90"		Climb 8 Bays
UNIT 3	781.00	9	20.00	20.00		cantilever	126"-180"		Climb 8 Bays
		10	237.00	201.00			126"-180"		Climb 8 Bays
		11	330.00	340.00			126"-180"		Climb 8 Bays
		12	174.00	185.00			126"-180"		Climb 8 Bays
		13	20.00	20.00		cantilever	126"-180"		Climb 8 Bays
UNIT 4	526.99	13	178.01	164.01		supported	90"		Climb 8 Bays
		14	188.98	166.98			90"		Climb 8 Bays
		15	145.01	145.01			90"		Climb 8 Bays
		16	15.00	15.00		cantilever	90"		Climb 8 Bays
UNIT 5	659.00	16	119.00	119.00		supported	60"	20	120' Manlift & Snooper South Bays
		17	135.00	135.00			60"	20	120' Manlift & Snooper South Bays
		18	135.19	135.19			60"	22	120' Manlift & Snooper South Bays
		19	134.82	134.82			60"	22	120' Manlift & Snooper South Bays
		20	124.99	124.99			60"	22	120' Manlift & Snooper South Bays
		21	10.00	10.00		cantilever	60"	22	120' Manlift & Snooper South Bays
UNIT 6	561.79	21	104.77	104.77		supported	60"	21	120' Manlift & Snooper South Bays
		22	117.63	117.63			60"	22	120' Manlift & Snooper South Bays
		23	119.69	119.69			60"	25	120' Manlift & Snooper South Bays
		24	122.79	122.79			60"	23	120' Manlift & Snooper South Bays
		25	96.91	96.91			60"	24	120' Manlift & Snooper South Bays
		23C-B			131.96				
		24C-B			10.10	cantilever			
UNIT 6 C-B	583.00	24C-B			114.52	supported	60"	4	Snooper
		25C-B			122.98		60"	4	Snooper
		26C-B			124.75		60"	4	Snooper
		27C-B			124.75		60"	5	Snooper
		28C-B			96.00		60"	5	Snooper

Element Level Inspection Quantities

CUY-490-0100 ELEMENT LEVEL SUMMARY QUANTITIES

APPROACH ITEMS (TOTAL)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c1.	Approach Wearing Surface	EA	8	8	4	2	2	0
c2.	Approach Slabs	SF	11834	11834	10801	565	468	0
c3.	Reflief Joint	LF	473.4	473.4	289.2	64.7	119.6	0.0
c4.	Embankment	EA	8	8	8	0	0	0
c5.	Guardrail	EA	7	7	5	0	1	1

DECK ITEMS (TOTAL)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c7.1	Floor/Slab	SF	510,184	510,184	385,945	122,500	1,715	24
c7.2	Edge of Floor/Slab	LF	15,105	15,105	14,969	65	71	0
c8.	Wearing Surface	SF	518,995	518,995	392,886	124,566	1,431	112
c10.	Median	LF	6,914	6,914	6,753	161	0	0
c11.	Railing	LF	8,192	8,192	8,073	4	107	8
c12.	Drainage	EA	35	35	1	32	2	0
c13.	Expansion Joint	LF	1,256	1,256	908	289	58	1

SUPERSTRUCTURE ITEMS (TOTAL)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	54	54	54	0	0	0
C15.1	Beams/Girders	LF	55,590	55,590	55,035	492	63	0
c16.	Diaphragms/X-Frames	EA	2,341	2,341	2,296	28	17	0
c17.	Stringers	LF	16,943	16,943	16,768	175	0	0
c18.	Floorbeams	LF	18,629	18,629	18,472	105	52	1
c26.	Bearing Devices	EA	465	465	457	8	0	0
c30.	Protective Coating System	LF	91,162	91,162	0	85,931	3,172	2,059
c31.	Pins/Hangers/Hinges	EA	65	65	5	60	0	0
c32.	Fatigue	LF	91,162	91,162	91,144	17	1	0

CUY-490-0100 ELEMENT LEVEL SUMMARY QUANTITIES

SUBSTRUCTURE ITEMS (TOTAL)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF	524.6	524.6	523.1	1.5	0.0	0.0
c34.	Abutment Caps	LF	524.6	524.6	524.6	0.0	0.0	0.0
c36.	Pier Walls	LF	25.3	25.3	24.3	1.0	0.0	0.0
c37.	Pier Caps	LF	3821.2	3821.2	3802.0	13.3	6.0	0.0
c38.	Pier Columns/Bents	EA	132	132	131	0	1	0
c39.	Backwalls	LF	524.6	524.6	455.0	69.5	0.0	0.0
c40.	Wingwalls	EA	8	8	8	0	0	0
c42.	Scour	EA	58	58	58	0	0	0
c43.	Slope Protection	EA	6	6	6	0	0	0

CHANNEL ITEMS

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c51.	Alignment	LF	200	200	200	0	0	0
c52.	Protection	LF	400	400	400	0	0	0
c53.	Hydraulic Opening	EA	60	60	60	0	0	0
c54.	Navigation Lights	EA	6	6	6	0	0	0

SIGN/UTILITY ITEMS (TOTAL)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c55.	Signs	EA	12	12	11	1	0	0
C56.	Sign Supports	EA	9	9	6	3	0	0
c57.	Utilities	LF	4600	4600	4599	0	0	1

APPROACH ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Mainline Rear Approach Cond. St. Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c1.	Approach Wearing Surface	EA	5	5	3	1	1	0	1	1	0	1	0	0
c2.	Approach Slabs	SF	6116.8	6116.8	5757.8	153	206	0	1757.4	1757.4	1533.4	153	71	0
c3.	Reflief Joint	LF	244.67	244.67	109.72	64.656	70.297	0	70.297	70.297	0	0	70.297	0
c4.	Embankment	EA	4	4	4	0	0	0						
c5.	Guardrail	EA	3	3	3	0	0	0	0	0	0	0	0	0

APPROACH ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Mainline Rear Approach Cond. St. Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c1.	Approach Wearing Surface	EA	3	3	1	1	1	0	1	1	0	0	1	0
c2.	Approach Slabs	SF	5717.6	5717.6	5043.6	412	262	0	1923.3	1923.3	1319.3	342	262	0
c3.	Reflief Joint	LF	228.7	228.7	179.44	0	49.26	0	76.932	76.932	76.932	0	0	0
c4.	Embankment	EA	4	4	4	0	0	0	1	1	1	0	0	0
c5.	Guardrail	EA	4	4	2	0	1	1	1	1	1	0	0	0

APPROACH ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Ramp C-7 Rear Approach Cond. St. Quantity						Ramp B-C Forward Approach Cond. St. Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c1.	Approach Wearing Surface	EA	1	1	1	0	0	0	1	1	1	0	0	0
c2.	Approach Slabs	SF	892.97	892.97	892.97	0	0	0	637.24	637.24	637.24	0	0	0
c3.	Reflief Joint	LF	35.719	35.719	35.719	0	0	0	25.49	25.49	25.49	0	0	0
c4.	Embankment	EA	1	1	1	0	0	0	2	2	2	0	0	0
c5.	Guardrail	EA	1	1	1	0	0	0	1	1	1	0	0	0

APPROACH ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c1.	Approach Wearing Surface	EA
c2.	Approach Slabs	SF
c3.	Reflief Joint	LF
c4.	Embankment	EA
c5.	Guardrail	EA

APPROACH ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Mainline Forward Approach Cond. St. Quantity						Ramp N-W Forward Approach Cond. St. Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c1.	Approach Wearing Surface	EA	1	1	1	0	0	0	1	1	0	0	1	0
c2.	Approach Slabs	SF	1966.4	1966.4	1906.4	0	60	0	862.76	862.76	787.76	0	75	0
c3.	Reflief Joint	LF	78.656	78.656	26	52.656	0	0	34.51	34.51	22.51	12	0	0
c4.	Embankment	EA							1	1	1	0	0	0
c5.	Guardrail	EA	0	0	0	0	0	0	1	1	1	0	0	0

APPROACH ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Mainline Forward Approach Cond. St. Quantity						Ramp C-B Forward Approach Cond. St. Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c1.	Approach Wearing Surface	EA	1	1	0	1	0	0	1	1	1	0	0	0
c2.	Approach Slabs	SF	2562.8	2562.8	2492.8	70	0	0	1231.5	1231.5	1231.5	0	0	0
c3.	Reflief Joint	LF	102.51	102.51	102.51	0	0	0	49.26	49.26	0	0	49.26	0
c4.	Embankment	EA	1	1	1	0	0	0	2	2	2	0	0	0
c5.	Guardrail	EA	1	1	0	0	0	1	2	2	1	0	1	0

DECK ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Unit 1 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c7.1	Floor/Slab	SF	258,916	258,916	192,279	66,056	557	24	28,569	28,569	21,323	7,191	55	0
c7.2	Edge of Floor/Slab	LF	6,884	6,884	6,841	29	14	0	489	489	489	0	0	0
c8.	Wearing Surface	SF	262,932	262,932	195,381	67,060	455	36	28,854	28,854	21,537	7,263	55	0
c10.	Median	LF	3,457	3,457	3,417	40	0	0	240	240	225	15	0	0
c11.	Railing	LF	3,427	3,427	3,348	4	75	0	249	249	240	0	9	0
c12.	Drainage	EA	17	17	0	15	2	0	2	2	0	0	2	0

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Rear Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c13.	Expansion Joint	LF	654	654	404	208	42	0	144	144	0	144	0	0

DECK ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Unit 1 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c7.1	Floor/Slab	SF	251,267	251,267	193,666	56,444	1,158	0	17,113	17,113	12,835	4,278	0	0
c7.2	Edge of Floor/Slab	LF	8,221	8,221	8,128	36	57	0	481	481	471	10	0	0
c8.	Wearing Surface	SF	256,063	256,063	197,505	57,506	976	76	17,394	17,394	13,046	4,349	0	0
c10.	Median	LF	3,457	3,457	3,336	121	0	0	240	240	205	35	0	0
c11.	Railing	LF	4,764	4,764	4,724	0	32	8	241	241	236	0	5	0
c12.	Drainage	EA	18	18	1	17	0	0						

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Rear Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c13.	Expansion Joint	LF	601	601	504	81	16	1	77	77	0	73	3	1

DECK ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Unit 2 Condition State Quantity						Unit 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c7.1	Floor/Slab	SF	51,912	51,912	38,725	13,068	119	0	50,074	50,074	37,044	12,846	183	0
c7.2	Edge of Floor/Slab	LF	1,378	1,378	1,378	0	0	0	1,569	1,569	1,566	3	0	0
c8.	Wearing Surface	SF	52,716	52,716	39,328	13,269	119	0	50,989	50,989	37,821	13,075	81	12
c10.	Median	LF	688	688	663	25	0	0	781	781	781	0	0	0
c11.	Railing	LF	690	690	690	0	0	0	788	788	776	4	8	0
c12.	Drainage	EA	4	4	0	4	0	0	3	3	0	3	0	0

ODOT Line No.	Element Description	Unit	Unit 1/Unit 2 Condition State Quantity						Unit 2/Unit 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c13.	Expansion Joint	LF	100	100	70	10	20	0	66	66	52	14	0	0

DECK ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Unit 2 Condition State Quantity						Unit 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	52918	Total	CS 1	CS 2	CS 3	CS 4
c7.1	Floor/Slab	SF	47,729	47,729	35,327	11,936	466	0	48,664	48,664	36,264	12,173	227	0
c7.2	Edge of Floor/Slab	LF	1,478	1,478	1,478	0	0	0	1,525	1,525	1,521	4	0	0
c8.	Wearing Surface	SF	48,591	48,591	35,941	12,184	450	16	49,554	49,554	36,982	12,412	161	0
c10.	Median	LF	739	739	653	86	0	0	766	766	766	0	0	0
c11.	Railing	LF	739	739	731	0	0	8	759	759	754	0	5	0
c12.	Drainage	EA	3	3	0	3	0	0	3	3	0	3	0	0

ODOT Line No.	Element Description	Unit	Unit 1/Unit 2 Condition State Quantity						Unit 2/Unit 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c13.	Expansion Joint	LF	69	69	57	0	12	0	66	66	66	0	0	0

DECK ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Unit 4 Condition State Quantity						Unit 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c7.1	Floor/Slab	SF	35,487	35,487	26,468	8,937	58	24	54,585	54,585	40,343	14,158	84	0
c7.2	Edge of Floor/Slab	LF	1,059	1,059	1,040	13	6	0	1,340	1,340	1,325	13	2	0
c8.	Wearing Surface	SF	36,105	36,105	26,932	9,091	58	24	55,367	55,367	40,929	14,354	84	0
c10.	Median	LF	527	527	527	0	0	0	659	659	659	0	0	0
c11.	Railing	LF	532	532	512	0	20	0	681	681	656	0	25	0
c12.	Drainage	EA	3	3	0	3	0	0	2	2	0	2	0	0

ODOT Line No.	Element Description	Unit	Unit 3/Unit 4 Condition State Quantity						Unit 4/Unit 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c13.	Expansion Joint	LF	66	66	44	17	5	0	74	74	74	0	0	0

DECK ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Unit 4 Condition State Quantity						Unit 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c7.1	Floor/Slab	SF	31,185	31,185	23,213	7,872	100	0	45,442	45,442	29,895	15,441	107	0
c7.2	Edge of Floor/Slab	LF	977	977	963	10	4	0	1,328	1,328	1,270	10	48	0
c8.	Wearing Surface	SF	31,755	31,755	23,680	8,015	0	60	46,217	46,217	30,476	15,634	107	0
c10.	Median	LF	491	491	491	0	0	0	659	659	659	0	0	0
c11.	Railing	LF	486	486	472	0	14	0	669	669	669	0	0	0
c12.	Drainage	EA	3	3	0	3	0	0	3	3	0	3	0	0

ODOT Line No.	Element Description	Unit	Unit 3/Unit 4 Condition State Quantity						Unit 4/Unit 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c13.	Expansion Joint	LF	66	66	65	0	1	0	66	66	66	0	0	0

DECK ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c7.1	Floor/Slab	SF
c7.2	Edge of Floor/Slab	LF
c8.	Wearing Surface	SF
c10.	Median	LF
c11.	Railing	LF
c12.	Drainage	EA

Unit 6 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
38,289	38,289	28,376	9,855	58	0
1,049	1,049	1,043	0	6	0
38,901	38,901	28,835	10,008	58	0
562	562	562	0	0	0
488	488	475	0	13	0
3	3	0	3	0	0

ODOT Line No.	Element Description	Unit
c13.	Expansion Joint	LF

Unit 5/Unit 6 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
66	66	66	0	0	0

Forward Abutment Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
111	111	78	16	17	0

Ramp B-C Forward Abutment Cond. St. Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
27	27	20	7	0	0

DECK ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c7.1	Floor/Slab	SF
c7.2	Edge of Floor/Slab	LF
c8.	Wearing Surface	SF
c10.	Median	LF
c11.	Railing	LF
c12.	Drainage	EA

Unit 6 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
45,564	45,564	44,455	851	258	0
1,268	1,268	1,261	2	5	0
46,304	46,304	45,195	851	258	0
562	562	562	0	0	0
707	707	699	0	8	0
3	3	1	2	0	0

Ramp C-B Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
15,570	15,570	11,677	3,892	0	0
1,163	1,163	1,163	0	0	0
16,248	16,248	12,186	4,062	0	0
1,163	1,163	1,163	0	0	0
3	3	0	3	0	0

ODOT Line No.	Element Description	Unit
c13.	Expansion Joint	LF

Unit 5/Unit 6 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
75	75	75	0	0	0

Forward Abutment Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
102	102	99	3	0	0

Unit 6/Ramp C-B Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
32	32	27	5	0	0

Mainline & Ramp C-B F. Abuts. Cond. St. Quant.					
Plan	Total	CS 1	CS 2	CS 3	CS 4
49	49	49	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Span 1 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	24	24	24	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	27,881	27,881	27,680	195	6	0	959	959	959	0	0	0
c16.	Diaphragms/X-Frames	EA	1,165	1,165	1,141	17	7	0	68	68	68	0	0	0
c17.	Stringers	LF	8,983	8,983	8,888	95	0	0						
c18.	Floorbeams	LF	9,581	9,581	9,538	39	4	0						
c30.	Protective Coating System	LF	46,446	46,446	0	43,540	2,171	735	959	959	0	959	0	0
c31.	Pins/Hangers/Hinges	EA	31	31	3	28	0	0						
c32.	Fatigue	LF	46,446	46,446	46,445	1	0	0	959	959	959	0	0	0

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Rear Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	240	240	237	3	0	0	18	18	18	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Span 1 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	30	30	30	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	27,708	27,708	27,354	297	57	0	477	477	477	0	0	0
c16.	Diaphragms/X-Frames	EA	1,176	1,176	1,155	11	10	0	32	32	31	0	1	0
c17.	Stringers	LF	7,960	7,960	7,880	80	0	0						
c18.	Floorbeams	LF	9,048	9,048	8,934	65	48	1						
c30.	Protective Coating System	LF	44,716	44,716	0	42,391	1,001	1,324	477	477	0	477	0	0
c31.	Pins/Hangers/Hinges	EA	34	34	2	32	0	0						
c32.	Fatigue	LF	44,716	44,716	44,700	16	1	0	477	477	477	0	0	0

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Rear Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	225	225	220	5	0	0	9	9	9	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 2 Condition State Quantity						Span 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,148	1,148	1,148	0	0	0	1,064	1,064	1,064	0	0	0
c16.	Diaphragms/X-Frames	EA	78	78	78	0	0	0	73	73	73	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF	16	16	16	0	0	0	8	8	8	0	0	0
c30.	Protective Coating System	LF	1,164	1,164	0	1,160	4	0	1,072	1,072	0	1,002	0	70
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,164	1,164	1,164	0	0	0	1,072	1,072	1,072	0	0	0

ODOT Line No.	Element Description	Unit	Span 1 - Span 2 Condition State Quantity						Span 2 - Span 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	18	18	18	0	0	0	16	16	16	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 2 Condition State Quantity						Span 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	603	603	603	0	0	0	603	603	603	0	0	0
c16.	Diaphragms/X-Frames	EA	40	40	35	0	5	0	40	40	40	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF												
c30.	Protective Coating System	LF	603	603	0	603	0	0	603	603	0	558	0	45
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	603	603	603	0	0	0	603	603	603	0	0	0

ODOT Line No.	Element Description	Unit	Span 1 - Span 2 Condition State Quantity						Span 2 - Span 3 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	9	9	9	0	0	0	9	9	9	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 4 Condition State Quantity						Span 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	890	890	844	40	6	0	922	922	922	0	0	0
c16.	Diaphragms/X-Frames	EA	54	54	35	12	7	0						
c17.	Stringers	LF	90	90	60	30	0	0	760	760	760	0	0	0
c18.	Floorbeams	LF	202	202	202	0	0	0	711	711	711	0	0	0
c30.	Protective Coating System	LF	1,182	1,182	0	987	130	65	2,392	2,392	0	2,392	0	0
c31.	Pins/Hangers/Hinges	EA	7	7	0	7	0	0						
c32.	Fatigue	LF	1,182	1,182	1,182	0	0	0	2,392	2,392	2,392	0	0	0

ODOT Line No.	Element Description	Unit	Span 3 - Span 4 Condition State Quantity						Span 4 - Span 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	15	15	15	0	0	0	7	7	7	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 4 Condition State Quantity						Span 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	552	552	522	30	0	0	658	658	653	5	0	0
c16.	Diaphragms/X-Frames	EA	32	32	24	8	0	0						
c17.	Stringers	LF	60	60	40	20	0	0	526	526	526	0	0	0
c18.	Floorbeams	LF	131	131	131	0	0	0	572	572	572	0	0	0
c30.	Protective Coating System	LF	743	743	0	603	90	50	1,756	1,756	0	1,748	0	8
c31.	Pins/Hangers/Hinges	EA	5	5	0	5	0	0						
c32.	Fatigue	LF	743	743	743	0	0	0	1,756	1,756	1,740	16	0	0

ODOT Line No.	Element Description	Unit	Span 3 - Span 4 Condition State Quantity						Span 4 - Span 5 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	9	9	9	0	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 6 Condition State Quantity						Span 7 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,068	1,068	1,068	0	0	0	903	903	903	0	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	903	903	903	0	0	0	903	903	903	0	0	0
c18.	Floorbeams	LF	859	859	859	0	0	0	842	842	806	31	4	0
c30.	Protective Coating System	LF	2,830	2,830	0	2,793	0	36	2,647	2,647	0	2,602	10	35
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	2,830	2,830	2,830	0	0	0	2,647	2,647	2,647	0	0	0

ODOT Line No.	Element Description	Unit	Span 5 - Span 6 Condition State Quantity						Span 6 - Span 7 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	7	7	7	0	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 6 Condition State Quantity						Span 7 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	658	658	646	12	0	0	658	658	653	5	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	526	526	526	0	0	0	526	526	526	0	0	0
c18.	Floorbeams	LF	561	561	561	0	0	0	561	561	561	0	0	0
c30.	Protective Coating System	LF	1,745	1,745	0	1,705	20	20	1,745	1,745	0	1,520	20	204
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,745	1,745	1,745	0	0	0	1,745	1,745	1,745	0	0	0

ODOT Line No.	Element Description	Unit	Span 5 - Span 6 Condition State Quantity						Span 6 - Span 7 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	5	0	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c14.	Alignment	EA
C15.1	Beams/Girders	LF
c16.	Diaphragms/X-Frames	EA
c17.	Stringers	LF
c18.	Floorbeams	LF
c30.	Protective Coating System	LF
c31.	Pins/Hangers/Hinges	EA
c32.	Fatigue	LF

Span 9 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
1	1	1	0	0	0
1,003	1,003	978	25	0	0
983	983	963	20	0	0
935	935	934	1	0	0
2,920	2,920	0	2,313	427	180
5	5	0	5	0	0
2,920	2,920	2,920	0	0	0

ODOT Line No.	Element Description	Unit
c26.	Bearing Devices	EA

Span 7 - Span 9 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c14.	Alignment	EA
C15.1	Beams/Girders	LF
c16.	Diaphragms/X-Frames	EA
c17.	Stringers	LF
c18.	Floorbeams	LF
c30.	Protective Coating System	LF
c31.	Pins/Hangers/Hinges	EA
c32.	Fatigue	LF

Span 8 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
1	1	1	0	0	0
913	913	891	20	2	0
730	730	730	0	0	0
810	810	778	16	17	0
2,453	2,453	0	2,197	30	226
2,453	2,453	2,452	0	1	0

Span 9 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
1	1	1	0	0	0
835	835	795	40	0	0
668	668	648	20	0	0
748	748	732	0	16	0
2,251	2,251	0	1,926	235	90
5	5	0	5	0	0
2,251	2,251	2,251	0	0	0

ODOT Line No.	Element Description	Unit
c26.	Bearing Devices	EA

Span 7 - Span 8 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
5	5	5	0	0	0

Span 8 - Span 9 Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 10 Condition State Quantity						Span 11 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,189	1,189	1,189	0	0	0	1,658	1,658	1,658	0	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	951	951	951	0	0	0	1,327	1,327	1,327	0	0	0
c18.	Floorbeams	LF	997	997	997	0	0	0	1,434	1,434	1,431	3	0	0
c30.	Protective Coating System	LF	3,138	3,138	0	3,138	0	0	4,419	4,419	0	4,391	28	0
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	3,138	3,138	3,138	0	0	0	4,419	4,419	4,418	1	0	0

ODOT Line No.	Element Description	Unit	Span 9 - Span 10 Condition State Quantity						Span 10 - Span 11 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	5	0	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 10 Condition State Quantity						Span 11 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,001	1,001	996	5	0	0	1,691	1,691	1,691	0	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	800	800	800	0	0	0	1,353	1,353	1,353	0	0	0
c18.	Floorbeams	LF	873	873	826	31	16	0	1,496	1,496	1,494	1	0	1
c30.	Protective Coating System	LF	2,674	2,674	0	2,609	30	35	4,541	4,541	0	4,491	0	50
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	2,674	2,674	2,674	0	0	0	4,541	4,541	4,541	0	0	0

ODOT Line No.	Element Description	Unit	Span 9 - Span 10 Condition State Quantity						Span 10 - Span 11 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	5	0	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 12 Condition State Quantity						Span 13 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	874	874	874	0	0	0	991	991	991	0	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	700	700	700	0	0	0	792	792	792	0	0	0
c18.	Floorbeams	LF	748	748	748	0	0	0	935	935	931	4	0	0
c30.	Protective Coating System	LF	2,322	2,322	0	2,288	30	4	2,718	2,718	0	2,380	338	0
c31.	Pins/Hangers/Hinges	EA							5	5	0	5	0	0
c32.	Fatigue	LF	2,322	2,322	2,322	0	0	0	2,718	2,718	2,718	0	0	0

ODOT Line No.	Element Description	Unit	Span 11 - Span 12 Condition State Quantity						Span 12 - Span 13 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	2	3	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 12 Condition State Quantity						Span 13 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	920	920	920	0	0	0	920	920	920	0	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	736	736	736	0	0	0	736	736	736	0	0	0
c18.	Floorbeams	LF	810	810	809	1	0	0	873	873	872	1	0	0
c30.	Protective Coating System	LF	2,467	2,467	0	2,467	0	0	2,529	2,529	0	2,419	0	110
c31.	Pins/Hangers/Hinges	EA							5	5	0	5	0	0
c32.	Fatigue	LF	2,467	2,467	2,467	0	0	0	2,529	2,529	2,529	0	0	0

ODOT Line No.	Element Description	Unit	Span 11 - Span 12 Condition State Quantity						Span 12 - Span 13 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	5	0	0	0	5	5	2	3	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 14 Condition State Quantity						Span 15 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	959	959	914	45	0	0	725	725	725	0	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	775	775	755	20	0	0	725	725	725	0	0	0
c18.	Floorbeams	LF	965	965	965	0	0	0	683	683	683	0	0	0
c30.	Protective Coating System	LF	2,699	2,699	0	2,213	441	45	2,134	2,134	0	1,902	232	0
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	2,699	2,699	2,699	0	0	0	2,134	2,134	2,134	0	0	0

ODOT Line No.	Element Description	Unit	Span 13 - Span 14 Condition State Quantity						Span 14 - Span 15 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	5	0	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 14 Condition State Quantity						Span 15 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	823	823	798	25	0	0	725	725	665	60	0	0
c16.	Diaphragms/X-Frames	EA												
c17.	Stringers	LF	658	658	638	20	0	0	580	580	580	0	0	0
c18.	Floorbeams	LF	748	748	748	0	0	0	623	623	608	16	0	0
c30.	Protective Coating System	LF	2,229	2,229	0	2,019	165	45	1,928	1,928	0	1,801	29	98
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	2,229	2,229	2,229	0	0	0	1,928	1,928	1,928	0	0	0

ODOT Line No.	Element Description	Unit	Span 13 - Span 14 Condition State Quantity						Span 14 - Span 15 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	3	2	0	0	5	5	5	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 16 Condition State Quantity						Span 17 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,384	1,384	1,359	25	0	0	1,485	1,485	1,485	0	0	0
c16.	Diaphragms/X-Frames	EA	80	80	80	0	0	0	100	100	100	0	0	0
c17.	Stringers	LF	75	75	50	25	0	0						
c18.	Floorbeams	LF	208	208	208	0	0	0						
c30.	Protective Coating System	LF	1,667	1,667	0	1,463	154	50	1,485	1,485	0	1,431	54	0
c31.	Pins/Hangers/Hinges	EA	5	5	0	5	0	0						
c32.	Fatigue	LF	1,667	1,667	1,667	0	0	0	1,485	1,485	1,485	0	0	0

ODOT Line No.	Element Description	Unit	Span 15 - Span 16 Condition State Quantity						Span 16 - Span 17 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	5	0	0	0	11	11	11	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 16 Condition State Quantity						Span 17 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,146	1,146	1,121	25	0	0	1,215	1,215	1,215	0	0	0
c16.	Diaphragms/X-Frames	EA	64	64	64	0	0	0	80	80	77	3	0	0
c17.	Stringers	LF	60	60	40	20	0	0						
c18.	Floorbeams	LF	187	187	187	0	0	0						
c30.	Protective Coating System	LF	1,393	1,393	0	1,016	332	45	1,215	1,215	0	1,215	0	0
c31.	Pins/Hangers/Hinges	EA	5	5	2	3	0	0						
c32.	Fatigue	LF	1,393	1,393	1,393	0	0	0	1,215	1,215	1,215	0	0	0

ODOT Line No.	Element Description	Unit	Span 15 - Span 16 Condition State Quantity						Span 16 - Span 17 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	5	5	5	0	0	0	9	9	9	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 18 Condition State Quantity						Span 19 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,645	1,645	1,645	0	0	0	1,618	1,618	1,618	0	0	0
c16.	Diaphragms/X-Frames	EA	108	108	108	0	0	0	110	110	110	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF	8	8	8	0	0	0						
c30.	Protective Coating System	LF	1,653	1,653	0	1,599	54	0	1,618	1,618	0	1,564	54	0
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,653	1,653	1,653	0	0	0	1,618	1,618	1,618	0	0	0

ODOT Line No.	Element Description	Unit	Span 17 - Span 18 Condition State Quantity						Span 18 - Span 19 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	11	11	11	0	0	0	12	12	12	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 18 Condition State Quantity						Span 19 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,286	1,286	1,286	0	0	0	1,348	1,348	1,348	0	0	0
c16.	Diaphragms/X-Frames	EA	79	79	79	0	0	0	90	90	90	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF	8	8	8	0	0	0						
c30.	Protective Coating System	LF	1,294	1,294	0	1,294	0	0	1,348	1,348	0	1,348	0	0
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,294	1,294	1,294	0	0	0	1,348	1,348	1,348	0	0	0

ODOT Line No.	Element Description	Unit	Span 17 - Span 18 Condition State Quantity						Span 18 - Span 19 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	9	9	9	0	0	0	10	10	10	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 20 Condition State Quantity						Span 21 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,500	1,500	1,500	0	0	0	1,092	1,092	1,032	60	0	0
c16.	Diaphragms/X-Frames	EA	99	99	99	0	0	0	77	77	77	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF							8	8	8	0	0	0
c30.	Protective Coating System	LF	1,500	1,500	0	1,450	50	0	1,100	1,100	0	938	102	60
c31.	Pins/Hangers/Hinges	EA							9	9	3	6	0	0
c32.	Fatigue	LF	1,500	1,500	1,500	0	0	0	1,100	1,100	1,100	0	0	0

ODOT Line No.	Element Description	Unit	Span 19 - Span 20 Condition State Quantity						Span 20/Span 21 & Ramp B-C Abut. Cond. St. Qty.					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	12	12	12	0	0	0	12	12	12	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 20 Condition State Quantity						Span 21 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,250	1,250	1,250	0	0	0	1,311	1,311	1,206	50	55	0
c16.	Diaphragms/X-Frames	EA	90	90	90	0	0	0	96	96	96	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF							8	8	8	0	0	0
c30.	Protective Coating System	LF	1,250	1,250	0	1,250	0	0	1,319	1,319	0	1,164	50	105
c31.	Pins/Hangers/Hinges	EA							10	10	0	10	0	0
c32.	Fatigue	LF	1,250	1,250	1,250	0	0	0	1,319	1,319	1,319	0	0	0

ODOT Line No.	Element Description	Unit	Span 19 - Span 20 Condition State Quantity						Span 20 - Span 21 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	10	10	10	0	0	0	10	10	10	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 22 Condition State Quantity						Span 23 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,119	1,119	1,119	0	0	0	1,212	1,212	1,212	0	0	0
c16.	Diaphragms/X-Frames	EA	74	74	74	0	0	0	73	73	73	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF							8	8	8	0	0	0
c30.	Protective Coating System	LF	1,119	1,119	0	1,113	0	6	1,220	1,220	0	1,214	5	0
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,119	1,119	1,119	0	0	0	1,220	1,220	1,220	0	0	0

ODOT Line No.	Element Description	Unit	Span 21 - Span 22 Condition State Quantity						Span 22 - Span 23 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	10	10	10	0	0	0	10	10	10	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 22 Condition State Quantity						Span 23 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,466	1,466	1,466	0	0	0	1,661	1,661	1,661	0	0	0
c16.	Diaphragms/X-Frames	EA	92	92	92	0	0	0	112	112	112	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF	8	8	8	0	0	0	16	16	16	0	0	0
c30.	Protective Coating System	LF	1,474	1,474	0	1,474	0	0	1,677	1,677	0	1,677	0	0
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,474	1,474	1,474	0	0	0	1,677	1,677	1,677	0	0	0

ODOT Line No.	Element Description	Unit	Span 21 - Span 22 Condition State Quantity						Span 22 - Span 23 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	11	11	11	0	0	0	12	12	12	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Span 24 Condition State Quantity						Span 25 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,335	1,335	1,335	0	0	0	1,138	1,138	1,138	0	0	0
c16.	Diaphragms/X-Frames	EA	86	86	86	0	0	0	85	85	80	5	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF	8	8	8	0	0	0	8	8	8	0	0	0
c30.	Protective Coating System	LF	1,343	1,343	0	1,285	57	0	1,146	1,146	0	963	0	184
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,343	1,343	1,343	0	0	0	1,146	1,146	1,146	0	0	0

ODOT Line No.	Element Description	Unit	Span 23 - Span 24 Condition State Quantity						Span 24 - Span 25 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	11	11	11	0	0	0	12	12	12	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 24 Condition State Quantity						Span 25 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	1,312	1,312	1,312	0	0	0	1,122	1,122	1,122	0	0	0
c16.	Diaphragms/X-Frames	EA	85	85	85	0	0	0	86	86	85	0	1	0
c17.	Stringers	LF												
c18.	Floorbeams	LF	8	8	8	0	0	0						
c30.	Protective Coating System	LF	1,320	1,320	0	1,320	0	0	1,122	1,122	0	999	0	123
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	1,320	1,320	1,320	0	0	0	1,122	1,122	1,122	0	0	0

ODOT Line No.	Element Description	Unit	Span 23 - Span 24 Condition State Quantity						Span 24 - Span 25 Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	10	10	10	0	0	0	11	11	11	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c14.	Alignment	EA
C15.1	Beams/Girders	LF
c16.	Diaphragms/X-Frames	EA
c17.	Stringers	LF
c18.	Floorbeams	LF
c30.	Protective Coating System	LF
c31.	Pins/Hangers/Hinges	EA
c32.	Fatigue	LF

ODOT Line No.	Element Description	Unit
c26.	Bearing Devices	EA

Fwd. Abutment Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
13	13	13	0	0	0

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c14.	Alignment	EA
C15.1	Beams/Girders	LF
c16.	Diaphragms/X-Frames	EA
c17.	Stringers	LF
c18.	Floorbeams	LF
c30.	Protective Coating System	LF
c31.	Pins/Hangers/Hinges	EA
c32.	Fatigue	LF

Span 24 Ramp C-B Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
1	1	1	0	0	0
499	499	479	20	0	0
32	32	29	0	3	0
499	499	0	429	0	70
4	4	0	4	0	0
499	499	499	0	0	0

Span 25 C-B Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
1	1	1	0	0	0
489	489	489	0	0	0
35	35	35	0	0	0
489	489	0	489	0	0
489	489	489	0	0	0

ODOT Line No.	Element Description	Unit
c26.	Bearing Devices	EA

Fwd. Abutment Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
11	11	11	0	0	0

Span 23 - Span 24 Ramp C-B Cond. St. Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
4	4	4	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c14.	Alignment	EA
C15.1	Beams/Girders	LF
c16.	Diaphragms/X-Frames	EA
c17.	Stringers	LF
c18.	Floorbeams	LF
c30.	Protective Coating System	LF
c31.	Pins/Hangers/Hinges	EA
c32.	Fatigue	LF

ODOT Line No.	Element Description	Unit
c26.	Bearing Devices	EA

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Span 26 C-B Condition State Quantity						Span 27 C-B Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c14.	Alignment	EA	1	1	1	0	0	0	1	1	1	0	0	0
C15.1	Beams/Girders	LF	499	499	499	0	0	0	589	589	589	0	0	0
c16.	Diaphragms/X-Frames	EA	27	27	27	0	0	0	34	34	34	0	0	0
c17.	Stringers	LF												
c18.	Floorbeams	LF							8	8	8	0	0	0
c30.	Protective Coating System	LF	499	499	0	499	0	0	597	597	0	597	0	0
c31.	Pins/Hangers/Hinges	EA												
c32.	Fatigue	LF	499	499	499	0	0	0	597	597	597	0	0	0

ODOT Line No.	Element Description	Unit	Span 24 - Span 25 Ramp C-B Cond. St. Quantity						Span 25 - Span 26 Ramp C-B Cond. St. Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c26.	Bearing Devices	EA	4	4	4	0	0	0	4	4	4	0	0	0

SUPERSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c14.	Alignment	EA
C15.1	Beams/Girders	LF
c16.	Diaphragms/X-Frames	EA
c17.	Stringers	LF
c18.	Floorbeams	LF
c30.	Protective Coating System	LF
c31.	Pins/Hangers/Hinges	EA
c32.	Fatigue	LF

ODOT Line No.	Element Description	Unit
c26.	Bearing Devices	EA

SUPERSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c14.	Alignment	EA
C15.1	Beams/Girders	LF
c16.	Diaphragms/X-Frames	EA
c17.	Stringers	LF
c18.	Floorbeams	LF
c30.	Protective Coating System	LF
c31.	Pins/Hangers/Hinges	EA
c32.	Fatigue	LF

Span 28 C-B Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
1	1	1	0	0	0
479	479	479	0	0	0
30	30	30	0	0	0
479	479	0	479	0	0
479	479	479	0	0	0

Span 27 - Span 28 Ramp C-B Cond. St. Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
5	5	5	0	0	0

ODOT Line No.	Element Description	Unit
c26.	Bearing Devices	EA

Span 26 - Span 27 Ramp C-B Cond. St. Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
4	4	4	0	0	0

Fwd. Abutment Ramp C-B Cond. St. Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
5	5	5	0	0	0

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Rear Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF	288.97	288.97	288.97	0	0	0	145.73	145.73	145.73	0	0	0
c34.	Abutment Caps	LF	288.97	288.97	288.97	0	0	0	145.73	145.73	145.73	0	0	0
c36.	Pier Walls	LF	25.333	25.333	24.333	1	0	0						
c37.	Pier Caps	LF	1900.7	1900.7	1887.4	13.25	0	0						
c38.	Pier Columns/Bents	EA	65	65	65	0	0	0						
c39.	Backwalls	LF	288.97	288.97	277.97	11	0	0	145.73	145.73	145.73	0	0	0
c40.	Wingwalls	EA	4	4	4	0	0	0	1	1	1	0	0	0
c42.	Scour	EA	26	26	26	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA	3	3	3	0	0	0	1	1	1	0	0	0

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity						Rear Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF	235.6	235.6	234.1	1.5	0	0	78.25	78.25	78.25	0	0	0
c34.	Abutment Caps	LF	235.6	235.6	235.6	0	0	0	78.25	78.25	78.25	0	0	0
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	1920.6	1920.6	1914.6	0	6	0						
c38.	Pier Columns/Bents	EA	67	67	66	0	1	0						
c39.	Backwalls	LF	235.6	235.6	177.07	58.531	0	0	78.25	78.25	78.25	0	0	0
c40.	Wingwalls	EA	4	4	4	0	0	0	1	1	1	0	0	0
c42.	Scour	EA	32	32	32	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA	3	3	3	0	0	0	1	1	1	0	0	0

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 1L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
125.31	125.31	125.31	0	0	0
8	8	8	0	0	0
1	1	1	0	0	0

Pier 2L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
117.83	117.83	117.83	0	0	0
7	7	7	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 1R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
73.917	73.917	73.917	0	0	0
4	4	4	0	0	0
1	1	1	0	0	0

Pier 2R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
72.25	72.25	72.25	0	0	0
4	4	4	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 3L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
108.33	108.33	108.33	0	0	0
7	7	7	0	0	0
1	1	1	0	0	0

Pier 4L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
99.875	99.875	99.875	0	0	0
3	3	3	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 3R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
70.563	70.563	70.563	0	0	0
4	4	4	0	0	0
1	1	1	0	0	0

Pier 4R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
69.875	69.875	69.875	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 5L Condition State Quantity						Pier 6L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	82.854	82.854	82.854	0	0	0	75.125	75.125	75.125	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 5R Condition State Quantity						Pier 6R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	67.333	67.333	67.333	0	0	0	67.333	67.333	67.333	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 7L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF						
c34.	Abutment Caps	LF						
c36.	Pier Walls	LF						
c37.	Pier Caps	LF	75.125	75.125	65.125	10	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0
c39.	Backwalls	LF						
c40.	Wingwalls	EA						
c42.	Scour	EA	1	1	1	0	0	0
c43.	Slope Protection	EA						

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 7R Condition State Quantity						Pier 8R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	67.333	67.333	61.333	0	6	0	67.333	67.333	67.333	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 9L Condition State Quantity						Pier 10L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF	25.333	25.333	24.333	1	0	0						
c37.	Pier Caps	LF	67.333	67.333	66.083	1.25	0	0	67.333	67.333	65.333	2	0	0
c38.	Pier Columns/Bents	EA							2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 9R Condition State Quantity						Pier 10R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	67.333	67.333	67.333	0	0	0	67.333	67.333	67.333	0	0	0
c38.	Pier Columns/Bents	EA	2	2	1	0	1	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 11L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
67.333	67.333	67.333	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

Pier 12L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
67.333	67.333	67.333	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 11R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
67.333	67.333	67.333	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

Pier 12R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
67.333	67.333	67.333	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 13L Condition State Quantity						Pier 14L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	67.333	67.333	67.333	0	0	0	72.344	72.344	72.344	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 13R Condition State Quantity						Pier 14R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	67.333	67.333	67.333	0	0	0	67.333	67.333	67.333	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 15L Condition State Quantity						Pier 16L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	74.229	74.229	74.229	0	0	0	78.49	78.49	78.49	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 15R Condition State Quantity						Pier 16R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	67.333	67.333	67.333	0	0	0	67.333	67.333	67.333	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 17L Condition State Quantity						Pier 18L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	82.167	82.167	82.167	0	0	0	85.698	85.698	85.698	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	3	3	3	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 17R Condition State Quantity						Pier 18R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	67.333	67.333	67.333	0	0	0	73.302	73.302	73.302	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 19L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
89.75	89.75	89.75	0	0	0
3	3	3	0	0	0
1	1	1	0	0	0

Pier 20L Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
67.333	67.333	67.333	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

Pier 19R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
75.125	75.125	75.125	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

Pier 20R Condition State Quantity					
Plan	Total	CS 1	CS 2	CS 3	CS 4
75.125	75.125	75.125	0	0	0
2	2	2	0	0	0
1	1	1	0	0	0

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 21L Condition State Quantity						Pier 22L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	69.583	69.583	69.583	0	0	0	75.271	75.271	75.271	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 21R Condition State Quantity						Pier 22R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	81.563	81.563	81.563	0	0	0	96.875	96.875	96.875	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	3	3	3	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Pier 23L Condition State Quantity						Pier 24L Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	85.708	85.708	85.708	0	0	0	98.958	98.958	98.958	0	0	0
c38.	Pier Columns/Bents	EA	3	3	3	0	0	0	3	3	3	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 23R Condition State Quantity						Pier 24R Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	75.042	75.042	75.042	0	0	0	88.104	88.104	88.104	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	3	3	3	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Ramp B-C Abutment Condition State Quantity						Forward Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF	28.083	28.083	28.083	0	0	0	115.16	115.16	115.16	0	0	0
c34.	Abutment Caps	LF	28.083	28.083	28.083	0	0	0	115.16	115.16	115.16	0	0	0
c36.	Pier Walls	LF												
c37.	Pier Caps	LF												
c38.	Pier Columns/Bents	EA												
c39.	Backwalls	LF	28.083	28.083	28.083	0	0	0	115.16	115.16	104.16	11	0	0
c40.	Wingwalls	EA	2	2	2	0	0	0	1	1	1			
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA	1	1	1	0	0	0	1	1	1	0	0	0

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Forward Abutment Condition State Quantity						Pier 23 C-B Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF	104.32	104.32	104.32	0	0	0						
c34.	Abutment Caps	LF	104.32	104.32	104.32	0	0	0						
c36.	Pier Walls	LF												
c37.	Pier Caps	LF							34	34	34	0	0	0
c38.	Pier Columns/Bents	EA							2	2	2	0	0	0
c39.	Backwalls	LF	104.32	104.32	97.323	7	0	0						
c40.	Wingwalls	EA	1	1	1	0	0	0						
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA	1	1	1	0	0	0						

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 24 C-B Condition State Quantity						Pier 25 C-B Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	34	34	34	0	0	0	38.646	38.646	38.646	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	2	2	2	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Pier 26 C-B Condition State Quantity						Pier 27 C-B Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4	Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF												
c34.	Abutment Caps	LF												
c36.	Pier Walls	LF												
c37.	Pier Caps	LF	38.646	38.646	38.646	0	0	0	48.219	48.219	48.219	0	0	0
c38.	Pier Columns/Bents	EA	2	2	2	0	0	0	3	3	3	0	0	0
c39.	Backwalls	LF												
c40.	Wingwalls	EA												
c42.	Scour	EA	1	1	1	0	0	0	1	1	1	0	0	0
c43.	Slope Protection	EA												

SUBSTRUCTURE ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit
c33.	Abutment Walls	LF
c34.	Abutment Caps	LF
c36.	Pier Walls	LF
c37.	Pier Caps	LF
c38.	Pier Columns/Bents	EA
c39.	Backwalls	LF
c40.	Wingwalls	EA
c42.	Scour	EA
c43.	Slope Protection	EA

SUBSTRUCTURE ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Ramp C-B Abutment Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c33.	Abutment Walls	LF	53.031	53.031	51.531	1.5	0	0
c34.	Abutment Caps	LF	53.031	53.031	53.031	0	0	0
c36.	Pier Walls	LF						
c37.	Pier Caps	LF						
c38.	Pier Columns/Bents	EA						
c39.	Backwalls	LF	53.031	53.031	1.5	51.531	0	0
c40.	Wingwalls	EA	2	2	2	0	0	0
c42.	Scour	EA	1	1	1	0	0	0
c43.	Slope Protection	EA	1	1	1	0	0	0

CHANNEL ITEMS

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c51.	Alignment	LF	200	200	200	0	0	0
c52.	Protection	LF	400	400	400	0	0	0
c53.	Hydraulic Opening	EA	60	60	60	0	0	0
c54.	Navigation Lights	EA	6	6	6	0	0	0

SIGN/UTILITY ITEMS (WESTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c55.	Signs	EA	6	6	6			
C56.	Sign Supports	EA	4	4	4			

SIGN/UTILITY ITEMS (EASTBOUND)

ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c55.	Signs	EA	6	6	6			
C56.	Sign Supports	EA	5	5	2	3		

SIGN/UTILITY ITEMS (TOTAL)

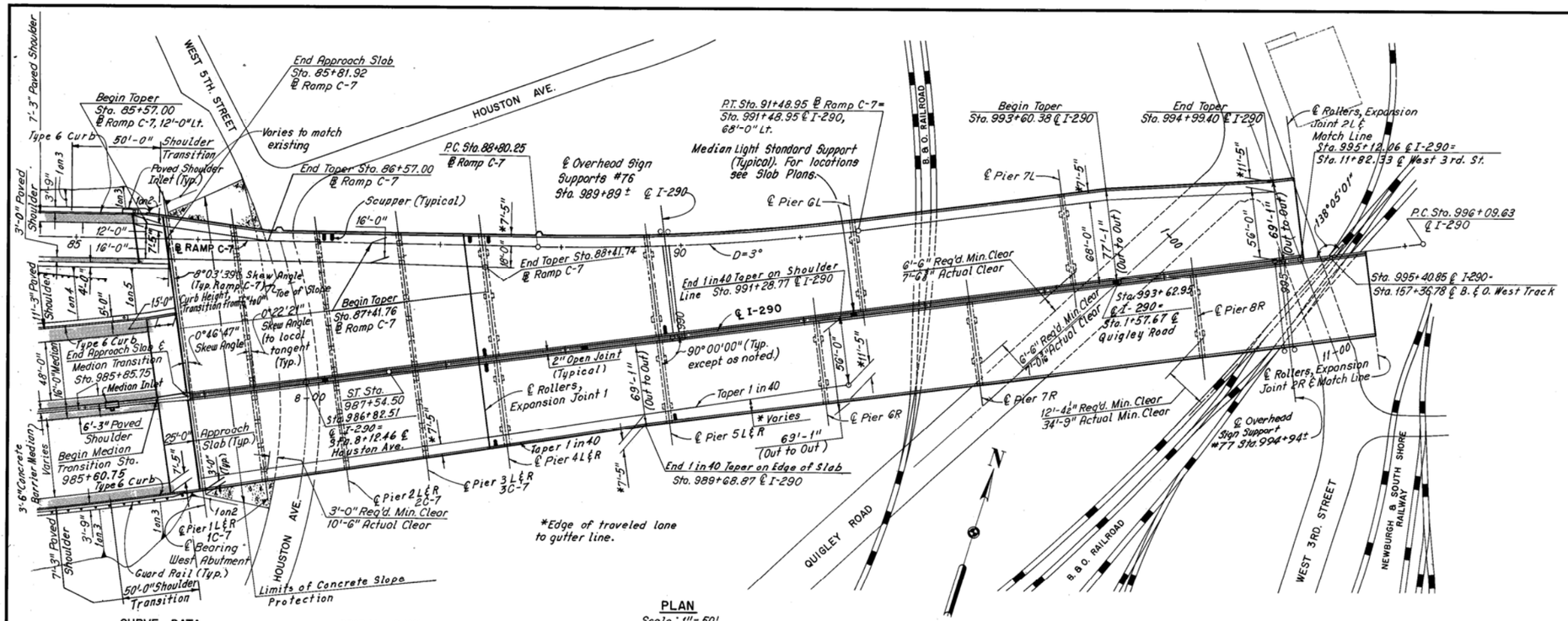
ODOT Line No.	Element Description	Unit	Total Condition State Quantity					
			Plan	Total	CS 1	CS 2	CS 3	CS 4
c55.	Signs	EA	12	12	11	1	0	0
C56.	Sign Supports	EA	9	9	6	3	0	0
c57.	Utilities	LF	4600	4600	4599			1

Original Site Plans

FHWA REGION	STATE	PROJECT	
5	OHIO		

74
174

CUYAHOGA COUNTY
CUY- 290-027



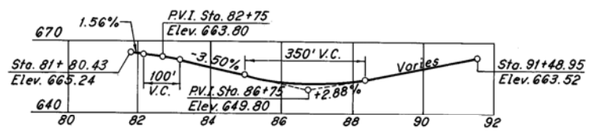
CURVE DATA
℄ RAMP C-7

P.I. Sta. 90+14.82
Δ = 8° 03' 39"
D = 3° 00' 00" Left
R = 1,909.86'
T = 134.57'
L = 268.70'
E = 4.74'

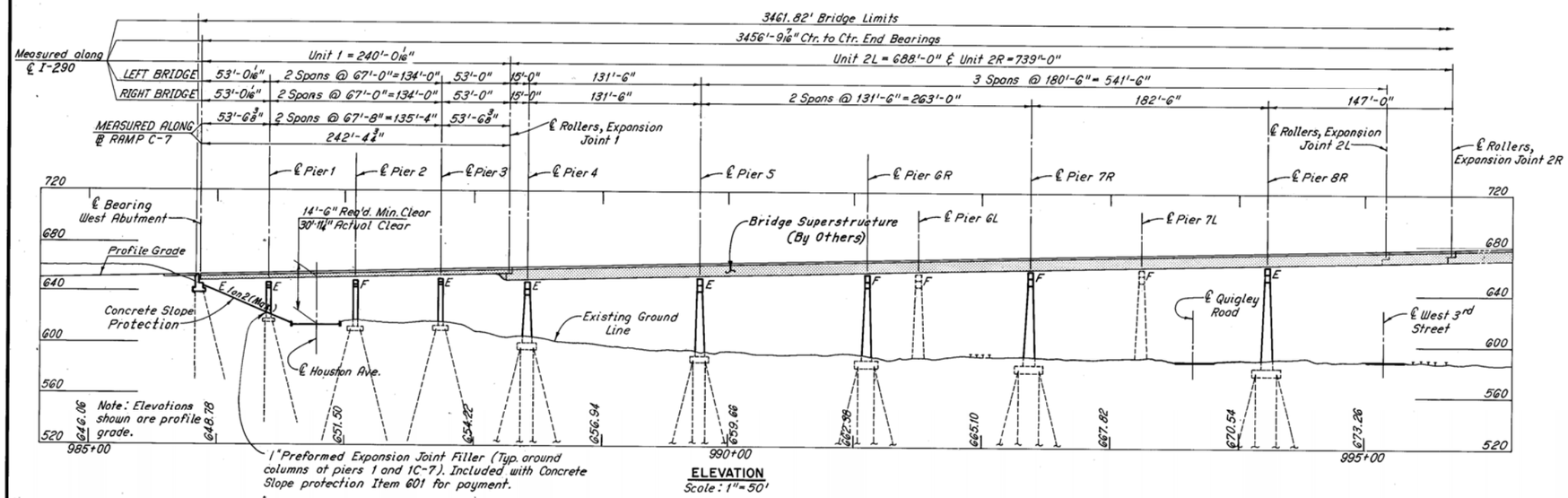
SPIRAL DATA
℄ I-290

C.S. Sta. 983+54.50
S.T. Sta. 987+54.50
Θs = 4° 00' 00"
Ts = 590.53'
Ls = 400.00'
P = 2.33'
K = 199.97'
S.T. = 133.40'
L.T. = 266.74'
Es = 28.81'

PLAN
Scale: 1" = 50'



PROFILE RAMP C-7
Scale: Horiz. 1" = 200'
Vert. 1" = 30'



ELEVATION
Scale: 1" = 50'

PROPOSED STRUCTURE

TYPE: Continuous steel beam (Unit 1) continuous welded steel girder with floor system (Units 2, 3 and 4), continuous multiple welded steel girder (Units 5, 6 and C-B) with reinforced concrete deck and substructure.

SPANS: Spans are measured along ℄ I-290:
Unit 1 - 53'-0", 67'-0", 67'-0" 53'-0"
Unit 2L - 151'-0" Cantilever, 131'-6", 180'-6", 180'-6", 180'-6" Cantilever.
Unit 3L - 201'-0" Cantilever, 237'-0", 330'-0", 174'-0", 201'-0" Cantilever.
Unit 4L - 178'-0 1/16", 188'-11 3/8", 145'-0 1/4", 151'-0" Cantilever.
Unit 2R - 151'-0" Cantilever, 131'-6", 131'-6", 131'-6", 131'-6", 182'-6", 147'-0",
Unit 3R - 201'-0" Cantilever, 201'-0", 340'-0", 185'-0", 201'-0" Cantilever.
Unit 4R - 164'-0 1/16", 166'-11 3/8", 145'-0 1/4", 151'-0" Cantilever.
Unit 5 - 119'-0", 135'-0", 135'-2 1/2", 134'-9 3/8", 124'-1 1/2", 101'-0" Cantilever.
Unit 6 - 104'-9 1/8", 117'-7 1/2", 119'-8 3/8", 122'-9 1/2", 96'-10 1/4",
Spans are measured along ℄ Ramp C-B:
Unit 6C-B - 114'-6 1/4", 122'-11 1/2", 124'-9", 124'-9", 96'-0"

ROADWAYS: I-290 - Width Varies face to face of parapets, 67'-0" to 143'-2" Left Bridge and 67'-0" to 103'-2" Right Bridge. There is an 2" open joint between Left and Right Bridge.

Ramp C-B - Width Varies, 28'-0" to 36'-0" face to face of parapets.

LOADING: HS 20-44 and Interstate Alternate Loading.

SKEW: Unit 1 - None with respect to local tangent at S.T. Sta. 987+54.50
Unit 2 - None
Unit 3 - None
Units 4, 5 and 6 - Varies (See Plan)
Unit 6C-B - 45° Right Forward with respect to local Tangent at P.T. Sta. 10+89.88

WEARING SURFACE: 1 1/4" Latex Modified Concrete

APPROACH SLABS: AS-1-81 (25' long)

ALIGNMENT: Units 1 thru 6 - Spiral left, Tangent and 0°50' Curve Right.
Unit 6C-B - 3° Curve Right, 8° Curve Right and Tangent.

SUPERELEVATION: Unit 1 - Varies: -0.0156 ft. per ft. to +0.169 ft. per ft.
Unit 2 - Varies level to .0156 ft. per ft.
Unit 3 - Varies .0156 ft. per ft. to .02 ft. per ft.
Units 4, 5 and 6 - .02 ft. per ft.
Unit 6C-B - Varies .0156 ft. per ft. to .064 ft. per ft.

TRAFFIC DATA: (2005)
I-290
87,120 A.D.T.
8,172 D.H.V.
TRUCK 5 %

Maintenance of Traffic

Two lanes of traffic with a minimum vertical clearance of 14'-6" and a minimum horizontal width of 18'-0" on Houston Avenue, 35'-0" on Quigley Road and 30'-0" on West 3rd Street and Independence Road shall be maintained at all times.

Foundation Data

See General Note No. 14.

Notes:
For existing contours, buildings and underground utilities see Site Plan Sheets.

H.N.T.B. BR. NO. 9 PART I - SUBSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF CONSULTING ENGINEERS CLEVELAND — HNTB

GENERAL PLAN AND ELEVATION UNITS 1 AND 2

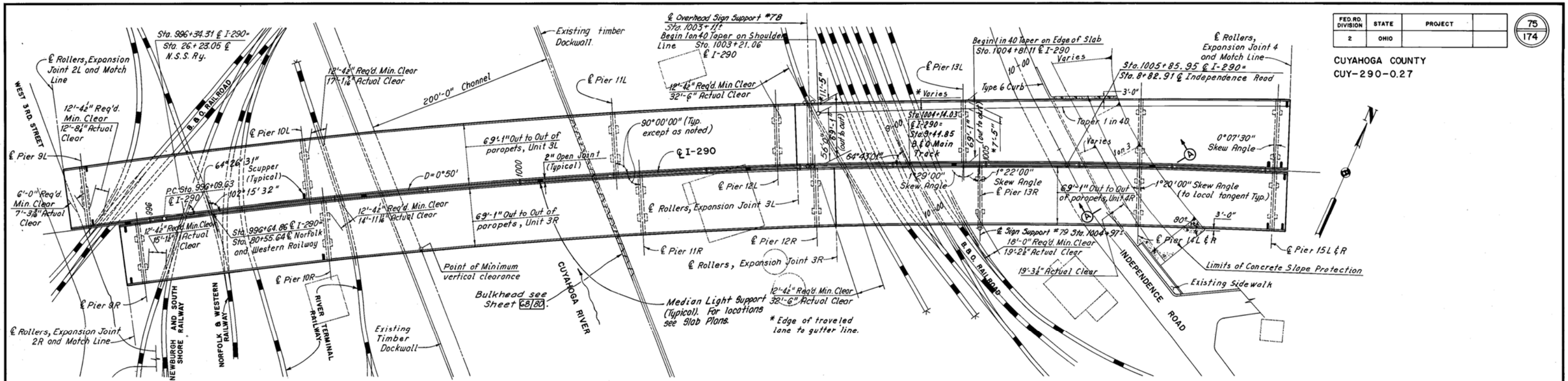
I-290 OVER CUYAHOGA RIVER
BR. NO. CUY-290-0110
STA. 985+85.75 TO STA. 1020+47.57 (℄ I-290)
CLEVELAND CUYAHOGA COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED	REVISED
JWC	DLP	D.H.S.	C.A.B.	
DATE 3-10-70	DATE 4-1-70	DATE 10-9-70	DATE 10-18-82	SHEET 1 / 80

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

75
174

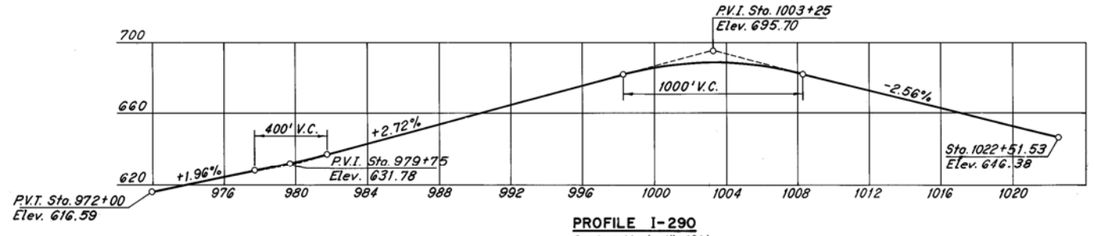
CUYAHOGA COUNTY
CUY-290-0.27



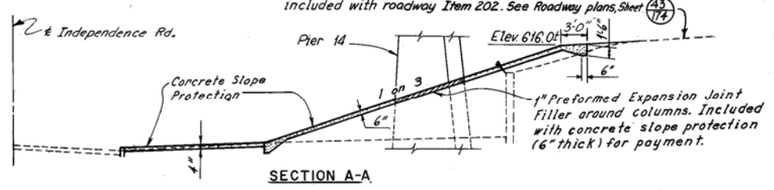
PLAN
Scale: 1"=50'

CURVE DATA
℄ I-290

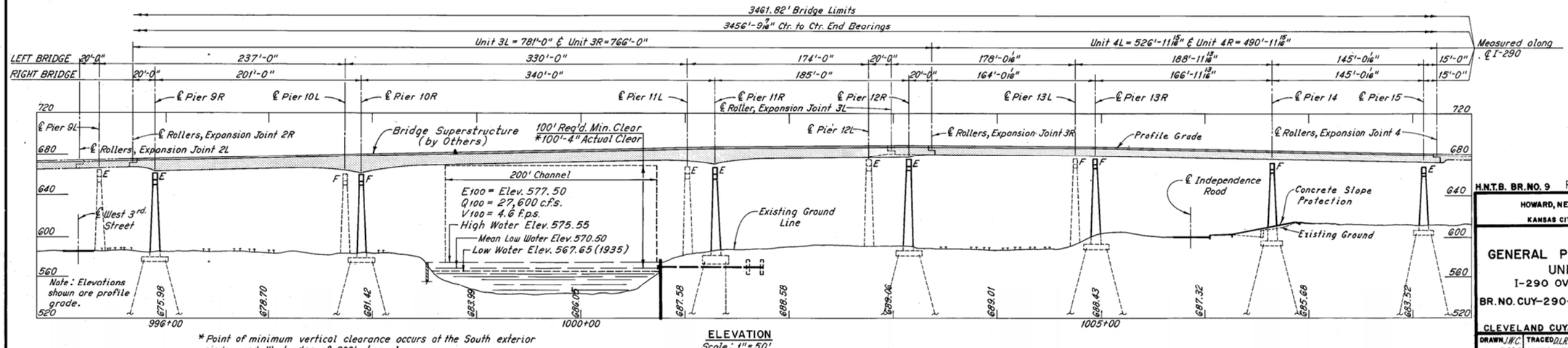
P.I. Sta. 1009+47.08
Δ = 22°00'57"
D = 0°50'00" Right
R = 6,875.49'
T = 1,337.45'
L = 2,641.90'
E = 128.88'



PROFILE I-290
Scale: Horiz. 1"=400'
Vert. 1"=40'



SECTION A-A



*Point of minimum vertical clearance occurs at the South exterior girder and West edge of 200' channel.

ELEVATION
Scale: 1"=50'

H.N.T.B. BR. NO. 9 PART I - SUBSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

GENERAL PLAN AND ELEVATION
UNITS 3 AND 4
I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57 (℄ I-290) OHIO

CLEVELAND CUYAHOGA COUNTY

DRAWN JWC	TRACED DLR	CHECKED DHS	REVIEWED CAB	REVISED
DATE 3-1970	DATE 4-1-70	DATE 10-8-70	DATE 10-18-85	SHEET 2 80

FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

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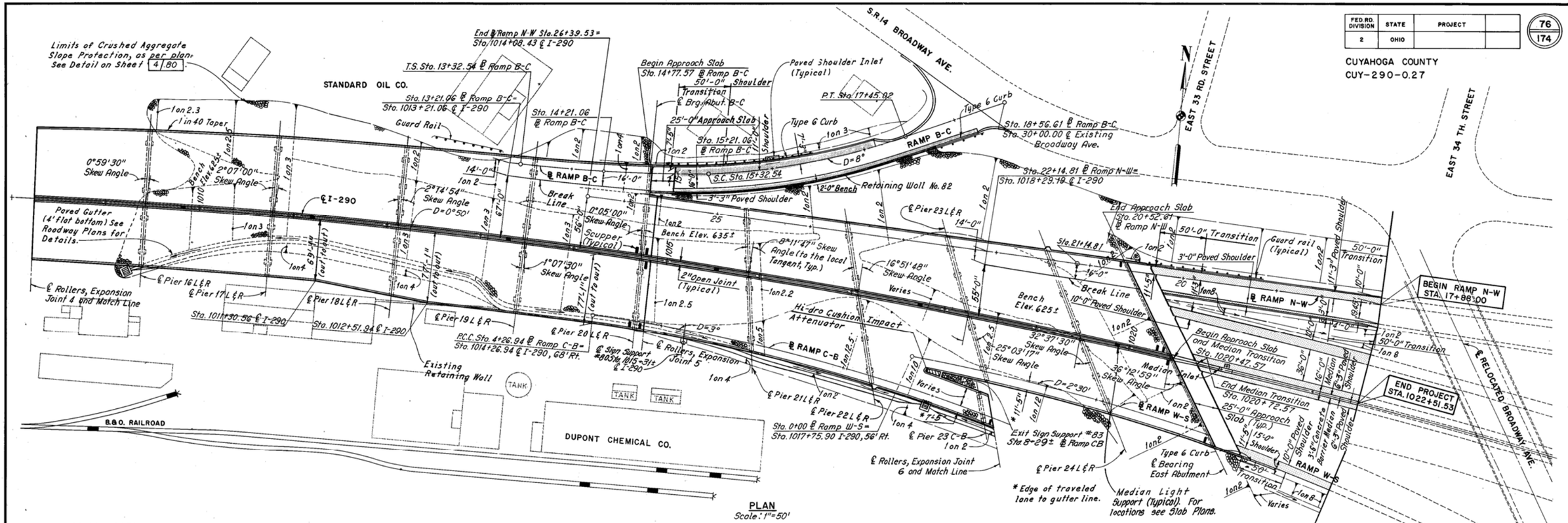
174

CUYAHOGA COUNTY
CUY-290-0.27



PLAN
Scale: 1"=50'

PROFILE RAMP B-C
Scale: Horiz. 1"=200'
Vert. 1"=20'

PROFILE RAMP N-W
Scale: Horiz. 1"=200'
Vert. 1"=20'

SPIRAL DATA
℄ RAMP B-C

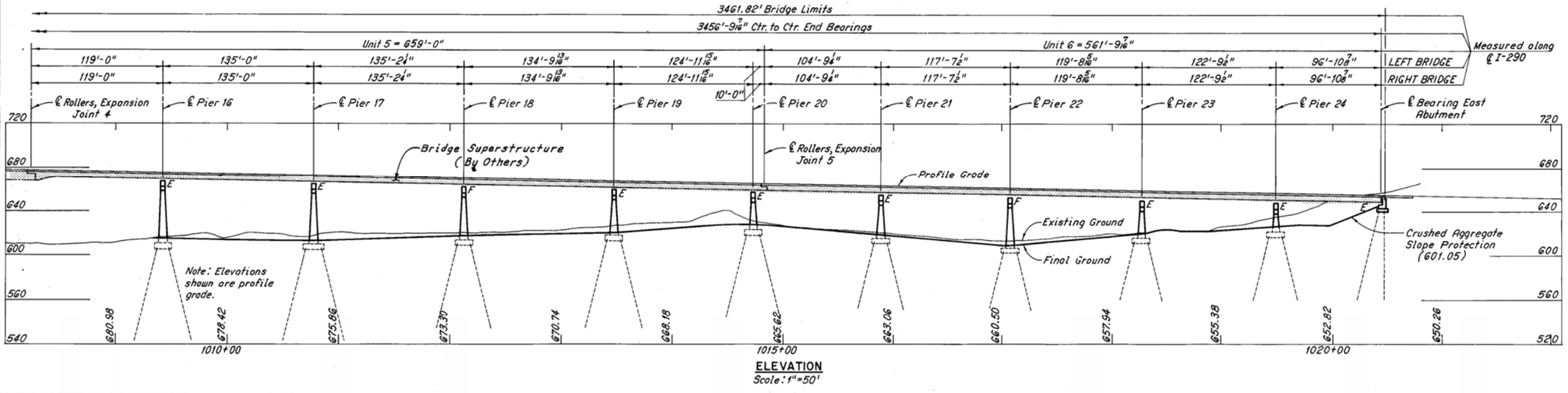
T.S. Sta. 13+32.54
S.C. Sta. 15+32.54
Θs = 8°00'00"
Ts = 253.71'
Ls = 200.00'
P = 2.32'
K = 99.94'
S.T. = 66.79'
L.T. = 133.47'
Es = 18.60'

CURVE DATA
℄ RAMP B-C

P.I. Sta. 16+39.57
Δ = 16°59'53"
D = 8°00'00"
R = 716.20'
T = 107.02'
L = 212.48'
E = 7.95'

CURVE DATA
℄ RAMP W-S

P.I. Sta. 4+02.12
Δ = 19°54'12"
D = 2°30'00"
R = 2,291.83'
T = 402.12'
L = 796.13'
E = 35.01'



ELEVATION
Scale: 1"=50'

Note:
See Roadway Plans for final grading of cut slopes.

H.N.T.B. BR. NO. 9 PART I - SUBSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

GENERAL PLAN AND ELEVATION UNITS 5 AND 6
I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57

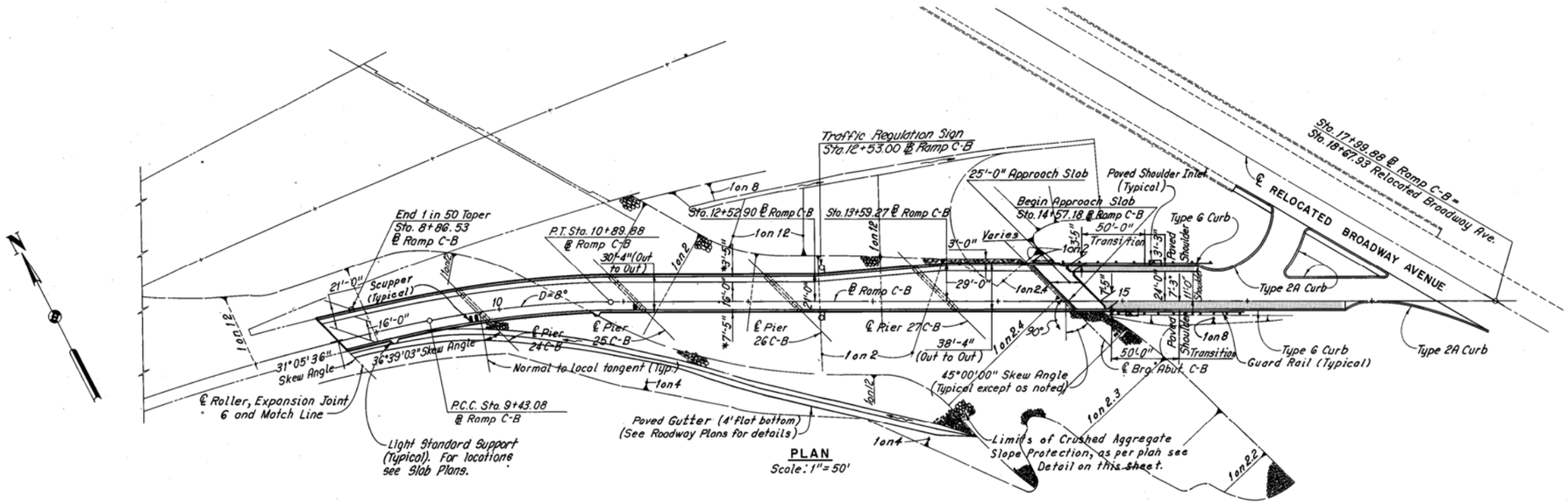
CLEVELAND CUYAHOGA COUNTY (℄ I-290) OHIO

DRAWN J.W.C.	TRACED D.L.A.	CHECKED DHS	REVIEWED C.A.B.	REVISED
DATE 3-10-70	DATE 4-1-70	DATE 10-8-70	DATE 10-18-85	SHEET 3 / 80

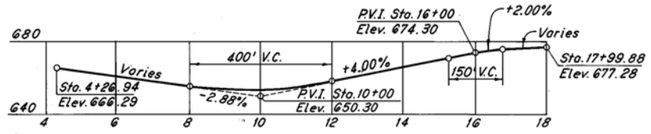
FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

77
174

CUYAHOGA COUNTY
CUY-290-0.27



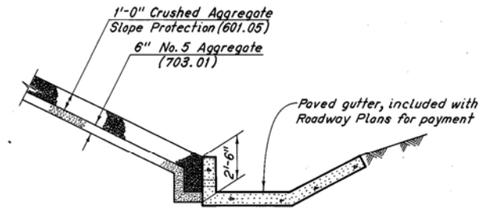
PLAN
Scale: 1"=50'



PROFILE RAMP C-B
Scale: Horiz. 1"=200'
Vert. 1"=40'
Direction of Traffic

CURVE DATA
℄ RAMP C-B

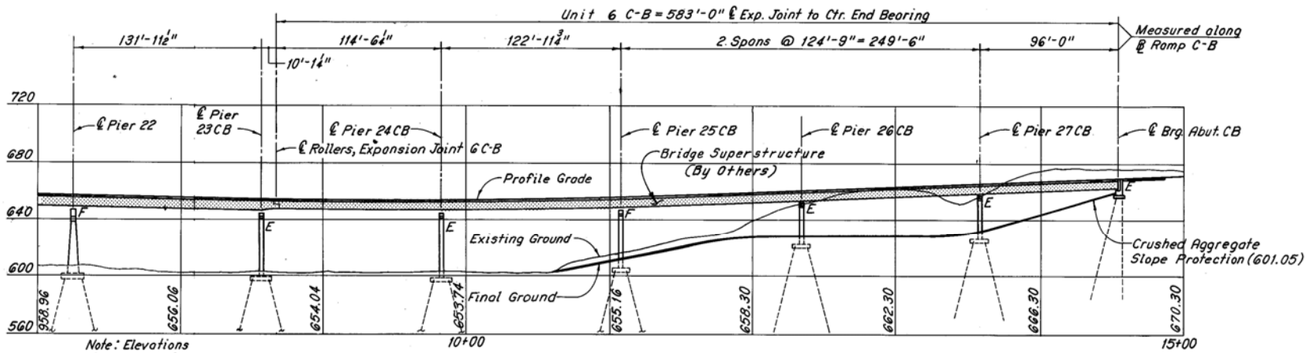
P.I. Sta. 6+86.60	P.I. Sta. 10+16.74
Δ = 15°29'03"	Δ = 11°44'38"
D = 3°00'00" Right	D = 8°00'00" Right
R = 1,909.86'	R = 716.20'
T = 259.65'	T = 73.66'
L = 516.14'	L = 146.80'
E = 17.57'	E = 3.78'



CRUSHED AGGREGATE SLOPE PROTECTION DETAIL

Note: The Crushed Aggregate Slope Protection shall be placed within the limits specified on Sheet 3 80 and on this Sheet. The 6" bed of No. 5 Aggregate shall be placed to the same limits and shall be included with Item 601, Crushed Aggregate Slope Protection, as per plan, for payment.

Note:
See Roadway Plans for final grading of cut slopes.



Note: Elevations shown are profile grade.

ELEVATION RAMP C-B
Scale: 1"=50'

H.N.T.B. BR. NO. 9 PART I - SUBSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

GENERAL PLAN AND ELEVATION RAMP C-B

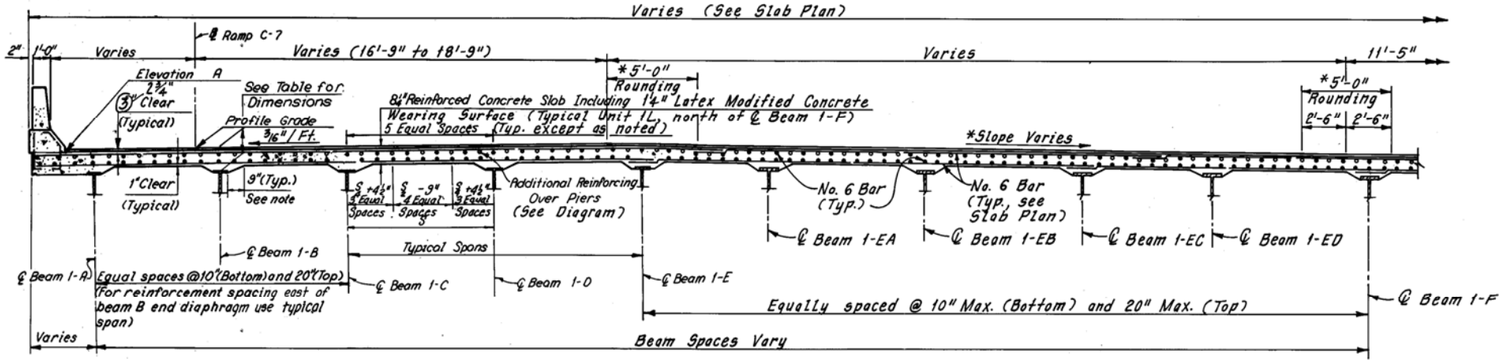
I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57 (℄ I-290)

CLEVELAND CUYAHOGA COUNTY OHIO

DRAWN	TRACED	CHECKED	REVIEWED	REVISED
J.W.C.	D.L.R.	D.H.S.	C.A.B.	
DATE 3-10-70	DATE 4-1-70	DATE 10-8-71	DATE 10-18-85	SHEET 4/80

Original Transverse Sections



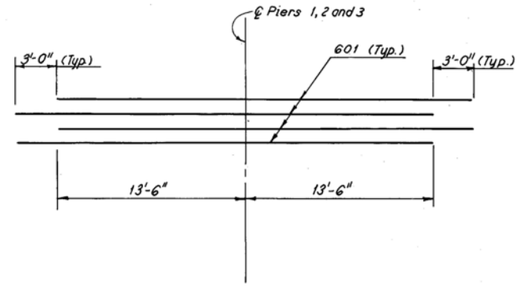
PART CROSS SECTION

Note:
A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

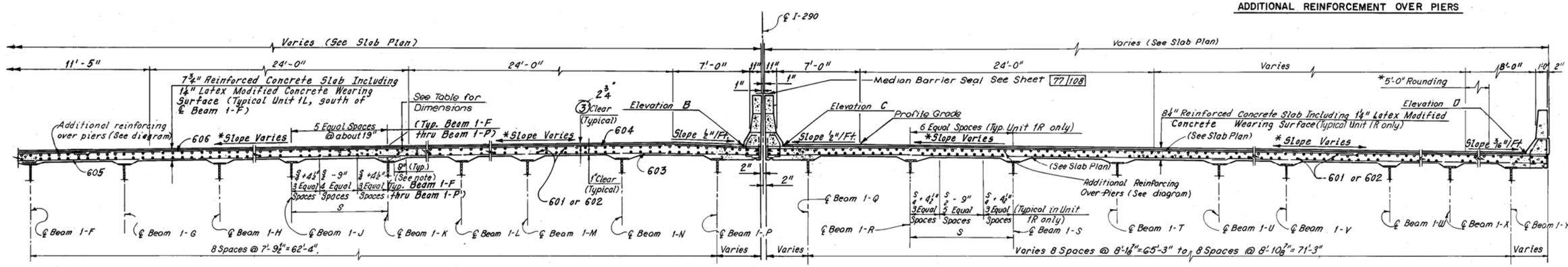
FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

159/193

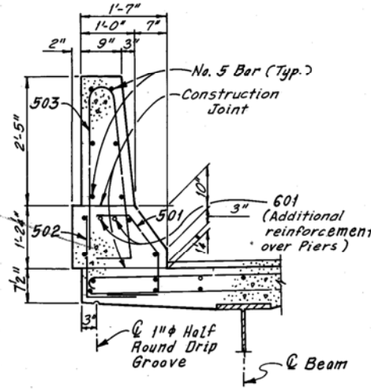
CUYAHOGA COUNTY
CUY-290-0.27



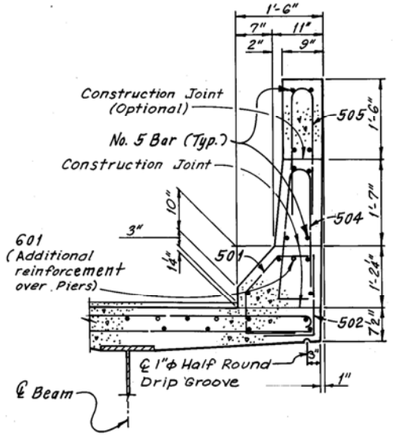
ADDITIONAL REINFORCEMENT OVER PIERS



PART CROSS SECTION



EXTERIOR CURB AND PARAPET DETAIL
(4'-0" Chain Link fence not shown)



MEDIAN CURB AND PARAPET DETAIL

TOP OF PORTLAND CEMENT CONCRETE (GIVEN AT QUARTER SPAN POINTS)																		
	℄ BRG. W.ABUT	1/4	1/2	3/4	℄ PIER 1	1/4	1/2	3/4	℄ PIER 2	1/4	1/2	3/4	℄ PIER 3	1/4	1/2	3/4	EXP. ROLLERS	
ELEV A	653.32	653.10	652.91	652.73	652.60	652.50	652.43	652.39	652.37	652.43	652.55	652.72	652.94	653.15	653.39	653.67	653.95	ELEV A
ELEV B	648.08	648.46	648.82	649.18	649.53	650.00	650.46	650.91	651.35	651.82	652.29	652.73	653.17	653.54	653.90	654.25	654.59	ELEV B
ELEV C	648.09	648.47	648.83	649.18	649.53	650.00	650.46	650.91	651.35	651.82	652.29	652.73	653.17	653.53	653.89	654.24	654.57	ELEV C
ELEV D	649.91	650.19	650.45	650.71	650.96	651.31	651.66	651.97	652.23	652.62	652.96	653.30	653.67	653.98	654.29	654.59	654.88	ELEV D

Note:
The top of Portland Cement Concrete elevations shown at the gutter lines are those which are required before concrete is placed. Proper allowance has been made for the dead load deflections caused by the weight of the concrete and wearing surface.

TOP OF WEARING SURFACE TO TOP OF BEAM FLANGE							
Beams	West Abutment	Field Splice 1	Beam End Diaphragm	Field Splice Beam 1-A	Field Splice 2	Field Splice 3	Expansion Rollers
A	9⅝"				9¼"		
B	9⅝"			-			
C thru E	9⅝"		9¼"				
EA thru ED	10"						
F thru P	8¾"			8¾"			
Q thru Y	9⅛"		9¼"				

The above haunch dimensions are measured from top of Pavement to top of flange at ℄ Bearings.

Note: All reinforcing bar marks shall be prefixed ESA.

Note:
Required reinforcing bar lap lengths shall be 30 bar diameters minimum.

Note:
For Fence Details, see Sheet 105/108.

Revised 12-24-86

H.N.T.B. BR. NO. 9 PART II - SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

TYPICAL CROSS SECTION UNIT 1

I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57 (℄ I-290)

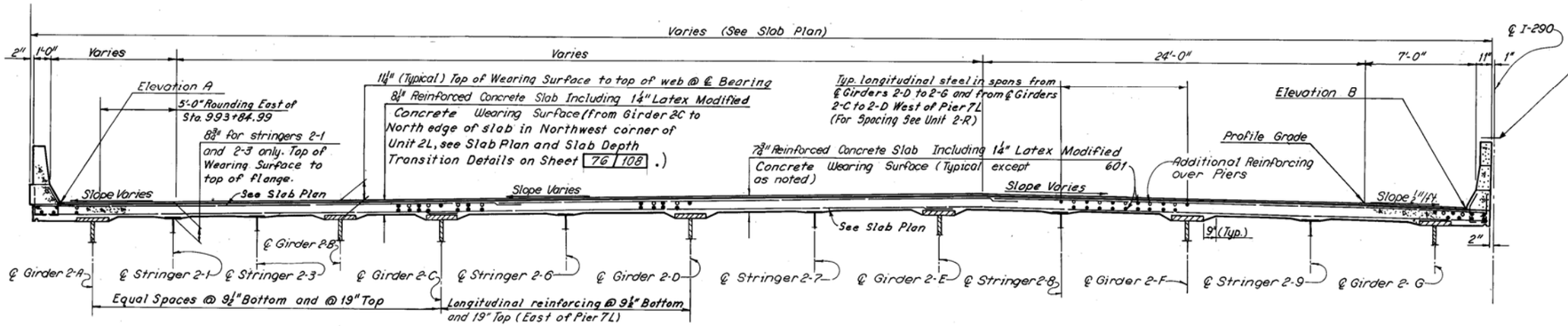
CLEVELAND CUYAHOGA COUNTY OHIO

DRAWN D.M.P	TRACED A.T.	CHECKED T.R.	REVIEWED C.A.B.	REVISED
DATE 7-30-69	DATE 8-6-69	DATE 3-27-70	DATE 8-24-86	SHEET 74/108

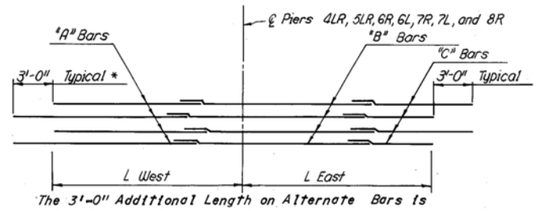
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

162/193

CUYAHOGA COUNTY
CUY-290-0.27



TYPICAL CROSS- SECTION (UNIT 2 L)



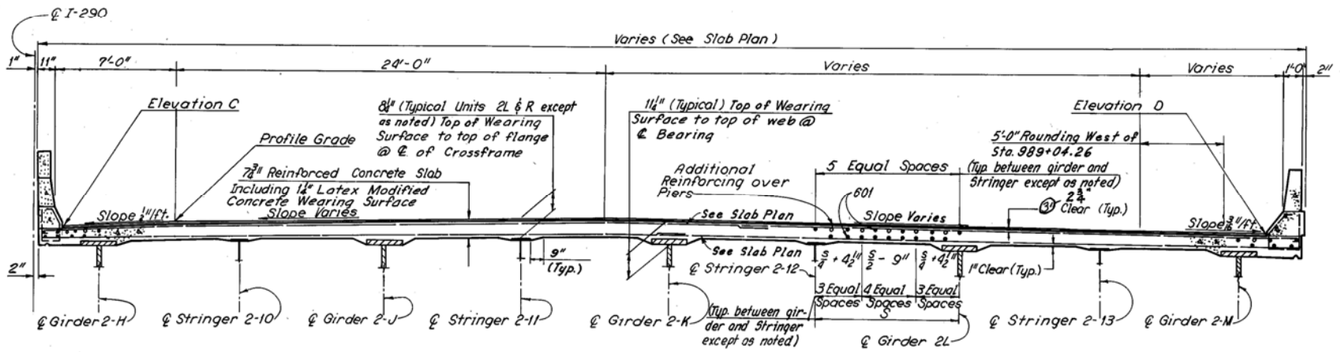
The 3'-0" Additional Length on Alternate Bars is omitted on the West Side of Piers 4L and 4R

ADDITIONAL REINFORCEMENT OVER PIERS

Note: For additional reinforcement over Piers in Northwest corner of slab at Pier 4L see Slab Plan.

ADDITIONAL REINFORCING OVER PIERS (SEE DIAGRAM ABOVE)					
Pier	L West	L East	A Bars	B Bars	C Bars
4L	12'-8"	27'	*661 653	601	——
4R	12'-8"	27'	*661 653	601	——
5L	27'	37'	659	601	——
5R	27'	27'	649	642	——
6L	37'	37'	601	657	642
6R	27'	27'	649	642	——
7L	37'	45'	652	659	601
7R	27'	37'	659	601	——
8R	37'	37'	601	657	642

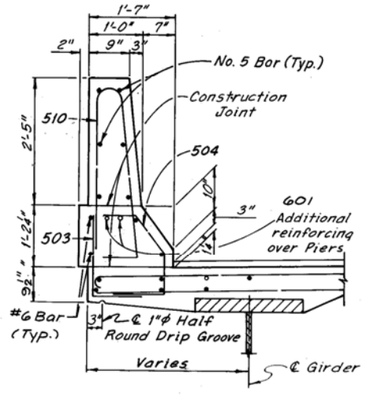
*Alternate placement to give 3'-0" stagger between ends of bar.



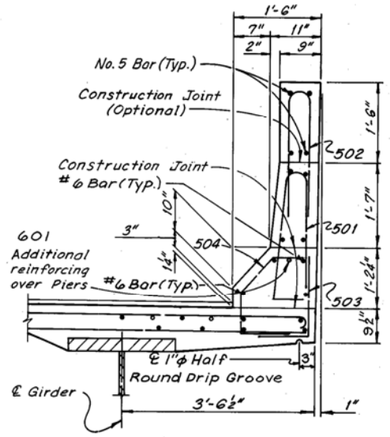
TYPICAL CROSS SECTION (UNIT 2R)

Note: All reinforcing bar marks shall be prefixed ESB.

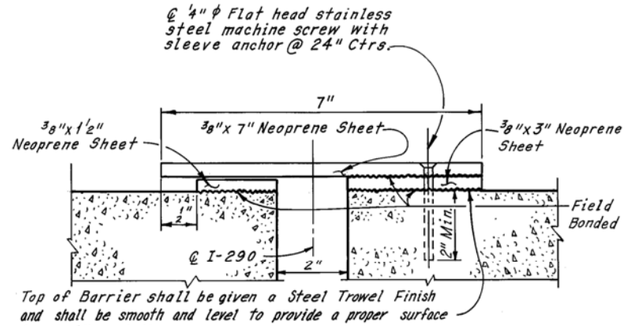
Note:
Required reinforcing bar lap lengths shall be 30 bar diameters minimum.



EXTERIOR CURB AND PARAPET DETAIL
(4'-0" Chain Link fence not shown)



MEDIAN CURB AND PARAPET DETAIL



Top of Barrier shall be given a Steel Trowel Finish and shall be smooth and level to provide a proper surface for bonding of Neoprene.

MEDIAN BARRIER SEAL

Note:
Barrier Seal shall be continuous, except at sign supports, light and pull box blisters and at expansion joints.
Payment for stainless steel screws shall be included in the unit price bid for Item Special, Median Barrier Seal, for payment.

Notes:
For details of Stringer haunch transitions see CF-19 detail on Sheet 56/108.
A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall not be more than 1:4 for a haunch less than 9" in width.
For Elevations A thru D see Sheet 78/108.
For cross slope details see Superelevation Transition Diagram, Sheet 94/108.
For Fence Details, see Sheet 105/108.

Revised 12-24-86

H.N.T.B. BR. NO. 9 PART II - SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

TYPICAL CROSS SECTIONS UNIT 2

I-290 OVER CUYAHOGA RIVER
BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57 (℄ I-290)
CLEVELAND CUYAHOGA COUNTY OHIO

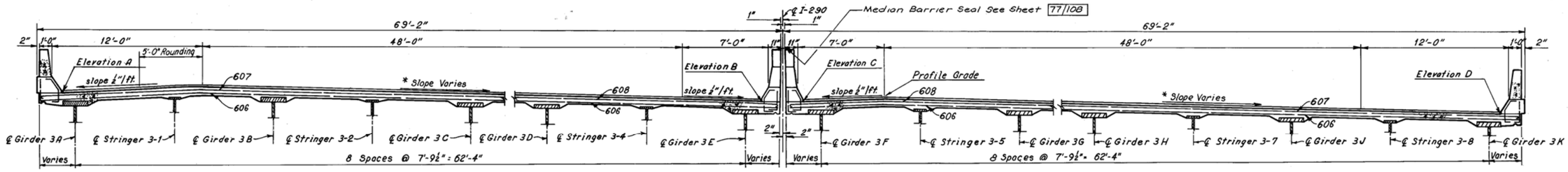
DRAWN	TRACED	CHECKED	REVIEWED	REVISED
D.M.P.	A.J.T.	J.D.S.	C.A.B.	
DATE 9-5-69	DATE 9-10-69	DATE 3-27-70	DATE 12-24-86	SHEET 77/108

FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

185/193

CUYAHOGA COUNTY
CUY-290-0.27

* See Superelevation Transition Diagram, Sheet 94/108.

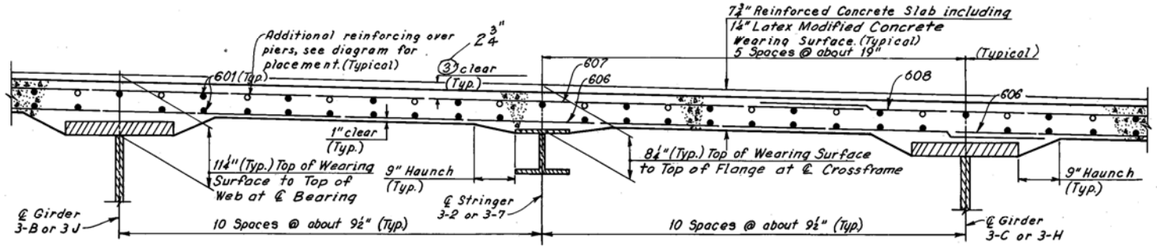


TYPICAL CROSS SECTION (UNIT THREE)

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS (UNIT 3)

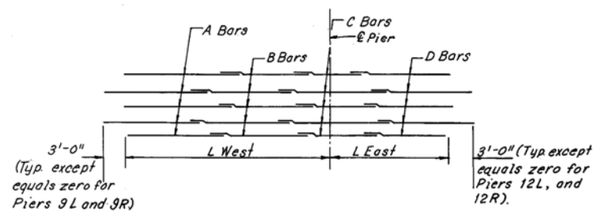
	℄ ROLLERS 2L OR 2R	℄ PIER 9L OR 9R	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ PIER 10L OR 10R	1 15	2 15	3 15	4 15	5 15	6 15	7 15	8 15	9 15	10 15	11 15	12 15	13 15	14 15	℄ PIER 11L OR 11R	.1	.2	.3	.4	.5	.6	.7	.8	.9	℄ PIER 12L OR 12R	℄ ROLLERS 3L OR 3R
ELEV A	673.57	674.18	674.97	675.78	676.59	677.35	678.06	678.68	679.28	679.90	680.55	681.23	681.88	682.55	683.23	683.90	684.53	685.12	685.65	686.12	686.54	686.90	687.21	687.48	687.72	687.95	688.17	688.33	688.49	688.65	688.81	688.96	686.10	689.23	689.35	689.45	689.55	689.65
ELEV B	673.30	673.86	674.54	675.23	675.89	676.53	677.15	677.75	678.35	678.98	679.63	680.31	680.95	681.62	682.30	682.97	683.60	684.19	684.73	685.20	685.62	685.98	686.29	686.56	686.79	687.02	687.24	687.41	687.57	687.73	687.88	688.03	688.17	688.31	688.42	688.52	688.62	688.73
ELEV C	674.73	675.25	675.78	676.32	676.85	677.38	677.90	678.43	678.99	679.53	680.12	680.71	681.40	682.11	682.81	683.49	684.13	684.70	685.22	685.68	686.07	686.41	686.69	686.93	687.14	687.34	687.54	687.68	687.82	687.97	682.11	688.75	688.36	688.47	688.56	688.64	688.71	688.77
ELEV D	674.30	674.72	675.14	675.56	675.99	676.47	676.99	677.53	678.07	678.63	679.21	679.81	680.50	681.21	681.91	682.59	683.22	683.80	684.32	684.77	685.17	685.50	685.79	686.02	686.24	686.44	686.63	686.77	686.92	687.06	687.20	687.33	687.45	687.57	687.65	687.73	687.80	687.87

Note:
The top of Portland Cement Concrete elevations shown at the gutter lines are those which are required before concrete is placed. Proper allowance has been made for the dead load deflections caused by the weight of the concrete and wearing surface.



TYPICAL SLAB REINFORCEMENT DETAIL
(Unit 3L shown. Unit 3R opposite hand)

Note:
A haunch width of 9" shall be used for computing quantity of concrete. However the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

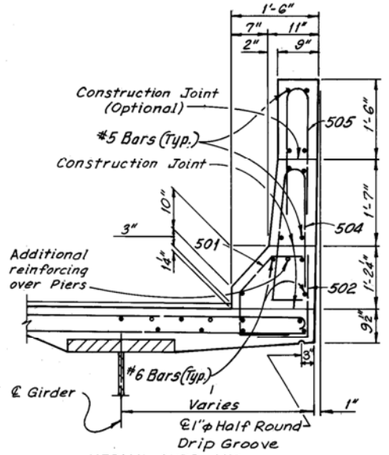


PLACEMENT DIAGRAM FOR ADDITIONAL REINFORCEMENT OVER PIERS

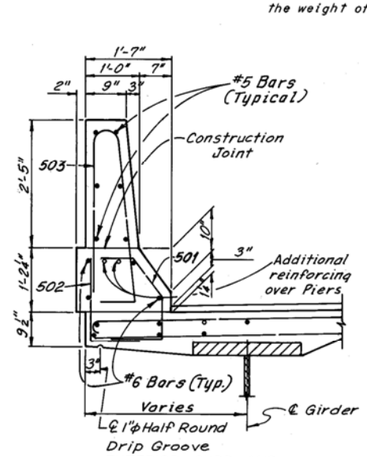
ADDITIONAL REINFORCING OVER PIERS						
Pier	L West	L East	A Bars	B Bars	C Bars	D Bars
9L	17'-6"	48'	~~609~~ 610	601	601	——
9R	17'-6"	43'	~~601~~ 614	614	——	——
10L	48'	66'	601	601	601	614
10R	41'	68'	616	601	601	601
11L	66'	35'	601	601	601	615
11R	68'	37'	601	601	601	617
12L	38'	17'-6"	618 ~~612~~	601	——	——
12R	37'	17'-6"	618 ~~601~~	601	——	——

* Alternate placement to give 3'-0" Stagger between ends of bar.

Note:
Required reinforcing bar lap lengths shall be 30 bar diameters minimum.



MEDIAN CURB AND PARAPET DETAIL



EXTERIOR CURB AND PARAPET DETAIL
(4'-0" Chain Link fence not shown)

Note: All reinforcing bar marks shall be prefixed ESC.

Note:
For Fence Details, see Sheet 105/108.

Revised 12-24-86

H.N.T.B. BR. NO. 9 PART II - SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

TYPICAL CROSS SECTION UNIT—3

I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57

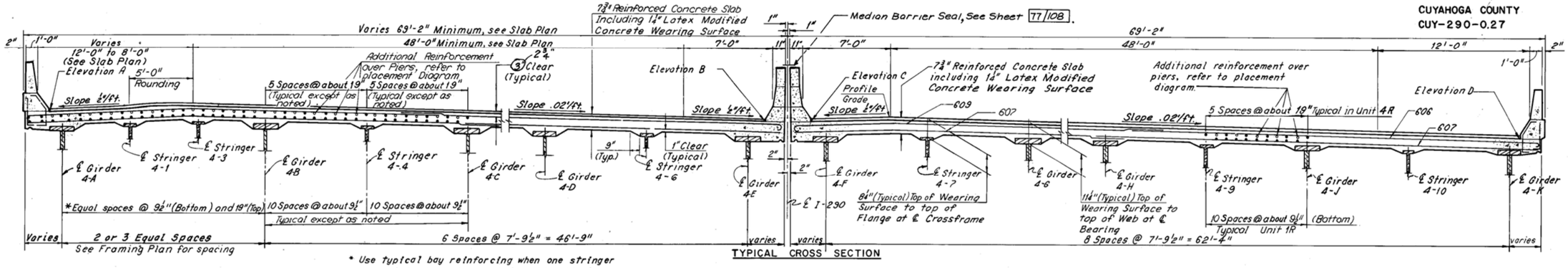
CLEVELAND CUYAHOGA COUNTY (℄ I-290) OHIO

DRAWN DJS	TRACED TSC	CHECKED DWH	REVIEWED CAB	REVISED
DATE 7-11-69	DATE 8-6-69	DATE 3-4-70	DATE 2-24-86	SHEET 80/108

FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

167
193

CUYAHOGA COUNTY
CUY-290-0.27



TYPICAL CROSS SECTION

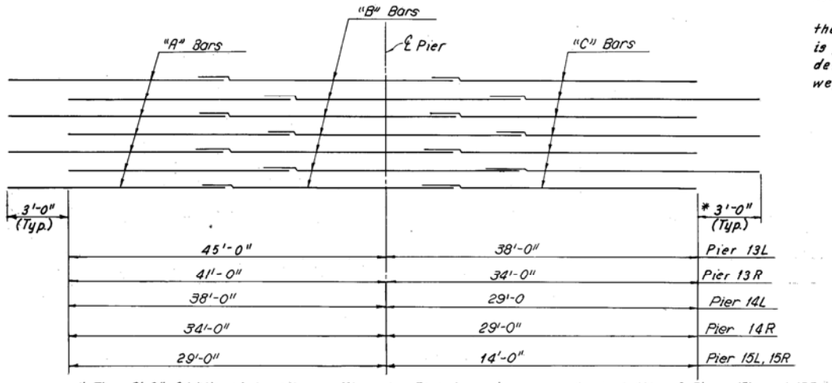
* Use typical bay reinforcing when one stringer between Girders 4A and 4B (see Slab Plan).

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS (UNIT 4L)

	£ ROLLERS 3L	.1	.2	.3	.4	.5	.6	.7	.8	.9	£ PIER 13L	.1	.2	.3	.4	.5	.6	.7	.8	.9	£ PIER 14L	.1	.2	.3	.4	.5	.6	.7	.8	.9	£ PIER 15L	£ ROLLER 4L
ELEV A	689.65	689.75	689.85	689.86	689.94	689.92	689.87	689.77	689.66	689.54	689.42	689.30	689.18	689.05	688.91	688.72	688.48	688.19	687.87	687.53	687.19	686.95	686.72	686.48	686.23	685.95	685.66	685.33	684.99	684.63	684.26	683.87
ELEV B	688.73	688.85	688.92	688.96	688.95	688.91	688.82	688.69	688.56	688.40	688.25	688.10	687.97	687.83	687.67	687.47	687.23	686.94	686.62	686.29	685.96	685.71	685.46	685.21	684.95	684.67	684.36	684.03	683.68	683.31	682.92	682.52

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS (UNIT 4R)

	£ ROLLER 3R	.1	.2	.3	.4	.5	.6	.7	.8	.9	£ PIER 13R	.1	.2	.3	.4	.5	.6	.7	.8	.9	£ PIER 14R	.1	.2	.3	.4	.5	.6	.7	.8	.9	£ PIER 15R	£ ROLLER 4R
ELEV C	688.77	688.84	688.87	688.88	688.84	688.78	688.68	688.56	688.40	688.24	688.08	687.92	687.76	687.60	687.43	687.24	687.02	686.77	686.51	686.23	685.96	685.72	685.49	685.24	684.99	684.71	684.40	684.06	683.70	683.32	682.92	682.51
ELEV D	687.87	687.94	687.97	687.98	687.96	687.89	687.78	687.65	687.49	687.33	687.16	687.00	686.85	686.69	686.53	686.34	686.12	685.88	685.62	685.35	685.08	684.84	684.61	684.36	684.11	683.82	683.51	683.17	682.81	682.42	682.02	681.61



* The 3'-0" Additional Length on Alternate Bars is omitted on the East Side of Piers 15L and 15R.

PLACEMENT DIAGRAM FOR ADDITIONAL REINFORCING OVER PIERS

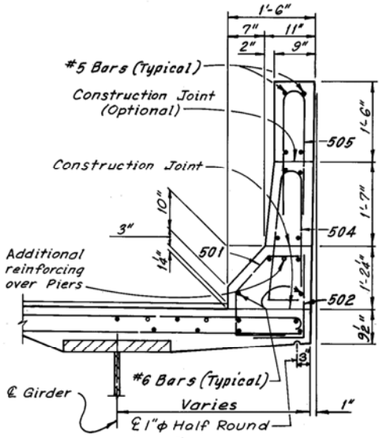
ADDITIONAL REINFORCING OVER PIERS	Pier 13L	Pier 13R	Pier 14L	Pier 14R	Piers 15L&15R
"A" Bars	601	601	601	601	601
"B" Bars	601	601	601	627	*628 / 629
"C" Bars	601	602	603	—	—

* Alternate placement to give 3'-0" Stagger between ends of bar.

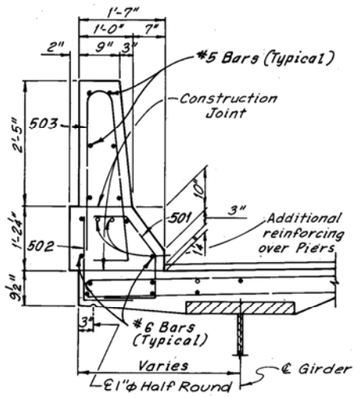
Note:
The top of Portland Cement Concrete elevations shown at the gutter lines are those which are required before concrete is placed. Proper allowance has been made for the dead load deflections caused by the weight of the concrete and wearing surface.

Note:
Required reinforcing bar lap lengths shall be 30 bar diameters minimum.

Note: All reinforcing bar marks shall be prefixed ESD.



MEDIAN CURB AND PARAPET DETAIL



EXTERIOR CURB AND PARAPET DETAIL
(4'-0" Chain Link fence not shown)

Notes:
A haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

For Fence Details, see Sheet 105/108.

Revised 12-24-86

H.N.T.B. BR.NO. 9 PART II - SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

TYPICAL CROSS SECTION
UNIT 4

I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57

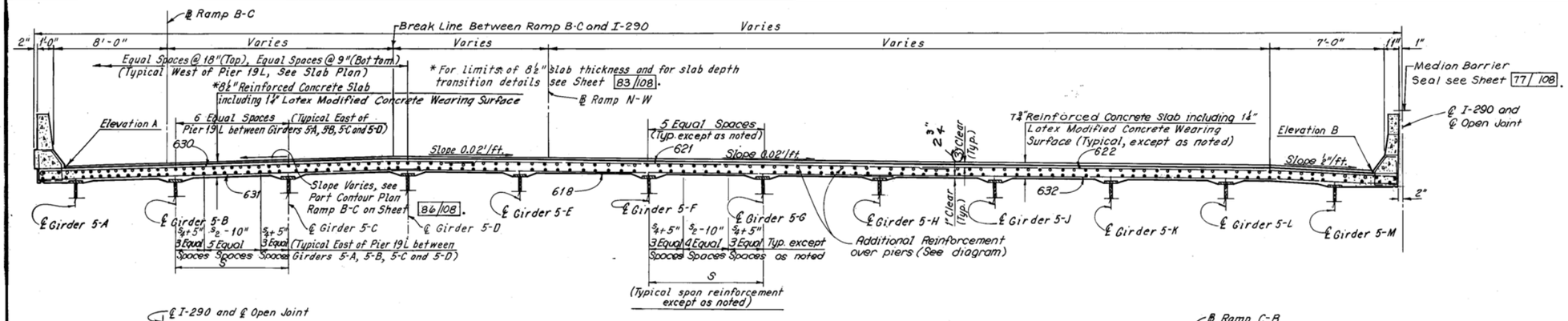
CLEVELAND CUYAHOGA COUNTY (£ I-290) OHIO

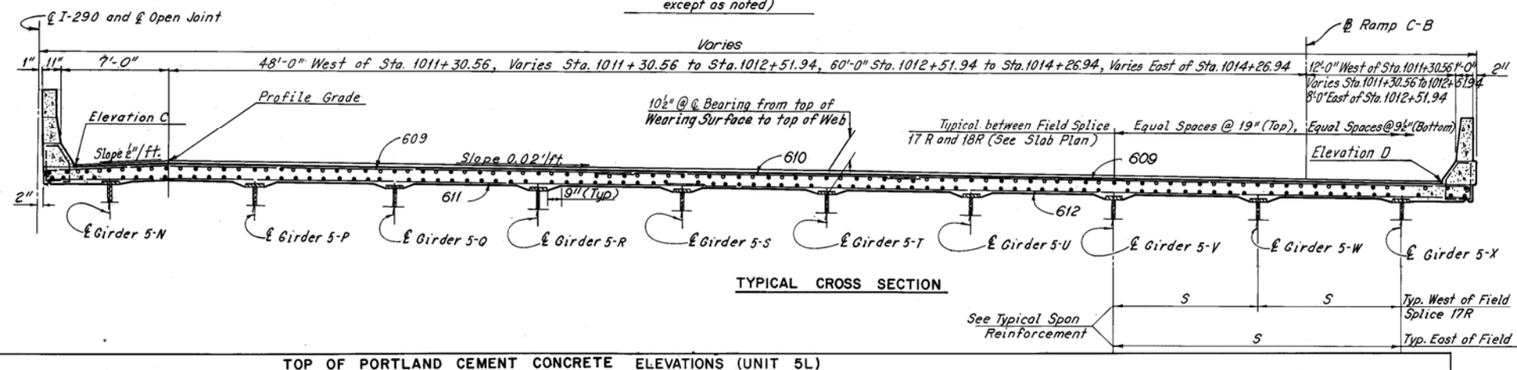
DRAWN TDS	TRACED CEM	CHECKED DWA	REVIEWED CAB	REVISED
DATE 7-24-85	DATE 9-25-85	DATE 11-5-85	DATE 12-24-86	SHEET 82/108

FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

169/193

CUYAHOGA COUNTY
CUY-290-0.27

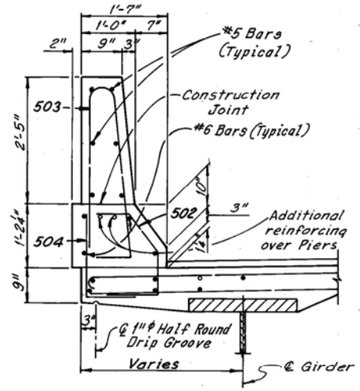




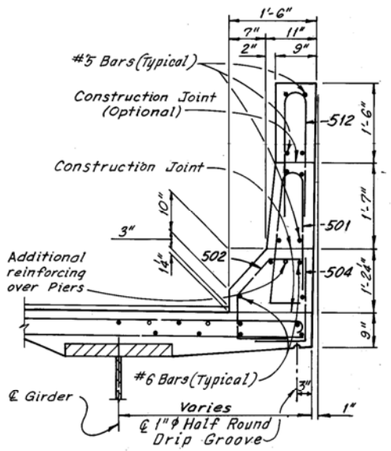
TYPICAL CROSS SECTION

Note: All reinforcing bar marks shall be prefixed ESE.

Note:
A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.



EXTERIOR CURB AND PARAPET DETAIL
(4'-0" Chain Link fence not shown)



MEDIAN CURB AND PARAPET DETAIL

Notes:
For Fence Details, see Sheet 105/108.

Revised 12-24-86

Note:
Required reinforcing bar lap lengths shall be 30 bar diameters minimum.

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS (UNIT 5L)

	℄ EXPAN. ROLLERS 4L	0.2	0.4	0.6	0.8	℄ PIER 16L	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ PIER 17L	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
ELEV A	683.87	683.39	682.85	682.23	681.58	680.94	680.60	680.27	679.95	679.63	679.30	678.96	678.61	678.26	677.92	677.59	677.26	676.94	676.62	676.29	675.94	675.58	675.19	674.80	674.42
ELEV B	682.52	682.01	681.45	680.82	680.16	679.50	679.16	678.82	678.50	678.17	677.84	677.49	677.13	676.76	676.40	676.05	675.72	675.40	675.08	674.76	674.41	674.06	673.69	673.32	672.94

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS (UNIT 5L)

	℄ PIER 18L	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ PIER 19L	0.2	0.4	0.6	0.8	℄ BRG. ABUT. B-C OR ℄ PIER 20L	℄ EXPAN. ROLLERS 5L
ELEV A	674.04	673.70	673.37	673.04	672.72	672.38	672.04	671.70	671.35	670.88	670.49	669.75	669.02	668.15	667.33	666.58	
ELEV B	672.58	672.25	671.92	671.59	671.26	670.92	670.57	670.21	669.84	669.48	669.13	668.54	667.96	667.34	666.65	665.93	665.65

Note:
The top of Portland Cement Concrete elevations shown at the gutter lines are those which are required before concrete is placed. Proper allowance has been made for the dead load deflections caused by the weight of the concrete and wearing surface.

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS (UNIT 5R)

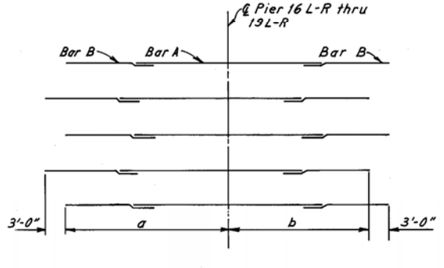
	℄ EXPAN. ROLLERS 4R	0.2	0.4	0.6	0.8	℄ PIER 16R	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ PIER 17R	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
ELEV C	681.51	682.01	681.45	680.82	680.15	679.50	679.15	678.82	678.50	678.17	677.83	677.48	677.12	676.75	676.39	676.04	675.71	675.39	675.08	674.76	674.42	674.06	673.69	673.31	672.94
ELEV D	681.61	681.09	680.51	679.88	679.21	678.56	678.23	677.90	677.57	677.25	676.91	676.56	676.19	675.81	675.43	675.07	674.74	674.42	674.10	673.78	673.44	673.08	672.72	672.35	671.99

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS (UNIT 5R)

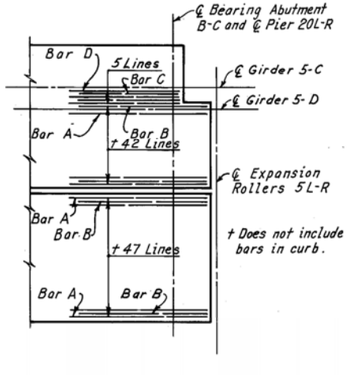
	℄ PIER 18R	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9	℄ PIER 19R	0.2	0.4	0.6	0.8	℄ PIER 20R	℄ EXPAN. ROLLERS 5R
ELEV C	672.59	672.25	671.93	671.60	671.27	670.94	670.58	670.21	669.85	669.48	669.13	668.54	667.97	667.35	666.66	665.93	665.64
ELEV D	671.65	671.29	670.95	670.61	670.27	669.92	669.56	669.19	668.82	668.46	668.10	667.50	666.92	666.29	665.59	664.86	664.57

ADDITIONAL REINFORCEMENT OVER PIERS

	PIER 16		PIER 17		PIER 18		PIER 19		PIER 20	
	L	R	L	R	L	R	L	R	L	R
Bar A	601	←					→	601	643	643
Bar B	636	636	639	637	639	637	638	638	642	642
a	30'-0"	30'-0"	27'-0"	27'-0"	29'-0"	27'-0"	27'-0"	27'-0"	——	——
b	27'-0"	27'-0"	29'-0"	27'-0"	27'-0"	27'-0"	25'-0"	25'-0"	——	——
Bar C	——	——	——	——	——	→	——	——	640	——
Bar D	——	——	——	——	——	——	——	——	645	——



ADDITIONAL REINFORCEMENT OVER PIERS



† Does not include bars in curb.

Notes:
For Fence Details, see Sheet 105/108.

Revised 12-24-86

H.N.T.B. BR. NO. 9 PART II - SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

TYPICAL CROSS SECTION
UNIT 5

I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57

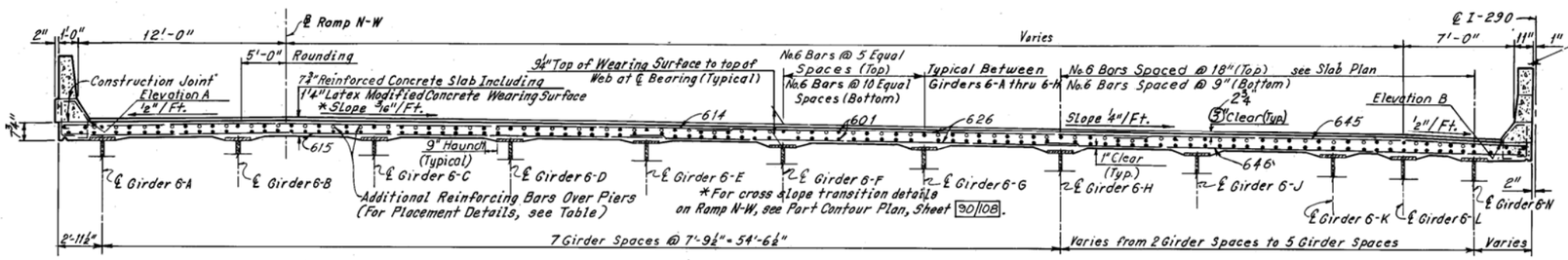
CLEVELAND CUYAHOGA COUNTY (℄ I-290) OHIO

DRAWN D.H.S.	TRACED A.J.T.	CHECKED J.W.C.	REVIEWED P.A.B.	REVISED
DATE 3-1969	DATE 10-7-69	DATE 10-30-69	DATE 12-24-86	SHEET 84/108

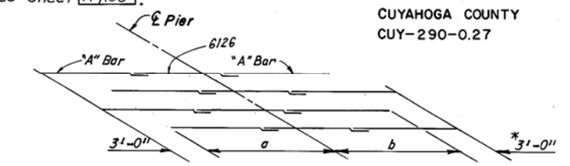
FED.RD. DIVISION	STATE	PROJECT	
2	OHIO		

173/193

CUYAHOGA COUNTY
CUY-290-0.27



TYPICAL CROSS SECTION UNIT 6L



*Note: Typical except at Pier 23 CB this dimension changes to 0.

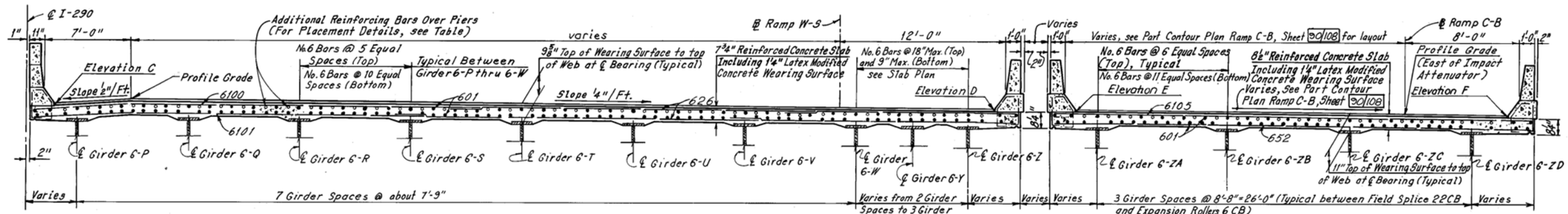
Note:
Required reinforcing bar lap lengths shall be 30 bar diameters minimum.

Note: All reinforcing bar marks shall be prefixed ESF.

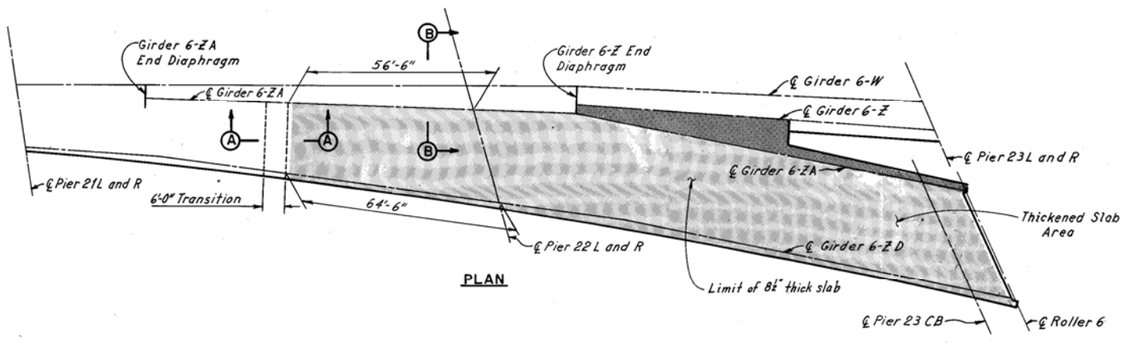
Note:
A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

TABLE OF ADDITIONAL REINFORCEMENT OVER PIERS

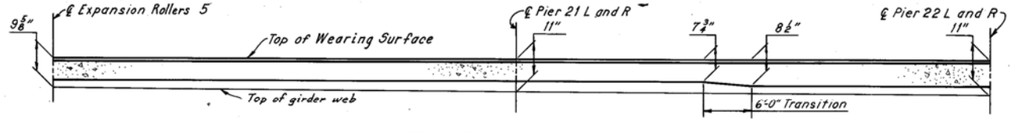
	Pier 21L	Pier 22L	Pier 23L	Pier 24L	Pier 21R	Pier 22R	Pier 23R	Pier23CB	Pier 24R
a	26'-0"	23'-6"	24'-0"	24'-6"	29'-0"	26'-9"	25'-6"	29'-6"	27'-6"
b	23'-6"	24'-0"	24'-6"	24'-0"	26'-9"	25'-6"	27'-6"	9'-9"	27'-3"
"A" Bars	632	630	6119	6119	638	687	6120	6122	6121



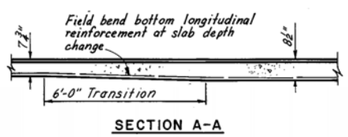
TYPICAL CROSS SECTION UNIT 6R



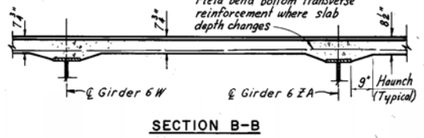
PLAN



HAUNCH TRANSITION, GIRDERS ZB THRU ZD
(Use constant 9⅝" haunch for Girder 6-Z and 11" haunch for Girder 6-ZA)

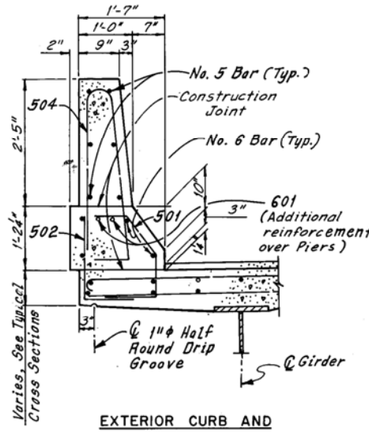


SECTION A-A

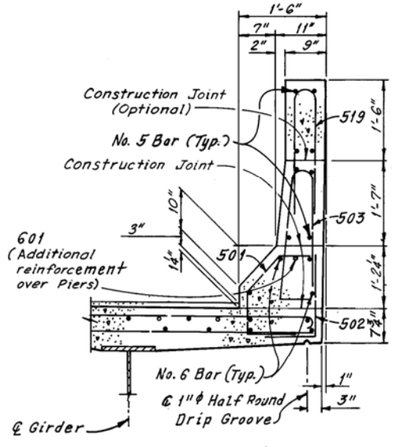


SECTION B-B

SLAB DEPTH TRANSITION DETAILS



EXTERIOR CURB AND PARAPET DETAIL
(4'-0" Chain Link fence not shown)



MEDIAN CURB AND PARAPET DETAIL

Notes:
For Fence Details, see Sheet 105/108.
For Elevations A thru F, see Sheet 90/108.

Revised 12-24-86

H.N.T.B. BR. NO. 9 PART II - SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

TYPICAL CROSS SECTIONS UNIT 6

I-290 OVER CUYAHOGA RIVER

BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57 (℄ I-290)

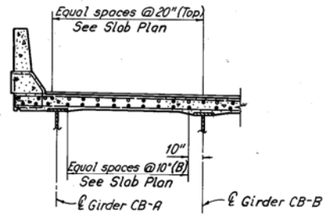
CLEVELAND CUYAHOGA COUNTY OHIO

DRAWN KYH	TRACED HCH	CHECKED JW	REVIEWED	REVISED
DATE 10-6-69	DATE 11-1-69	DATE 11-18-69	DATE 12-24-86	SHEET 88/108

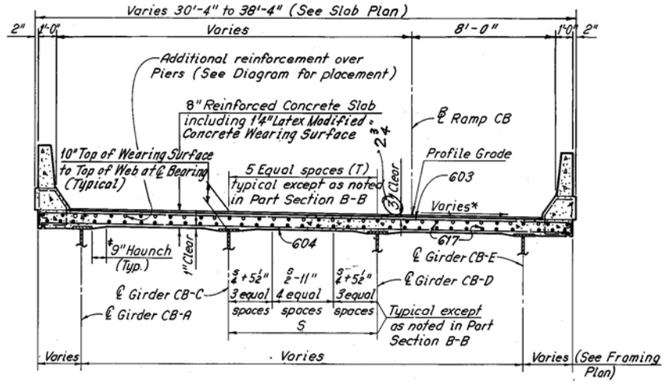
FED. RD. DIVISION	STATE	PROJECT	
2	OHIO		

178
193

CUYAHOGA COUNTY
CUY-290-0.27

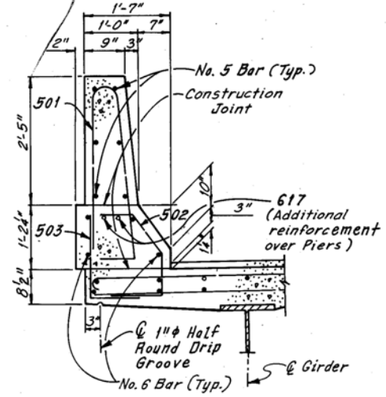


PART SECTION B-B
(For additional details see Section A-A)



SECTION A-A

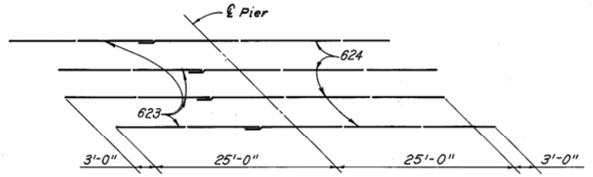
* See Superelevation Transition Diagram Sheet 94/108



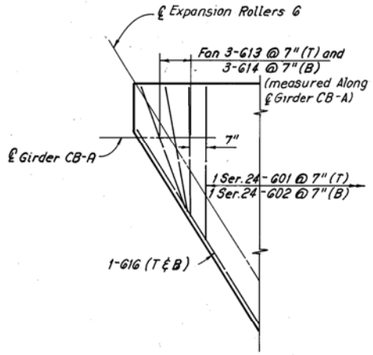
EXTERIOR CURB AND PARAPET DETAIL
(4'-0" Chain Link fence not shown)

*Note:
A typical haunch width of 9" shall be used for computing quantity of concrete. However, the haunch width may vary between 6" and 12" provided that the slope shall be not more than 1:4 for a haunch less than 9" in width.

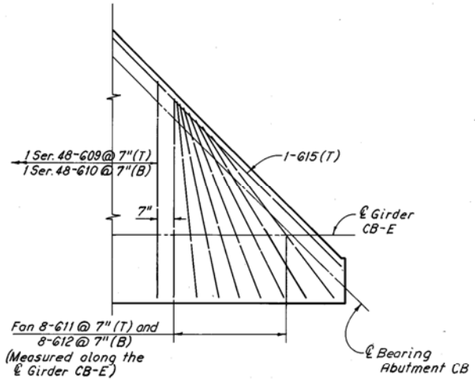
Note: All reinforcing bar marks shall be prefixed ESG.



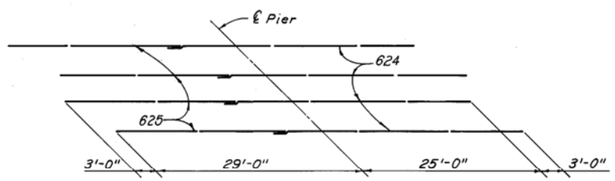
PLACEMENT OF 623 AND 624 BARS OVER PIERS 25CB, 26CB AND 27CB



DETAIL "A"



DETAIL "B"



PLACEMENT OF 624 AND 625 BARS OVER PIER 24CB

Note:
Required reinforcing bar lap lengths shall be 30 bar diameters minimum.

Note:
For location of Sections A-A and B-B and Details A-A and B-B see Sheet 92/108.
The following abbreviations are used:
(T) = Top
(B) = Bottom
For Fence Details, see Sheet 105/108.

TOP OF PORTLAND CEMENT CONCRETE ELEVATIONS AT GUTTER LINE

Curb	℄ Exp. Rollers 6	.2	.4	.6	.8	℄ Pier 24 CB	.2	.4	.6	.8	℄ Pier 25 CB	.2	.4	.6	.8	℄ Pier 26 CB	.2	.4	.6	.8	℄ Pier 27 CB	¼	½	¾	℄ Brg. Abut. CB.
North	655.15	654.84	654.58	654.37	654.28	654.34	654.55	654.71	654.83	655.00	655.29	655.77	656.47	657.24	658.10	659.06	660.03	661.01	661.98	662.94	663.90	664.90	665.88	666.81	667.70
South	654.01	653.77	653.58	653.41	653.29	653.26	653.43	653.79	654.22	654.72	655.31	656.05	656.88	657.79	658.74	659.71	660.74	661.78	662.77	663.73	664.70	665.68	666.68	667.63	668.54

Note:
The top of Portland Cement Concrete elevations shown at the gutter lines are those which are required before concrete is placed. Proper allowance has been made for the dead load deflections caused by the weight of the concrete and wearing surface.

Revised 12-24-86

H.N.T.B. BR. NO. 9 PART II - SUPERSTRUCTURE

HOWARD, NEEDLES, TAMMEN & BERGENDOFF
CONSULTING ENGINEERS
KANSAS CITY CLEVELAND NEW YORK

UNIT 6CB
TYPICAL CROSS SECTION

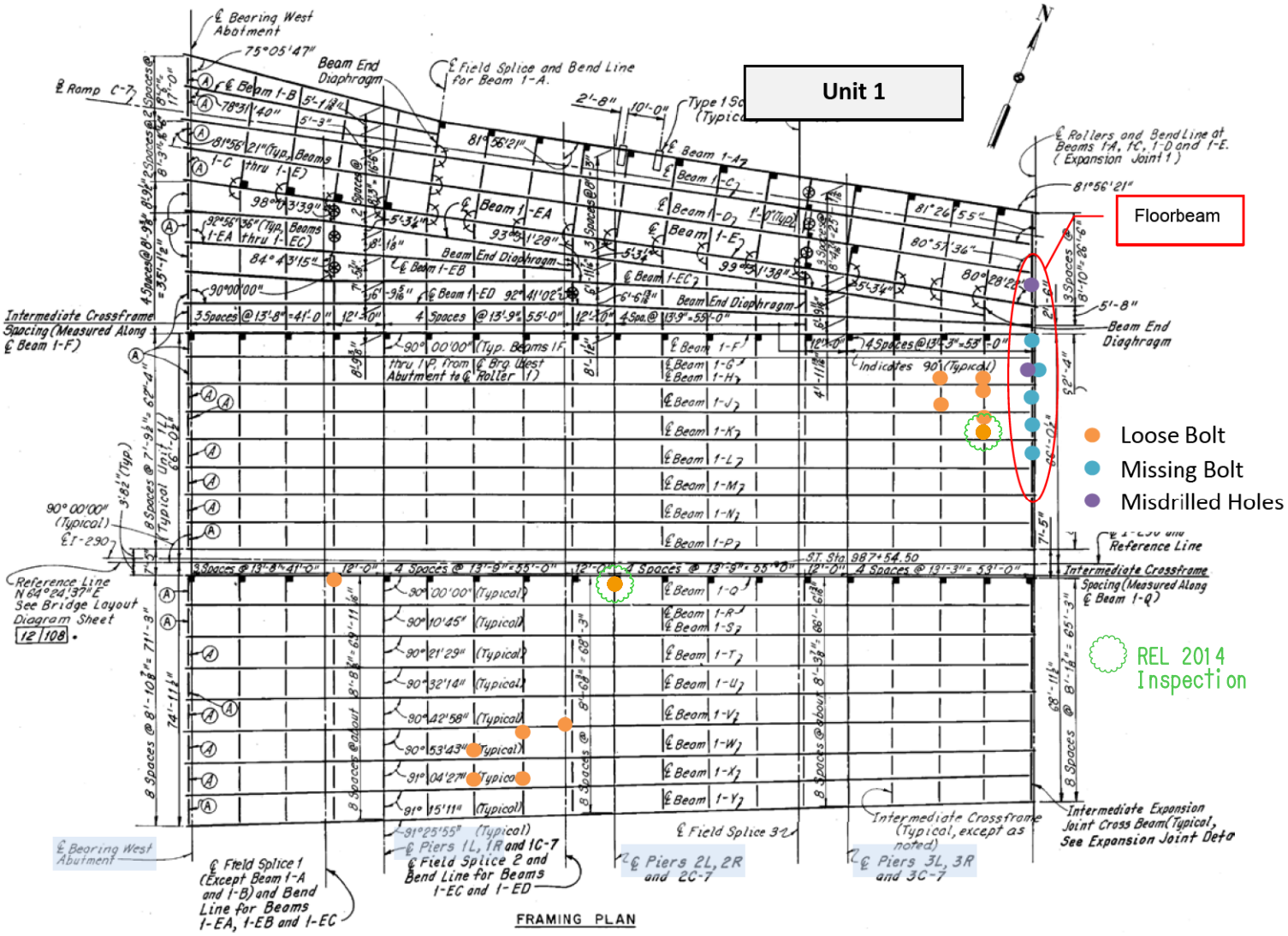
I-290 OVER CUYAHOGA RIVER

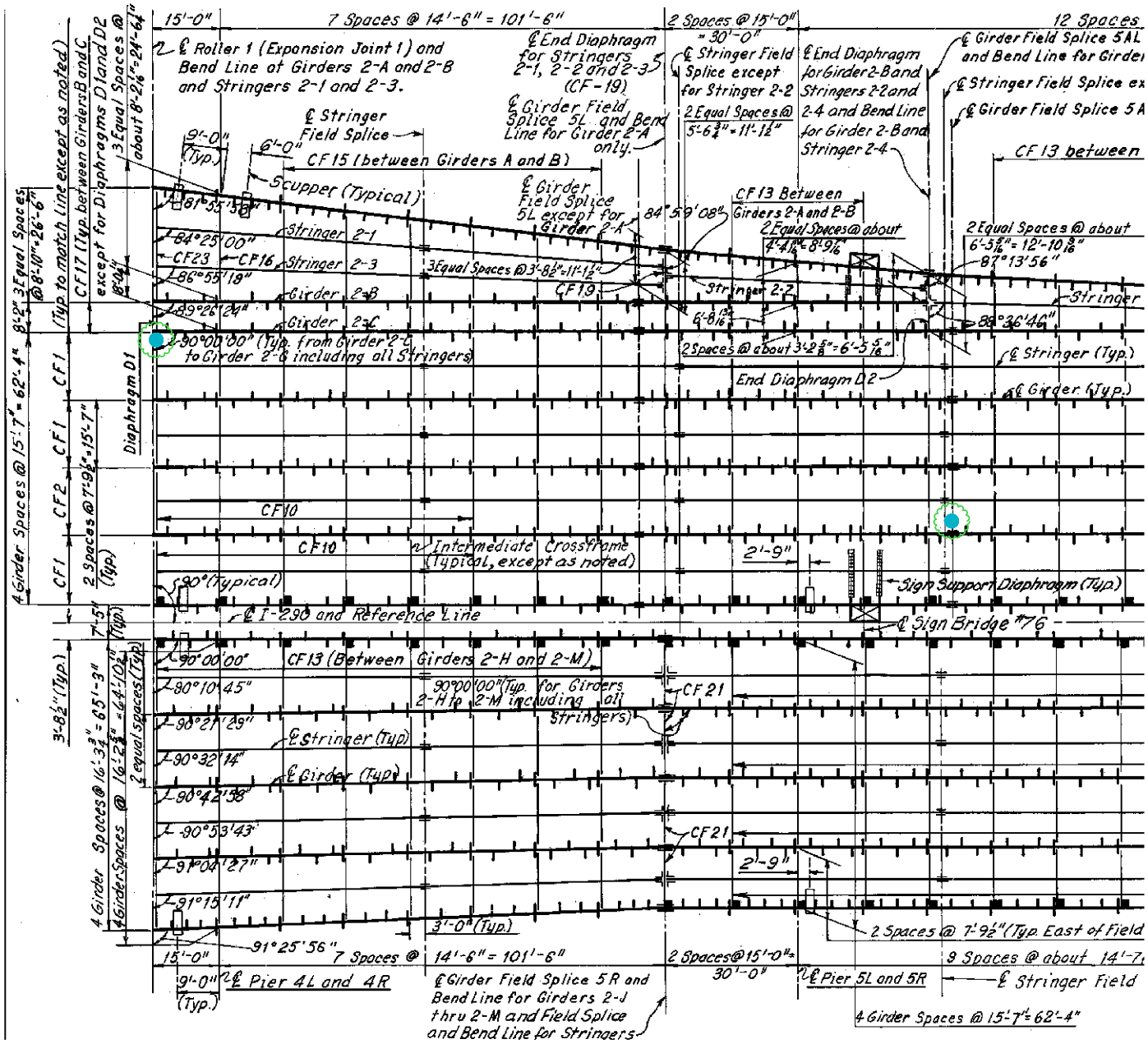
BR. NO. CUY-290-0110 STA. 985+85.75 TO STA. 1020+47.57

CLEVELAND CUYAHOGA COUNTY (℄ I-290) OHIO

DRAWN DLR	TRACED DLR	CHECKED DLR	REVIEWED C.A.B.	REVISED
DATE 10-15-69	DATE 10-18-69	DATE 11-26-69	DATE 2-24-86	SHEET 93/108

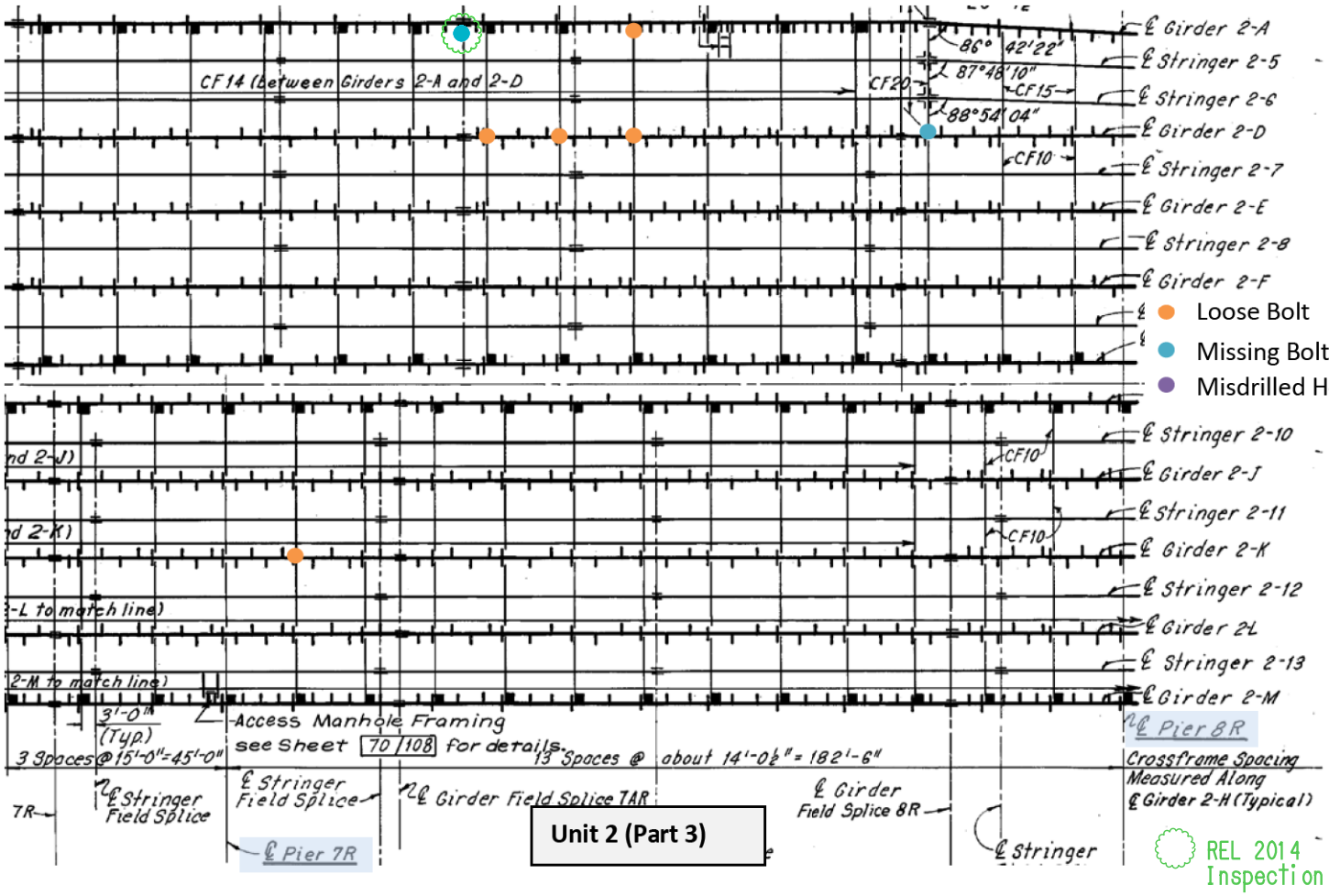
Partial Framing Plans


Unit 1
Floorbeam
Loose Bolt
Missing Bolt
Misdrilled Holes
REL 2014 Inspection
FRAMING PLAN

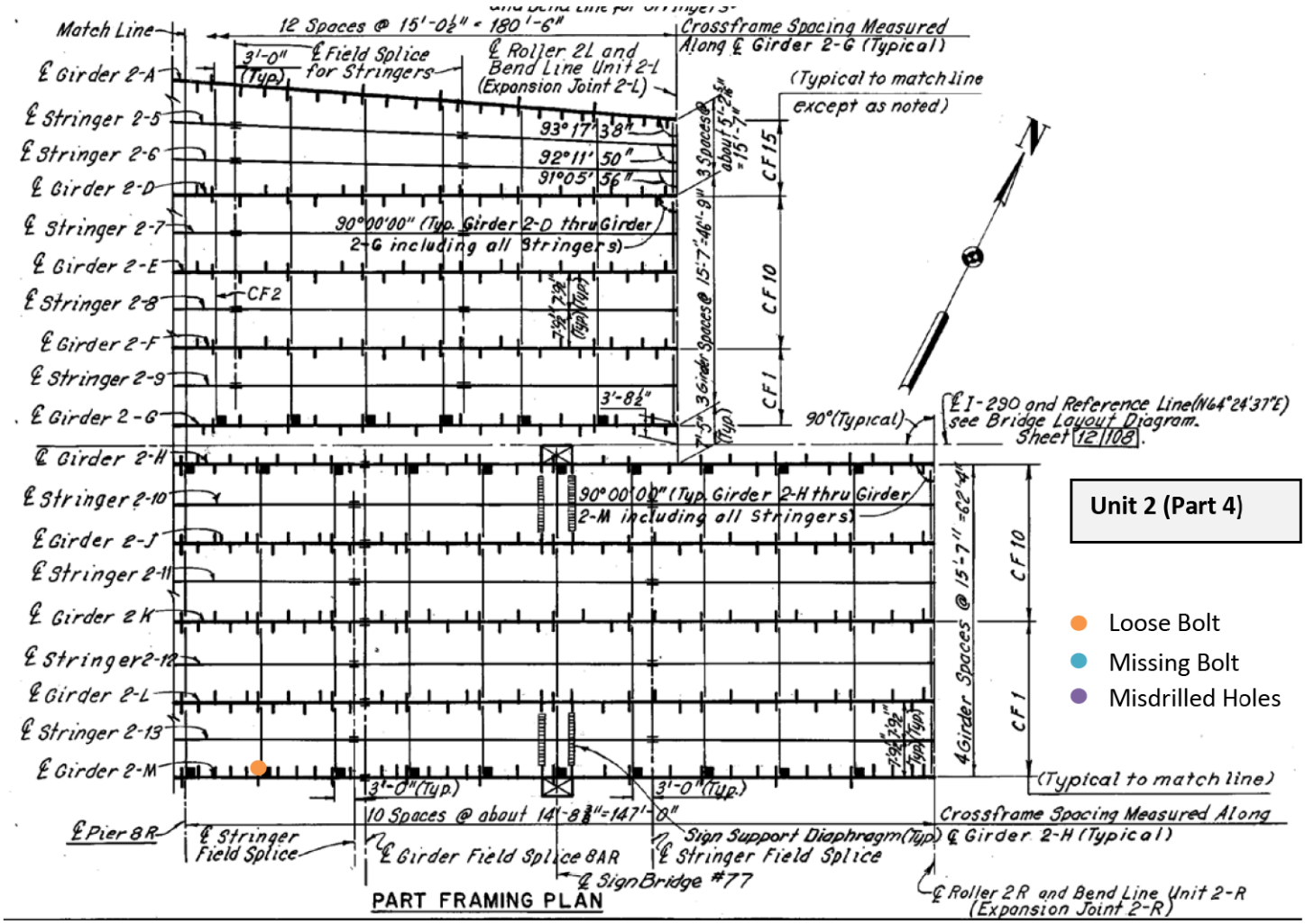


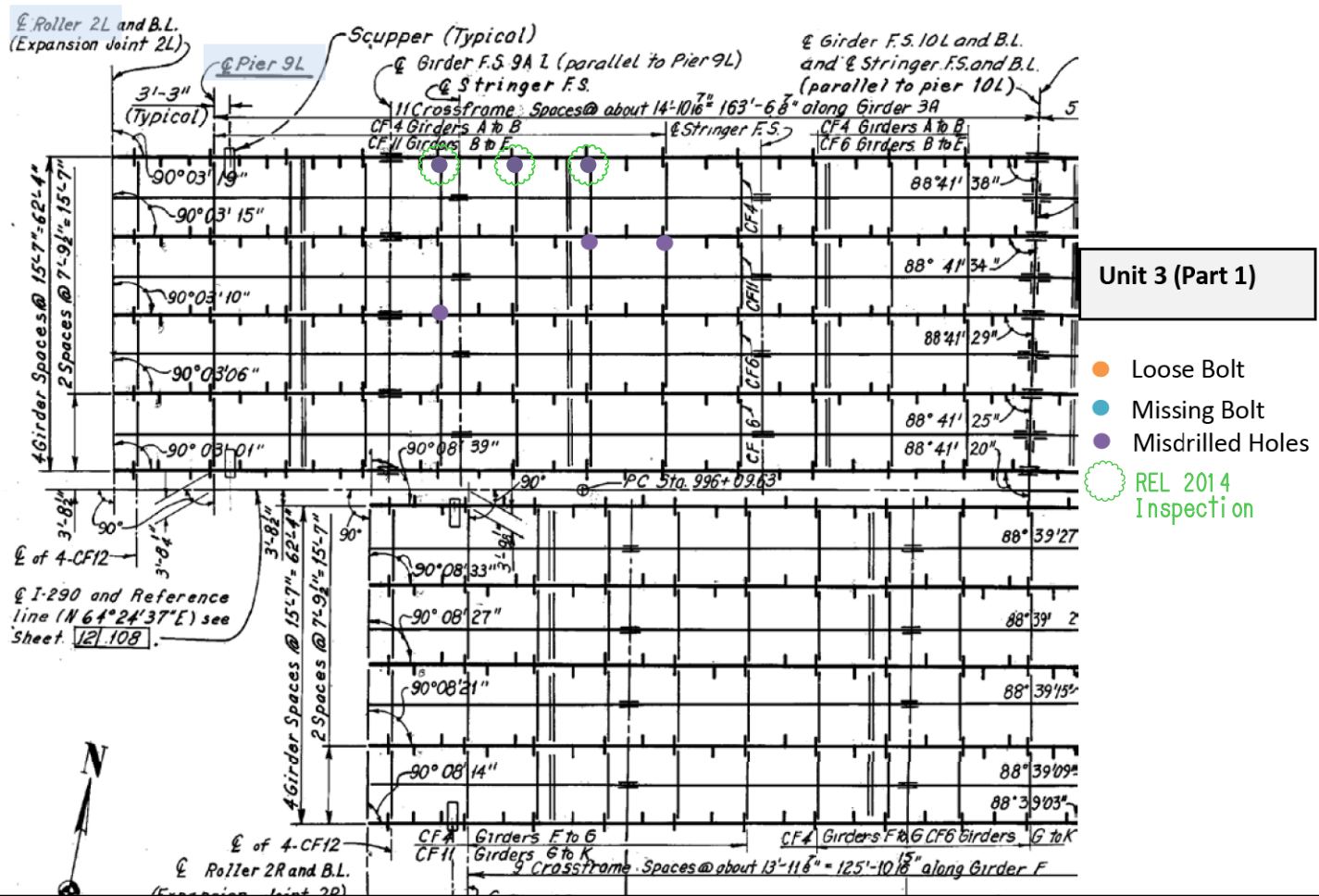
Unit 2 (Part 1)

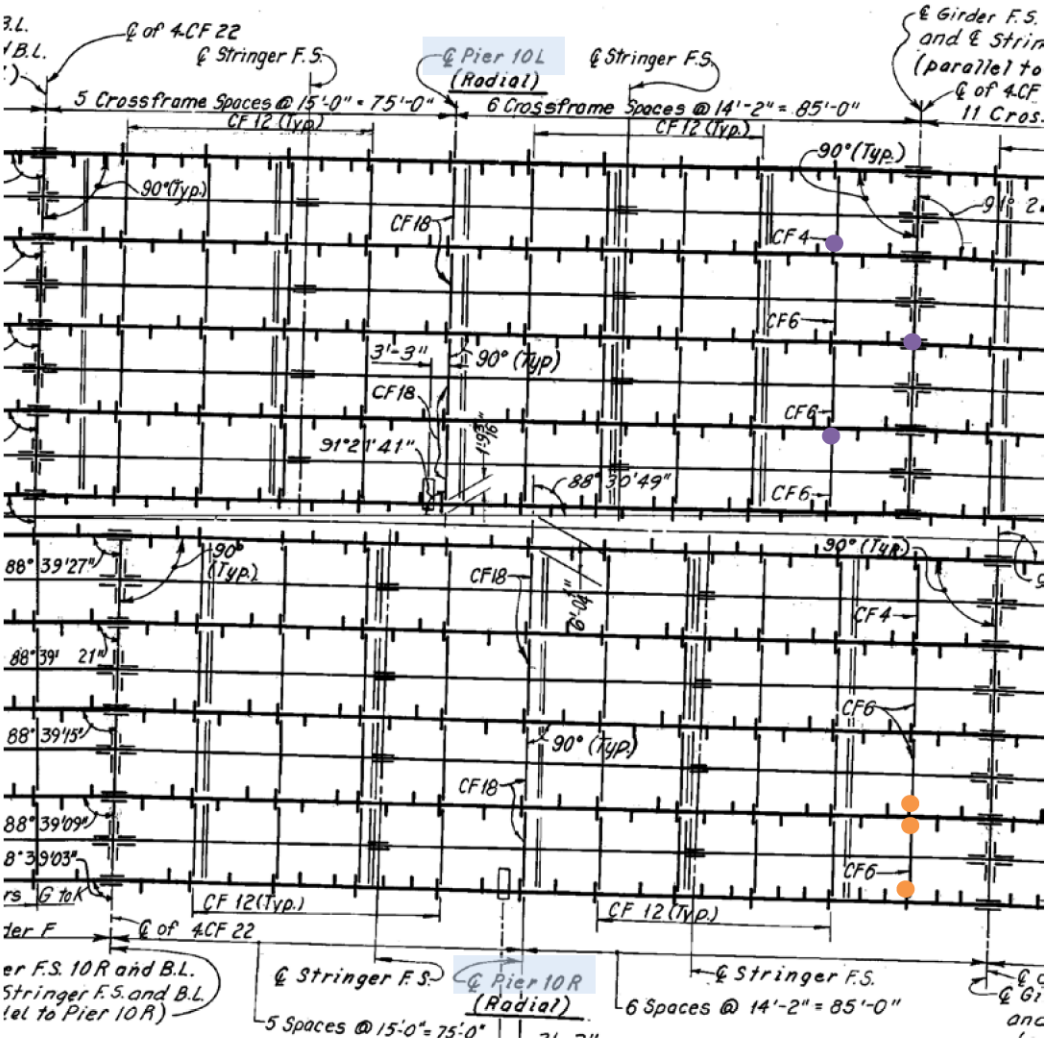
- Loose Bolt
- Missing Bolt
- Misdrilled Holes
- REL 2014 Inspection

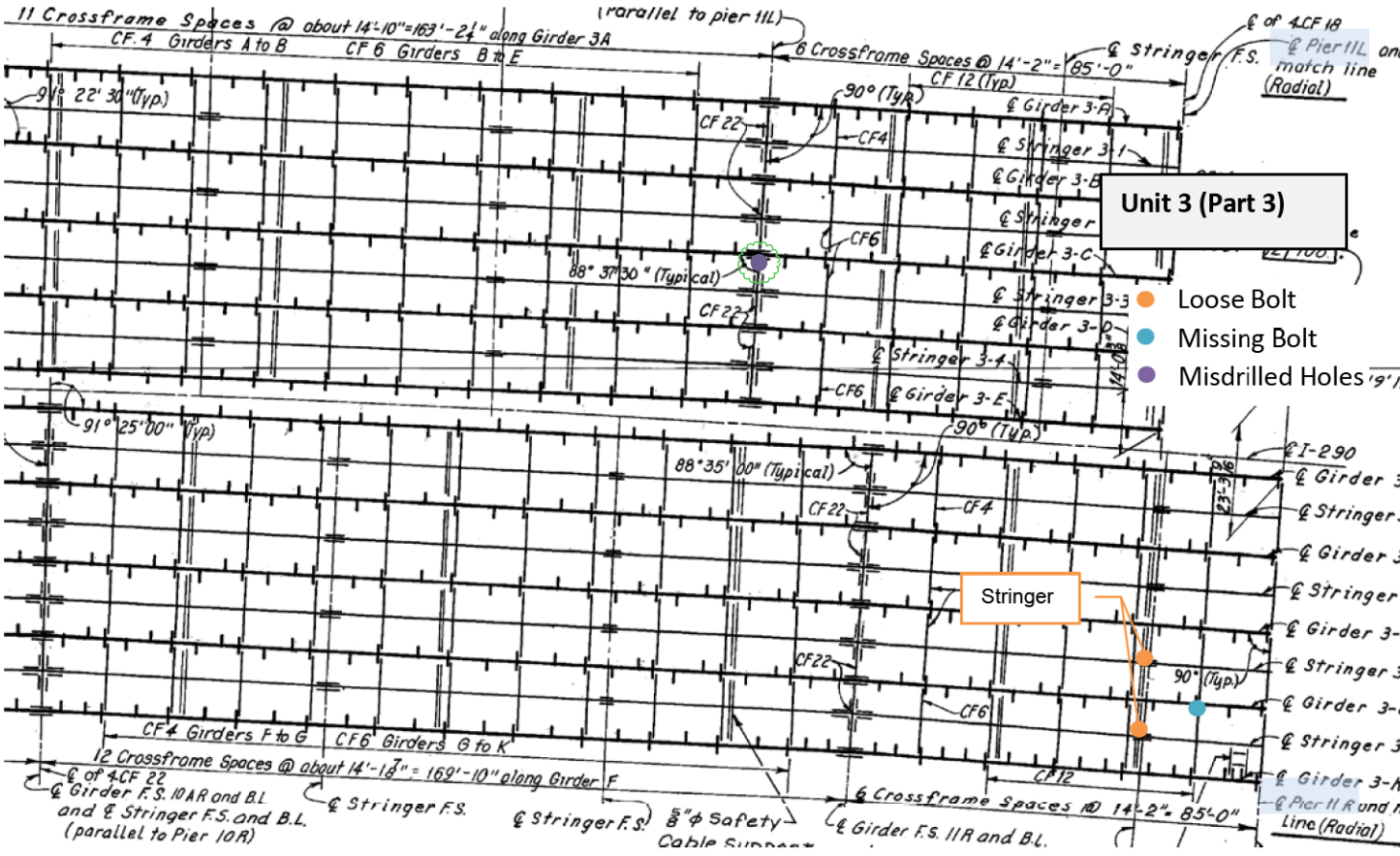

℄ Girder 2-A
℄ Stringer 2-5
℄ Stringer 2-6
℄ Girder 2-D
℄ Stringer 2-7
℄ Girder 2-E
℄ Stringer 2-8
℄ Girder 2-F
CF14 (between Girders 2-A and 2-D
CF20
CF15
CF10
86° 42'22"
87°48'10"
88°54'04"
Loose Bolt
Missing Bolt
Misdrilled Holes
℄ Stringer 2-10
℄ Girder 2-J
℄ Stringer 2-11
℄ Girder 2-K
℄ Stringer 2-12
℄ Girder 2-L
℄ Stringer 2-13
℄ Girder 2-M
℄ Pier 8R
Crossframe Spacing Measured Along ℄ Girder 2-H (Typical)
3'-0" (Typ.)
3 Spaces @ 15'-0" = 45'-0"
Access Manhole Framing see Sheet 70/108 for details.
13 Spaces @ about 14'-0½" = 182'-6"
℄ Stringer Field Splice
℄ Girder Field Splice T4R
℄ Girder Field Splice 8R
℄ Pier 7R
℄ Stringer
REL 2014 Inspection

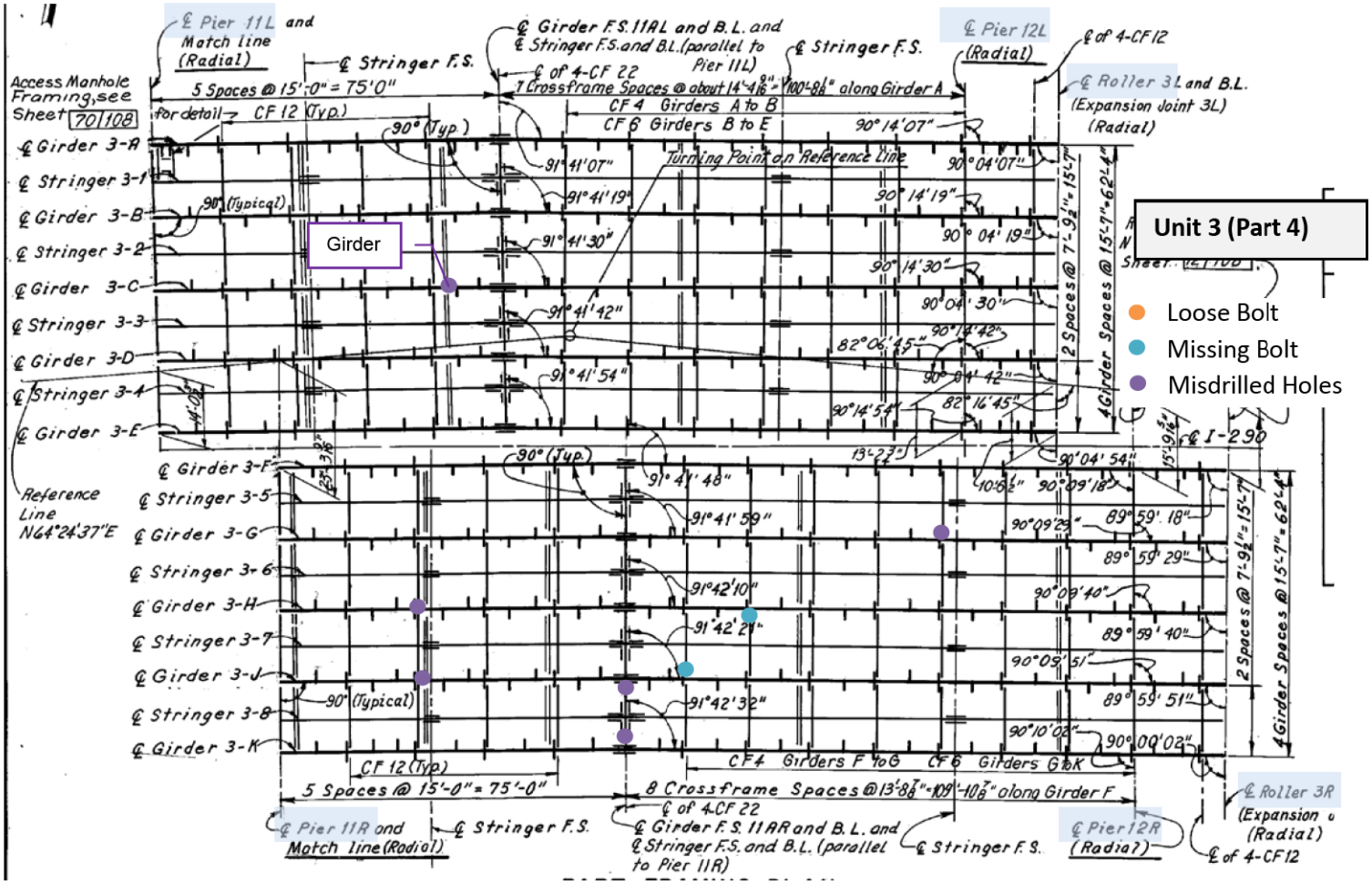
Unit 2 (Part 3)

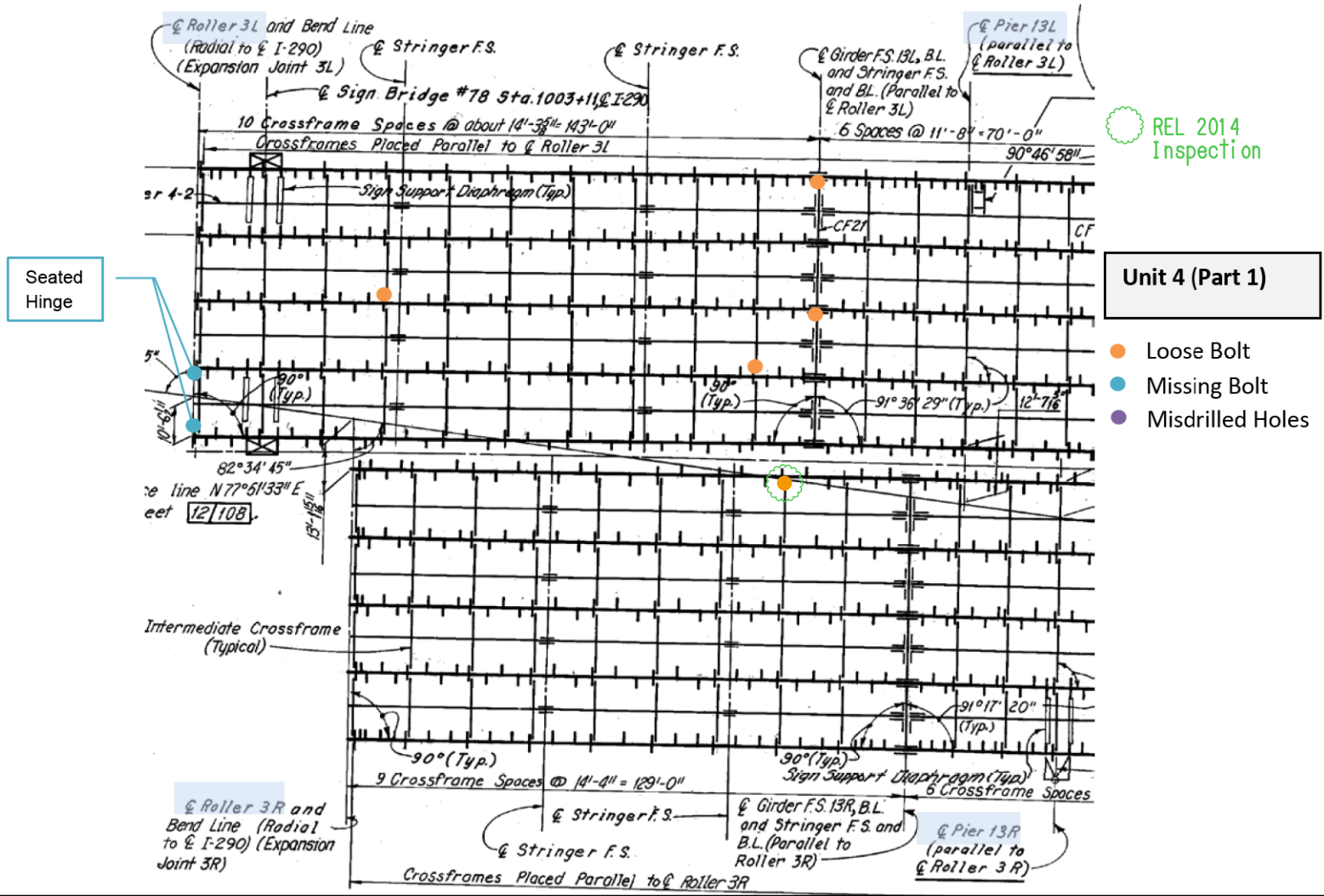

Match Line
12 Spaces @ 15'-0½" = 180'-6"
℄ Field Splice for Stringers
℄ Roller 2L and Bend Line Unit 2-L (Expansion Joint 2-L)
Crossframe Spacing Measured Along ℄ Girder 2-G (Typical)
(Typical to match line except as noted)
℄ Girder 2-A
℄ Stringer 2-5
℄ Stringer 2-6
℄ Girder 2-D
℄ Stringer 2-7
℄ Girder 2-E
℄ Stringer 2-8
℄ Girder 2-F
℄ Stringer 2-9
℄ Girder 2-G
℄ Girder 2-H
℄ Stringer 2-10
℄ Girder 2-J
℄ Stringer 2-11
℄ Girder 2K
℄ Stringer 2-12
℄ Girder 2-L
℄ Stringer 2-13
℄ Girder 2-M
℄ Pier 8R
℄ Stringer Field Splice
℄ Girder Field Splice 8AR
℄ Stringer Field Splice
℄ Sign Bridge #77
℄ Roller 2R and Bend Line Unit 2-R (Expansion Joint 2-R)
Crossframe Spacing Measured Along ℄ Girder 2-H (Typical)
Sign Support Diaphragm (Typ)
93°17'38"
92°11'50"
91°05'56"
90°00'00" (Typ. Girder 2-D thru Girder 2-G including all Stringers)
90°00'00" (Typ. Girder 2-H thru Girder 2-M including all Stringers)
90°(Typical)
℄ I-290 and Reference Line (N64°24'37"E) see Bridge Layout Diagram. Sheet 12.108.
3 Girder Spaces @ 15'-7" = 46'-9"
4 Girder Spaces @ 15'-7" = 62'-4"
CF1
CF2
CF10
CF15
(Typical to match line)
10 Spaces @ about 14'-8⅜" = 147'-0"
3'-0" (Typ.)
3'-8½"
PART FRAMING PLAN
Unit 2 (Part 4)
Loose Bolt
Missing Bolt
Misdrilled Holes

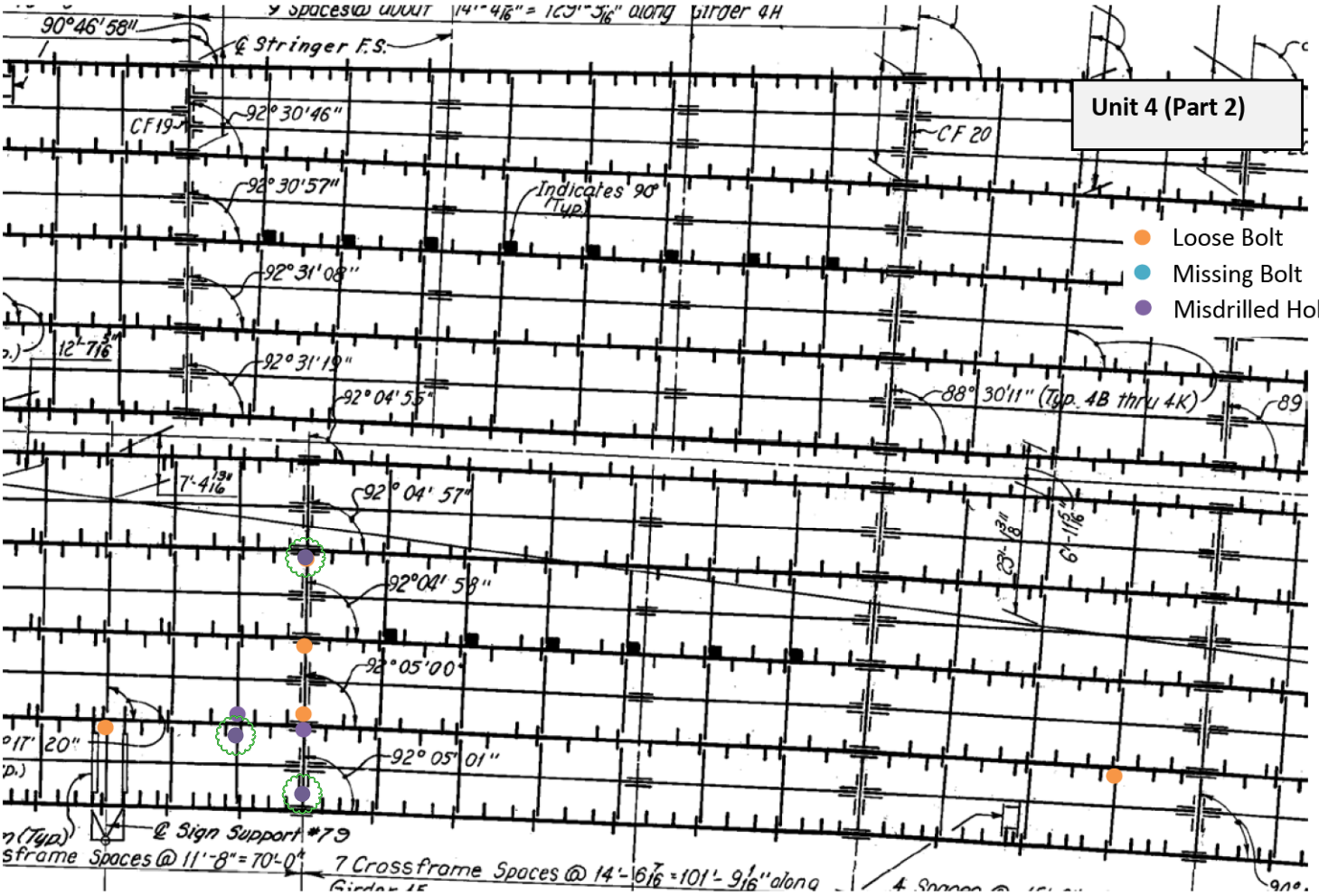

℄ Roller 2L and B.L. (Expansion Joint 2L)
℄ Pier 9L
Scupper (Typical)
℄ Girder F.S. 9A L (parallel to Pier 9L)
℄ Stringer F.S.
℄ Girder F.S. 10L and B.L. and ℄ Stringer F.S. and B.L. (parallel to pier 10L)
11 Crossframe Spaces @ about 14'-10 7/16" = 163'-6 7/8" along Girder 3A
CF4 Girders A to B
CF11 Girders B to F
CF6 Girders B to F
℄ Stringer F.S.
3'-3" (Typical)
90°03'19"
90°03'15"
90°03'10"
90°03'06"
90°03'01"
90°08'39"
88°41'38"
88°41'34"
88°41'29"
88°41'25"
88°41'20"
88°39'27"
88°39'21"
88°39'15"
88°39'09"
88°39'03"
PC Sta. 996+09.63
90°08'33"
90°08'27"
90°08'21"
90°08'14"
4 Girder Spaces @ 15'-7" = 62'-4"
2 Spaces @ 7'-9½" = 15'-7"
3'-8½"
℄ of 4-CF12
℄ I-290 and Reference line (N 61°24'37"E) see Sheet 12.108.
℄ Roller 2R and B.L.
CF4 Girders F to G
CF11 Girders G to K
CF4 Girders F to G CF6 Girders G to K
9 Crossframe Spaces @ about 13'-11 7/16" = 125'-10 15/16" along Girder F
Unit 3 (Part 1)
Loose Bolt
Missing Bolt
Misdrilled Holes
REL 2014 Inspection

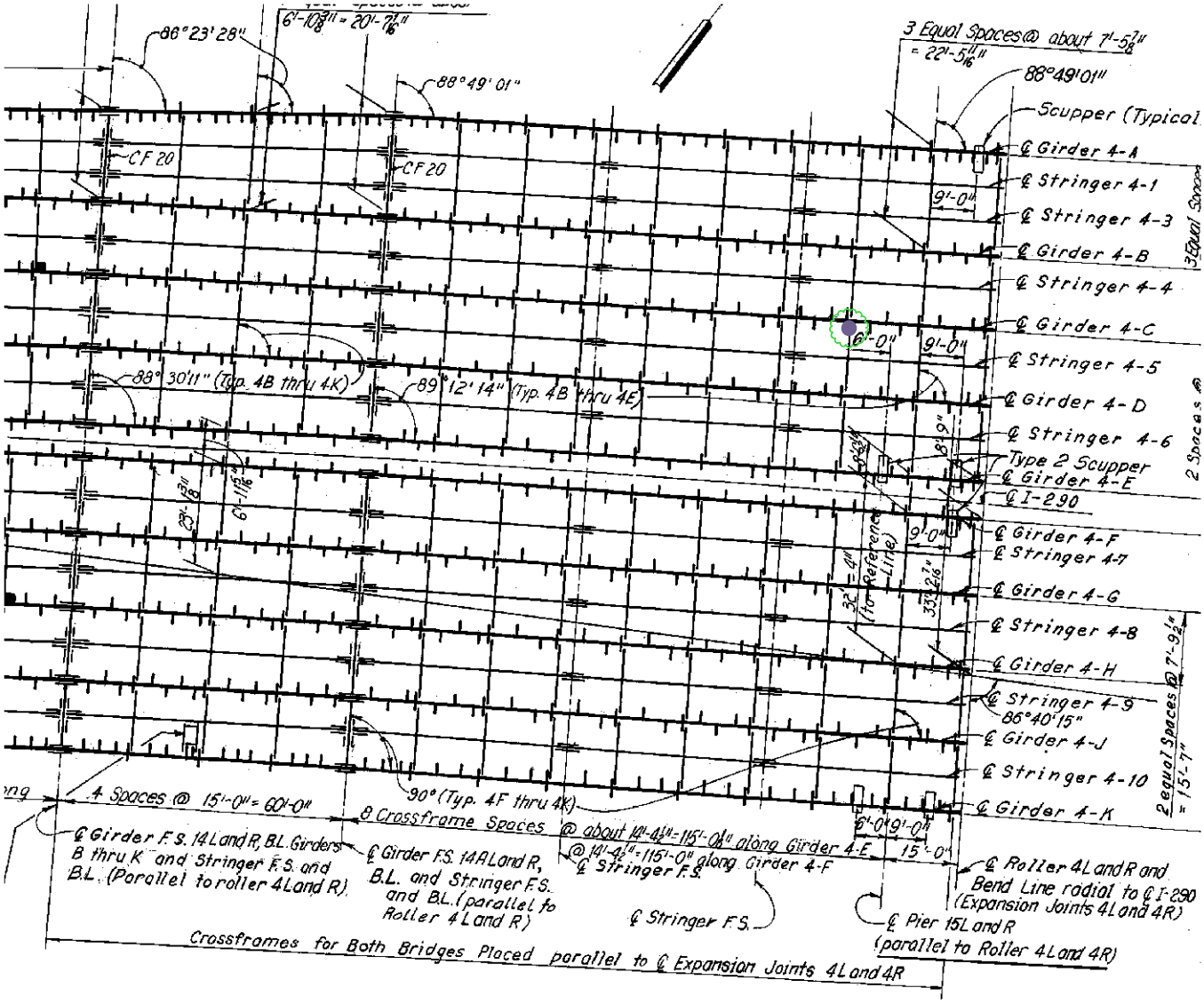

Unit 3 (Part 2)
Loose Bolt
Missing Bolt
Misdrilled Holes
REL 2014 Inspection
℄ of 4 CF 22
℄ Stringer F.S.
℄ Pier 10L (Radial)
5 Crossframe Spaces @ 15'-0" = 75'-0"
6 Crossframe Spaces @ 14'-2" = 85'-0"
CF 12 (Typ.)
90° (Typ.)
CF 18
CF 4
CF 6
3'-3"
91°21'41"
88°30'49"
88°39'27"
88°39'21"
88°39'15"
88°39'09"
88°39'03"
℄ Pier 10R (Radial)
℄ Stringer F.S. and B.L. (parallel to Pier 10R)


Unit 3 (Part 3)
Loose Bolt
Missing Bolt
Misdrilled Holes
11 Crossframe Spaces @ about 14'-10"=163'-2½" along Girder 3A
CF 4 Girders A to B
CF 6 Girders B to E
6 Crossframe Spaces @ 14'-2" = 85'-0"
CF 12 (Typ.)
90° (Typ.)
CF 22
CF 4
CF 6
88°37'30" (Typical)
91°25'00" (Typ.)
88°35'00" (Typical)
Stringer
CF 4 Girders F to G
CF 6 Girders G to K
12 Crossframe Spaces @ about 14'-1⅞" = 169'-10" along Girder F
℄ Pier 11L on match line (Radial)
℄ Pier 11R and B.L. Line (Radial)


Girder
Unit 3 (Part 4)
Loose Bolt
Missing Bolt
Misdrilled Holes

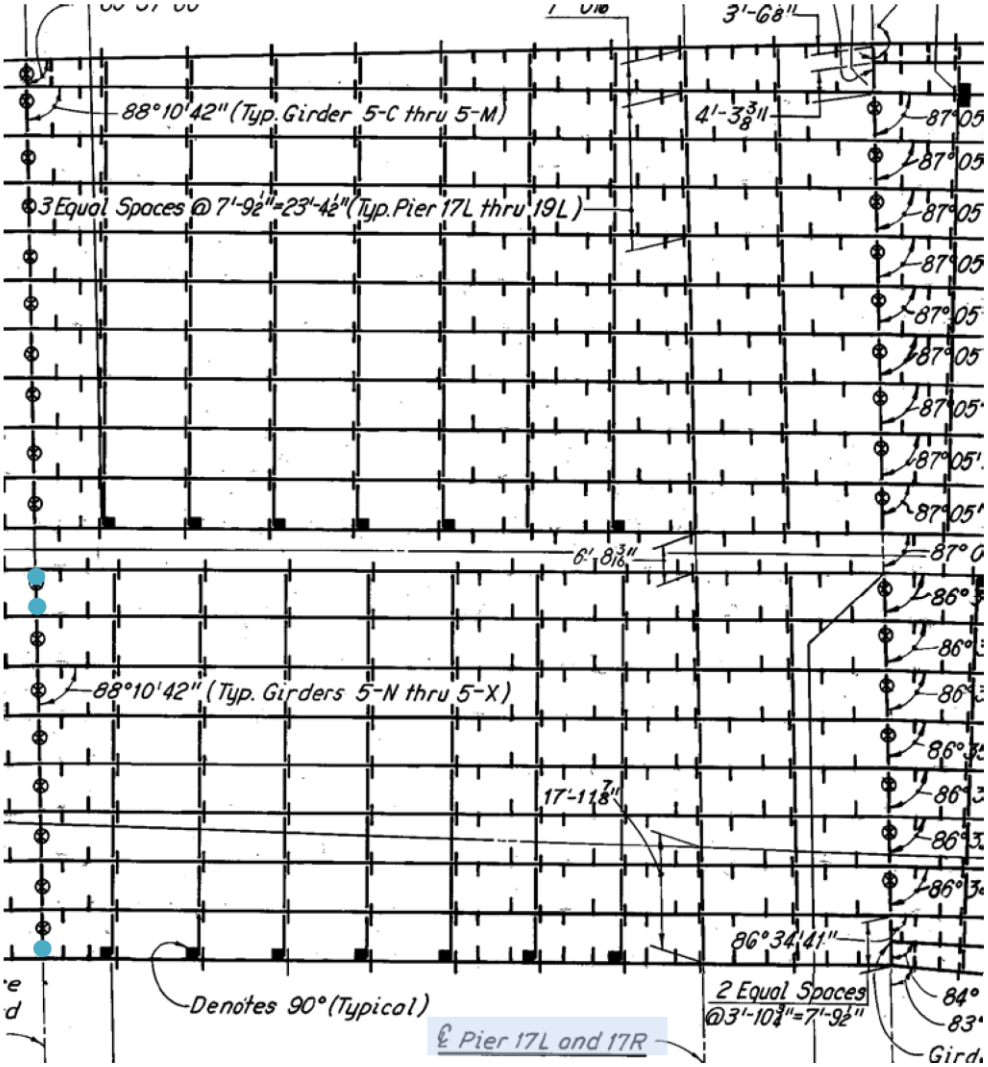

Seated Hinge
REL 2014 Inspection
Unit 4 (Part 1)
Loose Bolt
Missing Bolt
Misdrilled Holes


Unit 4 (Part 2)
Loose Bolt
Missing Bolt
Misdrilled Holes
90°46'58"
℄ Stringer F.S.
CF19
92°30'46"
92°30'57"
92°31'08"
92°31'19"
92°04'55"
Indicates 90° Typ.
CF 20
88°30'11" (Typ. 4B thru 4K)
92°04'57"
92°04'58"
92°05'00"
92°05'01"
℄ Sign Support #79
7 Crossframe Spaces @ 14'-6 7/16" = 101'-9 1/16" along
Loose Bolt
Missing Bolt
Misdrilled Holes
REL 2014 Inspection



Unit 4 (Part 3)

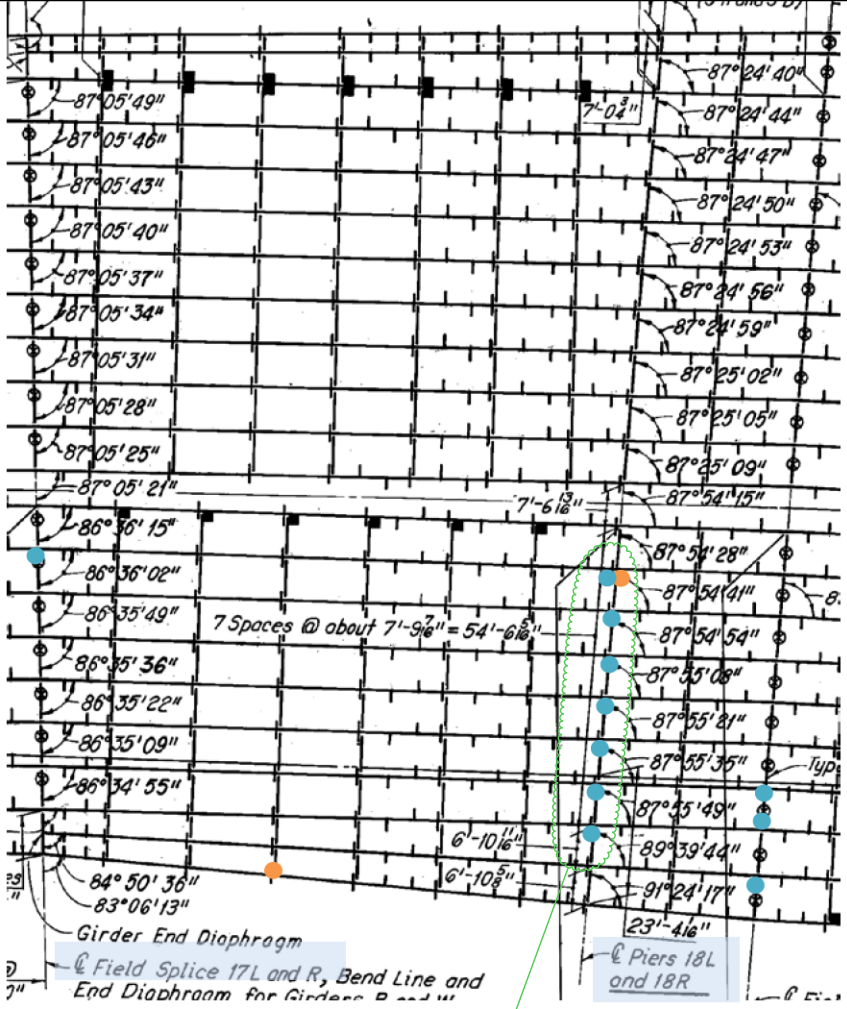
- Loose Bolt
- Missing Bolt
- Misdrilled Holes
- REL 2014 Inspection



Unit 5 (Part 2)

- Loose Bolt
- Missing Bolt
- Misdrilled Holes

REL 2014 Inspection

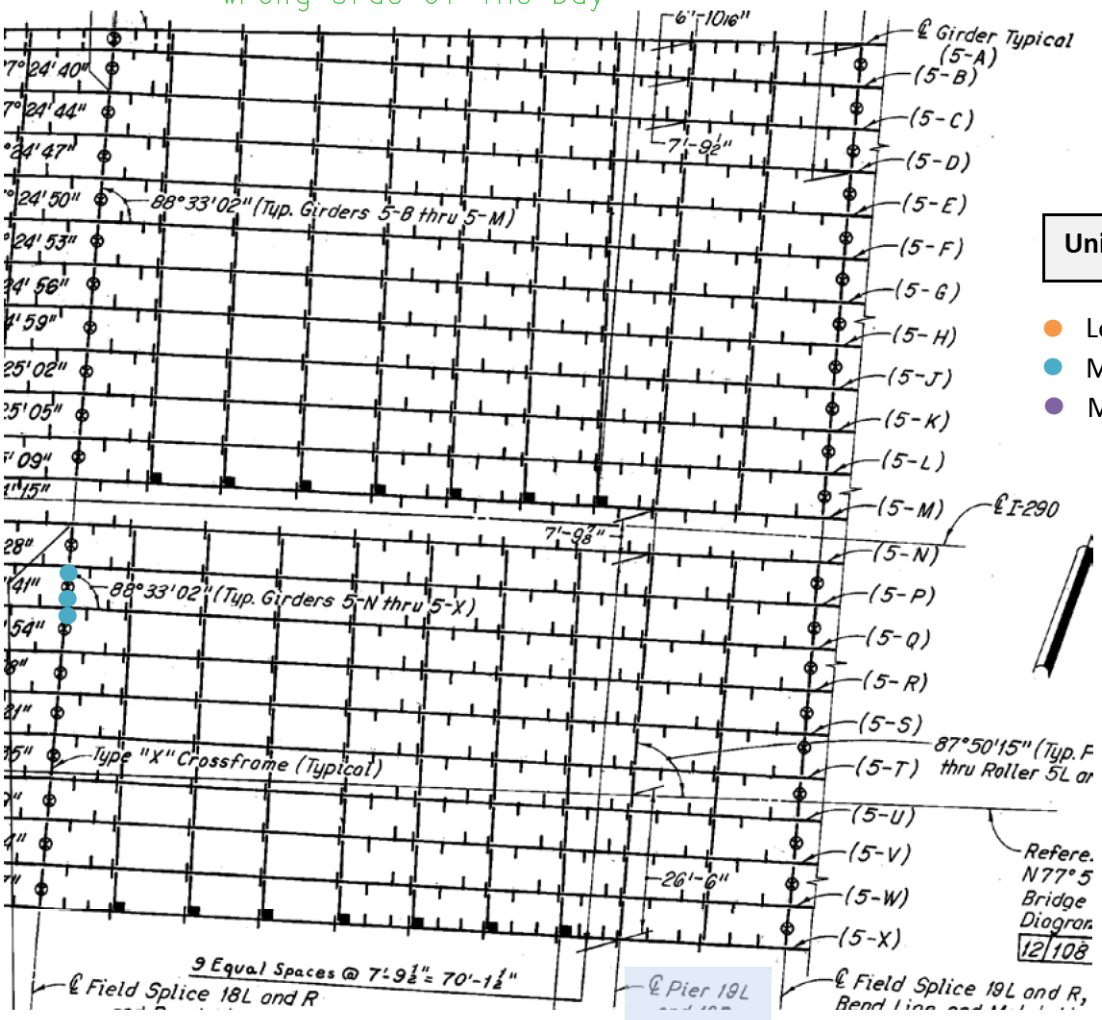


Unit 5 (Part 3)

- Loose Bolt
- Missing Bolt
- Misdrilled Holes

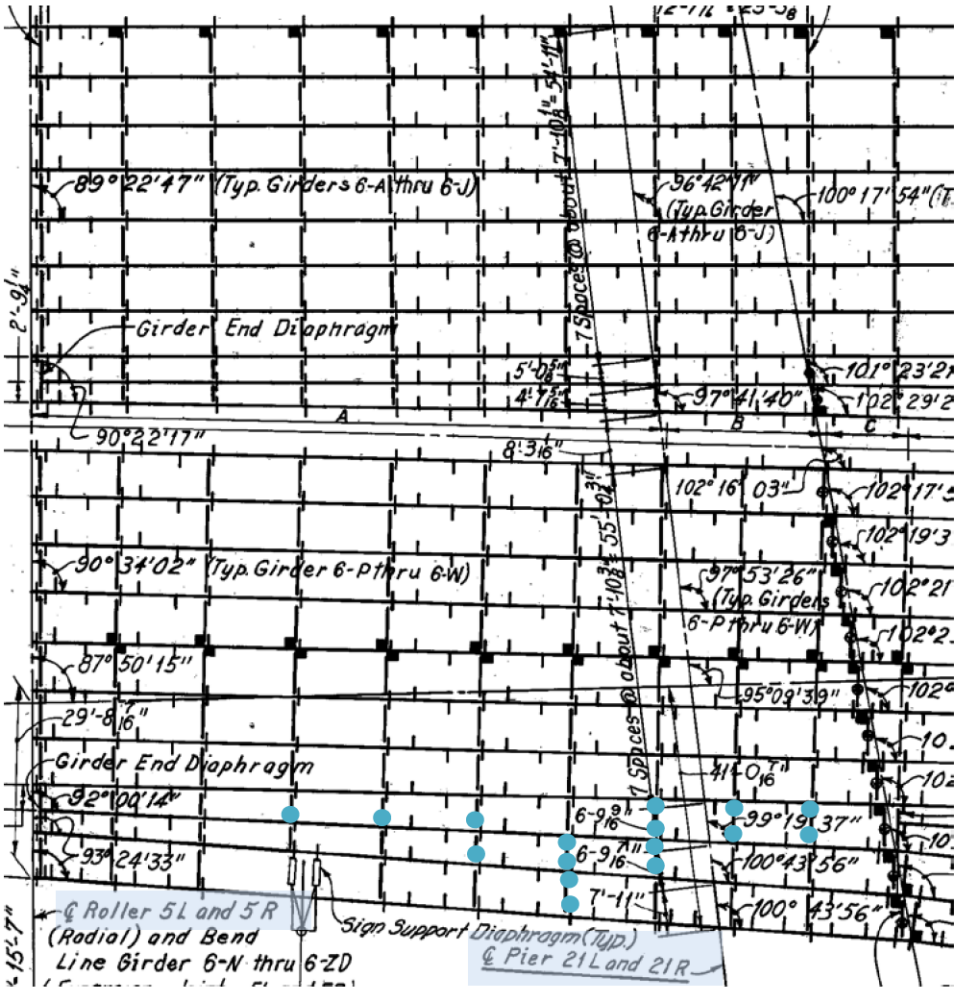
REL 2014 Inspection

These are shown on wrong side of the bay



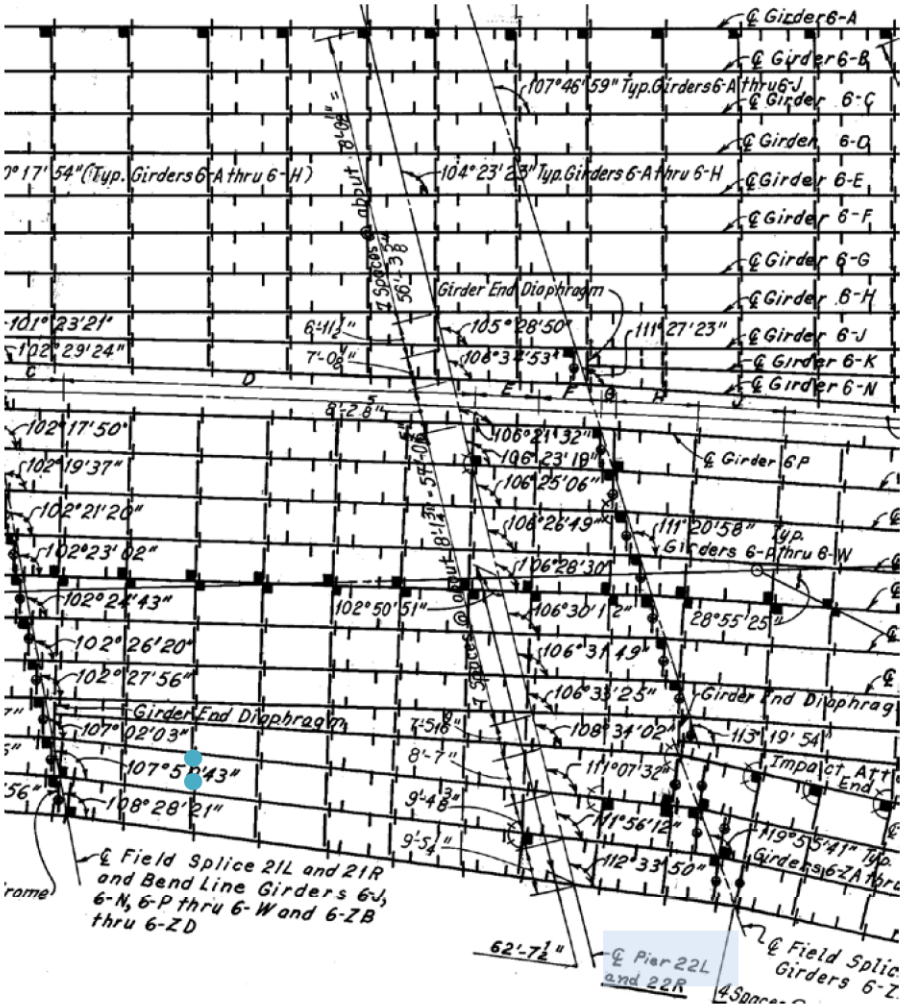
Unit 5 (Part 4)

- Loose Bolt
- Missing Bolt
- Misdrilled Holes



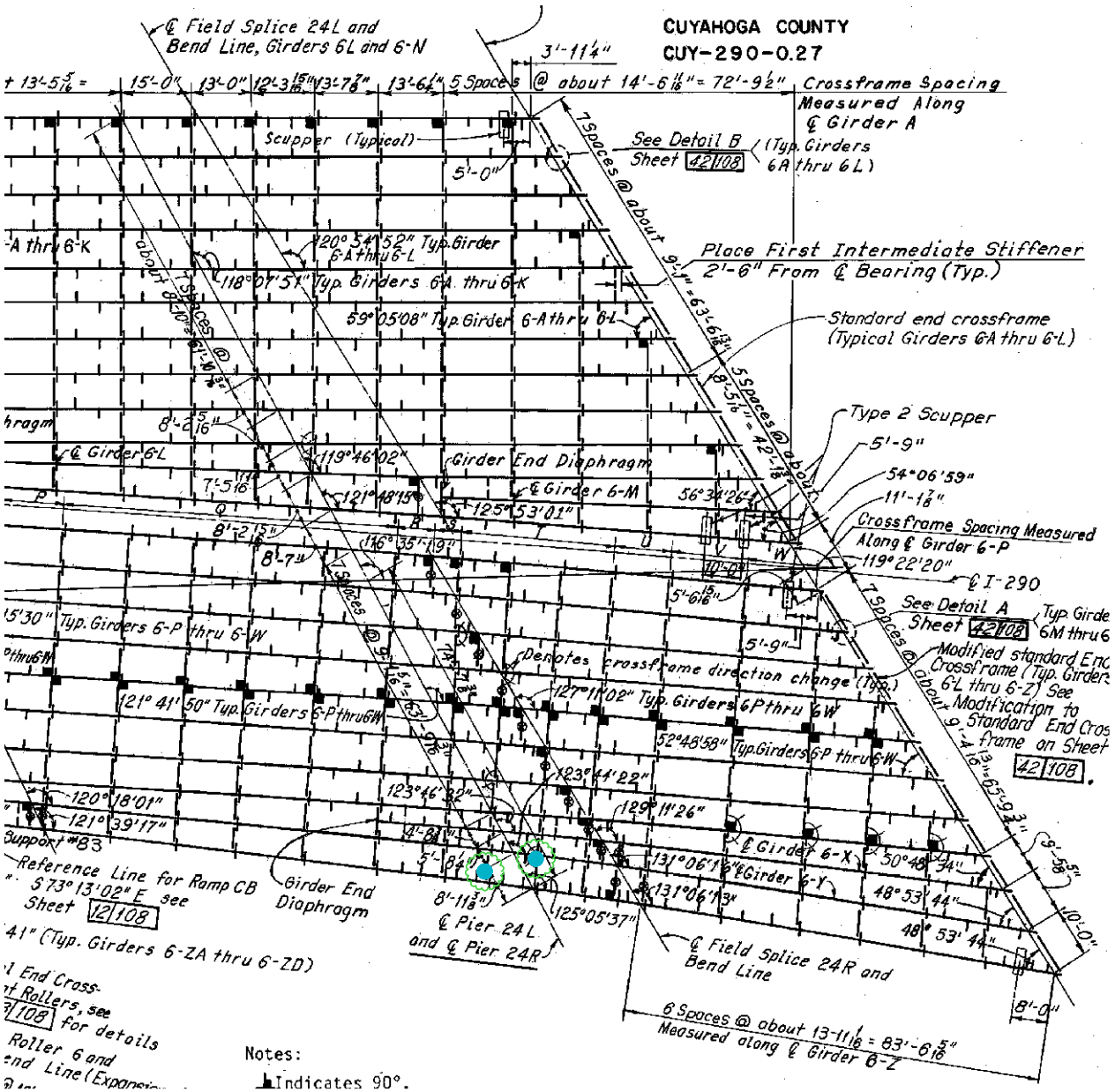
Unit 6 (Part 1)

- Loose Bolt
- Missing Bolt
- Misdrilled Holes



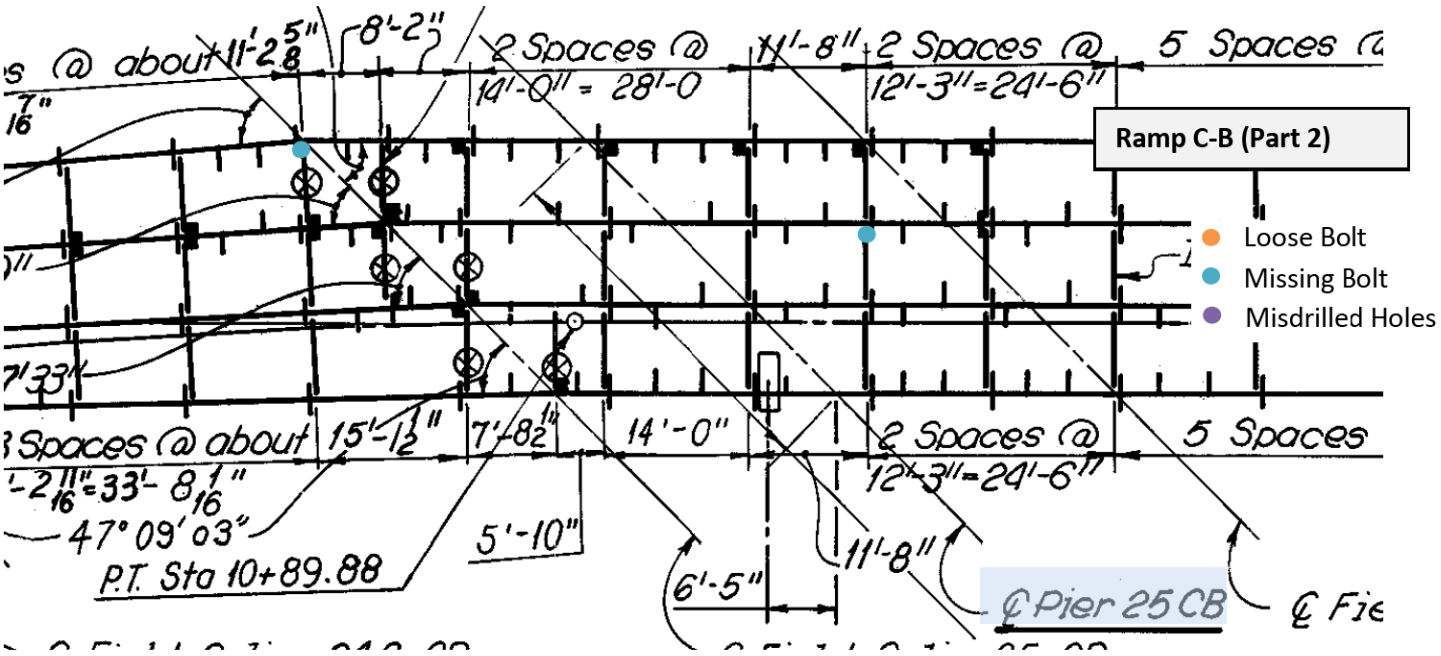
Unit 6 (Part 2)

- Loose Bolt
- Missing Bolt
- Misdrilled Holes



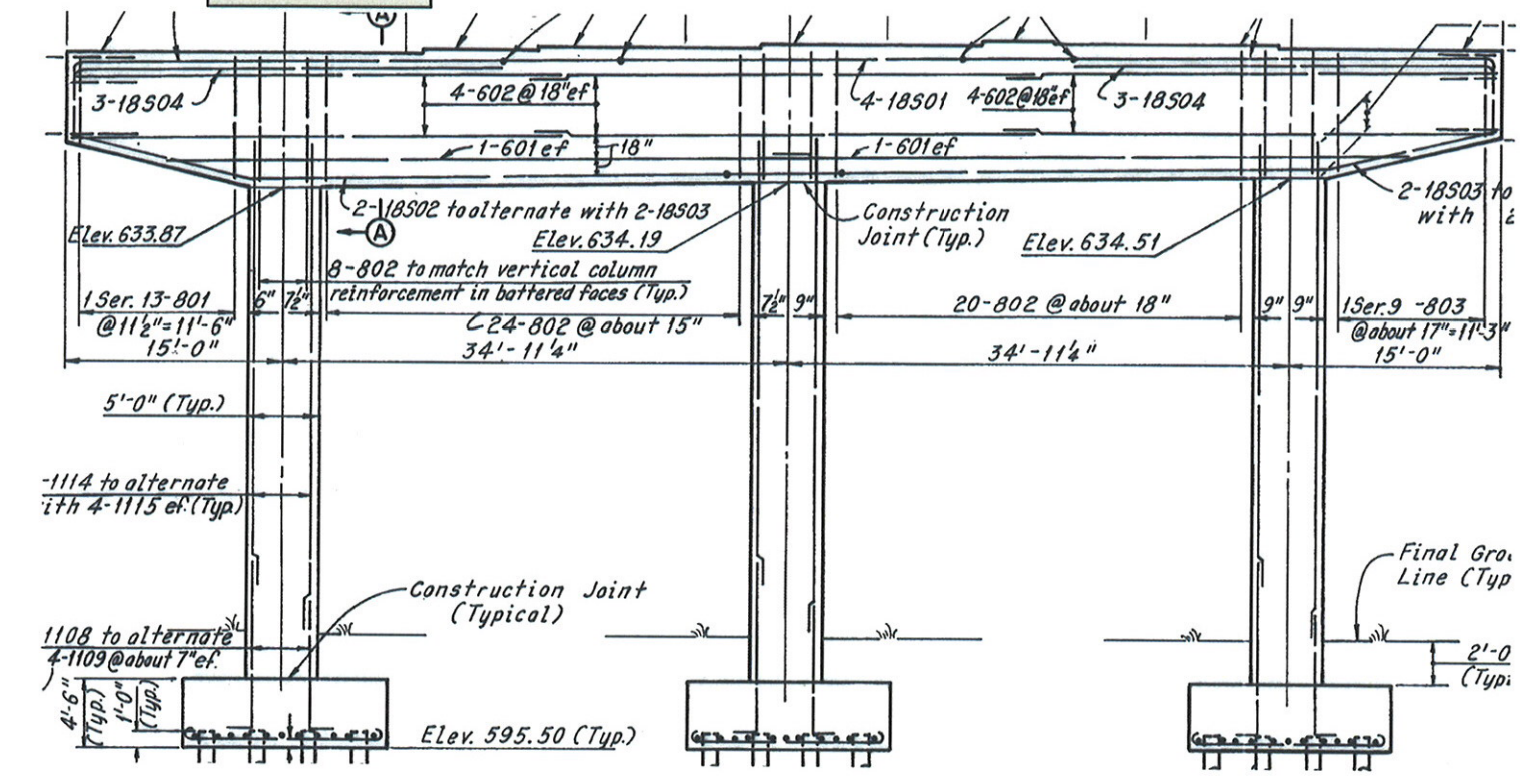
Unit 6 (Part 3)

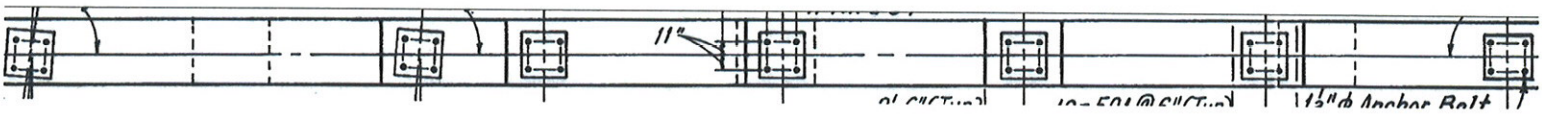
- Loose Bolt
- Missing Bolt
- Misdrilled Holes
- REL 2014 Inspection

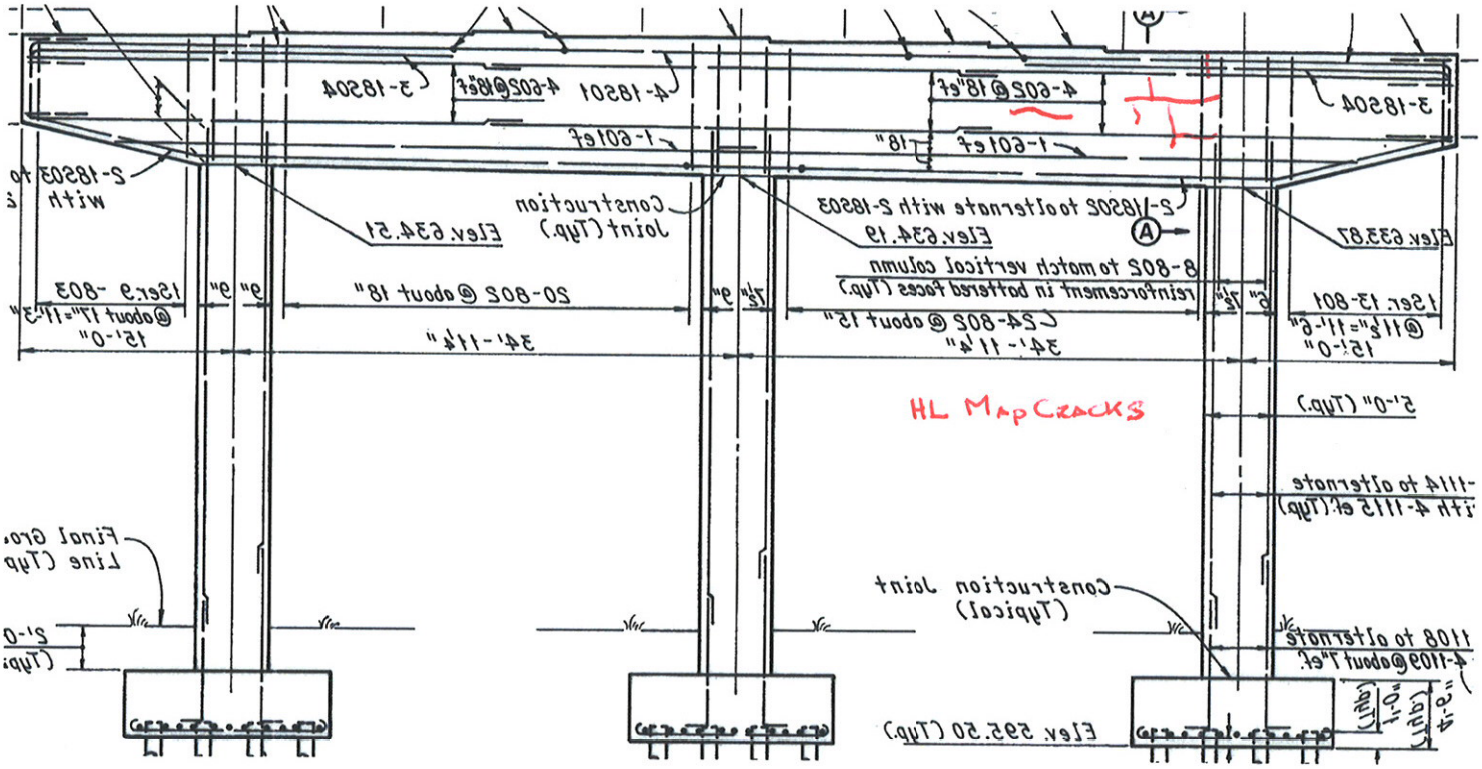

Ramp C-B (Part 2)
Loose Bolt
Missing Bolt
Misdrilled Holes
@ about 11'-2 5/8"
8'-2"
2 Spaces @ 14'-0" = 28'-0
11'-8"
2 Spaces @ 12'-3" = 24'-6"
5 Spaces
Spaces @ about 15'-1 1/2"
7'-8 1/2"
14'-0"
2 Spaces @ 12'-3" = 24'-6"
5 Spaces
47° 09' 03"
P.T. Sta 10+89.88
5'-10"
6'-5"
11'-8"
℄ Pier 25 CB

Pier Deterioration Drawings

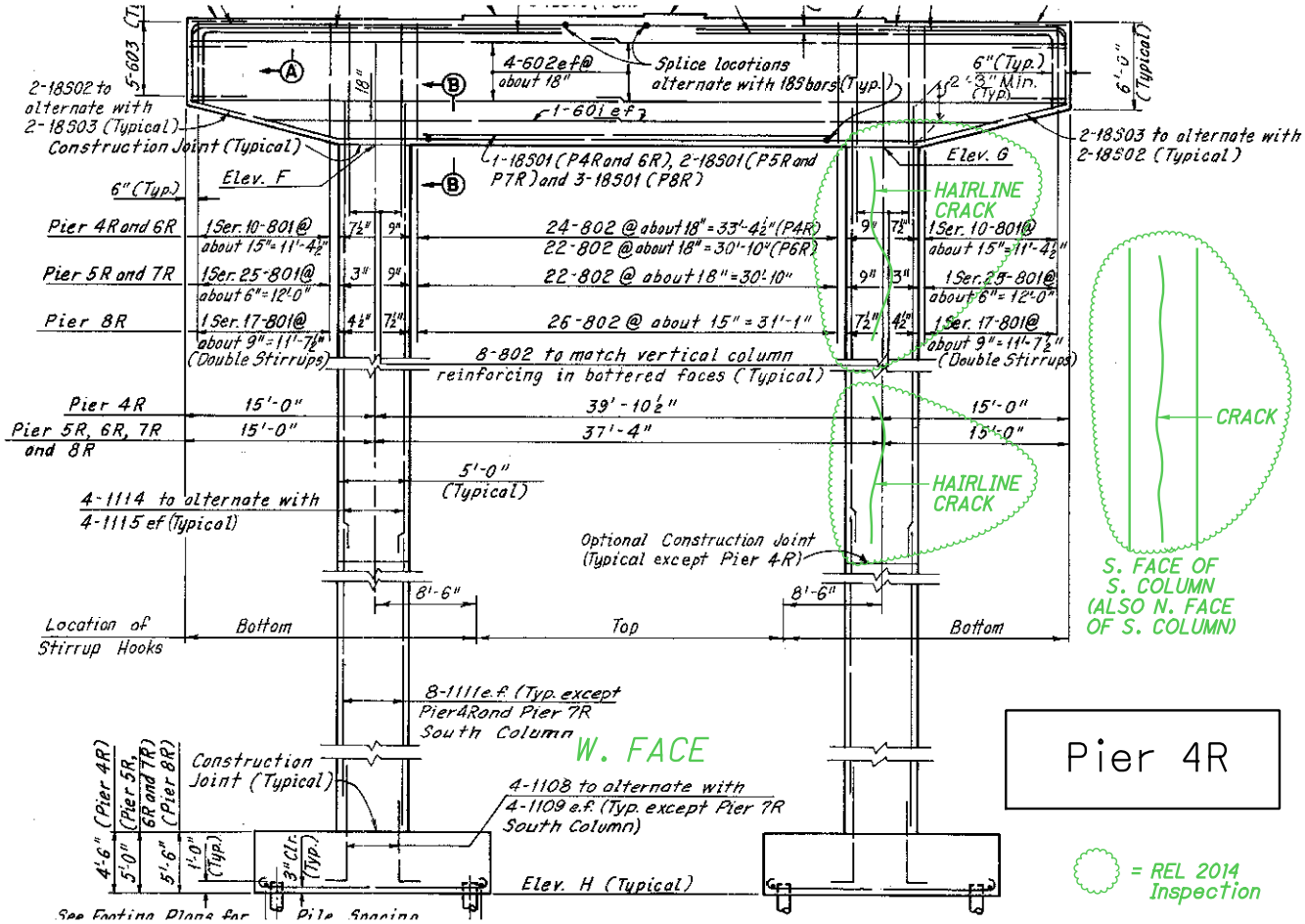
Pier 4L

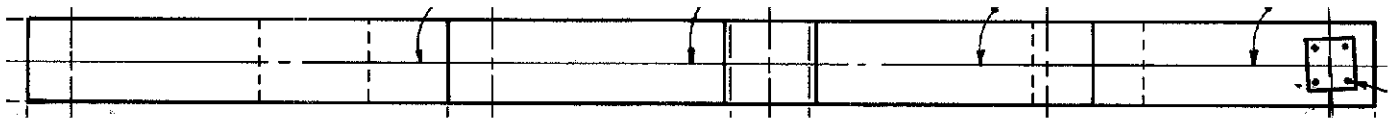


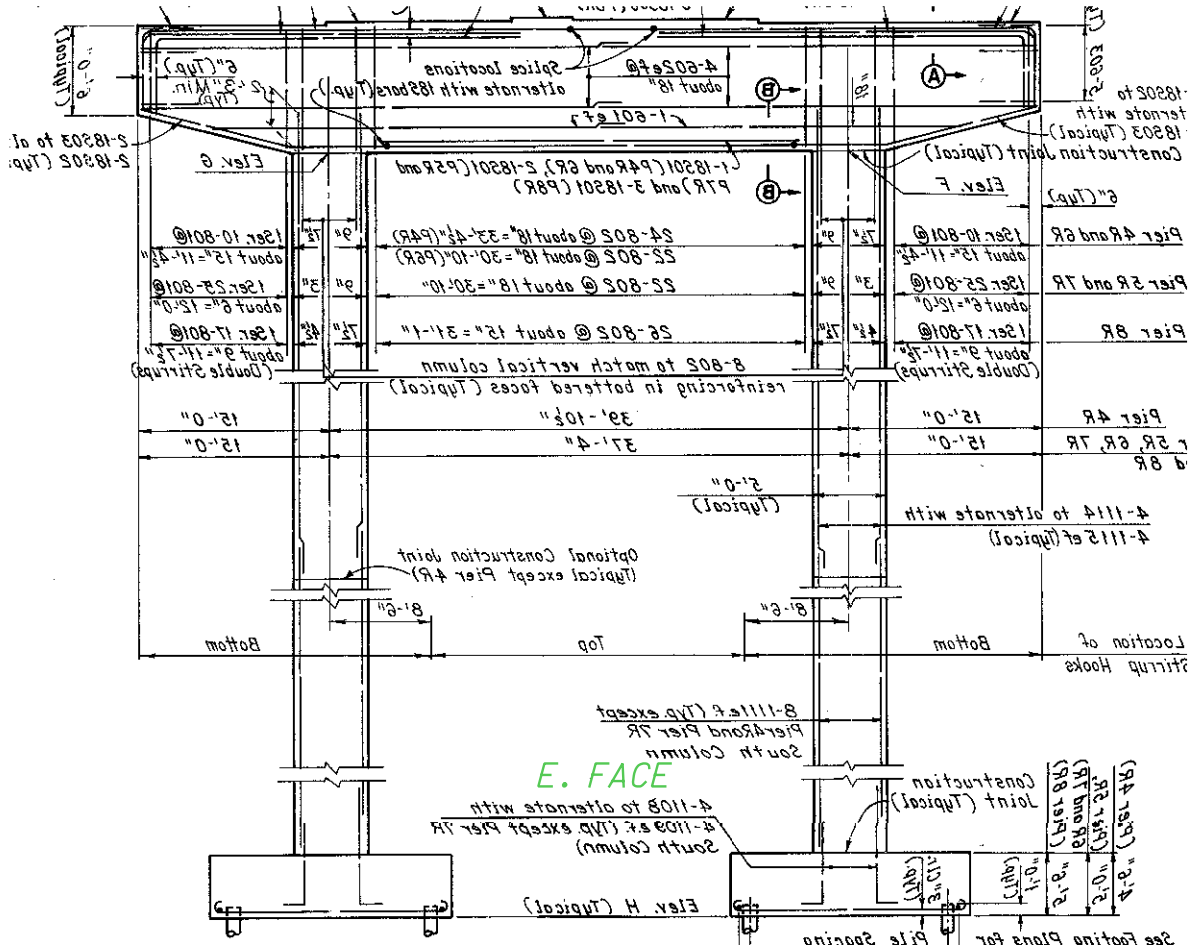




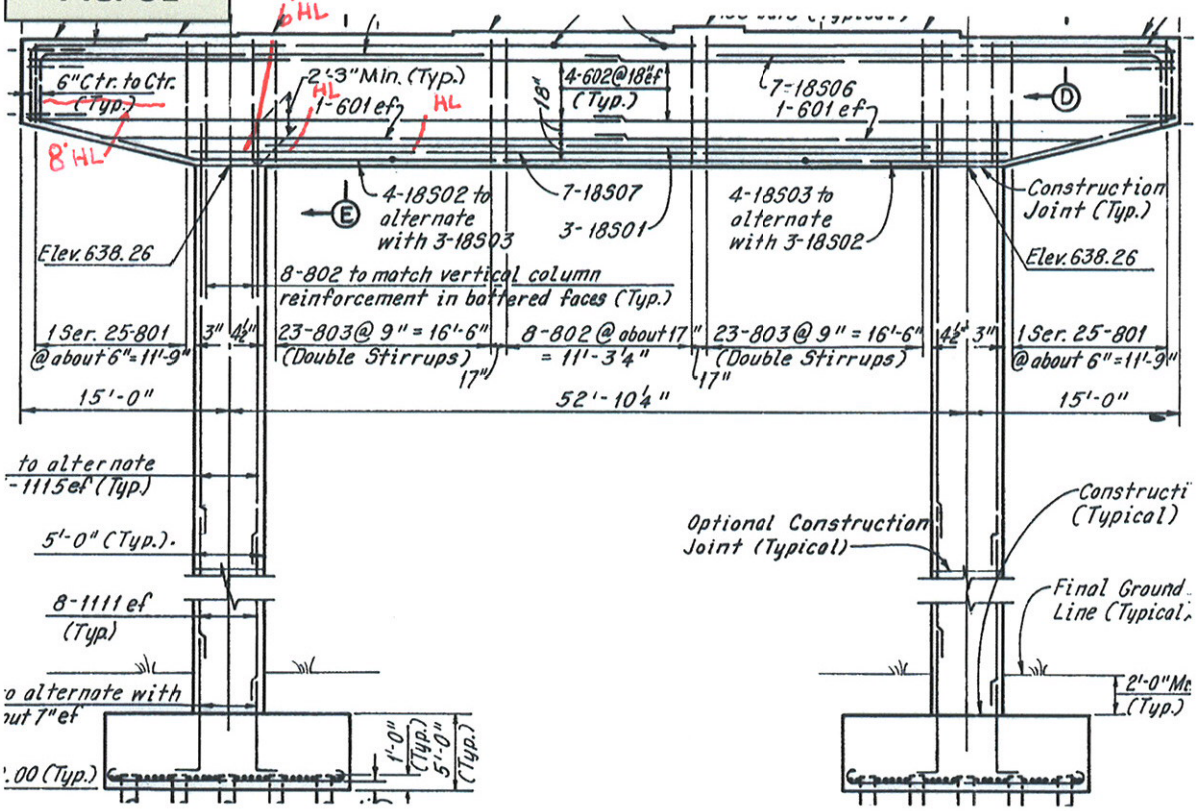
E FACE


5'-6" (Typ.)
2-18S02 to alternate with 2-18S03 (Typical)
Construction Joint (Typical)
6" (Typ.)
Elev. F
4-602ef@ about 18"
Splice locations alternate with 18S bars (Typ.)
1-601ef
2" Min. (Typ)
6" (Typ.)
2-18S03 to alternate with 2-18S02 (Typical)
Elev. G
1-18S01 (P4R and 6R), 2-18S01 (P5R and P7R) and 3-18S01 (P8R)
HAIRLINE CRACK
Pier 4R and 6R
1 Ser. 10-801@ about 15" = 11'-4½"
24-802 @ about 18" = 33'-4½" (P4R)
22-802 @ about 18" = 30'-10" (P6R)
Pier 5R and 7R
1 Ser. 25-801@ about 6" = 12'-0"
22-802 @ about 18" = 30'-10"
Pier 8R
1 Ser. 17-801@ about 9" = 11'-7½" (Double Stirrups)
26-802 @ about 15" = 31'-1"
8-802 to match vertical column reinforcing in bottered faces (Typical)
Pier 4R
15'-0"
39'-10½"
Pier 5R, 6R, 7R and 8R
37'-4"
5'-0" (Typical)
4-1114 to alternate with 4-1115 ef (Typical)
Optional Construction Joint (Typical except Pier 4R)
8'-6"
Location of Stirrup Hooks
Bottom
Top
CRACK
S. FACE OF S. COLUMN (ALSO N. FACE OF S. COLUMN)
8-1111e.f. (Typ. except Pier4Rond Pier 7R South Column
W. FACE
Pier 4R
Construction Joint (Typical)
4-1108 to alternate with 4-1109 e.f. (Typ. except Pier 7R South Column)
4'-6" (Pier 4R)
5'-0"
5'-6" (Pier 5R, 6R and 7R)
(Pier 8R)
1'-0" (Typ.)
3" Clr. (Typ.)
Elev. H (Typical)
See Footing Plans for Pile Spacing
= REL 2014 Inspection

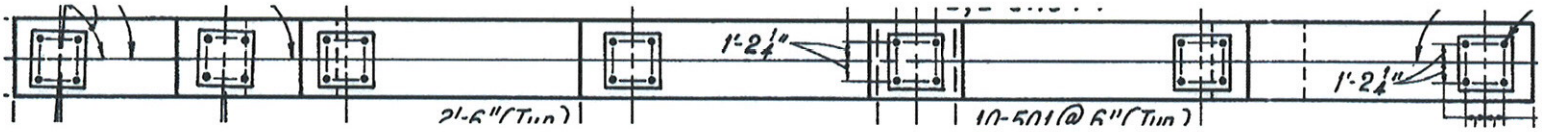


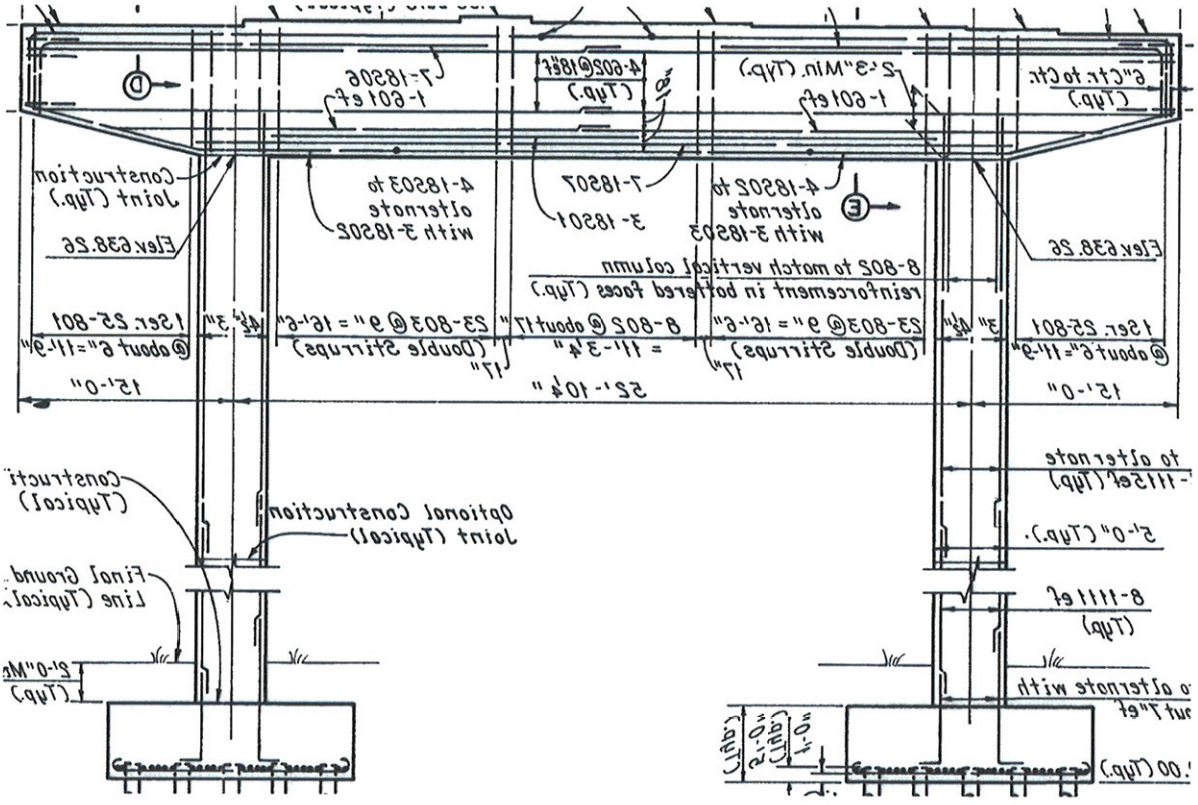

E. FACE

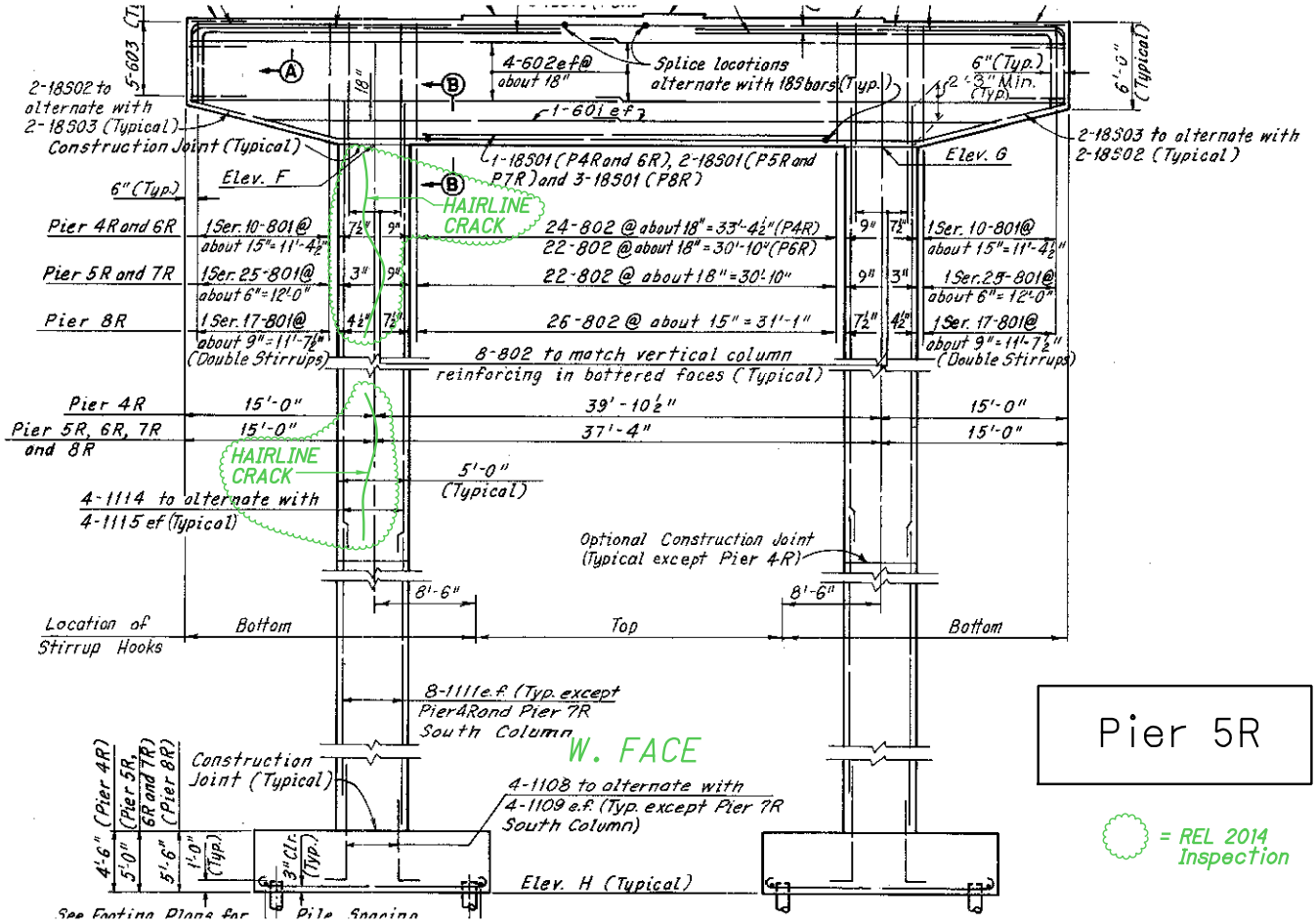
Pier 5L

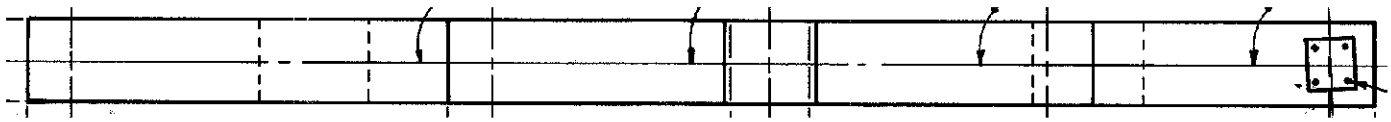


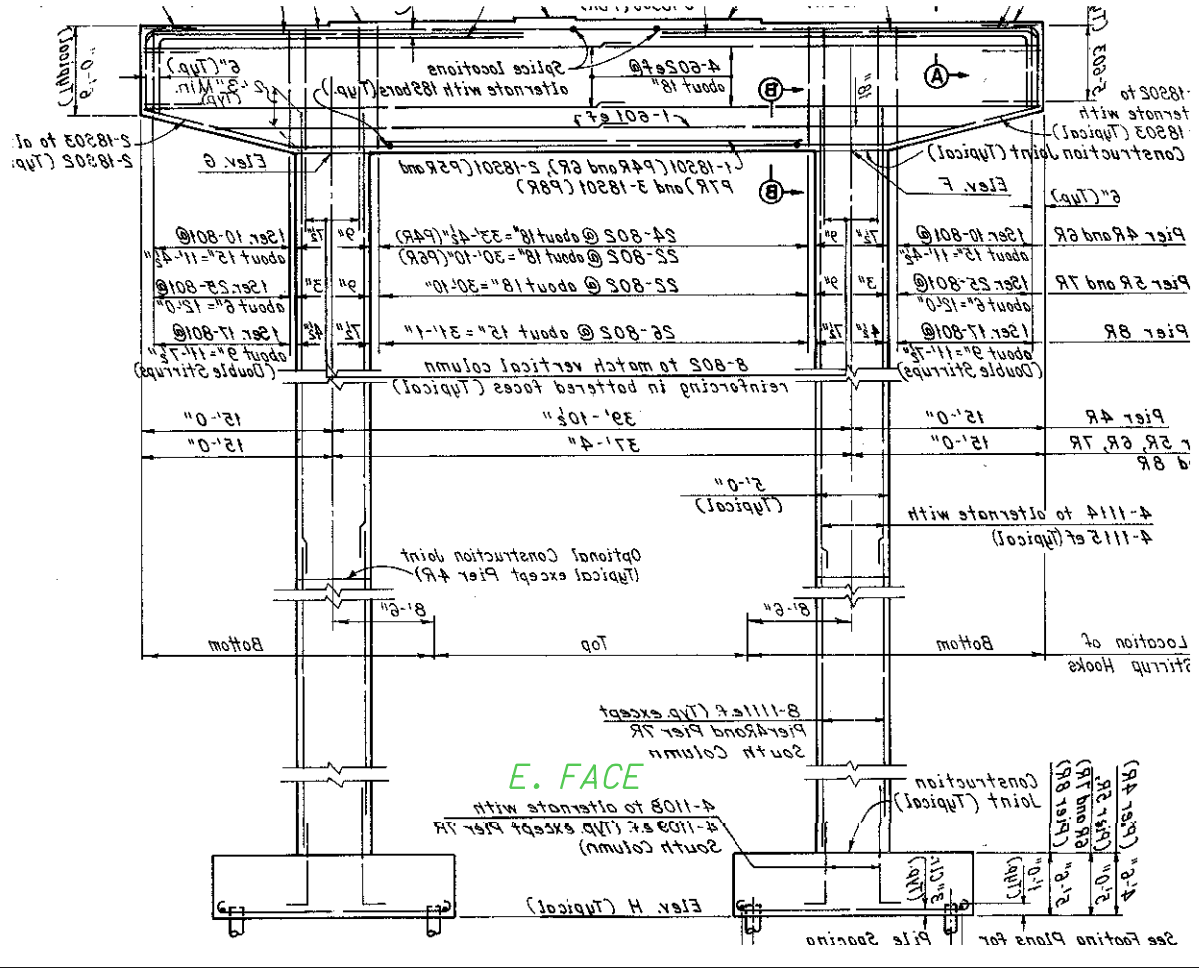
W FACE



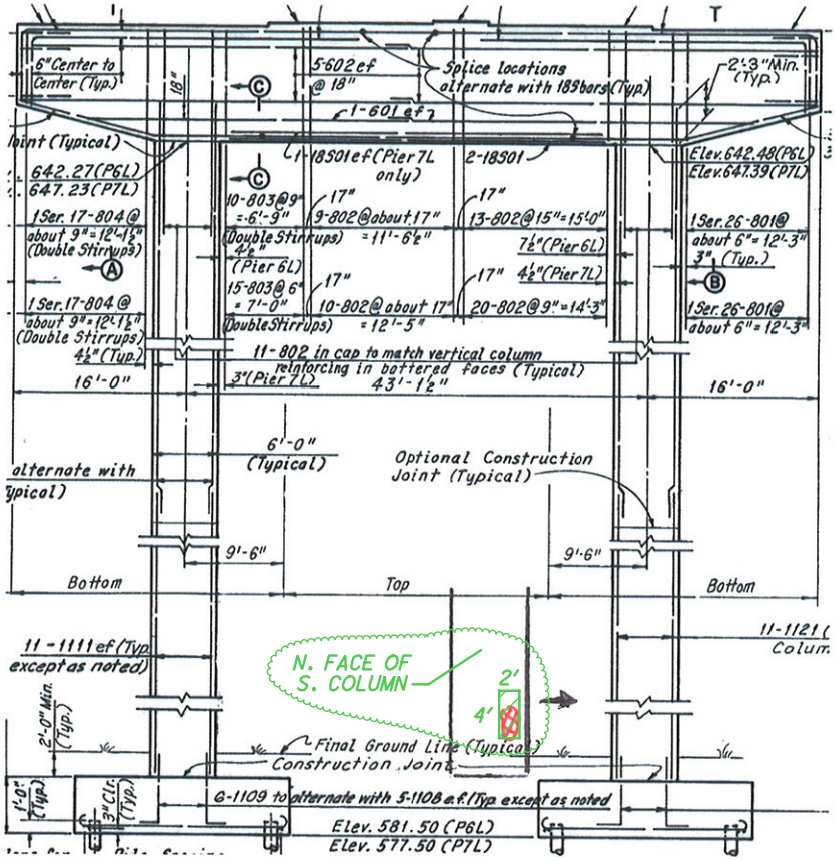


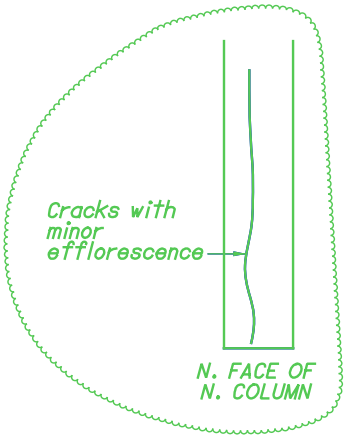

Splice locations alternate with 18S bars (Typ.)
4-602ef @ about 18"
1-601ef
2-18S02 to alternate with 2-18S03 (Typical)
Construction Joint (Typical)
2-18S03 to alternate with 2-18S02 (Typical)
Elev. F
Elev. G
1-18S01 (P4R and 6R), 2-18S01 (P5R and P7R) and 3-18S01 (P8R)
HAIRLINE CRACK
Pier 4R and 6R
Pier 5R and 7R
Pier 8R
24-802 @ about 18" = 33'-4½" (P4R)
22-802 @ about 18" = 30'-10" (P6R)
22-802 @ about 18" = 30'-10"
26-802 @ about 15" = 31'-1"
8-802 to match vertical column reinforcing in battered faces (Typical)
(Double Stirrups)
Pier 4R
Pier 5R, 6R, 7R and 8R
15'-0"
39'-10½"
37'-4"
4-1114 to alternate with 4-1115 ef (Typical)
5'-0" (Typical)
Optional Construction Joint (Typical except Pier 4R)
8'-6"
Location of Stirrup Hooks
Bottom
Top
8-1111e.f. (Typ. except Pier4Rond Pier 7R South Column
W. FACE
Construction Joint (Typical)
4-1108 to alternate with 4-1109 e.f. (Typ. except Pier 7R South Column)
Elev. H (Typical)
See Footing Plans for Pile Spacing
Pier 5R
= REL 2014 Inspection




E. FACE

Pier 6L



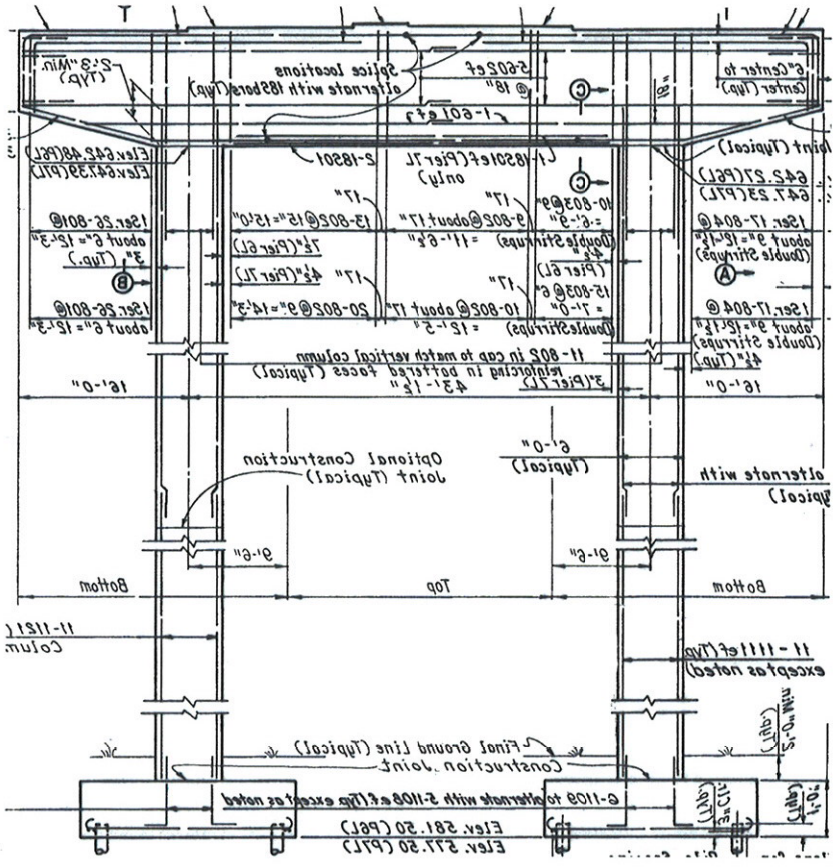


= SPALL

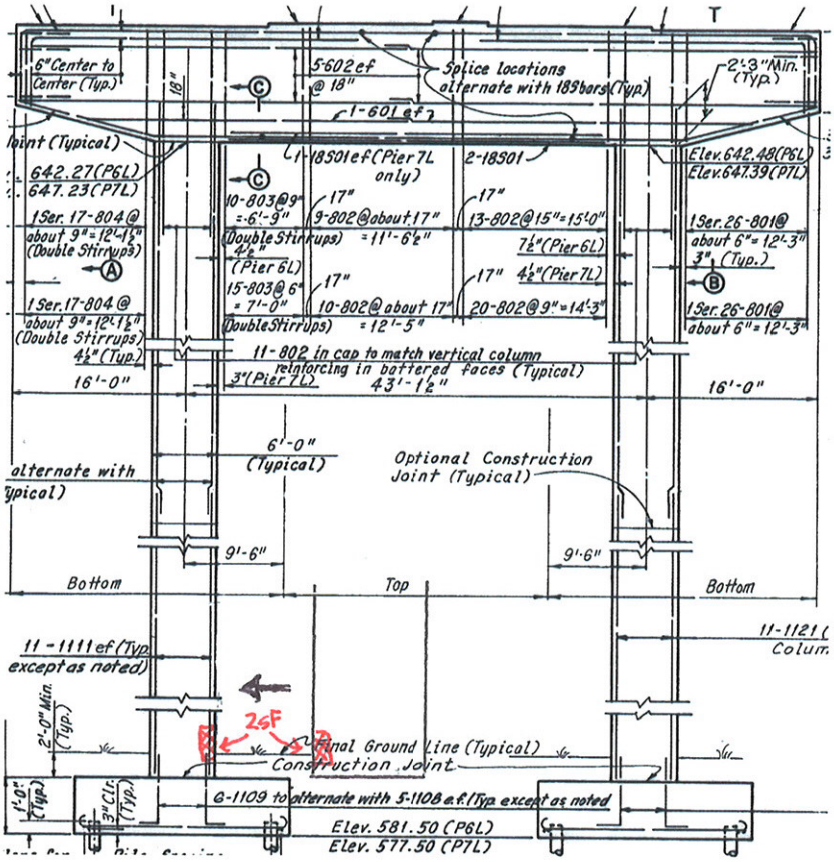
= DELAM

= REL 2014 Inspection

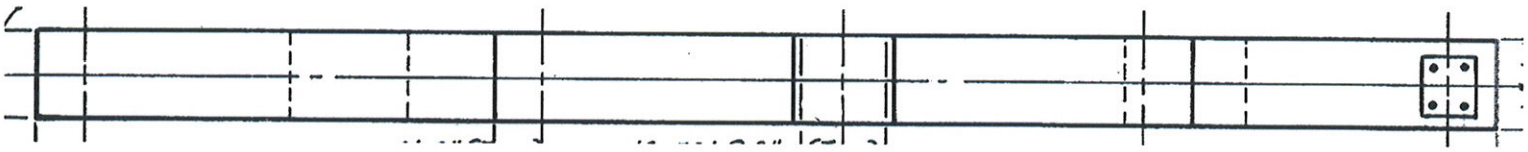
W FACE

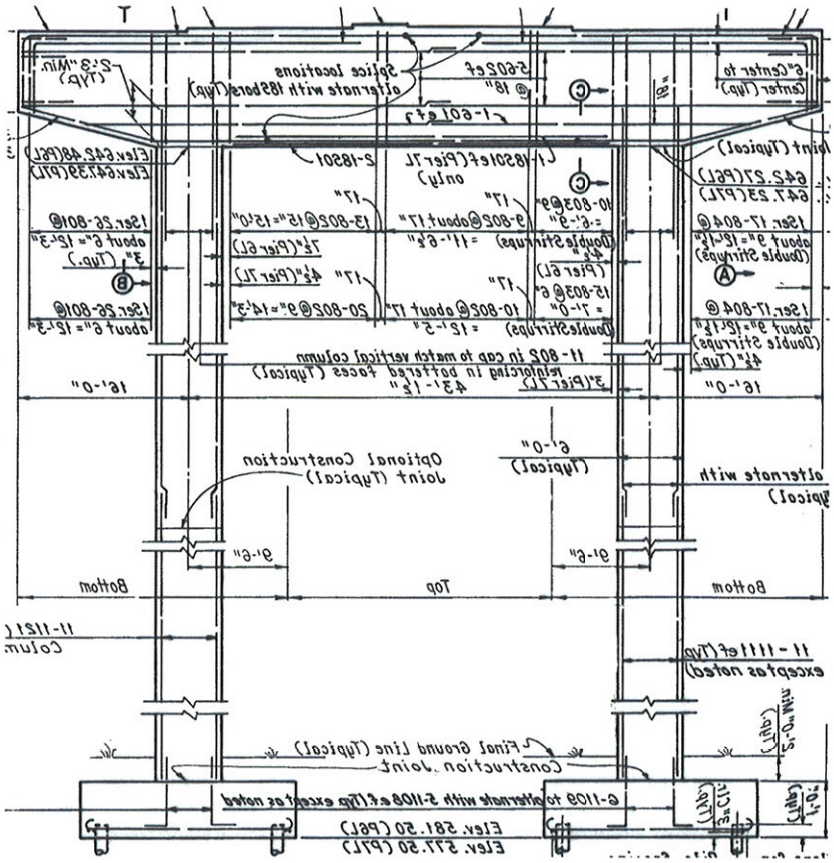


Pier 7L

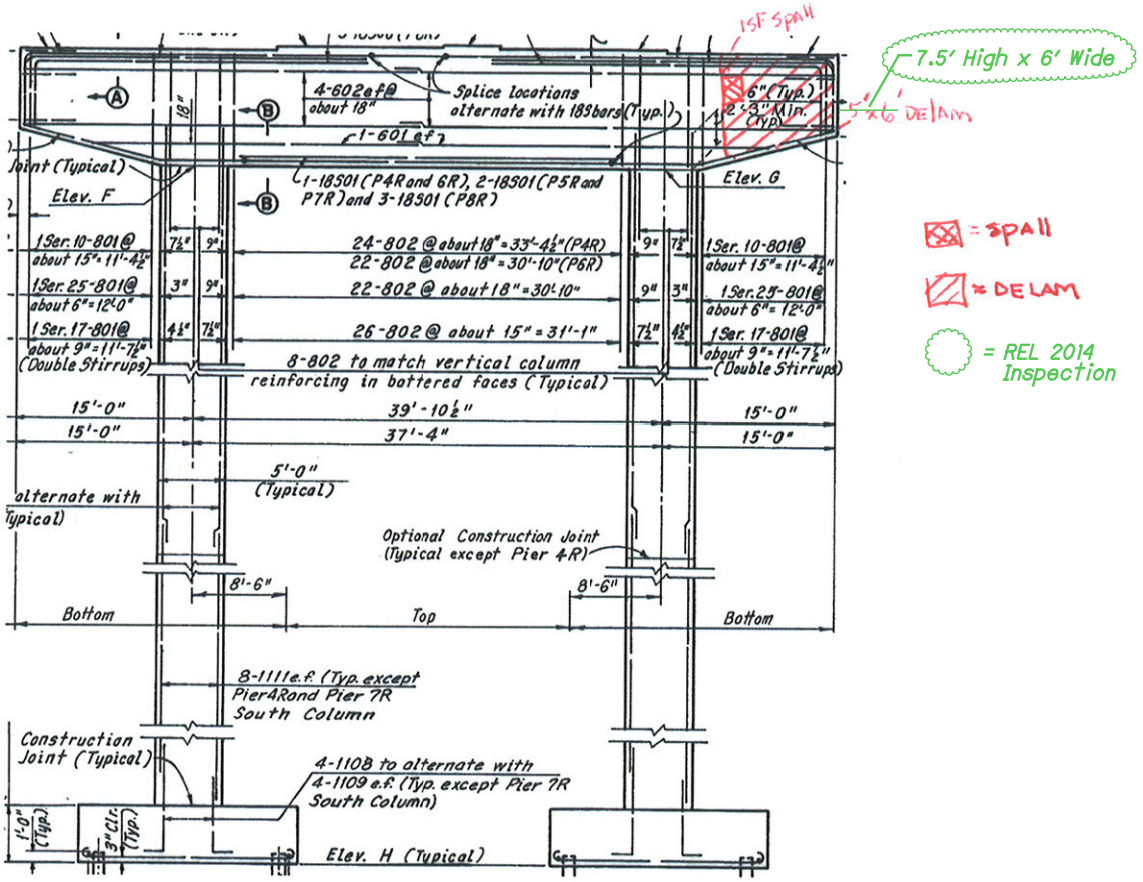


= spall

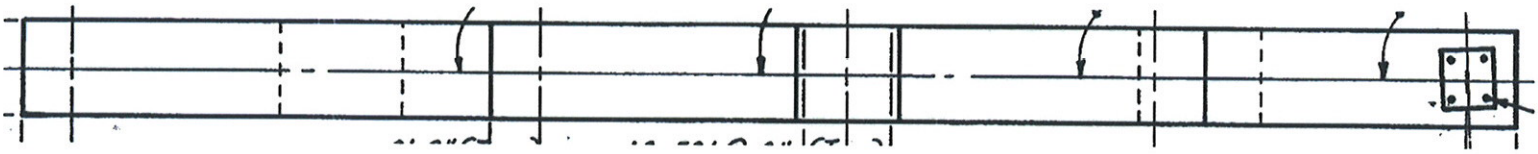


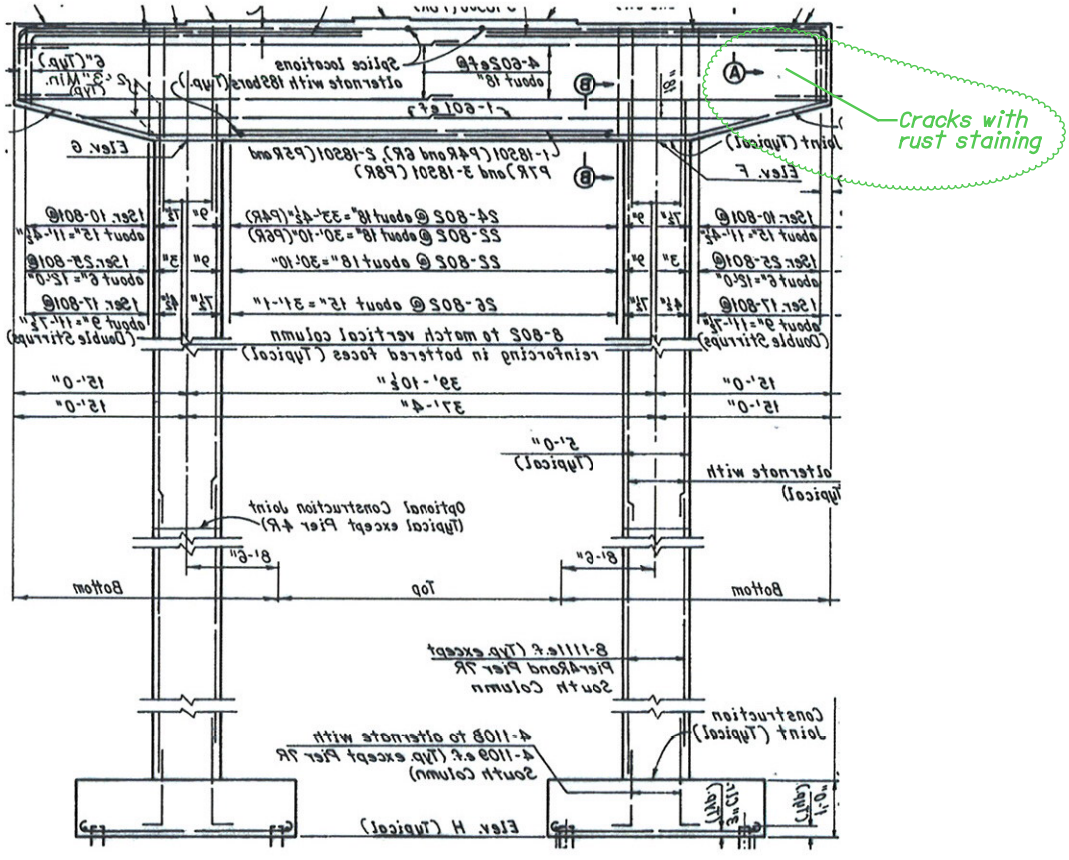


Pier 7R

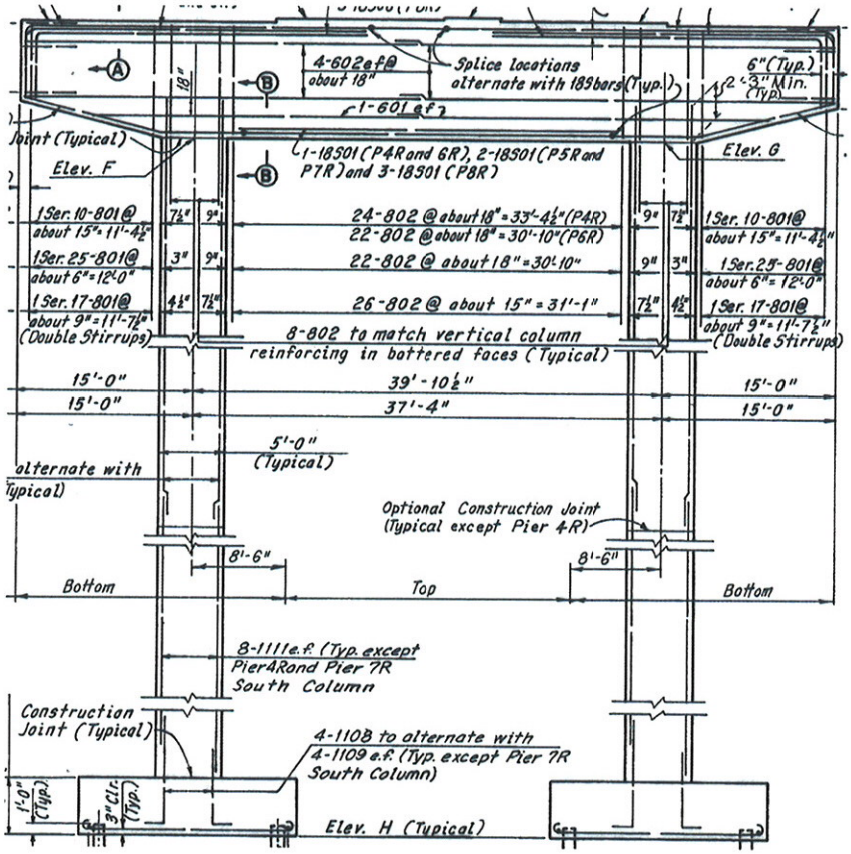


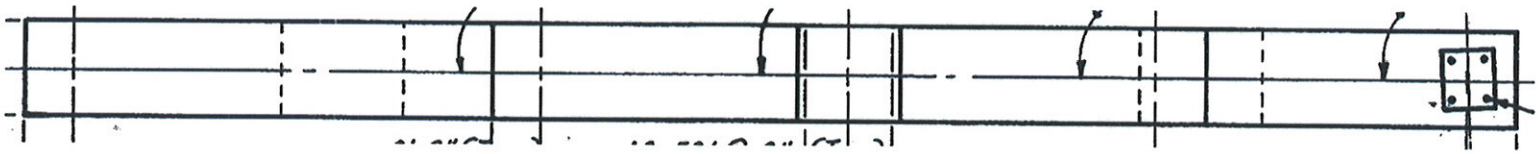
W FACE

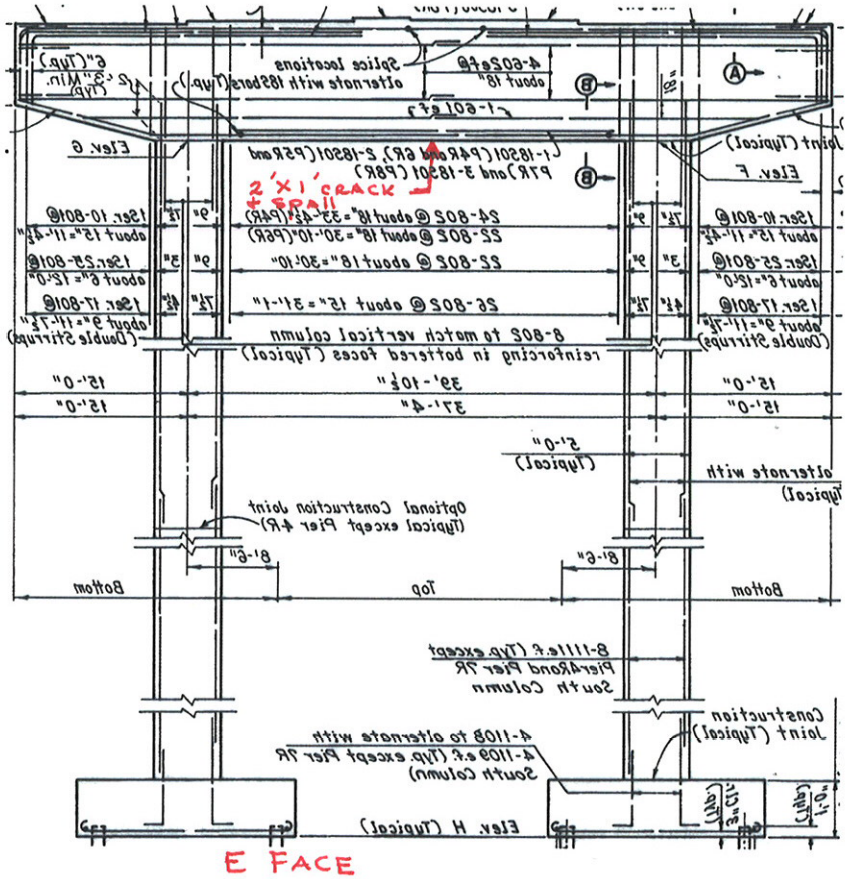




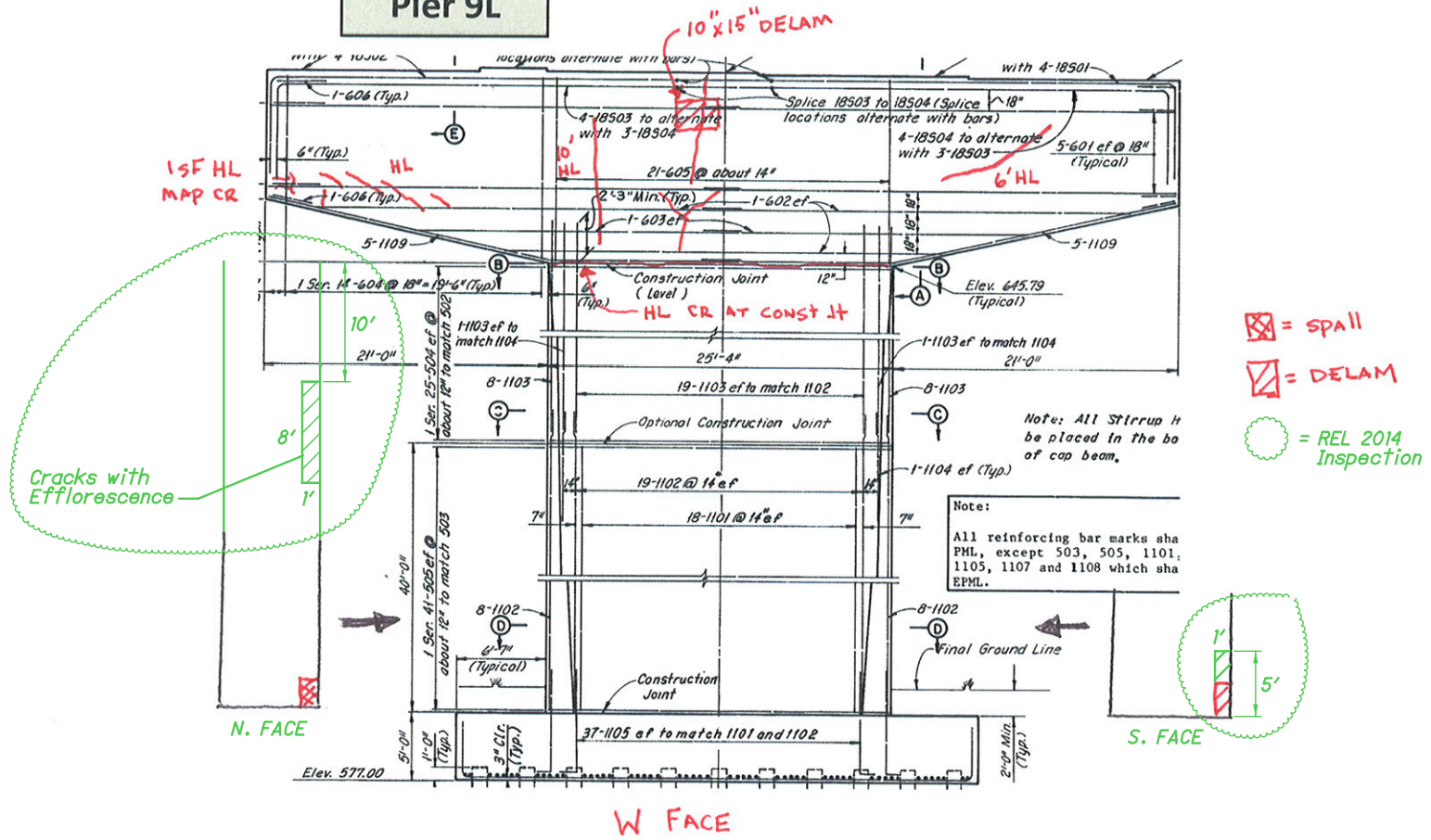
Pier 8R

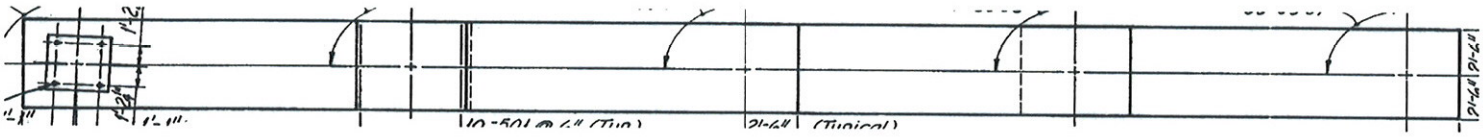

4-602 e.f.@ about 18"
Splice locations alternate with 189 bars (Typ.)
6" (Typ.)
3" Min. (Typ.)
1-601 e.f.
Joint (Typical)
Elev. F
Elev. G
1-18501 (P4R and 6R), 2-18501 (P5R and P7R) and 3-18501 (P8R)
1 Ser. 10-801 @ about 15" = 11'-4½"
1 Ser. 25-801 @ about 6" = 12'-0"
1 Ser. 17-801 @ about 9" = 11'-7½" (Double Stirrups)
24-802 @ about 18" = 33'-4½" (P4R)
22-802 @ about 18" = 30'-10" (P6R)
22-802 @ about 18" = 30'-10"
26-802 @ about 15" = 31'-1"
8-802 to match vertical column reinforcing in battered faces (Typical)
15'-0"
39'-10½"
37'-4"
5'-0" (Typical)
alternate with Typical)
Optional Construction Joint (Typical except Pier 4R)
8'-6"
Bottom
Top
8-1111e.f. (Typ. except Pier4Rand Pier 7R South Column
Construction Joint (Typical)
4-1108 to alternate with 4-1109 e.f. (Typ. except Pier 7R South Column)
1'-0" (Typ.)
3" Clr. (Typ.)
Elev. H (Typical)

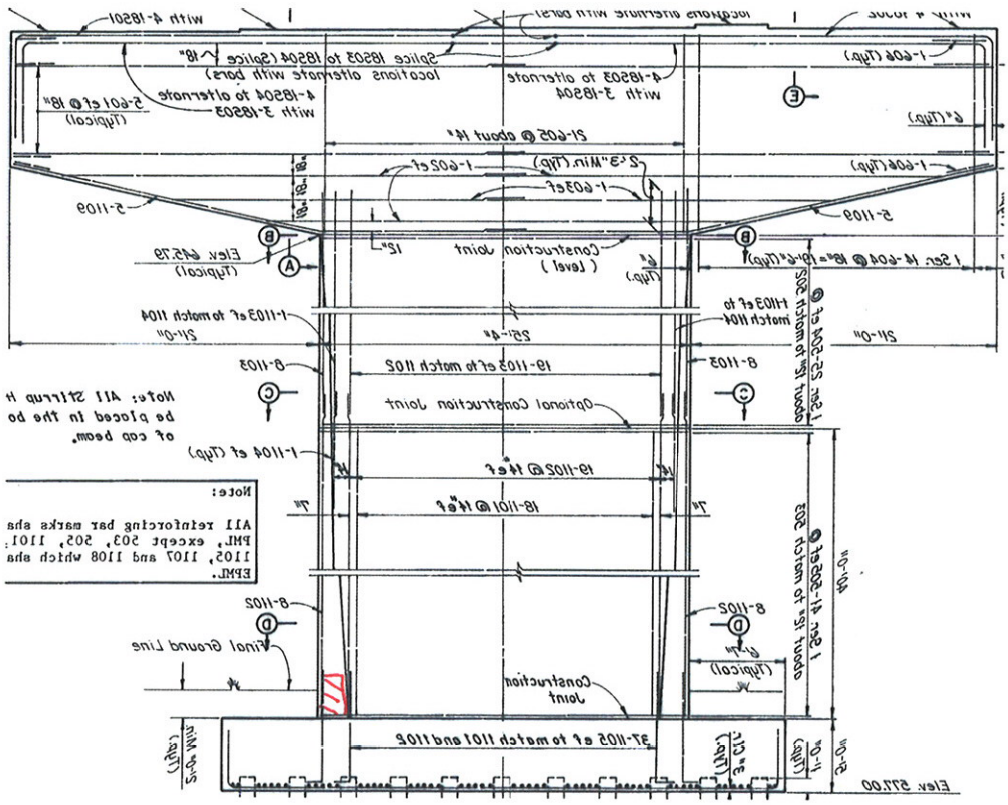



2'x1' crack + spall
E FACE

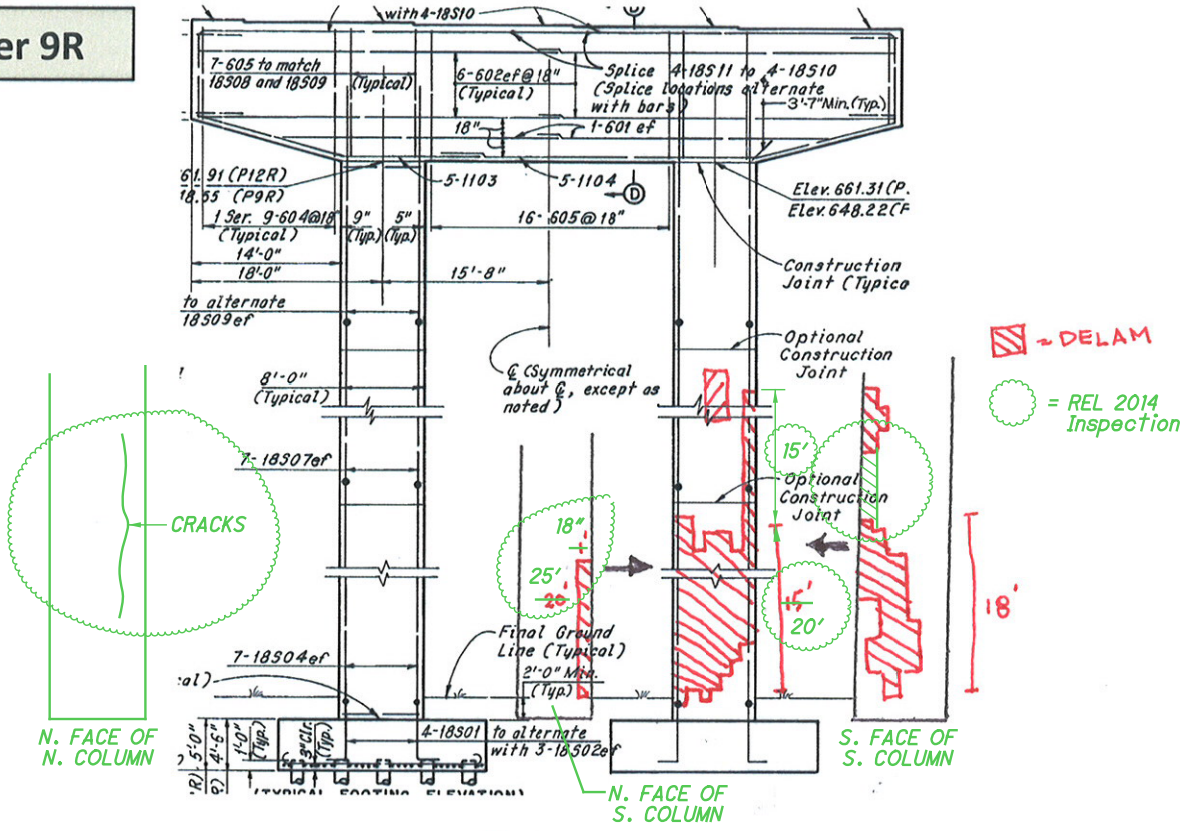
Pier 9L


10"x15" DELAM
1SF HL MAP CR
HL CR AT CONST JT
Cracks with Efflorescence
N. FACE
S. FACE
W FACE
Construction Joint
Optional Construction Joint
Final Ground Line
Elev. 577.00
Elev. 645.79 (Typical)
= SPALL
= DELAM
= REL 2014 Inspection

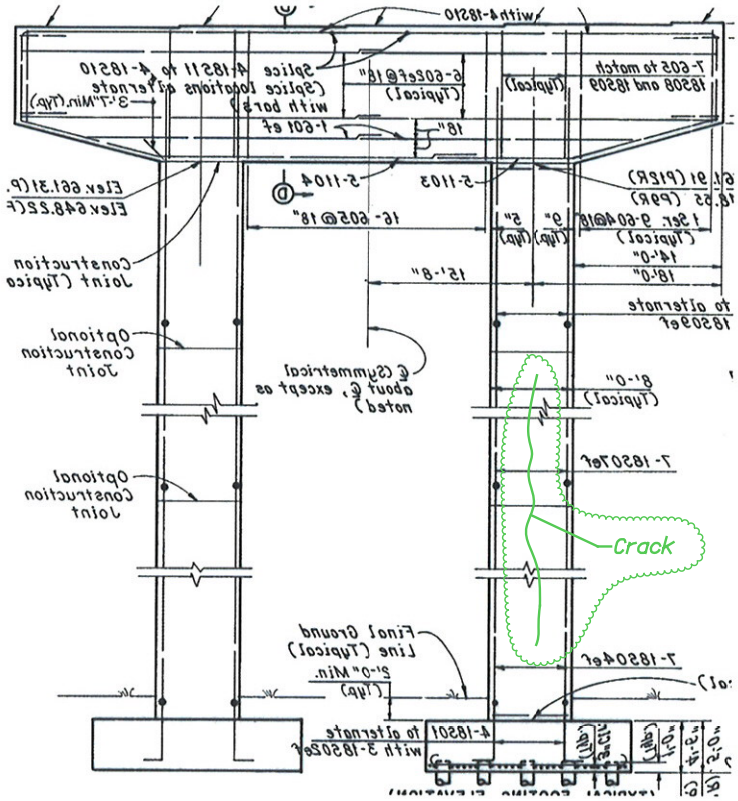



E FACE

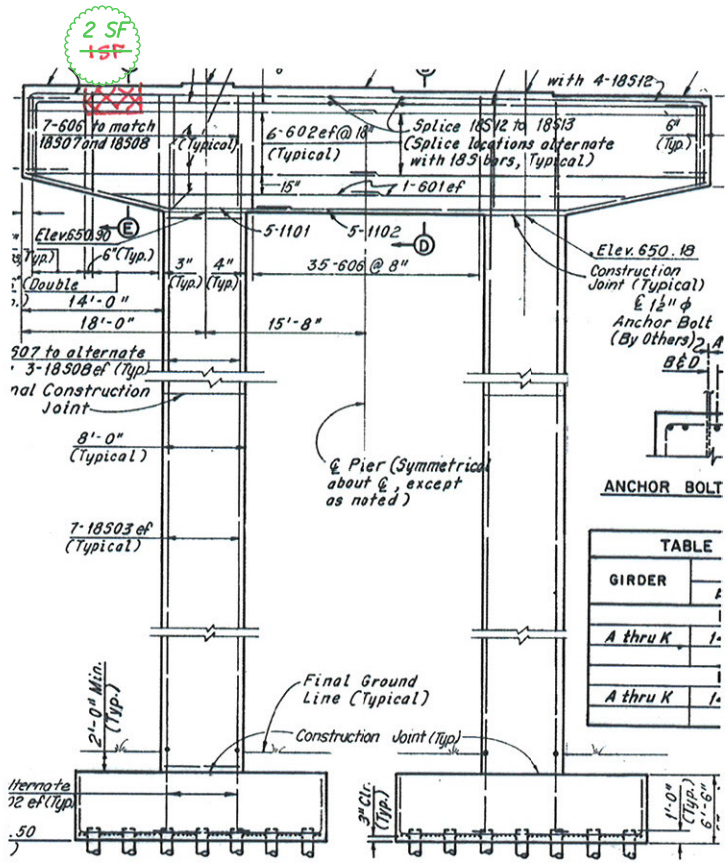
Pier 9R



W FACE



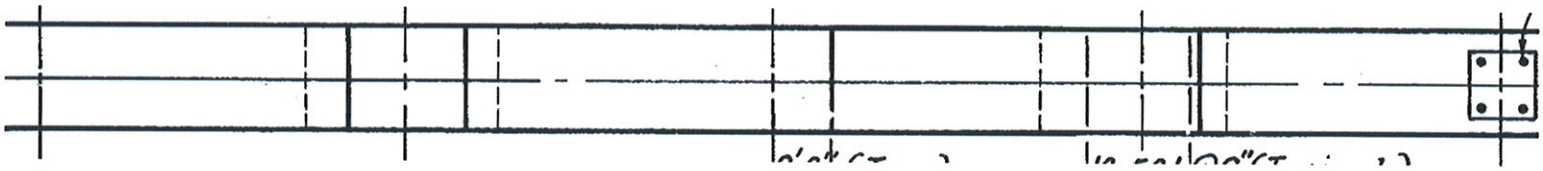
Pier 10L

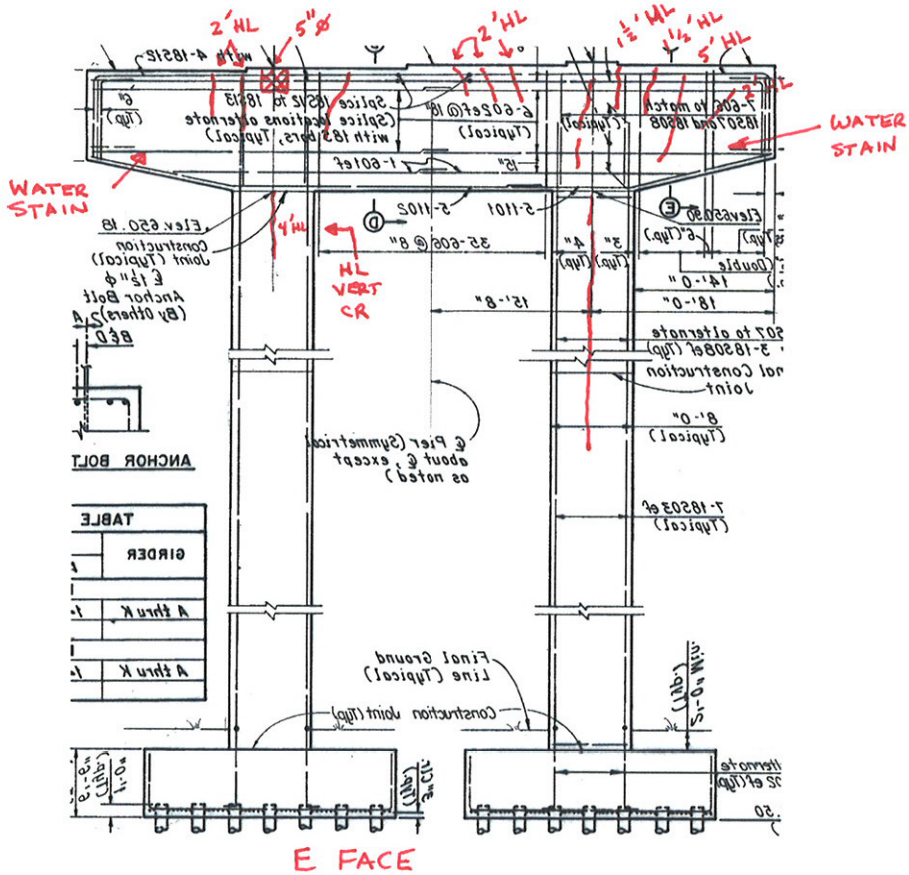


= spall

= REL 2014 Inspection

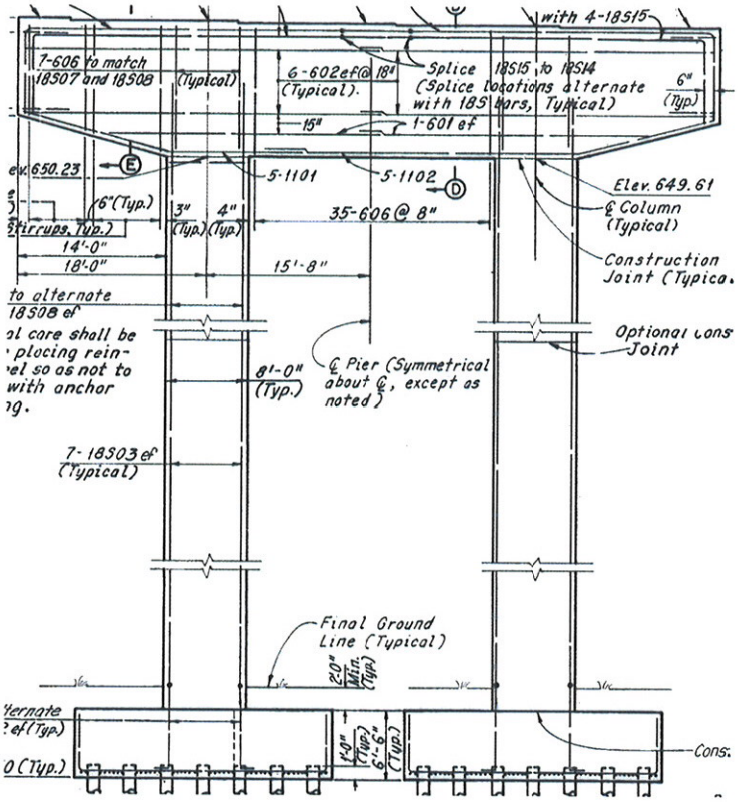
W FACE



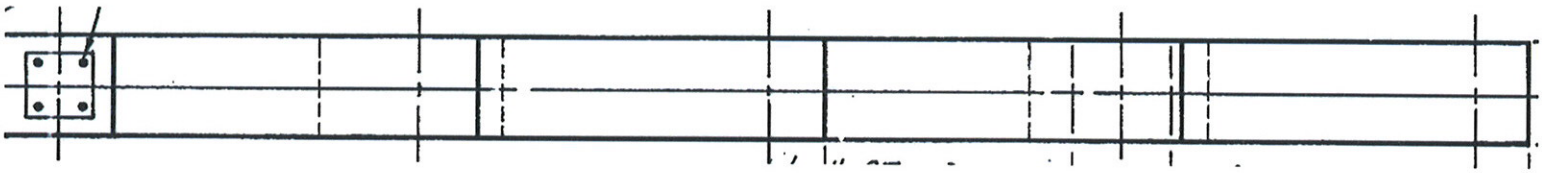


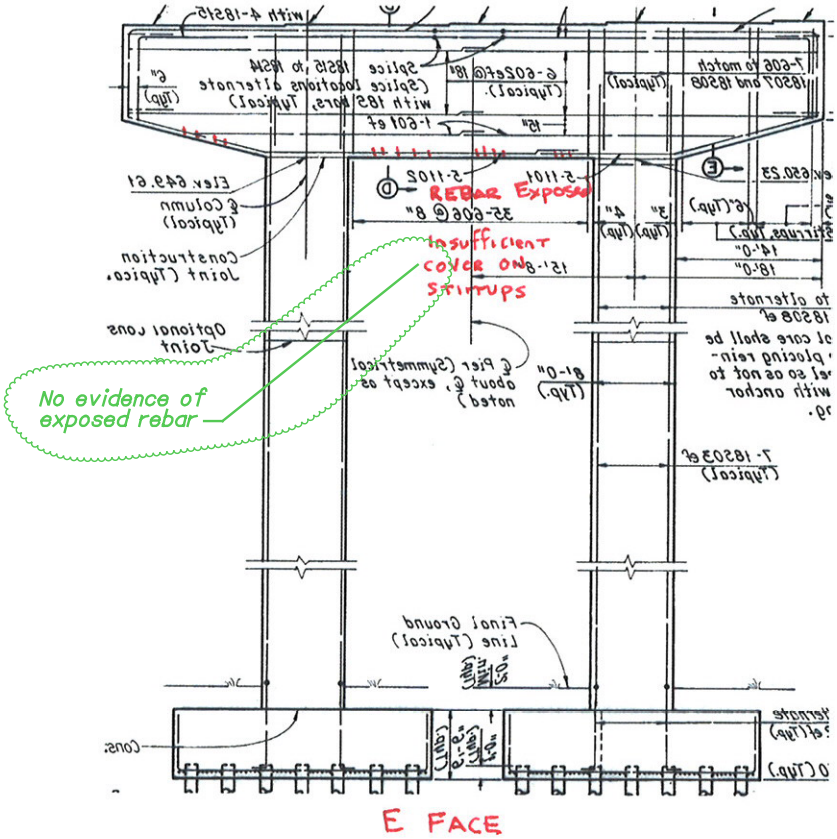
E FACE

Pier 10R



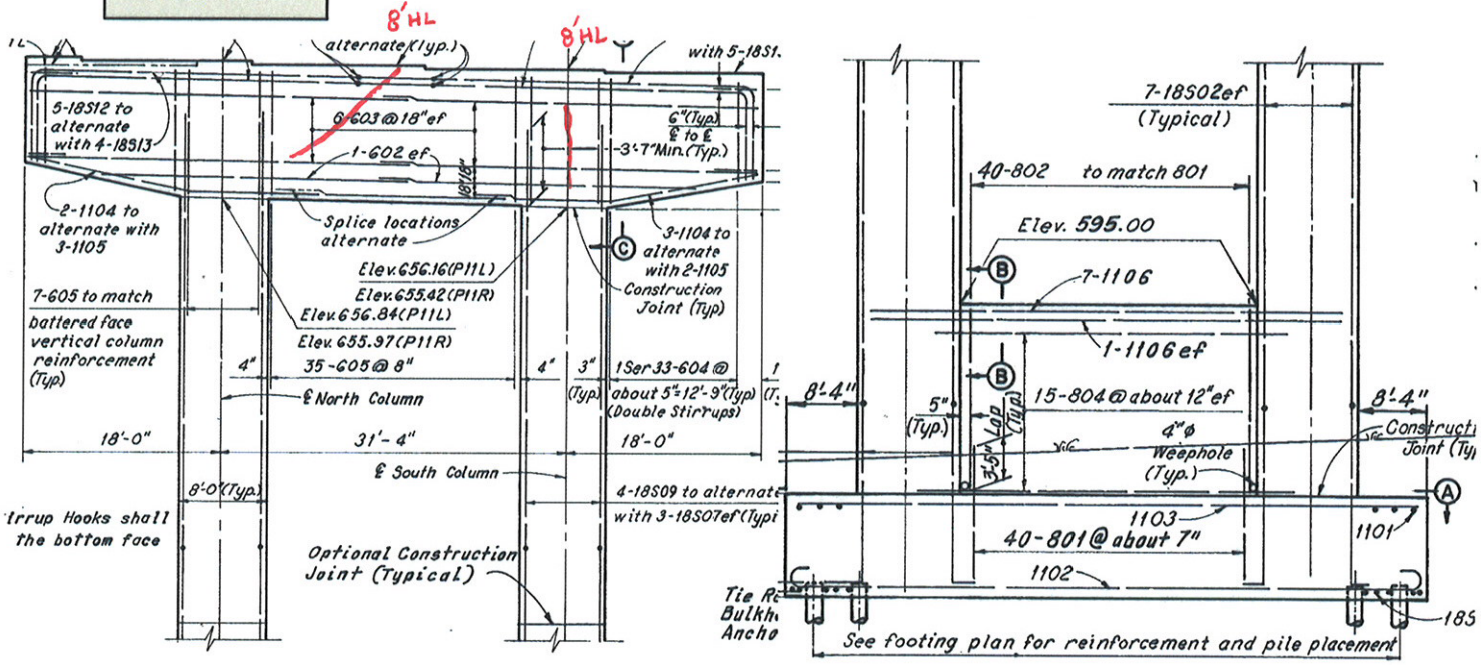
= REL 2014 Inspection



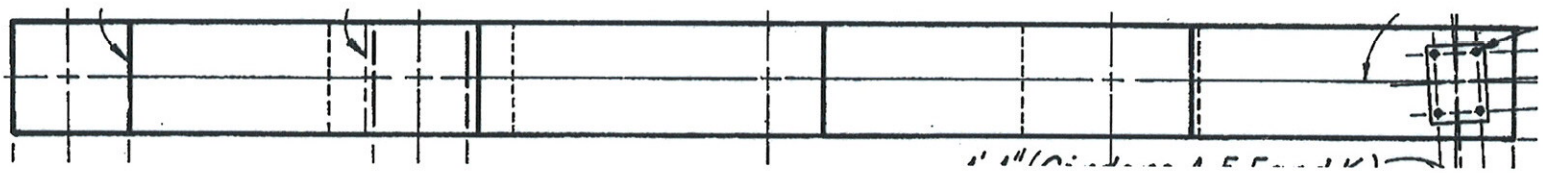


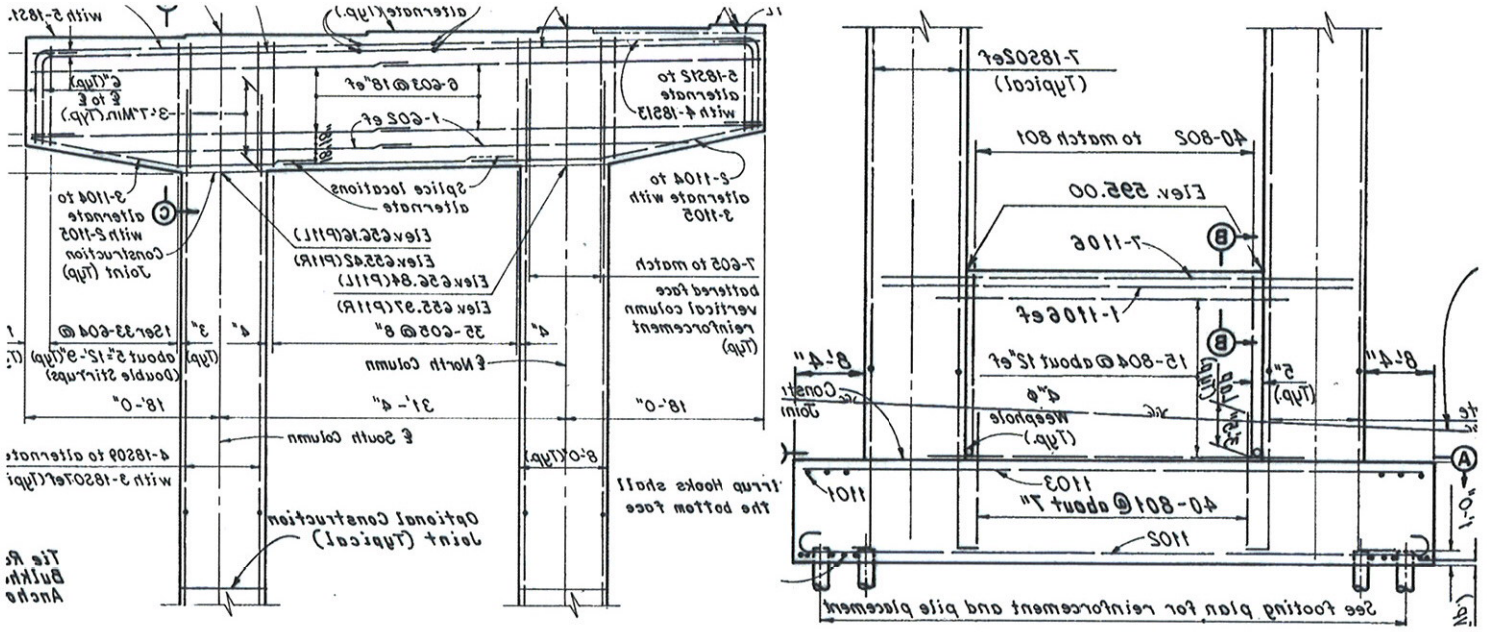
E FACE

Pier 11L

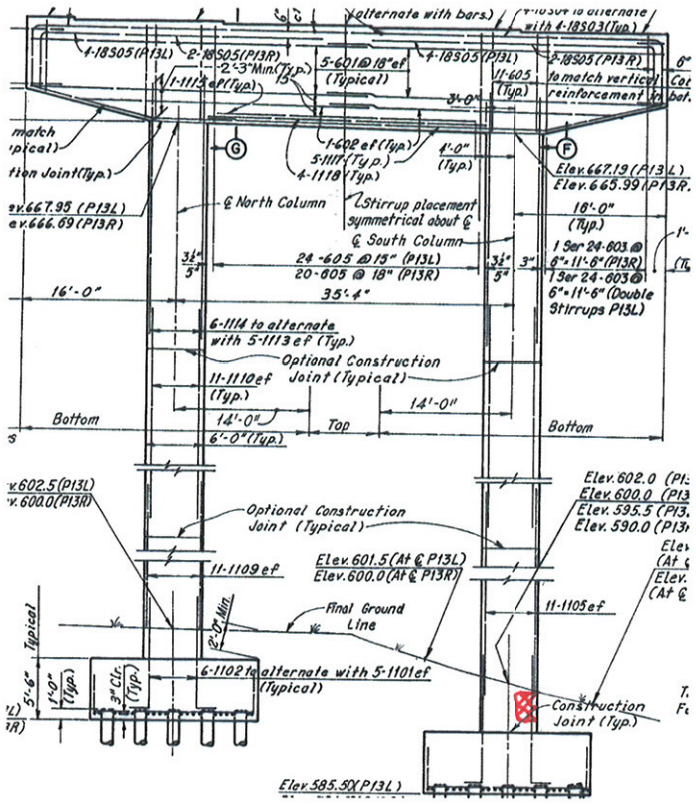


W FACE





Pier 13R



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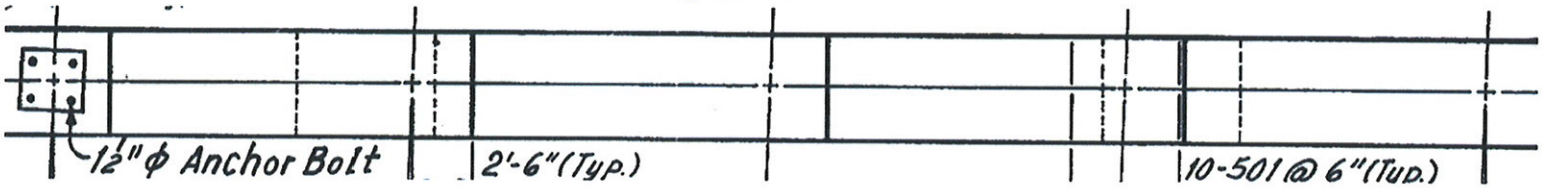
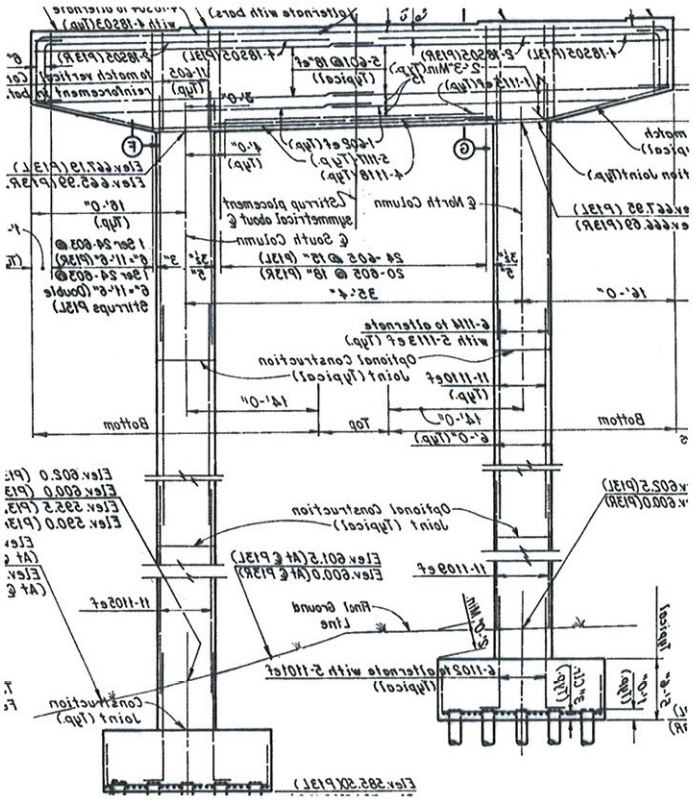
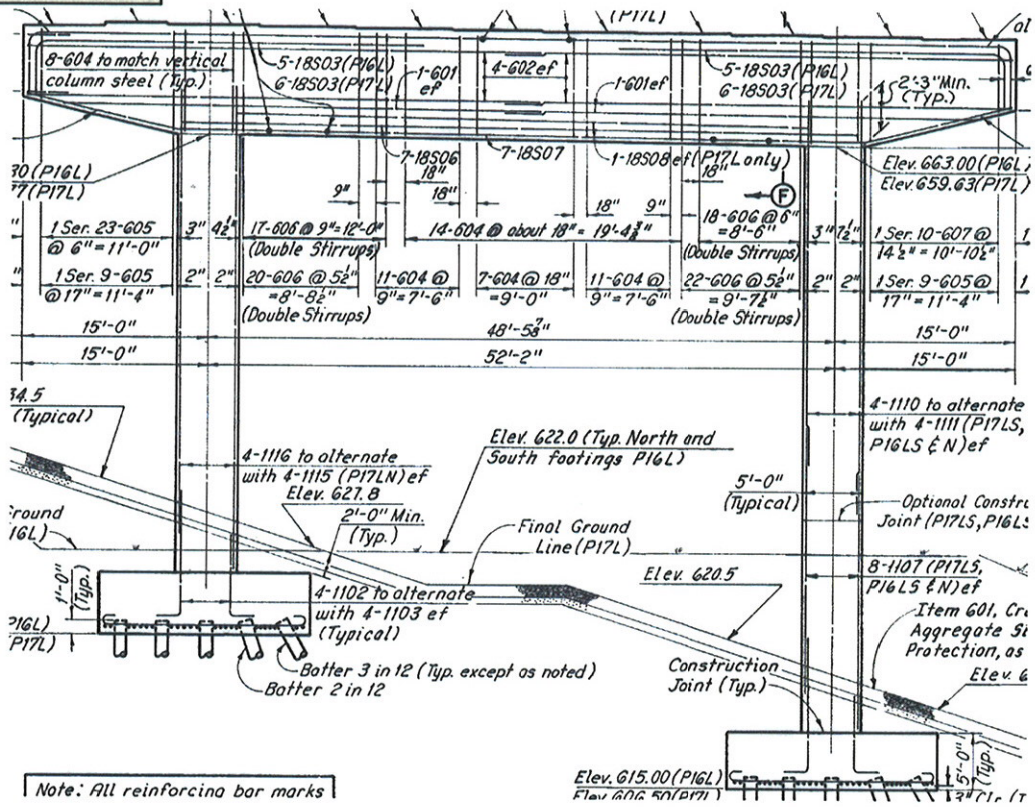
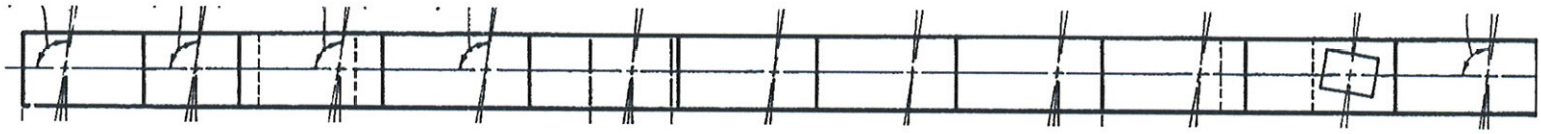
W FACE

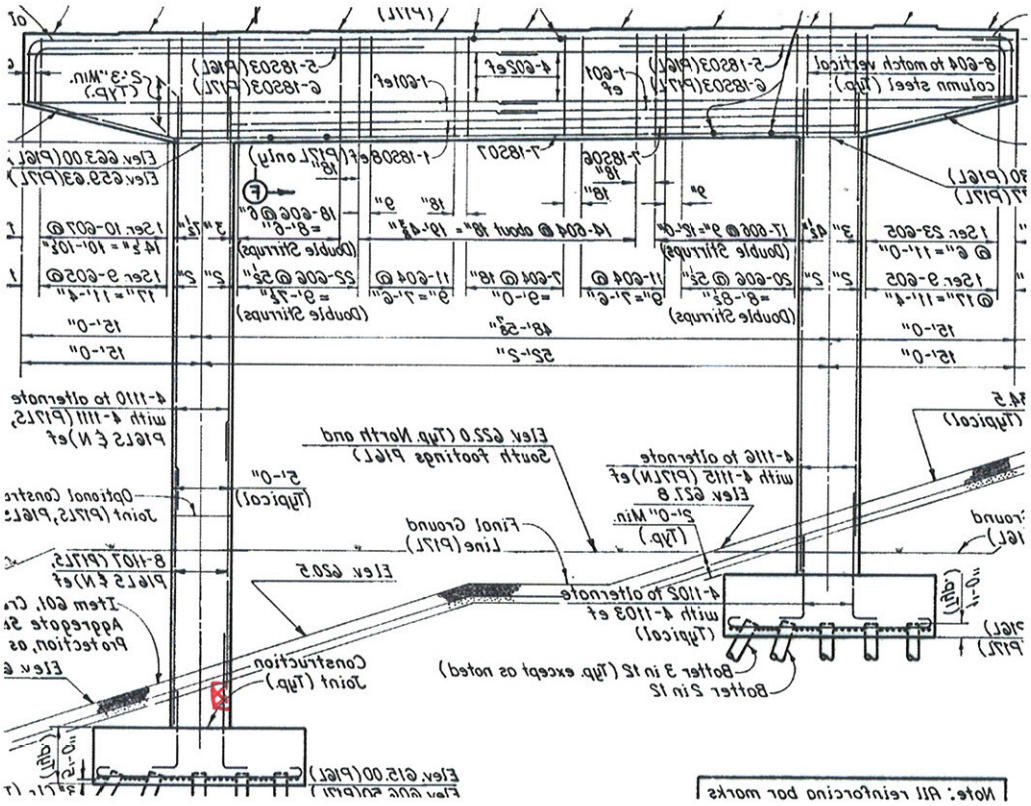




Pier 17L



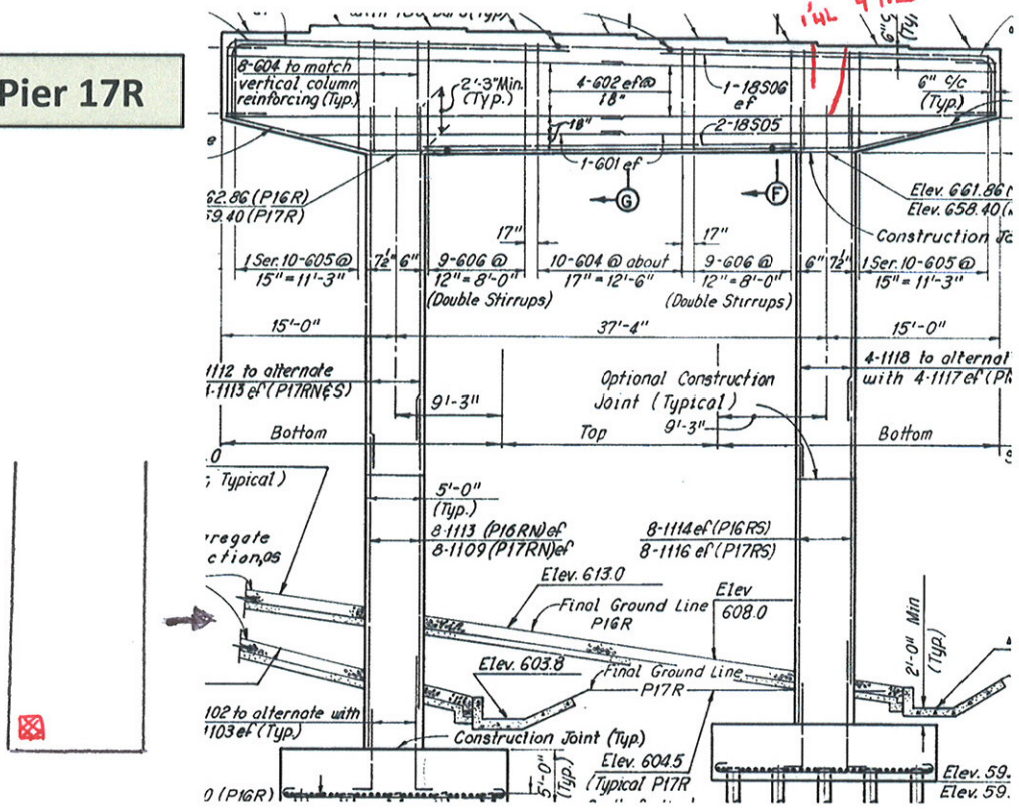




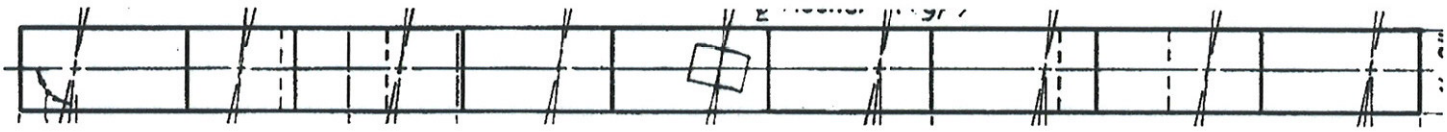
= spall

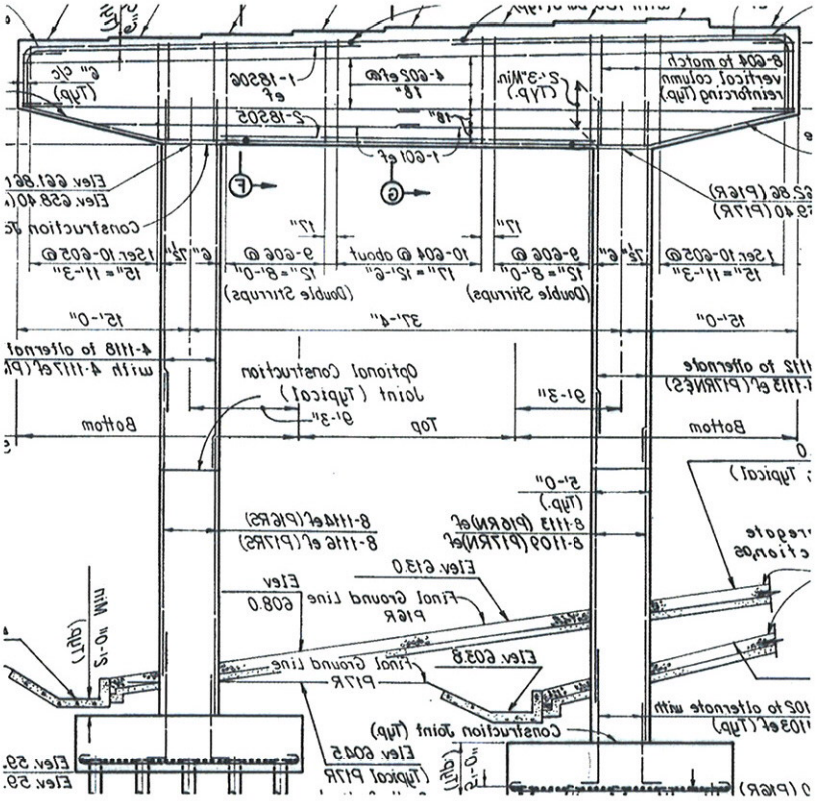
E FACE

Pier 17R

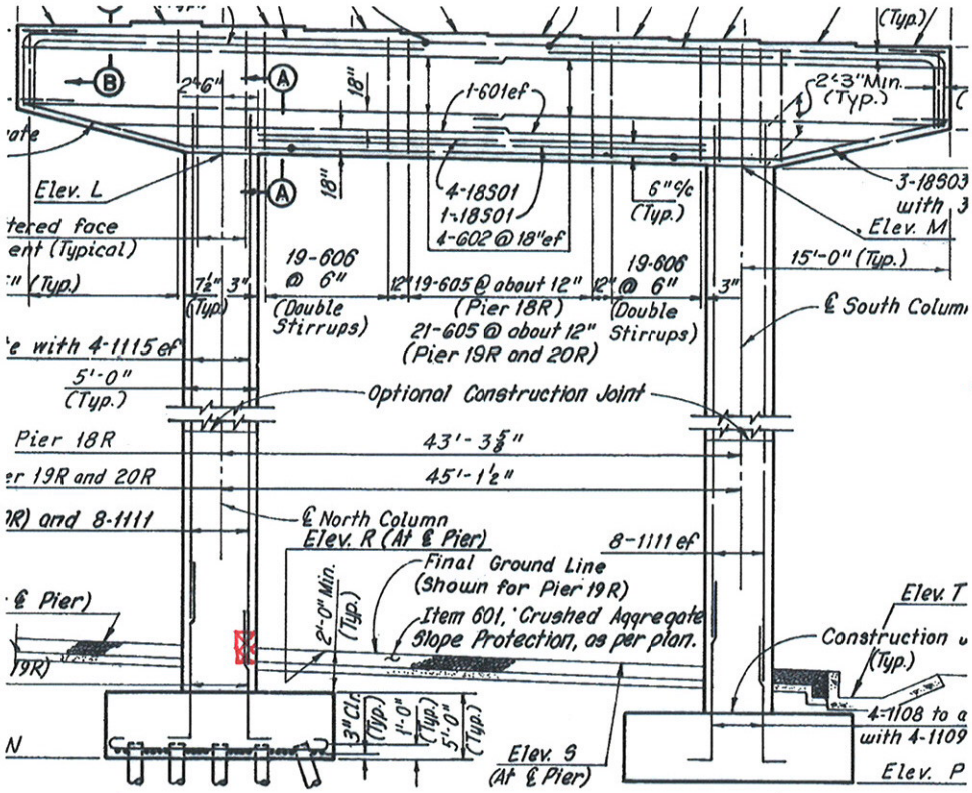


W FACE

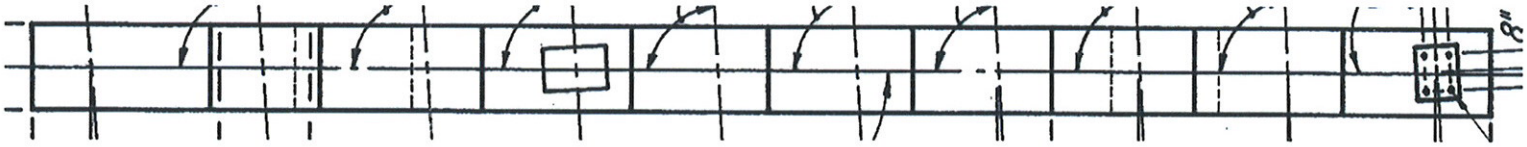


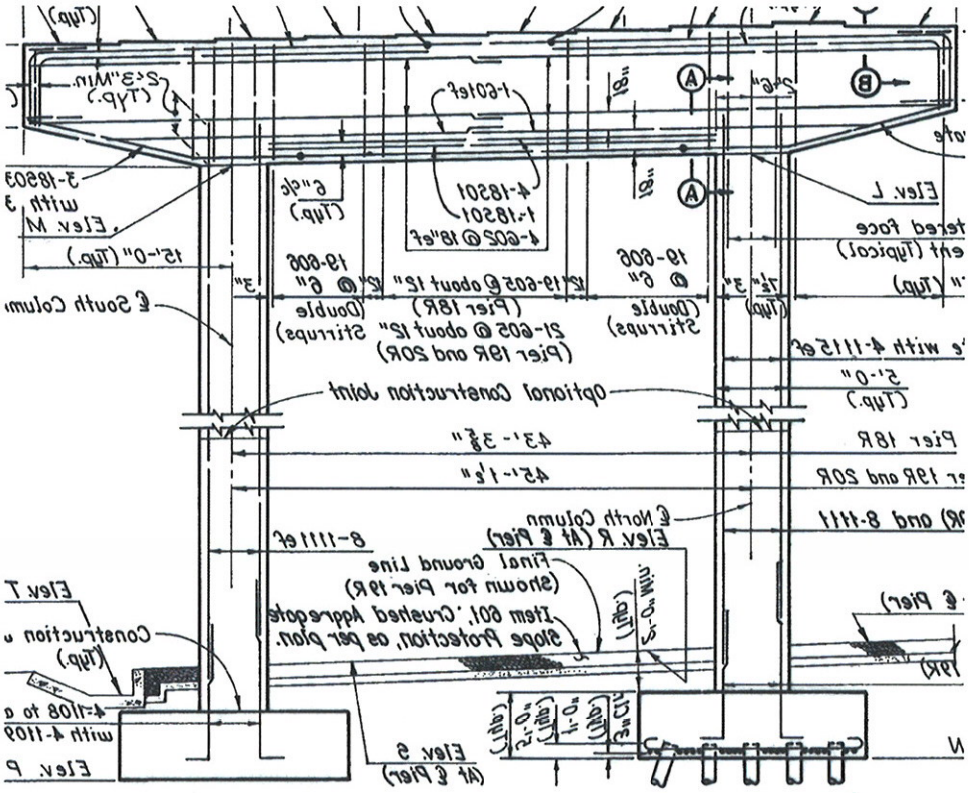


Pier 18R

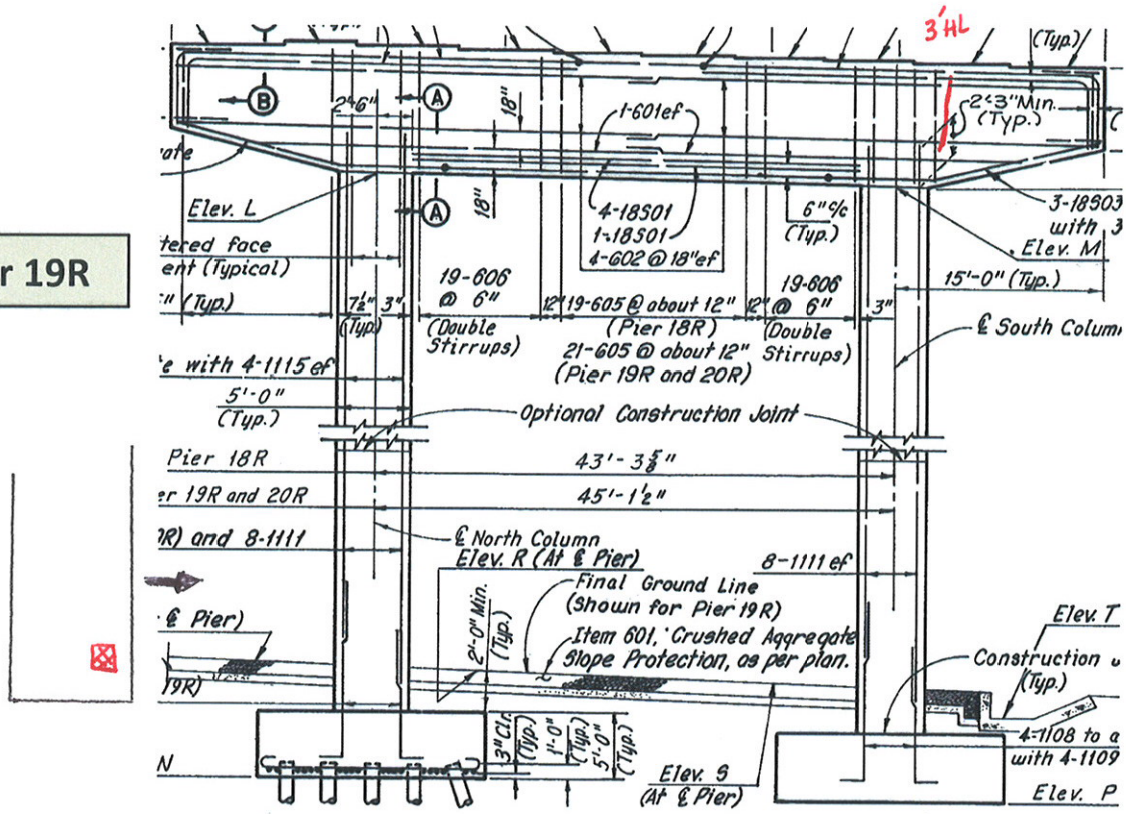


W FACE



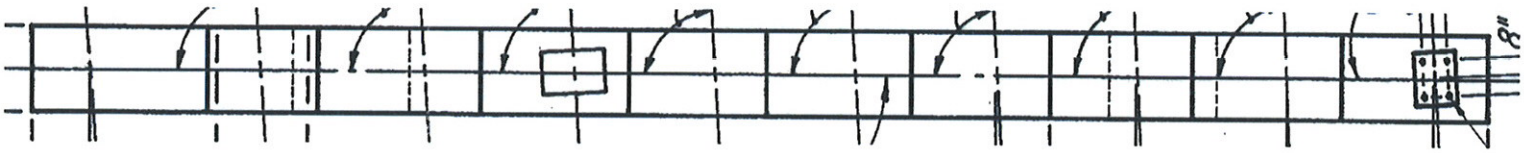


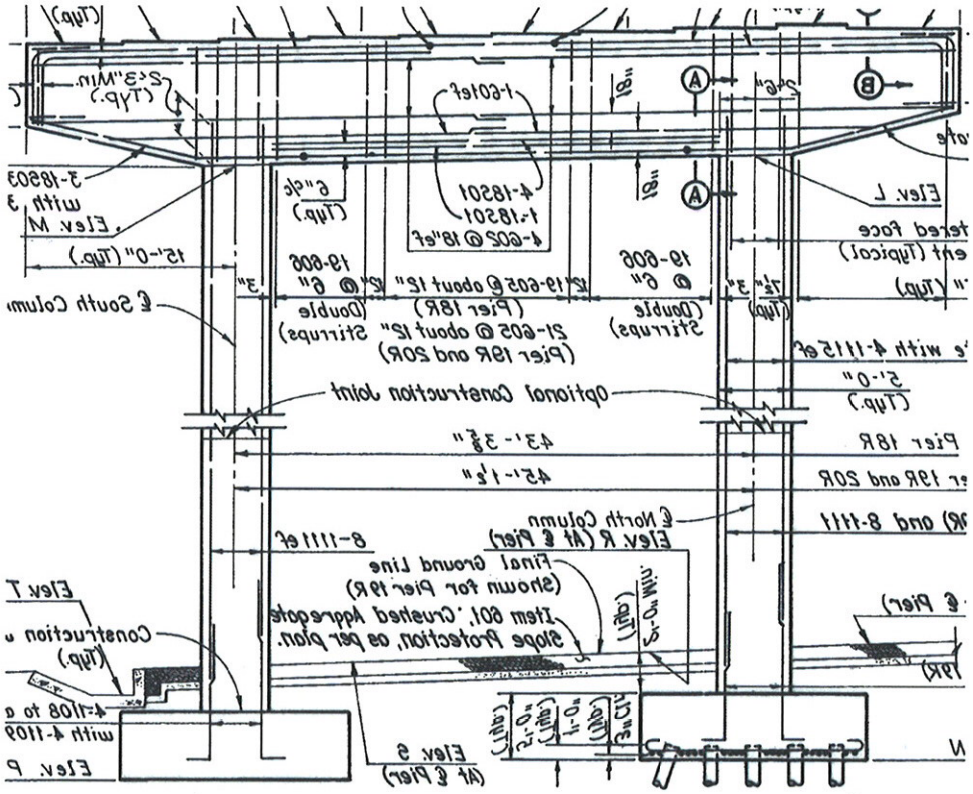
Pier 19R



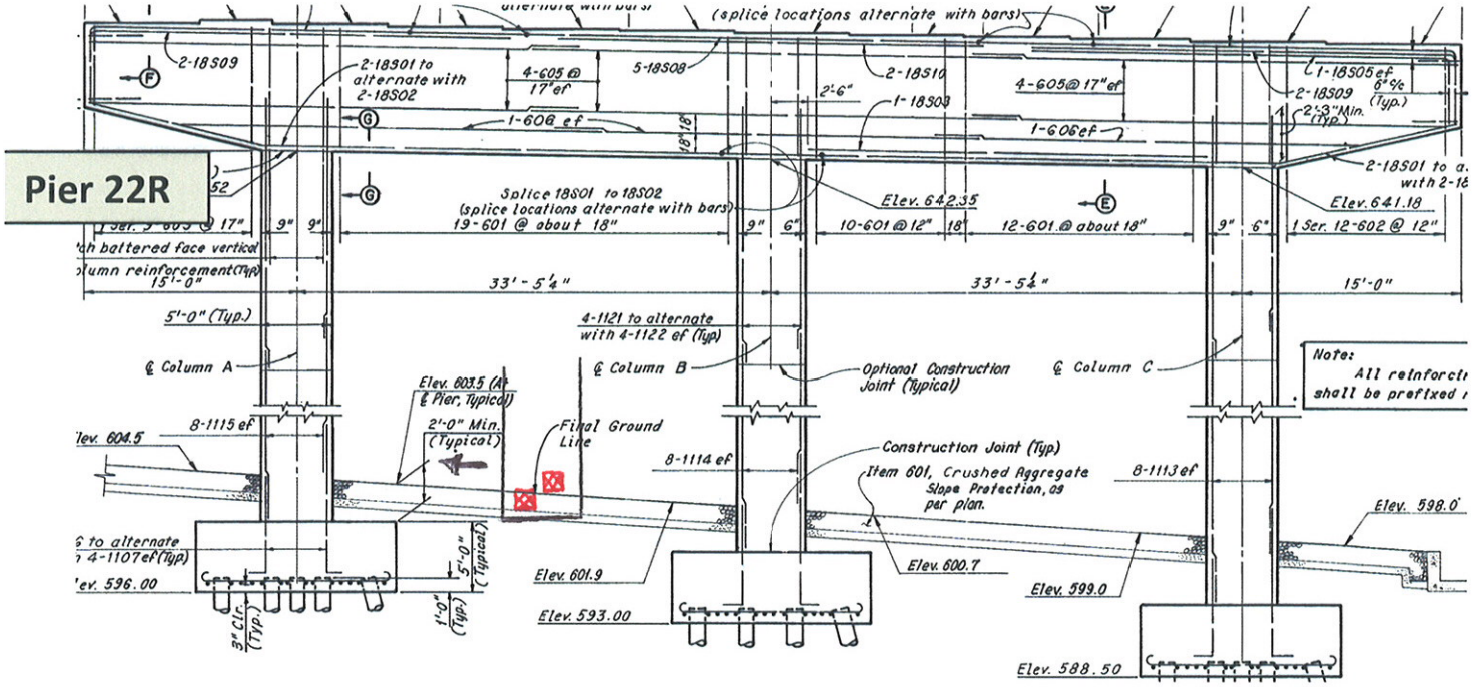
= Spall

W FACE

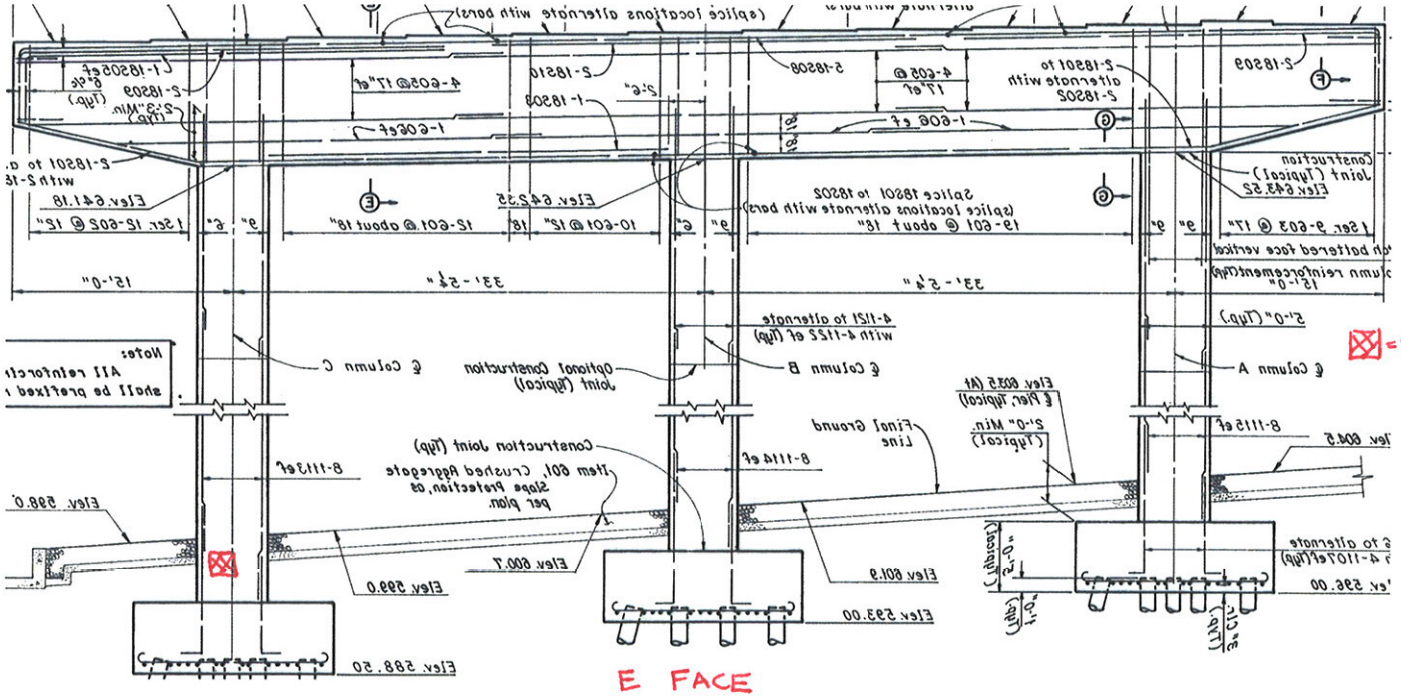




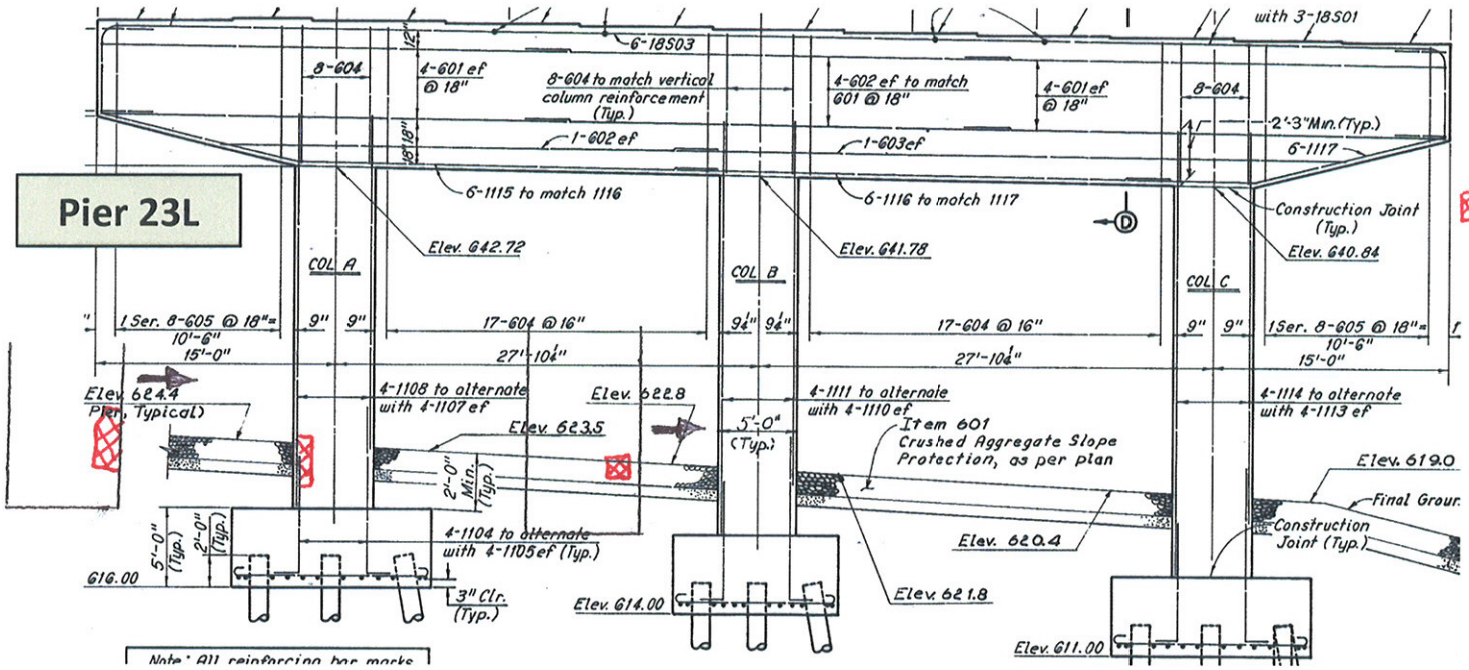
Pier 22R



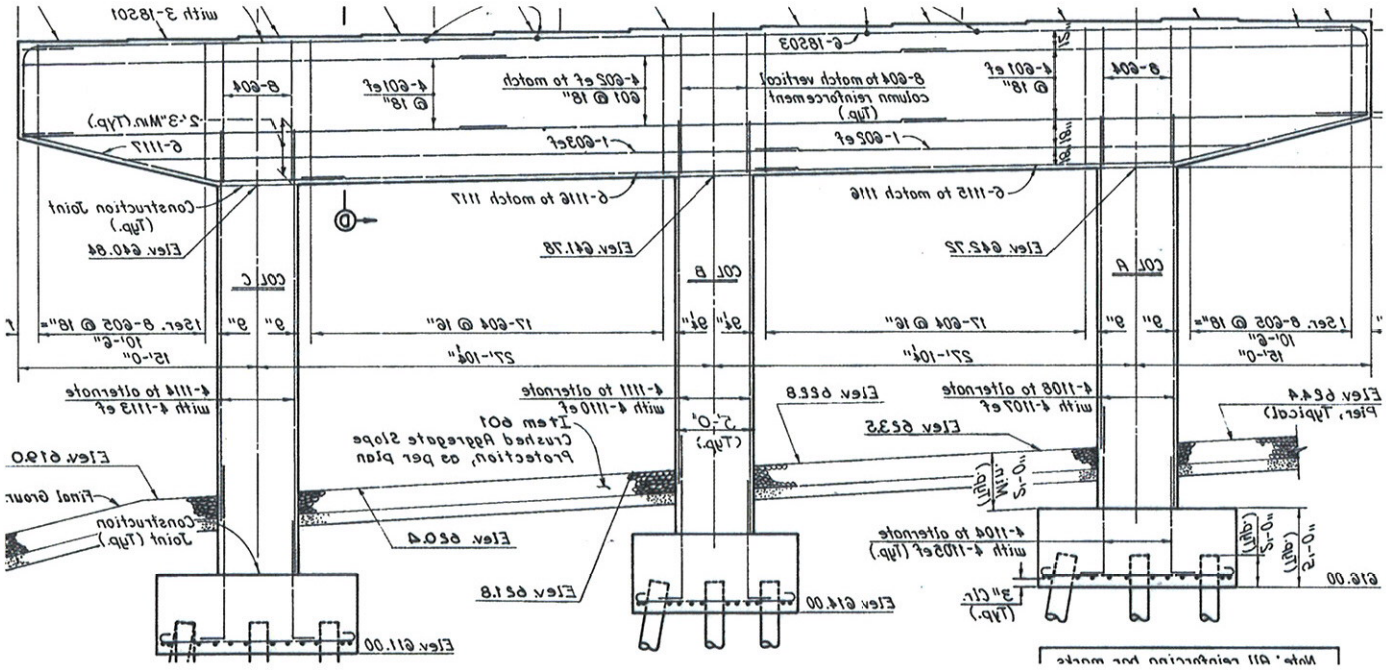
W FACE



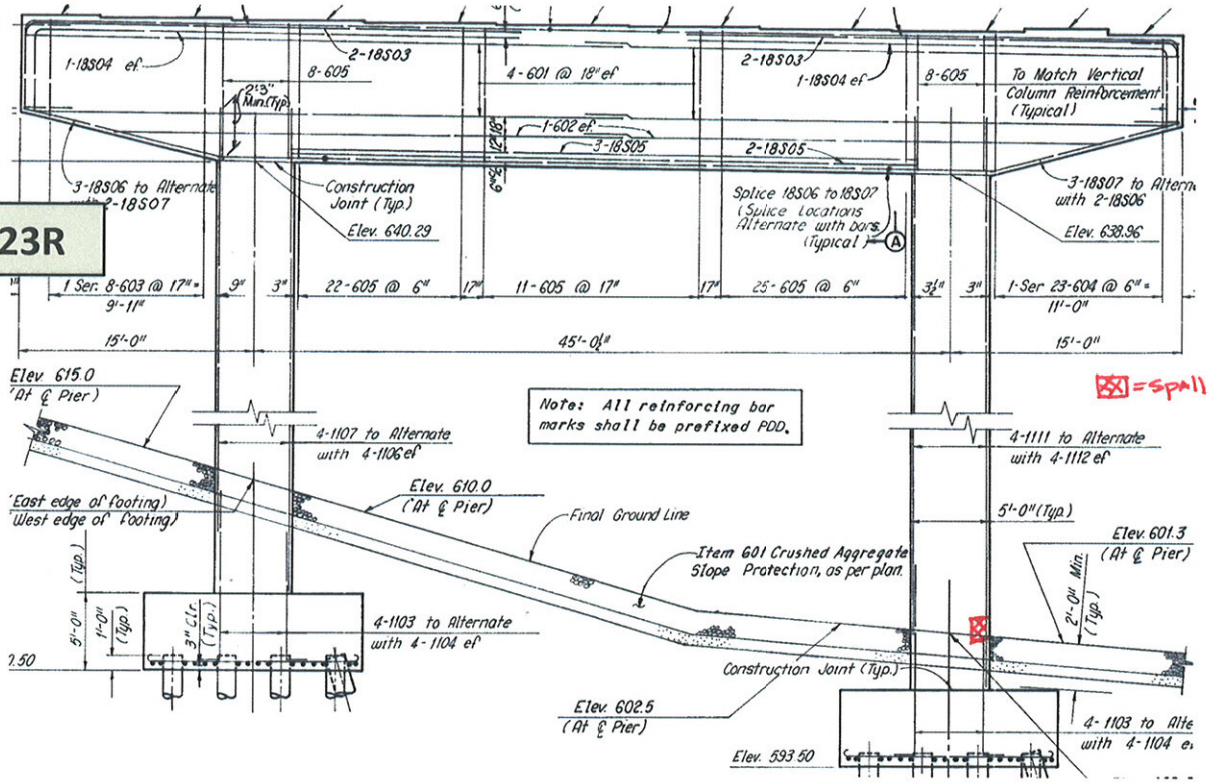
E FACE


Pier 23L
6-18S03
with 3-18S01
8-604
4-601 ef @ 18"
8-604 to match vertical column reinforcement (Typ.)
4-602 ef to match 601 @ 18"
4-601 ef @ 18"
8-604
2'-3" Min. (Typ.)
6-1117
1-602 ef
1-603 ef
6-1115 to match 1116
6-1116 to match 1117
Construction Joint (Typ.)
Elev. 642.72
Elev. 641.78
Elev. 640.84
COL A
COL B
COL C
15 Ser. 8-605 @ 18" = 10'-6" 15'-0"
9"
9"
17-604 @ 16" 27'-10¼"
9¼"
9¼"
17-604 @ 16" 27'-10¼"
9"
9"
15 Ser. 8-605 @ 18" = 10'-6" 15'-0"
Elev. 624.4 Pier, Typical)
4-1108 to alternate with 4-1107 ef
Elev. 622.8
Elev. 623.5
4-1111 to alternate with 4-1110 ef
Item 601 Crushed Aggregate Slope Protection, as per plan
4-1114 to alternate with 4-1113 ef
Elev. 619.0
Final Grour
Construction Joint (Typ.)
5'-0" (Typ.)
2'-0" (Typ.)
2'-0" Min. (Typ.)
5'-0" (Typ.)
4-1104 to alternate with 4-1105 ef (Typ.)
616.00
3" Clr. (Typ.)
Elev. 614.00
Elev. 620.4
Elev. 621.8
Elev. 611.00
Note: All reinforcing bar marks

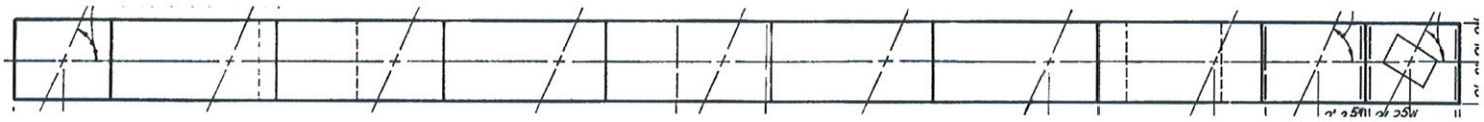
W FACE

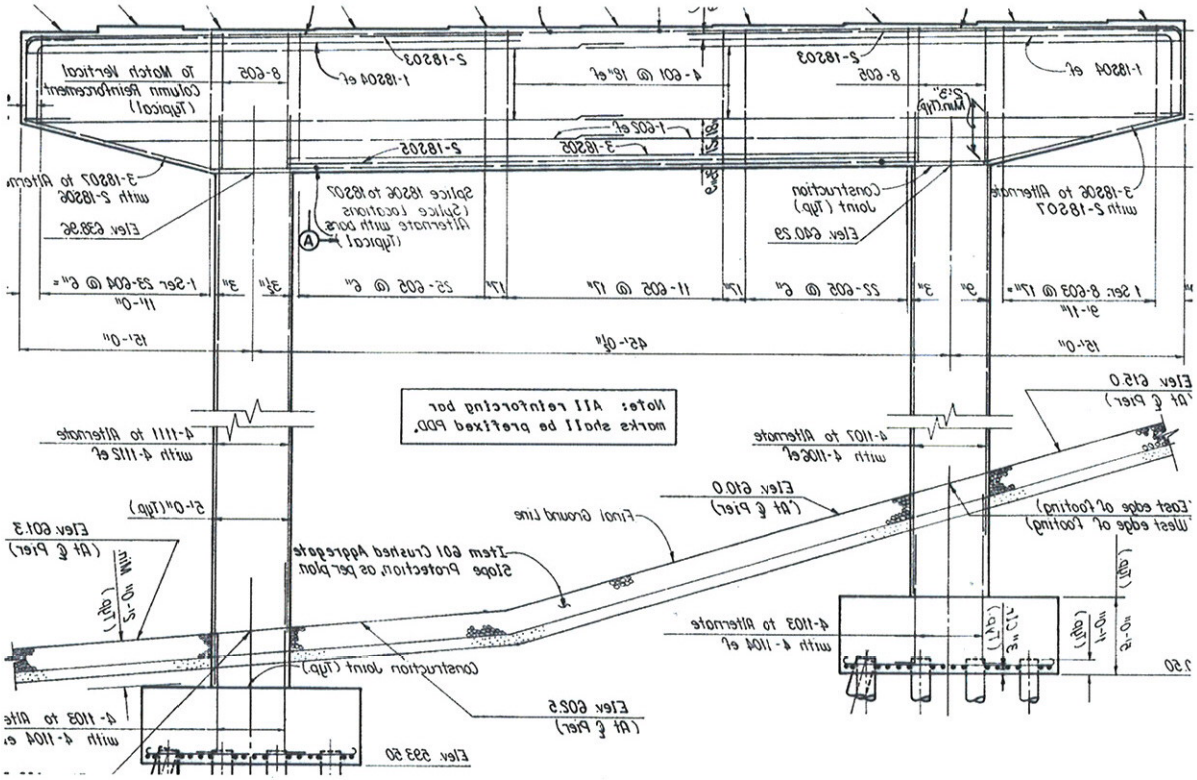


Pier 23R

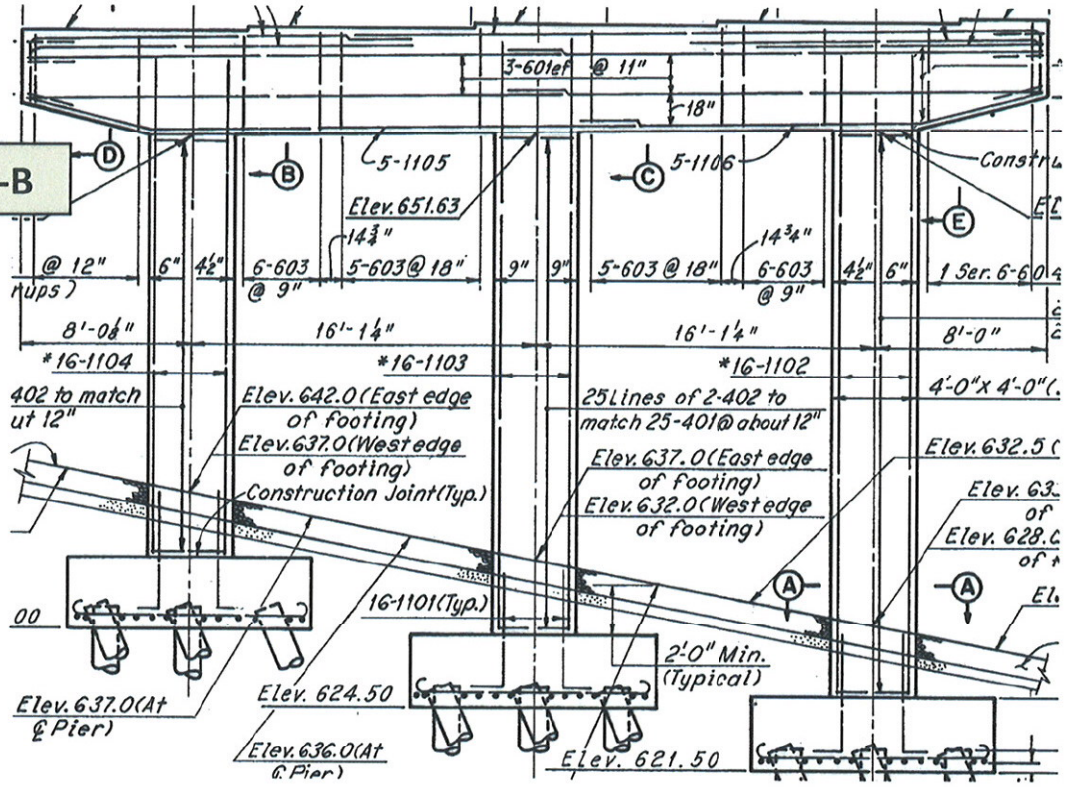


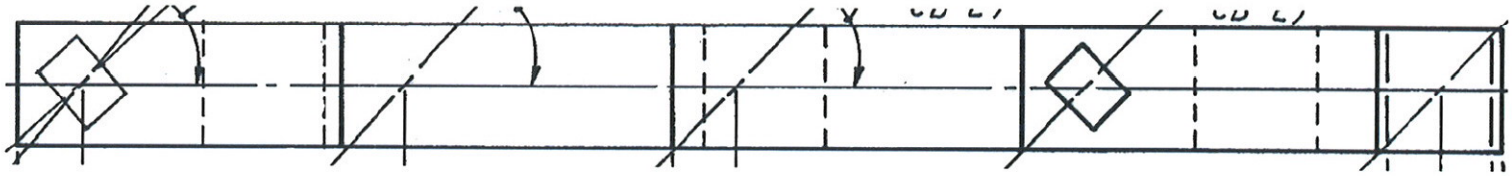
W FACE

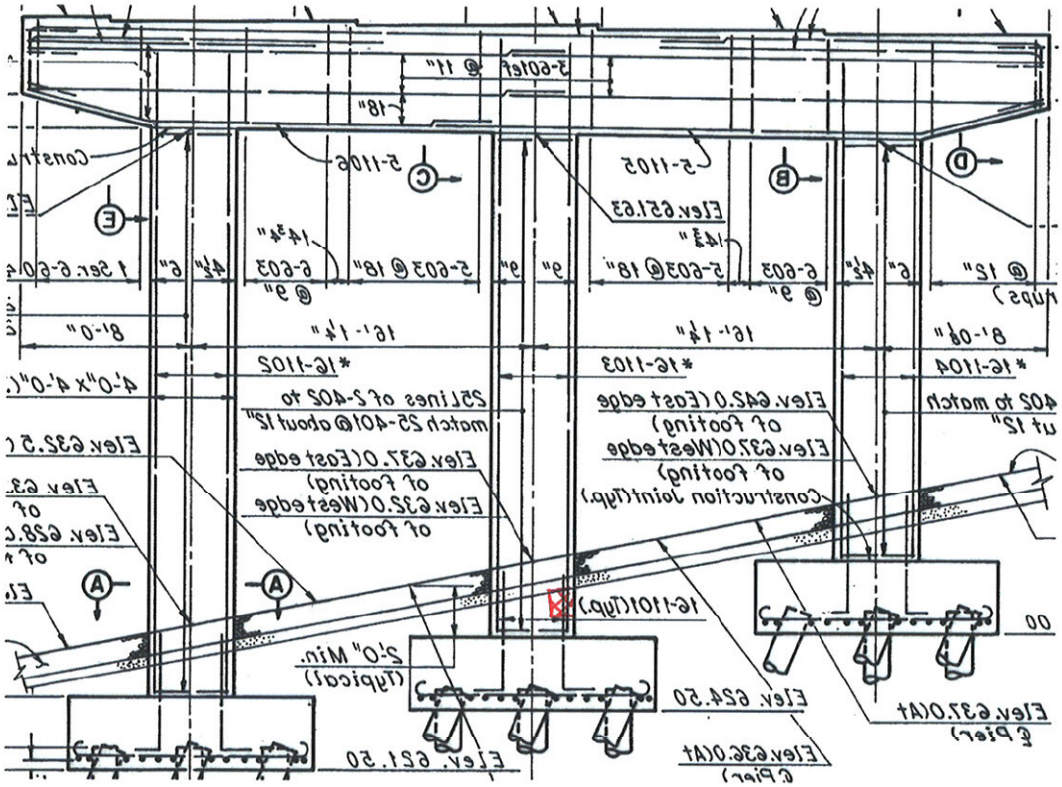




Pier 27C-B


3-601ef @ 11"
18"
5-1105
5-1106
Elev. 651.63
14¾"
@ 12"
6"
4½"
6-603 @ 9"
5-603 @ 18"
9"
9"
5-603 @ 18"
6-603 @ 9"
4½"
6"
8'-0⅛"
16'-1¼"
16'-1¼"
8'-0"
*16-1104
*16-1103
*16-1102
402 to match ut 12"
Elev. 642.0 (East edge of footing)
Elev. 637.0 (West edge of footing)
Construction Joint (Typ.)
25 Lines of 2-402 to match 25-401 @ about 12"
Elev. 637.0 (East edge of footing)
Elev. 632.0 (West edge of footing)
Elev. 632.5
4'-0"x 4'-0"
16-1101 (Typ.)
2'-0" Min. (Typical)
Elev. 637.0 (At ℄ Pier)
Elev. 624.50
Elev. 636.0 (At ℄ Pier)
Elev. 621.50

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E FACE

Inspection Daily Logs

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 8/11/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				

Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley.

Inspection access by snooper, manlifts and climbing the structural steel.

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Outside Fascia Units 5-2	6:30 AM	3:30 PM
Robert Cunning	R.E.L.	Technician	WB Deck, Railing, Ex. Jts.	6:30 AM	3:30 PM
Kent A. Kapustar	R.E.L.	P.E.	WB Deck, Railing, Ex. Jts.	6:30 AM	3:30 PM
Rich Harding	R.E.L.	Technician	WB Deck, Railing, Ex. Jts.	6:30 AM	3:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
ODOT A-62 Snooper	5	WB Units 5-2	A-62		
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
ODOT traffic control closed WB right lane.	Westbound	4	9:00 AM	2:15 PM
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

8/11/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 8/12/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspection access by snooper, manlifts and climbing the structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Outside Fascia Unit 2	6:30 AM	3:30 PM
Rich Harding	R.E.L.	Technician	WB Deck, Railing, Ex. Jts.	6:30 AM	3:30 PM

# of Personnel: **2**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
ODOT A-62 Snooper	4	WB Units 5-2	A-62		
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
ODOT traffic control closed WB right lane.	Westbound	4	9:00 AM	1:15 PM
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 8/12/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 8/13/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspection access by snooper, manlifts and climbing the structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Outside Fascia Units 2-5	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	EB Deck, Railing, Ex. Jts.	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	EB Deck, Railing, Ex. Jts.	6:30 AM	4:30 PM

# of Personnel: **3**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
ODOT A-62 Snooper	5	WB Units 5-2	A-62		
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
ODOT traffic control closed EB right lane.	Eastbound	4	9:15 AM	2:15 PM
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 8/13/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 8/14/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				

Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley.

Inspection access by snooper, manlifts and climbing the structural steel.

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Outside Fascia Unit 5&C-B	6:30 AM	5:00 PM
Kent A. Kapustar	R.E.L.	P.E.	EB Deck, Railing, Ex. Jts.	6:30 AM	3:30 PM
Rich Harding	R.E.L.	Technician	EB Deck, Railing, Ex. Jts.	6:30 AM	3:30 PM

# of Personnel: **3**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
ODOT A-62 Snooper	5	WB Units 5-2	A-62		
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
ODOT traffic control closed EB right lane.	Eastbound	4	9:15 AM	3:15 PM
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

8/14/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/2/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting substructure, drainage, slopes, channel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	West side of river	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	West side of river	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	West side of river	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	West side of river	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

9/2/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/3/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting substructure, drainage, slopes, channel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	East side of river	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	East side of river	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	East side of river	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	East side of river	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 9/3/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/3/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting substructure, drainage, slopes, channel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	East side of river	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	East side of river	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	East side of river	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	East side of river	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 9/3/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/8/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 1	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 1	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 1	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 1	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

9/8/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/9/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 2	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 2	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 2	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 2	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason O. Burgholder 9/9/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/10/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				

Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley.

Inspecting superstructure from manlift and climbing structural steel.

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 2	6:30 AM	4:00 PM
Robert Cunning	R.E.L.	Technician	Unit 2	6:30 AM	4:00 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 2	6:30 AM	4:00 PM
Rich Harding	R.E.L.	Technician	Unit 2	6:30 AM	4:00 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

9/10/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/11/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				

Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley.

Inspecting superstructure from manlift and climbing structural steel.

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 2	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 2	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 2	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 2	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

9/11/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/12/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 2	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 2	6:30 AM	5:00 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 2	6:30 AM	5:00 PM
Rich Harding	R.E.L.	Technician	Unit 2	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason O. Burgholder 9/12/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/15/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

9/15/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/16/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

9/16/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/17/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

9/17/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/18/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				

Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley.

Inspecting superstructure from manlift and climbing structural steel.

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 3	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 3	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 9/18/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/19/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 4	6:30 AM	2:30 PM
Robert Cunning	R.E.L.	Technician	Unit 4	6:30 AM	2:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 4	6:30 AM	2:30 PM

# of Personnel: **3**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason O. Burgholder 9/19/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/22/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				

Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley.

Inspecting superstructure from manlift and climbing structural steel.

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 4	6:30 AM	4:30 PM
Robert Cunning	R.E.L.	Technician	Unit 4	6:30 AM	4:30 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 5	6:30 AM	4:30 PM
Rich Harding	R.E.L.	Technician	Unit 5	6:30 AM	4:30 PM

# of Personnel: **4**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 9/22/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/23/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 6	6:30 AM	4:00 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 6	6:30 AM	4:00 PM
Rich Harding	R.E.L.	Technician	Unit 6	6:30 AM	4:00 PM

# of Personnel: **3**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 9/23/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/24/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 6	6:30 AM	5:00 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 6	6:30 AM	5:00 PM
Rich Harding	R.E.L.	Technician	Unit 6	6:30 AM	5:00 PM

# of Personnel: **3**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason D. Burgholder 9/24/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/25/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 5	6:30 AM	5:00 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 5	6:30 AM	5:00 PM
Rich Harding	R.E.L.	Technician	Unit 5	6:30 AM	5:00 PM

# of Personnel: **3**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason O. Burgholder 9/25/2014

Richland Engineering Limited
Bridge Inspection
Daily Work & Activity Report

SFN: 1811991	**PID No.:** 93088	**County:** CUY	**Route:** 490	**Section:** 0100	**Date:** 9/26/2014
Job No: 112076	**Bridge Name:** CUY-490-0100				
Description of Work: Fracture critical inspection of CUY-490-0100 over the Cuyahoga River Valley. Inspecting superstructure from manlift and climbing structural steel.					

Labor Personnel:

Name:	Company	Class.	Work Location	Start Time	End Time
Jason D. Burgholder	R.E.L.	P.E.	Unit 4	6:30 AM	5:00 PM
Kent A. Kapustar	R.E.L.	P.E.	Unit 5	6:30 AM	5:00 PM
Rich Harding	R.E.L.	Technician	Unit 4	6:30 AM	5:00 PM

# of Personnel: **3**

Equipment:

Description / Type / Owner	Hours	Location	Model	Year	Equipment No.
Genie S-125, ALL Aerials		East Approach	S-125		Z9333
Ford Van / R.E.L.			E350	2011	
Jeep / JDB			Grand Cher.	2004	

Maintenance of Traffic:

Location Description:	Direction	Lane #	Time on	Time off
N/A				
Local Law Enforcement Notified: N/A	**Officer Name / Title:** N/A			

Materials Used:

Quantity	Description

Signature / Date:

Jason O. Burgholder 9/26/2014