



May 11, 2022

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
400 North Street
Harrisburg, PA 17105-3265

Re: Allegheny County
Stowe Township, McKees Rocks Borough, City of Pittsburgh
SR 3104, Section A03
ECMS 28344
DOT 584825U, DOT 507455K, DOT 977980L
PUC Docket A-2020-3020667

Dear Secretary Chiavetta:

In accordance with ordering paragraph number 3 of the PUC Secretarial Letter at Docket No. A-2020-3020667 dated March 10, 2021, please find attached for your approval a copy of the final signed structure plans and final signed construction plans for the State Route 3104, Section A03 project in Allegheny County.

The Department of Transportation hereby avers that a set of the aforesaid final signed plans are being sent to the parties of record, by email, as permitted by the Emergency Order.

Sincerely,

A handwritten signature in black ink, reading "Philip M. Mutunga".

Philip M. Mutunga, P.E.
Grade Crossing Engineer
Department of Transportation
District 11-0

Enclosure

cc: Parties of Record
Mark J. Chappell, P.E., Chief, Right-of-Way and Utilities Section, 7th Floor, CKB
Karen Cummings, Senior Counsel in Charge, Office of Chief Counsel, 9th Floor, CKB
William Sinick, P.E., C.B.S.I., Rail Safety Engineering Section PUC, 3rd Floor, CKB

MPMS NO. 28344

 PREPARED BY
Gannett Fleming

PITTSBURGH, PA

Tyson Alan Boarts

REC. PROF. ENGINEER
4-29-2022

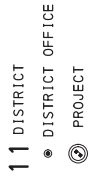
DATE

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BITUMINOUS ON BRICK ON CONCRETE BASE, 19" DEPTH	ADJACENT TO SLD STA 0+45±1T
1+45±RT	
BITUMINOUS ON CONCRETE BASE, 19" DEPTH	SLD STA 0+45±1T, 1+45±RT
	TO STA 3+21±
BRIDGE	SLD STA 3+21± TO STA 9+31±
BITUMINOUS ON CONCRETE BASE, 19" DEPTH	SLD STA 9+31± TO STA 20+75±
BRIDGE	SLD STA 20+75± TO STA 58+35±
BITUMINOUS ON CONCRETE BASE, 19" DEPTH	SLD STA 58+35± TO STA 58+90±
ADJACENT TO SLD STA 58+90	

SEG 0010	OFFSET	0000	=	STA	0+00.00	SR	3104	SURV	&	CONSTR
SEG 0011	OFFSET	0000	=	STA	0+00.00	SR	3104	SURV	&	CONSTR
SEG 0020	OFFSET	0000	=	STA	12+79.00	SR	3104	SURV	&	CONSTR
SEG 0030	OFFSET	0000	=	STA	19+72.00	SR	3104	SURV	&	CONSTR

NOTE: THE DEPTHS OF MATERIAL SHOWN ARE FOR DESIGN PURPOSES ONLY. ANY RISK OF UNANTICIPATED COSTS ASSOCIATED WITH DIFFERENCES BETWEEN THE LISTED DEPTHS AND THE ACTUAL DEPTHS SHALL BE ACCEPTED BY THE CONTRACTOR.



STATE HIGHWAYS
LOCAL ROADS

CUBIC YARDS OF EXCAVATION				CUBIC YARDS OF YARDS OF FOREIGN TOPSOIL	CUBIC YARDS OF WASTE BORROW	CUBIC YARDS OF FOREIGN TOPSOIL
CLASS 1	CLASS 2	CLASS 3	CLASS 4			
5.182	-	-	-	-	-	5.182

LOCATION MAP/GENERAL NOTES

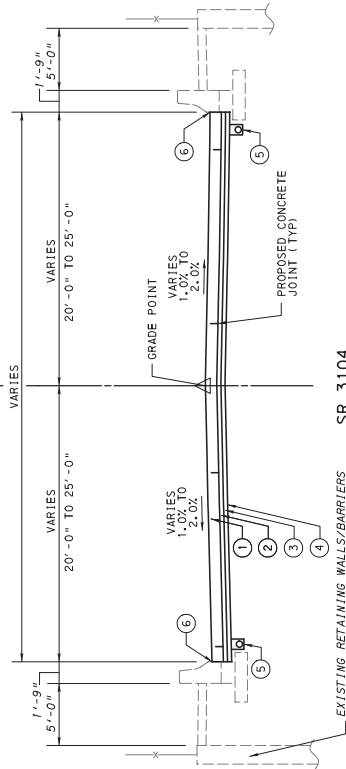


LOCATION MAP/GENERAL NOTES

SR 3104 SURV & CONSTR C

STA 0+73.82 TO STA 2+52.67

- 1 PLAIN CEMENT CONCRETE PAVEMENT, 11" DEPTH (ITEM NO. 0501-0034)
- 2 EITHER: CEMENT TREATED PERMEABLE BASE COURSE, 4" DEPTH
(ITEM NO. 0360-0001) OR PERMEABLE BASE COURSE, 4" DEPTH
(ITEM NO. 036C-0001)
- 3 SUBBASE 4" DEPTH (NO. 2A) (ITEM NO. 0350-0104)
- 4 GEOTEXTILE, CLASS 4, TYPE A (ITEM NO. 0212-0014)
- 5 6" PAVEMENT BASE DRAIN (ITEM NO. 0610-7002)
GEOTEXTILE, CLASS 1 (ITEM NO. 0212-0001)
- 6 FULL DEPTH EXPANSION JOINT (INCIDENTAL TO 0501-0034)
- 7 SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22,
(ITEM NO. 0413-0299) 3.5" MIN. IN. 1 1/2" DEPTH, SUE
- 8 MILLING OF ASPHALT PAVEMENT SURFACE, 1 1/2" DEPTH,
MILLED MATERIAL RETAINED BY CONTRACTOR (ITEM NO. 0491-0012)
- 9 ASPHALT TACK COAT (ANT/CNTT), (ITEM NO. 0460-0003)
- 10 APPLY PRIOR TO PLACEMENT OF EACH PAVEMENT COURSE



SR 3104
TYPICAL SECTION

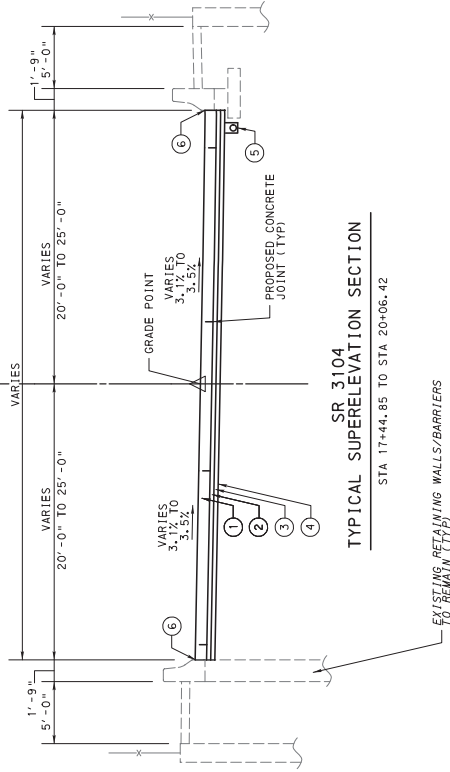
STA 9+20.75 TO STA 9+86.56

TYPICAL SECTIONS



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	3104	A03	6 OF 23
STONE TWP/MCKEES ROCKS BOROUGH/CITY OF PITTSBURGH				
DESIGN NUMBER	REVISIONS	DATE	BY	

SR 3104 SURV & CONSTR €

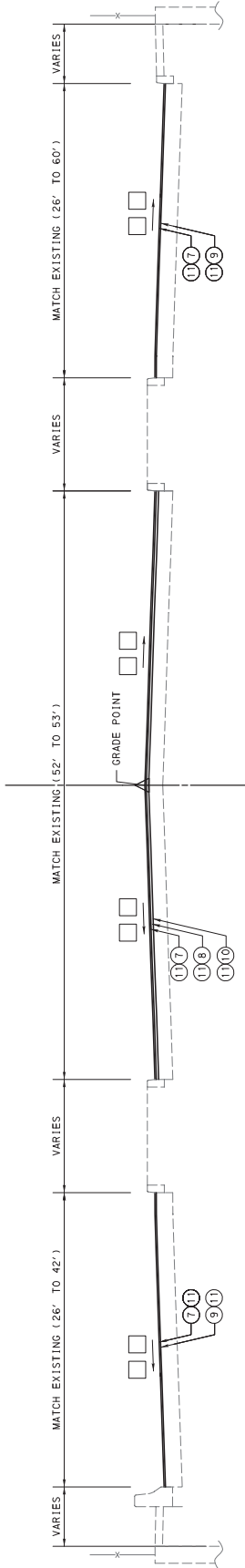


SR 3104
TYPICAL SUPERELEVATION SECTION

STA 17+44.85 TO STA 20+06.42

- ☐ MATCH EXISTING CROSS SLOPE
☐ MATCH EXISTING CROSS SLOPE

SR 3104 SURV & CONSTR €



SR 3104
TYPICAL TANGENT SECTION

STA 58+21.67 TO STA 58+56.27

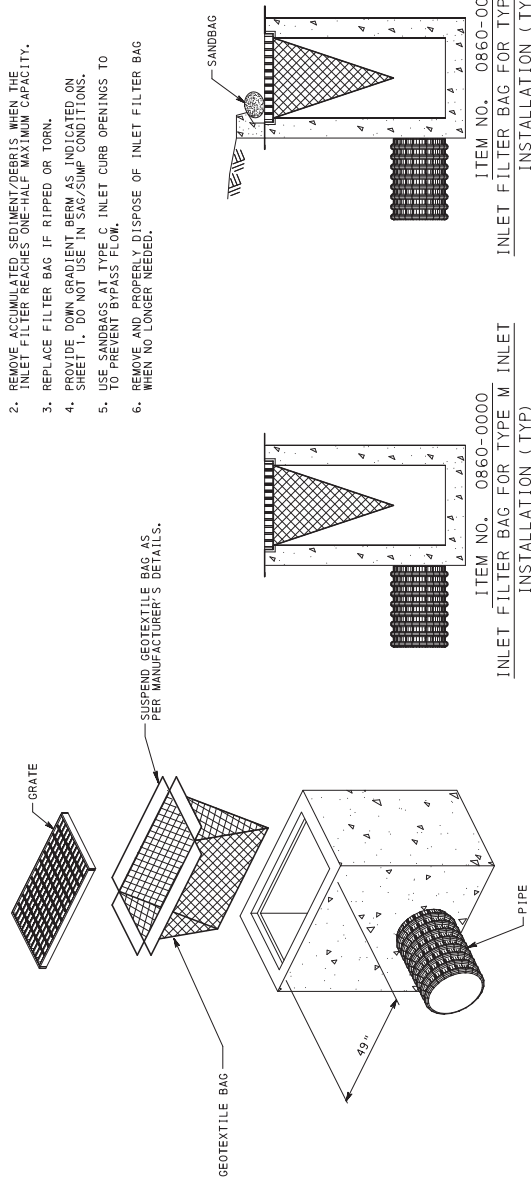
TYPICAL SECTIONS



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	3104	A03	8 OF 23
STONE TWP/McKEES ROCKS BOROUGH/CITY OF PITTSBURGH				
REVISION NUMBER	REVISIONS			DATE BY

NOTES

1. INSPECT INLET FILTER BAG AFTER EACH RUNOFF EVENT.
2. MAINTAIN AS REQUIRED TO ENSURE PROPER FUNCTIONING OF THE BAG.
3. REMOVE ACCUMULATED SEDIMENT/DEBRIS WHEN THE INLET FILTER REACHES ONE-HALF MAXIMUM CAPACITY.
4. REPLACE FILTER BAG IF RIPPED OR TORN.
5. PROVIDE DOWN GRADIENT HEN AS INDICATED ON SHEET 1. DO NOT USE IN SAC/SUMP CONDITIONS.
6. USE SANDBAGS AT TYPE C INLET CURB OPENINGS TO PREVENT BYPASS FLOW.
7. REMOVE AND PROPERLY DISPOSE OF INLET FILTER BAG WHEN NO LONGER NEEDED.



INLET FILTER BAG

SPECIAL DETAILS

SUMMARY

TCP - TRAFFIC CONTROL PLAN										REVISIONS		DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET	
STR1 - STRUCTURE PLANS (S-39125)														11	ALLEGHENY	3104	A03	9 OF 23	
STR2 - STRUCTURE PLANS (S-39126)															STONE TWINCKEES ROCKS BOROUGH/CITY OF PITTSBURGH				
◆ - SEE SPECIAL PROVISIONS																			
QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET
582	0203 0001	CLASS 1 EXCAVATION		11	8884	0827 3019	TEMPORARY BARRIER, TEST LEVEL 3, BARRIER DEFLECTION DISTANCE <1/4"		TCP	14914	0801 0331	6" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, WHITE		TCP	99	1002 0143	MECHANICAL SPLICE SYSTEM FOR NO. 6 REINFORCEMENT BARS, EPOXY COATED		STR2
745	0203 0029	SAW CUTTING		11	7419	0828 3019	RESET TEMPORARY BARRIER, TEST LEVEL 3, BARRIER DEFLECTION DISTANCE <1/4"		TCP	146	0801 0331	24" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, WHITE		TCP	1302	5916 0126	SIDEWALK PROTECTIVE FENCE STEEL (REPLACEMENT - S-39126)		STR2
2030	0212 0001	GEOTEXTILE, CLASS 1		12	136	0830 0001	PLAIN CEMENT CONCRETE CURB, 4" HEIGHT, INCLUDING REMOVAL OF EXISTING CURB		11	6	0801 0331	3-LINE CHANGEABLE MESSAGE SIGN WITH TELECOMMUNICATIONS		TCP	633	5916 0110	RAILROAD PROTECTIVE FENCE STEEL (SIDEWALK CONNECTION)		STR1, STR2
9822	0212 0014	GEOTEXTILE, CLASS A, TYPE A		11	144	0830 0045	PLAIN CEMENT CONCRETE CURB, 8" HEIGHT, INCLUDING REMOVAL OF EXISTING CURB		11	1	4852 0001	CONTROLLER MODIFICATION, RETIMING MODIFIED	◆	NO TAB		5915 0059	REMOVAL OF PORTION OF EXISTING BRIDGE, (S-39125)		STR1
822	0303 0001	CEMENT TREATED PERMEABLE BASE COURSE, 4"	1	11	76	4676 0001	CEMENT CONCRETE SIDEWALK MODIFIED		11	1	4856 0001	RADAR DETECTOR MODIFIED	◆	NO TAB		5915 0051	REMOVAL OF PORTION OF EXISTING BRIDGE, (S-39126)		STR2
OR 9822	0303 0001	ASPHALT TREATED PERMEABLE BASE COURSE, 4"	1	11		0886 0030	CONSTRUCTION SURVEYING, TYPE B, MODIFIED	◆	NO TAB	2	0886 0031	TEMPORARY MODIFICATIONS TO EXISTING PERMANENT TRAFFIC SIGNAL (3 APPROACHES)		TCP	827	1019 0059	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE)		STR1, STR2
9822	0390 0104	SUBBASE 4" DEPTH (NO. 2A)		11		0886 0060	CONSTRUCTION SURVEYING, TYPE D, MODIFIED		NO TAB	513	0886 0021	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS		13	34	1040 0039	CONCRETE BRIDGE DECK REPAIR, TYPE 3		STR2
785	0390 0108	SUBBASE 8" DEPTH (NO. 2A)		11		0889 0005	CPM SCHEDULE, WITH UPDATES		NO TAB	39037	4882 1001	6" WHITE WATERBORNE PAVEMENT MARKINGS MODIFIED	◆	13	110	1040 0200	CONCRETE BRIDGE BARRIER REPAIR, TYPE 2		STR1
1771	0413 0001	SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, 3 TO < 10 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-E		11	6000	0890 0002	SEMI-NORMAL FACILITATION		NO TAB	26380	4882 1005	4" YELLOW WATERBORNE PAVEMENT MARKINGS MODIFIED	◆	13	1020	5940 0200	CONCRETE BRIDGE BARRIER REPAIR, TYPE 2 (FRONT FACE)		STR2
192	0413 0001	SUPERPAVE ASPHALT MIXTURE DESIGN, BINDER COURSE, PG 64S-22, 3 TO < 10 MILLION ESALS, 18.0 MM MIX, 2 1/2" DEPTH		11	151	0895 0002	DETECTABLE WARNING SURFACE, CAST IRON	2	11	28207	0893 0001	PAVEMENT MARKING REMOVAL		TCP	830	5940 0201	CONCRETE BRIDGE BARRIER REPAIR, TYPE 2 (REAR FACE)		STR2
3734	0460 0003	ASPHALT TACK COAT (MTT/CNTT)		11	151	0895 0003	DETECTABLE WARNING SURFACE, POLYMER CONCRETE	2	11	15000	0894 0002	4" YELLOW EPOXY PAVEMENT MARKINGS		TCP	65900	1050 0020	FABRICATED STRUCTURAL STEEL		STR2
1579	0491 0001	MILLING OF ASPHALT PAVEMENT SURFACE, 1 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR		11	151	0895 0004	DETECTABLE WARNING SURFACE, POLYMER COMPOSITE	2	11	20000	0894 0005	6" WHITE EPOXY PAVEMENT MARKINGS		TCP	15400	5950 0021	FABRICATED STRUCTURAL STEEL (INCLUDES EXPANSION ANCHORS)		STR2
192	0491 0017	MILLING OF ASPHALT PAVEMENT SURFACE, 4" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR		11	5	0896 0080	TEMPORARY IMPACT ATTENUATING DEVICE, TYPE IV, TEST LEVEL 3		TCP	2000	0894 0007	6" BLACK EPOXY PAVEMENT MARKINGS		TCP	50000	1050 0100	UNFORESEEN FABRICATED STRUCTURAL STEEL REPAIRS		STR2
9822	0501 0034	PLAIN CEMENT CONCRETE PAVEMENT, 11" DEPTH		11	9	0897 0080	RESET TEMPORARY IMPACT ATTENUATING DEVICE, TYPE IV, TEST LEVEL 3		TCP	60	0894 0021	24" WHITE EPOXY PAVEMENT MARKINGS		13, TCP		5070 0300	ZONE PAINTING EXISTING STRUCTURAL STEEL (INCLUDES REPAIR STEEL)		STR2
1	0605 2731	TYPE M CONCRETE TOP UNIT AND BICYCLE SAFE GRATE		12	2	4802 0001	TOPSOIL FURNISHED AND PLACED MODIFIED	◆	11	113	0894 0022	24" YELLOW EPOXY PAVEMENT MARKINGS		13		1072 0100	CONTAINMENT		STR2
1	0605 2890	STANDARD INLET BOX, HEIGHT < 10"		12	2	0894 0001	SEEDING AND SOIL SUPPLEMENTS - FORMULA B, INCLUDING MULCH		11	15	0894 0101	WHITE EPOXY LEGEND, "ONLY", 8" - 0"		13, TCP		1072 0200	WASTE MANAGEMENT		STR2
19	0606 0001	GRADE ADJUSTMENT OF EXISTING INLETS		12	9000	0894 0001	UNFORESEEN WATER POLLUTION CONTROL		NO TAB	5	0894 0220	WHITE EPOXY LEGEND, "STRAIGHT ARROW", 12" - 0" X 1' - 8"		13		1072 0300	WORKER HEALTH AND SAFETY		STR2
12	0606 0100	GRADE ADJUSTMENT OF EXISTING MANHOLES		12	15	0890 0000	INLET FILTER BAG FOR TYPE M INLET		12	7	0894 0222	WHITE EPOXY LEGEND, "RIGHT ARROW", 12" - 0" X 3" - 0"		13, TCP	132	5990 1008	STANDARD EXPANSION DAM REPLACEMENT, 3" MOVEMENT (INCLUDES BACKWALL)	◆	STR2
	0609 0001	MOBILIZATION		NO TAB	5	0890 0000	INLET FILTER BAG FOR TYPE C INLET		12	7	0894 0000	WHITE EPOXY LEGEND, "LEFT ARROW", 12" - 0" X 3" - 0"		13, TCP	42	1090 1017	NEOPRENE STRIP SEAL GLAND REPLACEMENT		STR2
	0609 0002	INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE A		NO TAB		0891 0001	MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION		TCP	413	1091 0000	CLASS AA CEMENT CONCRETE		STR1, STR2	40	1091 0331	EPOXY INJECTION CRACK SEAL		STR2
	0609 0003	EQUIPMENT PACKAGE		NO TAB	10	0891 0231	ADDITIONAL WARNING LIGHTS, TYPE B		TCP	84900	1002 0331	REINFORCEMENT BARS, EPOXY COATED		STR1, STR2	2000	1999 0000	TRAINERS FOR PROJECTS 100% STATE FUNDED		NO TAB
2030	0610 0001	6" PAVEMENT BASE DRAIN		12	20	0901 0222	ADDITIONAL WARNING LIGHTS, TYPE C		TCP	64	1002 0140	MECHANICAL SPLICE SYSTEM FOR NO. 5 REINFORCEMENT BARS, EPOXY COATED		STR1					
4	0619 0001	PERMANENT IMPACT ATTENUATING DEVICE, TYPE V, TEST LEVEL 2, MASH, WIDTHS LESS THAN OR EQUAL TO 36 INCHES		11	200	0901 0240	ADDITIONAL TRAFFIC CONTROL SIGNS		TCP	46	1002 0141	MECHANICAL SPLICE SYSTEM FOR NO. 5 REINFORCEMENT BARS, EPOXY COATED		STR2					
50	0623 0001	REMOVAL OF EXISTING CONCRETE MEDIAN BARRIER		11	46104	0901 0320	4" STANDARD PAVEMENT MARKINGS, PAINT & BEADS, YELLOW		TCP	119	1002 0142	MECHANICAL SPLICE SYSTEM FOR NO. 6 REINFORCEMENT BARS, EPOXY COATED		STR1					

PROJECT ID: 480

ECMS: 28344

MPWS: 28344

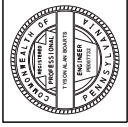
5/22/2022 3:47:28 PM

PROJECT ID: 480

ECMS: 28344

MPWS: 28344

5/22/2022 3:47:28 PM



TABULATION OF QUANTITIES

REVISION NO	REVISED DATE	DISTRICT	COUNTY	ROUTE	SECTION
		11	ALLEGHENY	3104	A03
STOWE TWP/MCKEEES ROCKS BOROUGH/CITY OF PITTSBURGH					

									
STATIONS									
SIDE									
REMARKS									
UNIT									
SR 3104									
MILL AND OVERLAY									
APPROACH SLAB									
APPROACH SLAB									
LT									
RT									
LT									
RT									
APPROACH SLAB									
MILL AND OVERLAY									
PARTIAL ISLAND REMOVAL AND REBUILD									
SR 8130 (NORTH RAMP)									
LT / RT									
ADA RAMPS AND SIDEWALK									
ADA RAMPS AND SIDEWALK									
SR 8130 (SOUTH RAMP)									
LT / RT									
ADA RAMPS AND SIDEWALK									
ADA RAMPS AND SIDEWALK									
LT / RT									
ADA RAMPS AND SIDEWALK									
TOTALS									

TABULATION OF QUANTITIES DRAINAGE

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				11	ALLEGHENY	3104	A03	12 OF 23
STONE TWIMPCKEES ROCKS BOROUGH/CITY OF PITTSBURGH								

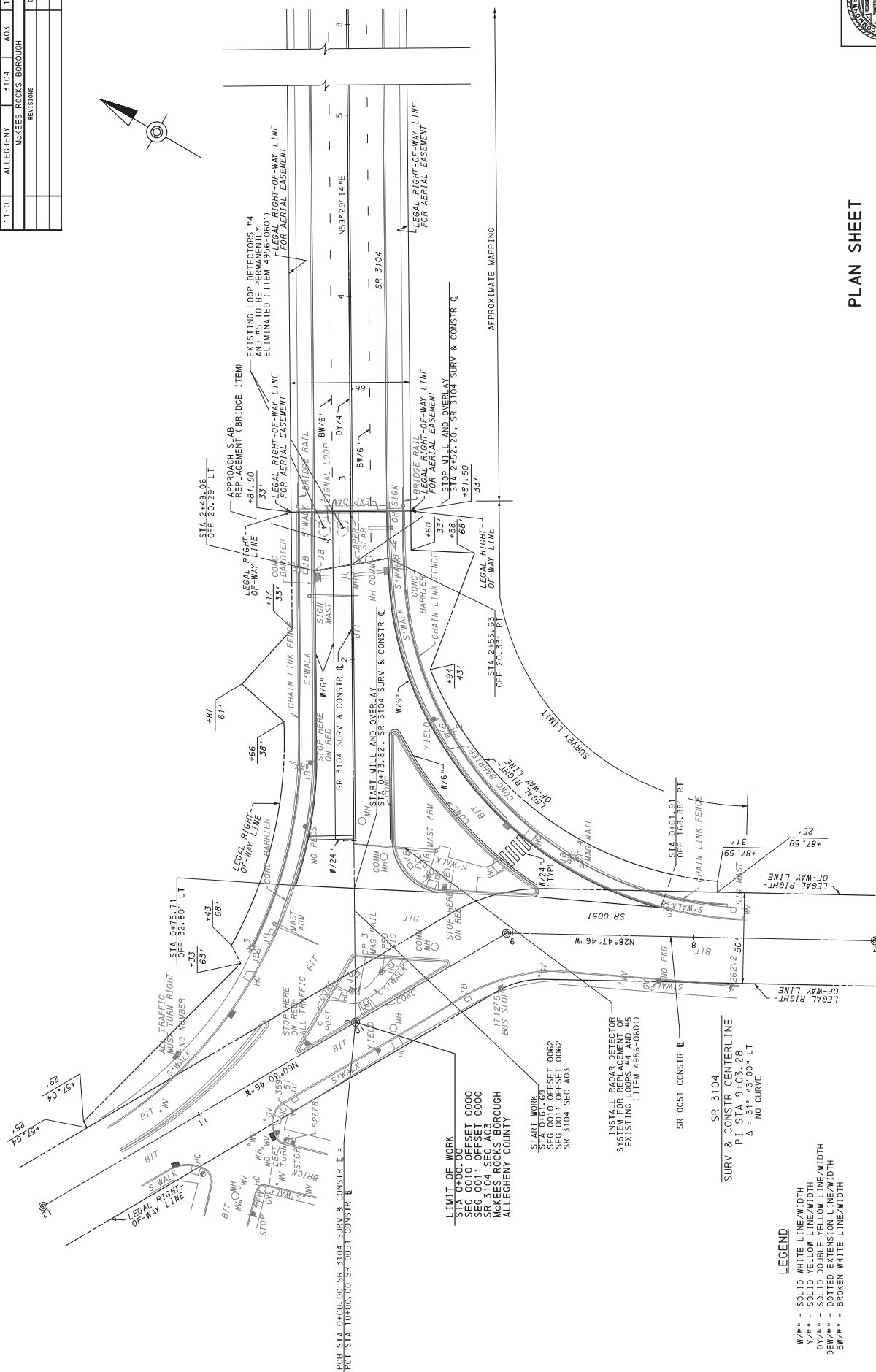
[illegible][illegible]

TABULATION OF QUANTITIES PAVEMENT MARKINGS

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				11	ALLEGHENY	3104	A03	13 OF 23
					TWP/MCKEES ROCKS BOROUGH/CITY OF PITTSBURGH			

[illegible]

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	3104	A03	14 OF 23
McKEES ROCKS BOROUGH				
REVISIONS				
			DATE	BY



LEGEND

W/#	- SOLID WHITE LINE/WIDTH
Y/#	- SOLID YELLOW LINE/WIDTH
DY/#	- SOLID DOUBLE YELLOW LINE/WIDTH
EW/#	- DOTTED EXTENSION LINE/WE
BW/#	- BROKEN WHITE LINE/WIDTH

SR 3104
SURV & CONST CENTERLINE
PI STA 9+03.28
 $\Delta = 31^\circ 43'00''$ LT
NO CURVE

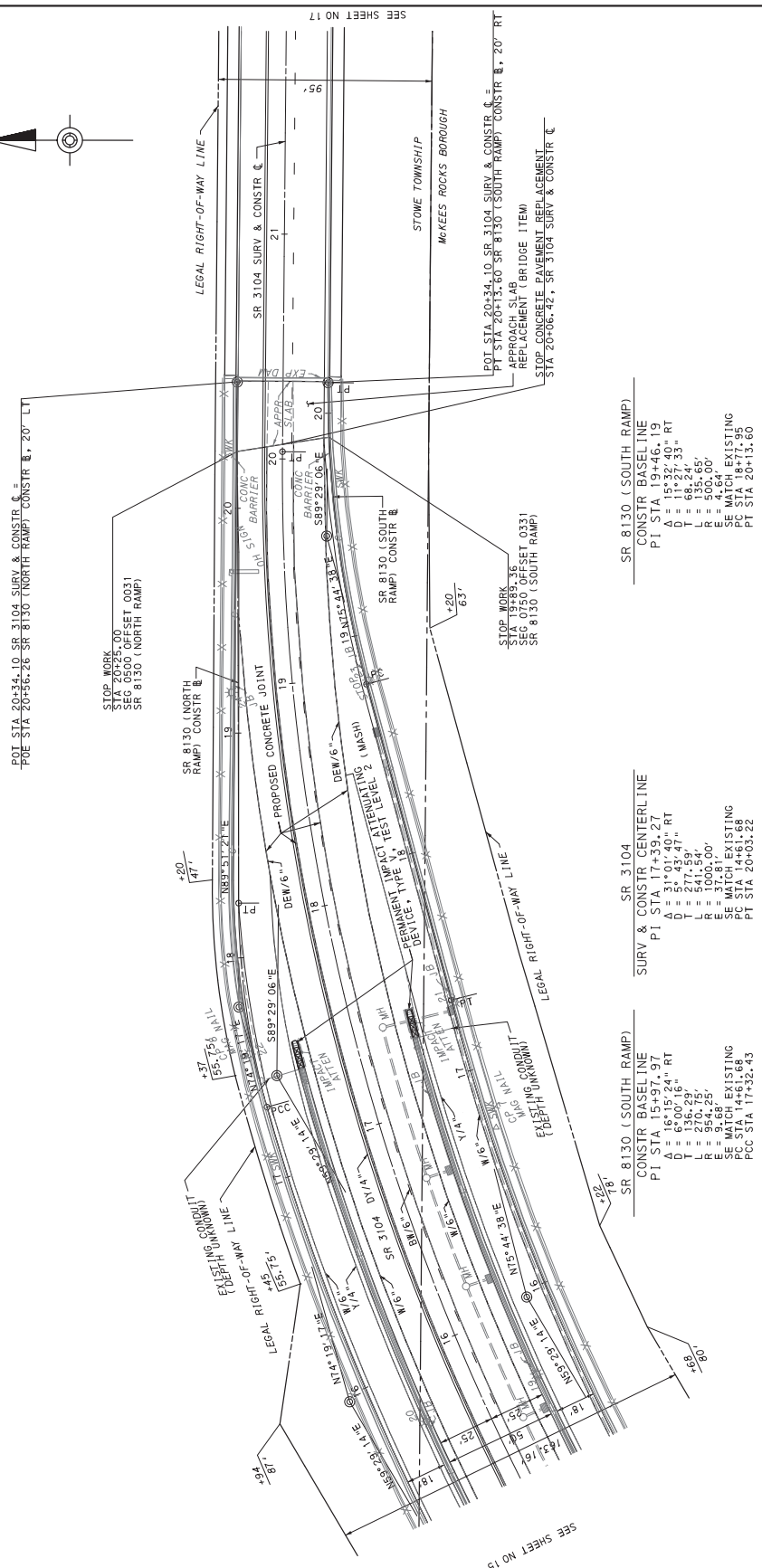
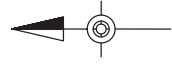
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START WORK
STA 0+61.69
SEG 0010 OFFSET 0062
SEG 0011 OFFSET 0062
SR 3104 SEC A03
```

LIMIT OF WORK
STA 0+00.00
SEG 0010 OFFSET 0000
SEG 0011 OFFSET 0000
SR 3104 SEC A03
MCKEES ROCKS BOROUGH
ALLEGHENY COUNTY

DATE: 4/29/2022 TIME: 2:12:04 PM
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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	3104	A03	16 OF 23
STONE TWP/MCKEES ROCKS BOROUGH				
REVISIONS				
			DATE	BY



SR 8130 (NORTH RAMP)
CONSTR BASELINE
PI STA 15+97.82
Δ = 14°50'03" RT
D = 5°28'44"
L = 136.14'
T = 270.75'
R = 1045.75'
E = 8.82'
SE MATCH EXISTING
PC STA 14+61.68
PCC STA 17+32.43

LEGEND

W/#"	-	SOLID WHITE LINE/WIDTH
Y/#"	-	SOLID YELLOW LINE/WIDTH
DY/#"	-	SOLID DOUBLE YELLOW LINE
DEW/#"	-	DOTTED EXTENSION LINE/W
BW/#"	-	BROKEN WHITE LINE/WIDTH

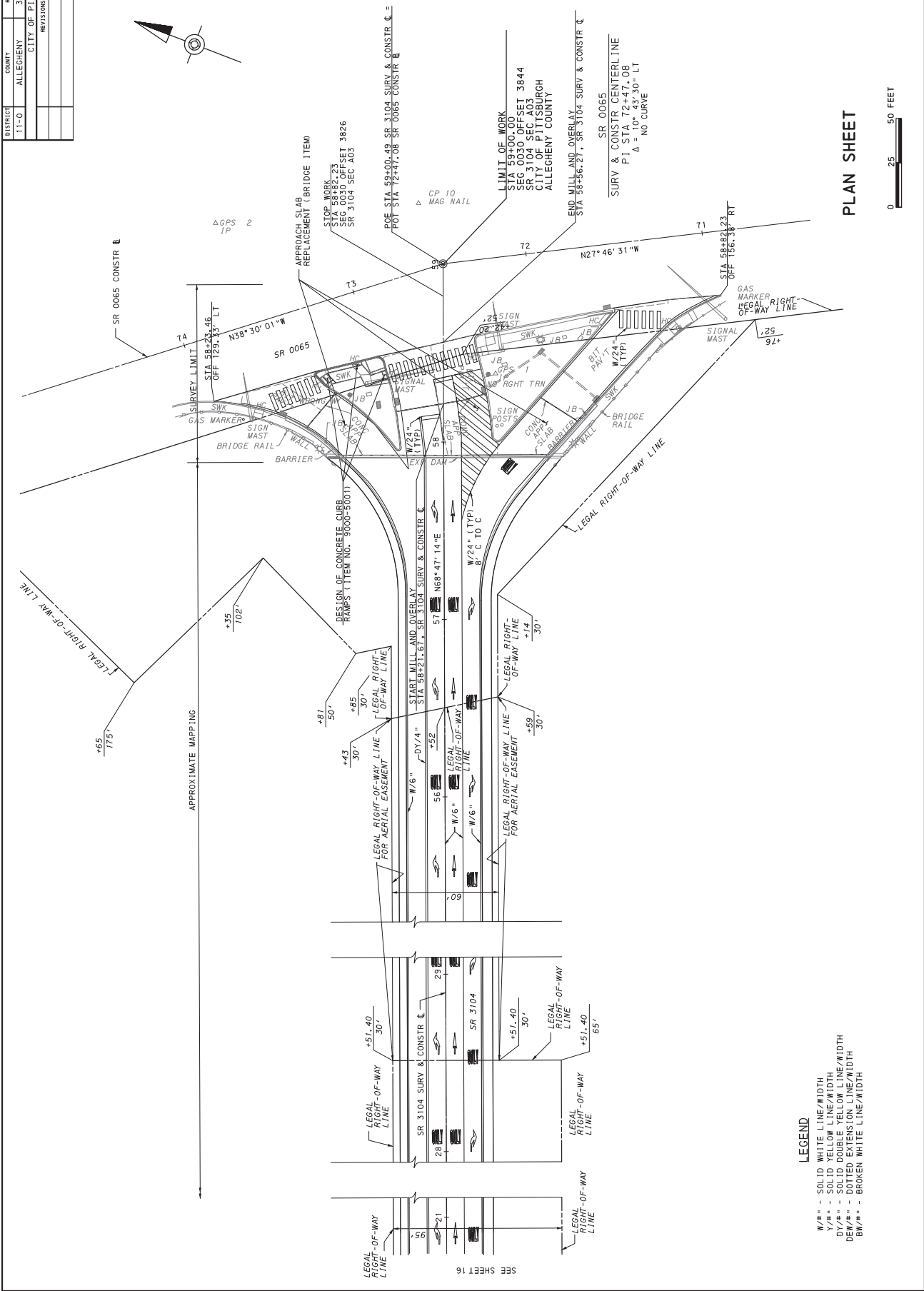
FOR SR 3104 PROFILE, SEE SHEET NO 19

FOR SR 8130 (SOUTH RAMP) PROFILE, SEE SHEET NO 23

FOR SR 8130 (NORTH RAMP) PROFILE, SEE SHEET NO 21



DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	3104	A03	17 OF 23
CITY OF PITTSBURGH				
REVISIONS				
DATE	BY			

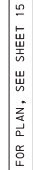


PLAN SHEET



LEGEND

- W/## - SOLID WHITE LINE/WIDTH
- DY/## - SOLID YELLOW LINE/WIDTH
- DEW/## - DOTTED YELLOW LINE/WIDTH
- BW/## - BROKEN WHITE LINE/WIDTH



DATUM 690



START WORK
STA 13+78.91

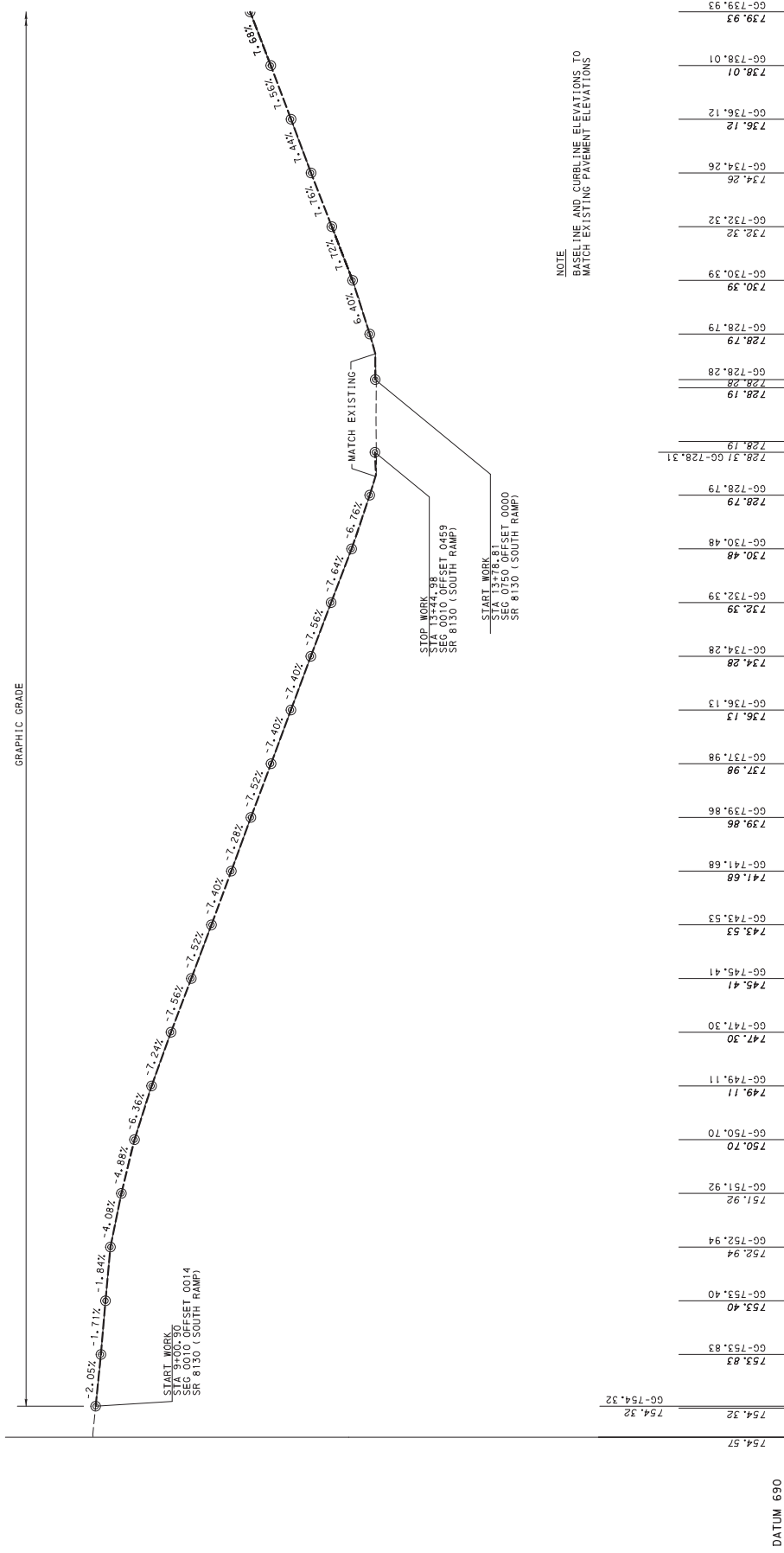
GRAPHIC GRADE

SR 8130
(NORTH RAMP)

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	3104	A03	20 OF 23
STONE TWP/MCKEES ROCKS BOROUGH				
REVISION NUMBER	REVISIONS			DATE BY

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
11-0	ALLEGHENY	3104	A03	22 OF 23
STONE TWP/MCKEES ROCKS BOROUGH				
REVISION NUMBER	REVISIONS		DATE	BY

SR 8130
(SOUTH RAMP)



NOTE
BASELINE AND CURBLINE ELEVATIONS TO
MATCH EXISTING PAVEMENT ELEVATIONS

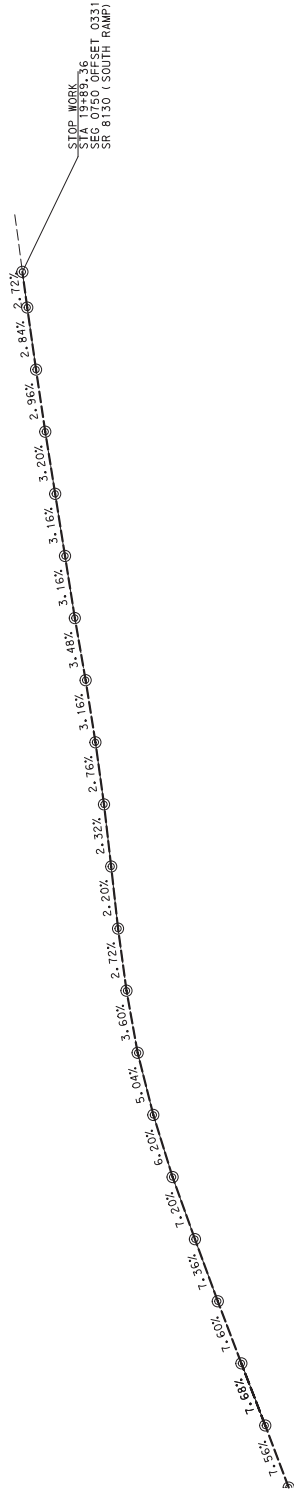
STOP WORK	START WORK
STA 13+47.98	STA 13+78.81
SEG 0010 OFFSET 0459	SEG 0750 OFFSET 0
SR 8130 (SOUTH RAMP)	SR 8130 (SOUTH RAMP)

START WORK
STA 9+00.90
SEG 0010 OFFSET 0014
SR 8130 (SOUTH RAMP)

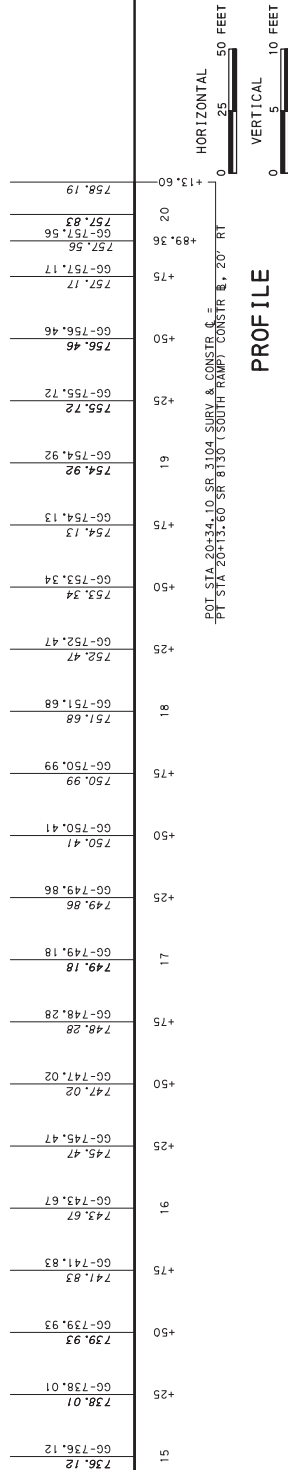
POT STA 8+90.13 SR 3104 SURV & CONSTR ϕ =
PC STA 8+86.46 SR 8130 (SOUTH RAMP) CONSTR ϕ , 20' RT

FOR PLAN, SEE SHEET 15

GRAPHIC GRADE



NOTE BASELINE AND CURBLINE ELEVATIONS TO MATCH EXISTING PAVEMENT ELEVATIONS



PROFILE

FOR PLAN, SEE SHEET 16



TITLE
ELEVATION
QUANTITIES
PLAN
DETAILS
DETAILS
DETAILS - PIER 1
PLAN

1	GENERAL PLAN & ELEVATION
2	GENERAL NOTES & QUANTITIES

- | | |
|-------------------|--|
| INDEX OF DRAWINGS | |
|-------------------|--|

4	CONCRETE REPAIR DETAILS
5	FENCE PLAN & DETAILS

- | |
|------------------|
| DRAWINGS |
| TITLE |
| EVATION |
| QUANTITIES |
| -AN |
| DETAILS |
| AILS |
| DETAILS - PIER 1 |
| PLAN |

4	CONCRETE REPAIR DETAILS
5	FENCE PLAN & DETAILS

- | | |
|----|----------------------------|
| 8 | APPROACH SLAB 2 PLAN |
| 9 | APPROACH SLAB SECTIONS - 1 |
| 10 | APPROACH SLAB SECTIONS - 2 |

10	APPROACH SLAB SECTIONS - 2
11	APPROACH SLAB 1 BAR SCHEDULE
12	APPROACH SLAB 2 BAR SCHEDULE-1
	APPROACH SLAB 3 BAR SCHEDULE-2

9	APPROACH SLAB SECTIONS - 1
10	APPROACH SLAB SECTIONS - 2

11	APPROACH SLAB 1 BAR SCHEDULE
12	APPROACH SLAB 2 BAR SCHEDULE-1
13	APPROACH SLAB 3 BAR SCHEDULE-2

13	APPROACH SLAB 2 BAR SCHEDULE-2
----	--------------------------------

SCOPE OF WORK:

• RIED 1 - REDI ACE TORN TOOTH EXPANSION DAM DRAINAGE

- **PIER 1 - REPLACE TORN TROUGH EXHAUSTION DAM DRAINAGE TROUGH.**

- REPLACE APPROACH SLABS 1 AND 2 AT NEAR AND FAR ABUTMENTS RESPECTIVELY.

- REPAIR FACE OF BRIDGE DECK CONCRETE BARRIERS
- INSTALL NEW RAILROAD PROTECTIVE FENCE TO THE UPSTREAM AND DOWNSTREAM PORTIONS OF THE SIDEWALK OVER THE

RAILROAD

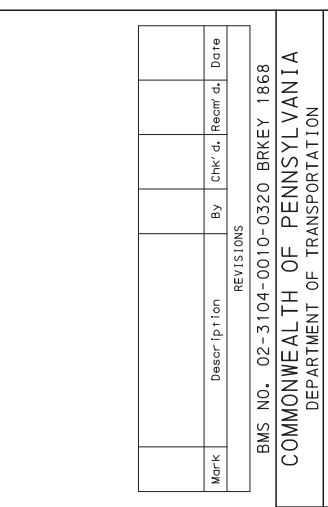
LEGEND:

F - FIXED PIN BEARING
E - EXPANSION ROCKER BEARING

EXP. - EXPANSION
STA. - STATION

* - MEASURED ALONG THE CONSTR. C

E - EXPANSION ROCKER BEARING

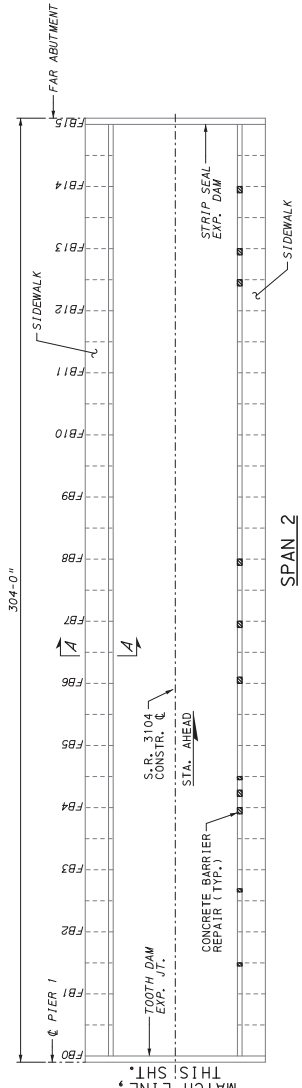
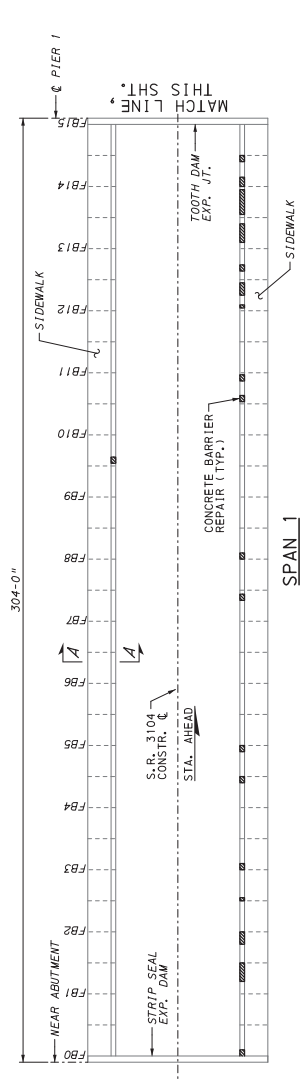


	Description	By	Chk' d.	Recm' d.	Date
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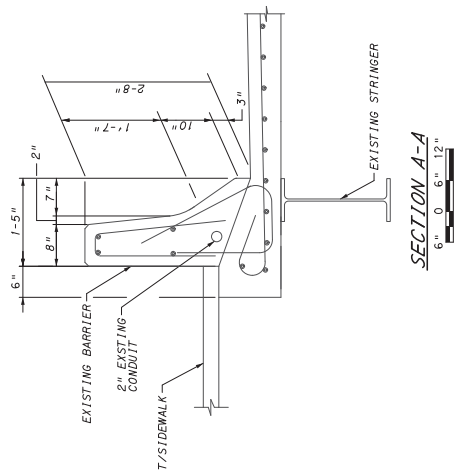
REVISIONS	
BMS NO.	02-3104-0010-0320 BRKEY 1868

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03



BARRIER REPAIR PLAN



SECTION A-A

NOTES:

- 1. REPAIR LOCATIONS SHOWN REPRESENT APPROXIMATE SPALLED OR DELAMINATED CONCRETE. REPAIR LOCATIONS AND LOCATIONS SHALL BE DETERMINED BY THE REPRESENTATIVE.
- 2. FOR CONCRETE REPAIR DETAILS, SEE SHEET 4.

LEGEND:

- FB1 - FLOORBEAM NUMBER
- CONCRETE BARRIER REPAIR

Mark	Description	By	Chk'd	Revised	Date

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0010 OFFSET 0320
S.R. 3104 STA. 5+86
OVER CSX TRANSPORTATION
PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE
BARRIER REPAIR PLAN



RECOMMENDED	APRIL 26, 2022	SHEET 3 OF 13
		S-39125

CONSTRUCTION PROCEDURE

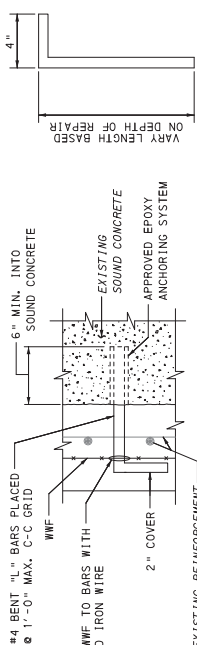
- REMOVAL, REPAIR AREA PREPARATION, AND REINFORCEMENT INSTALLATION.
- PROVIDE SATISFACTORY PROTECTIVE SHIELDING BELOW REPAIR AREAS.
- MEDIA USED TO CLEAN THE REPAIR AREAS.
- SOUND AND DETERMINE EXTENT OF REPAIR AREAS IN THE PRESENCE OF A REPRESENTATIVE.
- OUTLINE EDGE OF THE DESIGNATED REPAIR AREAS WITH A 1" MAXIMUM DEPTH SAMCUT.
- WITHIN THE OUTLINED REPAIR AREAS, REMOVE DETERIORATED CONCRETE TO A DEPTH OF 3/4" INCH BEHIND THE FIRST ROW OF REINFORCEMENT BARS TO SOUND CONCRETE. ALLOW UNCOVERED OR EXPOSED DEPTH OF 3/4" INCH BEHIND REINFORCEMENT BARS. DO NOT REMOVE ADDITIONAL CONCRETE WITHOUT APPROVAL OF THE STRUCTURE CONTROL ENGINEER.
- SQUARE OUT/BEVEL EDGE OF REPAIR AREAS TO KEY IN CONSTRUCTION. USE HAND TOOLS FOR REMOVING DETERIORATED CONCRETE. USE PNEUMATIC HAMMERS, IF REQUIRED, NOT EXCEEDING AN IMPACT RATING OF 30 FOOT POUNDS. DETENTIONED CONCRETE EXTENSIVE BEYOND THE INITIALLY OUTLINED REPAIR AREA, ENLARGE AREA AS DIRECTED BY THE REPRESENTATIVE.
- AFTER REMOVAL OPERATIONS ARE COMPLETE, REMOVE DEBRIS AND LOOSE MATERIALS. IMMEDIATELY REPAIR REPAIR AREAS WITH NEW CONCRETE. REINFORCEMENT BARS SHALL BE PLACED BY WAB. WAB EXPOSED REINFORCEMENT BARS TO NEAR-WHITE METAL ACCORDING TO SSPC-SP 10 (WAB). ONCE WAB IS COMPLETE, FLUSH REPAIR AREAS WITH WATER. ALLOW REPAIR AREAS TO DRY. THEN APPLY EPOXY BONDING COMPOUND TO EXPOSED REINFORCEMENT BARS WITHIN THE SAME WORKDAY AS WAB. REBLAST REINFORCEMENT THAT ARE NOT EPOXY COATED WITHIN THE SAME WORKDAY OR NOT WITHIN THE SAME WORKDAY. WAB SHALL BE SHOWN ON SLOVED DRAWING. IF REINFORCEMENT LENGTH IN NOT AVAILABLE, DRILL NEW DOWEL HOLES AND PLACE DOWEL BARS AS DIRECTED.
- PLACE EPOXY COATED NO. 4 BENT "L" REINFORCEMENT BARS IN A 1'-0" CENTER-TO-CENTER MAXIMUM SPACED GRID. ANCHOR INTO SOUND CONCRETE WITH EPOXY ANCHORING SYSTEM.
- ATTACH WIRE TO THE BENT "L" REINFORCEMENT BARS WITH ANNEALED IRON WIRE AT A MAXIMUM SPACING OF 1'-0" IN EACH DIRECTION. IF USING 6X6 WWF, PLACE A SECOND LAYER OF 6X6 WWF AND STAGGER TO ACHIEVE A 3X3 GRID SPACING.
- REPAIR CONCRETE DAMAGED DURING REPAIR OPERATIONS TO THE SATISFACTION OF THE REPRESENTATIVE AT NO ADDITIONAL COST TO THE DEPARTMENT.
- PROPERLY DISPOSE COLLECTED CONCRETE, DEBRIS, AND ABRASIVE BLAST MEDIA.

CONCRETE PLACEMENT

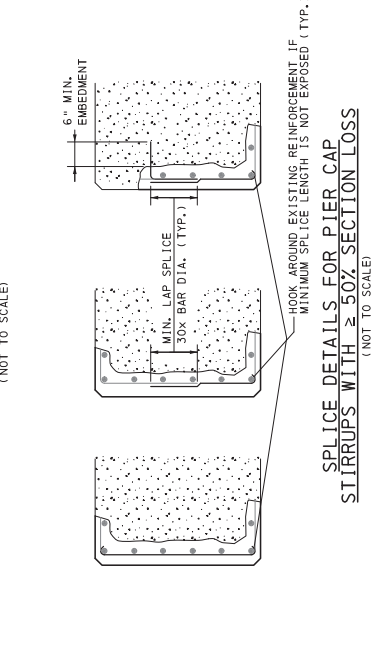
- ▲ 1 CONVENTIONAL METHOD
- SET FORMS TO PROVIDE MINIMUM CONCRETE COVER OF 2 INCHES. IF ENOUGH CONCRETE COVER ON EXISTING REINFORCEMENT BARS IS NOT AVAILABLE, HAUNCH REPAIR OUTWARD.
- MAINTAIN EXISTING CHAMFERS.
- AIR-BLAST REPAIR AREAS WITH OIL-FREE COMPRESSED AIR TO REMOVE ANY REMAINING CONTAMINANTS DETRIMENTAL TO THE BOND OF NEW CONCRETE. APPLY EPOXY BONDING COMPOUND TO EXPOSED REINFORCEMENT BARS. IF THE EPOXY BONDING COMPOUND IS NO LONGER TACKY OR HAS HARDENED, RECOAT AGGREGATE. DO NOT PLACE CONCRETE IF COMPOUND IS NO LONGER TACKY OR HAS HARDENED. RECOAT COMPOUND THAT IS NO LONGER TACKY. WIRE BRUSH HARDENED COMPOUND AND RECOAT REPAIR AREA.
- WATER CURE REPAIR AREAS.
- ◆ 1 SHOTCRETE METHOD
- PROVIDE MINIMUM CONCRETE COVER OF 2 INCHES. IF ENOUGH CONCRETE COVER ON EXISTING REINFORCEMENT BARS IS NOT AVAILABLE, HAUNCH REPAIR OUTWARD.
- MAINTAIN EXISTING CHAMFERS.
- AIR-BLAST REPAIR AREAS WITH OIL-FREE COMPRESSED AIR TO REMOVE ANY REMAINING CONTAMINANTS DETRIMENTAL TO THE BOND OF NEW CONCRETE.
- SATURATE PREPARED CONCRETE SUBSTRATE WITH CLEAN WATER THE DAY BEFORE SHOTCRETE APPLICATION. BRING WETTED SURFACES TO A SATURATED SURFACE DRY (SSD) CONDITION BEFORE APPLICATION OF SHOTCRETE. DO NOT APPLY SHOTCRETE TO A DRY SURFACE, OR TO A SURFACE WITH FREE SURFACE WATER.
- WATER CURE REPAIR AREAS. LIQUID MEMBRANE CURING COMPOUND MAY BE USED ONLY WHEN ACCEPTED BY THE REPRESENTATIVE.

REPAIR DETERIORATED CONCRETE (FOR INFORMATION ONLY)	
(THIS ITEM INCLUDES PAYMENT FOR THE FOLLOWING MATERIALS AND THEIR INSTALLATIONS)	
DOWEL HOLES	SECTION 1003, DIAMETER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
REINFORCEMENT BARS (EPOXY COATED)	SECTION 709.1
EPOXY ANCHORING SYSTEM	BULLETIN 15 AND MANUFACTURER'S RECOMMENDATIONS
WELDED WIRE FABRIC (WWF) EPOXY OR GALVANIZED	SECTION 709.3, 3x3, 4x4, OR 6x6 WWF MADE OF 8, 10, OR 11 GAUGE WIRE
ANNEALED IRON WIRE	ASTM A684
▲ FORMS	SECTION 1001.2(f)
▲ EPOXY BONDING COMPOUND	ASTM C881 TYPE II, GRADE 2
▲ CLASS AA CEMENT CONCRETE	SECTION 704 EXCEPT USE NO. 8 COARSE AGGREGATE
◆ SHOTCRETE	SECTION 1043.2(f)

NOTE: ANY ADDITIONAL REINFORCING STEEL IS INCIDENTAL TO ITEM 1040-0200.



TYPICAL "L" BAR DETAILS
(NOT TO SCALE)



LEGEND

- ▲ 1 CONVENTIONAL METHOD (FORM AND PLACE) ONLY
- ◆ 1 SHOTCRETE METHOD ONLY
- SSD 1 SATURATED SURFACE DRY
- WWF 1 WELDED WIRE FABRIC

NOTES

- 1. USE A PACHOMETER TO LOCATE EXISTING REINFORCEMENT WHEN DRILLING DOWEL HOLES TO AVOID DRILLING THRU EXISTING BARS.

Mark	Description	By	Chk'd	Revised	Date

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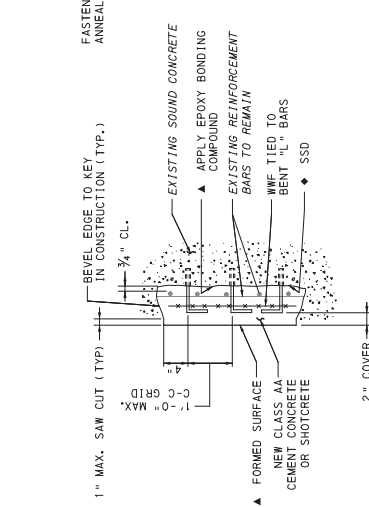
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

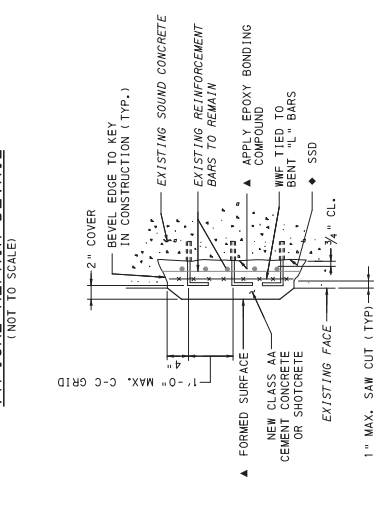
SEGMENT 0010 OFFSET 0320
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OVER CSX TRANSPORTATION
PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE
CONCRETE REPAIR DETAILS

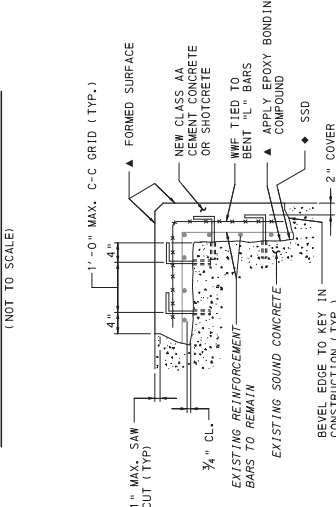
RECOMMENDED APRIL 26, 2022 SHEET 4 OF 13



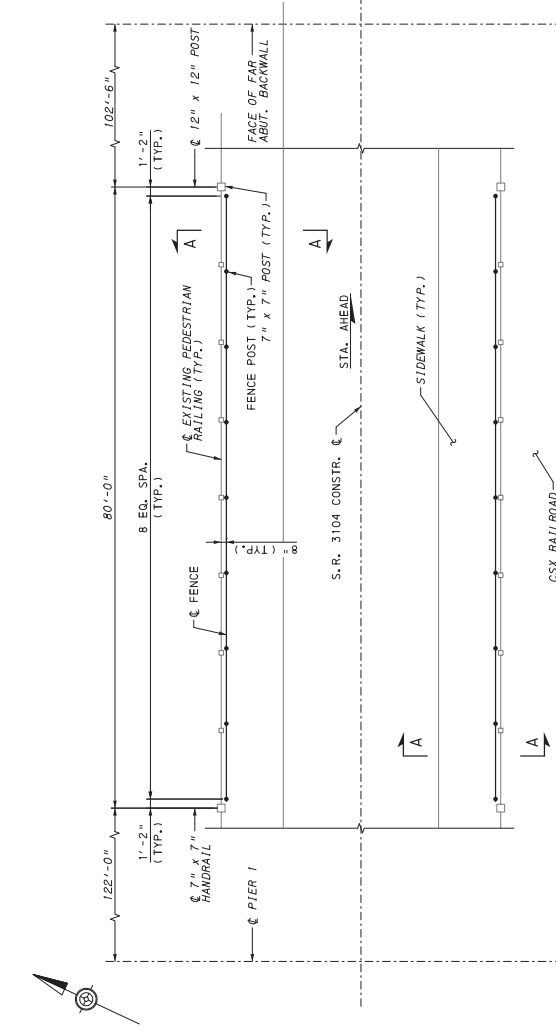
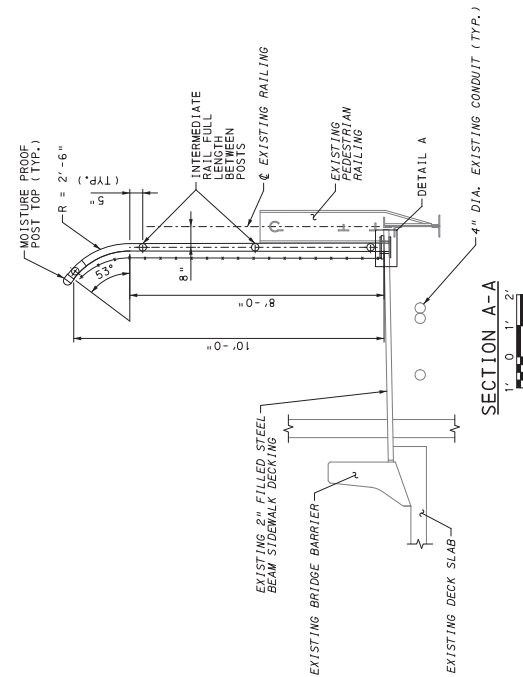
TYPICAL REPAIR DETAIL
(NOT TO SCALE)



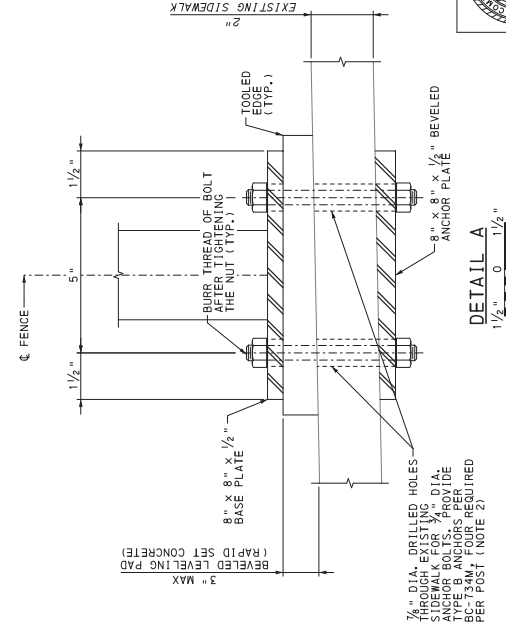
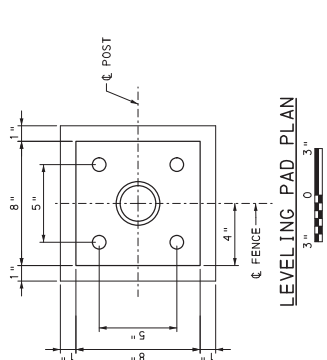
REPAIR FOR LESS THAN 2" COVER
(NOT TO SCALE)



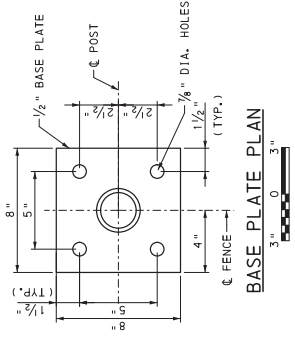
TYPICAL CORNER REPAIR DETAIL
(NOT TO SCALE)

FENCE LAYOUT PLAN

SECTION A-A

DETAIL A

LEVELING PAD PLAN



BASE PLATE PLAN



NOTES:

1. FOR ADDITIONAL DETAILS, SEE BC-701M.
2. USE TEMPLATE FOR DRILLING HOLES THROUGH EXISTING SIDEWALK.

Mark	Description	By	CHK' d.	Rec'd. d.	Date
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ALLEGHENY COUNTY
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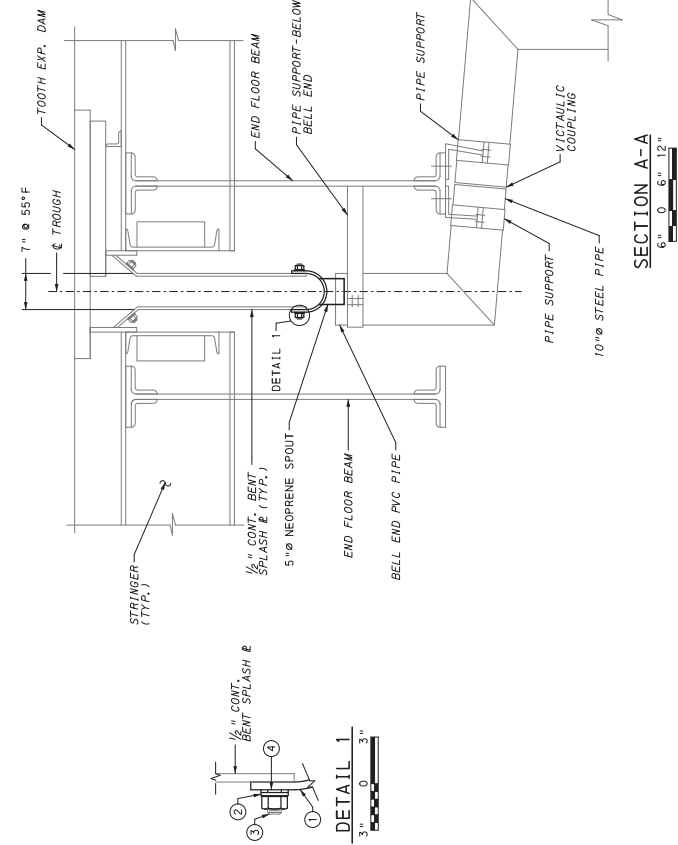
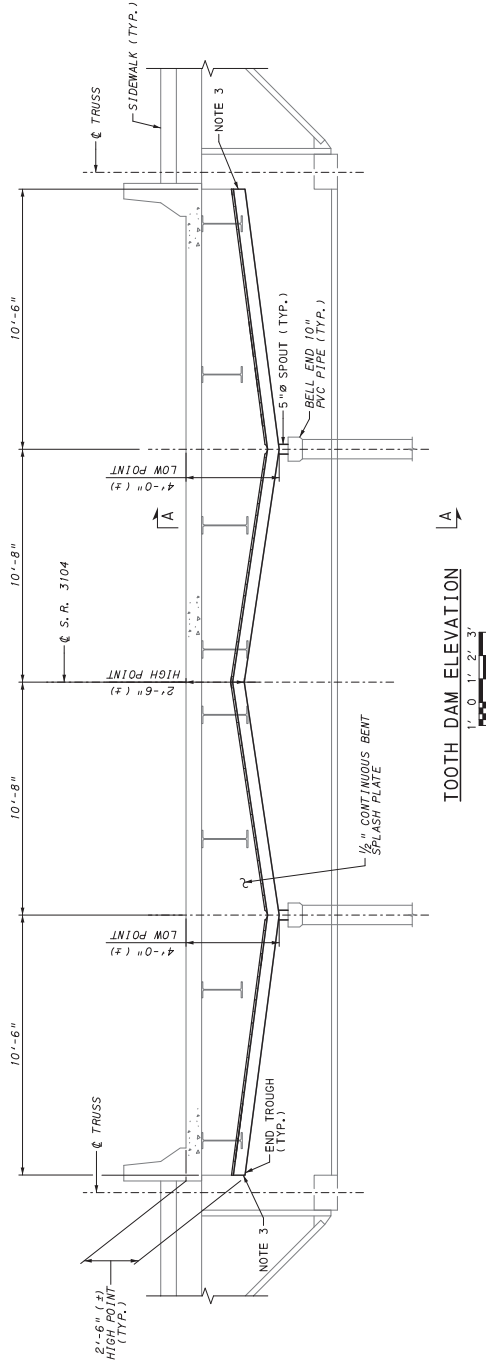
OVER CSX TRANSPORTATION
PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE
FENCE PLAN & DETAILS

FENCE PLAN & DETAILS

RECOMMENDED

S-3912





NOTES:

1. FIELD MEASURE THE EXISTING TROUGH AND CONCRETE DAM PRIOR TO BEGINNING DEVELOPMENT AND FABRICATION OF THE NEW TROUGH.
2. ACCESS THE TOOTH DAM TO PERFORM REPAIRS FROM S.R. 3104 ABOVE. REPAIRS TO CONCRETE DAM REQUIRED (INCIDENTAL TO ITEM 9000-0001).
3. ENDS OF DRAIN TROUGH TO BE CLOSED AND MADE WATER TIGHT IN A MANNER ACCEPTABLE TO THE DEPARTMENT.
4. SEE SPECIAL PROVISION FOR ADDITIONAL REQUIREMENTS.
5. WORK ON TOOTH DAM TO BE COMPLETE UNDER PHASE 1-A CONSTRUCTION.

LEGEND:

- ① - NEW DRAINAGE TROUGH. SEE SPECIAL PROVISION AND PUBLICATION 408 SECTION 1020.2 FOR MATERIAL SPECIFICATION
- ② - 3/4" X 3" B STAINLESS STEEL (TYPE 304) , FULL LENGTH OF DRAIN TROUGH. MATCH EXISTING HOLE SPACING.
- ③ - EXISTING 3/4" DIA. STAINLESS STEEL STUDS TO REMAIN. REPLACE STUDS AND WASHERS WITH NEW SELF-LOCKING NUT AND WASHER.
- ④ - APPLY 1/2" BEAD OF AN EXTERIOR RATED SEALANT PRIOR TO ASSEMBLY.

Mark	Description	By	Chk'd	Revised	Date

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COMMONWEALTH OF PENNSYLVANIA
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OVER CSX TRANSPORTATION
PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE
TOOTH DAM REPAIR DETAILS - PIER 1

RECOMMENDED APRIL 26, 2022

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SECTION A-A

6" 0' 6" 12"



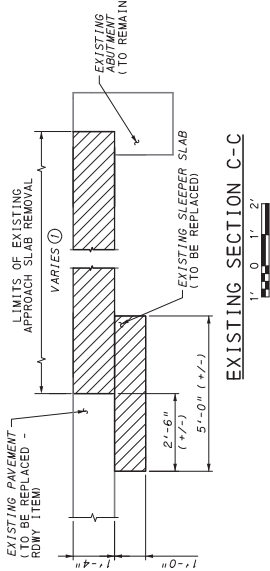
1. FOR SECTIONS C-C AND D-D, SEE SHEET 10.
2. FOR SLEEPER SLAB REINFORCEMENT, SEE SHEET 10.
3. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 12 AND 13.
4. MATCH EXISTING TOP OF SLAB ELEVATIONS AND CROSS SLOPES.
5. DIMENSIONS INDICATED ARE MEASURED ALONG THE S.R. 3104 CONSTR. OR MEASURED NORMAL TO THE R. 3104 CONSTR. UNLESS OTHERWISE NOTED.
6. TRIM REINFORCEMENT TO PROVIDE 2" CLEAR FOR UTILITY HOLE.
7. FOR DETAIL 1, SEE SHEET 7.

R.F. 

① INDICATES REAR FACE.
LIMITS OF REMOVAL OF
EXISTING BRIDGE.

② MATCH EXISTING DIMEN-
SIONS IN FIELD
FABRICATION OF REINF.

③ MATCH EXISTING. CONT.
MEASURED ALONG FRONT



EXISTING SECTION C-C

[illegible]

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OVER CSX TRANSPORTATION
PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE
APPROACH SLAB 2 PLAN

RECOMMENDED	APRIL 26, 2022	SHEET 8 OF 13
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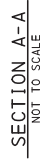


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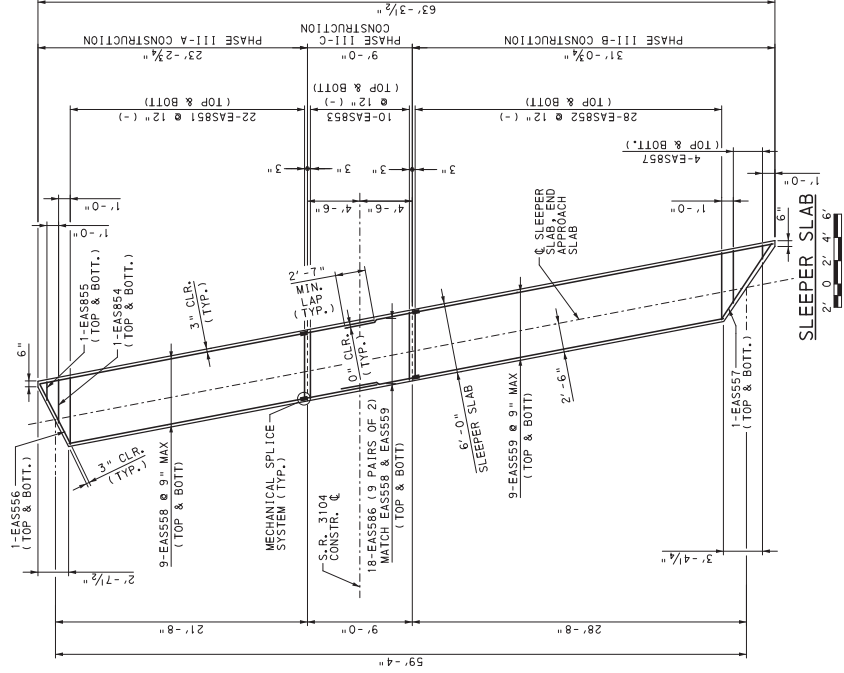
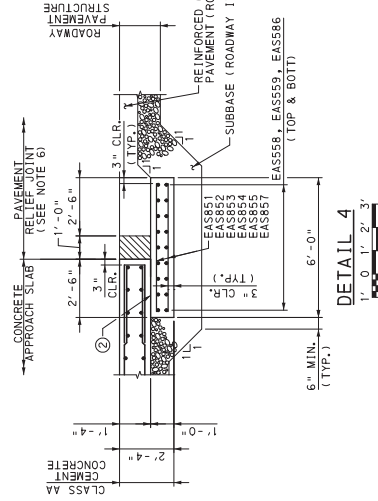
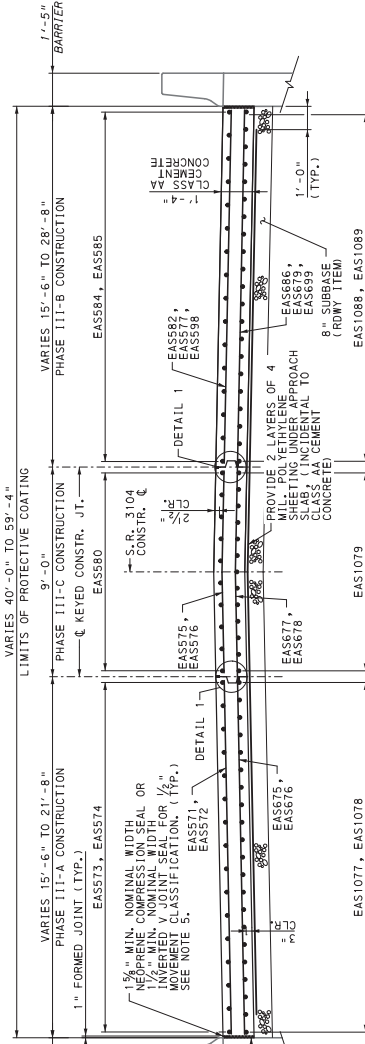
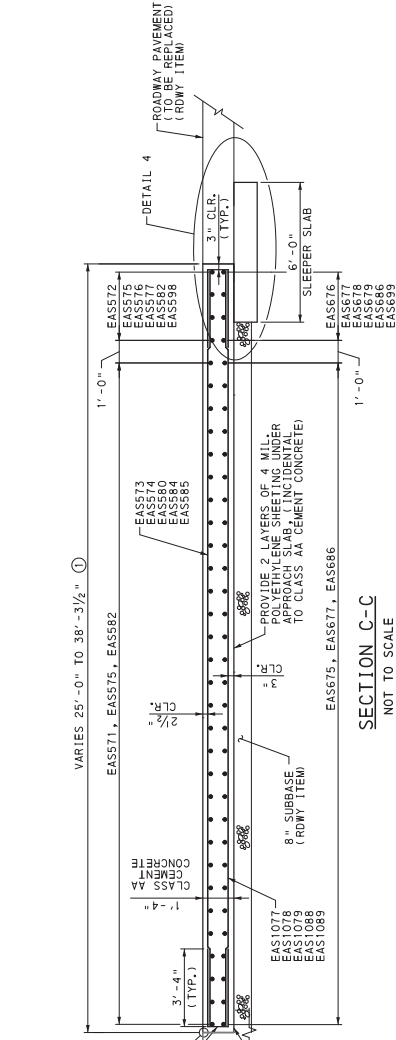


NOTE: EXTEND COMPRESSION SEAL
JOINT UP INTO THE EXISTING
BARRIERS PER BC-766M.

DETAIL 3
NOT TO SCALE

* COAT WITH BOND BREAKER PRIOR TO PLACING APPROACH SLAB CONCRETE (INCIDENTAL).





Mark	Description	By	CHK' d.	Rec'd.	Date
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OVER CSX TRANSPORTATION
PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE
APPROACH SLAB SECTIONS - 2

RECOMMENDED APRIL 26, 2022 SHEET 10 OF 13



- NOTES:**
1. FOR REINFORCEMENT BAR SCHEDULES, SEE SHEETS 12 AND 13.
 2. MATCH EXISTING TOP OF SLAB ELEVATIONS AND CROSS SLOPES.
 3. FOR DETAIL 1, SEE SHEET 7.
 4. FOR DETAIL 2, SEE SHEET 9.
 5. USE ONLY APPROVED SEALS AS LISTED IN BULLETIN 1052.1. IN SETTING TO UNIFORM DEPTH WITH THE TOP OF THE SEAL FROM 1/4" TO 1/2" BELOW THE LEVEL OF THE REINFORCEMENT BARS. MATCH TOP EDGES OF THE CONTACT SURFACES ON BOTH SIDES OF THE SEAL AT THE SAME ELEVATION.
 6. FOR DETAILS NOT SHOWN, REFER TO RC-24M.

REINFORCEMENT BAR SCHEDULE

MARK PHASE	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F/R	G	H	J	K	REMARKS
EAS501	5	4	1'-0" TO 12'-9"	STR											VARY 1 EA. Ø 3'-11"
EAS502	5	30	13'-1"	STR											VARY 1 EA. Ø 2 1/2"
EAS505	5	14	29'-10" TO 32'-5 1/2"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS512	5	14	13'-6"	STR											
EAS513	5	28	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							VARY 1 EA. Ø 3'-11"
EAS601	6	4	1'-0" TO 12'-9"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS602	6	30	13'-3"	STR											
EAS601	8	28	4'-8"	STR											VARY 1 EA. Ø 1 3/4"
EAS1002	10	19	29'-10" TO 32'-5 1/2"	STR											
PHASE 1-B															
EAS401	4	2	4'-0"	STR											
EAS402	4	2	6'-10"	17		2'-1"	4'-9"								
EAS503	5	3	1'-4" TO 11'-4"	STR											VARY 1 EA. Ø 5'-0"
EAS504	5	25	13'-1"	STR											VARY 1 EA. Ø 2 1/2"
EAS506	5	14	24'-6 1/2" TO 27'-1 1/2"	STR		3'-4"	10 1/2"	3'-4"							MECHANICAL SPLICE SYSTEM ONE END
EAS513	5	28	7'-6 1/2"	17											
EAS514	5	14	13'-6"	STR											VARY 1 EA. Ø 5'-0"
EAS603	6	3	1'-4" TO 11'-4"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS604	6	25	13'-3"	STR											
EAS802	8	28	4'-8"	STR											
EAS1001	10	19	24'-6 1/2" TO 27'-1 1/2"	STR											VARY 1 EA. Ø 1 3/4"
PHASE 11-C															
EAS401	4	2	4'-0"	STR											
EAS402	4	2	6'-10"	17		2'-1"	4'-9"								
EAS403	4	2	6'-8"	19		5'-8"	1'-0"								3'-1 1/2"
EAS509	5	14	27'-3" TO 29'-9"	STR											4'-8 3/4"
EAS510	5	28	12'-10"	STR											VARY 1 EA. Ø 2 1/4"
EAS511	5	2	4'-4" TO 9'-4"	STR											VARY 1 EA. Ø 5'-0"
EAS513	5	28	12'-10"	STR		3'-4"	10 1/2"	3'-4"							
EAS516	5	28	8'-3"	STR											THREAD ONE END BY 3"
EAS605	6	56	8'-4"	STR											THREAD ONE END BY 3"
EAS606	6	2	4'-8" TO 9'-8"	STR											VARY 1 EA. Ø 5'-0"
EAS803	8	28	4'-8"	STR											THREAD ONE END BY 3"
EAS1003	10	18	27'-3" TO 29'-9"	STR											VARY 1 EACH Ø 1 3/4"

BAR MARK LEGEND

EAS501

EPoxy COATED

CODE LETTER

SIZE

NUMBER

NOTES:

ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.

"J" DIMENSIONS ON 180° HOOKS ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOK SIZES ARE REQUIRED.

FIGURES IN CIRCLES SHOW TYPES.

FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.

REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.

3" THREAD LENGTH, INCLUDED IN DETAIL DIMENSIONS.



RECOMMENDED

APRIL 26, 2022

SHEET 11 OF 13

DES: CMC DWG: CMC CHK: CTV

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COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0010 OFFSET 0320

S.R. 3104 STA. 5+86

OVER CSX TRANSPORTATION

PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE

APPROACH SLAB 1 BAR SCHEDULE

RECOMMENDED

APRIL 26, 2022

SHEET 11 OF 13

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F/R	G	H	J	K	REMARKS
PHASE 111-A															
EAS504	5	37	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							
EAS556	5	2	5'-9"	STR											
EAS558	5	18	20'-10" TO 23'-4 1/2"	STR											VARY 2 EACH Ø 3 3/4" MECHANICAL SPLICE SYSTEM ONE END
EAS571	5	24	14'-7" TO 20'-9"	STR											VARY 1 EACH Ø 3 3/4" (-)
EAS572	5	5	3'-1" TO 16'-7"	STR											VARY 1 EACH Ø 3'-4 1/2"
EAS573	5	16	24'-6" TO 27'-3"	STR											VARY 1 EACH Ø 2 1/4" (-)
EAS574	5	5	2'-11" TO 17'-1"	STR											VARY 1 EACH Ø 3'-6 1/2"
EAS593	5	1	24'-2"	9		24'-2"				R = 62'-7 1/2"					
EAS595	5	1	21'-2 1/2"	STR											
EAS675	6	24	14'-9" TO 20'-11"	STR											VARY 1 EACH Ø 3 1/4" (-)
EAS676	6	5	3'-3" TO 16'-9"	STR											VARY 1 EACH Ø 3'-4 1/2" MECHANICAL SPLICE SYSTEM ONE END
EAS694	6	1	24'-5 1/2"	9		24'-5 1/2"				R = 62'-7 1/2"					
EAS696	6	1	21'-4 1/2"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS651	8	44	5'-9"	STR											
EAS654	8	2	3'-8 1/2"	STR											
EAS655	8	2	1'-6"	STR											
EAS1077	10	21	24'-6" TO 27'-3"	STR											VARY 1 EACH Ø 1 3/4"
EAS1078	10	6	2'-11" TO 17'-1"	STR											VARY 1 EACH Ø 2'-10"
PHASE 111-B															
EAS461	4	8	6'-4"	STR											
EAS504	5	41	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							
EAS555	5	1	4'-10 1/2"	17		2'-0"	10 1/2"	2'-0"							
EAS557	5	2	7'-11"	STR											
EAS559	5	18	27'-2 1/2" TO 31'-6 1/2"	STR											VARY 2 EACH Ø 5 3/4" MECHANICAL SPLICE SYSTEM ONE END
EAS577	5	2	23'-2" TO 23'-10"	STR											VARY 1 EACH Ø 8"
EAS582	5	28	14'-9" TO 22'-7 1/2"	STR											VARY 1 EACH Ø 3 1/2"
EAS584	5	16	29'-3" TO 31'-11"	STR											VARY 1 EACH Ø 2 1/4"
EAS585	5	10	3'-11" TO 25'-8"	STR											VARY 1 EACH Ø 2'-5"
EAS597	5	1	37'-5 1/2"	9		37'-5 1/2"				R = 62'-7 1/2"					
EAS598	5	5	2'-3" TO 20'-3"	STR											VARY 1 EACH Ø 4'-6"
EAS599	5	1	28'-1"	STR											
EAS679	6	2	23'-4" TO 24'-0"	STR											VARY 1 EACH Ø 8" MECHANICAL SPLICE SYSTEM ONE END
EAS686	6	28	14'-11" TO 22'-9 1/2"	STR											VARY 1 EACH Ø 3 1/2" MECHANICAL SPLICE SYSTEM ONE END
EAS697	6	1	28'-3"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS698	6	1	37'-5 1/2"	9		37'-5 1/2"				R = 62'-7 1/2"					
EAS699	6	5	2'-3" TO 20'-3"	STR											VARY 1 EACH Ø 4'-6"
EAS852	8	56	5'-9"	STR											
EAS957	8	8	1'-0" TO 4'-6"	STR											
EAS1088	10	21	29'-3" TO 31'-11"	STR											VARY 1 EACH Ø 1'-2"
EAS1089	10	12	3'-11" TO 25'-8"	STR											VARY 1 EACH Ø 1'-11 3/4"

BAR MARK LEGEND



CODE LETTERS FOR BAR MARKS

EAS = APPROACH SLAB

NOTES:

- ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "Q" ON STANDARD 180° AND 135° HOOKS.
- "J" DIMENSIONS ON 180° HOOKS ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOK SIZES ARE REQUIRED.
- FIGURES IN CIRCLES SHOW TYPES.
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-756M.
- REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.
- 3" THREAD LENGTH INCLUDED IN DETAIL DIMENSION AS APPLICABLE.



BMS NO. 02-3104-0010-0320 BRKEY 1868
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0010 OFFSET 0320
S.R. 3104 STA. 5+86

OVER CSX TRANSPORTATION
PRESERVATION OF MULTI-SPAN TIED-ARCH BRIDGE
APPROACH SLAB 2 BAR SCHEDULE-1

RECOMMENDED APRIL 26, 2022 SHEET 12 OF 13

DES: CMC DWG: CMC CHK: CTV

S-39125



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2	GENERAL PLAN & ELEVATION - 2
3	GENERAL SECTION - 1
4	TYPICAL SECTION - 2
5	GENERAL NOTES
6	SUMMARY OF QUANTITIES
7	SUBSTRUCTURE CONC. REPAIRS - FAR ABUT.
8	CONCRETE REPAIR DETAILS
9	FRAMING PLAN - SPANS 1 THRU 5
10	FRAMING PLAN - SPANS 6 THRU 9
11	FRAMING PLAN - SPANS 10 & 11
12	FRAMING PLAN - SPANS 11 & 12
13	FRAMING PLAN - SPANS 13 THRU 15
14	SIDEWALK SUPPORT REPAIR DETAILS - 1
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17	PIER 10 & 11 SIDEWALK FRAMING
18	PIERS GUSSET PLATE REPAIRS - 1
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21	SIDEWALK/BARRIER PLAN - SPANS 1 - 6
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23	SIDEWALK/BARRIER PLAN - SPANS 10 & 11
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35	PIER 8 - EXPANSION DAM REPAIR
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38	APPROACH SLAB 1 BAR SCHEDULE
39	APPROACH SLAB 2 KEY PLAN
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43	APPROACH SLAB 2 DETAILS
44	APPROACH SLAB 2A BAR SCHEDULE
45	APPROACH SLAB 2B BAR SCHEDULE
46	APPROACH SLAB 2C BAR SCHEDULE
47	PEOPLES NATURAL GAS - REHAB. DETAILS

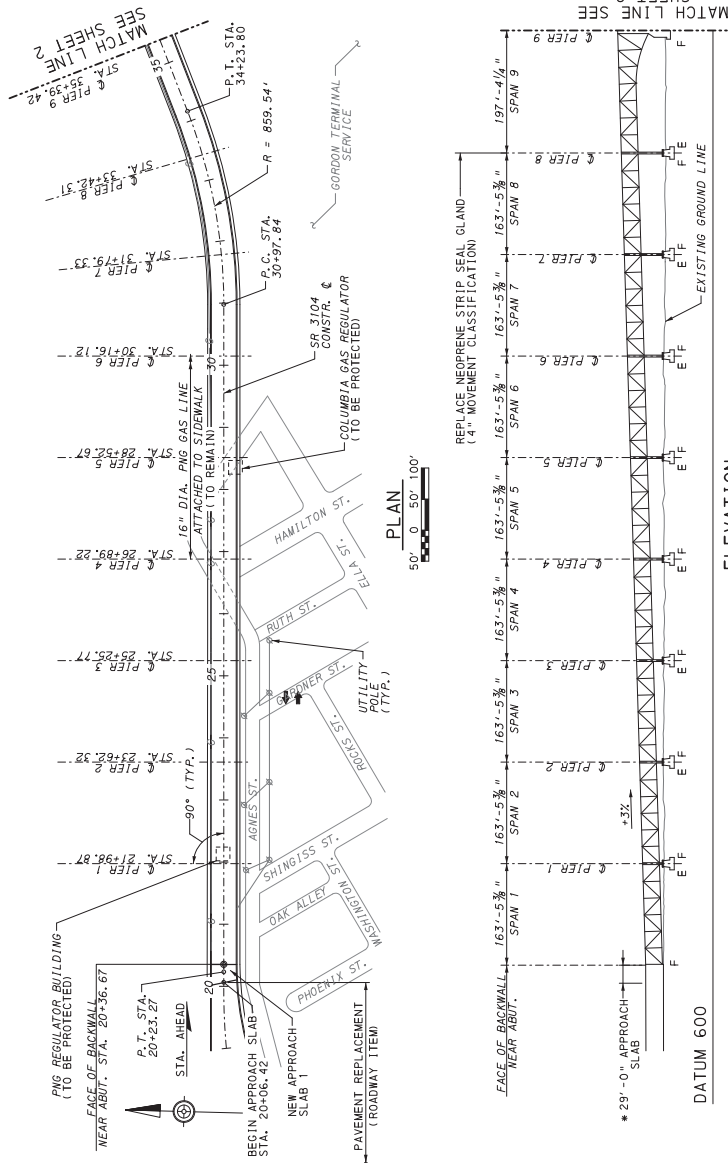
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		By	Chk' d.	Rec'd.	

BMS NO. 02-3104-0030-0000 BRKEY 1876
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
GENERAL PLAN & ELEVATION - 1

RECOMMENDED _____
Digitally signed by Sławomir Szczaniakiewicz, P.E.
Date: 2022.04.26 09:53:05+04'00'



SCOPE OF WORK:

- REMOVE AND DISPOSE OF EXISTING NETTING UNDER EACH SIDEWALK INCLUDING ALL DEBRIS CONTAINED IN THE NETTING.
- SIDEWALKS - REPLACE SIDEWALKS WITH CONCRETE FILLED STEEL BEAM SIDEWALK DECKING AND REPAIR SUPPORTING ELEMENTS AS REQUIRED IN SPANS 1 THRU 10 AND SPANS 12 THRU 15.
- REPLACE THE CONCRETE BARRIER ON THE DOWNSTREAM SIDE OF THE BRIDGE IN SPANS 2 THRU 9.
- REPLACE OVERHANG DECK CONCRETE WITH TYPE 2 CONCRETE REPAIRS ALONG BOTH SIDES OF THE STREAM AND DOWNSTREAM SIDEWALKS AS INDICATED (EXCEPT WHERE BARRIER IS BEING REPLACED AND IN SPAN 11).
- PIER 8 - REPLACE NEOPRENE STRIP SEAL GLAND.
- FAR ABUTMENT - REPLACE NEOPRENE STRIP SEAL DAM.
- FAR ABUTMENT - REPLACE THE TOP OF THE BACKWALL AND PERFORM CONCRETE REPAIRS TO THE REMAINING BACKWALL.
- PEDESTRIAN RAIL - REPAIR RIGHT HORIZONTAL RAIL ELEMENTS AT PANEL POINT 17, SPAN 11.
- GUSSET PLATES - REPAIR THE FOLLOWING UPPER CHORD GUSSET PLATES BY ADDING SUPPLEMENTAL PLATES:
 - SPAN 6, JOINT US 1, DS TRUSS, LEFT PLATE
- GUSSET PLATES - REPAIR SEVENTEEN (17) UPPER CHORD GUSSET PLATES BY STIFFENING THE PLATE EDGES:
 - ZONE PAINT SIDEWALK SUPPORT ELEMENTS, TOP CHORD AND GUSSET PLATES ADJACENT TO THE SIDEWALK IN SPANS 1 THROUGH 10 AND 12 THROUGH 15.
- FULL PAINT THE PEDESTRIAN RAILING IN ALL SPANS ALONG BOTH SIDEWALKS.
- REPLACE THE APPROACH SLABS AT NEAR AND FAR ABUTMENTS .
- PERFORM DECK SPALL REPAIRS AT ONE LOCATION IN BOTH SPANS 11 AND 13.
- REPAIR FRONT FACE AND REAR FACE OF BRIDGE DECK CONCRETE BARRIERS.
- INSTALL NEW RAILROAD PROTECTIVE FENCE TO THE UPSTREAM AND DOWNSTREAM SIDEWALKS IN PORTIONS OF SPANS 10 AND 14 OVER THE RAILROAD.

SCOPE OF WORK (CON'T):

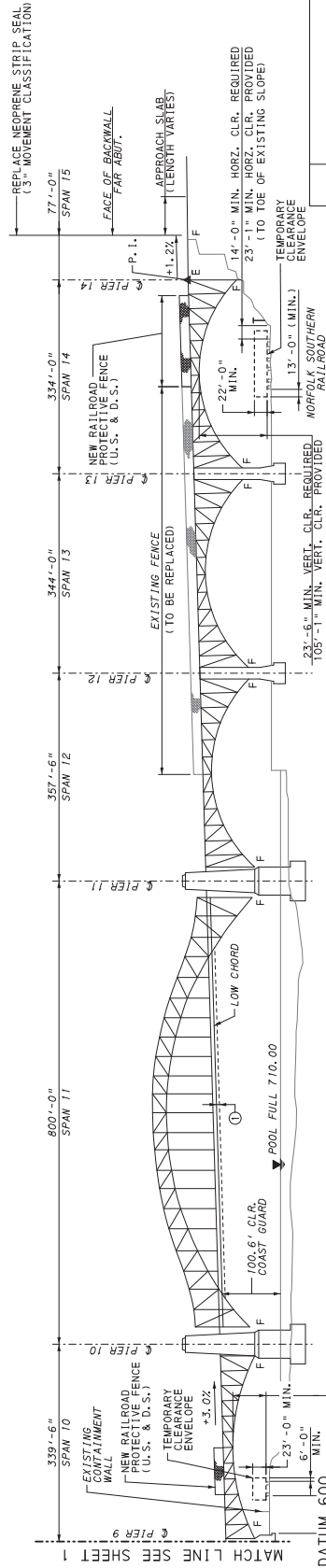
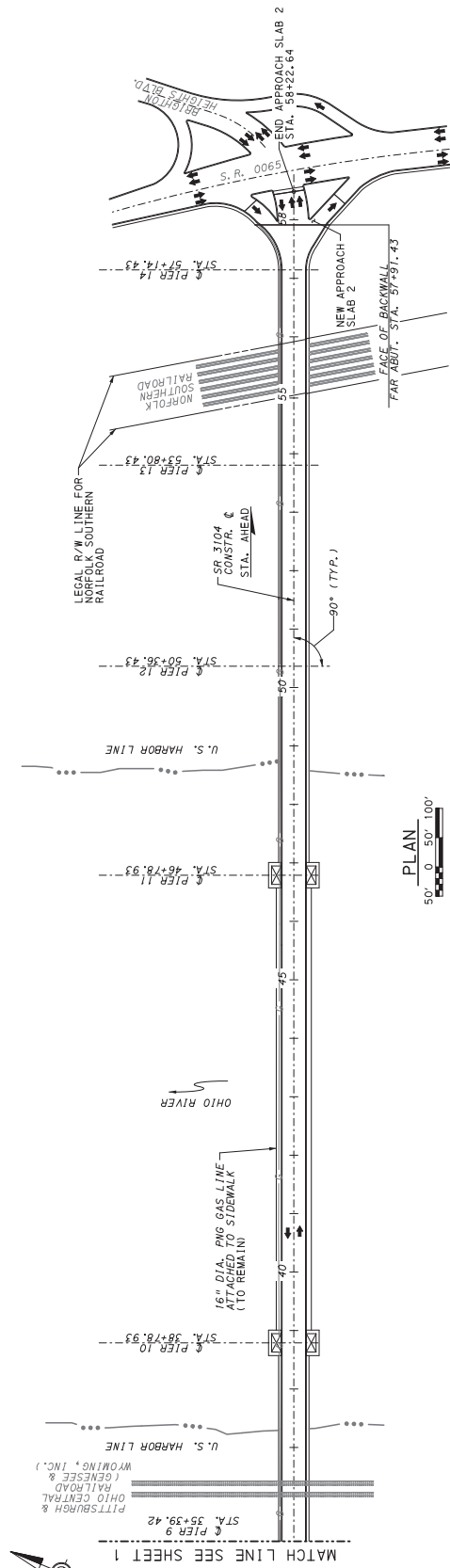
- REPLACE EXISTING SIDEWALK PROTECTIVE FENCE ALONG THE UPSTREAM AND DOWNSTREAM SIDEWALKS IN SPANS 12, 13 AND 14 AS INDICATED.
- FULL PAINT OF THE PEOPLES NATURAL GAS 16" DIAMETER GAS LINE, AND SUPPORTING ELEMENTS, LOCATED DIRECTLY UNDER THE SIDEWALK ALONG THE DOWNSTREAM SIDE OF THE BRIDGE.
- REPLACEMENT OF THE PEOPLES NATURAL GAS 16" DIAMETER GAS LINE U-BOLT HANGERS (AS-DIRECTED).

NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. FOR TYPICAL SECTIONS, SEE SHEETS 3 AND 4.
3. FOR CONSTRUCTION PHASING, SEE TRAFFIC CONTROL PLANS.

	DWG. NO.	APP. DATE
PROTECTIVE FENCE	BC-701M	1/31/19
LIGHTING POLE ANCHORAGE	BC-722M	2/19/21
ANCHOR SYSTEMS	BC-734M	1/31/19
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	1/31/19
CONCRETE DECK SLAB DETAILS	BC-752M	2/19/21
PREFORMED NEOPRENE COMPRESSION SEAL JOINT NON-BROUCH MEMBERS	BC-766M	1/31/19
NONBENCH PIPES LAM FOR PRESTRESSED CONCRETE & STEEL T-BEAM BRIDGE	BC-767M	2/19/21
REINFORCED CONCRETE REPAIR	BC-783M	1/31/19
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	1/31/19
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	6/1/10
BACKFILL AT STRUCTURES	RC-12M	2/8/19
DESCRIPTION		
SUPPLEMENTAL DRAWINGS		

DISTRICT BRIDGE ENGINEER



NOTES:

- NOTES**
1. FOR GENERAL NOTES, SEE SHEET 5.
 2. FOR TYPICAL SECTIONS, SEE SHEETS
 3. FOR CONSTRUCTION PHASING, SEE TR

LEGEND:

- | | |
|-------|--|
| F | - FIXED PIN BEARING |
| E | - EXPANSION ROCKER BEARING |
| STA. | - STATION |
| ➔ | - TRAFFIC DIRECTION |
| PNG | - PEOPLES NATURAL GAS |
| * | - MEASURED ALONG CONSTR. $\angle$ |
| U, S. | - UPSTREAM |
| D, S. | - DOWNSTREAM |
| ① | - BOTTOM OF TEMPORARY BRIDGE PLATE
EXTENDING MAXIMUM 5'-0" BELOW
BOTTOM OF STEEL |



① - BOTTOM OF TEMPORARY SHIELDING/STAGING PLATFORM TO EXTEND MAXIMUM 5'-0" BELOW BOTTOM OF STEEL

[illegible]

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

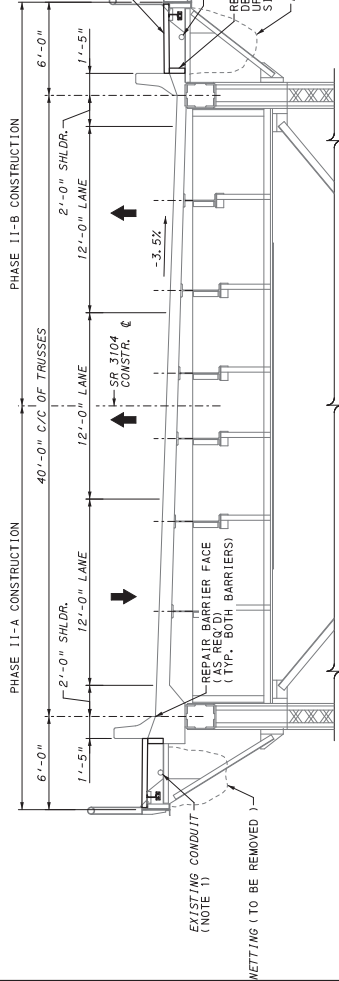
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

GENERAL PLAN & ELEVATION - 2

RECOMMENDED APRIL 26, 2022

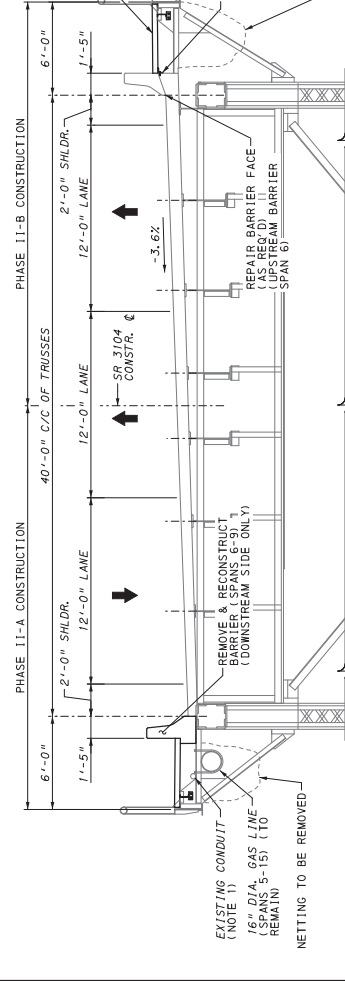
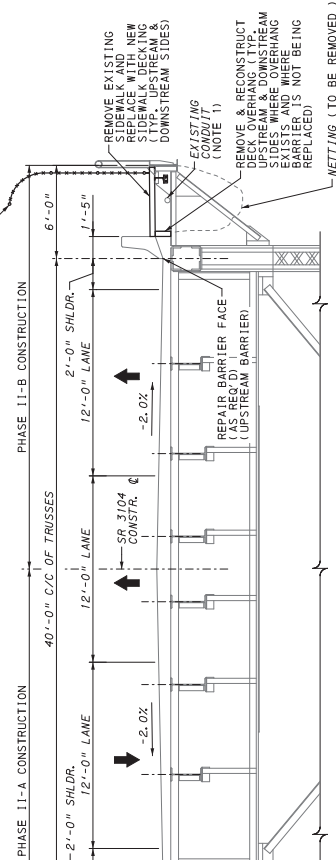
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5



TYPICAL SECTION - SPAN 1

(LOOKING STATIONS AHEAD)

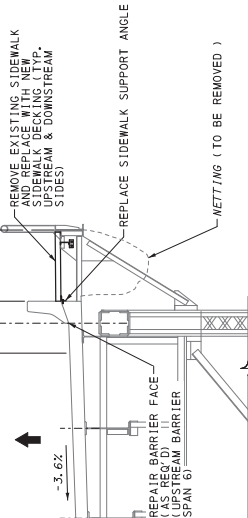


TYPICAL SECTION - SPANS 6-9

(LOOKING STATIONS AHEAD)

TYPICAL SECTION - SPANS 2-5 & 10

(LOOKING STATIONS AHEAD)



NOTES:

- CONTRACTOR TO VERIFY THAT THE EXISTING CONDUIT IS ABANDONED. IF ABANDONED COORDINATE WITH THE REPRESENTATIVE AND REMOVED PART OF THE MAIN AND IS TO BE SUPPORTED AND/OR PROTECTED DURING SIDEWALK REPLACEMENT.

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
TYPICAL SECTION - 1
RECOMMENDED APRIL 26, 2022
SHEET 3 OF 47
S-39126



APPROXIMATE QUANTITIES - MCKEES ROCKS BRIDGE PRESERVATION, S-39126							
ITEM NO.	DESCRIPTION	UNIT	APPROACH SLAB 1	APPROACH SLAB 2	SUPER STRUCTURE	FAR ABUTMENT	TOTAL
1001-1080	CLASS AA CEMENT CONCRETE	CY	65	190	13 (8)	----	268
1002-0052	REINFORCEMENT BARS, EPOXY COATED	LB	13,600	37,900	2,700 (9)	----	54,200
1002-0141	MECHANICAL SPlice SYSTEM FOR NO. 5 REINFORCEMENT BARS* EPOXY COATED	EA	28	18	----	----	46
1002-0143	MECHANICAL SPlice SYSTEM FOR NO. 6 REINFORCEMENT BARS* EPOXY COATED	EA	58	41	----	----	99
1019-0050	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALER, BRIDGE SUPERSTRUCTURE)	SY	130	417	----	----	547
1040-0030	CONCRETE BRIDGE DECK REPAIR, TYPE 3	SF	----	----	34	----	34
1050-0020	FABRICATED STRUCTURAL STEEL	LB	----	----	65,500	----	65,500
1050-0100	UNOBTAINED FABRICATED STRUCTURAL STEEL REPAIRS (7)	DOLLA	----	----	----	----	\$50,000
1072-0100	CONTAINMENT	LS	----	----	----	----	LS
1072-0200	WASTE MANAGEMENT	LS	----	----	----	----	LS
1072-0300	WORKER HEALTH AND SAFETY	LS	----	----	----	----	LS
1090-1017	NEOPRENE STRIP SEAL GLAND REPLACEMENT	LF	----	----	42	----	42
1091-0331	EPOXY INJECTION CRACK SEAL	(3) LF	----	----	----	40	40
5016-0102	SIDEWALK PROTECTIVE FENCE, STEEL (REPLACEMENT - S-39126)	* LF	----	----	1,302	----	1,302
5016-0110	RAILROAD PROTECTIVE FENCE, STEEL (SIDEWALK CONNECTION)	* LF	----	----	477	----	477
5018-0051	REMOVAL OF PORTION OF EXISTING BRIDGE, (S-39126)	(1)* LS	----	----	----	----	LS
5040-0200	CONCRETE BRIDGE BARRIER REPAIR, TYPE 2 (FRONT FACE)	SF	----	----	1020	----	1020
5040-0201	CONCRETE BRIDGE BARRIER REPAIR, TYPE 2 (REAR FACE)	SF	----	----	830	----	830
5050-0021	PAINTING EXISTING STRUCTURAL STEEL (INCLUDES SPACING ANCHORS)	* LB	----	----	15,400	----	15,400
5070-0300	ZONE PAINTING EXISTING STRUCTURAL STEEL (INCLUDES REPAIR STEEL)	(2)* LS	----	----	----	----	LS
5090-1006	STANDARD EXPANSION DAM REPLACEMENT, 3" MOVEMENT (INCLUDES BACKWALL)	(4)* LF	----	----	132	----	132
9000-0003	CONCRETE FILLED STEEL BEAM SIDEWALK DECKING	* SF	----	----	28,440	----	28,440
9000-0004	CONCRETE BRIDGE BARRIER REPLACEMENT	* LF	----	----	1,360	----	1,360
9000-0005	REMOVE, STORE, AND RE-INSTALL LIGHT POLE	* EA	----	----	4	----	4
9000-0006	PEDESTRIAN RAILING REPAIR (10)*	EA	----	----	6	----	6
9000-0007	REPAIR DETERIORATED CONCRETE (11)*	CF	----	----	----	5	5
9000-0008	CONCRETE BRIDGE DECK OVERHANG REPAIR (5)*	LF	----	----	3,742	----	3,742
9000-0009	TRUSS GUSSET PLATE REPAIR 1	* EA	----	----	1	----	1
9000-0010	TRUSS GUSSET PLATE REPAIR 2	* EA	----	----	1	----	1
9000-0011	TRUSS GUSSET PLATE REPAIR 3	* EA	----	----	1	----	1
9000-0012	TRUSS GUSSET PLATE REPAIR 4	* EA	----	----	6	----	6
9000-0013	TRUSS GUSSET PLATE REPAIR 5	* EA	----	----	9	----	9
9000-0014	TRUSS GUSSET PLATE REPAIR 6	* EA	----	----	1	----	1
9000-0015	MISC. UNOBTAINED BRIDGE REPAIRS, (S-39126)	* DOLLA	----	----	----	----	\$250,000
9000-0017	15" DIA. GAS LINE - TEMPORARY SUPPORT DURING CONSTRUCTION	* LS	----	----	----	----	LS
9000-0018	WARNERSES - DOUBLE LANYARDS AND SELF RETRACTING LIFELINES - FALL PROTECTION	* SET	----	----	1	----	1
9000-0019	PEDESTRIAN RAILING REPLACEMENT	* EA	----	----	----	----	1

APPROXIMATE QUANTITIES - MCKEES ROCKS BRIDGE PRESERVATION, S-39126							
ITEM NO.	DESCRIPTION	UNIT	APPROACH SLAB 1	APPROACH SLAB 2	SUPER STRUCTURE	FAR ABUTMENT	TOTAL
9000-0020	PEOPLES NATURAL GAS - 16" DIA. GAS LINE HANGER ASSEMBLY REPLACEMENTS	(6)*	----	----	100	----	100
9000-0021	PEOPLES NATURAL GAS - PAINT EXISTING 16" DIA. GAS LINE	(13)*	----	----	----	----	LS
9000-0022	PEOPLES NATURAL GAS - SIDEWALK ACCESS MATCHES	(14)*	----	----	2	----	2
9000-0023	STEEL REPAIR - TYPE 1	(7)*	----	----	2	----	2
9000-0024	STEEL REPAIR - TYPE 2	(7)*	----	----	3	----	3
9000-0025	STEEL REPAIR - TYPE 3	(7)*	----	----	3	----	3
9000-0026	STEEL REPAIR - TYPE 4	(7)*	----	----	170	----	170
9000-0027	STEEL REPAIR - TYPE 5	(7)*	----	----	64	----	64
9000-0028	STEEL REPAIR - TYPE 6	(7)*	----	----	65	----	65
9000-0029	STEEL REPAIR - TYPE 7	(7)*	----	----	112	----	112
9000-0030	STEEL REPAIR - TYPE 9	(7)*	----	----	13	----	13
9000-0031	STEEL REPAIR - TYPE 10	(7)*	----	----	2	----	2
9000-0032	STEEL REPAIR - TYPE 12A	(7)*	----	----	83	----	83
9000-0033	STEEL REPAIR - TYPE 12B	(7)*	----	----	166	----	166
9000-0034	STEEL REPAIR - TYPE 13	(7)*	----	----	37	----	37
9000-0035	STEEL REPAIR - TYPE 14	(7)*	----	----	9	----	9

* SEE CONTRACT SPECIAL PROVISIONS.

- (1) INCLUDES REMOVAL OF APPROXIMATE 14,320 SF OF FULL PAINT OF THE PEOPLES NATURAL GAS 16" DIAMETER GAS LINE, AND SUPPORTING ELEMENTS. THE PAINTING LIMITS ARE THE SAME AS THOSE SHOWN IN THE DETAIL FOR EXTENDING DOWN THE LENGTH OF PIER 4 OUTSIDE OF THESE LIMITS.
- (2) INCLUDES APPROXIMATELY 279,200 SF OF ZONE PAINTING EXCLUDING THE GAS LINE ON THE DOWNSTREAM SIDE OF THE BRIDGE.
- (3) QUANTITY INCLUDES AN ADDITIONAL 25% CONTINGENCY.
- (4) INCLUDES APPROXIMATELY 8 CY OF CLASS AA CEMENT CONCRETE, & 8 CY OF CLASS A CEMENT CONCRETE, AND 3,000 LBS OF REINFORCEMENT.
- (5) INCLUDES REMOVAL AND DISPOSAL OF EXISTING FLASHING.
- (6) QUANTITY IS APPROXIMATE AND REPAIRS ARE TO BE PERFORMED ONLY AS DIRECTED BY THE REPRESENTATIVE.
- (7) PRIOR TO PERFORMING REPAIRS BLAST AND PRIME THE EXISTING AREAS TO BE PAINTED, THEN LOCATE, IDENTIFY AND PERFORM FABRICATED STRUCTURAL STEEL REPAIRS (INCLUDING AS DIRECTED REPAIRS).
- (8) CLASS AA CEMENT CONCRETE AT SIDEWALK EXPANSION DAM REPAIRS. CLASS A CEMENT CONCRETE, SCREED AND INSERTS, SEALER, AND SLIDING PLATES ARE REQUIRED.
- (9) REINFORCEMENT REQUIRED AT SIDEWALK EXPANSION DAM REPAIRS.
- (10) QUANTITY IS BASED ON 1 KNOWN LOCATION AS DEFINED IN THE CONTRACT DRAWINGS AND 5 ADDITIONAL LOCATIONS TO BE IDENTIFIED BY THE PRIMER IS APPLIED. ONE ON AN AS-DIRECTED BASIS AFTER BLASTING AND PRIMER IS APPLIED.
- (11) INCLUDES ADDITIONAL QUANTITY TO ACCOUNT FOR UNFORESEEN AREAS. FINAL QUANTITY WILL BE AS-DIRECTED BY THE REPRESENTATIVE AFTER SOUNDING OF THE FAIR ABUTMENT.
- (12) INCLUDES SEALING THE EXISTING BARRIER GUTTERLINE WITH EPOXY BINDER RESIN.
- (13) INCLUDES APPROXIMATELY 14,320 SF OF FULL PAINT OF THE PEOPLES NATURAL GAS 16" DIAMETER GAS LINE, AND SUPPORTING ELEMENTS. THE PAINTING LIMITS ARE THE SAME AS THOSE SHOWN IN THE DETAIL FOR EXTENDING DOWN THE LENGTH OF PIER 4 OUTSIDE OF THESE LIMITS.
- (14) SIDEWALK ACCESS MATCHES TO BE DETAILLED AND FABRICATED AS PART OF THE SIDEWALK JACKING.

Mark	Description	By	CHK' d.	Rec'd. d.	Date
REVISIONS					

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SUMMARY OF ESTIMATED QUANTITIES

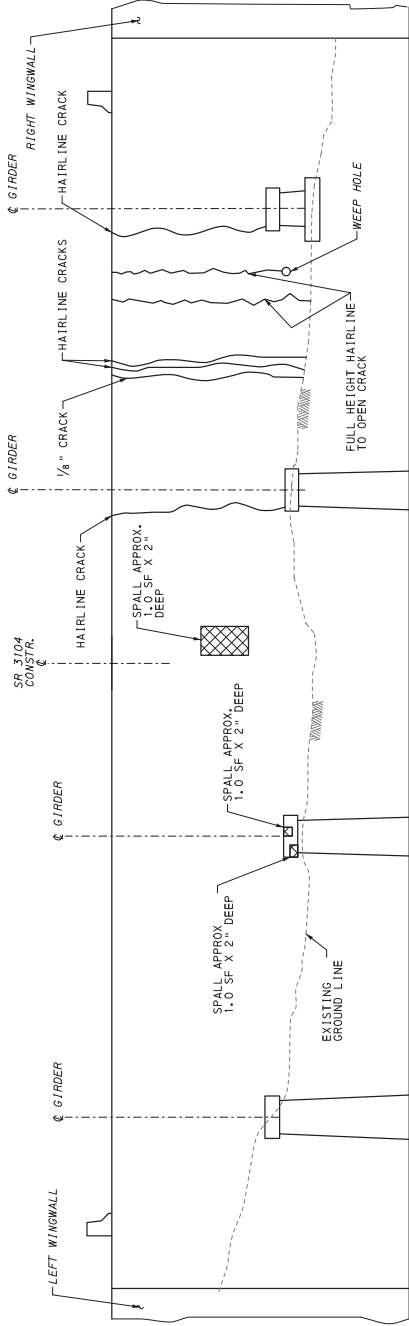
RECOMMENDED APRIL 26, 2022 SHEET 6 OF 4

APRIL 26, 2022

S-39126



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FAR ABUTMENT ELEVATION
NOT TO SCALE

LEGEND:

- LIMITS OF REPAIR DETERIORATED CONCRETE (ITEM 9000-0007)
- LIMITS OF EPOXY INJECTION CRACK REPAIR (ITEM 1091-0331)

NOTES:

- FOR CONCRETE REPAIR DETAILS, SEE SHEET 8 AND BC-783M.
- LIMITS OF CRACKS AND SPALLS SHOWN ARE APPROXIMATE. COORDINATE WITH THE REPRESENTATIVE ON FINAL REPAIR LIMITS.

REVISIONS			
Mark	Description	By	Chk'd, Rec'd, Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SUBSTRUCTURE CONC. REPAIRS - FAR ABUT.

RECOMMENDED APRIL 28, 2022

SHEET 1 OF 47

S-39126



CONSTRUCTION PROCEDURE

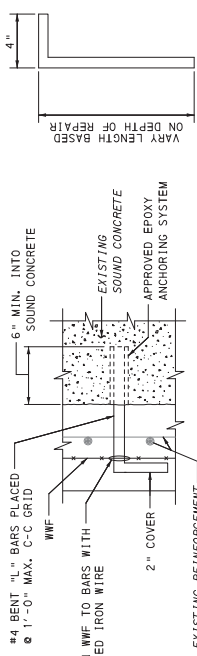
- REMOVAL, REPAIR AREA PREPARATION, AND REINFORCEMENT INSTALLATION.
- PROVIDE SATISFACTORY PROTECTIVE SHIELDING BELOW REPAIR AREAS.
- MEDIA USED TO CLEAN THE REPAIR AREAS.
- SOUND AND DETERMINE EXTENT OF REPAIR AREAS IN THE PRESENCE OF A REPRESENTATIVE.
- OUTLINE EDGE OF THE DESIGNATED REPAIR AREAS WITH A 1" MAXIMUM DEPTH SAMCUT.
- WITHIN THE OUTLINED REPAIR AREAS, REMOVE DETERIORATED CONCRETE TO A DEPTH OF 3/4" INCH BEHIND THE FIRST ROW OF REINFORCEMENT BARS TO SOUND CONCRETE. ALLOW UNCOVERED OR EXPOSED DEPTH OF 3/4" INCH BEHIND REINFORCEMENT BARS. DO NOT REMOVE ADDITIONAL CONCRETE WITHOUT APPROVAL OF THE STRUCTURE CONTROL ENGINEER.
- SQUARE/OUTLINE EDGE OF REPAIR AREAS TO KEY IN CONSTRUCTION. USE HAND TOOLS FOR REMOVING DETERIORATED CONCRETE. USE PNEUMATIC HAMMERS, IF REQUIRED, NOT EXCEEDING AN IMPACT RATING OF 30 FOOT POUNDS. DETERIORATED CONCRETE EXTENSIVE BEYOND THE INITIALLY OUTLINED REPAIR AREA, ENLARGE AREA AS DIRECTED BY THE REPRESENTATIVE.
- AFTER REMOVAL OPERATIONS ARE COMPLETE, REMOVE DEBRIS AND LOOSE MATERIALS. IMMEDIATELY CLEAN REPAIR AREAS. PREPARED SUBSTRATE AND REINFORCEMENT BARS MUST BE BY WAB. WAB EXPOSED REINFORCEMENT BARS TO NEAR-WHITE METAL ACCORDING TO SSPC-SP 10 (WAB). ONCE WAB IS COMPLETE, FLUSH REPAIR AREAS WITH WATER. ALLOW REPAIR AREAS TO DRY. THEN APPLY EPOXY BONDING COMPOUND TO EXPOSED REINFORCEMENT BARS WITHIN THE SAME WORKDAY AS WAB. REBLAST REINFORCEMENT THAT ARE NOT EPOXY COATED WITHIN THE SAME WORKDAY OR NOT IN THE SAME SECTION LOSS. WAB SHOULD BE COMPLETED AND DRILLING OF REINFORCEMENT LENGTH IN NOT AVAILABLE. DRILL NEW DOWEL HOLES AND PLACE DOWEL BARS AS DIRECTED.
- PLACE EPOXY COATED NO. 4 BENT "L" REINFORCEMENT BARS IN A 1'-0" CENTER-TO-CENTER MAXIMUM SPACED GRID. ANCHOR INTO SOUND CONCRETE WITH EPOXY ANCHORING SYSTEM.
- ATTACH WIRE TO THE BENT "L" REINFORCEMENT BARS WITH ANNEALED IRON WIRE AT A MAXIMUM SPACING OF 1'-0" IN EACH DIRECTION. IF USING 6X6 WWF, PLACE A SECOND LAYER OF 6X6 WWF AND STAGGER TO ACHIEVE A 3X3 GRID SPACING.
- REPAIR CONCRETE DAMAGED DURING REPAIR OPERATIONS TO THE SATISFACTION OF THE REPRESENTATIVE AT NO ADDITIONAL COST TO THE DEPARTMENT.
- PROPERLY DISPOSE COLLECTED CONCRETE, DEBRIS, AND ABRASIVE BLAST MEDIA.

CONCRETE PLACEMENT

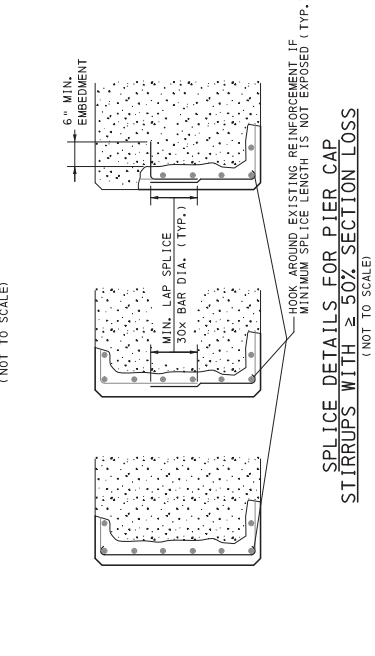
- ▲ 1 CONVENTIONAL METHOD
- SET FORMS TO PROVIDE MINIMUM CONCRETE COVER OF 2 INCHES. IF ENOUGH CONCRETE COVER ON EXISTING REINFORCEMENT BARS IS NOT AVAILABLE, HATCH REPAIR OUTWARD.
- MAINTAIN EXISTING CHAMFERS.
- AIR-BLAST REPAIR AREAS WITH OIL-FREE COMPRESSED AIR TO REMOVE ANY REMAINING CONTAMINANTS DETRIMENTAL TO THE BOND OF NEW CONCRETE. APPLY EPOXY BONDING COMPOUND TO EXPOSED REINFORCEMENT BARS. IF THE CONCRETE IS NOT LONGER TACKY OR HAS HARDENED, RECOAT COMPOUND THAT IS NO LONGER TACKY. WIRE BRUSH HARDENED COMPOUND AND RECOAT REPAIR AREA.
- WATER CURE REPAIR AREAS.
- ◆ 1 SHOTCRETE METHOD
- PROVIDE MINIMUM CONCRETE COVER OF 2 INCHES. IF ENOUGH CONCRETE COVER ON EXISTING REINFORCEMENT BARS IS NOT AVAILABLE, HATCH REPAIR OUTWARD.
- MAINTAIN EXISTING CHAMFERS.
- AIR-BLAST REPAIR AREAS WITH OIL-FREE COMPRESSED AIR TO REMOVE ANY REMAINING CONTAMINANTS DETRIMENTAL TO THE BOND OF NEW CONCRETE.
- SATURATE PREPARED CONCRETE SUBSTRATE WITH CLEAN WATER THE DAY BEFORE SHOTCRETE APPLICATION. BRING WETTED SURFACES TO A SATURATED SURFACE DRY (SSD) CONDITION BEFORE APPLICATION OF SHOTCRETE. DO NOT APPLY SHOTCRETE TO A DRY SURFACE, OR TO A SURFACE WITH FREE SURFACE WATER.
- WATER CURE REPAIR AREAS. LIQUID MEMBRANE CURING COMPOUND MAY BE USED ONLY WHEN ACCEPTED BY THE REPRESENTATIVE.

REPAIR DETERIORATED CONCRETE (FOR INFORMATION ONLY)	
(THIS ITEM INCLUDES PAYMENT FOR THE FOLLOWING MATERIALS AND THEIR INSTALLATIONS)	
DOWEL HOLES	SECTION 1003, DIAMETER IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS
REINFORCEMENT BARS (EPOXY COATED)	SECTION 709.1
EPOXY ANCHORING SYSTEM	BULLETIN 15 AND MANUFACTURER'S RECOMMENDATIONS
WELDED WIRE FABRIC (WWF)	SECTION 709.3, 3x3, 4x4, OR 6x6 WWF MADE OF 8, 10, OR 11 GAUGE WIRE
EPOXY OR GALVANIZED	ASTM A684
ANNEALED IRON WIRE	SECTION 1001.2(f)
▲ FORMS	ASTM C881 TYPE II, GRADE 2
▲ EPOXY BONDING COMPOUND	SECTION 704 EXCEPT USE NO. 8 COARSE AGGREGATE
▲ CLASS AA CEMENT CONCRETE	SECTION 1043.2(c)
◆ SHOTCRETE	SECTION 1043.2(c)

NOTE: ANY ADDITIONAL REINFORCING STEEL IS INCIDENTAL TO ITEM 9000-0007.



TYPICAL "L" BAR DETAILS
(NOT TO SCALE)



LEGEND

- ▲ 1 CONVENTIONAL METHOD (FORM AND PLACE) ONLY
- ◆ 1 SHOTCRETE METHOD ONLY
- SSD 1 SATURATED SURFACE DRY
- WVF 1 WELDED WIRE FABRIC

NOTES

- 1. USE A PACHOMETER TO LOCATE EXISTING REINFORCEMENT WHEN DRILLING DOWEL HOLES TO AVOID DRILLING THRU EXISTING BARS.

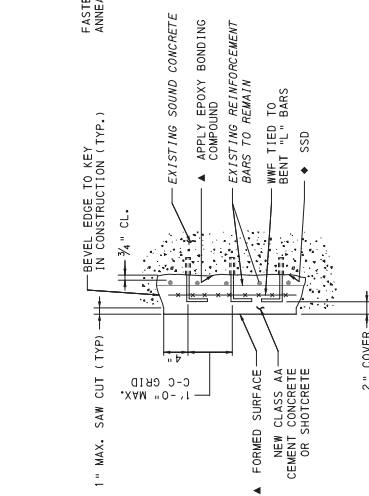
Mark	Description	By	Chk'd	Reconf'd	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

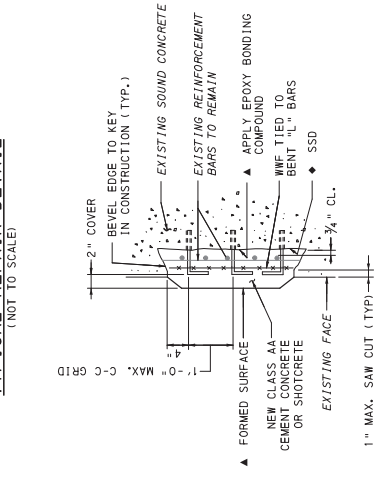
ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
CONCRETE REPAIR DETAILS

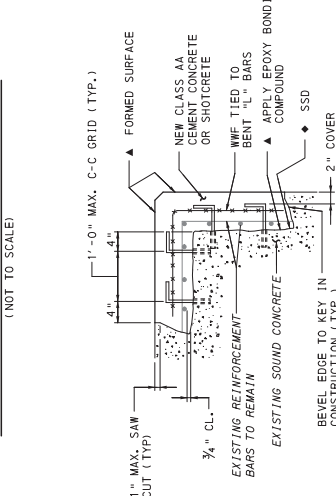
RECOMMENDED APRIL 26, 2022 SHEET 8 OF 47



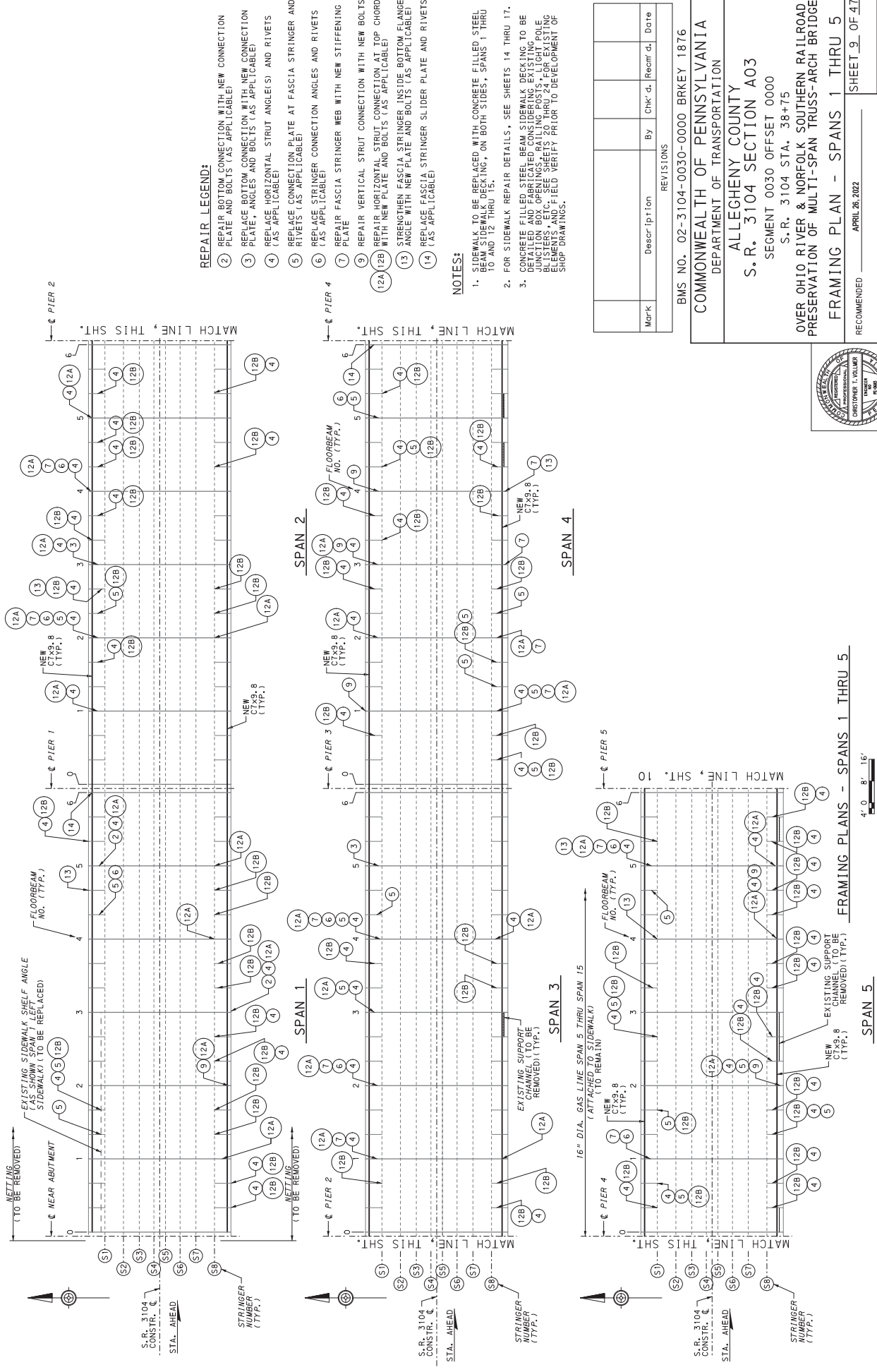
TYPICAL REPAIR DETAIL
(NOT TO SCALE)



REPAIR FOR LESS THAN 2" COVER
(NOT TO SCALE)



TYPICAL CORNER REPAIR DETAIL
(NOT TO SCALE)



REPAIR LEGEND:

- 2 REPAIR BOTTOM CONNECTION WITH NEW CONNECTION PLATE AND BOLTS (AS APPLICABLE)
- 3 REPLACE BOTTOM CONNECTION WITH NEW CONNECTION PLATE, ANGLES AND BOLTS (AS APPLICABLE)
- 4 REPLACE HORIZONTAL STRUT ANGLE(S) AND RIVETS (AS APPLICABLE)
- 5 REPLACE CONNECTION PLATE AT FASCIA STRINGER AND RIVETS (AS APPLICABLE)
- 6 REPLACE STRINGER CONNECTION ANGLES AND RIVETS (AS APPLICABLE)
- 7 REPAIR FASCIA STRINGER WEB WITH NEW STIFFENING PLATE
- 9 REPAIR HORIZONTAL STRUT CONNECTION WITH NEW BOLTS
- 12A 12B REPAIR HORIZONTAL STRUT CONNECTION AT TOP CHORD WITH NEW PLATE AND BOLTS (AS APPLICABLE)
- 13 STRENGTHEN FASCIA STRINGER INSIDE BOTTOM FLANGE ANGLE WITH NEW PLATE AND BOLTS (AS APPLICABLE)
- 14 REPLACE FASCIA STRINGER SLIDER PLATE AND RIVETS (AS APPLICABLE)

NOTES:

- 1. SIDEWALK TO BE REPLACED WITH CONCRETE FILLED STEEL JOIST, 18\"/>
- 2. FOR SIDEWALK REPAIR DETAILS, SEE SHEETS 14 THRU 17.
- 3. CONCRETE FILLED STEEL BEAM SIDEWALK DECKING TO BE REPLACED WITH CONCRETE FILLED STEEL JOIST, 18\"/>

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

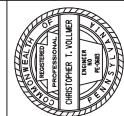
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

FRAMING PLAN - SPANS 1 THRU 5

RECOMMENDED APRIL 26, 2022

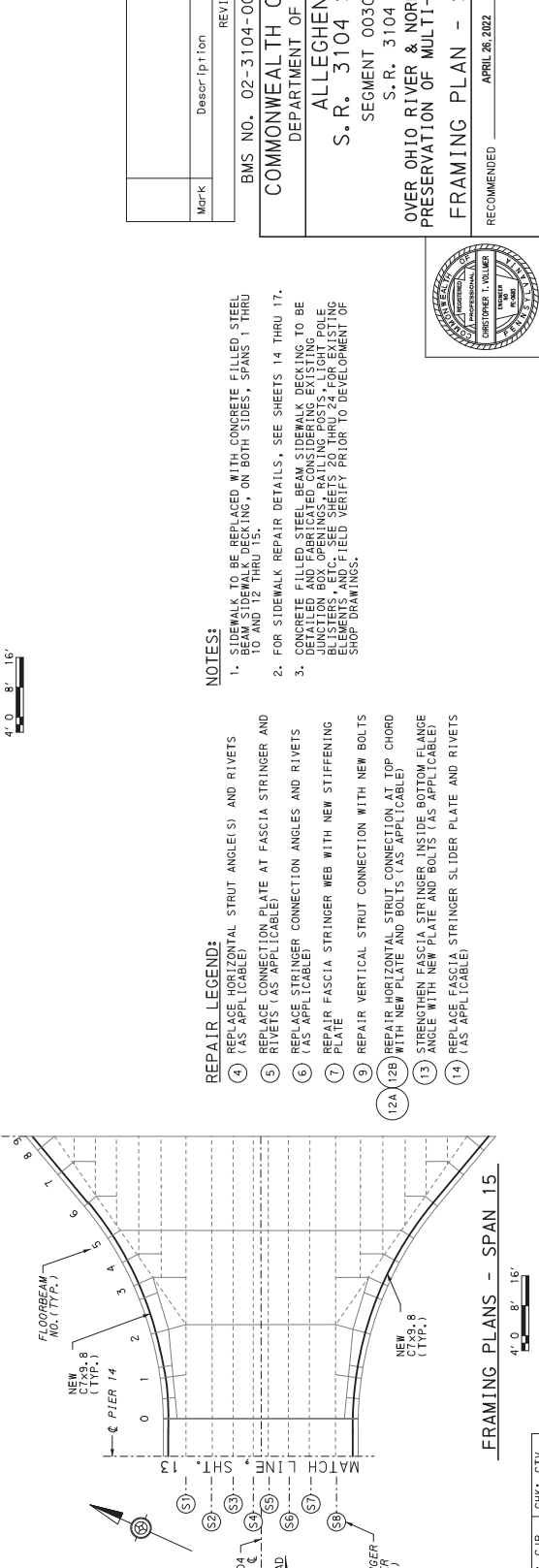
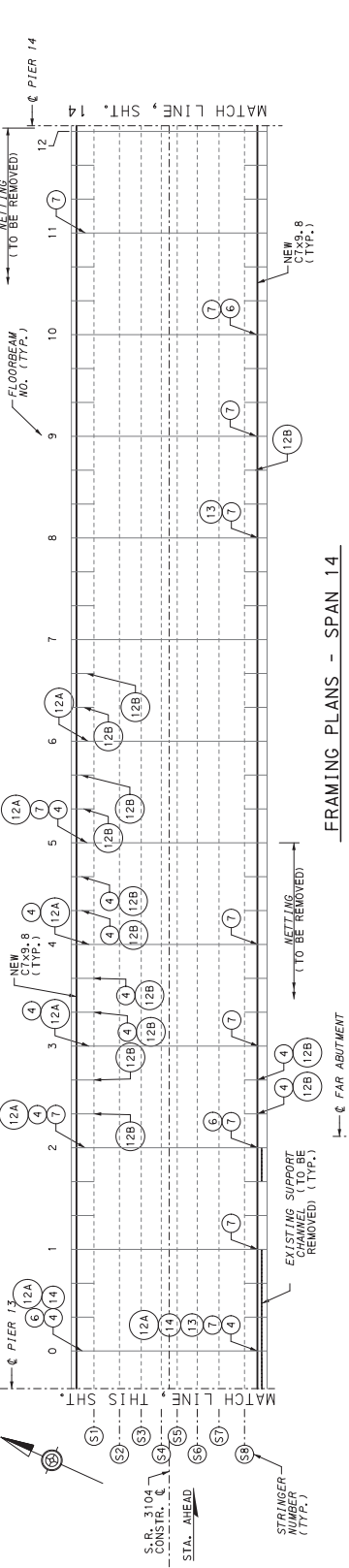
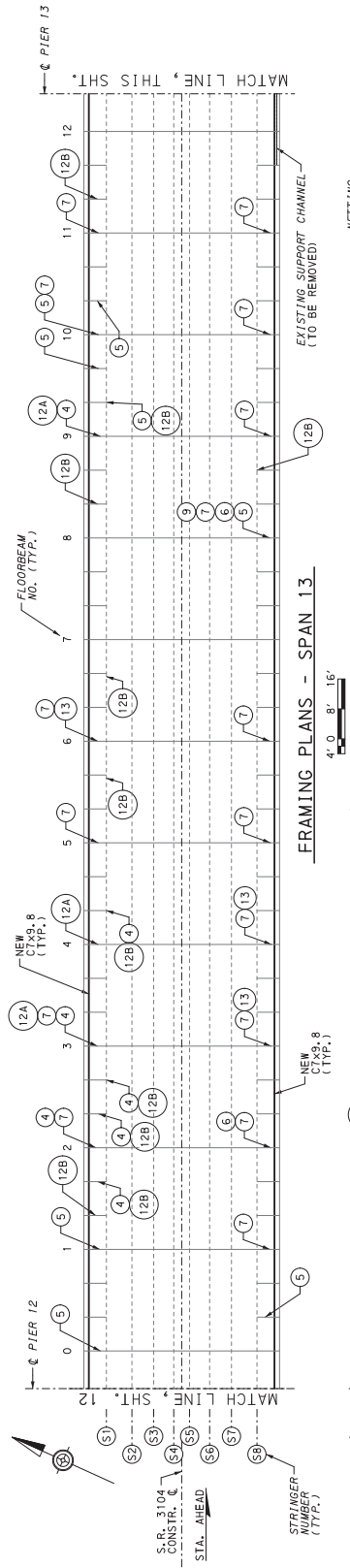
SHEET 9 OF 47

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FRAMING PLANS - SPANS 1 THRU 5

4' 0" 8' 16"



- REPAIR LEGEND:**
- (4) REPLACE HORIZONTAL STRUT ANGLE(S) AND RIVETS (AS APPLICABLE)
 - (5) REPLACE CONNECTION PLATE AT FASCIA STRINGER AND RIVETS (AS APPLICABLE)
 - (6) REPLACE STRINGER CONNECTION ANGLES AND RIVETS (AS APPLICABLE)
 - (7) REPAIR FASCIA STRINGER WEB WITH NEW STIFFENING PLATE
 - (9) REPAIR VERTICAL STRUT CONNECTION WITH NEW BOLTS
 - (12A) REPAIR HORIZONTAL STRUT CONNECTION AT TOP CHORD WITH NEW PLATE AND BOLTS (AS APPLICABLE)
 - (13) STRENGTHEN FASCIA STRINGER INSIDE BOTTOM FLANGE ANGLE WITH NEW PLATE AND BOLTS (AS APPLICABLE)
 - (14) REPLACE FASCIA STRINGER SLIDER PLATE AND RIVETS (AS APPLICABLE)

- NOTES:**
- SIDEWALK TO BE REPLACED WITH CONCRETE FILLED STEEL BEAM SIDEWALK DECKING, ON BOTH SIDES, SPANS 1 THRU 10 AND 12 THRU 15.
 - FOR SIDEWALK REPAIR DETAILS, SEE SHEETS 14 THRU 17.
 - CONCRETE FILLED STEEL BEAM SIDEWALK DECKING TO BE DETAILED AND FABRICATED CONSIDERING EXISTING JUNCTION BOX OPENINGS, TRAILING JOISTS, LIGHT POLYMER CONCRETE, AND FIELD VERIFY PRIOR TO DEVELOPMENT OF SHOP DRAWINGS.

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
FRAMING PLAN - SPANS 13 THRU 15
RECOMMENDED APRIL 26, 2022
SHEET 13 OF 47
S-39126

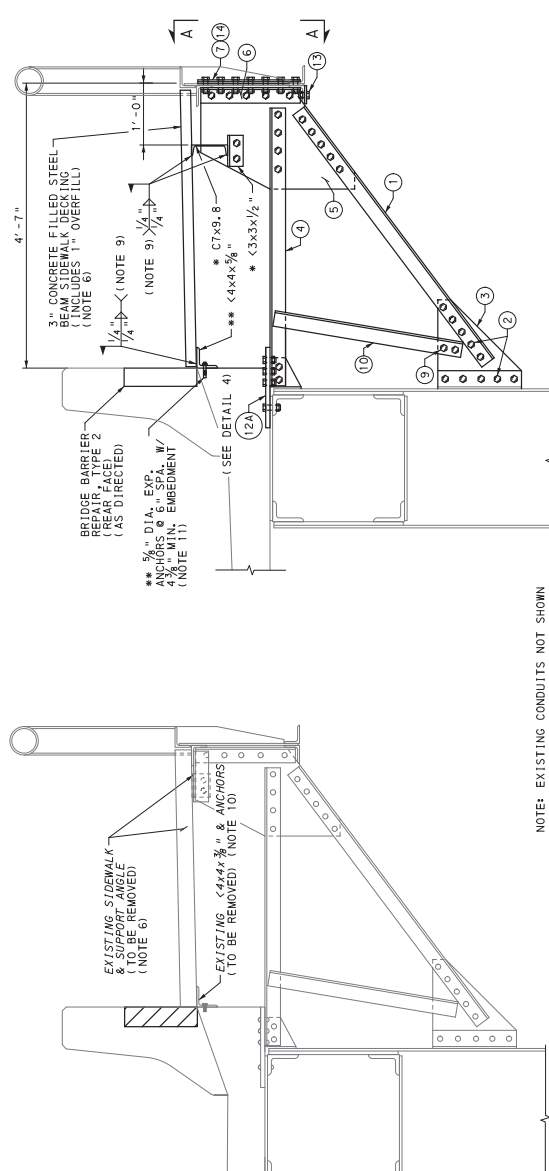
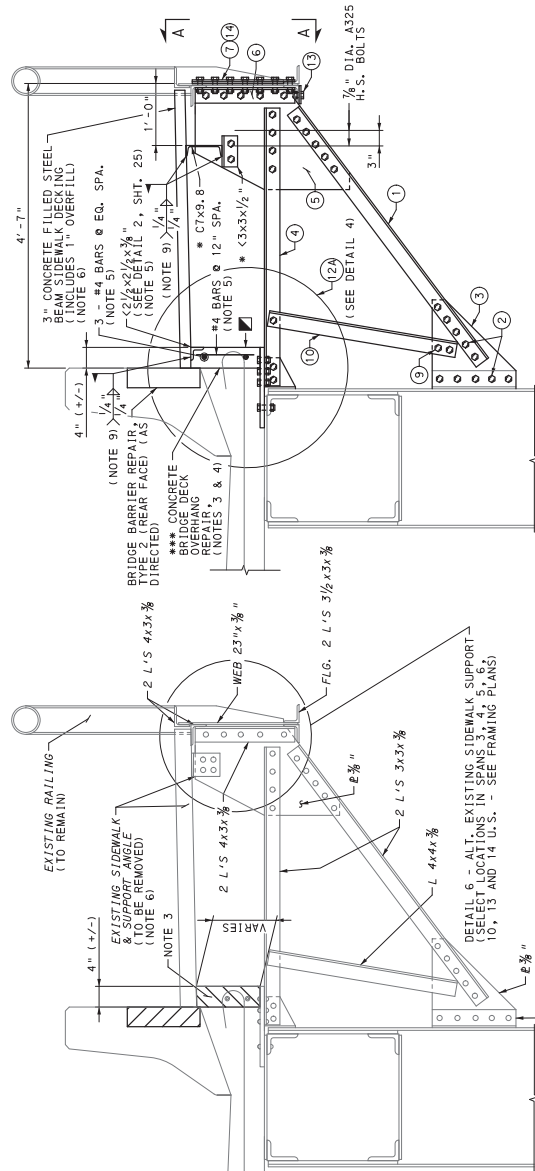


TABLE 1	
SPAN	LOCATION
1	D.S. - FB 3 THRU FB 6
2 THRU 10	D.S. - FULL SPAN ***
12 THRU 15	D.S. - FULL SPAN
1 THRU 5	U.S. - FULL SPAN
6	U.S. - FB 0 THRU FB 3
10	U.S. - FB 3 THRU FB 12
12 THRU 15	U.S. - FULL SPAN

TABLE 2	
SPAN	LOCATION
1	D.S. - FB 0 THRU FB 3
10	U.S. - FB 0 THRU FB 3

STEEL REPAIR TYPE	ITEM NO.	STRENGTH REDUCTION, % (LRFD)	STRENGTH REDUCTION, % (ASLR)
1	9000-0023	72	2
2	9000-0024	20	20
3	9000-0025	45	45
4	9000-0026	46	46
5	9000-0027	43	43
6	9000-0028	26	26
7	9000-0029	69	69
9	9000-0030	50	50
10	9000-0031	49	49
12A	9000-0032	20	20
13B	9000-0033	13	13
14	9000-0034	16	16
15	9000-0035	156	156

NOTE: THE WEIGHT DOES NOT INCLUDE THE WEIGHT OF ANY BOLTS/RIVETS.

1. AS DESIGNATED AND DIRECTED, REPLACE EXISTING SIDEWALK SUPPORT ELEMENTS IN-KIND, AS NEEDED FOR ELEMENT REPAIRS, REPLACE EXISTING RIVETS WITH NEW 1/8" DIAMETER ASTM F3125 GRADE A325 HIGH STRENGTH BOLTS.
2. STRUCTURAL STEEL REPAIR AND REPLACEMENT ELEMENTS, UNLESS NOTED OTHERWISE, ARE INCIDENTAL TO ITEMS 9000-0023 THRU 9000-0035 (AS APPLICABLE).
3. EXISTING REINFORCEMENT PROJECTING OUT OF THE EXISTING SIDEWALK SHALL BE REMOVED AND THE EXISTING SIDEWALK REFINISHED IN ACCORDANCE WITH THE SPECIFICATIONS. INCIDENTAL TO ITEM 9000-0008.
4. CLEAN FREE OF DIRT AND DEBRIS, AND APPLY EPOXY BONDING COMPOUND BETWEEN NEW AND EXISTING CONCRETE. INCIDENTAL TO ITEM 9000-0008.
5. NEW REINFORCEMENT, SUPPORT ANGLES AND STUDS ARE INCIDENTAL TO ITEM 9000-0008 EXCEPT IN SPANS 2 THRU 9 9000-0004, WHERE THEY ARE INCIDENTAL TO ITEM 9000-0004.
6. TOP OF NEW SIDEWALK DECKING TO MATCH THE EXISTING TOP OF SIDEWALK. SURVEY THE EXISTING SIDEWALK ELEVATIONS PRIOR TO REMOVAL (INCIDENTAL TO ITEM 5018-0051), AND ADJUST THE POSITION OF THE SUPPORT CHANNELS AND ANCHORS ACCORDINGLY.
7. FOR SECTION A-A, DETAIL 4, AND DETAIL 6, SEE SHEET 16. PROVIDE TEMPORARY SUPPORT OF THE SIDEWALK FASCIA STRINGER WHILE REPAIRS ARE BEING PERFORMED AND MEMBERS ARE DISCONNECTED WITH THE SHUT DOWN BRACKETS. TEMPORARY SUPPORT SHALL BE PROVIDED FOR 9000-0023 THRU 9000-0035 (AS APPLICABLE).
8. LENGTH OF WELD TO BE A MINIMUM OF 1 1/2" ON EACH SIDE OF THE CONNECTED PART.
9. CURE EXISTING SUPPORT ANGLE ANCHORS FLUSH WITH FACE OF CONCRETE (INCIDENTAL TO ITEM 5018-0051).
10. SPACE NEW EXPANSION ANCHORS BETWEEN EXISTING ANCHOR LOCATIONS, PROVIDE NEW EXPANSION ANCHORS WITH A MINIMUM FACTORED SHEAR RESISTANCE OF 500 LBS. INSTALL RECOMMENDATIONS WITH THE MANUFACTURERS.

RECOMM
LEGEND:

- | | |
|-----|---|
| ① | STRUCTURAL STEEL REPAIR/REPLACEMENT DESIGNATION. (SEE FRAMING PLANS FOR LOCATIONS & DESCRIPTIONS). NOTE THAT REPAIRS 12A & 12B ARE REPRESENTED BY REPAIR 12 ON THE FRAMING PLANS. |
| ☐ | APPROXIMATE LIMITS OF REMOVAL FOR CONCRETE BRIDGE OVERHANG REPAIR, TYPE 2, AS INCLUDED WITH ITEM 5050-0008. MODIFY LIMITS AT TOP HORIZONTAL STRUT REPAIRS. |
| ☐ | APPROXIMATE LIMITS OF REMOVAL FOR CONCRETE BRIDGE OVERHANG REPAIR, TYPE 2, AS INCLUDED WITH ITEM 5050-0201. REMOVAL LIMITS VARY. |
| * | INCLUDED WITH ITEM 1050-0020 |
| ** | INCLUDED WITH ITEM 5050-0021 |
| *** | DOWNSTREAM BARRIER IN SPANS 2 THRU 9 WILL BE REPLACED AS INCLUDED WITH ITEM 9005-0004. SEE SECTION A-A ON SHEET 25. |
| ☑ | APPLY PROTECTIVE COATING TO THE EXPOSED SURFACE OF THE CONCRETE OVERHANGS. |

REVISIONS					
Mark	Description	By	Chk'd.	Recm'd.	Date

BMS NO.	02-3104-0030-0000	BRKEY	1876
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S. R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

RIVER & NORFOLK SOUTHERN

PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SIDEWALK SUPPORT REPAIR DETAILS - 1

SIDELWALK SUPPLY, INC. RETAIL DETAILS 1

APRIL 26, 2022

S-39126



NOTE: EXISTING CONDUITS NOT SHOWN

SIDEWALK SUPPORT DETAIL 2

(UPSTREAM SHOWN - DOWNSTREAM SIMILAR)

(SEE TABLE 2 FOR LOCATIONS)
(FOR INFORMATION NOT SHOWN, SEE DETAIL 1)

DEC.	CTV	DWNS	CVC	CLV	CTV
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1. AS DESIGNATED AND DIRECTED REPLACE EXISTING STEWAK SUPPORT ELEMENTS IN KIND, AS NEEDED, FOR THE FOLLOWING ITEM NUMBERS: GRADE A328 WITH STRENGTH BOLTS.
2. STRUCTURAL STEEL REPAIR AND REPLACEMENT ITEMS, UNLESS NOTED OTHERWISE, ARE INCIDENTAL TO ITEMS 9000-0023 THRU 9000-0035 AS APPLICABLE.
3. DO NOT REMOVE MORE THAN ONE SET IMMEDIATE SUPPORT BRACKETS AT ANY ONE TIME APPROX. BROCKED UP IN THE 2ND OR 3RD FLOOR BRIDGE DECK. STEWAK FACIA SINCE INCIDENTAL TO ITEMS 9000-0023 THRU 9000-0025 THRU 9000-0035 AS APPLICABLE.

- * LIMITS OF DETERIORATION AND REPAIR TO BE DETERMINED AFTER BLASTING
- o INDICATES EXISTING RIVETS/BOLTS TO BE REPLACED WITH NEW ASTM F3125 GRADE A325 BOLTS OF THE SAME DIMENSION.
- o INDICATES NEW 7/8" DIA. ASTM F3125 GRADE A325 BOLTS.
- o INDICATES EXISTING RIVETS/BOLTS TO REMAIN.
- ▣ APPLY PROTECTIVE COATING TO THE EXPOSED SURFACE OF 900% CORROSION OVERHANG REPAIR (INCIDENTAL)



REVISIONS						
Mark		Description	By	CHK' d.	Recm' d.	Date

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

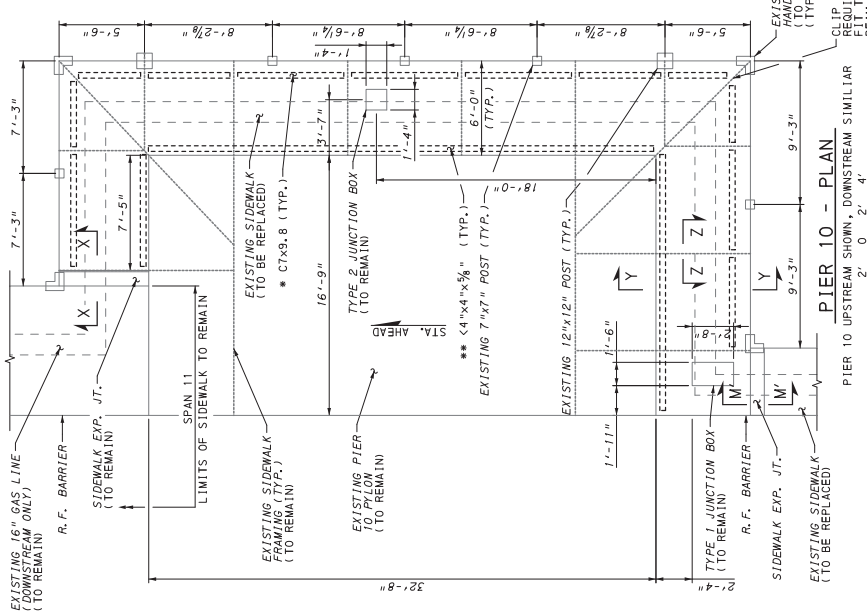
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SIDEWALK SUPPORT REPAIR DETAILS - 3

RECOMMENDED
APRIL 26, 2022

DES: CTV	DWN: CMC	CHK: CTV
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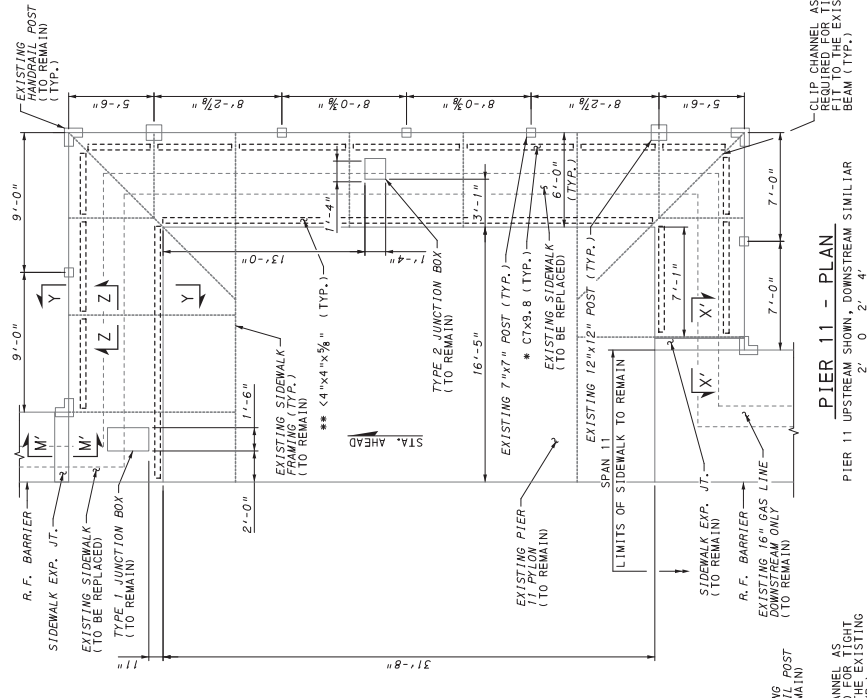
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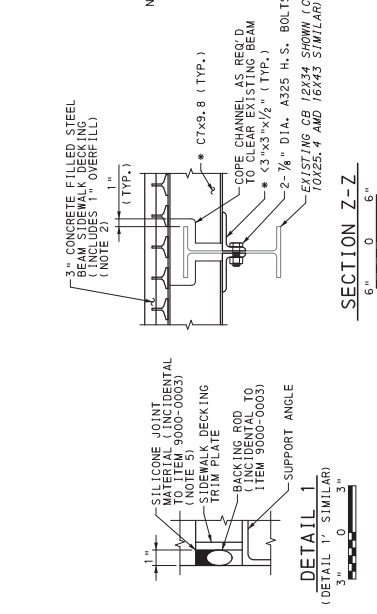
PIER 10 - PLAN

PIER 10 UPSTREAM SHOWN, DOWNSTREAM SIMILIAR

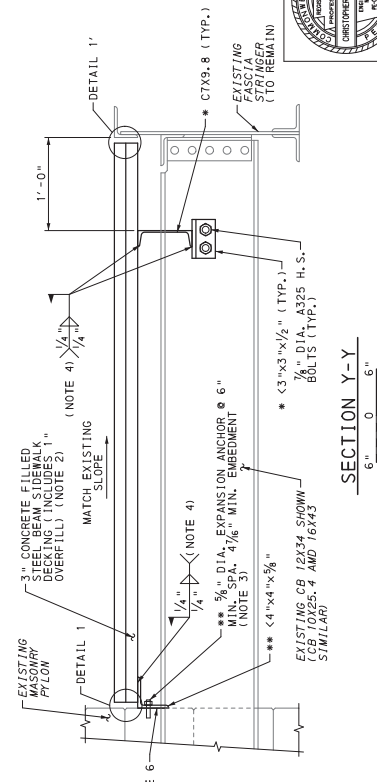


PIER 11 - PLAN

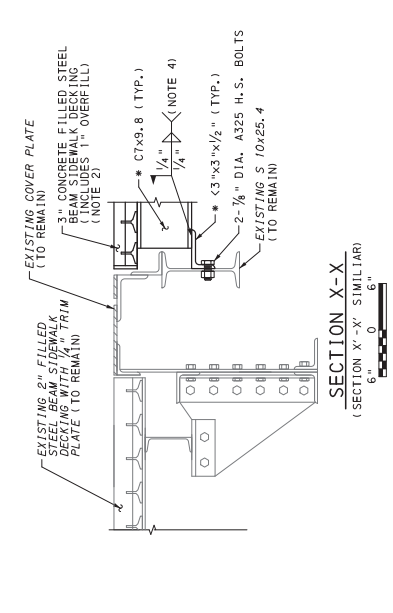
PIER 11 UPSTREAM SHOWN, DOWNSTREAM SIMILIAR



DETAIL 1
(DETAIL 1' SIMILAR)



DETAIL 1'



SECTION X-X
(SECTION X'-X' SIMILIAR)

NOTES:

1. FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS AS NECESSARY PRIOR TO FABRICATION AND CONSTRUCTION.
2. TOP OF NEW SIDEWALK DECKING TO MATCH THE EXISTING TOP OF SIDEWALK DECKING. ELEVATIONS PRIOR TO REMOVAL OF EXISTING SIDEWALK DECKING TO BE MAINTAINED. SET SUPPORT CHANNELS AND ANGLES ACCORDINGLY. 5018-00511. PROVIDE EXPANSION ANCHORS WITH A MINIMUM FACTORED SHEAR RESISTANCE OF 500 LBS. INSTALL ANCHORS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
3. LENGTH OF WELD TO BE A MINIMUM OF 1 1/2" ON EACH SIDE OF THE CONNECTED PART.
4. PROVIDE SILICONE JOINT SEALING MATERIAL IN ACCORDANCE WITH PUB. 408, SECTION 705-41.c1.
5. PREPARE SURFACE OF MASONRY PYLON SUCH THAT THE NEW SIDEWALK SUPPORT ANGLE SITS FLUSH WITH THE SURFACE OF THE PYLON AND ALLOWS PROPER EMBEDMENT OF THE ANCHORS. THIS WORK IS INCIDENTAL TO ITEM 5050-0021.
6. FOR SECTION M'-M', SEE SHEET 30.

LEGEND:

- * INCLUDED WITH ITEM 1050-0020
- ** INCLUDED WITH ITEM 5050-0021

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

PIER 10 & 11 SIDEWALK FRAMING

RECOMMENDED APRIL 26, 2022

SHEET 17 OF 47

S-39126



NOTES:

1. FOR GENERAL NOTES, SEE SHEET 5.
2. THE MAXIMUM BOLT SPACING FOR SEALING AND STITCH REQUIREMENTS IS 6". MINIMUM BOLT SPACING IS 2 1/2" AND MINIMUM EDGE DISTANCE IS 1 1/2".
3. FIELD VERIFY ALL DIMENSIONS PRIOR TO FABRICATION.
4. REMOVE LACING BARS AS REQUIRED FOR ACCESS TO CONNECT BOLTS. LIMIT LACING BAR REMOVAL LENGTH TO 5-FEET AND COVER REMOVAL LENGTH TO 10-FEET. REINSTALL LACING BARS NEED REMOVED FOR ACCESS.
5. ALL NEW GUSSET PLATE MATERIAL INCLUDING ANGLES AND MEMBERS ARE TO BE DESIGNATED STRUCTURALLY REDUNDANT.
6. PREPARE EXISTING STEEL SURFACES THAT COME IN CONTACT WITH NEW STEEL IN ACCORDANCE WITH SPECIAL PROVISION FOR ITEM 9000-0016.

REPAIR PROCEDURE

1. FIELD VERIFY EXISTING RIVET PATTERN. DRILL HOLES IN FILL PLATES AND COVER PLATES TO MATCH EXISTING RIVET PATTERN.
2. REPLACE INDIVIDUAL RIVETS WITH NEW HS BOLTS. A MAXIMUM OF 4 RIVETS MAY BE REMOVED FROM ANY GIVEN MEMBER. STAGGER REMOVAL OF RIVETS SO THAT NO TWO REMOVED RIVETS ARE REMOVED FROM THE CONNECTION AT THE SAME TIME.
3. INSTALL NEW FILL PLATES AND COVER PLATES. INSTALL SECOND NUT ON HS BOLT.
4. DRILL NEW HOLES AND INSTALL NEW HS BOLTS AS SHOWN AROUND PERIMETER OF NEW COVER PLATE, SEE NOTE 2.

LEGEND:

- + EXISTING RIVET
- o EXISTING RIVET TO BE REPLACED WITH 1" DIA HS BOLT
- NEW 1 1/4" HOLE FOR 1" DIA HS BOLT

ESTIMATED QUANTITIES

DESCRIPTION	UNIT	REPAIR 1	REPAIR 2
STRUCTURAL STEEL	LBS	9000-0009	9000-0010
NEW 1" DIA, HIGH STRENGTH BOLT	EA	1125	1726
NEW 1" DIA, HIGH STRENGTH BOLT IN PLACE OF RIVET	EA	7	13
NEW 1" DIA, HIGH STRENGTH BOLT IN PLACE OF RIVET	EA	77	109

QUANTITIES ARE FOR CONTRACTOR'S INFORMATION ONLY AND ARE SUBSIDIARY TO THE TABULATION OF QUANTITIES (SEE SHEET 6)

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

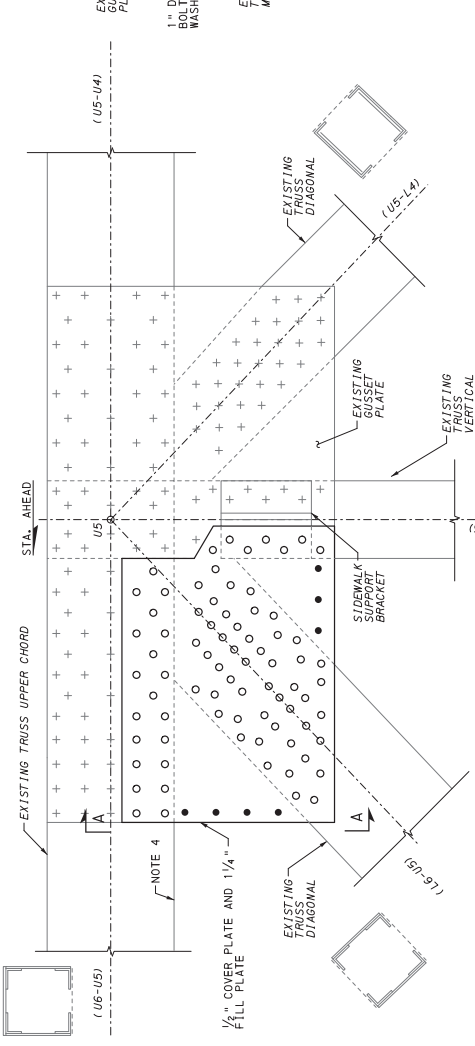
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

TRUSS GUSSET PLATE REPAIRS - 1
RECOMMENDED APRIL 26, 2022

SHEET 18 OF 47
S-39126

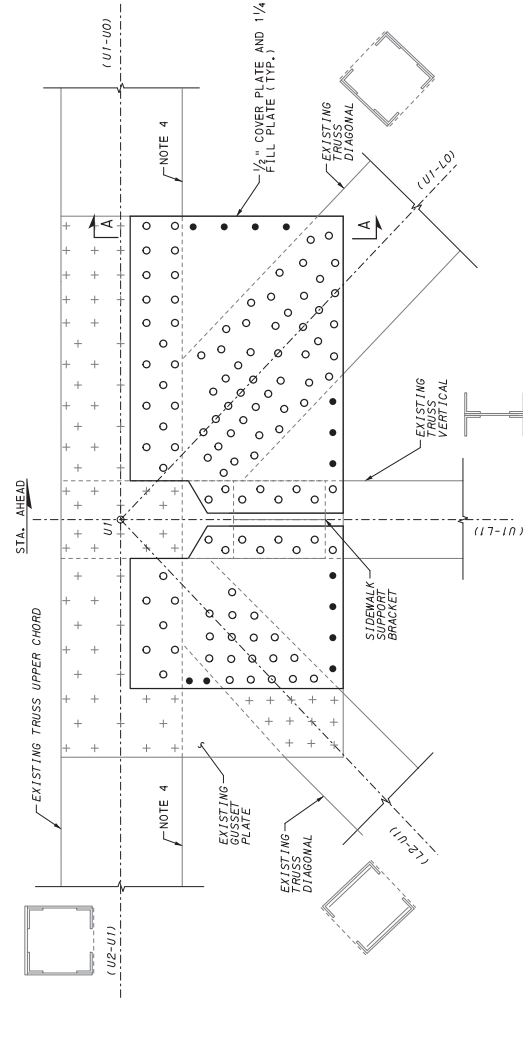


SECTION A-A
NOT TO SCALE



TRUSS GUSSET PLATE REPAIR 1
NOT TO SCALE

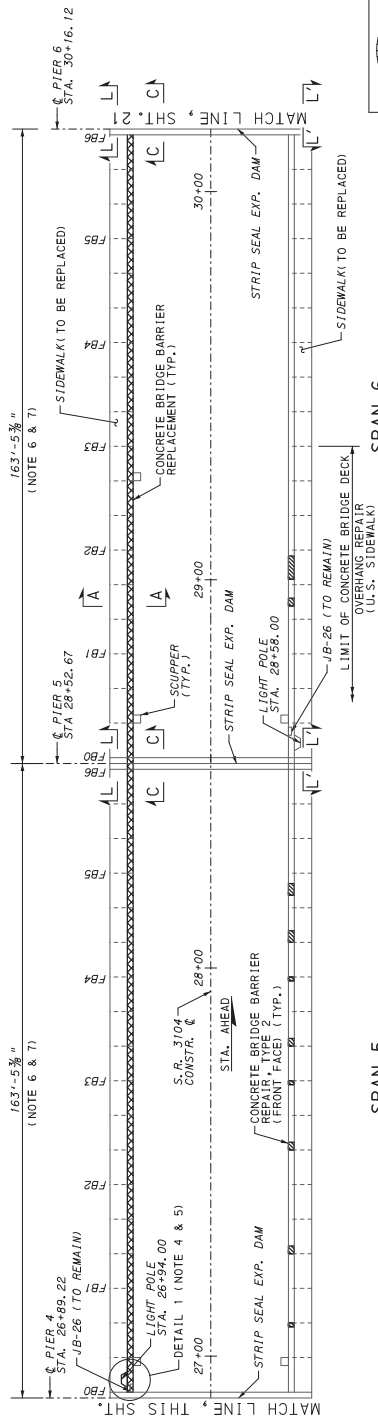
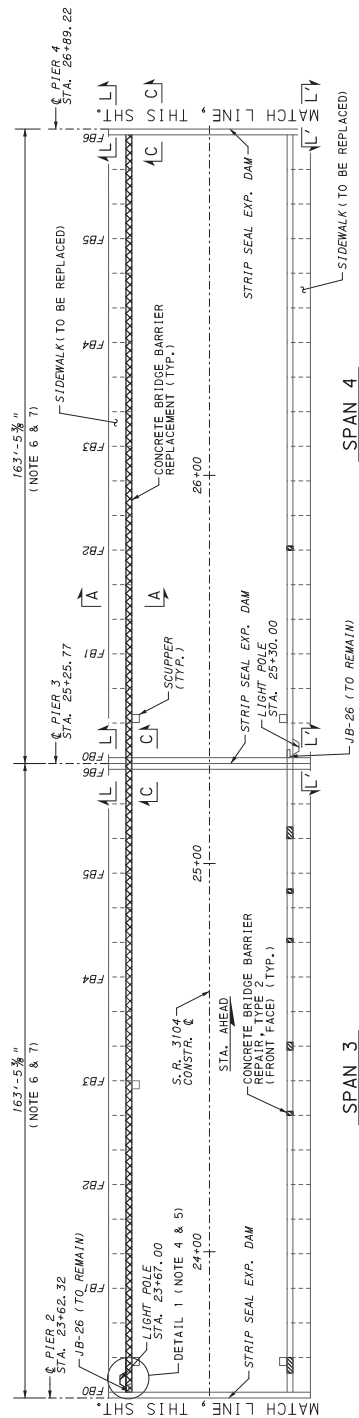
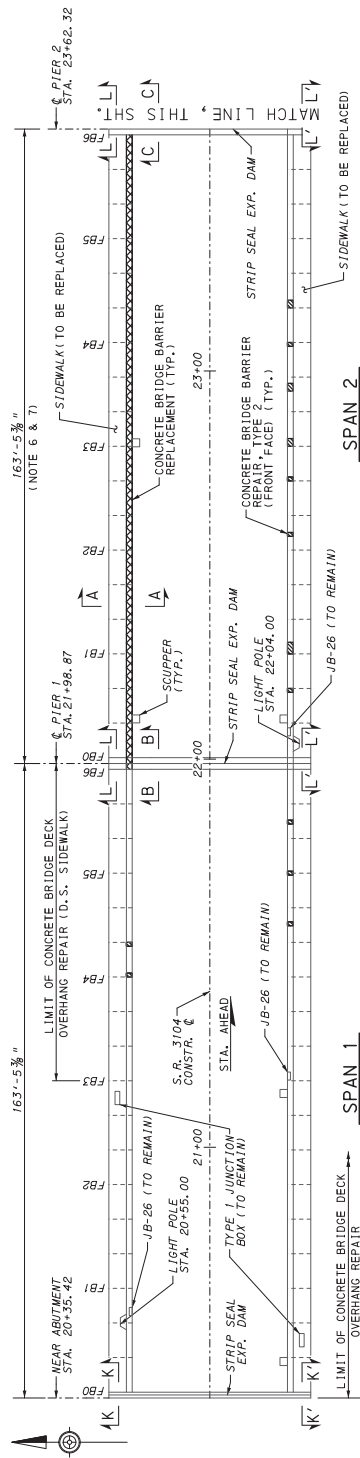
TRUSS GUSSET PLATE REPAIR 1			
JOINT NO.	SPAN	TRUSS	PLATE
U5	6	DOWNSIDE	LEFT



TRUSS GUSSET PLATE REPAIR 2
NOT TO SCALE

TRUSS GUSSET PLATE REPAIR 2			
JOINT NO.	SPAN	TRUSS	PLATE
U1	7	DOWNSIDE	LEFT

DES	CMC	DWNT	CMC	CHK	CTV



NOTES:

1. BARRIER REPAIR LOCATIONS SHOWN REPRESENT APPROXIMATE SPALLED OR DELAMINATIONS AND LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR.
2. PROVIDE BARRIER DEFLECTION JOINTS AT 15'-0" MAX. SPACING IN NEW BARRIER.
3. CONSTRUCT 4" X 8" DRAINAGE SLOTS IN NEW BARRIER AT A MINIMUM 10'-0" SPACING. SEE DETAILS ON SHEET 28.
4. FOR DETAIL 1, SEE SHEET 27.
5. REMOVE, STORE AND RE-INSTALL LIGHT POLE AS PART OF ITEM 3000-0005.
6. FOR CONCRETE REPAIR DETAILS, SEE SHEET 8.
7. FOR DETAIL A-A, SEE SHEET 25.
8. FOR VIEWS B-B AND C-C SEE SHEET 26.
9. SEE SECTIONS K-K (K-K'), L-L (L-L'), AND M-M (M-M') FOR DETAILS OF THE BARRIER AND SEE SECTIONS 29 AND 30 RESPECTIVELY.

LEGEND:

ITEM 9000-0004
CONCRETE BRIDGE BARRIER REPLACEMENT

ITEM 5040-0200

ITEM 5040-0200
CONCRETE BRIDGE

D. S. DOWNSTREAM

U.S. UPSTREAM

REVISIONS					
Mark	Description	By	Chk' d.	Rec'd d.	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

SIDEWALK/BARRIER PLAN-SPANS 1 - 6

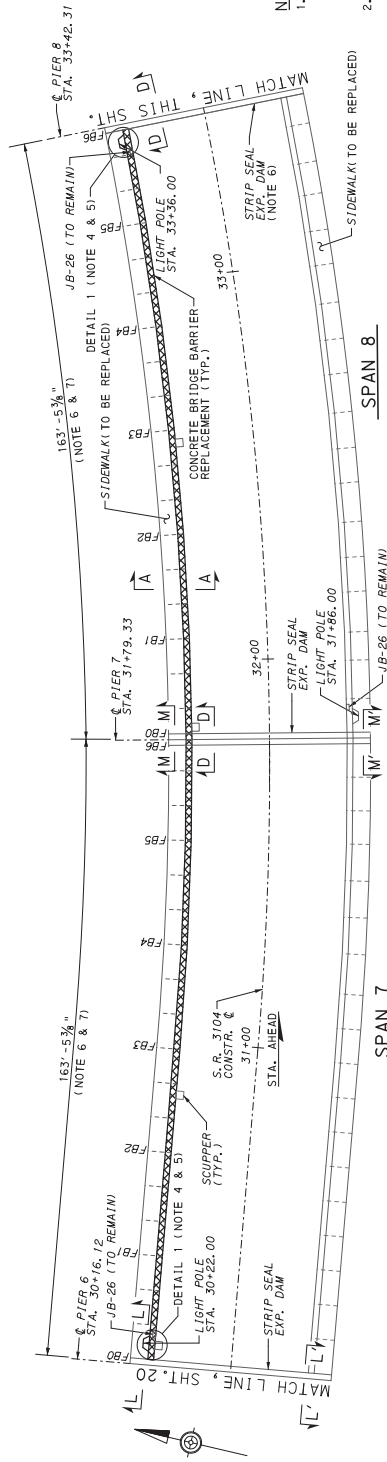
RECOMMENDED APRIL 26, 2021



BARRIER REPAIR PLAN - SPANS 1 THRU 6

DES: JMB	DWN: JMB	CHK: CTV
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S-39126



NOTES:

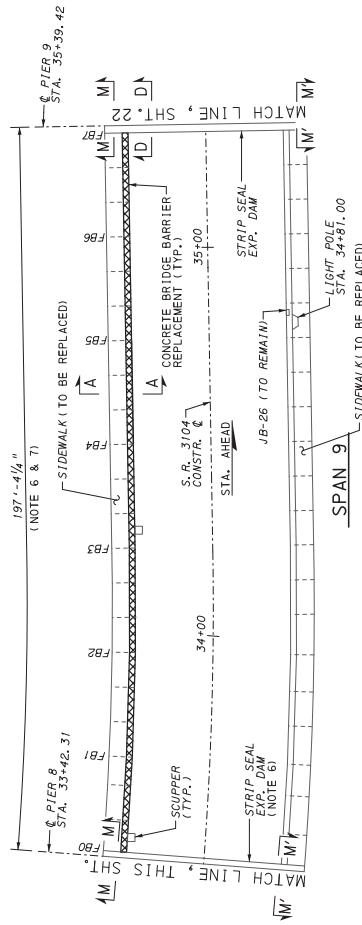
1. BARRIER REPAIR LOCATIONS SHOWN REPRESENT APPROXIMATE SPALLS OR DELAMINATIONS. SURFACE AREAS OF ACTUAL REPAIR DIMENSIONS SHALL BE DETERMINED BY THE REPRESENTATIVE.
2. PROVIDE BARRIER DEFLECTION JOINTS, AT 15'-0" MAX., SPACING IN NEW BARRIERS.
3. CONSTRUCT 4" X 8" DRAINAGE SLOTS IN NEW BARRIER AT A MAXIMUM 10'-0" SPACING. SEE DETAILS ON SHEET 28.
4. FOR TIE-ON, SEE SHEET 27.
5. REMOVE STORE AND RE-INSTALL LIGHT POLE AS PART OF ITEM 9000-0005.
6. REPLACE EXISTING STRIP SIGN CLAND AS PART OF ITEM 1090-1017. SEE SHEET 34 FOR DETAILS.
7. FOR CONCRETE REPAIR DETAILS, SEE SHEET 8.
8. FOR SECTION A-A, SEE SHEET 25.
9. FOR VIEW D-D, SEE SHEET 26.
10. FOR SECTIONS L-L (L'-L') AND M-M (M'-M'), SEE SHEET 30.

LEGEND:

- | | |
|---|---|
| ITEM 9000-0004
CONCRETE BRIDGE BARRIER REPLACEMENT | ITEM 5040-0200
CONCRETE BRIDGE BARRIER REPAIR, TYPE 2 (FRONT FACE) |
| FBI FLOORBEAM NUMBER | D. S. DOWNSTREAM |
| | I. L. S. UPSTREAM |

Mark	Description	By	Chk' d.	Recm' d.	Date
REVISIONS					

BARRIER REPAIR PLAN - SPANS 7 THRU 9



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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
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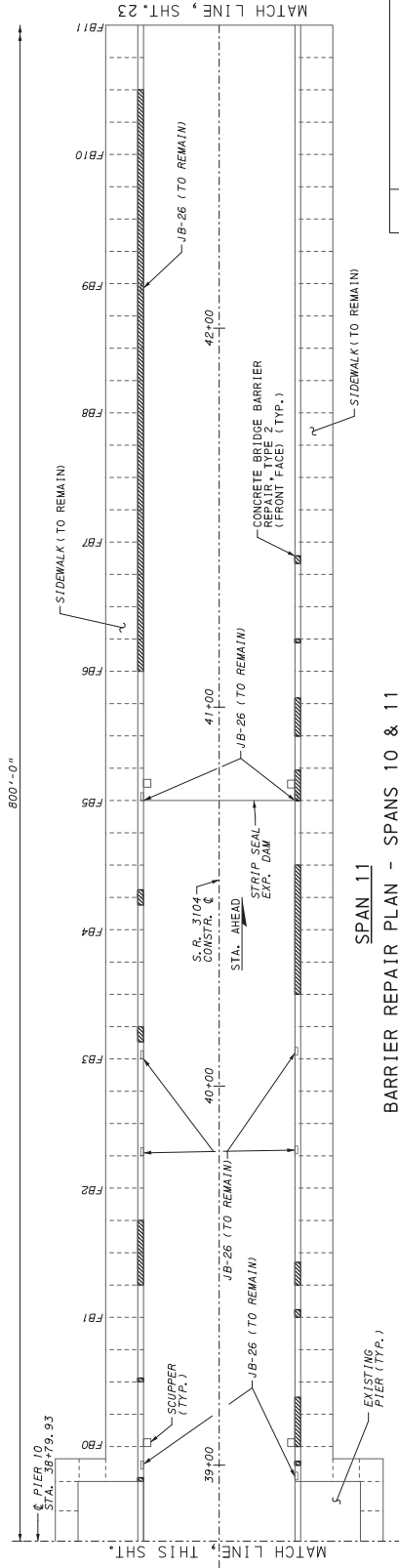
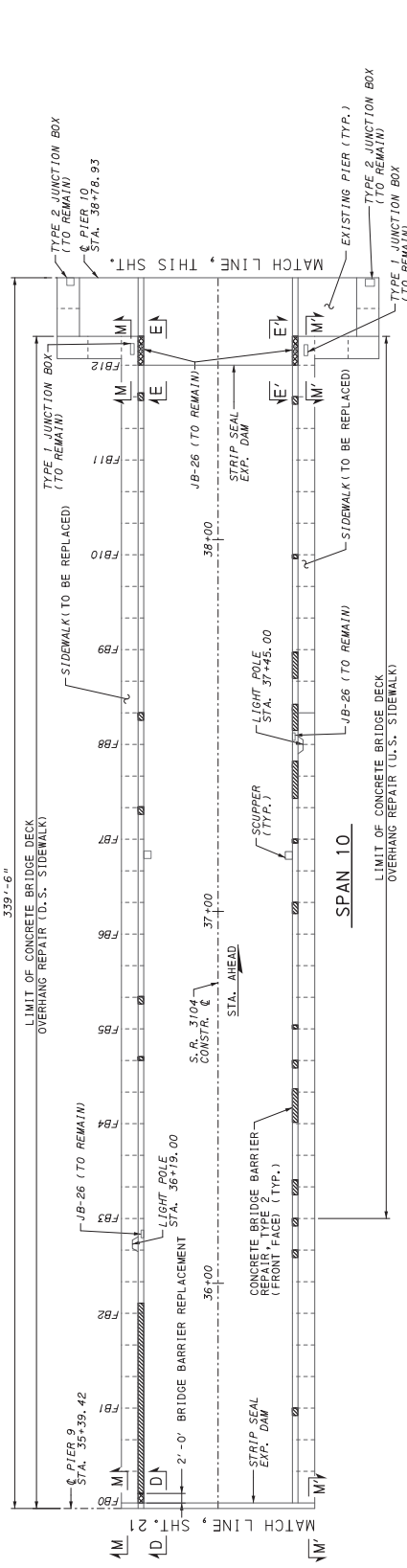
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
- PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SIDEWALK/BARRIER PLAN-SPANS 7 - 9

RECOMMENDED
APRIL 26, 2022

SHEET 21 OF 47

DES: .JMB	DWN: .JMB	CHK: CTV
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S-39126



BARRIER REPAIR PLAN - SPANS 10 & 11

- NOTES:
- 1. BARRIER REPAIR LOCATIONS SHOWN REPRESENT APPROXIMATE SPALLS OR DELAMINATED SURFACE AREAS. ACTUAL REPAIR DIMENSIONS SHALL BE DETERMINED BY THE REPRESENTATIVE.
 - 2. PROVIDE BARRIER DEFLECTION JOINTS AT 15'-0" MAX. SPACING IN NEW BARRIER. SEE DETAILS ON SHEET 28.
 - 3. CONSTRUCT 4" X 8" DRAINAGE SLOTS IN NEW BARRIER AT A MAXIMUM 10'-0" SPACING. SEE DETAILS ON SHEET 28.
 - 4. FOR CONCRETE REPAIR DETAILS, SEE SHEET 8.
 - 5. FOR VIEWS D-D & E-E SEE SHEET 26.
 - 6. FOR SECTION M-M (M'-M'), SEE SHEET 30.

- LEGEND:
- ITEM 9000-0004 CONCRETE BRIDGE BARRIER REPLACEMENT
 - FBI FLOORBEAM NUMBER
 - ITEM 5040-0200 CONCRETE BRIDGE BARRIER REPAIR, TYPE 2 (FRONT FACE)
 - D.S. DOWNSTREAM
 - U.S. UPSTREAM



RECOMMENDED APRIL 26, 2022

DES: JMB	DWN: JMB	CHK: CTV
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Mark	Description	By	Chk'd	Rec'd	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

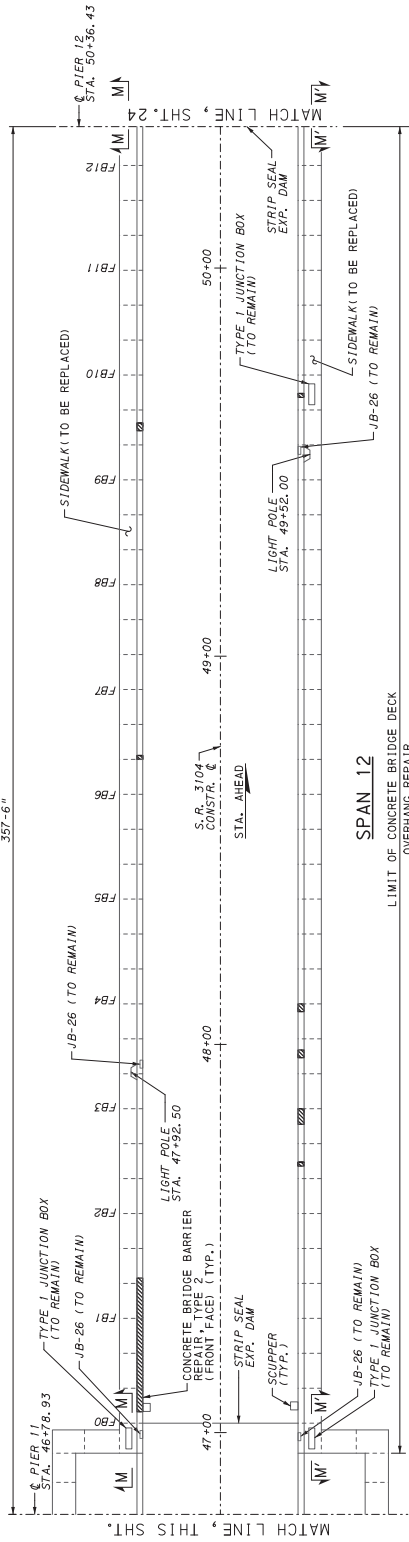
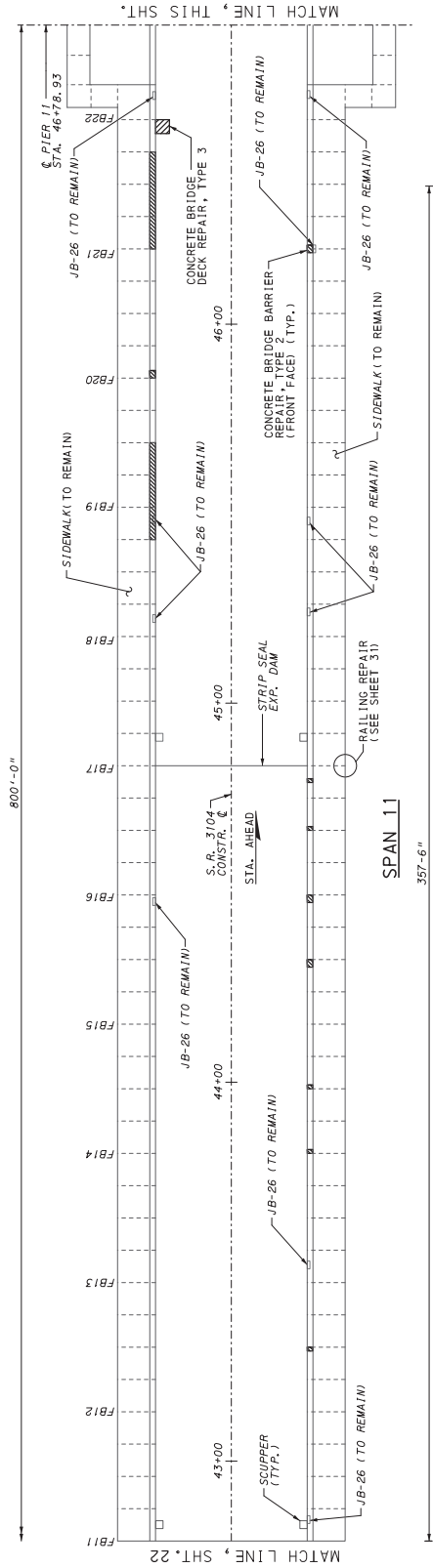
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DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SIDEWALK/BARRIER PLAN-SPANS 10&11

SHEET 22 OF 47



BARRIER REPAIR PLAN - SPANS 11 & 12



LEGEND:

- ITEM 1040-0030 CONCRETE BRIDGE DECK REPAIR, TYPE 3
- FBI FLOORBEAM NUMBER
- ITEM 8040-0000 CONCRETE BRIDGE BARRIER REPAIR, TYPE 2 (FRONT FACE)
- D.S. DOWNSTREAM
- U.S. UPSTREAM

NOTES:

- REPAIR LOCATIONS SHOWN REPRESENT APPROXIMATE SPALLS OR DELAMINATED SURFACE AREAS. ACTUAL REPAIR DIMENSIONS AND REPAIR MATERIALS SHALL BE DETERMINED BY THE REPRESENTATIVE.
- FOR CONCRETE REPAIR DETAILS, SEE SHEET 8.
- FOR SECTION M-M (M'-M'), SEE SHEET 30.

Mark	Description	By	Chk'd	Rec'd	Date

REVISIONS

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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

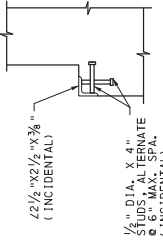
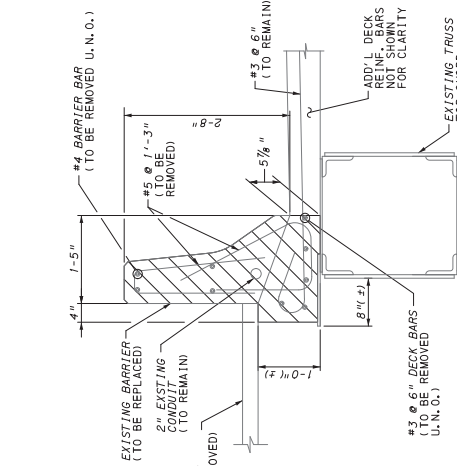
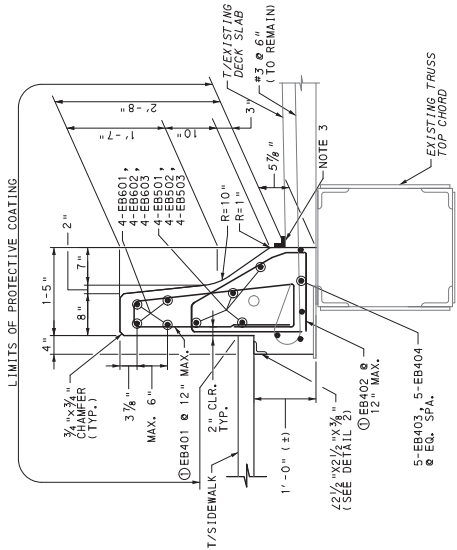
ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SIDEWALK/BARRIER PLAN-SPANS 11&12

RECOMMENDED APRIL 26, 2022 SHEET 23 OF 47



DES: JMB	DWNT: JMB	CHK: CTV
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DETAIL 2

NOTES:

1. BARRIER LAP SPLICE LENGTH: 2'-1" #4 BARS
3'-7" #5 BARS
4'-4" #6 BARS
2. REINFORCEMENT AND PROTECTIVE COATING
REQUIRED FOR BARRIER REPLACEMENT IS
INCIDENTAL TO ITEM 9000-0004.
3. APPLY 2" x 24" STRIP OF EPOXY BINDER RESIN
TO THE DECK TO SEAL THE CRACK LINES. SEE PUB.
408, SECTION 1001.3(c).

LEGEND:

- REMOVAL LIMITS
- WITHIN 10' ON BOTH SIDES OF AN EXPANSION JOINT IN THE BARRIER AND AT THE END OF THE BRIDGE BARRIER; REDUCE SPACING OF REINFORCEMENT BARS TO HALF THE SHOWN SPACING.

Mark	Description	By	CHK' d.	Rec'd. d.	Date
REVISIONS					

BMS NO.	02-3104-0030-0000	BRKEY	1876
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

BARRIER REPAIR DETAILS -1

RECOMMENDED	APRIL 26, 2022
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DES: IMB	DWN: IMB	CHK: CTV
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S-39

[illegible]

REINFORCEMENT BAR SCHEDULE

SECTION A-A (EXISTING)



SECTION A-A (PROPOSED)



NOTES:

CODE LETTERS FOR BAR MARKS

BAR MARK LEGEND

EB = BARRIER

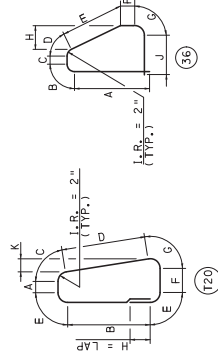
ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "C" ON STANDARD 180° AND 135° HOOKS.

"J" DIMENSIONS ON 180° HOOKS ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOK SIZES ARE REQUIRED.

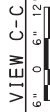
HOOK SIZE; OTHERWISE STANDARD
FIGURES IN CIRCLES SHOW TYPES.

FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.

REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.



NOTES:



VIEW E-E
VIEW E'-E' (SIMILAR)
6" 0 6" 12"

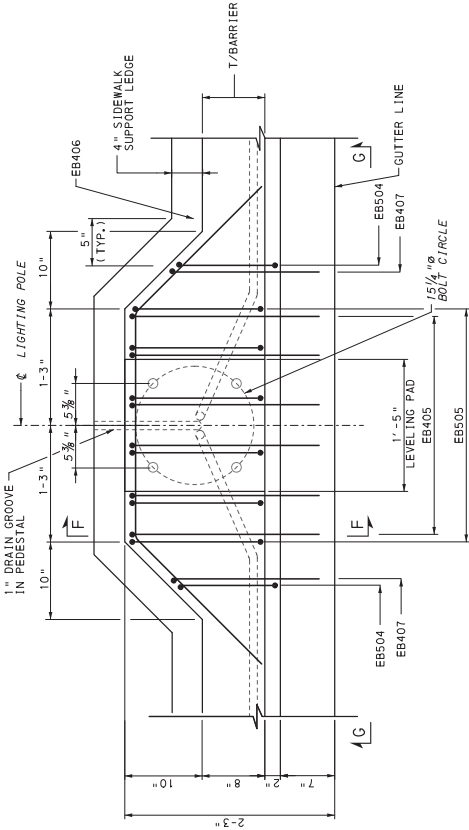
1. REMOVE STORE AND RE-INSTALL EXISTING SLIDING PLATE. INCIDENTAL TO BARRIER REPLACEMENT.
2. VERIFY THE NUMBER AND SPACING OF EXISTING INSERTS AND INSTALL NEW INSERTS TO MATCH EXISTING SLIDING PLATE. NEW INSERTS ARE INCIDENTAL TO BARRIER REPLACEMENT.
3. NEW SLIDING PLATE IS INCIDENTAL TO BARRIER REPLACEMENT.
4. FOR BARRIER DRAINAGE DETAILS, SEE SHEET 28.
5. FOR BAR SCHEDULE AND SECTION A-A, SEE SHEET 25.
6. METHOD TO MATCHING BARRIER HEIGHT AND COVER, NEW DIMENSIONS WILL BE PROVIDED. IF THE EXISTING BARRIER IS NOT THE SAME TYPE/AS REQUIRED TO MATCH THE BARRIER TO REMAIN, REMOVE EXISTING BARRIER AND RE-INSTALL NEW BARRIER. INCIDENTAL TO BARRIER REPLACEMENT.

[illegible]

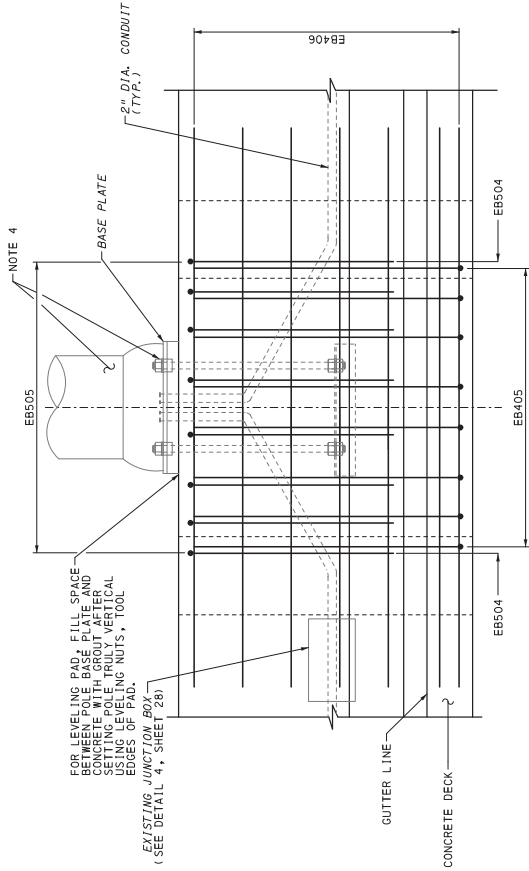
ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

BARRIER REPAIR DETAILS - 2
 SHEET 26 OF 47

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DETAIL 1
6" 0 6"

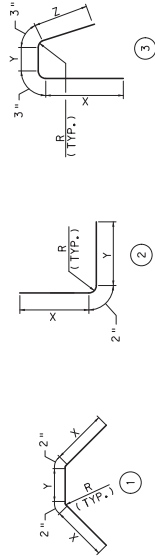
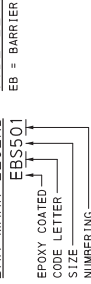


VIEW G-G
6" 0 6"

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	X	Y	Z
EB405	4	24	4'-1"	2	2'-8"	2'-1"	1'-9"
EB406	4	28	5'-3"	2	1'-9"	2'-1"	2'-1"
EB407	4	8	4'-2"	2	2'-8"	1'-4"	1'-4"
EB504	5	8	4'-1"	3	2'-1"	0'-3"	1'-3"
EB505	5	24	4'-6"	3	2'-1"	0'-8"	1'-3"

BAR MARK LEGEND
EB = BARRIER



REINFORCEMENT NOTES:

FIGURES IN CIRCLES SHOW TYPES.
FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M.
REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.
DIMENSIONS ALONG CURVED PORTIONS OF BAR ARE MEASURED ALONG THE OUTSIDE EDGE.
EPOXY COAT ALL REINFORCEMENT STEEL IN ACCORDANCE WITH PUBLICATION 408, SECTION 709.1(c).
RADIUS, R=2" FOR #4 BARS AND R=3" FOR #5 BARS. IS MEASURED TO THE INSIDE EDGE OF THE REINFORCEMENT BAR.

NOTES:

1. REMOVE, STORE, AND RE-INSTALL EXISTING LIGHT POLES AND ASSOCIATED ANCHORAGE AS PART OF ITEM 9000-0005.
2. PROVIDE 2" CLEAR ON ALL REINFORCEMENT UNLESS NOTED.
3. SEE SHEETS 20 AND 24 FOR LIGHT POLE BLISTER LOCATIONS.
4. SET ANCHOR BOLTS ACCURATELY BY TEMPLATE TO THE CORRECT ELEVATION AND ALIGNMENT. SECURE BRACING AND ANCHORAGE BEFORE THE SURROUNDING CONCRETE IS PLACED.
5. SEAL LIGHTING POLES FULLY VERTICAL WITH BASES. LEVEL USING LEVELING NUTS.
6. REINFORCEMENT REQUIRED FOR LIGHT POLE REPLACEMENT IS INCIDENTAL TO ITEM 9000-0004.

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

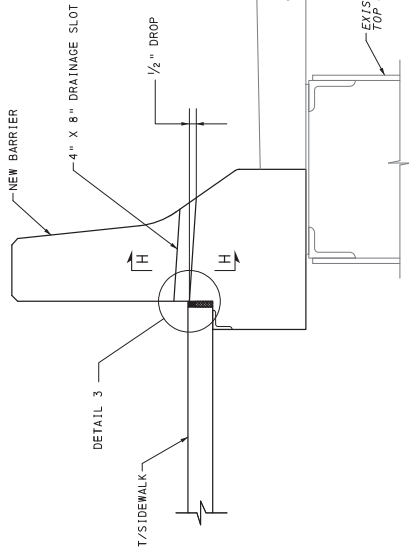
LIGHTING POLE BLISTER DETAILS

RECOMMENDED APRIL 26, 2022

SHEET 21 OF 47

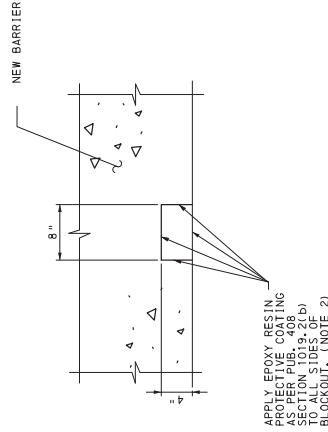
DES: JMB DWT: JMB CHK: CTV

S-39126



TYPICAL BARRIER DRAIN

6" 0 6" 12"



SECTION H-H

6" 0 6" 12"

APPLY EPOXY RESIN PROTECTIVE COATING TO ALL SIDES OF BLOCKOUT. (NOTE 2)

RUBBERIZED JOINT SEALING MATERIAL (NOTE 3) (INCIDENTAL)

T/ SIDEWALK

DRAINAGE SLOT

CLOSED CELL NEOPRENE SPONGE (INCIDENTAL)

NOTES: DRAIN LOCATION SHOWN. PROVIDE SEAL MATERIAL FULL LENGTH OF JOINT. JOINT SEALING MATERIAL IS INCIDENTAL TO THE BARRIER (INCIDENTAL TO ITEM 9000-0000).

DETAIL 3

NOT TO SCALE

NOTES:

1. CONSTRUCT 4" X 8" DRAINAGE SLOTS AT A MAXIMUM SPACING OF 10'-0". SPACE AROUND LIGHT POLES.
2. EPOXY RESIN IS INCIDENTAL TO BARRIER REPLACEMENT.
3. PROVIDE RUBBERIZED JOINT SEALING MATERIAL IN ACCORDANCE WITH PUB. 408, SECTION 705.4(b).

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

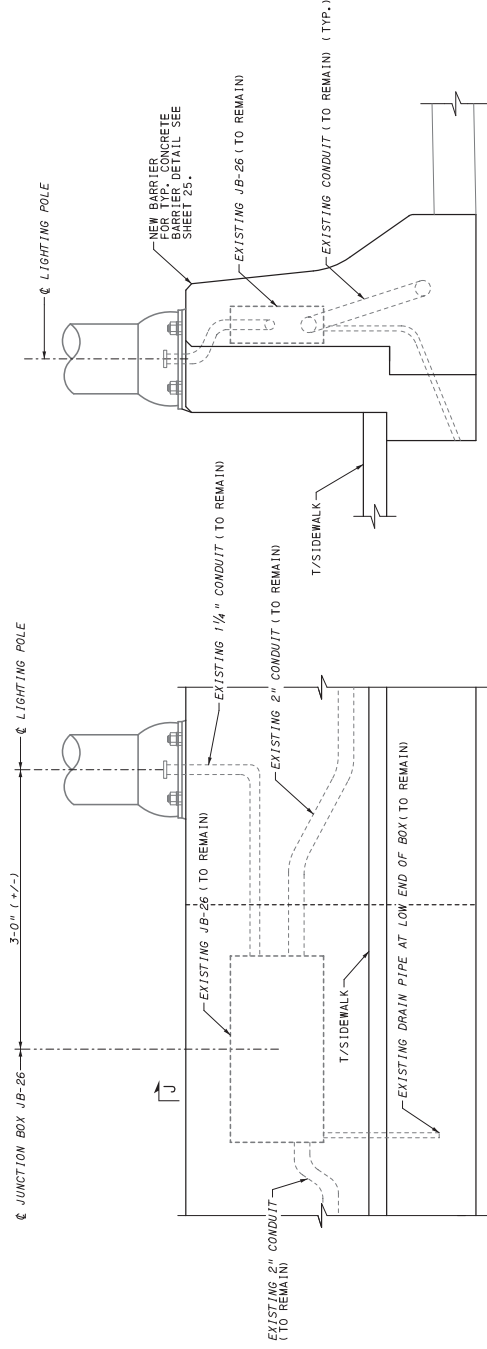
BARRIER DRAINAGE DETAILS

RECOMMENDED APRIL 28, 2022

SHEET 28 OF 47

DES: JMB DWT: JMB CHK: CTV

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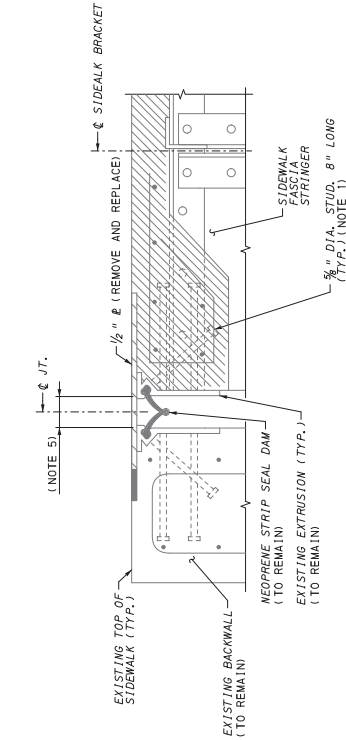


DETAIL 4

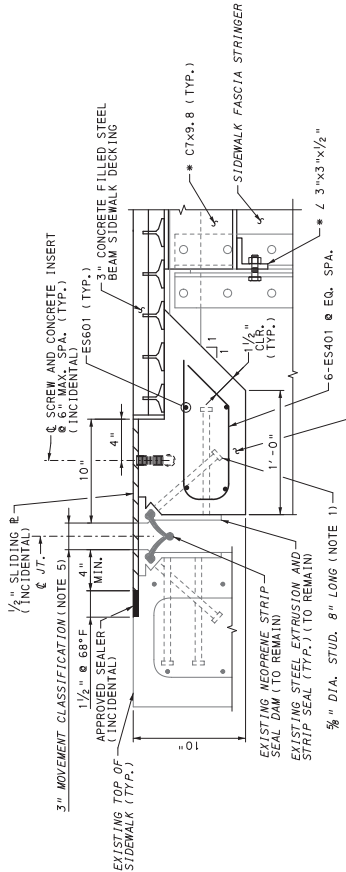
6" 0 6" 12"

SECTION J-J

6" 0 6" 12"



SECTION K-K (K'-K')
(EXISTING - NEAR ABUT. SIDEWALK EXP. DAM)
NOT TO SCALE



SECTION K-K (K'-K')
(PROPOSED - NEAR ABUT. SIDEWALK EXP. DAM)
NOT TO SCALE

NOTES:

1. OMIT STUDS WHERE REQUIRED FOR INSTALLATION OF NEW SIDEWALK DECKING.
2. FOR STRIP-SEAL GENERAL NOTES AND DETAILS NOT SHOWN, SEE BC-167M.
3. FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS AS NECESSARY PRIOR TO CONSTRUCTION.
4. SECTION K-K (K'-K') SHOWS DOWNSTREAM SIDEWALK EXPANSION DAM, UPSTREAM SIDEWALK EXPANSION DAM SIMILAR.
5. MEASURE THE EXISTING JOINT OPENING AND CORRESPONDING AMBIENT TEMPERATURE PRIOR TO FABRICATION AND CONSTRUCTION.

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	H	REMARKS
NEAR ABUTMENT										
ES401	4	72	2'-10"	16	6"	7 1/2"	1"	1'-2"	4/4"	
ES601	6	8	4'-3"	STR						
PIERS 1 THRU 6										
ES401	4	72	2'-10"	16	6"	7 1/2"	1"	1'-2"	4/4"	
ES402	4	72	4'-10"	16	6"	1'-7 1/2"	1"	2'-2"	4/4"	
ES601	6	144	4'-3"	STR						
PIERS 7 THRU 9 & 12 THRU 14										
ES401	4	72	2'-10"	16	6"	7 1/2"	1"	1'-2"	4/4"	
ES402	4	72	4'-10"	16	6"	1'-7 1/2"	1"	2'-2"	4/4"	
ES601	6	144	4'-3"	STR						

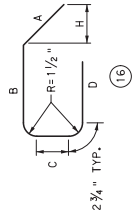
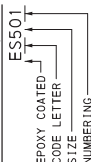
CODE LETTERS FOR BAR MARKS

ES = SIDEWALK

REINFORCEMENT NOTES:

FIGURES IN CIRCLES SHOW TYPES.
FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-756M.
REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.

BAR MARK LEGEND



LEGEND:

- INDICATES AREA OF EXISTING SIDEWALK TO BE REMOVED
- * INCLUDED WITH 1050-0020.

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

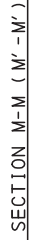
SIDEWALK EXP. DAM REPAIRS - 1

RECOMMENDED APRIL 28, 2022

SHEET 29 OF 47

DES: CMC DWG: CMC CHK: CTV

S-39126



LEGEND:

MOVEMENT TABLE	
PIER NO.	MOVEMENT CLASS
1-7	3 nd
8	3 1/2 nd
9	3 rd
12 & 13	4 th
14	3 rd

INDICATES AREA OF EXISTING SIDEWALK
TO BE REMOVED

* INCLUDED WITH 1050-0020.

Mark	Description	By	Chk'd.	Rec'd.	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

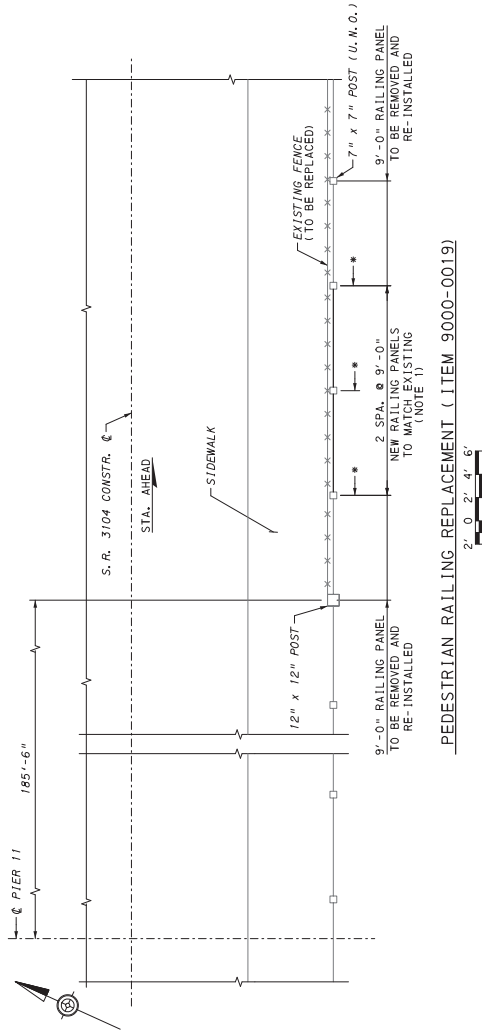
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
SIDEWALK EXP. DAM REPAIRS - 2

RECOMMENDED

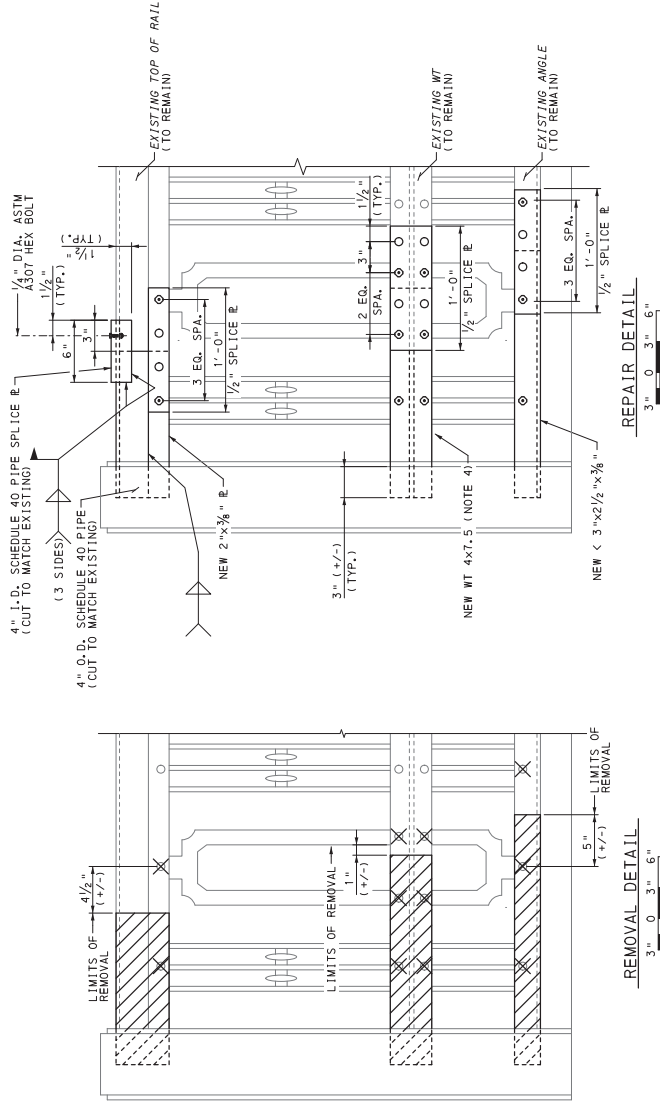
APRIL 26, 2022

SHEET 30 OF 47

S-39126



PEDESTRIAN RAILING REPLACEMENT (ITEM 9000-0019)



PEDESTRIAN RAILING REPAIR (ITEM 9000-0006)

(SPAN 11, PP 17, U.S. SHOWN - OTHER LOCATIONS SIMILAR)

- NOTES:**
- FABRICATE AND INSTALL NEW RAILING PANELS IN-KIND MATCHING THE EXISTING RAILING DETAILS. SEE HANDRAILING DETAILS IN THE ORIGINAL DRAWINGS (DATED 1929).
 - NEW RAILING ELEMENTS ARE TO BE CONNECTED TO EXISTING RAILING POSTS, GRADE A HEX BOLTS 1/4" DIA. IN LINE WITH EXISTING BOLTS.
 - RAILING ELEMENTS ARE TO BE COMPILED OF STRUCTURAL STEEL CONFORMING TO ASTM A270 (ASTM A709), GRADE 36.
 - TRIM NEW WT STEM TO MATCH EXISTING.

LEGEND:

- REMOVE AND RESET EXISTING POSTS; RE-INSTALL EXISTING RAILING PANELS TO MATCH EXISTING DETAILS. THE POSTS ARE INCIDENTAL TO ITEM 9000-0019. REPLACE EXISTING RIVETS WITH H.S. BOLTS (AS APPLICABLE).
- LIMITS OF RAILING REMOVAL.
- EXISTING RIVETS TO BE REMOVED.
- EXISTING RIVETS TO BE REPLACED WITH 1/4" DIA. ASTM A307, GRADE A HEX BOLTS.
- NEW 1/4" DIA. ASTM A307, GRADE A HEX BOLTS.

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

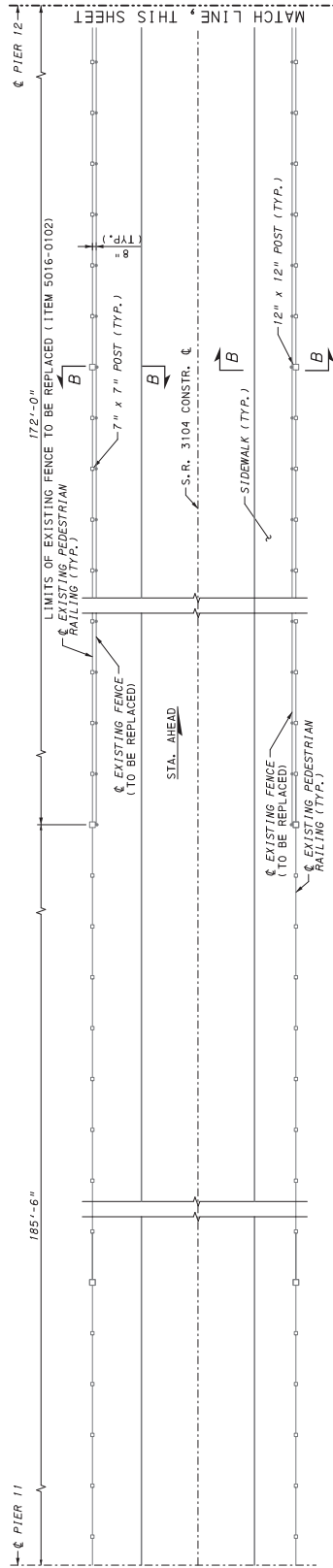
RAILING REPAIR DETAILS

RECOMMENDED APRIL 28, 2022

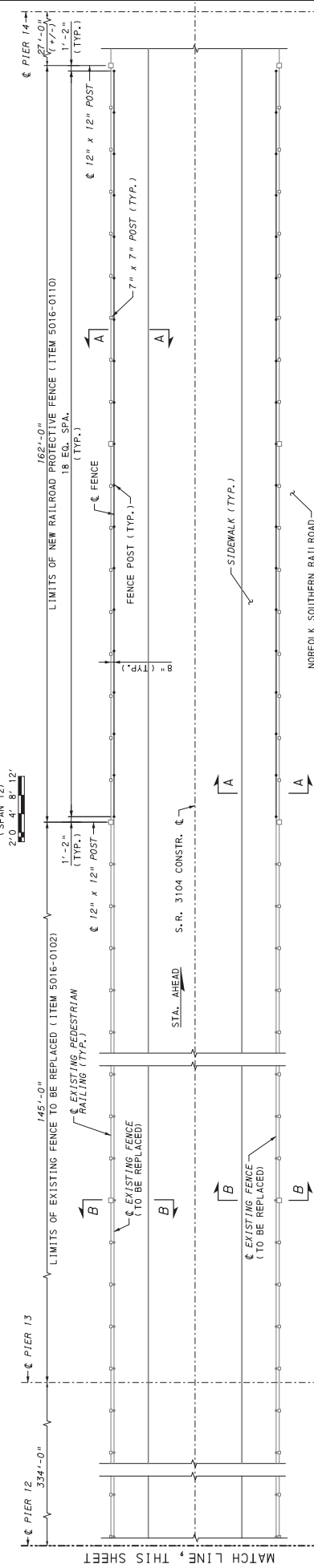
SHEET 31 OF 47

DES: CTV DWG: CMC CHK: CTV

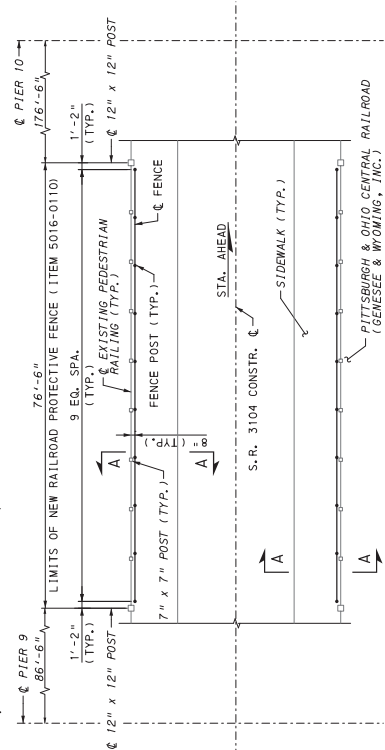
S-39126



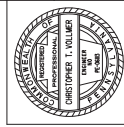
FENCE LAYOUT PLAN



FENCE LAYOUT PLAN



FENCE LAYOUT PLAN



- NOTES:
- 1. FOR ADDITIONAL DETAILS, SEE BC-701M.
 - 2. FOR SECTIONS A-A AND B-B, SEE SHEET 33.

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

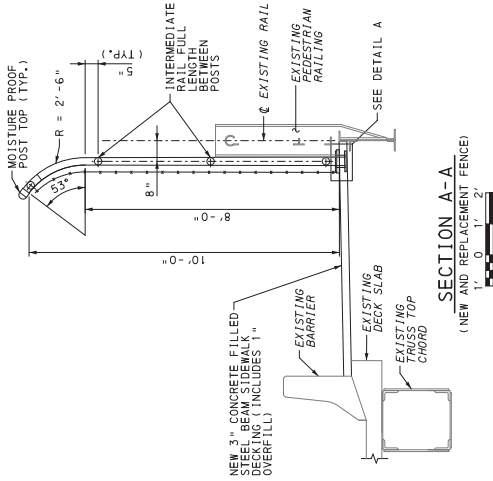
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

FENCE PLAN - SPANS 10 & 12-14

RECOMMENDED APRIL 28, 2022

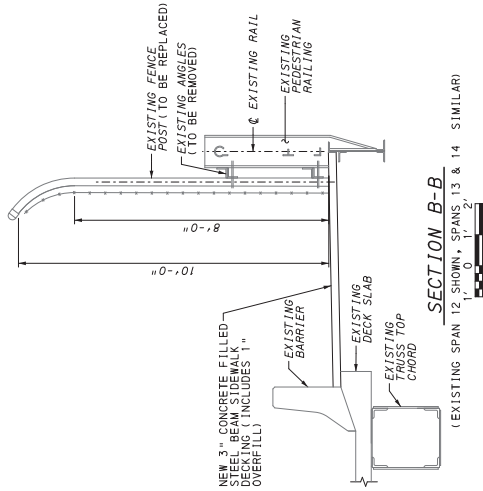
SHEET 32 OF 47

S-39126



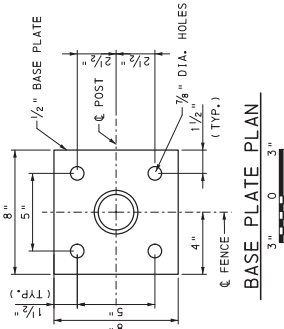
SECTION A-A

(NEW AND REPLACEMENT FENCE)

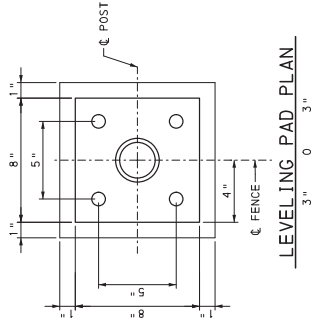


SECTION B-B

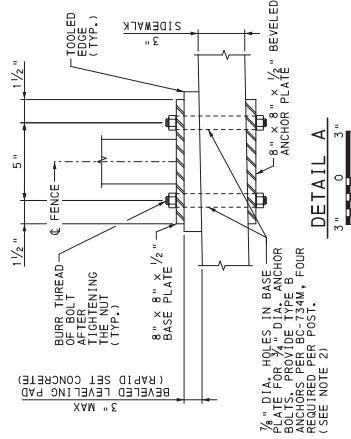
(EXISTING SPAN 12 SHOWN, SPANS 13 & 14 SIMILAR)



BASE PLATE PLAN



LEVELING PAD PLAN



DETAIL A

NOTES:

1. FOR ADDITIONAL DETAILS, SEE BC-701M.
2. USE TEMPLATE FOR SETTING ANCHOR BOLTS. EITHER BEFORE FILLING THE SIDEWALK DECKING OR WHEN DRILLING HOLES THROUGH FILLED SIDEWALK.

REVISIONS			
Mark	Description	By	Chk'd, Rec'd, Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

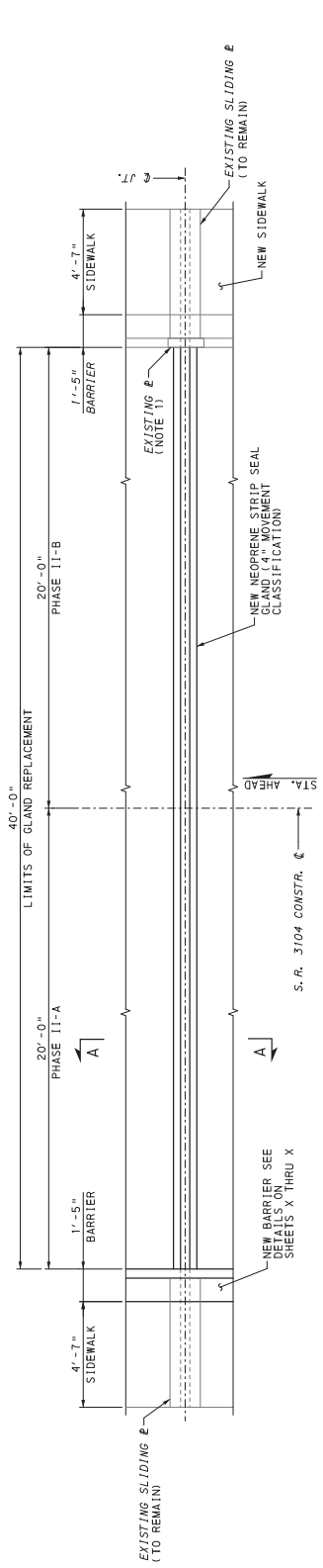
FENCE DETAILS

RECOMMENDED APRIL 26, 2022

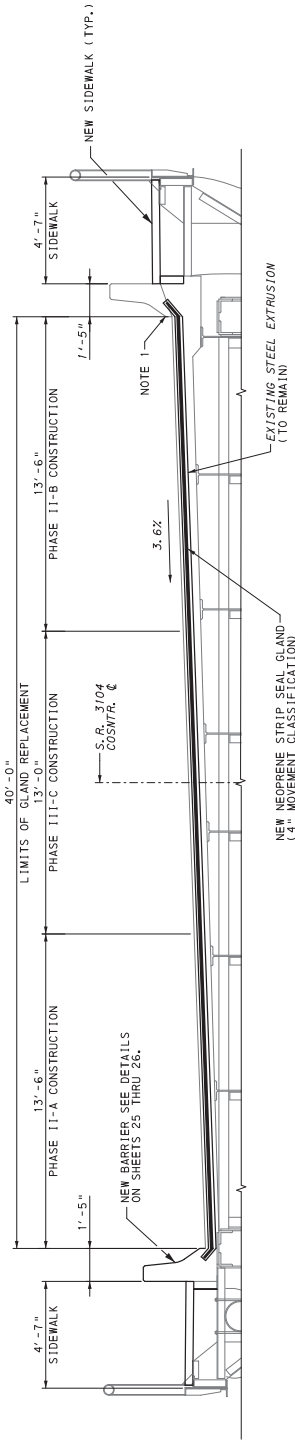
SHEET 33 OF 47

DES: CMC DWG: CMC CHK: CTV

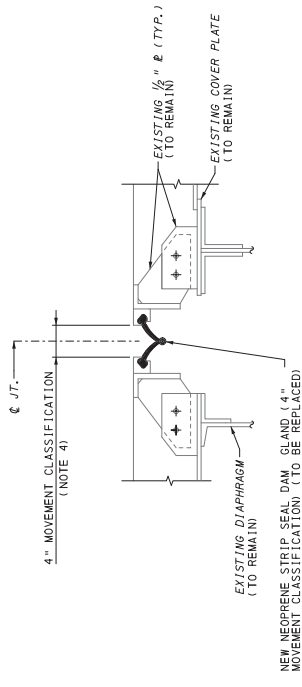
S-39126



PLAN - EXPANSION DAM @ PIER 8



TYPICAL SECTION - EXPANSION DAM @ PIER 8



SECTION A-A
NOT TO SCALE

- NOTES:
- 1. REMOVE AND RE-INSTALL EXISTING BARRIER PLATE FOR INSTALLATION OF NEW EXPANSION DAM GLAND.
 - 2. FOR STRIP SEAL GENERAL NOTES AND ELEVATIONS, SEE BC-767M.
 - 3. FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS AS NECESSARY PRIOR TO CONSTRUCTION.
 - 4. MEASURE THE EXISTING JOINT OPENING AND CORRESPONDING AMBIENT TEMPERATURE PRIOR TO FABRICATION AND CONSTRUCTION.

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD

PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

PIER 8 - EXPANSION DAM REPAIR

RECOMMENDED

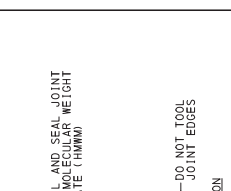
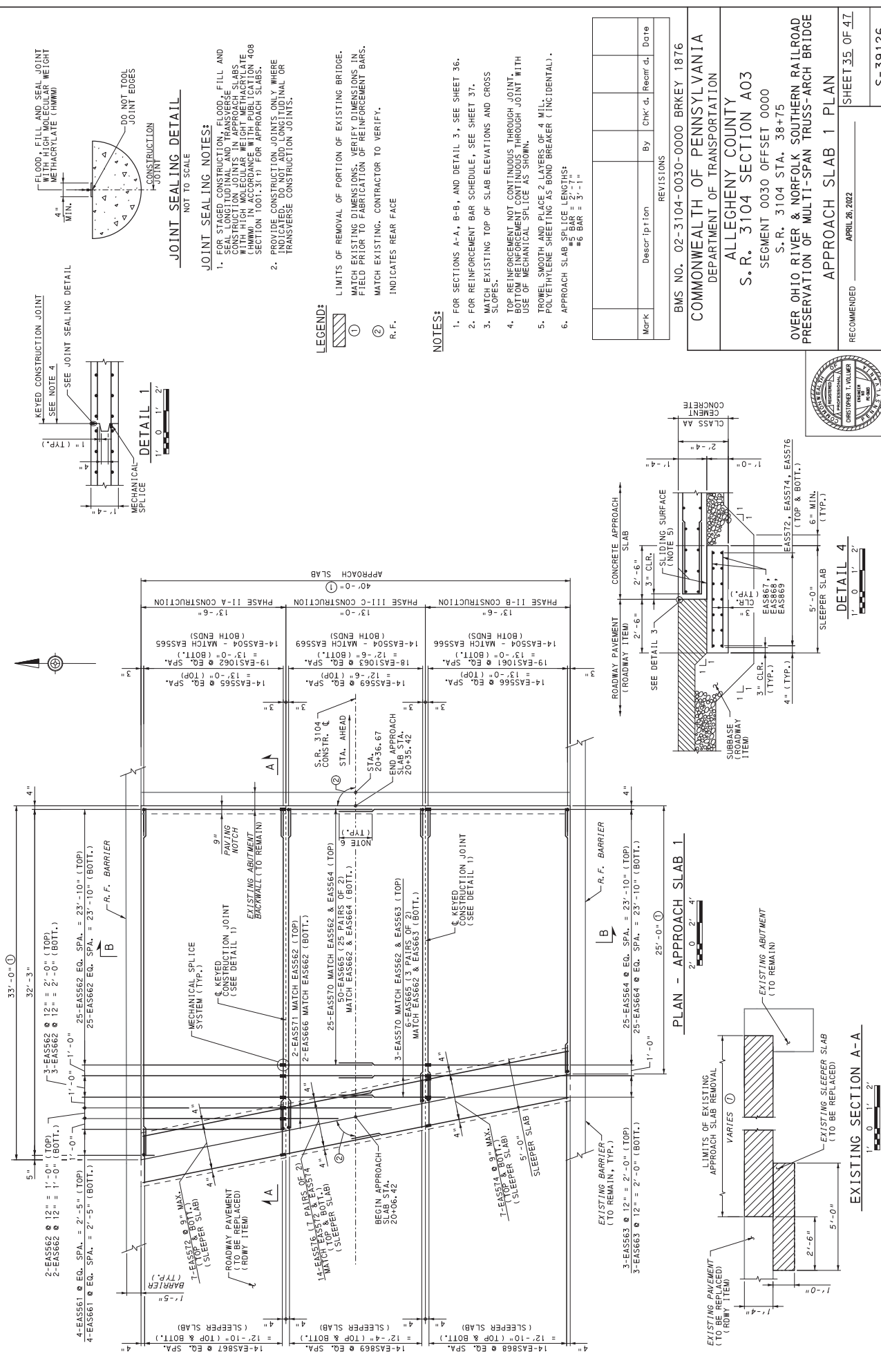
APRIL 28, 2022

SHEET 34 OF 47

S-39126



DES: CMC	DWN: CMC	CHK: CTV
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JOINT SEALING DETAIL
NOT TO SCALE

JOINT SEALING NOTES:

- FOR STAGED CONSTRUCTION, FLOOD, FILL AND SEAL LONGITUDINAL AND TRANSVERSE CONSTRUCTION JOINTS IN APPROACH SLABS WITH HIGH MOLECULAR WEIGHT METHACRYLATE (HMM) IN ACCORDANCE WITH PUBLICATION 408 SECTION 1001.3(1) FOR APPROACH SLABS.
- PROVIDE CONSTRUCTION JOINTS ONLY WHERE INDICATED. DO NOT ADD LONGITUDINAL OR TRANSVERSE CONSTRUCTION JOINTS.

LEGEND:

LIMITS OF REMOVAL OF PORTION OF EXISTING BRIDGE MATCH EXISTING DIMENSIONS. VERIFY DIMENSIONS IN FIELD PRIOR TO FABRICATION OF REINFORCEMENT BARS.

① MATCH EXISTING. CONTRACTOR TO VERIFY.

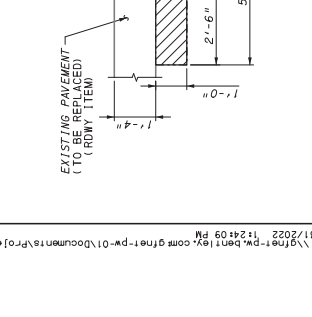
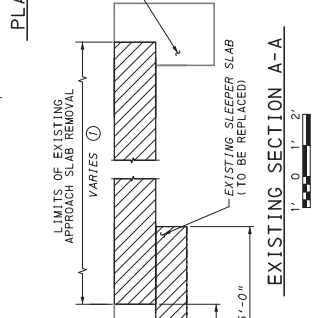
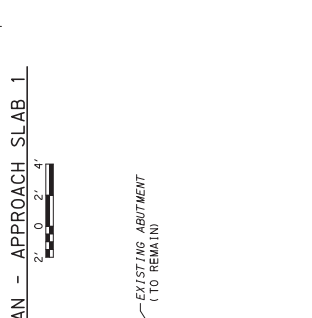
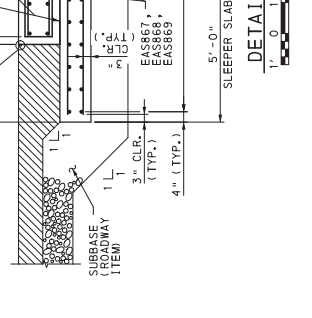
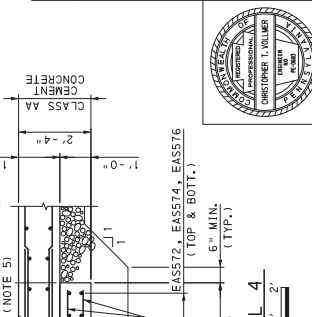
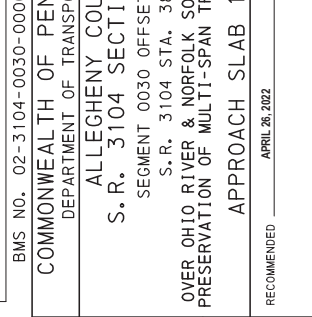
② R.F. INDICATES REAR FACE

NOTES:

- FOR SECTIONS A-A, B-B, AND DETAIL 3, SEE SHEET 36.
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 37.
- MATCH EXISTING TOP OF SLAB ELEVATIONS AND CROSS SLOPES.
- TOP REINFORCEMENT NOT CONTINUOUS THROUGH JOINT. USE OF MECHANICAL SPICE AS SHOWN.
- TRIMEL SMOOTH AND PLACE 2 LAYERS OF 4 MIL. POLYETHYLENE SHEETING AS BOND BREAKER (INCIDENTAL).
- APPROACH SLAB SPICE LENGTHS: #6 BAR = 3'-1"

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75
OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE
APPROACH SLAB 1 PLAN
RECOMMENDED APRIL 26, 2022
SHEET 35 OF 47



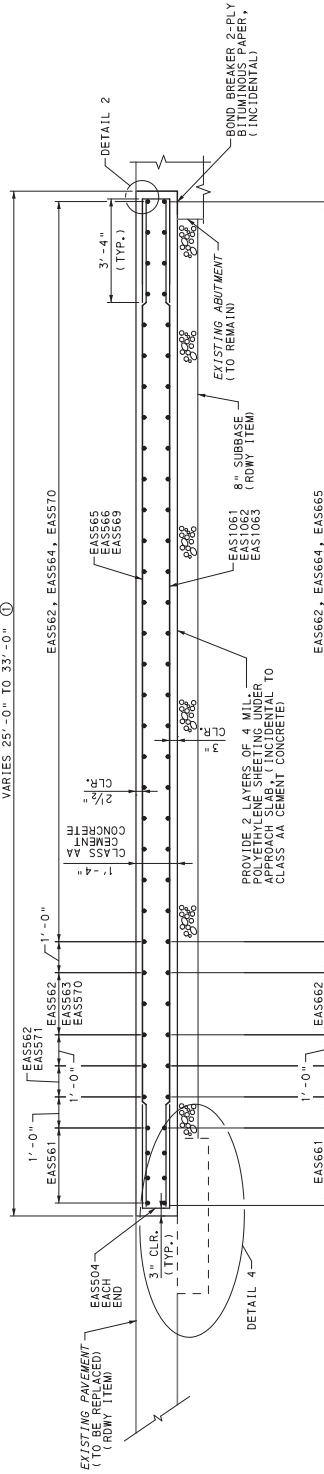
VARIES 25'-0" TO 33'-0" ①

LEGEND:

MATCH EXISTING DIMENSIONS. VERIFY DIMENSIONS IN FIELD PRIOR TO FABRICATION OF REINFORCEMENT BARS.

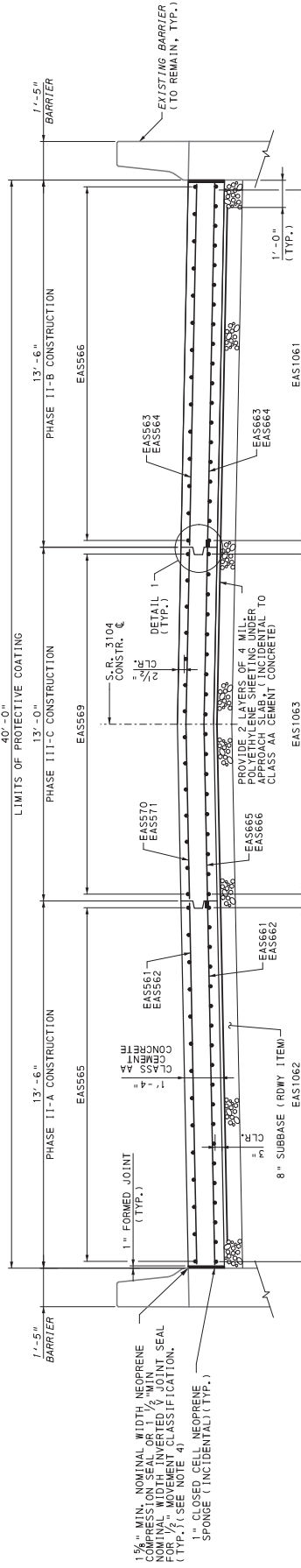
NOTES:

1. FOR RE-INFORCEMENT BAR SCHEDULES, SEE SHEET 37.
2. MATCH EXISTING TOP OF SLAB ELEVATIONS AND CROSS SLOPES.
3. FOR DETAIL 1, SEE SHEET 35.
4. USE ONLY APPROVED SEALS, AS LISTED IN THE SPECIFICATIONS, TO SEAL THE TOP OF THE JOINTS. THE DEPTH OF THE SEAL SHALL BE UNIFORM, FROM THE TOP OF THE JOINT TO THE BOTTOM OF THE JOINT. FROM $\frac{1}{4}$ " TO $\frac{1}{2}$ " BELOW THE LEVEL OF THE PAVEMENT SURFACE. MAKE THE TOP EDGES OF THE CONTACT SURFACES ON BOTH SIDES OF THE SEAL AT THE SAME ELEVATION.
5. FOR DETAIL 4, SEE SHEET 35.



SECTION A-A

NOT TO SCALE

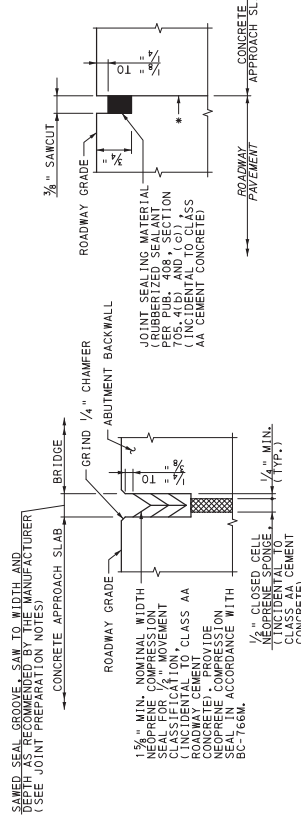


SECTION B-B

NOT TO SCALE

JOINT PREPARATION NOTES:

1. FORM THE JOINT OPENING BY A TWO-STAGE SAWING OPERATION. WHERE ACCESSIBILITY IS LIMITED, FORM THE JOINT OPENING. THE FIRST SAW CUT IS DESIGNED TO CONTROL CRACKING IN THE SECOND SAW CUT. WHILE USING A SAW, THE JOINT OPENING SHOULD BE KEPT OPEN TO A TOLERANCE OF $\frac{1}{8}$ " TO CREATE THE PROPER OPENING FOR THE PRE-FORMED NEOPRENE COMPRESSION SEAL.
2. WATER BLAST OPENING IMMEDIATELY FOLLOWING SAW CUTTING. OPERATION TO REMOVE ANY RESIDUAL SLURRY BEFORE IT DRIES.
3. THE DEPTH OF THE JOINT OPENING EQUALS THE HEIGHT OF THE SEAL PLUS 1". ADJUST THE WIDTH OF THE SECOND SAW CUT TO ACCOUNT FOR THE CONCRETE SURFACE TEMPERATURE AT THE TIME OF SAWING. SEE MANUFACTURER'S PRODUCT INFORMATION.
4. BEFORE INSTALLING THE SEAL, ABRASIVE BLAST THE BONDING SURFACES TO THOROUGHLY CLEAN THE JOINT OPENING AND REMOVE ALL OIL, GREASE, AND DIRT. BLOW OUT ALL RESIDUE FROM THE SEAL GROOVE OPENING.
5. PREPARE BONDING SURFACES AND INSTALL JOINT SEAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
6. DO NOT EXCEED 3% ELONGATION OF THE SEAL, IF STRETCHING OCCURS.



DETAIL 3

DETAILS
NOT TO SCALE

- * COAT WITH BOND BREAKER PRIOR TO PLACING APPROACH SLAB CONCRETE (INCIDENTAL).

DETAIL 2

DLI AIL 2
NOT TO SCALE

- ### PLACING APPROACH SLAB CONCRETE (INCIDENTAL).



RECOMMENDED	APRIL 26, 2022
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5. PREPARE BONDING SURFACES AND INSTALL JOINT SEAL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

6. DO NOT EXCEED 3% ELONGATION OF THE SEAL, IF STRETCHING OCCURS.

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

ALLI EGHENY COUNTY

S-R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

APPROACH SLAB 1 SECTIONS

SHEET 36 OF 47

DES: CMC	DWN: CMC	CHK: CTV
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REINFORCEMENT BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F/R	G	H	J	K	REMARKS
PHASE 11-A															
EAS504	5	28	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							VARY 1 EA. Ø 3'-11"
EAS561	5	4	1'-0" TO 12'-9"	STR											
EAS562	5	30	13'-1"	STR											VARY 1 EA. Ø 2 1/2"
EAS565	5	14	29'-10" TO 32'-5 1/2"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS572	5	14	13'-6"	STR											
EAS561	6	4	1'-0" TO 12'-9"	STR											VARY 1 EA. Ø 3'-11"
EAS562	6	30	13'-3"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS567	8	28	4'-8"	STR											
EAS1062	10	19	29'-10" TO 32'-5 1/2"	STR											VARY 1 EA. Ø 1 3/4"
PHASE 11-B															
EAS504	5	28	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							VARY 1 EA. Ø 5'-0"
EAS561	5	4	1'-4" TO 11'-4"	STR											
EAS562	5	30	13'-1"	STR											VARY 1 EA. Ø 2 1/2"
EAS565	5	14	24'-6 1/2" TO 27'-1 1/2"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS574	5	14	13'-6"	STR											
EAS563	6	3	1'-4" TO 11'-4"	STR											VARY 1 EA. Ø 5'-0"
EAS564	6	25	13'-3"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS568	8	28	4'-8"	STR											
EAS1061	10	19	24'-6 1/2" TO 27'-1 1/2"	STR											VARY 1 EA. Ø 1 3/4"
PHASE 11-C															
EAS504	5	28	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							VARY 1 EA. Ø 2 1/4"
EAS569	5	14	27'-3" TO 29'-9"	STR											VARY 1 EA. Ø 5'-0"
EAS570	5	28	12'-10"	STR											
EAS571	5	2	4'-4" TO 9'-4"	STR											THREAD ONE END BY 3"
EAS576	5	28	8'-3"	STR											
EAS565	6	56	8'-4"	STR											THREAD ONE END BY 3"
EAS566	6	2	4'-8" TO 9'-8"	STR											VARY 1 EA. Ø 5'-0"
EAS569	8	28	4'-8"	STR											THREAD ONE END BY 3"
EAS1063	10	18	27'-3" TO 29'-9"	STR											VARY 1 EACH Ø 1 3/4"

BAR MARK LEGEND



CODE LETTERS FOR BAR MARKS

EAS = APPROACH SLAB

NOTES:

ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
"J" DIMENSIONS ON 180° HOOKS ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOK SIZES ARE REQUIRED.
FIGURES IN CIRCLES SHOW TYPES.
FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING 80-7150M.
REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.
3" THREAD LENGTH, INCLUDED IN DETAIL DIMENSIONS.



17

Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
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OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

APPROACH SLAB 1 BAR SCHEDULE

RECOMMENDED APRIL 26, 2022

SHEET 37 OF 47

S-39126



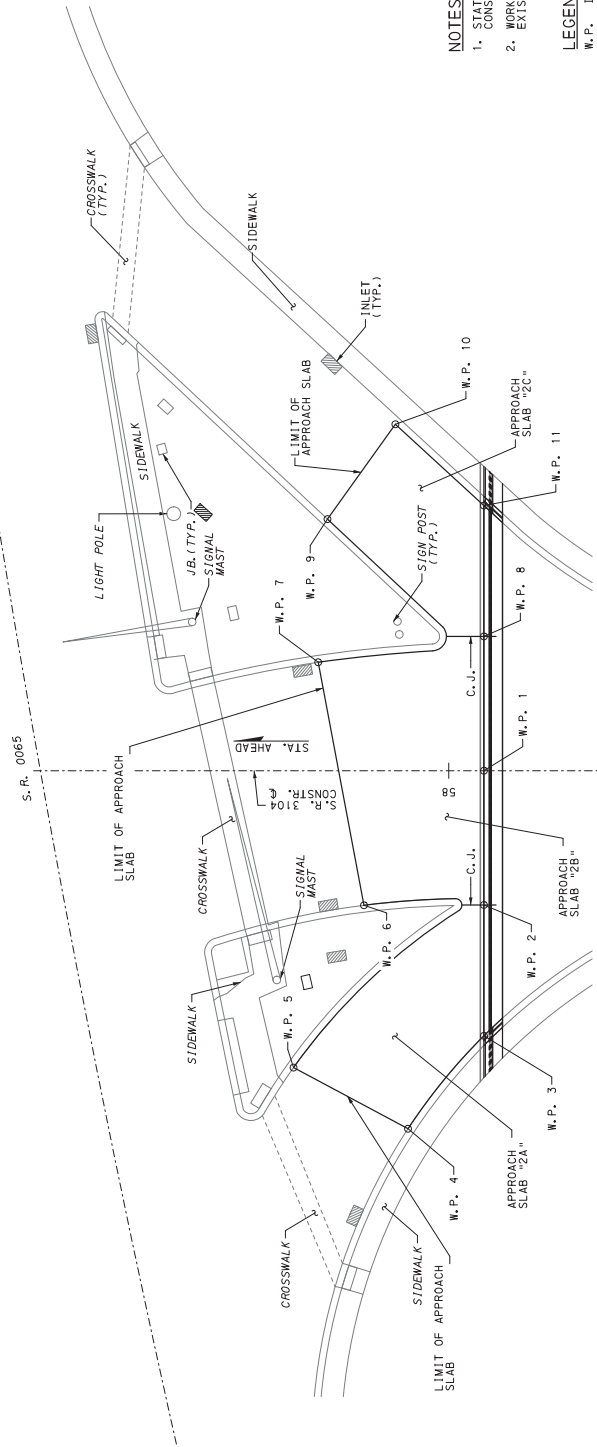


TABLE OF WORK POINTS		
WORK POINT	S.R. 3104 STATION	OFFSET
1	57+92.68	00.00'
2	57+92.68	27.92' LT.
3	57+92.68	55.13' LT.
4	58+08.47	74.46' LT.
5	58+32.27	61.74' LT.
6	58+17.62	27.98' LT.
7	58+27.14	22.56' RT.
8	57+92.68	27.93' RT.
9	58+25.22	52.33' RT.
10	58+11.09	72.06' RT.
11	57+92.68	55.13' RT.

NOTES:

- 1. STATIONS AND OFFSETS ARE GIVEN TO THE S.R. 3104 CONSTR. C.
- 2. WORK POINT DATA GIVEN FOR INFORMATION ONLY. MATCH EXISTING APPROACH SLAB LIMITS. VERIFY IN FIELD.

LEGEND:

- W.P. INDICATES WORK POINT
- C.J. INDICATES CONSTRUCTION JOINT

APPROACH SLAB 2 KEY PLAN

NOT TO SCALE

REVISIONS			
Mark	Description	By	Chk'd, Rec'd, Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA

DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD

PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

APPROACH SLAB 2 KEY PLAN

RECOMMENDED APRIL 28, 2022

SHEET 38 OF 47

S-39126

DES: CJP DWG: CJP CHK: CTV

[illegible]



1' 0 1' 2' 3'

RECOMMENDED
APRIL 26, 2022SHEET 41 OF 47

DES: C:IP	DWN: C:IP	CHK: CTV
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S-39126

NOTES:

1. FOR APPROACH SLAB 2 KEY PLAN, SEE SHEET 38.
2. FOR APPROACH SLAB 3 KEY PLAN, SEE SHEET 40.
3. FOR SECTIONS A-A AND B-B, SEE SHEET 42.
4. FOR VIEW C-C, SEE SHEET 43.
5. FOR SECTION D-D, SEE SHEET 39.
6. FOR DETAIL 3, SEE SHEET 40.
7. FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 46.
8. MATCH EXISTING APPROACH SLAB ELEVATIONS AND CROSS SLOPES.
9. FOR LIMITS OF REMOVAL, SEE SHEET 42.

LEGEND:

- T) TOP BARS
 B) BOTTOM BARS
 F.F. INDICATES FRONT FACE.
 ① MATCH EXISTING DIMENSIONS. MEASURE AND DEMARK THE POSITION OF REINFORCEMENT OF TOP AND BOTTOM BARS.
 ② MEASURED NORMAL TO WORKING LINE.
 ③ MEASURED ALONG WORKING LINE OR WORKING LINE (EXTENDED).

REVISIONS					
Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

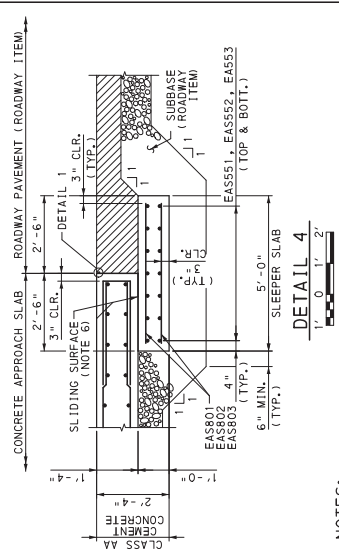
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

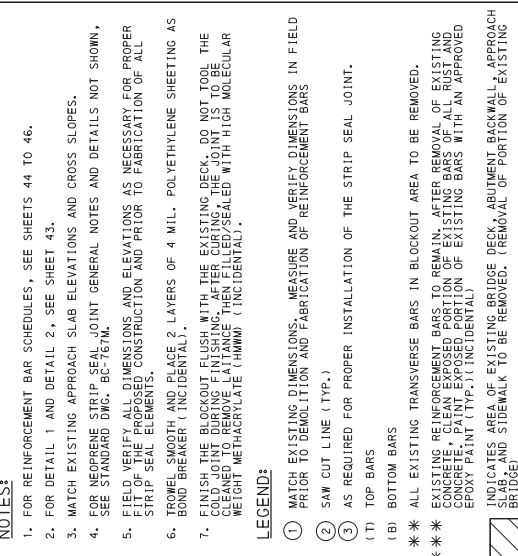
APPROACH SLAB 2C PLAN

RECOMMENDED
APRIL 26, 2022

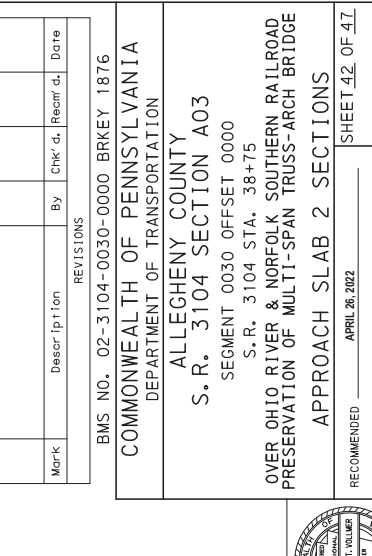
SHEET 41 OF 47



DETAIL 4



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SECTION B-B
(SIDEWALK)

CH SLAB

CHRISTOPHER T.

APRIL 26, 2022



COMMONWEALTH OF PENNSYLVANIA

S.R. 3104 SECTION 1

S.R. 3104 STA. 38+75

APPROACH SLAB 2 SECTIONS

APRIL 26, 2022 SHEET 42

APRIL 26, 2022

APPROACH SLAB 2B BAR SCHEDULE

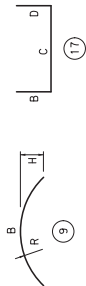
MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F/R	G	H	J	K	REMARKS
EAS03	6	4	55'-10"	STR											
EAS04	6	8	3'-4"	STR											
EAS502	5	103	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							
EAS531	5	1	24'-6"	9		24'-5"				R = 173'-8"					
EAS532	5	48	33'-8" TO 24'-9"	STR		33'-11"				R = 308'-7"					VARY 1 EA. BY 2 1/4"
EAS533	5	1	33'-11"	9											
EAS534	5	1	4'-4"	STR											
EAS535	5	3	7'-5 1/2"	STR											
EAS537	5	3	34'-0" TO 17'-10"	STR											VARY 1 EA. BY 8'-1"
EAS538	5	5	55'-10"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS539	5	18	51'-4"	STR											
EAS540	5	13	27'-10"	STR											THREAD ONE END BY 3"
EAS541	5	3	54'-4 1/2"	STR											
EAS544	5	5	46'-7" TO 24'-10 1/2"	STR											
EAS546	5	5	19'-5 1/2" TO 2'-2 1/2"	STR											VARY 1 EA. BY 5'-5 1/8"
EAS548	5	1	51'-3"	STR											VARY 1 EA. BY 4'-3 3/4"
EAS552	5	14	50'-10 1/2"	STR											
EAS532	6	18	51'-4"	STR											VARY 1 EA. BY 5'-5 1/8"
EAS533	6	3	54'-4 1/2"	STR											
EAS535	6	5	46'-7" TO 24'-10 1/2"	STR											
EAS536	6	5	55'-6"	STR											
EAS537	6	5	19'-5 1/2" TO 2'-2 1/2"	STR											VARY 1 EA. BY 5'-0 7/8"
EAS538	6	1	51'-1"	STR											
EAS540	6	13	3'-4"	STR											THREAD ONE END BY 3"
EAS502	8	104	4'-6"	STR											
EAS1031	10	1	24'-5"	9		24'-5"				R = 173'-8"					
EAS1032	10	64	33'-8" TO 24'-9"	STR						R = 308'-7"					
EAS1033	10	1	33'-11"	9		33'-11"									
EAS1034	10	1	4'-4"	STR											
EAS1035	10	4	7'-5 1/2"	STR											
EAS1037	10	4	33'-11" TO 18'-10 1/2"	STR											
E5603	6	10	55'-10"	STR											
E5604	6	20	3'-4"	STR											THREAD ONE END BY 3"

BAR MARK	LEGEND
EAS001	EPHOXY COATED
CODE LETTER	SIZE
NUMBERING	NUMBERING

CODE LETTERS FOR BAR MARKS
EAS = APPROACH SLAB
ES = SLAB OR SIDEWALK

NOTES:

ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.
"J" DIMENSIONS ON 180° HOOKS ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOK SIZES ARE REQUIRED.
FIGURES IN CIRCLES SHOW TYPES.
FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-130M.
REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.
3" THREAD LENGTH INCLUDED IN DETAIL DIMENSION.



Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

APPROACH SLAB 2B BAR SCHEDULE

RECOMMENDED APRIL 26, 2022

SHEET 45 OF 47

DES: CJP DWG: CJP CHK: CTV

S-39126

APPROACH SLAB 2C BAR SCHEDULE

MARK	SIZE	NUMBER	LENGTH	TYPE	A	B	C	D	E	F/R	G	H	J	K	REMARKS
EAS501	6	4	28'-7" TO 27'-11"	STR											MECHANICAL SPLICE SYSTEM ONE END VARY 2 EA. BY 8"
EAS501	6	4	5'-10"	STR											
EAS502	5	50	7'-6 1/2"	17		3'-4"	10 1/2"	3'-4"							VARY 1 EA. BY 1'-1"
EAS521	5	5	39'-10" TO 35'-6"	STR											VARY 1 EA. BY 9 3/4"
EAS522	5	20	40'-0" TO 24'-8"	STR											VARY 1 EA. BY 1'-10 3/4"
EAS523	5	6	10'-6" TO 1'-0"	STR											VARY 1 EA. BY 11 1/8"
EAS524	5	13	23'-2" TO 11'-3"	STR											
EAS525	5	23	23'-9"	STR											
EAS526	5	1	27'-0"	STR											
EAS527	5	2	17'-3" TO 9'-8"	STR											VARY 1 EA. BY 7'-7"
EAS536	5	8	4'-0"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS550	5	1	23'-9"	STR											
EAS553	5	14	23'-8 1/2"	STR											
EAS521	6	6	10'-6" TO 1'-0"	STR											VARY 1 EA. BY 1'-10 3/4"
EAS522	6	13	23'-2" TO 11'-3"	STR											VARY 1 EA. BY 11 1/8"
EAS523	6	23	23'-9"	STR											
EAS524	6	1	27'-0"	STR											
EAS525	6	2	17'-3" TO 9'-8"	STR											VARY 1 EA. BY 7'-7"
EAS531	6	8	4'-0"	STR											MECHANICAL SPLICE SYSTEM ONE END
EAS550	6	1	23'-9"	STR											
EAS503	8	50	4'-6"	STR											
EAS1021	10	6	39'-10" TO 35'-6"	STR											VARY 1 EA. BY 10 3/4"
EAS1022	10	27	40'-0" TO 24'-8"	STR											VARY 1 EA. BY 7 1/8"
ES403	4	7	3'-10"	34		2'-7"	5"	3"	7"			5"			
ES607	6	10	26'-11" TO 25'-5"	STR											VARY 2 EA. BY 4 1/2"
ES606	6	10	5'-8 1/2"	STR											MECHANICAL SPLICE SYSTEM ONE END
EB401	4	9	5'-7 1/4"	T20	0 1/4"	2'-2"	3"	2'-0"	3 1/8"	2 1/2"	3 3/8"	5"		2 1/4"	
EB402	4	9	4'-8 1/2"	36	1'-4"	3 1/8"	2"	2"	11 1/8"	6 1/2"	1 1/4"	7"	1'-2"		
EB501	5	7	7"	STR											
EB502	5	4	2'-9"	STR											
EB601	6	4	7"	STR											
EB602	6	4	2'-9"	STR											

BAR MARK LEGEND

EAS501

EA = ABUTMENT
ES = SLAB
EB = BARRIER

COATED
SIZE

NUMBERING

NOTES:

ALL DIMENSIONS ARE OUT-TO-OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 180° AND 135° HOOKS.

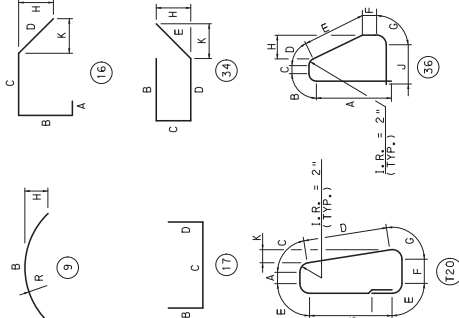
"J" DIMENSIONS ON 180° HOOKS ONLY WHERE NECESSARY TO RESTRICT HOOK SIZE, OTHERWISE STANDARD HOOK SIZES ARE REQUIRED.

FIGURES IN CIRCLES SHOW TYPES.

FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-735M.

REINFORCEMENT BAR SCHEDULE IS FOR INFORMATION ONLY. VERIFY PRIOR TO BIDDING AND FABRICATION.

3" THREAD LENGTH INCLUDED IN DETAIL DIMENSION.



Mark	Description	By	Chk'd	Revised	Date

BMS NO. 02-3104-0030-0000 BRKEY 1876

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALLEGHENY COUNTY
S.R. 3104 SECTION A03
SEGMENT 0030 OFFSET 0000
S.R. 3104 STA. 38+75

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD
PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

APPROACH SLAB 2C BAR SCHEDULE

RECOMMENDED APRIL 26, 2022

SHEET 46 OF 47

S-39126





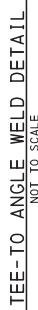
TYPICAL SIDEWALK DETAIL
(FLOORBEAM LOCATION SHOWN - INTERMEDIATE SUPPORTS SIMILAR)



U-BOLT HANGER REPLACEMENT CRITERIA:
ACCORDANCE WITH THE SPECIAL PROVISION FOR
ITEM 9000-0020 REPLACE EXISTING HANGER
ASSEMBLIES HAVING EXCESSIVE CORROSION
EXCEEDING 25% OF THE MINOR DIAMETER OF THE
U-BOLT (S).



GAS LINE EXPANSION COUPLER ACCESS HATCH



NOT TO SCALE



SECTION A-A



SECTION B-B

1. HANGER ASSEMBLY REPLACEMENT LOCATIONS WILL BE DETERMINED BY THE REPRESENTATIVE PER THE SPECIFICATION FOR ITEM 9000-0020, COORDINATE WITH PEOPLES NATURAL GAS BEFORE REPLACING ANY OF THE EXISTING U-BOLTS ASSEMBLIES.
2. HANGER ASSEMBLIES WILL BE PROVIDED BY PEOPLES NATURAL GAS COMPANY.
3. ACCESS HATCHES ARE TO BE FABRICATED AS PART OF THE STEEL BEAM STEELWALK DECKING.
4. ACCESS HATCHES ARE TO BE LOCATED OVER THE EXISTING GAS LINE EXPANSION COUPLINGS ADJACENT TO PIER 8 AND 13. PRIOR TO FABRICATION VERIFY THE LOCATIONS AND COORDINATE WITH THE STEEL BEAM FABRICATOR. PROVIDE THE COORDINATE DETAILS WITH THE EXPANSION JOINT REPLACEMENT DETAILS ON SHEET 30 AS APPLICABLE.
5. TEMPORARY SUPPORT OF THE GAS LINE FOR HANGER ASSEMBLY REPLACEMENT IS INCIDENTAL TO ITEM 9000-0017.
6. MACHINE STEEL BLOCKS TO ACCEPT 3/4" DIA. TAPPED SCREWS.
7. PAINT EXISTING GAS LINE COUPLER AND HANGER ASSEMBLIES. WORK SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR ITEM 9000-0020. SEE SPECIAL PROVISIONS FOR THESE SHEETS FOR PAINT LIMITS.

Mark	Description	By	CHK'd	Rec'd	Date
REVISIONS					

BMS NO.	02-3104-0030-0000	BRKEY	1876
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COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION

ALL EGHENY COUNTY

S.R. 3104 SECTION A03

SEGMENT 0030 OFFSET 0000

S.R. 3104 STA. 38+75

IVER & NORFOLK SOUTHE

OVER OHIO RIVER & NORFOLK SOUTHERN RAILROAD

PRESERVATION OF MULTI-SPAN TRUSS-ARCH BRIDGE

PEOPLES NATURAL GAS - REHAB. DETAILS

RECOMMENDED APRIL 26, 2022

Item	Unit	Quantity	Unit Price	Total Price
1. Labor	Hour	100	10.00	1000.00
2. Material	kg	500	2.00	1000.00
3. Equipment	Hour	50	20.00	1000.00
4. Overhead	Hour	100	10.00	1000.00
5. Profit	Hour	100	10.00	1000.00
Total				5000.00

[illegible]

	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523
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Item	Unit	Quantity	Unit Price	Total Price
1. Labor	Hour	100	10.00	1000.00
2. Material	kg	500	2.00	1000.00
3. Equipment	Hour	50	20.00	1000.00
4. Overhead	Hour	100	10.00	1000.00
5. Profit	Hour	100	10.00	1000.00
Total				5000.00

S-39126