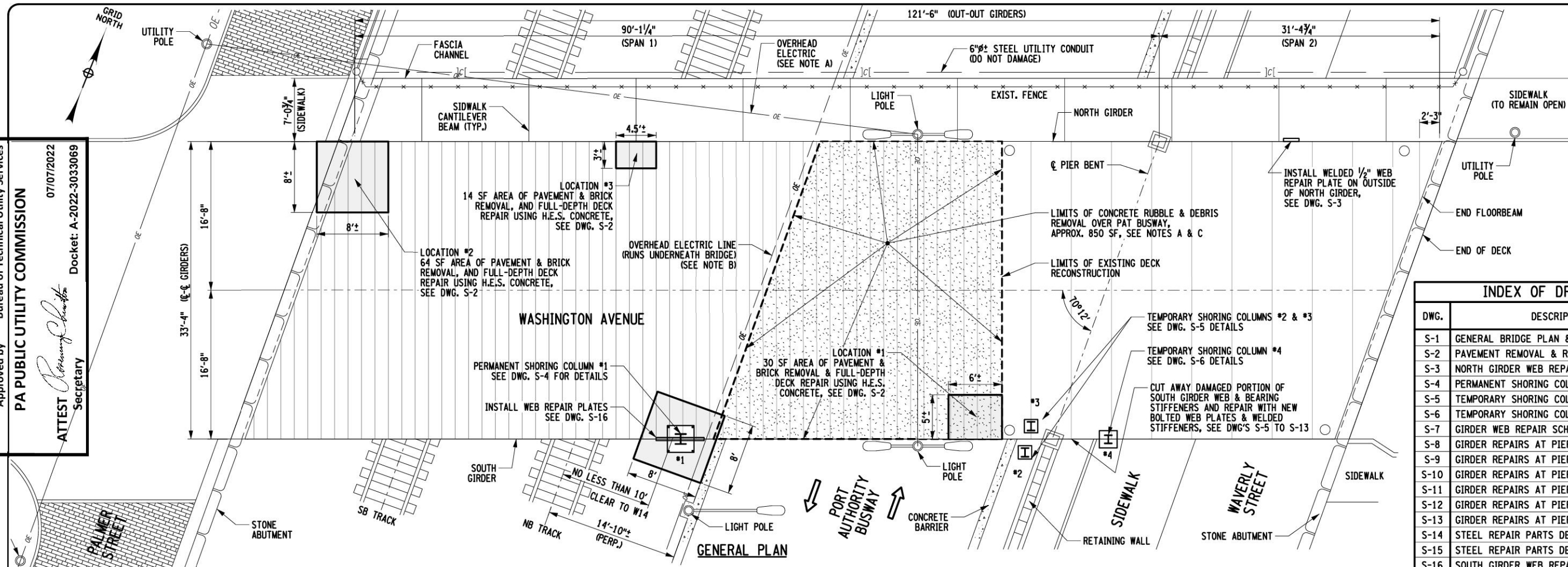
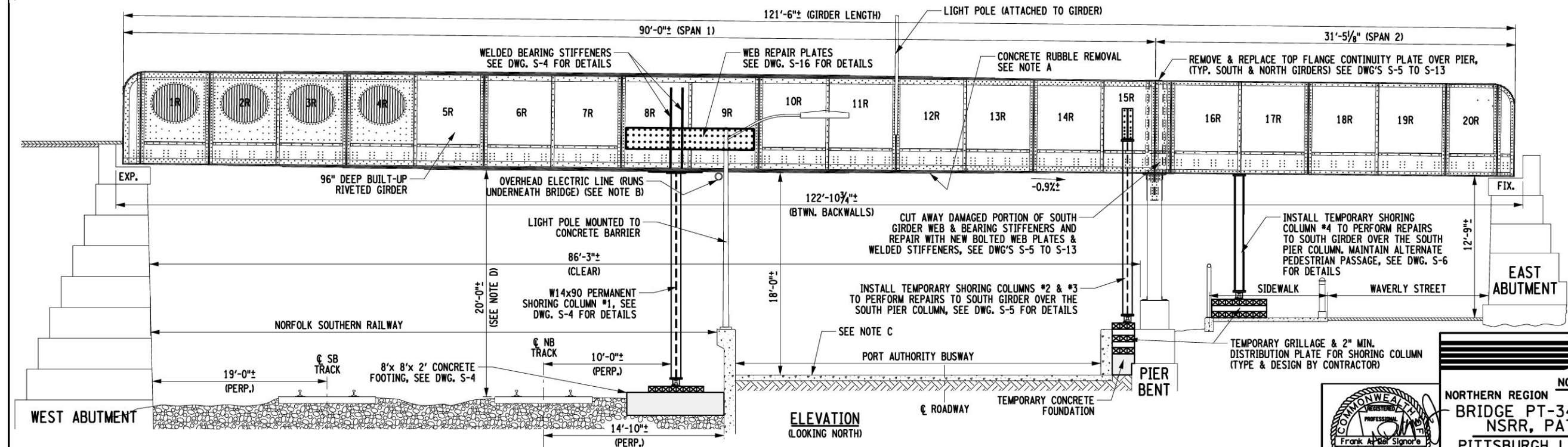


CERTIFIED CORRECT PLANS
 Approved by
 Bureau of Technical Utility Services
PA PUBLIC UTILITY COMMISSION
 07/07/2022
 Docket: A-2022-3033069
 ATTEST
 Secretary

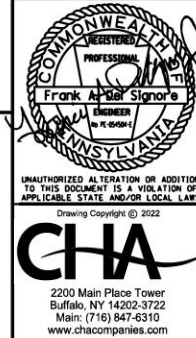


INDEX OF DRAWINGS		
DWG.	DESCRIPTION	SHT. NO.
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S-2	PAVEMENT REMOVAL & REPLACEMENT DETAILS	2
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S-4	PERMANENT SHORING COLUMN #1 DETAILS	4
S-5	TEMPORARY SHORING COLUMNS #2 & #3 DTL'S	5
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S-7	GIRDER WEB REPAIR SCHEMATIC	7
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S-16	SOUTH GIRDER WEB REPAIR PLATE (BAYS 8R & 9R)	16



- PRIORITY 1 REPAIR WORK**
1. REMOVE LOOSE CONCRETE, RUBBLE & BRICKS FROM BELOW DECK - ABOVE PAT BUSWAY
 2. FULL-DEPTH PAVEMENT REMOVAL & REPLACEMENT WITH HES CONCRETE (3 LOCATIONS)
 3. SPAN 2, NORTH GIRDER. INSTALL WEB REPAIR PLATE (1 LOCATION ONLY)
 4. TEMPORARY OR PERMANENT SHORING OF SOUTH GIRDER IN SPAN 1 & SPAN 2 (4 LOCATIONS)
 5. SOUTH GIRDER WEB & STIFFENER REPAIRS OVER PIER COLUMN
 6. SPAN 1, SOUTH GIRDER WEB REPAIR IN BAYS 8R & 9R (1 LOCATION ONLY)

PRIORITY 1 REPAIRS - MAY 2022



NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: GENERAL BRIDGE PLAN & ELEVATION S-1
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 1 OF 16 DRAWING NUMBER PT-344.91-2020

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NOTE A:
 DURING ONE OR TWO NIGHT-TIME CLOSURES OF THE PAT BUSWAY, THE CONTRACTOR SHALL SOUND THE ENTIRE AREA OF ORIGINAL CONCRETE OVER THE PAT BUSWAY, WHICH IS APPROXIMATELY 850 SF. REMOVE ANY LOOSE SPALLED OR VERY DELAMINATED OR CRUMBLING CONCRETE ENCASUREMENT. DO NOT REMOVE ANY SOLID CONCRETE, OR ANY OF THE ENCASUREMENT THAT IS UNLIKELY TO FALL. AVOID VIBRATING LOOSE ANY EXPOSED BRICKS ABOVE, THAT ARE NOT READY TO FALL.

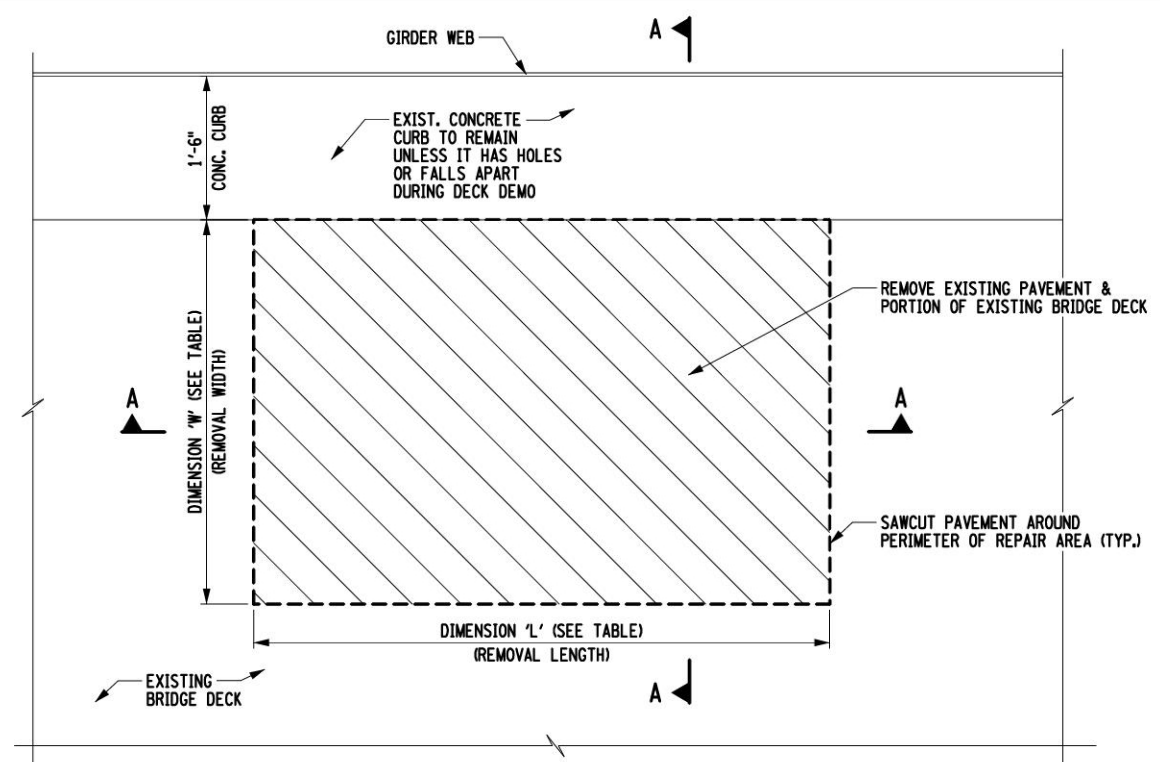
NOTE B:
 THE CONTRACTOR IS HEREBY ADVISED OF THE OVERHEAD ELECTRIC LINES THAT RUN NORTH-SOUTH UNDER THE BRIDGE, DIRECTLY OVER THE CONCRETE BARRIER FOR THE PAT BUSWAY. THESE ELECTRIC LINES APPEAR TO SERVICE THE LIGHT POLES FOR THE BUSWAY LIGHTING AND ARE ATTACHED TO THE BRIDGE ON AT LEAST 2 LOCATIONS. STAY CLEAR OF THOSE LINES.

NOTE C:
 THE CONTRACTOR SHALL NOT DROP ANY CONCRETE, BRICK OR ASPHALT ONTO THE BUSWAY OR TRACK BELOW. OVER THE BUSWAY, THE CONTRACTOR SHALL CATCH ALL FALLING DEBRIS IN HIS MANLIFTS, SCISSORS LIFT OR OTHER WORK PLATFORM.

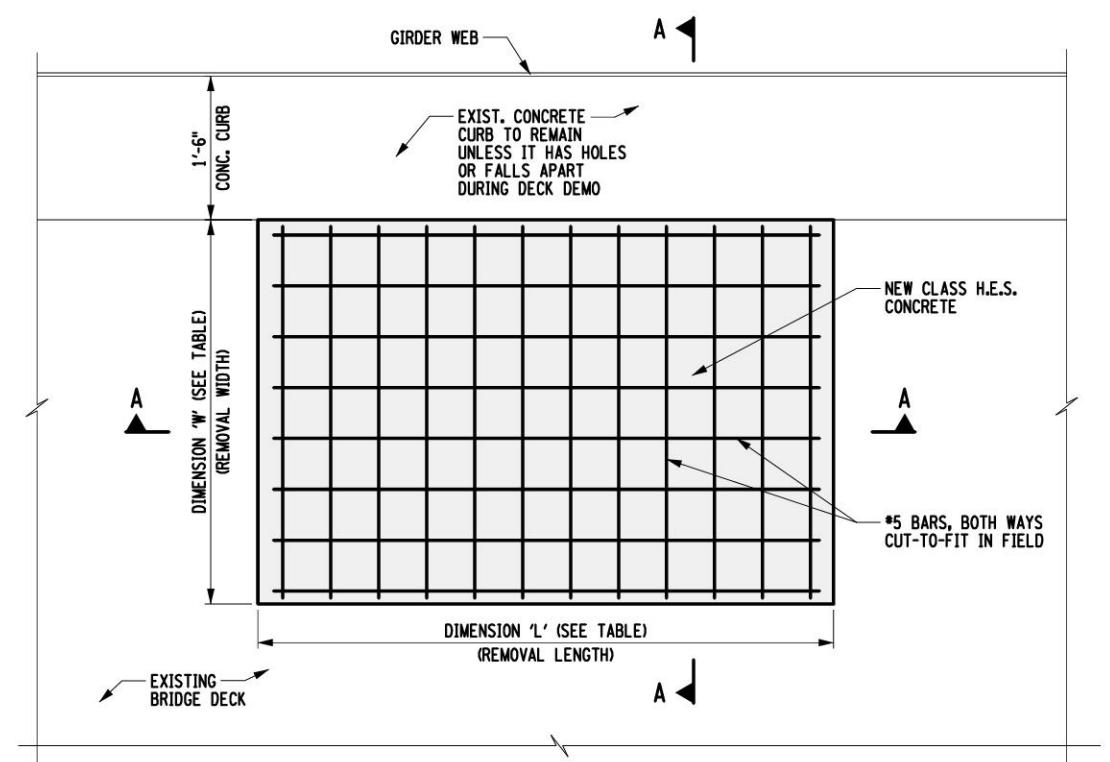
NO SOUNDING OR ENCASUREMENT REMOVAL IS REQUIRED ON NS PROPERTY TO THE WEST OF THE BUSWAY.

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 USER = 1719

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 DATE/TIME = 5/25/2022
 USER = 1719



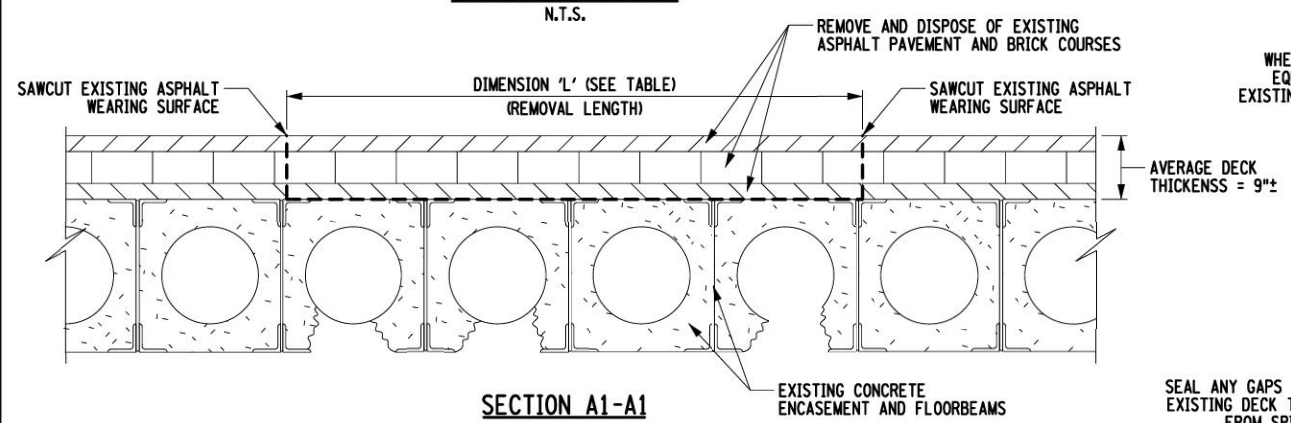
DECK REMOVAL PLAN
N.T.S.



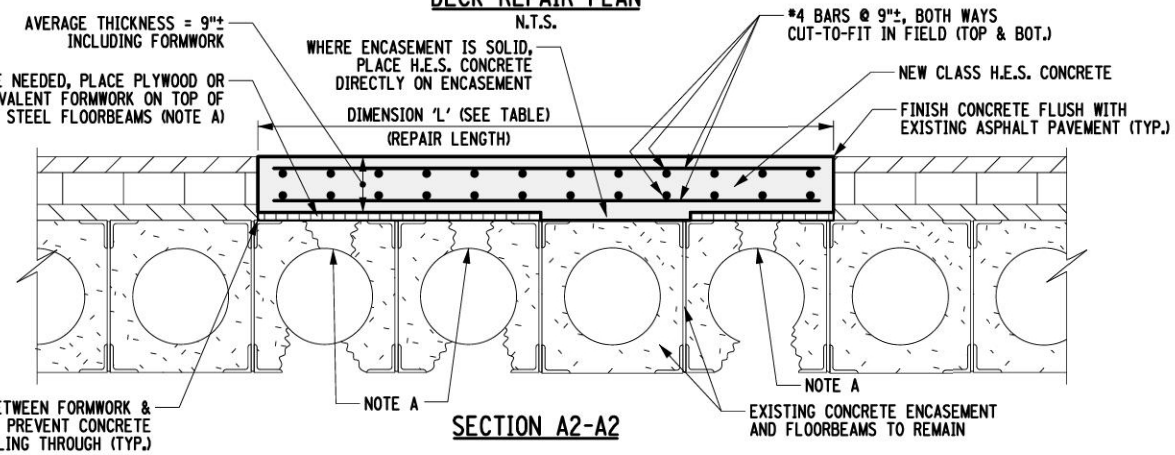
DECK REPAIR PLAN
N.T.S.

CONCRETE REPAIR TABLE			
REPAIR LOCATION	DIMENSION	APPROX. CONCRETE VOLUME	APPROX. REQ'D REINFORCEMENT
1	'L' LENGTH	30 SF (0.83 CY)	#4 STRAIGHT BARS - 160 LF 107 LB.
	'W' WIDTH		
2	'L' LENGTH	64 SF (1.8 CY)	#4 STRAIGHT BARS - 340 LF 227 LB.
	'W' WIDTH		
3	'L' LENGTH	13.5 SF (0.4 CY)	#4 STRAIGHT BARS - 72 LF 48 LB.
	'W' WIDTH		
TOTAL AREA=		107.5 SF±	
TOTAL REINF.=			382 LB

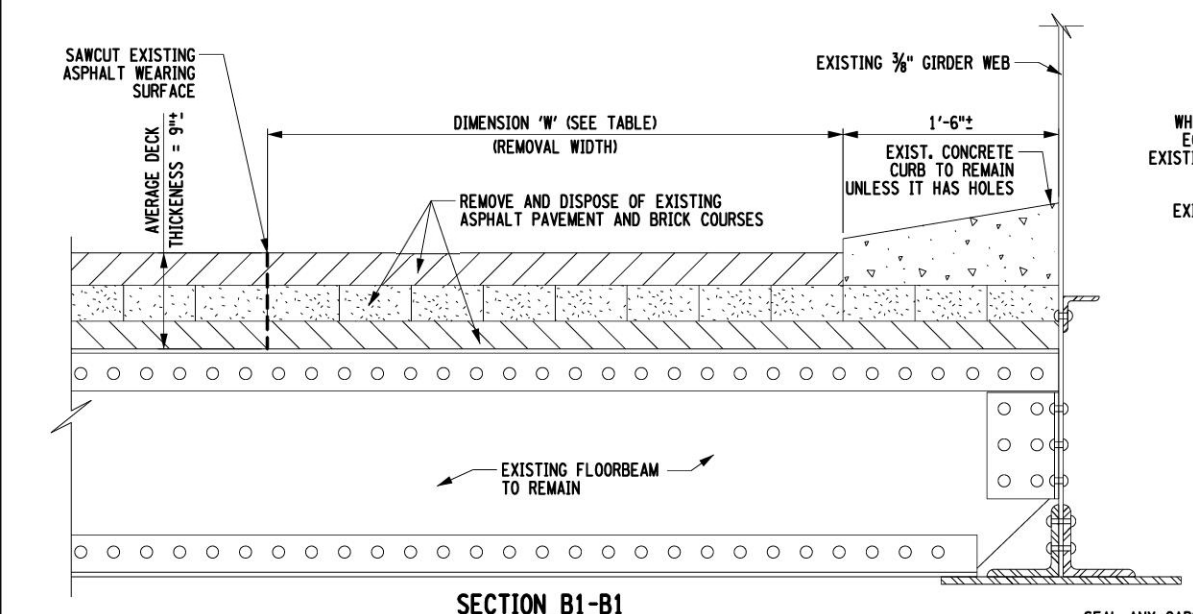
SEE DECK PLAN ON DWG. S-1 FOR DECK REPAIR LOCATIONS



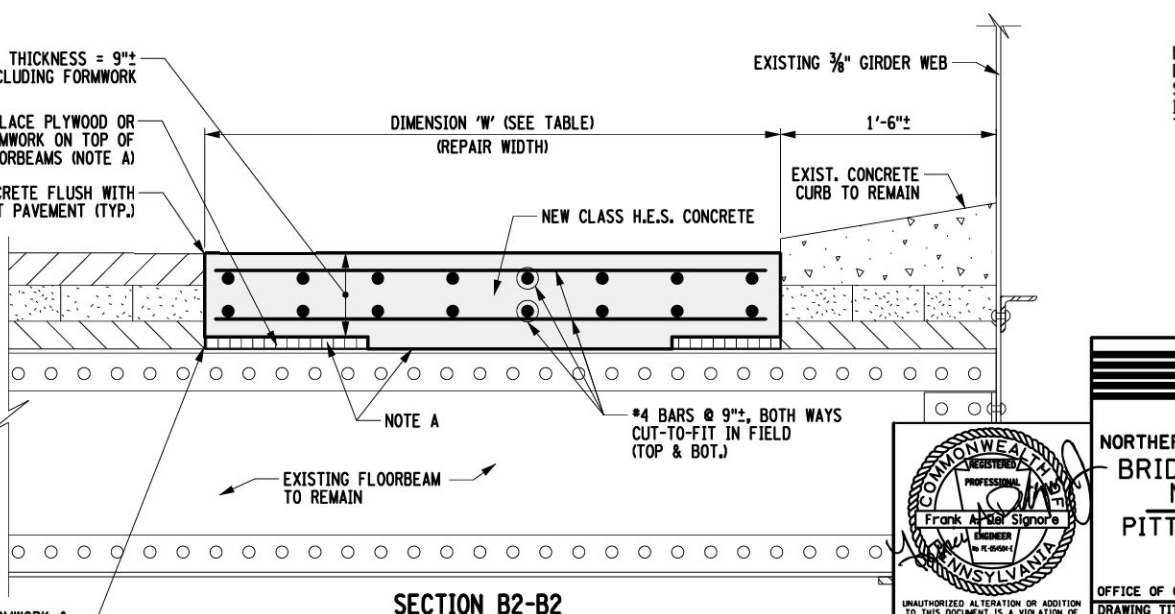
SECTION A1-A1



SECTION A2-A2



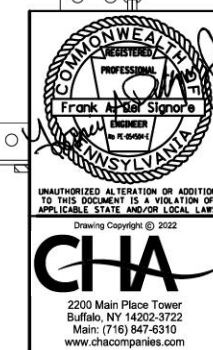
SECTION B1-B1



SECTION B2-B2

NOTE A: PLYWOOD FORMS ARE NOT NECESSARY WHERE ENCASUREMENT IS SOLID. USE PLYWOOD FORMS ONLY WHERE CONCRETE WILL SPILL INTO & FILL THE VOIDS IN ENCASEMENT. IF THERE IS NO HOLE THRU THE TOP OF THE ENCASEMENT, OMIT THE PLYWOOD FORMS.

ITEM 2



PRIORITY 1 REPAIRS - MAY 2022

NS NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER
 NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

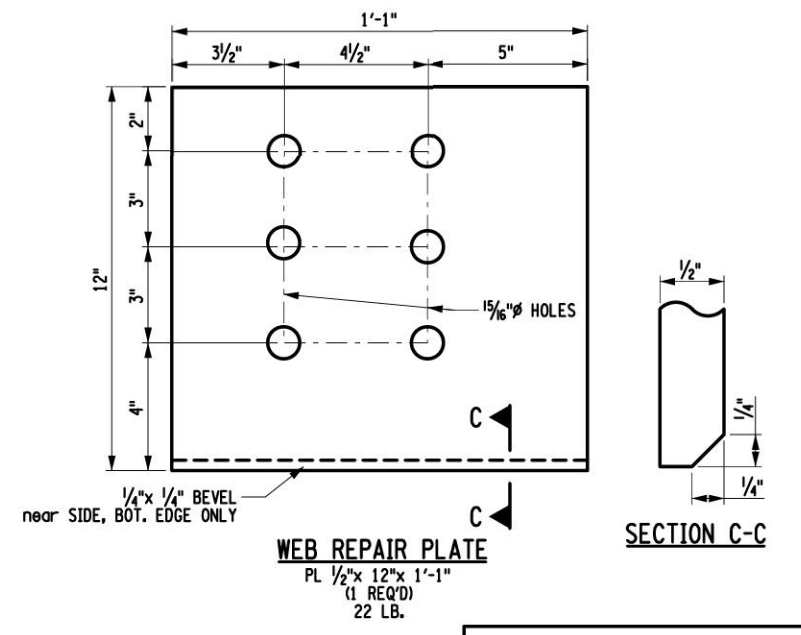
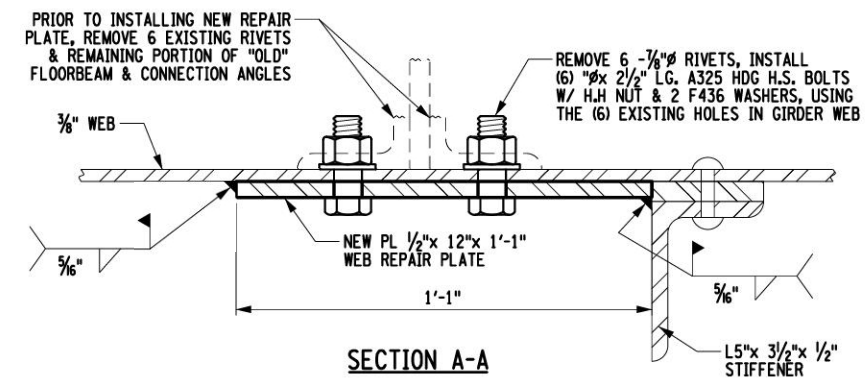
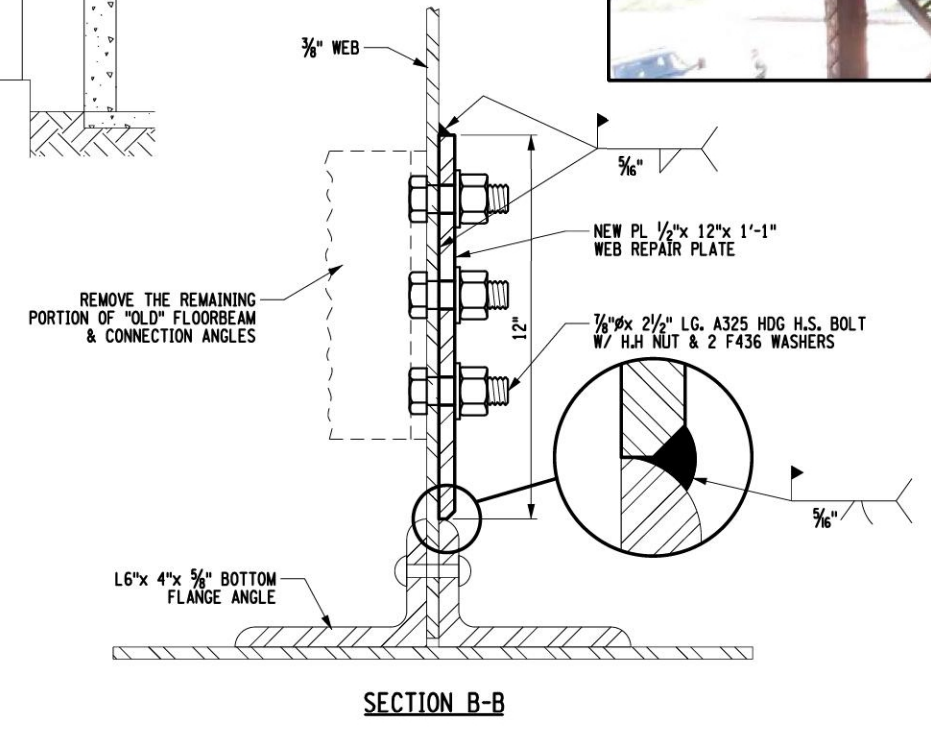
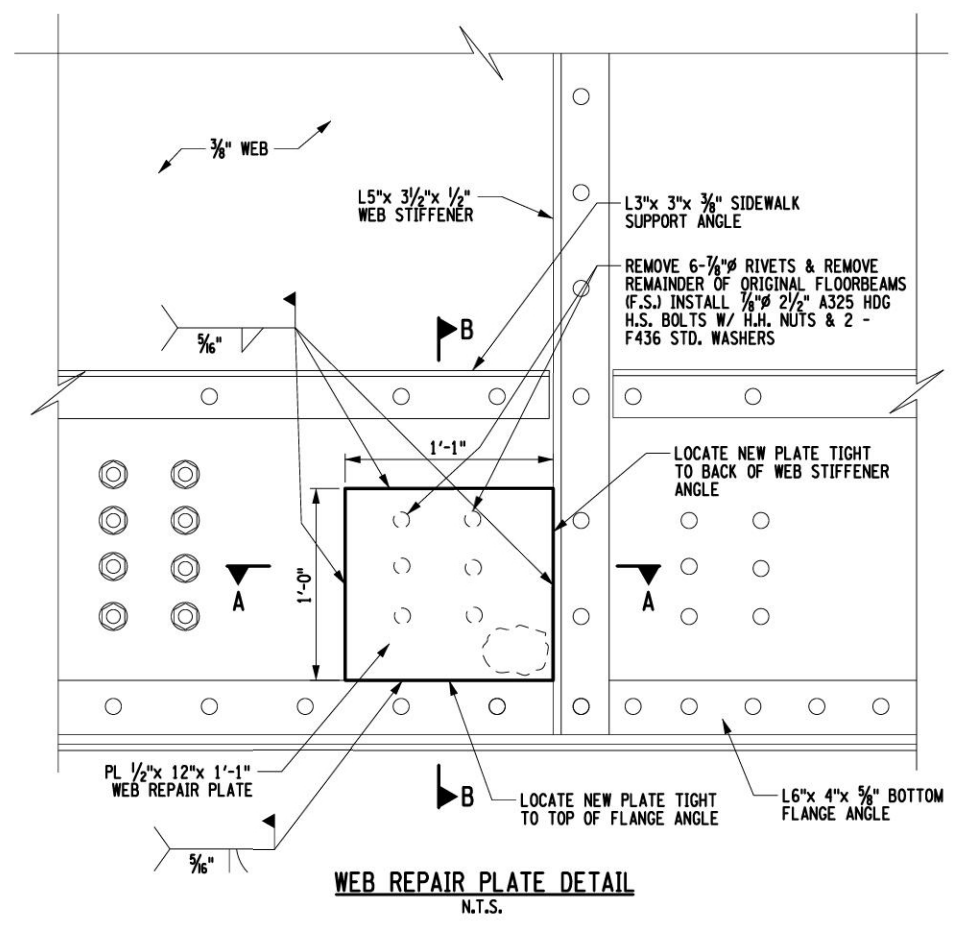
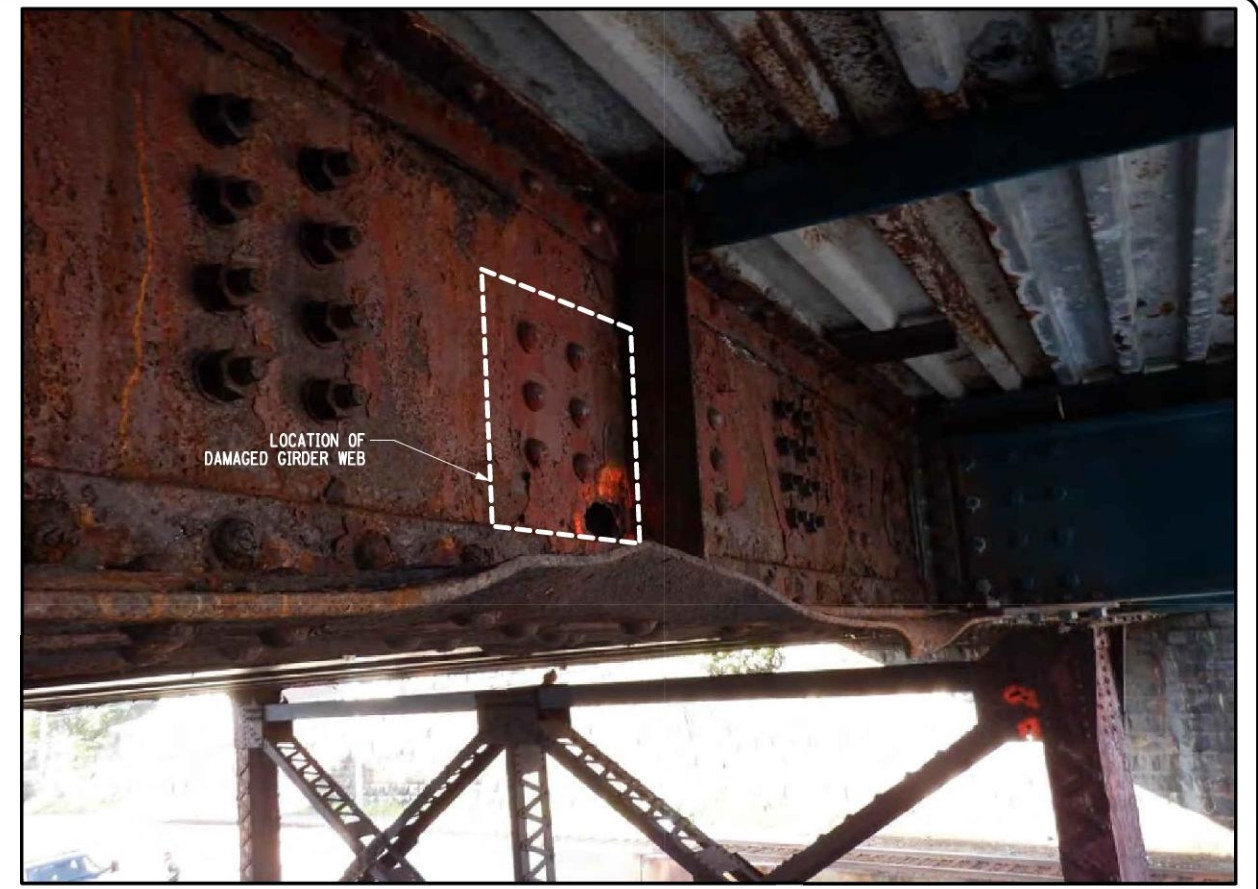
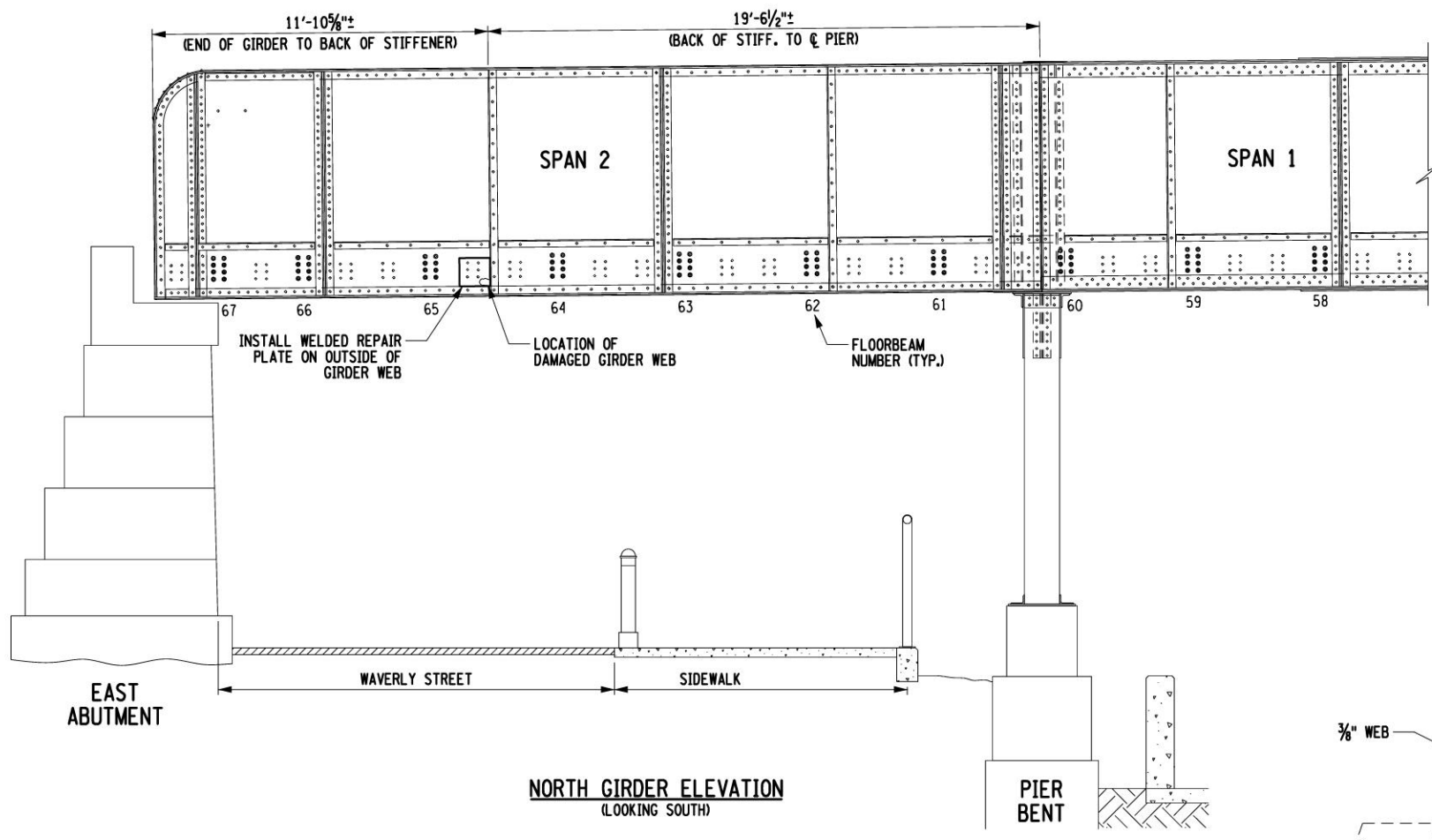
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE: **FULL DEPTH PAVEMENT REMOVAL & REPLACEMENT DETAILS** DWG. S-2

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE	BROOXXXXX	DATE	MAY 2022
SHEET NUMBER		2 OF 16	DRAWING NUMBER	
			PT-344.91-2020	

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FILE NAME = \\chc\1\proj\Projects\BNV\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-3.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



ITEM 3

Professional Engineer Seal: Frank A. DeStasio, No. 10091, State of Pennsylvania

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PRIORITY 1 REPAIRS - MAY 2022

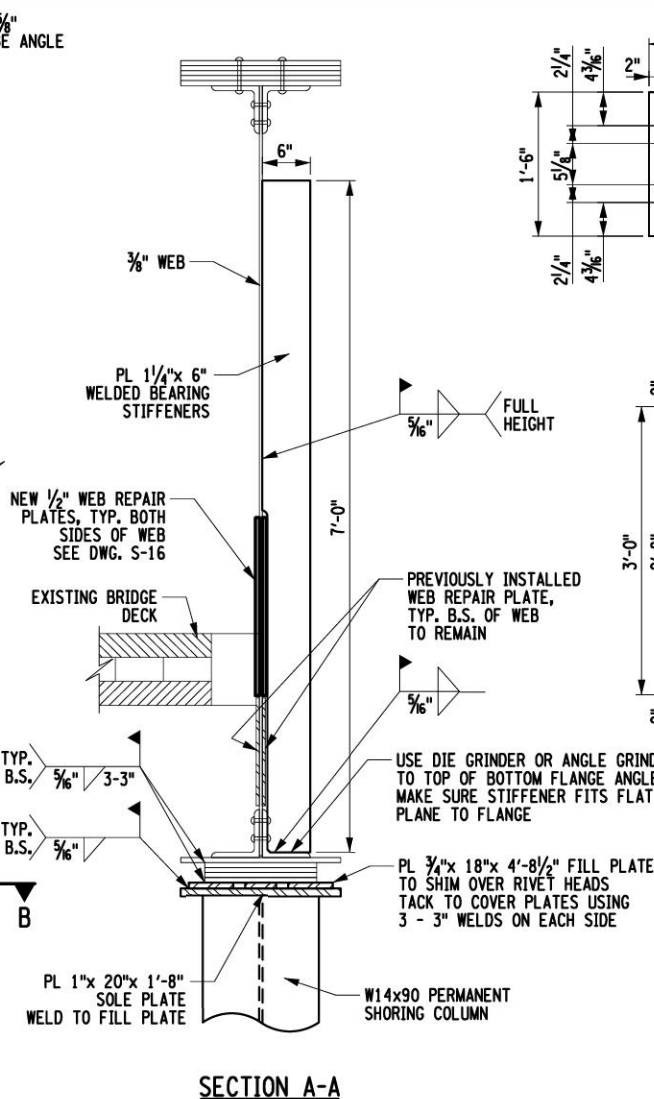
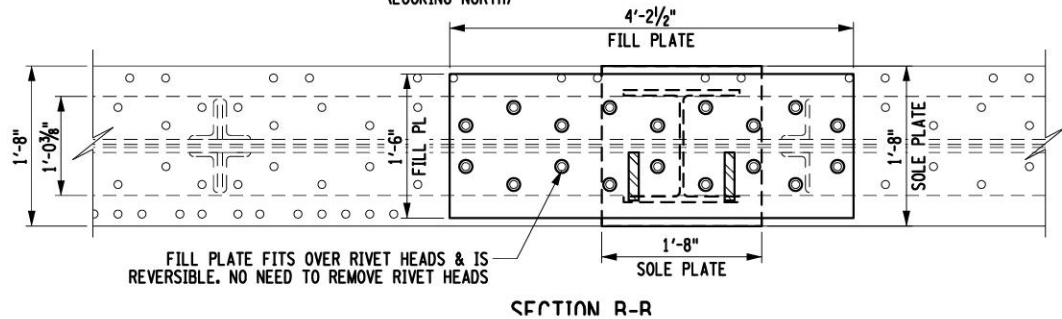
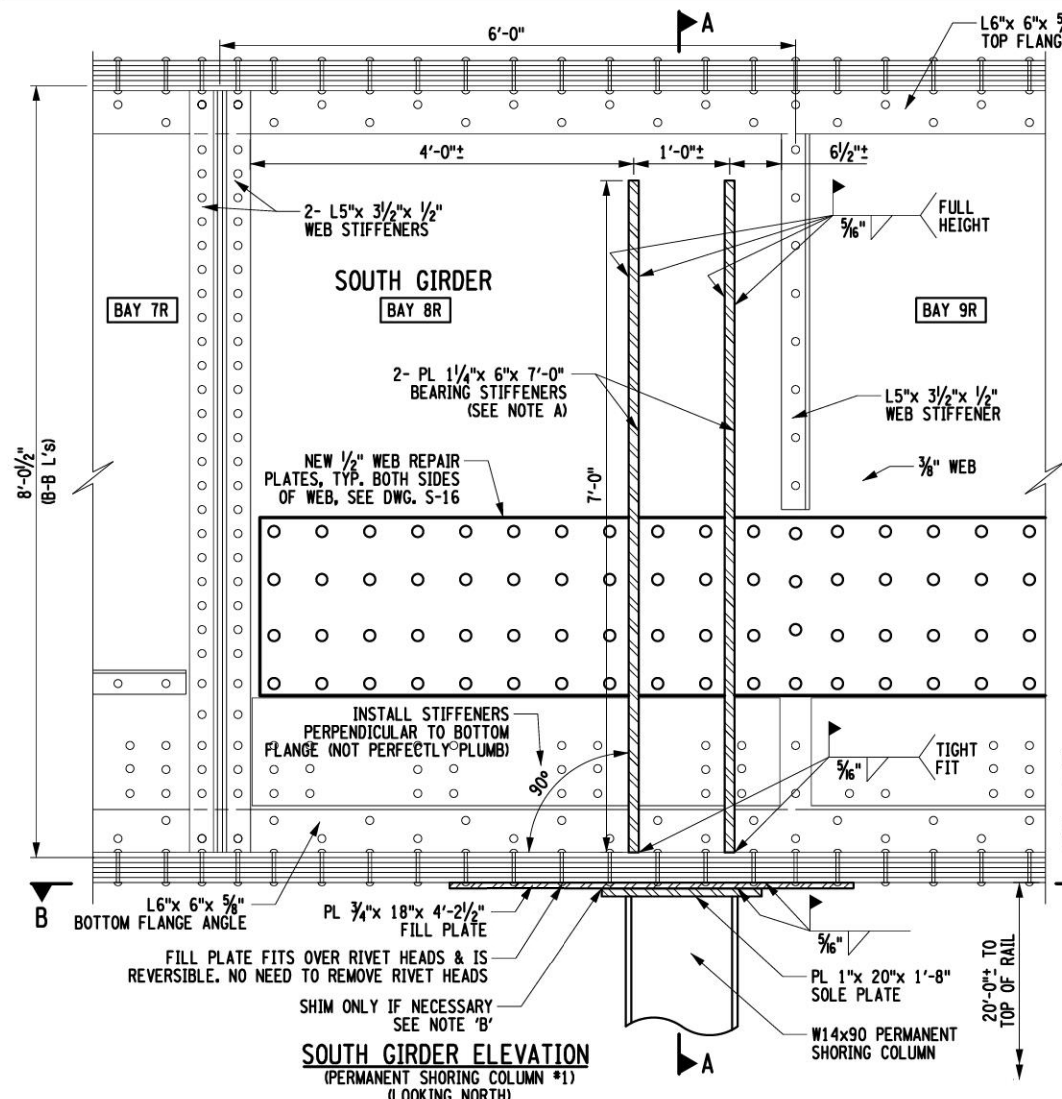
NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST. PITTSBURGH DIV. PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: NORTH GIRDER WEB REPAIR DETAILS DWG. S-3

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXX	DATE	MAY 2022	
SHEET NUMBER 3 OF 16			DRAWING NUMBER PT-344.91-2020	

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 DATE/TIME USER = 5/25/2022 1719

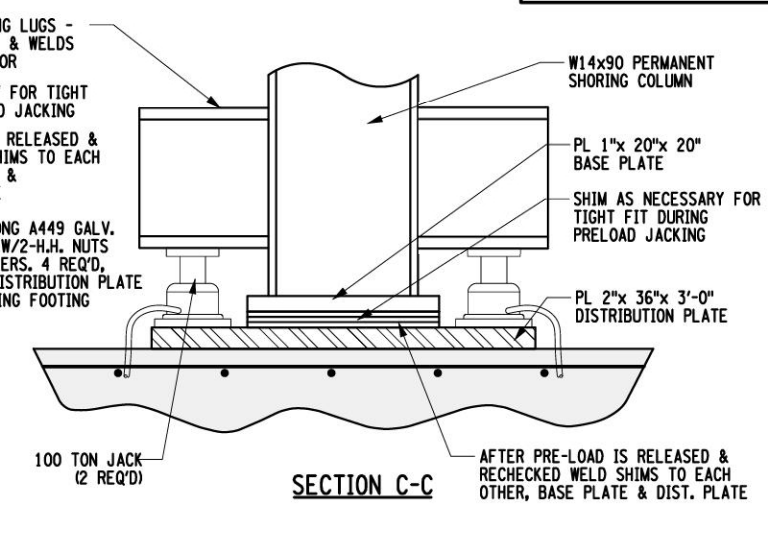
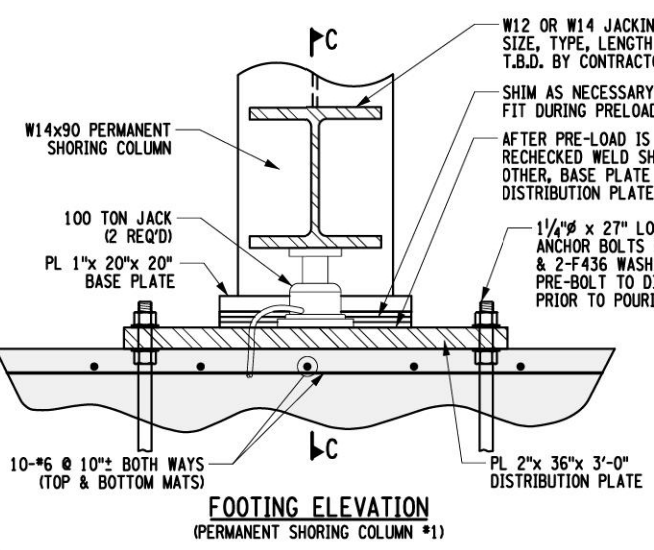


NOTE 'A':
 THE EXISTING GIRDER IS AT A -0.9% SLOPE (WEST TO EAST) INSTALL NEW STIFFENERS PERPENDICULAR TO BOTTOM FLANGE AND THEREFORE THEY WILL NOT BE PLUMB.

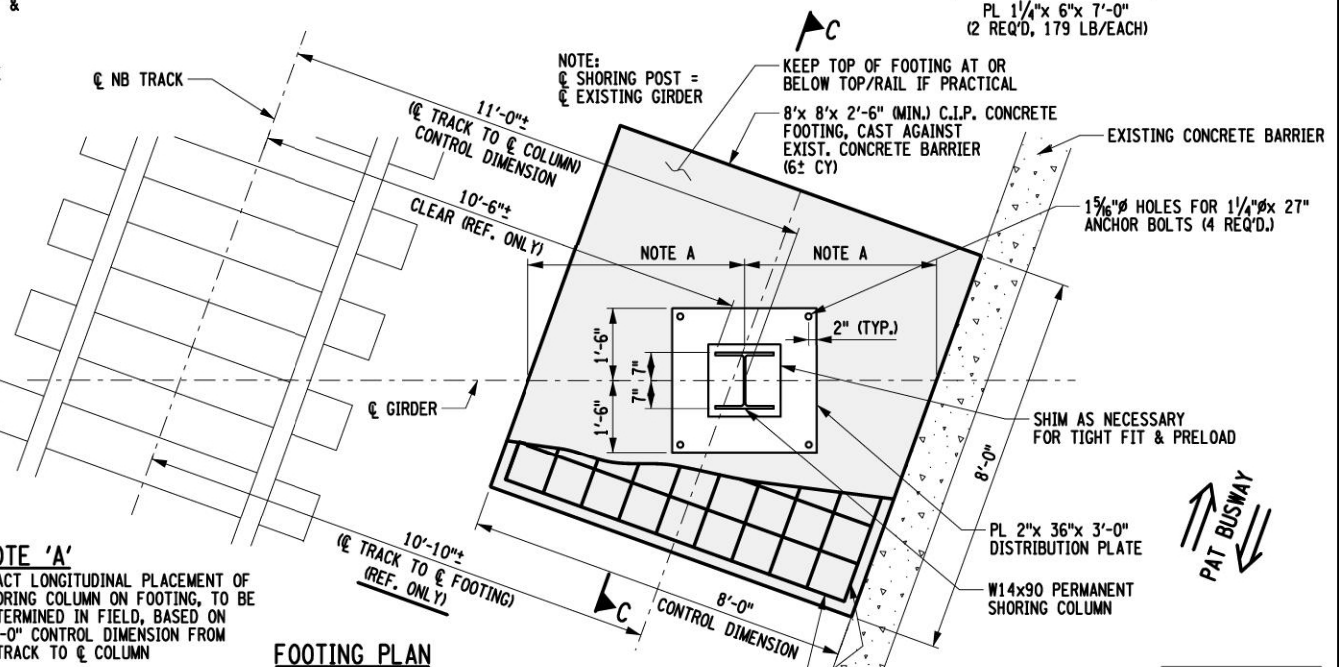
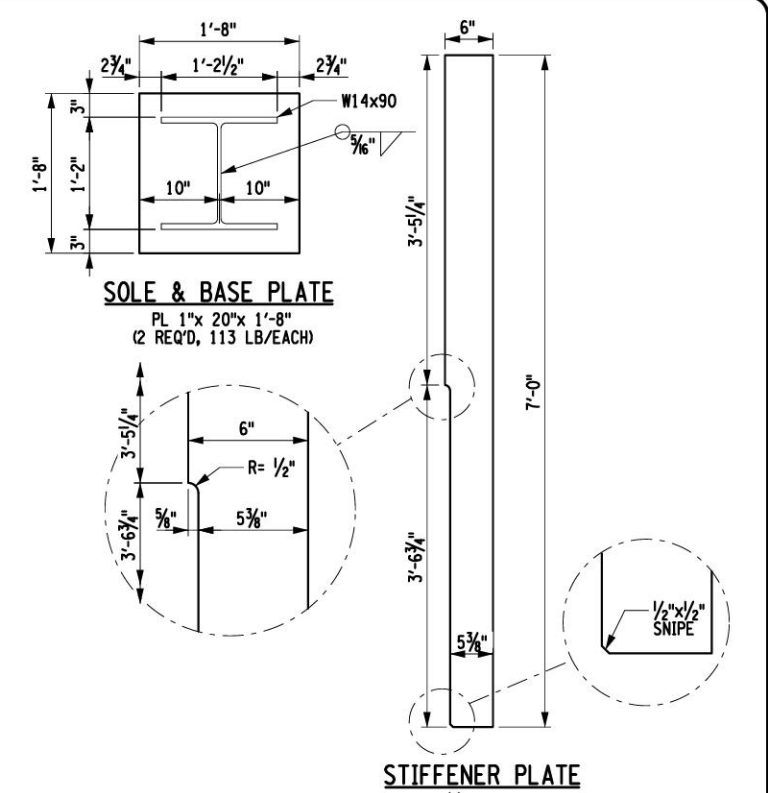
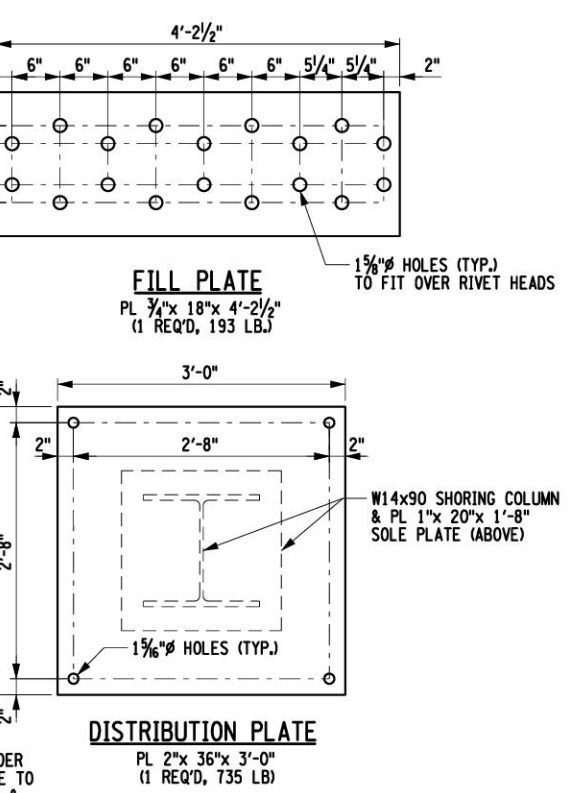
NOTE 'B':
 INSTALL NEW SHORING COLUMN PLUMB. INSTALL STEEL SHIM PLATE BETWEEN SOLE PLATE & FILL PLATE ONLY IF & AS NECESSARY TO ENSURE THERE WILL BE NO GAPS.

ALL STEEL A709 GR. 50 KSI
 ALL CONC. CLASS A; f'c = 4,000 PSI
 PAINT: NONE

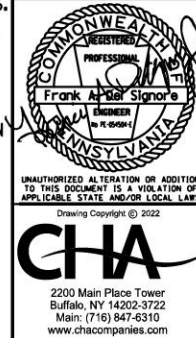
APPROX. COLUMN HEIGHT:
 20'-2" - INCL. BASE PL & SOLE PL (2,062 LB)



- SHORING PROCEDURE:**
1. INSTALL WEB REPAIR PLATE ON SOUTH GIRDER IN BAYS 8R & 9R (SEE DWG. S-16).
 2. LOCATE THE CENTER OF THE PROPOSED FOUNDATION BASED ON DIMENSIONS SHOWN.
 3. LOCATE CENTER OF NEW SHORING POST BASED ON CL OF GIRDER COINCIDING WITH 11'-0" OFFSET TO CL OF NB TRACK
 4. VERIFY WITH RAILROAD & PAT IF ANY UTILITIES RUN ALONG THE TRACK SIDE OF THE BUSWAY RETAINING WALL.
 5. EXCAVATE FOR NEW FOUNDATION (2 FEET DEEP).
 6. PLUMB UPWARD TO GIRDER AND LOCATE POSITION OF NEW SHORING POST ON GIRDER.
 7. INSTALL NEW FILL PLATE OVER BOTTOM RIVETS & WELD FILL TO BOTTOM COVER PLATE.
 8. INSTALL SHORING COLUMN IN CORRECT POSITION AND WELD SOLE PLATE TO FILL PLATE SO THAT POST HANGS FROM GIRDER.
 9. STRIP PAINT AND WELD 2 NEW BEARING STIFFENERS.
 10. FORM & TIE REBAR FOR FOOTING.
 11. INSTALL 2" DISTRIBUTION PLATE JUST 1/2" TO 3/4" BELOW BOTTOM OF BASE PLATE, PRE-INSTALL 4 ANCHOR BOLTS.
 12. POUR CONCRETE FOOTING, UP TO AND UP ALONG SIDES OF DISTRIBUTION PLATE, ENSURING FULL BEARING.
 13. USING 2 - 100 TON JACKS & CALIBRATED GAUGE, PRE-LOAD COLUMN TO 120 KIPS.
 14. SHIM BETWEEN BASE PLATE & DISTRIBUTION PLATE FOR TIGHT FIT.
 15. WELD SHIMS TOGETHER, WELD SHIMS TO BASE PLATE AND DISTRIBUTION PLATE.
 16. RELEASE JACKING PRESSURE AND REMOVE JACKS.



ITEM 4



PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN

NORTHERN REGION
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA

PITTSBURGH DIV.
 SWISSVALE BOROUGH, PA

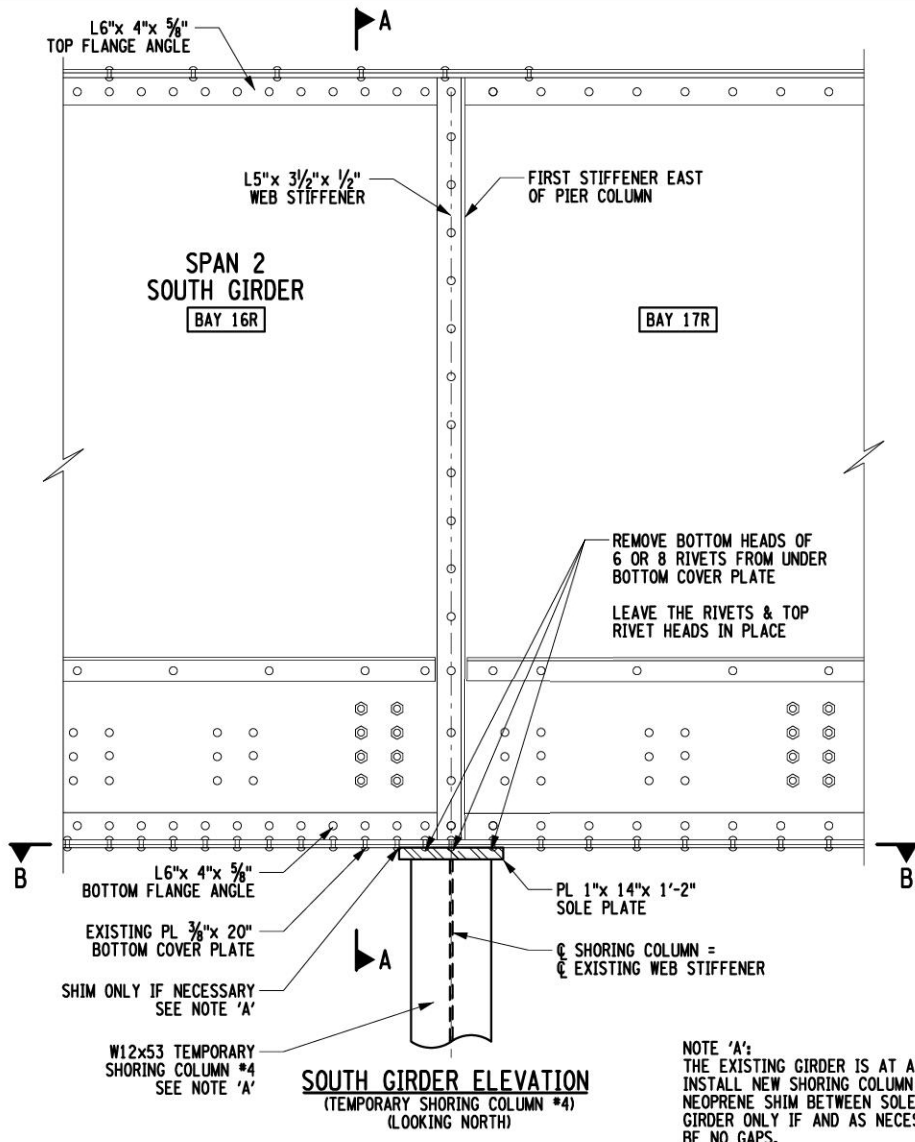
PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES
 ATLANTA, GA.

DRAWING TITLE: PERMANENT SHORING COLUMN #1
 DWG. S-4

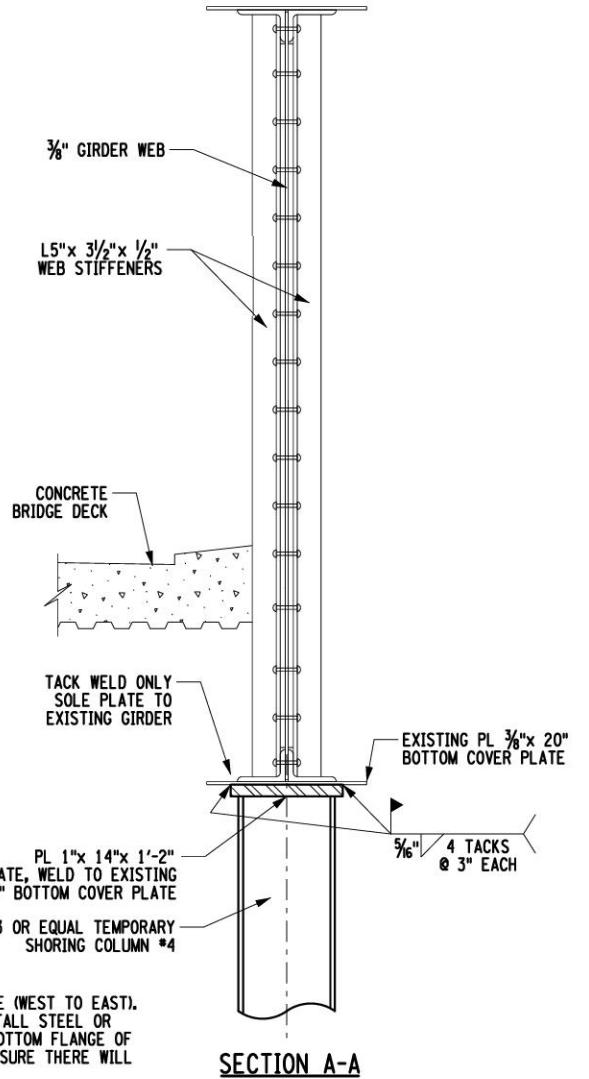
DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022	
SHEET NUMBER 4 OF 16		DRAWING NUMBER PT-344.91-2020		

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 DATE/TIME = 5/25/2022
 USER = 1719

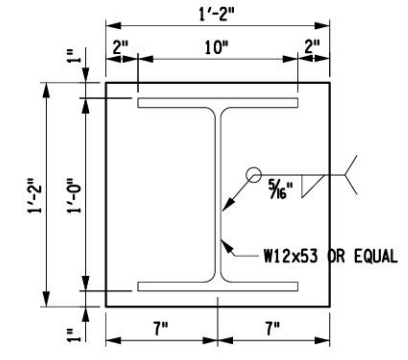


SOUTH GIRDER ELEVATION
(TEMPORARY SHORING COLUMN #4)
(LOOKING NORTH)

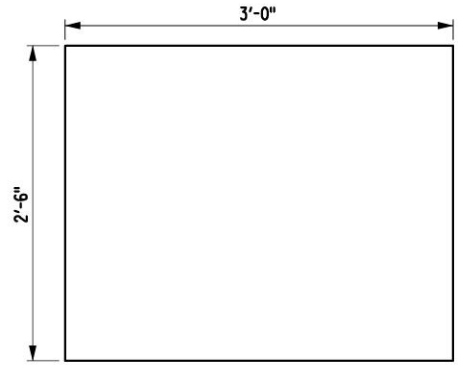
NOTE 'A':
 THE EXISTING GIRDER IS AT A -0.9% SLOPE (WEST TO EAST).
 INSTALL NEW SHORING COLUMN PLUMB. INSTALL STEEL OR
 NEOPRENE SHIM BETWEEN SOLE PLATE & BOTTOM FLANGE OF
 GIRDER ONLY IF AND AS NECESSARY TO ENSURE THERE WILL
 BE NO GAPS.



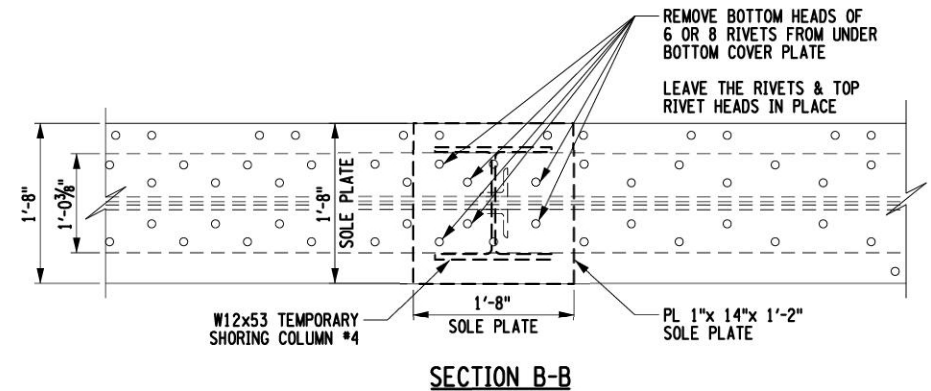
SECTION A-A



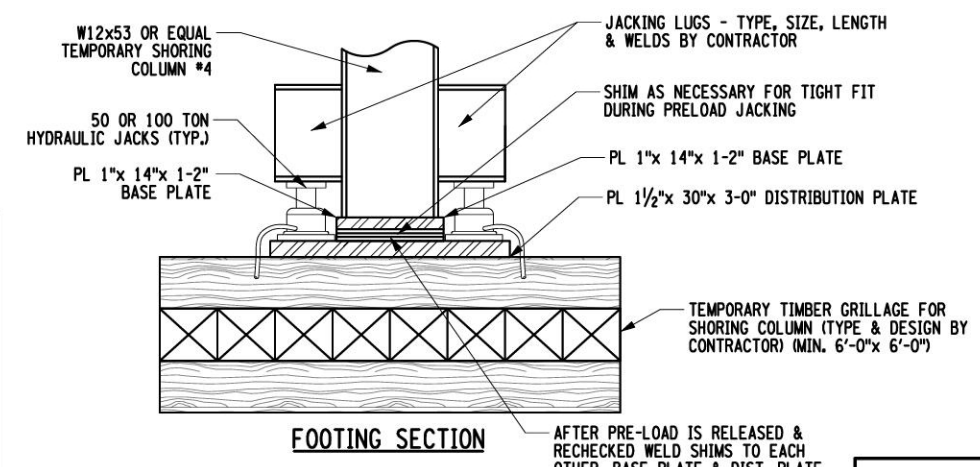
BASE PLATE & SOLE PLATE
 BASE PLATE & SOLE PLATE IDENTICAL
 PL 1" x 14" x 1'-2"
 (1 REQ'D EACH COLUMN, 56 LB./EA.)
 (2 REQ'D TOTAL)



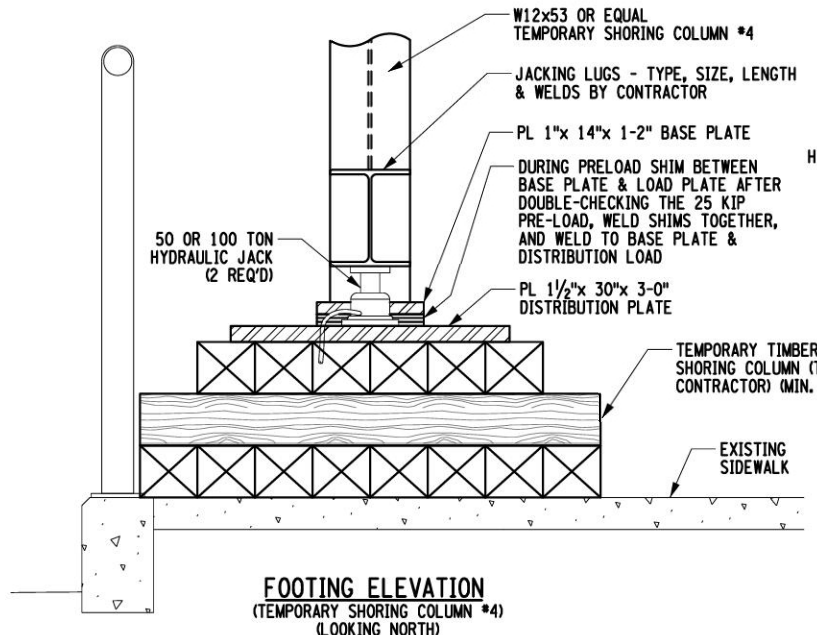
DISTRIBUTION PLATE
 PL 1 1/2" x 30" x 3'-0"
 (1 REQ'D, 459 LB.)



SECTION B-B

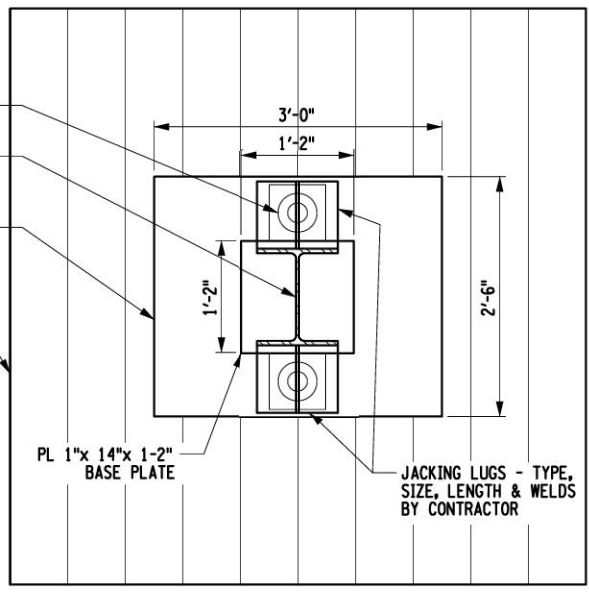


FOOTING SECTION



FOOTING ELEVATION
(TEMPORARY SHORING COLUMN #4)
(LOOKING NORTH)

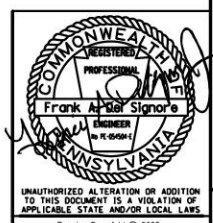
MAXIMUM SHORING LOAD: 125 KIPS (INC. LIVE LOAD)
 JACKING PRELOAD: 25 KIPS



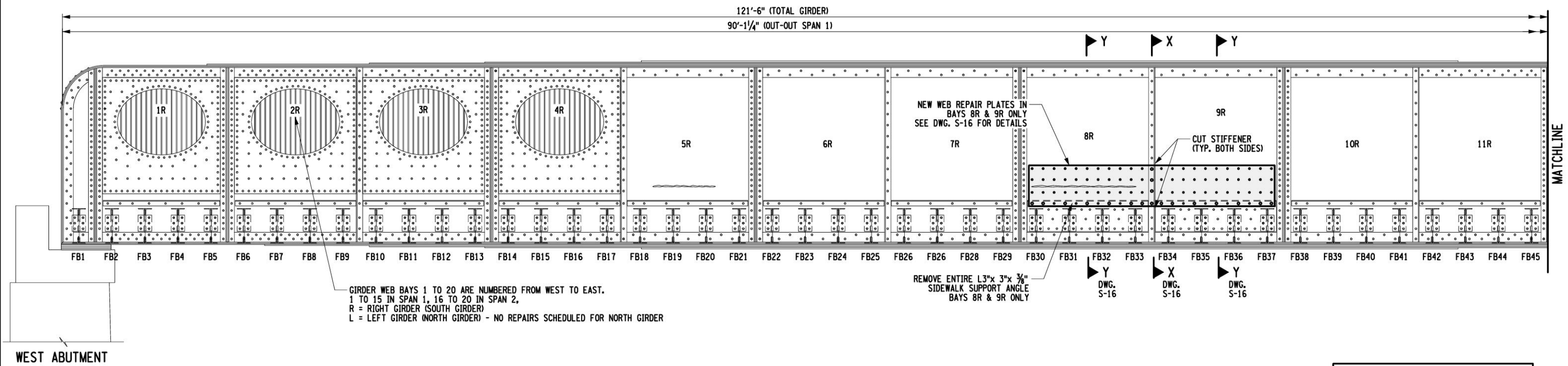
FOOTING PLAN

ITEM 4

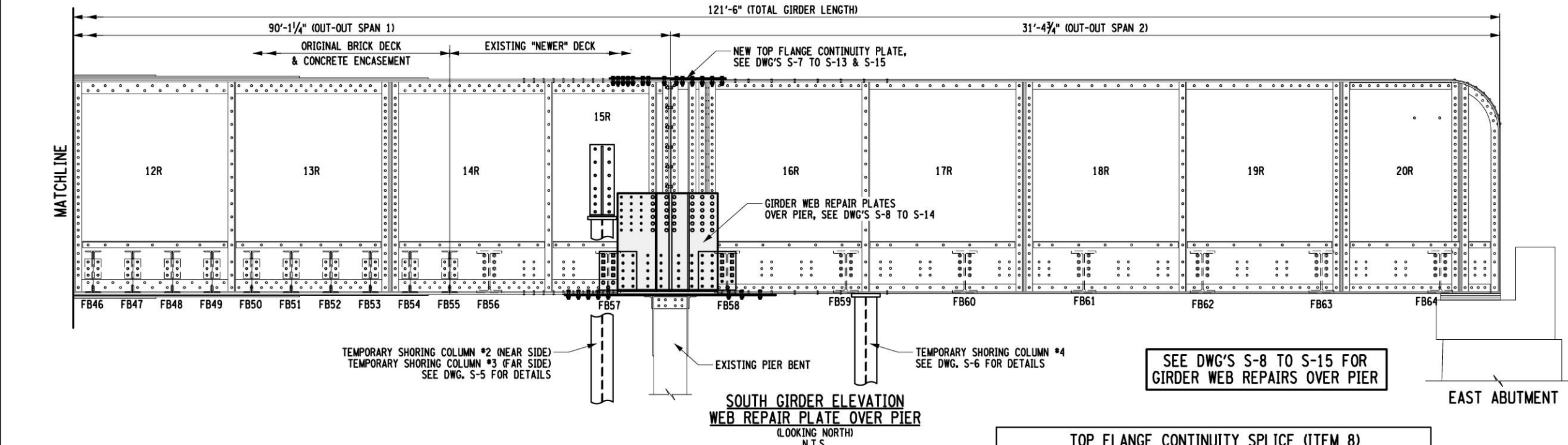
PRIORITY 1 REPAIRS - MAY 2022



NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER
 NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS
 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: PERMANENT SHORING COLUMN #4 DWG. S-6
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 6 OF 16 DRAWING NUMBER PT-344.91-2020



GIRDER WEB BAYS 1 TO 20 ARE NUMBERED FROM WEST TO EAST.
 1 TO 15 IN SPAN 1, 16 TO 20 IN SPAN 2,
 R = RIGHT GIRDER (SOUTH GIRDER)
 L = LEFT GIRDER (NORTH GIRDER) - NO REPAIRS SCHEDULED FOR NORTH GIRDER



**SOUTH GIRDER ELEVATION
 WEB REPAIR PLATE OVER PIER**
 (LOOKING NORTH)
 N.T.S.

SEE DWG'S S-8 TO S-15 FOR
 GIRDER WEB REPAIRS OVER PIER

LEGEND	
○	EXISTING RIVET TO REMAIN
⊙	EXISTING FLOORBEAM CONNECTION BOLT TO REMAIN
○	REMOVE EXISTING RIVET & REPLACE WITH 1/8" A325 H.S. BOLT
□	REMOVE EXISTING CONNECTION BOLT & REPLACE WITH 1/8" A325 H.S. BOLT
●	NEW HOLE LOCATION, PRE-DRILL IN NEW PLATE, FIELD DRILL 15/16" HOLE IN EXISTING GIRDER WEB. INSTALL 1/8" A325 H.S. BOLTS W/ HEAVY HEX NUT & 2 STD. HARDENED WASHERS
◆	NEW HOLE LOCATION, PRE-DRILL IN NEW FB CONN. ANGLE, FIELD DRILL 15/16" HOLE IN EXISTING GIRDER WEB. INSTALL 1/8" A325 H.S. BOLTS W/ HEAVY HEX NUT & 2 STD. HARDENED WASHERS

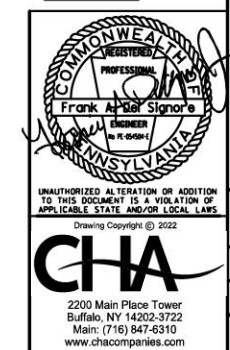
TOP FLANGE CONTINUITY SPLICE (ITEM 8)				
PRE-DRILL HOLES INTO NEW PLATE	PLATE MK.	REPAIR PLATES & FILLS	STEEL WEIGHTS	TOTAL WEIGHT
29	P12	2 - PL 5/8" x 14" x 4'-5"	131.5 LB./EA.	263 LB.
13	FP13	2 - PL 1/4" x 14" x 2'-1/4" (FILL)	35.7 LB./EA.	72 LB.
42	TOTAL			335 LB.

GIRDER WEB REPAIR SUMMARY TABLE - AT PIER											
PANEL	REMOVAL OF EXISTING RIVETS (ABOVE DECK)	REMOVAL OF OUTSIDE RIVET HEADS (AT DECK)	REMOVAL OF EXISTING RIVETS (BELOW DECK)	REMOVAL OF EXISTING FB CONN. BOLTS (BELOW DECK)	REMOVAL OF EXISTING RIVETS (FROM PIER COLUMN CAP)	FIELD DRILL HOLES IN EXISTING GIRDER	PRE-DRILL HOLES INTO NEW PLATE	PLATE MK.	REPAIR PLATES & FILLS	STEEL WEIGHTS	TOTAL WEIGHT
15R/16R	* 44	** 13	* 38	16	16	18 (IN P1) 14 (IN P8)	94	P1	1 - PL 5/8" x 45 1/2" x 3'-8 1/8"	213.8 LB./EA.	214 LB.
							40	P2	1 - PL 3/8" x 18 1/4" x 3'-9 1/2"	94.5 LB./EA.	95 LB.
							-	P3	1 - PL 1 1/4" x 20" x 3'-9 1/2"	322.7 LB./EA.	323 LB.
							21	P4	1 - PL 1/2" x 17" x 17 1/2"	42.2 LB./EA.	42 LB.
							21	P5	1 - PL 1/2" x 17" x 17 1/2"	42.2 LB./EA.	42 LB.
							4	FP6	1 - PL 5/8" x 8" x 1'-0 1/2" (FILL)	17.7 LB./EA.	18 LB.
							6	FP7	1 - PL 5/8" x 8" x 1'-2 3/8" (FILL)	20.7 LB./EA.	21 LB.
							20 / 14 F.D.	P8	1 - PL 5/8" x 21" x 8'-0"	357.4 LB./EA.	357 LB.
							14	FP9	1 - PL 1/4" x 12 3/8" x 2'-2 1/4" (FILL)	23.0 LB./EA.	23 LB.
							-	P10	2 - PL 1" x 8" x 3'-8 1/8"	101.8 LB./EA.	204 LB.
							-	P11	1 - PL 1 1/2" x 8" x 3'-8 1/8"	152.7 LB./EA.	153 LB.
							168 BOLTS	TOTAL			1,492 LB.

* INCLUDES RIVETS IN HORIZONTAL LEGS OF GIRDER TOP & BOTTOM FLANGE AND COVER PLATES.
 EXCLUDES RIVETS IN GIRDER WEB & STIFFENERS THAT GET "CUT OUT" AND NEED NOT BE REMOVED

** THESE ARE RIVETS THAT CANNOT BE REMOVED BECAUSE OF THE NEWER DECK. REMOVE "OUTSIDE" RIVET HEAD AND GRIND RIVET SHANK FLUSH WITH GIRDER WEB.

ITEM 5



PRIORITY 1 REPAIRS - MAY 2022

NS NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER
 NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA

PRIORITY 1 REPAIRS

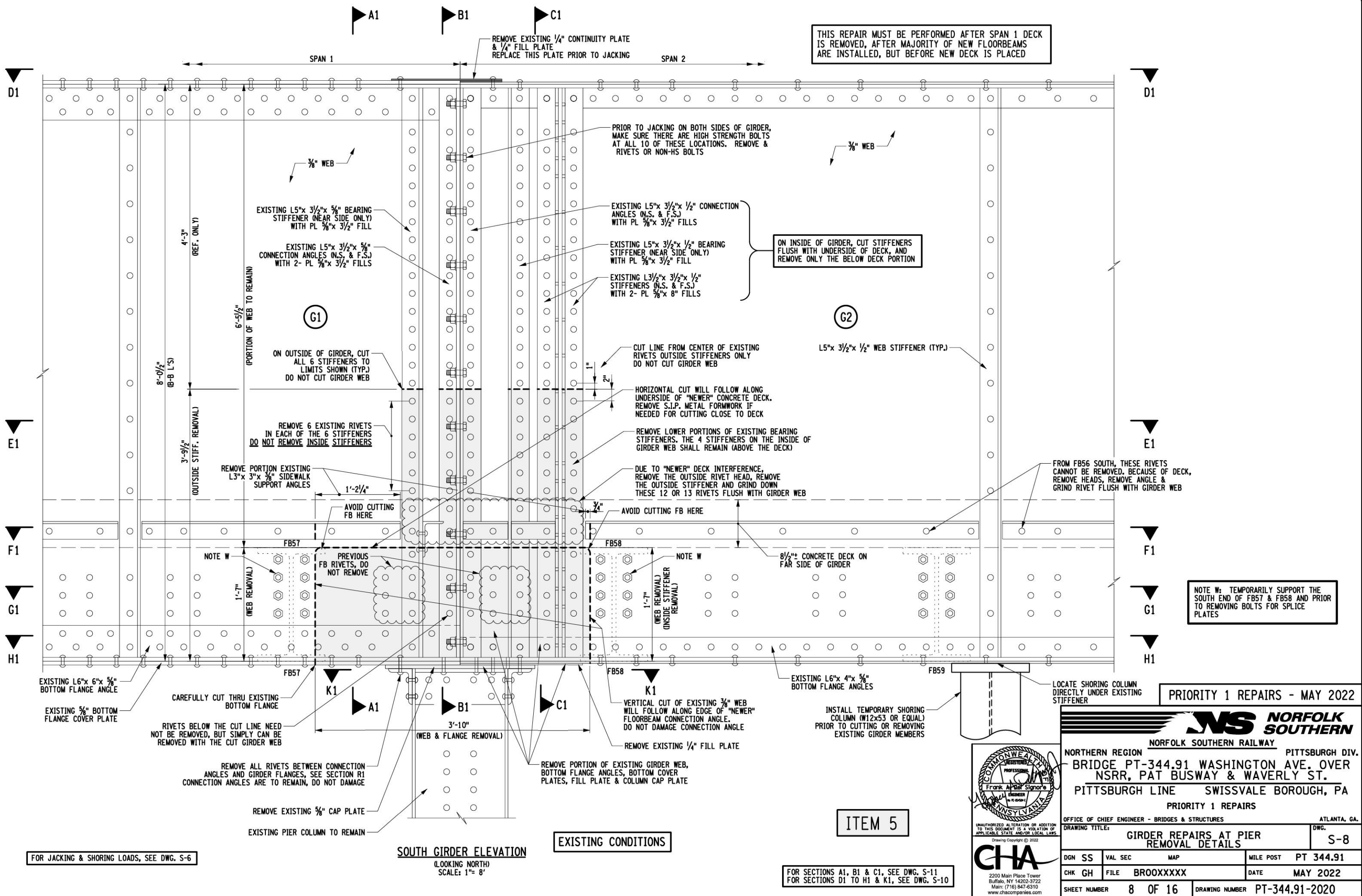
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE: DWG.
SOUTH GIRDER WEB REPAIR SCHEMATIC S-7

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022	
SHEET NUMBER 7 OF 16		DRAWING NUMBER PT-344.91-2020		

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 USER = 1719

FILE NAME = \\che-11e.com\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-8.dgn
 DATE/TIME = 5/25/2022
 USER = 1719

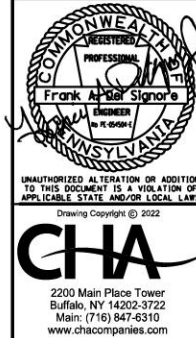


THIS REPAIR MUST BE PERFORMED AFTER SPAN 1 DECK IS REMOVED, AFTER MAJORITY OF NEW FLOORBEAMS ARE INSTALLED, BUT BEFORE NEW DECK IS PLACED

ON INSIDE OF GIRDER, CUT STIFFENERS FLUSH WITH UNDERSIDE OF DECK, AND REMOVE ONLY THE BELOW DECK PORTION

NOTE W: TEMPORARILY SUPPORT THE SOUTH END OF FB57 & FB58 AND PRIOR TO REMOVING BOLTS FOR SPLICE PLATES

PRIORITY 1 REPAIRS - MAY 2022



NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS
 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: GIRDER REPAIRS AT PIER REMOVAL DETAILS DWG. S-8
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 8 OF 16 DRAWING NUMBER PT-344.91-2020

ITEM 5

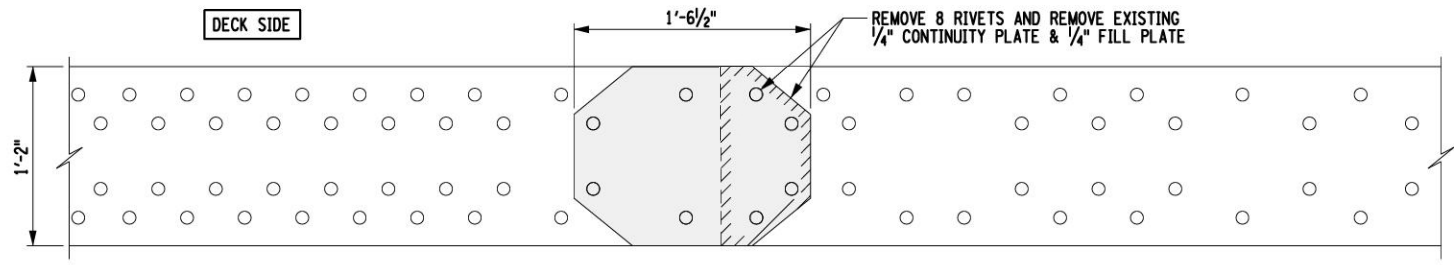
FOR SECTIONS A1, B1 & C1, SEE DWG. S-11
 FOR SECTIONS D1 TO H1 & K1, SEE DWG. S-10

FOR JACKING & SHORING LOADS, SEE DWG. S-6

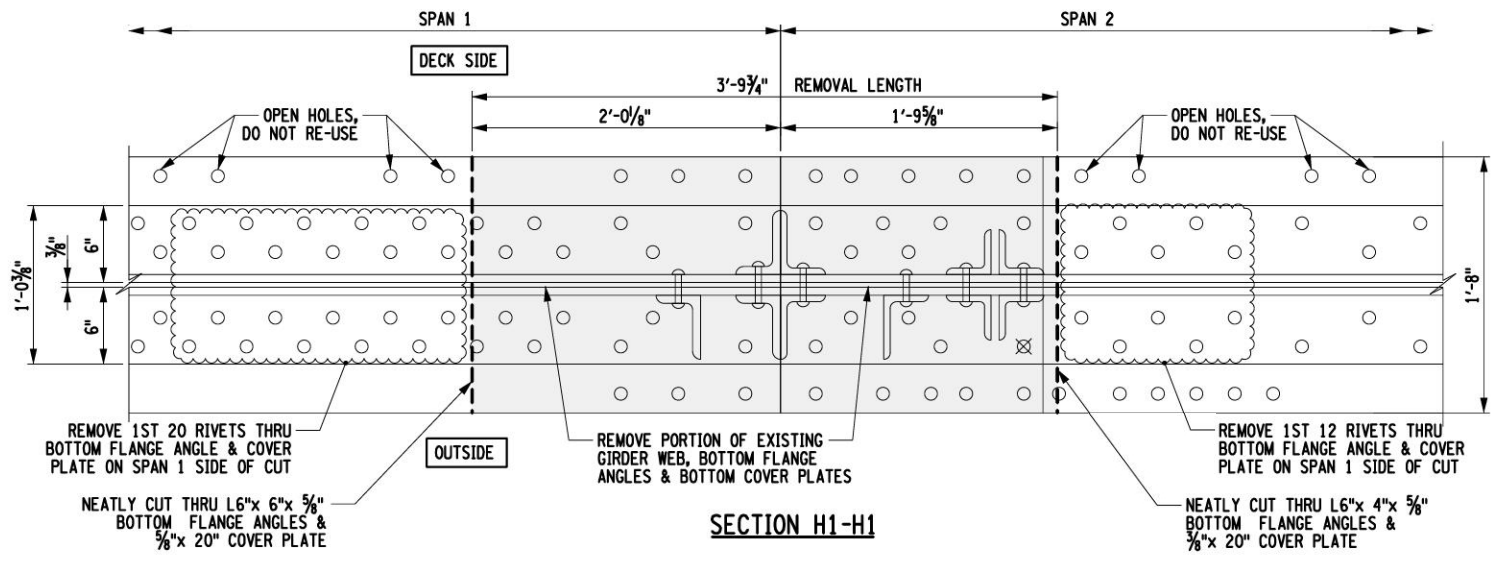
SOUTH GIRDER ELEVATION
 (LOOKING NORTH)
 SCALE: 1"= 8'

EXISTING CONDITIONS

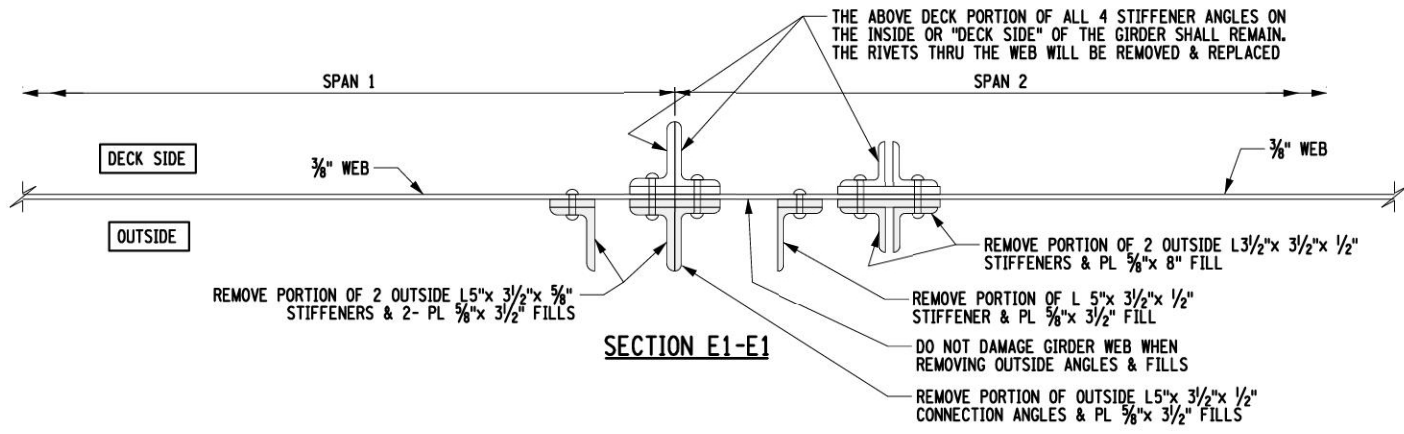
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 DATE/TIME = 5/25/2022
 USER = 1719



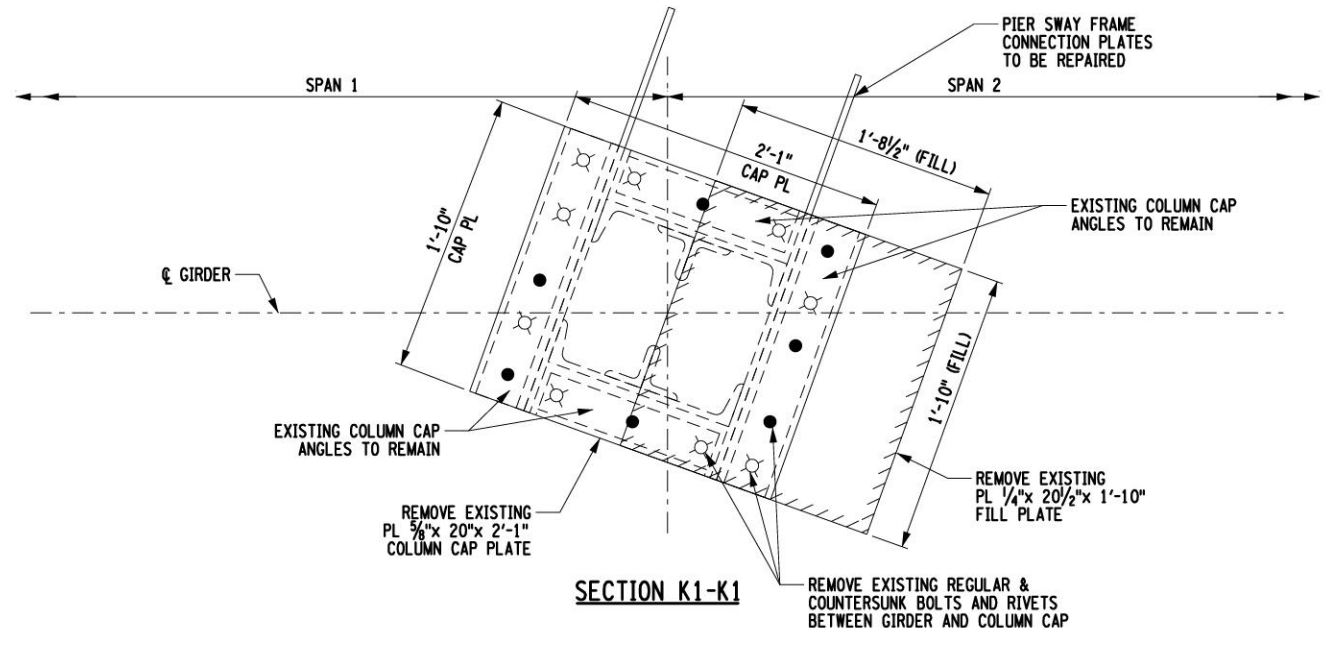
SECTION D1-D1



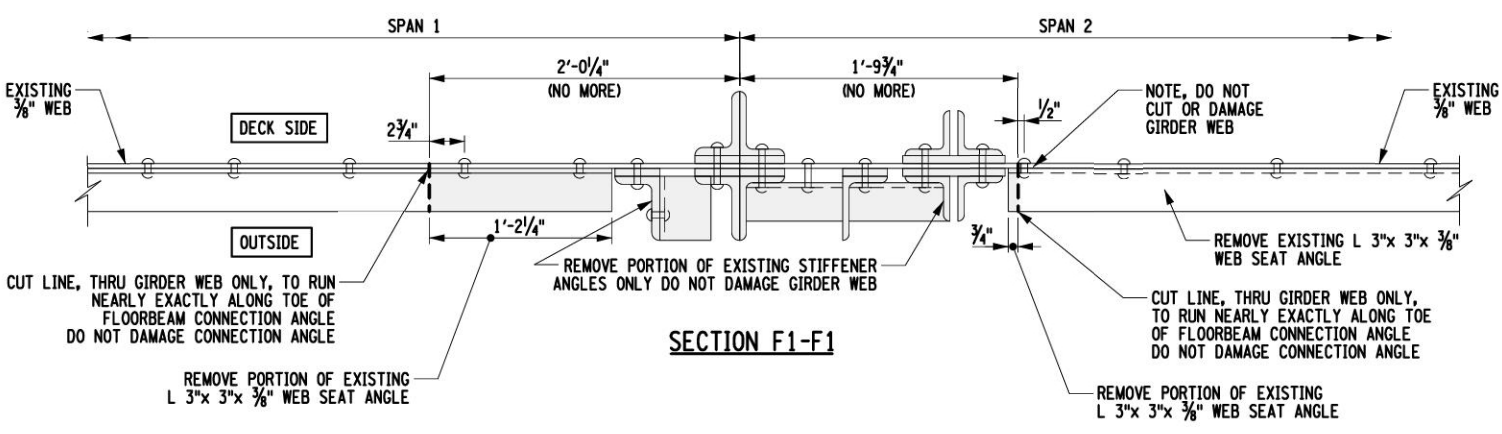
SECTION H1-H1



SECTION E1-E1

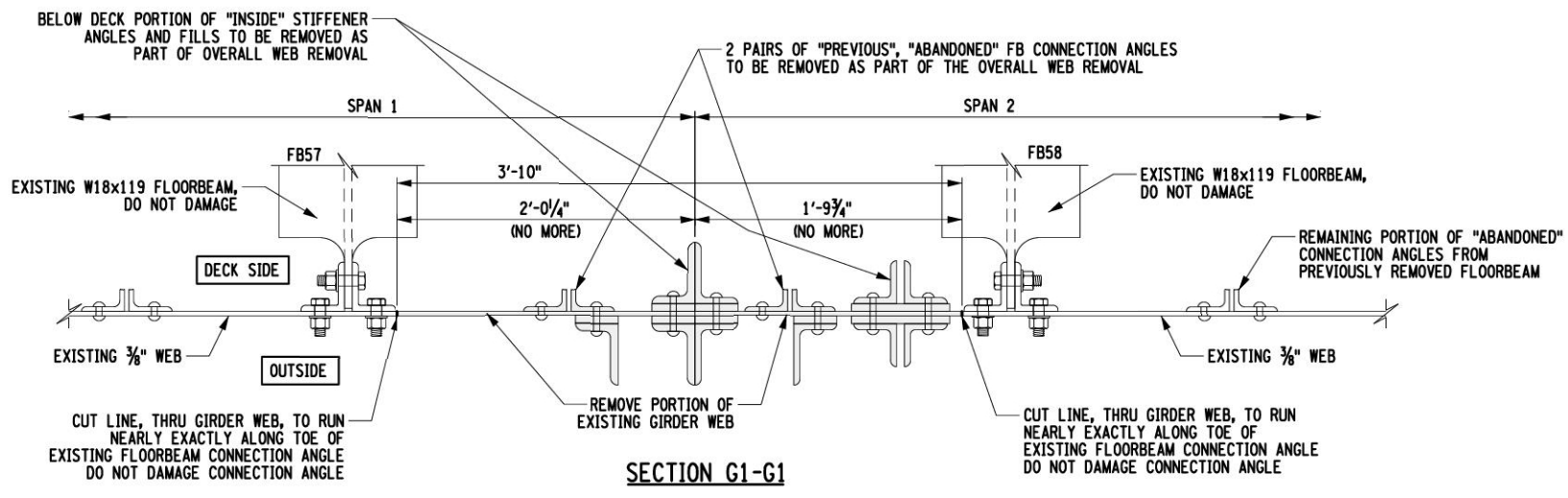


SECTION K1-K1



SECTION F1-F1

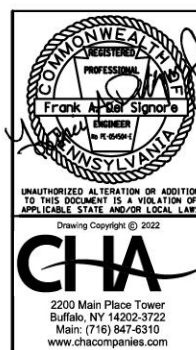
NOTE: CONNECTION ANGLES BELOW CAP PLATE (SHOWN DASHED) ARE TO REMAIN



SECTION G1-G1

ITEM 5

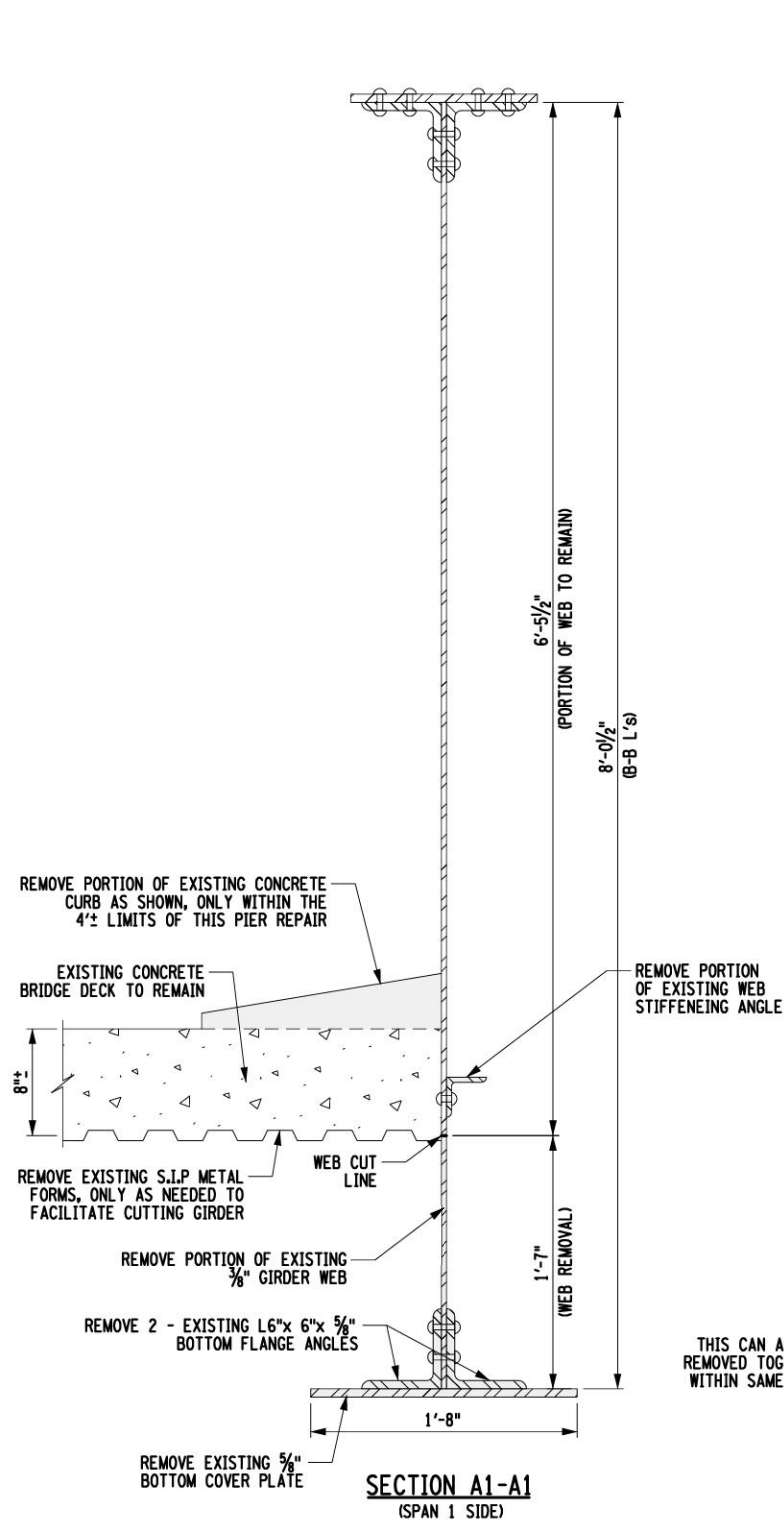
PRIORITY 1 REPAIRS - MAY 2022



NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST. PITTSBURGH DIV.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS
 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: GIRDER REPAIRS AT PIER EXISTING REMOVAL SECTIONS DWG. S-9
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 9 OF 16 DRAWING NUMBER PT-344.91-2020

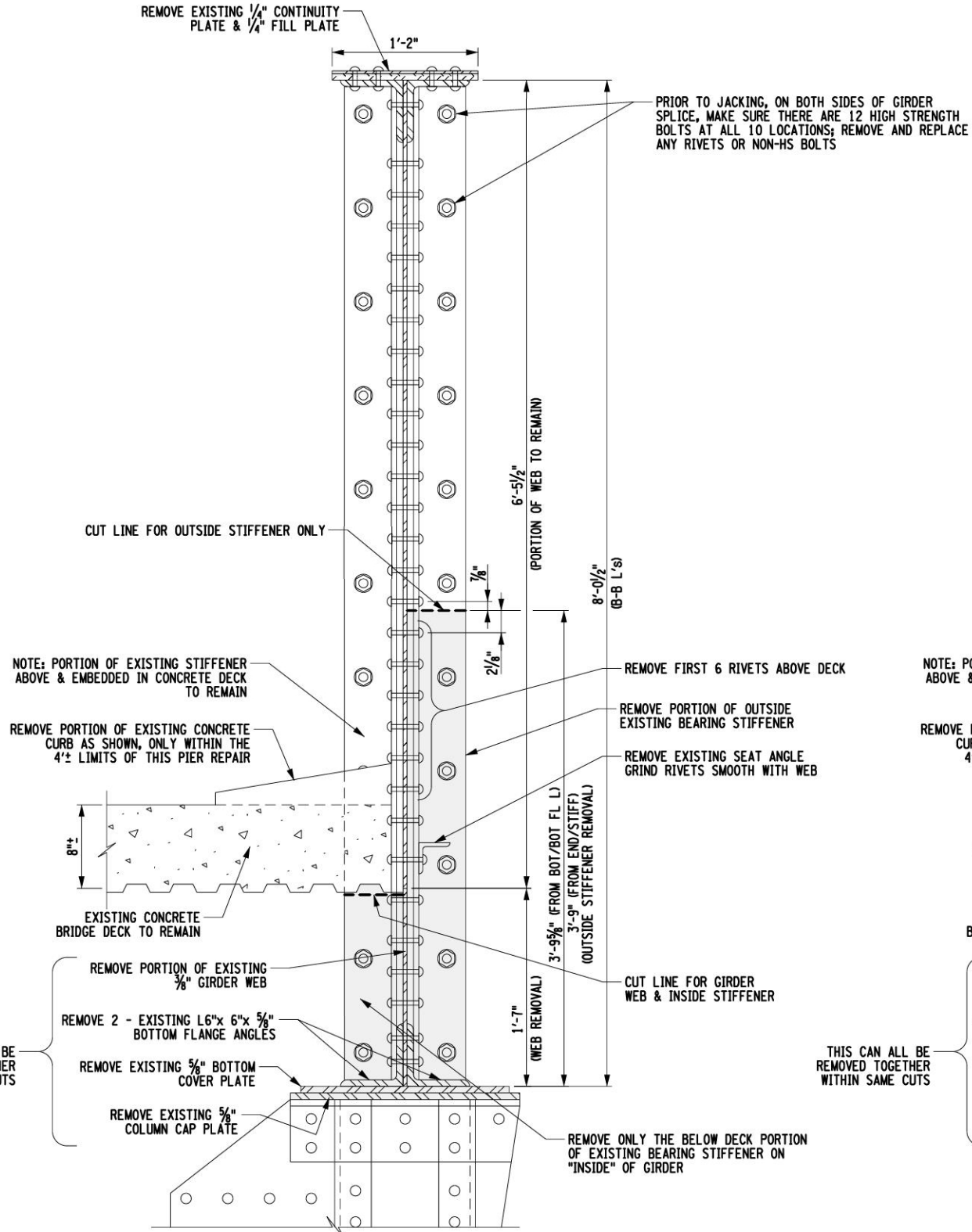


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 USER = 1719



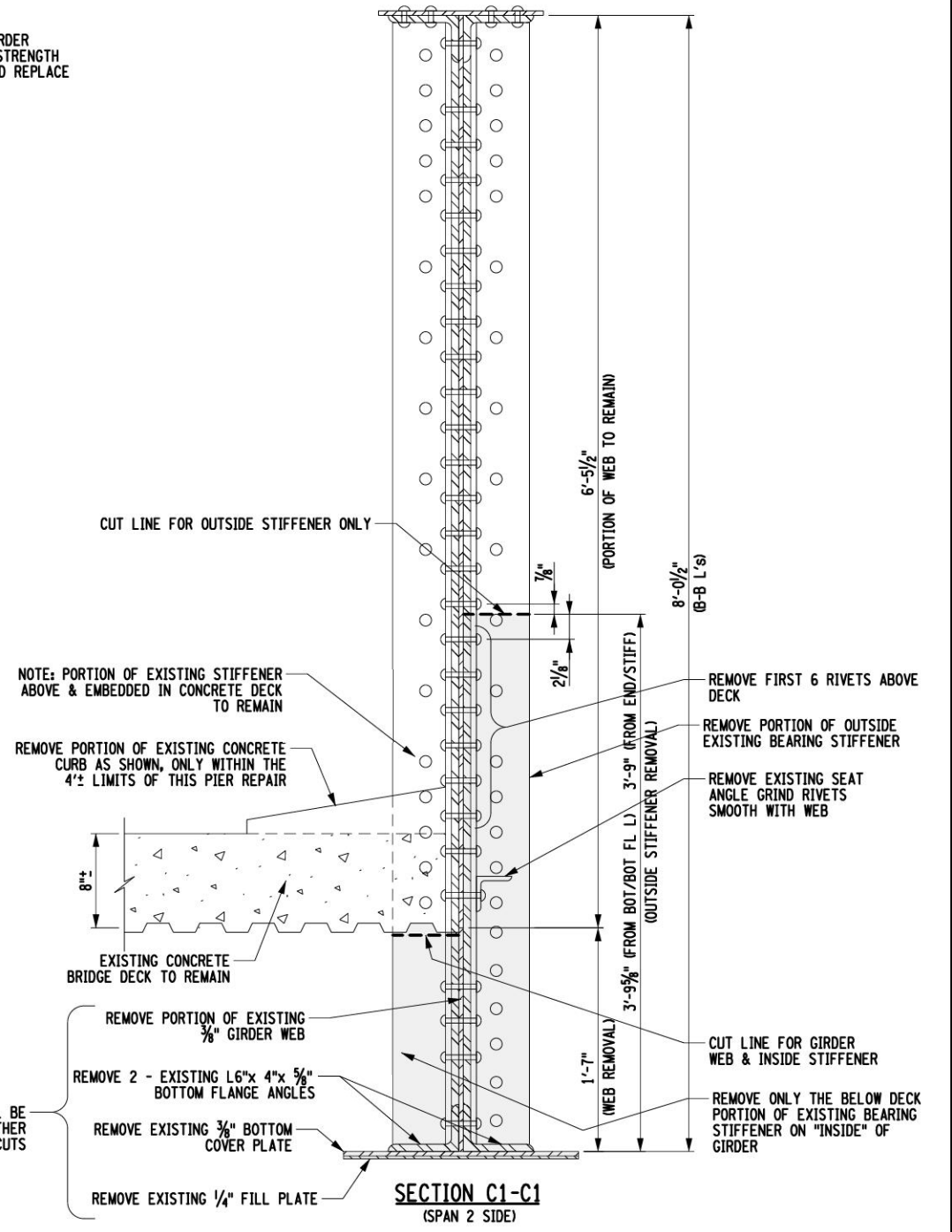
SECTION A1-A1
(SPAN 1 SIDE)

PORTION OF EXISTING STEEL TO BE REMOVED

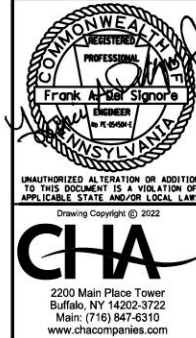


SECTION B1-B1
(SPAN 1 AT STIFFENER, OVER PIER)

ITEM 5



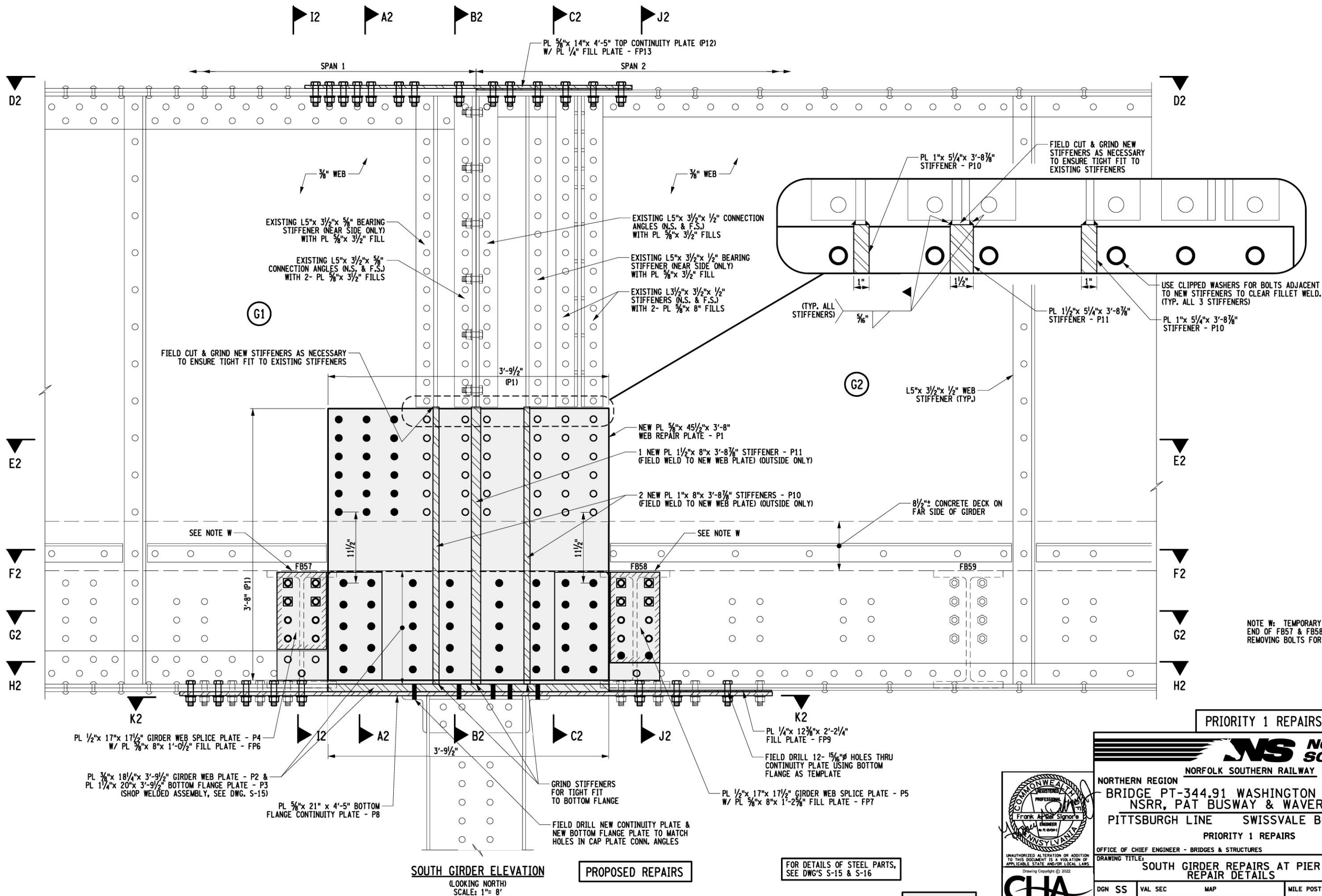
SECTION C1-C1
(SPAN 2 SIDE)



PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN	
NORFOLK SOUTHERN RAILWAY	
NORTHERN REGION	PITTSBURGH DIV.
BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.	
PITTSBURGH LINE SWISSVALE BOROUGH, PA	
PRIORITY 1 REPAIRS	
ATLANTA, GA.	
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES	
DRAWING TITLE: GIRDER REPAIRS AT PIER EXISTING REMOVAL DETAILS	
DGN SS	VAL SEC MAP
CHK GH	FILE BROOXXXXX
SHEET NUMBER 10 OF 16	DRAWING NUMBER PT-344.91-2020
DWG. S-10	

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 DATE/TIME = 5/25/2022
 USER = 1719



NOTE W: TEMPORARY SUPPORT SOUTH END OF FB57 & FB58 PRIOR TO REMOVING BOLTS FOR SPLICE PLATES

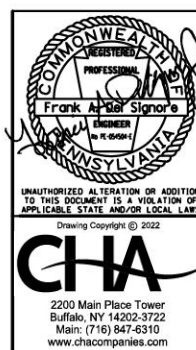
SOUTH GIRDER ELEVATION
(LOOKING NORTH)
SCALE: 1" = 8'

PROPOSED REPAIRS

FOR DETAILS OF STEEL PARTS, SEE DWG'S S-15 & S-16

ITEM 5

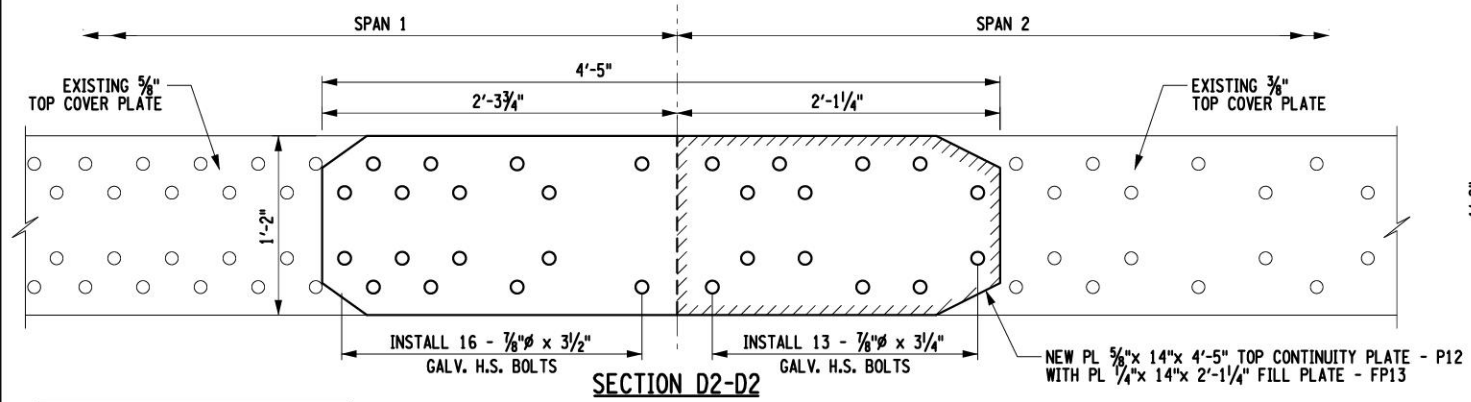
PRIORITY 1 REPAIRS - MAY 2022



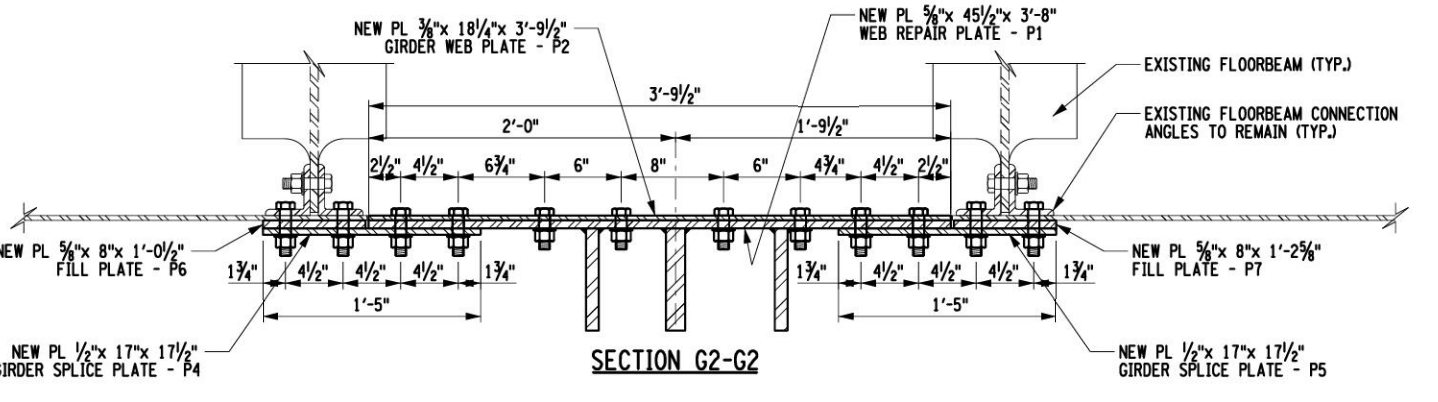
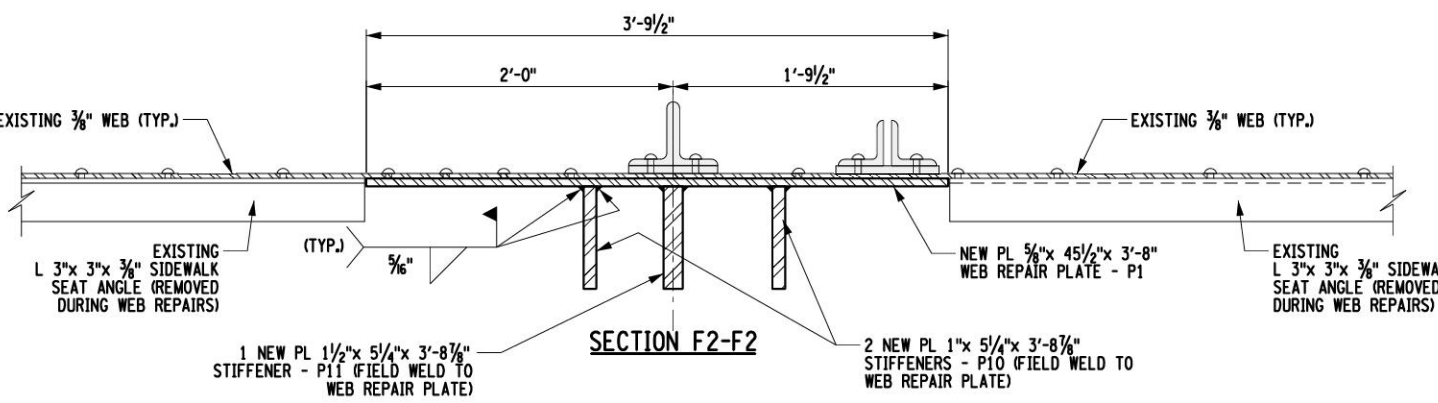
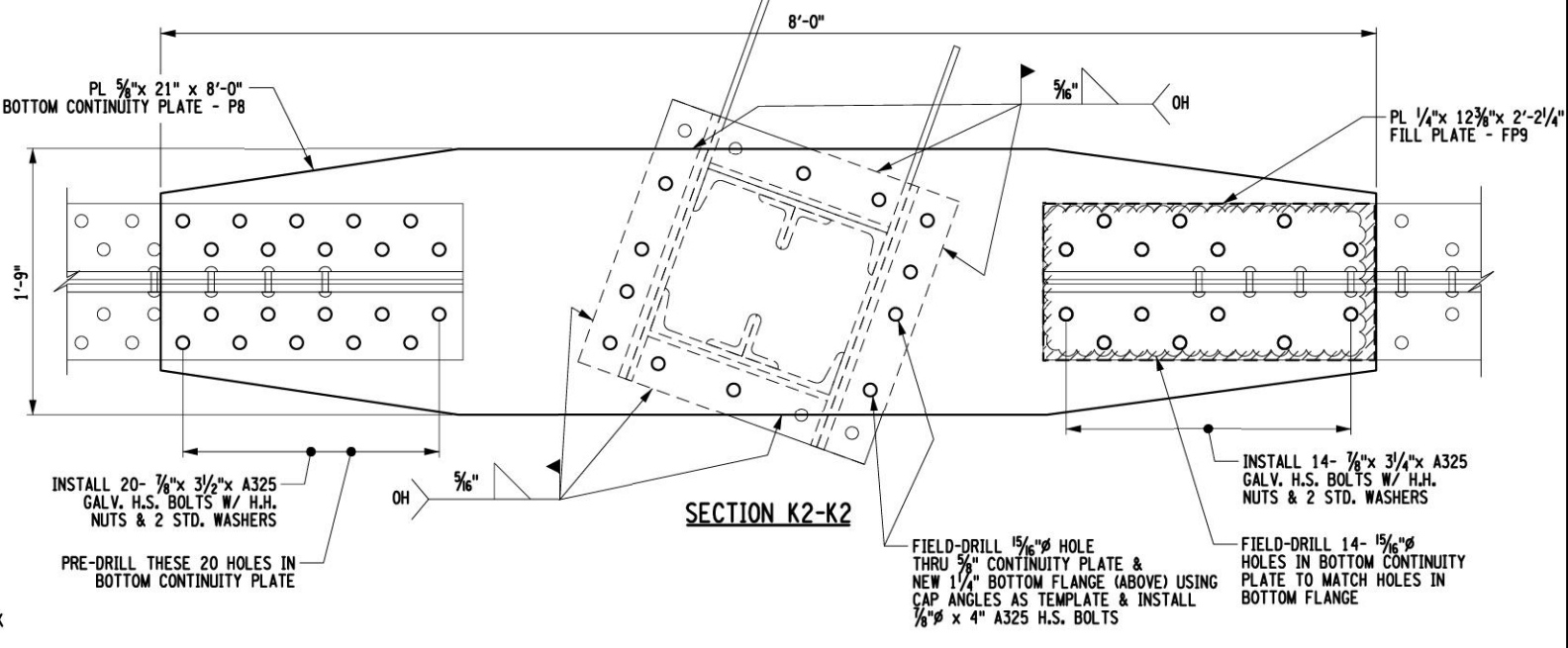
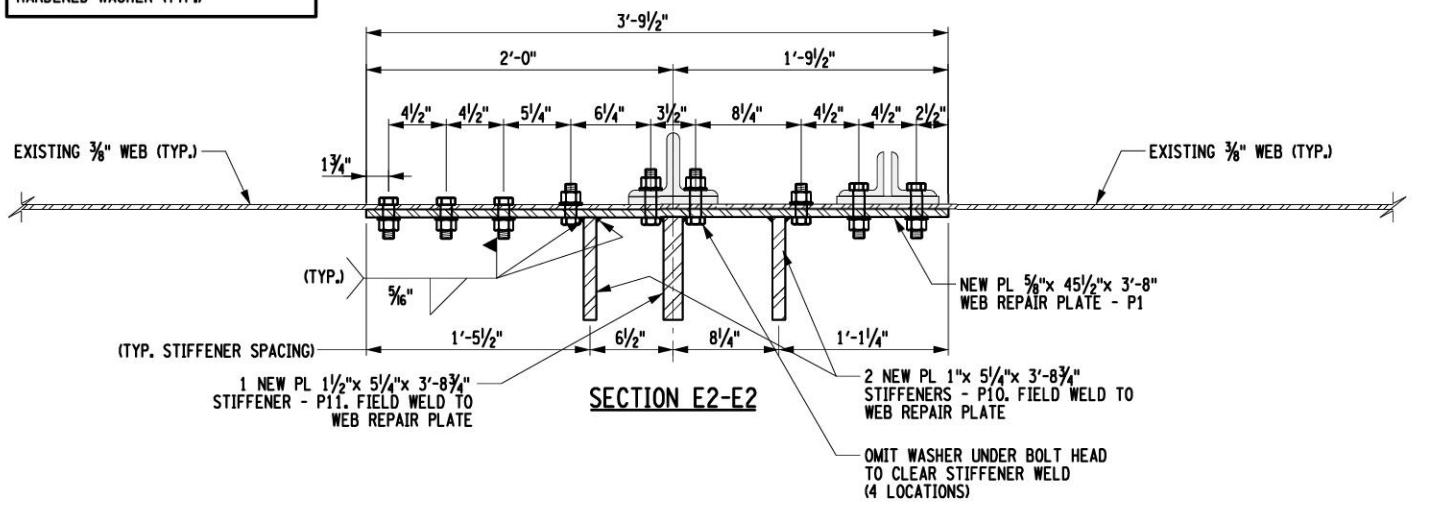
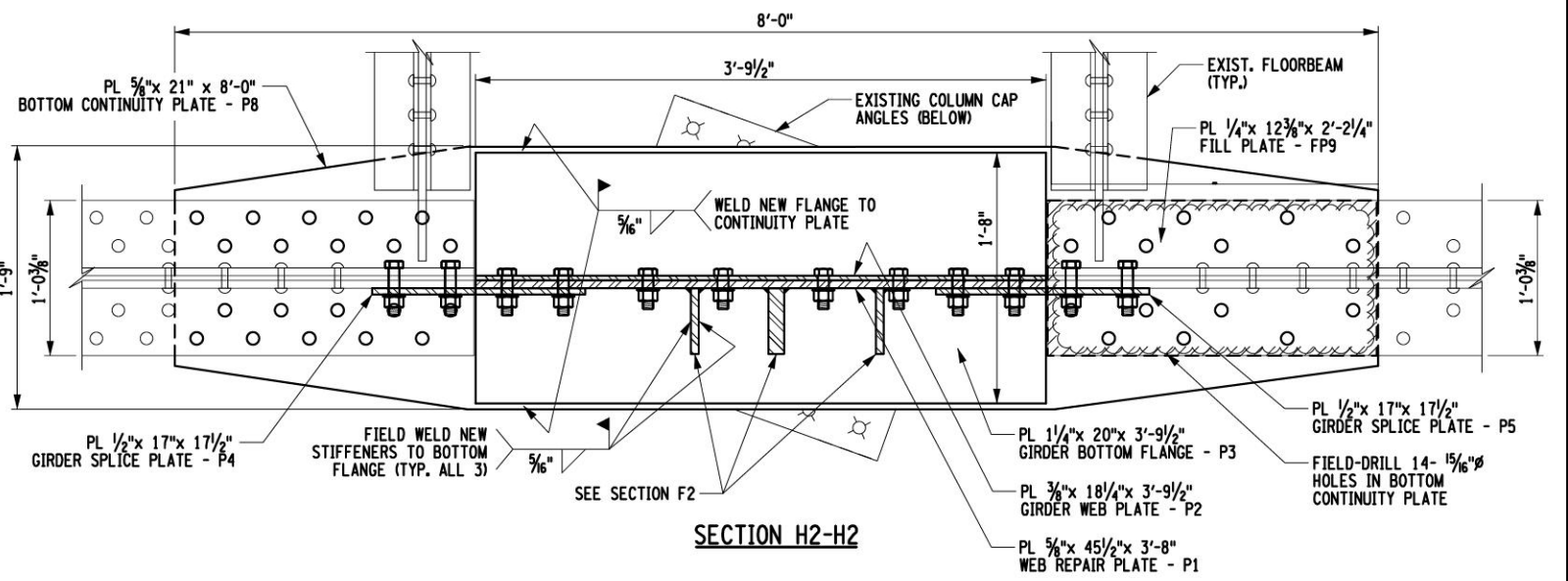
NORFOLK SOUTHERN
 NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS
 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.
 DRAWING TITLE: **SOUTH GIRDER REPAIRS AT PIER REPAIR DETAILS** DWG. S-11
 DGN SS VAL SEC MAP MILE POST PT 344.91
 CHK GH FILE BROOXXXXX DATE MAY 2022
 SHEET NUMBER 11 OF 16 DRAWING NUMBER PT-344.91-2020



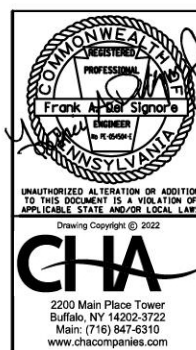
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 DATE/TIME = 5/25/2022
 USER = 1719



ALL BOLTS TO BE 7/8" A325 H.S. BOLT W/ HEAVY HEX NUT & STD. HARDENED WASHER (TYP.)



ITEM 5



PRIORITY 1 REPAIRS - MAY 2022

NS NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

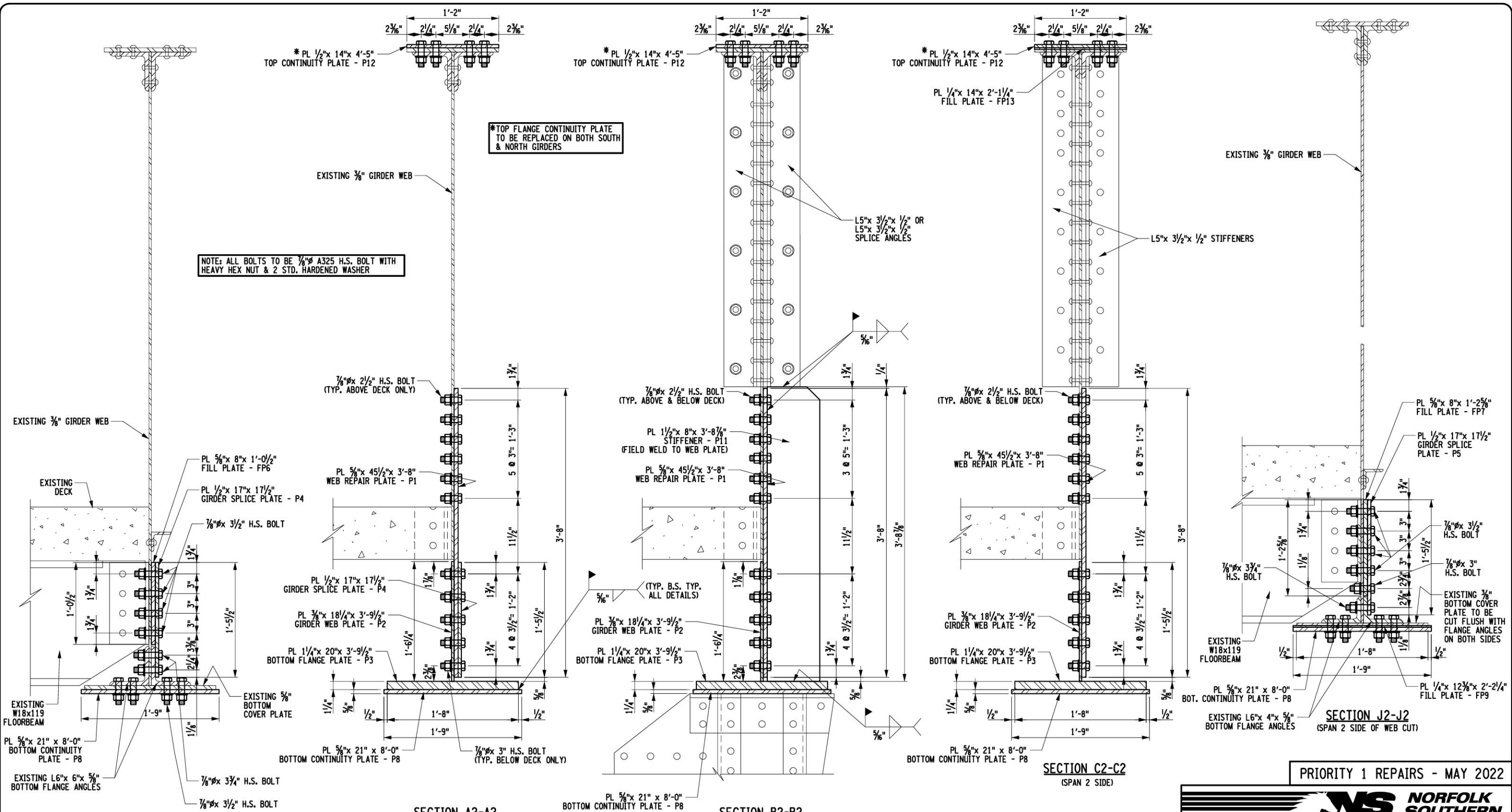
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 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA

PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE:		DWG.	
SOUTH GIRDER REPAIRS AT PIER PROPOSED REPAIR SECTIONS		S-12	
DGN SS	VAL SEC	MAP	MILE POST PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022
SHEET NUMBER 12 OF 16		DRAWING NUMBER PT-344.91-2020	

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 DATE/TIME = 5/25/2022
 USER = 1719



NOTE: ALL BOLTS TO BE 7/8" A325 H.S. BOLT WITH HEAVY HEX NUT & 2 STD. HARDENED WASHER

TOP FLANGE CONTINUITY PLATE TO BE REPLACED ON BOTH SOUTH & NORTH GIRDERS

SECTION I2-I2
(SPAN 1 SIDE OF WEB CUT)

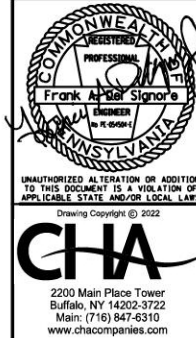
SECTION A2-A2
(SPAN 1 SIDE)

SECTION B2-B2

SECTION C2-C2
(SPAN 2 SIDE)

SECTION J2-J2
(SPAN 2 SIDE OF WEB CUT)

ITEM 5



PRIORITY 1 REPAIRS - MAY 2022

NS NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

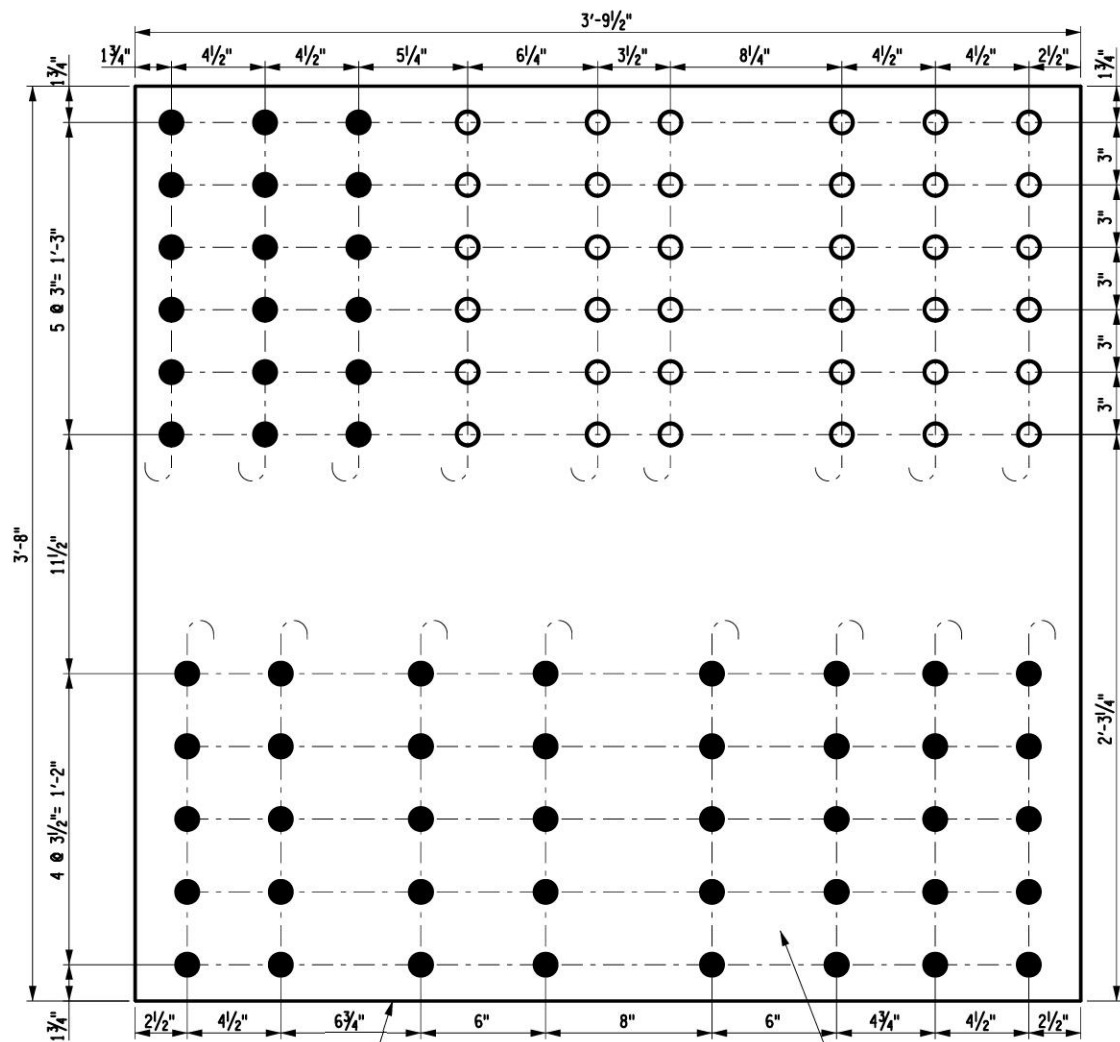
NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER
 NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE: SOUTH GIRDER REPAIRS AT PIER PROPOSED REPAIR SECTIONS DWG. S-13

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXX	DATE	MAY 2022	
SHEET NUMBER 13 OF 16		DRAWING NUMBER PT-344.91-2020		

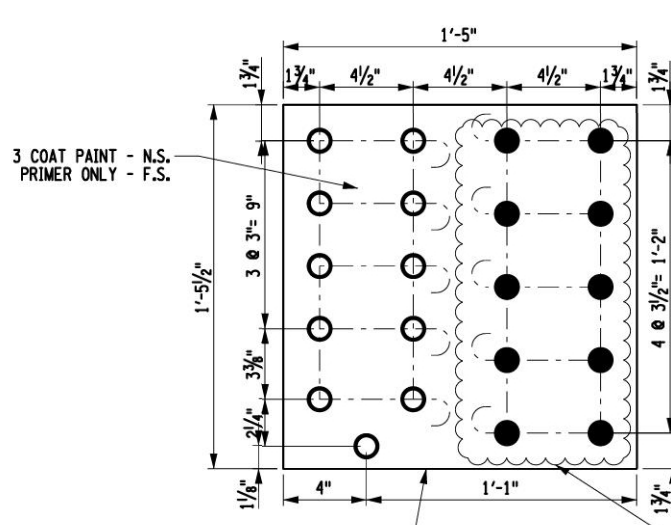
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 DATE/TIME = 5/25/2022
 USER = 1719



PL 5/8" x 45 1/2" x 3'-8" WEB REPAIR PLATE

WEB REPAIR PLATE - P1
(1 REQ'D)

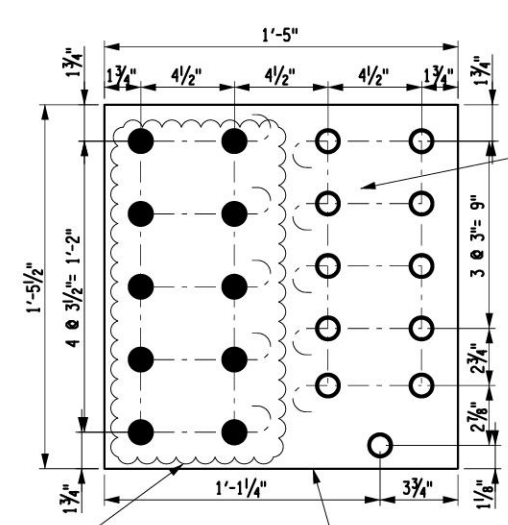
3 COAT PAINT - N.S.
PRIMER ONLY - F.S.



PL 1/2" x 17" x 17 1/2" GIRDER SPLICE PLATE

GIRDER SPLICE PLATE - P4
(1 REQ'D)

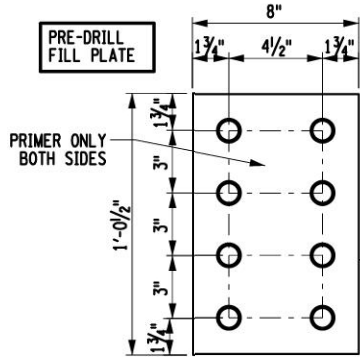
3 COAT PAINT - N.S.
PRIMER ONLY - F.S.



PL 1/2" x 17" x 17 1/2" GIRDER SPLICE PLATE

GIRDER SPLICE PLATE - P5
(1 REQ'D)

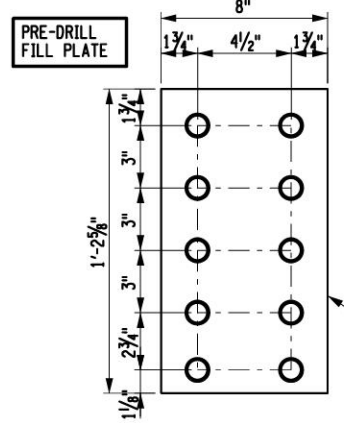
3 COAT PAINT - N.S.
PRIMER ONLY - F.S.



FILL PLATE - FP6
(1 REQ'D)

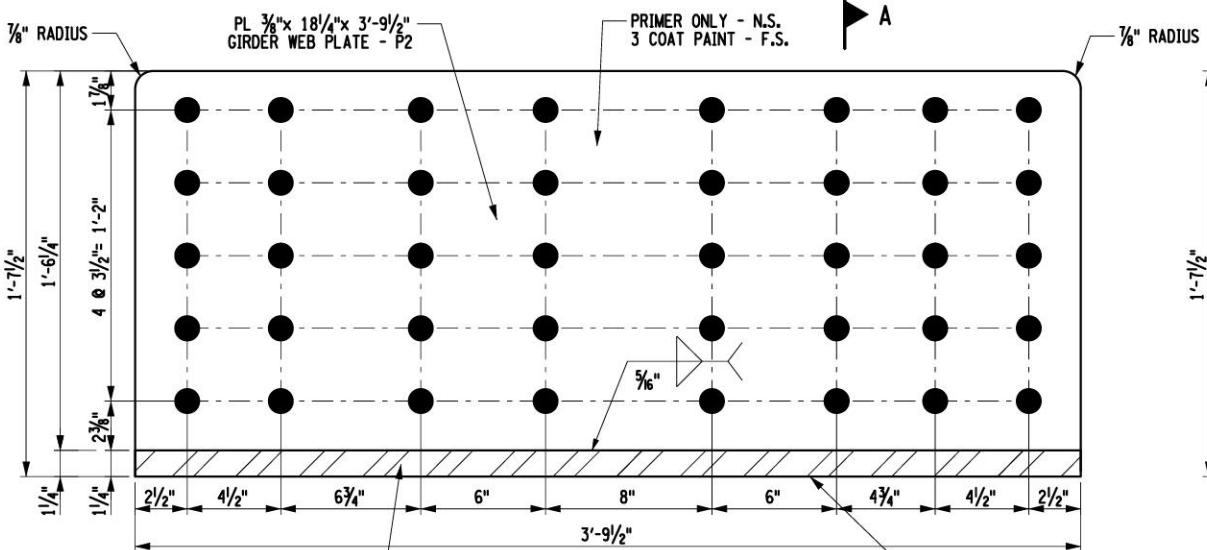
PRIMER ONLY BOTH SIDES

PL 5/8" x 8" x 1'-0 1/2" FILL PLATE



FILL PLATE - FP7
(1 REQ'D)

PL 5/8" x 8" x 1'-2 5/8" FILL PLATE



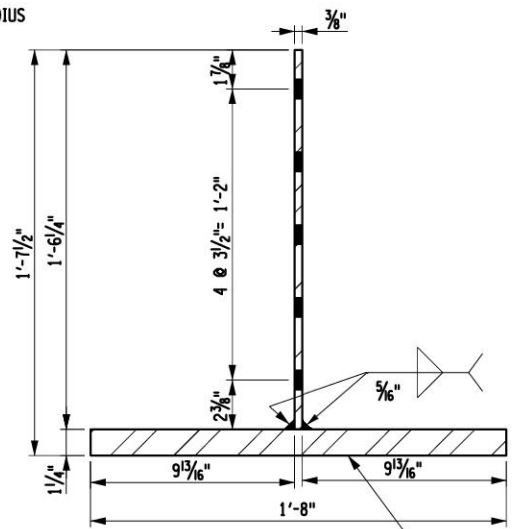
PL 3/8" x 18 1/4" x 3'-9 1/2" GIRDER WEB PLATE - P2

NEW GIRDER SEGMENT - P2 & P3
(1 REQ'D)

PRIMER ONLY - N.S.
3 COAT PAINT - F.S.

PL 1 1/4" x 20" x 3'-9 1/2" BOTTOM FLANGE PLATE - P3

PRIMER ONLY - BOTTOM
3 COAT PAINT - TOP & 4 EDGES



SECTION A-A

ALL HOLES IN BOTTOM FLANGE TO BE FIELD DRILLED

LEGEND

- EXISTING RIVET HOLE, SHOP DRILL NEW PLATE
- NEW HOLE LOCATION, SHOP DRILL NEW PLATE, FIELD DRILL EXISTING GIRDER WEB USING NEW PLATE AS A TEMPLATE

SURFACE PREP: SSPC-SP10
 ALL STEEL: ASTM A709 - 50 ksi
 ALL HOLES: 15/16" Ø
 ALL BOLTS: 3/8" Ø A325 H.D.G. W/ H.H. NUTS & 2 F436 WASHERS
 PAINT: AS NOTED

ITEM 5

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 Buffalo, NY 14202-3722
 Main: (716) 847-6310
 www.chacompanies.com

PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY

NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA

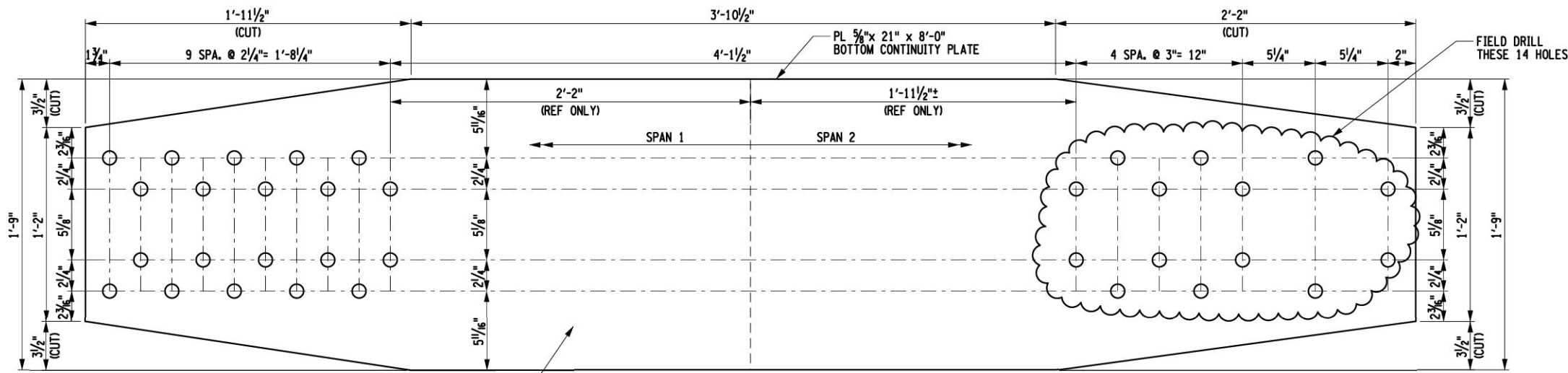
PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

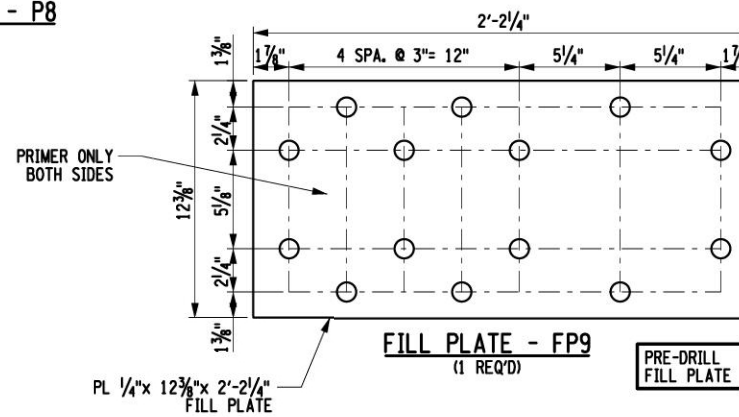
DRAWING TITLE: **STEEL PARTS DETAILS** S-14

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE BROOXXXX	DATE	MAY 2022	
SHEET NUMBER 14 OF 16		DRAWING NUMBER PT-344.91-2020		

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 DATE/TIME = 5/25/2022
 USER = 1719



3 COAT PAINT - BOTTOM PRIMER ONLY - TOP
BOTTOM FLANGE CONTINUITY PLATE - P8
 (1 REQ'D)



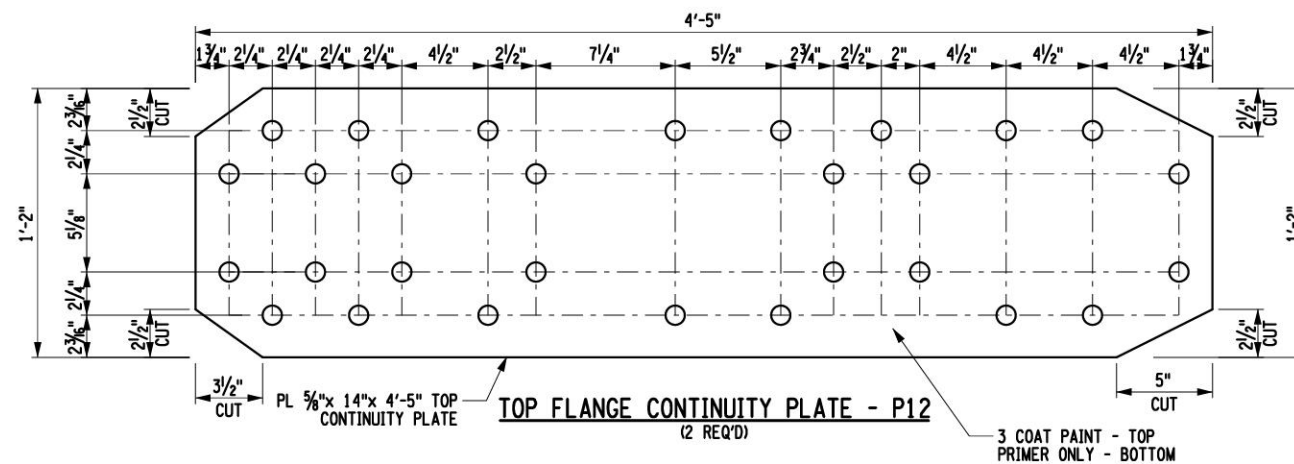
PRIMER ONLY BOTH SIDES

FILL PLATE - FP9
 (1 REQ'D)

PRE-DRILL FILL PLATE

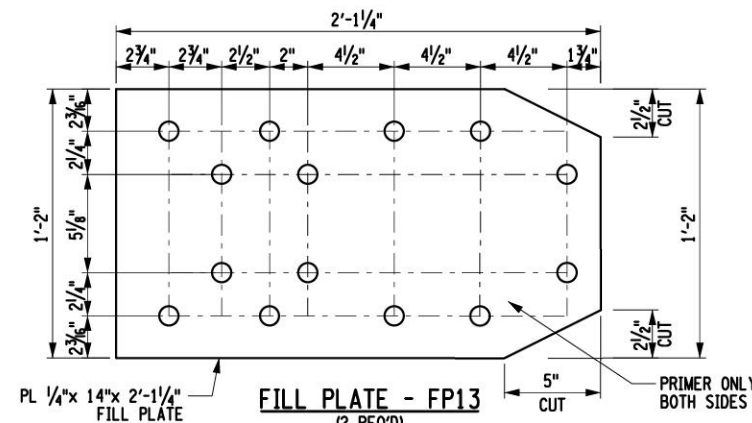
LEGEND	
○	EXISTING RIVET HOLE, SHOP DRILL NEW PLATE
●	NEW HOLE LOCATION, SHOP DRILL NEW PLATE, FIELD DRILL EXISTING GIRDER WEB USING NEW PLATE AS A TEMPLATE

SURFACE PREP: SSPC-SP10
 ALL STEEL: ASTM A709 - 50 ksi
 ALL HOLES: 5/16"
 ALL BOLTS: 1/2" A325 H.D.G. W/ H.H. NUTS & 2 F436 WASHERS
 PAINT: 3-COAT PAINT - NEAR SIDE & PRIMER ONLY - FAR SIDE UNLESS NOTED OPPOSITE



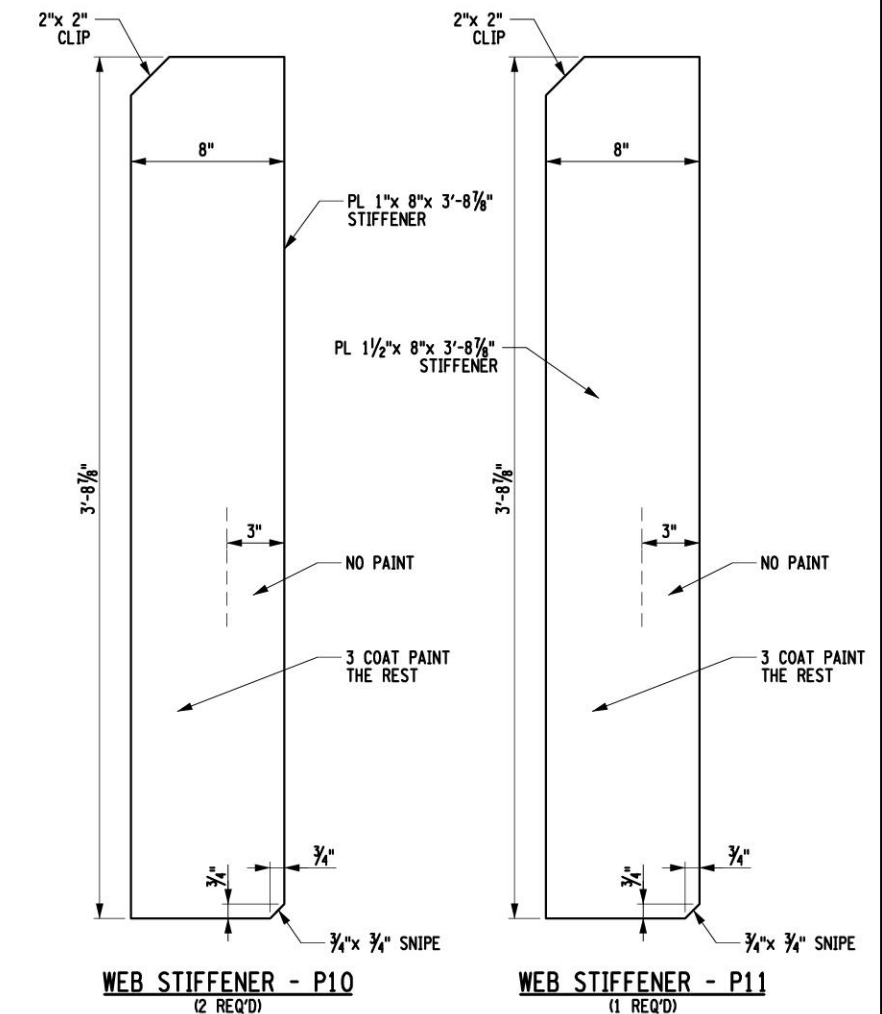
**PL 5/8\"/>
TOP FLANGE CONTINUITY PLATE - P12
 (2 REQ'D)**

3 COAT PAINT - TOP PRIMER ONLY - BOTTOM



FILL PLATE - FP13
 (2 REQ'D)

PRIMER ONLY BOTH SIDES



WEB STIFFENER - P10
 (2 REQ'D)

WEB STIFFENER - P11
 (1 REQ'D)

ITEM 5

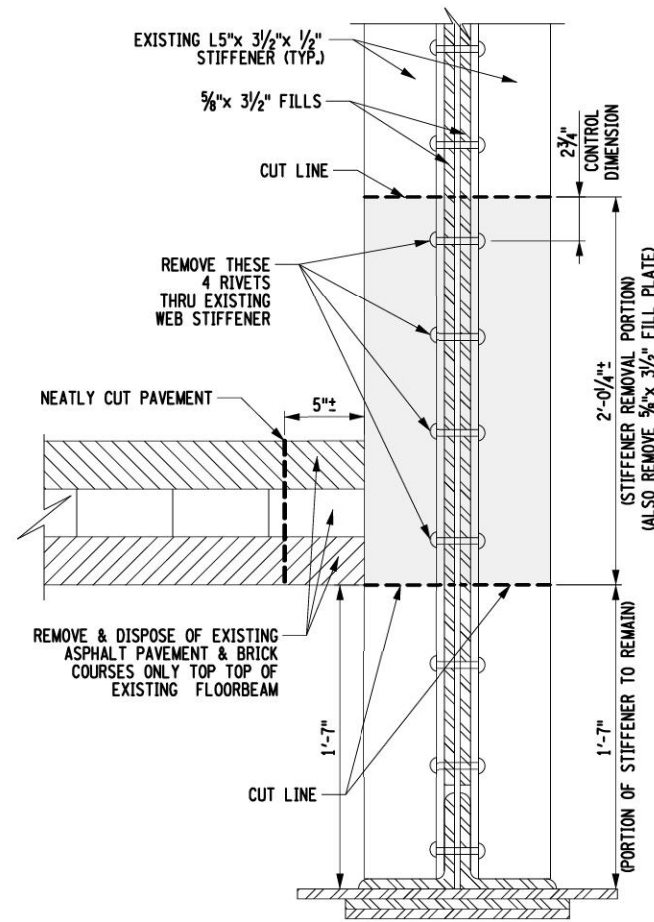
PRIORITY 1 REPAIRS - MAY 2022



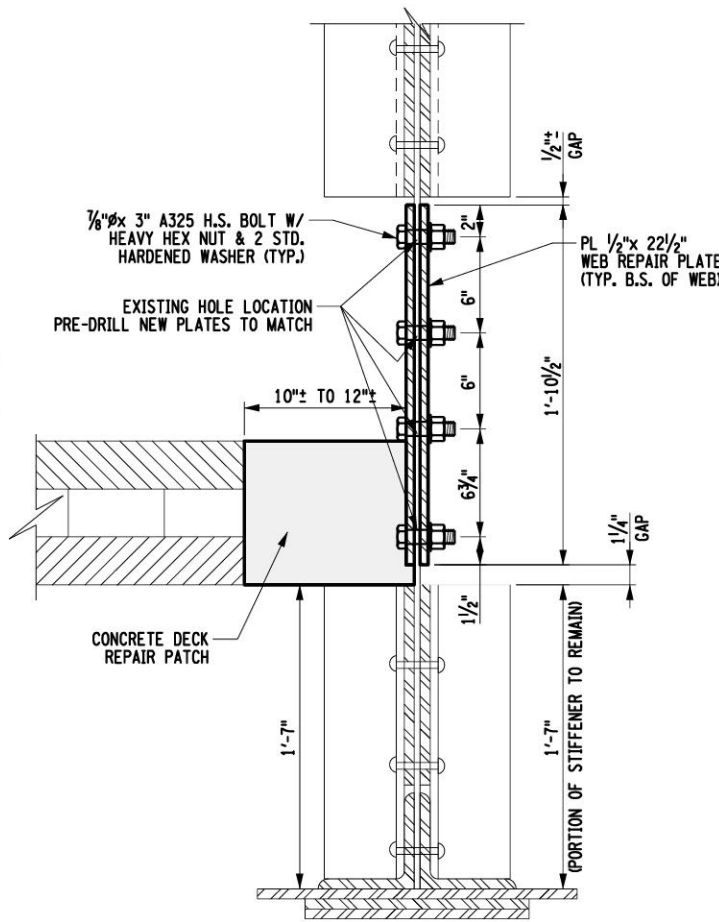
		NORFOLK SOUTHERN RAILWAY	
		NORTHERN REGION	PITTSBURGH DIV.
BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.			
PITTSBURGH LINE SWISSVALE BOROUGH, PA			
PRIORITY 1 REPAIRS			
OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES			ATLANTA, GA.
DRAWING TITLE:			DWG.
STEEL PARTS DETAILS			S-15
DGN SS	VAL SEC	MAP	MILE POST PT 344.91
CHK GH	FILE BROOXXXXX	DATE	MAY 2022
SHEET NUMBER 15 OF 16		DRAWING NUMBER PT-344.91-2020	



FILE NAME = \\chc-11e.com\proj\Projects\BNY\11556\PT 344.91 Swisvale, PA\2022 Repairs - May - Priority 1 Repairs\Swisvale_S-16.dgn
 DATE/TIME = 5/25/2022
 USER = 1719



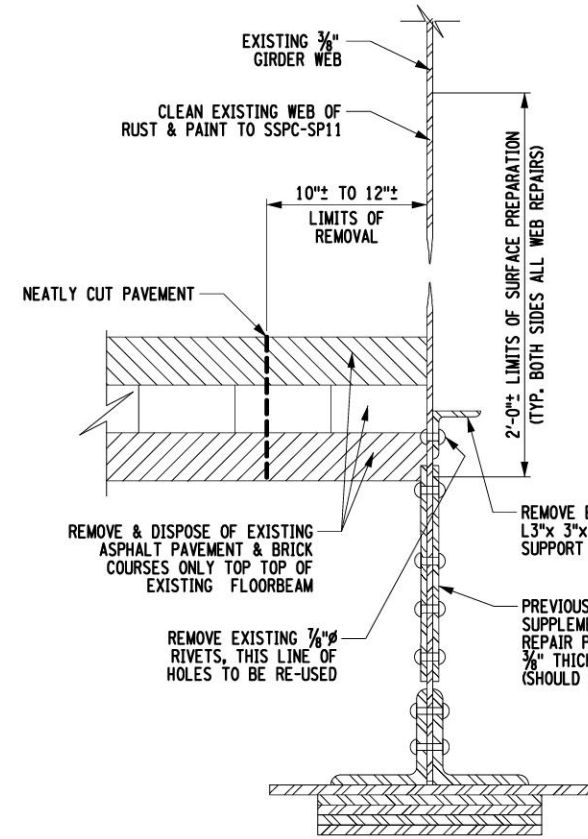
**SECTION X1-X1
EXISTING CONDITIONS**
(AT STIFFENER BETWEEN PANELS 8R & 9R)



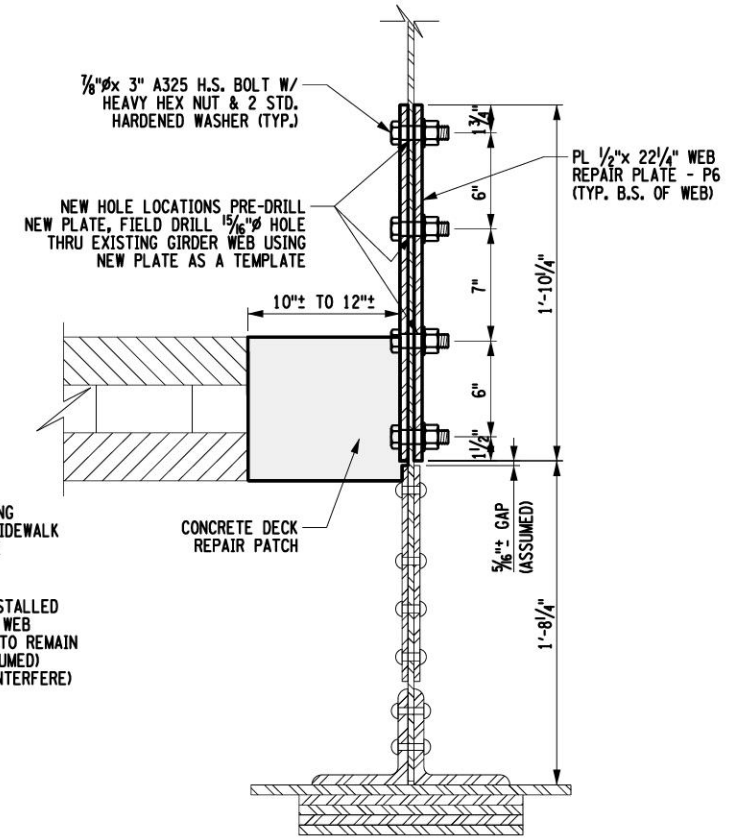
**SECTION X2-X2
PROPOSED REPAIR**
(AT STIFFENER BETWEEN PANELS 8R & 9R)

NOTE:
INSTALL THESE WEB PLATES BEFORE INSTALLING WELDED BEARING STIFFENERS FOR SHORING COLUMN

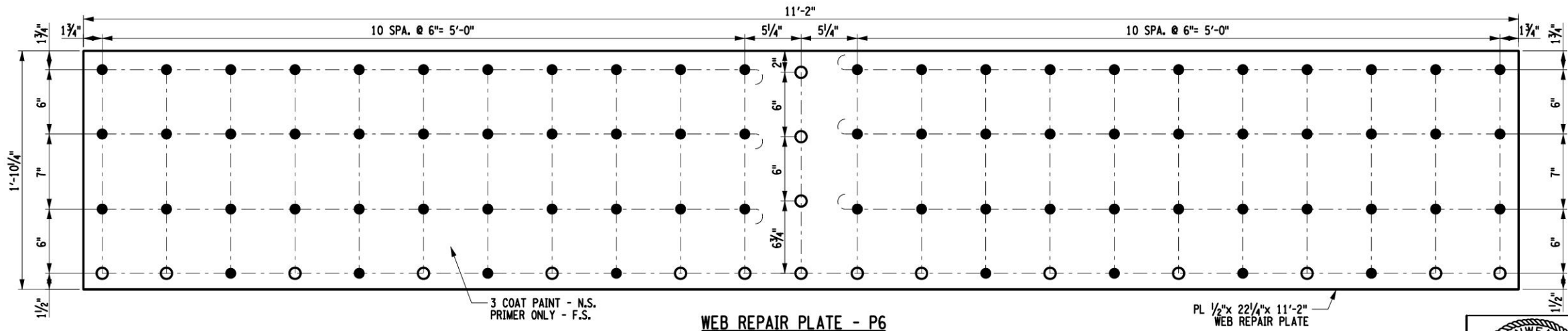
SURFACE PREP: SSPC-SP11 (EXISTING STEEL)
 ALL STEEL ASTM A709 - 50 ksi
 ALL HOLES 15/16\"/>



**SECTION Y1-Y1
EXISTING CONDITION**
(TYP. FOR PANELS 8R & 9R)



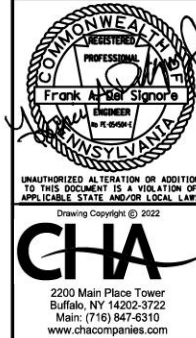
**SECTION Y2-Y2
PROPOSED REPAIR**
(TYP. FOR PANELS 8R & 9R)



WEB REPAIR PLATE - P6
(2 REQ'D) - BOTH SAME PLATE IS REVERSIBLE PRIMER SIDE ON INSIDE

SURFACE PREP: SSPC-SP10
 ALL STEEL: ASTM A709 - 50 ksi
 ALL HOLES: 15/16\"/>

LEGEND
 ○ EXISTING RIVET HOLE, SHOP DRILL NEW PLATE
 ● NEW HOLE LOCATION, SHOP DRILL NEW PLATE, FIELD DRILL EXISTING GIRDER WEB USING NEW PLATE AS A TEMPLATE



ITEM 6

PRIORITY 1 REPAIRS - MAY 2022

NORFOLK SOUTHERN

NORFOLK SOUTHERN RAILWAY
 NORTHERN REGION PITTSBURGH DIV.
 BRIDGE PT-344.91 WASHINGTON AVE. OVER NSRR, PAT BUSWAY & WAVERLY ST.
 PITTSBURGH LINE SWISSVALE BOROUGH, PA
 PRIORITY 1 REPAIRS

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA.

DRAWING TITLE: **SOUTH GIRDER WEB REPAIRS AT BAYS 8R & 9R** DWG. **S-16**

DGN SS	VAL SEC	MAP	MILE POST	PT 344.91
CHK GH	FILE	BROOXXXXX	DATE	MAY 2022
SHEET NUMBER		16 OF 16	DRAWING NUMBER	
			PT-344.91-2020	

