

# NORFOLK SOUTHERN



# RAILWAY COMPANY

## DRAWINGS FOR REHABILITATION OF

BRIDGES HP-40.12 (FRANKLIN STREET) & HP-40.21 (EVANS STREET)  
OVER NORFOLK SOUTHERN  
POTTSTOWN, MONTGOMERY COUNTY, PA

### SUMMARY OF ESTIMATED MATERIAL QUANTITIES

SECTION	ITEM	UNIT	TOTAL
2	MOBILIZATION AND DEMOBILIZATION	LS	1
3	MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION	LS	1
4.1	STRUCTURAL STEEL - FRANKLIN ST	LB	5456
4.2	STRUCTURAL STEEL - EVANS ST	LB	5312
5.1	ZONE PAINTING - FRANKLIN ST	LS	1
5.2	ZONE PAINTING - EVANS ST	LS	1
6.1	CAST-IN-PLACE CONCRETE - FRANKLIN ST	CY	44
6.2	CAST-IN-PLACE CONCRETE - EVANS ST	CY	38
7.1	REMOVAL OF PORTION OF EXISTING STRUCTURE - FRANKLIN ST	LS	1
7.2	REMOVAL OF PORTION OF EXISTING STRUCTURE - EVANS ST	LS	1
8.1	RAILROAD PROTECTIVE FENCE, VINYL-COATED STEEL - FRANKLIN ST	LF	173
8.2	RAILROAD PROTECTIVE FENCE, VINYL-COATED STEEL - EVANS ST	LF	159

THIS PROJECT IS THE REHABILITATION OF TWO EXISTING OVERHEAD BRIDGES CARRYING EVANS ST AND FRANKLIN ST OVER NORFOLK SOUTHERN. THE SCOPE OF WORK INCLUDES REMOVAL OF PORTIONS OF THE EXISTING SIDEWALK AND CURB, STRUCTURAL STEEL REPAIRS, ZONE PAINTING REPAIR AREAS, CONSTRUCTING PORTIONS OF SIDEWALK AND CURB, AND NEW PROTECTIVE FENCE.

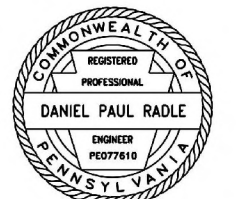
### INDEX OF DRAWINGS

SHEET NO	DESCRIPTION
1	GENERAL NOTES
2	MAINTENANCE OF TRAFFIC DETAILS - FRANKLIN ST
3	MAINTENANCE OF TRAFFIC DETAILS - EVANS ST
4	SIDEWALK DETAILS - FRANKLIN ST
5	SIDEWALK DETAILS - EVANS ST
6	PROTECTIVE FENCE
7	STEEL DETAILS - FRANKLIN ST
8	STEEL DETAILS - EVANS ST

### CERTIFIED CORRECT PLANS

*Will M. D.*  
Professional Engineer  
Approved by Bureau of Technical Utility Services  
**PA PUBLIC UTILITY COMMISSION**  
*M. L. Hamaker*  
Secretary **03/23/2026**  
Docket: A-2025-3058381

PREPARED BY:  
**AECOM**  
AECOM  
707 GRANT STREET  
SUITE 500  
PITTSBURGH, PA 15219



*Daniel P. Radle*  
REG. PROF. ENGR. PA  
DATE: 02-02-2026

DESCRIPTION	DWG. NO.	APP. DATE
PROTECTIVE FENCE	BC-701M	11/23/22
STANDARD REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	06/19/24
<b>SUPPLEMENTAL DRAWINGS</b>		

**GENERAL:**

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PENNDOT PUBLICATION 408/2020, AREMA MANUAL FOR RAILWAY ENGINEERING, 2023 (AREMA) CHAPTER 8 AND CHAPTER 15, AND AASHTO/AWS BRIDGE WELDING CODE D1.5M/D1.5: 2020.
2. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
3. VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
4. DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68°F.
5. REPAIR ANY DAMAGE OR MODIFICATIONS TO THE STRUCTURE OR OTHER FACILITIES, DUE TO THIS WORK TO PRECONSTRUCTION CONDITIONS.

**DEMOLITION, REHABILITATION AND MODIFICATION:**

1. EXERCISE CARE DURING DEMOLITION OF THE EXISTING STRUCTURE TO AVOID DAMAGE TO ANY PORTION DESIGNATED TO BE REUSED OR TO REMAIN. REPAIR ANY DAMAGE OR REPLACE ANY DAMAGED MATERIALS TO THE SATISFACTION OF THE NORFOLK SOUTHERN RAILWAY COMPANY'S ENGINEER AT NO ADDITIONAL COST TO NORFOLK SOUTHERN RAILWAY COMPANY.
2. THE NORFOLK SOUTHERN RAILWAY COMPANY'S ENGINEER RESERVES THE RIGHT TO CHANGE THE NATURE AND LIMITS OF THE WORK TO ENSURE A SATISFACTORY REHABILITATION.

**DESIGN LIVE LOADS:**

1. DESIGN SPECIFICATIONS: AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, 17TH EDITION, INCLUDING 2003 AND 2005 ERRATA.
2. LIVE LOAD: HS-20, ML-80, TK-527
3. LIVE LOAD DISTRIBUTION TO THE GIRDERS IS BASED UPON DISTRIBUTION FACTORS.
4. DESIGN IS IN ACCORDANCE WITH ALLOWABLE STRESS METHOD.
5. HP-40.12 - FRANKLIN STREET - BRIDGE IS WEIGHT RESTRICTED FOR 12 TONS EXCEPT COMBINATIONS OF 15 TONS.
6. HP-40.21 - EVANS STREET - BRIDGE IS NOT WEIGHT RESTRICTED.

**DESIGN DEAD LOADS:**

1. INCLUDES 0.065 KSF FOR WEARING SURFACE
2. INCLUDES 0.050 KLF FOR UTILITIES

**STRUCTURAL STEEL:**

1. PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO A709 GRADE 50.
2. PROVIDE 7/8" DIA, ASTM F3125 GRADE A325 HIGH STRENGTH BOLTS.
3. PAINT STRUCTURAL STEEL IN ACCORDANCE WITH SECTION 5.
4. THE STABILITY OF THE GIRDERS AND PORTIONS OF THE STRUCTURE TO REMAIN IS TO BE MAINTAINED BY THE CONTRACTOR DURING ERECTION, UNTIL ALL STRUCTURAL STEEL IS IN-PLACE AND ALL BOLTS ARE PROPERLY INSTALLED.

**CONCRETE:**

1. PROVIDE 2 INCH CONCRETE COVER ON REINFORCED BARS, EXCEPT AS NOTED.
2. USE CEMENT CONCRETE WITH A 28-DAY COMPRESSIVE STRENGTH OF 4000 PSI WITH NO. 8 COARSE AGGREGATE.
3. A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO NORFOLK SOUTHERN RAILWAY COMPANY, IF APPROVED BY NORFOLK SOUTHERN RAILWAY COMPANY'S ENGINEER.
4. RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.
5. CHAMFER EXPOSED CONCRETE EDGES 3/4 INCH BY 3/4 INCH, EXCEPT AS NOTED.
6. PROVIDE EPOXY BONDING COMPOUND IN ACCORDANCE WITH SECTION 6. USE EPOXY BONDING COMPOUND WHEREVER PREVIOUSLY PLACED HARDENED CONCRETE SURFACES ARE TO COME IN CONTACT WITH NEW CONCRETE.
7. USE EITHER REMOVABLE FORMS OR PERMANENT METAL FORMS TO CONSTRUCT THE SIDEWALK.
8. DO NOT USE SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.

**REINFORCEMENT:**

1. PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A 615/A 615M, A 996/A 996M, OR A 706/A 706M. DO NOT WELD GRADE 60 REINFORCING STEEL BARS UNLESS SPECIFIED, GRADE 40 REINFORCING STEEL BARS MAY BE SUBSTITUTED WITH A PROPORTIONAL INCREASE IN CROSS-SECTIONAL AREA, IF APPROVED BY THE NORFOLK SOUTHERN RAILWAY COMPANY'S ENGINEER. DO NOT USE RAIL STEEL A 996/A 996M REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, BARRIERS, OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
2. USE EPOXY-COATED REINFORCEMENT BARS. BARS DESIGNATED AS "E" FOR CLARITY.
3. GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.
4. WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.
5. PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH PENNDOT STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.

**EXISTING PLANS:**

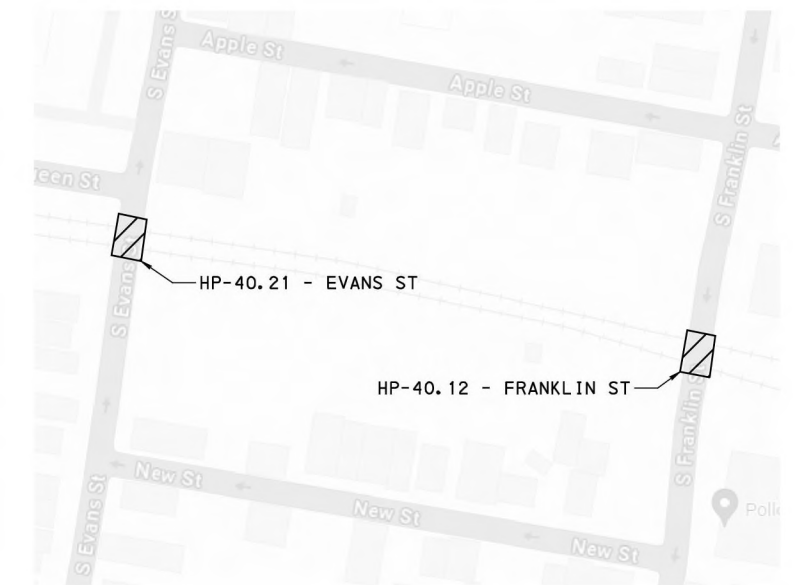
1. DO NOT CONSIDER ANY OF THE DATA ON THE EXISTING STRUCTURE SUPPLIED IN THE ORIGINAL DESIGN DRAWINGS OR MADE AVAILABLE TO YOU BY NORFOLK SOUTHERN RAILWAY COMPANY OR ITS AUTHORIZED AGENTS AS POSITIVE REPRESENTATIONS OF ANY OF THE CONDITIONS THAT WILL BE ENCOUNTERED IN THE FIELD.
2. THE INFORMATION SHOWN ON THE PLANS FOR THE EXISTING BRIDGES IS NOT PART OF THE PLANS, PROPOSAL, OR CONTRACT AND IS NOT TO BE CONSIDERED A BASIS FOR COMPUTATION OF THE UNIT PRICES USED FOR BIDDING PURPOSES. THERE IS NO EXPRESSED OR IMPLIED AGREEMENT THAT INFORMATION IS CORRECTLY SHOWN. THE BIDDER IS NOT TO RELY ON THIS INFORMATION, BUT IS TO ASSUME THE POSSIBILITY THAT CONDITIONS AFFECTING THE COSTS AND/OR QUANTITIES OF WORK TO BE PERFORMED MAY DIFFER FROM THOSE INDICATED. REFERENCE DRAWINGS ARE:

HP-40.12 - FRANKLIN STREET - PHILADELPHIA & READING RAILWAY COMPANY DRAWINGS DATED 11-30-1920

HP-40.21 - EVANS STREET - READING COMPANY DRAWINGS DATED 12-06-1927

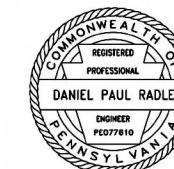
**UTILITIES:**

1. COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTIONS 105.06 AND 107.12.
2. AN INITIAL "ONE CALL" AND INTERNAL UTILITY COORDINATION HAS IDENTIFIED:
  - LUMEN AND VERIZON HAVE BURIED LINES UNDER THE BRIDGE.
  - POTTSTOWN BOROUGH HAS FACILITIES NEAR THE BRIDGE.
3. VERIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO STARTING WORK, AND CONDUCT OPERATIONS IN A MANNER WHICH ENSURES THE UTILITIES WILL NOT BE DISTURBED OR ENDANGERED AND ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES DURING CONSTRUCTION.



**KEY PLAN**  
NOT TO SCALE

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 \$TIME\$  
 \$DATE\$



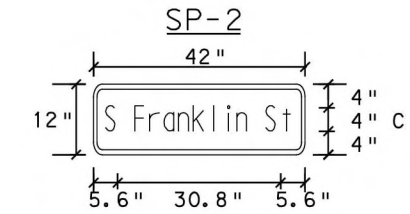
**AECOM**  
707 GRANT ST., SUITE 500  
PITTSBURGH, PA 15219

REV	BY	DATE	DESCRIPTION
<b>NORFOLK SOUTHERN</b> KEYSTONE DIVISION HP-40.12 & HP-40.21 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES      ATLANTA, GA			
<b>GENERAL NOTES</b>			
DGN DMF	VAL SEC VIP	MAP 101	MILEPOST HP-40.12 & HP-40.21
CHK JBO	FILE BR0025741 & BR0025742	DATE 02/27-2026	
SHEET NO 1 OF 8		DRAWING NO POTTSTOWN 01	



**GENERAL NOTES:**

1. PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PENNDOT PUBLICATION 408/2020, PENNDOT PUBLICATION 111, PENNDOT PUBLICATION 213, AND THE MUTCD (2009).
2. ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
3. VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING ROADWAY IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
4. IN ACCORDANCE WITH PENNDOT PUBLICATION 213, PATA 216, POSITIVELY CLOSE THE SIDEWALKS ON ALL FOUR APPROACHES TO THE STRUCTURE WHILE MAINTAINING ACCESS TO ALL PROPERTIES.
5. MINIMIZE RESIDENTIAL PARKING RESTRICTIONS AS MUCH AS POSSIBLE. PROVIDE TWO (2) DAYS NOTICE TO RESIDENTS OF ANY PROPOSED PARKING RESTRICTIONS.
6. MOUNT ALL SIGNS ON TYPE III BARRICADES.



0.63" BORDER, 1.5" RADIUS, BLACK ON ORANGE;  
 [S Franklin St] BLACK C;  
 LETTER SPACING TO START OF NEXT LETTER

LETTER POSITIONS													LENGTH SERIES/SIZE				
	S		F	r	a	n	k	l	i	n		S	t				C 2000
5.6	2.2	4.0	2.5	1.6	2.6	2.7	2.6	1.3	1.3	2.0	4.0	2.5	1.4	5.6		30.8	4/3



**DETOUR ROUTE**  
NOT TO SCALE

- LEGEND:**
- — ● DETOUR ROUTE
  - ▨ WORK AREA
  - ➔ DIRECTION OF TRAVEL
  - TT TYPE III BARRICADE

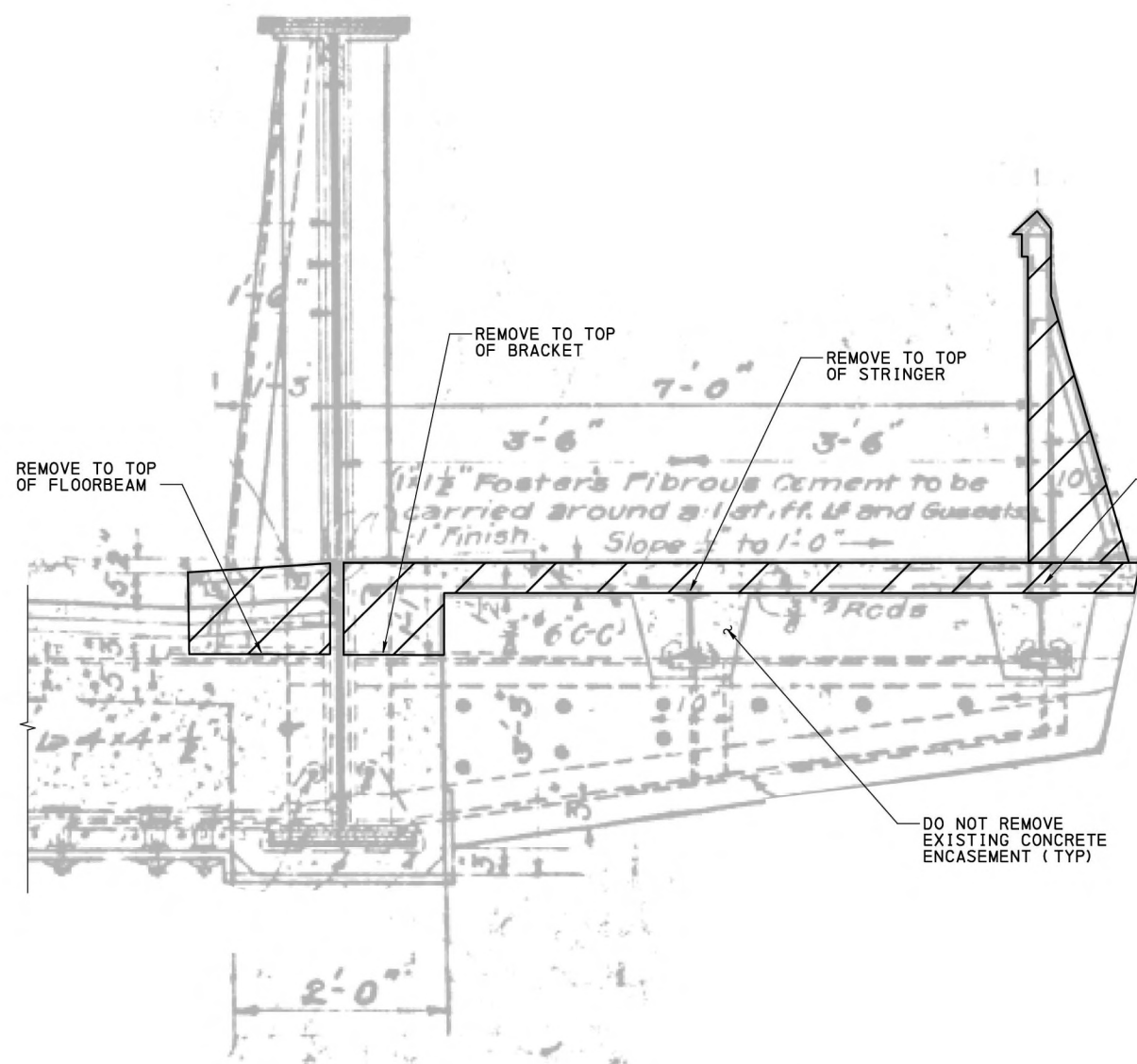
- ① END DETOUR  
M4-8A 24" X 18"  
S Franklin St SP-2 42" X 12"
- ② DETOUR  
M4-9S 30" X 24"  
S Franklin St SP-2 42" X 12"
- ③ DETOUR  
M4-9R 30" X 24"  
S Franklin St SP-2 42" X 12"
- ④ DETOUR  
M4-9L 30" X 24"  
S Franklin St SP-2 42" X 12"
- ⑤ BRIDGE CLOSED  
R11-2-1 48" X 30"
- ⑥ ROAD CLOSED TO THRU TRAFFIC  
R11-4 60" X 30"
- ⑦ BRIDGE OUT 400 FEET AHEAD LOCAL TRAFFIC ONLY  
R11-3A 60" X 30"



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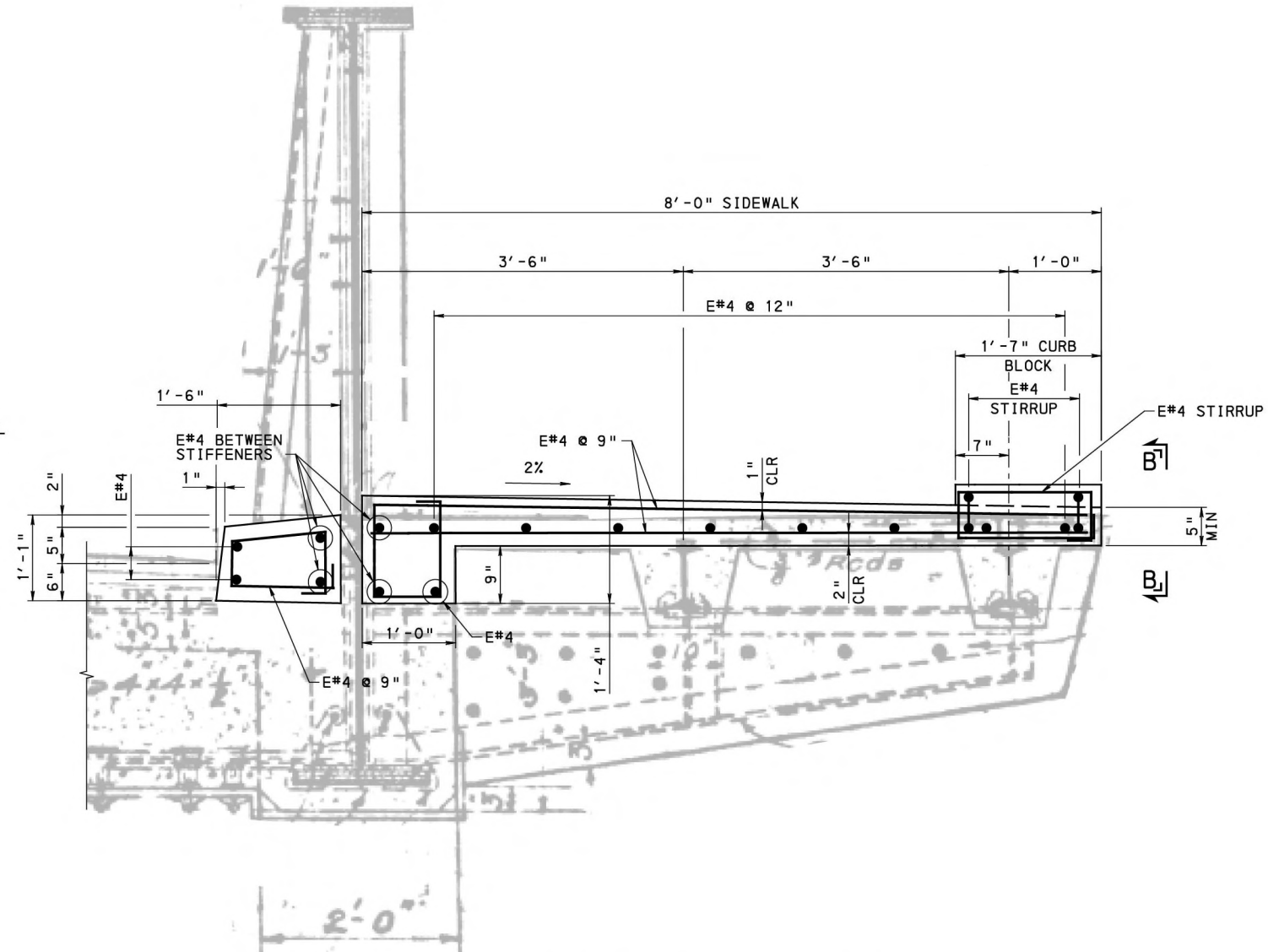
REV	BY	DATE	DESCRIPTION
<p><b>NORFOLK SOUTHERN</b> KEYSTONE DIVISION HP-40.12 &amp; HP-40.21 OFFICE OF CHIEF ENGINEER - BRIDGES &amp; STRUCTURES ATLANTA, GA</p>			
<p><b>MAINTENANCE OF TRAFFIC DETAILS - FRANKLIN ST</b></p>			
DGN CJM	VAL SEC VIP	MAP 101	MILEPOST HP-40.12 & HP-40.21
CHK MCU	FILE BR0025741 & BR0025742	DATE 02/27-2026	
SHEET NO 2 OF 8		DRAWING NO POTTSTOWN 02	

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**REMOVAL TYPICAL SECTION**

(TYPICAL BOTH SIDEWALKS)  
 (EXISTING 4" CONCRETE OVERLAY ON WEST SIDEWALK NOT SHOWN)  
 NOT TO SCALE



**REPLACEMENT TYPICAL SECTION**

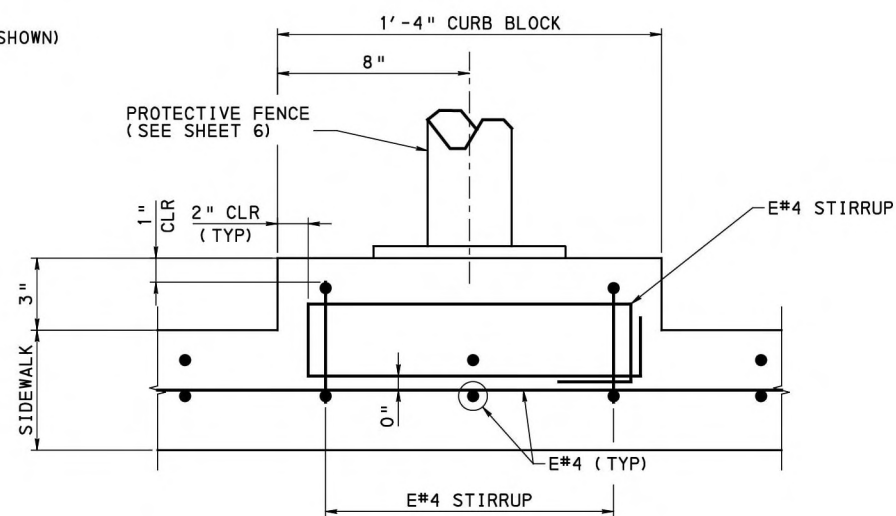
(TYPICAL BOTH SIDEWALKS)  
 NOT TO SCALE

**LEGEND:**

LIMITS OF REMOVAL

**NOTES:**

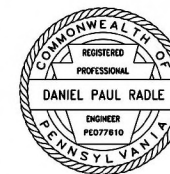
1. COAT ALL SURFACES WHERE NEW CONCRETE IS IN CONTACT WITH EXISTING CONCRETE WITH EPOXY BONDING COMPOUND, TYPE V.
2. FOR PROTECTIVE FENCE DETAILS, SEE SHEET 6.



**SECTION B-B**

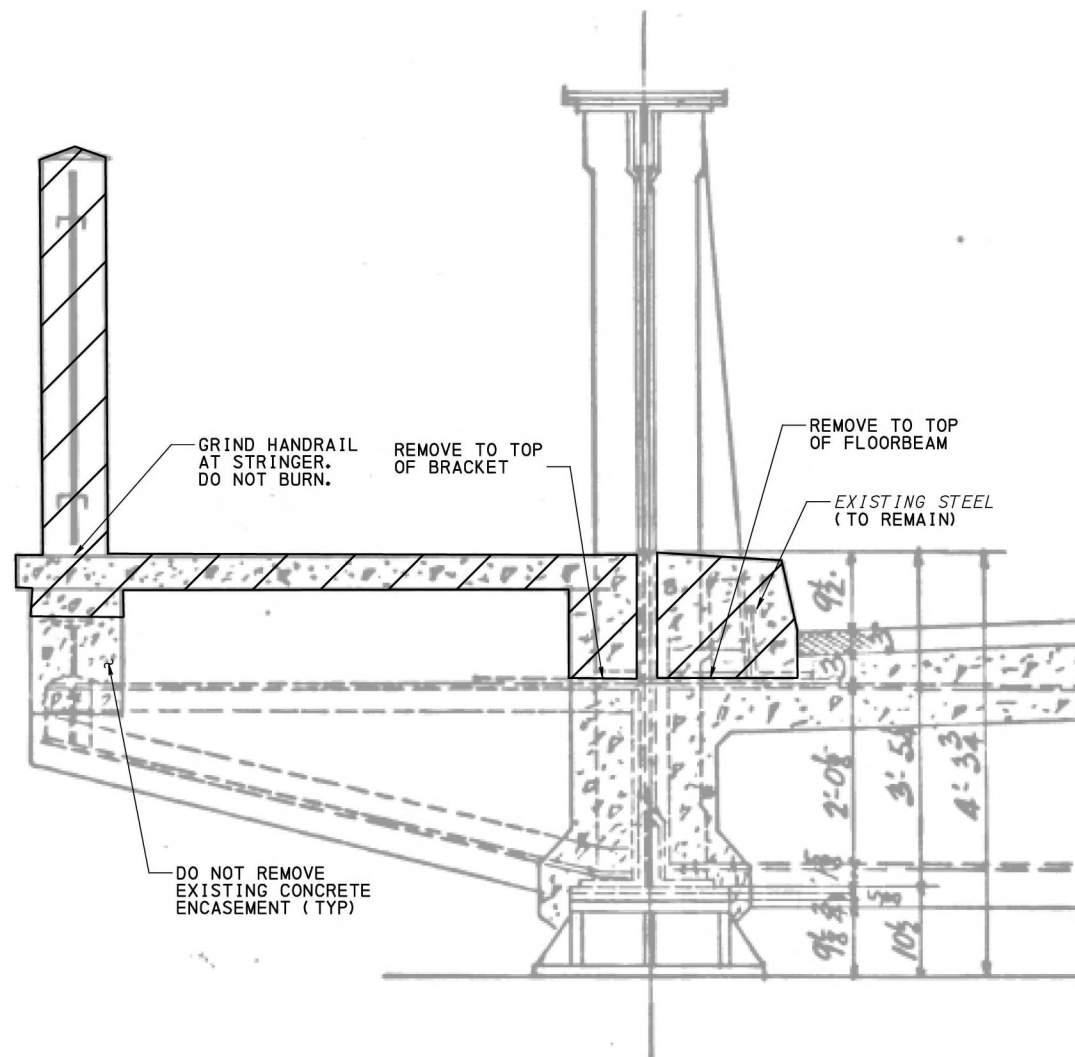
(ANCHOR BOLTS NOT SHOWN FOR CLARITY)

0 3 6 INCH

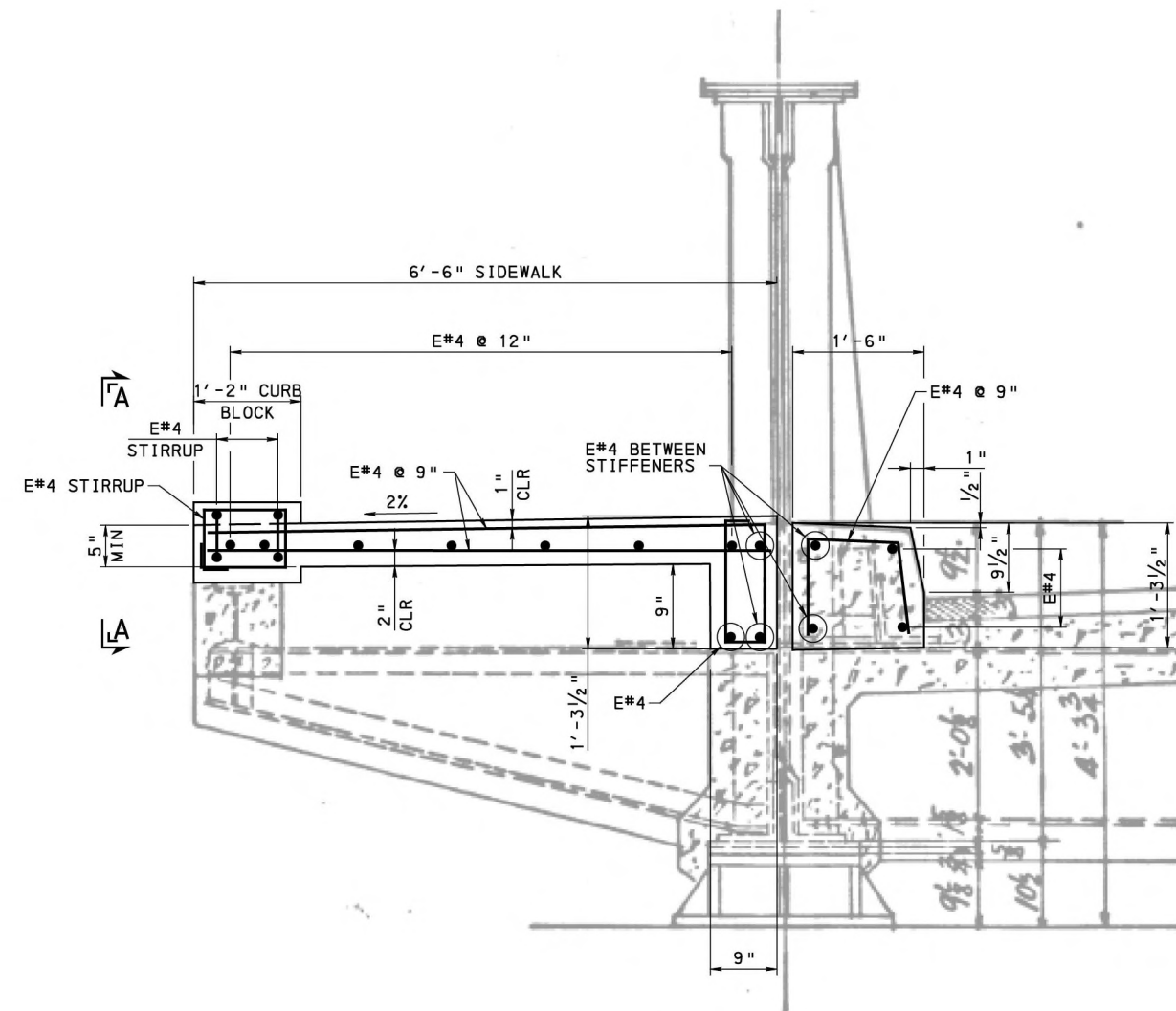


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REV	BY	DATE	DESCRIPTION
 <b>KEYSTONE DIVISION</b> HP-40.12 & HP-40.21 OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA			
<b>SIDEWALK DETAILS - FRANKLIN ST</b>			
DGN DMF	VAL SEC VIP	MAP 101	MILEPOST HP-40.12 & HP-40.21
CHK JBO	FILE BR0025741 & BR0025742	DATE 02/27-2026	
SHEET NO 4 OF 8		DRAWING NO POTTSTOWN 04	



**REMOVAL SECTION**  
 (TYPICAL BOTH SIDEWALKS)  
 (EXISTING 4" CONCRETE OVERLAY ON WEST SIDEWALK NOT SHOWN)  
 NOT TO SCALE



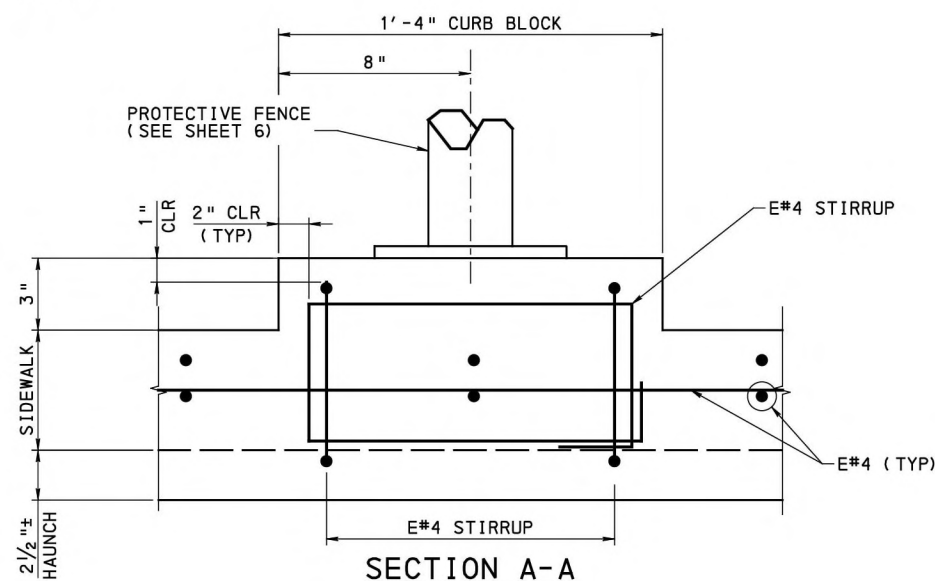
**REPLACEMENT TYPICAL SECTION**  
 (TYPICAL BOTH SIDEWALKS)  
 NOT TO SCALE

**LEGEND:**

LIMITS OF REMOVAL

**NOTES:**

1. COAT ALL SURFACES WHERE NEW CONCRETE IS IN CONTACT WITH EXISTING CONCRETE WITH EPOXY BONDING COMPOUND, TYPE V.
2. FOR PROTECTIVE FENCE DETAILS, SEE SHEET 6.



**SECTION A-A**

(ANCHOR BOLTS NOT SHOWN FOR CLARITY)

0 3 6 INCH

REV	BY	DATE	DESCRIPTION



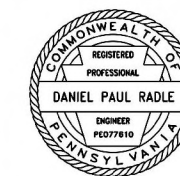
KEYSTONE DIVISION  
 HP-40.12 & HP-40.21

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES ATLANTA, GA

SIDEWALK DETAILS - EVANS ST

DGN DMF	VAL SEC VIP	MAP 101	MILEPOST HP-40.12 & HP-40.21
CHK JBO	FILE BR0025741 & BR0025742	DATE 02/27-2026	

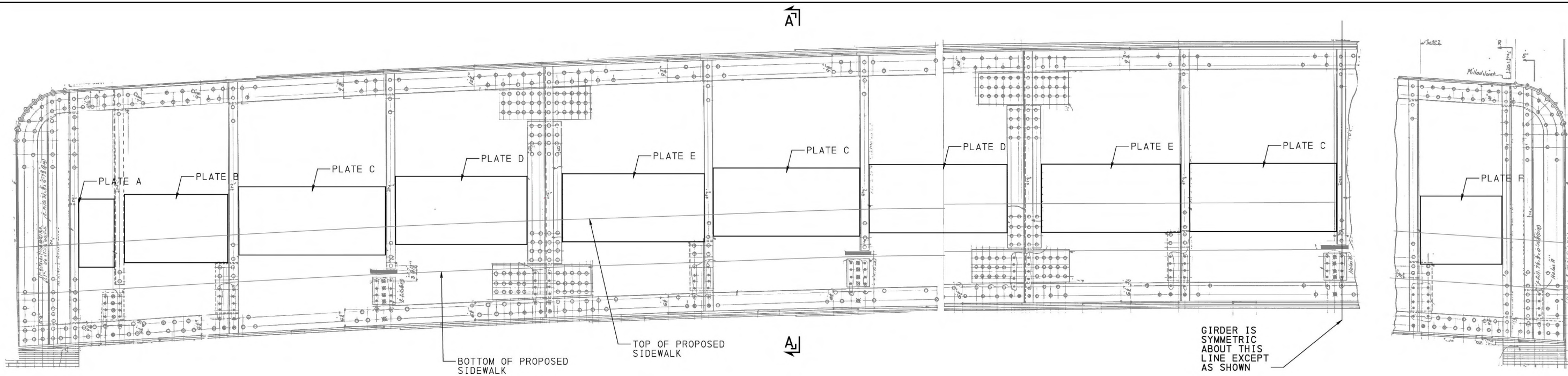
SHEET NO 5 OF 8 DRAWING NO POTTSTOWN 05



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 #TIME#  
 #DATE#

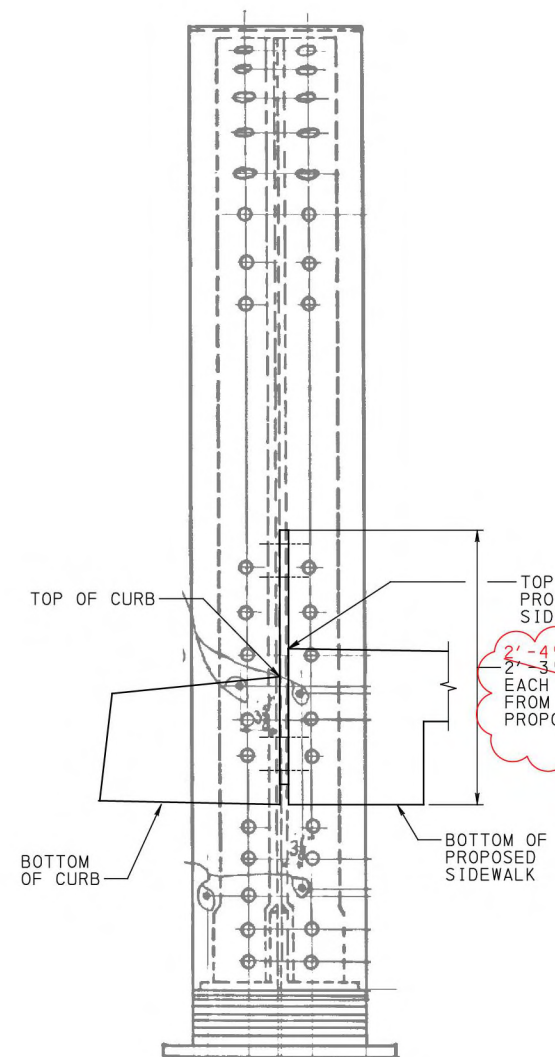




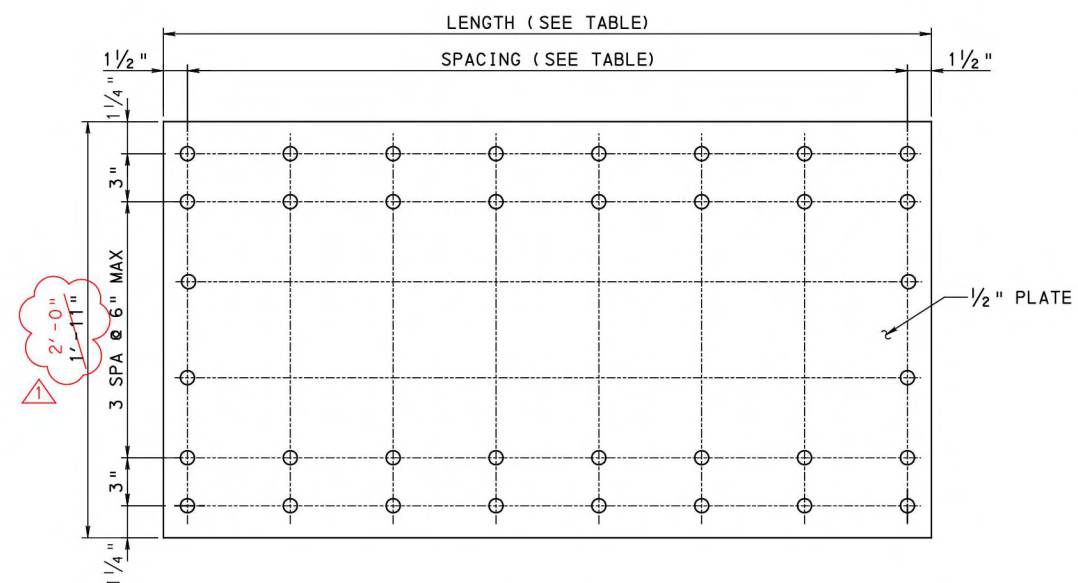
**GIRDER ELEVATION**

(VIEW FROM SIDEWALK FACE, BOTH GIRDERS SIMILAR)  
(BOLT HOLES NOT SHOWN FOR CLARITY)  
NOT TO SCALE

PLATE	QUANTITY	LENGTH	SPACING
PLATE A	1	1' - 1 1/4"	2 SPA @ 6" MAX
PLATE B	1	3' - 3 3/4"	7 SPA @ 6" MAX
PLATE C	6	4' - 8 1/4"	9 SPA @ 6" MAX
PLATE D	4	4' - 2"	8 SPA @ 6" MAX
PLATE E	4	4' - 5"	9 SPA @ 6" MAX
PLATE F	1	2' - 8"	5 SPA @ 6" MAX



**SECTION A-A**  
NOT TO SCALE



**PLATE DETAIL**  
NOT TO SCALE

**NOTES:**

1. ZONE PAINT AT PLATE LOCATIONS ON EACH FACE OF THE WEB. EXTEND PAINTING LIMITS 6" MIN BEYOND NEW PLATES OR TO LIMIT OF CONCRETE. IT IS ASSUMED LEAD-BASED PAINT IS PRESENT ON ALL STEEL MEMBERS.

REV	BY	DATE	DESCRIPTION
DMF	10/27/25	UPDATED PLATE DIMENSIONS	



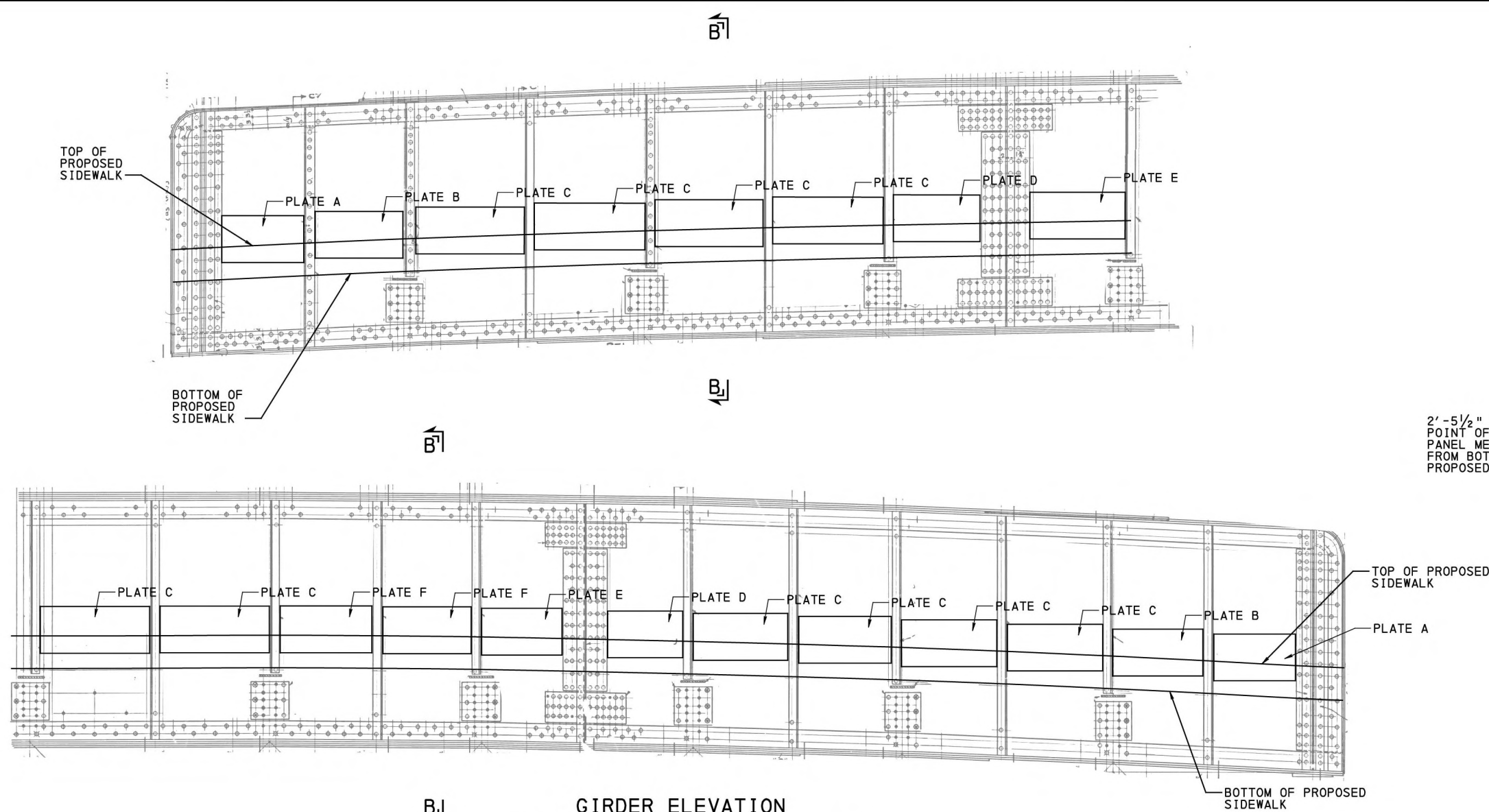
KEYSTONE DIVISION  
HP-40.12 & HP-40.21

OFFICE OF CHIEF ENGINEER - BRIDGES & STRUCTURES      ATLANTA, GA

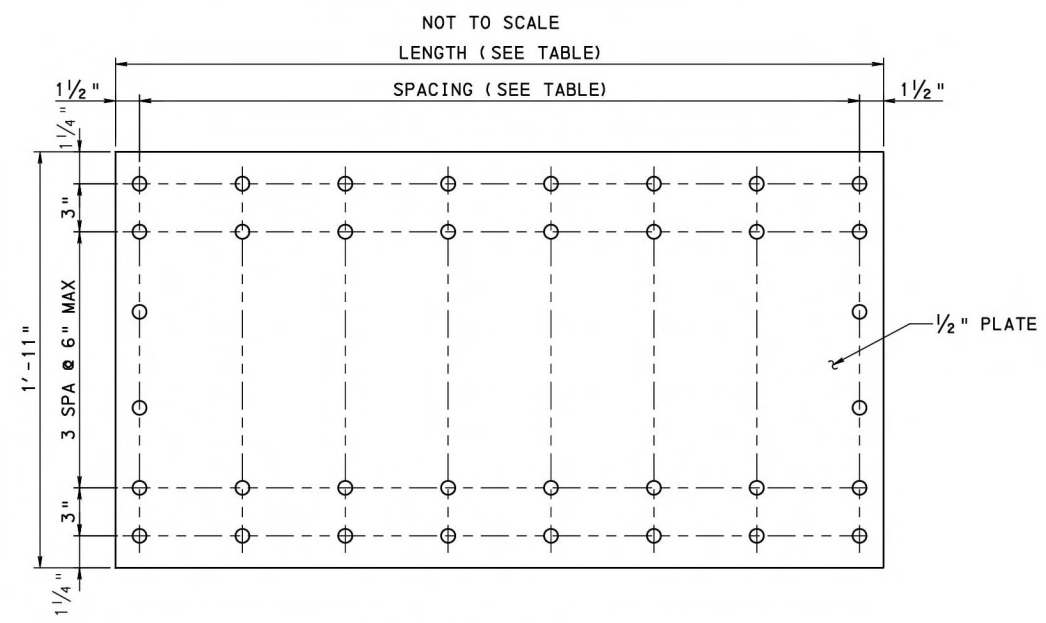
**STEEL DETAILS - FRANKLIN ST**

DGN DMF	VAL SEC VIP	MAP 101	MILEPOST HP-40.12 & HP-40.21
CHK JBO	FILE BR0025741 & BR0025742	DATE 02/27-2026	
SHEET NO	7 OF 8	DRAWING NO	POTTSTOWN 07

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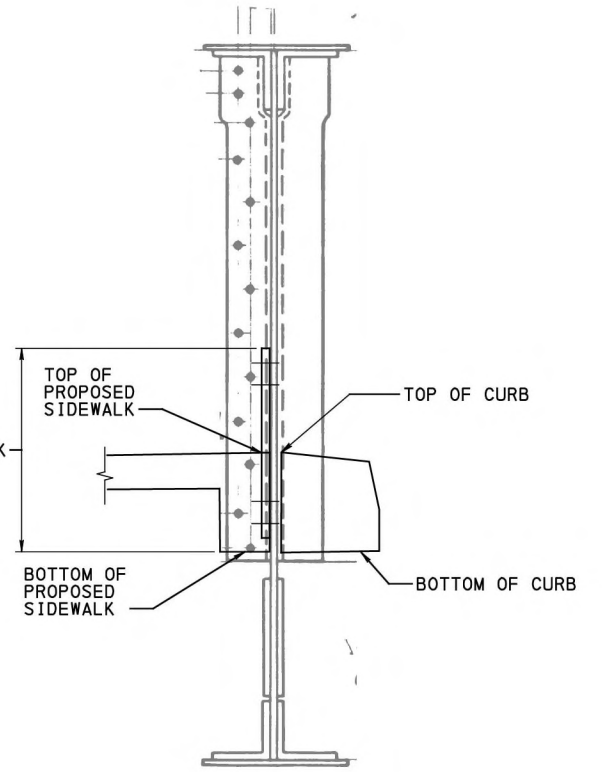
**GIRDER ELEVATION**  
(VIEW FROM SIDEWALK FACE, BOTH GIRDERS SIMILAR)  
(BOLT HOLES NOT SHOWN FOR CLARITY)



**PLATE DETAIL**  
NOT TO SCALE

PLATE	QUANTITY	LENGTH	SPACING
PLATE A	2	2' - 9 1/4"	6 SPA @ 6" MAX
PLATE B	2	3' - 0 1/2"	6 SPA @ 6" MAX
PLATE C	10	3' - 8 1/4"	7 SPA @ 6" MAX
PLATE D	2	2' - 10 3/4"	6 SPA @ 6" MAX
PLATE E	2	3' - 2 1/4"	6 SPA @ 6" MAX
PLATE F	2	3' - 5 3/4"	7 SPA @ 6" MAX

2' - 5 1/2" @ MID POINT OF EACH PANEL MEASURED FROM BOTTOM OF PROPOSED SIDEWALK

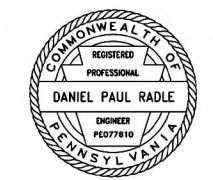


**SECTION B-B**  
NOT TO SCALE

**NOTES:**

1. ZONE PAINT AT PLATE LOCATIONS ON EACH FACE OF THE WEB. EXTEND PAINTING LIMITS 6" MIN BEYOND NEW PLATES OR TO LIMIT OF CONCRETE. IT IS ASSUMED LEAD-BASED PAINT IS PRESENT ON ALL STEEL MEMBERS.

REV	BY	DATE	DESCRIPTION
<b>KEYSTONE DIVISION</b> HP-40.12 & HP-40.21 <small>OFFICE OF CHIEF ENGINEER - BRIDGES &amp; STRUCTURES ATLANTA, GA</small>			
<b>STEEL DETAILS - EVANS ST</b>			
DGN DMF	VAL SEC VIP	MAP 101	MILEPOST HP-40.12 & HP-40.21
CHK JBO	FILE BR0025741 & BR0025742	DATE 02/27-2026	
SHEET NO	8 OF 8	DRAWING NO	POTTSTOWN 07



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707 GRANT ST., SUITE 500  
PITTSBURGH, PA 15219

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