Douglas W. Chew
Vice-Chairman

Sean Kertes
Chairman

Ted Kopas
Secretary

Westmoreland County
Department of Public Works
Dante DeCario, Director
194 Donohoe Road
Greensburg, PA 15601

Telephone
724-830-3950

March 24, 2026

Docket No. A-2024-3052077

Mr. Matt Homsher
Secretary
Commonwealth of Pennsylvania
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, PA 17105-3265

Re: ***Fourth Street Bridge Replacement Project***
West Broadway Avenue, Section FSB
North Irwin Borough, Westmoreland County
Final Signed and Sealed Construction Plans.

Dear Mr. Homsher:

Enclosed please find the final signed and sealed construction plans for the Fourth Street Bridge Replacement Project located in North Irwin Borough, Westmoreland County. These plans have been reviewed and approved by Norfolk Southern Railway Company and Westmoreland County and are submitted as supporting documentation for **Docket A-2024-3052077**.

If you have any questions or require additional information regarding this project, please contact Vaughn W. Neill, P.E., Westmoreland County Engineer, at (724) 830-3966 or via email at vneill@westmorelandcountypa.gov.

Sincerely,

Vaughn W. Neill, P.E.
Westmoreland County Engineer

Enclosures
cc: C. Covert - PennDOT - w/encl.
B. Burkus – PennDOT - w/encl.
R. Epley – PennDOT – w/encl.
T. Ryczek – PennDOT - w/encl.
W. Siess - SAI – w/encl.
S. Ritenour – Markosky – w/encl.
D. DeCario, Westmoreland County Pub Wks

CONSULTANT DESIGN PROJECT MANAGER - WILLIAM E. SIESS, P.E.
SAI CONSULTING ENGINEERS

PENNDOT DESIGN PROJECT MANAGER - CRISTIN COVERT, P.E.

WESTMORELAND COUNTY PROJECT MANAGER - VAUGHN NEILL, P.E.

DISTRICT	COUNTY	TOWNSHIP	BOROUGH	ROUTE	SECTION	TOTAL SHEETS
12-0	WESTMORELAND	———	NORTH IRWIN	———	———	27

ECMS NO. 31554

ALSO INCLUDED:

UTILITY RELOCATION PLAN - WATER LINE	9 SHEETS
EROSION & SEDIMENTATION CONTROL PLAN	10 SHEETS
STRUCTURE PLAN L-645	50 SHEETS
CROSS SECTIONS	14 SHEETS

WESTMORELAND COUNTY

DRAWINGS
FOR
CONSTRUCTION
OF
FOURTH STREET BRIDGE REPLACEMENT

IN WESTMORELAND COUNTY

FROM STA 8+79.00 TO STA 14+00.00 LENGTH 441.00 FT 0.084 MI

WESTMORELAND COUNTY COMMISSIONERS

SEAN KERTES, CHAIRMAN
DOUGLAS W. CHEW, VICE-CHAIRMAN
TED KOPAS, SECRETARY

PUC APPLICATION DOCKET NO. A-2024-3052077

SCALE
HORIZONTAL 0 25 50 FEET
VERTICAL 0 5 10 FEET

DESIGN DESIGNATION

HIGHWAY CLASSIFICATION	-	URBAN LOCAL ROAD
ROADWAY TYPOLOGY	-	LOCAL ROAD/STREET, TOWN/VILLAGE NEIGHBORHOOD
DESIGN SPEED	-	25 MPH
PAVEMENT WIDTH	-	2 - 11'-0" LANES
SHOULDER WIDTH	-	4'-0" LT, 6'-0" RT

TRAFFIC DATA

CURRENT ADT	-	500 (2026) *
DESIGN YEAR ADT	-	500 (2046) *
DHV	-	*
D	-	*
T	-	*

* BRIDGE CURRENTLY CLOSED TO TRAFFIC

RECOMMENDED MARCH 11 20 26
William S Baumunger
for DISTRICT EXECUTIVE

SAI Consulting Engineers
1350 Penn Avenue, Suite 300, Pittsburgh, PA 15222-4211

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
WILLIAM E SIESS
ENGINEER
PE036991E

REG. PROF. ENGINEER
DATE: Feb. 25, 2026

WESTMORELAND COUNTY

APPROVED DATE: 3-5-2026

APPROVED DATE: 3-5-2026

APPROVED DATE: 3-5-2026

PLOTTED BY: MBOYKO

\\corp.saiengr.com\Data\Client\PDH_Client\15045-000-Fourth_Str_Br\CADD\Roadway\PSE\CNTTL.dgn 2/25/2026

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		2 OF 27
NORTH IRWIN BOROUGH				

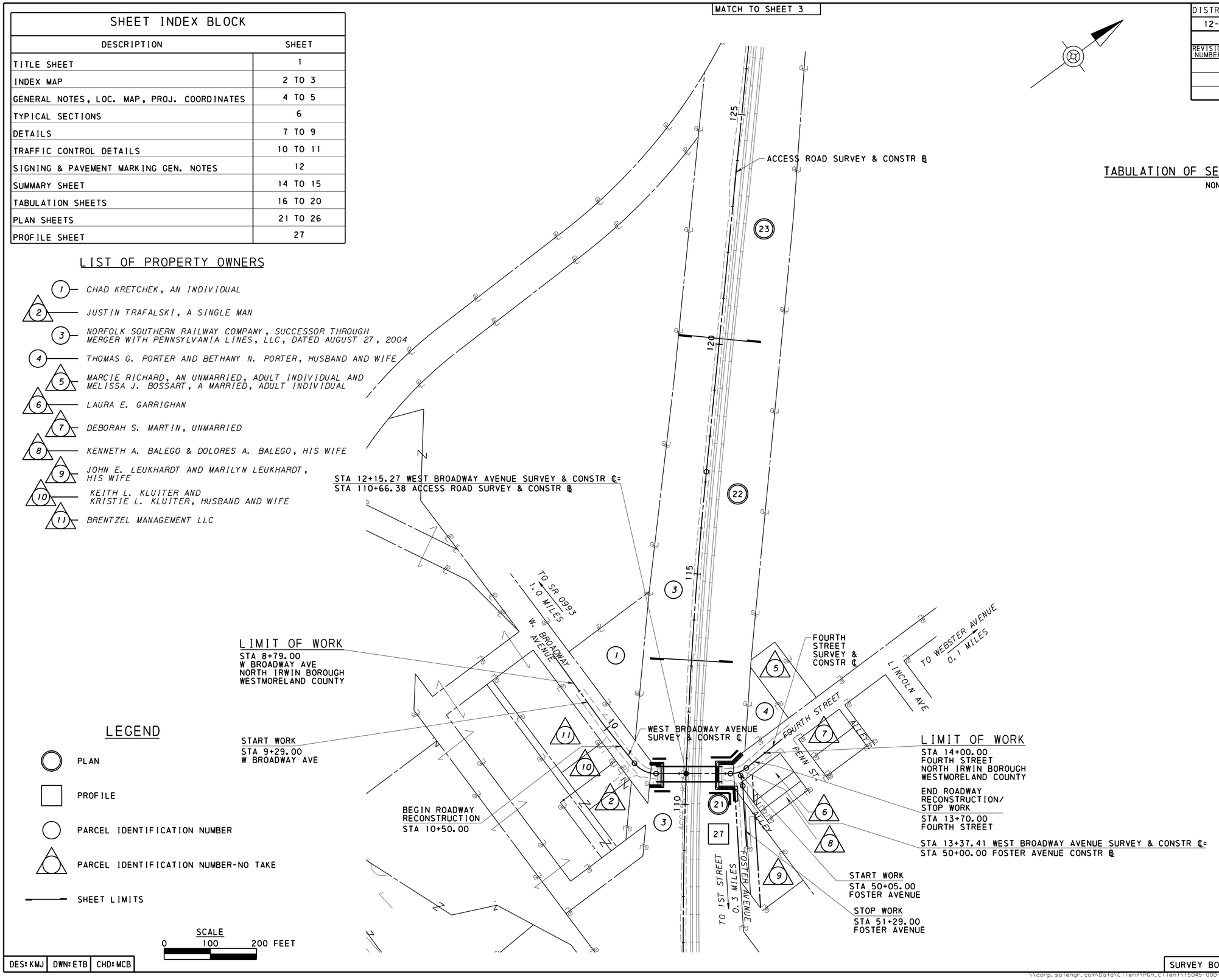
REVISION NUMBER	REVISIONS	DATE	BY

SHEET INDEX BLOCK

DESCRIPTION	SHEET
TITLE SHEET	1
INDEX MAP	2 TO 3
GENERAL NOTES, LOC. MAP, PROJ. COORDINATES	4 TO 5
TYPICAL SECTIONS	6
DETAILS	7 TO 9
TRAFFIC CONTROL DETAILS	10 TO 11
SIGNING & PAVEMENT MARKING GEN. NOTES	12
SUMMARY SHEET	14 TO 15
TABULATION SHEETS	16 TO 20
PLAN SHEETS	21 TO 26
PROFILE SHEET	27

LIST OF PROPERTY OWNERS

1. CHAD KRETCHEK, AN INDIVIDUAL
2. JUSTIN TRAFALSKI, A SINGLE MAN
3. NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004
4. THOMAS G. PORTER AND BETHANY N. PORTER, HUSBAND AND WIFE
5. MARCIE RICHARD, AN UNMARRIED, ADULT INDIVIDUAL AND MELISSA J. BOSSART, A MARRIED, ADULT INDIVIDUAL
6. LAURA E. GARRIGHAN
7. DEBORAH S. MARTIN, UNMARRIED
8. KENNETH A. BALEGO & DOLORES A. BALEGO, HIS WIFE
9. JOHN E. LEUKHARDT AND MARILYN LEUKHARDT, HIS WIFE
10. KEITH L. KLUITER AND KRISTIE L. KLUITER, HUSBAND AND WIFE
11. BRENTZEL MANAGEMENT LLC



TABULATION OF SEGMENT EQUALITIES

NONE

LEGEND

- PLAN
- PROFILE
- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER-NO TAKE
- SHEET LIMITS

SCALE
0 100 200 FEET

DES: KMJ | DWN: ETB | CHD: MCB

INDEX MAP
(1 OF 2)

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE093869

SURVEY BOOK NO. 1512

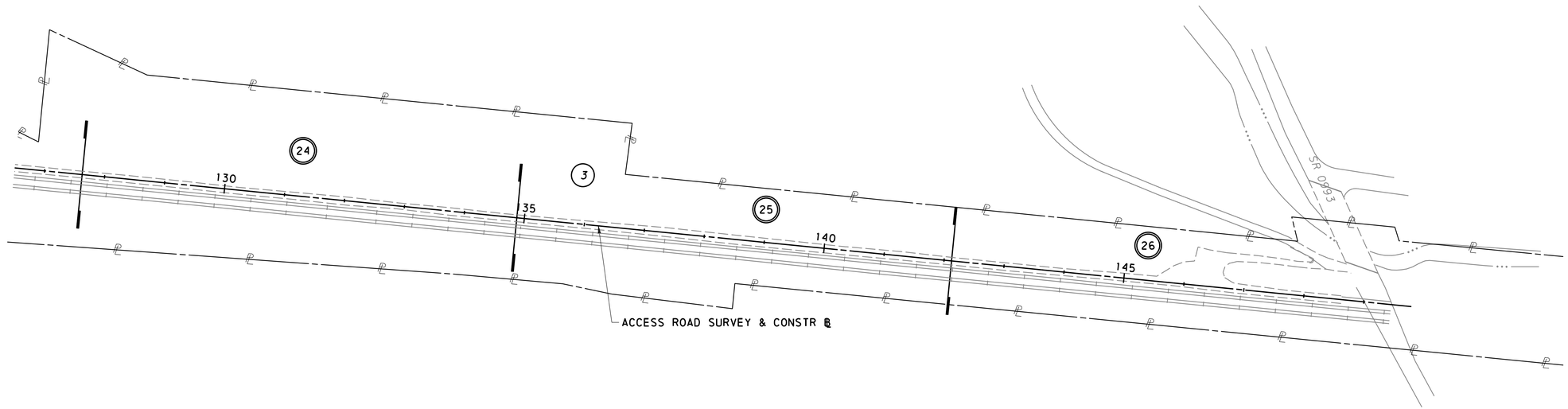
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		3 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

LIST OF PROPERTY OWNERS

(3) *NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004*

MATCH TO SHEET 2



LEGEND

- PLAN
- PARCEL IDENTIFICATION NUMBER
- PARCEL IDENTIFICATION NUMBER-NO TAKE
- SHEET LIMITS

SCALE
0 100 200 FEET

INDEX MAP
(2 OF 2)

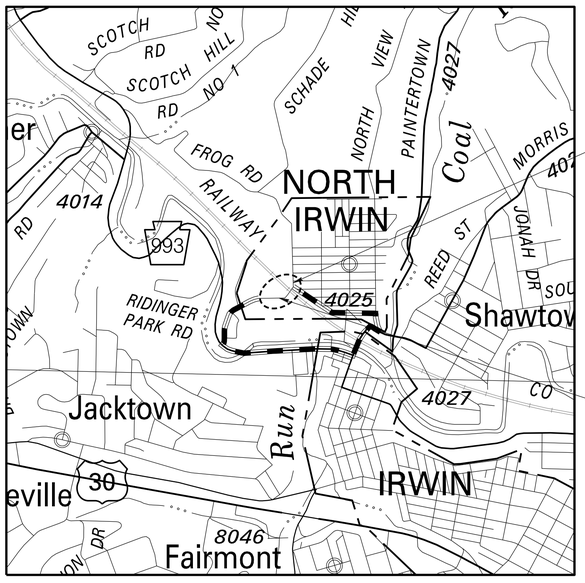
SURVEY BOOK NO. 1512

DES: KMJ | DWN: ETB | CHD: MCB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
No. PE083666

SYMBOL	PUBLIC UTILITIES		
W	MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY 124 POND AND POOL RD NEW STANTON, PA 15672	CURT FONTAINE fontaine@mawc.org	(724) 755-5950
T	VERIZON PENNSYLVANIA LLC 131 SETON HILL DRIVE 3RD FLOOR GREENSBURG, PA 15601	JEFFREY GUIDO jeffrey.guido@verizon.com	(412) 667-0733
G	PEOPLES NATURAL GAS: LSSE (FOR PEOPLES GAS) 4536 ROUTE 136, SUITE 1 GREENSBURG, PA 15601	GARY BAIRD gbaird@lsse.com	(724) 837-1057 EXT. 104
CTV	COMCAST CABLE 1241 BUSINESS ROUTE 66 GREENSBURG, PA 15601	MICHAEL GROSS mike_gross@comcast.com	(724) 205-6230
E	WEST PENN POWER 143 WEST PENN DRIVE JEANNETTE, PA 15644	WILLIAM D. EVANS wdevans@firstenergycorp.com	(724) 523-7225
L-FOU	LUMEN 5095 RITTER ROAD MECHANICSBURG, PA 17055	RICHARD WILLIAMS richard.l.williams@lumen.com	(717) 928-9234
NS-FOU	NORFOLK SOUTHERN CORP. C/O AECOM 707 GRANT STREET 5TH FLOOR, GULF TOWER PITTSBURGH, PA 15219	JAYNE MARKS jayne.marks@aecom.com	(412) 316-3537
S	NORTH IRWIN BOROUGH 21 SECOND STREET NORTH IRWIN, PA 15642	LISA GESLER niborol@comcast.net	(724) 864-5057

PA ONE CALL SYSTEM, INC PHONE NO 1-800-242-1776
DESIGNERS SERIAL NUMBERS: 20182121684 (NORTH IRWIN BOROUGH)



LIMIT OF WORK
STA 14+00.00
FOURTH STREET
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

LIMIT OF WORK
STA 8+79.00
W BROADWAY AVE
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

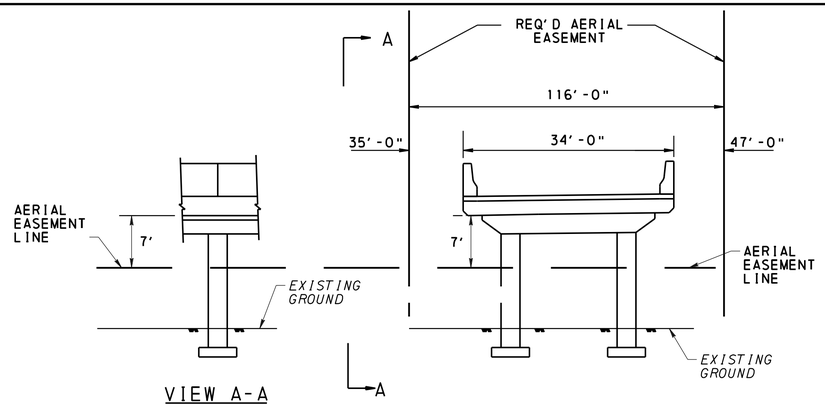
LOCATION MAP
SCALE IN MILES

0 1 2

LEGEND

STATE ROUTE — PROJECT
TOWNSHIP ROAD — DETOUR
MUNICIPAL BOUNDARY

DES: KMJ | DWN: ETB | CHD: MCB



VIEW A-A

SKETCH SHOWING ESTATE TO BE ACQUIRED FOR LIMITED AERIAL EASEMENT

FROM STA 11+71.00 TO STA 12+74.00

USE OF AIRSPACE BENEATH THE ESTABLISHED GRADELINE OF THE HIGHWAY SHALL PROVIDE SUFFICIENT VERTICAL AND HORIZONTAL CLEARANCES FOR THE CONSTRUCTION, OPERATION, MAINTENANCE, VENTILATION AND SAFETY OF THE HIGHWAY FACILITY. THE ESTATE ACQUIRED ABOVE THE AERIAL EASEMENT LINE MAY BE ENTERED ON BY MOVING VEHICLES SUCH AS TRUCKS OR RAILROAD ROLLING STOCK.

TEMPORARY CONSTRUCTION EASEMENT. AN EASEMENT TO USE THE LAND AS NECESSARY DURING CONSTRUCTION OF THE PROJECT. THE EASEMENT IS REQUIRED ONLY UNTIL THE CONSTRUCTION OR WORK INDICATED BY THE PLAN IS COMPLETED, UNLESS SOONER RELINQUISHED IN WRITING BY THE COUNTY.

THE HORIZONTAL SURVEY INFORMATION IS BASED UPON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83 SOUTH ZONE #3702). THE COMBINED SCALE FACTOR IS 0.99992127.

THE VERTICAL CONTROL IS BASED UPON THE NORTH AMERICAN VERTICAL DATUM (NAVD88).

DETAILS, OTHER THAN THOSE INDICATED, ARE ON THE FOLLOWING STANDARD DRAWINGS:

RC-10M	1 SHEET	JUN. 1, 2010	BC-701M	3 SHEETS	NOV. 23, 2022
RC-11M	2 SHEETS	JUN. 1, 2010	BC-732M	3 SHEETS	NOV. 23, 2022
RC-12M	2 SHEETS	NOV. 1, 2022	BC-735M	1 SHEET	SEPT. 30, 2016
RC-13M	1 SHEET	JUN. 1, 2010	BC-736M	3 SHEETS	NOV. 23, 2022
RC-25M	4 SHEETS	FEB. 27, 2023	BC-752M	3 SHEETS	NOV. 23, 2022
RC-28M	2 SHEETS	SEPT. 1, 2023	BC-755M	4 SHEETS	JAN. 31, 2019
RC-30M	6 SHEETS	DEC. 18, 2024	BC-767M	7 SHEETS	NOV. 23, 2022
RC-45M	24 SHEETS	FEB. 19, 2021	BC-772M	5 SHEETS	NOV. 23, 2022
RC-46M	34 SHEETS	FEB. 19, 2021	BC-775M	3 SHEETS	NOV. 23, 2022
RC-50M	25 SHEETS	DEC. 18, 2024	BC-783M	4 SHEETS	JAN. 31, 2019
RC-51M	25 SHEETS	DEC. 18, 2024	BC-788M	12 SHEETS	NOV. 23, 2022
RC-54M	12 SHEETS	DEC. 18, 2024	BC-798M	3 SHEETS	FEB. 14, 2023
RC-60M	3 SHEETS	JUN. 1, 2010			
RC-61M	1 SHEET	JUN. 1, 2010	TC-8600	13 SHEETS	JUN. 13, 2013
RC-64M	2 SHEETS	FEB. 19, 2021	TC-8604	5 SHEETS	AUG. 17, 2021
RC-67M	14 SHEETS	FEB. 19, 2021	TC-8700C	12 SHEETS	JUN. 13, 2013
RC-70M	3 SHEETS	FEB. 8, 2019	TC-8702B	9 SHEETS	JUN. 13, 2013
RC-72M	7 SHEETS	FEB. 8, 2019	TC-8716	2 SHEETS	FEB. 21, 2024
RC-73M	4 SHEETS	FEB. 8, 2019	TC-8717	1 SHEET	JUN. 13, 2013
RC-75M	1 SHEET	JUN. 1, 2010			
RC-77M	1 SHEET	DEC. 17, 2019			

TABULATION OF OVERALL LENGTH

STA 8+79.00 TO STA 14+00.00 = 521.00 FT 0.099 MILES

TABULATION OF CONSTRUCTION LENGTH

STA 9+29.00 TO STA 13+70.00 = 441.00 FT 0.084 MILES

EARTHWORK SUMMARY ENTIRE PROJECT

THE INFORMATION ON ESTIMATED AMOUNTS OF EARTHWORK HAS BEEN USED IN THE PRELIMINARY ESTIMATE. DO NOT USE AS A WAIVER OF ANY PROVISIONS OF THE SPECIFICATIONS AND CONTRACTS.

CUBIC YARDS OF EXCAVATION				CUBIC YARDS OF COMPLETED EMBANKMENT*	CUBIC YARDS OF SELECTED BORROW EXC. ROCK CLASS R-3	CUBIC YARDS OF SELECTED BORROW EXC. ROCK CLASS R-4	CUBIC YARDS OF SELECTED BORROW EXC., COARSE AGGREGATE, NO. 57**	CUBIC YARDS OF SELECTED BORROW EXC. COARSE AGGREGATE NO. 1****	CUBIC YARDS OF SELECTED BORROW EXCAVATION, STRUCTURE BACKFILL**	CUBIC YARDS OF WASTE
CLASS 1 ****	CLASS 2	CLASS 3 **	CLASS 4 ***							
742	0	1079	150	2437	171	398	11	446	1391	1951

*INCLUDES ALL BORROW ITEMS
**INCLUDED IN LUMP SUM BRIDGE STRUCTURE
***INCLUDED IN ITEM 9000-0005 - RELOCATION OF MAWC WATER LINE ****PORTIONS INCIDENTAL TO ITEM 0208-0002.

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		4 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

GENERAL NOTES

THE LEGAL RIGHT-OF-WAY ON WEST BROADWAY AVENUE FROM STA. 9+05.00 TO STA. 9+95.00 IS (60') FEET BASED ON C.W. POOL PLAN OF NORTH IRWIN DATED FEBRUARY 17,1890 AND RECORDED IN THE WESTMORELAND COUNTY RECORDER OR DEEDS OFFICE IN PLAN BOOK VOLUME 1, PAGES 2 AND 3. THERE IS NO PUBLIC RECORD OF ANY OTHER WIDTH.

THE LEGAL RIGHT-OF-WAY ON WEST BROADWAY AVENUE / FOURTH STREET FROM STA. 9+95.00 TO STA. 14+10.00 IS VARIABLE WIDTH BASED ON PLAN OF W. BROADWAY AVE. / FOURTH ST. R/W, SIGNED ON NOVEMBER 13, 2024 AND RECORDED ON SEPTEMBER 23, 2025 IN THE WESTMORELAND COUNTY RECORDER'S OFFICE, INSTRUMENT NO. 202509230026354.

THE LEGAL RIGHT-OF-WAY ON FOURTH STREET FROM STA. 14+10.00 TO STA. 14+78.00 IS (50') FEET BASED ON C.W. POOL PLAN OF NORTH IRWIN DATED FEBRUARY 17,1890 AND RECORDED IN THE WESTMORELAND COUNTY RECORDER OR DEEDS OFFICE IN PLAN BOOK VOLUME 1, PAGES 2 AND 3. THERE IS NO PUBLIC RECORD OF ANY OTHER WIDTH.

THE LEGAL RIGHT-OF-WAY ON FOSTER AVE IS (40') FEET BASED ON DEED BOOK VOLUME 1514, PAGE 314, RECORDED IN THE WESTMORELAND COUNTY RECORDER OF DEEDS OFFICE ON MARCH 13, 1954 AND ON DEED BOOK VOLUME 1807, PAGE 777, RECORDED IN THE WESTMORELAND COUNTY RECORDER OF DEEDS OFFICE ON MARCH 4, 1961.

DO NOT INTERFERE WITH THE OPERATION OF ANY FIRE HYDRANT, FIRE CALL BOX OR POLICE CALL BOX.

THIS IS A FEDERAL-AID PROJECT AND AS SUCH IS SUBJECT TO INSPECTION BY REPRESENTATIVES OF THE FEDERAL HIGHWAY ADMINISTRATION AND THE PENNSYLVANIA DEPARTMENT OF TRANSPORTATION.

THREE TO TEN WORKING DAYS PRIOR TO EXCAVATION BASED ON THE COMPLEXITY OF THE PROJECT, THE CONTRACTOR MUST CONTACT THE PA ONE CALL SYSTEM, INC., PHONE 1-800-242-1776, SERIAL NO. ---------- FOR NORTH IRWIN BOROUGH. ADDITIONAL INFORMATION IS AVAILABLE AT https://www.paicall.org/PA811/Public/.

THE CONTRACTOR IS REQUIRED TO NOTIFY THE DEPARTMENT AND SUBMIT AN ALLEGED VIOLATION REPORT (AVR) TO THE PA PUBLIC UTILITY COMMISSION THROUGH THE PA ONE CALL SYSTEM, WWW.PAICALL.ORG, WITHIN TEN (10) BUSINESS DAYS AFTER A UTILITY LINE IS STRUCK, DAMAGED, OR PREVIOUS DAMAGE IS DISCOVERED AS REQUIRED BY PENNSYLVANIA'S UNDERGROUND UTILITY LINE PROTECTION LAW ACT 50 (P.L.852, NO. 287 AMENDED OCT. 30, 2017)

WHERE AN AERIAL EASEMENT IS ACQUIRED, IT SHALL INCLUDE AN EASEMENT IN THE AIR FOR THE ACCOMMODATION OF THE ELEVATED HIGHWAY STRUCTURE UNLIMITED IN VERTICAL DIMENSION ABOVE THE STRUCTURE, A SURFACE EASEMENT UNLIMITED IN VERTICAL DIMENSION FOR THE ACCOMMODATION OF PIERS AND OTHER APPURTENANCES AND A TEMPORARY EASEMENT FOR CONSTRUCTION PURPOSES INCLUDING THE STORAGE OF MATERIALS DURING CONSTRUCTION FOR THE ENTIRE AREA. THE FOLLOWING LIMITATIONS SHALL BE IMPOSED ON THE PROPERTY BENEATH THE AREA AFFECTED BY THE AERIAL EASEMENT.

NO USE SHALL BE MADE OF THE PROPERTY WHICH SHALL ENDANGER THE STRUCTURE OR THE HEALTH, SAFETY OR WELFARE OF THE TRAVELING PUBLIC.

NO FLAMMABLE, EXPLOSIVE, DANGEROUS OR HAZARDOUS MATERIAL SHALL BE USED, PLACED OR STORED ON THE PROPERTY.

NO BUILDING OR OTHER FACILITY SHALL BE CONSTRUCTED ON THE PROPERTY WITHOUT PRIOR AUTHORITY OF THE COUNTY. IF AND WHEN SUCH AUTHORITY IS GRANTED, THE PLANS FOR THE BUILDING OR FACILITY AND CONSTRUCTION METHODS SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY.

NO INTERFERENCE SHALL BE MADE WITH THE RIGHT OF THE COUNTY TO ENTER UPON THE PROPERTY FOR THE PURPOSES OF INSPECTION, MAINTENANCE, REPAIR, PAINTING, RECONSTRUCTION OR ALTERATION OF THE STRUCTURE OR APPURTENANCES. MOVABLE ITEMS MAY HAVE TO BE REMOVED BY THE OWNER DURING SOME OR ALL OF THE ABOVE OPERATIONS.

ANY SUBSTANTIAL CHANGE IN PROPERTY USE TO BE MADE SUBSEQUENT TO THE ACQUISITION OF THE EASEMENT SHALL BE SUBJECT TO THE APPROVAL OF THE COUNTY.

THE NOTES ON THESE DRAWINGS SHALL NOT BE CONSTRUED AS LIMITING OR INTERFERING IN ANY WAY WITH THE PRESENT AND FUTURE OPERATION, USE, MAINTENANCE, REPAIR, RENEWAL, CHANGE, ADDITION, BETTERMENT OR ALTERATION OF THE RAILROAD AND ITS SUPPORTING FACILITIES.

THE AREA WITHIN THE AERIAL EASEMENT BENEATH THE BRIDGE STRUCTURE SHALL BE AVAILABLE TO THE COUNTY, ITS QUALIFIED EMPLOYEES AND CONTRACTORS IN ORDER TO INSPECT AND MAINTAIN THE STRUCTURE UPON CONTACTING THE RAILROAD AND ESTABLISHING PROPER PROTECTION FOR THE WORK IN ACCORDANCE WITH THE USUAL AND CUSTOMARY PROCEDURES THAT THE RAILROAD HAS ESTABLISHED FOR SUCH PROTECTION.

LIST OF EQUALITIES

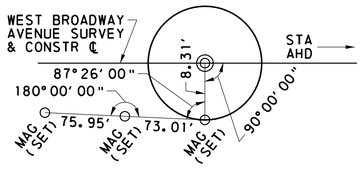
NONE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
No. PE083666

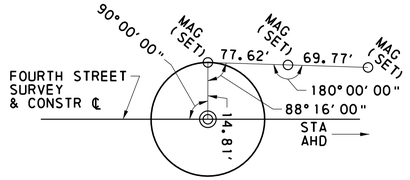
GENERAL NOTES AND LOCATION MAP

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		5 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY



WEST BROADWAY AVENUE
SURVEY & CONSTR ℄
POT STA 10+00.00



FOURTH STREET
SURVEY & CONSTR ℄
POT STA 14+78.51

SUMMARY OF PROJECT COORDINATES

BASED ON PENNSYLVANIA STATE PLANE COORDINATE SYSTEM
(NAD 83 SOUTH ZONE #3702 COMBINED FACTOR = 0.99992127)

RTE	STATION	POINT	COORDINATES		BEARING
			NORTH	EAST	
WEST BROADWAY AVENUE SURVEY & CONSTR ℄	9+00.00	POT	371758.7008	1420760.9345	S89° 24' 34"E
	9+85.00	PI	371757.8246	1420845.9300	N87° 40' 47"E
	10+96.36	PC	371762.3330	1420957.1950	N87° 40' 47"E
	11+25.20	PI	371763.5007	1420986.0117	N36° 20' 06"E
	11+50.12	PT	371786.7334	1421003.0998	N36° 20' 06"E
	13+11.24	PC	371916.5242	1421098.5630	N36° 20' 06"E
	13+30.72	PI	371932.2146	1421110.1036	N2° 40' 00"W
	13+48.68	PT	371951.6710	1421109.1974	N2° 40' 00"W
	14+78.51	POT	372081.3594	1421103.1569	
ACCESS ROAD SURVEY & CONSTR ℄	102+15.03	PC	371339.1683	1421730.4233	N56° 23' 21"W
	109+70.05	PI	371757.1100	1421101.6300	N47° 59' 44"W
	117+22.37	PT	372262.3598	1420540.5784	N47° 59' 44"W
	149+00.00	POT	374388.7880	1418179.2990	
FOSTER AVENUE CONSTR ℄	50+00.00	POT	371934.1808	1421107.1914	S74° 14' 52"E
	50+08.24	PC	371931.9427	1421115.1261	
	50+19.83	PI	371928.7979	1421126.2752	S56° 41' 14"E
	50+31.23	PT	371922.4357	1421135.9560	
	50+75.15	PI	371898.3156	1421172.6575	S57° 24' 56"E
	51+62.56	POT	371851.2436	1421246.3058	

NOTE:
FOUR (4) PLACE COORDINATES ARE USED FOR COMPUTATIONAL PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES.

SURVEY CONTROL POINTS

BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM,
SOUTH ZONE (NAD 83)

POINT NO.	NORTHING	EASTING	ELEV	DESCRIPTION
CP 1	371924.5974	1421105.8291	951.69	MAG NAIL
CP 2	372213.5668	1421117.1885	947.278	MAG NAIL
CP 3	371762.2710	1420982.9832	940.37	MAG NAIL

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

PROJECT COORDINATES AND REFERENCES

DES: KMJ	DWN: ETB	CHD: MCB

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		6 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

\+ STA 10+50.00 TO STA 10+85.00 - 7'-11" (MATCH EXISTING WIDTH) TO 11'-0"
STA 10+85.00 TO STA 13+11.91 - 11'-0"
STA 13+11.91 TO STA 13+33.56 - 11'-0" TO 10'-9"
STA 13+33.56 - SHLDR BECOMES PART OF LANE
STA 13+33.56 TO STA 13+55.49 - 12'-9" TO 10'-6"
STA 13+55.49 TO STA 13+70.00 - 10'-6" TO 11'-0" (MATCH EXISTING WIDTH)

\++ STA 10+50.00 TO STA 10+55.00 - 11'-5" (MATCH EXISTING WIDTH) TO 11'-0"
STA 10+55.00 TO STA 13+04.40 - 11'-0"
STA 13+04.40 TO STA 13+50.70 - 11'-0" TO 10'-6"
STA 13+50.70 TO STA 13+70.00 - 10'-6" TO 11'-1" (MATCH EXISTING WIDTH)

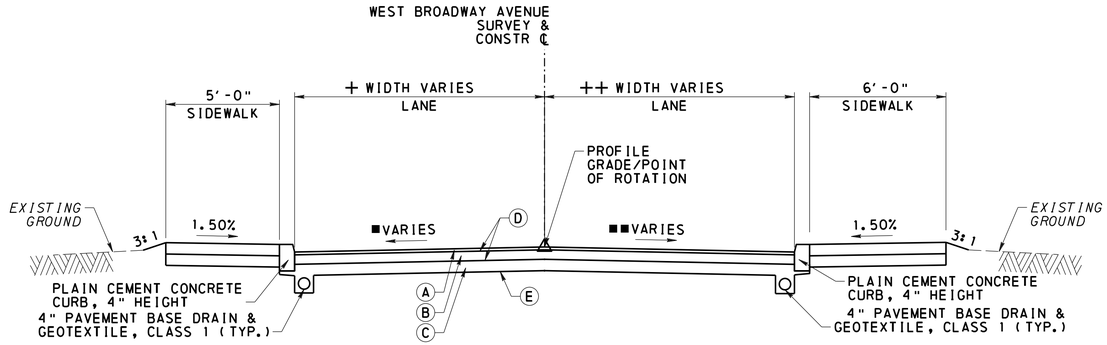
\+++ STA 10+50.00 TO STA 10+85.00 - 2'-0" (MATCH EXISTING WIDTH) TO 4'-0"
STA 10+85.00 TO STA 13+11.91 - 4'-0"
STA 13+11.91 TO STA 13+33.56 - 4'-0" TO 2'-0"
STA 13+33.56 TO STA 13+70.00 - 0'-0"

■ STA 10+50.00 TO STA 10+90.00 - -4.44% (EXISTING CROSS SLOPE) TO -2.00%
STA 10+90.00 TO STA 13+23.00 - -2.00%
STA 13+23.00 TO STA 13+70.00 - -2.00% TO -4.95% (EXISTING CROSS SLOPE)

■■ STA 10+50.00 TO STA 10+86.00 - +0.09% (EXISTING CROSS SLOPE) TO -2.00%
STA 10+86.00 TO STA 11+15.00 - -2.00%
STA 11+15.00 TO STA 11+58.00 - -2.00% TO +2.00%
STA 11+58.00 TO STA 13+23.00 - +2.00%
STA 13+23.00 TO STA 13+70.00 - +2.00% TO -2.97% (EXISTING CROSS SLOPE)

■■■ STA 10+50.00 TO STA 10+60.00 - -2.94% (EXISTING CROSS SLOPE) TO -6.00%
STA 10+60.00 TO STA 12+95.00 - -6.00%
STA 12+95.00 TO STA 13+25.00 - -6.00% TO -2.13%

■■■■ MATCH RT LANE SLOPE

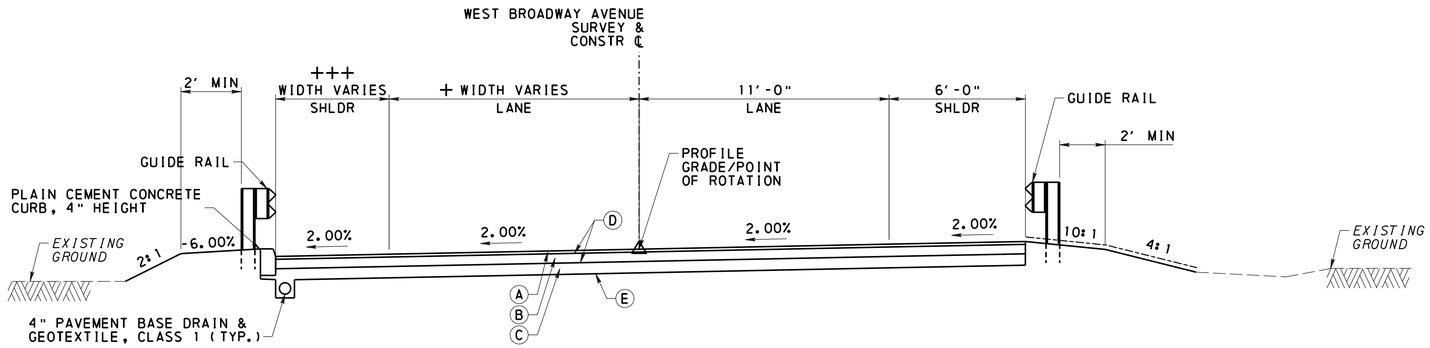


TYPICAL TANGENT SECTION - WEST BROADWAY AVENUE

STA 13+23.00 TO STA 13+70.00

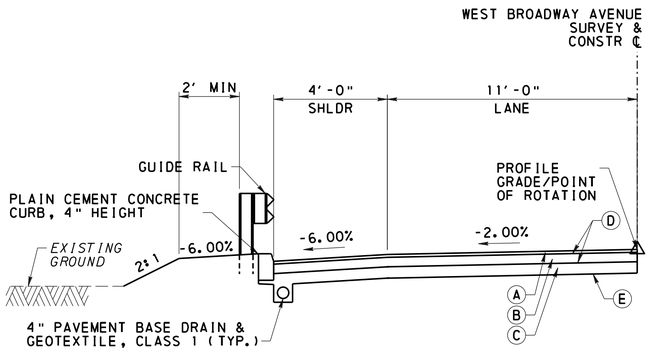
LEGEND

- SEEDING AND SOIL SUPPLIMENTS SEE E&S PLAN & TABS FOR TYPE)
- (A) SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-L
- (B) SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALs, 25.0 MM MIX, 5" DEPTH
- (C) SUBBASE 6" DEPTH (NO. 2A)
- (D) ASPHALT TACK COAT (NTT/CNTT) APPLY BETWEEN EACH LAYER AND LIFT
- (E) GEOTEXTILE, CLASS 4, TYPE A



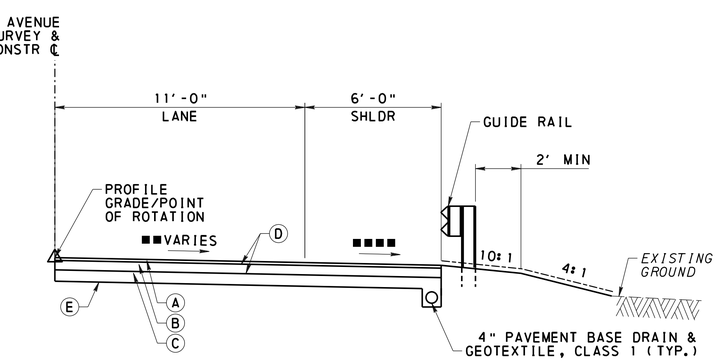
TYPICAL SUPERELEVATED SECTION - WEST BROADWAY AVENUE

STA 11+58.00 TO STA 11+62.33
STA 12+84.67 TO STA 13+23.00



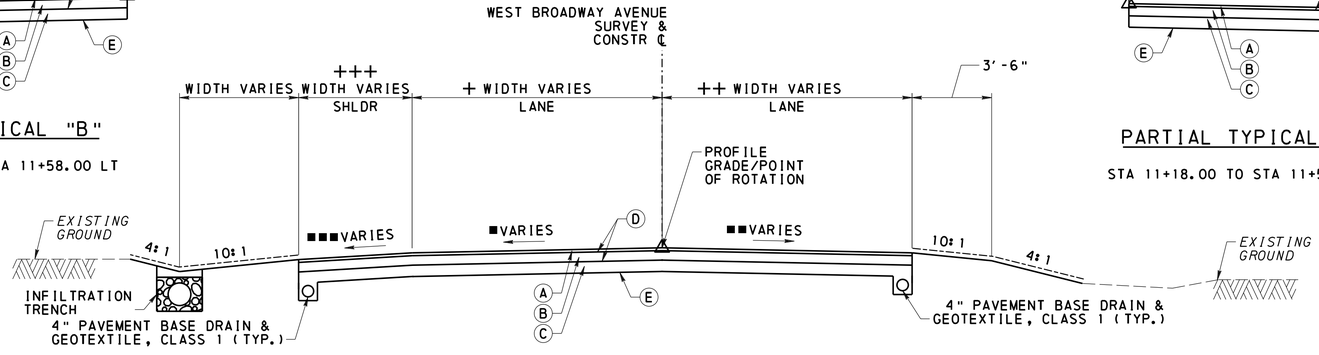
PARTIAL TYPICAL "B"

STA 11+36.00 TO STA 11+58.00 LT



PARTIAL TYPICAL "A"

STA 11+18.00 TO STA 11+58.00 RT



TYPICAL TANGENT SECTION - WEST BROADWAY AVENUE

STA 10+50.00 TO STA 11+58.00

TYPICAL SECTIONS

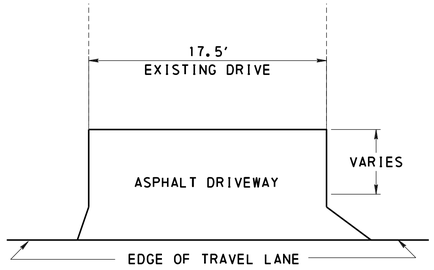
NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

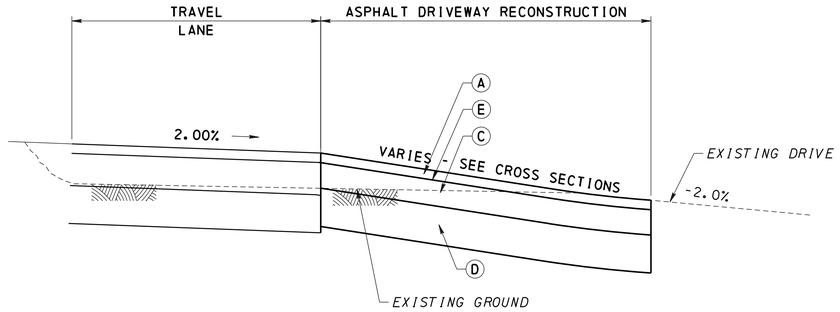
DES: KMJ | DWN: ETB | CHD: MCB

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		7 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY



MAINLINE PAVEMENT



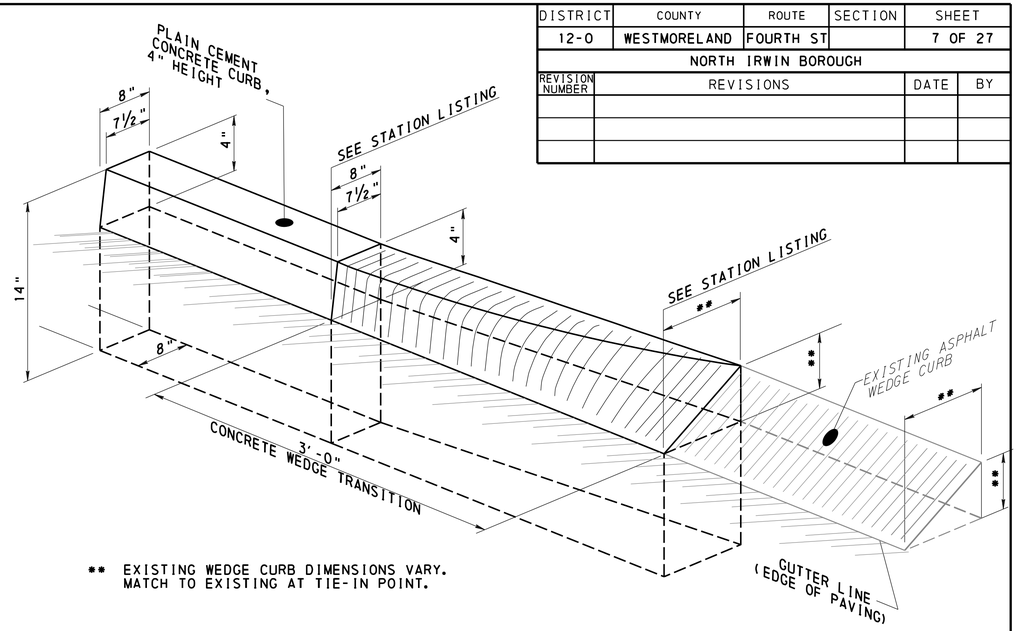
DRIVEWAY PROFILE

LEGEND

- (A) SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-L
- (C) SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALs, 25.0 MM MIX, 4" DEPTH
- (D) SUBBASE 6" DEPTH (NO. 2A)
- (E) ASPHALT TACK COAT (NTT/CNTT) APPLY BETWEEN EACH LAYER AND LIFT

TREATMENT FOR DRIVEWAY AT STA 11+04 RT

NOT TO SCALE

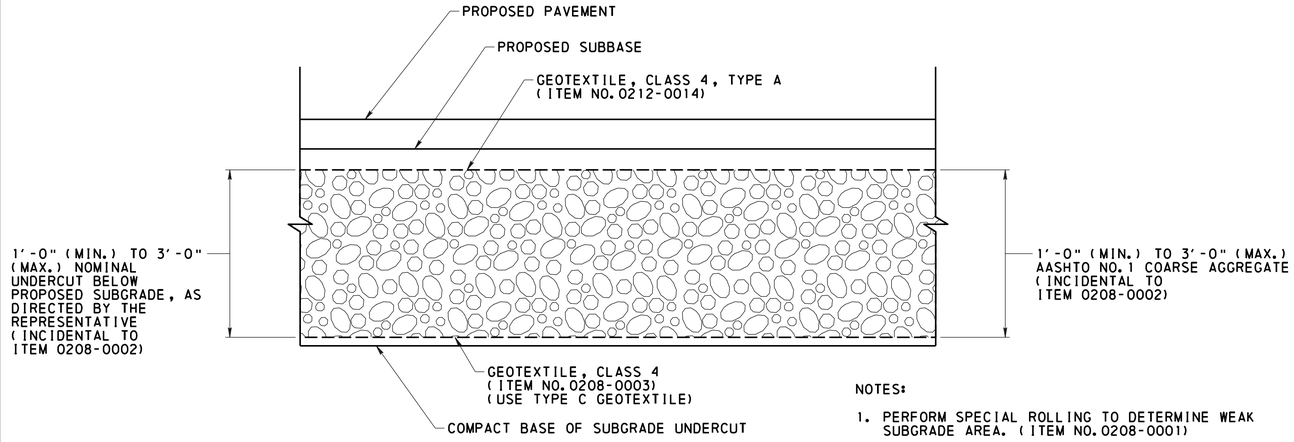


** EXISTING WEDGE CURB DIMENSIONS VARY. MATCH TO EXISTING AT TIE-IN POINT.

DETAIL - PLAIN CEMENT CONCRETE CURB TO ASPHALT WEDGE CURB

NTS

INCIDENTAL TO CONCRETE CURB ITEM

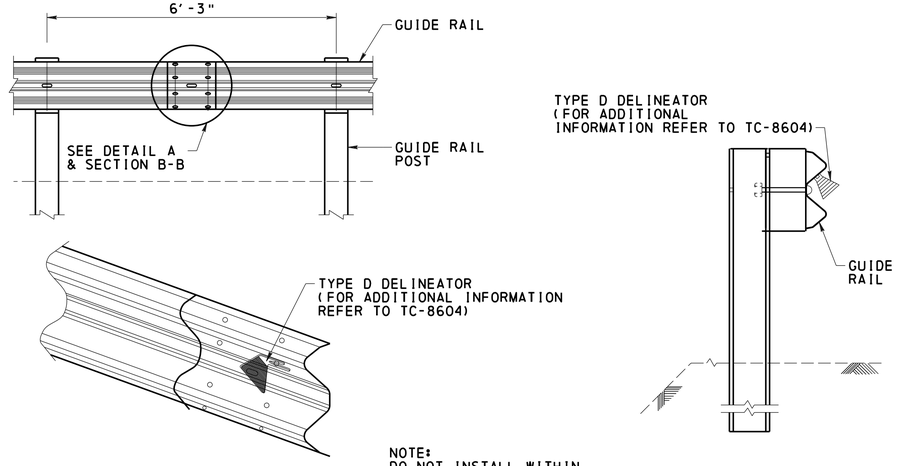


NOTES:

1. PERFORM SPECIAL ROLLING TO DETERMINE WEAK SUBGRADE AREA. (ITEM NO. 0208-0001)
2. PERFORM UNDERCUTTING/EXCAVATION AT LOCATIONS AS DIRECTED BY THE REPRESENTATIVE. DEPTH OF UNDERCUT 1'-0" (MIN.) TO 3'-0" (MAX.)
3. COMPACT BOTTOM OF THE UNDERCUT.
4. GEOTEXTILE, CLASS 4, TYPE C TO BE USED FOR STABILIZATION.
5. PLACE SELECTED BORROW EXCAVATION, COARSE AGGREGATE, NO. 1 IN 8" MAXIMUM LIFTS
6. GEOTEXTILE, CLASS 4, TYPE A TO BE USED FOR LAYER SEPARATION.
7. 8" OF NO. 1 COARSE AGGREGATE OR 6" OF SUBBASE MATERIAL IS TO BE IN PLACE ON GEOTEXTILE BEFORE PERMITTING COMPACTION.

SUBGRADE UNDERCUT DETAIL

(NOT TO SCALE)
AS DIRECTED



DETAIL A

NOTE:
DO NOT INSTALL WITHIN THE LENGTH OF AN END TREATMENT.

SECTION B-B

METHOD OF INSTALLING TYPE D DELINEATOR

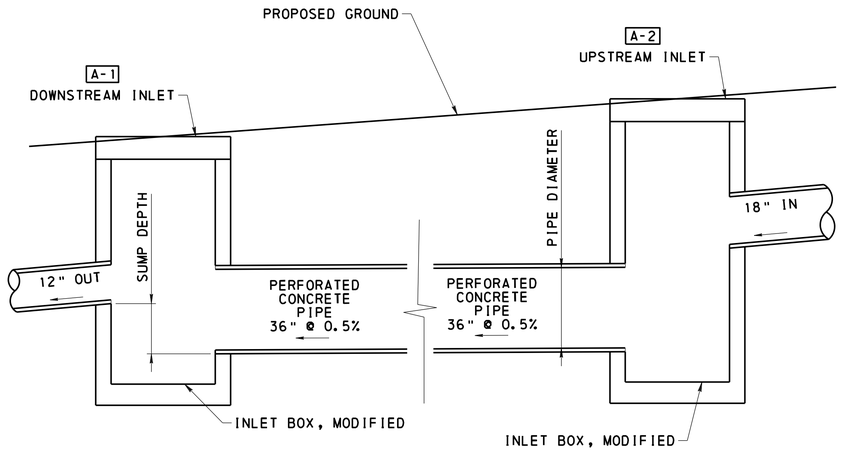
DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

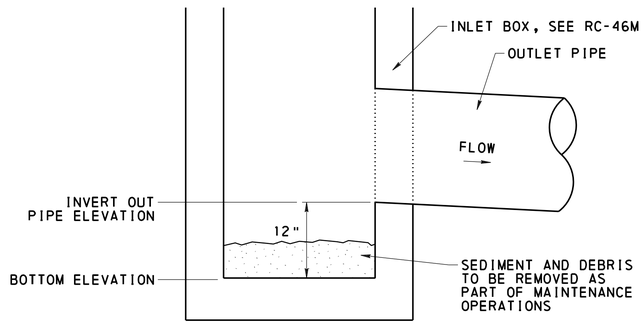
DES: KMJ	DWN: ETB	CHD: MCB

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		8 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY



TYPICAL PROFILE



NOTES:

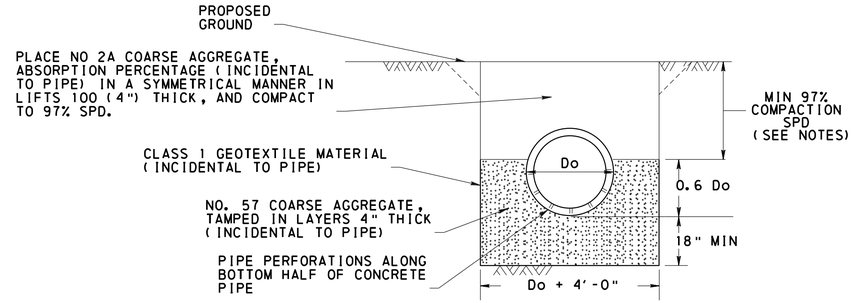
1. CONSTRUCT INLET BOXES IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 605 AND 714.

INLET BOX, MODIFIED

NOT TO SCALE

ITEM NO. 4605-2850: STANDARD INLET BOX, HEIGHT </= 10' MODIFIED

INLET	STATIONS	ROUTE	SIDE
A-1	10+10.67	FOURTH STREET	LT
A-2	10+98.67	FOURTH STREET	LT



SECTION

INFILTRATION TRENCH

ITEM NO. 9000-0020: INFILTRATION TRENCH, 36" DIAMETER

NOTES:

1. CONSTRUCT PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF PUBLICATION 408/2020, LATEST VERSION, SECTIONS 601 AND 604 EXCEPT AS NOTED ABOVE AND IN PROJECT SPECIFICATIONS.
2. PLACE NO. 57 COARSE AGGREGATE MATERIAL (INCIDENTAL TO PIPE), TAMPED IN LAYERS 4" THICK, ADJACENT TO THE LOWER HAUNCHES TO A HEIGHT OF 0.6 Do. TEST THE SIDE BACKFILL MATERIAL AND CONTINUE EMBANKMENT IN ACCORDANCE WITH PUBLICATION 408, SECTION 601.
3. FOR TRENCH BOX/SHORING INSTALLATION REQUIREMENTS REFER TO PUBLICATION 408, SECTION 601.
4. PERMIT PLACEMENT OF BACKFILL MATERIAL IN LAYERS, LIFTS, 8" THICK WHEN USING VIBRATORY COMPACTION EQUIPMENT.
5. COMPACT TOP 3'-0" OF SUBGRADE TO 100% IN ACCORDANCE WITH PUBLICATION 408, SECTION 206.3.

A-0

STA 9+29.00 - 13.73' RT
W BROADWAY AVENUE
PIPE OUTFALL
END OF PIPE (MITER TO SLOPE)
TG - N/A
INV 933.80 (12" IN) FROM A-1

A-1

STA 10+10.67 - 14.00' LT
W BROADWAY AVENUE
TYPE M CONCRETE TOP UNIT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </=10' MODIFIED
TG 937.52
INV 931.19 (36" IN) FROM A-2
INV 934.19 (12" OUT) TO A-0

A-2

STA 10+98.67 - 22.00' LT
W BROADWAY AVENUE
TYPE M CONCRETE TOP UNIT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </=10' MODIFIED
TG 939.42
INV 935.52 (18" IN) FROM A-3
INV 931.62 (36" OUT) TO A-1

A-3

STA 11+30.28 - 15.00' LT
W BROADWAY AVENUE
TYPE C CONCRETE TOP UNIT, 4" CURB HEIGHT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </=10'
TG 940.47
INV 936.72 (18" OUT - CORNER) TO A-2

B-0

STA 13+60.29 - 10.63' LT
FOURTH STREET
TYPE C FRAME AND BICYCLE SAFE GRATE
EXISTING INLET BOX (TO REMAIN)
TG 951.57
INV 946.19±(15" IN) FROM B-1 (MATCH EXISTING)
INV 945.41 (24" IN) FROM EXISTING
INV 945.27 (24" OUT) TO EXISTING

B-1

STA 13+16.80 - 14.80' LT
W BROADWAY AVENUE
TYPE C CONCRETE TOP UNIT, 4" CURB HEIGHT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </=10'
TG 950.88
INV 946.88 (15" OUT) TO B-0

DRAINAGE DETAILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
No. PE083666

DES: KMJ | DWN: ETB | CHD: MCB

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		9 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

POINT	ALIGNMENT	STATION	OFFSET	SIDE	ELEVATION
1	FOSTER AVE.	50+80.00	9.04	RT	955.59
2	FOSTER AVE.	50+55.00	11.17	RT	954.06
3	FOSTER AVE.	50+55.00	9.17	RT	954.10
4	FOSTER AVE.	50+39.98	11.21	RT	953.21
5	FOSTER AVE.	50+38.82	9.21	RT	953.18
6	W. BROADWAY AVE.	13+07.45	17.00	LT	951.01
7	W. BROADWAY AVE.	13+04.40	11.00	LT	950.71
8	W. BROADWAY AVE.	13+11.91	11.00	LT	950.68
9	W. BROADWAY AVE.	13+20.96	14.37	LT	951.12
10	W. BROADWAY AVE.	13+33.61	12.72	LT	951.54
11	W. BROADWAY AVE.	13+33.56	10.72	LT	951.59
12	W. BROADWAY AVE.	13+50.31	16.40	LT	951.67
13	W. BROADWAY AVE.	13+49.74	11.43	LT	951.62
14	W. BROADWAY AVE.	13+49.66	10.77	LT	951.61
15	W. BROADWAY AVE.	13+55.31	16.19	LT	951.65
16	W. BROADWAY AVE.	13+55.46	11.19	LT	951.60
17	W. BROADWAY AVE.	13+55.49	10.53	LT	951.59
18	W. BROADWAY AVE.	13+60.30	16.35	LT	951.97
19	W. BROADWAY AVE.	13+60.46	11.35	LT	951.90
20	W. BROADWAY AVE.	13+60.48	10.68	LT	951.57
21	W. BROADWAY AVE.	13+70.00	10.98	LT	951.62
22	W. BROADWAY AVE.	13+70.00	11.06	RT	951.84
23	W. BROADWAY AVE.	13+64.49	17.56	RT	952.23
24	W. BROADWAY AVE.	13+64.67	11.57	RT	952.14
25	W. BROADWAY AVE.	13+64.69	10.90	RT	951.81
26	W. BROADWAY AVE.	13+58.50	17.38	RT	951.88
27	W. BROADWAY AVE.	13+58.68	11.39	RT	951.79
28	W. BROADWAY AVE.	13+58.70	10.72	RT	951.78
29	W. BROADWAY AVE.	13+53.50	17.23	RT	951.85
30	W. BROADWAY AVE.	13+53.68	11.24	RT	951.76
31	W. BROADWAY AVE.	13+53.70	10.57	RT	951.75
31A	W. BROADWAY AVE.	13+50.11	10.48	RT	951.73
32	W. BROADWAY AVE.	13+47.79	17.43	RT	952.07
33	W. BROADWAY AVE.	13+46.66	11.61	RT	952.04
34	W. BROADWAY AVE.	13+46.52	10.96	RT	951.71
35	FOSTER AVE.	50+15.49	18.63	LT	952.07
36	FOSTER AVE.	50+12.85	13.57	LT	952.04
37	FOSTER AVE.	50+12.54	13.01	LT	951.71
38	FOSTER AVE.	50+17.71	17.43	LT	952.00
39	FOSTER AVE.	50+16.30	11.67	LT	951.91
40	FOSTER AVE.	50+16.13	11.03	LT	951.90
41	FOSTER AVE.	50+21.73	16.61	LT	952.20
42	FOSTER AVE.	50+21.07	10.66	LT	952.11
43	FOSTER AVE.	50+20.99	10.00	LT	952.10
44	FOSTER AVE.	50+30.76	15.88	LT	953.03
45	FOSTER AVE.	50+30.72	9.88	LT	952.94
46	FOSTER AVE.	50+30.72	9.21	LT	952.61
47	FOSTER AVE.	50+54.51	15.88	LT	954.09
48	FOSTER AVE.	50+54.51	9.63	LT	954.00
49	FOSTER AVE.	50+54.57	8.96	LT	953.67
50	FOSTER AVE.	50+58.47	15.88	LT	953.98
51	FOSTER AVE.	50+58.47	10.81	LT	953.91
52	FOSTER AVE.	50+58.72	10.19	LT	953.91
53	FOSTER AVE.	50+68.69	15.88	LT	954.72
54	FOSTER AVE.	50+70.01	15.88	LT	954.82

STA 13+37.41 WEST BROADWAY AVENUE SURVEY & CONSTR ℄ =
STA 50+00.00 FOSTER AVENUE CONSTR ℄

PC 13+11.24
PT 13+48.68
PC 50+08.24
PT 50+31.23
PT 50+79.15
S74° 14' 52"E
N36° 20' 06"E
S56° 41' 14"E
S57° 24' 56"E
N2° 40' 00"W
R 45'
R 40'
R 25'
R 20'
R 90'
R 17'
WING C
WING D1
WING D2
W BROADWAY AVE SURVEY & CONSTR ℄
FOURTH STREET SURVEY & CONSTR ℄
FOSTER AVE CONSTR ℄
FOSTER AVE
W BROADWAY AVE
FOURTH ST
HOLD 4" CURB HT
2' CURB TRANSITION
3' CURB TRANSITION
4.93' TRANSITION TO EXIST
5.53' TRANSITION SIDEWALK TO EXIST.
UTILITY POLE TO REMAIN
MILL AND OVERLAY

LEGEND

EXISTING MAJOR CONTOURS — 960 —
EXISTING MINOR CONTOURS
PROPOSED MAJOR CONTOURS — 960 —
PROPOSED MINOR CONTOURS
DETECTABLE WARNING SURFACE (DWS)

SCALE
0 5 10 FEET

INTERSECTION AND CURB RAMP DETAIL

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

DES: PAP | DWN: RML | CHD: MCB

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		10 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

GENERAL NOTES

THIS WORK CONSISTS OF MAINTENANCE AND THE PROTECTION OF THE TRAVELING PUBLIC APPROACHING THE CONSTRUCTION AREA AND WITHIN THE LIMITS OF CONSTRUCTION AND ON APPROVED DETOURS.

FURNISH, ERECT, PLACE, AND MAINTAIN TRAFFIC CONTROL SIGNS AND DEVICES AND MAINTAIN TRAFFIC DURING HOURS OF CONSTRUCTION AND AT ALL OTHER TIMES IN ACCORDANCE WITH THE METHODS INDICATED ON THESE DRAWINGS, AND,

1. THE SPECIAL PROVISIONS OF THE CONTRACT.
2. PDT PUBLICATION 212, OFFICIAL TRAFFIC CONTROL DEVICES.
3. PDT PUBLICATION 213, TEMPORARY TRAFFIC CONTROL GUIDELINES.
4. PDT PUBLICATION 35, APPROVED CONSTRUCTION MATERIALS (BULLETIN 15).
5. PDT PUBLICATION 408/2020, SPECIFICATIONS.
6. MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD).
7. PDT PUBLICATION 236, HANDBOOK OF APPROVED SIGNS.
8. PDT PUBLICATION 111, TRAFFIC CONTROL - PAVEMENT MARKINGS AND SIGNING STANDARDS TC-8600 AND TC-8700.

IMMEDIATELY UPON COMPLETION OF THE WORK REMOVE AND RETAIN THE DEVICES UNLESS OTHERWISE SPECIFIED IN THE SPECIAL PROVISIONS. THE COUNTY WILL REMOVE ANY TRAFFIC CONTROL DEVICES ERECTED BY COUNTY FORCES.

THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING THE PENNSYLVANIA ONE CALL SYSTEM, INC. AT 1-800-242-1776 AT LEAST 3-FULL WORKING DAYS BEFORE DIGGING. PA ONE CALL SHALL BE CONTACTED BEFORE ANY SIGN POST ANCHOR IS DRIVEN INTO THE GROUND FOR TEMPORARY AND PERMANENT SIGNING.

ALL TRAFFIC CONTROL DEVICES TO BE IN PLACE AND INSPECTED BY THE PROJECT INSPECTOR DAILY PRIOR TO THE START OF WORK.

ALL TRAFFIC CONTROL DEVICES TO BE IN PLACE AND INSPECTED BY THE PROJECT INSPECTOR DAILY PRIOR TO THE END OF WORK.

NOTIFY THE WESTMORELAND COUNTY REPRESENTATIVE IN WRITING TWO WEEKS PRIOR TO MAKING ANY TRAFFIC PATTERN CHANGES AND WHEN PROJECT IS COMPLETE. ALL MODIFICATIONS MUST BE APPROVED BY THE DISTRICT TRAFFIC ENGINEER.

WHEN WORK IS COMPLETED FOR A PERIOD OF ONE WEEK (7 CONSECUTIVE CALENDAR DAYS) OR GREATER, THEN ALL LEAD IN SIGNAGE TO BE REMOVED BY COUNTY FORCES AND STORED AT THE COUNTY MAINTENANCE BUILDING FOR PICK-UP BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE COUNTY. AFTER 30 DAYS BECOMES COUNTY PROPERTY.

INSPECTOR-IN-CHARGE TO REPORT ALL TRAFFIC INCIDENTS TO THE WESTMORELAND COUNTY REPRESENTATIVE AND DISTRICT TRAFFIC ENGINEER BY COPY OF THE TRAFFIC ACCIDENT REPORT FORM FROM THE PENNSYLVANIA STATE POLICE.

ALL SIGNS NOT IN USE TO BE EITHER COMPLETELY COVERED OR REMOVED FROM SIGHT. THE CONTRACTOR IS TO REINSTALL ALL SIGNS THAT WERE REMOVED FOR THE CONSTRUCTION PROJECT. DO NOT PLACE ANY ADHESIVE ON THE FACE OF THE SIGN.

ALL EXISTING SIGNAGE WITH CONFLICTING MESSAGES TO BE COMPLETELY COVERED OR REMOVED AND REINSTALLED WHEN PROJECT IS COMPLETE.

ALL SIGNS AND DEVICES ARE TO BE NEW AT THE BEGINNING OF THE PROJECT AND ARE TO BE MAINTAINED TO WESTMORELAND COUNTY REPRESENTATIVE'S SATISFACTION THROUGHOUT THE PROJECT DURATION.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTENANCE AND PROTECTION OF PEDESTRIANS WITHIN THE WORK AREA, PRINCIPALLY ADJACENT TO EXCAVATION AREAS.

ALL SIGNS TO BE REFLECTORIZED WITH MATERIAL THAT MEETS PENNDOT SPECIFICATIONS FOR SHEET REFLECTIVE MATERIAL, TYPE III OR TYPE VII FLUORESCENT.

ALL CHANNELIZING DEVICES MUST HAVE A REFLECTIVE SHEETING A MINIMUM OF 150 SQUARE INCHES FOR SHORT TERM OPERATIONS AND 270 SQUARE INCHES FOR LONG TERM OPERATIONS.

THE REFLECTIVE MATERIAL FOR CHANNELIZING DEVICES MUST BE A MATERIAL THAT MEETS PENNDOT CURRENT SPECIFICATIONS FOR SHEET REFLECTIVE MATERIAL, BARRICADE RAILS AND VERTICAL PANELS WHICH WILL REQUIRE TYPE III OR TYPE VII.

THIS TRAFFIC CONTROL PLAN DOES NOT RELIEVE THE CONTRACTOR OF HIS RESPONSIBILITY AS SPECIFIED IN SECTION 901.3 OF PUBLICATION 408/2020.

ADJUST ALL DISTANCES SLIGHTLY TO FIT FIELD CONDITIONS.

NO ROADWAY IS PERMITTED TO HAVE A LANE CLOSURE OR ROAD CLOSURE STARTING NOVEMBER 01, AND ENDING APRIL 01, WITHOUT AN APPROVED REVISED TRAFFIC CONTROL PLAN ADDRESSING WINTER OPERATIONS.

GENERAL NOTES CONT.

DO NOT PARK, STOP OR STORE ANY EQUIPMENT WHICH IS NOT BEING USED FOR THE CURRENT WORK OPERATION, ADJACENT TO AN ACTIVE TRAVEL LANE. STORE ALL EQUIPMENT OUTSIDE OF THE WORK AREA IN A CLEAR ZONE SUITABLY PROTECTED STAGING AREA.

THE TRAFFIC CONTROL DEVICES SHOWN DO NOT NECESSARILY DEPICT THE ACTUAL NUMBER OF DEVICES REQUIRED.

MOUNT ALL SIGNS ON TYPE III BARRICADES (SEE PUBLICATION 213, AND TC-8716 AND TC-8717) UNLESS OTHERWISE SHOWN OR DIRECTED.

ERECT ALL POST MOUNTED SIGNS IN ACCORDANCE WITH TC-8716 AND TC-8717 AND MOST CURRENT PUBLICATION 111 (TRAFFIC CONTROL - PAVEMENT MARKINGS AND SIGNING STANDARDS).

ANY SPECIAL SIGNS ARE TO BE FABRICATED IN ACCORDANCE WITH TC STANDARDS 8700 SERIES.

ATTACH TYPE C LIGHTS TO ALL DRUMS OR CHANNELIZING DEVICES USED TO PROTECT OPEN EXCAVATIONS ADJACENT TO ROADWAY.

PROVIDE NEW REFLECTIVE SHEETING FOR ALL SIGNS AND DEVICES, I.E. SUPPORTS, SIGN BLANKS, DRUMS, VERTICAL PANELS, ETC. SHALL BE CLEAN AND FREE FROM ALL DEFECTS.

THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ACCESS TO ALL BUSINESSES AND DWELLINGS DURING ALL PHASES OF CONSTRUCTION.

PROVIDE ADEQUATE NUMBER OF TYPE III BARRICADES AND CHANNELING DEVICES AT ROAD CLOSURE LOCATIONS TO COMPLETELY CLOSE THE ROADWAY.

CONTRACTOR TO NOTIFY LOCAL EMERGENCY AUTHORITIES (E.G. POLICE, FIRE, MEDICAL), AFFECTED POST OFFICE(S), BUSINESSES, SCHOOL DISTRICT(S).

CONTRACTOR IS TO NOTIFY THE ASSISTANT CONSTRUCTION ENGINEER AND HE WILL NOTIFY THE APRAS COORDINATOR AT LEAST FOURTEEN DAYS PRIOR TO ANY SIGNIFICANT TRAFFIC IMPACTS (E.G. LATERAL WIDTH RESTRICTIONS LESS THAN 12 FEET).

TWO WEEKS PRIOR TO STARTING WORK, THE SIGN (W23-101) "THIS BRIDGE TO BE CLOSED FOR CONSTRUCTION" AND ALL THE DETOUR SIGNS ARE TO BE INSTALLED.

THE M4-9S SERIES DETOUR SIGNS SHOULD NOT BE SPACED FURTHER THAN ONE (1) MILE A PART AND PLACED AT EVERY HIGH VOLUME STATE SIDE ROAD.

FOR STATIONARY, SHORT TERM OPERATIONS, CONTROL TRAFFIC IN WORK AREAS IN ACCORDANCE WITH PUBLICATION 213 IF NOT ADDRESSED IN THE TRAFFIC CONTROL PLAN (TCP).

FLAG PERSONS ARE TO BE IN RADIO COMMUNICATIONS AT ALL TIMES DURING WORKING HOURS.

FOR SHORT TERM OPERATIONS - AND FOR INGRESS, EGRESS OF CONSTRUCTION DELIVERIES AND EMPLOYEES - USE SHORT TERM FLAGGING OPERATIONS. DURING HOURS OF DARKNESS, ALL SIGNS TO BE REFLECTORIZED OR ILLUMINATED, AND EACH ADVANCE WARNING SIGN SHALL HAVE A TYPE B LIGHT MOUNTED ON TOP.

ALL SHORT TERM OPERATION LEAD IN SIGNS TO BE MOUNTED ON PORTABLE SIGN STANDS ONLY AS STATED IN BULLETIN 15.

ALL CHANGES TO THIS TRAFFIC CONTROL PLAN MUST BE APPROVED, SIGNED, AND DATED BY THE WESTMORELAND COUNTY REPRESENTATIVE AND BY THE DISTRICT TRAFFIC UNIT.

TRAFFIC CONTROL DETAILS OTHER THAN THOSE SHOWN ON THESE DRAWINGS TO CONFORM TO THE FOLLOWING STANDARD DRAWINGS:

TC-8600	JUNE 13, 2013	(13 SHEETS)
TC-8700C	JUNE 13, 2013	(12 SHEETS)
TC-8702B	JUNE 13, 2013	(9 SHEETS)
TC-8716	FEB. 21, 2024	(2 SHEETS)
TC-8717	JUNE 13, 2013	(1 SHEET)

FABRICATED SIGNS

FOR ALL FABRICATED SIGNS THE ORANGE BACKGROUND WILL BE CONSTRUCTED OF PENNDOT APPROVED FLUORESCENT ORANGE RETROREFLECTIVE MATERIAL.

ALL FABRICATED SIGNS TO HAVE AN APPROPRIATELY SIZED BLACK BORDER, CORNER RADII, AND ORANGE MARGIN.

SIGNS TO BE FABRICATED AND INSTALLED IN ACCORDANCE WITH THE FOLLOWING STANDARD DRAWINGS:

TC-8700C	JUNE 13,2013	(12 SHEETS)

CONSTRUCTION SEQUENCE

RECONSTRUCTION OF THE FOURTH STREET BRIDGE OVER THE NORFOLK SOUTHERN RAILWAY IN WESTMORELAND COUNTY, AND ASSOCIATED ROADWAY RECONSTRUCTION WILL REQUIRE COMPLETE CLOSURE OF THE STRUCTURE AND APPROACH ROADWAY. A DETOUR FOR FOSTER AVENUE TRAFFIC WILL BE UTILIZED DURING THE CONSTRUCTION PROCESS. A BRIEF DESCRIPTION OF CONSTRUCTION ACTIVITIES, AS WELL AS THE MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION ARE PROVIDED BELOW.

- ERECT ALL TRAFFIC CONTROL ADVANCE WARNING AND DETOUR SIGNS AS SHOWN ON THE TRAFFIC CONTROL PLAN.
- IMPLEMENT THE FOSTER AVENUE DETOUR. MAINTAIN ACCESS TO ALL DRIVEWAYS.
- MAINTAIN THE CLOSURE OF THE EXISTING STRUCTURE ON FOURTH STREET.
- CONSTRUCT NEW STRUCTURE.
- PERFORM APPROACH ROADWAY CONSTRUCTION AS SHOWN IN THE ROADWAY CONSTRUCTION PLAN, INCLUDING DRAINAGE, GUIDE RAIL, AND OTHER MISCELLANEOUS WORK.
- UPON COMPLETION OF ALL CONSTRUCTION WORK, REMOVE THE DETOUR AND ALL TRAFFIC CONTROL SIGNS AND DEVICES.
- OPEN FOURTH AVENUE AND FOSTER AVENUE TO UNRESTRICTED TRAFFIC.

TABULATION OF TRAFFIC CONTROL DEVICES

(FOR INFORMATION ONLY) INCLUDED IN LUMP SUM ITEM NO. 0901-0001

TRAFFIC CONTROL DEVICE	DESCRIPTION	SIZE	TOTAL QUANTITY
R11-2	ROAD CLOSED	48"x30"	8
R11-4	ROAD CLOSED TO THRU TRAFFIC	60"x30"	1
W20-1	ROAD WORK	36"x36"	▲
W20-2	ADVANCE DETOUR	36"x36"	4
W20-3	ROAD CLOSED	36"x36"	1
W20-4	ONE LANE ROAD	36"x36"	▲
W20-7	FLAGGER SYMBOL	36"x36"	▲
W23-101	THIS STREET TO BE CLOSED FOR CONSTRUCTION	96"x48"	2
W30-1-1	DISTANCE (500 FT)	20"x6"	3
W30-1-6	DISTANCE (AHEAD)	20"x6"	2
M4-8A	END DETOUR	24"x18"	2
M4-9L	DETOUR, LEFT	30"x24"	2
M4-9R	DETOUR, RIGHT	30"x24"	1
M4-9S	DETOUR, STRAIGHT	30"x24"	4
M4-9SL	LEFT ADVANCE DETOUR	30"x24"	2
M4-9SR	RIGHT ADVANCE DETOUR	30"x24"	1
M4-10R	DETOUR ARROW, RIGHT	48"x18"	1
SS-1	FOSTER AVENUE	30"x30"	16
TYPE III BARRICADES			14
POST MOUNTED SIGNS			12
TYPE B LIGHTS			21
CHANNELIZING DEVICES ORANGE/WHITE			▲

▲ AS REQUIRED

SEPARATE PAY ITEMS

ITEM NO. / UNIT	DESCRIPTION	TOTAL QUANTITY REQUIRED	REMARKS
0901 0231 / DAY	ADDITIONAL WARNING LIGHTS, TYPE B	30	AS DIRECTED
0901 0240 / SF	ADDITIONAL TRAFFIC CONTROL SIGNS	100	AS DIRECTED

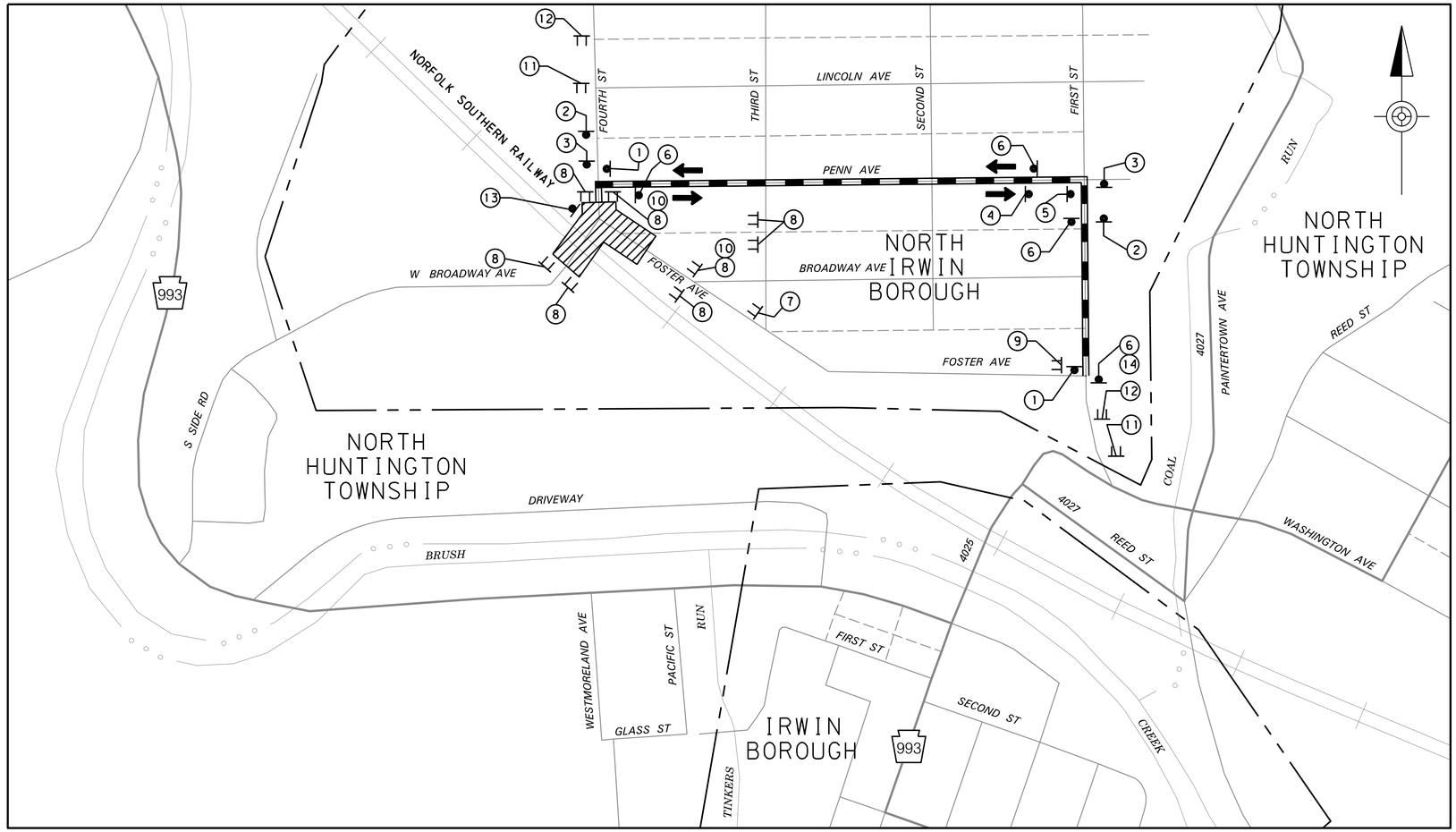
DES: LDS | DWN: LDS | CHD: MCB

TRAFFIC CONTROL DETAILS
GENERAL NOTES,
CONSTRUCTION SEQUENCE
& TABULATIONS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
No. PE083666

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		11 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY



NOT TO SCALE

NOTES:

1. COORDINATE PLACEMENT OF DETOUR SIGNS AND CONSTRUCTION WARNING SIGNS. SIGN LOCATION AND DISTANCES MAY BE ADJUSTED SLIGHTLY TO FIT FIELD CONDITIONS.
2. THE FOSTER AVENUE DETOUR LENGTH IS APPROXIMATELY 1/2 MILE.
3. DISTANCE PANELS ON SIGNS INDICATE THE APPROXIMATE DISTANCE FOR PLACEMENT OF THESE SIGNS FROM THE START OF THE DETOUR OR ROAD CLOSURE. FIELD VERIFY THE DISTANCES PLACED ON THE SIGN PRIOR TO FABRICATION BASED ON THE LOCATION OF THE SIGN THAT BEST FITS THE FIELD CONDITIONS.

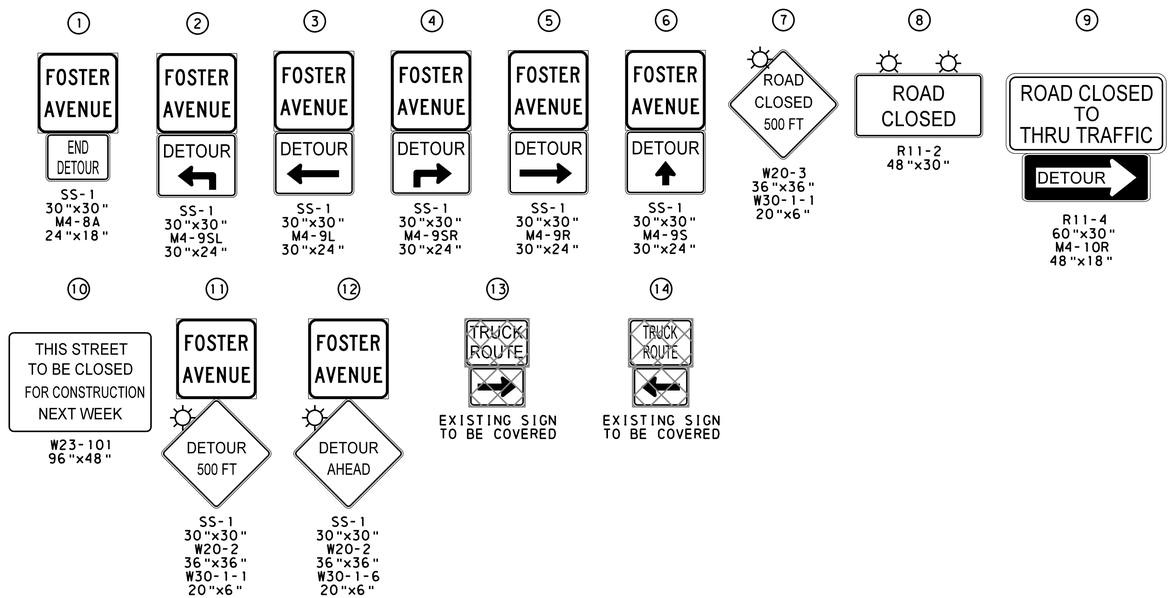
SPECIAL SIGN DETAIL

(NOT TO SCALE)

3.0" Radius, 1.0" Border, Black on Orange;
"FOSTER", C 2K;
"AVENUE", C 2K;
Table of distances between letter and object lefts

LEGEND

- WORK AREA
- DIRECTION OF TRAVEL
- DETOUR ROUTE
- STATE ROUTE
- LOCAL ROAD
- ALLEY
- MUNICIPAL BOUNDARY
- TYPE III BARRICADE
- POST MOUNTED SIGN
- TYPE B LIGHT
- (1) SIGN IDENTIFIER



TRAFFIC CONTROL DETAILS
FOURTH STREET
BRIDGE DETOUR

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

DES: LDS	DWN: LDS	CHD: MCB

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		12 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

SIGNING AND PAVEMENT MARKING NOTES

1. INSTALL SIGNS, PAVEMENT MARKINGS, AND DELINEATION IN ACCORDANCE WITH THE MOST CURRENT PENNDOT PUBLICATION 111 TRAFFIC CONTROL PAVEMENT MARKINGS AND SIGNING STANDARDS TC-8600 AND TC-8700 SERIES, PENNDOT PUBLICATION 236 HANDBOOK OF APPROVED SIGNS, PENNDOT PUBLICATION 46, THE FEDERAL HIGHWAY ADMINISTRATION MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, PENNDOT PUBLICATION 212 OFFICIAL TRAFFIC CONTROL DEVICES, AND AS DIRECTED BY PENNDOT DISTRICT 12-0 REPRESENTATIVE.

2. CONSTRUCTION DETAILS OTHER THAN THOSE SHOWN ON THESE DRAWINGS TO CONFIRM TO THE FOLLOWING PENNSYLVANIA DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS:

TC-8600	13 SHEETS	JUNE 13, 2013	PAVEMENT MARKINGS
TC-8604	5 SHEETS	AUG. 17, 2021	DELINEATION
TC-8700C	12 SHEETS	JUNE 13, 2013	SPACING CHARTS/DIRECT APPLIED LETTERS, NUMERALS AND ARROWS
TC-8702B	9 SHEETS	JUNE 13, 2013	POST-MOUNTED SIGNS, TYPE B

3. ANY LEGAL OR PRIVATE SIGN THAT IS TO BE REMOVED FOR CONSTRUCTION THAT IS WITHIN THE PROJECT LIMITS BUT IS NOT INCLUDED IN THE PROJECT'S SIGN TABULATIONS SHALL BE REINSTALLED AT OR NEAREST ITS ORIGINAL LOCATION. IF THE SIGN IS DETERMINED UNNECESSARY, IT SHALL BE RETURNED TO ITS OWNER.

4. ANY SIGN THAT IS TO REMAIN OR BE REINSTALLED, THAT BECOMES DAMAGED IN ANY WAY DURING CONSTRUCTION OR DURING REMOVAL, STORAGE, OR REINSTALLATION, SHALL BE REPLACED IN KIND WITH A NEW SIGN AT NO ADDITIONAL COST TO THE DEPARTMENT.

5. PLACE ALL SIGNS ENTIRELY WITHIN THE LEGAL RIGHT-OF-WAY.

6. FOR FABRICATION OF ALL STANDARD SIGNS, REFER TO PENNSYLVANIA DEPARTMENT OF TRANSPORTATION PUBLICATION 236.

7. ALL TYPE B POST MOUNTED SIGNS ARE TO BE INSTALLED USING SQUARE CHANNEL POSTS AND ANCHORS OF THE APPROPRIATE SIZE. ANCHORS SHALL NOT EXTEND MORE THAN ONE (1) INCH ABOVE THE GROUND LINE.

8. DO NOT REMOVE EXISTING SIGNS UNTIL THE NEW SIGNS ARE INSTALLED. IF EXISTING SIGNS CONFLICT WITH CONSTRUCTION, INSTALL TEMPORARY SIGNS AS DIRECTED BY A PENNDOT DISTRICT 12-0 REPRESENTATIVE. DO NOT REMOVE THE TEMPORARY SIGNS UNTIL THE NEW SIGNS ARE INSTALLED. SIGN REMOVALS ARE INCIDENTAL TO THE SIGNS BEING INSTALLED.

9. APPLY AN INSTALLATION DATE PERMANENTLY TO THE BACK SIDE OF EACH SIGN INSTALLED WITHIN THE PROJECTS LIMITS OF WORK.

10. CONTRACTOR SHALL CALL PA ONE CALL SYSTEM, INC AT 1-800-242-1776 PRIOR TO DIGGING FOR ALL SIGNS.

11. APPLY PAVEMENT MARKINGS AT THE WIDTH INDICATED ON PLAN.

12. WHEN USING WATERBORNE PAINT FOR LONGITUDINAL LINES ON THE FINAL PAVEMENT COURSE, APPLY TWO APPLICATIONS OF PAINT. APPLY THE SECOND APPLICATION AFTER THE FIRST IS DRY, WITHIN 24 HOURS.

13. FOR ALL TRANSVERSE APPLICATIONS AND LEGENDS, USE EPOXY (ON CONCRETE) AND HOT THERMOPLASTIC (ON ASPHALT).

14. APPLY ALL PAVEMENT MARKINGS IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

15. THE CONTRACTOR SHALL REAPPLY ANY EXISTING PAVEMENT MARKING THAT IS DAMAGED WITHIN OR BEYOND THE START/STOP OF WORK DUE TO CONSTRUCTION ACTIVITY AT NO ADDITIONAL COST TO THE DEPARTMENT.

16. INSTALL TYPE B AND D DELINEATORS TO ALL GUIDE RAIL WITHIN PLAN LIMITS AT INTERVALS SPECIFIED PER PUBLICATION 111, TC-8604, OR AS DIRECTED BY PA DEPT. OF TRANSPORTATION.

SIGNING AND PAVEMENT MARKING
GENERAL NOTES

DES:	DWN:	CHD: MCB

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		13 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 22

WEST BROADWAY AVENUE
SURVEY & CONSTR ℄
PI STA 9+85.00
Δ = 02°54'39" LT
NO CURVE

WEST BROADWAY AVENUE
SURVEY & CONSTR ℄
PI STA 11+25.20
Δ = 51°20'41" LT
D = 95°29'35"
T = 28.84'
L = 53.77'
R = 60.00'
E = 6.57'
PC STA = 10+96.36
PT STA = 11+50.12
SE= 2.0% (RC)

WEST BROADWAY AVENUE
SURVEY & CONSTR ℄
PI STA 13+30.72
Δ = 39°00'07" LT
D = 104°10'27"
T = 19.48'
L = 37.44'
R = 55.00'
E = 3.35'
PC STA = 13+11.24
PT STA = 13+48.68
SE= VARIES

TO SR 0993
1.0 MILES

1 CHAD KRETCHEK, AN INDIVIDUAL

OUTLET PIPE TO SWALE

LIMIT OF WORK
STA 8+79.00
W BROADWAY AVE
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

TEMPORARY CONSTRUCTION EASEMENT (ACCESS ONLY)

ACCESS ROAD SURVEY & CONSTR ℄

3 NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004

5 MARCIE RICHARD, AN UNMARRIED, ADULT INDIVIDUAL AND MELISSA J. BOSSART, A MARRIED, ADULT INDIVIDUAL

FOURTH STREET SURVEY & CONST ℄

TEMPORARY CONSTRUCTION EASEMENT

4 THOMAS G. PORTER AND BETHANY N. PORTER, HUSBAND AND WIFE

11 BRENTZEL MANAGEMENT LLC

START WORK
STA 9+29.00
W BROADWAY AVE

36" INFILTRATION TRENCH

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

BEGIN ROADWAY RECONSTRUCTION
STA 10+50.00

SANITARY SEWER EASEMENT (APPROX LOCATION)

10 KEITH L. KLUITER AND KRISTIE L. KLUITER, HUSBAND AND WIFE

EX. UTILITY POLES TO BE REMOVED (BY OTHERS)
STA. 11+26 OFF. 14' LT
STA. 13+17 OFF. 25' LT
STA. 13+48 OFF. 16' LT

2 JUSTIN TRAFALSKI, A SINGLE MAN

LEGAL AERIAL EASEMENT

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

WEST BROADWAY AVE SURVEY & CONSTR ℄

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

3 NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004

ACCESS ROAD SURVEY & CONSTR ℄
PI STA 109+70.05
Δ = 8°23'36" RT
D = 0°33'25"
T = 755.02'
L = 1507.34'
R = 10289.51'
E = 27.66'
PC STA = 102+15.03
PT STA = 117+22.37

INLET TO REMAIN

LIMIT OF WORK
STA 14+00.00
FOURTH STREET
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

END ROADWAY RECONSTRUCTION/ STOP WORK
STA 13+70.00
FOURTH STREET

FOSTER AVENUE CONSTR ℄
PI STA 50+19.83
Δ = 17°33'38" RT
D = 76°23'40"
T = 11.58'
L = 22.99'
R = 75.00'
E = 0.89'
PC STA = 50+08.24
PT STA = 50+31.23
SE= NC

6 LAURA E. GARRIGHAN

INLET TO REMAIN

SAN MH ADJUSTMENT (BY OTHERS)

START WORK
STA 50+05.00
FOSTER AVENUE

7 DEBORAH S. MARTIN, UNMARRIED

8 KENNETH A. BALEGO & DOLORES A. BALEGO, HIS WIFE

STOP WORK
STA 51+29.00
FOSTER AVENUE

FOSTER AVENUE CONSTR ℄

9 JOHN E. LEUKHARDT AND MARILYN LEUKHARDT, HIS WIFE

TO LINCOLN AVENUE 0.1 MILES

TO 1ST STREET 0.3 MILES

FOR INTERSECTION DETAILS INCLUDING FOSTER AVENUE GEOMETRY SEE SHEET 9

SCALE
0 25 50 FEET

DRAINAGE & UTILITY PLAN

DES: KMJ | DWN: ETB | CHD: MCB

FOR PROFILE SEE SHEET 27 | FOR CONST. PLAN SEE SHEET 21

SURVEY BOOK NO. 1512

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
No. PE083666

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URP - UTILITY RELOCATION PLAN - WATER LINE
L-645 - STRUCTURE PLAN

SUMMARY

* FOURTH STREET

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				12	WESTMORELAND	*		14 OF 27
				NORTH IRWIN BOROUGH				

♦ - SEE SPECIAL PROVISIONS

QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET	QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET
	0201 0001 LS	CLEARING AND GRUBBING		NO TAB	2	0605 2850 EACH	STANDARD INLET BOX, HEIGHT < /= 10'		17		0686 0050 LS	CONSTRUCTION SURVEYING, TYPE D		NO TAB	205	0867 0032 LF	COMPOST FILTER SOCK, 32" DIAMETER		18
296	0203 0001 CY	CLASS 1 EXCAVATION		16, 17	2	4605 2850 EACH	STANDARD INLET BOX, HEIGHT < /= 10' WITH SUMP ♦		17		0688 0002 LS	MICROCOMPUTER WITH BATTERY BACKUP SYSTEM, TYPE A		NO TAB		0901 0001 LS	MAINTENANCE AND PROTECTION OF TRAFFIC DURING CONSTRUCTION ♦		NO TAB
164	0203 0006 LF	SAW CUTTING		16	2	0605 5701 SET	TYPE C CONCRETE TOP UNIT, 4" CURB HEIGHT AND BICYCLE SAFE GRATE		17		0689 0005 LS	CPM SCHEDULE, WITH UPDATES		NO TAB	30	0901 0231 DAY	ADDITIONAL WARNING LIGHTS, TYPE B		NO TAB
171	0205 0263 CY	SELECTED BORROW EXCAVATION ROCK, CLASS R-3		L-645	1	0606 0050 SET	GRADE ADJUSTMENT OF EXISTING INLETS		17	1000	0690 0001 DOLLA	INTERNAL FACILITATION		NO TAB	100	0901 0240 SF	ADDITIONAL TRAFFIC CONTROL SIGNS		NO TAB
398	0205 0264 CY	SELECTED BORROW EXCAVATION ROCK, CLASS R-4		L-645		0608 0001 LS	MOBILIZATION		NO TAB	EITHER 52	0695 0004 SF	DETECTABLE WARNING SURFACE, POLYMER COMPOSITE	3	16	25	0931 0001 SF	POST MOUNTED SIGNS, TYPE B		19-20
8	0208 0001 HOUR	SPECIAL ROLLING		16		0609 0003 LS	INSPECTOR'S FIELD OFFICE AND INSPECTION FACILITIES, TYPE B		NO TAB	OR 52	0695 0003 SF	DETECTABLE WARNING SURFACE, POLYMER CONCRETE	3	16	7	0935 0001 SF	POST MOUNTED SIGNS, TYPE F		19-20
446	0208 0002 CY	EXCAVATION/BACKFILL/COMPACTION		16		0609 0009 LS	EQUIPMENT PACKAGE ♦		NO TAB	OR 52	0695 0002 SF	DETECTABLE WARNING SURFACE, CAST IRON	3	16	4	0937 0104 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/B)		19-20
740	0208 0003 SY	GEOTEXTILE CLASS 4		16	402	0610 7001 LF	4" PAVEMENT BASE DRAIN		17	125	0802 0001 CY	TOPSOIL FURNISHED AND PLACED		18	5	0937 0106 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/B)		19-20
402	0212 0001 LF	GEOTEXTILE, CLASS 1		17	94	0615 0021 LF	4" SUBSURFACE DRAIN OUTLETS		17	92	0803 0001 CY	PLACING STOCKPILED TOPSOIL		18	4	0937 0112 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE D, (Y/B)		19-20
805	0212 0014 SY	GEOTEXTILE, CLASS 4, TYPE A		16	1	0619 0459 EACH	PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3, TANGENT (MASH)		19-20	47	0804 0025 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA B RESIDENTIAL MIX, INCLUDING MULCH		18	5	0937 0113 EACH	GUIDE RAIL MOUNTED DELINEATOR TYPE D, (W/B)		19-20
1000	0213 0002 DOLLA	TEMPORARY PROJECT AIR POLLUTION CONTROL		NO TAB	3	0620 0400 EACH	TERMINAL SECTION, SINGLE		19-20	12	0804 0026 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA C CONSERVATION MIX, INCLUDING MULCH		18	5	0937 0323 EACH	FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-1, RED POST WITH WHITE SHEETING		19-20
59	0313 0322 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH		16	129	0620 0503 LF	REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)		19-20	8	0804 0027 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH		18	3	0941 0001 EACH	RESET POST MOUNTED SIGNS, TYPE B		19-20
746	0313 0324 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALS, 25.0 MM MIX, 5" DEPTH		16	25	0620 1600 LF	TYPE 31-S GUIDE RAIL		19-20	5	0804 0032 LB	SEEDING - FORMULA T TEMPORARY GRASS MIX, INCLUDING MULCH		18	96	0960 0011 LF	12" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS		19-20
805	0350 0106 SY	SUBBASE 6" DEPTH (NO. 2A)		16	13	0620 1635 LF	TYPE 31-SCC GUIDE RAIL		19-20	7	0804 0035 LB	SEEDING AND SOIL SUPPLEMENTS - SLOPE ENHANCEMENT MIX, INCLUDING MULCH		18	29	0960 0021 LF	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS		19-20
868	0413 0195 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-L		16	1	0620 2010 EACH	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB		19-20	1276	0805 0050 SY	MULCH CONTROL NETTING		18	1382	0962 1000 LF	4" WHITE WATERBORNE PAVEMENT MARKINGS		19-20
868	0460 0003 SY	ASPHALT TACK COAT (NTT/CNTT)		16	1	4620 2010 EACH	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB EXTENDED ON RADIUS ♦		19-20	929	0806 0113 SY	TEMPORARY SHORT-TERM, ROLLED EROSION CONTROL PRODUCT, TYPE 2D		18	1132	0962 1005 LF	4" YELLOW WATERBORNE PAVEMENT MARKINGS		19-20
63	0491 0012 SY	MILLING OF ASPHALT PAVEMENT SURFACE, 1 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR		16	2	0620 2011 EACH	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITH CURB AND INLET		19-20		0810 0050 LS	SELECTIVE TREE REMOVAL		18	2	1007 0200 EACH	MICROPILES VERIFICATION LOAD TEST		L-645
80	0601 0351 LF	12" THERMOPLASTIC PIPE, GROUP III, 8'-2' FILL		17	52	0624 0001 LF	RIGHT-OF-WAY FENCE, TYPE 1		19-20	170	0811 0003 LF	TEMPORARY PROTECTIVE FENCE		18		1018 0048 LS	REMOVAL OF PORTION OF EXISTING BRIDGE		L-645
EITHER 33	0601 7308 LF	15" REINFORCED CONCRETE PIPE, TYPE B, 20' - 1.5' FILL	1	17	2	0624 0300 EACH	END POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE		19-20	2500	0845 0001 DOLLA	UNFORESEEN WATER POLLUTION CONTROL		NO TAB	EITHER	8120 0001 LS	BRIDGE STRUCTURE, AS DESIGNED, L-645	4	L-645
OR 33	0601 0352 LF	15" THERMOPLASTIC PIPE, GROUP III, 8'-2' FILL	1	17	4	0624 0400 EACH	CORNER POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE		19-20	1	0849 0010 EACH	ROCK CONSTRUCTION ENTRANCE		18	OR	8000 0001 LS	PRESTRESSED CONCRETE BRIDGE STRUCTURE ♦	4	L-645
EITHER 21	0601 7313 LF	18" REINFORCED CONCRETE PIPE, TYPE B, 15' - 1.5' FILL	2	17	3	0624 0600 EACH	LINE POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE		19-20	2	0855 0003 EACH	PUMPED WATER FILTER BAG		18	OR	8100 0001 LS	STEEL BRIDGE STRUCTURE ♦	4	L-645
OR 21	0601 0353 LF	18" THERMOPLASTIC PIPE, GROUP III, 8'-2' FILL	2	17	1	0624 0611 EACH	PEDESTRIAN GATE FOR TYPE 1 RIGHT-OF-WAY FENCE, 5-FOOT OPENING		19-20	4	0860 0000 EACH	INLET FILTER BAG FOR TYPE M INLET		18					
2	0605 2731 SET	TYPE M CONCRETE TOP UNIT AND BICYCLE SAFE GRATE		17	168	0630 0021 LF	PLAIN CEMENT CONCRETE CURB, 4" HEIGHT		16	3	0860 0002 EACH	INLET FILTER BAG FOR TYPE C INLET		18					
1	0605 2771 SET	TYPE C FRAME AND BICYCLE SAFE GRATE		17	71	0676 0001 SY	CEMENT CONCRETE SIDEWALK		16	161	0867 0012 LF	COMPOST FILTER SOCK, 12" DIAMETER		18					

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
NO. PE083686

URP - UTILITY RELOCATION PLAN - WATER LINE
L-645 - STRUCTURE PLAN

SUMMARY

* FOURTH STREET

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				12	WESTMORELAND	*		15 OF 27
				NORTH IRWIN BOROUGH				

♦ - SEE SPECIAL PROVISIONS

QUANTITY	ITEM NO / UNIT	DESCRIPTION	DESIGN NO	FOR TAB SEE SHEET
AND 132742	1002 0052 / LB	REINFORCEMENT BARS, EPOXY COATED	4	L-645
AND 3540	5007 0465 / LF	MICROPILES 11 3/4" DIAMETER, GALVANIZED, 11 7/8" DIAMETER X 0.582" ♦	4	L-645
AND 22	9000 0001 / EACH	LATENT ROCK ANCHORS ♦	4	L-645
AND 440	9000 0002 / CF	CONSOLIDATION GROUTING ♦	4	L-645
AND 660	9000 0003 / LF	REDRILLING OF CONSOLIDATION GROUTED ANCHOR HOLES ♦	4	L-645
	8800 0001 / LS	RELOCATION OF MAWC WATER LINE ♦		URP
5000	9000 0010 / DOLLA	REPAIRS TO NSRC ACCESS ROAD ♦		NO TAB
12000	9000 0011 / DOLLA	REPAIR OF DETOUR ROUTE AND ACCESS ROADS ♦		NO TAB
86	9000 0020 / LF	INFILTRATION TRENCH, 36" DIAMETER ♦		17
	9000 0071 / LS	VIBRATION MONITORING AND CONTROL ♦		NO TAB
	9000 5101 / LS	ELECTRONIC TICKETING (E-TICKETING) FOR CONSTRUCTION AGGREGRATE ♦		NO TAB
	9000 5103 / LS	ELECTRONIC TICKETING (E-TICKETING) FOR CONSTRUCTION CONCRETE ♦		NO TAB
4	9000 6056 / EACH	CORE HOLE IN INLET BOX ♦		17
	9203 0101 / LS	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, ABUTMENT 1 ♦		L-645
	9203 0102 / LS	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, ABUTMENT 2 ♦		L-645
235000	9901 0350 / DOLLA	RAILROAD PROTECTIVE SERVICES ♦		NO TAB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
NO. PE083696

TABULATION OF QUANTITIES

ROADWAY

(+) SEE SUMMARY SHEET FOR COMPLETE ITEM NUMBERS

* FOURTH STREET

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				12	WESTMORELAND	*		16 OF 27
				NORTH IRWIN BOROUGH				

CLASS 1 EXCAVATION 0203 0001 CY	SAW CUTTING 0203 0006 LF	SPECIAL ROLLING 0208 0001 HOUR	EXCAVATION/BACKFILL/COMPACTION 0208 0002 CY	GEOTEXTILE CLASS 4 0208 0003 SY	GEOTEXTILE, CLASS 4, TYPE A 0212 0014 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALS, 25.0 MM MIX, 4" DEPTH 0313 0322 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, BASE COURSE, PG 64S-22, < 0.3 MILLION ESALS, 25.0 MM MIX, 5" DEPTH 0313 0324 SY	SUBBASE 6" DEPTH (NO. 2A) 0350 0106 SY	SUPERPAVE ASPHALT MIXTURE DESIGN, WEARING COURSE, PG 64S-22, < 0.3 MILLION ESALS, 9.5 MM MIX, 1 1/2" DEPTH, SRL-L 0413 0195 SY	ASPHALT TACK COAT (NTT/CNTT) 0460 0003 SY	MILLING OF ASPHALT PAVEMENT SURFACE, 1 1/2" DEPTH, MILLED MATERIAL RETAINED BY CONTRACTOR 0491 0012 SY	PLAIN CEMENT CONCRETE CURB, 4" HEIGHT 0630 0021 LF	CEMENT CONCRETE SIDEWALK 0676 0001 SY	DETECTABLE WARNING SURFACE DESIGN NO. 3 0695 (+) SF	EMBANKMENT (FOR INFORMATION ONLY) CY	ITEM NUMBER UNIT	REMARKS	SIDE	STATIONS
																	ENTIRE PROJECT		
		8	446	740													AS DIRECTED SUBGRADE UNDERCUT	LT / RT	9+75.00 to 13+70.00
																	FOURTH STREET / W. BROADWAY AVENUE		
6	42				17	17		17	17	17							PARCEL 1 DWY - PIPE TRENCH REPLACEMENT	LT	9+70.00 to 9+98.00
91	20				346		346	346	346	346					12		FULL-DEPTH PAVEMENT RECONSTRUCTION	LT / RT	10+50.00 to 11+62.33
1	3												3				PARCEL 2 - SIDEWALK ADJUSTMENT	RT	10+90.00 to 10+99.00
14	15				42	42		42	42	42							PARCEL 2 DWY RECONSTRUCTION	RT	10+90.00 to 11+19.00
111	36				269		269	269	269	269					4		FULL-DEPTH PAVEMENT RECONSTRUCTION	LT / RT	12+84.67 to 13+70.00
												49					CURB	LT	12+93.00 to 13+49.66
												32	20	10			TYPE 2 CURB RAMP AND SIDEWALK TRANSITIONS	RT	13+41.24 to 13+70.00
												21	12	12			TYPE 2 PARTIAL CURB RAMP & SIDEWALK TRANSITION	LT	13+49.66 to 13+70.00
																	FOSTER AVENUE		
												22	14	12			TYPE 2 CURB RAMP	LT	50+12.54 to 50+30.72
58	48				131		131	131	131	131					4		FULL-DEPTH PAVEMENT RECONSTRUCTION	LT / RT	50+16.75 to 50+85.00
												24	16				CURB AND SIDEWALK	LT	50+30.72 to 50+54.72
												20	6	18			TYPE 1A CURB RAMP	LT	50+54.51 to 50+72.36
									63	63	63						MILL AND RESURFACE	LT / RT	50+55.15 to 51+00.00
281	164	8	446	740	805	59	746	805	868	868	63	168	71	52	20		TOTALS		

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
NO. PE083666

PROJECT ID: 5951 MPMS: 31554 ECMS: 31554 2/9/2026 9:10:55 AM

TABULATION OF QUANTITIES

DRAINAGE

(+) SEE SUMMARY SHEET FOR COMPLETE ITEM NUMBERS

* FOURTH STREET

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				12	WESTMORELAND	*		17 OF 27
				NORTH IRWIN BOROUGH				

CLASS 1 EXCAVATION 0203 0001 CY	GEOTEXTILE, CLASS 1 0212 0001 LF	12" THERMOPLASTIC PIPE, GROUP III, 8'-2' FILL 0601 0351 LF	PIPE DESIGN NO. 1 0601 (+) LF	PIPE DESIGN NO. 2 0601 (+) LF	TYPE M CONCRETE TOP UNIT AND BICYCLE SAFE GRATE 0605 2731 SET	TYPE C FRAME AND BICYCLE SAFE GRATE 0605 2771 SET	STANDARD INLET BOX, HEIGHT < /= 10' 0605 2850 EACH	STANDARD INLET BOX, HEIGHT < /= 10' WITH SUMP 4605 2850 EACH	TYPE C CONCRETE TOP UNIT, 4" CURB HEIGHT AND BICYCLE SAFE GRATE 0605 5701 SET	GRADE ADJUSTMENT OF EXISTING INLETS 0606 0050 SET	4" PAVEMENT BASE DRAIN 0610 7001 LF	4" SUBSURFACE DRAIN OUTLETS 0615 0021 LF	INFILTRATION TRENCH, 36" DIAMETER 9000 0020 LF	CORE HOLE IN INLET BOX 9000 6056 EACH	REMARKS (ITEM NUMBER / UNIT)	SIDE	STATIONS
															FOURTH STREET / W. BROADWAY AVENUE		
		80													INLET A-1 TO OUTFALL A-0, END OF PIPE (MITER TO SLOPE)	LT	9+29.00 to 10+10.67
15															GRADE SWALE OVER INFILTRATION TRENCH	LT	10+00.00 to 11+00.00
					1			1							INLET A-1	LT	10+10.67
													86		INLET A-2 TO INLET A-1	LT	10+10.67 to 10+97.09
	71										71	41			OUTLET TO INLET A-1 STA BK	LT	10+11.00 to 11+27.80
	98										98	22			OUTLET TO LT SIDE STA BK	RT	10+50.00 to 11+36.50
					1			1							INLET A-2	LT	10+98.67
				21											INLET A-3 TO INLET A-2	LT	11+00.25 to 11+27.77
							1		1						INLET A-3	LT	11+30.28
	26										26				OUTLET TO INLET A-3	LT	11+32.73 to 11+62.33
	29										29				OUTLET TO INLET B-1	LT	12+84.67 to 13+14.14
							1		1						INLET B-1	LT	13+16.80
			33												INLET B-1 TO INLET B-0	LT	13+19.13 to 13+58.54
	33										33				OUTLET TO INLET B-1	LT	13+19.96 to 13+58.63
										1					EXISTING INLET (TO REMAIN)	RT	13+42.83
	28										28			1	OUTLET TO EXISTING INLET STA BK	RT	13+43.62 to 13+70.00
														1	INLET B-0, 15" PIPE	LT	13+58.54
						1									INLET B-0	LT	13+60.29
	8										8			1	OUTLET TO EXISTING INLET B-0 STA BK	LT	13+62.71 to 13+70.00
															FOSTER AVENUE		
	42										42			1	OUTLET TO EXISTING INLET STA BK	LT	50+11.50 to 50+50.00
	67										67	31			OUTLET TO INLET B-1 (ON FOURTH ST LT)	RT	50+14.95 to 50+80.00
15	402	80	33	21	2	1	2	2	2	1	402	94	86	4	TOTALS		

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — MATTHEW CHARLES BOYKO — NO. PE083666

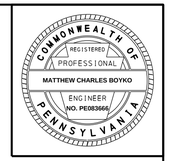
PROJECT ID: 5951 MPMS: 31554 ECMS: 31554 2/9/2026 9:17:23 AM

TABULATION OF QUANTITIES

EROSION AND SEDIMENT POLLUTION CONTROL

*** FOURTH STREET**

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				12	WESTMORELAND	*		18 OF 27
				NORTH IRWIN BOROUGH				



TOPSOIL FURNISHED AND PLACED 0802 0001 CY	PLACING STOCKPILED TOPSOIL 0803 0001 CY	SEEDING AND SOIL SUPPLEMENTS - FORMULA B RESIDENTIAL MIX, INCLUDING MULCH 0804 0025 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA C CONSERVATION MIX, INCLUDING MULCH 0804 0026 LB	SEEDING AND SOIL SUPPLEMENTS - FORMULA L CLEAR ZONE MIX, INCLUDING MULCH 0804 0027 LB	SEEDING - FORMULA T TEMPORARY GRASS MIX, INCLUDING MULCH 0804 0032 LB	SEEDING AND SOIL SUPPLEMENTS - SLOPE ENHANCEMENT MIX, INCLUDING MULCH 0804 0035 LB	MULCH CONTROL NETTING 0805 0050 SY	TEMPORARY SHORT-TERM, ROLLED EROSION CONTROL PRODUCT, TYPE 2D 0806 0113 SY	SELECTIVE TREE REMOVAL 0810 0050 LS	TEMPORARY PROTECTIVE FENCE 0811 0003 LF	ROCK CONSTRUCTION ENTRANCE 0849 0010 EACH	PUMPED WATER FILTER BAG 0855 0003 EACH	INLET FILTER BAG FOR TYPE M INLET 0860 0000 EACH	INLET FILTER BAG FOR TYPE C INLET 0860 0002 EACH	COMPOST FILTER SOCK, 12" DIAMETER 0867 0012 LF	COMPOST FILTER SOCK, 32" DIAMETER 0867 0032 LF	REMARKS ITEM NUMBER UNIT	SIDE	STATIONS
																	ENTIRE PROJECT		
									X								AS DIRECTED - TREE REMOVAL TO ACCOMODATE CRANE SWINGS (SEE CONST PLAN FOR APPROX LOCATIONS)	LT / RT	9+55.00 to 13+70.00
												2					AS DIRECTED - FOR DEWATERING DURING ABUTMENT/WING CONSTRUCTION (IF REQUIRED)		9+55.00 to 13+70.00
125	92	47	12	8	5	7	1276	929									SEEDING AND SOIL SUPPLEMENTS - ENTIRE PROJECT	FW	9+55.00 to 13+70.00
																	FOURTH STREET / W. BROADWAY AVENUE		
													1				INLET A-1	LT	10+10.67
															59			RT	10+45.00 to 11+00.00
											1						RCE-1	LT	10+65.00
													1				INLET A-2	LT	10+98.67
															47			RT	11+12.00 to 11+41.00
																103	ABUTMENT 1	LT / RT	11+29.49 to 11+87.76
														1			INLET A-3	LT	11+30.28
										85							ALONG RAILROAD	LT / RT	12+08.00 to 12+23.00
										85							ALONG RAILROAD	LT / RT	12+57.00 to 12+61.00
																102	ABUTMENT 2	LT / RT	12+62.81 to 13+48.44
															15		EXISTING INLET	RT	13+13.00
														1			INLET B-1	LT	13+16.80
													1				EXISTING INLET	RT	13+42.00
														1			INLET B-0	LT	13+60.29
																	FOSTER AVENUE		
													1				EXISTING INLET	LT	50+54.00
															40			RT	50+63.00 to 51+00.00
125	92	47	12	8	5	7	1276	929	---	170	1	2	4	3	161	205	TOTALS		

PROJECT ID: 5951 MPMS: 31554 ECMS: 31554 2/9/2026 9:19:26 AM

TABULATION OF QUANTITIES

MISCELLANEOUS

* FOURTH STREET

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				12	WESTMORELAND	*		19 OF 27
				NORTH IRWIN BOROUGH				

PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3, TANGENT (MASH)	TERMINAL SECTION, SINGLE	REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)	TYPE 31-S GUIDE RAIL	TYPE 31-SCC GUIDE RAIL	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB EXTENDED ON RADIUS	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITH CURB AND INLET	RIGHT-OF-WAY FENCE, TYPE 1	END POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE	CORNER POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE	LINE POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE	PEDESTRIAN GATE FOR TYPE 1 RIGHT-OF-WAY FENCE, 5-FOOT OPENING	POST MOUNTED SIGNS, TYPE B	POST MOUNTED SIGNS, TYPE F	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/B)	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/B)	GUIDE RAIL MOUNTED DELINEATOR TYPE D, (Y/B)	GUIDE RAIL MOUNTED DELINEATOR TYPE D, (W/B)	FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-1, RED POST WITH WHITE SHEETING	RESET POST MOUNTED SIGNS, TYPE B	12" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	4" WHITE WATERBORNE PAVEMENT MARKINGS	4" YELLOW WATERBORNE PAVEMENT MARKINGS			REMARKS	SIDE	STATIONS
0619 0459 EACH	0620 0400 EACH	0620 0503 LF	0620 1600 LF	0620 1635 LF	0620 2010 EACH	4620 2010 EACH	0620 2011 EACH	0624 0001 LF	0624 0300 EACH	0624 0400 EACH	0624 0600 EACH	0624 0611 EACH	0931 0001 SF	0935 0001 SF	0937 0104 EACH	0937 0106 EACH	0937 0112 EACH	0937 0113 EACH	0937 0323 EACH	0941 0001 EACH	0960 0011 LF	0960 0021 LF	0962 1000 LF	0962 1005 LF			ITEM NUMBER UNIT			
																										FOURTH STREET / W. BROADWAY AVENUE		
																			1							PLACE AT PIPE OUTLET A-0	LT	9+29.00
													6.25													W1-1L	RT	9+56.00
														4												W13-1P	RT	9+56.00
																			1							INLET A-1	LT	10+10.67
																							1016			DOUBLE YELLOW, 2 APPLICATIONS	CL	10+50.00 to 13+04.00
																						608				DOUBLE APPLICATION	LT	10+50.00 to 13+70.00
																						628				DOUBLE APPLICATION EXTEND UP FOSTER	RT	10+50.00 to 13+70.00
								52	2	4	3	1														AROUND NSRR POLE	LT	10+77.90 to 11+32.65
																			1							INLET A-2	LT	10+99.00
		49																								REMOVE EX. GUIDE RAIL	LT	11+02.50 to 11+53.00
	1						1								1	1	1	1								GR-1	LT	11+07.00 to 11+53.00
	1		12.5		1										1	1	1	1								GR-2	RT	11+15.00 to 11+53.00
																			1							INLET A-3	LT	11+30.00
		16																									RT	11+35.00 to 11+46.00
	1			12.5			1								1	1	1	1								GR-4	LT	12+91.00 to 13+60.00
		64																									LT	12+92.00 to 13+62.00
																						10				STOP BAR	RT	13+04.00
																							60			DOTTED DOUBLE YELLOW LINE, 2 APPLICATIONS	CL	13+04.00 to 13+49.00
																				1						EXISTING STREET SIGN	RT	13+05.00
													5.2													R1-1	RT	13+05.00
																				1						EXISTING STREET SIGN	RT	13+09.00
																			1							INLET B-1	LT	13+17.00
																						146				DOUBLE APPLICATION EXTEND UP FOSTER	RT	13+30.00 to 13+70.00
														2.19												M6-1	LT	13+41.00
													3													R14-1	LT	13+41.00
																					21					CROSSWALK	LT / RT	13+48.00 to 13+51.00
																					21					CROSSWALK	LT / RT	13+56.00 to 13+59.00

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER NO. PE083668

PROJECT ID: 5951 MPMS: 31554 ECMS: 31554 2/9/2026 9:20:50 AM

TABULATION OF QUANTITIES

MISCELLANEOUS

*** FOURTH STREET**

REVISION NO	REVISIONS	DATE	BY	DISTRICT	COUNTY	ROUTE	SECTION	SHEET
				12	WESTMORELAND	*		20 OF 27
				NORTH IRWIN BOROUGH				

PERMANENT IMPACT ATTENUATING DEVICE, TYPE II, TEST LEVEL 3, TANGENT (MASH)	TERMINAL SECTION, SINGLE	REMOVE EXISTING GUIDE RAIL (CONTRACTOR'S PROPERTY)	TYPE 31-S GUIDE RAIL	TYPE 31-SCC GUIDE RAIL	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITHOUT CURB EXTENDED ON RADIUS	THRIE-BEAM GUIDE RAIL TO CONCRETE BRIDGE BARRIER TRANSITION WITH CURB AND INLET	RIGHT-OF-WAY FENCE, TYPE 1	END POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE	CORNER POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE	LINE POSTS FOR TYPE 1 RIGHT-OF-WAY FENCE	PEDESTRIAN GATE FOR TYPE 1 RIGHT-OF-WAY FENCE, 5-FOOT OPENING	POST MOUNTED SIGNS, TYPE B	POST MOUNTED SIGNS, TYPE F	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (Y/B)	GUIDE RAIL MOUNTED DELINEATOR TYPE B, (W/B)	GUIDE RAIL MOUNTED DELINEATOR TYPE D, (Y/B)	GUIDE RAIL MOUNTED DELINEATOR TYPE D, (W/B)	FLEXIBLE DELINEATOR POST, GROUND-MOUNT TYPE GM-1, RED POST WITH WHITE SHEETING	RESET POST MOUNTED SIGNS, TYPE B	12" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	24" WHITE HOT THERMOPLASTIC PAVEMENT MARKINGS	4" WHITE WATERBORNE PAVEMENT MARKINGS	4" YELLOW WATERBORNE PAVEMENT MARKINGS			REMARKS	SIDE	STATIONS
0619 0459 EACH	0620 0400 EACH	0620 0503 LF	0620 1600 LF	0620 1635 LF	0620 2010 EACH	4620 2010 EACH	0620 2011 EACH	0624 0001 LF	0624 0300 EACH	0624 0400 EACH	0624 0600 EACH	0624 0611 EACH	0931 0001 SF	0935 0001 SF	0937 0104 EACH	0937 0106 EACH	0937 0112 EACH	0937 0113 EACH	0937 0323 EACH	0941 0001 EACH	0960 0011 LF	0960 0021 LF	0962 1000 LF	0962 1005 LF			ITEM NUMBER UNIT			
																								56			DOUBLE YELLOW, 2 APPLICATIONS	CL	13+57.00 to 13+70.00
													5.2														R1-1	LT	13+59.00
																						10					STOP BAR	LT	13+62.00
																											FOSTER AVENUE		
1			12.5			1									1	2	1	2									GR-3 (CONTINUES FROM FOURTH ST RT)	RT	50+05.00 to 51+29.00
																					31						CROSSWALK	LT / RT	50+12.00 to 50+15.00
																					23						CROSSWALK	LT / RT	50+22.00
													5.2														R1-1	LT	50+24.00
																						9					STOP BAR	LT	50+27.00
																				1							BRIDGE ICES BEFORE ROAD	RT	50+30.00
1	3	129	25	12.5	1	1	2	52	2	4	3	1	24.85	6.19	4	5	4	5	5	3	96	29	1382	1132			TOTALS		

PROJECT ID: 5951 MPMS: 31554 ECMS: 31554 2/9/2026 9:20:50 AM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER NO. PE083666

STRUCTURE DATA		
	*EXISTING***	PROPOSED
STATION	*12+23.87*	12+23.87
TYPE	*STEEL CONTINUOUS GIRDER-FLOORBEAM*	SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
SPAN	*145'-0"*	124'-0"
CLEARANCE	*?*	31'-9"
ROADWAY WIDTH	*21'-11"*	32'-0"
SKEW	*90°*	90°
STRUCTURE NO.	L-645 RECOMMENDED_____*	

** EXISTING STRUCTURE HAS BEEN DEMOLISHED

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		21 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 22

BM #1 ELEV 954.04
STA 14+21 14' RT
FOURTH STREET
SPIKE NAIL IN
POLE #5002/04

BM #2 ELEV 939.07
STA 11+20 36' RT
WEST BROADWAY AVENUE
SPIKE NAIL IN
POLE #245996

WEST BROADWAY AVENUE SURVEY & CONSTR ℄
PI STA 9+85.00
Δ = 02°54'39" LT
NO CURVE

WEST BROADWAY AVENUE SURVEY & CONSTR ℄
PI STA 11+25.20
Δ = 51°20'41" LT
D = 95°29'35"
T = 28.84'
L = 53.77'
R = 60.00'
E = 6.57'
PC STA = 10+96.36
PT STA = 11+50.12
SE= 2.0% (RC)

WEST BROADWAY AVENUE SURVEY & CONSTR ℄
PI STA 13+30.72
Δ = 39°00'07" LT
D = 104°10'27"
T = 19.48'
L = 37.44'
R = 55.00'
E = 3.35'
PC STA = 13+11.24
PT STA = 13+48.68
SE= VARIES

FOURTH STREET SURVEY & CONST ℄
PI STA 14+30.72
Δ = 39°00'07" LT
D = 104°10'27"
T = 19.48'
L = 37.44'
R = 55.00'
E = 3.35'
PC STA = 14+11.24
PT STA = 14+48.68
SE= VARIES

FOSTER AVENUE CONSTR ℄
PI STA 50+19.83
Δ = 17°33'38" RT
D = 76°23'40"
T = 11.58'
L = 22.99'
R = 75.00'
E = 0.89'
PC STA = 50+08.24
PT STA = 50+31.23
SE= NC

STA 13+37.41 WEST BROADWAY AVENUE SURVEY & CONSTR ℄=
STA 50+00.00 FOSTER AVENUE CONSTR ℄

STA 12+15.27 WEST BROADWAY AVENUE SURVEY & CONSTR ℄=
STA 110+66.38 ACCESS ROAD SURVEY & CONSTR ℄

ACCESS ROAD
SURVEY & CONSTR ℄
PI STA 109+70.05
Δ = 8°23'36" RT
D = 0°33'25"
T = 755.02'
L = 1507.34'
R = 10289.51'
E = 27.66'
PC STA = 102+15.03
PT STA = 117+22.37

LIMIT OF WORK
STA 8+79.00
W BROADWAY AVE
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

START WORK
STA 9+29.00
W BROADWAY AVE

BEGIN ROADWAY RECONSTRUCTION
STA 10+50.00
BEGIN W/4"
BEGIN DY/4"
STA 10+50

END STRUCTURE
STA 12+84.67

BEGIN STRUCTURE
STA 11+62.33

LIMIT OF WORK
STA 14+00.00
FOURTH STREET
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

END ROADWAY RECONSTRUCTION/
STOP WORK
STA 13+70.00
FOURTH STREET
END W/4"
END DY/4"
STA 13+70

START WORK
STA 50+05.00
FOSTER AVENUE

STOP WORK
STA 51+29.00
FOSTER AVENUE

END W/4"
STA 50+52

TEMPORARY CONSTRUCTION EASEMENT (ACCESS ONLY)

ACCESS ROAD SURVEY & CONSTR ℄

TEMPORARY CONSTRUCTION EASEMENT

ASPHALT DRIVEWAY RECONSTRUCTION (PIPE TRENCH PER RC-30M)

ASPHALT DRIVEWAY RECONSTRUCTION (SEE DETAILS)

REMOVE TREES

REMOVE TREES

5' GATE

R/W FENCE, TYPE 1

FENCE TO REMAIN

VINYL FENCE

CURB RAMP

CURB RAMP

CURB RAMP

GROUTED ROCK GABIONS

LANDSCAPE AREA

GRAVEL

SANITARY SEWER EASEMENT (APPROX LOCATION)

TO SR 0993
1.0 MILES

TO LINCOLN AVENUE
0.1 MILES

TO 1ST STREET
0.3 MILES

20 M.P.H.

W1-1L 30"x30" TYPE B
W13-1P 24"x24" TYPE F

R14-1 24"x18" TYPE B
M6-1 21"x15" TYPE F

R1-1 30"x30" TYPE B

STOP

STOP

STOP

R1-1 30"x30" TYPE B

BRIDGE ICES BEFORE ROAD

EXISTING SIGNS TO BE RESET

EXISTING SIGNS TO BE RESET

EXISTING SIGN TO BE RESET

EXISTING POST MOUNTED SIGN, TO REMAIN, TO BE RESET, OR TO BE REMOVED, AS INDICATED

BEGIN ROADWAY RECONSTRUCTION
STA 10+50.00
BEGIN W/4"
BEGIN DY/4"
STA 10+50

END ROADWAY RECONSTRUCTION/
STOP WORK
STA 13+70.00
FOURTH STREET
END W/4"
END DY/4"
STA 13+70

(1) CHAD KRETCHEK, AN INDIVIDUAL

(2) JUSTIN TRAFALSKI, A SINGLE MAN

(3) NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004

(4) THOMAS G. PORTER AND BETHANY N. PORTER, HUSBAND AND WIFE

(5) MARCIE RICHARD, AN UNMARRIED, ADULT INDIVIDUAL AND MELISSA J. BOSSART, A MARRIED, ADULT INDIVIDUAL

(6) LAURA E. GARRIGHAN

(7) DEBORAH S. MARTIN, UNMARRIED

(8) KENNETH A. BALEGO & DOLORES A. BALEGO, HIS WIFE

(9) JOHN E. LEUKHARDT AND MARILYN LEUKHARDT, HIS WIFE

(10) KEITH L. KLUITER AND KRISTIE L. KLUITER, HUSBAND AND WIFE

(11) BRENTZEL MANAGEMENT LLC

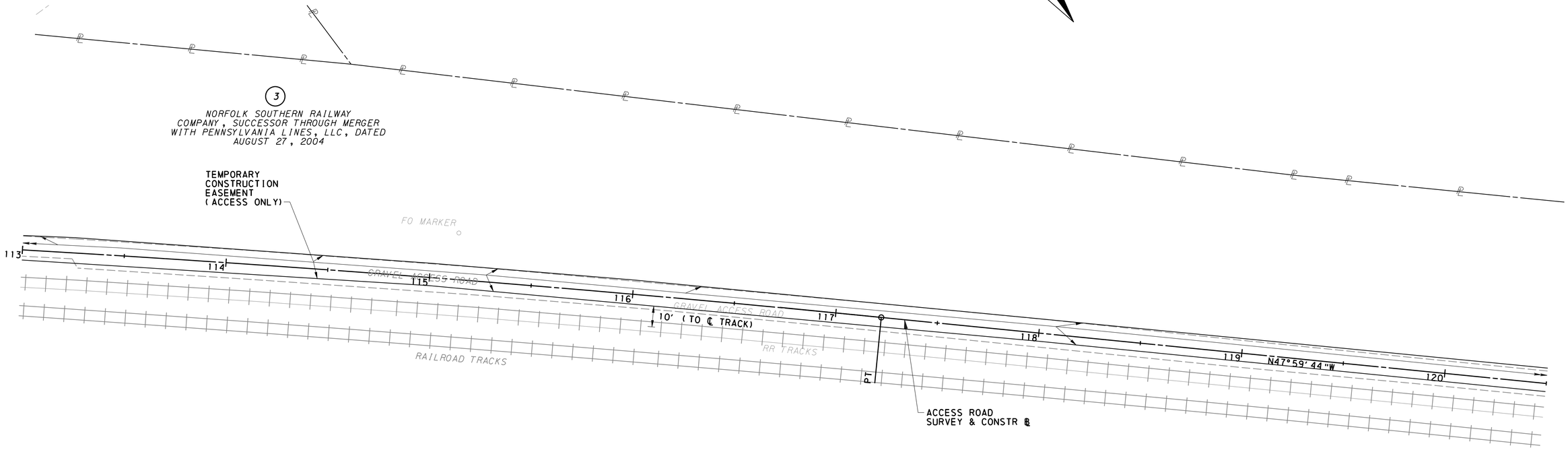
LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

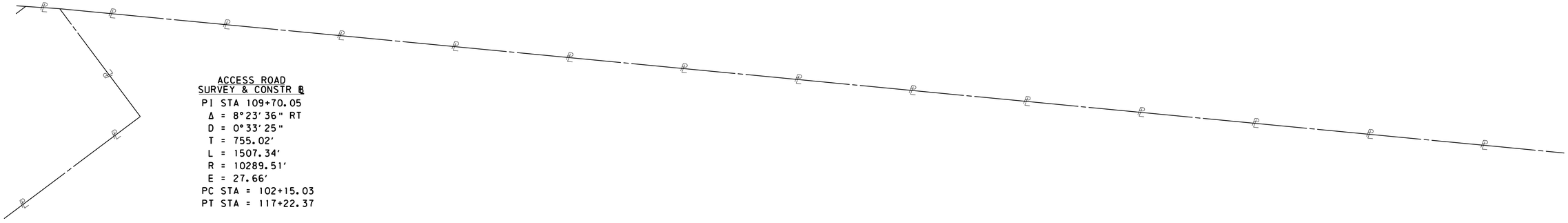
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		22 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 21

MATCH TO SHEET 23





SCALE
0 25 50 FEET

PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
No. PE083666

DES: KMJ | DWN: ETB | CHD: MCB

SURVEY BOOK NO. 1512

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		23 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 22

MATCH TO SHEET 24

TEMPORARY CONSTRUCTION EASEMENT (ACCESS ONLY)

FO MARKER

GRAVEL ACCESS ROAD

GRAVEL ACCESS ROAD

RAILROAD TRACKS

FO MARKER

121

122

123

124

125 N47°59'44"W

10' (TO ℄ TRACK)

126

127

ACCESS ROAD SURVEY & CONSTR ℄

3

NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004

SCALE

0 25 50 FEET

PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

DES: KMJ | DWN: ETB | CHD: MCB

SURVEY BOOK NO. 1512

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		24 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 23

MATCH TO SHEET 25

3

NORFOLK SOUTHERN RAILWAY
COMPANY, SUCCESSOR THROUGH MERGER
WITH PENNSYLVANIA LINES, LLC, DATED
AUGUST 27, 2004

TEMPORARY
CONSTRUCTION
EASEMENT
(ACCESS ONLY)

FO MARKER

GRAVEL ACCESS ROAD

RR TRACKS

RAILROAD TRACKS

128

129

130

10' (TO ℄ TRACK)

131

N47°59'44"W

132

133

134

135

ACCESS ROAD
SURVEY & CONSTR ℄

SCALE
0 25 50 FEET

PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED
PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

DES: KMJ | DWN: ETB | CHD: MCB

SURVEY BOOK NO. 1512

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		25 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 24

MATCH TO SHEET 26

TEMPORARY CONSTRUCTION EASEMENT (ACCESS ONLY)

135 136 137 138 139 140 141 142

10' (TO ℄ TRACK)

N47°59'44"W

FO MARKER

GRAVEL ACCESS ROAD

GRAVEL ACCESS ROAD

RAILROAD TRACKS

RAILROAD TRACKS

ACCESS ROAD SURVEY & CONSTR ℄

(3)

NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004

SCALE

0 25 50 FEET

PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
MATTHEW CHARLES BOYKO
No. PE083666

DES: KMJ	DWN: ETB	CHD: MCB

SURVEY BOOK NO. 1512

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		26 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 25

TEMPORARY CONSTRUCTION EASEMENT (ACCESS ONLY)

(3)
NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004

TEMPORARY CONSTRUCTION EASEMENT (ACCESS ONLY)

ACCESS ROAD SURVEY & CONSTR ℄

10' (TO ℄ TRACK)

N47°59'44"W

BRUSH CREEK LEGAL LINE

LEGAL RIGHT-OF-WAY LINE

EXP JOINT

100'

WATER ST SR 993

CONC BRIDGE DECK

DRIVEWAY

GRAVEL DRIVEWAY

BIT

VARIES

CONC

BRUSH CREEK

GRAVEL

CONC PAD

GRAVEL ACCESS ROAD

FO MARKER

RAILROAD TRACKS

142 143 144 145 146 147 148 149

SCALE
0 25 50 FEET

PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

DES: KMJ | DWN: ETB | CHD: MCB

SURVEY BOOK NO. 1512

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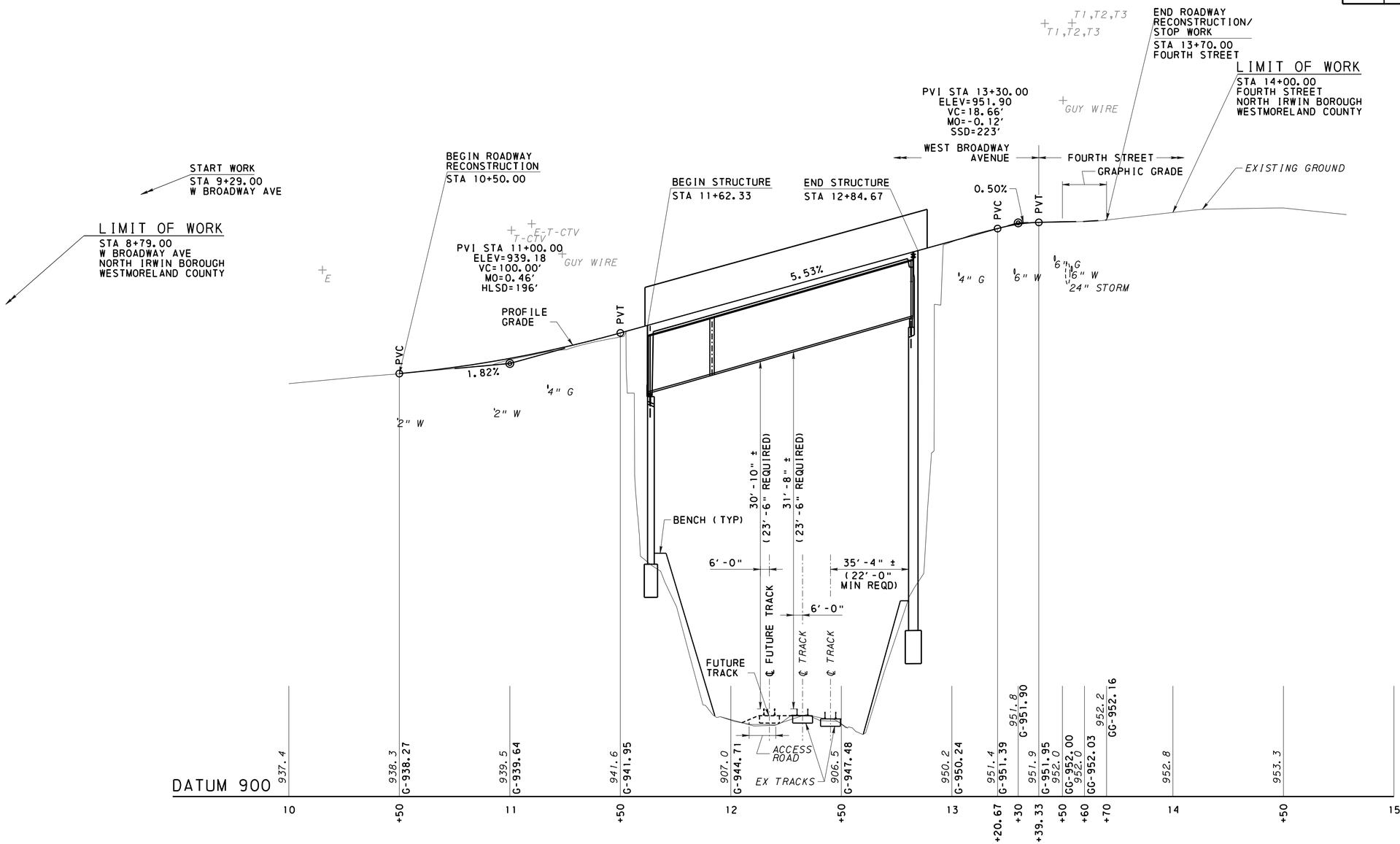
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		27 OF 27
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY



PROFILE - WEST BROADWAY AVENUE/FOURTH STREET

SCALE

HORIZONTAL 0 25 50 FEET

VERTICAL 0 5 10 FEET

PROFILE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE083666

DES: KMJ | DWN: ETB | CHD: MCB

FOR PLAN SEE SHEET 21

SURVEY BOOK NO. 1512

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	———	———	1 OF 9
North Irwin Borough				

Municipal Authority
Westmoreland County

Proposed Water Line Replacement

West Broadway Ave (4th Street) Bridge

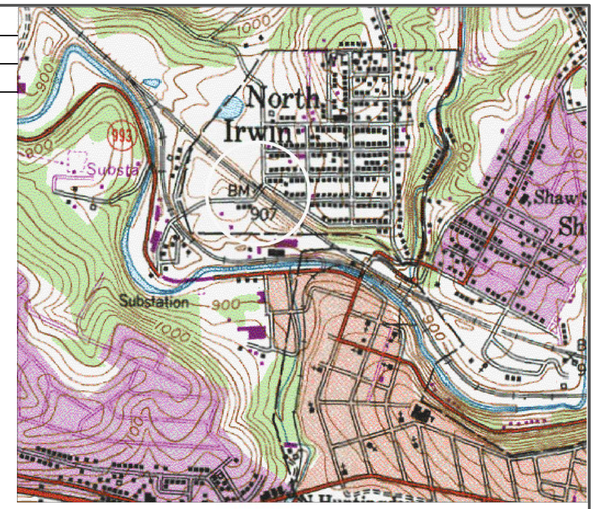
DOT NO. 507913W

North Irwin Boro, Westmoreland County

.....

345' of 8"Ø C151 CL52 Ductile Iron Pipe

128' of 16"Ø ASTM A-1097 Steel Casing Pipe



PROJECT LOCATION MAP
IRWIN 4 -B4,C4

PORTIONS INCIDENTAL TO
ITEM NO 8800–0001 – RELOCATION OF MAWC WATER LINE
(CONTRACTOR FURNISHED / INSTALLED ITEMS)

ITEM	FURNISH BY	INSTALLED BY	UNIT	QUANITY
16"ø ASTM A–1097 STEEL CASING (0.375" MIN. WALL THICKNESS 35,000 PSI MIN. YIELD STRENGTH)**	CONTRACTOR	CONTRACTOR	LF	124'
8" ø C151 CL52 DUCTILE IRON PIPE W/ JOINT RESTRAINTS (IN CASING)	MAWC	MAWC*	LF	125'
8"ø C151 CL52 DUCTILE IRON PIPE (FOR TIE–INS)	MAWC	MAWC	LF	220'
8"ø BENDS	MAWC	MAWC	EA	7
EXCAVATION FOR WATER LINE TIE–IN	CONTRACTOR	CONTRACTOR	CY	150
8"ø GATE VALVE	MAWC	MAWC	EA	4
8"ø X 6"ø REDUCER	MAWC	MAWC	EA	1
8"ø X 4"ø REDUCER	MAWC	MAWC	EA	1
8"ø X 8"ø TEE	MAWC	MAWC	EA	1
WT 6 X 14 BEAM(8'–8")**	CONTRACTOR	CONTRACTOR	EA	14
ANGLE 6"X4"X0.5"(9")**	CONTRACTOR	CONTRACTOR	EA	20
1"ø SUPPORT RODS**	CONTRACTOR	CONTRACTOR	EA	30
16" PIPE ROLLERS**	CONTRACTOR	CONTRACTOR	EA	15
VALVE BOXES	MAWC	MAWC	EA	4
PENNDOT 2A STONE BACKFILL	MAWC	CONTRACTOR	EA	250
CASING SPACERS 8" X 16"	MAWC	MAWC	EA	10
CASING END SEALS 8" X 16"	MAWC	MAWC	EA	2

* WESTMORELAND COUNTY CONTRACTOR TO PROVIDE ASSISTANCE TO MAWC WHILE INSTALLING THE 8"ø DUCTILE IRON CARRIER PIPE INTO THE 16"ø STEEL CASING. ASSISTANCE WILL INCLUDE, AT A MINIMUM, A MACHINE AND OPERATOR, PREFERABLY AN EXCAVATOR, FOR PUSHING OR PULLING THE CARRIER PIPE INTO THE CASING.

** REFER TO STRUCTURE PLAN (L–645) FOR ADDITIONAL DETAILS.

CALL BEFORE YOU DIG!
Pennsylvania One Call System, Inc.
Dial 811 or
1-800-242-1776

PENNSYLVANIA LAW REQUIRES 3 WORKING DAYS NOTICE FOR CONSTRUCTION PHASE AND 10 WORKING DAYS IN DESIGN STAGE

POCS SERIAL NUMBER
20250160683

REVISION NO:	DATE:	DESCRIPTION:

Municipal Authority Westmoreland County
124 Park and Pool Road, New Stanton Pa 15672
Mailing: P.O. Box 730, Greensburg, Pa 15601
Phone: 724-755-5800, Fax: 724-755-5927

DRAWN BY: T. KUNKLE	CHECKED BY: DAG	APPROVED BY: MCF	SCALE: AS SHOWN
DATE: 12/10/2024	DATE: 1/12/2026	DATE: 1/12/2026	

4th Street Bridge
North Irwin Borough, Westmoreland County

FILE: O:\Drafting\Drawings\Distribution\Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-28-26 PADOT comments.dwg 1/28/2026

Copyright Engineering Design Solutions Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-28-26 PADOT comments.dwg, TIN, 1/28/2026 4:13:56 PM, DWG To PDF.pc3, 1:1

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	----	----	2 OF 9
North Irwin Borough				

811 RESPONSES

CDC	Utility	Address	Contact	Serial # 20250160683 as of 01/29/2025	Comment
JRM0	WESTMORELAND COUNTY MUNICIPAL AUTHORITY	PO BOX 730 GREENSBURG, PA 15601	APRIL TILSON 724-755-5955 ATILSON@MAWC.ORG	MAP SENT	
AL	PEOPLES GAS COMPANY LLC	375 N SHORE DR. PITTSBURGH, PA 15212	TODD COEN 412-258-4415 TODD.COEN@PEOPLES-GAS.COM	NO RESPONSE	
ED1	NORTH HUNTINGDON TOWNSHIP MUNICIPAL AUTHORITY	4130 TURNER VALLEY RD NORTH HUNTINGDON, PA 15642	CHRIS SANNER 412-751-4571 CSANNER@NHTMA.ORG	NO RESPONSE	
KN	PENNSYLVANIA ELECTRIC CO	21 S MAIN ST AKRON, OH 44308	MELLYSSA ADAMS 330-604-4073 MADAMS@FIRSTENERGYCORP.COM	NO RESPONSE	
LKC0	LUMEN FORMERLY LEVEL 3	1025 ELDORADO BLVD BLOOMFIELD, CO 80021	LUMEN OPERATOR PERSONNEL 877-366-8344 EXT 3 RELOCATIONS@LUMEN.COM	NO RESPONSE	
NIA0	NORTH IRWIN BOROUGH MUNICIPAL AUTHORITY	21 SECOND ST NORTH IRWIN, PA15642	ADELE MENDLOWITZ 724-382-5278 NIBMUNICIPAL@GMAIL.COM	NO RESPONSE	
NIB0	NORTH IRWIN BOROUGH	21 SECOND ST NORTH IRWIN, PA15642	LISA GESLER 724-864-5057 NIBOROL@COMCAST.NET	NO RESPONSE	

General Notes

1. Proposed water line to be 8"Ø AWWA C151 CL52 ductile iron pipe.
2. Casing is to be 16"Ø ASTM A-1097, 0.375" minimum wall thickness, 35,000 PSI maximum yield strength steel pipe.
3. As per Pennsylvania Act 287, as amended, the contractor shall notify all utilities through the Pennsylvania One Call System, at 811 or 1-800-242-1776, prior to starting any work.
4. In addition to this relocation plan, all construction shall be in accordance with any ordinance and regulation of Westmoreland County and Norfolk Southern Railroad.
5. Traffic control shall, at a minimum, be in accordance with PA Code, Title 67, Chapter 212 and Chapter 213.
6. In addition to the erosion and sedimentation control plan contained in these plans, all erosion and sedimentation control measures shall be in accordance with PA Code, Title 25, Chapter 102.
7. It is the sole responsibility of the Westmoreland County contractor to dispose of all waste materials, including but not limited to, soil, rock vegetation, and pavements, in accordance with federal, state, and local laws and ordinances.
8. A minimum separation of 18 inches shall be maintained between the proposed water line and any existing underground facilities such as gas lines, storm water culverts, catch basins, and conduits.
9. A minimum separation of 10 feet shall be maintained between the proposed water line and any sanitary sewer when placed parallel to each other. When crossing, 18 inches is sufficient.
10. A minimum separation of 6 inches shall be maintained between the proposed water line and any rock or bedrock that is encountered. Remove the rock and place PennDOT 2A aggregate as a cushion between the water line and the remaining rock.
11. It is the responsibility of the Westmoreland County Contractor to provide for the safety of its employees as well as other persons and property affected directly or indirectly by operations during the performance of this work.
12. It is the Contractor's responsibility to make decisions regarding the need for trench sheeting, shoring and bracing arrangements. It is the Contractor's responsibility to furnish, install, all sheeting, shoring, and bracing materials as needed to adequately protect the work from the pressure of the earth surrounding the excavation. Upon removal, all voids shall be carefully filled and compacted. Where shoring and bracing are required for the water line work, the trench dimensions shall be adjusted accordingly.
13. The Westmoreland County Contractor shall, fully comply with all laws and regulations established by OSHA and other agencies having jurisdiction in matters involving job site safety in general, and trench excavation in particular.
14. Base mapping provided by Westmoreland County and SAI Engineering, Pittsburgh, PA.
15. Contractor shall follow all requirements of Norfolk Southern's NSCE-8 Specifications.
16. Pipeline and crossing to be installed and maintained in accordance with last approved American Railway Engineering and Maintenance of way Association Specifications for Pipelines Conveying Flammable and Non-flame Substances.
17. Blasting not permitted.

REVISION NO:	DATE:	DESCRIPTION:

Municipal Authority Westmoreland County
124 Park and Pool Road, New Stanton Pa 15672
Mailing: P.O. Box 730, Greensburg, Pa 15601
Phone: 724-755-5800, Fax: 724-755-5927

DRAWN BY: T. KUNKLE	CHECKED BY: DAG	APPROVED BY: MCF	SCALE: AS SHOWN
DATE: 12/10/2024	DATE: 1/12/2026	DATE: 1/12/2026	

4th Street Bridge
North Irwin Borough, Westmoreland County

FILE: O:\Drafting\Drawings\Distribution\Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-28-26 PADOT comments.dwg 1/28/2026

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	------	-----	3 OF 9
North Irwin Borough				

PROPOSED
WATER LINE TIE-IN
8"Ø X 4"Ø REDUCER
8"Ø GATE VALVE
MAWC TO INSTALL

EXISTING 4"Ø
WATERLINE

220'
EXISTING NORFOLK SOUTHERN R/W

EXISTING
WATER LINE
BLOW-OFF VALVE

118'
C BRIDGE ABT. TO C BRIDGE ABT.

103'
REQUIRED AERIAL EASEMENT

EXTEND CASING 2'
BEYOND THE ABUTMENT
BACK WALL, BOTH SIDES

CROSSING AT CENTER LINE OF TRACK
LATITUDE - 40.33743
LONGITUDE - -79.71393

PROPOSED
8"Ø - 22 ½° BEND
MAWC TO INSTALL

PROPOSED
EXCAVATION
FOR WATER LINE TIE-IN
INCORPORATED WORK
BY WESTMORELAND COUNTY
CONTRACTOR

STA 12+84.67

WEST BROADWAY
AVENUE SURVEY &
CONSTR ℄

LEGAL
AERIAL
EASEMENT

GUIDE
RAIL

GROUTED
ROCK

CURB
RAMP

GABIONS

4TH STREET
N2° 40' 00" W

INLET
TO REMAIN

25MPH

87° 59' 01"
(TANGENT
TO CURVE)

20'

ACCESS ROAD

12'

W BROADWAY AVE

EXISTING
SIGNS
TO BE RESET

N36° 20' 06" E

PROPOSED
EXCAVATION
FOR WATER LINE
TIE-IN INCORPORATED
WORK BY WESTMORELAND
COUNTY CONTRACTOR

PROPOSED
8"Ø C151 CL52
DUCTILE IRON PIPE FOR
TIE-IN TO EXISTING WATER LINE
MAWC TO INSTALL

PROPOSED
8"Ø - 45° BEND
MAWC TO INSTALL

PROPOSED
8"Ø SOLID SLEEVE
MAWC TO INSTALL

15 - UTILITY SUPPORT HANGERS,
SPACED AT 7' 10 ¼" +/-
INCORPORATED WORK
BY WESTMORELAND COUNTY CONTRACTOR
SEE DETAIL 2, SHEET 4

PROPOSED
128' OF 16"Ø ASTM A-1097 STEEL CASING
(MIN WALL THICKNESS - 0.375" AND
MIN. YIELD STRENGTH -35,000 PSI)
CASING PIPE TO BE EMBEDDED
IN THE CONCRETE END DIAPHRAGM
AND PENETRATE THE BRIDGE
ABUTMENT BACK WALL(BOTH SIDES)
USE CLOSED CELL NEOPRENE SPONGE
AT THE PENETRATION
INCORPORATED WORK BY
WESTMORELAND COUNTY
SEE DETAIL 3, SHEET 4

WESTMORELAND COUNTY
ARIEL EASEMENT

PROPOSED
124' - 8"ØC151 DUCTILE IRON WATER LINE CARRIER PIPE
WITH JOINT RESTRAINING GASKETS
USE MAWC SUPPLIED CASING SPACERS CASCADE
WATER WORKS MANUFACTURING,
STYLE CCBS END SEALS, BOTH SIDES.
SEE DETAIL 2, SHEET 4

PROPOSED
8"Ø C151 CL52
DUCTILE IRON PIPE
FOR TIE-IN TO EXISTING
WATER LINE
MAWC TO INSTALL

EXISTING 6"Ø
WATERLINE

PROPOSED
8"Ø X 8"Ø TEE
3 - 8"Ø GATE VALVE
MAWC TO INSTALL

PROPOSED
2 - 8"Ø 45° BENDS
6"Ø SOLID SLEEVE
MAWC TO INSTALL

PLAN VIEW
SCALE 1"= 10'

REVISION NO:	DATE:	DESCRIPTION:

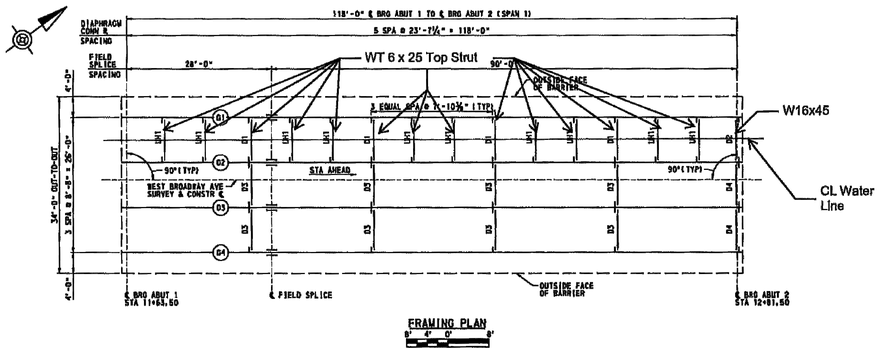
Municipal Authority Westmoreland County
124 Park and Pool Road, New Stanton Pa 15672
Mailing: P.O. Box 730, Greensburg, Pa 15601
Phone: 724-755-5800, Fax: 724-755-5927

DRAWN BY: T. KUNKLE	CHECKED BY: DAG	APPROVED BY: MCF	SCALE: AS SHOWN
DATE: 12/10/2024	DATE: 1/12/2026	DATE: 1/12/2026	

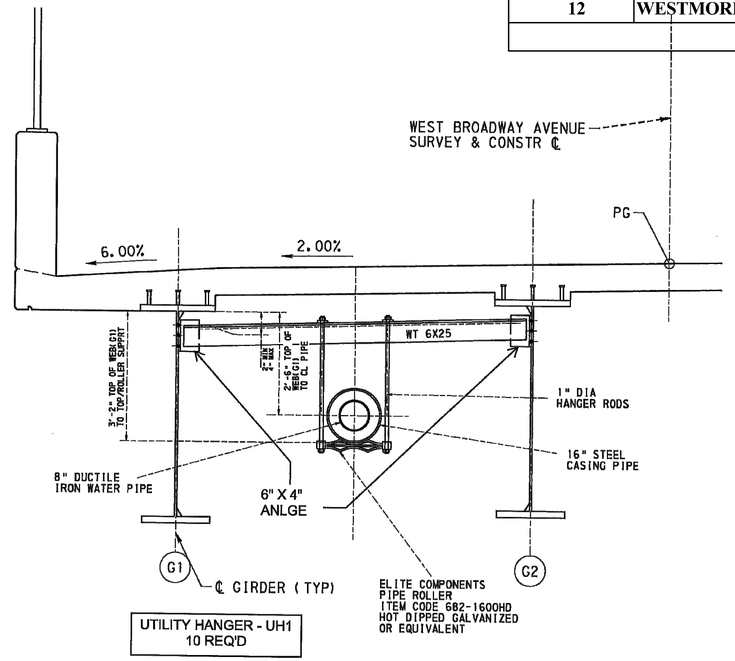
4th Street Bridge
North Irwin Borough, Westmoreland County

FILE: O:\Drafting\Drawings\Distribution\Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-28-26 PADOT comments.dwg 1/28/2026

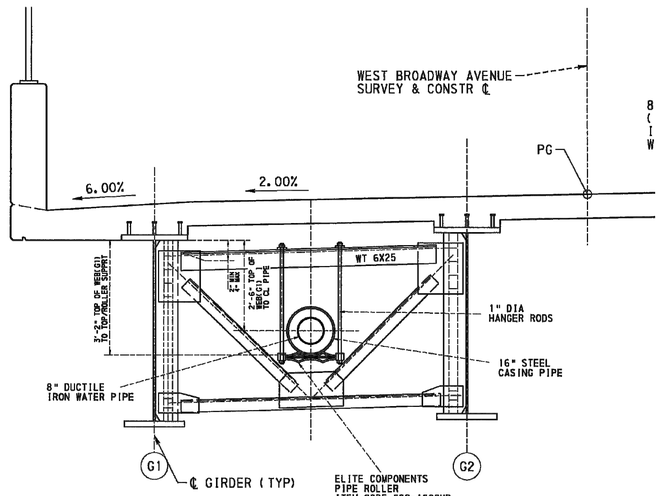
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	----	----	4 OF 9
North Irwin Borough				



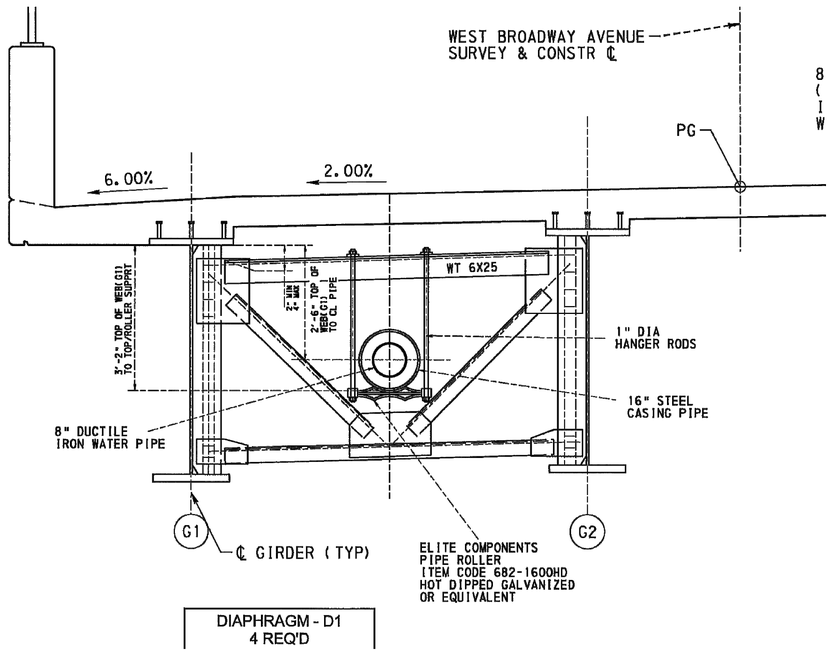
FRAMING PLAN



UTILITY HANGER - UH1
10 REQ'D



DIAPHRAGM - D1
4 REQ'D



DIAPHRAGM - D1
4 REQ'D

NOT TO SCALE

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4th Street Bridge
North Irwin Borough, Westmoreland County

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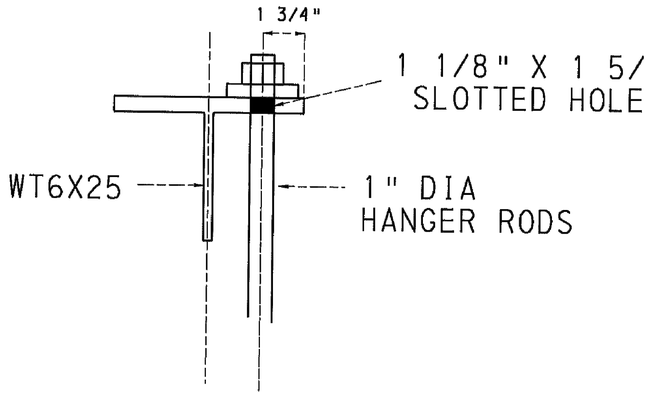
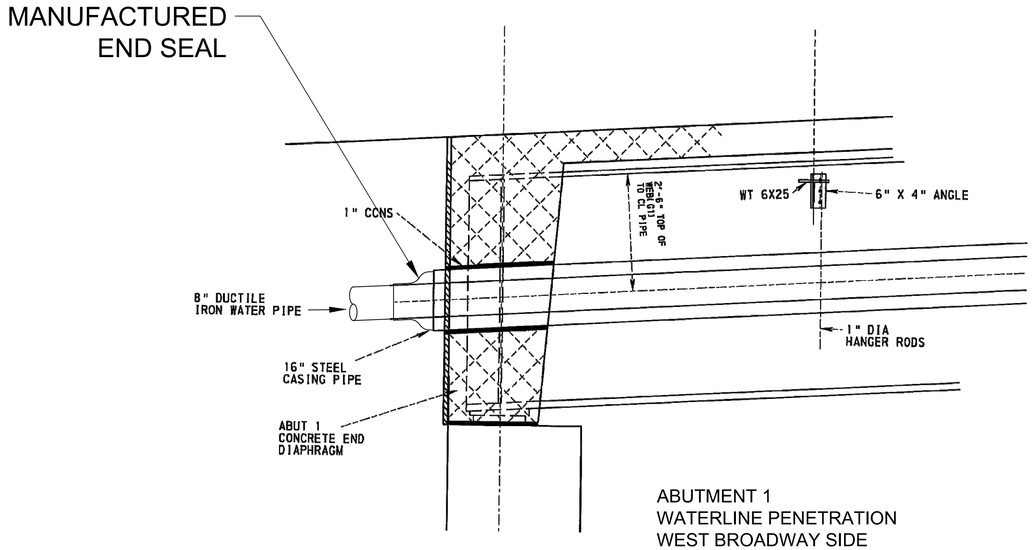
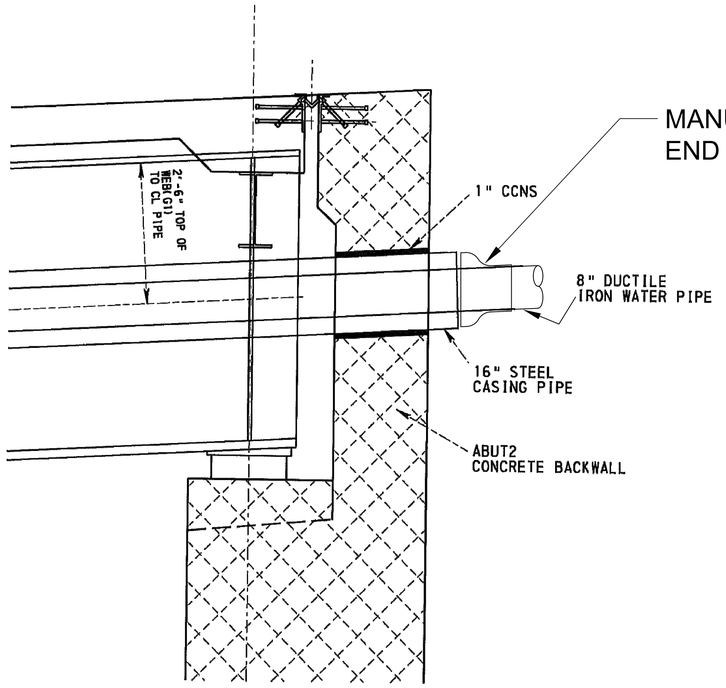
12	WESTMORELAND	——	——	5 OF 9
North Irwin Borough				



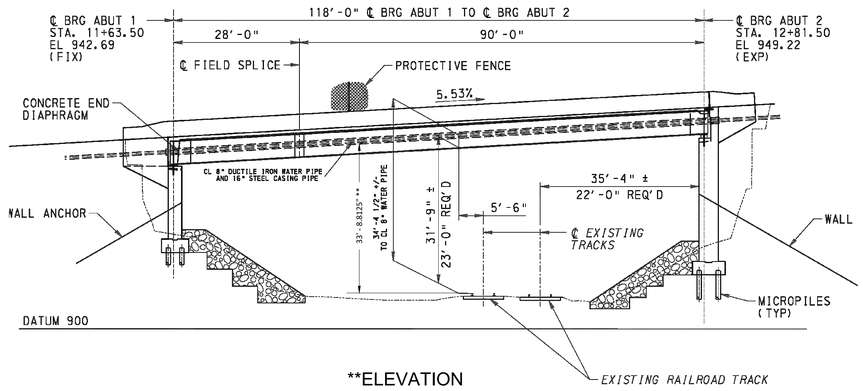
HANGER ROD
CONSTRUCTION DETAIL



ABUTMENT 1
WATERLINE PENETRATION
WEST BROADWAY SIDE



ABUTMENT 2
WATERLINE PENETRATION
FOURTH STREET SIDE



**ELEVATION
33' - 8.8125" FROM TOP OF
RAIL TO BOTTOM OF
WATERLINE CASING AT 6' FROM RAIL.

NOT TO SCALE

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4th Street Bridge
North Irwin Borough, Westmoreland County

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DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	------	------	6 OF 9
North Irwin Borough				

220'
EXISTING NORFOLK SOUTHERN R/W

118'
C BRIDGE ABT. TO C BRIDGE ABT.

EXISTING 4"Ø WATERLINE

COMPOST FILTER SOCK(TYP)
SEE DETAIL13, SHEET 7

SEDIMENT FILTER BAG INLET PROTECTION(TYP)
SEE DETAIL11, SHEET 6

WESTMORELAND COUNTY ARIEL EASEMENT

WEST BROADWAY AVE.

WEST BROADWAY AVENUE SURVEY & CONSTR ℄

STA 12+84.67

LEGAL AERIAL EASEMENT

GUIDE RAIL

GROUTED ROCK

CURB RAMP

GABIONS

INLET TO REMAIN

4TH STREET

N2° 40' 00"

87° 59' 01" (TANGENT TO CURVE)

N36° 20' 06" E

W/4"12

DY/4"

W/24"

PC

PT

PI

E,CTV

E,CTV (TEMP)

ACCESS ROAD

W BROADWAY AVE

EXISTING SIGNS TO BE RESET

FOSTER AVE

GUY (TEMP)

	COMPOST FILTER SOCK
	SEDIMENT FILTER BAG INLET PROTECTION
	PROPOSED EXCAVATION
	STEEL CASING

PLAN VIEW
SCALE 1"= 10'
0 5 10 20

REVISION NO:	DATE:	DESCRIPTION:

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4th Street Bridge
North Irwin Borough, Westmoreland County
Erosion & Sedimentation Control Plan

FILE: O:\Drafting\Drawings\Distribution\Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-28-26 PADOT comments.dwg 1/28/2026

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	----	----	7 OF 9
North Irwin Borough				

EROSION AND SEDIMENT CONTROL PLAN NARRATIVE
8"ø C151 CL52 DUCTILE IRON WATER LINE RE-ESTABLISHMENT
WEST BROADWAY AVENUE (4th STREET) BRIDGE
NORTH IRWIN BOROUGH, WESTMORELAND COUNTY

EROSION AND SEDIMENT CONTROL PLAN PREPARED BY:
DONALD A. GUERRA, MAWC
P.O. BOX 730
GREENSBURG, PA 15601
PHONE: 724-755-5951

GENERAL NOTES:

1.) PRESENTED HEREIN ARE EROSION AND SEDIMENTATION CONTROL MEASURES ("THE E&S PLAN") INTENDED TO MINIMIZE DISTURBANCE TO THE PROJECT AREA DURING AND AFTER RELOCATION OF THE SUBJECT WATER LINE. THIS PLAN RELIES ON THE RECOMMENDATIONS CONTAINED IN THE EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL (MARCH 2012), PREPARED BY THE PENNSYLVANIA BUREAU OF SOIL AND WATER CONSERVATION AND THE PENNSYLVANIA STORMWATER BEST PRACTICES MANUAL (DECEMBER 2006). THIS EROSION AND SEDIMENTATION CONTROL PLAN APPLIES TO THE MAWC's WATER LINE RELOCATION PROJECT ALONG WEST BROADWAY AVENUE AND FOURTH STREET, BOTH PUBLIC ROADWAYS, IN NORTH IRWIN BOROUGH, WESTMORELAND COUNTY. THE WATER LINE PROJECT IS BEING DONE TO RE-ESTABLISH PUBLIC POTABLE WATER MAIN LINE IN NORTH IRWIN. THE PROJECT INCLUDES THE INSTALLATION OF APPROXIMATELY 345 FEET OF 8" Ø C151 CL52 DUCTILE IRON PIPE. THE USDA SOIL TYPES INVOLVED ARE THE URBAN LAND – MONONGAHELA COMPLEX TYPE (UmB). THIS SOIL TYPE CONTAINS NO HYRIC COMPONENTS AND THEREFORE THE PLAN'S SEEDING REQUIREMENTS ARE SPECIFIC TO NON-HYDRIC SOILS.

2.) A REVIEW OF THE NATIONAL WETLANDS INVENTORY DATA SET INDICATES THAT THERE ARE NO WETLANDS AFFECTED BY THIS WATER LINE PROJECT. STORMWATER RUNOFF IN THE WORK AREA IS HANDLED THROUGH VARIOUS STRUCTURES OWNED AND MAINTAINED BY THE PUBLIC AUTHORITIES. THIS WATERLINE EXTENSION PLAN IS NOT PROPOSING ANY CHANGES TO THESE STRUCTURES OR ANY CHANGE TO THE UPSTREAM WATERSHED AREA. INSTALLATION OF MAWC'S WATERLINE IN THE RIGHT-OF-WAY IS BY PERMIT. THERE ARE NO STREAM CROSSINGS WITH THIS PROJECT AND THE RECEIVING WATER IS BRUSH CREEK (WWF). FOLLOWING HERE ARE NOTES SPECIFIC TO THIS WATER LINE PROJECT, A DETAILED WATER LINE INSTALLATION PROCEEDURE, AND RESEEDING SPECIFICATIONS.

3.) THE IMPLEMENTATION OF THIS EROSION AND SEDIMENTATION CONTROL PLAN IS THE RESPONSIBILITY OF THE CONTRACTOR WHO ACTUALLY PERFORMS THE WORK OF PIPELINE INSTALLATION. THE PLAN IS TO BE IMPLEMENTED AS THE SITE CONDITIONS WARRANT.

4.) THIS PLAN RELIES ON THE USE OF STRUCTURAL BMP'S TO CONTROL SOIL EROSION AND SEDIMENTATION AS DETAILED IN THE PADEP "EROSION AND SEDIMENT POLLUTION CONTROL PROGRAM MANUAL", DATED MARCH 2012. MINIMIZING THE DISTURBED AREA FOR THIS PROJECT, WHICH IS A PRIOR INTEREST OF THE AUTHORITY AND ITS' CONTRACTOR, WILL ALSO HELP TO CONTROL SOIL EROSION AND SEDIMENTAION. ADDITIONALLY, IN AREAS SUCH AS STEEPER SLOPES, NONCOHESIVE NATIVE SOILS, OR PROXIMITY TO STREAMS, OTHER STRUCTURAL BMP'S WILL BE USED. THESE MAY INCLUDE SEDIMENT FILTER TUBES, OR INLET PROJECTION. SPECIFIC SITE CONDITIONS WILL DICTATE WHICH BMP'S TO EMPLOY AND THE SELECTION OF THE BMP'S WILL BE THE RESPONSIBILITY OF THE CONTRACTOR. DETAILS FOR A NUMBER OF STRUCTURAL BMP'S ARE INCLUDED WITH THIS PLAN. THE BMP'S PRESENTED HERE ARE NOT AN EXHAUSTIVE LIST, HOWEVER, AND THE CONTRACTOR IS FREE TO EMPLOY OTHER RECOGNIZED BMP'S AS SITE CONDITIONS WARRANT. AT A MINIMUM THE CONTRACTOR WILL EMPLOY BMP'S AS DETAILED ON THE PLANS.

5.) WATER LINE INSTALLATION ACTIVITIES ON THE PROJECT SITE WILL DISTURB AN ESTIMATED 660 SF (< 0.02 ACRES). THIS WATERLINE INSTALLATION PROJECT TAKES PLACE WITHIN PUBLIC RIGHTS-OF-WAY ALONG ESTABLISHED ROADWAY CORRIDORS. THE MAWC IS NOT PROPOSING ANY CHANGES IN THE CURRENT LAND USE. FURTHERMORE, THE MAWC HAS NO KNOWLEDGE OF PAST LAND USES ALONG THESE CORRIDORS.

PREPARATION OF THE SITE:

1.) NO CLEARING OR GRUBBING OF THE WORK AREA WILL BE NECESSARY FOR THE PROJECT.

2.) SMALL LANDSCAPE ITEMS, SUCH AS SHRUBERY, MAILBOXES, OR DRIVEWAY APRONS, MAY BE MOVED DURING SITE PREPARATIONS TO ACCOMMODATE THE TRENCHING EQUIPMENT.

GENERAL WATERLINE INSTALLATION PROCEDURE:

1.) READY A SEDIMENT FILTER BAG AND PUMP ACCORDING TO THE PROJECT DETAILS IN THE CASE THAT THE TRENCH LINE NEEDS TO BE DE-WATERED.

2.) INSTALL THE SEDIMENT FILTER TUBES AND INLET PROTECTION. SEDIMENT FILTER TUBES ARE TO BE PLACED ALONGSIDE THE TRENCH LINE PRIOR TO OPENING. OPEN THE LID TO THE DROP INLETS AND PLACE THE INLET PROTECTION FILTER BAGS.

3.) THROUGHOUT THE WATER LINE INSTALLATION, MAINTAIN ALL MANUFACTURED EROSION AND SEDIMENTATION DEVICES. REMOVE ANY ACCUMULATED SEDIMENTS FROM THESE STRUCTURES AND DISPOSE OF PROPERLY. IF ANY STRUCTURES ARE DAMAGED, REPLACE THEM. IF ANY STRUCTURES ARE FOUND TO BE MORE THAN 50% FULL, REPLACE THEM ALSO. IF THE FILTER DEVICE MANUFACTURER'S MAINTENANCE RECOMMENDATIONS ARE MORE STRINGENT THAN AS NOTED HERE, USE THE MANUFACTURER'S RECOMMENDATIONS.

4.) SAW CUT PAVEMENT IN IMPROVED ROADWAY AREAS WHERE NECESSARY.

5.) EXCAVATE TRENCH LINE TO APPROPRIATE DEPTH SUCH THAT 4 FEET OF COVER WILL EXIST ABOVE THE TOP OF THE FINISHED WATERLINE.

6.) IT IS CHARACTERISTIC OF WATERLINE UTILITY CONSTRUCTION THAT BACKFILL IS COMPLETED AS THE WATER LINE INSTALLATION PROGRESSES, OR AT THE END OF EACH DAY'S WORK. THE MAXIMUM AVERAGE LENGTH OF COMPLETED BACKFILL IS APPROXIMATELY 200 FEET, BUT THIS LENGTH IS HIGHLY INFLUENCED BY SITE AND SUBSURFACE CONDITIONS.

7.) TRENCH SPOILS WILL BE LOADED TO HAUL TRUCKS AS THEY ARE EXCAVATED AND REMOVED FROM THE WORK SITE. THE CONTRATOR WILL PROPERLY DISPOSE OF ALL EXCAVATED SOILS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO SECURE A PROPERLY PERMITTED SITE FOR DISPOSAL. WHERE TRENCH SPOILS WILL BE USED AS BACKFILL THE CONTRACTOR WILL MAINTAIN THE SOIL AT THE TRENCH LINE AND REPLACE THE SOIL INTO THE TRENCH, ON THE SAME DAY, AS THE WATER LINE IS CONSTRUCTED. NO TEMPORARY OR LONG-TERM SOIL STOCKPILE IS ANTICIPATED FOR THIS WORK.

8.) AS EXCAVATION PROGRESSES THE ROADWAY SURFACE WILL BE BROOMED CLEAN. HAND BROOMING OR A MECHANICAL POWER BROOM IS ACCEPTABLE.

9.) MAINTAIN HAND BROOMS OR A POWER BROOM AT THE WORK SITE FOR THE DURATION OF THE PROJECT AND SWEEP LOOSE SOILS FROM THE ROAD SURFACE AND REPLACE THEM INTO THE WATER LINE TRENCH.

10.)THROUGHOUT THE WATER LINE INSTALLATION, MAINTAIN ALL MANUFACTURED EROSION AND SEDIMENTATION DEVICES BY REPLACING ANY FILTER DEVICE THAT IS FOUND TO BE MORE THAN 50% FULL UPON INSPECTION, CONDUCTED WEEKLY AND AFTER EACH RAIN EVENT. IF THE FILTER DEVICE MANUFACTURER'S MAINTENANCE RECOMMENDATIONS ARE MORE STRINGENT THAN AS NOTED HERE, USE THE MANUFACTURER'S RECOMMENDATIONS.

11.)THE CONTRACTOR MUST PERFORM VISUAL SITE INSPECTIONS AT LEAST WEEKLY AND AFTER EACH RAIN EVENT. THESE INSPECTIONS MUST BE DOCUMENTED ON PADEP FORM #3800-FM-BCWø271d, REVISED 5/2018.

12.)AFTER THE WATERLINE PIPE IS PLACED, THE TRENCH WILL BE BACKFILLED AND COMPACTED. BACKFILL WILL ALWAYS START WITH CLEAN STONE AROUND THE PIPE. UNDER PAVED AREAS AND IN AREAS WITHIN 3 FEET OF IMPROVED ROADWAY SURFACE, THE BACKFILL WILL BE COMPLETED WITH, PENNDOT 2A STONE. UNDER PAVED AREAS, TEMPORARY ASPHALT PAVING WILL BE USED TO COMPLETE THE SURFACE. TEMPORARY ASPHALT PAVING IS A NON-ERODABLE SURFACE.

13.)BEFORE TEMPORARY PAVEMENT IS PLACED, AND AFTER THE BACKFILL AND COMPACTION ARE COMPLETE, SWEEP DUST AND/OR MUD FROM THE ROAD SURFACE BY HAND BROOMING OR WITH A POWER BROOM AND DIRECT IT TO THE TRENCH LINE WHERE THE DUST/MUD WILL BE CONTAINED

14.)THE RESEEDED AREAS OF THE PROJECT WILL BE OBSERVED ON A SPOT CHECK BASIS, BY MAWC PERSONNEL, UNTIL IT IS DETERMINED THAT 70% VEGETATIVE COVER EXISTS.

15.)ALL TEMPORARY EROSION CONTROL DEVICES WILL THEN BE REMOVED FROM THE WORK SITE AND PROPERLY DISPOSED OF.

PERMANENT SEEDING/NON-HYDRIC SOILS:

1.) OBTAIN A SOIL ANALYSIS FROM A REPUTABLE LABORATORY FOR SPECIFIC APPLICATION RATES OF LIMESTONE AND FERTILIZER. BEFORE SEEDING, APPLY THE RECOMMENDED AMOUNT OF GROUND AGRICULTURAL LIMESTONE AND FERTILIZER AND WORK THEM AS DEEPLY INTO THE SOIL AS POSSIBLE.

2.) BROADCAST THE SEED OVER THE SURFACE OF THE AREA AND MULCH WITH AN EROSION CONTROL BLANKET. THE BLANKET SHOULD BE ANCHORED ACCORDING TO THE MANUFACTURERS SPECIFICATION.

3.) SEED MIXTURE:

	SEEDING RATE PLS (LB/AC)
*ANNUAL RYEGRASS	10
*BIRDSFOOT TREFOIL	6
*TALL FESCUE	30

*SEED MIXTURE (1 PLUS 3) FOR UTILITY RIGHT-OF-WAY, VARIABLE DRAINAGE, TABLE 4, "EROSION CONTROL & CONSERVATION PLANTINGS ON NON-CROPLAND", PENN STATE, COLLEGE OF AGRICULTURAL SCIENCES.

4.) LIMESTONE:
RAW, GROUND AGRICULTURAL GRADE LIMESTONE CONTAINING MORE THAN 90% CALCIUM CARBONATES (ADJUST PH LEVELS TO 6.5 TO 7.0). IF NO SOIL ANALYSIS IS AVAILABLE, APPLY AT A RATE OF SIX TONS PER ACRE.

5.) COMMERCIAL FERTILIZER:
IN THE ABSENCE OF A LABORATORY SOIL ANALYSIS, USE 100-200-200 (100 IBS. OF N, 200 IBS. OF P_2O_5, AND 200 IBS K_2O) PER ACRE INCORPORATED INTO THE SEEDBED PRIOR TO SEEDING OR A TANK WITH SEED WHEN HYDRO-SEEDING.

6.) INOCULANT:
WHEN USING PREINOCULATED SEED, STORE IN LOCATIONS WHERE THE AVERAGE TEMPERATURE WILL BE 70° OR LESS. DO NOT STORE IN DIRECT SUNLIGHT OR WHERE TEMPERATURES WILL EXCEED 90° FOR MORE THAN 3 HOURS.

7.) MULCH:
USE A COMERCIALLY MANUFACTURED EROSION CONTROL BLANKET.

7.) THE RESEEDED AREAS OF THE PROJECT WILL BE OBSERVED ON A SPOT CHECK BASIS, BY MAWC PERSONNEL, AT LEAST WEEKLY AND AFTER SIGNIFICANT RAIN EVENTS, UNTIL IT IS DETERMINED THAT 70% VEGETATIVE COVER EXISTS.
ONCE THE DISTURBED AREAS ARE STABILIZED AND NO EROSION IS TAKING PLACE THE SEDIMENT FILTER TUBES AND INLET PROTECTION BAGS WILL BE REMOVED.

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4th Street Bridge
North Irwin Borough, Westmoreland County
Erosion & Sedimentation Control Plan

FILE: O:\Drafting\Drawings\Distribution\Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-28-26 PADOT comments.dwg 1/28/2026

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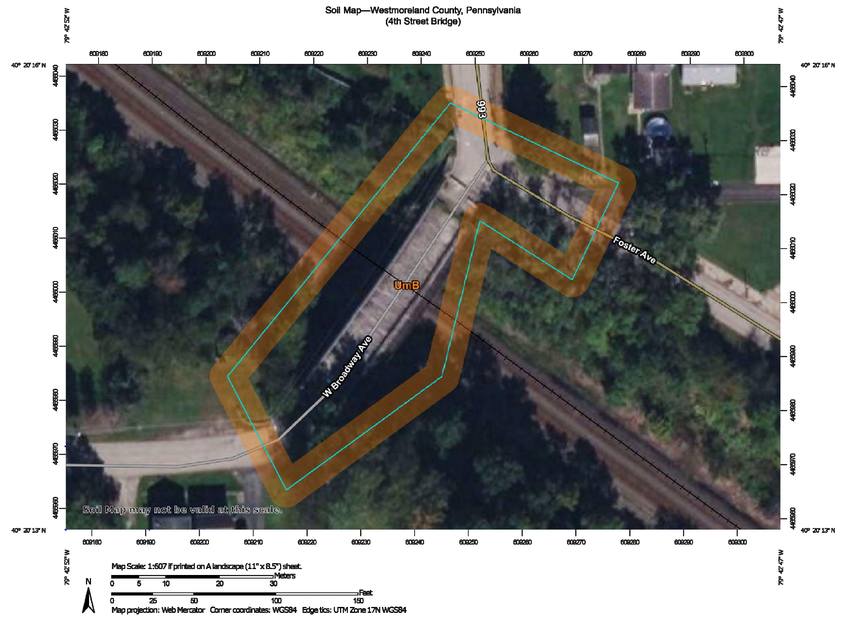
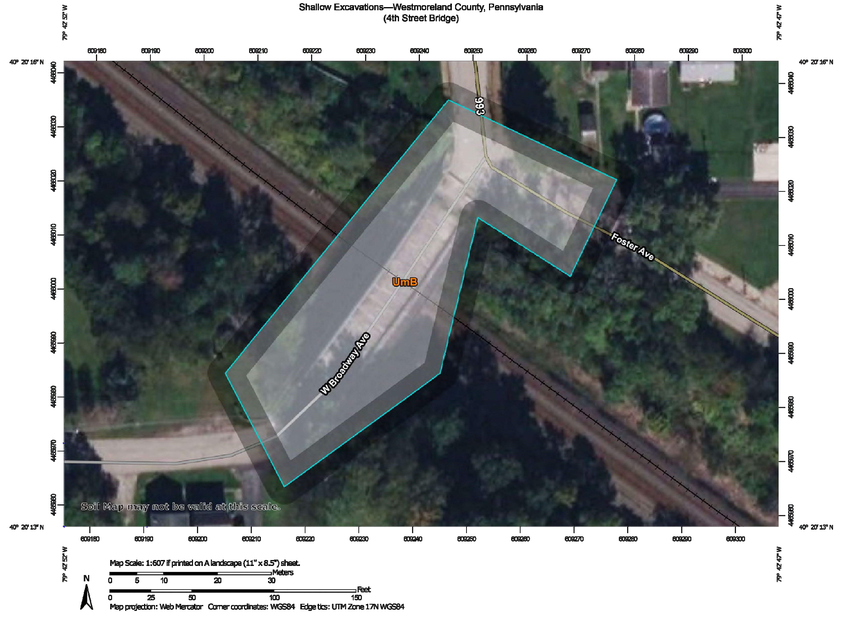
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	———	———	8 OF 9
North Irwin Borough				

Soil Map—Westmoreland County, Pennsylvania
(4th Street Bridge)



Shallow Excavations—Westmoreland County, Pennsylvania
(4th Street Bridge)



Westmoreland County, Pennsylvania

UmB—Urban land-Monongahela complex, 0 to 8 percent slopes

Map Unit Setting
National map unit symbol: l8rj
Elevation: 700 to 1,200 feet
Mean annual precipitation: 36 to 50 inches
Mean annual air temperature: 41 to 62 degrees F
Frost-free period: 130 to 170 days
Farmland classification: Not prime farmland

Map Unit Composition
Urban land: 60 percent
Monongahela and similar soils: 40 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Setting
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Pavement, buildings and other artifically covered areas human transported material

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8s
Hydric soil rating: No

Description of Monongahela

Setting
Landform: Terraces
Landform position (three-dimensional): Tread
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Old fine-loamy alluvium derived from sandstone and shale

Typical profile
Ap - 0 to 9 inches: silt loam
Bt - 9 to 29 inches: loam
Btx - 29 to 63 inches: loam
C - 63 to 80 inches: cobbly sandy loam

Properties and qualities
Slope: 0 to 8 percent
Depth to restrictive feature: 25 to 35 inches to fragipan
Drainage class: Moderately well drained
Runoff class: Low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.08 to 0.80 in/hr)
Depth to water table: About 17 to 28 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Low (about 5.1 inches)

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2e
Hydrologic Soil Group: C/D
Ecological site: F126XY008OH - Tread
Hydric soil rating: No

Data Source Information

Soil Survey Area: Westmoreland County, Pennsylvania
Survey Area Data: Version 21, Sep 5, 2024

Soil Map—Westmoreland County, Pennsylvania
(4th Street Bridge)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Westmoreland County, Pennsylvania
Survey Area Data: Version 21, Sep 5, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Sep 11, 2021—Nov 16, 2021

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Shallow Excavations—Westmoreland County, Pennsylvania
(4th Street Bridge)

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Soil Rating Lines
- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Soil Rating Points
- Very limited
- Somewhat limited
- Not limited
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
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Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
UmB	Urban land-Monongahela complex, 0 to 8 percent slopes	0.5	100.0%
Totals for Area of Interest		**0.5**	**100.0%**

Shallow Excavations

Map unit symbol	Map unit name	Rating	Component name (percent)	Rating reasons (numeric values)	Acres in AOI	Percent of AOI
UmB	Urban land-Monongahela complex, 0 to 8 percent slopes	Not rated	Urban land (60%)		0.5	100.0%
Totals for Area of Interest					**0.5**	**100.0%**

Rating	Acres in AOI	Percent of AOI
Null or Not Rated	0.5	100.0%
Totals for Area of Interest	**0.5**	**100.0%**

REVISION NO:	DATE:	DESCRIPTION:

Municipal Authority Westmoreland County
124 Park and Pool Road, New Stanton Pa 15672
Mailing: P.O. Box 730, Greensburg, Pa 15601
Phone: 724-755-3800, Fax: 724-755-5927

DRAWN BY: T. KUNKLE	CHECKED BY: DAG	APPROVED BY: MCF	SCALE: AS SHOWN
DATE: 12/10/2024	DATE: 1/12/2026	DATE: 1/12/2026	

4th Street Bridge
North Irwin Borough, Westmoreland County
Erosion & Sedimentation Control Plan

FILE: O:\Drafting\Drawings\Distribution\Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-28-26 PADOT comments.dwg 1/28/2026

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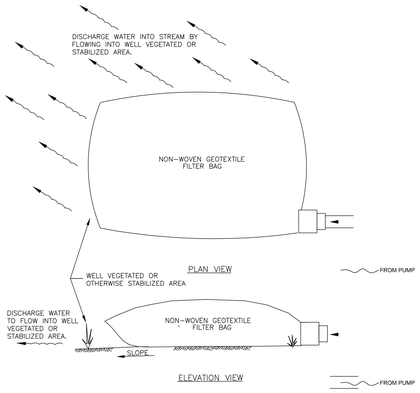
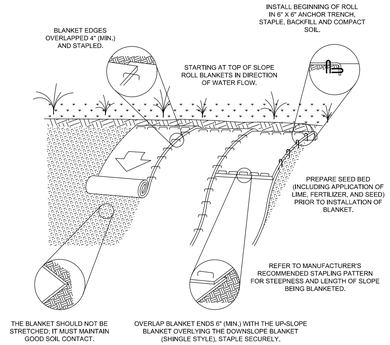
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12	WESTMORELAND	———	———	9 OF 9
North Irwin Borough				



1) FILTER BAGS SHALL BE USED TO FILTER WATER PUMPED FROM TRENCHES PRIOR TO DISCHARGING.
2) FILTER BAGS SHALL BE MADE FROM NON-WOVEN GEOTEXTILE MATERIAL SEWN WITH HIGH STRENGTH, DOUBLE STITCHED "J" TYPE SEAMS. THEY SHALL BE CAPABLE OF TRAPPING PARTICLES LARGER THAN 150 MICRONS.
3) THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR HALF THE MAXIMUM SPECIFIED BY THE FILTER BAG MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
4) FILTER BAGS SHALL BE LOCATED IN WELL-VEGETATED (GRASSY) AREAS AND DISCHARGE ONTO STABLE, EROSION RESISTANT AREAS. WHERE THIS IS NOT POSSIBLE, A GEOTEXTILE FLOW PATH SHALL BE USED.
5) THE PUMP DISCHARGE HOSE SHALL BE INSERTED INTO THE FILTER BAG IN THE MANNER SPECIFIED BY THE MANUFACTURER AND SECURELY CLAMPED.
6) A SUITABLE MEANS OF ACCESSING THE BAG WITH MACHINERY REQUIRED FOR DISPOSAL PURPOSES MUST BE PROVIDED. FILTER BAGS SHALL NOT BE PLACED ON SLOPES EXCEEDING 5% (5 FEET RISE IN 100 FEET OF SLOPE LENGTH) OR GREATER THAN 5% BAGS SHALL BE KEPT AVAILABLE FOR REPLACEMENT OF THOSE THAT HAVE FAILED OR ARE HALF FULL.
7) FILTER BAGS SHALL BE INSPECTED DAILY. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY, AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED.

DETAIL 9
PUMPED WATER FILTER BAG
NOT TO SCALE



Seed and soil amendments shall be applied according to the rates in the erosion and sedimentation control plan prior to installing the blanket.

Provide anchor trench at toe of slope in similar fashion as at top of slope.

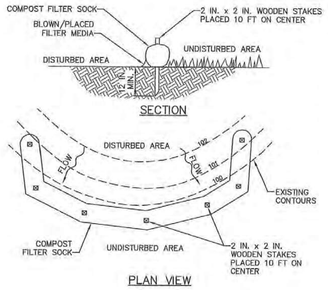
Slope surface shall be free of rocks, clods, sticks, and grass.

Blanket shall have good continuous contact with underlying soil throughout entire length. Lay blanket loosely and stake or staple to maintain direct contact with soil. Do not stretch blanket.

The blanket shall be stapled in accordance with the manufacturer's recommendations.

Blanketed areas shall be inspected weekly and after each run off event until perennial vegetation is established to a minimum uniform 70% coverage throughout the blanketed area.
Damaged or displaced blankets shall be restored or replaced within 4 calendar days.

DETAIL 10
EROSION CONTROL BLANKET INSTALLATION
NOT TO SCALE



NOTES:

SOCK FABRIC SHALL MEET STANDARDS OF TABLE 4.1 OF THE PA DEP EROSION CONTROL MANUAL. COMPOST SHALL MEET THE STANDARDS OF TABLE 4.2 OF THE PA DEP EROSION CONTROL MANUAL.

COMPOST FILTER SOCK SHALL BE PLACED AT EXISTING LEVEL GRADE. BOTH ENDS OF THE BARRIER SHALL BE EXTENDED AT LEAST 8 FEET UP SLOPE AT 45 DEGREES TO THE MAIN BARRIER ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY BARRIER SHALL NOT EXCEED THAT SPECIFIED FOR THE SIZE OF THE SOCK AND THE SLOPE OF ITS TRIBUTARY AREA.

TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCKS.

ACCUMULATED SEDIMENT SHALL BE REMOVED WHEN IT REACHES 1/2 THE ABOVE GROUND HEIGHT OF THE BARRIER AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.

COMPOST FILTER SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.

BIODEGRADABLE COMPOST FILTER SOCKS SHALL BE REPLACED AFTER 6 MONTHS; PHOTODEGRADABLE SOCKS AFTER 1 YEAR. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.

UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCK, STAKES SHALL BE REMOVED. THE SOCK MAY BE LEFT IN PLACE AND VEGETATED OR REMOVED. IN THE LATTER CASE, THE MESH SHALL BE CUT OPEN AND THE MULCH SPREAD AS A SOIL SUPPLEMENT.

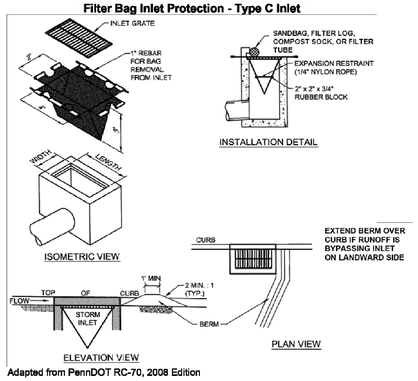
STANDARD CONSTRUCTION DETAIL #4-1
COMPOST FILTER SOCK
NOT TO SCALE

TABLE 4.1
Compost Sock Fabric Minimum Specifications

Material Type	3 mil HDPE	5 mil HDPE	5 mil HDPE	Multi-Filament Polypropylene (MFPP)	Heavy Duty Multi-Filament Polypropylene (HDMFPP)
Material Characteristics	Photo-degradable	Photo-degradable	Bio-degradable	Photo-degradable	Photo-degradable
Sock Diameters	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
Mesh Opening	3/8"	3/8"	3/8"	3/8"	1/8"
Tensile Strength		26 psi	26 psi	44 psi	202 psi
Ultraviolet Stability % Original Strength (ASTM G-155)	23% at 1000 hr.	23% at 1000 hr.		100% at 1000 hr.	100% at 1000 hr.
Minimum Functional Longevity	6 months	9 months	6 months	1 year	2 years
Two-ply systems					
Inner Containment Netting				HDPE biaxial net Continuously wound Fusion-welded junctures 3/4" X 3/4" Max. aperture size	
Outer Filtration Mesh				Composite Polypropylene Fabric (Woven layer and non-woven fleece mechanically fused via needle punch) 3/16" Max. aperture size	
Sock fabrics composed of burlap may be used on projects lasting 6 months or less.					

Filtrexx & JMD

STANDARD CONSTRUCTION DETAIL # 4-15
Filter Bag Inlet Protection - Type C Inlet



Adapted from PennDOT RC-70, 2008 Edition

Maximum drainage area = ½ acre.

Inlet protection shall not be required for inlet tributary to sediment basin or trap. Berms shall be required for all installations.

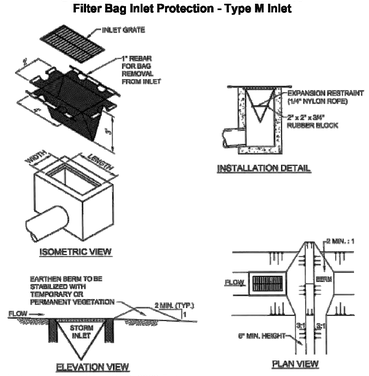
Rolled earthen berm shall be maintained until roadway is stoned. Road subbase berm shall be maintained until roadway is paved. Six inch minimum height asphalt berm shall be maintained until roadway surface receives final coat.

At a minimum, the fabric shall have a minimum grab tensile strength of 120 lbs, a minimum burst strength of 200 psi, and a minimum trapezoidal tear strength of 50 lbs. Filter bags shall be capable of trapping all particles not passing a No. 40 Sieve.

Inlet filter bags shall be inspected on a weekly basis and after each runoff event. Bags shall be emptied and rinsed or replaced when half full or when flow capacity has been reduced so as to cause flooding or bypassing of the inlet. Damaged or clogged bags shall be replaced. A supply shall be maintained on site for replacement of bags. All needed repairs shall be initiated immediately after the inspection. Dispose of accumulated sediment as well as all used bags according to the plan notes.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

STANDARD CONSTRUCTION DETAIL # 4-16
Filter Bag Inlet Protection - Type M Inlet



Adapted from PennDOT RC-70, 2008 Edition

Maximum drainage area =½ acre.

Inlet protection shall not be required for inlet tributary to sediment basin or trap. Berms shall be required for all installations.

Rolled earthen berm in roadway shall be maintained until roadway is stoned. Road subbase berm on roadway shall be maintained until roadway is paved. Earthen berm in channel shall be maintained until permanent stabilization is completed or remain permanently.

At a minimum, the fabric shall have a minimum grab tensile strength of 120 lbs., a minimum burst strength of 200 psi, and a minimum trapezoidal tear strength of 50 lbs. Filter bags shall be capable of trapping all particles not passing a No. 40 sieve.

Inlet filter bags shall be inspected on a weekly basis and after each runoff event. Bags shall be emptied and rinsed or replaced when half full or when flow capacity has been reduced so as to cause flooding or bypassing of the inlet. Damaged or clogged bags shall be replaced. A supply shall be maintained on site for replacement of bags. All needed repairs shall be initiated immediately after the inspection. Dispose accumulated sediment as well as all used bags according to the plan notes.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

DETAIL 11
SEDIMENT FILTER BAG INLET PROTECTION
NOT TO SCALE

DETAIL 12
COMPOST FILTER SOCK INSTALLATION
NOT TO SCALE

REVISION NO:	DATE:	DESCRIPTION:

Municipal Authority Westmoreland County
124 Park and Pool Road, New Stanton Pa 15672
Mailing: P.O. Box 730, Greensburg, Pa 15601
Phone: 724-755-5800, Fax: 724-755-5927

DRAWN BY: T. KUNKLE	CHECKED BY: DAG	APPROVED BY: MCF	SCALE: AS SHOWN
DATE: 12/10/2024	DATE: 1/12/2026	DATE: 1/12/2026	

4th Street Bridge
North Irwin Borough, Westmoreland County
Erosion & Sedimentation Control Plan

FILE: O:\Drafting\Drawings\Distribution\Extensions\North Irwin\West Broadway Ave (4th Street) Bridge\West Broadway Ave (4th Street) Bridge 1-20-26 PADOT comments.dwg 1/28/2026

9 of 9

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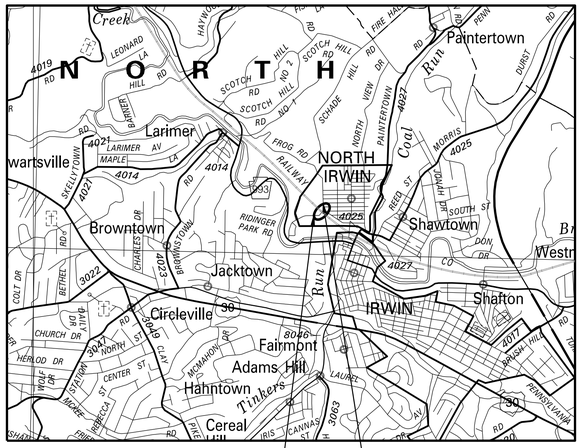
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		1 OF 10
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

INDEX OF DRAWINGS

DESCRIPTION	SHEET
TITLE SHEET, GENERAL NOTES, AND SOILS	1 TO 5
SPECIAL DETAILS	6 TO 8
PLAN SHEETS	9 TO 10

LOCATION MAP



LEGEND

STATE ROUTE

TOWNSHIP ROAD

MUNICIPAL BOUNDARY

PROJECT

SCALE IN MILES

0 0.5 1

LIMIT OF WORK

STA 14+00.00
FOURTH STREET
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

LIMIT OF WORK

STA 8+79.00
W BROADWAY AVE
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

CONTACTS

OWNER / APPLICANT INFORMATION:

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS
PHONE: (724) 830-3966
194 DONOHOE ROAD
GREENSBURG, PA 15601

OVERSIGHT:

PENNDOT ENGINEERING DISTRICT 12-0
PHONE: (724) 439-7315
825 N. GALLATIN AVE EXT.
UNIONTOWN, PA 15401

AGENCY CONTACT INFORMATION:

WESTMORELAND CONSERVATION DISTRICT
PHONE NO. (724) 837-5271
218 DONOHOE ROAD
GREENSBURG, PA 15601

PENNSYLVANIA DEPARTMENT OF
ENVIRONMENTAL PROTECTION
SOUTHWEST REGIONAL OFFICE
PHONE NO. (412) 442-4000
400 WATERFRONT DRIVE,
PITTSBURGH, PA 15222

PROJECT AREA / LIMIT OF DISTURBANCE

THE PROJECT AREA AND LIMIT OF DISTURBANCE BOUNDARY ARE SHOWN ON THE E&S PLAN SHEETS. PROJECT LIMITS ARE THE RIGHT-OF-WAY, EASEMENTS AND LIMITS OF WORK UNLESS OTHERWISE SHOWN.

TOTAL PROJECT AREA: 2.33 ACRES		
NON-EARTH DISTURBANCE PROJECT AREAS	PROJECT SITE ACCESS (EXISTING RAILROAD ACCESS ROAD)	1.13 ACRES
	AERIAL ACCESS (TREE CLEARING WITHOUT GRUBBING FOR CRANE SWINGS AND O/H UTILITIES)	0.40 ACRES
CHAPTER 102	TOTAL PERMIT DISTURBED AREA	0.80 ACRES

CHAPTER 93 WATER DESIGNATION

NO STREAMS OR WATERWAYS ARE LOCATED WITHIN THE DELINEATED PROJECT AREA. THE PROJECT AREA DRAINS TO THE BRUSH CREEK WATERSHED. BRUSH CREEK, AND THEREFORE ITS TRIBUTARIES, IS CLASSIFIED IN THE WATER QUALITY STANDARDS, CHAPTER 93, TITLE 25, OF THE PENNSYLVANIA CODE AS A TROUT STOCKING (TSF) PROTECTED USE STREAM.

GENERAL NOTES

GENERAL SITE RESPONSIBILITY:

1. IN ACCORDANCE WITH THE CURRENT POLICIES AND PRACTICES IN THE COMMONWEALTH OF PENNSYLVANIA TO CONTROL EROSION, IT IS REQUIRED THAT THE CONTRACTOR FOR THIS PROJECT CONFORM WITH THE FOLLOWING GUIDELINES AS THEY ARE APPLICABLE AND IN ACCORDANCE WITH THE INSTRUCTIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION (PADEP) AND THE COUNTY REPRESENTATIVE.
2. KEEP A COPY OF THE APPROVED PLAN DRAWINGS STAMPED, SIGNED AND DATED BY THE REVIEWING AGENCY AT THE PROJECT SITE AT ALL TIMES.
3. FAILURE TO CORRECTLY INSTALL ESPC BMPS, FAILURE TO PREVENT SEDIMENT-LADEN RUNOFF FROM LEAVING THE CONSTRUCTION SITE, OR FAILURE TO TAKE IMMEDIATE CORRECTIVE ACTION TO RESOLVE FAILURE OF ESPC BMPS MAY RESULT IN ADMINISTRATIVE, CIVIL, AND/OR CRIMINAL PENALTIES BEING INSTITUTED BY PADEP AS DEFINED IN SECTION 602 OF THE PENNSYLVANIA CLEAN STREAMS LAW. THE CLEAN STREAMS LAW PROVIDES FOR UP TO $10,000 PER DAY IN CIVIL PENALTIES, UP TO $10,000 IN SUMMARY CRIMINAL PENALTIES, AND UP TO $25,000 IN MISDEMEANOR CRIMINAL PENALTIES FOR EACH VIOLATION.

CONSTRUCTION WASTES:

1. ANTICIPATED WASTE INCLUDES CONSTRUCTION DEBRIS, MATERIALS FROM BUILDINGS AND OTHER STRUCTURES, PAVING MATERIALS, ROCKS AND SOILS. ALTHOUGH NOT ANTICIPATED, ACID BEARING ROCK, IF ENCOUNTERED, AND ALL OTHER MATERIALS WILL BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH THE PADEP'S SOLID WASTE REGULATIONS.

WASTE DISPOSAL:

1. CONSTRUCTION DEBRIS REMOVED FROM THE SITE SHALL BE EITHER RECYCLED OR DISPOSED OF AT AN APPROVED LANDFILL AND IN ACCORDANCE WITH THE DEPARTMENT'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET. SEQ., 271.1 ET. SEQ., AND 287.1 ET. SEQ. DO NOT BURN, DUMP, OR DISCHARGE, ANY BUILDING MATERIALS, WASTES, OR UNUSED BUILDING MATERIALS AT THE SITE.
2. THE OFF-SITE DISPOSAL OF MATERIAL NOT TAKEN TO A LANDFILL IS NOT PERMITTED WITHOUT WRITTEN DIRECTION OF THE ENGINEER AND REVIEW BY THE COUNTY REPRESENTATIVE. AN ASSESSMENT FORM ALONG WITH AN E&S POLLUTION CONTROL PLAN FOR THE SITE MUST BE SUBMITTED TO THE CONSERVATION DISTRICT OR PA DEP FOR APPROVAL.

CONSTRUCTION INSPECTION:

1. INSPECT ALL ESPC BMPS ACCORDING TO THE SCHEDULES OUTLINED IN THIS PLAN. PERFORM ALL PREVENTATIVE AND REMEDIAL MAINTENANCE WORK IMMEDIATELY, INCLUDING CLEAN-OUT, REPAIR, REPLACEMENT, REGRADING, RESEEDING, RE-MULCHING, AND RE-NETTING.
2. MAINTAIN A LOG ON SITE SHOWING DATES THAT ESPC BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED.
3. IMMEDIATELY UPON DISCOVERING UNFORESEEN CIRCUMSTANCES POSING THE POTENTIAL FOR ACCELERATED EROSION AND/OR SEDIMENT POLLUTION, IMPLEMENT APPROPRIATE BMPS TO MINIMIZE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION AND NOTIFY THE COUNTY CONSERVATION DISTRICT OR PADEP. ALSO, IMMEDIATELY NOTIFY THE COUNTY.

CONSTRUCTION POLLUTION POTENTIAL:

1. THE TYPES, LOCATIONS, AND CHARACTERISTICS OF SOILS LOCATED WITHIN THE PROJECT LIMITS ARE SHOWN ON THE PLAN.
2. SOIL LIMITATIONS ENCOUNTERED MAY INCLUDE LOW STRENGTH OR ERODIBLE SOILS, SLOPE STABILITY, SLOW INFILTRATION RATES, FROST ACTION, AND POTENTIALLY HARMFUL GEOLOGIC FORMATIONS.
3. ERODIBLE SOILS CONTAINING HIGH PERCENTAGES OF FINE SAND AND SILT AND SOILS WITH LOW SHEAR STRENGTH ON STEEP SLOPES WILL BE TREATED WITH SURFACE ROUGHENING AND STABILIZED WITH SPRAY-ON TYPE PERMANENT VEGETATION AND ROLLED EROSION CONTROL PRODUCTS AS NEEDED.
4. THE EFFECTS OF POTENTIAL FROST ACTION WILL BE REDUCED WITH THE USE OF PAVEMENT BASE DRAINS AND SUBBASE MATERIALS NOT SUSCEPTIBLE TO CAPILLARY FLOW.
5. GEOLOGIC FORMATIONS CONTAINING MINERALS THAT COULD RESULT IN REDUCED WATER QUALITY TO RUNOFF ARE NOT ANTICIPATED ON THE PROJECT. IF ENCOUNTERED, IMMEDIATELY CONTACT COUNTY REPRESENTATIVE, THE COUNTY CONSERVATION DISTRICT, AND PA DEP.
6. IMMEDIATELY UPON DISCOVERING UNFORESEEN ITEMS OR CONDITIONS THAT MAY CAUSE CONTAMINATED RUNOFF OR INCREASED ENVIRONMENTAL CONCERNS CONTACT COUNTY REPRESENTATIVE, THE COUNTY CONSERVATION DISTRICT, AND PA DEP. MATERIAL REMOVED FROM THE SITE MUST BE DISPOSED OF IN ACCORDANCE WITH PA DEP'S SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET. SEQ., 271.1 ET. SEQ., AND 287.1 ET. SEQ.
7. AREAS CONSIDERED TO BE A GOOD SOURCE FOR TOPSOIL SHOULD BE PRESERVED AND STORED FOR USE IN SITE RESTORATION.

MISCELLANEOUS NOTES:

1. CONDUCT ALL EARTH DISTURBANCES, INCLUDING CLEARING AND GRUBBING AS WELL AS CUTS AND FILLS, IN ACCORDANCE WITH THE APPROVED ESPC PLAN.
2. LIMIT CLEARING, GRUBBING, AND TOPSOIL STRIPPING TO THOSE AREAS DESCRIBED IN EACH STAGE OF THE CONSTRUCTION SEQUENCE. DO NOT COMMENCE WORK IN ANY STAGE OR PHASE OF THE PROJECT UNTIL THE ESPC BMPS SPECIFIED BY THE CONSTRUCTION SEQUENCE FOR THAT STAGE OR PHASE HAVE BEEN INSTALLED AND ARE FUNCTIONING AS DESCRIBED IN THIS DOCUMENT.
3. PUMP WATER FROM WORK AREA(S) TO UNDISTURBED VEGETATED AREAS AND ACCORDING TO THE PROCEDURE DESCRIBED IN THIS PLAN.
4. SEEPS OR SPRINGS ENCOUNTERED DURING CONSTRUCTION SHALL BE HANDLED IN ACCORDANCE WITH THE STANDARD AND SPECIFICATION FOR SUBSURFACE DRAIN OR OTHER APPROVED METHOD.
5. RETURN SEDIMENT THAT IS TRACKED ONTO ANY PUBLIC ROADWAY OR SIDEWALK TO THE CONSTRUCTION SITE BY THE END OF EACH WORKDAY AND DISPOSE OF PROPERLY. DO NOT WASH, SHOVEL, OR SWEEP THE SEDIMENT INTO ANY ROADSIDE DITCH, STORM SEWER, OR SURFACE WATER.
6. SPRINKLE OR APPLY DUST SUPPRESSOR OR KEEP DUST WITHIN TOLERABLE LIMITS AT THE SITE.

OTHER NOTES:

1. HANDLE CONCRETE WASH WATER IN THE MANNER DESCRIBED IN THE PLAN. IN NO CASE SHALL IT BE ALLOWED TO ENTER SURFACE WATERS OR GROUNDWATER SYSTEMS.
2. KEEP ALL CHANNELS FREE OF OBSTRUCTIONS INCLUDING BUT NOT LIMITED TO FILL, ROCKS, LEAVES, WOODY DEBRIS, ACCUMULATED SEDIMENT, EXCESS VEGETATION, AND CONSTRUCTION MATERIAL/WASTES.

STABILIZATION:

1. PLACE TOPSOIL AS INDICATED ON THE PLAN AND IN ACCORDANCE WITH PUBLICATION 408 - SPECIFICATIONS.
2. PERMANENTLY STABILIZE ALL GRADED AREAS IMMEDIATELY UPON REACHING FINISHED GRADE. CUT SLOPES IN COMPETENT BEDROCK AND FILLS NEED NOT BE VEGETATED.
3. USE THE SPECIFIED ROLLED EROSION CONTROL PRODUCT(S) ON ALL SEEDED AREAS WITHIN 50 FT OF NON-SPECIAL PROTECTION SURFACE WATERS, WITHIN 100 FT OF SPECIAL PROTECTION SURFACE WATERS, AND WITH SLOPES 3H:1V AND STEEPER.
4. STABILIZE ALL DISTURBED AREAS IMMEDIATELY AFTER EARTH DISTURBANCE ACTIVITIES CEASE IN ANY AREA OF THE PROJECT. APPLY MULCH OR PROTECTIVE BLANKETING DURING NON-GERMINATING MONTHS. APPLY TEMPORARY STABILIZATION TO DISTURBED AREAS THAT WILL BE REACTIVATED WITHIN ONE YEAR; IF LONGER THAN ONE YEAR, APPLY PERMANENT STABILIZATION.
5. A DISTURBED AREA IS CONSIDERED PERMANENTLY STABILIZED WHEN IT IS COVERED WITH EITHER (1) A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION; OR (2) AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
6. ENSURE THAT ESPC BMPS REMAIN FUNCTIONAL UNTIL ALL AREAS TRIBUTARY TO THEM ARE PERMANENTLY STABILIZED OR UNTIL THEY ARE REPLACED BY ANOTHER BMP.

FILL PROCEDURES:

1. OBTAIN ESPC PLAN APPROVAL FOR ALL OFF-SITE WASTE AND BORROW AREAS FROM THE CONSERVATION DISTRICT OR PADEP, AND FULLY IMPLEMENT THE PLAN PRIOR TO ACTIVATING THE SITE.
2. CLEAR, GRUB, AND STRIP TOPSOIL TO REMOVE TREES, VEGETATION, ROOTS, AND OTHER OBJECTIONABLE MATERIAL FROM FILL AREAS.
3. PROVIDE THE AMOUNT OF TOPSOIL REQUIRED TO COMPLETE THE FINAL GRADING AND TO ESTABLISH VEGETATION. PROTECT STOCKPILE(S) AS NEEDED. PLACE STOCKPILES NO GREATER THAN 35 FT IN HEIGHT WITH SLOPES NO STEEPER THAN 2H:1V.
4. COMPACT ALL FILLS TO REDUCE EROSION, SLIPPAGE, SETTLEMENT, SUBSIDENCE OR OTHER RELATED PROBLEMS. COMPACT ALL FILLS INTENDED TO SUPPORT BUILDINGS, STRUCTURES, CONDUITS, ETC. IN ACCORDANCE WITH LOCAL REQUIREMENTS OR CODES. PLACE ALL EARTHEN FILLS IN MAXIMUM 9-INCH THICK COMPACTED LAYERS.
5. DO NOT PLACE FILLS ON SATURATED OR FROZEN SURFACES. FILL MATERIALS SHALL BE FREE OF FROZEN PARTICLES, BRUSH, ROOTS, SOD, OR OTHER FOREIGN OR OBJECTIONABLE MATERIALS THAT WOULD INTERFERE WITH CONSTRUCTION OF SATISFACTORY FILLS. DO NOT INCORPORATE SOFT, MUCKY, OR HIGHLY COMPRESSIBLE MATERIALS INTO FILLS.
6. ENSURE THAT CUT AND FILL SLOPES ARE CAPABLE OF RESISTING FAILURE DUE TO SLUMPING, SLIDING, OR OTHER MOVEMENTS.

THE E&S PLAN HAS BEEN REVIEWED AND APPROVED BY THE WESTMORELAND CONSERVATION DISTRICT AND MUST BE AVAILABLE ON-SITE AT ALL TIMES.

CALL BEFORE YOU DIG!

PENNSYLVANIA LAW REQUIRES
3 WORKING DAYS NOTICE FOR
CONSTRUCTION PHASE AND 10 WORKING
DAYS IN DESIGN STAGE-STOP CALL

Pennsylvania One Call System, Inc.

1-800-242-1776

DESIGN SERIAL NO.
20182121684 (PRELIMINARY)
NORTH IRWIN BOROUGH

ENGINEER:

SAI CONSULTING ENGINEERS, INC.
PHONE: (412) 392-8727
1350 PENN AVENUE, SUITE 300
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COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
ENGINEER
No. PE079411

PROFESSIONAL ENGINEER
2/9/2026
DATE

EROSION AND SEDIMENT POLLUTION CONTROL PLAN
TITLE SHEET & GENERAL NOTES

DES: LND | DWN: LND | CHD: SGM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		2 OF 10
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

CONSTRUCTION GENERAL NOTES

GENERAL BMP INSTALLATION AND REMOVAL NOTES:

1. AT LEAST 7 BUSINESS DAYS PRIOR TO STARTING ANY DISTURBANCE ACTIVITIES, INCLUDING, CLEARING AND GRUBBING, THE OWNER AND/OR OPERATOR SHALL INVITE ALL CONTRACTORS, THE LANDOWNER, APPROPRIATE MUNICIPAL OFFICIALS, THE E&S PREPARER, A REPRESENTATIVE FROM THE LOCAL COUNTY CONSERVATION DISTRICT (CCD) OR PADEP REGIONAL OFFICE TO AN ON-SITE PRE-CONSTRUCTION MEETING.

2. THE CONTRACTOR SHALL NOTIFY THE CCD/PADEP UPON INSTALLATION OF ALL PERIMETER SEDIMENT CONTROL BMPS AND AT LEAST 3 BUSINESS DAYS PRIOR TO PROCEEDING WITH THE BULK EARTH DISTURBANCE ACTIVITIES.

3. AT LEAST 3 BUSINESS DAYS PRIOR TO STARTING ANY EARTH DISTURBANCE ACTIVITIES OR EXPANDING INTO AN AREA PREVIOUSLY UNMARKED, NOTIFY THE PENNSYLVANIA ONE CALL SYSTEM INC. AT 1-800-242-1776 FOR THE LOCATION OF EXISTING UNDERGROUND UTILITIES AND REFERENCE THE PA ONE CALL SERIAL NUMBER THAT IS PROVIDED ON SHEET 1 OF THIS ESPC PLAN SET.

4. PROCEED WITH ALL EARTH DISTURBANCE ACTIVITIES IN ACCORDANCE WITH THE BMP SEQUENCE. DEVIATION FROM THE SEQUENCE REQUIRES WRITTEN APPROVAL FROM THE CCD/PADEP PRIOR TO IMPLEMENTATION. COORDINATE ANY/ALL PROPOSED CHANGES TO THE APPROVED PLAN WITH THE OWNERS REPRESENTATIVE. UPON REVIEW AND CONCURRENCE WITH THE OWNERS REPRESENTATIVE, COMMUNICATE THE CHANGES AS FOLLOWS:

   (A) DISCUSS THE SEQUENCE DEVIATION WITH THE CCD/PADEP AND OWNERS REPRESENTATIVE AND OBTAIN VERBAL APPROVAL.

   (B) MODIFY THE ESPC PLAN (RED-LINE THE DRAWING) AND GET A SIGNATURE/INITIALS FROM THE CCD/PADEP AT THE SITE OR GET ACKNOWLEDGEMENT THROUGH AN ELECTRONIC PERMITTING SYSTEM. RETAIN THE EARTH DISTURBANCE INSPECTION REPORT ACKNOWLEDGING THE FIELD CHANGE.

   (C) SEND ANY MODIFIED DOCUMENTS (INITIALED BY CCD/PADEP OR OTHERWISE) TO THE OWNERS REPRESENTATIVE VIA EMAIL TO UPDATE PERMITTING DOCUMENTS.

PRE-CONSTRUCTION:

1. PERFORM A PRE-PROJECT SITE EVALUATION AND DETERMINE IF THERE ARE AREAS WITHIN THE LIMITS OF DISTURBANCE THAT SHOULD NOT BE DISTURBED DURING THE LIFE OF THE PROJECT.

2. CLEARLY MARK THE LIMITS OF DISTURBANCE AT THE LOCATIONS INDICATED ON THE ESPC PLAN. USE STAKES AND FLAGGING THAT ARE DURABLE ENOUGH TO LAST THE ENTIRE DURATION OF ACTIVE DISTURBANCE. CONSTRUCTION VEHICLES ARE NOT PERMITTED TO ENTER AREAS OUTSIDE THE LIMIT OF DISTURBANCE BOUNDARIES SHOWN ON THE DRAWINGS.

CONSTRUCTION SEQUENCE

ANTICIPATED CONSTRUCTION ACTIVITIES

PRIOR TO CONSTRUCTION:

1. PERFORM SITE EVALUATION AND CLEARLY DELINEATE AND FIELD MARK ALL PROJECT LIMITS AND BOUNDARIES, INCLUDING PROTECTED FEATURES AND SENSITIVE RESOURCES, PRIOR TO CLEARING AND GRUBBING.

2. WHEN REQUIRED FOR ACCESS CLEAR ENOUGH VEGETATION TO ALLOW FOR THE PROPER INSTALLATION OF PERIMETER CONTROLS, INSTALL PERIMETER CONTROLS, AND THEN CLEAR AND GRUB AS NEEDED.

3. COORDINATE WITH UTILITIES AND BEGIN TEMPORARY AND PERMANENT RELOCATION WORK NOT COMPLETED PRIOR TO START OF CONSTRUCTION. CONFLICTING UTILITIES SHOULD BE RELOCATED PRIOR TO BEGINNING CONSTRUCTION IN EACH PHASE. COORDINATED UTILITY WORK MAY CONTINUE FOR THE DURATION OF THE PROJECT.

4. DEMOLISH EXISTING STRUCTURES AS INDICATED ON THE PLANS AND DISPOSE OF OR RECYCLE MATERIALS IN ACCORDANCE WITH THE E&SPC PLAN. INSTALL PERIMETER CONTROLS AS NEEDED FOR DEMOLITION AND GRADING. AFTER DEMOLITION GRADE AREAS AS NEEDED AND IN PREPARATION FOR FUTURE WORK AND STABILIZE DISTURBED SOIL AREAS.

CLEARING AND GRUBBING AND CONSTRUCTION ACCESS FOR MAJORITY OF PROJECT SITE:

THE CONTRACTOR MAY BEGIN GENERAL CLEARING AND GRUBBING WITHIN THE PROJECT SITE PRIOR TO THE DEFINED CONSTRUCTION SEQUENCE PROVIDED NECESSARY BMPS ARE INSTALLED TO PROVIDE EFFECTIVE E&SPC MEASURES.

1. INSTALL ROCK CONSTRUCTION ENTRANCES ALONG PUBLIC OR PRIVATE ROADWAYS AT ANY LOCATION OF CONSTRUCTION ACCESS ONTO UNPAVED AREAS.

2. CLEAR ENOUGH VEGETATION TO ALLOW FOR THE PROPER INSTALLATION OF PERIMETER CONTROLS, INSTALL PERIMETER CONTROLS, AND THEN CONTINUE CLEARING AND GRUBBING. WHERE POSSIBLE OR AS DIRECTED PRESERVE EXISTING TREES AND VEGETATION.

3. CONSTRUCT TEMPORARY ACCESS ROADS AS NEEDED. MINIMIZE ROAD GRADES, AVOID DRAINAGE COURSES, AND CONSTRUCT ABOVE FLOOD PLAINS WHERE POSSIBLE. ON LONG, CONTINUOUS GRADES CROWN OR IN SLOPE ROADWAY. PROVIDE CROSS DRAINS, WATER BARS, BROAD-BASED DIPS, OR DEFLECTORS WITH CROSS DRAINS AS NEEDED TO MINIMIZE WASHOUTS AND DIRECT DISCHARGES TO STABLE DRAINAGE COURSES, WELL VEGETATED AREAS, OR E&S BMPS.

4. CUT AND FILLS SHOULD BE MINIMIZED. FILL SLOPES SHOULD NOT BE STEEPER THAN 2H:1V OR EXCEED 5 FEET IN HEIGHT WHEREVER POSSIBLE. ALL CUT AND FILL SLOPES SHOULD BE STABILIZED BY SEEDING AND MULCHING, ROLLED EROSION CONTROL PRODUCT, ROCK BLANKET, OR OTHER SUITABLE METHOD WITHIN 24 HOURS OF REACHING FINAL GRADE.

5. MAINTAIN BMPS INSTALLED IN AREAS DISTURBED PRIOR TO THE CURRENT PHASE OF WORK THROUGH ALL PHASES OF CONSTRUCTION UNTIL PERMANENT STABILIZATION IS ACHIEVED. AVOID INSTALLING BMPS IN LOCATIONS THAT WILL BE IMPACTED BY CONSTRUCTION DURING FUTURE PHASES. RELOCATION OR REMOVAL AND REINSTALLATION OF IMPACTED BMPS IS THE RESPONSIBILITY OF THE CONTRACTOR.

CONSTRUCTION SEQUENCE (CONT.)

ANTICIPATED SEQUENCE OF CONSTRUCTION ACTIVITIES

ENTIRE PROJECT (UNDER DETOUR):

1. MAINTAIN EXISTING DETOUR DURING CONSTRUCTION.
2. INSTALL ROCK CONSTRUCTION ENTRANCE AT LOCATION SHOWN ON PLAN.
3. UTILIZE EXISTING RAILROAD ACCESS ROAD AS NEEDED FOR INGRESS AND EGRESS OF SMALL CONSTRUCTION VEHICLES AND EQUIPMENT TO BENEATH THE BRIDGE REPLACEMENT SITE. PRIOR TO CONSTRUCTION DOCUMENT THE CONDITION OF THE ACCESS ROAD AND REPAIR AND MAINTAIN USING HARD, DURABLE STONE WITH PRIOR APPROVAL OF NSRC AS REQUIRED.
4. INSTALL COMPOST FILTER SOCK BELOW THE EXISTING BRIDGE ABUTMENTS AS SHOWN ON THE PLANS.
5. INSTALL INLET PROTECTION AT EXISTING INLETS AS SHOWN ON THE PLANS.
6. PERFORM TREE CLEARING WITHOUT GRUBBING IN AREAS INDICATED AS REQUIRED TO ALLOW AERIAL CLEARANCE FOR OVERHEAD UTILITIES AND CRANE SWINGS.
7. CONSTRUCT PROPOSED BRIDGE SUBSTRUCTURE.
8. COMPLETE ABUTMENT GRADING TO FINAL CONTOURS AND SEED AND MULCH AREA TO FINAL COVER. INSTALL ROLLED EROSION CONTROL PRODUCTS AS SHOWN ON THE PLAN.
9. CONSTRUCT PROPOSED BRIDGE SUPERSTRUCTURE.
10. INSTALL PROPOSED DRAINAGE AS SHOWN ON PLANS AND ASSOCIATED INLET PROTECTION IN NEWLY INSTALLED INLETS.
11. CONSTRUCT ROADWAY, INCLUDING GUIDE RAIL, AND COMPLETE GRADING TO FINAL CONTOURS. SEED AND MULCH TO FINAL COVER.
12. WHEN STABILIZATION OF ALL DISTURBED AREAS WITH ROCK, A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES, OR ACCEPTABLE NON-VEGETATIVE COVER HAS BEEN ACHIEVED TEMPORARY E&S BMPS MAY BE REMOVED. IMMEDIATELY STABILIZE ALL AREAS DISTURBED DURING THE REMOVAL.
13. OPEN BRIDGE AND ROADWAY TO TRAFFIC.

FINAL INSPECTION:

1. UPON COMPLETION OF ALL EARTH DISTURBANCE ACTIVITIES AND PERMANENT STABILIZATION OF ALL DISTURBED AREAS, CONTACT THE CCD/PADEP FOR AN INSPECTION PRIOR TO REMOVAL OF ESPC BMPS. PERMANENTLY STABILIZED MEANS COVERED WITH EITHER (1) A MINIMUM UNIFORM 70% PERENNIAL VEGETATIVE COVER WITH A DENSITY CAPABLE OF RESISTING ACCELERATED EROSION AND SEDIMENTATION; OR (2) AN ACCEPTABLE BMP WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION.
2. UPON APPROVAL FROM THE CCD/PADEP, REMOVE TEMPORARY ESPC BMPS. AVOID DOING REMOVAL DURING THE NON-GERMINATING SEASON.
3. CONTACT THE CCD/PADEP TO SCHEDULE A FINAL INSPECTION WHEN ALL ESPC BMPS ARE REMOVED.

CLEAN FILL AND ENVIRONMENTAL DUE DILIGENCE

1. IF THE SITE WILL NEED TO HAVE FILL IMPORTED FROM AN OFF SITE LOCATION, THE RESPONSIBILITY FOR PERFORMING ENVIRONMENTAL DUE DILIGENCE AND THE DETERMINATION OF CLEAN FILL WILL RESIDE WITH THE CONTRACTOR.
2. IF THE SITE WILL HAVE EXCESS FILL THAT WILL NEED TO BE EXPORTED TO AN OFF-SITE LOCATION, THE RESPONSIBILITY OF CLEAN FILL DETERMINATION AND ENVIRONMENTAL DUE DILIGENCE RESTS ON THE OWNER AND THE CONTRACTOR.
3. IF ALL CUT AND FILL MATERIALS WILL BE USED ON THE SITE, A CLEAN FILL DETERMINATION IS NOT REQUIRED BY THE CONTRACTOR UNLESS THERE IS A BELIEF THAT A SPILL OR RELEASE OF REGULATED SUBSTANCE OCCURRED ON THE SITE.
4. THE APPLICANTS AND/OR THE CONTRACTOR MUST USE ENVIRONMENTAL DUE DILIGENCE TO ENSURE THAT THE FILL MATERIAL ASSOCIATED WITH THIS PROJECT QUALIFIES AS CLEAN FILL. A COPY OF THIS POLICY IS AVAILABLE ONLINE AT HTTP://WWW.DEP.PA.GOV/.
5. CLEAN FILL IS DEFINED AS UNCONTAMINATED, NON-WATER SOLUBLE, NON DECOMPOSABLE, INERT, SOLID MATERIAL. THE TERM INCLUDES SOIL, ROCK, STONE, DREDGED MATERIAL, USED ASPHALT, BRICK, BLOCK, OR CONCRETE FROM CONSTRUCTION AND DEMOLITION ACTIVITIES THAT IS SEPARATE FROM OTHER WASTE AND IS RECOGNIZABLE AS SUCH.
6. FILL MATERIALS AFFECTED BY A SPILL OR RELEASE OF A REGULATED SUBSTANCE STILL QUALIFIES AS CLEAN FILL PROVIDED THE TESTING REVEALS THAT THE FILL MATERIAL CONTAINS CONCENTRATIONS OF REGULATED SUBSTANCES THAT ARE BELOW THE RESIDENTIAL LIMITS IN TABLES FP-1A AND FP-1B FOUND IN THE PA DEP POLICY "MANAGEMENT OF FILL".
7. FILL MATERIAL THAT DOES NOT QUALIFY AS CLEAN FILL IS REGULATED FILL. REGULATED FILL IS WASTE AND MUST BE MANAGED IN ACCORDANCE WITH 25 PA. CODE CHAPTER 287 - RESIDUAL WASTE MANAGEMENT OR CHAPTER 271 - MUNICIPAL WASTE MANAGEMENT. WHICHEVER IS APPLICABLE.

MEASURES FOR RECYCLING AND DISPOSAL OF CONSTRUCTION MATERIALS

1. EXCAVATED MATERIAL WILL BE RE-USED ON-SITE, WHERE APPLICABLE.
2. CONSTRUCTION DEBRIS REMOVED FROM THE SITE SHALL EITHER BE RECYCLED OR DISPOSED OF AT AN APPROVED LOCATION AND IN ACCORDANCE WITH THE SOLID WASTE MANAGEMENT REGULATIONS AT 25 PA CODE 260.1 ET. SEQ., 271.1 ET. SEQ., AND 287.1 ET. SEQ.
3. DO NOT BURN, DUMP, OR DISCHARGE ANY BUILDING MATERIALS, WASTES OR UNUSED BUILDING MATERIALS AT THE PROJECT SITE.
4. THE OFF-SITE DISPOSAL OF MATERIAL NOT TAKEN TO AN APPROVED LOCATION IS NOT PERMITTED WITHOUT PRIOR REVIEW AND WRITTEN DIRECTION FROM THE OWNER'S REPRESENTATIVE.
5. ANTICIPATED WASTE INCLUDES, BUT NOT LIMITED TO: CONSTRUCTION DEBRIS, MATERIALS FROM BUILDINGS AND OTHER STRUCTURES, PAVING MATERIALS, POTENTIAL EXCESS CONSTRUCTION MATERIALS, MATERIALS FROM TEMPORARY EROSION CONTROL DEVICES, ROCKS AND SOILS.
6. ASBESTOS CONTAINING MATERIALS WILL BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH NESHAP AND PA DEP'S SOLID WASTE REGULATIONS.
7. ALTHOUGH NOT ANTICIPATED, ACID BEARING ROCK, IF ENCOUNTERED, AND ALL OTHER MATERIALS WILL BE MANAGED AND DISPOSED OF IN ACCORDANCE WITH THE COMMISSION'S SOLID WASTE REGULATIONS.
8. SILT AND SEDIMENTATION REMOVED FROM THE EROSION CONTROL DEVICES WILL BE EXCAVATED, SPREAD AND DRIED FOR RE-USE IN ON-SITE GRADING.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN GENERAL NOTES

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
ENGINEER
PE079411

DES: LND	DWN: LND	CHD: SGM

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MAINTENANCE, INSPECTION, AND REPAIR OF BMPS DURING CONSTRUCTION

THE PROPOSED PLAN IS INTENDED TO MINIMIZE EROSION AND SUBSEQUENT SEDIMENTATION OF WATERS OF THE COMMONWEALTH WITHIN AND ADJACENT TO THE PROJECT CAUSED BY CONSTRUCTION. DURING THE LIFE OF THE PROJECT, ALL E&S POLLUTION CONTROL DEVICES MUST BE PROPERLY MAINTAINED. MAINTENANCE, INSPECTION, AND REPAIR OF E&S POLLUTION CONTROL BMPS SHALL BE AS FOLLOWS:

MAINTENANCE SCHEDULE FOR TEMPORARY BMPS

BEST MANAGEMENT PRACTICE (BMP)	INSPECTION FREQUENCY	DESCRIPTION OF REQUIRED MAINTENANCE	TIMEFRAME FOR COMPLETION
ROCK CONSTRUCTION ENTRANCE	WEEKLY & AFTER EACH MEASURABLE RUNOFF EVENT	ROCK CONSTRUCTION ENTRANCE THICKNESS SHALL CONSTANTLY BE MAINTAINED TO THE SPECIFIED DIMENSIONS BY ADDING ROCK. A STOCKPILE SHALL BE MAINTAINED ON SITE FOR THIS PURPOSE. AT THE END OF EACH CONSTRUCTION DAY, ALL SEDIMENT DEPOSITED ON PAVED ROADWAYS SHALL BE REMOVED AND RETURNED TO THE CONSTRUCTION SITE OR DISPOSED OF IN ACCORDANCE WITH PADEP'S SOLID WASTE MANAGEMENT REGULATIONS. WASHING OF THE ROADWAY WITH WATER IS NOT PERMITTED.	WITHIN 24 HOURS
COMPOST FILTER SOCK	WEEKLY & AFTER EACH MEASURABLE RUNOFF EVENT	MAINTAIN COMPOST FILTER SOCK UNTIL THE PROJECT IS COMPLETED. REMOVE ACCUMULATED SEDIMENT TO AN APPROVED UPLAND SITE WHEN IT REACHES ONE-HALF (1/2) OF THE EXPOSED HEIGHT OF THE SOCK. REPAIR OR REPLACE DAMAGED SOCKS ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS. AT THE COMPLETION OF THE PROJECT AND AFTER STABILIZATION OF TRIBUTARY AREA, EITHER REMOVE FILTER SOCK, OR WHEN DIRECTED, LEAVE FILTER SOCK IN PLACE. IF DIRECTED TO LEAVE FILTER SOCK IN PLACE, CUT OPEN TO EXPOSE THE COMPOST MATERIAL, SPREAD, STABILIZE AND PROPERLY DISPOSE THE SOCK MATERIAL.	WITHIN 24 HOURS
INLET FILTER BAG	WEEKLY & AFTER EACH MEASURABLE RUNOFF EVENT	ADHERE TO THE MANUFACTURER'S RECOMMENDATIONS ON CLEANING AND REPLACEMENT OF THE INLET FILTER BAG. CLEAN OUT, REPAIR OR REPLACE INLET FILTER BAG WHEN NECESSARY.	WITHIN 24 HOURS
PUMPED WATER FILTER BAG	DAILY DURING USE	REMOVE AND CLEAN OUT OR REPLACE PUMPED WATER FILTER BAGS WHEN CONTAINED SEDIMENT REDUCES THE FLOW OF THE BAGS TO APPROX 50% OF THE RATE OF THE INITIAL DISCHARGE, OR WHEN DIRECTED BY THE PROJECT REPRESENTATIVE.	WITHIN 24 HOURS
CONCRETE WASHOUT	DAILY DURING USE	DAMAGED OR LEAKING WASHOUTS SHOULD BE DEACTIVATED AND REPAIRED OR REPLACED. ACCUMULATED MATERIALS SHOULD BE REMOVED WHEN THEY REACH 75% CAPACITY OF WASHOUT HEIGHT. PLASTIC LINERS SHOULD BE REPLACED WITH EACH CLEANING OF THE WASHOUT FACILITY.	WITHIN 24 HOURS
TEMPORARY PROTECTIVE FENCE	WEEKLY & WHEN WORK IS DONE IN ADJACENT AREA	REPAIR OR REPLACE ALL DAMAGED TEMPORARY PROTECTIVE FENCES, INCLUDING, BUT NOT LIMITED TO, BROKEN OR LEANING POSTS, TEARS IN FENCE MATERIAL OR WEATHERING. BROKEN OR LEANING POSTS WILL BE RESET AND GUYED AS REQURIED. ANY SECTIONS WITH TORN OR WEATHERED FENCE MATERIAL WILL BE REPLACED IN THEIR ENTIRETY.	WITHIN 24 HOURS

MAINTENANCE SCHEDULE FOR PERMANENT BMPS

BEST MANAGEMENT PRACTICE (BMP)	INSPECTION FREQUENCY	DESCRIPTION OF REQUIRED MAINTENANCE	TIMEFRAME FOR COMPLETION
VEGETATIVE SURFACE STABILIZATION	IN ACCORDANCE WITH PENNDOT PUBLICATION 888 OR AS DIRECTED	MAINTAIN SEEDING AND MULCHING IN ACCORDANCE WITH PENNDOT PUBLICATION 408/2020, SECTIONS 804 AND 805 UNTIL A UNIFORM EROSION-RESISTANT COVER IS ESTABLISHED. REAPPLY SOIL SUPPLEMENTS AND RESEED IN ACCORDANCE WITH PENNDOT PUBLICATION 408/2020, SECTION 804. REAPPLY MULCH MATERIALS AND REPLACE IN ACCORDANCE WITH PENNDOT PUBLICATION 408/2020, LATEST EDITION, SECTION 805. VEGETATED AREAS SHALL BE CONSIDERED PERMANENTLY STABILIZED WHEN A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED, OR THE DISTURBED AREA IS COVERED WITH AN ACCEPTABLE BMP, WHICH PERMANENTLY MINIMIZES ACCELERATED EROSION AND SEDIMENTATION. UNTIL SUCH TIME AS THIS STANDARD IS ACHIEVED, INTERIM STABILIZATION MEASURES AND TEMPORARY EROSION AND SEDIMENTATION CONTROL BMPS THAT ARE USED TO TREAT PROJECT RUNOFF MAY NOT BE REMOVED.	IN ACCORDANCE WITH PENNDOT PUBLICATION 888 OR AS DIRECTED

NOTES:

1. A LOG SHOWING DATES THAT E&S BMPS WERE INSPECTED AS WELL AS ANY DEFICIENCIES FOUND AND THE DATE THEY WERE CORRECTED SHALL BE MAINTAINED ON THE SITE AND BE MADE AVAILABLE TO REGULATORY AGENCY OFFICIALS UPON REQUEST.
2. COMPLY WITH THE REQUIREMENTS OF TITLE 25 - RULES AND REGULATIONS: PART 1 - DEPARTMENT OF ENVIRONMENTAL PROTECTION, SUBPART C - PROTECTION OF NATURAL RESOURCES, ARTICLE II - WATER RESOURCES, CHAPTER 102 - EROSION CONTROL. IN THE EVENT OF A CONFLICT BETWEEN THESE REQUIREMENTS AND THE POLLUTION CONTROL LAWS, RULES, OR REGULATIONS OF OTHER FEDERAL, STATE, OR LOCAL AGENCIES, THE MORE RESTRICTIVE LAWS, RULES, OR REGULATIONS WILL APPLY.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN
GENERAL NOTES AND SOILS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
ENGINEER
PE079411

DES: LND	DWN: LND	CHD: SGM

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PROJECT AREA SOIL CLASSIFICATIONS

SYMBOL	NAME	SLOPE (%)	DEPTH TO WATER (IN)
UmB	URBAN LAND MONONGAHELA COMPLEX	0-8	17-28

SOIL LIMITATIONS

SYMBOL	SOIL COMPONENT	CUTBANKS CAVE	CORROSIVE TO CONCRETE/STEEL	DROUGHTY	EASILY ERODIBLE	FLOODING	DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE	HYDRIC/HYDRIC INCLUSIONS	LOW STRENGTH/LAND SLIDE PRONE	SLOW PERCOLATION	PIPING	POOR SOURCE OF TOPSOIL	FROST ACTION	SHRINK - SWELL	POTENTIAL SINKHOLE	PONDING	WETNESS
UmB	URBAN LAND MONONGAHELA COMPLEX	X	C/S		X		X	X	X	X	X		X	X			X

SOIL RESOLUTIONS

1. CUTBANKS CAVE: SLOPE LAY-BACKS OR A SHORE/TRENCH BOX SHALL BE UTILIZED FOR ALL TRENCH EXCAVATIONS TO MEET OSHA REGULATIONS.
2. CORROSIVE TO CONCRETE/STEEL: PIPE ALTERNATIVES HAVE BEEN PROVIDED WHERE NECESSARY.
3. DROUGHTY: SEEDING, SOIL SUPPLEMENTS AND MULCH SHALL BE APPLIED AT THE RECOMMENDED RATES TO ENSURE PROPER VEGETATIVE COVER AND TO RETAIN MOISTURE.
4. EASILY ERODIBLE: ROLLED EROSION CONTROL PRODUCTS SHALL BE PROVIDED ON ALL SEEDED AND MULCH SLOPES 3H:1V OR STEEPER.
5. FLOODING: PUMPED WATER FILTER BAGS SHALL BE USED TO DEWATER EXCAVATION AREAS WHERE STANDING WATER OCCURS DURING CONSTRUCTION.
6. DEPTH TO SATURATED ZONE/SEASONAL HIGH WATER TABLE: PUMPED WATER FILTER BAGS SHALL BE USED TO DEWATER EXCAVATION AREAS WHERE STANDING WATER OCCURS DURING CONSTRUCTION.
7. HYDRIC/HYDRIC INCLUSIONS: WETLANDS, IF PRESENT, HAVE BEEN IDENTIFIED, PROTECTED AND/OR MITIGATED WHERE NECESSARY.
8. LOW STRENGTH/LANDSLIDE PRONE: ALL CUT/FILL SLOPES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS. A GEOTECHNICAL ANALYSIS SHALL BE PERFORMED IF DEEMED NECESSARY.
9. SLOW PERCOLATION: INFILTRATION TESTS WILL BE PERFORMED WHERE NECESSARY.
10. PIPING: PROPER CONSTRUCTION TECHNIQUES WILL BE USED FOR INSTALLATION OF ALL PIPES, INCLUDING BUT NOT LIMITED TO BEDDING, BACKFILL, AND COMPACTION.
11. POOR SOURCE OF TOPSOIL: TOPSOIL SHALL BE APPLIED AT THE RECOMMENDED RATE. IF THE PROJECT SITE DOES NOT MEET THE REQUIRED AMOUNT, TOPSOIL SHALL BE SUPPLIED FROM AN OUTSIDE SOURCE. SEEDING AND SOIL SUPPLEMENTS SHALL BE APPLIED AT THE RECOMMENDED RATES TO ENSURE PROPER VEGETATIVE COVER.
12. FROST ACTION: ROADWAY SUBBASE SHALL DRAIN TO A SLOPE OR SHALL BE DRAINED WITH PAVEMENT BASE DRAINS. ALSO, THE BULK OF CONSTRUCTION ACTIVITIES SHALL BE PERFORMED DURING THE CONSTRUCTION SEASON.
13. SHRINK-SWELL: PROPER CONSTRUCTION PRACTICES WILL BE USED IN ACCORDANCE WITH THE CONTRACT DOCUMENTS DURING ALL EARTHWORK ACTIVITIES.
14. POTENTIAL SINKHOLE: RECOMMENDATIONS FROM THE GEOTECHNICAL ENGINEER OF RECORD WILL BE FOLLOWED FOR ANY POTENTIAL OCCURRENCES.
15. PONDING: SURFACE GRADING AND DRAINAGE FACILITIES WILL BE PROVIDED TO MINIMIZE PONDING EFFECTS.
16. WETNESS: PUMPED WATER FILTER BAGS SHALL BE USED TO DEWATER EXCAVATION AREAS WHERE STANDING WATER OCCURS DURING CONSTRUCTION.

STREAM IMPACTS

1. THERE ARE NO EXISTING STREAMS WITHIN THE PROJECT LIMITS; THEREFORE, THERE ARE NO STREAM IMPACTS ASSOCIATED WITH THIS PROJECT.

WETLAND IMPACTS

1. THERE ARE NO EXISTING WETLANDS WITHIN THE PROJECT LIMITS; THEREFORE, THERE ARE NO WETLAND IMPACTS ASSOCIATED WITH THIS PROJECT.

SOIL SUPPLEMENT APPLICATION

1. SOIL SUPPLEMENTS APPLICATION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 804.
2. PREPARE AREAS FOR SEEDING BY UNIFORMLY APPLYING SUPPLEMENTS, AS INDICATED BY SOIL TESTING. DOCUMENT BULK DELIVERY AS SPECIFIED IN SECTION 804.2(a)2.
3. BLEND THE INITIAL SOIL SUPPLEMENTS INTO THE SOIL AT LEAST 2 INCHES, ON TOPSOILED AREAS, BY RAKING, DISKING, HARROWING, OR OTHER ACCEPTABLE METHODS. BLEND THE SUPPLEMENTS INTO THE SOIL DURING TILLAGE OPERATIONS.
4. SUPPLEMENTS SHALL NOT BE ADDED WHEN SEEDING FORMULAS C, N, W, R, P, SLOPE AND WILDFLOWER ENHANCEMENT SEEDED AREAS UNLESS INDICATED BY SOIL TEST. INFORM LAB PERFORMING TEST THAT SAMPLE IS FOR NATIVE SEEDING.
5. IF NITROGEN IS INDICATED AS LOW BY SOIL TESTS, APPLY NITROGEN AS INDICATED, DO NOT EXCEED 4.5 POUNDS PER 1,000 SQUARE YARDS OF NITROGEN IN APPLICATION.
6. APPLY SLOW-RELEASE NITROGEN FERTILIZER TO THE SURFACE OF FORMULA B, L, AND T SEEDED AREAS BEFORE PROJECT COMPLETION.
7. APPLY SOIL SUPPLEMENTS AS FOLLOWS, UNLESS OTHERWISE INDICATED:

-PULVERIZED AGRICULTURAL LIMESTONE	- 800 POUNDS PER 1,000 SY
-10-20-20 ANALYSIS COMMERCIAL FERTILIZER	- 140 POUNDS PER 1,000 SY
-38-0-0 UREAFORM FERTILIZER OR	- 50 POUNDS PER 1,000 SY
-32-0-0 TO 38-0-0 SULFUR COATED UREA FERTILIZER OR	- 50-59 POUNDS PER 1,000 SY AS DIRECTED
-31-0-0 IBDU FERTILIZER	- 61 POUNDS PER 1,000 SY

THERMAL IMPACT ANALYSIS

1. PROJECT RUNOFF HAS NEGLIGIBLE POTENTIAL TO BE A SOURCE OF THERMAL IMPACTS TO NEARBY STREAMS. THE MAIN FACTORS THAT MAY CAUSE A TEMPERATURE INCREASE OR DECREASE INCLUDE THE REDUCTION IN BASE FLOW AT CERTAIN LOCATIONS, LOSS OF VEGETATED OR RIPARIAN AREAS, AND HEAT TRANSFER TO RUNOFF FROM IMPERVIOUS AREAS.
2. THE POTENTIAL THERMAL IMPACTS WILL BE AVOIDED, MINIMIZED, OR MITIGATED, TO THE EXTENT PRACTICABLE, BY MAINTAINING NATURAL VEGETATION FOR SHADING, ENCOURAGING INFILTRATION, INCORPORATING VEGETATED AREAS AND CHANNELS, SHEET FLOW AND LIMITING CURBS. THESE MEASURES WILL HELP AVOID THE POTENTIAL FOR THERMAL IMPACTS TO THE AMBIENT TEMPERATURE OF THE RECEIVING STREAM.

VEGETATIVE SURFACE STABILIZATION

AREAS ARE CONSIDERED PERMANENTLY STABILIZED WHEN A UNIFORM 70% VEGETATIVE COVER OF EROSION RESISTANT PERENNIAL SPECIES HAS BEEN ACHIEVED OVER THE ENTIRE AREA.

SEEDING - FORMULA T (TEMPORARY GRASS MIX) IS TO BE PLACED IN AREAS REQUIRING TEMPORARY SEEDING.

SEEDING AND SOIL SUPPLEMENTS - FORMULA B (RESIDENTIAL MIX) IS TO BE PLACED ON ALL LAWN AREAS TO BE PERMANENTLY SEEDED WITH SLOPES LESS THAN 3:1 THAT ARE TO BE MOWED OFTEN.

SEEDING AND SOIL SUPPLEMENTS - FORMULA C (CONSERVATION MIX) IS TO BE PLACED ON ALL AREAS TO BE PERMANENTLY SEEDED WITH SLOPES 3:1 AND STEEPER.

SEEDING AND SOIL SUPPLEMENTS - SLOPE ENHANCEMENT MIX IS TO BE USED AS ADDITIVES TO FORMULA C (CONSERVATION MIX), OR TO ENHANCE AN ESTABLISHED SITE.

SEED CUT/FILL SLOPE AREAS EVERY 15 FT AS NEW EMBANKMENT IS CONSTRUCTED.

ROLLED EROSION CONTROL PRODUCTS (RECPs) MUST BE INSTALLED ON ALL DISTURBED SLOPES STEEPER THAN 3:1 AND WITHIN 50 FEET OF SURFACE WATERS. DO NOT INSTALL RECPs IN AREAS OF STABLE EXPOSED ROCK OR AREAS THAT WILL NOT ESTABLISH PERMANENT VEGETATION. FURNISH AND INSTALL IN ACCORDANCE WITH PENNDOT PUBLICATION 408/2020, SECTION 806.

TOPSOIL MUST BE PLACED ALONG WITH SEEDING AND SOIL SUPPLEMENTS AND/OR RECPs IN AREAS WHERE SOILS OR GROUND COVER ARE NOT NATURALLY RECEPTIVE TO VEGETATIVE GROWTH (I.E. THIN COVER OR CLAY OR ROCKY SOILS).

AREAS WHICH ARE TO RECEIVE TOPSOIL SHALL BE SCARIFIED TO A MINIMUM OF 3 TO 5 INCHES - 6 TO 12 INCHES ON COMPACTED SOILS - PRIOR TO PLACEMENT OF TOPSOIL. AREAS TO BE VEGETATED SHALL HAVE A MINIMUM OF 4 INCHES OF TOPSOIL IN PLACE PRIOR TO SEEDING AND MULCHING. FILL OUT-SLOPES SHALL HAVE A MINIMUM OF 2 INCHES OF TOPSOIL.

TOPSOIL APPLICATION

1. GRADED AREAS SHOULD BE SCARIFIED OR OTHERWISE LOOSENED TO A DEPTH OF 3 TO 5 INCHES TO PERMIT BONDING OF THE TOPSOIL TO THE SURFACE AREAS AND TO PROVIDE A ROUGHENED SURFACE TO PREVENT TOPSOIL FROM SLIDING DOWN SLOPE.
2. TOPSOIL SHOULD BE UNIFORMLY DISTRIBUTED ACROSS THE DISTURBED AREA TO A DEPTH OF 4 TO 8 INCHES MINIMUM 2 INCHES ON FILL OUTSLOPES. SPREADING SHOULD BE DONE IN SUCH A MANNER THAT SODDING OR SEEDING CAN PROCEED WITH A MINIMUM OF ADDITIONAL PREPARATION OR TILLAGE. IRREGULARITIES IN THE SURFACE RESULTING FROM TOPSOIL PLACEMENT SHOULD BE CORRECTED IN ORDER TO PREVENT FORMATION OF DEPRESSIONS UNLESS SUCH DEPRESSIONS ARE PART OF THE PCSM PLAN.
3. TOPSOIL SHOULD NOT BE PLACED WHILE THE TOPSOIL OR SUBSOIL IS IN A FROZEN OR MUDDY CONDITION, WHEN THE SUBSOIL IS EXCESSIVELY WET, OR IN A CONDITION THAT MAY OTHERWISE BE DETRIMENTAL TO PROPER GRADING AND SEEDBED PREPARATION. COMPACTED SOILS SHOULD BE SCARIFIED 6 TO 12 INCHES ALONG CONTOUR WHEREVER POSSIBLE PRIOR TO SEEDING.

TOPSOIL APPLICATION RATES (IN CUBIC YARDS)		
DEPTH (IN)	PER 1000 SQ FT	PER ACRE
1	3.1	134
2	6.2	268
3	9.3	403
4	12.4	537
5	15.5	672
6	18.6	806
7	21.7	940
8	24.8	1074

EROSION AND SEDIMENT POLLUTION CONTROL PLAN
GENERAL NOTES
BMP MAINTENANCE SCHEDULE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
ENGINEER
PE079411

DES: LND	DWN: LND	CHD: SGM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		5 OF 10
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

TEMPORARY AND PERMANENT STABILIZATION SPECIFICATIONS

0804-0032 SEEDING - FORMULA T (TEMPORARY GRASS MIX), INCLUDING MULCH
0804-0025 SEEDING AND SOIL SUPPLEMENTS - FORMULA B (RESIDENTIAL MIX), INCLUDING MULCH
0804-0026 SEEDING AND SOIL SUPPLEMENTS - FORMULA C (CONSERVATION MIX), INCLUDING MULCH
0804-0027 SEEDING AND SOIL SUPPLEMENTS - FORMULA L (CLEAR ZONE MIX), INCLUDING MULCH
0804-0035 SEEDING AND SOIL SUPPLEMENTS - SLOPE ENHANCEMENT MIX, INCLUDING MULCH

PUBLICATION 408/2020, SECTION 804.2(C) - SEED FORMULAS

TABLE B - SEEDING REQUIREMENTS

	% BY WEIGHT	MINIMUM %		MAX. % WEED SEED	SEEDING RATE LBS PER 1000 SY
		PURITY	GERMINATION		
FORMULA T - TEMPORARY GRASS MIX					6.0 TOTAL
-OATS (AVENA SATIVA) (SPRING)	100	97	85	0.10	6.0
-CEREAL RYE (SECALE CEREALE) (FALL)	100	97	85	0.10	6.0
FORMULA B - RESIDENTIAL MIX					42.0 TOTAL
-PERENNIAL RYEGRASS MIXTURE (LOLIUM PERENNE). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL RYEGRASS COMPONENT.	20	97	90	0.10	8.5
-CREEPING RED FESCUE OR CHEWINGS FESCUE (FESTUCA RUBRA OR SSP COMMUTATE) (IMPROVED AND CERTIFIED)	30	97	85	0.10	12.5
-KENTUCKY BLUEGRASS MIXTURE (POA PRATENSIS). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL BLUEGRASS COMPONENT.	50	97	80	0.15	21.0
FORMULA C - CONSERVATION MIX*					12.0 TOTAL
NURSERY CROPS					
-OATS (AVENA SATIVA) (SPRING)	50	95	90	0.10	6.0
-CEREAL RYE (SECALE CEREALE) (FALL)	50	95	90	0.10	6.0
PERMANENT SPECIES					
-LITTLE BLUESTEM (SCHIZACHYRIUM SCOPARIUM)	10	80	70	0.20	1.2
-SHOWY TICK-TREFOIL (DESMODIUM CANADENSE)	7.5	-	-	-	0.9
-PARTRIDGE PEA (CHAMAECRISTA FASCICULATA (SYN: CASSIA FASCICULATA))	13.3	-	-	-	1.6
-SMOOTH BLUE ASTER (SYMPHYOTRICHUM LAEVA)	0.5	-	-	-	0.06
-BLACK-EYED SUSAN (RUDBECKIA HIRTA)	3.67	80	60	0.20	0.44
-PURPLE TOP (TRIDENS FLAVUS)	2	-	-	-	0.24
-BIG BLUESTEM (ANDROPOGON GERARDII)	10	-	-	-	1.2
-CANADA WILDRYE (ELYMUS CANADENSIS)	3	85	70	0.20	0.36
FORMULA L - CLEAR ZONE MIX					48.0 TOTAL
-HARD FESCUE MIXTURE (FESTUCA LONGIFOLIA). A COMBINATION OF IMPROVED CERTIFIED VARIETIES WITH NO ONE VARIETY EXCEEDING 50% OF THE TOTAL HARD FESCUE COMPONENT	55	97	85	0.10	26.4
-CREEPING RED FESCUE (FESTUCA RUBRA) (IMPROVED AND CERTIFIED)	35	97	85	0.10	16.8
ANNUAL RYEGRASS (LOLIUM MULTIFLORUM)	10	95	90	0.10	4.8
SLOPE ENHANCEMENT MIX (TO BE USED AS ADDITIVES TO FORMULA C, OR TO ENHANCE AN ESTABLISHED SITE)					TOTAL VARIES
NURSERY CROPS					
-OATS (AVENA SATIVA) (SPRING)	VARIES	97	85	0.10	6.0
-CEREAL RYE (SECALE CEREALE) (FALL)	VARIES	97	85	0.10	6.0
PERMANENT SPECIES					
-POVERTY OATGRASS (DANTHONIA SPICATA)	1	-	-	-	0.06
-PORCUPINE GRASS (HESPEROSTIPA SPARTEA)	2	-	-	-	0.12
-SAND DROPSEED (SPOROBOLUS CRYPTANDRUS)	0.5-5	-	-	-	0.03-0.3
-ROUGH DROPSEED (SPOROBOLUS ASPER (S. COMPOSITUS))	3-15	-	-	-	0.18-0.9

* IF A SPECIES IS UNAVAILABLE IN THIS MIX, SUBSTITUTE BY INCREASING THE PERCENTAGE OF OTHER ITEMS IN THE MIX.

SEED APPLICATION

FORMULA	APPLICATION
T	TEMPORARY
B	MOWED (ROADSIDE / LAWN RESTORATION)
L	MOWED (ROADSIDE)
C	SLOPES GREATER THAN 3H:1V

MULCHING APPLICATION

MULCHING APPLICATION SHALL BE IN ACCORDANCE WITH PENNDOT PUBLICATION 408, SECTION 805.

(A) MULCHING SEEDED AREAS

1. PLACE MULCH, OF THE TYPE INDICATED, IMMEDIATELY AFTER SEEDING OR WITHIN 48 HOURS AFTER SEEDING IS COMPLETED. UNLESS OTHERWISE INDICATED, PLACE ONLY STRAW OR WOOD FIBER OVER TOPSOILED AREAS. USE HAY, STRAW, OR WOOD FIBER IN OTHER AREAS, AS INDICATED OR SPECIFIED.

2. PLACE HAY OR STRAW UNIFORMLY, IN A CONTINUOUS BLANKET, AT A MINIMUM RATE OF 1,200 POUNDS PER 1,000 SQUARE YARDS, OR AS OTHERWISE INDICATED. IF DIRECTED, INCREASE THE RATE OF APPLICATION, DEPENDING UPON THE MATERIAL USED, SEASON, SOIL CONDITIONS, OR METHOD OF APPLICATION. AN ACCEPTABLE MECHANICAL BLOWER MAY BE USED TO APPLY MULCH. DO NOT USE MACHINES WHICH CUT MULCH INTO SHORT PIECES. ANCHOR MULCH WITH SPECIFIED MULCH BINDERS APPLIED AT THE FOLLOWING RATES:

   -RECYCLED CELLULOSE FIBER: 160 POUNDS PER 1,000 SY

   -WOOD FIBER: 160 POUNDS PER 1,000 SY

   -NONASPHALTIC EMULSION: AT MANUFACTURER'S RECOMMENDED RATE

   -POLYVINYL ACETATE: AT MANUFACTURER'S RECOMMENDED RATE

   -RECYCLED CELLULOSE FIBER/WOOD MIXTURE: 160 POUNDS PER 1,000 SY

3. THE MULCH BINDER APPLICATION IS INCIDENTAL TO THE APPLICATION OF STRAW AND HAY MULCH.

4. APPLY WOOD FIBER MULCH HYDRAULICALLY IN ACCORDANCE WITH THE MANUFACTURER'S TANK-MIXING INSTRUCTIONS. IT MAY BE INCORPORATED AS AN INTEGRAL PART OF THE SLURRY AFTER THE SEED AND SOIL SUPPLEMENTS HAVE BEEN THOROUGHLY MIXED. APPLY UNIFORMLY AT THE RATE OF 320 POUNDS PER 1,000 SQUARE YARDS, UNLESS OTHERWISE INDICATED.

5. MULCH TEMPORARY SEEDED AREAS WITH HAY.

(B) MULCH CONTROL NETTING

1. PLASTIC. INSTALL NETTING OVER DESIGNATED MULCH SURFACE. STAPLE UPSLOPE ENDS, EDGES, BOTTOM, AND OVERLAPS AT 24-INCH INTERVALS. OVERLAP ADJACENT FABRIC TO OUTSIDE EDGES. SECURE REMAINING FABRIC AREAS BY PUTTING IN APPROXIMATELY 1 STAPLE PER 1 SQUARE YARD OF AREA.

2. COCONUT COIR. INSTALL NETTING OVER DESIGNATED MULCH SURFACE. STRETCH FABRIC TIGHTLY AND ANCHOR WITH WOOD STAKES ALONG ALL EDGES AT 7-FOOT MAXIMUM INTERVAL. OVERLAP ADJACENT FABRIC WIDTHS BY NOT LESS THAN 8 INCHES.

(C) MAINTENANCE

1. PROPERLY MAINTAIN MULCHED AREAS UNTIL THE ENTIRE PROJECT HAS BEEN COMPLETED. PROMPTLY REAPPLY MULCH MATERIALS, WHICH BECOME DISLODGED OR LOST DUE TO WIND, RAIN, OR OTHER CAUSES, AT INITIAL OR MODIFIED RATES, AS DIRECTED.

2. AFTER MULCHING WORK ON A SLOPE HAS BEEN SATISFACTORILY COMPLETED, IF A SLOPE FAILURE OCCURS, ONE THAT REQUIRES REDRESSING, EXCAVATION, OR THE ESTABLISHMENT OF A NEW SLOPE, REPLACE THE MULCH, AS DIRECTED.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN GENERAL NOTES

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
ENGINEER
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DES: LND	DWN: LND	CHD: SGM

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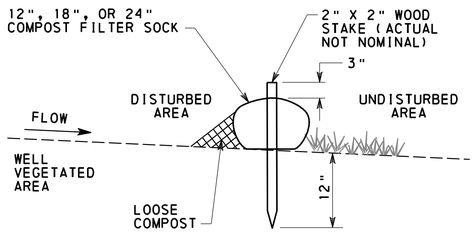
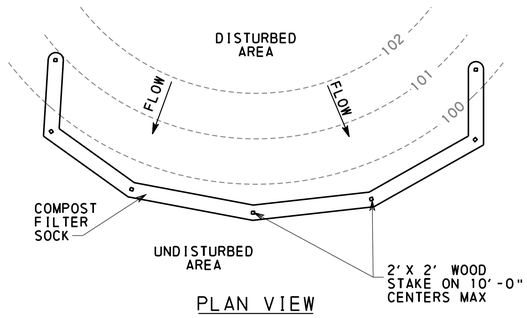


SECTION VIEW



PLAN VIEW

COMPOST FILTER SOCK

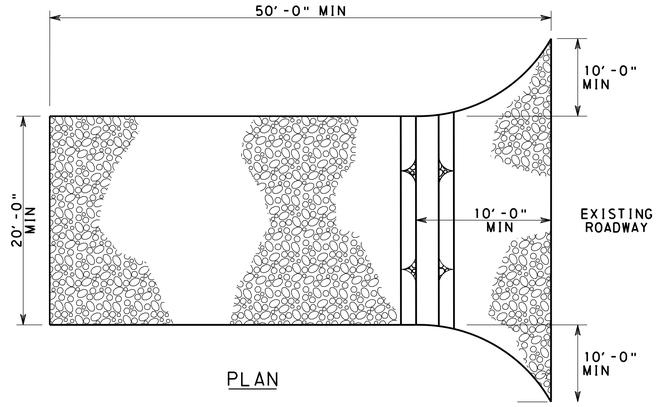
ITEM NO. 0867-0012: 12" DIAMETER
ITEM NO. 0867-0032: 32" DIAMETER

NOTES:

1. SOCK FABRIC SHALL MEET THE STANDARDS OF TABLE 1, AND COMPOST SHALL MEET THE STANDARDS OF TABLE 2.
2. REMOVE DEPOSITS WHEN SEDIMENT ACCUMULATION IS ONE-HALF OF THE ABOVE GROUND HEIGHT OF THE SOCK AND DISPOSED IN THE MANNER DESCRIBED ELSEWHERE IN THE PLAN.
3. PLACE COMPOST FILTER SOCK ON LEVEL GRADE. EXTEND BOTH ENDS OF THE COMPOST FILTER SOCK AT LEAST 8'-0" UPSLOPE AT 45 DEGREES TO THE MAIN ALIGNMENT. MAXIMUM SLOPE LENGTH ABOVE ANY SOCK SHALL NOT EXCEED THAT SHOWN ON FIGURE 4.2 IN THE E&SPC MANUAL. STAKES MAY BE INSTALLED IMMEDIATELY DOWNSLOPE OF THE SOCK IF SO SPECIFIED BY THE MANUFACTURER.
4. REPLACE BIODEGRADABLE FILTER SOCK AFTER 6 MONTHS; PHOTODEGRADABLE AFTER 12 MONTHS. POLYPROPYLENE SOCKS SHALL BE REPLACED ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
5. TRAFFIC SHALL NOT BE PERMITTED TO CROSS COMPOST FILTER SOCK.
6. SOCKS SHALL BE INSPECTED WEEKLY AND AFTER EACH RUNOFF EVENT. DAMAGED SOCKS SHALL BE REPAIRED ACCORDING TO THE MANUFACTURER'S SPECIFICATIONS OR REPLACED WITHIN 24 HOURS OF INSPECTION.
7. UPON STABILIZATION OF THE AREA TRIBUTARY TO THE SOCKS, REMOVE ALL COMPOST FILTER SOCK AND STAKES AND DISPOSE OF IN AN APPROVED MANNER.

TABLE 1 - COMPOST SOCK FABRIC MINIMUM SPECIFICATIONS

MATERIAL TYPE	3 MIL HDPE	5 MIL HDPE	5 MIL HDPE	MULTI-FILAMENT POLYPROPYLENE (MFPP)	HEAVY DUTY MULTI-FILAMENT POLYPROPYLENE (HDMFPP)
MATERIAL CHARACTERISTICS	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE	BIO-DEGRADABLE	PHOTO-DEGRADABLE	PHOTO-DEGRADABLE
SOCK DIAMETERS	12" 18"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"	12" 18" 24" 32"
MESH OPENING	3/8"	3/8"	3/8"	3/8"	1/8"
TENSILE STRENGTH		26 PSI	26 PSI	44 PSI	202 PSI
ULTRAVIOLET STABILITY % ORIGINAL STRENGTH (ASTM G-155)	23% AT 1000 HR.	23% AT 1000 HR.		100% AT 1000 HR.	100% AT 1000 HR.
MINIMAL FUNCTIONAL LONGEVITY	6 MONTHS	9 MONTHS	6 MONTHS	1 YEAR	2 YEARS



NOTES:

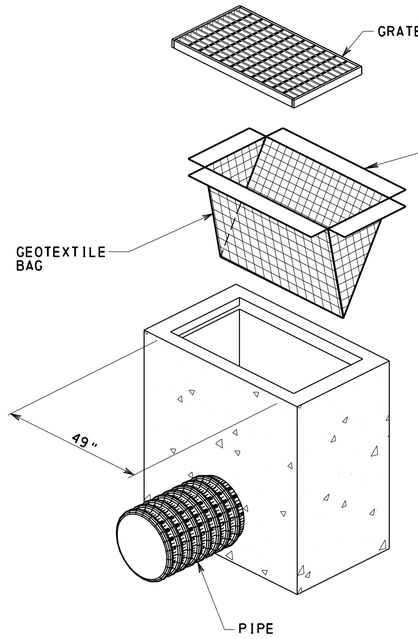
1. INSPECT THE ENTRANCE DAILY. REMOVE ALL SEDIMENT DEPOSITED ON THE PUBLIC ROADWAYS AND RETURN TO THE CONSTRUCTION SITE. WASHING OF THE ROADWAY WILL NOT BE PERMITTED.
2. MAINTAIN THE SPECIFIED ROCK CONSTRUCTION ENTRANCE THICKNESS. PLACE ADDITIONAL ROCK WHENEVER ROCK BECOMES CLOGGED WITH SEDIMENT.
3. MAINTAIN STOCKPILE OF AASHTO NO.1 COARSE AGGREGATE.
4. CONSTRUCT A MOUNTABLE BERM ONLY WHEN 6" MIN COVER CANNOT BE PROVIDED OVER THE PIPE.
5. SATISFACTORILY REMOVE MATERIALS AS PER SPECIFICATION IN PUBLICATION 408/2011, SECTION 849 WHEN ROCK CONSTRUCTION ENTRANCE IS NO LONGER NEEDED.
6. PROVIDE GEOTEXTILE MATERIAL MEETING THE REQUIREMENTS OF PUBLICATION 408/2011, SECTION 735. FURNISH AND INSTALL IN ACCORDANCE WITH PUBLICATION 408/2011, SECTION 212. PROVIDE GEOTEXTILE ALONG ALL INTERFACE AREAS WITH GROUND CONTACT.
7. CONSTRUCT ROCK CONSTRUCTION ENTRANCE WITHIN THE RIGHT-OF-WAY OR EASEMENT AREAS. ENTRANCE MAY BE CONSTRUCTED ON A SKEW IF ADEQUATE PULL OUT SIGHT DISTANCE IS AVAILABLE.

ROCK CONSTRUCTION ENTRANCE

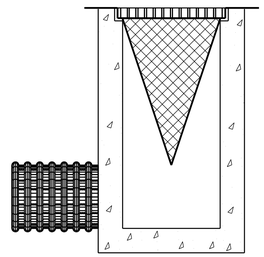
ITEM NO. 0849-0010

TABLE 2 - COMPOST STANDARDS

ORGANIC MATTER CONTENT	25% - 100% (DRY WEIGHT BASIS
ORGANIC PORTION	FIBROUS AND ELONGATED
pH	5.5 - 8.5
MOISTURE CONTENT	30% - 60%
PARTICLE SIZE	30% - 50% PASS THROUGH A 3/8" SIEVE
SOLUBLE SALT CONCENTRATION	5.0 dS/m (mmhos/cm) MAXIMUM



ISOMETRIC VIEW



SIDE VIEW

TYPE M OR TYPE S INLET INSTALLATION (TYP)

INLET FILTER BAG

ITEM NO. 0860-0000 (TYPE M INLET)
ITEM NO. 0860-0002 (TYPE C INLET)

NOTES:

1. MAXIMUM DRAINAGE AREA = 1/2 ACRE.
2. INLET PROTECTION SHALL NOT BE REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.
3. ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.
4. AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 4 SIEVE.
5. INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.
6. DO NOT USE ON MAJOR ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS.

EROSION AND SEDIMENT POLLUTION CONTROL PLAN
SPECIAL DETAILS

NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
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PE079411

DES: LND | DWN: LND | CHD: SGM

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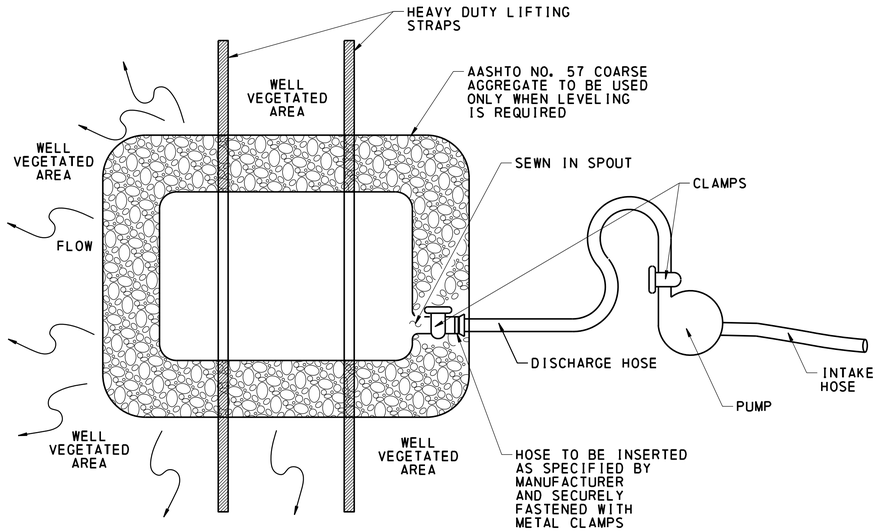
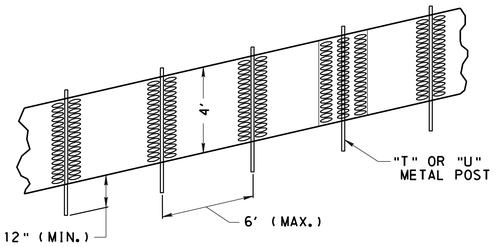
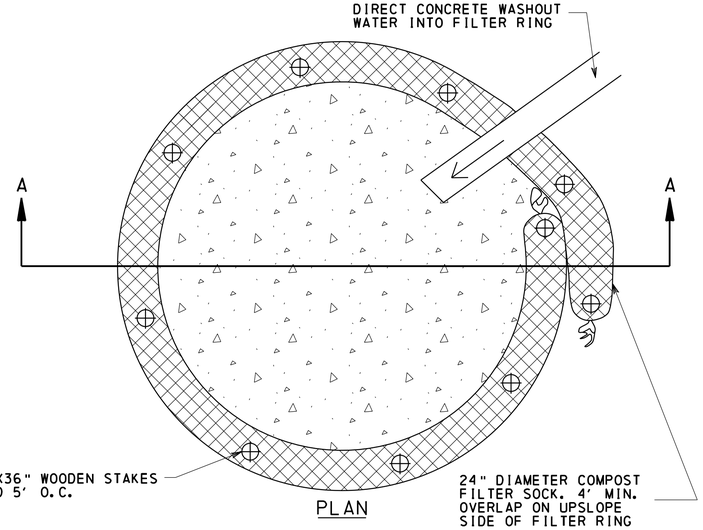
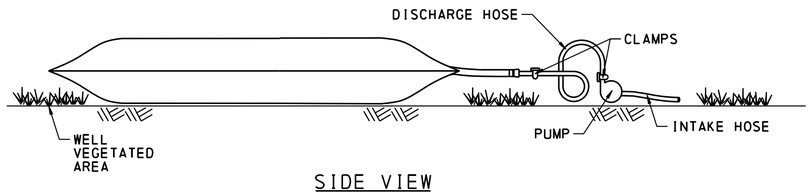


TOP VIEW





PLAN



SIDE VIEW

PUMPED WATER FILTER BAG

ITEM NO. 0855-0003

NOTES:

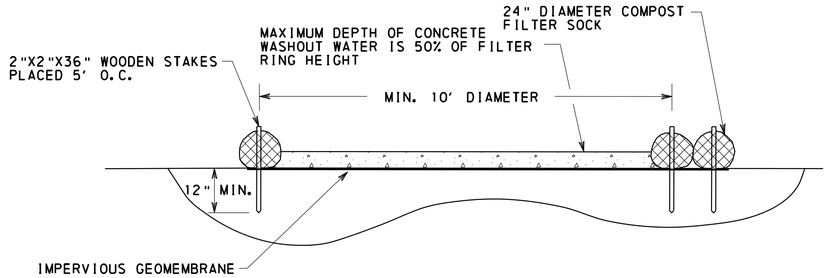
1. LOCATE BAG IN LEVEL AREAS (LESS THAN 5% GRADE). WHEN LEVEL AREAS ARE NOT AVAILABLE, PLACE AASHTO NO. 57 COARSE AGGREGATE TO LEVEL THE BAG.
2. LOCATE BAG IN A WELL VEGETATED AREA. DISCHARGE ONTO A STABLE, EROSION RESISTANT AREA. WHEN VEGETATED AREA IS NOT AVAILABLE, PROVIDE A GEOTEXTILE (CLASS 4, TYPE A) LINED FLOW PATH TO A STABLE EROSION RESISTANT RECEIVING WATER COURSE OR A WELL VEGETATED AREA.
3. LOCATE BAG IN AN AREA ACCESSIBLE BY EQUIPMENT FOR MAINTENANCE AND REMOVAL PURPOSES.
4. DO NOT INSERT MORE THAN ONE HOSE INTO A BAG.
5. THE PUMPING RATE SHALL BE NO GREATER THAN 750 GPM OR 1/2 THE MAXIMUM SPECIFIED BY THE MANUFACTURER, WHICHEVER IS LESS. PUMP INTAKES SHOULD BE FLOATING AND SCREENED.
6. INSPECT DAILY AND REPLACE THE BAG WHEN 50% OF THE SEDIMENT CAPACITY HAS BEEN FILLED AND/OR WHEN THERE IS A FAILURE. IF ANY PROBLEM IS DETECTED, PUMPING SHALL CEASE IMMEDIATELY AND NOT RESUME UNTIL THE PROBLEM IS CORRECTED. ADDITIONAL BAGS WILL BE PAID AS EACH.
7. REMOVE AND PROPERLY DISPOSE OF THE PUMPED WATER FILTER BAGS. RESTORE THE AREA IN ACCORDANCE WITH THE SPECIFICATIONS IN PUBLICATION 408. DO NOT CUT FILTER BAG OR DISTRIBUTE AND SEED SEDIMENT.
8. DO NOT PERMIT DISCHARGE FROM THE BAG TO DRAIN BACK INTO WORK OR ACCESS AREAS OF THE PROJECT.

TEMPORARY PROTECTIVE FENCE

ITEM NO. 0811-0003

NOTES:

1. INSTALL THE FENCE USING A METAL "T" OR "U" POST DRIVEN INTO THE GROUND TO A DEPTH OF 12 TO 18 INCHES. POSTS SHOULD BE SPACED EVERY 6 FEET. USE NOTCHED POSTS TO PREVENT THE FENCE FROM SLIPPING.
2. SECURE THE FENCE TO THE POST USING THREE WIRE TIES, WRAPPED AROUND THE FENCE STRAND AND THE POST. TENSION WIRE OR ROPE MAY BE USED AS A TOP STRINGER AND WOVEN THROUGH THE TOP ROW OF STRANDS TO PREVENT POTENTIAL SAGGING.
3. TWO ROLLS OF SAFETY FENCE MAY BE OVERLAPPED AT THE INTERSECTION OF A POST AND SECURED WITH WIRE TIES.
4. IMMEDIATELY REPAIR OR REPLACE ALL DAMAGED TEMPORARY PROTECTIVE FENCES, INCLUDING, BUT NOT LIMITED TO, BROKEN OR LEANING POSTS, TEARS IN FENCE MATERIAL, AND WEATHERING. BROKEN OR LEANING POSTS WILL BE RESET AND GUYED AS REQUIRED. ANY SECTIONS WITH TORN OR WEATHERED FENCE MATERIAL WILL BE REPLACE IN THEIR ENTIRETY.
5. INSTALL PROTECTIVE FENCE AROUND EXISITNG TREES, SHRUBS, AND MONUMENTS WITHIN THE LOD.



SECTION A-A

CONCRETE WASHOUT

NOTES:

1. INSTALL ON FLAT (<2%) GRADE FOR OPTIMUM PERFORMANCE.
2. 18" DIAMETER FILTER SOCK MAY BE STACKED ONTO DOUBLE 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.
3. WASHOUT FACILITIES SHOULD NOT BE PLACED WITHIN 50 FEET OF STORM DRAINS, OPEN DITCHES, OR SURFACE WATERS.
4. CONCRETE WASHOUTS ARE INCIDENTAL TO CONCRETE PAY ITEMS

EROSION AND SEDIMENT POLLUTION CONTROL PLAN
SPECIAL DETAILS

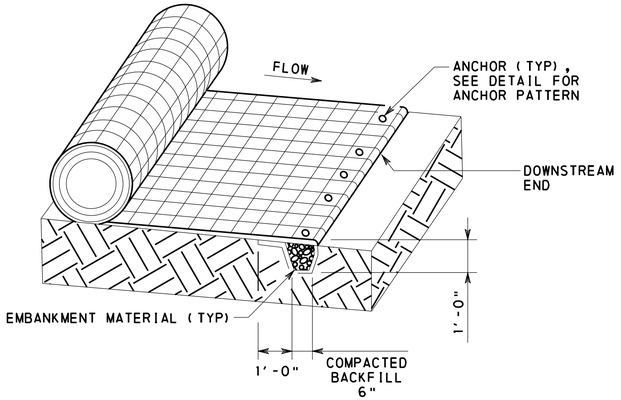
NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
ENGINEER
PE079411

DES: LND	DWN: LND	CHD: SGM

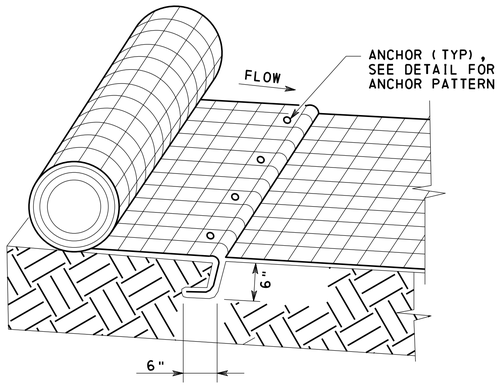
DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		8 OF 10
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY



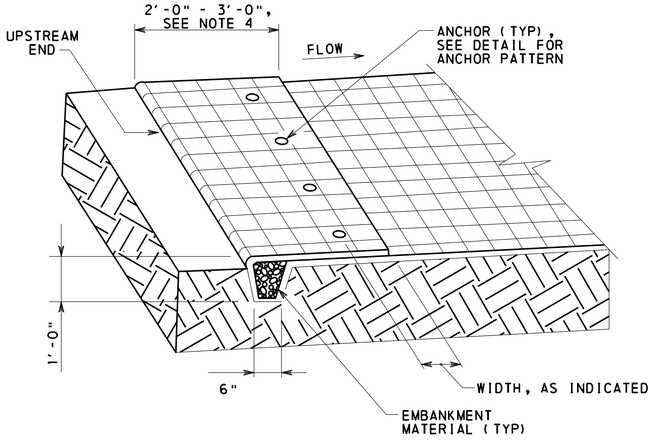
INITIAL ANCHOR TRENCH

SEE NOTE 1



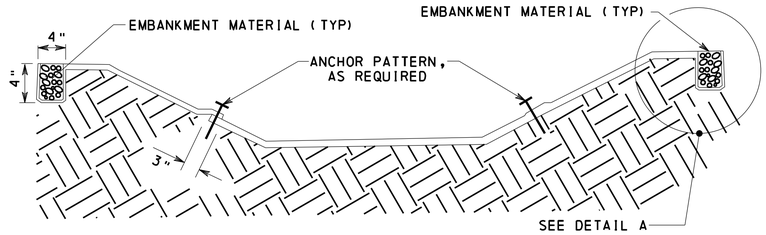
INTERMITTENT CHECK SLOT

SEE NOTE 2

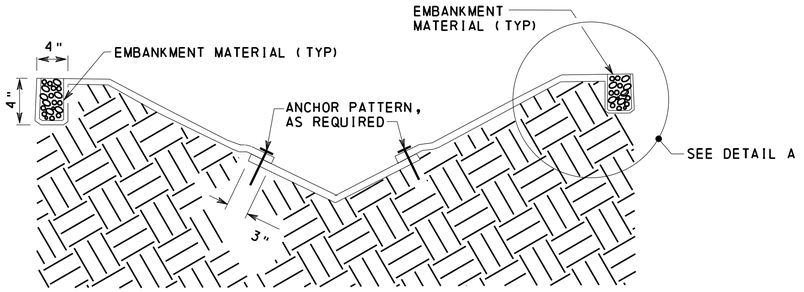


TERMINAL ANCHOR TRENCH

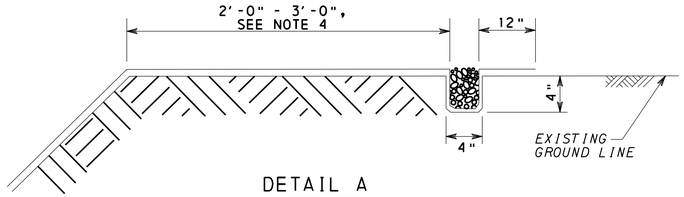
SEE NOTE 3



TYPICAL TRAPEZOIDAL CHANNEL CROSS-SECTION



TYPICAL V-DITCH CROSS-SECTION



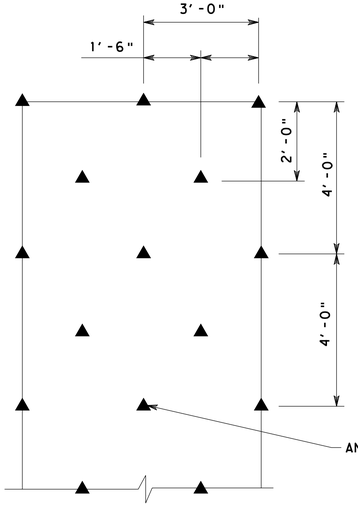
DETAIL A

NOTES:

1. EXCAVATE INITIAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO PREVENT UNDERMINING OF THE ROLLED EROSION CONTROL PRODUCTS.
2. EXCAVATE INTERMITTENT CHECK SLOT 6" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO 25'-0" TO 30'-0" ALONG THE LENGTH OF THE ROLLED EROSION CONTROL PRODUCTS TO PREVENT LOOSE SOIL FROM BEING TRANSPORTED DOWNSTREAM BENEATH THE ROLLED EROSION CONTROL PRODUCTS.
3. EXCAVATE TERMINAL ANCHOR TRENCH 1'-0" DEEP AND 6" WIDE ACROSS THE WIDTH OF THE CHANNEL TO ENSURE WATER FLOW TRANSITIONS SMOOTHLY ONTO THE ROLLED EROSION CONTROL PRODUCTS WITHOUT SEPARATION FROM THE SOIL.
4. EXTEND ROLLED EROSION CONTROL PRODUCTS 2'-0" - 3'-0" ABOVE THE CREST OF CHANNEL SIDE WHENEVER POSSIBLE.
5. PLACE ANCHORS IN ACCORDANCE WITH ANCHOR PATTERNS FOR SLOPES AS SHOWN ABOVE.
6. ESTABLISH AND MAINTAIN CONTINUOUS CONTACT BETWEEN THE ROLLED EROSION CONTROL PRODUCTS AND THE SOIL.
7. PROVIDE ANCHORING DEVICES IN ACCORDANCE WITH PUBLICATION 408, SECTION 806.2(d).

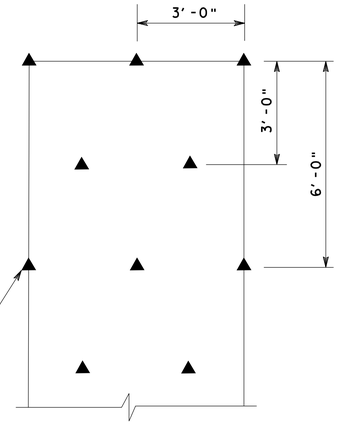
ROLLED EROSION CONTROL PRODUCTS (RECP)

ITEM NO. 0806-0113 - TEMPORARY SHORT-TERM, ROLLED EROSION CONTROL PRODUCT, TYPE 2D



ANCHOR PATTERNS FOR SLOPES BETWEEN 2:1 AND 1:1 (INCLUDING 2:1)

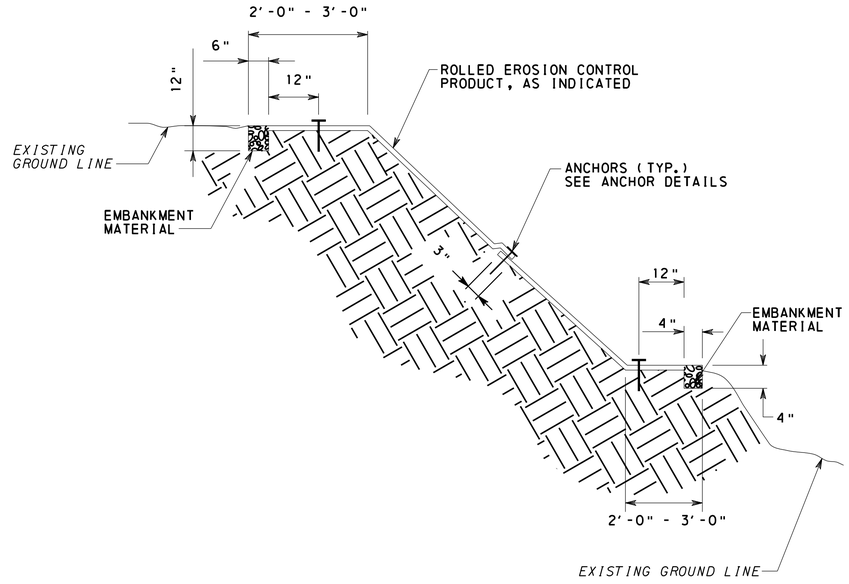
2 ANCHORS/SY



ANCHOR PATTERN FOR SLOPES BETWEEN 3:1 AND 2:1 (INCLUDING 3:1)

1 1/2 ANCHORS/SY

ANCHOR PATTERNS FOR SLOPES



TYPICAL SLOPE CROSS-SECTION

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

SPECIAL DETAILS

NOT TO SCALE

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
SEAN GREGORY MCKEEVER
PE079411

DES: LND | DWN: LND | CHD: SGM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		9 OF 10
NORTH IRWIN BOROUGH				

REVISION NUMBER	REVISIONS	DATE	BY

MATCH TO SHEET 10

LIMIT OF WORK
STA 8+79.00
W BROADWAY AVE
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

START WORK
STA 9+29.00
W BROADWAY AVE

BEGIN ROADWAY RECONSTRUCTION
STA 10+50.00

TO SR1099
1.0 MILES

DO NOT GRUB WITHIN AREAS OF TREE CLEARING

OUTLET PIPE TO SWALE

TEMPORARY CONSTRUCTION EASEMENT (ACCESS ONLY)

ACCESS ROAD SURVEY & CONSTR ℄

EXISTING RAILROAD ACCESS ROAD

TEMPORARY CONSTRUCTION EASEMENT

INFILTRATION TRENCH

5' GATE

WEST BROADWAY AVENUE SURVEY & CONSTR ℄

BEGIN STRUCTURE
STA 11+62.33

END STRUCTURE
STA 12+84.67

STA 12+15.27 WEST BROADWAY AVENUE SURVEY & CONSTR ℄=
STA 110+66.38 ACCESS ROAD SURVEY & CONSTR ℄

STA 13+37.41 WEST BROADWAY AVENUE SURVEY & CONSTR ℄=
STA 50+00.00 FOSTER AVENUE CONSTR ℄

LIMIT OF WORK
STA 14+00.00
FOURTH STREET
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

END ROADWAY RECONSTRUCTION/ STOP WORK
STA 13+70.00
FOURTH STREET

STOP WORK
STA 51+29.00
FOSTER AVENUE

TO LINCOLN AVENUE
0.1 MILES

TO 1ST STREET
0.3 MILES

1 CAROL C. KRETCHEK

2 JUSTIN TRAFALSKI, A SINGLE MAN

3 NORFOLK SOUTHERN RAILWAY COMPANY, SUCCESSOR THROUGH MERGER WITH PENNSYLVANIA LINES, LLC, DATED AUGUST 27, 2004

4 THOMAS G. PORTER AND BETHANY N. PORTER, HUSBAND AND WIFE

5 MARCIE RICHARD, AN UNMARRIED, ADULT INDIVIDUAL AND MELISSA J. BOSSART, A MARRIED, ADULT INDIVIDUAL

6 LAURA E. GARRIGHAN

7 DEBORAH S. MARTIN, UNMARRIED

8 KENNETH A. BALEGO & DOLORES A. BALEGO, HIS WIFE

9 JOHN E. LEUKHARDT AND MARILYN LEUKHARDT, HIS WIFE

10 KEITH L. KLUITER AND KRISTIE L. KLUITER, HUSBAND AND WIFE

LEGEND

PROJECT AREA BOUNDARY	1030 PROPOSED CONTOURS
LOD LIMIT OF DISTURBANCE	1030 EXISTING CONTOURS
PROJECT SITE ACCESS (ACCESS ROAD)	C CUT SLOPE
AERIAL ACCESS (TREE CUTTING)	F FILL SLOPE
CFS12 COMPOST FILTER SOCK, 12" DIAMETER	PF TEMPORARY PROTECTIVE FENCE
CFS32 COMPOST FILTER SOCK, 32" DIAMETER	INLET FILTER BAG
CONCRETE WASHOUT	RCE ROCK CONSTRUCTION ENTRANCE
ROLLED EROSION CONTROL PRODUCT	

SCALE
0 25 50 FEET

EROSION AND SEDIMENT POLLUTION CONTROL PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
SEAN GREGORY MCKEEVER
PE079411

DES: LND | DWN: LND | CHD: SGM

SURVEY BOOK NO. 1512

\\svr-pgh-data-01\Data\Client\PGH_Client\15045-000-Fourth_Str_Br\CADD\ES\Plans\ESPLN01.dgn 7:52:59 AM 2/9/2026

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	FOURTH ST		10 OF 10
NORTH IRWIN BOROUGH				

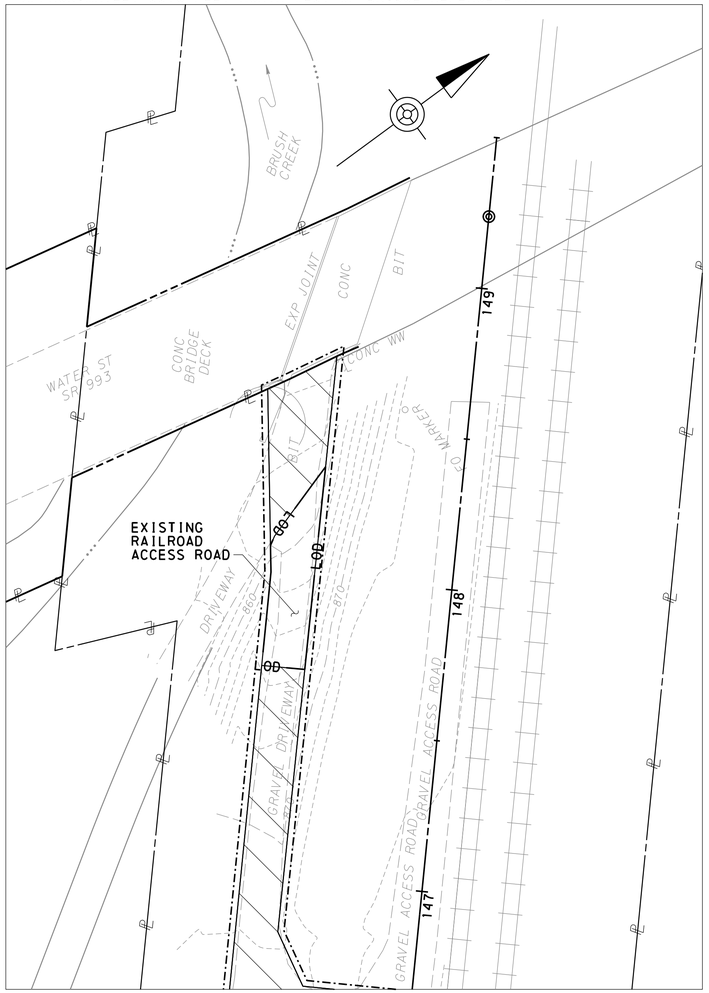
REVISION NUMBER	REVISIONS	DATE	BY

LEGEND			
	PROJECT AREA BOUNDARY	1030	PROPOSED CONTOURS
LOD	LIMIT OF DISTURBANCE	1030	EXISTING CONTOURS
	PROJECT SITE ACCESS (ACCESS ROAD)	C	CUT SLOPE
	AERIAL ACCESS (TREE CUTTING)	F	FILL SLOPE
CFS12	COMPOST FILTER SOCK, 12" DIAMETER	PF	TEMPORARY PROTECTIVE FENCE
CFS32	COMPOST FILTER SOCK, 32" DIAMETER		INLET FILTER BAG
	CONCRETE WASHOUT	RCE	ROCK CONSTRUCTION ENTRANCE
	ROLLED EROSION CONTROL PRODUCT		

NOTE:

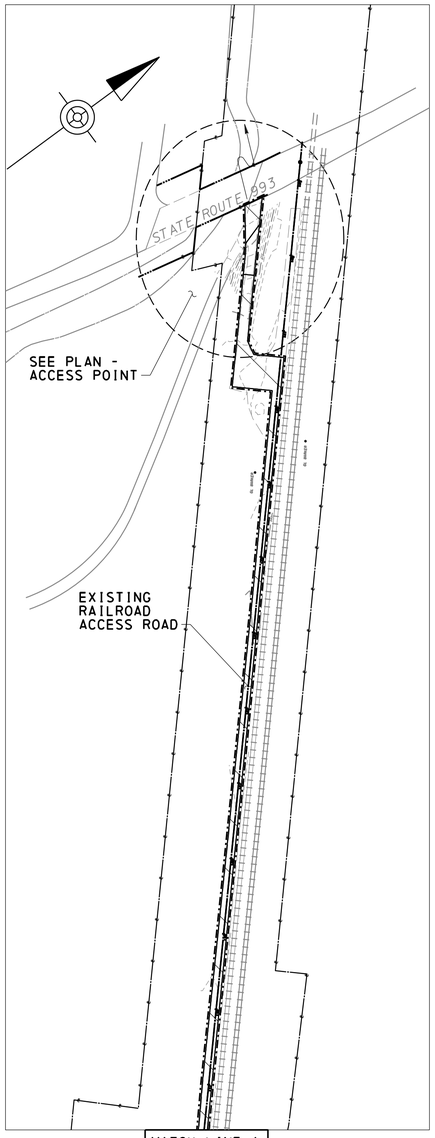
TEMPORARY CONSTRUCTION EASEMENT IS PROVIDED FOR "ACCESS ONLY" AND IS INTENDED TO PROVIDE VEHICLE AND SMALL EQUIPMENT ACCESS ALONG THE RAILROAD BELOW THE PROJECT AREA. THE EXISTING RAILROAD ACCESS ROAD IS STABILIZED WITH HARD ROCK AND IN GOOD CONDITION. DOCUMENT ACCESS ROAD CONDITION DURING PRE-CONSTRUCTION MEETING WITH NORFOLK SOUTHERN RAILWAY COMPANY (NSRC) AND REPAIR AS NEED PRIOR TO USE AS DIRECTED BY NRSC. THE STABILIZED ACCESS ROAD IS NOT INCLUDED IN THE PERMIT DISTURBED AREA.

*ACCESS POINT FOR PROJECT AREA BENEATH THE STRUCTURE IS FROM SR 993 APPROXIMATELY 3570 FEET NORTH WEST OF BRIDGE REPLACEMENT.

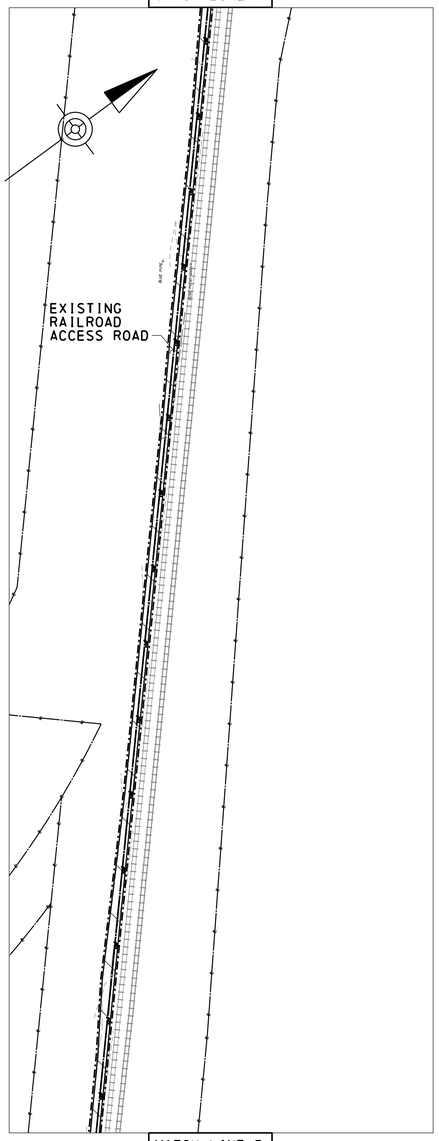


PLAN - ACCESS POINT

SCALE
0 25 50 FEET

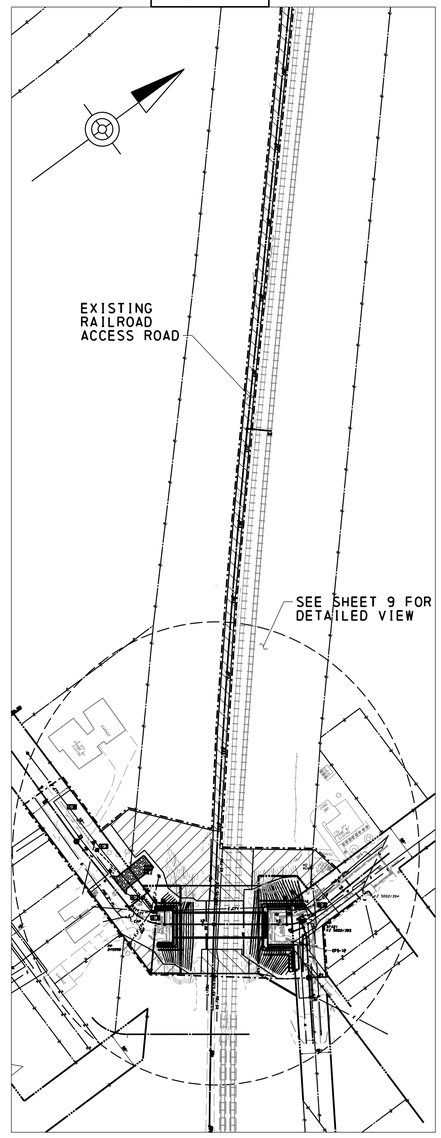


MATCH LINE A



MATCH LINE B

SCALE
0 100 200 FEET

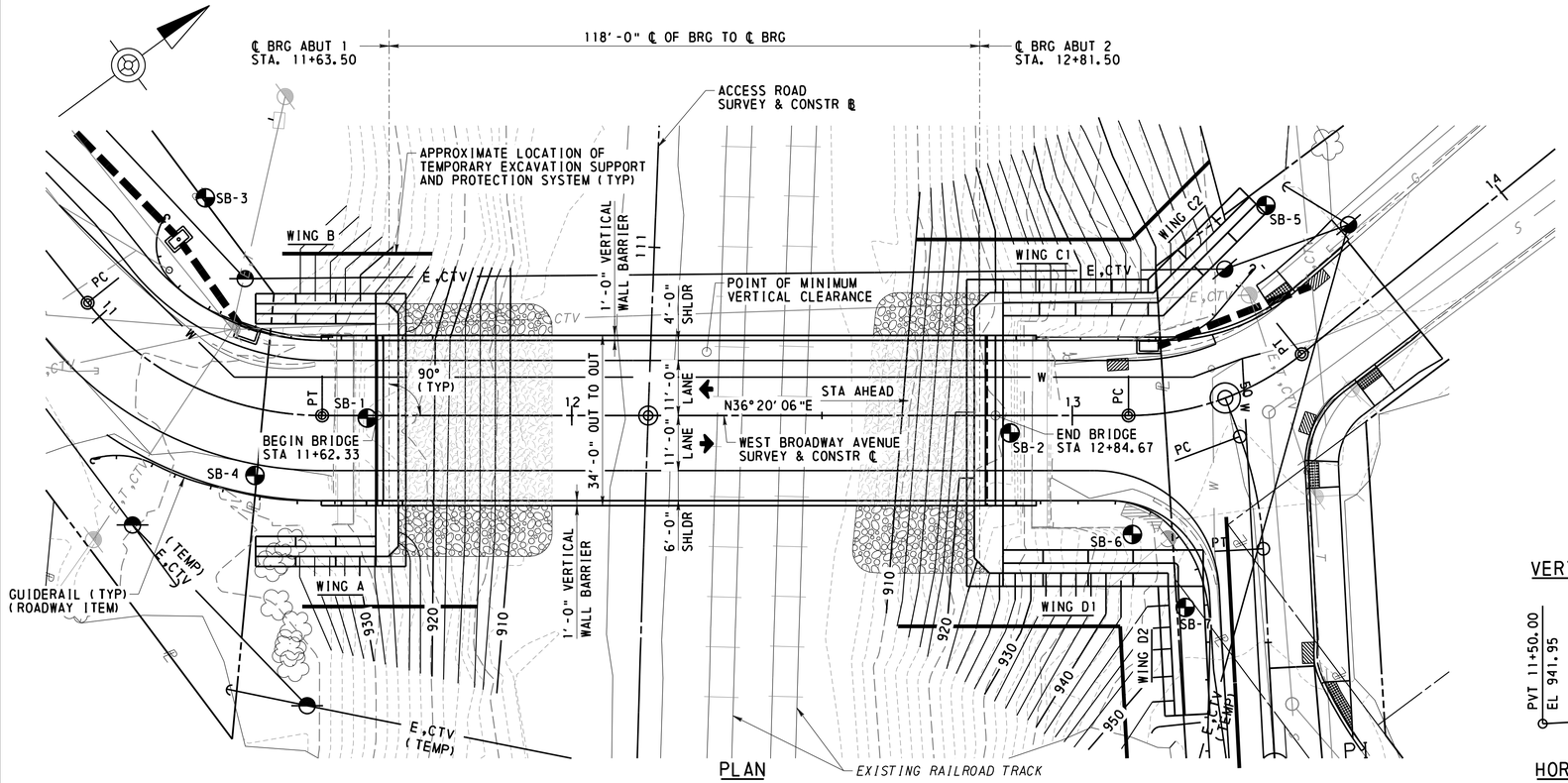


EROSION AND SEDIMENT POLLUTION CONTROL PLAN

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
SEAN GREGORY MCKEEVER
ENGINEER
PE079411

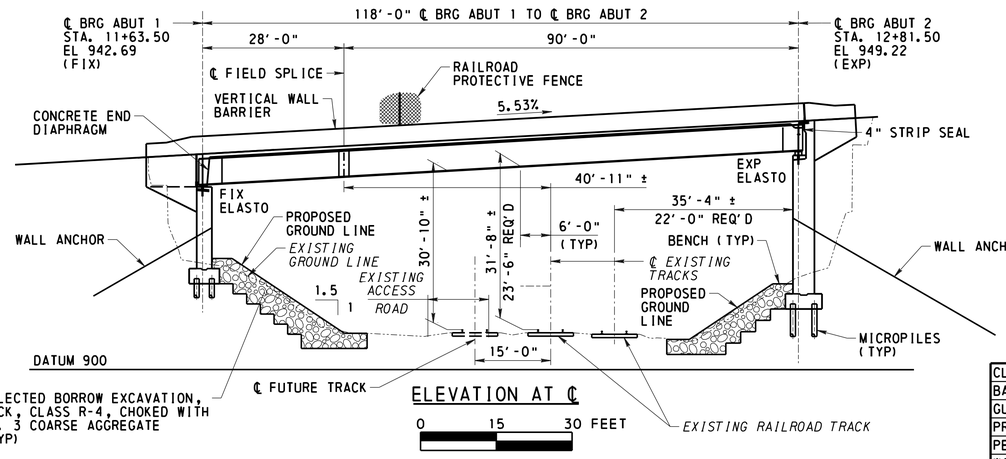
DES: LND | DWN: LND | CHD: SGM

MATCH TO SHEET 9



PLAN

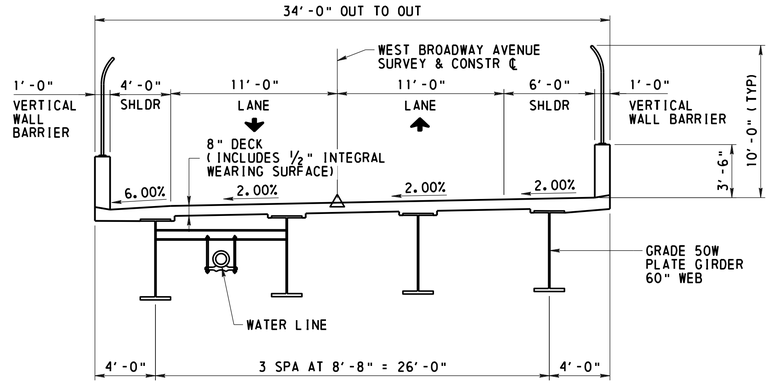
0 15 30 FEET



ELEVATION AT ℄

0 15 30 FEET

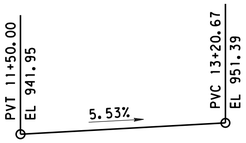
NOTE:
MAINTAIN A MINIMUM HORIZONTAL CONSTRUCTION CLEARANCE OF 14'-0" FROM ℄ OF EXISTING TRACKS.
MAINTAIN A MINIMUM VERTICAL CONSTRUCTION CLEARANCE OF 22'-0" ABOVE THE EXISTING TOP OF RAILS.



TYPICAL SECTION

0 15 10 FEET

VERTICAL CURVE DATA



HORIZONTAL CURVE DATA

PI STA 11+25.20	PI STA 13+30.72
Δ =51°20'41" LT	Δ =39°00'07" LT
D =95°29'35"	D =104°10'27"
T =28.84'	T =19.48'
L =53.77'	L =37.44'
R =60.00'	R =55.00'
E =6.57'	E =3.35'
PC STA =10+96.36	PC STA =13+11.24
PT STA =11+50.12	PT STA =13+48.68
SE =2.0%	SE =VARIES

LEGEND

W	EXISTING WATER LINE
G	EXISTING GAS LINE
S	EXISTING SEWER LINE
E,T,CTV	EXISTING ELECTRIC, TELEPHONE, CABLE TV
W	PROPOSED WATER LINE
E,CTV	PROPOSED ELECTRIC, CABLE TV
	EXISTING MINOR CONTOUR
	EXISTING MAJOR CONTOUR
	PROPOSED MINOR CONTOUR
	PROPOSED MAJOR CONTOUR
	EXISTING / PROPOSED CORE BORING
	DIRECTION OF TRAVEL
	EXISTING UTILITY POLE
	PROPOSED UTILITY POLE

ELASTO = ELASTOMERIC BEARING PAD

AS-DRILLED BORING LOCATIONS

BORING NO.	STATION	OFFSET
SB-1	11+59.1	0.5' RT
SB-2	12+87.6	3.5' LT
SB-3	10+94.7	31.5' LT
SB-4	11+39.1	13.2' RT
SB-5	13+61.8	27.8' LT
SB-6	13+11.8	23.8' RT
SB-7	13+17.9	39.0' RT

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	KAM
DRAWN BY	TMK
CHECKED BY	KAM

PREPARED BY:
SAI CONSULTING ENGINEERS, INC.
1350 PENN AVENUE, SUITE 300
PITTSBURGH, PA 15222-4211

REG. PROF. ENGR. PENNA.

DATE: 02-09-2026

DESCRIPTION	DWG. NO.	APP. DATE
CLASSIFICATION OF EARTHWORK FOR STRUCTURES	RC-11M	6/1/10
BACKFILL AT STRUCTURES	RC-12M	11/1/22
GUIDE RAIL TO BRIDGE BARRIER TRANSITIONS	RC-50M	12/18/24
PROTECTIVE FENCE	BC-701M	11/23/22
PERMANENT METAL DECK FORMS	BC-732M	11/23/22
WALL CONSTRUCTION AND EXPANSION JOINT DETAILS	BC-735M	9/30/16
REINFORCEMENT BAR FABRICATION DETAILS	BC-736M	11/23/22
CONCRETE DECK SLAB DETAILS	BC-752M	11/23/22
BEARINGS	BC-755M	1/31/19
NEOPRENE STRIP SEAL DAM FOR PRESTRESSED CONCRETE & STEEL I-BEAM BRIDGES	BC-767M	11/23/22
PRESTRESSED CONCRETE BEAM BRACING	BC-772M	11/23/22
MISCELLANEOUS PRESTRESS DETAILS	BC-775M	11/23/22
REINFORCED CONCRETE REPAIR	BC-783M	1/31/19
TYPICAL WATERPROOFING AND EXPANSION DETAILS	BC-788M	11/23/22
MECHANICAL CONNECTION DETAILS	BC-798M	2/14/23

SUPPLEMENTAL DRAWINGS

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

GENERAL PLAN AND ELEVATION

RECOMMENDED February 12th, 2026

DISTRICT BRIDGE ENGINEER

SHEET 1 OF 50
+SUPPLEMENTAL DRAWINGS

L - 645

INDEX OF DRAWINGS		INDEX OF DRAWINGS	
NO.	DESCRIPTION	NO.	DESCRIPTION
1	GENERAL PLAN AND ELEVATION	26	WINGWALL D2 ELEVATION
2	QUANTITIES AND INDEX OF DRAWINGS	27	WINGWALL D SECTIONS
3	GENERAL NOTES	28	MICROPILE DETAILS
4	GENERAL NOTES & RATING TABLE	29	LATENT ANCHOR DETAILS
5	STAKE OUT PLAN	30	FRAMING PLAN AND GIRDER ELEVATION
6	ABUTMENT 1 FOOTING PLAN	31	GIRDER FIELD SPLICE MISC DETAILS
7	ABUTMENT 1 PLAN	32	DIAPHRAGM DETAILS
8	ABUTMENT 1 ELEVATION	33	CAMBER AND REACTION TABLES
9	ABUTMENT 1 DETAILS 1	34	NEOPRENE BEARING DETAILS
10	ABUTMENT 1 DETAILS 2	35	CONCRETE END DIAPHRAGM ABUT 1
11	ABUTMENT 1 DETAILS 3	36	DECK PLAN
12	WINGWALL A ELEVATION	37	TYPICAL DECK SECTION
13	WINGWALL B ELEVATION	38	FINISHED DECK ELEVATIONS
14	WINGWALL A AND B SECTIONS	39	MISC DECK DETAILS
15	ABUTMENT 2 FOOTING PLAN 1	40	ABUTMENT 1 REINF BAR SCHEDULE
16	ABUTMENT 2 FOOTING PLAN 2	41	ABUTMENT 2 REINF BAR SCHEDULE 1
17	ABUTMENT 2 PLAN	42	ABUTMENT 2 REINF BAR SCHEDULE 2
18	ABUTMENT 2 ELEVATION	43	ABUTMENT 2 REINF BAR SCHEDULE 3
19	ABUTMENT 2 DETAILS 1	44	SUPERSTRUCTURE REINF BAR SCHEDULE
20	ABUTMENT 2 DETAILS 2	45	STRUCTURE BORINGS
21	ABUTMENT 2 DETAILS 3	46	STRUCTURE BORINGS
22	WINGWALL C1 ELEVATION	47	STRUCTURE BORINGS
23	WINGWALL C2 ELEVATION	48	STRUCTURE BORINGS
24	WINGWALL C SECTIONS	49	STRUCTURE BORINGS
25	WINGWALL D1 ELEVATION	50	STRUCTURE BORINGS

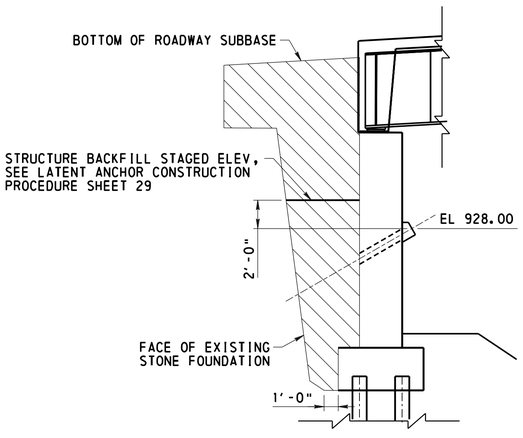
ALTERNATE STRUCTURE ITEMS				
ITEM NO.	ITEM	UNIT	LEGEND	TOTAL
8120-0001	BRIDGE STRUCTURE, AS DESIGNED, L-645	LUMP SUM	(2)	LUMP SUM
8000-0001	PRESTRESSED CONCRETE BRIDGE STRUCTURE	LUMP SUM	(2)	LUMP SUM
8100-0001	STEEL BRIDGE STRUCTURE	LUMP SUM	(2)	LUMP SUM

APPROXIMATE QUANTITIES - BRIDGE STRUCTURE, AS DESIGNED, L-645

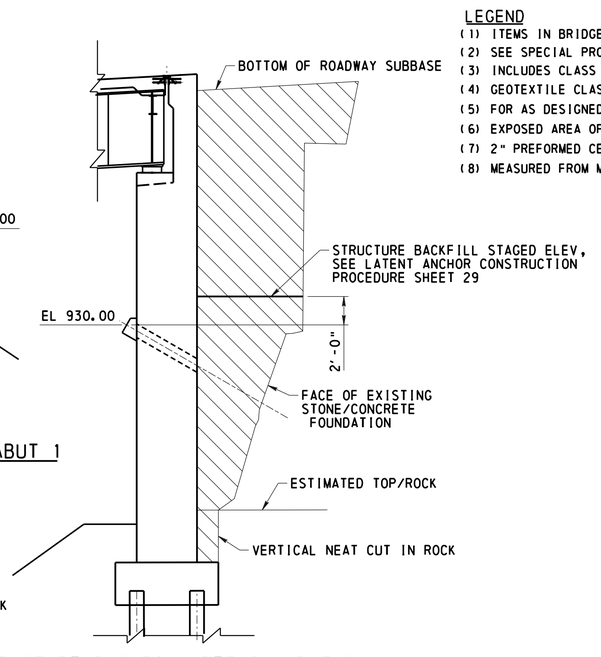
ITEM NO.	ITEM	UNIT	LEGEND	ABUT. 1	ABUT. 2	SUPER.	TOTAL
8120-0001	BRIDGE STRUCTURE, AS DESIGNED, L-645	LUMP SUM	(2)				
	CLASS 3 EXCAVATION	CY	(1)	333	746	---	1079
	SELECTED BORROW EXCAVATION, COARSE AGGREGATE, NO. 57	CY	(1) (4)	4	7	---	11
	STRUCTURE BACKFILL	CY	(1) (4)	458	933	---	1391
	MEMBRANE WATERPROOFING SYSTEM INSTALLED ON OTHER SURFACES	SY	(1) (7)	42	78	31	151
	CLASS AAAP CEMENT CONCRETE	CY	(1) (3)	---	---	140	140
	CLASS AA CEMENT CONCRETE	CY	(1) (2)	19	56	---	75
	MECHANICAL TEXTURING WITH TRANSVERSE SAWED GROOVES	SY	(1)	---	---	400	400
	CLASS AA CEMENT CONCRETE,EXCEPT USE NO. 8 COARSE AGGREGATE	CY	(1)	3	3	32	38
	CLASS A CEMENT CONCRETE	CY	(1) (2)	253	610	-	863
	RAILROAD PROTECTIVE FENCE, CURVED TOP, VINYL COATED STEEL	LF		---	---	241	241
	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, REINFORCED CONCRETE SUBSTRUCTURE SURFACES)	SY	(1)	145	390	---	535
	PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALERS, BRIDGE SUPERSTRUCTURE)	SY	(1)	---	---	635	635
	NEOPRENE STRIP SEAL DAM, (4" MOVEMENT)	LF	(1)	---	---	41	41
	FABRICATED STRUCTURAL STEEL, UNPAINTED	POUND	(1)	---	---	196500	196500
	LAMINATED NEOPRENE BEARING PAD	EACH	(1)	4	4	---	8
	SHEAR CONNECTORS	EACH	(1)	---	---	732	732
AND							
1002-0052	REINFORCEMENT BARS, EPOXY COATED	POUND	(5)	27421	71286	34035	132742
AND							
5007-0465	MICROPILES 11 3/4" DIAMETER, GALVANIZED, 11 7/8" DIAMETER X 0.582"	LF	(2) (8)	1164	2376	---	3540
AND							
9000-0001	LATENT ROCK ANCHORS	EACH	(2)	9	13	---	22
AND							
9000-0002	CONSOLIDATION GROUTING	CF	(2)	180	260	---	440
AND							
9000-0003	REDRILLING OF CONSOLIDATION GROUTED ANCHOR HOLES	LF	(2)	270	390	---	660
0205-0263	SELECTED BORROW EXCAVATION ROCK, CLASS R-3	CY	(4)	93	78	---	171
0205-0264	SELECTED BORROW EXCAVATION ROCK, CLASS R-4	CY	(4)	216	182	---	398
1007-0200	MICROPILES VERIFICATION LOAD TEST	EA		1	1	---	2
1018-0048	REMOVAL OF PORTION OF EXISTING BRIDGE	LUMP SUM	(2)	---	---	---	LS
9203-0101	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, ABUTMENT 1	LUMP SUM	(2) (6)	---	---	---	LS
9203-0102	TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM, ABUTMENT 2	LUMP SUM	(2) (6)	---	---	---	LS

LEGEND

(1) ITEMS IN BRIDGE STRUCTURE LUMP SUM ITEM 8120-0001 GIVEN FOR INFORMATION ONLY.
(2) SEE SPECIAL PROVISIONS.
(3) INCLUDES CLASS AAAP CONCRETE IN DECK SLAB, CONCRETE END DIAPHRAGMS, AND APPROXIMATELY 8 CY OF CONCRETE IN THE VALLEYS OF THE STAY-IN-PLACE FORMS.
(4) GEOTEXTILE CLASS 4, TYPE A IS INCIDENTAL TO THIS ITEM.
(5) FOR AS DESIGNED STRUCTURE, INCLUDED IN BRIDGE BID ITEMS. FOR ALTERNATE DESIGNS, INCLUDED IN BRIDGE STRUCTURE LUMP SUM BID ITEMS.
(6) EXPOSED AREA OF TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM INCLUDES 560 SF FOR ABUTMENT 1 AND 840 SF FOR ABUTMENT 2; FOR REFERENCE ONLY
(7) 2" PREFORMED CELLULAR POLYSTYRENE IS INCIDENTAL TO THIS ITEM.
(8) MEASURED FROM MICROPILE TIP ELEVATION TO FINAL CUT OFF ELEVATION. ANY DRILLING FROM EXISTING GROUND TO FINAL CUT OFF ELEVATION IS CONSIDERED INCIDENTAL TO THIS PAY ITEM.



STRUCTURE BACKFILL DETAIL ABUT 1
(SEE RC-12M)
NOT SO SCALE



STRUCTURE BACKFILL

NOTE: LIMITS OF FOUNDATION BELOW EXISTING GROUND LINE ARE UNKNOWN. PROVIDE 1'-0" LEVEL EXCAVATION AND 1.5:1 LAYBACK IF EXISTING FOUNDATION IS AS SHOWN OR REMOVE PORTION OF EXISTING FOUNDATION AS NEEDED TO CONSTRUCT NEW FOOTING.

STRUCTURE BACKFILL DETAIL ABUT 2
(SEE RC-12M)
NOT SO SCALE

DESIGNED BY	KAM
DRAWN BY	SSM
CHECKED BY	KAM

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
QUANTITIES AND INDEX OF DRAWINGS

RECOMMENDED February 12th, 2026

SHEET 2 OF 50

L - 645

DESIGN SPECIFICATIONS

- AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS 8TH EDITION 2017, AND AS SUPPLEMENTED BY DESIGN MANUAL, PART 4, STRUCTURES (DECEMBER 2019 EDITION INCLUDING REVISIONS).
- LIVE LOAD DISTRIBUTION TO GIRDERS IS BASED UPON DESIGN MANUAL PART 4 DISTRIBUTION FACTOR METHOD.
- DESIGN IS IN ACCORDANCE WITH THE LRFD METHOD.

DESIGN LIVE LOADS

- PHL-93, P-82, AND P2016-13
- FATIGUE DESIGN IS BASED ON THE FOLLOWING:
  STEEL STRUCTURES: ADTT 50 (DESIGN YEAR 2045, ONE-DIRECTIONAL)

DEAD LOADS

- INCLUDES A SURFACE AREA DENSITY OF 0.030 KSF FOR FUTURE WEARING SURFACE ON THE DECK SLAB.
- INCLUDES A SURFACE AREA DENSITY OF 0.015 KSF FOR PERMANENT METAL DECK FORMS WHICH TAKES INTO ACCOUNT THE WEIGHT OF THE FORM, PLUS THE WEIGHT OF THE CONCRETE IN THE VALLEYS OF THE FORMS.

GENERAL

- PROVIDE MATERIALS AND PERFORM WORK IN ACCORDANCE WITH SPECIFICATIONS, PUBLICATION 408/2020, INCLUDING CURRENT CHANGES, AASHTO/AWS D1.5M/D1.5-2015 BRIDGE WELDING CODE, AND CONTRACT SPECIAL PROVISIONS. USE AASHTO/AWS D1.1M/D1.1M-2015 FOR WELDING NOT COVERED IN AASHTO/AWS D1.5M/D1.5-2015.
- SITE CLASS IS NOT CLASS E.
- ALL DIMENSIONS SHOWN ARE HORIZONTAL, EXCEPT AS NOTED.
- SUPERSTRUCTURE DIMENSIONS SHOWN ARE FOR A NORMAL TEMPERATURE OF 68 DEGREES F.
- STATIONS AND ELEVATIONS ARE GIVEN IN FEET UNLESS OTHERWISE NOTED.

CONCRETE

- PROVIDE 2" CONCRETE COVER ON REINFORCEMENT BARS, EXCEPT AS NOTED.
- USE CLASS AAAP CEMENT CONCRETE IN DECK SLAB, AND CONCRETE END DIAPHRAGMS.
- USE CLASS AA CEMENT CONCRETE IN PEDESTALS ABOVE THE BRIDGE SEAT, BACKWALLS, AND CHEEKWALLS.
  USE CLASS AA CEMENT CONCRETE, EXCEPT USE NO. 8 COARSE AGGREGATE IN BARRIERS.
- USE CLASS A CEMENT CONCRETE IN ABUTMENTS, AND WINGWALLS.
- USE CORROSION RESISTANT TYPE IL PORTLAND CEMENT CONCRETE WITH A MAXIMUM WATER/CEMENT RATIO OF 0.45, AIR ENTRAINMENT, AND CONTAINING NO CHLORITE ADDITIVES IN ALL SUBSTRUCTURE CONCRETE.
- A HIGHER CLASS CONCRETE MAY BE SUBSTITUTED FOR A LOWER CLASS CONCRETE AT NO ADDITIONAL COST TO THE DEPARTMENT, IF APPROVED BY THE DISTRICT BRIDGE ENGINEER.
- ABUTMENT 2 BACKWALL MAY BE PLACED UP TO A CONSTRUCTION JOINT BELOW THE LEVEL OF THE DECK SLAB PRIOR TO CONSTRUCTION OF THE DECK.
- RAKE-FINISH ALL HORIZONTAL CONSTRUCTION JOINTS, EXCEPT AS INDICATED.
- DO NOT USE ADHESIVE ANCHORS IN A TENSION APPLICATION FOR PERMANENT INSTALLATIONS.
- CHAMFER EXPOSED CONCRETE EDGES ¾" BY ¾", EXCEPT AS NOTED.
- USE EITHER PERMANENT METAL FORMS OR REMOVABLE FORMS TO CONSTRUCT THE DECK SLAB.
- DECK SLAB THICKNESS INCLUDES A ½" INTEGRAL WEARING SURFACE.
- CONSTRUCT DECK SLAB TRANSVERSE CONSTRUCTION JOINTS PARALLEL TO BRIDGE CENTERLINE OF BEARINGS.
- ALTERNATE DECK PLACEMENT SEQUENCES ARE NOT PERMITTED.
- PRECAST BARRIERS AND SLIP FORMED BARRIERS ARE PROHIBITED.
- ALONG THE GUTTERLINES, DO NOT ATTACH BARRIER FORMS TO THE NEWLY PLACED CONCRETE DECK WITHIN THE WATERTABLE AREA.
- PREPARE BEARING AREAS AS SPECIFIED IN PUBLICATION 408, SECTION 1001.3(K)9.
- APPLY A MEMBRANE WATERPROOFING OVER ALL CONSTRUCTION AND EXPANSION JOINTS IN ABUTMENTS AND WINGWALL STEMS.
- PROVIDE EPOXY BONDING COMPOUND IN ACCORDANCE WITH PUBLICATION 408 SECTIONS 706 AND 1001.3(m).
- APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALER, BRIDGE SUPERSTRUCTURE) IN ACCORDANCE WITH SECTION 1019, TO THE BARRIERS ON DECK (FRONT FACE, TOP, REAR FACE, AND UNDERSIDE OF DECK TO THE FLANGE TIP).
- APPLY PROTECTIVE COATING FOR REINFORCED CONCRETE SURFACES (PENETRATING SEALER, REINFORCED CONCRETE SUBSTRUCTURE SURFACES) IN ACCORDANCE WITH SECTION 1019, TO ALL EXPOSED CONCRETE SURFACES INCLUDING BRIDGE SEAT AND BACKWALL.
- PROVIDE 10-FOOT MAXIMUM SPACING OF MODIFIED DEFLECTION JOINTS IN BRIDGE BARRIERS.
- SEAL DOWN THE REAR FACE OF THE BARRIER IN ADDITION TO THE FRONT FACE AND TOP OF BARRIER. SEE BC-752M FOR ADDITIONAL NOTES AND DETAILS.
- PROVIDE EPOXY JOINT SEALING ALONG TRANSVERSE AND LONGITUDINAL DECK CONSTRUCTION JOINTS; SEE STANDARD DRAWING BC-752M FOR ADDITIONAL NOTES AND DETAILS.
- DO NOT PLACE DECK CONCRETE WHEN WIND SPEEDS EXCEEDING 30 MPH ARE POSSIBLE IN A PERIOD OF 24 HOURS FROM COMPLETION OF DECK POUR.
- PLACE CHEEKWALL, AND BACKWALL CONCRETE AFTER GIRDERS ARE SET IN POSITION.

DESIGNED BY	KAM
DRAWN BY	TMK
CHECKED BY	KAM

STEEL NOTES

- PROVIDE STRUCTURAL STEEL CONFORMING TO AASHTO M 270 GRADES 50W (ASTM A 709 GRADES 50W) DESIGNATION, FOR ALL STEEL.
- PROVIDE A CLASS B SURFACE CONDITION FOR FAYING SURFACE.
- IF GIRDERS CANNOT BE SHIPPED IN THE LENGTHS SHOWN ON THE PLANS, FIELD SPLICES WILL BE PERMITTED AT THE REQUEST OF THE CONTRACTOR, BUT NO COMPENSATION WILL BE ALLOWED FOR THE SPLICES.
- IF GIRDERS CAN BE FABRICATED IN LENGTHS LONGER THAN THE SECTIONS SHOWN ON THE PLANS BY ELIMINATING FIELD SPLICES, FIELD SPLICES MAY BE OMITTED AT THE REQUEST OF THE CONTRACTOR. THE CONTRACTOR ASSUMES FULL RESPONSIBILITY FOR SECURING A HAULING PERMIT. APPROVAL FOR ELIMINATION OF A FIELD SPLICE AT THE SHOP DRAWING STAGE DOES NOT OBLIGATE THE DEPARTMENT TO ISSUE A HAULING PERMIT.
- ERECT THE GIRDERS FOR THE STEEL DEAD LOAD FIT (SDLF) CONDITION.
- DO NOT USE FORM SUPPORT SYSTEMS THAT WILL CAUSE UNACCEPTABLE OVERSTRESS OR DEFORMATION TO PERMANENT BRIDGE MEMBERS.
- EXCLUDE BOLT THREADS FROM SHEAR PLANES UNLESS OTHERWISE NOTED. WHERE FEASIBLE PLACE BOLTS SO THAT THE THREADED ENDS ARE PROTECTED FROM THE WEATHER.
- ALL FASTENERS ARE ⅞" DIAMETER H.S. BOLTS, EXCEPT AS NOTED. PROVIDE ASTM A325 H.S. BOLTS TYPE 3 UNLESS OTHERWISE NOTED FOR UNPAINTED WEATHERING STEEL. USE ASTM A325, TYPE 1 MECHANICALLY GALVANIZED BOLTS IN ALL PAINTED AREAS. AFTER INSTALLATION CLEAN LUBRICANT FROM THE GALVANIZED BOLTS BY A METHOD APPROVED BY THE REPRESENTATIVE.
- USE STANDARD SIZE HOLES UNLESS OTHERWISE NOTED.
- BOLTS, NUTS AND WASHERS ARE INCIDENTAL TO FABRICATED STRUCTURAL STEEL.
- USE TURN-OF-THE-NUT METHOD FOR BOLTED CONNECTIONS. AFTER OBTAINING SNUG FIT CONDITION, MARK WITH A STRAIGHT LINE ALL BOLTS, NUTS, AND PLATES TO MONITOR ALL ROTATION OF BOLTS AND NUTS RELATIVE TO PLATES.
- REAM SUBDRILLED OR SUBPUNCHED HOLES FOR FIELD SPLICES IN THE FABRICATION SHOP.
- PROVIDE WELDED STUD SHEAR CONNECTORS MANUFACTURED FROM STEEL CONFORMING TO ASTM A 108. INSTALL SHEAR CONNECTORS IN THE FIELD AFTER INSTALLING THE DECK FORMS.
- PRIOR TO INSTALLING THE SHEAR CONNECTORS, REMOVE PAINT FROM THE SHEAR CONNECTOR WELD AREAS. REMOVE PAINT BY GRINDING OR OTHER SUITABLE MEANS. DO NOT DAMAGE THE TOP FLANGE.
- CLEAN DAMAGED PAINT AREAS AROUND THE INSTALLED SHEAR CONNECTORS AND APPLY PRIMER TO THOSE CLEANED AREAS AND TO ANY BARE STEEL ADJACENT TO THE SHEAR CONNECTORS.
- SET ANCHOR BOLTS IN PREFORMED HOLES. DO NOT DRILL UNLESS SPECIFICALLY INDICATED ON PLANS. FILL THE PREFORMED HOLES WITH NON-SHRINK GROUT. FILL THE CLEARANCE BETWEEN ANCHOR BOLTS AND HOLES IN MASONRY PLATES WITH APPROVED NON HARDENING CAULKING COMPOUND CONFORMING TO PUBLICATION 408, SECTION 705.8. FILL THE PREFORMED HOLES DURING THE WINTER IF HOLES ARE NOT GROUTED. SUBMIT METHOD OF FILLING HOLES DURING WINTER FOR REVIEW AND APPROVAL.
- PROVIDE SWEDGE ANCHOR BOLTS CONFORMING TO ASTM 1554, GRADE 55. PROVIDE SWEDGES THAT ARE PRESSED (STAMPED) OR ROLLED. HOT DIP GALVANIZE BOLTS, NUTS, AND WASHERS. CUT SWEDGES AND ALL-THREAD BOLTS ARE NOT PERMITTED.
- PERFORM CHARPY V-NOTCH TESTS AS SPECIFIED IN SECTION 1105.02(a)5.
- PAINT ENDS OF GIRDERS WITHIN INDICATED LIMITS IN ACCORDANCE WITH SECTION 1060. PAINT ONLY PRIMER ON PORTIONS OF STEEL THAT WILL BE EMBEDDED IN CONCRETE OR IN CONTACT WITH THE ELASTOMERIC BEARINGS.
- APPLY PRIMER, INTERMEDIATE AND FINISH COATS IN THE SHOP WITH DAMAGED AREAS TOUCHED UP IN FIELD. SUBMIT A METHOD OF REPAIR TO THE REPRESENTATIVE FOR REVIEW AND APPROVAL. USE AN ORGANIC ZINC RICH PRIMER.
- PROVIDE PAINT CHIPS TO THE DISTRICT BRIDGE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO APPLICATION.
- FIELD PAINT DAMAGED SURFACES AS DIRECTED BY THE REPRESENTATIVE AT NO ADDITIONAL COST TO THE DEPARTMENT.
- BLAST CLEAN THE FAYING SURFACES OF SPLICES AND CONNECTIONS OF ALL STRUCTURAL ELEMENTS IN ACCORDANCE WITH PUBLICATION 408 SECTION 1060.3(b)3. REBLAST UNPAINTED ELEMENTS THAT REMAIN UNASSEMBLED FOR A PERIOD OF 12 MONTHS OR MORE FOLLOWING THE INITIAL CLEANING.
- IF THE CONTRACTOR MODIFIES THE OVERHANG BRACKET FROM THAT DESCRIBED IN THE OVERHANG FORMING NOTES, THE CONTRACTOR MUST SUBMIT CALCULATIONS THAT INCLUDE, IN ADDITION TO THE REQUIREMENTS LISTED IN THE OVERHANG FORMING NOTES, A DESIGN THAT LIMITS OVERHANG DEFLECTION CAUSED BY THE GIRDER ROTATION TO MAXIMUM OF 1#4".
- MAINTAIN STABILITY OF PARTIAL GIRDERS AND COMPLETE GIRDERS DURING ERECTION, UNTIL ALL GIRDERS AND DIAPHRAGMS ARE IN-PLACE AND ALL BOLTS ARE PROPERLY INSTALLED. EVALUATE ERECTION LOADS INCLUDING SELF WEIGHT OF THE STEEL MEMBERS, WIND LOADING AND CONSTRUCTION LIVE LOAD EFFECTS FOR STABILITY, STRESSES, AND DEFLECTIONS ON THE STEEL MEMBERS DURING ANY STAGE OF ERECTION.
- SUBMIT DESIGNS FOR TEMPORARY BENTS, GUY WIRES AND ALL OTHER SUPPORT SYSTEMS REQUIRED FOR ERECTION TO THE REPRESENTATIVE FOR REVIEW AND APPROVAL.
- PROVIDE ADDITIONAL TEMPORARY BRACING FOR THE FASCIA GIRDER IF THE CALCULATED LATERAL DISPLACEMENT OF THE FLANGES EXCEEDS¼" OR THE MAXIMUM DEFLECTION OF THE WEB EXCEEDS D/360 DURING THE DECK POUR. CALCULATE DISPLACEMENTS DUE TO LOADING OF OVERHANG BRACKET, CONCRETE DECK FINISHING MACHINE AND WORKERS.
- THE COST OF FALSEWORK, TEMPORARY BENTS, WIND BRACING, FASCIA GIRDER BRACING AND ALL OTHER TEMPORARY SUPPORT SYSTEMS REQUIRED DURING ANY STAGE OF CONSTRUCTION IS INCIDENTAL TO THE FABRICATED STRUCTURAL STEEL ITEM.
- WHEN ERECTING GIRDERS OVER THE RAILROAD TRACKS, THEY MUST BE SECURED AND ADEQUATELY BRACED TO THE NEW ABUTMENT(S) AND/OR TEMPORARY TOWER(S) PRIOR TO THE TRACKS BEING REOPENED TO RAIL TRAFFIC. THE CONTRACTOR MAY ELECT TO INSTALL EACH GIRDER FIELD SECTION AND SECURE IT TO A TEMPORARY TOWER(S) THEN COMPLETE ERECTION OF THE REMAINING FIELD SECTIONS AND COMPLETE THE FIELD SPLICE AT THE TEMPORARY TOWER(S) OR THE FIELD SECTIONS MAY BE BOLTED TOGETHER ON THE GROUND PRIOR TO LIFTING, THEN THE ENTIRE GIRDER LIFTED INTO PLACE AND ADEQUATELY BRACED TO THE ABUTMENTS AND OR TEMPORARY TOWER(S) PRIOR TO REOPENING THE TRACKS TO RAIL TRAFFIC. AT NO TIME WILL RAIL TRAFFIC BE ALLOWED TO PASS WHEN THE GIRDER IS SUPPORTED ONLY BY A CRANE. ALL CRANES, LIFTING DEVICES AND ASSOCIATED HARDWARE AND RIGGING MUST BE ADEQUATE TO SUPPORT 150% OF THE LIFTED WEIGHT.

REINFORCING STEEL

- PROVIDE GRADE 60 REINFORCING STEEL BARS THAT MEET THE REQUIREMENTS OF ASTM A 615, A 996, OR A 706. 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 CHIEF BRIDGE ENGINEER. DO NOT USE RAIL STEEL A 966 REINFORCEMENT BARS IN BRIDGE PIERS, ABUTMENTS, SHEAR BLOCKS, BEAMS, FOOTINGS, PILES, BARRIERS OR WHERE BENDING OR WELDING OF THE REINFORCEMENT BARS IS INDICATED.
- EPOXY COAT ALL REINFORCEMENT BARS.
- GALVANIZED REINFORCING STEEL BARS MAY BE SUBSTITUTED FOR EPOXY-COATED REINFORCING STEEL BARS AT NO ADDITIONAL COST TO THE DEPARTMENT.
- WELDING OF REINFORCEMENT BARS DURING FABRICATION OR CONSTRUCTION IS NOT PERMITTED UNLESS SPECIFIED.
- PROVIDE MINIMUM EMBEDMENT AND SPLICE LENGTHS IN ACCORDANCE WITH STANDARD DRAWING BC-736M, UNLESS OTHERWISE INDICATED.

WELDING

- WELDING SPECIFICATIONS: AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE (2015) CONSISTENT WITH PUBLICATION 408 SECTION 1105.03(m) OF PUB. 408 AND THE SPECIAL CONTRACT PROVISIONS. USE QUALIFIED WELDERS IN ACCORDANCE WITH AWS D1.5 SECTION 5 PART B.
- FIELD WELDING OF STEEL: USE THE SHIELDED METAL ARC PROCESS AND LOW HYDROGEN ELECTRODES WHICH ARE COMPATIBLE WITH THE BASE METAL AS SPECIFIED, AND IN ACCORDANCE WITH AN APPROVED WELD PROCEDURE SPECIFICATION.
- MAKE TACK WELDS WITH THE SAME TYPE ELECTRODE AND INCORPORATE IN THE FINAL WELD. NO OTHER TACK WELDING WILL BE PERMITTED.
- DO NOT MAKE WELDS BY MANUAL SHIELDED METAL ARC PROCESS FOR PRIMARY GIRDER WELDS, SUCH AS FLANGE TO WEB WELDS OR FOR SHOP SPLICES OF WEBS AND FLANGES.
- DO NOT WELD WHEN SURFACES TO BE WELDED ARE MOIST OR EXPOSED TO RAIN, SNOW OR WIND, OR WHEN WELDERS ARE EXPOSED TO INCLEMENT CONDITIONS THAT WILL ADVERSELY AFFECT THE QUALITY OF THE WORK.
- DO NOT WELD OR BURN WHEN THE TEMPERATURE IS BELOW 0-DEGREES F. PREHEAT AND MAINTAIN THE TEMPERATURE OF THE METAL TO AT LEAST 70-DEGREES F WHEN THE TEMPERATURE OF THE METAL IS BETWEEN 0-DEGREES F AND 32-DEGREES F DURING WELDING OR BURNING.
- PREHEAT THE STEEL TO THE SPECIFIED MINIMUM TEMPERATURE FOR A DISTANCE EQUAL TO THE THICKNESS OF THE PART BEING WELDED, BUT NOT LESS THAN 3 INCHES IN ALL DIRECTIONS FROM THE POINT OF THE WELDING.
- REMOVE ANY MOISTURE PRESENT AT POINT OF WELD BY APPLICATION OF HEAT. PROVIDE WINDBREAKS FOR PROTECTION FROM DIRECT WIND.
- THOROUGHLY CLEAN ALL PORTIONS OF NEW SURFACES TO RECEIVE WELDS OF ALL FOREIGN MATTER FOR A DISTANCE OF 2" FROM EACH SIDE OF THE OUTSIDE LINES OF WELD PRIOR TO PLACING THE WELD.
- DO NOT WELD PERMANENT METAL DECK FORMS OR OTHER ATTACHMENTS TO GIRDER TOP FLANGES IN TENSION AREAS. (TENSION AREAS OF THE FLANGES ARE DESIGNATED ON THE PLANS). THREADED STUDS FOR THE SUPPORT OF THE OVERHANG DECK FORMING BRACKET IS PERMITTED PROVIDED THE THREADED STUD IS ATTACHED WITH THE SAME WELDING PROCESS AS THE SHEAR STUDS. WELDING OF SHEAR CONNECTORS TO THE TOP FLANGE IN THE TENSION REGIONS IS ACCEPTABLE.
- FIELD WELDING, EXCEPT FOR SHEAR CONNECTORS IS NOT PERMITTED UNLESS APPROVED BY THE REPRESENTATIVE.
- TEST COMPLETED WELDS USING VISUAL AND NONDESTRUCTIVE METHODS IN ACCORDANCE WITH AASHTO/AWS D1.5M/D1.5 BRIDGE WELDING CODE CHAPTER 6.

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33868-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

GENERAL NOTES

RECOMMENDED *February 12th, 2026*

SHEET 3 OF 50

L - 645

BRIDGE LOAD RATING (LRFD)

ADTT = 50 (2025) SEE NOTES

ADTT = 50 (2045) SEE NOTES

WELDED STEEL PLATE GIRDERS

		WITHOUT FUTURE WEARING SURFACE							WITH FUTURE WEARING SURFACE						
		H20	HS20	ML80	TK-527	PHL-93	P-82	P2016-13	H20	HS20	ML80	TK-527	PHL-93	P-82	P2016-13
INVENTORY RATING (IR)	DISTRIBUTION FACTOR	0.923	0.923	0.923	0.923	0.923	----	----	0.923	0.923	0.923	0.923	0.923	----	----
	GIRDER	EXT	EXT	EXT	EXT	EXT	----	----	EXT	EXT	EXT	EXT	EXT	----	----
	LOCATION	0.00	30.25	30.25	30.25	30.25	----	----	0.00	30.25	30.25	30.25	30.25	----	----
	RESISTANCE	537 KIPS	47.8 KSI	47.8 KSI	47.8 KSI	47.8 KSI	----	----	537 KIPS	47.8 KSI	47.8 KSI	47.8 KSI	47.8 KSI	----	----
	LIMIT STATE	STR-I	STR-I	STR-I	STR-I	STR-I	----	----	STR-I	STR-I	STR-I	STR-I	STR-I	----	----
	RATING FACTOR	2.88 (S)	2.55 (M)	2.35 (M)	2.25 (M)	1.77 (M)	----	----	2.72 (S)	2.39 (M)	2.20 (M)	2.10 (M)	1.66 (M)	----	----
OPERATING RATING (OR)	DISTRIBUTION FACTOR	0.923	0.923	0.923	0.923	0.923	0.923	0.923	0.923	0.923	0.923	0.923	0.923	0.923	0.923
	GIRDER	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT	EXT
	LOCATION	0.00	30.25	30.25	30.25	30.25	30.25	0.00	0.00	30.25	30.25	30.25	30.25	30.25	30.25
	RESISTANCE	537 KIPS	47.8 KSI	47.8 KSI	47.8 KSI	47.8 KSI	47.8 KSI	537 KIPS	537 KIPS	47.8 KSI	47.8 KSI	47.8 KSI	47.8 KSI	47.8 KSI	47.8 KSI
	LIMIT STATE	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II	STR-II	STR-II	STR-II	STR-II	STR-IA	STR-II	STR-II
	RATING FACTOR	3.73 (S)	3.31 (M)	3.05 (M)	2.91 (M)	2.30 (M)	1.53 (M)	1.28 (S)	3.53 (S)	3.10 (M)	2.85 (M)	2.73 (M)	2.15 (M)	1.43 (M)	1.21 (M)

CRITICAL MEMBER FOR GOVERNING RATING	
MAXIMUM FACTORED FLEXURAL RESISTANCE	15097.97 K-FT
LOCATION	0.00 - 118.00
MAXIMUM FACTORED SHEAR RESISTANCE	537.26
LOCATION	0.00

NOTES:

- LOW VOLUME ROAD: ADT ASSUMED = 500, ADTT ASSUMED = 50
- INCLUDES FUTURE WEARING SURFACE OF 30 PSF WHERE APPLICABLE
- P-82 RATINGS ARE BASED ON MULTI-LANE DISTRIBUTION FACTORS
- P2016-13 RATINGS ARE BASED ON MULTI-LANE DISTRIBUTION FACTORS

LEGEND:

M - FLEXURE GOVERNS
S - SHEAR GOVERNS
EXT - EXTERIOR GIRDER

FOUNDATION NOTES

- THE CONTRACTOR IS RESPONSIBLE FOR THE STABILITY OF ALL EXCAVATED SLOPES. DIRECT SURFACE RUNOFF AWAY FROM THE EXCAVATION. PERFORM ALL EXCAVATIONS IN ACCORDANCE WITH OSHA REQUIREMENTS. SEE SPECIAL PROVISION ENTITLED "TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM"
- THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING SUFFICIENT DEWATERING SO THAT THE EXCAVATIONS ARE FREE OF DELETERIOUS MATERIAL AND DRY ENOUGH TO BE INSPECTED BY THE DISTRICT GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE
- TEMPORARY SHORING SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH SPECIAL PROVISION, TEMPORARY EXCAVATION SUPPORT AND PROTECTION SYSTEM.
- BLASTING IS NOT PERMITTED FOR FOUNDATION EXCAVATION.
- SEISMIC SITE CLASS IS NOT CLASS E.
- CLASS 3 EXCAVATION IS NOT SUITABLE FOR EMBANKMENT MATERIAL.
- FOUNDATION EXCAVATIONS ARE TO BE INSPECTED AND APPROVED BY THE DISTRICT GEOTECHNICAL ENGINEER. PROVIDE A MINIMUM 48-HOURS OF NOTICE TO THE DISTRICT GEOTECHNICAL ENGINEER.
- THE DEPTH OF FROST PENETRATION IS 3'-3" (39"). ENSURE PILE CAPS OR NON-FROST SUSCEPTIBLE AGGREGATE IS PLACED TO FROST DEPTH AT A MINIMUM.
- MICROPILES - SEE MICROPILE DETAIL SHEET NO. 28

UTILITY NOTES

- COORDINATE, LOCATE, AND CONDUCT ALL WORK RELATED TO PUBLIC AND PRIVATE UTILITIES IN ACCORDANCE WITH PUBLICATION 408, SECTIONS 105.06 AND 107.12.
- PRIOR TO ANY EXCAVATION OR DEMOLITION WORK, CONTACT THE PA ONE CALL SYSTEM INC. AT 1-800-242-1776 AND COMPLY WITH THE PROVISIONS OF ACT 287 OF 1994 AS AMENDED BY ACT 187 OF 1996. IDENTIFY ALL LINES OVER AND UNDER THE STRUCTURE. NOTIFY AND COMPLY WITH THE APPLICABLE UTILITIES COMPANY'S CLEARANCE REQUIREMENTS. DESIGNER'S SERIAL NUMBERS IS: 20182121684 (NORTH IRWIN BOROUGH)
- COORDINATE THE REQUIREMENTS FOR PROTECTION AND/OR RELOCATION OF UTILITIES WITH THE UTILITY OWNER PRIOR TO STARTING WORK. VERIFY AND LOCATE ALL EXISTING UTILITIES PRIOR TO STARTING WORK. CONDUCT OPERATIONS IN A MANNER WHICH ENSURES THAT THE UTILITIES WILL NOT BE DISTURBED OR ENDANGERED AND ASSUME FULL RESPONSIBILITY FOR ANY DAMAGE TO UTILITIES DURING CONSTRUCTION. THE DEPARTMENT DOES NOT ASSUME RESPONSIBILITY FOR REIMBURSEMENT, PARTICIPATION IN DESIGN AND/OR REVISIONS OR LIABILITY FOR ACCURACY OF TYPE, SIZE AND LOCATION OF ANY UTILITY.

EXISTING STRUCTURE

- PLANS OF THE EXISTING BRIDGE ARE NOT AVAILABLE.
- VERIFY ALL DIMENSIONS AND GEOMETRY OF THE EXISTING STRUCTURE IN THE FIELD AS NECESSARY FOR PROPER FIT OF THE PROPOSED CONSTRUCTION.
- AFTER EXCAVATING FOR PROPOSED FOUNDATIONS, NOTIFY THE REPRESENTATIVE IF ANY PORTION OF THE EXISTING FOUNDATIONS INTERFERE WITH THE PROPOSED FOUNDATIONS.

DESIGNED BY	KAM
DRAWN BY	TMK
CHECKED BY	KAM

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33660-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

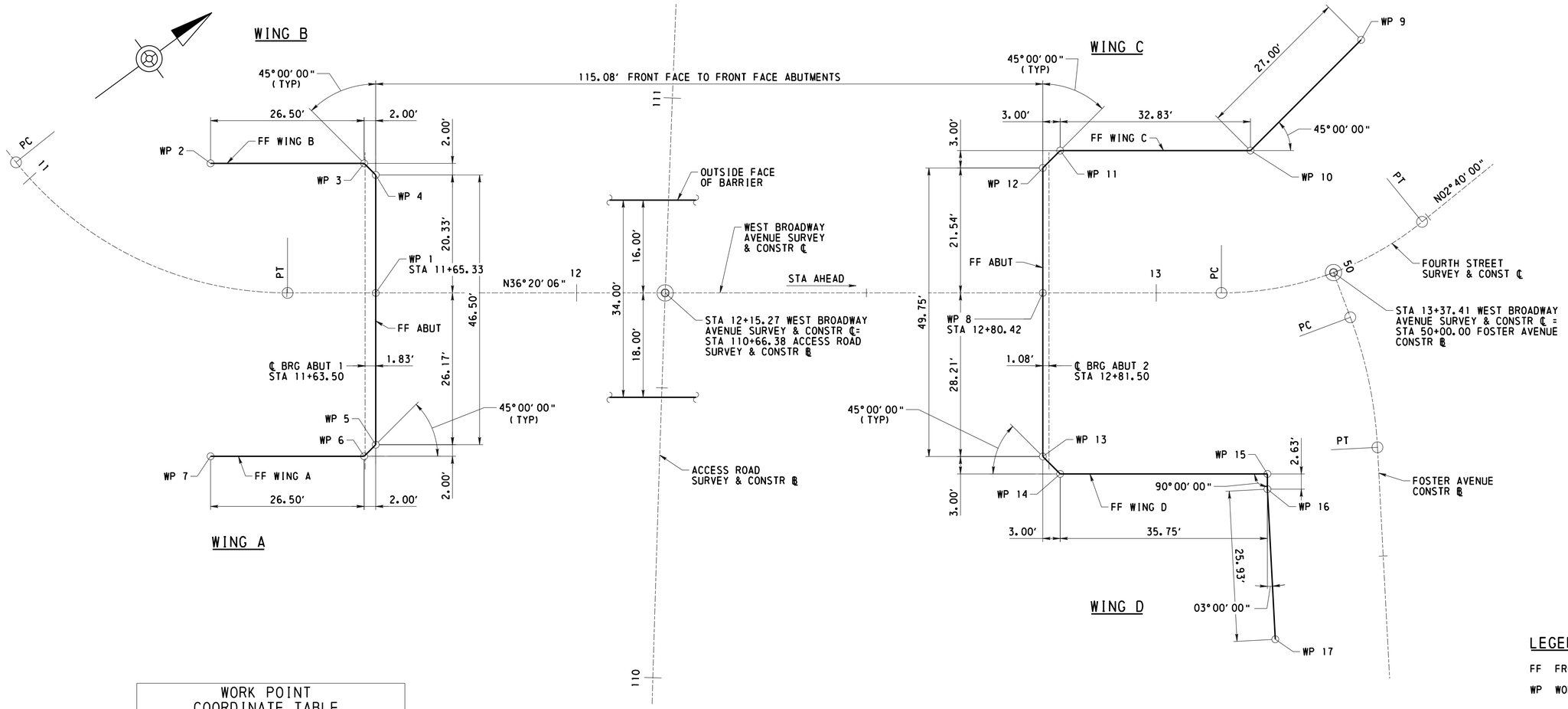
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

GENERAL NOTES & RATING TABLE

RECOMMENDED *February 12th, 2026*

SHEET 4 OF 50

L - 645



STAKE-OUT PLAN

NOT TO SCALE

WORK POINT COORDINATE TABLE

WORK POINT	NORTH	EAST
1	N 371,798.9854	E 1,421,012.1113
2	N 371,789.2594	E 1,420,977.2339
3	N 371,810.6069	E 1,420,992.9353
4	N 371,811.0330	E 1,420,995.7315
5	N 371,783.4814	E 1,421,033.1903
6	N 371,780.6853	E 1,421,033.6164
7	N 371,759.3378	E 1,421,017.9149
8	N 371,891.6952	E 1,421,080.3009
9	N 371,961.7889	E 1,421,077.6908
10	N 371,935.1033	E 1,421,081.7576
11	N 371,908.6503	E 1,421,062.3065
12	N 371,904.4561	E 1,421,062.9457
13	N 371,874.9789	E 1,421,103.0226
14	N 371,875.6181	E 1,421,107.2168
15	N 371,904.4197	E 1,421,128.4009
16	N 371,902.8617	E 1,421,130.5135
17	N 371,888.6160	E 1,421,152.1777

NOTES

- FOUR (4) PLACE COORDINATES ARE FOR COMPUTATION PURPOSES ONLY AND DO NOT IMPLY A PRECISION BEYOND TWO (2) PLACES
- COORDINATES ARE BASED ON THE PENNSYLVANIA STATE PLANE COORDINATE SYSTEM (NAD83 SOUTH ZONE #3702). THE COMBINED SCALE FACTOR IS 0.99992127)

LEGEND

FF FRONT FACE

WP WORK POINT

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	KAM
DRAWN BY	SJW
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

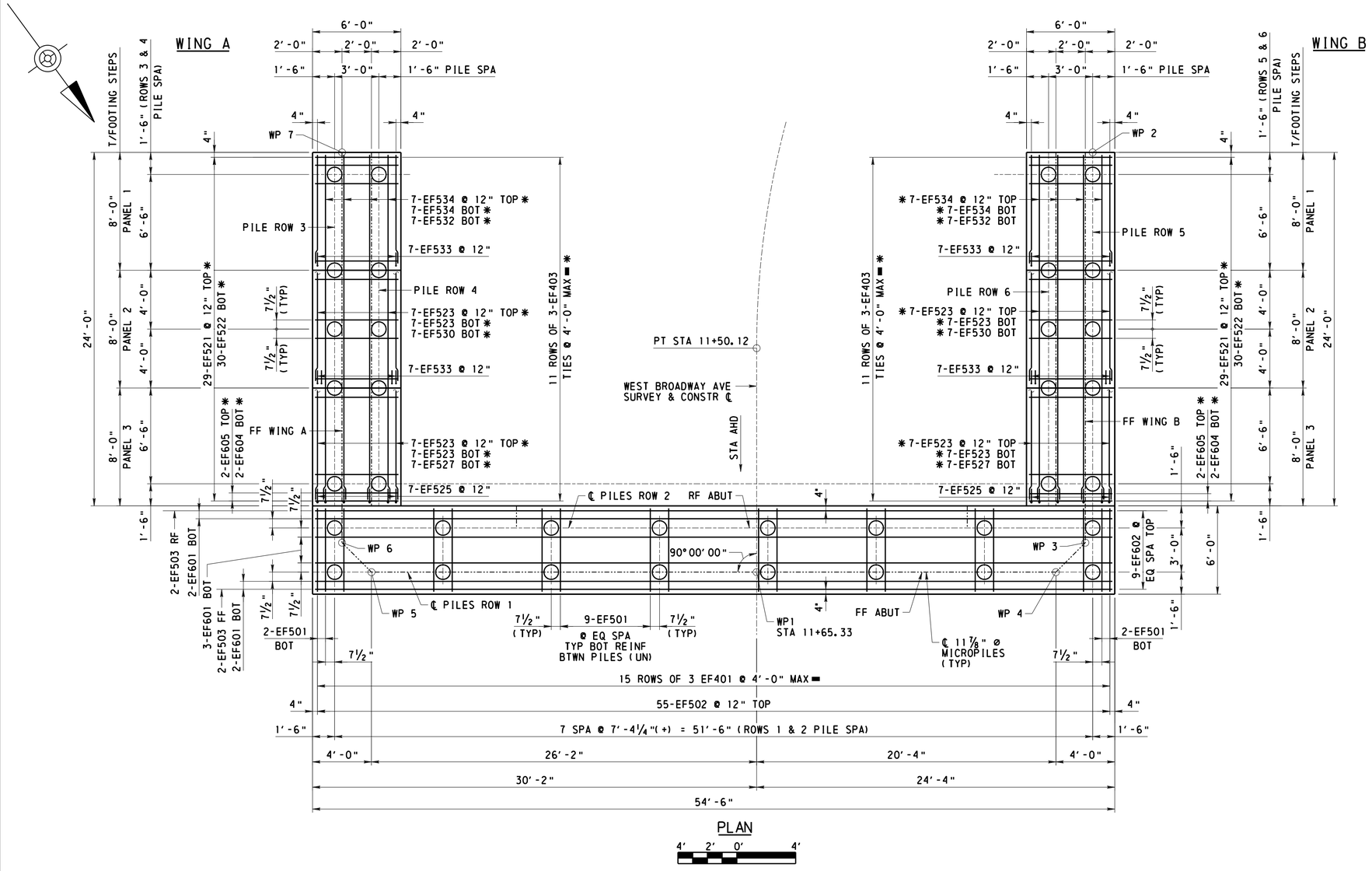
STAKE OUT PLAN

RECOMMENDED *February 12th, 2026*

SHEET 5 OF 50

L - 645

\\corp.saiengr.com\Data\Client\PGH_Client\15045-000-Fourth_Str_Br\CADD\Structure\BR1\Final\BR1STK01.dgn 9:35:24 AM 2/9/2026



PLAN

4' 2' 0' 4'

NOTES

- FOR STAKE OUT PLAN SEE SHEET 5
- FOR ABUTMENT 1 PLAN, SEE SHEET 7
- FOR ABUTMENT 1 ELEVATION, SEE SHEET 8
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR REINFORCEMENT BAR SCHEDULE SEE SHEET 40
- SEE ABUTMENT AND WINGWALLS SECTIONS FOR REINFORCEMENT SPACING

LEGEND

WP WORK POINT
FF FRONT FACE
RF REAR FACE
EF EACH FACE
UN UNLESS NOTED
▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.
◯ 11⅞" DIA MICROPILE
* SEE WINGWALL ELEVATIONS AND SECTIONS FOR SPACING

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
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WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

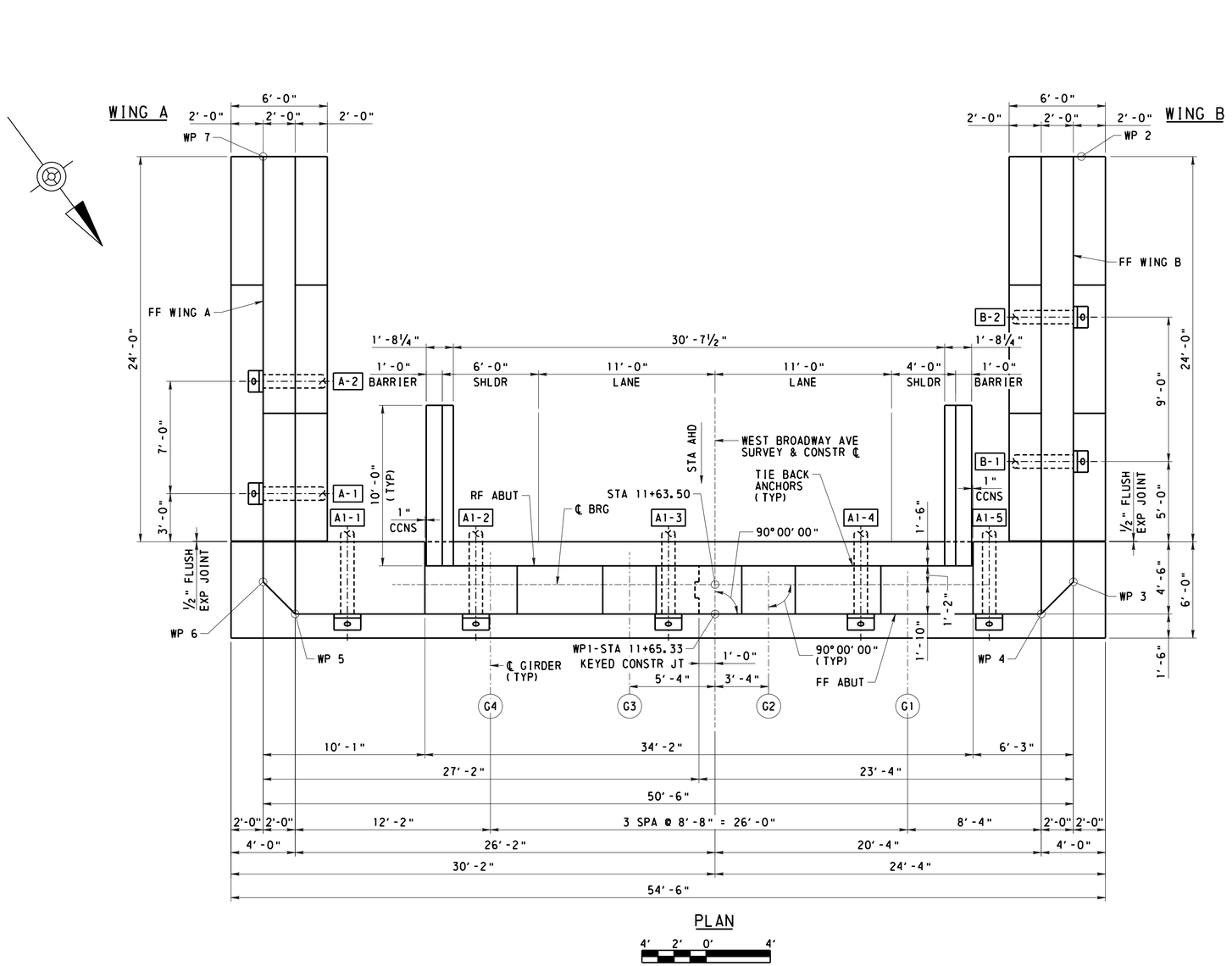
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 1 FOOTING PLAN

RECOMMENDED *February 12th, 2026*

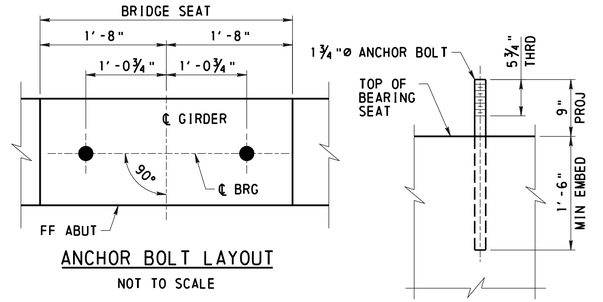
SHEET 6 OF 50

L - 645



PLAN

4' 2' 0' 4'



ANCHOR BOLT LAYOUT

NOT TO SCALE

ANCHOR BOLT DETAIL

NOT TO SCALE

NOTES

- FOR STAKE OUT PLAN SEE SHEET 5
- FOR FOOTING PLAN, SEE SHEET 6
- FOR ABUTMENT 1 ELEVATION, SEE SHEET 8
- FOR WINGWALL A DETAILS, SEE SHEET 12
- FOR WINGWALL B DETAILS, SEE SHEET 13
- FOR ANCHOR AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29
- FOR BEARING DETAILS, SEE SHEET 34
- FOR CONCRETE END DIAPHRAGM DETAILS, SEE SHEET 35
- FOR REINFORCEMENT BAR SCHEDULE SEE SHEET 40
- FOR KEYED CONSTRUCTION JOINT DETAILS SEE STANDARD DRAWING BC-735M.

LEGEND

WP	WORK POINT
FF	FRONT FACE
RF	REAR FACE
EF	EACH FACE
UN	UNLESS NOTED
CCNS	CLOSED CELL NEOPRENE SPONGE
(G1)	GIRDER NUMBER
A1-1	LATENT ANCHOR NUMBER

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 1 PLAN

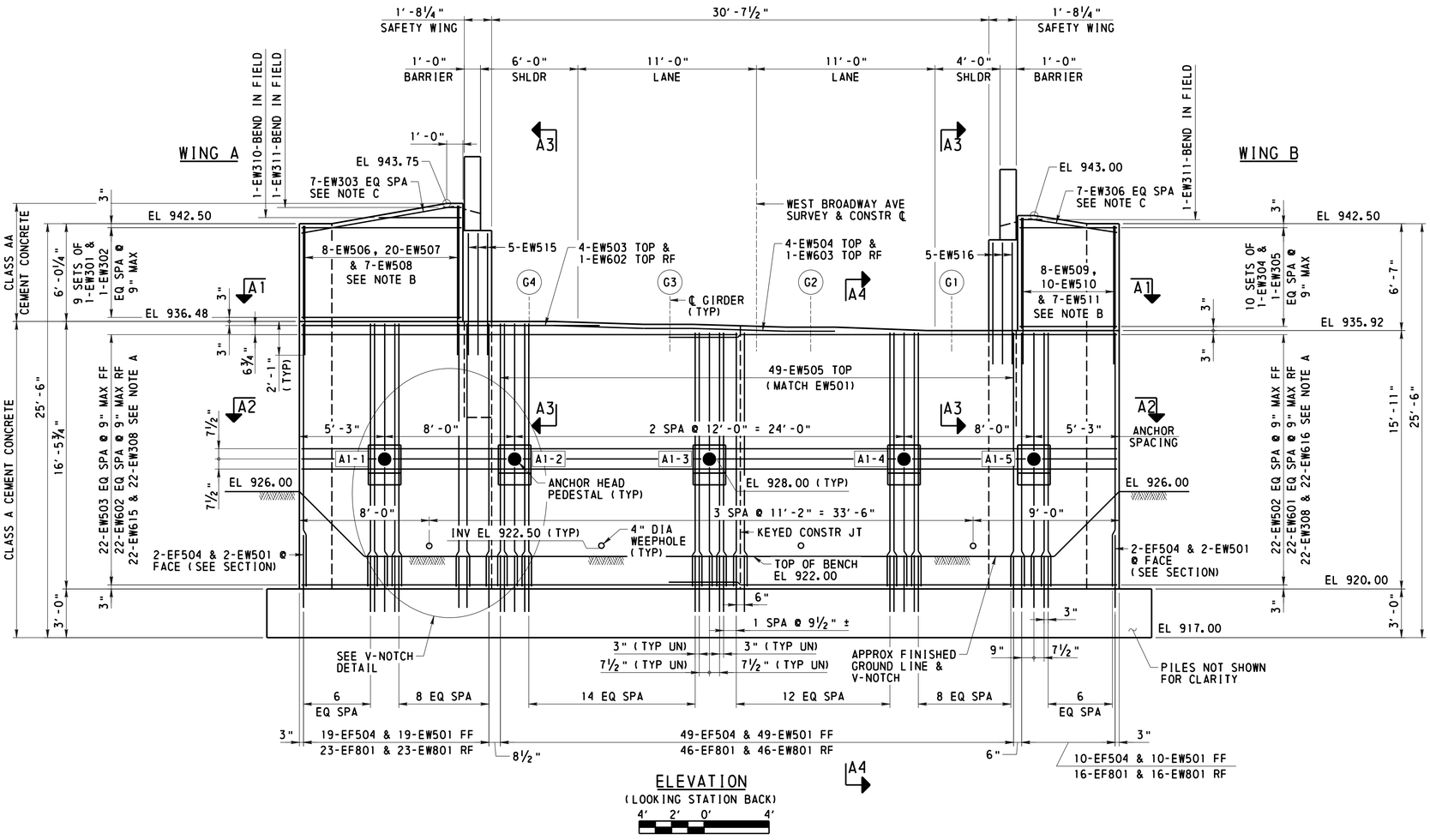
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

RECOMMENDED *February 12th, 2026*

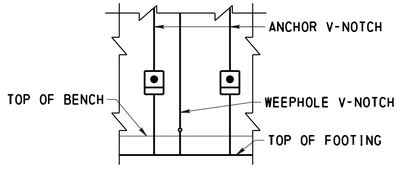
SHEET 7 OF 50

L - 645

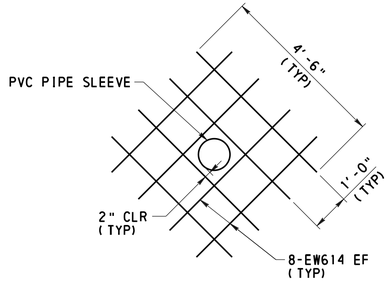
DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM



ELEVATION
(LOOKING STATION BACK)
4' 2' 0' 4'



V-NOTCH DETAIL
PROVIDE FULL HEIGHT V-NOTCHES
CENTERED AT EACH WEEPHOLE AND EACH ANCHOR
(ABUTMENT AND WINGWALLS)
NOT TO SCALE



LATENT ANCHOR REINFORCEMENT DETAIL
NOT TO SCALE

NOTE A: ADJUST SPACING OF HORIZONTAL BARS AT ANCHORS AS SHOWN.
CUT HORIZONTAL EW502, EW503, EW601, EW602 BARS AND VERTICAL EW510 AND EW801 BARS LOCATED AT CENTER OF ANCHOR CASING.
SEE SECTION A3-A3 AND A4-A4 FOR ADDITIONAL DETAILS.

NOTE B: MATCH EW501 STEM BARS EXCEPT AS NOTED IN SECTION A1-A1.

NOTE C: CUT SLOPING LEG OF EW303 AND EW306 IN THE FIELD AS REQUIRED AT CHEEKWALL CHAMFER.

NOTES
- FOR STAKE OUT PLAN SEE SHEET 5
- FOR FOOTING PLAN, SEE SHEET 6
- FOR ABUTMENT 1 PLAN, SEE SHEET 7
- FOR SECTIONS A1-A1 & A2-A2, SEE SHEET 9
- FOR SECTIONS A3-A3 & A4-A4, SEE SHEET 10
- FOR WEEPHOLE DETAILS, SEE SHEET 12
- FOR ANCHOR AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29
- FOR BEARING DETAILS, SEE SHEET 34
- FOR CONCRETE END DIAPHRAGM DETAILS, SEE SHEET 35
- FOR REINFORCEMENT BAR SCHEDULE SEE SHEET 40
- FOR ADDITIONAL STRUCTURE FOUNDATION DRAINAGE DETAILS, SEE STANDARD DRAWING BC-751M.
- FOR V-NOTCH AND CHAMFER DETAILS, SEE STANDARD DRAWING BC-752M.
- FOR KEYED CONSTRUCTION JOINT DETAILS SEE STANDARD DRAWING BC-735M.

LEGEND
WP	WORK POINT
FF	FRONT FACE
RF	REAR FACE
EF	EACH FACE
UN	UNLESS NOTED
(G1)	GIRDER NUMBER
[A1-1]	INDICATES ANCHOR NUMBER

BEAM SEAT ELEVATIONS

GIRDER	ELEVATION
G1	935.92
G2	936.13
G3	936.30
G4	936.48

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
KEITH A. MICHAEL
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

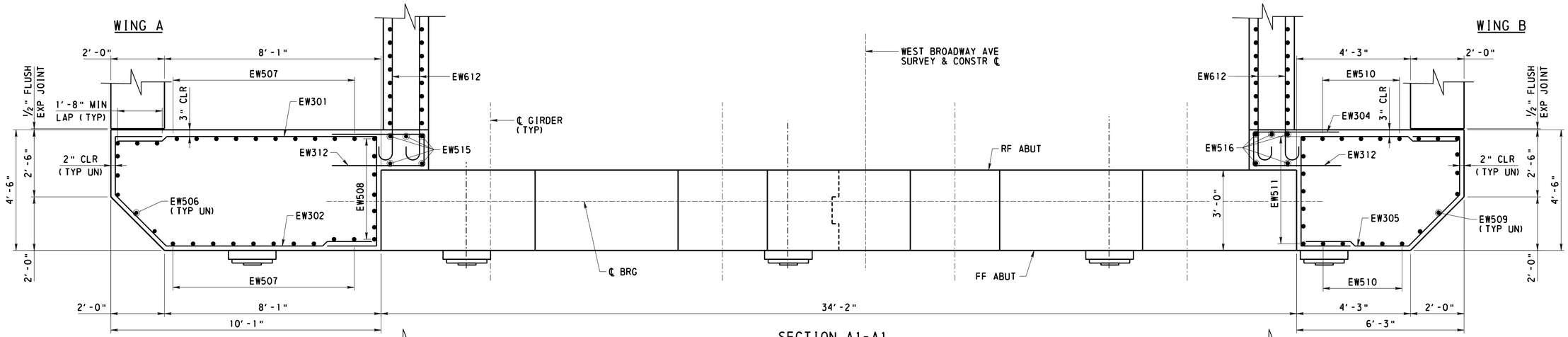
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
ABUTMENT 1 ELEVATION

RECOMMENDED *February 12th, 2026*

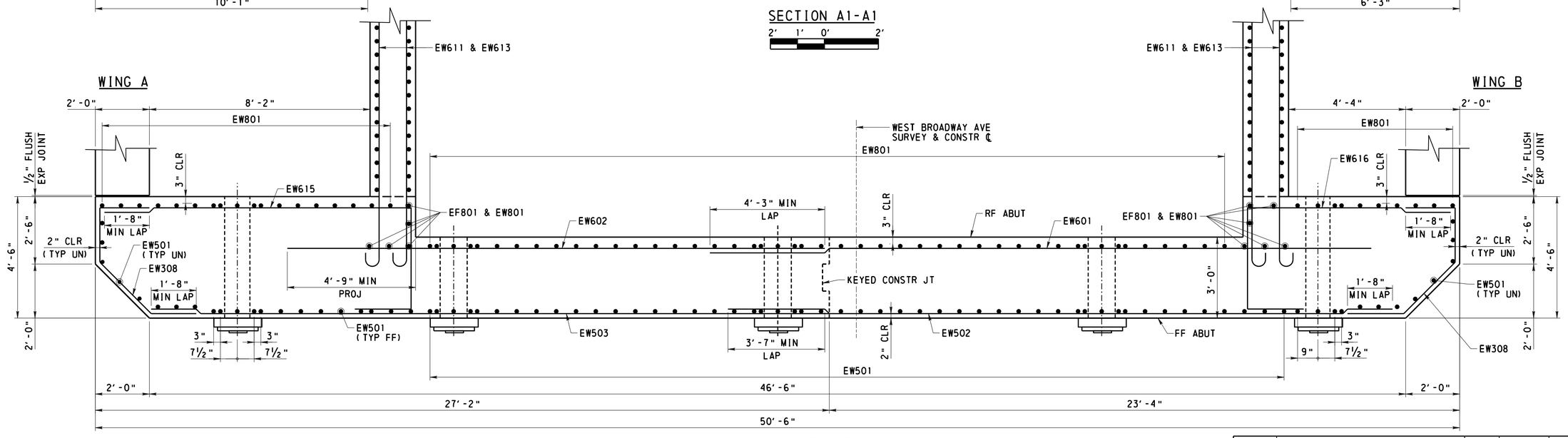
SHEET 8 OF 50

L - 645



SECTION A1-A1

2' 1' 0' 2'



NOTE: MICROPILES OMITTED FOR CLARITY IN SECTIONS A1-A1 AND A2-A2

SECTION A2-A2

2' 1' 0' 2'

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

NOTES

- FOR ABUTMENT PLAN SEE SHEET 7
- FOR ABUTMENT ELEVATION SEE SHEET 8
- WORK THIS SHEET WITH SHEET 10
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 40

LEGEND

WP WORK POINT
FF FRONT FACE
RF REAR FACE
EF EACH FACE
UN UNLESS NOTED

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33660-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

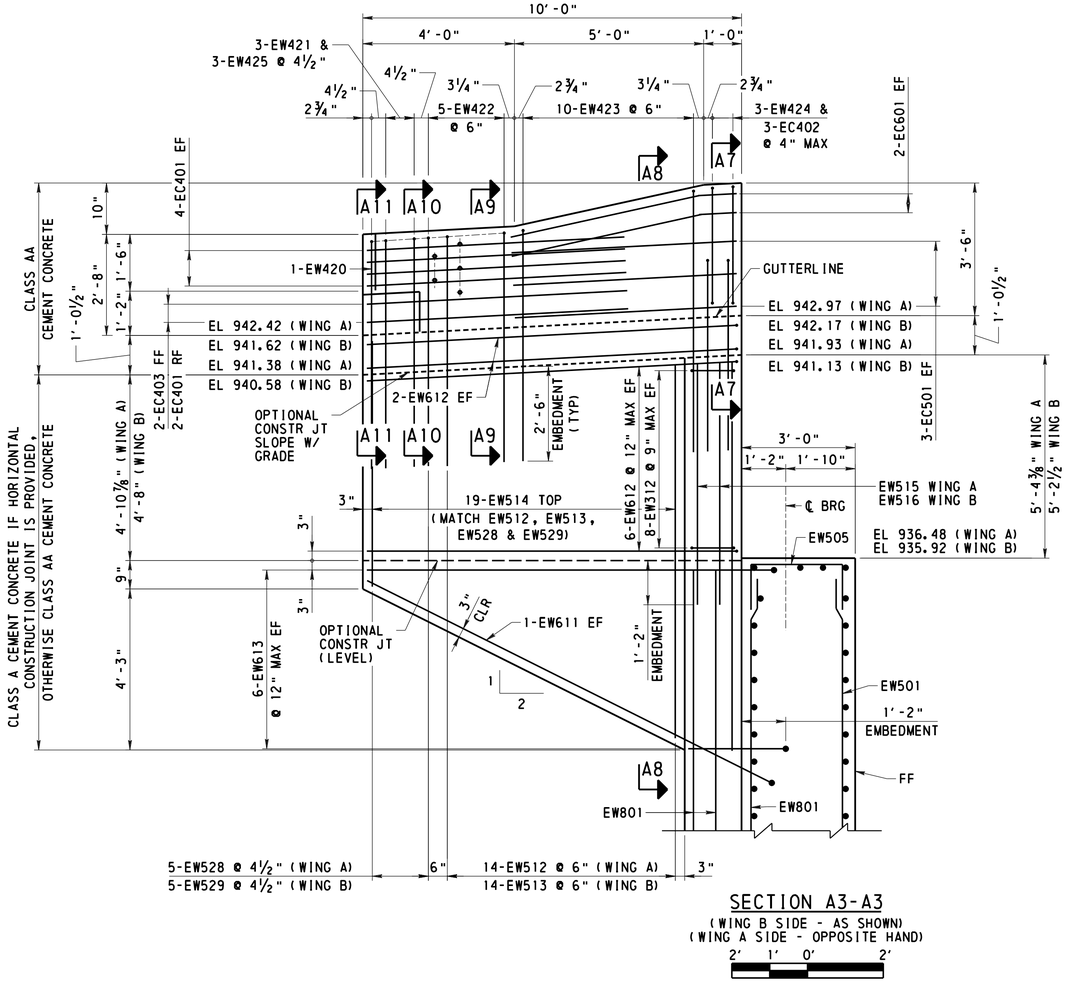
ABUTMENT 1 DETAILS 1

RECOMMENDED *February 12th, 2026*

SHEET 9 OF 50

L - 645

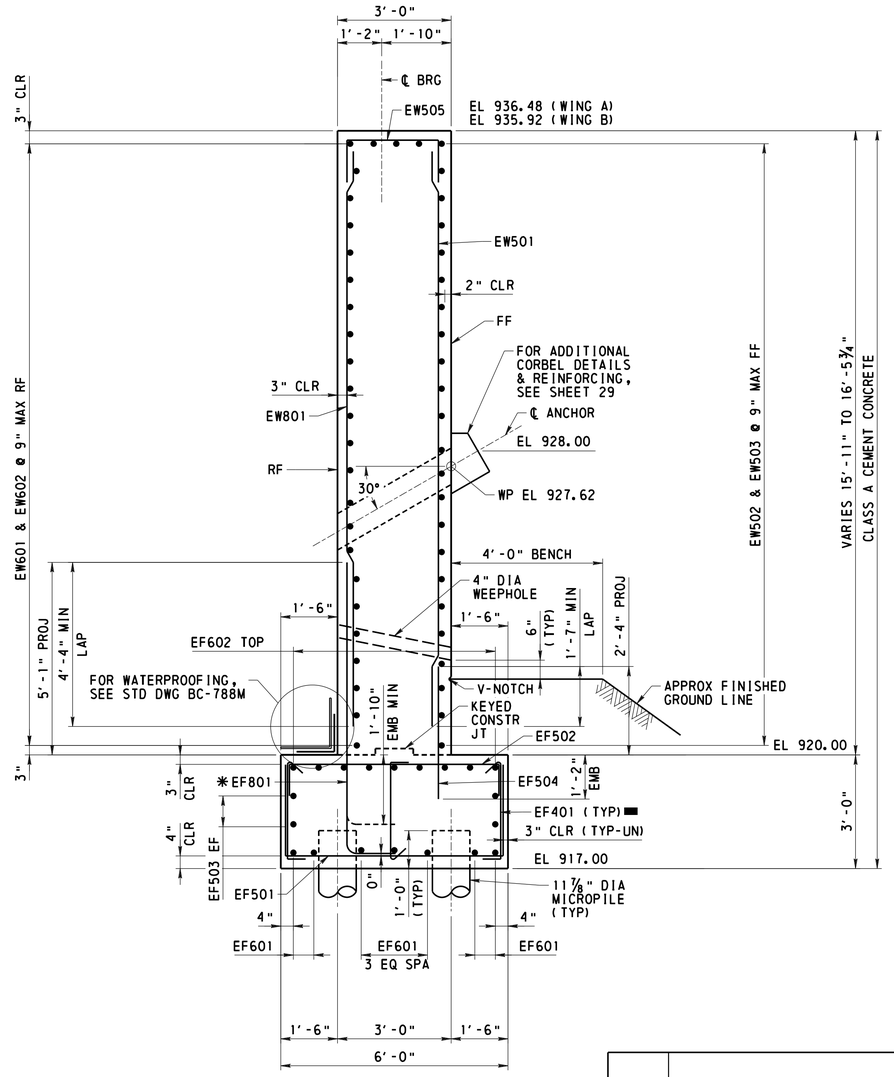
DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM



SECTION A3-A3

(WING B SIDE - AS SHOWN)
(WING A SIDE - OPPOSITE HAND)

2' 1' 0' 2'



SECTION A4-A4

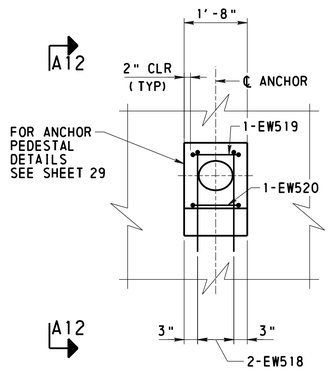
2' 1' 0' 2'

NOTES

- WORK THIS SHEET WITH SHEETS 6 THRU 9
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 40

LEGEND

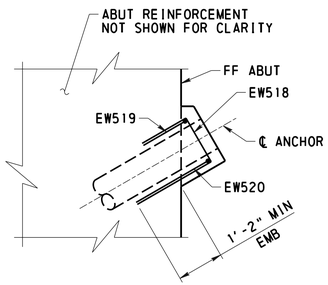
WP	WORK POINT
FF	FRONT FACE
RF	REAR FACE
EF	EACH FACE
UN	UNLESS NOTED
■	ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.
*	TIE HORIZONTAL LEG OF EF801 TO BOTTOM MATT OF FOOTING REBAR. WHERE EF801 INTERFERERS WITH MICROPILE, RAISE HOOK ABOVE MICROPILE AS SHOWN WITH 1'-10" EMBEDMENT IN THE FOOTING.



ABUTMENT ANCHOR PEDESTAL REINFORCEMENT DETAIL

(TYP A1-1 THRU A1-5)

NOT TO SCALE



SECTION A12-A12

NOT TO SCALE

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

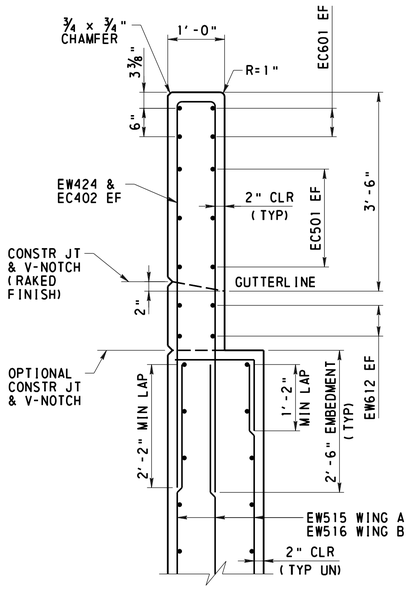
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 1 DETAILS 2

RECOMMENDED *February 12th, 2026*

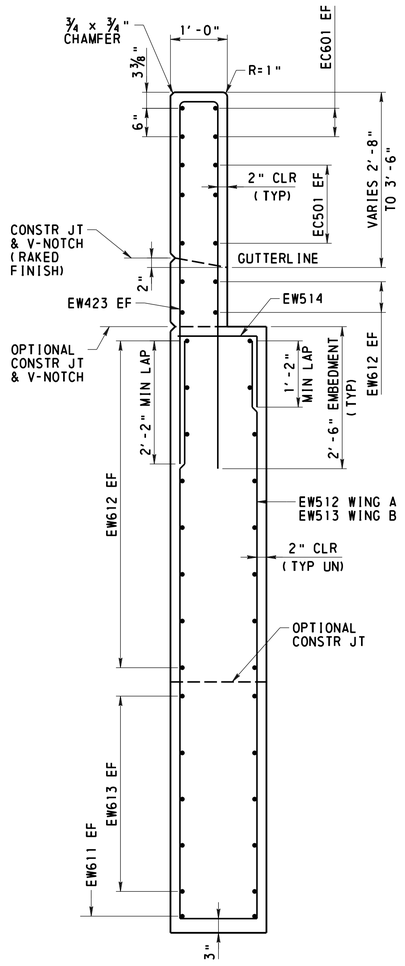
SHEET 10 OF 50

L - 645



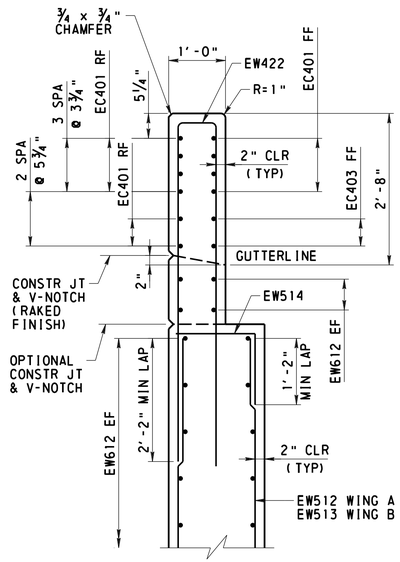
SECTION A7-A7

2' 1' 0' 2'



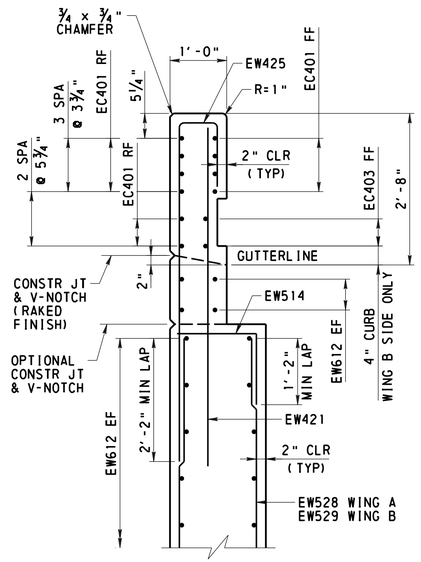
SECTION A8-A8

2' 1' 0' 2'



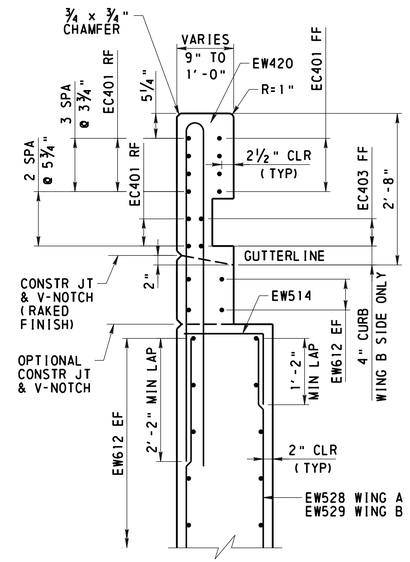
SECTION A9-A9

2' 1' 0' 2'



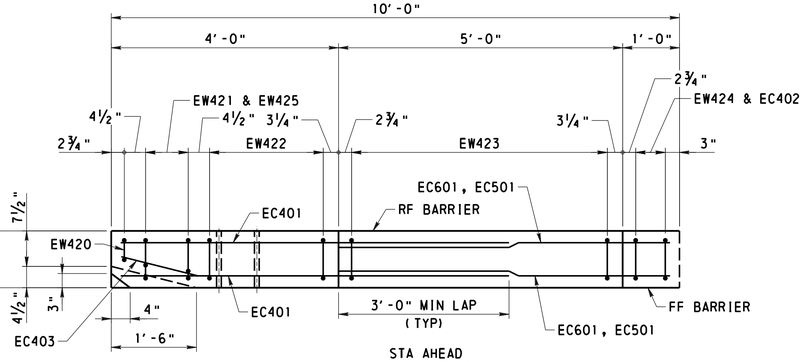
SECTION A10-A10

2' 1' 0' 2'



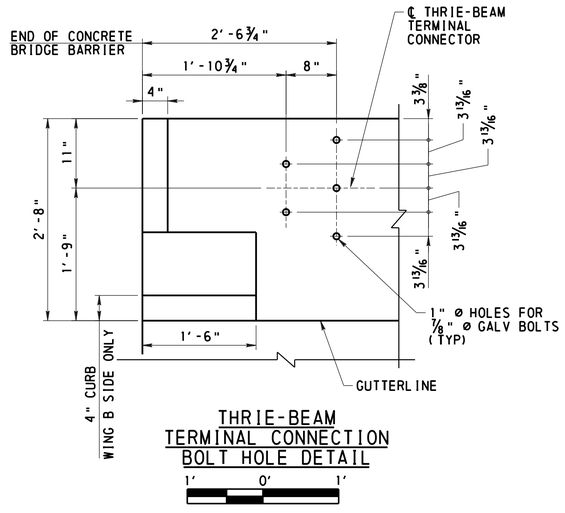
SECTION A11-A11

2' 1' 0' 2'



BARRIER PLAN

2' 1' 0' 2'



THRIE-BEAM TERMINAL CONNECTION BOLT HOLE DETAIL

1' 0' 1'

NOTES

- WORK THIS SHEET WITH SHEET 10
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 40

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

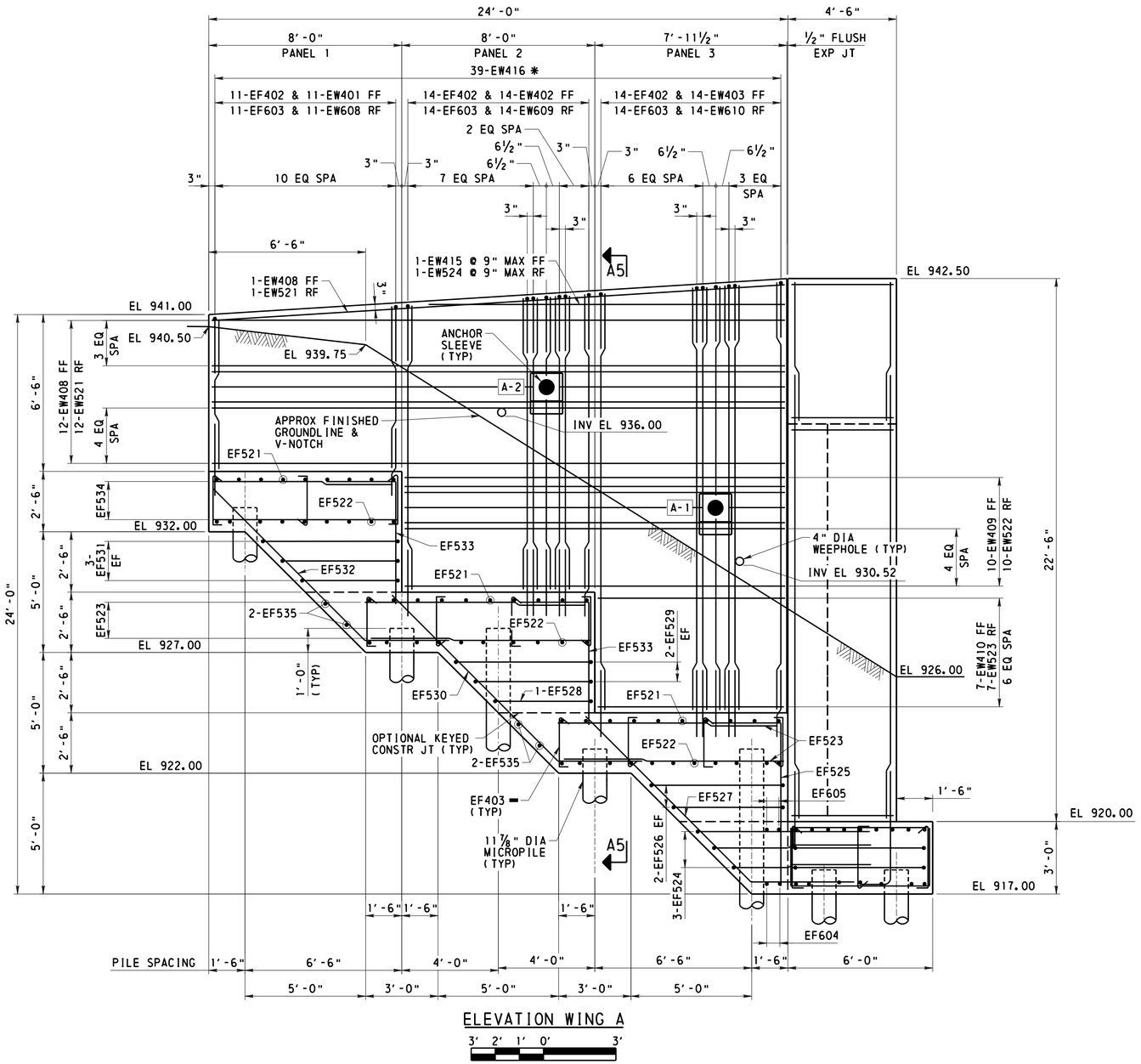
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 1 DETAILS 3

RECOMMENDED *February 12th, 2026*

SHEET 11 OF 50

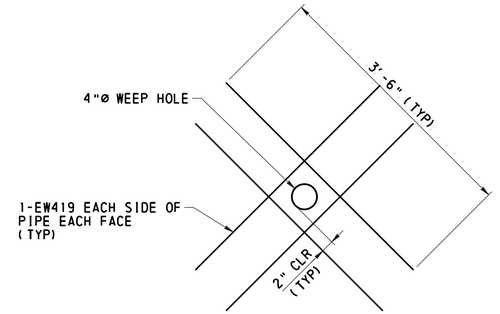
L - 645



ELEVATION WING A

3' 2' 1' 0' 3'

NOTE: ADJUST SPACING OF HORIZONTAL AND VERTICAL BARS AT ANCHOR LOCATIONS AS SHOWN. CUT HORIZONTAL AND VERTICAL BARS LOCATED AT CENTER OF ANCHOR CASING.



WEEP HOLE REINFORCEMENT DETAIL

NOT TO SCALE

NOTES

- WORK THIS SHEET WITH SHEETS 7 THRU 14
- FOR SECTION A5-A5, SEE SHEET 14
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 40

LEGEND

A-1 LATENT ANCHOR NUMBER
EF EACH FACE
FF FRONT FACE
RF REAR FACE
* MATCH SPACING OF EW401, EW402, EW403, EW608, EW609, EW610
▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

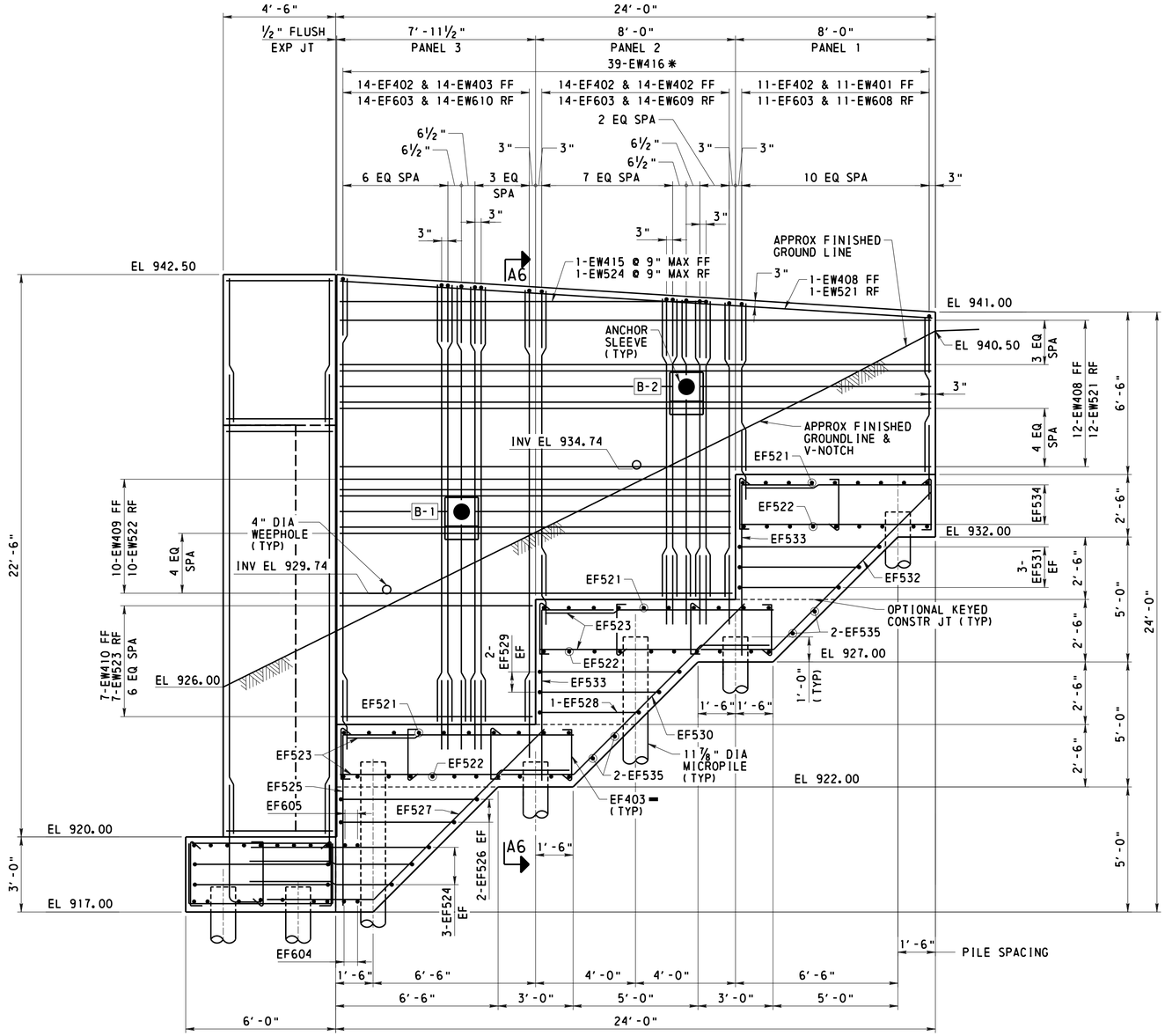
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
WING A ELEVATION

RECOMMENDED *February 12th, 2026*

SHEET 12 OF 50

L - 645



ELEVATION WING B

3' 2' 1' 0' 3'

NOTE: ADJUST SPACING OF HORIZONTAL AND VERTICAL BARS AT ANCHOR LOCATIONS AS SHOWN. CUT HORIZONTAL AND VERTICAL BARS LOCATED AT CENTER OF ANCHOR CASING.

NOTES

- WORK THIS SHEET WITH SHEETS 7 THRU 14
- FOR WEEPHOLE REINFORCEMENT DETAIL, SEE SHEET 12
- FOR SECTION A6-A6, SEE SHEET 14
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 40

LEGEND

B-1	LATENT ANCHOR NUMBER
EF	EACH FACE
FF	FRONT FACE
RF	REAR FACE
*	MATCH SPACING OF EW401, EW402, EW403, EW608, EW609, EW610
▬	ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — KEITH A. MICHAEL — 33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

WING B ELEVATION

RECOMMENDED *February 12th, 2026*

SHEET 13 OF 50

L - 645

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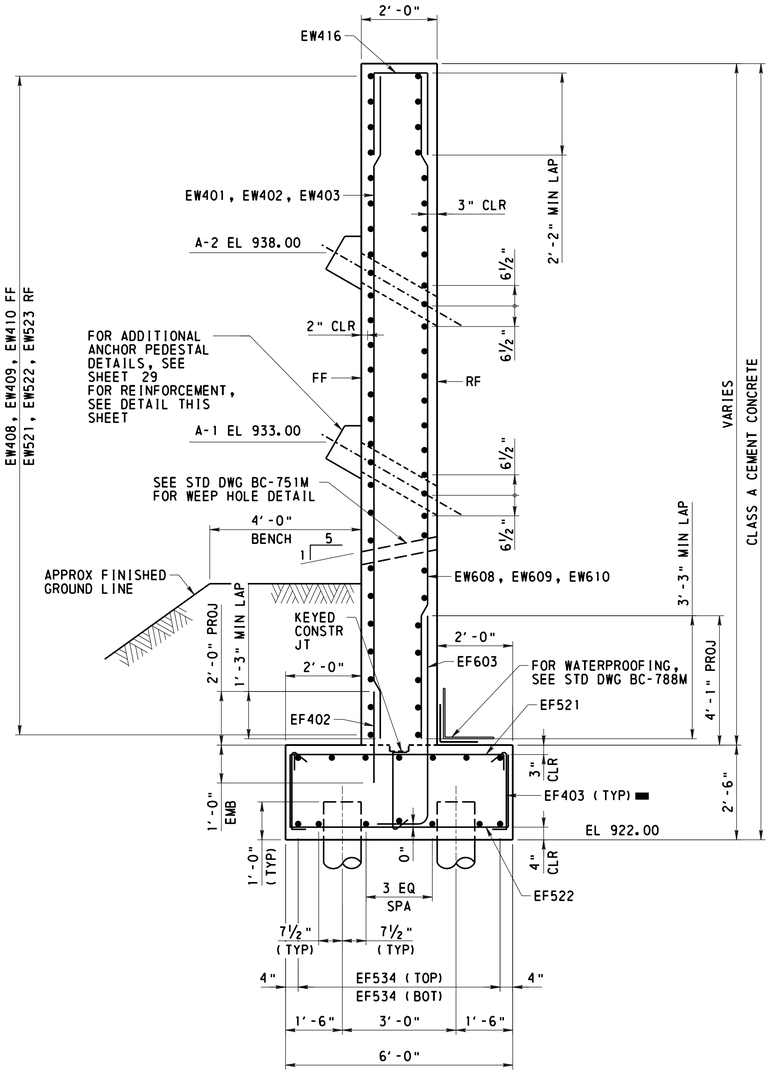
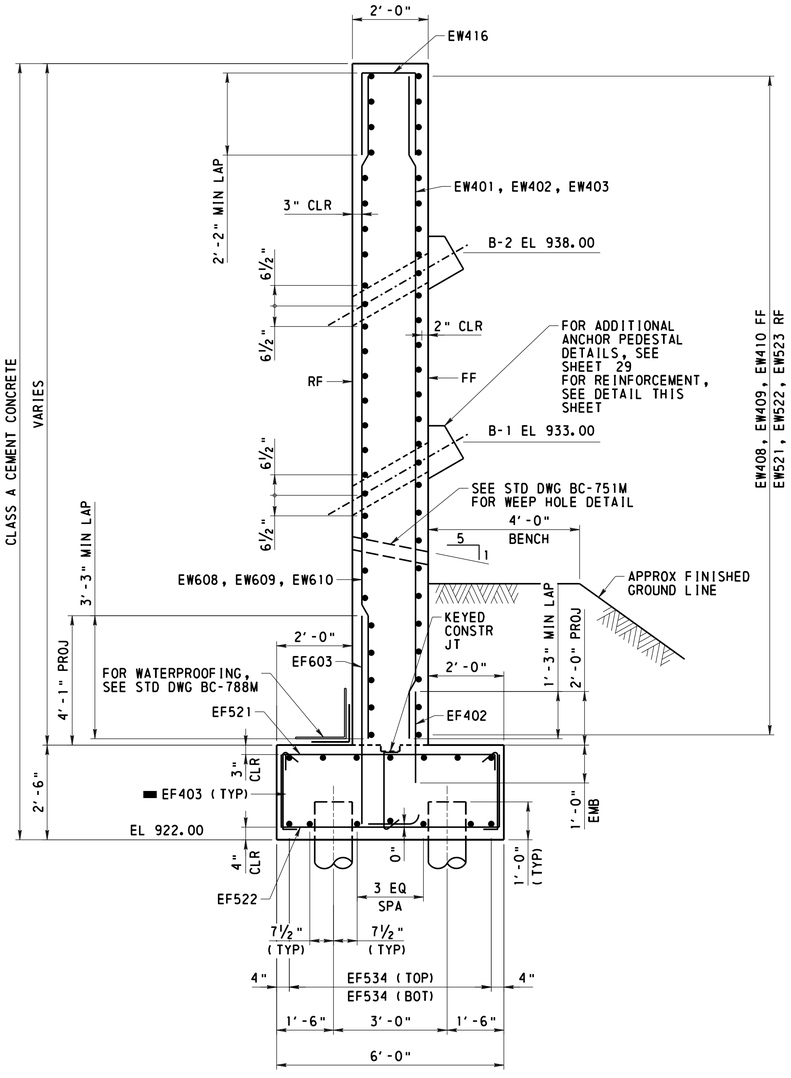


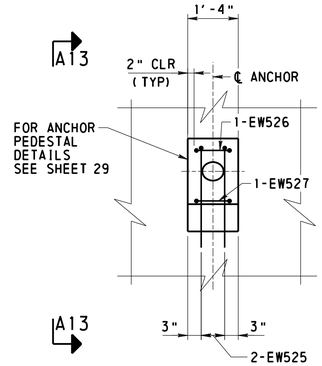
WING A
SECTION A5-A5

2' 1' 0' 2'



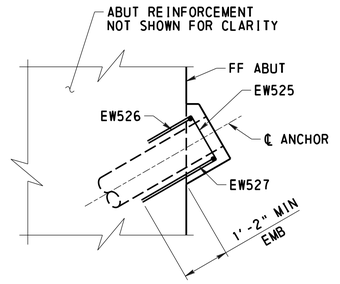
WING B
SECTION A6-A6

2' 1' 0' 2'



WING ANCHOR PEDESTAL
REINFORCEMENT DETAIL

(TYP A-1, A-2, B-1, B-2)
NOT TO SCALE



SECTION A13-A13

NOT TO SCALE

NOTES

- WORK THIS SHEET WITH SHEETS 7 THRU 14
- FOR SECTIONS LOCATIONS, SEE SHEETS 12 & 13
- FOR REINFORCEMENT IN FOOTING STEPS, SEE SHEETS 12 & 13
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 40

LEGEND

FF FRONT FACE
RF REAR FACE
EF EACH FACE
■ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES.

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
WING A AND B SECTIONS

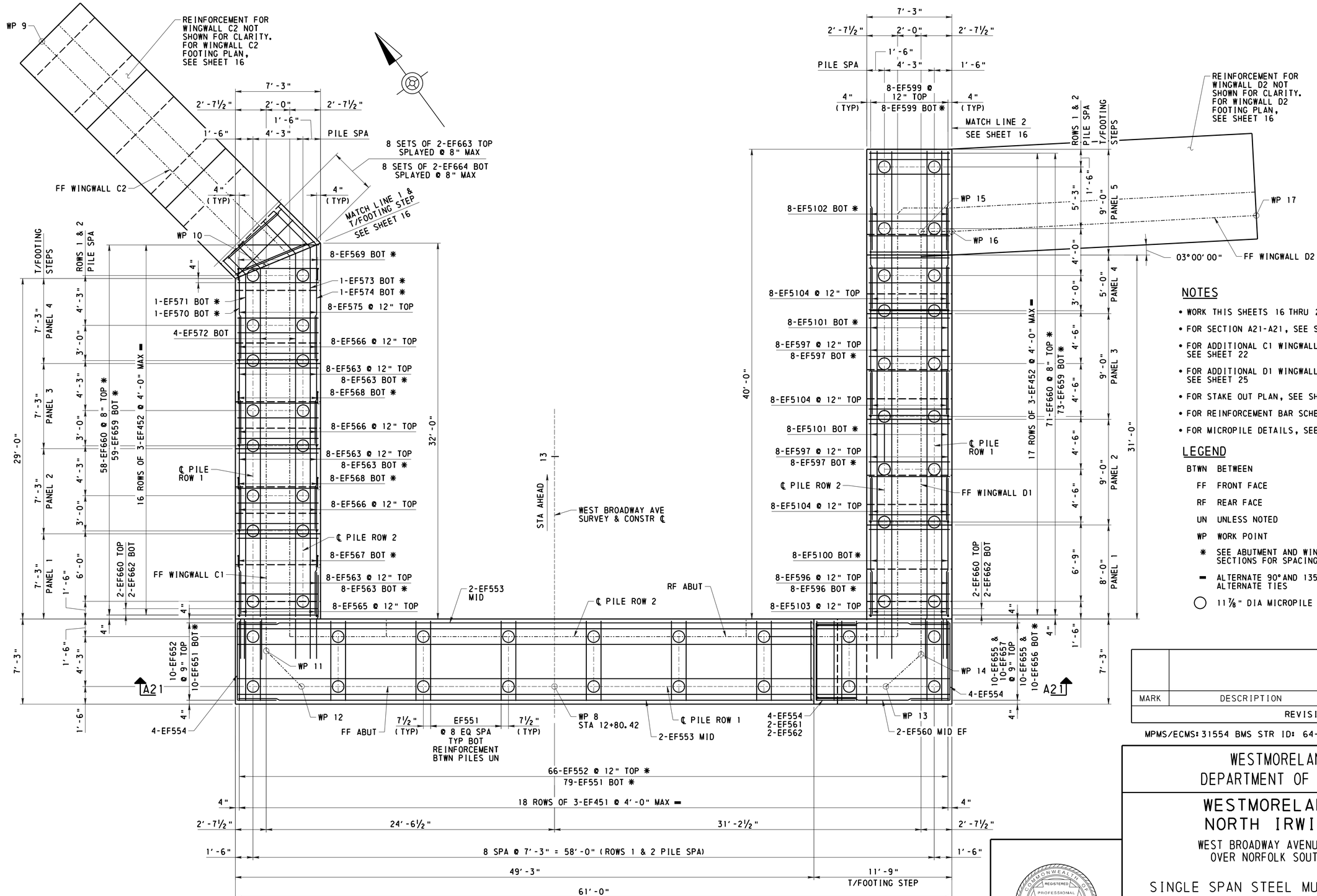
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33660-E

RECOMMENDED February 12th, 2026

SHEET 14 OF 50

L - 645

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM



FOOTING PLAN

4' 2' 0' 4'

NOTES

- WORK THIS SHEETS 16 THRU 27
- FOR SECTION A21-A21, SEE SHEET 18
- FOR ADDITIONAL C1 WINGWALL FOOTING REINFORCEMENT, SEE SHEET 22
- FOR ADDITIONAL D1 WINGWALL FOOTING REINFORCEMENT, SEE SHEET 25
- FOR STAKE OUT PLAN, SEE SHEET 5
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 41
- FOR MICROPILE DETAILS, SEE SHEET 28

LEGEND

BTWN	BETWEEN
FF	FRONT FACE
RF	REAR FACE
UN	UNLESS NOTED
WP	WORK POINT
✱	SEE ABUTMENT AND WINGWALL ELEVATIONS AND SECTIONS FOR SPACING
▬	ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES
◯	11⅞" DIA MICROPILE

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

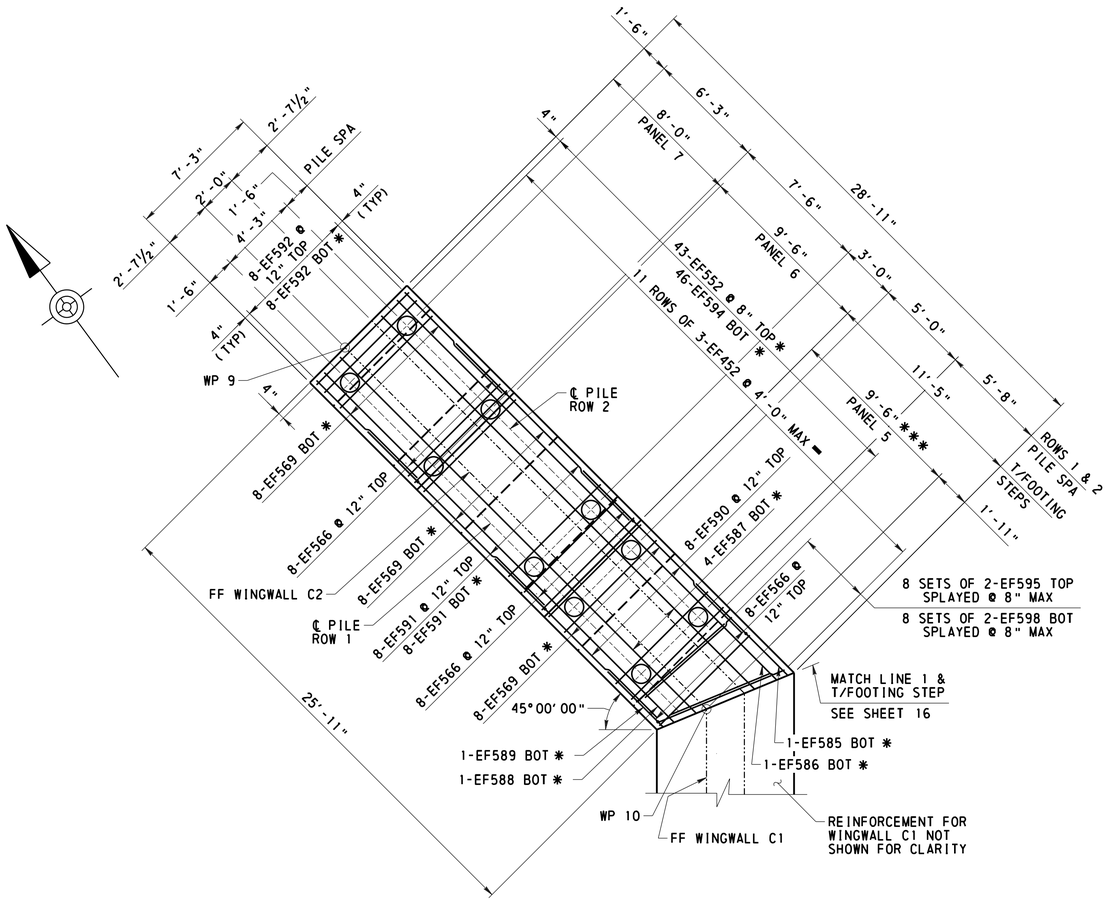
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 2 FOOTING PLAN 1

RECOMMENDED *February 12th, 2026*

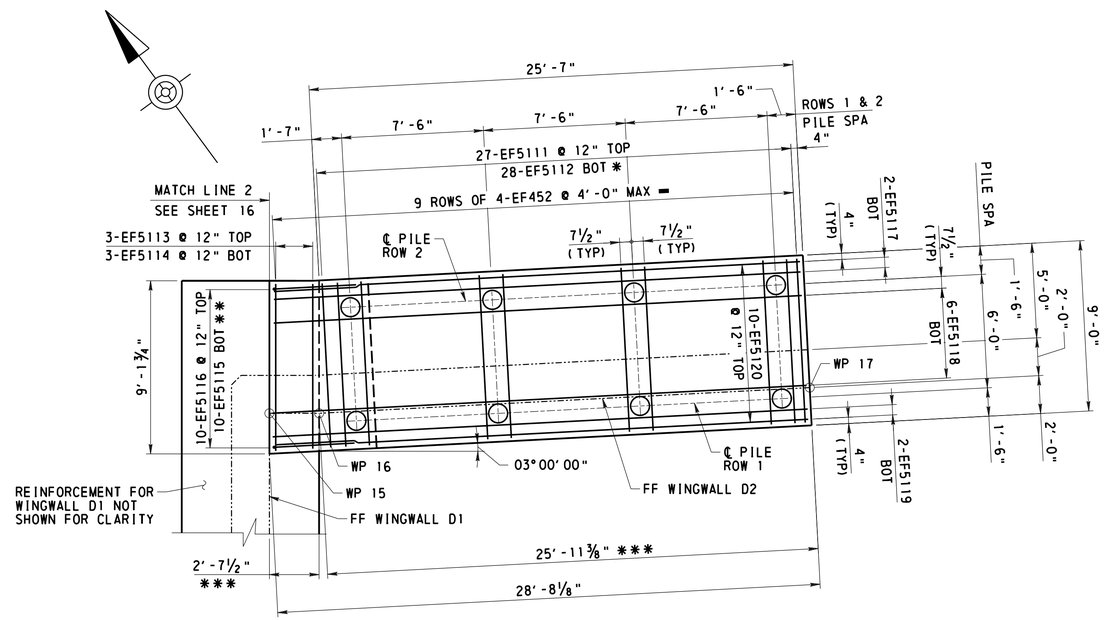
SHEET 15 OF 50

L - 645



FOOTING PLAN WINGWALL C2

4' 2' 0' 4'



FOOTING PLAN WINGWALL D2

4' 2' 0' 4'

NOTES

- WORK THIS SHEET WITH SHEETS 15 & 17 THRU 27
- FOR ADDITIONAL C2 WINGWALL FOOTING REINFORCEMENT, SEE SHEET 23
- FOR ADDITIONAL D2 WINGWALL FOOTING REINFORCEMENT, SEE SHEET 26
- FOR STAKE OUT PLAN, SEE SHEET 5
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 41
- FOR MICROPILE DETAILS, SEE SHEET 28

LEGEND

FF	FRONT FACE
RF	REAR FACE
UN	UNLESS NOTED
WP	WORK POINT
*	SEE ABUTMENT AND WINGWALL ELEVATIONS AND SECTIONS FOR SPACING
**	FIELD BEND AS REQUIRED TO AVOID WINGWALL D1 MICROPLIES
***	MEASURED ALONG FRONT FACE WALL
▬	ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES
◯	11⅞" DIA MICROPILE

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

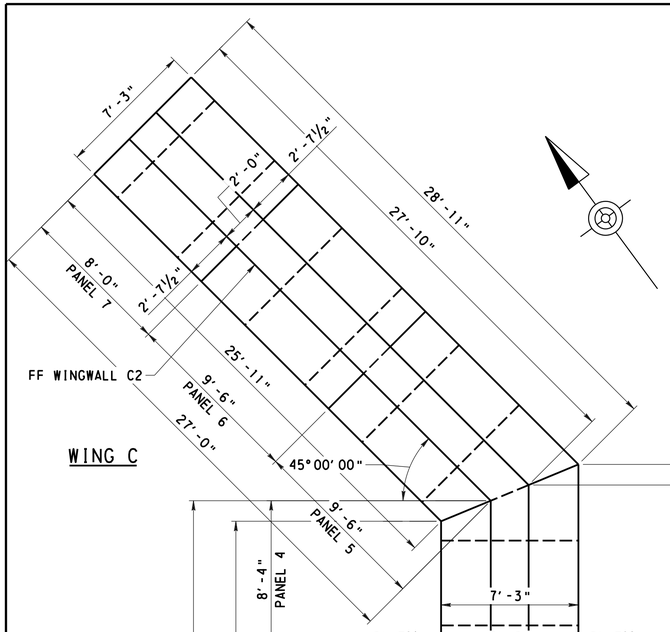
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 2 FOOTING PLAN

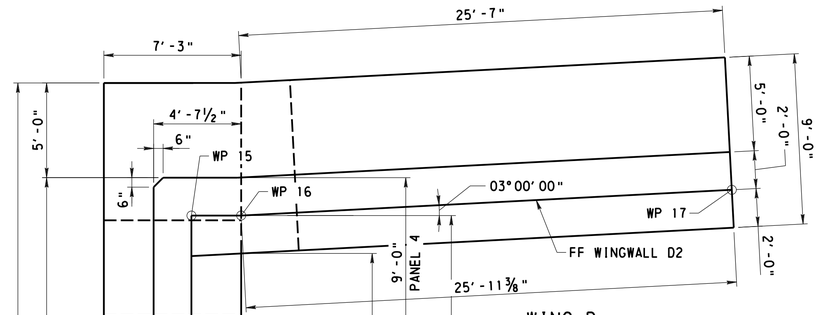
RECOMMENDED *February 12th, 2026*

SHEET 16 OF 50

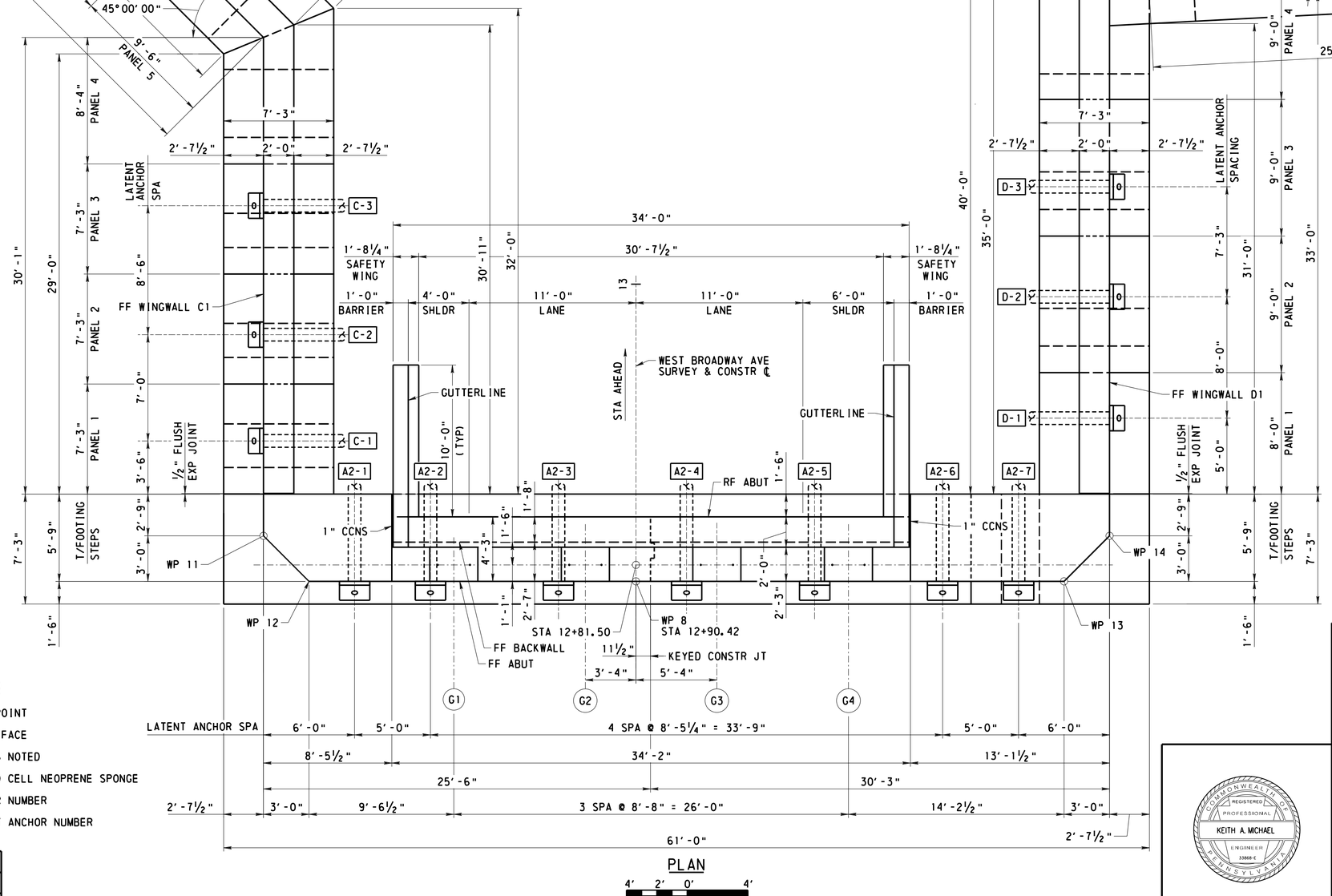
L - 645



WING C



WING D



PLAN

4' 2' 0' 4'

NOTES

- FOR STAKE OUT PLAN SEE SHEET 5
- FOR FOOTING PLAN, SEE SHEETS 15 & 16
- FOR WINGWALL C DETAILS, SEE SHEET 22 THRU 24
- FOR WINGWALL D DETAILS, SEE SHEET 25 THRU 27
- FOR BEARING DETAILS, SEE SHEET 34
- FOR WEEPHOLE DETAILS, SEE SHEET 22
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR ADDITIONAL STRUCTURE FOUNDATION DRAINAGE DETAILS, SEE STANDARD DRAWING BC-751M.
- FOR V-NOTCH AND CHAMFER DETAILS, SEE STANDARD DRAWING BC-752M.
- FOR KEYED CONSTRUCTION JOINT DETAILS SEE STANDARD DRAWING BC-735M.
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR DETAILS AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29

LEGEND

WP	WORK POINT
FF	FRONT FACE
UN	UNLESS NOTED
CCNS	CLOSED CELL NEOPRENE SPONGE
(G1)	GIRDER NUMBER
A2-1	LATENT ANCHOR NUMBER

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 53668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

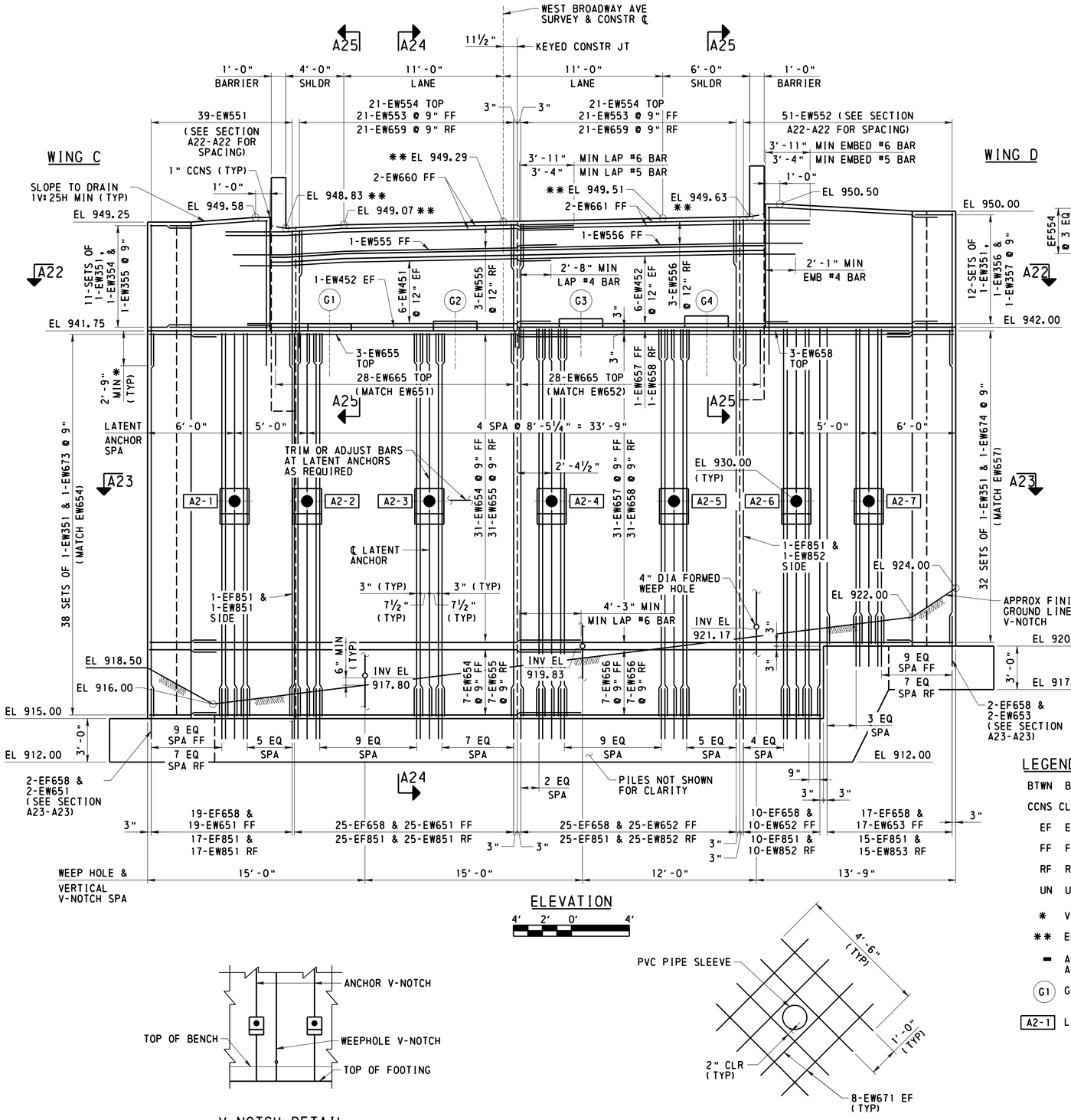
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 2 PLAN

RECOMMENDED *February 12th, 2026*

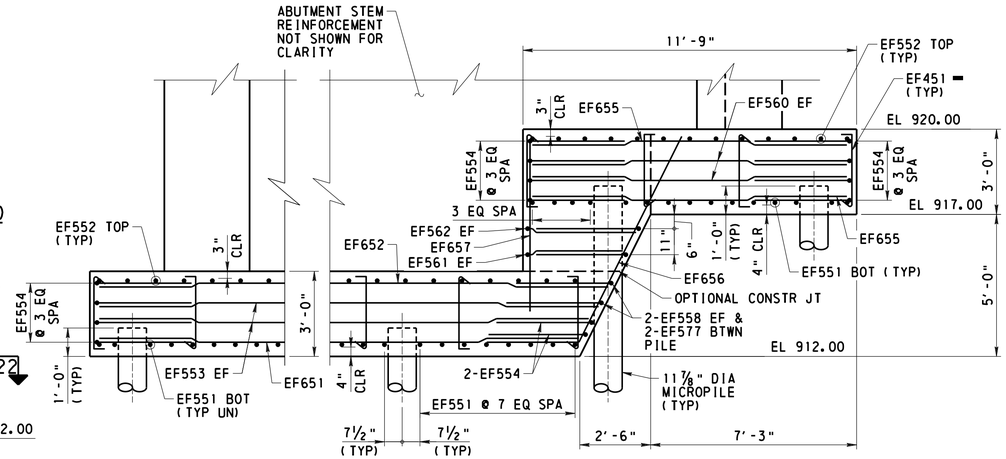
SHEET 17 OF 50

L - 645



ELEVATION

4' 2' 0' 4'



SECTION A21-A21

3' 2' 1' 0' 3'

BEAM SEAT ELEVATIONS

GIRDER	ELEVATION
G1	942.24
G2	942.45
G3	942.62
G4	942.80

NOTES

- WORK THIS SHEET WITH SHEETS 15 THRU 17 AND 19 THRU 27
- FOR STAKE OUT PLAN, SEE SHEET 5
- FOR SECTIONS A22-A22 & A23-A33, SEE SHEET 19
- FOR SECTIONS A24-A24 & A25-A25, SEE SHEET 20
- FOR PEDESTAL DETAILS, SEE SHEET 20
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS, SEE SHEET 28
- FOR LATENT ANCHOR DETAILS, SEE SHEET 29
- FOR WEEP HOLE DETAIL, SEE SHEET 22
- ALL REINFORCEMENT BARS SHOWN AT MAXIMUM SPACING UNLESS NOTED

LEGEND

BTWN BETWEEN

CCNS CLOSED CELL NEOPRENE SPONGE

EF EACH FACE

FF FRONT FACE

RF REAR FACE

UN UNLESS NOTED

* VARY LAP TO MAINTAIN COVER ON TOP/CHEEKWALL

** ELEVATION AT FRONT FACE CORBEL

▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES

(G1) GIRDER NUMBER

[A2-1] LATENT ANCHOR NUMBER

V-NOTCH DETAIL

PROVIDE FULL HEIGHT V-NOTCHES CENTERED AT EACH WEEPHOLE AND EACH ANCHOR (ABUTMENT AND WINGWALLS)
NOT TO SCALE

LATENT ANCHOR REINFORCEMENT DETAIL

(NOTE: ADJUST PATTERN AS NECESSARY TO AVOID INTERFERENCES WITH CONSTR JT AND ADJACENT LATENT ANCHOR REINFORCEMENT)
NOT TO SCALE

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

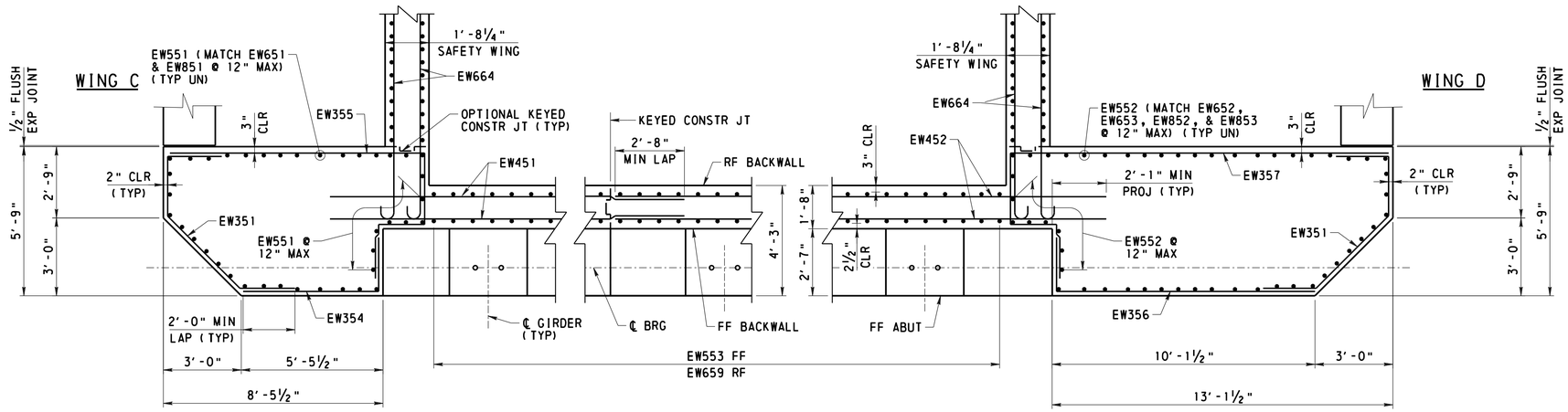
ABUTMENT 2 ELEVATION

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
KEITH A. MICHAEL
33668-E

RECOMMENDED February 12th, 2026

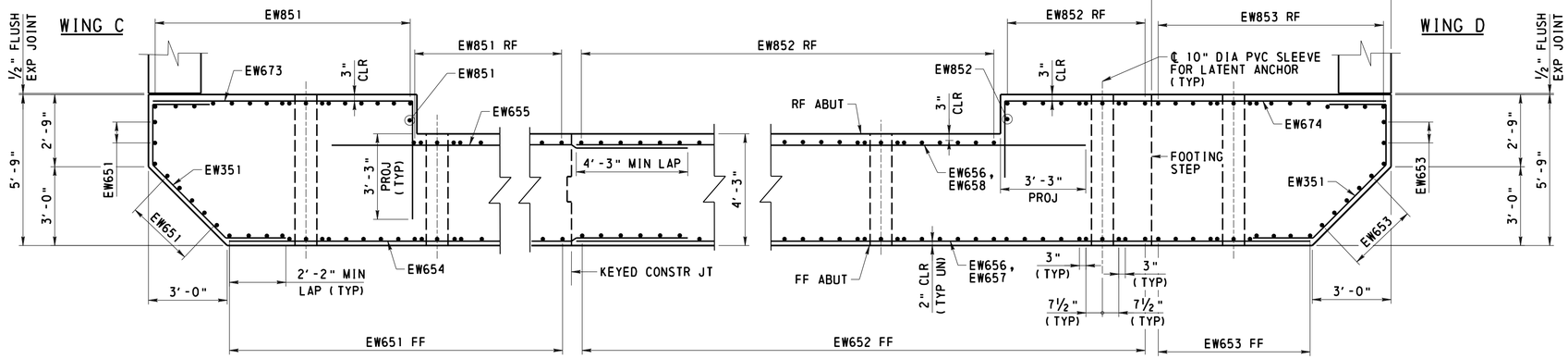
SHEET 18 OF 50

L - 645



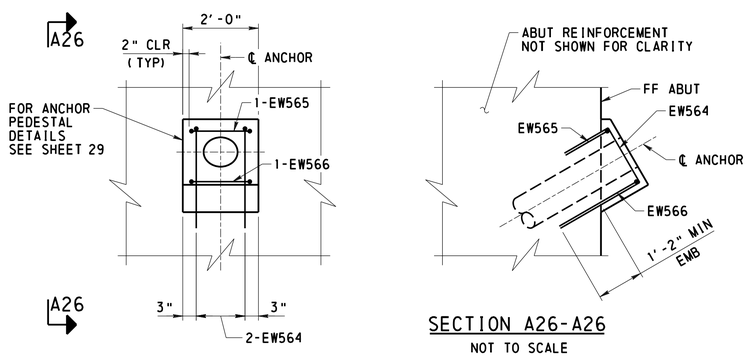
SECTION A22-A22

3' 2' 1' 0' 3'



SECTION A23-A23

3' 2' 1' 0' 3'



ABUTMENT 2 ANCHOR PEDESTAL REINFORCEMENT DETAIL

NOT TO SCALE

SECTION A26-A26

NOT TO SCALE

NOTES

- WORK THIS SHEET WITH SHEET 18
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29

LEGEND

FF FRONT FACE

RF REAR FACE

UN UNLESS NOTED

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 2 DETAILS 1

RECOMMENDED *February 12th, 2026*

SHEET 19 OF 50

L - 645

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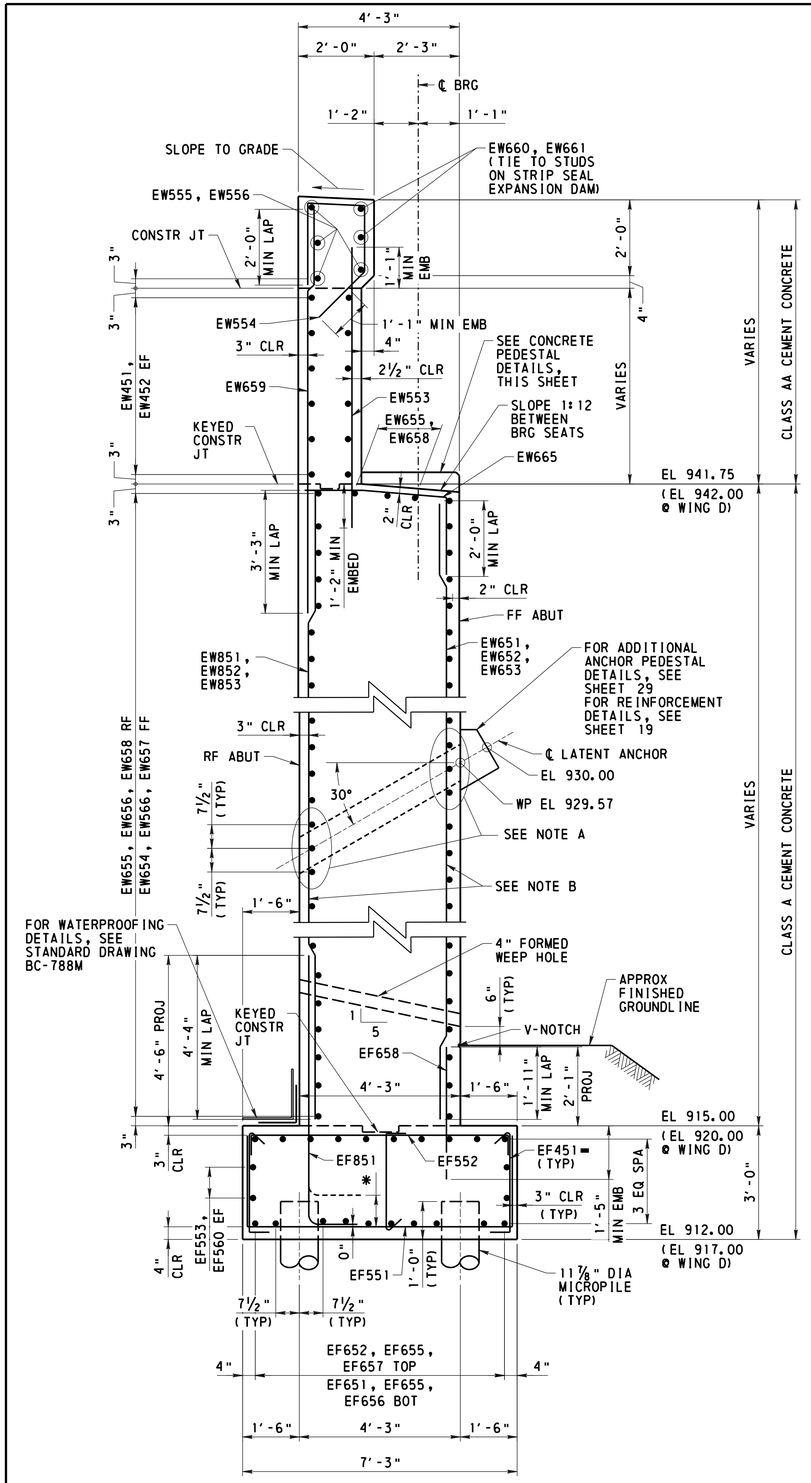
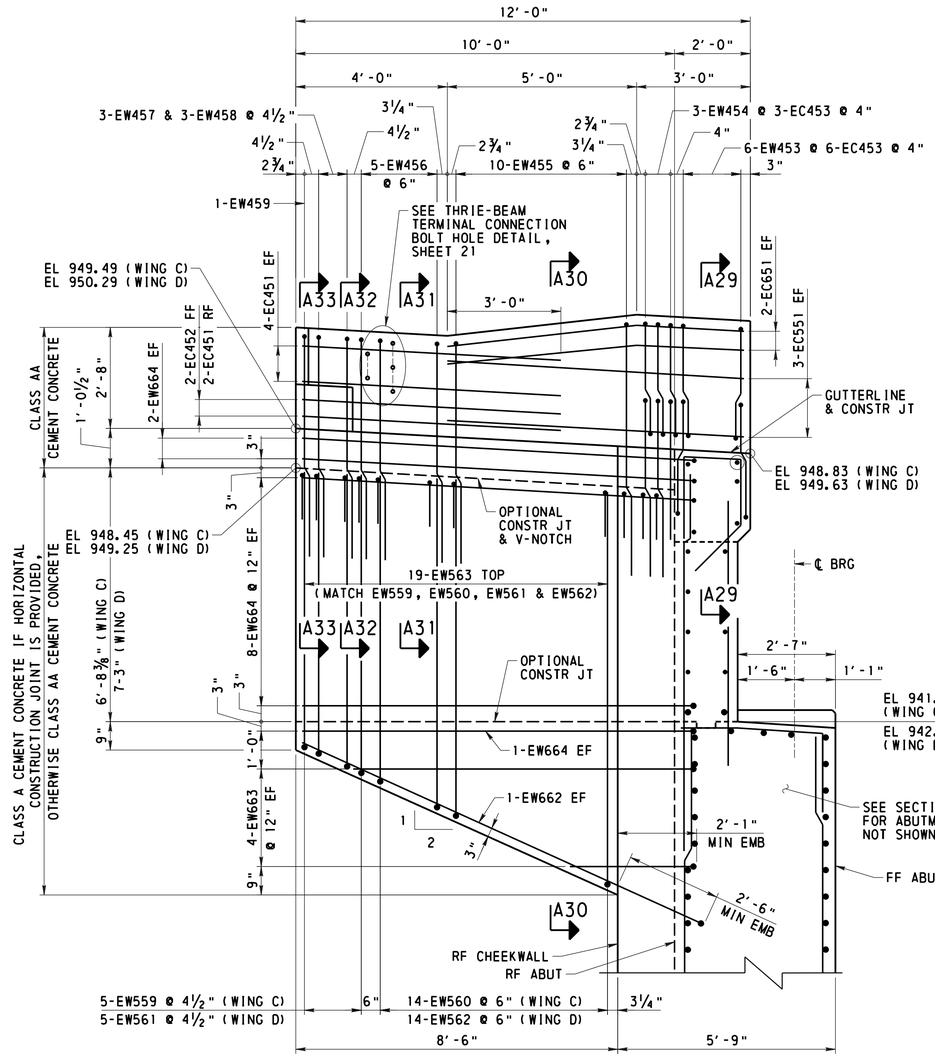


SECTION A24-A24

TYPICAL SECTION SHOWN, STEP @ WING D SIMILAR

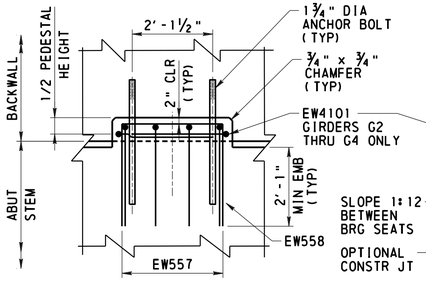
2' 1' 0' 2'



SECTION A25-A25

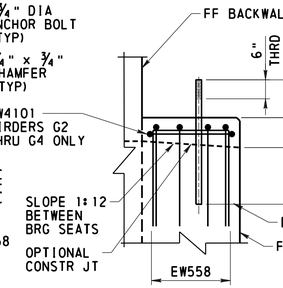
WING D AS SHOWN
WING C OPPOSITE HAND

2' 1' 0' 2'



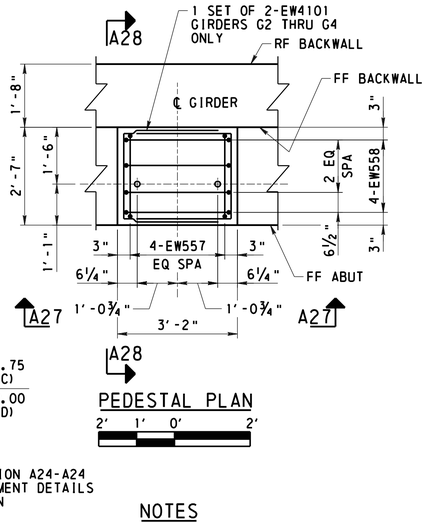
VIEW A27-A27

2' 1' 0' 2'



SECTION A28-A28

2' 1' 0' 2'



PEDESTAL PLAN

2' 1' 0' 2'

NOTES

- WORK THIS SHEET WITH SHEET 18 AND SHEET 21
- FOR SECTION A29-A29 THRU A33-A33, SEE SHEET 21
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR DETAILS AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29

LEGEND

NOTE A
ADJUST SPACING OF HORIZONTAL BARS AT ANCHORS AS SHOWN. CUT HORIZONTAL BARS AT CENTER OF ANCHOR CASING. MAINTAIN 2" CLR TO ANCHOR CASING

NOTE B
CUT VERTICAL BARS LOCATED AT CENTERLINE OF ANCHORS. MAINTAIN 2" CLR TO CASING

▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES

✱ TIE HORIZONTAL LEG OF EF851 TO BOTTOM MAT OF FOOTING REINFORCEMENT. WHERE EF851 INTERFERES WITH MICROPILE, RAISE HOOK ABOVE MICROPILE AS SHOWN WITH 1'-10" EMBEDMENT INTO FOOTING

EF EACH FACE

FF FRONT FACE

RF REAR FACE

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

WPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — KEITH A. MICHAEL — 33868-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

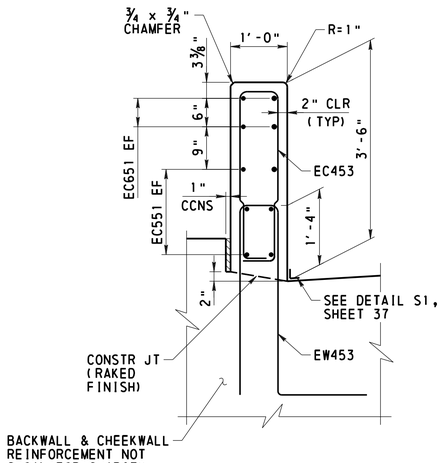
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 2 DETAILS 2

RECOMMENDED February 12th, 2026

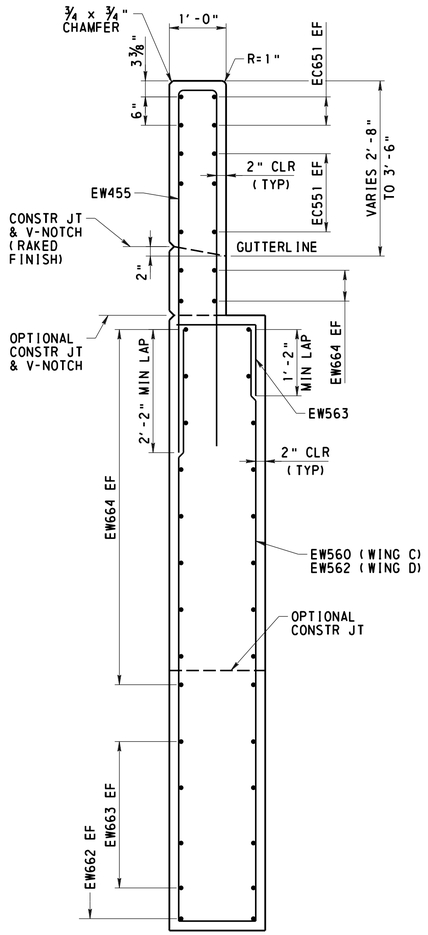
SHEET 20 OF 50

L - 645



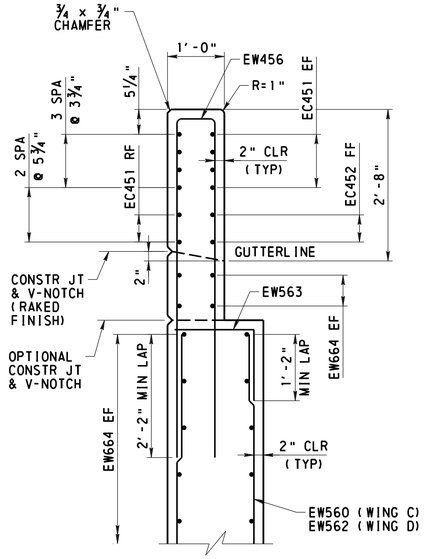
SECTION A29-A29

2' 1' 0' 2'



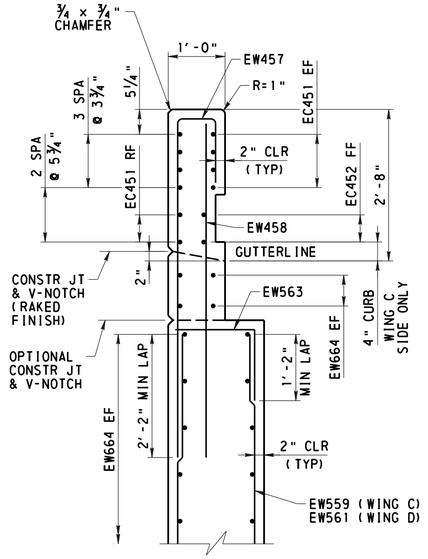
SECTION A30-A30

2' 1' 0' 2'



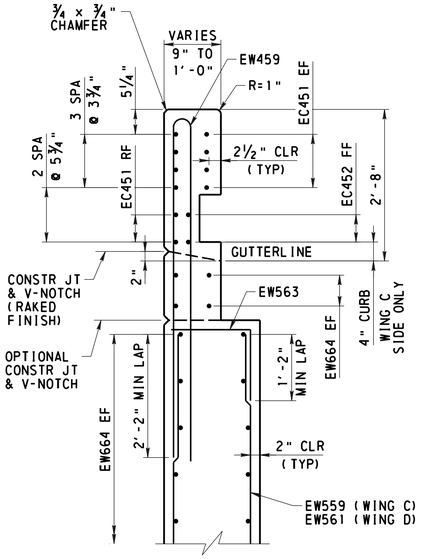
SECTION A31-A31

2' 1' 0' 2'



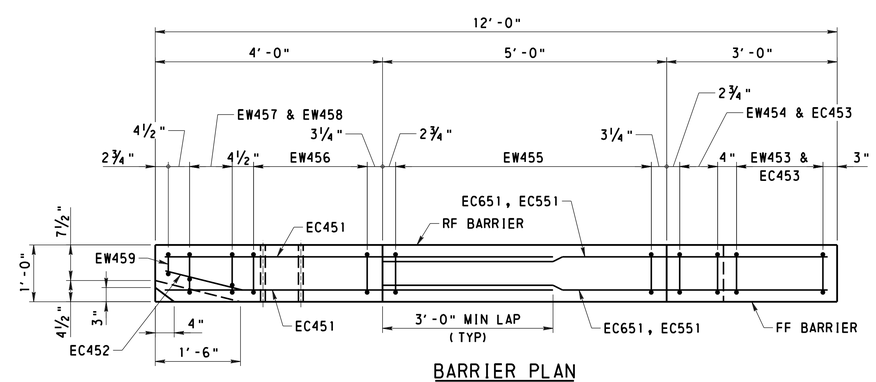
SECTION A32-A32

2' 1' 0' 2'



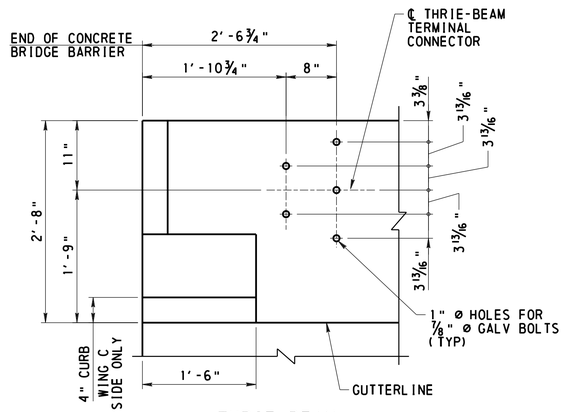
SECTION A33-A33

2' 1' 0' 2'



BARRIER PLAN

2' 1' 0' 2'



THRIE-BEAM TERMINAL CONNECTION BOLT HOLE DETAIL

1' 0' 1'

NOTES

- WORK THIS SHEET WITH SHEET 20
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 42

LEGEND

CCNS CLOSED CELL NEOPRENE SPONGE
EF EACH FACE
FF FRONT FACE
RF REAR FACE

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 2 DETAILS 3

RECOMMENDED February 12th, 2026

SHEET 21 OF 50

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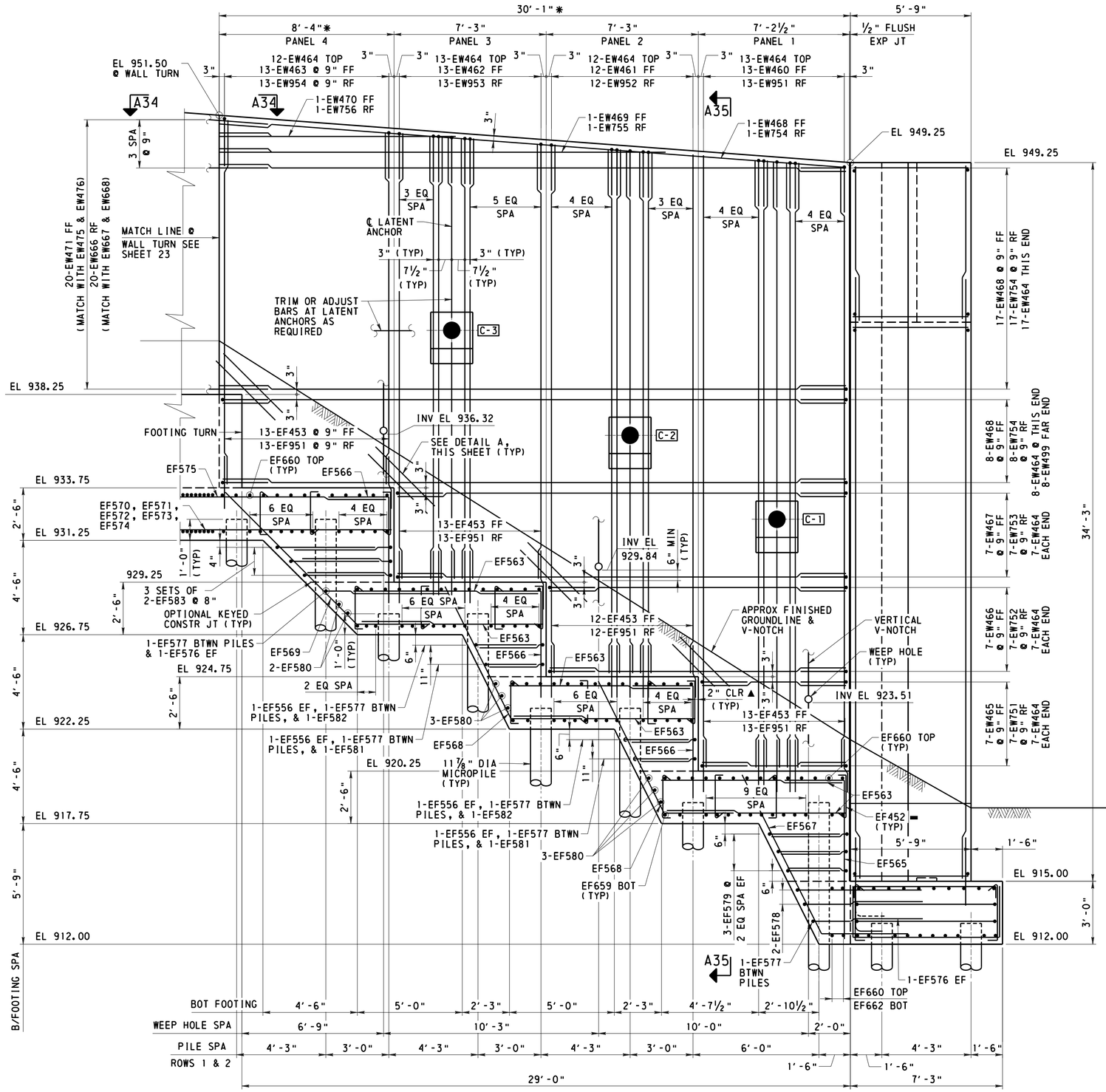
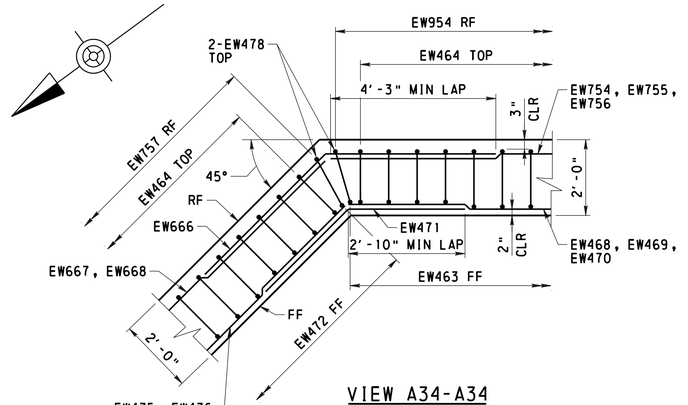


WINGWALL C1 ELEVATION

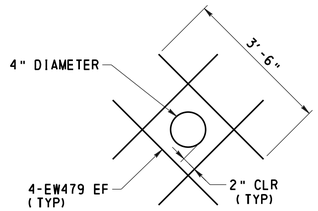
(ALONG FRONT FACE OF WINGWALL)

3' 2' 1' 0' 3'



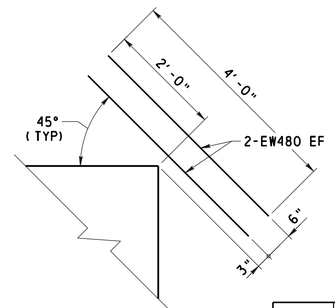
VIEW A34-A34

2' 1' 0' 2'



WEEP HOLE DETAIL

NOT TO SCALE



DETAIL A

TYP EACH FOOTING STEP
NOT TO SCALE

NOTES

- WORK THIS SHEET WITH SHEETS 15 THRU 20 AND 23 THRU 24
- FOR SECTION A35-A35, SEE SHEET 24
- FOR ADDITIONAL LATENT ANCHOR REINFORCEMENT AND V-NOTCH DETAIL, SEE SHEET 18
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS SEE, SHEET 28
- FOR LATENT ANCHOR HEAD DETAILS, SEE SHEET 29
- ALL REINFORCEMENT BARS SHOWN AT MAXIMUM SPACING UNLESS NOTED

LEGEND

- C-1 LATENT ANCHOR NUMBER
- BTWN BETWEEN
- EF EACH FACE
- FF FRONT FACE
- RF REAR FACE
- * MEASURED ALONG THE FRONT FACE OF WALL
- ▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES
- ▲ 2" CLR TO EF452 TIE BARS, 3" CLR TO MAIN REINFORCEMENT BARS ON SIDES AND TOP

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33668-E

WESTMORELAND COUNTY
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WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

WINGWALL C1 ELEVATION

RECOMMENDED *February 12th, 2026*

SHEET 22 OF 50

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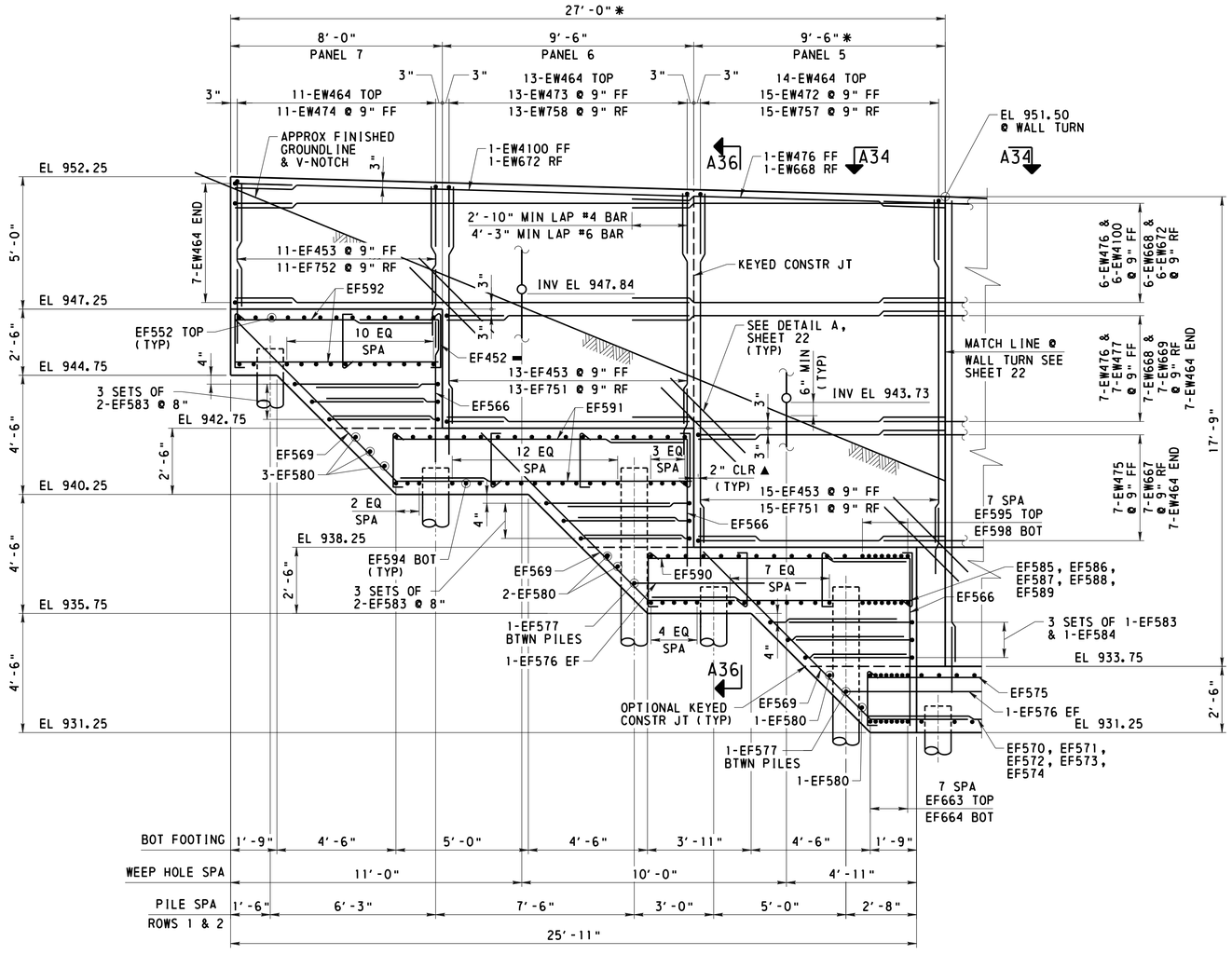

WINGWALL C2 ELEVATION

(ALONG FRONT FACE OF WINGWALL)

3' 2' 1' 0' 3'

NOTES

- FOR SECTION A36-A36, SEE SHEET 24
- FOR SECTION A34-A34, WEEP HOLE DETAIL, AND DETAIL A, SEE SHEET 22
- WORK THIS SHEET WITH SHEETS 15 THRU 22 AND 24
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- ALL REINFORCEMENT BARS SHOWN AT MAXIMUM SPACING UNLESS NOTED
- FOR CONSTRUCTION JOINT DETAILS, SEE STANDARD DRAWING BC-735M

LEGEND

BTWN BETWEEN

EF EACH FACE

FF FRONT FACE

RF REAR FACE

✱ MEASURED ALONG THE FRONT FACE OF WALL

▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES

▲ 2" CLR TO EF452 TIE BARS, 3" CLR TO MAIN REINFORCEMENT BARS ON SIDES AND TOP

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA
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NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

WINGWALL C2 ELEVATION

RECOMMENDED *February 12th, 2026*

SHEET 23 OF 50

L - 645

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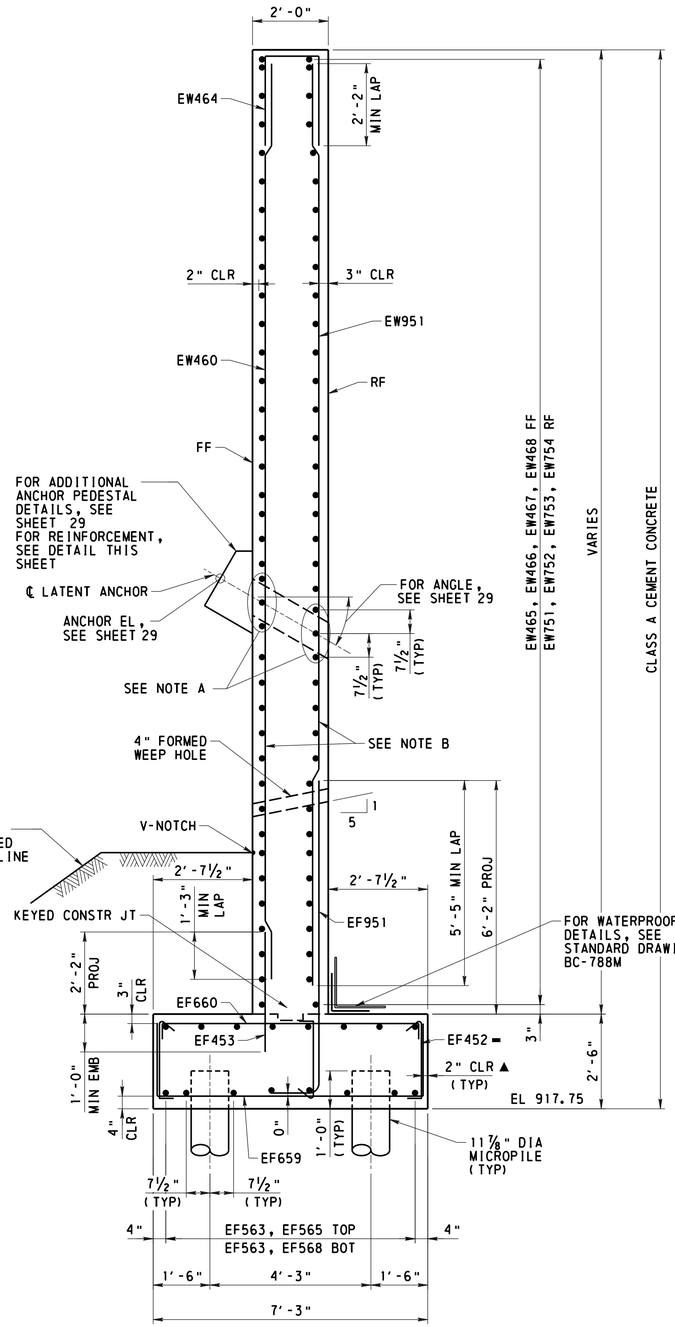
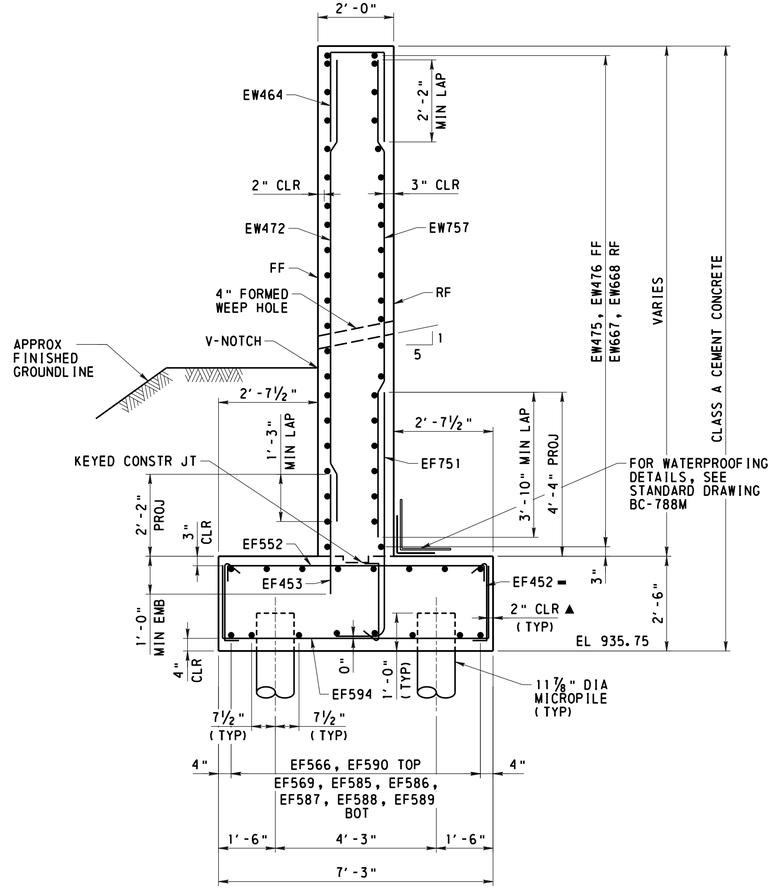


SECTION A35-A35

PANEL 1 SHOWN, PANELS 2 THRU 4 SIMILAR

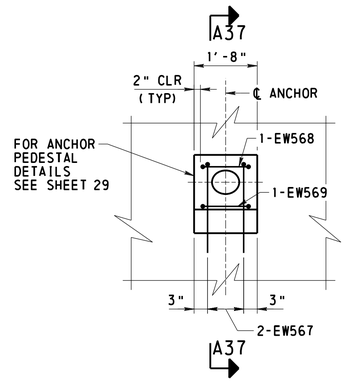
2' 1' 0' 2'



SECTION A36-A36

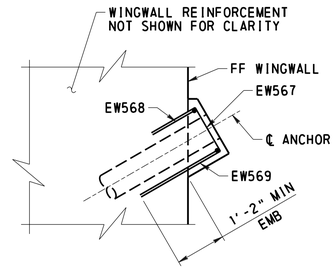
PANEL 5 SHOWN, PANELS 6 & 7 SIMILAR

2' 1' 0' 2'



WINGWALL 'C' & 'D' ANCHOR PEDESTAL REINFORCEMENT DETAIL

NOT TO SCALE



SECTION A37-A37

NOT TO SCALE

NOTES

- WORK THIS SHEET WITH SHEETS 22 & 23
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR DETAILS AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29

LEGEND

NOTE A
ADJUST SPACING OF HORIZONTAL BARS AT ANCHORS AS SHOWN. CUT HORIZONTAL BARS AT CENTER OF ANCHOR CASING. MAINTAIN 2" CLR TO ANCHOR CASING

NOTE B
CUT VERTICAL BARS LOCATED AT CENTERLINE OF ANCHORS. MAINTAIN 2" CLR TO CASING

EF EACH FACE

FF FRONT FACE

RF REAR FACE

▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES

▲ 2" CLR TO EF452 TIE BARS, 3" CLR TO MAIN REINFORCEMENT BARS ON SIDES AND TOP

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

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WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

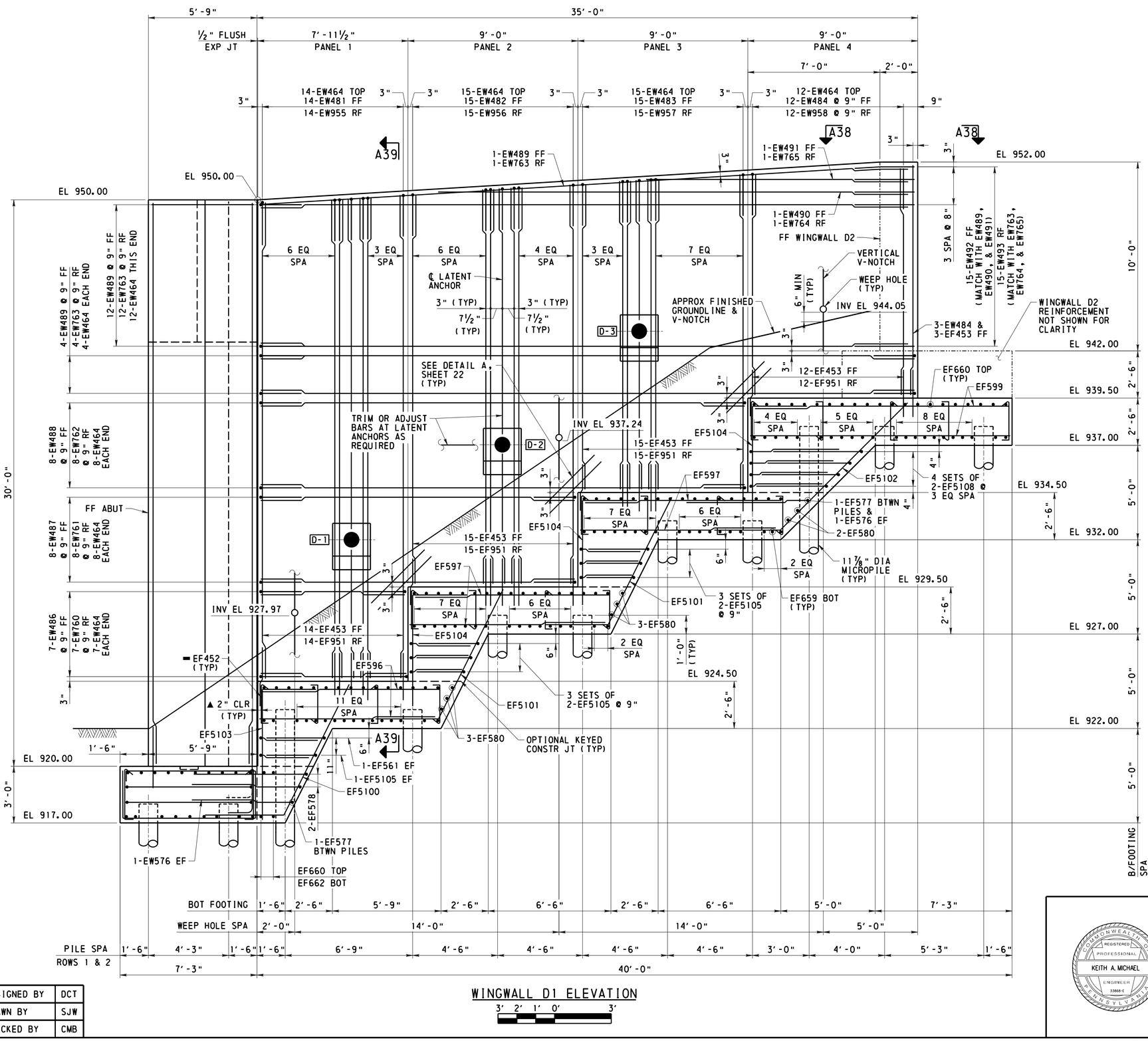
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

WINGWALL C SECTIONS

RECOMMENDED *February 12th, 2026*

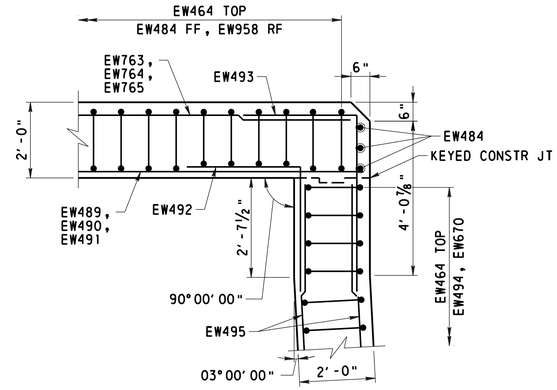
SHEET 24 OF 50

L - 645



WINGWALL D1 ELEVATION

3' 2' 1' 0' 3'



VIEW A38-A38

2' 1' 0' 2'

NOTES

- WORK THIS SHEET WITH SHEETS 15 THRU 21 AND 26 THRU 27
- FOR WEEP HOLE DETAIL AND DETAIL A, SEE SHEET 22
- FOR SECTION A39-A39, SEE SHEET 27
- FOR ADDITIONAL LATENT ANCHOR REINFORCEMENT AND V-NOTCH DETAIL, SEE SHEET 18
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS SEE, SHEET 28
- FOR LATENT ANCHOR HEAD DETAILS, SEE SHEET 29
- ALL REINFORCEMENT BARS SHOWN AT MAXIMUM SPACING UNLESS NOTED

LEGEND

- D-1 LATENT ANCHOR NUMBER
- BTWN BETWEEN
- EF EACH FACE
- FF FRONT FACE
- RF REAR FACE
- ▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES
- ▲ 2" CLR TO EF452 TIE BARS, 3" CLR TO MAIN REINFORCEMENT BARS ON SIDES AND TOP

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
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MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
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OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

WINGWALL D1 ELEVATION

RECOMMENDED *February 12th, 2026*

SHEET 25 OF 50

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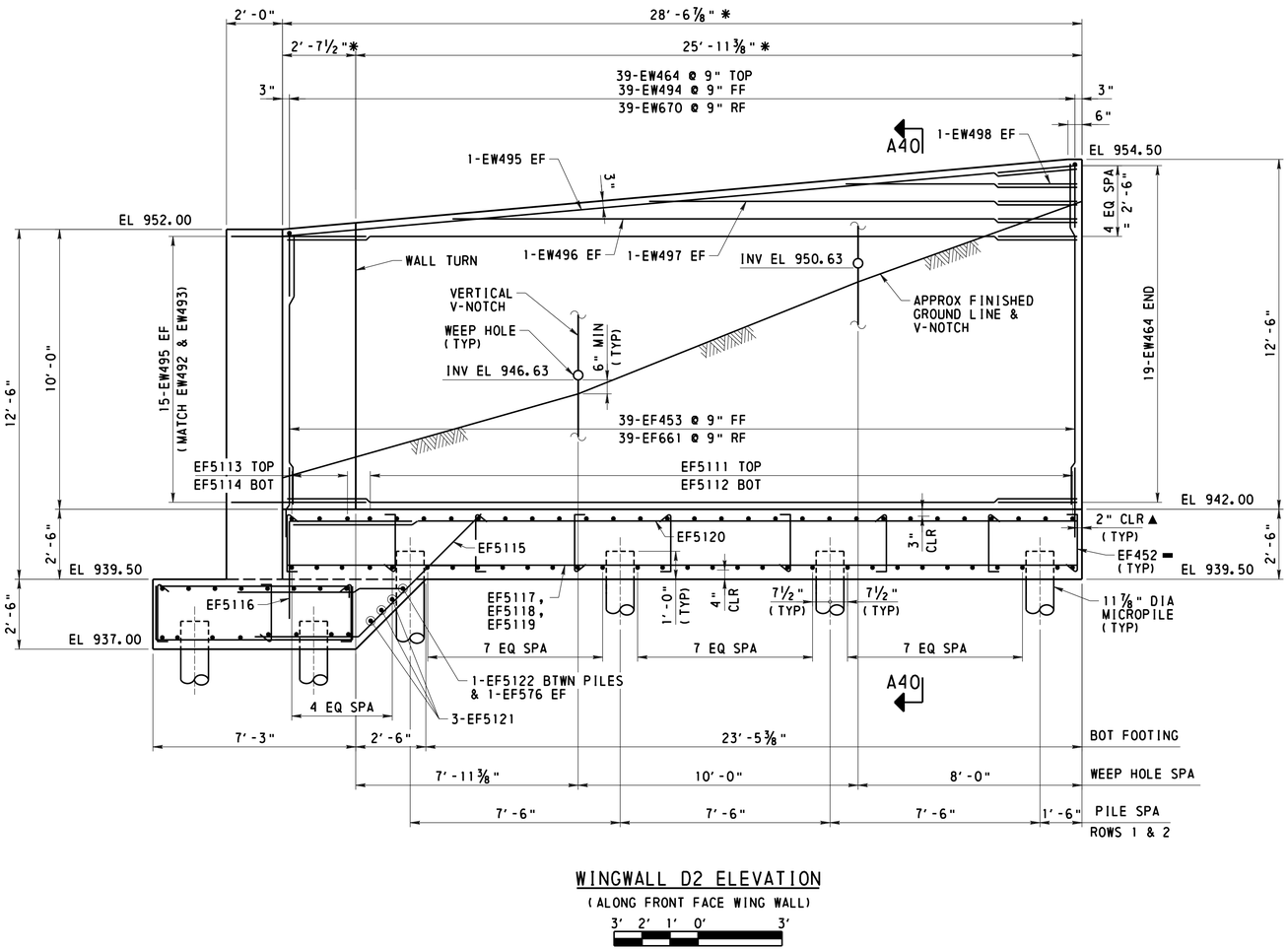

WINGWALL D2 ELEVATION

(ALONG FRONT FACE WING WALL)

3' 2' 1' 0' 3'

NOTES

- WORK THIS SHEET WITH SHEETS 15 THRU 21, 25 AND 27
- FOR SECTION A40-A40, SEE SHEET 27
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS SEE, SHEET 28
- FOR LATENT ANCHOR HEAD DETAILS, SEE SHEET 29

LEGEND

BTWN	BETWEEN
EF	EACH FACE
FF	FRONT FACE
RF	REAR FACE
*	MEASURED ALONG FRONT FACE WALL
▬	ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES
▲	2" CLR TO EF452 TIE BARS, 3" CLR TO MAIN REINFORCEMENT BARS ON SIDES AND TOP

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
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WEST BROADWAY AVENUE STA. 12+22.50
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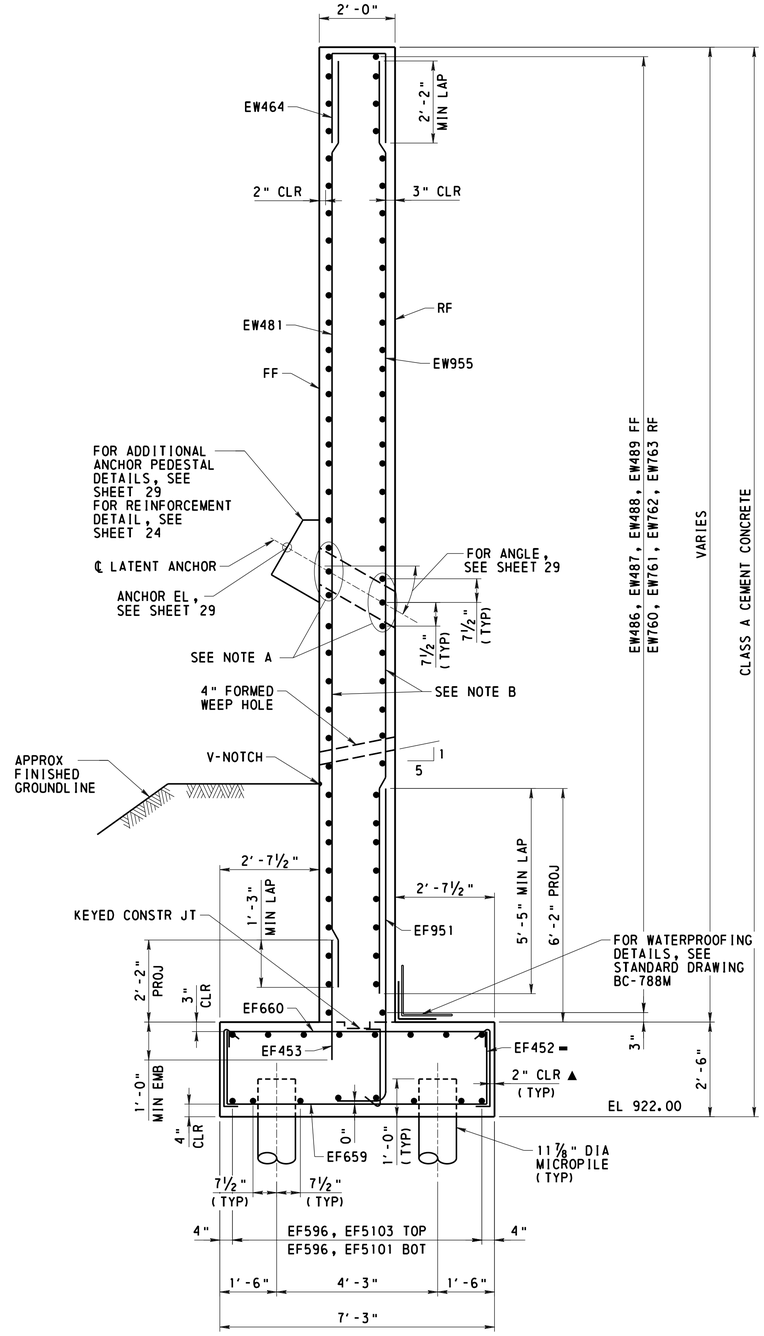
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

WINGWALL D2 ELEVATION

RECOMMENDED *February 12th, 2026*

SHEET 26 OF 50

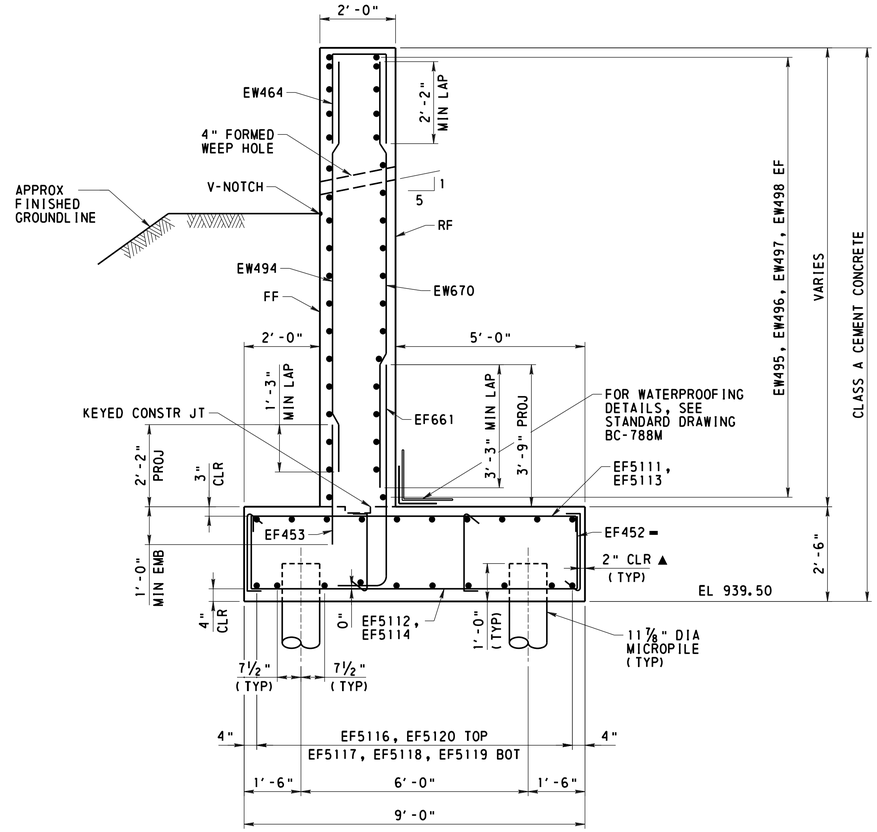
L - 645



SECTION A39-A39

PANEL 1 SHOWN,
PANELS 2 THRU 4 SIMILAR

2' 1' 0' 2'



SECTION A40-A40

2' 1' 0' 2'

NOTES

- WORK THIS SHEET WITH SHEETS 25 & 26
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEETS 41 THRU 43
- FOR MICROPILE DETAILS AND LOADS, SEE SHEET 28
- FOR ANCHOR DETAILS AND ANCHOR HEAD PEDESTAL DETAILS, SEE SHEET 29

LEGEND

NOTE A
ADJUST SPACING OF HORIZONTAL BARS AT ANCHORS AS SHOWN. CUT HORIZONTAL BARS AT CENTER OF ANCHOR CASING. MAINTAIN 2" CLR TO ANCHOR CASING

NOTE B
CUT VERTICAL BARS LOCATED AT CENTERLINE OF ANCHORS. MAINTAIN 2" CLR TO CASING

EF EACH FACE

FF FRONT FACE

RF REAR FACE

▬ ALTERNATE 90° AND 135° HOOKS AT TOP IN ALTERNATE TIES

▲ 2" CLR TO EF452 TIE BARS, 3" CLR TO MAIN REINFORCEMENT BARS ON SIDES AND TOP

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
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SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

WINGWALL D SECTIONS

RECOMMENDED *February 12th, 2026*

SHEET 27 OF 50

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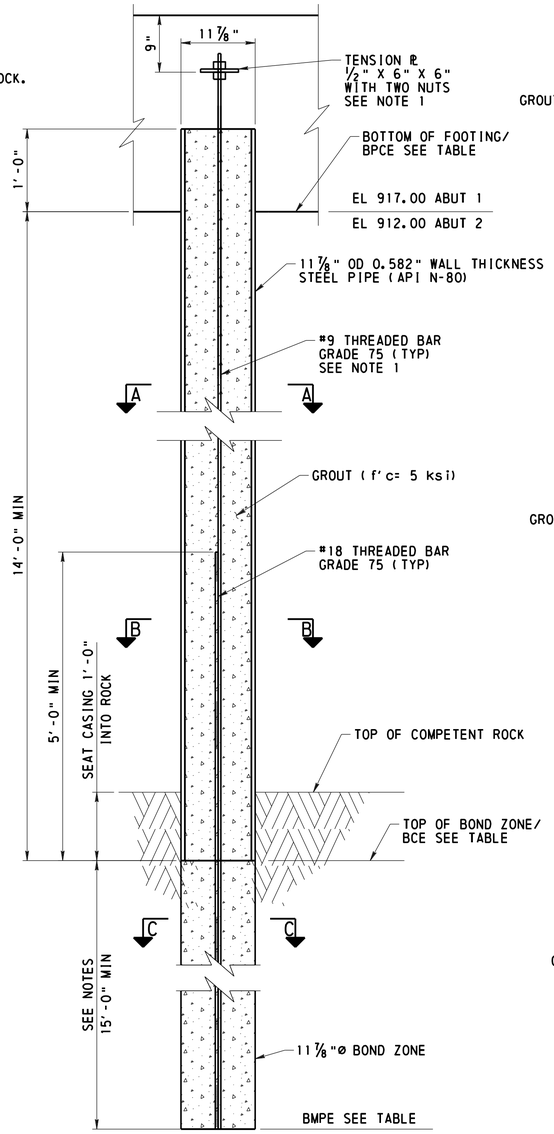
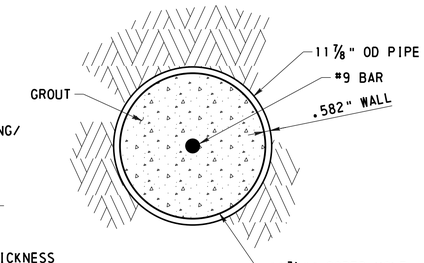
MICROPILE INSTALLATION NOTES

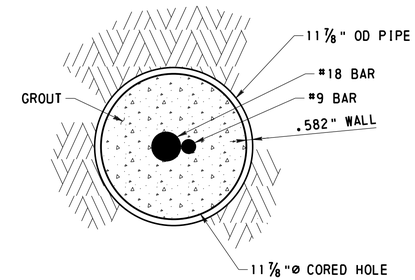
- EACH INDIVIDUAL PILE BOND ZONE MUST CONTAIN A ACCUMULATION OF 15 FT OF COMPETENT ROCK.
- NO ONE SOIL SEAM IN EXCESS OF 5 FT WILL BE ACCEPTABLE.
- NO ONE ROCK SEAM LESS THAN 5 FT WILL BE ACCEPTABLE.
- NO CLAYSTONE SEAM IS TO BE INCLUDED IN BOND ZONE LENGTH.
- NO BOND ZONE SHALL BE TERMINATED WITHOUT 2.0 FT (MIN) OF ROCK AT THE BOTTOM OF THE BOND ZONE.
- EACH BOND ZONE MUST BE EXTENDED AS NECESSARY TO A LENGTH THAT INCLUDES AN ACCUMULATION OF 15 FT OF ROCK.
- THE X, Y, AND Z VALUES ARE BASED ON CALCULATIONS AND SUBSURFACE CONDITIONS AND ARE DEFINED AS FOLLOWS:
  X = MINIMUM ROCK LENGTH (FOR SEAMED ROCK)
  Y = MINIMUM BOND LENGTH
  Z = TOTAL ROCK SOCKET LENGTH (CAN EQUAL X IF SOLID ROCK CONDITION, BUT MAY NOT IF ROCK IS SEAMED)
  X,Y, & Z = 15 FT
- CONSTRUCT THE MICROPILES IN ACCORDANCE WITH PUBLICATION 408 SECTION 1007 AND THE PROJECT PLANS.
- MICROPILES ARE TO BE INSTALLED WITH A MINIMUM CASING LENGTH OF 14 FEET BELOW BASE OF THE PILE CAP OR TO A DEPTH OF 1 FOOT INTO COMPETENT ROCK WHICHEVER IS GREATER. ANY CASING JOINTS MUST BE PLACED A MINIMUM OF 14 FOOT BELOW THE BOTTOM OF THE PILE CAP ELEVATION.
- MICROPILE CASING IS TO EXTEND A MINIMUM OF 1.0 FOOT INTO THE TOP OF COMPETENT ROCK AS DEFINED BY THE ENGINEER OR THEIR REPRESENTATIVE ON SITE AT THE TIME OF DRILLING. IN AREAS WHERE COAL WAS ENCOUNTERED, THE CASING WILL EXTEND A MINIMUM OF 1.0 FEET BELOW THE COAL STRATUM.
- ROCK WITHIN THE BONED LENGTH IS ANTICIPATED TO CONSIST OF SANDSTONE OR SILTSTONE. OTHER ROCK TYPES, IF ENCOUNTERED, ARE TO BE CONFIRMED BY THE ENGINEER AS SUITABLE FOR MICROPILE LOAD TRANSFER PRIOR TO COMPLETION.
- THE ROCK TYPE AND CONSISTENCY WITHIN THE BONDED LENGTH IS TO BE CONFIRMED BY THE ENGINEER OR AN APPROVED REPRESENTATIVE PRIOR TO COMPLETION OF EACH MICROPILE.
- DO NOT INCLUDE CLAYSTONE ENCOUNTERED IN THE BOND ZONE AS PART OF THE REQUIRED MINIMUM BOND ZONE LENGTH.
- OPEN-HOLE DRILLING IS NOT PERMITTED.
- MICROPILE INSTALLATION DEPTHS SHALL BE MEASURED USING A WEIGHTED TAPE MEASURE TO CONFIRM DESIGN DEPTH PRIOR TO PLACEMENT OF REINFORCING STEEL OR GROUT.
- MICROPILES ARE TO BE GROUTED WITHIN 24 HOURS OF THE COMPLETION OF DRILLING. IF GROUTED IS NOT POSSIBLE WITHIN THIS TIME FRAME, THEN THE CONTRACTOR MUST VERIFY THE CLEANLINESS OF THE HOLE TO THE SATISFACTION OF THE ENGINEER PRIOR TO GROUTING.
- PROVIDE TOOLING AND EQUIPMENT ON SITE CAPABLE OF DRILLING TO AT LEAST 200 PERCENT DEPTH OF THE DEEPEST EXPECTED MICROPILE.
- PROVIDE MICROPILES WITH A MINIMUM 11.875 INCH OUTSIDE DIAMETER AND A MINIMUM 0.582 INCH WALL THICKNESS WITH THREADED END SECTIONS TO ALLOW FOR INSTALLATION WITHOUT THE USE OF COUPLERS.
- PROVIDE MICROPILES CASING STEEL IS TO BE OF MINIMUM YIELD STRENGTH OF 80 KSI.
- ADVANCE CASING THROUGH ROCK TO THE BOTTOM OF THE ESTIMATED MICROPILE TIP ELEVATION (BMPE). ONCE THE BOTTOM OF THE BOND ZONE IS CONFIRMED, CASING SHALL BE LIFTED TO THE FINAL CONFIGURATION TO ALLOW GROUT/ROCK CONTACT AT THE BOND ZONE.
- THE GEOTECHNICAL REPRESENTATIVE SHALL BE PRESENT DURING THE CONSTRUCTION OF THE MICROPILES AND SHALL APPROVE THE BOND ZONE IN THE FIELD.
- PROVIDE CENTER REINFORCING STEEL CONSISTING OF A CONTINUOUS THREADED NO. 9 BAR FULL-LENGTH ALONG WITH A THREADED NO. 18 BAR EXTENDING FROM THE BOTTOM OF THE BOND ZONE TO 5 FEET INTO THE BOTTOM OF CASING.
- CENTER REINFORCING STEEL IS TO HAVE A MINIMUM YIELD STRENGTH OF 75 KSI.
- FILL MICROPILES WITH NEAT-CEMENT GROUT HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 5,000 PSI. SOME LOSS OF GROUT DUE TO JOINTS IN BEDROCK WITHIN THE BOND ZONE IS POSSIBLE. IF THE GROUT VOLUME EXCEEDS 200 PERCENT OF THE CALCULATED VOLUME AT ANY STAGE, GROUTING OPERATIONS SHALL BE CEASED. AFTER THE GROUT HAS HARDENED, DRILLING SHALL BE RESUMED, EXTENDED THROUGH THE HARDENED GROUT, AND CONTINUED DEEPER THAN THE BOND ZONE.
- PERFORM ONE VERIFICATION LOAD TEST PER SUBSTRUCTURE IN ACCORDANCE WITH DM-4 SECTION 10.9.3.5.4. AND PUBLICATION 408 SECTION 1007.3(j)1. CASE 1: VERIFICATION LOAD TESTING.



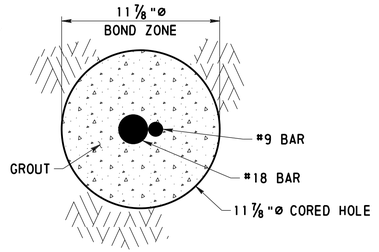
TYPICAL MICROPILE DETAIL
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION B-B
NOT TO SCALE



SECTION C-C
NOT TO SCALE

	CONTROLLING MICROPILE FORCES						CONTROLLING MICROPILE FORCES PRIOR TO ANCHOR INSTALLATION			
	STRENGTH		SERVICE		EXTREME EVENT		STRENGTH		SERVICE	
	AXIAL	LATERAL	AXIAL	LATERAL	AXIAL	LATERAL	AXIAL	LATERAL	AXIAL	LATERAL
ABUTMENT 1	280.82	39.86	208.80	34.32	329.79	68.05	107.62	24.75	70.35	12.36
WING A - PANEL 1	71.46	28.20	54.18	22.44	88.08	28.17	74.45	19.09	63.61	16.75
WING A - PANEL 2	53.32	15.88	39.46	13.05	60.81	18.29	46.72	17.75	38.78	15.34
WING A - PANEL 3	54.15	16.29	38.49	13.06	66.61	19.54	41.27	16.52	27.45	5.95
WING B - PANEL 1	68.76	28.02	51.24	22.03	90.08	26.57	65.22	17.78	53.67	15.51
WING B - PANEL 2	47.32	12.10	35.30	10.00	68.12	20.48	39.83	14.59	32.03	12.46
WING B - PANEL 3	56.60	11.09	40.17	9.20	67.04	16.81	36.20	14.14	23.77	5.99

	CONTROLLING MICROPILE FORCES						CONTROLLING MICROPILE FORCES PRIOR TO ANCHOR INSTALLATION			
	STRENGTH		SERVICE		EXTREME EVENT		STRENGTH		SERVICE	
	AXIAL	LATERAL	AXIAL	LATERAL	AXIAL	LATERAL	AXIAL	LATERAL	AXIAL	LATERAL
ABUTMENT 2	398.54	39.33	296.21	31.47	384.62	49.19	246.61	43.10	191.92	33.82
WING C - PANEL 1	83.00	18.07	59.24	13.15	92.07	16.11	43.69	8.35	33.98	6.76
WING C - PANEL 2	89.42	21.81	64.41	16.20	124.86	26.78	55.65	17.28	42.94	13.42
WING C - PANEL 3	96.10	15.63	69.22	12.08	99.42	18.05	54.43	17.06	41.91	13.24
WING C - PANEL 4	58.23	11.16	43.61	9.00	51.32	15.75	50.00	17.00	37.18	13.18
WING C - PANEL 5	58.59	20.82	43.25	16.27	67.54	26.79	64.39	24.23	47.43	18.82
WING C - PANEL 6	51.30	20.11	37.67	16.01	46.81	18.14	49.93	19.29	37.01	15.57
WING C - PANEL 7	57.39	20.77	42.76	17.62	51.36	17.97	56.09	20.20	42.03	17.27
WING D1 - PANEL 1	89.26	14.41	62.18	11.12	100.89	16.88	36.54	7.37	28.07	6.43
WING D1 - PANEL 2	83.09	9.49	62.89	8.62	113.26	26.77	51.34	14.88	39.18	13.09
WING D1 - PANEL 3	76.58	9.10	55.69	8.72	76.53	17.18	54.57	17.20	41.19	15.08
WING D1 - PANEL 4	44.32	15.60	31.87	12.75	69.82	31.00	49.97	23.11	39.14	18.77
WING D2	120.70	35.20	83.90	25.40	N/A	N/A	N/A	N/A	N/A	N/A

ALL FORCE IN KIPS
EXTREME EVENT IS REDUNDANCY CHECK ASSUMING ONE ANCHOR HAS FAILED

	MINIMUM AXIAL FORCES (UPLIFT)			
	PRIOR TO ANCHOR INSTALLATION		FINAL CONDITION	
	STRENGTH	SERVICE	AXIAL	LIMIT
	AXIAL	AXIAL	LOAD	STATE
ABUTMENT 1	-10.32	--	--	
WING A - PANEL 1	-8.39	-0.33	-3.16	(EXT)
WING A - PANEL 2	-5.44	--	--	
WING A - PANEL 3	-13.66	-5.03	-6.55	(EXT)
WING B - PANEL 1	-1.82	--	-9.07	(EXT)
WING B - PANEL 2	--	--	--	
WING B - PANEL 3	-8.40	-2.03	-2.42	(EXT)
ABUTMENT 2	-54.41	-12.64	--	
WING C - PANEL 1	--	--	--	
WING C - PANEL 2	--	--	--	
WING C - PANEL 3	--	--	--	
WING C - PANEL 4	--	--	--	
WING C - PANEL 5	--	--	--	
WING C - PANEL 6	--	--	-1.12	(STR)
WING C - PANEL 7	-0.41	--	-1.62	(STR)
WING D1 - PANEL 1	--	--	--	
WING D1 - PANEL 2	--	--	--	
WING D1 - PANEL 3	--	--	--	
WING D1 - PANEL 4	-9.93	-1.70	-20.65	(EXT)
WING D2	--	--	-2.1 •	(STR)

• UPLIFT IS DUE TO PERMANENT LOADS
ALL FORCE IN KIPS

		TMPE	BPCE	ESTIMATED BCE	ESTIMATED BMPE
ABUTMENT 1		918.00	917.00	903.00	888.00
WING A	PANEL 1	933.00	932.00 / 927.00	917.00	902.00
	PANEL 2	928.00	927.00 / 922.00	908.00	893.00
	PANEL 3	923.00	922.00 / 917.00	903.00	888.00
WING B	PANEL 1	933.00	932.00 / 927.00	917.00	902.00
	PANEL 2	928.00	927.00 / 922.00	908.00	893.00
	PANEL 3	923.00	922.00 / 917.00	903.00	888.00
ABUTMENT 2		913.00 / 918.00	912.00 / 917.00	898.00 / 904.00	883.00 / 889.00
WING C	PANEL 1	918.75	912.00 / 917.75	898.00 / 904.00	883.00 / 889.00
	PANEL 2	923.25	917.75 / 922.25	903.75 / 908.25	888.75 / 893.25
	PANEL 3	927.75	922.25 / 926.75	908.25 / 912.75	893.25 / 897.75
	PANEL 4	932.25	926.75 / 931.25	912.75 / 917.25	897.75 / 902.25
	PANEL 5	936.75	931.25 / 935.75	917.25 / 920.00	902.25 / 905.00
	PANEL 6	941.25	933.75 / 940.25	920.00	905.00
	PANEL 7	945.75	940.25 / 944.75	920.00	905.00
WING D1	PANEL 1	923.00	917.00 / 922.00	903.00 / 908.00	888.00 / 893.00
	PANEL 2	928.00	922.00 / 927.00	908.00 / 913.00	893.00 / 898.00
	PANEL 3	933.00	927.00 / 932.00	913.00 / 914.50	898.00 / 899.50
	PANEL 4	938.00	932.00 / 937.00	914.00	899.00
WING D2		940.50	939.50	914.00	899.00

LEGEND

BMPE BOTTOM OF MICROPILE ELEVATION

BPCE BOTTOM OF PILE CAP ELEVATION

BCE BOTTOM OF CASING ELEVATION

NOTE 1

PROVIDE TENSION PLATE AND NUTS FOR THE FOLLOWING MICROPILES:
ABUTMENT 1 - PILE ROW 2
WING A - PILE ROW 4
WING B - PILE ROW 6
ABUTMENT 2 - PILE ROW 2
WING C1 - PILE ROW 4
WING D1 - PILE ROW 6

DESIGNED BY	KAM
DRAWN BY	TMK
CHECKED BY	KAM

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33664-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

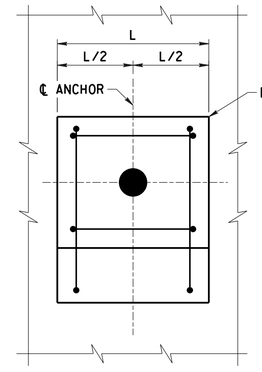
MICROPILE DETAILS

RECOMMENDED *February 12th, 2026*

SHEET 28 OF 50

L - 645

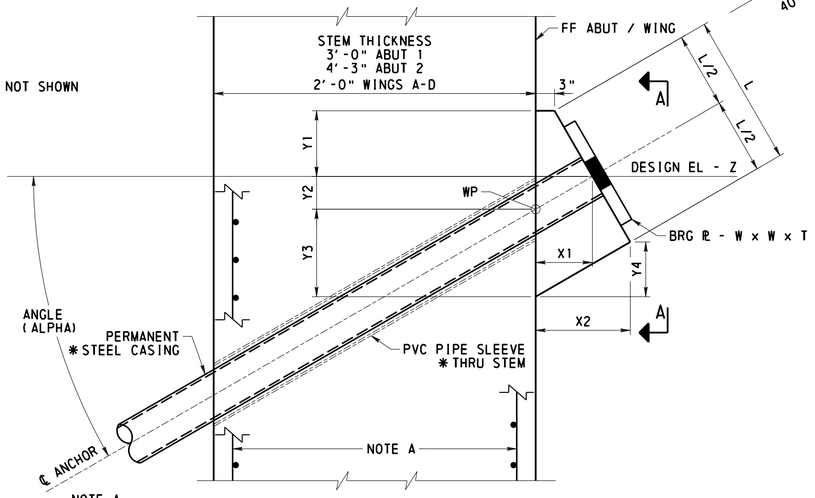
LOCATION ANCHOR NO.	ANGLE ALPHA	ANCHOR ELEV - Z	Y1	Y2	Y3	Y4	X1	X2	L	W	T
			INCHES								
ABUT 1 - A1-1 THRU A1-5	30.00	928.00	8.66	4.62	11.55	7.51	8.00	13.00	20.00	14.00	1.50
WING A - A-1	26.00	933.00	7.19	3.17	8.90	4.88	6.51	10.01	16.00	10.00	1.00
WING A - A-2	30.00	938.00	6.93	4.04	9.24	6.35	7.00	11.00	16.00	10.00	1.00
WING B - B-1	30.00	933.00	6.93	4.04	9.24	6.35	7.00	11.00	16.00	10.00	1.00
WING B - B-2	32.00	938.00	6.78	4.52	9.43	7.17	7.24	11.48	16.00	10.00	1.00
ABUT 2 - A2-1 THRU A2-7	30.00	930.00	10.39	5.20	13.86	8.66	9.00	15.00	24.00	18.00	1.50
WING C - C-1	26.50	932.25	8.95	3.72	11.17	5.95	7.46	11.92	20.00	14.00	1.25
WING C - C-2	33.50	936.25	8.34	5.64	11.99	9.29	8.52	14.04	20.00	14.00	1.25
WING C - C-3	33.00	941.25	8.39	5.49	11.92	9.02	8.45	13.89	20.00	14.00	1.25
WING D - D-1	28.00	932.00	8.83	4.09	11.33	6.59	7.69	12.39	20.00	14.00	1.25
WING D - D-2	28.50	937.00	8.79	4.22	11.38	6.81	7.77	12.54	20.00	14.00	1.25
WING D - D-3	26.00	943.00	8.99	3.60	11.13	5.74	7.38	11.77	20.00	14.00	1.25



ELEVATION A-A

NOT TO SCALE

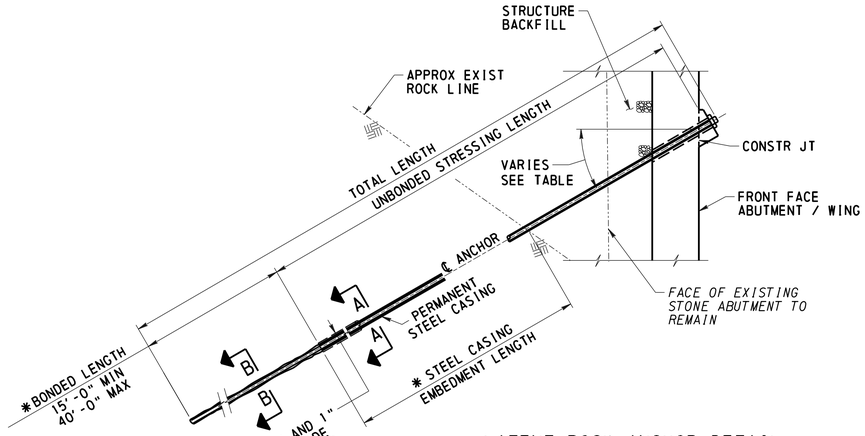
FOR ANCHOR PEDESTAL REINFORCING DETAILS, SEE SUBSTRUCTURE PLANS



NOTE A
ADJUST HORIZONTAL AND VERTICAL REINFORCEMENT AS REQUIRED TO CLEAR ANCHORS

ANCHOR HEAD DETAIL

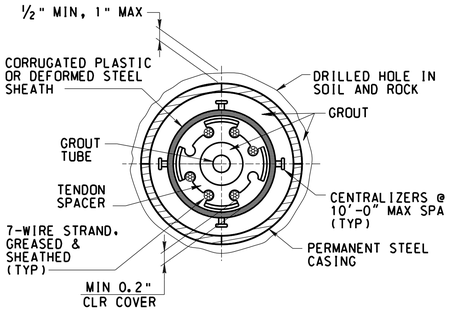
NOT TO SCALE



LATENT ROCK ANCHOR DETAIL

(ABUT 1, ABUT 2, WINGS A THRU D)

NOT TO SCALE

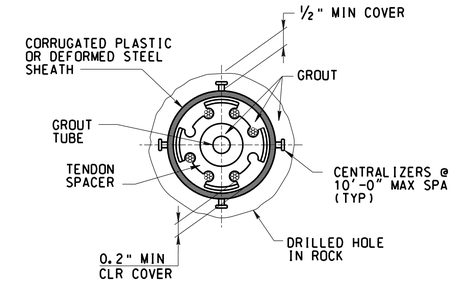


SECTION A-A

7-WIRE STRAND TENDON

UNBONDED STRESSING LENGTH

NOT TO SCALE

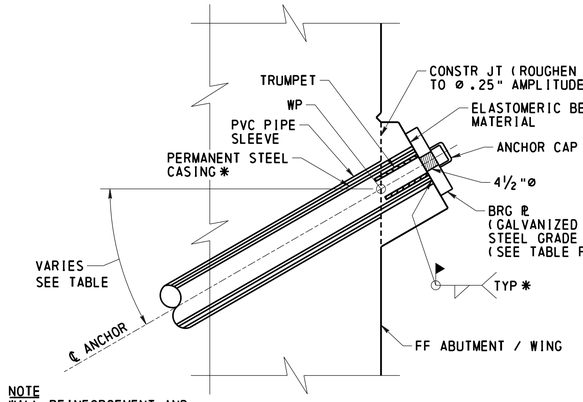


SECTION B-B

7-WIRE STRAND TENDON

BONDED LENGTH

NOT TO SCALE



NOTE

WALL REINFORCEMENT AND TENDONS NOT SHOWN FOR CLARITY

ANCHOR PLATE DETAIL

NOT TO SCALE

LEGEND

FF FRONT FACE

WP WORK POINT

✱ CONTRACTOR DESIGN

DESIGN DETAILS SHOWN IN THESE PLANS ARE BASED ON USING THE FOLLOWING ELEMENTS:

	ABUT 1, ABUT 2, WINGS C AND D	WINGS A AND B
PVC PIPE SLEEVE	10" DIA	8" DIA
STEEL CASING	8" DIA	6" DIA

VERIFY ADEQUACY OF DESIGN DETAILS IF DIFFERENT ELEMENT SIZES ARE PROPOSED AND/OR REVISE DESIGN DETAILS AS REQUIRED FOR THE REVISED ELEMENT SIZES

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

LATENT ANCHOR CONSTRUCTION PROCEDURE

1. THE GEOTECHNICAL REPRESENTATIVE IS TO BE PRESENT DURING THE CONSTRUCTION OF THE LATENT ANCHOR AND SHALL APPROVE THE BOND ZONE IN THE FIELD.
2. PLACE STRUCTURE BACKFILL TO 2'-0" ABOVE THE ANCHOR DESIGN ELEVATION, THEN INSTALL THE ANCHOR.
3. DRILL THROUGH WALL SLEEVE, STRUCTURE BACKFILL EXISTING ABUTMENT OR WINGWALL, EXISTING FILL MATERIAL AND INTO THE BEDROCK FOR THE REQUIRED STEEL CASING EMBEDMENT LENGTH. NO CLAYSTONE, SOIL SEAM, OR WEAK ROCK SEAM IS TO BE INCLUDED IN THE DRILL ANCHOR/PERMANENT STEEL CASING BAND LENGTH. HOLE MUST BE OF SUFFICIENT DIAMETER TO ACCEPT ALL COMPONENTS AND PROVIDE SPECIFIED COVER.
4. FILL HOLE WITH SUFFICIENT GROUT AND PLUNGE CASING TO THE FULL DEPTH OF EMBEDMENT LENGTH TO ENSURE FULL GROUTING OF ANNULAR SPACE BETWEEN PERMANENT STEEL CASING AND BEDROCK.
5. AFTER SUFFICIENT CURE OF THE GROUT, WITH A MINIMUM COMPRESSIVE STRENGTH OF 1000 PSI AND A MINIMUM OF 16 HOURS, DRILL ANCHOR BOND LENGTH, INSTALL ANCHOR, AND PRESSURE GROUT THE BOND LENGTH.
6. INSTALL HOT DIPPED GALVANIZED BEARING PLATE, FIELD WELD THE PLATE TO THE STEEL CASING, AND FIELD GALVANIZE. CLEAN AND FIELD GALVANIZE THE EXPOSED END OF CASING.
7. PRIOR TO TESTING THE ANCHORS, WEDGE THE STEEL CASING IN THE HOLE THROUGH THE WALL TO FIRMLY SECURE IT. AFTER ANCHOR BOND GROUT HAS CURED, PERFORM LOAD TESTS AND PROOF TESTS ON THE ANCHORS AND LOCK OFF LOAD TO THE DESIGN LOAD IN ACCORDANCE WITH THE SPECIAL PROVISIONS. JACK AGAINST BEARING PLATE. DO NOT APPLY JACKING LOADS TO THE WALL.
8. GROUT THE STEEL CASING UNTIL GROUT EMERGES FROM END OF CASING. GROUT ANNULAR SPACE BETWEEN CASING AND THE WALL SLEEVE.
9. CONSTRUCT ANCHOR CORBELS. ENSURE FULL CONSOLIDATION OF CONCRETE BEHIND BEARING PLATE.
10. CUT EXCESS TENDON LENGTH. INSTALL GREASE FILLED GALVANIZED CAP, AND CAULK JOINT BETWEEN BEARING PLATE AND CONCRETE ON ALL SIDES WITH APPROVED ELASTOMERIC CAULKING COMPOUND.
11. OTHER METHODS OF CONSTRUCTION MAY BE CONSIDERED WITH APPROVAL OF THE CHIEF BRIDGE ENGINEER.

DESIGNED BY	KAM
DRAWN BY	TMK
CHECKED BY	KAM

ANCHOR LOADS AND ANGLES

LOCATION ANCHOR NO.	ANCHOR HEAD ELEVATION	ANGLE DEGREES	STRENGTH KIPS	SERVICE KIPS	EXTREME EVENT KIPS
ABUT 1 - A1-1 THRU A1-5	928.00	30.00	282.42	195.11	220.84
WING A - A-1	933.00	26.00	54.87	37.75	68.81
WING A - A-2	938.00	30.00	65.43	45.82	75.15
WING B - B-1	933.00	30.00	52.31	35.26	71.85
WING B - B-2	938.00	32.00	99.94	67.73	89.84
ABUT 2 - A2-1 THRU A2-7	930.00	30.00	342.93	229.60	403.96
WING C - C-1	932.25	26.50	180.01	117.57	176.28
WING C - C-2	936.25	33.50	169.46	108.56	253.42
WING C - C-3	941.25	33.00	222.95	143.64	210.00
WING D1 - D-1	932.00	28.00	225.06	148.64	202.53
WING D1 - D-2	937.00	28.50	164.13	108.35	232.49
WING D1 - D-3	943.00	26.00	189.65	123.75	174.91

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33668-E

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

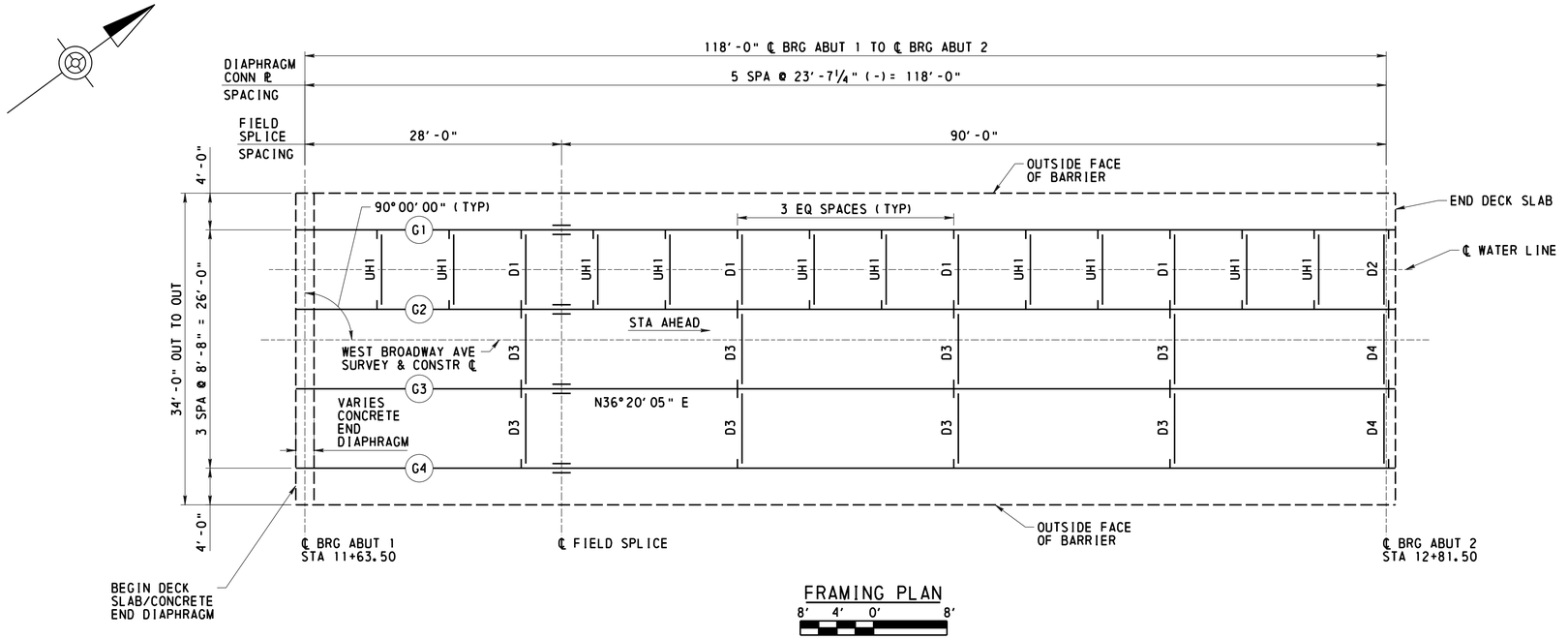
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

LATENT ANCHOR DETAILS

RECOMMENDED *February 12th, 2026*

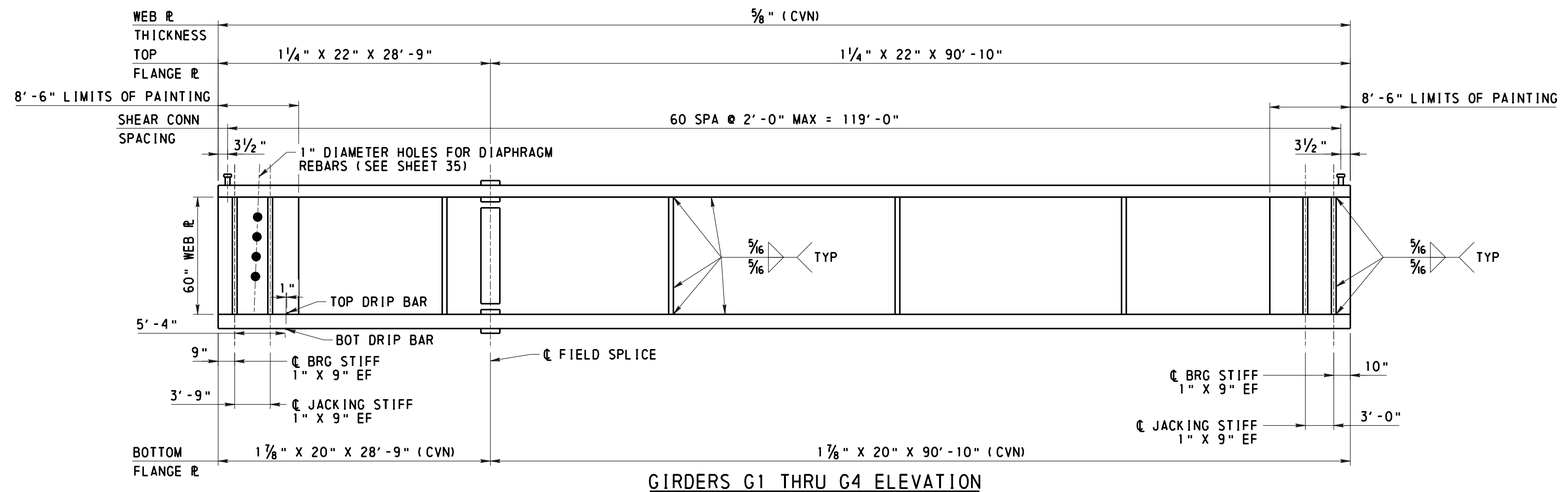
SHEET 29 OF 50

L - 645



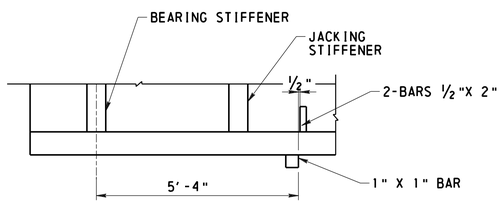
FRAMING PLAN

8' 4' 0' 8'



GIRDERS G1 THRU G4 ELEVATION

NOT TO SCALE



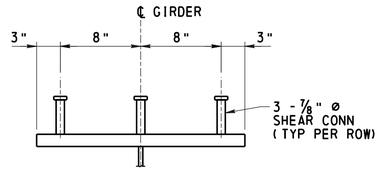
DRIP BAR DETAIL

NOT TO SCALE

SEE BC-753M FOR ADDITIONAL DETAILS

STEEL NOTES

1. WELD BEARING STIFFENERS AT TOP AND BOTTOM WHEN THE BEARING STIFFENER IS USED AS CONNECTION PLATE.
2. UNDER FULL DEAD LOAD, BEAM ENDS AND ALL BEARING STIFFENERS, JACKING STIFFENERS, CONNECTION PLATES AND UTILITY SUPPORT HANGER CONNECTION ANGLES ARE VERTICAL TO WITHIN APPLICABLE AASHTO/AWS FABRICATION AND CONSTRUCTION TOLERANCES.
3. DIRECTION OF WELDS IS NOT APPLICABLE IF STIFFENERS ARE FITTED WITH TACK WELDS.
4. FILLET WELD BEARING STIFFENERS OVER END SUPPORTS.
5. BEARING AREAS: PROVIDE BOTTOM FLANGE IN A TRUE HORIZONTAL PLANE IN TRANSVERSE DIRECTION AND IN A TRUE PLANE LONGITUDINALLY OVER DIMENSION "L", WHERE L = WIDTH OF SOLE PLATE + 6" AHEAD AND BACK, WHERE APPLICABLE. IF THE SOLE PLATE IS WELDED TO THE BOTTOM FLANGE PROVIDE THE SOLE PLATE MEETING THE SAME FLATNESS REQUIREMENTS. EACH BEARING MUST BE STRESSED UNIFORMLY AFTER ALL DEAD LOAD IS PLACED. MAKE NECESSARY SHOP AND/OR FIELD ADJUSTMENTS TO PROVIDE UNIFORM BEARING STRESS UNDER ALL DEAD LOADS.
6. SEE STANDARD DRAWING BC-753M FOR THE BEARING STIFFENER AND CONNECTION PLATE INSTALLATION DETAILS.
7. USE ASTM F3125 GRADE A325 TYPE 3 BOLTS, EXCLUDE THREADS FROM SHEAR PLANE.
8. USE STANDARD DIAMETER HOLES IN BEARING STIFFENERS AND CONNECTION PLATES. USE 1 1/16" DIAMETER HOLES IN GUSSET PLATES OR DIAPHRAGM MEMBERS.



SHEAR CONNECTOR DETAIL

(TYPICAL ALL GIRDERS)
NOT TO SCALE

NOTES

- FOR GENERAL NOTES SEE SHEETS 3
- FOR BEARING DETAILS SEE SHEET 34
- FOR FIELD SPLICE DETAILS SEE SHEET 31
- FOR DIAPHRAGM DETAILS SEE SHEET 32
- FOR UTILITY HANGER DETAILS SEE SHEET
- FOR CAMBER DETAILS & GIRDER REACTIONS SEE SHEET 33
- FOR GIRDER SECTION PROPERTIES SEE SHEET 33
- FOR CONCRETE END DIAPHRAGM ABUTMENT 1 SEE SHEET 35
- ALL GIRDER MEASUREMENTS ARE HORIZONTAL AND ARE MEASURED ALONG ℄ GIRDER
- FOR BEARING STIFFENER, CONNECTION PLATE, SHEAR CONNECTOR, DRIP BAR DETAILS, AND ADDITIONAL STEEL GIRDER DETAILS SEE STANDARD DRAWING BC-753M
- FOR JACKING STIFFENERS FOLLOW PROCEDURE FOR BEARING STIFFENERS IN STANDARD DRAWING BC-753M
- ALL STIFFENER AND CONNECTION PLATES ARE MEASURED TO ℄ PLATE
- ALL STEEL AASHTO M270 GRADE 50W (ASTM A709 GRADE 50W)
- PERFORM CHARPY V-NOTCH TESTS IN ACCORDANCE WITH SECTION 1105.02(a)5
- INSTALL SHEAR CONNECTIONS IN THE FIELD AFTER INSTALLING DECK FORMS

LEGEND

(G1)	GIRDER NUMBER
CVN	CHARPY V-NOTCH
EF	EACH FACE
D1	DIAPHRAGM MARK
RF	REAR FACE

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	SRE
DRAWN BY	TMK
CHECKED BY	CHB

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

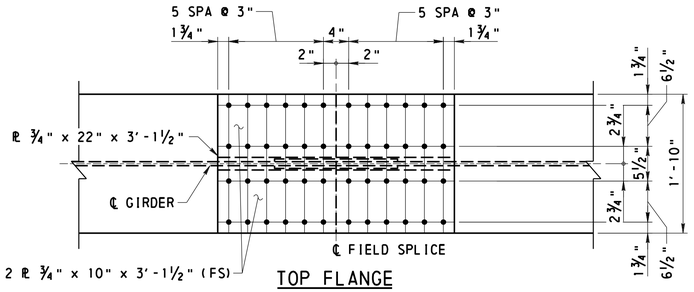
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

FRAMING PLAN AND GIRDER ELEVATION

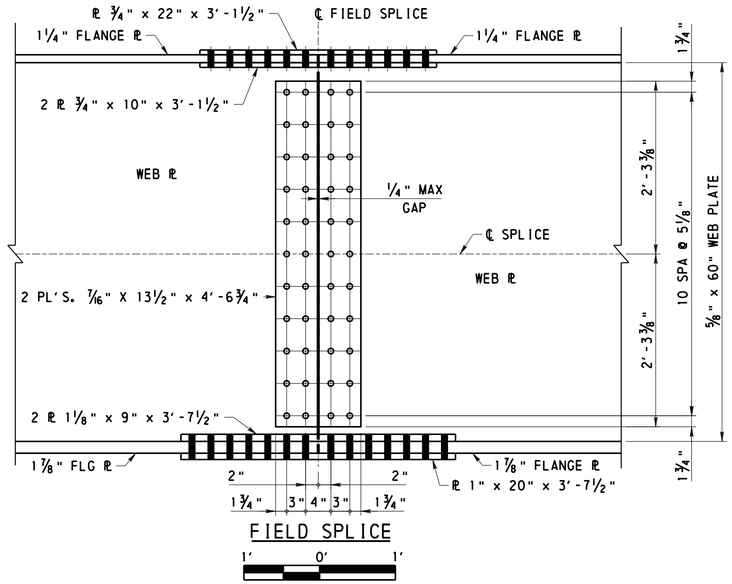
RECOMMENDED *February 12th, 2026*

SHEET 30 OF 50

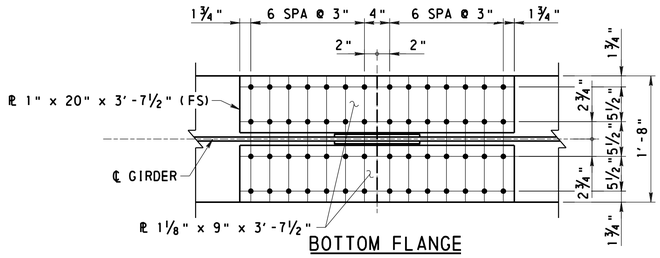
L - 645



TOP FLANGE



FIELD SPLICE



BOTTOM FLANGE

NOTES

- FOR FIELD SPLICE LOCATIONS SEE FRAMING PLAN AND GIRDER ELEVATION SHEET.
- ALL SPLICE PLATES CONFORMING TO AASHTO M270 GRADE 50W (ASTM A 709 GRADE 50W) UNLESS OTHERWISE NOTED.
- ALL HOLES 15/16" ø FOR 7/8" ø A325 HS BOLTS TYPE 3, EXCLUDE THREADS FROM SHEAR PLANE.
- PROVIDE CLASS B SLIP SURFACE CONDITION FOR ALL FIELD SPLICES.
- ALL SPLICE PLATES TO CONFORM TO CHARPY V-NOTCH REQUIREMENTS.
- BLAST CLEAN THE FAYING SURFACES OF SPLICES AND CONNECTIONS IN ACCORDANCE WITH SECTION 1060.3(b)3. REBLAST UNPAINTED ELEMENTS THAT REMAIN UNASSEMBLED FOR A PERIOD OF 12 MONTHS OR MORE FOLLOWING THE INITIAL CLEANING, BLAST CLEAN HIGH STRENGTH BOLTED CONNECTIONS IN ACCORDANCE WITH SSPC-SP-10.
- PLACE NUTS ON INSIDE FACE OF WEB SPLICE PLATES AT THE FASCIA GIRDERS. PLACE THE NUTS ON THE INSIDE FACE OF ALL FLANGE SPLICE PLATES.

LEGEND

FS FAR SIDE

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
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SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

GIRDER FIELD SPLICE MISC DETAILS

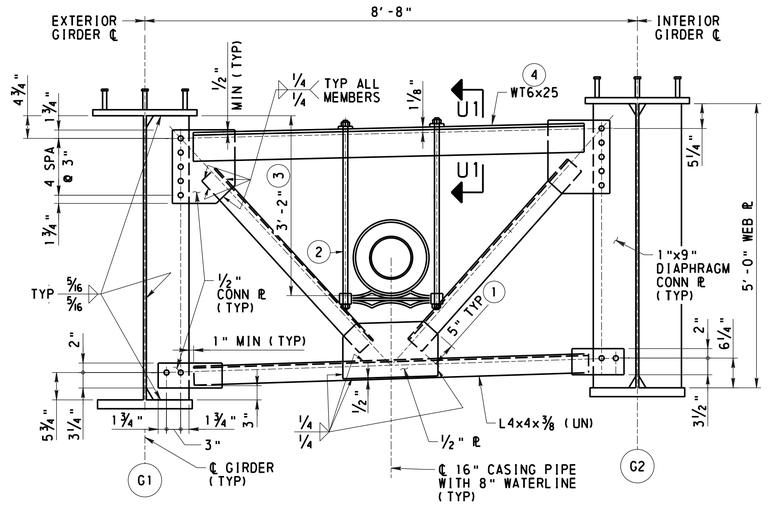
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

RECOMMENDED February 12th, 2026

SHEET 31 OF 50

L - 645

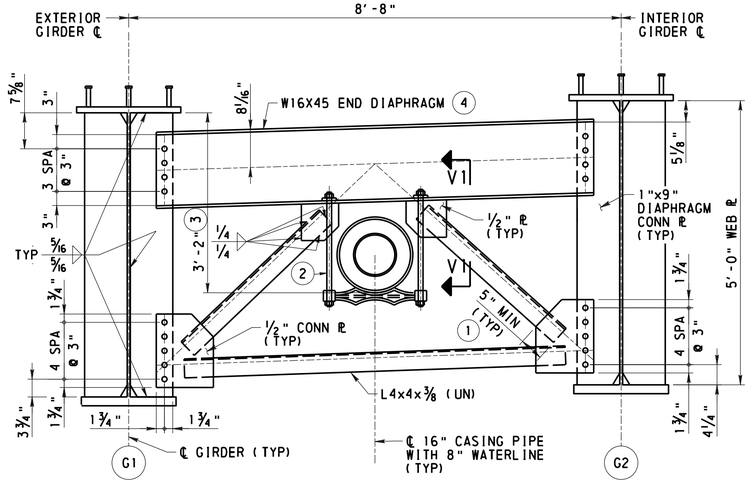
DESIGNED BY	SRE
DRAWN BY	SRE
CHECKED BY	KAM



DIAPHRAGM D1 - BAY 1

(LOOKING STA AHEAD)

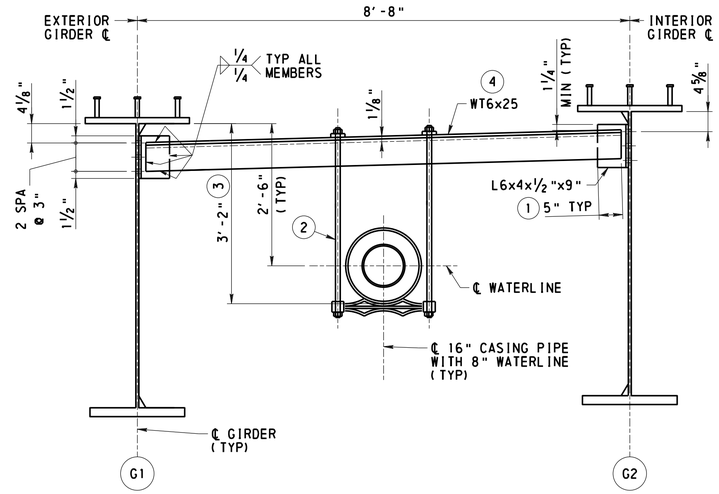
2' 1' 0' 2'



DIAPHRAGM D2 AT ABUTMENT 2 - BAY 1

(LOOKING STA AHEAD)

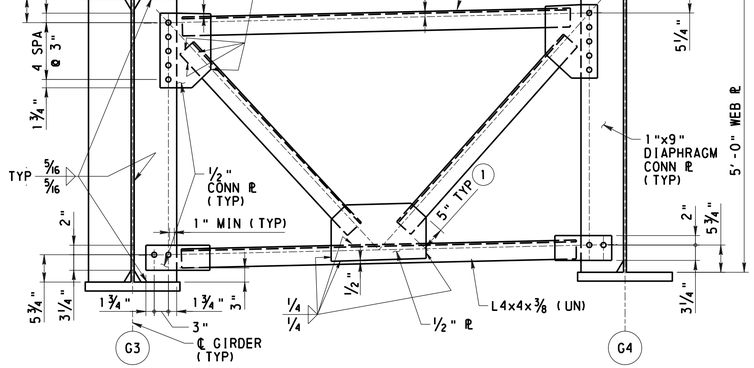
2' 1' 0' 2'



TYPICAL UTILITY SUPPORT HANGER UH1 - BAY 1

(LOOKING STA AHEAD)

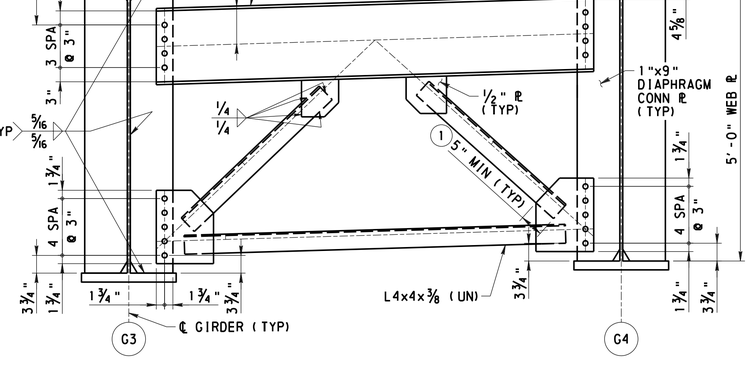
2' 1' 0' 2'



DIAPHRAGM D3 - BAYS 2 & 3

(LOOKING STA AHEAD)

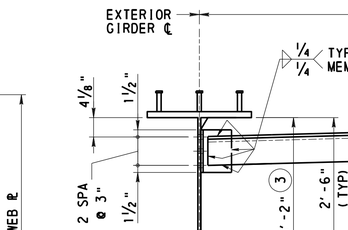
2' 1' 0' 2'



DIAPHRAGM D4 AT ABUTMENT 2 - BAYS 2 & 3

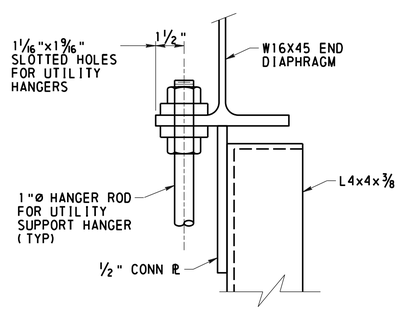
(LOOKING STA AHEAD)

2' 1' 0' 2'



SECTION U1-U1

NOT TO SCALE



SECTION V1-V1

NOT TO SCALE

NOTES

1. 4" MIN WELD LENGTH, TERMINATE WELDS ½" SHORT OF EDGE AT EACH END OF EACH WELD (TYP ALL MEMBERS)
2. BAY 1 ONLY, (1) 16"Ø CASING PIPE AND (1) 8"Ø WATER LINE SUPPORTED BY UTILITY SUPPORT HANGERS. CONTRACTOR TO COORDINATE WITH MAWC FOR PREPARATION OF STEEL SHOP DRAWINGS BASED ON SELECTED PIPE ROLLERS. FOR ADDITIONAL INFORMATION SEE UTILITY INSTALLATION NOTES
3. TO 16" CASING PIPE INVERT
4. PROVIDE 1 1/16"x1 9/16" SLOTTED HOLES IN WT AND W SECTIONS FOR HANGER RODS. COORDINATE WITH UTILITY COMPANY

- FOR FRAMING PLAN SEE SHEET 30
- FOR TYPICAL DECK SECTION SEE SHEET 37
- FOR BEARING STIFFENER AND CONNECTION PLATE INSTALLATION DETAILS SEE STANDARD DRAWING BC-754M
- 15/16"Ø HOLES IN CONNECTION PLATES AND CONNECTION ANGLES. 1 1/16"Ø HOLES IN BEARING STIFFENERS AND DIAPHRAGM CONNECTION PLATES FOR ⅞"Ø ASTM A325 HS BOLTS. THREADS ARE TO BE EXCLUDED FROM THE SHEAR PLANE
- STRUCTURAL STEEL FOR DIAPHRAGMS TO CONFORM TO ASTM A709, GRADE 50W, WEATHERING STEEL

UTILITY INSTALLATION NOTES

- ROLLER HANGER ASSEMBLIES (INCLUDING THE STRUCTURAL WT'S, CONNECTION ANGLES, PIPE ROLLERS, HANGER RODS, AND NUTS) WILL BE FURNISHED AND INSTALLED BY THE BRIDGE CONTRACTOR.
- BRIDGE CONTRACTOR TO DIG PIT WITH GRADE RAMP TO ACCOMMODATE INSTALLATION OF 8" WATERLINE. MINIMUM PIT LENGTH IS AS INDICATED ON THE MAWC PROPOSED WATERLINE REPLACEMENT PLANS PLUS THE LENGTH OF THE GRADED ACCESS RAMP.
- MAWC WILL SUPPLY & INSTALL THE 8" WATERLINE. BRIDGE CONTRACTOR TO FURNISH AND INSTALL THE 16" CASING PIPE ACROSS THE ROLLER SUPPORT HANGERS ON THE BRIDGE AND THROUGH THE CONCRETE END DIAPHRAGM AT ABUTMENT 1 AND THE CONCRETE BACKWALL AT ABUTMENT 2. COORDINATION WITH THE BRIDGE CONTRACTOR WILL BE NECESSARY.

LEGEND

UN UNLESS NOTED

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	SRE
DRAWN BY	SRE
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33868-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

DIAPHRAGM DETAILS

RECOMMENDED *February 12th, 2026*

SHEET 32 OF 50

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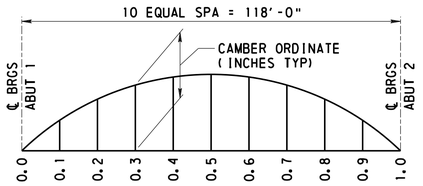
GIRDER CAMBER ORDINATES (INCHES)

	TYPE OF CAMBER	ABUT 1	SPAN 1									ABUT 2
		0.0	0.1	0.2	F.S.	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
GIRDERS G1 & G5	STEEL	0.000	0.370	0.701	0.808	0.960	1.124	1.181	1.124	0.960	0.701	0.370	0.000
	CONCRETE	0.000	0.695	1.316	1.514	1.801	2.109	2.215	2.109	1.801	1.316	0.695	0.000
	SUPERIMPOSED DL	0.000	0.123	0.234	0.269	0.320	0.375	0.393	0.375	0.320	0.234	0.123	0.000
	TOTAL	0.000	1.065	2.017	2.322	2.761	3.233	3.396	3.233	2.761	2.017	1.065	0.000
	TYPE OF CAMBER	ABUT 1	SPAN 1									ABUT 2
		0.0	0.1	0.2	F.S.	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0
GIRDERS G2 & G4	STEEL	0.000	0.382	0.724	0.835	0.992	1.162	1.220	1.162	0.992	0.724	0.382	0.000
	CONCRETE	0.000	0.689	1.303	1.501	1.785	2.091	2.196	2.091	1.785	1.303	0.689	0.000
	SUPERIMPOSED DL	0.000	0.122	0.231	0.266	0.317	0.371	0.389	0.371	0.317	0.231	0.122	0.000
	TOTAL	0.000	1.071	2.027	2.336	2.777	3.253	3.416	3.253	2.777	2.027	1.071	0.000

NOTES

- STEEL CAMBER INCLUDES GIRDER SELF WEIGHT, DIAPHRAGMS, UTILITIES AND MISCELLANEOUS STEEL DETAILS
- SUPERIMPOSED DL CAMBER INCLUDES BARRIER
- CONCRETE CAMBER INCLUDES DECK, HAUNCH, AND SIP FORMS
- FOR CALCULATION OF DECK FORM ELEVATIONS, SUBTRACT THE STEEL CAMBER VALUES FROM THE TOTAL CAMBER VALUE.



CAMBER DIAPHRAGM
NOT TO SCALE

UNFACTORED GIRDER REACTIONS (KIPS)

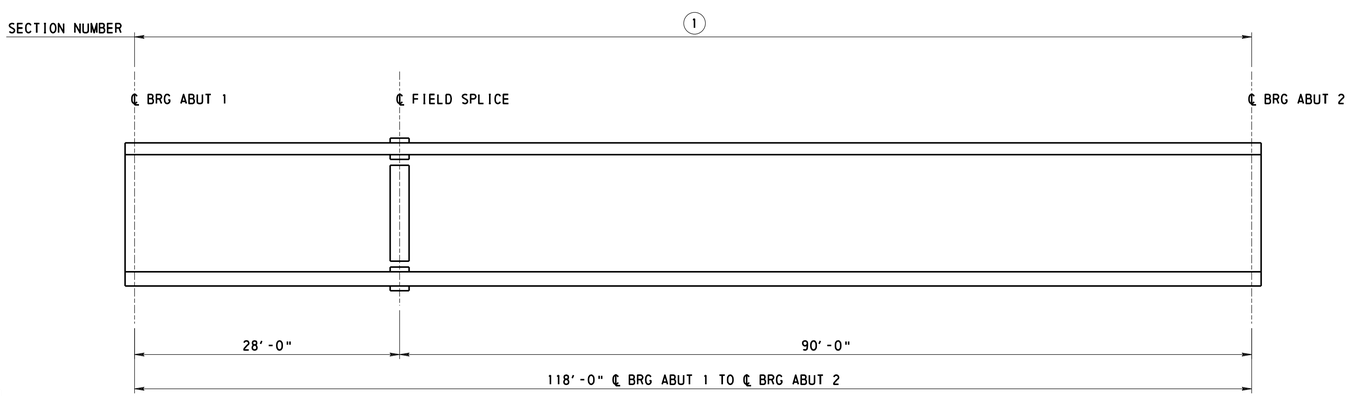
LOCATION		DC1	DC2	FWS	MAX LL + I	MIN LL + I
GIRDERS G1 & G4	ABUTMENT 1	96.0	16.5	14.2	96.1	0.0
	ABUTMENT 2	96.0	16.5	14.2	96.1	0.0
GIRDERS G2 & G3	ABUTMENT 1	96.6	16.5	14.2	89.6	0.0
	ABUTMENT 2	96.6	16.5	14.2	89.6	0.0

NOTES:
- DC1 = DEAD LOAD 1 (INCLUDES STEEL, DECK, FORMS, AND UTILITY LOAD).
- DC2 = DEAD LOAD 2 (INCLUDES BARRIERS).
- FWS = FUTURE WEARING SURFACE.
- MAX LL+I = MAXIMUM LIVE LOAD REACTION DUE TO PHL-93 LOADING INCLUDING IMPACT.
- MIN LL+I = MINIMUM LIVE LOAD REACTION DUE TO PHL-93 LOADING INCLUDING IMPACT.
- DC1 REACTIONS DO NOT INCLUDE LOADING FROM END DIAPHRAGMS OR APPROACH SLABS.

UNFACTORED JACKING REACTIONS (KIPS)

LOCATION		(1) STEEL	(2) CONCRETE	(3) SUPER-IMPOSED DL	FWS	(4) LIVE LOAD + IMPACT
GIRDERS G1 & G5	ABUTMENT 1	33.4	62.7	16.5	14.2	116.3
	ABUTMENT 2	33.4	62.7	16.5	14.2	116.3
GIRDERS G2 - G4	ABUTMENT 1	34.5	62.1	16.5	14.2	108.4
	ABUTMENT 2	34.5	62.1	16.5	14.2	108.4

(1) STEEL REACTIONS INCLUDE UTILITY LOADS.
(2) CONCRETE REACTIONS DO NOT INCLUDE LOADING FROM END DIAPHRAGMS OR APPROACH SLABS.
(3) SUPERIMPOSED DL INCLUDES BARRIERS AND IS NOT INCLUDED FOR GIRDER G3.
(4) LIVE LOADS SHOWN ARE FOR THE PHL-93 DESIGN VEHICLE INCLUDING IMPACT.



GIRDERS G1 THRU G4
NOT TO SCALE

GIRDER SECTION PROPERTIES

SECTION NUMBER			1
SECTION LENGTH			118'-0"
GIRDERS G1 & G4	SLAB	Ws X ts X hs	104" X 7.5" X 1.25"
	REBAR	As (IN2) X Hst	0.584 X 4.660"
	TOP FLANGE	bf X tf	22.00" X 1.25"
	WEB	Dw X tw	60.00" X 0.625"
	BOTTOM FLANGE	bf X tf	20.00" X 1.875"
	STEEL ONLY	I (IN4)	71,963
		C (IN)	28.773
		S-TOP (IN3)	2,095
		S-BOTT (IN3)	2,501
	COMPOSITE (3n=24)	I (IN4)	106,877
		C (IN)	37.675
		S-TOP (IN3)	4,200
		S-BOTT (IN3)	2,837
	COMPOSITE (n=8)	I (IN4)	143,488
		C (IN)	46.975
		S-TOP (IN3)	8,884
		S-BOTT (IN3)	3,055
GIRDERS G2 & G3	SLAB	Ws X ts X hs	104" X 7.5" X 1.25"
	REBAR	As (IN2) X Hst	0.584 X 4.660"
	TOP FLANGE	bf X tf	22.00" X 1.25"
	WEB	Dw X tw	60.00" X 0.625"
	BOTTOM FLANGE	bf X tf	20.00" X 1.875"
	STEEL ONLY	I (IN4)	71,963
		C (IN)	28.773
		S-TOP (IN3)	2,095
		S-BOTT (IN3)	2,501
	COMPOSITE (3n=24)	I (IN4)	107,939
		C (IN)	37.946
		S-TOP (IN3)	4,287
		S-BOTT (IN3)	2,845
	COMPOSITE (n=8)	I (IN4)	144,963
		C (IN)	47.348
		S-TOP (IN3)	9,188
		S-BOTT (IN3)	3,062

NOTES
- ALL PROPERTIES ARE IN UNITS OF INCHES UNLESS NOTED OTHERWISE.
- hs DENOTES HAUNCH THICKNESS FOR SECTION PROPERTY CALCULATION PURPOSES ONLY (MEASURED FROM TOP OF WEB).
- As DENOTES THE TOTAL AREA OF SLAB REINFORCEMENT IN THE EFFECTIVE SLAB WIDTH.
- Hst DENOTES THE DISTANCE FROM TOP OF EFFECTIVE SLAB TO C.G. OF SLAB REINFORCEMENT.
- ts DENOTES EFFECTIVE SLAB THICKNESS (NOT INCLUDING INTEGRAL WEARING SURFACE).
- C DENOTES THE DISTANCE FROM BOTTOM OF GIRDER TO NEUTRAL AXIS.

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

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DRAWN BY	TMK
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COMMONWEALTH OF PENNSYLVANIA
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WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

CAMBER AND REACTION TABLES

RECOMMENDED *February 12th, 2026*

SHEET 33 OF 50

L - 645

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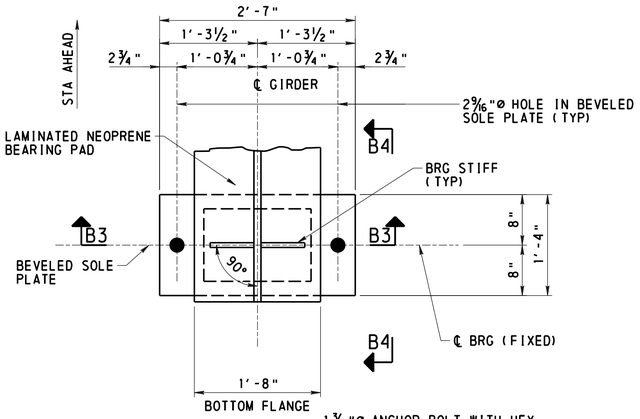
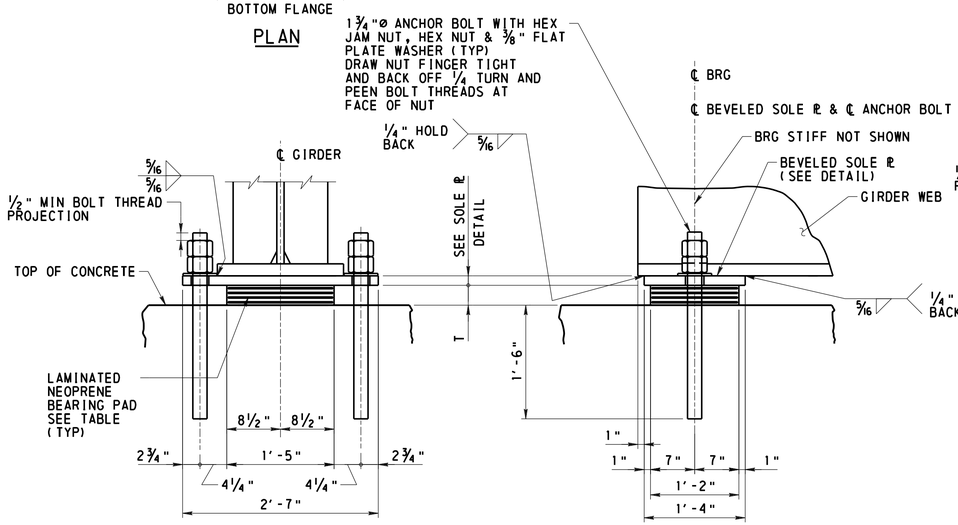
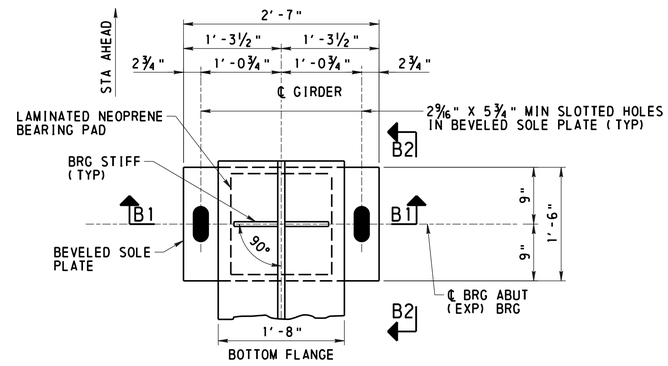


PLAN



SECTION B3-B3 VIEW B4-B4

FIXED BEARING ABUTMENT 1



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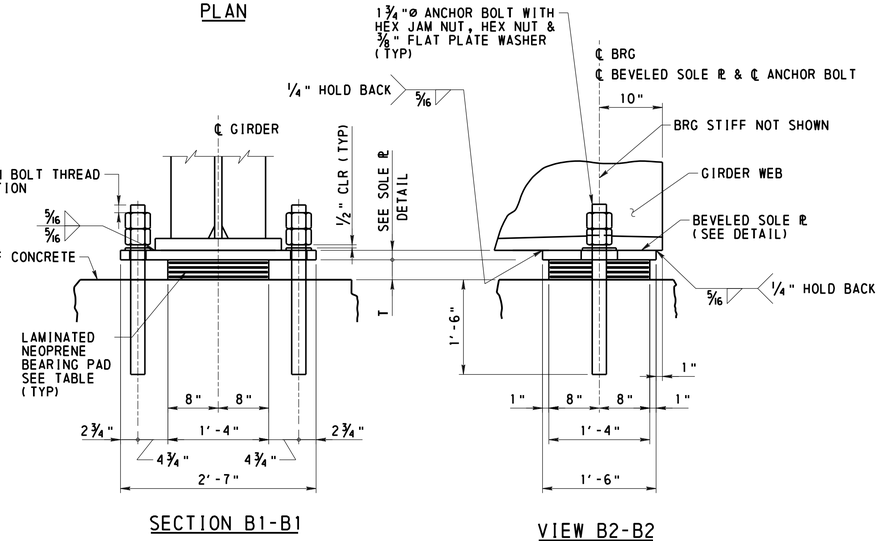
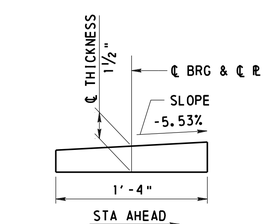
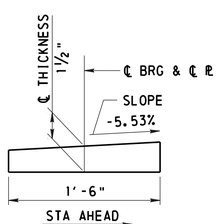


SECTION B1-B1 VIEW B2-B2

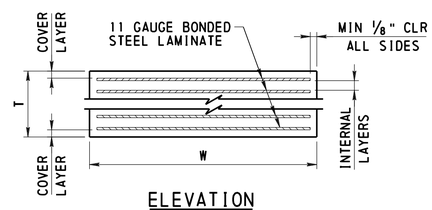
EXPANSION BEARING ABUTMENT 2



ABUTMENT 1 BEVELED SOLE PLATE DETAIL

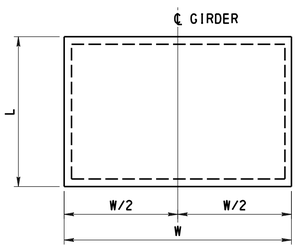


ABUTMENT 2 BEVELED SOLE PLATE DETAIL



ELEVATION

LAMINATED ELASTOMERIC BEARING PAD



PLAN

LAMINATED ELASTOMERIC BEARING PADS

LOCATION	SIZE W	SIZE L	NO. OF INTERNAL LAYERS	INTERNAL LAYER THICKNESS	COVER LAYER THICKNESS	NO. OF STEEL LAMINATES	TOTAL BEARING THICK. (T)	NUMBER REQUIRED
E1	1'-4"	1'-4"	11	⅜"	¼"	10	5.0710"	4
F1	1'-5"	1'-2"	6	⅜"	¼"	5	2.5980"	4

NOTES

- FOR FRAMING PLAN SEE SHEET 30
- FOR BEARING PAD NOTES AND ADDITIONAL NOTES AND DETAILS NOT SHOWN SEE STD DWG BC-755M
- VERTICAL DIMENSIONS ARE AT ℄ BEARINGS
- HOT DIP GALVANIZE ANCHOR BOLTS, NUTS AND WASHERS IN ACCORDANCE WITH PUBLICATION 408, SECTION 1105.02 (s)
- BEARING DESIGN FOR ROTATIONAL CONSTRUCTION TOLERANCE ABOUT THE TRANSVERSE AND LONGITUDINAL AXIS EQUAL TO 0.005 RAD AND 0.005 RAD, RESPECTIVELY
- PROVIDE INTERNAL SHIMS AS PER ASTM A1011 GRADE 36
- PREPARE BEARING AREA AND SET BEARING PADS IN ACCORDANCE WITH SECTION 1050.3(C)4
- PROVIDE ELASTOMER WITH A NOMINAL HARDNESS OF 50 ± 5 DUROMETER
- PROVIDE BEARINGS CONSTRUCTED FROM LOW TEMPERATURE ELASTOMER, GRADE 3.
- CONFORM TO REQUIREMENTS OF SECTION 1113 FOR MATERIAL AND FABRICATION
- FABRICATOR MAY USE THIS CONTRACT DRAWING TO FABRICATE THE NEOPRENE BEARINGS
- PROVIDE STEEL CONFORMING TO AASHTO M270 (ASTM A709) GRADE 50.
- SWEDGED ANCHOR BOLTS ASTM F1554, GRADE 105, PROVIDE SWEDGES THAT ARE PRESSED (STAMPED) OR ROLLED. CUT SWEDGE AND ALL-THREAD BOLTS ARE NOT PERMITTED.
- USE PREFORMED HOLES TO SET ANCHOR BOLTS.

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	SRE
DRAWN BY	TMK
CHECKED BY	KAM

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH A. MICHAEL ENGINEER 33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

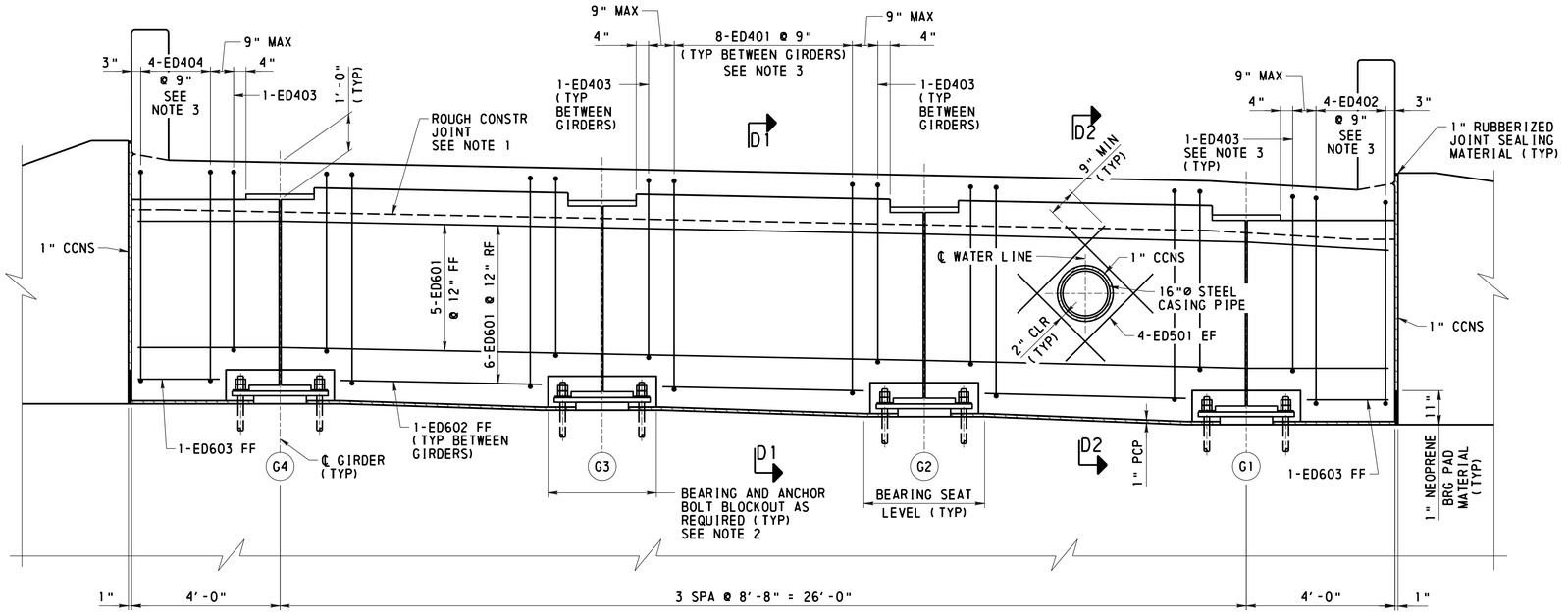
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

NEOPRENE BEARING DETAILS

RECOMMENDED *February 12th, 2026*

SHEET 34 OF 50

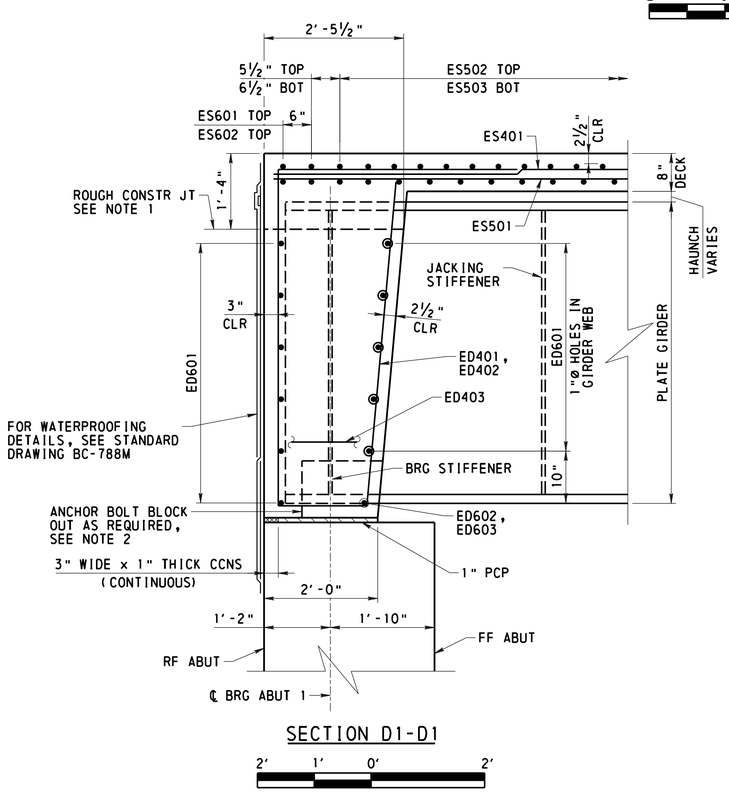
L - 645



CONCRETE END DIAPHRAGM ABUTMENT 1

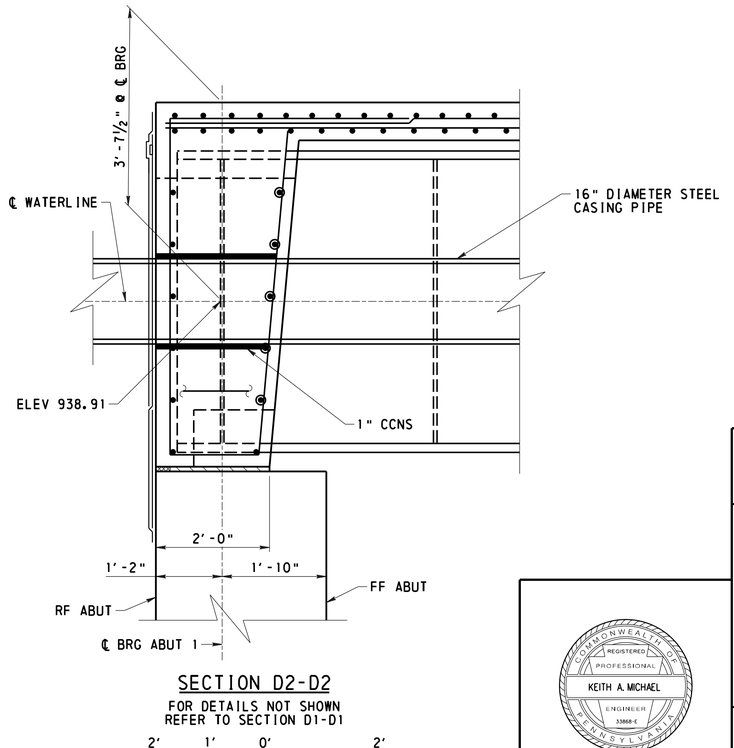
(LOOKING STATIONS BACK)

2' 1' 0' 2'



SECTION D1-D1

2' 1' 0' 2'



SECTION D2-D2

FOR DETAILS NOT SHOWN
REFER TO SECTION D1-D1

2' 1' 0' 2'

NOTES

- FOR ABUTMENT 1, SEE SHEETS 6 THRU 11
- FOR DECK PLAN, SEE SHEET 36
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 44
- FOR WATERPROOFING DETAILS, SEE STANDARD DRAWING BC-788M
- REFER TO PROPOSED WATERLINE REPLACEMENT PLANS BY MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY FOR ADDITIONAL DETAILS INCLUDING REQUIRED COORDINATION BETWEEN THE CONTRACTOR AND THE MUNICIPAL AUTHORITY.

LEGEND

CCNS CLOSED CELL NEOPRENE SPONGE

PCP PREFORMED CELLULAR POLYSTYRENE

FF FRONT FACE

RF REAR FACE

NOTE 1

PLACE PORTION OF DIAPHRAGM TO THE CONSTRUCTION JOINT INDICATED. WAIT TWO HOURS MINIMUM BEFORE PLACING DECK CONCRETE

NOTE 2

FORM AN OPENING AS REQUIRED TO CLEAR ANCHOR BOLTS BY 1" MINIMUM ALL AROUND AT LIMITS OF THERMAL MOVEMENT. ADJUST REINFORCEMENT TO PROVIDE MINIMUM CONCRETE COVER

NOTE 3

PLACE TOP LEG OF ED401, ED402, ED403 AND ED404 PARALLEL TO AND ON THE SAME PLANE AS THE TOP LONGITUDINAL DECK SLAB REINFORCEMENT

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	KAM
DRAWN BY	SJW
CHECKED BY	CHB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

WESTMORELAND COUNTY
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WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
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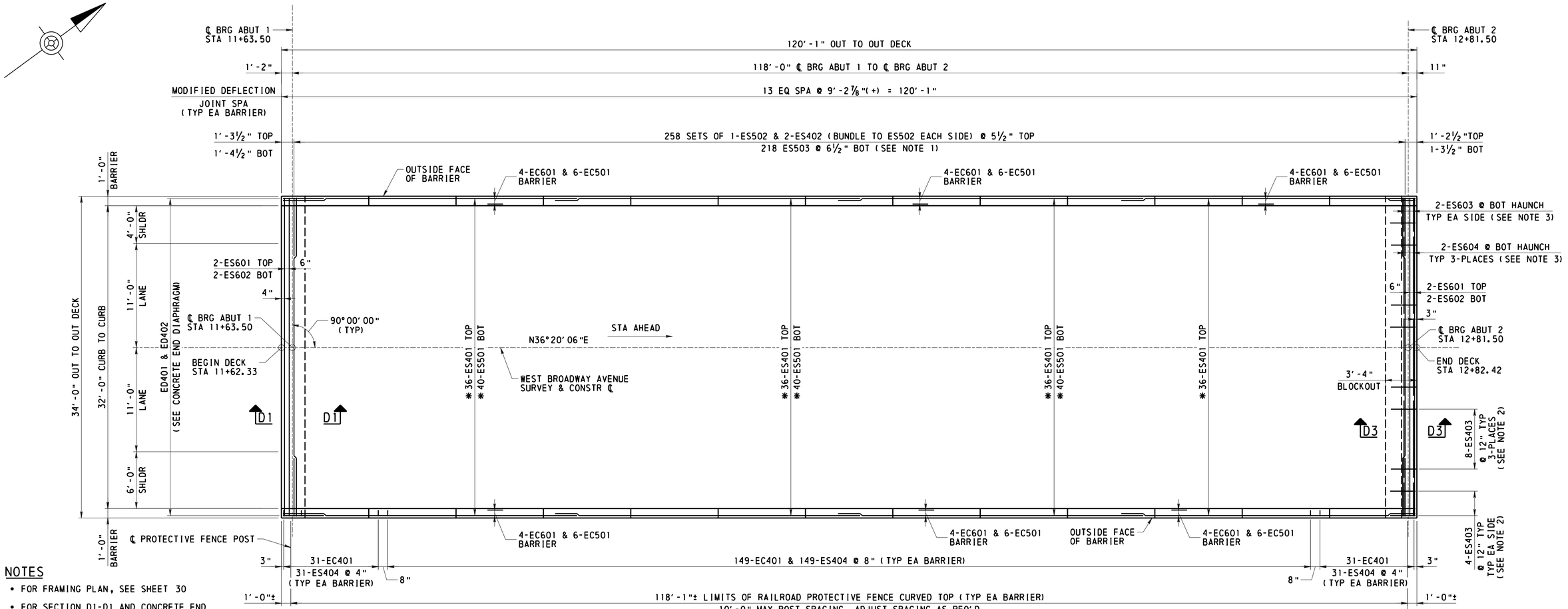
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

CONCRETE END DIAPHRAGM ABUTMENT 1

RECOMMENDED *February 12th, 2026*

SHEET 35 OF 50

L - 645



NOTES

- FOR FRAMING PLAN, SEE SHEET 30
- FOR SECTION D1-D1 AND CONCRETE END DIAPHRAGM, SEE SHEET 35
- FOR TYPICAL DECK SECTION, SEE SHEET 37
- FOR FINISHED DECK ELEVATIONS, SEE SHEET 38
- FOR DECK POURING SEQUENCE, SEE SHEET 39
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 44
- FOR NEOPRENE STRIP SEAL DAM, SEE STANDARD DRAWING BC767M AND SHEET
- FOR MODIFIED DEFLECTION JOINT AND TRANSVERSE CONSTRUCTION JOINT DETAILS SEE STANDARD DRAWING BC-752M
- FOR PROTECTIVE FENCE POST DETAILS SEE STANDARD DRAWING BC-701M

LEGEND

* SEE TYPICAL SECTION FOR SPACING AND PLACEMENT

FF FRONT FACE

NOTE 1

EXTEND ONE HALF OF THE #5 BOTTOM TRANSVERSE BARS ACROSS THE FULL WIDTH OF OVERHANG, THE ALTERNATING BARS WHICH DO NOT EXTEND INTO THE OVERHANG SHALL EXTEND 6" MINIMUM BEYOND THE INTERIOR EDGE OF THE FLANGE OF THE FASCIA BEAM

NOTE 2

PLACED PARALLEL TO AND CENTERED BETWEEN LONGITUDINAL TOP REINFORCEMENT BETWEEN GIRDER FLANGES

NOTE 3

PLACED PARALLEL TO STRIP SEAL AND CENTERED BETWEEN GIRDER WEBS AT BOTTOM OF HAUNCH

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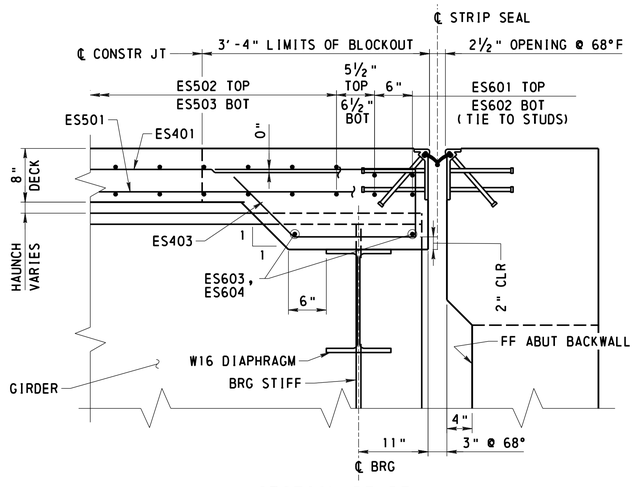
CHECKED BY	CHB

DECK PLAN

4' 0' 4'



SECTION D3-D3

1' 0' 1'

MINIMUM REINFORCEMENT SPLICE TABLE

BAR SIZE	DECK SPLICE LENGTH	BARRIER SPLICE LENGTH
4	2'-4"	——
5	3'-0"	3'-7"
6	3'-7"	4'-4"

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33868-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

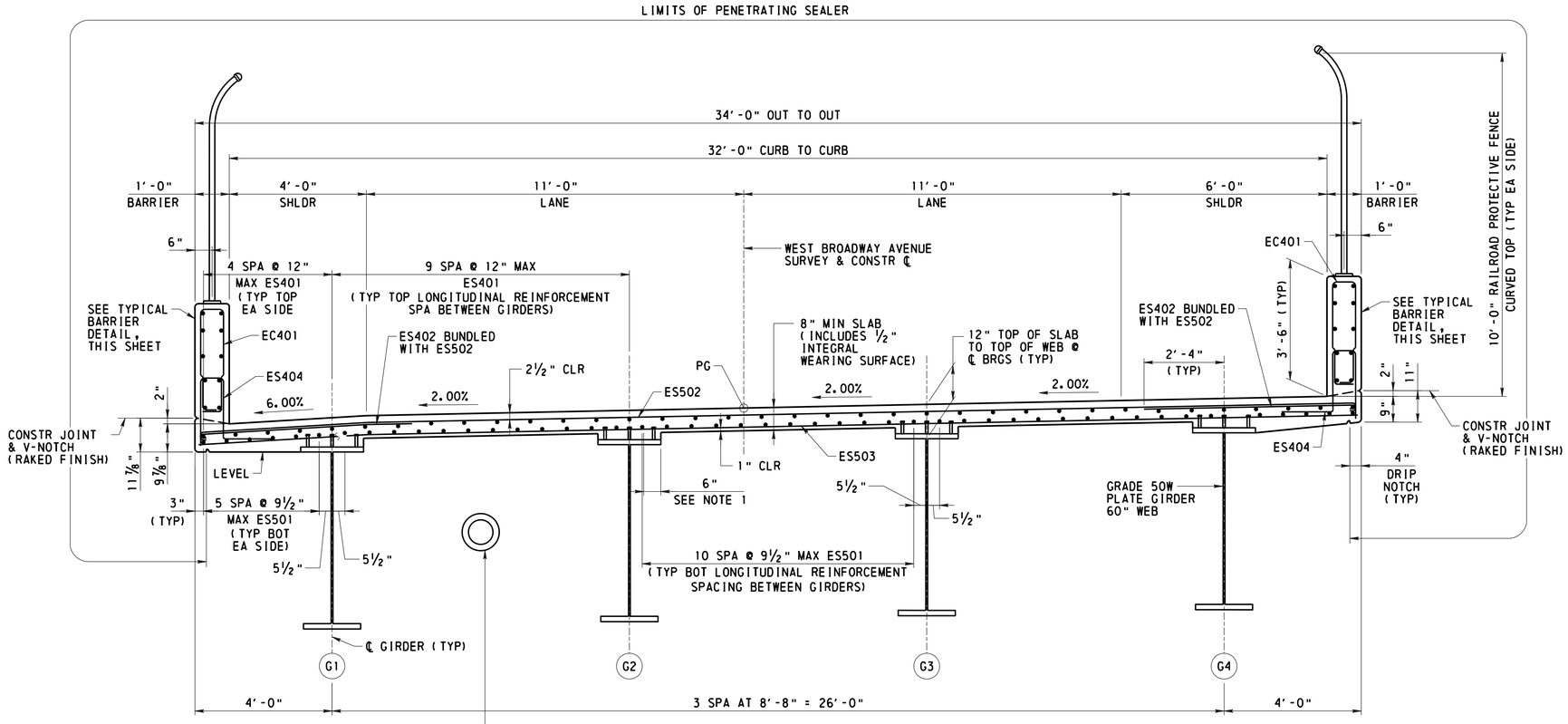
SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

DECK PLAN

RECOMMENDED *February 12th, 2026*

SHEET 36 OF 50

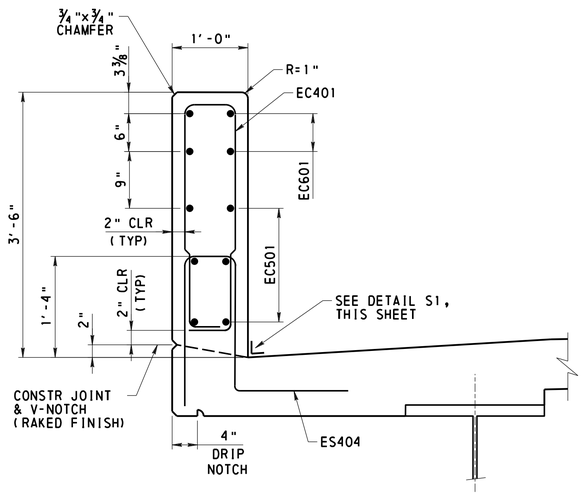
L - 645



16" DIAMETER STEEL CASING PIPE AND 8" DIAMETER DUCTILE IRON WATERLINE SEE DIAPHRAGM DETAILS FOR UTILITY SUPPORT DETAILS AND REFER TO PROPOSED WATERLINE REPLACEMENT PLANS BY MUNICIPAL AUTHORITY OF WESTMORELAND COUNTY FOR ADDITIONAL DETAILS INCLUDING REQUIRED COORDINATION BETWEEN THE CONTRACTOR AND THE MUNICIPAL AUTHORITY.

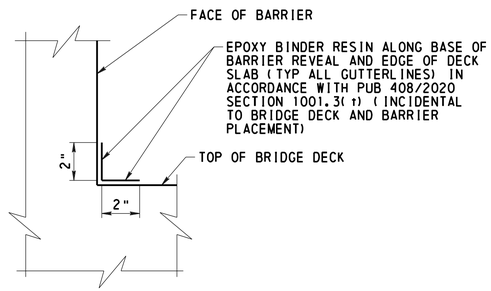
TYPICAL DECK SECTION

2' 1' 0' 2'



TYPICAL BARRIER DETAIL

(DECK REINFORCEMENT NOT SHOWN FOR CLARITY)
NOT TO SCALE



DETAIL S1

NOT TO SCALE

NOTES

- WORK THIS SHEET WITH SHEET 36
- FOR FINISHED DECK ELEVATIONS, SEE SHEET 38
- FOR FRAMING PLAN, SEE SHEET 30
- FOR REINFORCEMENT BAR SCHEDULE, SEE SHEET 44
- FOR V-NOTCH DETAILS SEE STANDARD DRAWING BC-752M
- FOR DRIP NOTCH DETAILS SEE STANDARD DRAWING BC-775M
- FOR PROTECTIVE FENCE DETAILS AND FENCE POST SPACING SEE STANDARD DRAWING BC-701M
- ALL REINFORCEMENT BARS SHOWN ARE AT MAXIMUM SPACING UNLESS NOTED

LEGEND

NOTE 1

EXTEND ONE HALF OF THE #5 BOTTOM TRANSVERSE BARS ACROSS THE FULL WIDTH OF OVERHANG, THE ALTERNATE BARS WHICH DO NOT EXTEND INTO THE OVERHANG SHALL EXTEND 6" MINIMUM BEYOND THE INTERIOR EDGE OF THE FLANGE OF THE FASCIA BEAM

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

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DESIGNED BY	SRE
DRAWN BY	SJW
CHECKED BY	CHB

COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL KEITH A. MICHAEL ENGINEER 33668-E

WESTMORELAND COUNTY
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WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
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SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

TYPICAL DECK SECTION

RECOMMENDED *February 12th, 2026*

SHEET 37 OF 50

L - 645

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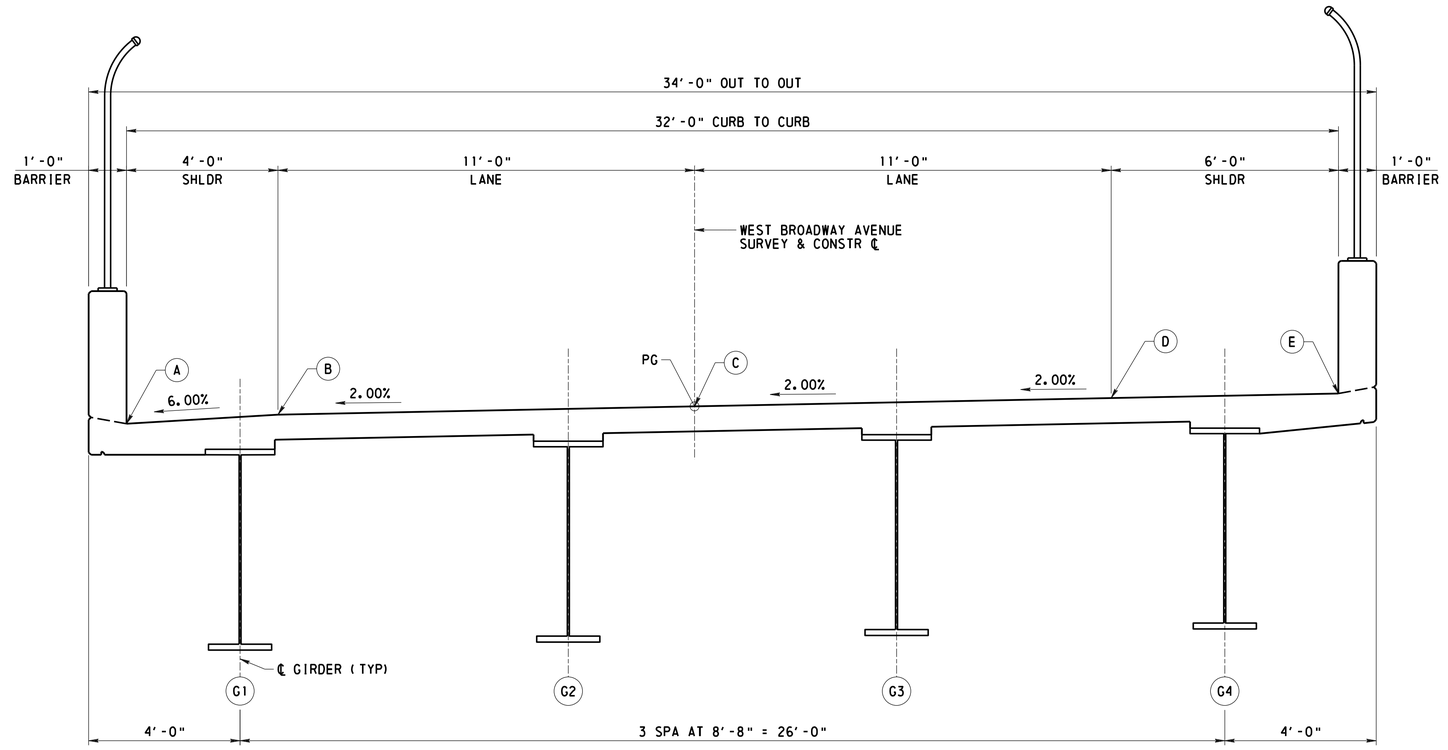
FINISHED DECK ELEVATIONS AT BREAK POINTS					
STATION	Ⓐ	Ⓑ	Ⓒ	Ⓓ	Ⓔ
11+62.33	942.17	942.41	942.63	942.85	942.97
11+60.00	942.04	942.28	942.50	942.72	942.84
11+70.00	942.59	942.83	943.05	943.27	943.39
11+80.00	943.15	943.39	943.61	943.83	943.95
11+90.00	943.70	943.94	944.16	944.38	944.50
12+00.00	944.25	944.49	944.71	944.93	945.05
12+10.00	944.81	945.05	945.27	945.49	945.61
12+20.00	945.36	945.60	945.82	946.04	946.16
12+30.00	945.91	946.15	946.37	946.59	946.71
12+40.00	946.47	946.71	946.93	947.15	947.27
12+50.00	947.02	947.26	947.48	947.70	947.82
12+60.00	947.57	947.81	948.03	948.25	948.37
12+70.00	948.13	948.37	948.59	948.81	948.93
12+80.00	948.68	948.92	949.14	949.36	949.48
12+82.42	948.81	949.05	949.27	949.49	949.61

FINISHED DECK ELEVATIONS OVER CL GIRDERS												
GIRDER NO.	ABUT 1	SPAN 1										ABUT 2
		0.1	0.2	F.S.	0.3	0.4	0.5	0.6	0.7	0.8	0.9	
Ⓖ1	942.41	943.07	943.72	943.96	944.37	945.02	945.68	946.33	946.98	947.64	948.29	948.94
Ⓖ2	942.63	943.28	943.93	944.18	944.59	945.24	945.89	946.54	947.20	947.85	948.50	949.15
Ⓖ3	942.80	943.45	944.11	944.35	944.76	945.41	946.06	946.72	947.37	948.02	948.68	949.33
Ⓖ4	942.97	943.63	944.28	944.52	944.93	945.58	946.24	946.89	947.54	948.20	948.85	949.50



TYPICAL DECK SECTION

2' 1' 0' 2'

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

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NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

FINISHED DECK ELEVATIONS

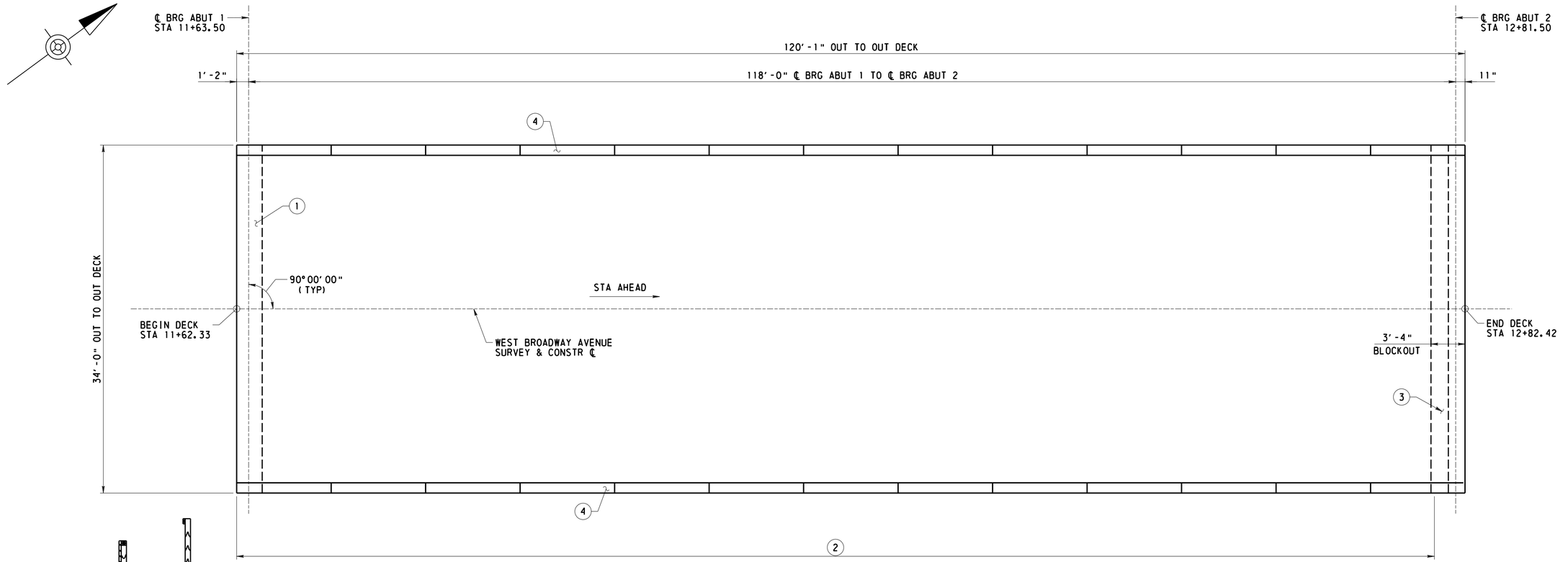
COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

RECOMMENDED *February 12th, 2026*

SHEET 38 OF 50

L - 645

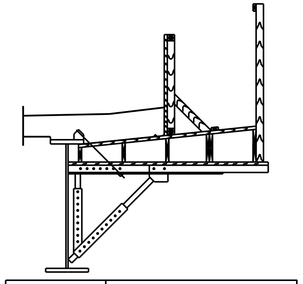
DESIGNED BY	KAM
DRAWN BY	TMK
CHECKED BY	KAM



PLACE END DIAPHRAGM AT ABUTMENT 1. WAIT 2 HOURS.
PLACE DECK POUR 2 UP TO THE BLOCKOUT AT ABUTMENT 2.
PLACE CONCRETE IN THE BLOCKOUT AT ABUTMENT 2.
PLACE BARRIERS

DECK PLACEMENT SEQUENCE PLAN

4' 0' 4'



WEB DEPTH	MAXIMUM PERMISSIBLE HORIZONTAL LOAD (kips)
60"	2.165

MAXIMUM PERMISSIBLE SUPPORT SPACING 2'-9"

TYPICAL OVERHANG FORMING DETAIL

NOT TO SCALE

OVERHANG FORMING NOTES

- SUPPORT DECK SLAB OVERHANG FORMS NEAR THE BOTTOM FLANGE OF THE FASCIA GIRDER.
- DESIGN THE BRACING FOR ACTUAL LOADING OF FORM WORK CONCRETE, DECK FINISHING MACHINE AND CONSTRUCTION LOADS. PROVIDE CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA. THIS WORK IS INCIDENTAL TO CLASS AAAP CEMENT CONCRETE.
- THE FASCIA GIRDERS ARE DESIGNED FOR A TEMPORARY CONSTRUCTION LOAD APPLIED TO THE WEB NEAR THE BOTTOM FLANGE AT A MAXIMUM 2'-9" INTERVAL. THIS LOAD (SEE TABLE) APPROXIMATES THE HORIZONTAL COMPONENT OF A DECK OVERHANG FORM SUPPORT BRACKET AND CONSISTS OF AN ALLOWANCE FOR THE WEIGHT OF THE CONCRETE, FORMS AND INCIDENTAL LOADS, PLUS THE DECK FINISHING MACHINE.
- THE CONTRACTOR HAS THE OPTION TO MODIFY THE OVERHANG BRACKET FROM THAT DESCRIBED HEREIN PROVIDED WORKING DRAWINGS INCLUDING CALCULATIONS, SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE COMMONWEALTH OF PENNSYLVANIA, ARE SUBMITTED FOR REVIEW AND ACCEPTANCE AND SHOW THE MODIFICATIONS DO NOT CAUSE UNACCEPTABLE DEFORMATIONS, OR STRESSES IN THE BRIDGE AND IT IS UNDERSTOOD THE CONTRACTOR IS ULTIMATELY RESPONSIBLE FOR THE SATISFACTORY COMPLETION OF THE BRIDGE.
- SEE GENERAL NOTES FOR ADDITIONAL NOTES

DESIGNED BY	KAM
DRAWN BY	TMK
CHECKED BY	KAM

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
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33868-E

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SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

MISC DECK DETAILS

RECOMMENDED *February 12th, 2026*

SHEET 39 OF 50

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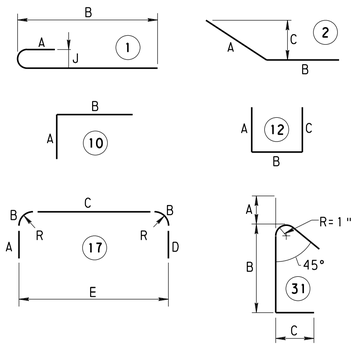
REINFORCEMENT BAR SCHEDULE

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	K	R	REMARKS
ABUTMENT 1															
EF401	4	3'-3"	45	31	4½"	2'-6"	4½"								
EF402	4	3'-0"	78	STR											
EF403	4	2'-9"	66	31	4½"	2'-0"	4½"								
EF501	5	10'-4"	67	12	2'-5"	5'-6"	2'-5"								
EF502	5	7'-2"	55	12	10"	5'-6"	10"								
EF503	5	60'-6½"	4	12	3'-3"	54'-0½"	3'-3"								
EF504	5	3'-6"	82	STR											
EF521	5	7'-2"	58	12	10"	5'-6"	10"								
EF522	5	9'-4"	60	12	1'-11"	5'-6"	1'-11"								
EF523	5	9'-0"	56	STR											
EF524	5	20'-0"	12	12	7'-3"	5'-6"	7'-3"								
EF525	5	7'-9"	14	10	10"	6'-11"									
EF526	5	12'-9" TO 13'-9"	8	12	4'-1½"	4'-6" TO 5'-6"	4'-1½"								VARY 2 SETS OF 2 "B" BY 1'-0"
EF527	5	14'-8½"	14	2	9'-9½"	4'-11"	6'-11"								
EF528	5	13'-4"	2	12	3'-11"	5'-6"	3'-11"								
EF529	5	13'-0" TO 13'-9"	8	12	4'-1½"	4'-9" TO 5'-6"	4'-1½"								VARY 2 SETS OF 2 "B" BY 9"
EF530	5	12'-9½"	14	2	9'-9½"	3'-0"	6'-11"								
EF531	5	12'-3" TO 13'-9"	12	12	4'-1½"	4'-0" TO 5'-6"	4'-1½"								VARY 3 SETS OF 2 "B" BY 9"
EF532	5	12'-1"	14	2	9'-1"	3'-0"	6'-5"								
EF533	5	5'-10"	28	10	10"	5'-0"									
EF534	5	7'-6"	28	STR											
EF535	5	5'-6"	8	STR											
EF601	6	58'-8"	7	12	2'-4"	54'-0"	2'-4"								
EF602	6	56'-0"	9	12	1'-0"	54'-0"	1'-0"								
EF603	6	6'-11"	78	10	8"	6'-3"									
EF604	6	10'-2"	4	12	2'-4"	5'-6"	2'-4"								
EF605	6	7'-6"	4	12	1'-0"	5'-6"	1'-0"								
EF801	8	9'-1"	85	10	1'-4"	7'-9"									
EW301	3	15'-8"	9	12	1'-10"	4'-1"	9'-9"								
EW302	3	14'-3"	9	54	2'-8"	2'-2"	1'-10"	7'-7"	1'-11"						
EW303	3	9'-11"	7	2	9'-1"	0'-10"	1'-7"								
EW304	3	11'-10"	10	12	1'-10"	4'-1"	5'-11"								
EW305	3	10'-5"	10	54	2'-8"	2'-2"	1'-10"	3'-9"	1'-11"						
EW306	3	5'-11½"	7	1	5'-1½"	0'-10"	9'-0⅜"								
EW308	3	6'-3"	44	54	2'-8"	2'-1"	2'-3"	2'-3"	1'-11"						
EW310	3	20'-2"	1	STR											BEND IN FIELD
EW311	3	10'-10"	2	STR											BEND IN FIELD
EW312	3	7'-1"	16	12	2'-11"	1'-3"	2'-11"								
EW401	4	6'-2"	22	STR											
EW402	4	11'-8"	28	STR											
EW403	4	17'-2"	28	STR											
EW408	4	23'-7½"	26	STR											
EW409	4	15'-7½"	20	STR											
EW410	4	7'-7½"	14	STR											
EW415	4	15'-6½"	2	STR											
EW416	4	6'-0"	78	12	2'-2"	1'-8"	2'-2"								
EW419	4	3'-6"	64	STR											
EW420	4	12'-3¼"	2	53	5'-10½"	6¼"	5'-10½"	4"						1½"	
EW421	4	6'-0½"	6	STR											
EW422	4	12'-7¾"	10	17	5'-11"	2⅜"	5"	5'-11"						1"	
EW423	4	12'-11¾" TO 14'-2¾"	20	17	6'-1" TO 6'-8½"	2⅜"	5"	6'-1" TO 6'-8½"						1"	VARY 2 EACH BY ⅞" 2 SETS OF 10
EW424	4	10'-1"	6	17	4'-7"	4"	3"	4'-7"						2"	
EW425	4	7'-9¼"	6	17	5'-11"	2⅜"	5"	1'-0½"						1½"	
EW501	5	15'-5"	82	STR											
EW502	5	25'-0"	22	STR											
EW503	5	24'-10"	26	STR											
EW504	5	9'-5"	4	STR											
EW505	5	6'-7½"	51	12	2'-1"	2'-5½"	2'-1"								
EW506	5	7'-11"	8	STR											
EW507	5	7'-11" TO 9'-2"	20	STR											VARY 2 EACH BY 1¼"
EW508	5	9'-2"	7	STR											
EW509	5	8'-6"	8	STR											
EW510	5	8'-6" TO 9'-0"	10	STR											VARY 2 EACH BY 1½"
EW511	5	9'-0"	7	STR											
EW512	5	13'-3½" TO 21'-5"	14	12	5'-11" TO 10'-0½"	1'-4½"	5'-11" TO 10'-0½"								VARY 'A' & 'C' EACH BY 3½" 2 SETS OF 8-WING A
EW513	5	12'-8½" TO 21'-1"	14	12	5'-8" TO 9'-10½"	1'-4½"	5'-8" TO 9'-10½"								VARY 'A' & 'C' EACH BY 3½" 2 SETS OF 8-WING B
EW514	5	2'-7"	32	10	1'-3"	1'-4"									
EW515	5	6'-5"	5	STR											
EW516	5	6'-2½"	5	STR											
EW518	5	4'-11"	10	12	1'-4"	1'-4"	2'-3"								
EW519	5	4'-0"	5	12	1'-4"	1'-4"	1'-4"								
EW520	5	5'-10"	5	12	2'-3"	1'-4"	2'-3"								
EW521	5	23'-7½"	26	STR											
EW522	5	15'-7½"	20	STR											
EW523	5	7'-7½"	14	STR											
EW524	5	15'-6½"	2	STR											
EW525	5	4'-9"	8	12	1'-4"	1'-2"	2'-3"								
EW526	5	3'-10"	4	12	1'-4"	1'-2"	1'-4"								
EW527	5	5'-9"	4	12	2'-3"	1'-3"	2'-3"								
EW528	5	12'-0½" TO 13'-3½"	5	12	5'-4" TO 5'-11"	1'-4½"	5'-4" TO 5'-11"								VARY 'A' & 'C' EACH BY 1¾" 2 SETS OF 8-WING A
EW529	5	11'-6½" TO 12'-8½"	5	12	5'-1" TO 5'-8"	1'-4½"	5'-1" TO 5'-8"								VARY 'A' & 'C' EACH BY 1¾" 2 SETS OF 8-WING B
EW601	6	24'-7"	22	STR											
EW602	6	22'-2"	23	STR											
EW603	6	9'-5"	1	STR											
EW608	6	6'-2"	22	STR											
EW609	6	11'-8"	28	STR											
EW610	6	17'-2"	28	STR											
EW611	6	12'-9"	4	1	12'-9"	8"									J = 6"
EW612	6	10'-2"	32	1	9'-6"	8"									J = 6"
EW613	6	3'-0" TO 11'-7"	24	1	2'-4" TO 10'-11"	8"									J = 6" VARY 'A' FOR 6 BARS EACH BY 1'-5¼" (4 SETS OF 6)
EW614	6	4'-6"	144	STR											
EW615	6	15'-9"	22	12	9'-6"	4'-0"	2'-3"								
EW616	6	12'-11"	22	12	6'-8"	4'-0"	2'-3"								
EW801	8	15'-5"	85	STR											
EC401	4	6'-10"	20	STR											
EC402	4	7'-7½"	6	52	5½"	4"	2'-7"	3"	2'-9"	3"				2"	
EC403	4	6'-11"	4	2	1'-5"	5'-6"	4⅛"								
EC501	5	5'-11"	12	STR											
EC601	6	5'-11"	8	2	9"	5'-2"	1½"								

DESIGNED BY	CMB
DRAWN BY	TMK
CHECKED BY	KAM

BAR BENDING DIAGRAMS



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MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — KEITH A. MICHAEL — ENGINEER — 33868-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 1 REINF BAR SCHEDULE

RECOMMENDED *February 12th, 2026*

SHEET 40 OF 50

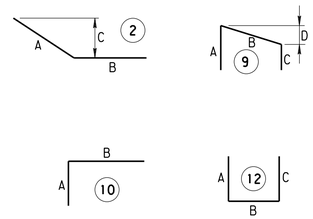
L - 645

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	K	R	REMARKS
ABUTMENT 2															
EF451	4	3'-3"	54	31	4½"	2'-6"	4½"								
EF452	4	2'-9"	168	31	4½"	2'-0"	4½"								
EF453	4	3'-0"	188	STR											
EF551	5	11'-7"	79	12	2'-5"	6'-9"	2'-5"								
EF552	5	8'-5"	109	12	10"	6'-9"	10"								
EF553	5	51'-5"	4	STR											
EF554	5	14'-9"	14	12	4'-0"	6'-9"	4'-0"								
EF556	5	3'-4"	8	10	7"	2'-9"									
EF558	5	4'-7"	4	10	7"	4'-0"									
EF560	5	11'-3"	4	STR											
EF561	5	13'-3"	4	12	3'-3"	6'-9"	3'-3"								
EF562	5	14'-3"	2	12	3'-9"	6'-9"	3'-9"								
EF563	5	8'-6"	48	STR											
EF565	5	11'-3"	8	10	7'-8"	3'-7"									
EF566	5	9'-3"	56	10	5'-8"	3'-7"									
EF567	5	12'-9"	8	2	8'-6"	4'-3"	7'-8"								
EF568	5	10'-1"	16	2	7'-1"	3'-0"	6'-4"								
EF569	5	11'-11"	32	2	8'-11"	3'-0"	6'-4"								
EF570	5	9'-0"	1	2	1'-10½"	7'-1½"	1'-4"								
EF571	5	9'-5"	1	2	2'-1"	7'-4"	1'-6"								
EF572	5	10'-6" TO 13'-0"	4	2	2'-7½" TO 3'-10½"	7'-10½" TO 9'-1½"	1'-10½" TO 2'-9"								VARY EA 'A' & 'B' BY 5" & 'C' BY 3½"
EF573	5	14'-0"	1	2	4'-5"	9'-7"	3'-1½"								
EF574	5	14'-5"	1	2	4'-7"	9'-10"	3'-3"								
EF575	5	9'-0" TO 14'-5"	8	2	1'-10½" TO 4'-7"	7'-1½" TO 9'-10"	1'-6" TO 3'-3"								VARY EA 'A' & 'B' BY 4¼"(+) & 'C' BY 3"
EF576	5	6'-6"	12	10	7"	5'-11"									
EF577	5	3'-0"	10	STR											
EF578	5	23'-1"	4	12	8'-2"	6'-9"	8'-2"								
EF579	5	12'-3" TO 13'-11"	6	12	2'-9" TO 3'-7"	6'-9"	2'-9" TO 3'-7"								VARY 2 SETS OF 3 'A' & 'C' BY 5"
EF580	5	6'-9"	23	STR											
EF581	5	12'-3"	2	12	2'-9"	6'-9"	2'-9"								
EF582	5	13'-3"	2	12	3'-3"	6'-9"	3'-3"								
EF583	5	10'-11"	21	12	4'-1"	6'-9"	4'-1"								
EF584	5	18'-0½"	3	9	6'-10"	7'-1½"	4'-1"	2'-8¾"							
EF585	5	12'-9"	1	STR											
EF586	5	12'-6"	1	STR											
EF587	5	10'-9" TO 12'-0"	4	STR											VARY EA BY 5"
EF588	5	10'-3"	1	STR											
EF589	5	10'-0"	1	STR											
EF590	5	10'-0" TO 12'-9"	8	STR											VARY EA BY 4¾"(-)
EF591	5	11'-0"	16	STR											
EF592	5	7'-6"	16	STR											
EF594	5	10'-7"	46	12	1'-11"	6'-9"	1'-11"								
EF595	5	6'-4"	16	10	10"	5'-6"									
EF596	5	9'-5"	16	STR											
EF597	5	10'-6"	32	STR											
EF598	5	7'-5"	16	10	1'-11"	5'-6"									
EF599	5	13'-6"	16	STR											
EF5100	5	12'-0"	8	2	7'-9"	4'-3"	6'-11"								
EF5101	5	10'-9"	16	2	7'-9"	3'-0"	6'-11"								
EF5102	5	12'-9"	8	2	9'-9"	3'-0"	6'-11"								
EF5103	5	10'-6"	8	10	6'-11"	3'-7"									
EF5104	5	9'-9"	24	10	6'-2"	3'-7"									
EF5105	5	12'-3"	14	12	2'-9"	6'-9"	2'-9"								
EF5108	5	13'-1" TO 14'-11"	8	12	3'-2" TO 4'-1"	6'-9"	3'-2" TO 4'-1"								VARY 2 SETS OF 4, EA 'A' & 'B' BY 3⅝"(+)
EF5111	5	10'-2"	27	12	10"	8'-6"	10"								
EF5112	5	12'-4"	28	12	1'-11"	8'-6"	1'-11"								
EF5113	5	10'-2" TO 10'-4"	3	12	10"	8'-6" TO 8'-8"	10"								VARY EA 'B' BY 1"

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	K	R	REMARKS
EF5114	5	12'-6" TO 12'-8"	3	12	1'-11"	8'-6" TO 8'-8"	1'-11"								VARY EA 'B' BY ¾"
EF5115	5	9'-3"	10	2	6'-3"	3'-0"	4'-5"								FIELD BEND AS REQ'D AROUND PILES
EF5116	5	7'-9"	10	10	3'-8"	4'-1"									
EF5117	5	27'-9"	2	STR											
EF5118	5	27'-10" TO 28'-1"	6	STR											VARY EA BY ⅝"(-)
EF5119	5	28'-1"	2	STR											
EF5120	5	27'-8"	10	STR											
EF5121	5	8'-6"	3	STR											
EF5122	5	4'-9"	1	STR											
EF651	6	50'-11"	10	STR											
EF652	6	52'-2"	10	STR											
EF655	6	11'-3"	20	STR											
EF656	6	11'-9"	10	2	8'-3"	3'-6"	7'-5"								
EF657	6	11'-8"	10	10	7'-5"	4'-3"									
EF658	6	3'-6"	100	STR											
EF659	6	10'-7"	132	12	1'-11"	6'-9"	1'-11"								
EF660	6	8'-9"	133	12	1'-0"	6'-9"	1'-0"								
EF661	6	6'-11"	39	10	1'-0"	5'-11"									
EF662	6	11'-7"	4	12	2'-5"	6'-9"	2'-5"								
EF663	6	6'-9"	16	10	1'-0"	5'-9"									
EF664	6	7'-8"	16	10	1'-11"	5'-9"									
EF751	7	7'-8"	28	10	1'-2"	6'-6"									
EF752	7	7'-11" TO 8'-2"	11	10	1'-2"	6'-9" TO 7'-0"									VARY EA 'B' BY 1/4"(+)
EF851	8	8'-6"	94	10	1'-4"	7'-2"									
EF951	9	9'-11"	107	10	1'-7"	8'-4"									

BAR BENDING DIAGRAMS



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MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

ABUTMENT 2 REINF BAR SCHEDULE 1

RECOMMENDED February 12th, 2026

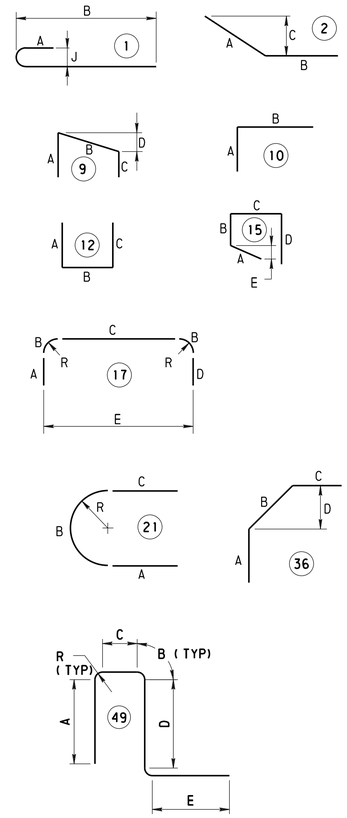
SHEET 41 OF 50

L - 645

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	K	R	REMARKS
ABUTMENT 2															
EW351	3	10'-10"	93	STR											BEND IN FIELD
EW354	3	7'-8"	11	STR											BEND IN FIELD
EW355	3	16'-10"	11	STR											BEND IN FIELD
EW356	3	12'-1"	12	STR											BEND IN FIELD
EW357	3	21'-5"	12	STR											BEND IN FIELD
EW451	4	22'-5"	12	STR											
EW452	4	19'-1"	14	STR											
EW453	4	8'-7½"	12	49	3'-0½"	4"	3"	2'-10"	1'-6"						
EW454	4	10'-0"	6	17	4'-6½"	4"	3"	4'-6½"	8"						
EW455	4	13'-1¾" TO 14'-7¾"	20	17	6'-2" TO 6'-11"	2⅜"	5"	6'-2" TO 6'-11"	8"						VARY 2 SETS OF 10 'A' 'D' BY 1"
EW456	4	12'-9¾"	10	17	6'-0"	2⅜"	5"	6'-0"	8"						
EW457	4	7'-10¼"	6	17	6'-0"	2⅜"	5"	1'-0½"	8"						
EW458	4	6'-1"	6	STR											
EW459	4	12'-3¼"	2	21	5'-10½"	6¼"	5'-10½"								
EW460	4	28'-8"	13	STR											
EW461	4	24'-8"	12	STR											
EW462	4	20'-9"	13	STR											
EW463	4	16'-10"	13	STR											
EW464	4	5'-10"	356	12	2'-2"	1'-6"	2'-2"								
EW465	4	6'-9"	7	STR											
EW466	4	14'-0"	7	STR											
EW467	4	21'-3"	7	STR											
EW468	4	29'-8"	26	STR											
EW469	4	21'-0"	1	STR											
EW470	4	11'-0"	1	STR											
EW471	4	6'-2"	20	2	3'-1"	3'-1"	2'-2¼"								
EW472	4	13'-0"	15	STR											
EW473	4	8'-8"	13	STR											
EW474	4	4'-6"	11	STR											
EW475	4	9'-1"	7	STR											
EW476	4	12'-6"	14	STR											
EW477	4	9'-2"	7	STR											
EW478	4	5'-11½"	2	12	2'-2"	1'-7½"	2'-2"								
EW479	4	3'-6"	104	STR											
EW480	4	4'-0"	36	STR											
EW481	4	25'-2"	14	STR											
EW482	4	20'-8"	15	STR											
EW483	4	16'-3"	15	STR											
EW484	4	11'-9"	15	STR											
EW486	4	7'-6"	7	STR											
EW487	4	16'-6"	8	STR											
EW488	4	25'-6"	8	STR											
EW489	4	34'-6"	17	STR											
EW490	4	24'-11"	1	STR											
EW491	4	13'-11"	1	STR											
EW492	4	6'-4"	15	10	3'-2"	3'-2"									
EW493	4	7'-10"	15	10	3'-2"	4'-8"									
EW494	4	9'-8" TO 12'-2"	39	STR											VARY EA BY ¾"(+)
EW495	4	28'-2"	32	2	2'-5"	25'-9"									
EW496	4	22'-4"	2	STR											
EW497	4	15'-3"	2	STR											
EW498	4	8'-3"	2	STR											
EW499	4	4'-6"	8	9	2'-2"	1'-8"	2'-2"	8"							
EW4100	4	17'-2"	7	STR											
EW4101	4	7'-3"	6	12	2'-6"	2'-3"	2'-6"								
EW551	5	10'-5"	39	STR											
EW552	5	11'-1"	51	STR											
EW553	5	7'-7"	42	STR											
EW554	5	7'-0"	42	15	1'-8½"	1'-9"	1'-6½"	2'-0"	1'-2½"						
EW555	5	23'-11"	4	STR											
EW556	5	20'-4"	4	STR											
EW557	5	8'-0"	16	12	2'-11"	2'-2"	2'-11"								
EW558	5	8'-7"	16	12	2'-11"	2'-9"	2'-11"								
EW559	5	15'-8" TO 16'-10"	5	12	7'-2" TO 7'-9"	1'-4"	7'-2" TO 7'-9"								VARY EA 'A' & 'C' BY 1¾"
EW560	5	17'-2" TO 22'-0"	14	12	7'-11" TO 10'-4"	1'-4"	7'-11" TO 10'-4"								VARY EA 'A' & 'C' BY 2¼"(-)
EW561	5	16'-10" TO 18'-0"	5	12	7'-9" TO 8'-4"	1'-4"	7'-9" TO 8'-4"								VARY EA 'A' & 'C' BY 1¾"
EW562	5	18'-4" TO 23'-0"	14	12	8'-6" TO 10'-10"	1'-4"	8'-6" TO 10'-10"								VARY EA 'A' & 'C' BY 2¼"(-)
EW563	5	2'-9"	38	10	1'-3"	1'-6"									
EW564	5	5'-6"	14	12	1'-4"	1'-8"	2'-6"								
EW565	5	4'-4"	7	12	1'-4"	1'-8"	1'-4"								
EW566	5	6'-8"	7	12	2'-6"	1'-8"	2'-6"								
EW567	5	5'-1"	12	12	1'-4"	1'-4"	2'-5"								
EW568	5	4'-0"	6	12	1'-4"	1'-4"	1'-4"								
EW569	5	6'-2"	6	12	2'-5"	1'-4"	2'-5"								
EW651	6	26'-3"	46	STR											
EW652	6	26'-6"	35	STR											
EW653	6	21'-8"	19	STR											
EW654	6	26'-11"	38	STR											
EW655	6	23'-0"	41	STR											
EW656	6	20'-9"	14	STR											
EW657	6	27'-1"	32	STR											
EW658	6	18'-5"	35	STR											
EW659	6	10'-11"	42	STR											
EW660	6	25'-1"	2	STR											
EW661	6	20'-11"	2	STR											
EW662	6	12'-4"	4	1	8"	11'-8"									
EW663	6	9'-9" TO 4'-0"	16	1	8"	3'-4" TO 9'-1"									VARY 4 SETS OF 4 'B' BY 1'-11"
EW664	6	11'-1"	44	1	8"	10'-5"									
EW665	6	5'-11½"	56	36	2'-2"	2'-4½"	1'-5"	2½"							
EW666	6	9'-0"	20	2	4'-6"	4'-6"	3'-2¼"								
EW667	6	9'-10"	7	STR											
EW668	6	14'-9"	14	STR											
EW669	6	9'-2"	7	STR											
EW670	6	9'-8" TO 12'-2"	39	STR											VARY EA BY ¾"(+)
EW671	6	4'-6"	208	STR											
EW672	6	17'-2"	7	STR											
EW673	6	14'-4"	38	10	4'-6"	9'-10"									
EW674	6	19'-0"	32	10	4'-6"	14'-6"									

BAR BENDING DIAGRAMS



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DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — KEITH A. MICHAEL — 53668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
ABUTMENT 2 REINF BAR SCHEDULE 2

RECOMMENDED *February 12th, 2026*

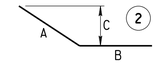
SHEET 42 OF 50

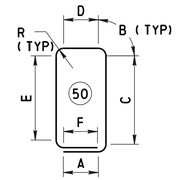
L - 645

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	K	R	REMARKS
ABUTMENT 2															
EW751	7	6'-9"	7	STR											
EW752	7	14'-0"	7	STR											
EW753	7	21'-3"	7	STR											
EW754	7	30'-5"	26	STR											
EW755	7	21'-8"	1	STR											
EW756	7	11'-8"	1	STR											
EW757	7	13'-0"	15	STR											
EW758	7	8'-8"	13	STR											
EW760	7	7'-6"	7	STR											
EW761	7	16'-6"	8	STR											
EW762	7	25'-6"	8	STR											
EW763	7	34'-3"	17	STR											
EW764	7	24'-8"	1	STR											
EW765	7	13'-8"	1	STR											
EW851	8	26'-5"	43	STR											
EW852	8	26'-8"	36	STR											
EW853	8	21'-8"	15	STR											
EW951	9	28'-8"	13	STR											
EW952	9	24'-8"	12	STR											
EW953	9	20'-9"	13	STR											
EW954	9	16'-10"	13	STR											
EW955	9	25'-2"	14	STR											
EW956	9	20'-8"	15	STR											
EW957	9	16'-3"	15	STR											
EW958	9	11'-9"	12	STR											
EC451	4	6'-10"	20	STR											
EC452	4	6'-11"	4	2	1'-5"	5'-6"	4 1/8"								
EC453	4	7'-5 1/2"	18	50	5 1/2"	4"	2'-7"	3"	2'-7"	3"					
EC551	5	7'-11"	12	STR											
EC651	6	7'-11"	8	2	5'-1"	2'-10"	8 3/4"								

BAR BENDING DIAGRAMS





NOTES

- PREFIX E DENOTES EPOXY COATED REINFORCEMENT BARS
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M
- DIMENSIONS ALONG CURVED PORTIONS OF BAR ARE MEASURED ALONG THE OUTSIDE EDGE
- FIGURES IN CIRCLES SHOW TYPES
- "J" DIMENSION STANDARD BAR BEND UNLESS NOTED

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
	REVISIONS				

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	DCT
DRAWN BY	SJW
CHECKED BY	CMB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
KEITH A. MICHAEL
ENGINEER
33868-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
ABUTMENT 2 REINF BAR SCHEDULE 3

RECOMMENDED *February 12th, 2026*

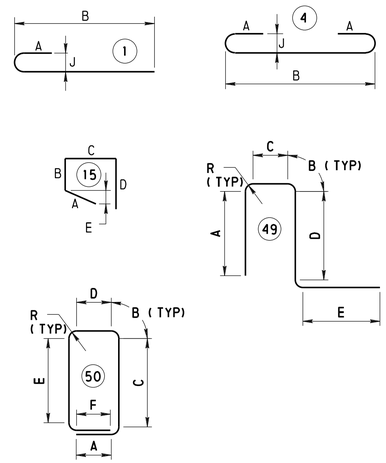
SHEET 43 OF 50

L - 645

REINFORCEMENT BAR SCHEDULE

MARK	SIZE	LENGTH	NO.	TYPE	A	B	C	D	E	F	G	H	K	R	REMARKS
DECK PLAN															
ES401	4	31'-9"	144	STR											
ES402	4	6'-8"	516	1	6"	6'-2"									
ES403	4	6'-4"	32	15	1'-2"	1'-7"	11"	2'-8"	10"						
ES404	4	5'-11½"	282	49	1'-8½"	4"	3"	1'-6"	1'-6"						
ES501	5	41'-11"	120	STR											
ES502	5	34'-10"	258	4	7"	33'-8"									
ES503	5	29'-5"	218	STR											
ES601	6	35'-0"	4	4	8"	33'-8"									
ES602	6	33'-8"	4	STR											
ES603	6	3'-7"	4	STR											
ES604	6	8'-2"	6	STR											
EC401	4	7'-5½"	282	50	5½"	4"	2'-7"	3"	2'-7"	3"					
EC501	5	42'-4"	36	STR											
EC601	6	42'-10"	24	STR											
CONCRETE END DIAPHRAGM ABUTMENT 1															
ED401	4	17'-4"	24	15	5'-9"	1'-6"	5'-10"	4'-3"	6¼"						
ED402	4	16'-4"	4	15	5'-7"	1'-6"	5'-9"	4'-3"	6¼"						
ED403	4	15'-9"	8	15	4'-10"	1'-8"	5'-0"	4'-3"	4½"						
ED403	4	17'-6"	4	15	5'-10"	1'-6"	5'-11"	4'-3"	6¼"						
ED501	5	3'-4"	8	STR											
ED601	6	33'-8"	11	STR											
ED602	6	5'-10"	3	STR											
ED603	6	2'-2"	2	STR											

BAR BENDING DIAGRAMS



NOTES

- PREFIX E DENOTES EPOXY COATED REINFORCEMENT BARS
- ALL DIMENSIONS ARE OUT TO OUT OF BAR EXCEPT "A" AND "G" ON STANDARD 135° AND 180° HOOKS, AND "R" WHICH IS SHOWN TO THE INSIDE OF THE BAR
- FOR REINFORCEMENT BAR FABRICATION DETAILS, REFER TO STANDARD DRAWING BC-736M
- DIMENSIONS ALONG CURVED PORTIONS OF BAR ARE MEASURED ALONG THE OUTSIDE EDGE
- FIGURES IN CIRCLES SHOW TYPES
- "J" DIMENSION STANDARD BAR BEND UNLESS NOTED

MARK	DESCRIPTION	BY	CHK'D.	APP'D.	DATE
REVISIONS					

MPMS/ECMS: 31554 BMS STR ID: 64-7421-0993-0003 BRKEY: 56793

DESIGNED BY	KAM
DRAWN BY	SJW
CHECKED BY	CHB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
KEITH A. MICHAEL
33668-E

WESTMORELAND COUNTY
DEPARTMENT OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH

WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE
SUPERSTRUCTURE REINF BAR SCHEDULE

RECOMMENDED *February 12th, 2026*

SHEET 44 OF 50

L - 645

SUBSTRUCTURE UNIT:
ABUTMENT 1 WING B

LOG 1 OF 1

BORING NUMBER:	BORING LOCATION	START:	HAMMER:
SB-3	STATION: 10+94.7 OFFSET: 31.5 FT. LT.	07/23/2019 2:00 PM FINISH: 07/24/2019 9:15 AM	AUTOMATIC EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ, AUTOMATIC, CME 55 TRACK	2.000 IN.	0 FT. 5 FT.	939.8 FT.

DRILLING INSPECTOR: STEVE HARGENRADER
DRILLER & DRILLING COMPANY: C.RYCHORCEWICZ
AWK DRILLING, INC.

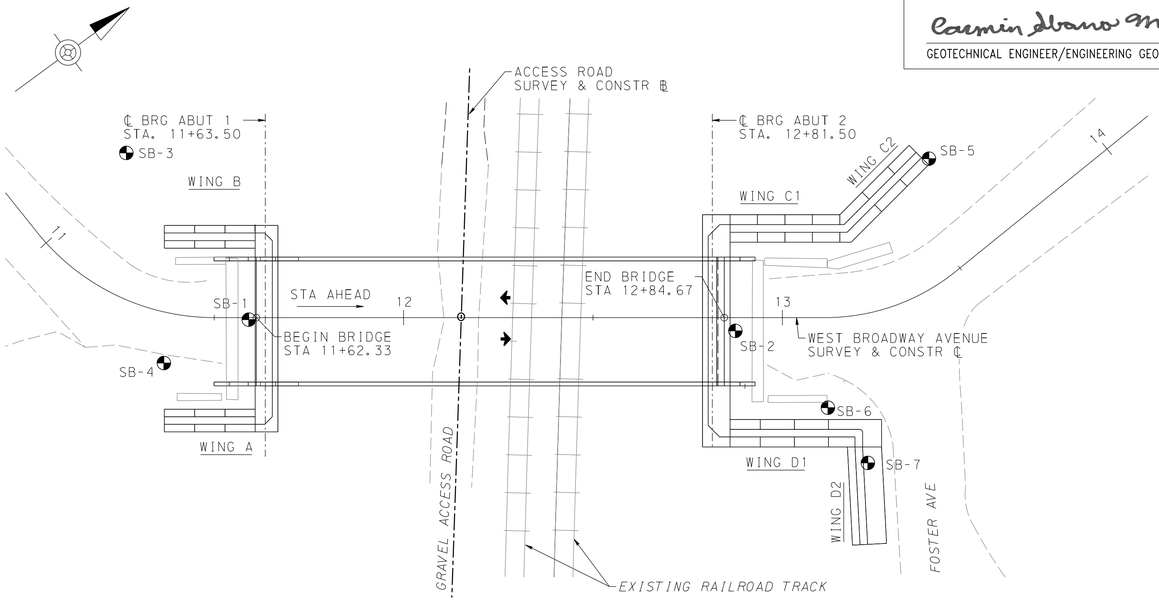
▽ 0 HR. READING – ELAPSED TIME: El. 934.3 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 908.0 ft. – 192.3 hr.

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT	PP/T TSF / N 60 / %RQD	REC (ft.)	REC (%)
		TOPSOIL. 0.3'/El. 939.5		1.5	S-1	1-2-2	5	0.8	53
		SAND and CLAY, trace Gravel, loose to medium dense, dry, homogeneous, poorly graded, high plastic fines, light orange, residuum, – pushed coarse gravel in S-5 – bag sample collected from 0.0'-9.0' – Class an thin wall tube sample collected in an offset hole from 4.0 to 6.0 ft. 8.2'/El. 931.6	a-6 / sc	3.0	S-2	2-4-3	9	1.2	80
935				4.5	S-3	2-3-2	7	1.2	80
				6.0	S-4	3-2-3	7	1.3	87
				7.5	S-5	4-4-5	12	0.6	40
BPCE* 932.00				9.0	S-6	5-7-12	25	1.2	80
		Coarse GRAVEL, some Clay, little fine to coarse Sand, medium dense, dry, homogeneous, poorly graded, sub-angular to angular, medium plastic fines, light orange, residuum. 9.5'/El. 930.3	a-2-6 / gc	10.5	S-7	12-12-50	83	1.2	80
930			a-1-a / gp	12.0	S-8	15-43-50	124	1.5	100
				12.2	S-9	50/.2'	>67	0.2	100
		MECHANICALLY BROKEN ROCK, very dense, dry, fissured, poorly graded, angular, non-plastic, black, residuum, (Pittsburgh coal seam). 13.7'/El. 926.1		13.5	S-10	50/.2'	>67	0.2	100
TOR 926.10				13.7	R-1		0%	1.0	50
925		BITUMINOUS COAL, black, dull luster, soft to medium hard, slightly weathered, indistinct bedding, random fractures, narrow to close spacing, flat to sheer dip, narrow joint opening, RQD=0% – water pressure dropped at end of R-1 – vertical fracture from 17.0'-17.6'. 19.1'/El. 920.7		15.7	R-2		0%	2.5	100
				18.2	R-3		27%	2.3	77
920		Argillaceous SANDSTONE, light gray, soft to medium hard, fresh, narrow to moderate bedding with shallow dip, bedding joints, close to moderate spacing, shallow dip, narrow joint opening, RQD=38% – very soft clay seams from 19.1'-19.4' and 19.9'-20.1' – water return turned gray @ 19.0' and pressure increased. 21.2'/El. 918.6		21.2	R-4		100%	2.0	100
				23.2	R-5		98%	5.0	100
915				28.2	R-6		82%	5.0	100
		SANDSTONE, light gray to dark gray, fine grained, medium hard to hard, slightly weathered to fresh, narrow to thick bedding with flat dip, bedding joints, close to medium spacing, flat dip, tight to narrow joint openings, RQD=91% – water return rate decreased and turned dark gray @ 24.0' – very soft clay infilling @ 27.2' and 27.5'.		33.2	R-7		88%	4.6	92
910									
▼									
905									
BMPE* 903.00		38.2'/El. 901.6							

◇ RQD % ◇
⊙ Soil/Rock Rec. % ⊙ (20 40 60 80)
▲ SPT (N60) ▲ (10 20 30 40)

**SAMPLE NO. shading indicates lab testing performed.

* – BPCE & BMPE AT WINGS VARY, PROVIDED VALUES ARE THOSE CLOSEST TO BORING LOCATION.



PLAN
0 15 30 FEET

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BMPE	BOTTOM OF MICROPILE ELEVATION
BPCE	BOTTOM OF PILE CAP ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION
⊕	TEST BORING LOCATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

CSM

THE SUBSURFACE EXPLORATION DATA THAT ARE PRESENTED ON THESE DRAWINGS (INCLUDING BORING LOGS, EARTH SAMPLES, ROCK CORES, CLASSIFICATION OF MATERIALS AND DEPTH OF BORINGS) ACCURATELY REPRESENT THE CONDITIONS ENCOUNTERED BY THE TEST BORING PROGRAM AT EACH BORING LOCATION.

Carmin Sbarro Minnaugh — 2/7/2025
GEOTECHNICAL ENGINEER/ENGINEERING GEOLOGIST — DATE:

BMS STR ID: 64-7241-0993-0003 BRKEY: 56793

WEST. CO. DEPT. OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

STRUCTURE BORINGS

PLAN PROVIDED BY:
SAI CONSULTING ENGINEERS, INC.
1350 PENN AVENUE
SUITE 300
PITTSBURGH, PA 15222-4211

COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — CARMIN SBARRO MINNAUGH — ENGINEER PE087905

Roy A. Painter — 2/9/2026
DISTRICT GEOTECHNICAL ENGINEER

SHEET 45 OF 50

L – 645

P:\3 – (L) Local Transportation\L00043 Fourth Street Bridge – SAI\GEOTECH\Drilling\Logs\CAD\Fourth St_StructureBoringSheet – 08023.dgn
2/9/2026 9:28:39 AM
JENKINS STRUCTURE BORING LOG – JENKINS.DAT VERSION 7.23.5 9-21-2016.DAT – A/B/D 11x17 – P/L1 – (L) LOCAL TRANSPORTATION\L00043 FOURTH STREET BRIDGE – SAI\GEOTECH\DRILLING\LOGS\FOURTH STREET LOGS.GPJ

SUBSTRUCTURE UNIT:
ABUTMENT 1 STEM

LOG 1 OF 2

BORING NUMBER:	BORING LOCATION	START: 02/07/2019 12:15 PM	HAMMER: AUTOMATIC
SB-1	STATION: 11+59.1 OFFSET: 0.5 FT. RT.	FINISH: 02/08/2019 9:00 AM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ, AUTOMATIC, CME 75 TRUCK MOUNT	2.000 IN.	0 FT. [redacted] 5 FT.	942.4 FT.

DRILLING INSPECTOR: CARMIN SBARRO
DRILLER & DRILLING COMPANY: C.RYCHORCEWICZ
AWK DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 938.8 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: NR – NR

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT	PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)
940	UNS	UNSAMPLED, through bridge deck to ground.									
		21.0'/El. 921.4									
920		COAL, (Pittsburgh Coal Seam).		21.0	S-1	4-15-14		39	1.4	93	
		21.3'/El. 921.1		22.5	S-2	50/.2'		>67	0.2	100	
		GRAVEL, some Clay, little Sand, medium dense to very dense, wet, fissured, poorly graded, angular, medium plastic fines, light blue gray, residuum, (weathered claystone) – driller advanced to 25.0' to adjust tooling height – tooling advanced quickly @ 26.0' – hammer rings in S-3.	a-2-6 / gc	22.7 24.0	S-3	50/.4'		>67	0.4	100	
TOR 917.40 BPCE 917.00		25.0'/El. 917.4		24.4							
915		LIMESTONE, gray, medium hard, slightly weathered to fresh, indistinct bedding, fracture zone, close to medium spacing, flat to shallow dip, tight to narrow joint openings, RQD=40%.		25.0	R-1			40%	1.2	60	
		27.0'/El. 915.4		27.0	R-2			100%	2.0	100	
		SANDSTONE, gray, medium hard, slightly weathered to fresh, medium bedding with flat to shallow dip, bedding joints, moderate to medium spacing, flat to shallow dip, tight to narrow joint openings, RQD=100%.		29.0	R-3			73%	3.0	100	
		29.0'/El. 913.4		32.0	R-4			93%	2.5	93	
910		CLAYSTONE, gray, very soft, fresh, indistinct bedding, jointed, moderate to narrow spacing, narrow joint opening, RQD=60% – Clay plugged off core barrel in R-3.		34.7	R-5			84%	5.0	100	
		30.5'/El. 911.9		39.7	R-6			82%	4.7	94	
		SANDSTONE, light gray to dark gray, medium hard to hard, fresh, thick bedding with flat to shallow dip, bedding joints, moderate to medium spacing, flat to shallow dip, tight to narrow joint openings, RQD=93%.		44.7	R-7			44%	5.0	100	
		34.7'/El. 907.7		49.7	R-8			30%	5.0	100	
905		SILTSTONE, dark gray, medium hard, slightly weathered to fresh, moderate bedding with flat to shallow dip, bedding joints, close to moderate spacing, flat to shallow dip, narrow joint opening, RQD=77% – very soft clay infilling @ 35.7' – fossilized plant @ 36.8'.		54.7	R-9			0%	1.6	100	
		38.2'/El. 904.2		56.3	R-10			32%	3.2	94	
900		SANDSTONE, gray, medium hard, fresh, narrow to medium bedding with flat to shallow dip, bedding joints, close to medium spacing, flat to shallow dip, tight to narrow joint openings, RQD=90% – sheer joint @ 39.5'.		59.7	R-11			74%	4.6	92	
BMPE 888.00		44.4'/El. 898.0									
895		SANDSTONE interbedded with SHALE, gray, medium hard to hard, slightly weathered to fresh, thin to moderate bedding with shallow dip, bedding joints, narrow to moderate spacing, flat dip, tight to narrow joint openings, RQD=31% – interbedded SHALE is carbonaceous –fracture zones with coal laminations from 44.7–45.7' and 46.7–47.7' –clay infilling plugged core barrel @48.4', driller pulled barrels and cleared clay –very soft clay infilling @ 50', 53.6', 54.7', 55.8', & 56.1'.									
890											
885											
880											

NOTE: INSPECTOR NOT PRESENT DURING DRILLING. LOG WAS CHECKED WITH CORE BOX.

SUBSTRUCTURE UNIT:
ABUTMENT 1 STEM

LOG 2 OF 2

BORING NUMBER:	BORING LOCATION	VERTICAL SCALE:	
SB-1	STATION: 11+59.1 OFFSET: 0.5 FT. RT.	0 FT. [redacted] 5 FT.	▽ 0 HR.: El. 938.8 ft. – 0.0 hr. ▼ 24 HR.: NR – NR

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/ USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT – PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)
		59.7'/El. 882.7								
		SANDSTONE, gray, hard, slightly weathered to fresh, narrow to medium bedding with flat to shallow dip, bedding joints, close to medium spacing, flat to shallow dip, tight to narrow joint openings, RQD=89%.								
		63.4'/El. 879.0								
		64.7'/El. 877.7								
		SILTSTONE, gray, medium hard, fresh, narrow to moderate bedding with flat to shallow dip, jointed, close spacing, sheer dip, narrow joint opening, RQD=31%.(Layer continued from the previous log page)								

**SAMPLE NO. shading indicates lab testing performed.

NOTE: INSPECTOR NOT PRESENT DURING DRILLING. LOG WAS CHECKED WITH CORE BOX.

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BMPE	BOTTOM OF MICROPILE ELEVATION
BPCE	BOTTOM OF PILE CAP ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

CSM

BMS STR ID: 64-7241-0993-0003 BRKEY: 56793

WEST. CO. DEPT. OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CARMIN SBARRO MINNAUGH
ENGINEER
PE087905

SHEET 46 OF 50

L – 645

PENNDOT STRUCTURE BORING LOG – PENNDOT_GINT_VERSION_1.2.2.3_8-21-2014.GDT – 4/4/23 11:13 – P:\3 – (L) LOCAL TRANSPORTATION\L0043 FOURTH STREET BRIDGE – SAI\GEOTECH\DRILLING\L0043 FOURTH STREET LOGS.GPJ
P:\3 – (L) Local Transportation\L0043 Fourth Street Bridge – SAI\GEOTECH\Drilling\Logs\CAD\Fourth St_StructureBoringSheet – GR023.dgn 2/9/2026 9:28:39 AM

SUBSTRUCTURE UNIT:
ABUTMENT 1 WING A

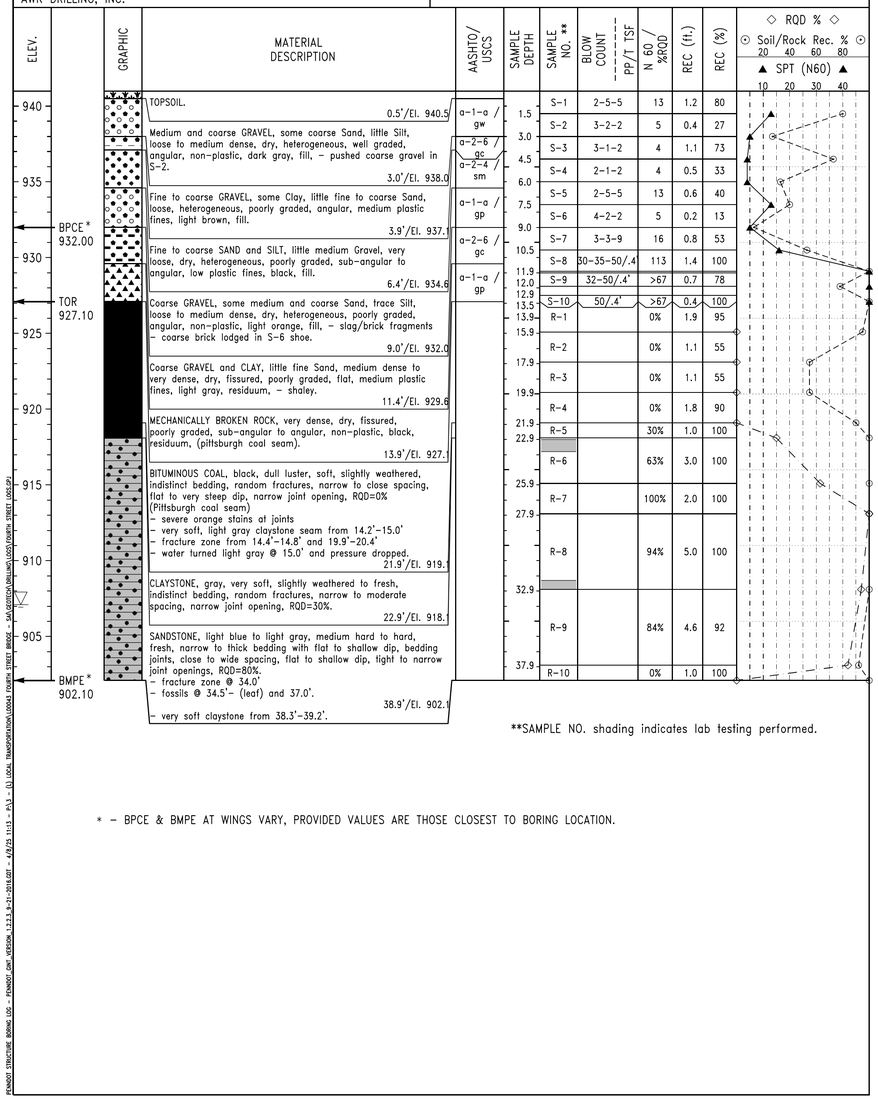
LOG 1 OF 1

BORING NUMBER:	BORING LOCATION	START: 07/23/2019 8:00 AM	HAMMER: AUTOMATIC
SB-4	STATION: 11+39.1 OFFSET: 13.2 FT. RT.	FINISH: 07/23/2019 1:00 PM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ, AUTOMATIC, CME 55 TRACK	2.000 IN.	0 FT. 5 FT.	941.0 FT.

DRILLING INSPECTOR: STEVE HARGENRADER
DRILLER & DRILLING COMPANY: C.RYCHORCEWICZ
AWK DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 907.1 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: Dry – 212.3 hr.



**SAMPLE NO. shading indicates lab testing performed.

* – BPCE & BMPE AT WINGS VARY, PROVIDED VALUES ARE THOSE CLOSEST TO BORING LOCATION.

SUBSTRUCTURE UNIT:
ABUTMENT 2 WING C

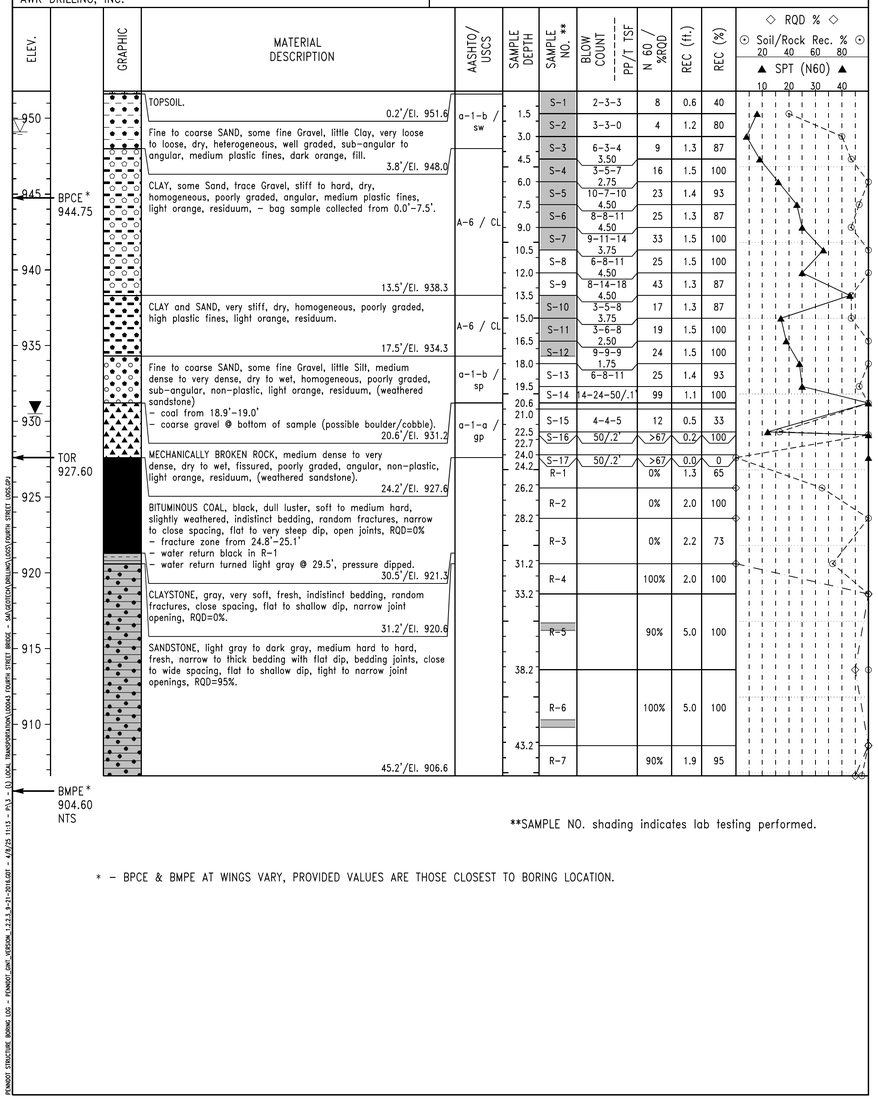
LOG 1 OF 1

BORING NUMBER:	BORING LOCATION	START: 07/25/2019 2:00 PM	HAMMER: AUTOMATIC
SB-5	STATION: 13+61.8 OFFSET: 27.6 FT. LT.	FINISH: 07/26/2019 9:40 AM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ, AUTOMATIC, CME 55 TRACK	2.000 IN.	0 FT. 5 FT.	951.8 FT.

DRILLING INSPECTOR: STEVE HARGENRADER
DRILLER & DRILLING COMPANY: C.RYCHORCEWICZ
AWK DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 949.1 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 930.5 ft. – 141.3 hr.



**SAMPLE NO. shading indicates lab testing performed.

* – BPCE & BMPE AT WINGS VARY, PROVIDED VALUES ARE THOSE CLOSEST TO BORING LOCATION.

GENERAL NOTES

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LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BMPE	BOTTOM OF MICROPILE ELEVATION
BPCE	BOTTOM OF PILE CAP ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

CSM

BMS STR ID: 64-7241-0993-0003 BRKEY: 56793

WEST. CO. DEPT. OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CARMIN SBARRO MINNAUGH
ENGINEER
PE087905

SHEET 47 OF 50

L – 645

PENNDOT STRUCTURE BORING LOG – PENNDOT.GINT – VERSION 1.2.2.3.4-21-2016.GPJ – 4/8/20 11:13 – P:\3 – (L) LOCAL TRANSPORTATION\L00043 FOURTH STREET BRIDGE – SAV\GEOTECH\DRILLING\LOGS\FOURTH STREET LOGS.GPJ
P:\3 – (L) Local Transportation\L00043 Fourth Street Bridge – SAV\GEOTECH\Drilling\Logs\CAD\Fourth St_StructureBoringSheet – ORD23.dgn
2/9/2026 9:28:39 AM

SUBSTRUCTURE UNIT:
ABUTMENT 2 STEM

LOG 1 OF 2

BORING NUMBER:	BORING LOCATION	START: 02/13/2019 8:30 AM	HAMMER: AUTOMATIC
SB-2	STATION: 12+87.6 OFFSET: 3.5 FT. RT.	FINISH: 02/14/2019 10:00 AM	EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ, AUTOMATIC, CME 75 TRUCK MOUNT	2.000 IN.	0 FT. [redacted] 5 FT.	949.8 FT.

DRILLING INSPECTOR: RACHEL MILLER
DRILLER & DRILLING COMPANY: C.RYCHORCEWICZ
AWK DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: Dry – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: NR – NR

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)
945	UNS	UNSAMPLED, through bridge deck to ground.								
940	UNS									
935	UNS									
930	UNS									
925	UNS									
920	UNS	29.5'/El. 920.3		29.5	S-1	5-50/.2'	>67	0.7	100	
TOR 918.70		GRAVEL, trace Sand, very dense, dry, homogeneous, poorly graded, angular, non-plastic, gray, residuum, – sand is black. 31.1'/El. 918.7	a-1-a / gp	30.2 31.0 31.1	S-2 R-1	50/.1'	>67 45%	0.0 1.6	0 80	
915		SANDSTONE, gray, medium hard to hard, fresh to slightly weathered, thin to medium bedding with flat dip, bedding joints, close to medium spacing, tight to narrow joint openings, RQD=81% – shale laminations – siltstone from 32.0'–32.5' – clay seam @ 32.2' and 32.5' – claystone from 43.4'–44.1'.		33.1	R-2		100%	3.0	100	
BPCE* 912.00				36.1	R-3		83%	3.0	100	
910				39.1	R-4		82%	5.0	100	
		44.1'/El. 905.7		44.1						
905		Argillaceous SILTSTONE, gray brown, soft to very soft, fresh, narrow to moderate bedding with flat dip, bedding joints, close to moderate spacing, narrow joint opening, RQD=64%. 46.3'/El. 903.5			R-5		76%	5.0	100	
900		SANDSTONE, gray, medium hard to hard, fresh to slightly weathered, thin to medium bedding with flat dip, bedding joints, close to medium spacing, tight to narrow joint openings, RQD=86%. 49.1'/El. 900.7		49.1	R-6		74%	5.0	100	
895		SANDSTONE interbedded with SHALE, gray, hard, fresh to slightly weathered, laminated bedding with shallow dip, bedding joints, medium spacing, tight to narrow joint openings, RQD=73% – shale laminations – claystone from 52.6'–53.2'. 53.2'/El. 896.6		54.1	R-7		74%	4.7	94	
890		SILTSTONE, gray, medium hard, slightly weathered, thin to medium bedding with flat dip, close to medium spacing, tight to narrow joint openings, RQD=82% – claystone from 55.2'–56.8' – brown fractured zone @ 54.1' – some black shale laminations.		59.1	R-8		94%	5.0	100	

SUBSTRUCTURE UNIT:
ABUTMENT 2 STEM

LOG 2 OF 2

BORING NUMBER:	BORING LOCATION	VERTICAL SCALE:	
SB-2	STATION: 12+87.6 OFFSET: 3.5 FT. RT.	0 FT. [redacted] 5 FT.	▽ 0 HR.: Dry – 0.0 hr. ▼ 24 HR.: NR – NR

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT / PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ (20 40 60 80) ▲ SPT (N60) ▲ (10 20 30 40)
885		65.1'/El. 884.7		64.1						
BMPE* 883.00		CLAYSTONE, gray, very soft, fresh, indistinct bedding, random fractures, narrow to close spacing, narrow joint opening, RQD=0%. 66.4'/El. 883.4			R-9		68%	5.0	100	
880		SANDSTONE, gray, hard to very hard, fresh to slightly weathered, thin to moderate bedding with shallow dip, bedding joints, moderate to medium spacing, shallow dip, tight to narrow joint openings, RQD=83% – siltstone from 66.4'–67.0' – black shale laminations from 66.4'–67.5' – clay seam @ 69.8'. 71.1'/El. 878.7		69.1	R-10		65%	2.0	100	

**SAMPLE NO. shading indicates lab testing performed.

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GENERAL NOTES

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LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BMPE	BOTTOM OF MICROPILE ELEVATION
BPCE	BOTTOM OF PILE CAP ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

CSM

BMS STR ID: 64-7241-0993-0003 BRKEY: 56793

WEST. CO. DEPT. OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
CARMIN SBARRO MINNAUGH
ENGINEER
PE087905

SHEET 48 OF 50

L – 645

PENNDOT STRUCTURE BORING LOG – PENNDOT GINT VERSION 12.2.3.8 21-2016.GDT – 4/8/25 11:14 – P:\3 – (U) Local Transportation\L00443 Fourth Street Bridge – SAV\GEOTECH\Drilling\Logs\CAD\Fourth St_StructureBoringSheet – ORG23.dgn
7/9/2026 9:28:39 AM

SUBSTRUCTURE UNIT:
ABUTMENT 2 WING D1

LOG 1 OF 1

BORING NUMBER:	BORING LOCATION	START:	HAMMER:
SB-6	STATION: 13+11.8 OFFSET: 23.8 FT. RT.	07/25/2019 8:00 AM FINISH: 07/25/2019 1:05 PM	AUTOMATIC EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ, AUTOMATIC, CME 55 TRACK	2.000 IN.	0 FT. 5 FT.	948.8 FT.

DRILLING INSPECTOR: STEVE HARGENRADER
DRILLER & DRILLING COMPANY: C.RYCHORCEWICZ
AWK DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 935.1 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 918.4 ft. – 161.9 hr.

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT	PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ ▲ SPT (N60) ▲
945		TOPSOIL. 0.4'/El. 948.4	a-2-4 / sm	1.5	S-1	1-1-5		8	0.9	60	
		Fine and medium SAND, some Silt, little fine Gravel, loose, dry, heterogeneous, well graded, sub-angular, low plastic fines, black, fill, coal fragments, – spoon in S-2 pushed to side during sampling. Cobbles/boulders observed in auger hole. Possible pushup rock.. 3.4'/El. 945.4		3.0	S-2	4-2-2		5	0.0	0	
				4.5	S-3	7-8-9 4.50		23	1.5	100	
				6.0	S-4	11-9-10 4.00		25	1.2	80	
				7.5	S-5	6-6-9 4.50		20	1.5	100	
940		CLAY and SAND, trace Gravel, very stiff to hard, dry, poorly graded, sub-angular to angular, medium plastic fines, light orange, residuum. 9.9'/El. 938.9	A-4 / CL	9.0	S-6	9-12-13 4.25		33	0.6	40	
				10.5	S-7	9-11-11		29	1.5	100	
		Medium and coarse GRAVEL and SILT, little medium and coarse Sand, medium dense to very dense, dry, fissured, poorly graded, angular, low plastic fines, light orange, residuum. 14.2'/El. 934.6	a-2-4 / gm	12.0	S-8	10-11-13		32	1.5	100	
				13.5	S-9	11-14-23		49	1.4	93	
				14.2	S-10	15-50/.2'		>67	0.7	100	
935		MECHANICALLY BROKEN ROCK, very dense, dry, poorly graded, angular, non-plastic, dark brown, residuum. 16.1'/El. 932.7	a-1-a / gp	15.0	S-11	23-25-50/.1		100	1.1	100	
TOR 932.70				16.1	R-1			0%	1.1	55	
BPCE* 932.00		Carbonaceous SHALE, black, dull luster, soft to medium hard, slightly weathered to weathered, thin to moderate bedding with shallow dip, fracture zone, moderate to medium spacing, narrow joint opening, RQD=10% – weathered into residual soil – water pressure jumped from 100 psi 500 psi @ 17.1' in R-1 – water pressure ranged from 300-600 psi and core water was dark gray in R-3 – light gray, soft claystone seam from 23.4'-23.9'. 25.1'/El. 923.7		18.1	R-2			0%	1.2	60	
				20.1	R-3			0%	1.0	50	
				22.1	R-4			0%	0.9	90	
930				23.1	R-5			45%	1.8	90	
				25.1	R-6			0%	1.7	85	
				27.1	R-7			0%	1.2	60	
				29.1	R-8			0%	2.0	100	
				31.1	R-9			0%	2.6	87	
925		BITUMINOUS COAL, black, dull luster, medium hard, slightly weathered, thin to narrow bedding with flat to shallow dip, fracture zone, moderate to medium spacing, RQD=0% – light gray, soft shale seam from 25.5'-25.7' – severe orange stains at joints from 28.7'-29.1'. 34.6'/El. 914.2		34.1	R-10			70%	4.4	88	
		SANDSTONE, light blue, medium hard to hard, fresh, narrow to thick bedding with flat dip, bedding joints, close to medium spacing, flat to shallow dip, narrow joint opening, RQD=80% – core water turned light gray and pressure dropped from 500 psi to 100 psi @ 34.5'. 41.1'/El. 907.7		39.1	R-11			95%	2.0	100	
920											
915											
910											
BMPE* 898.20 NTS											

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NOTE: ELEVATIONS ARE APPROXIMATE.

SUBSTRUCTURE UNIT:
ABUTMENT 2 WING D2

LOG 1 OF 1

BORING NUMBER:	BORING LOCATION	START:	HAMMER:
SB-7	STATION: 13+17.9 OFFSET: 39.0 FT. RT.	07/30/2019 8:30 AM FINISH: 07/30/2019 1:30 PM	AUTOMATIC EFFICIENCY: 0.8 ERa

DRILLING METHOD AND EQUIPMENT:	SIZE OF CORE:	VERTICAL SCALE:	TOP OF BORING ELEVATION:
DOUBLE TUBE WIRE LINE-NQ, AUTOMATIC, CME 55 TRACK	2.000 IN.	0 FT. 5 FT.	953.3 FT.

DRILLING INSPECTOR: STEVE HARGENRADER
DRILLER & DRILLING COMPANY: C.RYCHORCEWICZ
AWK DRILLING, INC.

▽ 0 HR. READING – ELAPSED TIME: El. 948.7 ft. – 0.0 hr.
▼ 24 HR. READING – ELAPSED TIME: El. 942.6 ft. – 41.5 hr.

ELEV.	GRAPHIC	MATERIAL DESCRIPTION	AASHTO/USCS	SAMPLE DEPTH	SAMPLE NO. **	BLOW COUNT	PP/T TSF	N 60 / %RQD	REC (ft.)	REC (%)	◇ RQD % ◇ ⊙ Soil/Rock Rec. % ⊙ ▲ SPT (N60) ▲
950		TOPSOIL. 0.3'/El. 953.0	a-2-4 / sm	1.5	S-1	3-6-5		15	1.1	73	
		Fine and medium SAND, some Silt, little fine Gravel, loose to medium dense, dry, heterogeneous, well graded, sub-angular, low plastic fines, dark orange, fill. 3.6'/El. 949.7		3.0	S-2	5-3-4		9	0.8	53	
			a-2-4 / gm	4.5	S-3	6-7-15		29	1.3	87	
		Coarse GRAVEL and fine SAND, some Silt, dense to very dense, dry, fissured, poorly graded, flat, non-plastic, light brown, residuum, (weathered shale) – hammer rebounding in S-4. 7.5'/El. 945.8		6.0	S-4	15-19-25		59	1.5	100	
				7.5	S-5	17-18-35		71	1.5	100	
TOR 945.40			a-1-a / gp	7.8	S-6	50/.3"		>67	0.3	100	
		MECHANICALLY BROKEN ROCK, very dense, dry, fissured, poorly graded, flat, non-plastic, dark brown, residuum, (sandstone). 7.9'/El. 945.4		7.9	S-7	50/.1"		>67	0.1	100	
				8.9	R-1			0%	0.7	70	
940		SANDSTONE, light gray, medium hard, slightly weathered, narrow bedding with flat dip, bedding joints, close spacing, flat dip, narrow joint opening, RQD=0%. 9.9'/El. 943.4		10.9	R-2			0%	1.7	85	
BPCE* 939.50				11.9	R-3			0%	0.7	70	
		Carbonaceous SHALE, black, fissile, soft, slightly weathered, thin to narrow bedding with flat dip, bedding joints, narrow to close spacing, flat dip, narrow joint opening, RQD=0% – severe fracture from 12.5'-12.8' – sandstone from 11.9'-12.3' – core water turned black and pressure rose @ 15.0' – core slipped in R-3 into outer barrel due to worn lifter ring. 18.3'/El. 935.0		13.9	R-4			0%	2.0	100	
				16.9	R-5			0%	2.6	87	
935				18.9	R-6			0%	2.0	100	
				20.9	R-7			20%	2.0	100	
				23.9	R-8			47%	2.8	93	
930		SANDSTONE, dark gray, fine grained, medium hard to hard, slightly weathered to fresh, thin to moderate bedding with flat to shallow dip, bedding joints, close to moderate spacing, flat to shallow dip, narrow joint opening, RQD=23% – steep fractures from 22.9'-23.5' – core water turned black @ 26.0', slight pressure increase. 26.1'/El. 927.2		28.9	R-9			0%	5.0	100	
		BITUMINOUS COAL, black, dull luster, soft to medium hard, slightly weathered, indistinct bedding, random fractures, narrow to close spacing, flat to sheer dip, narrow joint opening, RQD=0% – core water turned black @ 28.0', slight pressure increase – vertical fracture from 28.1'-28.3' and 32.7'-33.3' – carbonaceous shale from 29.7'-30.4' – clay seam from 37.2'-37.5'. 37.5'/El. 915.8		33.9	R-10			0%	5.0	100	
925				38.9	R-11			28%	5.0	100	
		SANDSTONE, light blue, medium hard to hard, fresh, narrow to thick bedding with flat to shallow dip, bedding joints, close to wide spacing, flat to shallow dip, tight to narrow joint openings, RQD=97% – very soft, light gray clay infilling @ 37.7', 38.5' and 39.1'. 43.9'/El. 909.4		43.9	R-12			96%	5.0	100	
920											
915											
910											
BMPE* 899.80 NTS											

**SAMPLE NO. shading indicates lab testing performed.

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LEGEND

PP	POCKET PENETROMETER
T	TORVANE
NTS	NOT TO SCALE
BMPE	BOTTOM OF MICROPILE ELEVATION
BPCE	BOTTOM OF PILE CAP ELEVATION
TOR	ESTIMATED TOP OF ROCK ELEVATION

THE DESCRIPTIONS OF THE MATERIALS ENCOUNTERED HAVE BEEN VERIFIED.

CSM

BMS STR ID: 64-7241-0993-0003 BRKEY: 56793

WEST. CO. DEPT. OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

STRUCTURE BORINGS

COMMONWEALTH OF PENNSYLVANIA
CARMIN SBARRO MINNAUGH
REGISTERED PROFESSIONAL ENGINEER PE087905

SHEET 49 OF 50

L – 645

PENNDOT STRUCTURE BORING LOG – PENNDOT_GINT_MTDSGN_1.2.2.3_8-21-2014.GDT – 4/9/25 11:14 – P:\3 – (L) LOCAL TRANSPORTATION\L00043 FOURTH STREET BRIDGE – SAR\GEOTECH\DRILLING\L00043 FOURTH STREET BRIDGE – SAR GEOTECH BORINGS.GPJ
2/9/2026 9:28:39 AM
P:\3 – (L) Local Transportation\L00043 Fourth Street Bridge – SAR\GEOTECH\Drilling\Logs\CADD\Fourth St_StructureBoringSheet – 08023.dgn

LABORATORY TEST SUMMARY – SOILS

					% GRAIN SIZE DISTRIBUTION (AASHTO)							CLASSIFICATION			PLASTICITY PARAMETERS			SHEAR STRENGTH				
BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	NATURAL MOISTURE %	GRAVEL %	SAND %	COARSE SAND %	FINE SAND %	FINES %	SILT %	CLAY %	AASHTO	USCS	S.G.	LIQUID LIMIT	PLASTIC LIMIT	P. I.	C (TSF)	ϕ (DEG.)	c' (TSF)	ϕ ' (DEG)	TEST METHOD
SB-3A	10+94.7 31.46 ft. LT.	ST-1	4.0 to 6.0	19.7	22.0	31.9	8.2	23.8	46.0	27.1	18.9	A-4	SC-SM	2.75	27	20	7	0.293	22.5			DIR. SHR.
SB-5	13+61.8 27.61 ft. LT.	S-4 to S-7	4.5 to 10.5	18.7	9.4	14.2	3.8	10.4	76.4	40.7	35.7	A-6	CL		34	21	13					
SB-5	13+61.8 27.61 ft. LT.	S-10 to S-12	13.5 to 17.5	27.2	24.5	13.5	1.3	12.1	62.0	31.9	30.1	A-6	CL		34	18	16					
SB-6	13+11.8 23.76 ft. RT.	S-4 to S-6	4.5 to 9.0	13.6	25.1	19.5	9.2	10.3	55.4	35.7	19.7	A-4	CL		33	23	10					

LABORATORY TEST SUMMARY – ROCK CORE

BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	TEST	STRENGTH	JAR SLAKE TEST PERFORMED?	SLAKE DURABILITY INDEX & TYPE	ROCK RECOVERY %	RQD %	BEDROCK LITHOLOGY	STRATIGRAPHIC UNIT
SB-1	11+59.1 0.51 ft. RT.	R-1	26.5 to 26.9	UNCONFINED COMPRESSIVE TEST	7606.8 PSI / 547.7 TSF	NO		60	40	LIMESTONE	
SB-1	11+59.1 0.51 ft. RT.	R-5	34.9 to 35.6	UNCONFINED COMPRESSIVE TEST	3836.6 PSI / 276.2 TSF	YES	98.5% / TYPE 1	100	84	SILTSTONE	
SB-1	11+59.1 0.51 ft. RT.	R-6	41.2 to 41.7	UNCONFINED COMPRESSIVE TEST	11567.9 PSI / 832.9 TSF	NO		94	82	SANDSTONE	
SB-2	12+87.6 3.48 ft. RT.	R-5	44.1 to 44.6	UNCONFINED COMPRESSIVE TEST	7312.7 PSI / 526.5 TSF	YES	98.3% / TYPE 1	100	76	SILTSTONE	
SB-2	12+87.6 3.48 ft. RT.	R-5	46.3 to 46.7	UNCONFINED COMPRESSIVE TEST	7680.3 PSI / 553.0 TSF	NO		100	76	SANDSTONE	
SB-3	10+94.7 31.46 ft. LT.	R-3	20.3 to 20.7	UNCONFINED COMPRESSIVE TEST	6408.3 PSI / 461.4 TSF	NO		77	27	SANDSTONE	
SB-3	10+94.7 31.46 ft. LT.	R-5	23.8 to 24.3	UNCONFINED COMPRESSIVE TEST	9839.7 PSI / 708.5 TSF	NO		100	98	SANDSTONE	
SB-4	11+39.1 13.21 ft. RT.	R-6	23.0 to 23.8	UNCONFINED COMPRESSIVE TEST	4648.2 PSI / 334.7 TSF	NO		100	63	SANDSTONE	
SB-4	11+39.1 13.21 ft. RT.	R-8	32.3 to 32.9	UNCONFINED COMPRESSIVE TEST	4227.1 PSI / 304.4 TSF	NO		100	94	SANDSTONE	
SB-5	13+61.8 27.61 ft. LT.	R-5	35.1 to 35.6	UNCONFINED COMPRESSIVE TEST	5960.5 PSI / 429.2 TSF	NO		90	100	SANDSTONE	
SB-5	13+61.8 27.61 ft. LT.	R-6	41.5 to 42.0	UNCONFINED COMPRESSIVE TEST	6379.4 PSI / 459.3 TSF	NO		100	100	SANDSTONE	
SB-6	13+11.8 23.76 ft. RT.	R-10	38.4 to 38.9	UNCONFINED COMPRESSIVE TEST	13854.2 PSI / 997.5 TSF	NO		88	70	SANDSTONE	
SB-7	13+17.9 39.02 ft. RT.	R-5 to R-6	13.9 to 17.4	POINT LOAD TEST	7326.6 PSI / 527.5 TSF	YES	92% / TYPE 2	87	0	SHALE	
SB-7	13+17.9 39.02 ft. RT.	R-12	43.4 to 43.9	UNCONFINED COMPRESSIVE TEST	6479.1 PSI / 466.5 TSF	NO		100	96	SANDSTONE	

LABORATORY TEST SUMMARY – ELECTROCHEMICAL

BORING NUMBER	STATION & OFFSET	SAMPLE #	TEST DEPTH (FT.)	SAMPLE SOURCE	pH	MINIMUM RESISTIVITY (ohm-cm)	CHLORIDE CONTENT (ppm)	SULFATE CONTENT (ppm)	HIGH ORGANIC CONTENT?	CORROSIVE FOR CONCRETE?	CORROSIVE FOR STEEL?
SB-3	10+94.7 31.46 ft. LT.	S-1 to S-6	0.0 to 9.0	SOIL	7.6	3,568	220	1	No	No	Resist.w/Chlor.
SB-5	13+61.8 27.61 ft. LT.	S-1 to S-5	0.0 to 7.5	SOIL	7.0	3,095	90	2	No	No	No

POTENTIALLY CORROSIVE ENVIRONMENTS PER DM-4

SOIL: RESISTIVITY < 2,000 OHM-CM
2,000 OHM-CM < RESISTIVITY < 5000 OHM-CM WITH SULFATE CONCENTRATION > 200 PPM
2,000 OHM-CM < RESISTIVITY < 5000 OHM-CM WITH CHLORIDE CONCENTRATION > 100 PPM
PH < 5.5
5.5 < PH <8.5 IN SOILS WITH HIGH ORGANIC CONTENT
SULFATE >1,000 PPM

WATER: CHLORIDE CONTENT > 1000 PPM
SULFATE CONTENT > 150 PPM
HIGH ORGANIC CONTENT
PH < 5.5

CORROSIVE FOR CONCRETE: PH<4 OR SULFATES > 1000 PPM

REFER TO DM-4 FOR LANDFILL AND CINDER FILLS, SOILS SUBJECT TO MINE OR INDUSTRIAL DRAINAGE, AND MIXTURES OF HIGH RESISTIVITY AND LOW RESISTIVITY HIGH ALKALINE SOILS

GENERAL NOTES

THIS SHEET IS INCLUDED FOR THE CONVENIENCE OF THE DEPARTMENT. REFER TO PUBLICATION 408 SECTION 102.05 FOR FURTHER INFORMATION.

FOR ADDITIONAL SOIL AND ROCK DESCRIPTIONS SEE PUBLICATION 222.

THE BORING LOGS AND RELATED INFORMATION DEPICT SUBSURFACE CONDITIONS ONLY AT THE SPECIFIC LOCATIONS AND DATES INDICATED. SUBSURFACE CONDITIONS MAY DIFFER FROM THE CONDITIONS REPORTED AT THE SPECIFIC LOCATIONS. ALSO, THE PASSAGE OF TIME MAY RESULT IN A CHANGE OF CONDITIONS AT THE BORING LOCATIONS.

BMS STR ID: 64-7241-0993-0003 BRKEY: 56793

WEST. CO. DEPT. OF PUBLIC WORKS

WESTMORELAND COUNTY
NORTH IRWIN BOROUGH
WEST BROADWAY AVENUE STA. 12+22.50
OVER NORFOLK SOUTHERN RAILROAD

SINGLE SPAN STEEL MULTI-GIRDER BRIDGE

STRUCTURE BORINGS

LABORATORY TESTING PERFORMED BY:
NAVARRO & WRIGHT
CONSULTING ENGINEERS, INC.
151 RENO AVENUE
NEW CUMBERLAND, PA 17070

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL ENGINEER
CARMIN SBARRO MINNAUGH
PE087905

SHEET 50 OF 50

L – 645

P:\3 - (L) Local Transportation\L00043 Fourth Street Bridge - SHA\GEOTECH\Drilling\Logs\CAD\Fourth St_StructureBoringSheet - 080223.dgn 2/9/2024 9:28:39 AM

DISTRICT	COUNTY	ROUTE	SECTION	SHEET
12-0	WESTMORELAND	———	———	1 OF 14

CROSS SECTIONS

FOURTH STREET BRIDGE REPLACEMENT

WESTMORELAND COUNTY

STA 8+79.00 TO STA 14+00.00 (LIMITS OF WORK)

ROUTE NO.	STATIONING	SHEET NO.
WEST BROADWAY AVENUE	10+00.00 TO 11+75.00	2 - 5
FOURTH STREET	11+75.00 TO 13+50.00	6 - 10
FOSTER AVENUE	50+00.00 TO 51+00.00	11- 14
	TOTAL SHEETS	14

Application No.	
Route No.	
Original Platted By	KMJ
Original Checked By	CJC
Template By	KMJ
Area By	KMJ
Finals Platted By	KMJ
Finals Checked By	MCB
Area By	DSB
Area Checked By	MCB

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
MATTHEW CHARLES BOYKO
ENGINEER
No. PE055539

SCALE : 1 INCH = 5 FEET

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					2 OF 14

OPERATOR: MBOYKO
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WEST BROADWAY AVENUE

WEST BROADWAY AVENUE
SURVEY & CONSTR ℄

EXISTING DRIVEWAY

E-T-CTV

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

SWALE GRADING
CLASS 1 EXC = 3 SF

4:1

10:1

EOP

PROP CONDUIT
(TO NSRR TOWER)

6" W

36" STORM

INFILTRATION
TRENCH

4" G

A-1

STA 10+10.67 - 14.00' LT
W BROADWAY AVENUE
TYPE M CONCRETE TOP UNIT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </=10' MODIFIED
TG 937.52
INV 931.19 (36" IN) FROM A-2
INV 934.19 (12" OUT) TO A-0

EX. POLE
(TO REMAIN)

FENCE

12" STORM

INFILTRATION
TRENCH - OUTLET TO
EXISTING SWALE

A-0

STA 9+29.00 - 13.73' RT
W BROADWAY AVENUE
PIPE OUTFALL
END OF PIPE (MITER TO SLOPE)
TG - N/A
INV 933.80 (12" IN) FROM A-1

START WORK
STA 9+29.00
W BROADWAY AVE

LIMIT OF WORK
STA 8+79.00
W BROADWAY AVE
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

10+25

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

10+00

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Area By
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Template By
Area By
Application No.
Route No.
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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					3 OF 14

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WEST BROADWAY AVENUE

WEST BROADWAY AVENUE
SURVEY & CONSTR ℄

TEMPORARY CONSTRCUTION EASEMENT

E-T-CTV

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

SWALE GRADING
CLASS 1 EXC = 4 SF

4:1 10:1

EOS-938.34
OFF: -13.51

EOP-938.55
OFF: -10.09

-6.00% -2.92% -1.36% -10.00% 4:1

G-938.84

EOB-938.69
OFF: 11.00

EOP

PROP CONDUIT
(TO NSRR TOWER)

36" STORM
INFILTRATION
TRENCH

6" W

4" G

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

PRELIMINARY	
C. 21	F. 3
FINAL	
C.	F.
T.C.	T.F.

10+75

E-T-CTV

STA 10+50.00 LT
BEGIN PAV'T BASE DRAIN
(OUTLET TO INLET A-1)

STA 10+50.00 RT
BEGIN PAV'T BASE DRAIN
(OUTLET TO LT SIDE)

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

TEMPORARY CONSTRCUTION EASEMENT

SWALE GRADING
CLASS 1 EXC = 4 SF

4:1 10:1

EOS-937.86
OFF: -9.80

EOP-937.92
OFF: -7.80

-2.94% -4.44% 0.09% -10.00%

G-938.27

EOB-938.28
OFF: 11.43

EOP

EOP

PROP CONDUIT
(TO NSRR TOWER)

36" STORM
INFILTRATION
TRENCH

6" W

4" G

BEGIN ROADWAY RECONSTRUCTION
STA 10+50.00

PRELIMINARY	
C. 23	F. 0
FINAL	
C.	F.
T.C.	T.F.

10+50

STA 10+50.00 TO 10+60.00
LEFT SHLD CROSS SLOPE TRANSITION
-2.94% (MATCH EXISTING) TO -6.00%

STA 10+50.00 TO 10+85.00
LEFT SHOULDER TAPER
2.00' TO 4.00'

STA 10+50.00 TO 10+90.00
LEFT LANE CROSS SLOPE TRANSITION
-4.44% (MATCH EXISTING) TO -2.00%

STA 10+50.00 TO 10+85.00
LEFT LANE TAPER
7.80' (MATCH EXISTING) TO 11.00'

STA 10+50.00 TO 10+86.00
RIGHT LANE CROSS SLOPE TRANSITION
+0.09% (MATCH EXISTING) TO -2.00%

STA 10+50.00 TO 10+55.00
RIGHT LANE TAPER
11.34' (MATCH EXISTING) TO 11.00'

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Area By
Application No.
Route No.
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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					4 OF 14

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WEST BROADWAY AVENUE

A-3

STA 11+30.28 - 15.00' LT
W BROADWAY AVENUE
TYPE C CONCRETE TOP UNIT, 4" CURB HEIGHT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </=10'
TG 940.47
INV 936.72 (18" OUT - CORNER) TO A-2

WEST BROADWAY AVENUE
SURVEY & CONSTR ℄

TEMPORARY CONSTRCUTION EASEMENT

E-CTV

E-T-CTV

STA 11+32.73 LT
BEGIN PAV'T BASE DRAIN
(OUTLET TO INLET A-3)

STA 11+27.80 LT
END PAV'T BASE DRAIN

EX. POLE (TO BE REMOVED)

PROP POLE

(SEE PLAN & TABS) GR 1

EOS-940.22 OFF: -15.00

EOP-940.46 OFF: -11.00

FENCE

FENCE

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

-6.00%

-2.00%

G-940.68

-1.07%

-1.07%

-10.00%

EOP-940.56 OFF: 11.00

EOS-940.50 OFF: 17.00

(SEE PLAN & TABS) GR 2

STA 11+36.50 RT
END PAV'T BASE DRAIN

E-CTV (TEMP)

TEMP POLE

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

2:1

-10.00%

18" STORM

8" W

4" G

STA 11+15.00 TO 11+58.00
RIGHT LANE & SHLDR
CROSS SLOPE TRANSITION
-2.00% TO 2.00%

STA 11+14.52
BEGIN RIGHT SHOULDER
6' WIDTH

PRELIMINARY	
C. 20	F. 7
FINAL	
C.	F.
T.C.	T.F.

11+25

E-T-CTV

TEMPORARY CONSTRCUTION EASEMENT

FENCE

FENCE

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

SWALE GRADING
CLASS 1 EXC = 6 SF

4:1

1:1

EOS-939.18 OFF: -15.00

EOP-939.42 OFF: -11.00

-6.00%

-2.00%

G-939.64

-2.00%

EOB-939.42 OFF: 11.00

ASPHALT DRIVEWAY ADJUSTMENT

-10.36%

-16.25%

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

18" STORM

6" W

8" W

EOP

4" G

A-2

STA 10+98.67 - 22.00' LT
W BROADWAY AVENUE
TYPE M CONCRETE TOP UNIT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </=10' MODIFIED
TG 939.42
INV 935.52 (18" IN) FROM A-3
INV 931.62 (36" OUT) TO A-1

PRELIMINARY	
C. 18	F. 0
FINAL	
C.	F.
T.C.	T.F.

11+00

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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					5 OF 14

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WEST BROADWAY AVENUE

E-CTV

E-CTV (TEMP)

W BROADWAY AVENUE SURVEY & CONSTR ℄

EOS-942.87 OFF: -15.00

EOP-943.11 OFF: -11.00

EOP-943.55 OFF: 11.00

EOS-943.67 OFF: 17.00

G-943.33

-6.00% -2.00% 2.00% 2.00%

8" W (SEE STRUCTURE PLANS)

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

11+75

AERIAL EASEMENT LINE

AERIAL EASEMENT LINE

BEGIN STRUCTURE
STA 11+62.33

E-CTV

E-CTV

E-CTV (TEMP)

TEMPORARY CONSTRCUTION EASEMENT

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

STA 11+62.33 LT
END PAV'T BASE DRAIN

E-T

WING B (SEE STRUCTURE PLANS)

(SEE PLAN & TABS) GR 1

EOS-941.49 OFF: -15.00

EOP-941.73 OFF: -11.00

EOP-942.08 OFF: 11.00

EOS-942.16 OFF: 17.00

(SEE PLAN & TABS) GR 2

WING A (SEE STRUCTURE PLANS)

G-941.95

10.00% -6.00% -2.00% 1.26% 1.26% -10.00%

(ABANDONED) 4" G

8" W

PLAIN CEMENT CONCRETE CURB, 4" HEIGHT

TEMP POLE

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

PRELIMINARY	
C. 24	F. 1
FINAL	
C.	F.
T.C.	T.F.

11+50

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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					6 OF 14

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WEST BROADWAY AVENUE

W BROADWAY AVENUE
SURVEY & CONSTR ℄

E-CTV

E-CTV

E-CTV
(TEMP)

EOS-944.25
OFF: -15.00

EOP-944.49
OFF: -11.00

G-944.71

EOP-944.93
OFF: 11.00

EOS-945.05
OFF: 17.00

-6.00%

-2.00%

2.00%

2.00%

8" W
(SEE STRUCTURE
PLANS)

AERIAL
EASEMENT
LINE

AERIAL
EASEMENT
LINE

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

12+00

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

960 955 950 945 940 935 930 925 920 915 910 905 900 895

40 30 20 10 0 10 20 30 40 30 20 10 0 10 20 30 40

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Area Checked By
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Area By
Application No.
Route No.
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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					7 OF 14

WEST BROADWAY AVENUE

W BROADWAY AVENUE
SURVEY & CONSTR ℄

E-CTV

E-CTV

EOS-945.64
OFF: -15.00

EOP-945.88
OFF: -11.00

EOP-946.32
OFF: 11.00

EOS-946.44
OFF: 17.00

G-946.10

-6.00%

-2.00%

2.00%

2.00%

8" W
(SEE STRUCTURE
PLANS)

AERIAL
EASEMENT
LINE

AERIAL
EASEMENT
LINE

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

12+25

960 955 950 945 940 935 930 925 920 915 910 905 900 895

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

40 30 20 10 0 10 20 30 40 30 20 10 0 10 20 30 40

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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					8 OF 14

WEST BROADWAY AVENUE

W BROADWAY AVENUE
SURVEY & CONSTR ℄

E-CTV

E-CTV

EOS-947.02
OFF: -15.00

EOP-947.26
OFF: -11.00

EOP-947.70
OFF: 11.00

EOS-947.82
OFF: 17.00

G-947.48

-6.00%

-2.00%

2.00%

2.00%

8" W
(SEE STRUCTURE
PLANS)

AERIAL
EASEMENT
LINE

AERIAL
EASEMENT
LINE

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

12+50

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

960 955 950 945 940 935 930 925 920 915 910 905 900 895

40 30 20 10 0 10 20 30 40 30 20 10 0 10 20 30 40

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CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					9 OF 14

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Final Plotted By
Final Checked By
Area By
Area Checked By

Original Checked By
Template By
Area By

Application No.
Route No.
Original Plotted By

WEST BROADWAY AVENUE

B-1

STA 13+16.80 - 14.80' LT
W BROADWAY AVENUE
TYPE C CONCRETE TOP UNIT, 4" CURB HEIGHT
AND BICYCLE SAFE GRATE
STANDARD INLET BOX, HEIGHT </= 10'
TG 950.88
INV 946.88 (15" OUT) TO B-0

W BROADWAY AVENUE
SURVEY & CONSTR ℄

STA 13+04.40 TO STA 50+39.83 (FOSTER AVE)
RIGHT SHOULDER TAPER
6.00' TO 2.00'

TEMPORARY CONSTRCUTION EASEMENT

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

WING C1
(SEE STRUCTURE PLANS)

(SEE PLAN & TABS)
GR 4

EOS-949.85 OFF: -15.00
EOP-950.02 OFF: -11.00
EOP-950.46 OFF: 11.00
EOS-950.58 OFF: 17.00

-10.00% -4.33% -2.00% G-950.24 2.00% 2.00% -4.02%

WING D1
(SEE STRUCTURE PLANS)

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

STA 13+11.91 TO STA 13+33.61
LEFT SHOULDER TAPER
4.00' TO 2.00'

PLAIN CEMENT CONCRETE CURB, 4" HEIGHT

(ABANDONED) 4" G

8" W

STA 12+95.00 TO 13+07.00
LEFT SHLD CROSS SLOPE TRANSITION
-6.00% TO -2.00%

STA 13+11.91 TO STA 13+33.56
LEFT LANE TAPER
11.00' TO 10.72' (MATCH EXISTING)

STA 12+93.00 LT
BEGIN CURB

STA 12+84.67 LT
BEGIN PAV'T BASE DRAIN

END STRUCTURE
STA 12+84.67

PRELIMINARY	
C. 33	F. 0
FINAL	
C.	F.
T.C.	T.F.

13+00

E-CTV E-CTV

EOS-948.40 OFF: -15.00
EOP-948.64 OFF: -11.00
EOP-949.08 OFF: 11.00
EOS-949.20 OFF: 17.00

-6.00% -2.00% G-948.86 2.00% 2.00%

8" W
(SEE STRUCTURE PLANS)

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

12+75

965 960 955 950 945 940 935 930 925 920 915 910 905 900

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

40 30 20 10 0 10 20 30 40 30 20 10 0 10 20 30 40

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					10 OF 14

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B-0

STA 13+60.29 - 10.63' LT
FOURTH STREET
TYPE C FRAME AND BICYCLE SAFE GRATE
EXISTING INLET BOX (TO REMAIN)
TG 951.57
INV 946.19± (15" IN) FROM B-1 (MATCH EXISTING)
INV 945.41 (24" IN) FROM EXISTING
INV 945.27 (24" OUT) TO EXISTING

TEMPORARY CONSTRCUTION EASEMENT

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

E-CTV

E-T-CTV

FOURTH STREET SURVEY & CONSTR ℄

E-CTV (TEMP)

END ROADWAY RECONSTRUCTION/ STOP WORK
STA 13+70.00
FOURTH STREET

LIMIT OF WORK
STA 14+00.00
FOURTH STREET
NORTH IRWIN BOROUGH
WESTMORELAND COUNTY

FOURTH STREET

PROP POLE

STA 13+70.00 LT
END PAV'T BASE DRAIN

STA 13+62.71 RT
BEGIN PAV'T BASE DRAIN
(OUTLET TO INLET B-0)

STA 13+70.00 RT
END PAV'T BASE DRAIN

STA 13+70.00 LT & RT
END CURB

PLAIN CEMENT CONCRETE CURB, 4" HEIGHT

SEE INTERSECTION DETAIL FOR SIDEWALK SLOPES/WIDTHS

EOP-951.61
OFF=-10.73

EOP-951.73
OFF=10.48

EX. POLE (TO REMAIN)

WING C2
(SEE STRUCTURE PLANS)

(SEE PLAN & TABS) GR 4

VARIES (WORK WITH STRUCTURE PLAN)

EX. POLE (TO BE REMOVED)

-3.69%

GG-952.00

-2.58%

15" STORM

24" STORM

6" G

6" W

(ABANDONED)

8" SAN

15" STORM

SEE INTERSECTION DETAIL FOR SIDEWALK SLOPES/WIDTHS

EX. INLET (TO REMAIN)

STA 13+33.61
END SHOULDER
2.00' WIDTH

STA 13+33.61 TO STA 13+70.00
LEFT LANE TAPER
12.72' TO 10.98' (MATCH EXISTING)

STA 13+50.11 TO 13+70.00
RIGHT LANE TAPER
10.48' TO 11.06' (MATCH EXISTING)

STA 13+58.63 RT
END PAV'T BASE DRAIN

STA 13+19.96 RT
BEGIN PAV'T BASE DRAIN
(OUTLET TO INLET B-1)

STA 13+43.62 RT
BEGIN PAV'T BASE DRAIN
(OUTLET TO EX. INLET)

E-CTV (TEMP)

PRELIMINARY	
C. 37	F. 0
FINAL	
C.	F.
T.C.	T.F.

13+50

E-CTV

E-CTV

TEMPORARY CONSTRCUTION EASEMENT

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

FOSTER AVENUE

WING C2
(SEE STRUCTURE PLANS)

(SEE PLAN & TABS) GR 4

EOS-951.31
OFF=-13.84

EOP-951.37
OFF=-10.85

EOP-951.98
OFF=16.55

-10.00%

-2.13%

-2.13%

G-951.60

2.25%

PLAIN CEMENT CONCRETE CURB, 4" HEIGHT

15" STORM

15" STORM

8" W

6" G
(ABANDONED)

6" W

8" W

STA 13+23.00 TO 13+70.00
LEFT LANE @ SHLDR CROSS SLOPE TRANSITION
-2.00% TO -4.95% (MATCH EXISTING)

STA 13+23.00 TO 13+70.00
RIGHT LANE CROSS SLOPE TRANSITION
-2.00% TO -2.97% (MATCH EXISTING)

STA 13+19.96 RT
BEGIN PAV'T BASE DRAIN
(OUTLET TO INLET B-1)

STA 13+14.14 RT
END PAV'T BASE DRAIN

PRELIMINARY	
C. 33	F. 0
FINAL	
C.	F.
T.C.	T.F.

13+25

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PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

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12-0	WESTMORELAND					11 OF 14

FOSTER AVENUE

FOSTER AVENUE CONSTR ℄

E-CTV (TEMP)

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

PLAIN CEMENT CONCRETE CURB, 4" HEIGHT

EOP-952.31 OFF: -9.50

EOP-952.33 OFF: 12.50

EOS-952.11 OFF: 16.36

(SEE PLAN & TABS) GR 3

GG-952.58

-2.80%

-1.93%

-5.74%

10.00%

SEE INTERSECTION DETAIL FOR SIDEWALK SLOPES/WIDTHS

15" STORM

8" SAN

8" W

6" W (ABANDON)

VARIES (WORK WITH STRUCTURE PLAN)

ABUTMENT 2 (SEE STRUCTURE PLANS)

STA 50+11.50 LT
BEGIN PAV'T BASE DRAIN
(OUTLET TO EX. INLET)

STA 50+14.95 RT
BEGIN PAV'T BASE DRAIN
(OUTLET TO INLET B-1
ON FOURTH ST LT)

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

PRELIMINARY	
C. 30	F. 0
FINAL	
C.	F.
T.C.	T.F.

50+25

965 960 955 950 945 940 935 930 925 920 915 910 905 900

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

40 30 20 10 0 10 20 30 40 30 20 10 0 10 20 30 40

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CROSS SECTIONS

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12-0	WESTMORELAND					12 OF 14

FOSTER AVENUE

FOSTER AVENUE
CONSTR ℄

E-CTV
(TEMP)

STA 50+72.36 LT
END CURB

STA 50+50.00 LT
END PAV'T BASE DRAIN

LEGAL RIGHT-OF-WAY
LINE FOR BOROUGH STREET

EX. POLE
(TO REMAIN)

EOP-953.53
OFF: -9.21

PLAIN CEMENT
CONCRETE
CURB, 4" HEIGHT

SEE INTERSECTION DETAIL
FOR SIDEWALK SLOPES/WIDTHS

GG-954.00

-5.14%

-2.00%

-2.00%

10.00%

EOP-953.82
OFF: 9.21

EOS-953.78
OFF: 11.21

(SEE PLAN
& TABS)
GR
3

EX. POLE
(TO BE
REMOVED)

WING D2
(SEE STRUCTURE PLANS)

15" STORM

8" SAM

8" W

6" W
(ABANDON)

STA 50+55.00 TO 50+80.00
RIGHT LANE TAPER
9.21' TO 9.04'

STA 50+55.00 TO 50+80.00
RIGHT SHOULDER TAPER
2.00' TO 0.00'

LEGAL RIGHT-OF-WAY
LINE FOR BOROUGH STREET

PRELIMINARY	
C. 25	F. XX
FINAL	
C.	F.
T.C.	T.F.

50+50

965 960 955 950 945 940 935 930 925 920 915 910 905

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

40 30 20 10 0 10 20 30 40 30 20 10 0 10 20 30 40

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CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

Dist.	County	Route	Sect.	Prelim. Bk. No.	Final Bk. No.	Sheet No.
12-0	WESTMORELAND					13 OF 14

FOSTER AVENUE

FOSTER AVENUE
CONSTR ℄

LEGAL RIGHT-OF-WAY
LINE FOR BOROUGH STREET

EOP-954.89
OFF: -9.58

-5.48%

GG-955.41

-1.31%

STA 50+80.00 RT
END PAV'T BASE DRAIN

EOP-955.30
OFF: 9.07
EOS-955.29
OFF: 9.47

10.00%

(SEE PLAN & TABS)

GR 3

8" W

6" W
(ABANDON)

8" SAN

LEGAL RIGHT-OF-WAY
LINE FOR BOROUGH STREET

PRELIMINARY	
C. 10	F. 0
FINAL	
C.	F.
T.C.	T.F.

50+75

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

970 965 960 955 950 945 940 935 930 925 920 915 910 905

40 30 20 10 0 10 20 30 40 30 20 10 0 10 20 30 40

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CROSS SECTIONS

SCALE: 1 INCH = 5 FEET

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12-0	WESTMORELAND					14 OF 14

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FOSTER AVENUE

FOSTER AVENUE
CONSTR ℄

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

EX. POLE (TO REMAIN)

EOP-956.25
OFF:-10.00

956.75
OFF:-0.00

GG-956.75

EOP-956.70
OFF:9.18

LEGAL RIGHT-OF-WAY LINE FOR BOROUGH STREET

-5.02%

-0.61%

5.52%

(SEE PLAN & TABS)
GR 3

STOP WORK
STA 51+29.00
FOSTER AVENUE

TEMP POLE

8" SAN

6" W

PRELIMINARY	
C. 0	F. 0
FINAL	
C.	F.
T.C.	T.F.

51+00

975 970 965 960 955 950 945

80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80

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Area Checked By
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