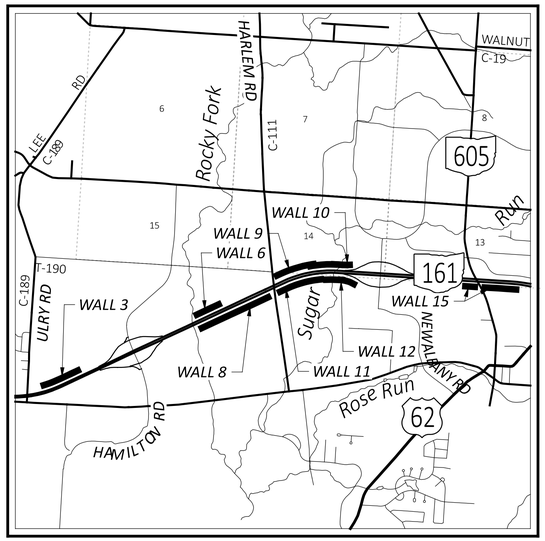
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FRA-161-15.80
NOISE WALLS

CITY OF COLUMBUS AND NEW ALBANY
FRANKLIN COUNTY

ARCADIS RESPONSE: Complied by adding Plain Township

I was wrong at Stage 1 - there is a small section in Plain Township (sheet P.29).



LOCATION MAP

LATITUDE: 40 °07'08" LONGITUDE: 82 °52 '59"

PORTION TO BE IMPROVED
INTERSTATE HIGHWAY
FEDERAL ROUTES
STATE ROUTES
COUNTY & TOWNSHIP ROADS
OTHER ROADS

DESIGN DESIGNATION

CURRENT ADT (2024)	*64,716*
DESIGN YEAR ADT (2045)	*86,550*
DESIGN HOURLY VOLUME (2045)	*9,080*
DIRECTIONAL DISTRIBUTION	*50%*
TRUCKS (24 HOUR B&C)	*8%*
DESIGN SPEED	*70 MPH*
LEGAL SPEED	*65 MPH*

DESIGN FUNCTIONAL CLASSIFICATION:
02 OTHER FREEWAY & EXPRESSWAY (URBAN)
NHS PROJECT — *YES*

DESIGN EXCEPTIONS

NONE REQUIRED

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811. 8-1-1. or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:
ARCADIS - IBI GROUP
8101 North High Street
Columbus, OH 43235
tel 614 818 4900 fax 614 818 4901

REVIEW COMPLETE

PM	Katie Montoya 02/22/2024
OVERALL	
ENVIRO	
REAL ESTATE	Dianna Ross Real Estate 02/07/2024 Dale Mead 02/21/2024 9:33:33 AM
UTILITIES	
STRUCTURES	Mike Loeffler 2/1/2024
GEOTECH	Jeff Hipp 2/22/2024
HYDRAULICS	Jon Adams 02/26/2024 10:52:58 AM
MOT	
PAVEMENT	
GEOMETRICS	
TRAFFIC	
ITS	
RAILROAD	
CONST.	
OTHER	Michael D. Cronebach, P.E. 2/16/24

FIRM PANELS: 39049C0203K
MAP EFFECTIVE DATE: JUNE 17, 2008
BFE: 957
FLOOD ZONES AE & X

FIRM PANELS: 39049C0204K
MAP EFFECTIVE DATE: JUNE 17, 2008
BFE: 974
FLOOD ZONES AE & X

NO FILL WILL BE ADDED IN THE 100-YEAR FLOOD PLAIN.

INDEX OF SHEETS:

TITLE SHEET	*P.1*			
SCHEMATIC PLAN	*P.2*	-	*P.5*	
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GENERAL NOTES	*P.9*	-	*P.10*	
MAINTENANCE OF TRAFFIC	*P.11*		*P.15*	
GENERAL SUMMARY	*			
SUBSUMMARIES	*			* TO BE INCLUDED WITH STAGE 3 SUBMITTAL
PROJECT SITE PLAN	*			
PLAN AND PROFILE - WALL 3 / 81" BARRIER 3	*P.16*	-	*P.18*	
PLAN AND PROFILE - WALL 6 / 81" BARRIER 6	*P.19*	-	*P.21*	
PLAN AND PROFILE - WALL 8	*P.22*	-	*P.26*	
PLAN AND PROFILE - WALL 9	*P.27*	-	*P.29*	
PLAN AND PROFILE - 81" BARRIER 10	*P.30*	-	*P.33*	
PLAN AND PROFILE - WALL 11	*P.34*	-	*P.37*	
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PLAN AND PROFILE - WALL 15	*P.41*	-	*P.45*	
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CROSS SECTIONS - 81" BARRIER 10	*P.121*	-	*P.137*	
CROSS SECTIONS - WALL 11	*P.138*	-	*P.154*	
CROSS SECTIONS - WALL 12 / 81" BARRIER 12	*P.155*	-	*P.168*	
CROSS SECTIONS - WALL 15	*P.169*	-	*P.192*	
NOISE WALL DETAILS	*P.193*	-	*P.210*	
SOIL PROFILES	*P.211*	-	*P.276*	

STAGE 2 SUBMITTAL 01/22/24

STANDARD CONSTRUCTION DRAWINGS	*SUPPLEMENTAL SPECIFICATIONS*	*SPECIAL PROVISIONS*

FEDERAL PROJECT NUMBER

NON-FEDERAL

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

INSTALLATION OF 8,255 FEET OF NOISE WALL AND 4,636 FEET OF 81" SINGLE SLOPE BARRIER AT VARIOUS LOCATIONS ALONG STATE ROUTE 161 BETWEEN ULRY ROAD AND US 62. THIS PROJECT SUPPLEMENTS THE FRA-161-15.80 WIDENING PROJECT.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	*7.55 ACRES*
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	*0.25 ACRES*
NOTICE OF INTENT EARTH DISTURBED AREA:	*7.80 ACRES*

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

Anthony C. Turowski, P.E.
District 06 Deputy Director

Jack Marchbanks, PhD
Director, Department of Transportation

NOTE:
FOR CITY OF COLUMBUS AND CITY OF NEW ALBANY SIGNATURES, SEE SEPARATE SIGNATURE PAGE

ENGINEER'S SEAL

STATE OF OHIO — E- REGISTERED — PROFESSIONAL ENGINEER

3973-E
DOW#23-107

FRA-161-15.80 NOISE WALLS

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

DESIGNER	JMK
REVIEWER	JDH 01-22-24
PROJECT ID	117607
SHEET	P.1
TOTAL	P.276

FRA-161-15.80 NOISE WALLS
MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 12:10:25 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GT001.dgn

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

FRA-161-15.80 NOISE WALLS

CITY OF COLUMBUS AND NEW ALBANY

FRANKLIN COUNTY

SIGNATURES ON THIS PAGE SIGNIFY ONLY THE CONCURRENCE WITH THE GENERAL PURPOSES AND GENERAL LOCATION OF THE PROJECT. ALL TECHNICAL DETAILS REMAIN THE RESPONSIBILITY OF THE ENGINEER(S) PREPARING THE PLANS.

CITY OF COLUMBUS APPROVALS

DESIGN SECTION ENGINEER, DIVISION OF DESIGN AND CONSTRUCTION — *DATE*

ADMINISTRATOR, DIVISION OF POWER — *DATE*

ADMINISTRATOR, DIVISION OF SEWERAGE AND DRAINAGE — *DA*

ADMINISTRATOR, DIVISION OF WATER — *DATE*

DIRECTOR DEPARTMENT OF PUBLIC UTILITIES — *DATE*

FIRE PREVENTION BUREAU, DIVISION OF FIRE — *DATE*

ENGINEERING SUPERVISOR, DEPARTMENT OF TECHNOLOGY — *DATE*

DIRECTOR, DEPARTMENT OF RECREATION AND PARKS — *DATE*

CITY ENGINEER/ADMINISTRATOR, DIVISION OF DESIGN AND CONSTRUCTION — *DATE*

DIRECTOR, DEPARTMENT OF PUBLIC SERVICE — *DATE*

CITY OF NEW ALBANY APPROVALS

PUBLIC SERVICE DIRECTOR — *DATE*

ARCADIS RESPONSE:
Complied

SIGNATURE SHEET

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 810-4900
www.arcadis.com

DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET 1 TOTAL 1

3973-E
DOW#23-107

FRA-161-15.80 NOISE WALLS

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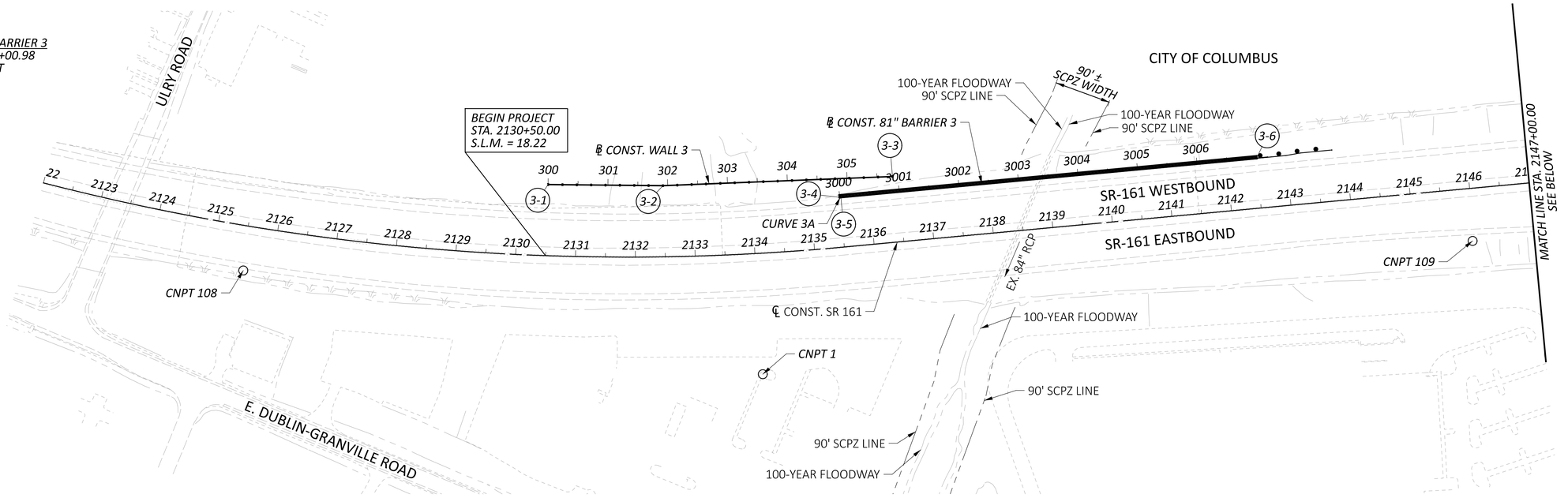
Make this a separate PDF for next submission.

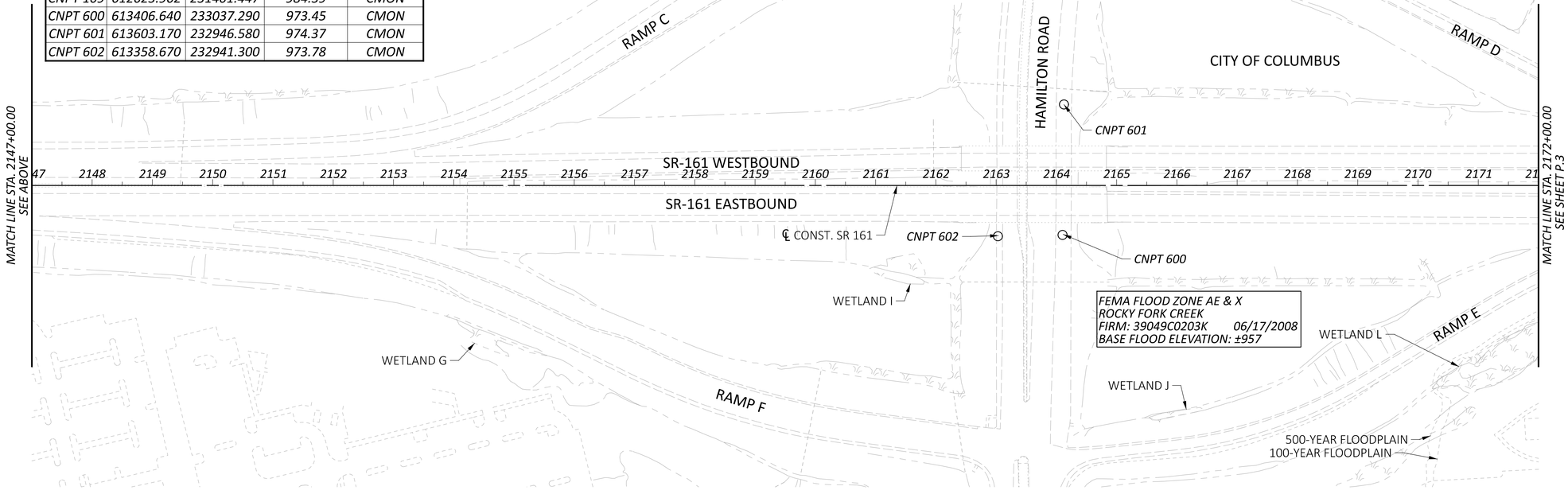
BASELINE GEOMETRY - NOISE WALL 3						
P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
3-1	300+00.00	2130+50.00	119.00' LT	612183.0140	229916.9520	N 70°31'40" E
3-2	301+92.00	2132+48.06	119.00' LT	612247.0170	230097.9700	N 67°40'14" E
3-3	305+76.00	2136+41.07	110.00' LT	612392.9100	230453.1760	N/A

BASELINE GEOMETRY - 81" BARRIER 3						
P.I. NUMBER	81" BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
3-4	3000+00.00	2135+50.00	83.50' LT	612329.9490	230382.2990	CURVE 3A
3-5	3000+01.96	2135+52.00	83.50' LT	612330.7890	230384.0710	N 64°36'58" E
3-6	3006+99.96	2142+50.00	83.50' LT	612630.0060	231014.6800	N/A

3A CURVE DATA
℄ CONST. 81" BARRIER 3
P.I. = STA. 3000+00.98
Δ = 00°01'46" LT
Dc = 01°29'57"
R = 3,822.15'
T = 0.98'
L = 1.96'
E = 0.00'



PRIMARY PROJECT CONTROL INFORMATION				
POINT NUMBER	PROJECT COORDINATES IN. FEET		ORTHMETRIC HEIGHT (ELEVATION)	DESCRIPTION
	NORTHING	EASTING		
CNPT 1	612007.986	230362.769	972.55	CMON
CNPT 108	611873.460	229487.357	953.59	CMON
CNPT 109	612623.962	231401.447	984.39	CMON
CNPT 600	613406.640	233037.290	973.45	CMON
CNPT 601	613603.170	232946.580	974.37	CMON
CNPT 602	613358.670	232941.300	973.78	CMON



HORIZONTAL SCALE IN FEET
0 50 100 200

SCHEMATIC PLAN
STA. 2122+00.00 TO STA. 2172+00.00

FRA-161-15.80 NOISE WALLS

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DESIGN AGENCY
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8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

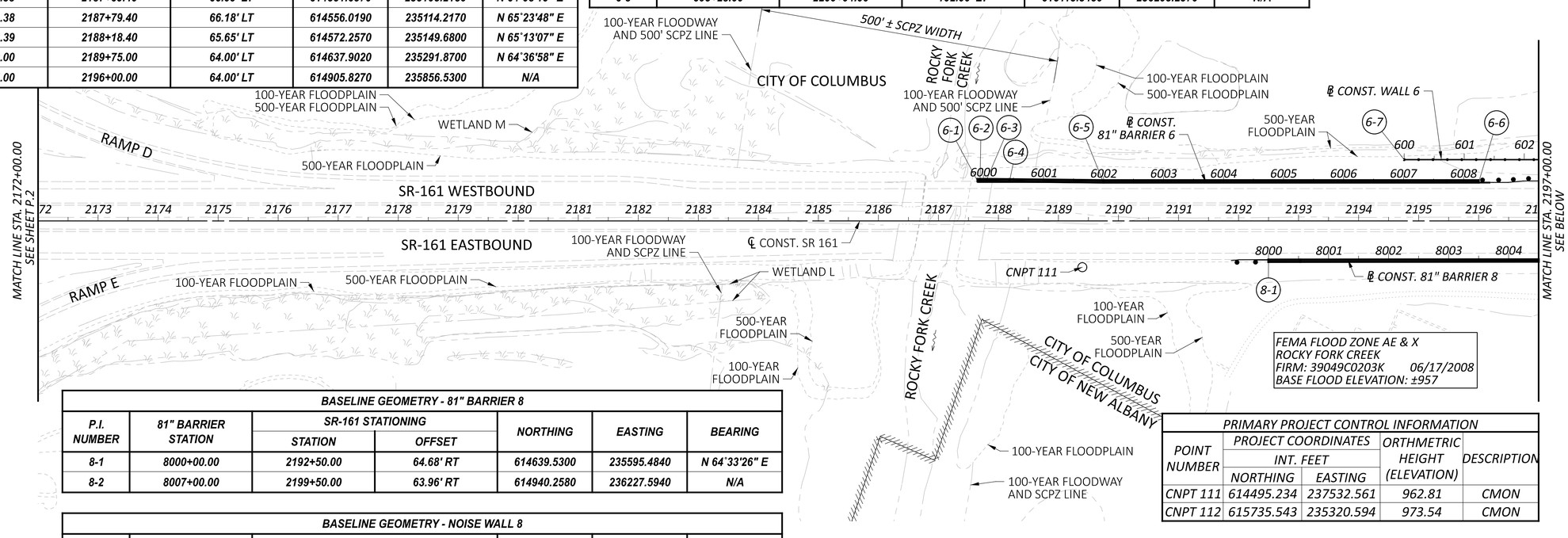
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.2 TOTAL P.276

BASELINE GEOMETRY - 81" BARRIER 6

P.I. NUMBER	81" BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
6-1	5999+90.38	2187+65.40	66.09' LT	614549.9420	235101.6040	N 64°36'58" E
6-2	5999+94.38	2187+69.40	66.09' LT	614551.6570	235105.2180	N 64°08'19" E
6-3	6000+04.38	2187+79.40	66.18' LT	614556.0190	235114.2170	N 65°23'48" E
6-4	6000+43.39	2188+18.40	65.65' LT	614572.2570	235149.6800	N 65°13'07" E
6-5	6002+00.00	2189+75.00	64.00' LT	614637.9020	235291.8700	N 64°36'58" E
6-6	6008+25.00	2196+00.00	64.00' LT	614905.8270	235856.5300	N/A

BASELINE GEOMETRY - NOISE WALL 6

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
6-7	600+00.00	2194+76.00	102.00' LT	614887.0020	235728.2120	N 64°36'58" E
6-8	605+28.00	2200+04.00	102.00' LT	615113.3450	236205.2370	N/A



FEMA FLOOD ZONE AE & X
ROCKY FORK CREEK
FIRM: 39049C0203K 06/17/2008
BASE FLOOD ELEVATION: ±957

BASELINE GEOMETRY - 81" BARRIER 8

P.I. NUMBER	81" BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
8-1	8000+00.00	2192+50.00	64.68' RT	614639.5300	235595.4840	N 64°33'26" E
8-2	8007+00.00	2199+50.00	63.96' RT	614940.2580	236227.5940	N/A

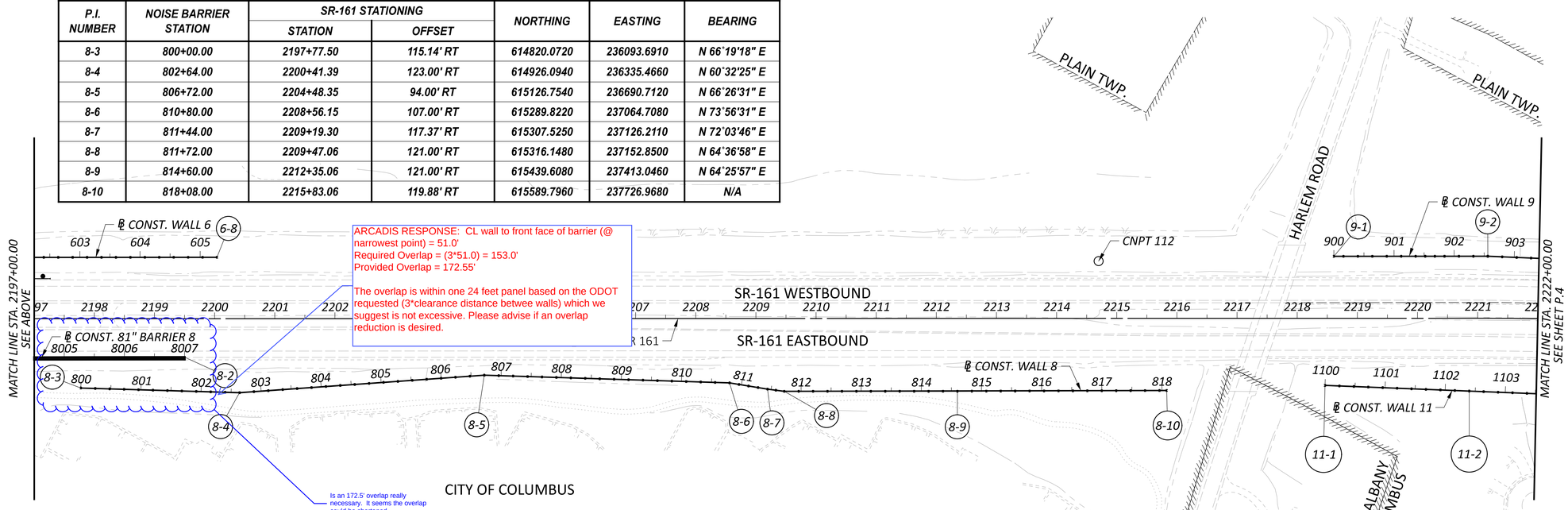
BASELINE GEOMETRY - NOISE WALL 8

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
8-3	800+00.00	2197+77.50	115.14' RT	614820.0720	236093.6910	N 66°19'18" E
8-4	802+64.00	2200+41.39	123.00' RT	614926.0940	236335.4660	N 60°32'25" E
8-5	806+72.00	2204+48.35	94.00' RT	615126.7540	236690.7120	N 66°26'31" E
8-6	810+80.00	2208+56.15	107.00' RT	615289.8220	237064.7080	N 73°56'31" E
8-7	811+44.00	2209+19.30	117.37' RT	615307.5250	237126.2110	N 72°03'46" E
8-8	811+72.00	2209+47.06	121.00' RT	615316.1480	237152.8500	N 64°36'58" E
8-9	814+60.00	2212+35.06	121.00' RT	615439.6080	237413.0460	N 64°25'57" E
8-10	818+08.00	2215+83.06	119.88' RT	615589.7960	237726.9680	N/A

ARCADIS RESPONSE: CL wall to front face of barrier (@ narrowest point) = 51.0'
Required Overlap = (3*51.0) = 153.0'
Provided Overlap = 172.55'

The overlap is within one 24 feet panel based on the ODOT requested (3*clearance distance betwee walls) which we suggest is not excessive. Please advise if an overlap reduction is desired.

Is an 172.5' overlap really necessary. It seems the overlap could be shortened.



BASELINE GEOMETRY - NOISE WALL 9

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
9-1	900+00.00	2218+61.00	103.00' LT	615910.3080	237882.5260	N 64°36'58" E
9-2	902+56.00	2221+17.00	103.00' LT	616020.0500	238113.8110	N 67°00'42" E

BASELINE GEOMETRY - NOISE WALL 11

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
11-1	1100+00.00	2218+46.22	111.43' RT	615710.2410	237961.0980	N 66°54'02" E
11-2	1102+40.00	2220+86.03	121.00' RT	615804.4000	238181.8560	N 66°54'02" E

PRIMARY PROJECT CONTROL INFORMATION

POINT NUMBER	PROJECT COORDINATES (INT. FEET)		ORTHMETRIC HEIGHT (ELEVATION)	DESCRIPTION
	NORTHING	EASTING		
CNPT 111	614495.234	237532.561	962.81	CMON
CNPT 112	615735.543	235320.594	973.54	CMON

HORIZONTAL SCALE IN FEET
0 50 100 200

SCHEMATIC PLAN
STA. 2172+00.00 TO STA. 2222+00.00

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:36:06 PM USER: jennifer.kelley
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DESIGN AGENCY
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8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.3 TOTAL P.276

BASELINE GEOMETRY - NOISE WALL 9

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
9-3	905+92.00	2224+44.48	103.00' LT	616151.2730	238423.1270	N 71°48'52" E
9-4	909+28.00	2227+71.94	103.00' LT	616256.1370	238742.3440	N 76°49'40" E
9-5	912+70.00	2231+05.30	102.00' LT	616334.0720	239075.3460	N/A

10C *CURVE DATA*
℄ CONST. 81" BARRIER 10
P.I. = STA. 1008+34.43
Δ = 07°09'57" RT
Dc = 01°25'57"
R = 4,000.00'
T = 250.46'
L = 500.27'
E = 7.83'

10D *CURVE DATA*
℄ CONST. 81" BARRIER 10
P.I. = STA. 1014+82.35
Δ = 15°41'58" LT
Dc = 04°46'29"
R = 1,200.00'
T = 165.44'
L = 328.81'
E = 11.35'

BASELINE GEOMETRY - 81" BARRIER 10

P.I. NUMBER	81" BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
10-1	1000+00.00	2230+00.00	64.00' LT	616275.1150	238977.7230	CURVE 10A
10-2	1002+35.65	2232+31.85	64.00' LT	616319.0190	239209.2100	CURVE 10B
10-3	1005+83.97	2235+74.40	68.24' LT	616362.8150	239554.7080	CURVE 10C
10-4	1010+84.24	2240+65.17	80.58' LT	616378.7570	240054.3970	S 88°14'40" E
10-5	1013+16.90	2242+97.76	86.40' LT	616371.6290	240286.9540	CURVE 10D
10-6	1016+45.71	2246+21.25	139.27' LT	616406.4270	240612.8820	N 76°03'22" E
10-7	1016+49.64	2246+25.00	140.43' LT	616407.3730	240616.6930	N/A

HORIZONTAL SCALE IN FEET
0 50 100 200

PLAIN TWP.
℄ CONST. WALL 9
CNPT 113
CURVE 10A
℄ CONST. 81" BARRIER 10
CURVE 10B
CURVE 10C
SR-161 WESTBOUND
SR-161 EASTBOUND
℄ CONST. SR 161
℄ CONST. WALL 11
CITY OF COLUMBUS
CURVE 12A
℄ CONST. 81" BARRIER 12
CURVE 12B
CURVE 12C
RAMP L
CURVE 10D
RAMP P
100-YEAR FLOODPLAIN
500-YEAR FLOODPLAIN
100-YEAR FLOODWAY
237' SCPZ LINE
237' ± SCPZ WIDTH
SUGAR RUN CREEK
℄ CONST. WALL 12
MATCH LINE STA. 2222+00.00 SEE SHEET P.3
MATCH LINE STA. 2247+00.00 SEE BELOW

FEMA FLOOD ZONE AE & X
SUGAR RUN CREEK
FIRM: 39049C0204K 06/17/2008
BASE FLOOD ELEVATION: ±974

10A *CURVE DATA*
℄ CONST. 81" BARRIER 10
P.I. = STA. 1001+17.86
Δ = 03°24'02" RT
Dc = 01°26'35"
R = 3,970.53'
T = 117.86'
L = 235.65'
E = 1.75'

10B *CURVE DATA*
℄ CONST. 81" BARRIER 10
P.I. = STA. 1004+09.87
Δ = 03°37'43" RT
Dc = 01°02'30"
R = 5,500.00'
T = 174.22'
L = 348.32'
E = 2.76'

PRIMARY PROJECT CONTROL INFORMATION

POINT NUMBER	PROJECT COORDINATES (INT. FEET) NORTHING	PROJECT COORDINATES (INT. FEET) EASTING	ORTHMETRIC HEIGHT (ELEVATION)	DESCRIPTION
CNPT 113	616310.840	239023.662	983.94	CMON
CNPT 114	616179.668	240871.345	994.94	CMON
CNPT 119	616308.858	241304.848	997.91	CMON

BASELINE GEOMETRY - NOISE WALL 11

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
11-3	1107+92.00	2226+53.96	107.22' RT	616020.9660	238689.5990	N 72°56'52" E
11-4	1110+32.00	2229+00.52	101.59' RT	616091.3440	238919.0480	N 76°27'22" E
11-5	1113+92.00	2232+69.24	86.81' RT	616175.6520	239269.0370	N 82°40'22" E
11-6	1115+84.00	2234+65.60	85.88' RT	616200.1390	239459.4690	N/A

NEW ALBANY ROAD
RAMP L
RAMP M
RAMP N
RAMP P
CNPT 119
CNPT 114
SR-161 WESTBOUND
SR-161 EASTBOUND
℄ CONST. SR 161
CITY OF COLUMBUS
CITY OF NEW ALBANY
MATCH LINE STA. 2247+00.00 SEE ABOVE
MATCH LINE STA. 2272+00.00 SEE SHEET P.5

12A *CURVE DATA*
℄ CONST. 81" BARRIER 12
P.I. = STA. 1201+22.78
Δ = 04°26'21" RT
Dc = 01°54'36"
R = 3,000.00'
T = 116.28'
L = 232.44'
E = 2.25'

12B *CURVE DATA*
℄ CONST. 81" BARRIER 12
P.I. = STA. 1204+10.25
Δ = 03°23'01" RT
Dc = 01°29'42"
R = 3,832.53'
T = 113.20'
L = 226.33'
E = 1.67'

12C *CURVE DATA*
℄ CONST. 81" BARRIER 12
P.I. = STA. 1206+37.33
Δ = 06°57'20" RT
Dc = 03°03'21"
R = 1,875.00'
T = 113.95'
L = 227.62'
E = 3.46'

BASELINE GEOMETRY - 81" BARRIER 12

P.I. NUMBER	81" BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
12-1	1200+00.00	2234+00.00	72.00' RT	616207.1220	239394.0850	N 83°25'39" E
12-2	1200+06.51	2234+06.63	71.99' RT	616207.8670	239400.5490	CURVE 12A
12-3	1202+38.95	2236+43.45	73.56' RT	616225.5050	239632.2600	N 87°52'00" E
12-4	1202+97.05	2237+02.68	74.00' RT	616227.6680	239690.3270	CURVE 12B
12-5	1205+23.39	2239+33.38	74.00' RT	616229.4120	239916.6190	CURVE 12C
12-6	1207+51.00	2241+63.30	82.30' RT	616210.6620	240143.3220	N/A

BASELINE GEOMETRY - NOISE WALL 12

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
12-7	120+00.00	2241+06.19	100.00' RT	616196.1680	240085.3170	S 86°49'03" E
12-8	120+24.00	2241+30.19	100.00' RT	616194.8350	240109.2800	S 84°25'26" E
12-9	121+44.00	2242+50.09	105.00' RT	616183.1750	240228.7120	S 79°37'52" E
12-10	122+64.00	2243+69.15	120.00' RT	616161.5770	240346.7530	S 74°47'14" E
12-11	123+84.00	2244+86.51	145.00' RT	616130.0880	240462.5480	S 67°50'46" E
12-12	124+97.00	2245+93.38	181.72' RT	616087.4760	240567.2050	N/A

SCHEMATIC PLAN
STA. 2222+00.00 TO STA. 2272+00.00

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
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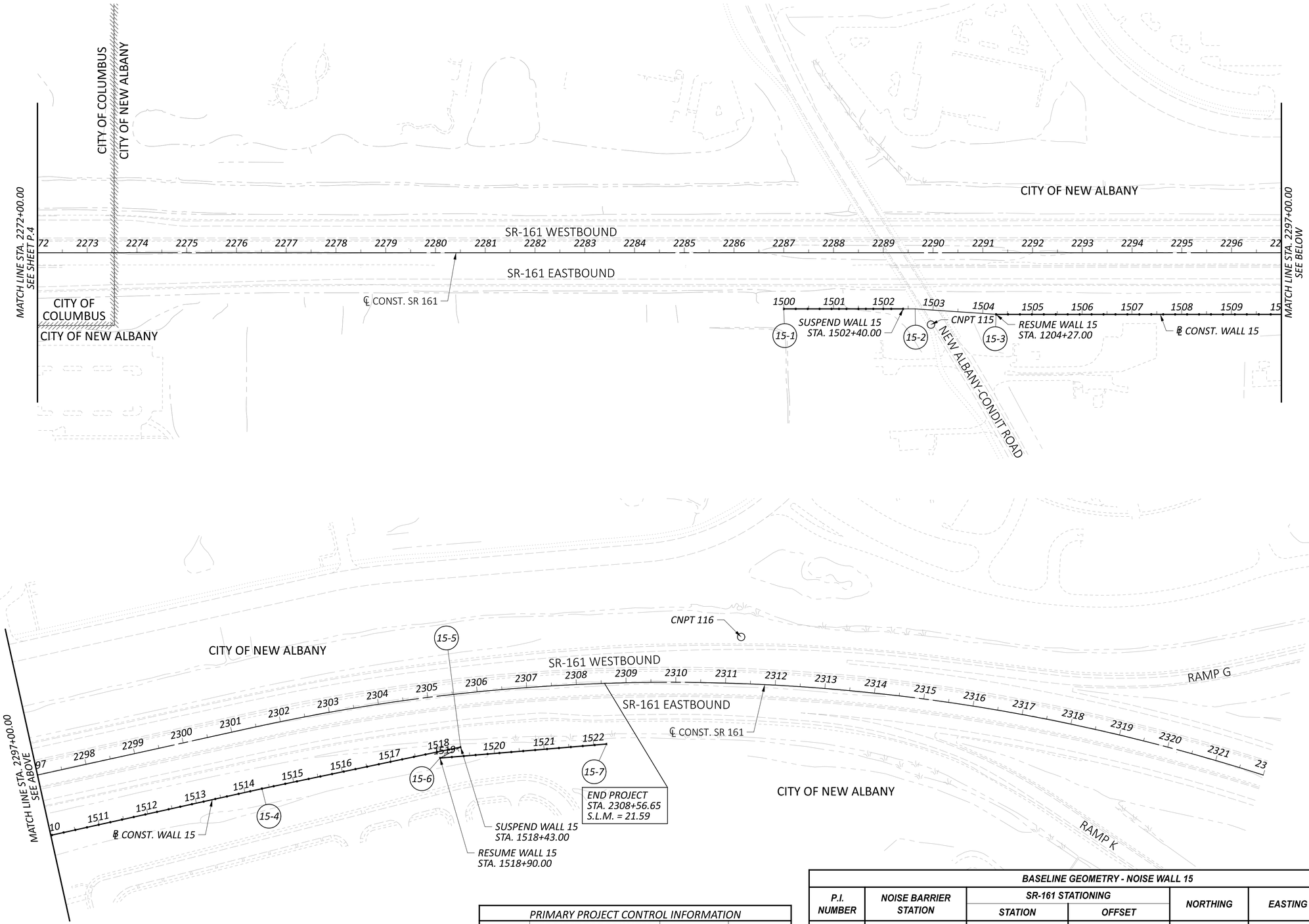
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.4 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:36:09 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GB001.dgn



FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 7 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 2:01:02 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GB001.dgn

SCHEMATIC PLAN
STA. 2272+00.00 TO STA. 2322+00.00

PRIMARY PROJECT CONTROL INFORMATION				
POINT NUMBER	PROJECT COORDINATES INT. FEET		ORTHMETRIC HEIGHT (ELEVATION)	DESCRIPTION
	NORTHING	EASTING		
CNPT 115	615879.718	244964.871	1045.73	CMON
CNPT 116	615870.875	247112.825	1043.63	CMON

BASELINE GEOMETRY - NOISE WALL 15

P.I. NUMBER	NOISE BARRIER STATION	SR-161 STATIONING		NORTHING	EASTING	BEARING
		STATION	OFFSET			
15-1	1500+00.00	2287+00.00	113.00' RT	615927.7020	244671.2920	S 86°48'42" E
15-2	1502+64.00	2289+64.00	113.00' RT	615913.0190	244934.8830	S 82°56'32" E
15-3	1504+27.00	2291+26.63	124.00' RT	615892.9920	245096.6480	S 86°48'42" E
15-4	1514+35.00	2301+34.63	124.00' RT	615836.9310	246103.0880	S 86°10'26" E
15-5	1518+43.00	2305+54.77	107.00' RT	615809.7050	246510.1780	S 77°45'25" W
15-6	1518+90.00	2305+09.61	124.00' RT	615799.7390	246464.2470	S 79°09'57" E
15-7	1522+26.00	2308+56.65	122.00' RT	615736.5810	246794.2580	N/A

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8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
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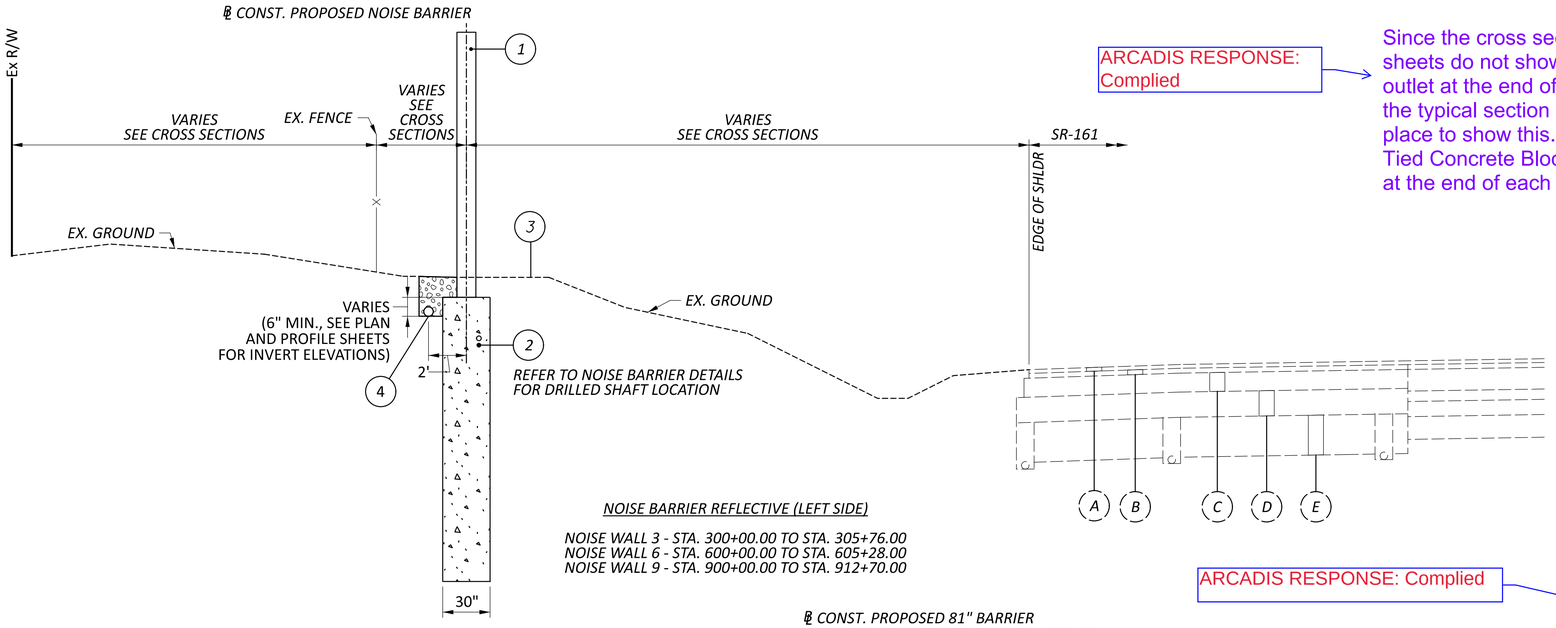
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.5 TOTAL P.276



ARCADIS RESPONSE: Complied

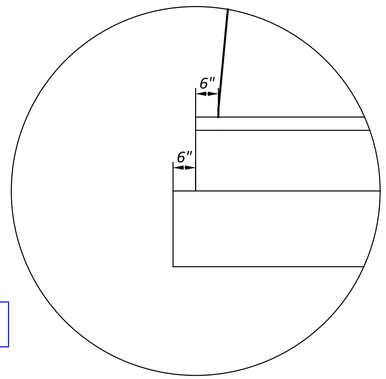
Since the cross sections and plan sheets do not show the precast outlet at the end of the underdrains, the typical section may be a good place to show this. Include the 4'x4' Tied Concrete Block Mat per DM-1.1 at the end of each precast outlet.

NOISE BARRIER REFLECTIVE (LEFT SIDE)

NOISE WALL 3 - STA. 300+00.00 TO STA. 305+76.00
NOISE WALL 6 - STA. 600+00.00 TO STA. 605+28.00
NOISE WALL 9 - STA. 900+00.00 TO STA. 912+70.00

ARCADIS RESPONSE: Complied

Here is the typical section for the left shoulder at Barrier 6 and Barrier 10 per 116322 widening plans. Probably need to split this typical out to accurately show aggregate slope direction and underdrain location.

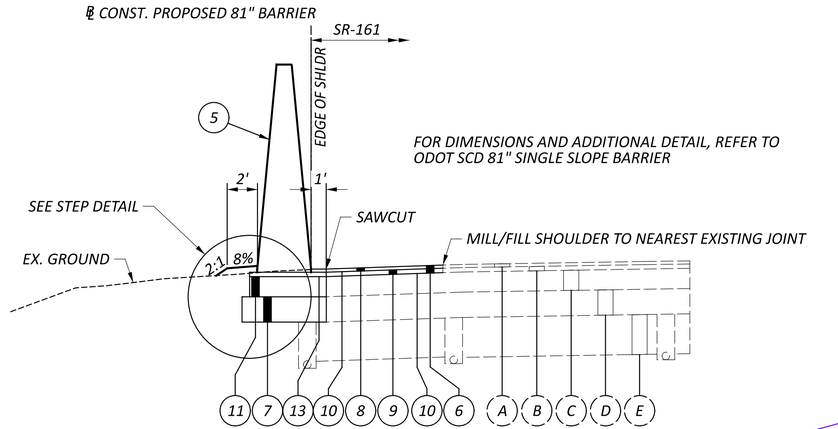


STEP DETAIL

81" BARRIERS 8, 10, 12

ARCADIS RESPONSE: Complied

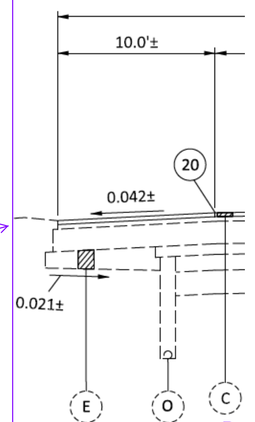
Add note along the lines of: do not disturb existing underdrains and ensure flow is maintained to the existing underdrains.



FOR DIMENSIONS AND ADDITIONAL DETAIL, REFER TO ODOT SCD 81" SINGLE SLOPE BARRIER

BARRIER, MISC.: 81" SINGLE SLOPE BARRIER (LEFT SIDE)

81" BARRIER 3 - STA. 3000+00.00 TO STA. 3006+99.96
81" BARRIER 6 - STA. 5999+90.38 TO STA. 6008+25.00
81" BARRIER 10 - STA. 1000+00.00 TO STA. 1012+70.07



NORMAL SECTION - SR 161
STA. 2164+82.58 TO STA. 2217+25.00

Barrier 6

Barrier 10 **SUPERELEVATED SECTION - SR 161**
STA. 2218+35.42 TO STA. 2243+47.71

LEGEND

1. *ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE)*
2. *ITEM 524 - DRILLED SHAFTS (TO BE PAID WITH ITEM 606 - SPECIAL - NOISE BARRIER)*
3. *ITEM 659 - SEEDING AND MULCHING*
4. *ITEM 605 - 6" UNCLASSIFIED UNDERDRAIN AND GRANULAR MATERIAL PER CMS 605.02 (GRANULAR MATERIAL INCLUDED WITH NOISE BARRIER FOR PAYMENT)*
5. *ITEM 622 - BARRIER, MISC.: 81" SINGLE SLOPE BARRIER*
6. *ITEM 254 - 3" PAVEMENT PLANING, ASPHALT CONCRETE*
7. *ITEM 304 - 10" AGGREGATE BASE*
8. *ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446)*
9. *ITEM 442 - 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE, 12.5 MM, TYPE A (446)*
10. *ITEM 407 - NON-TRACKING TACK COAT (APPLIED AT A RATE 0.085 GAL PER SY)*
11. *ITEM 451 - 8" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P*
12. *ITEM 451 - 9" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P*
13. *ITEM 407 - TACK COAT (APPLIED AT A RATE 0.055 GAL PER SY)*

ARCADIS RESPONSE: Complied

PID 116322 uses 442 - Asphalt Concrete Surface Course, 12.5 MM, Type A (446), As Per Plan, PG70-22M (sheets 42, 45, 46, 48) and has Item 872 - Void Reducing Asphalt Membrane at the shoulder/lane joint.

RATE AS PER CM&S TABLE 407.06-1

Don't state rate, just reference the CMS table using the text shown.

RATE AS PER CM&S TABLE 407.06-1

Don't state rate, just reference the CMS table using the text shown.

- A *1.5"± EX. ASPHALT CONCRETE SURFACE COURSE*
- B *1.75"± EX. ASPHALT CONCRETE INTERMEDIATE COURSE*
- C *7.5"± EX. ASPHALT CONCRETE BASE*
- D *10"± EX. AGGREGATE BASE*
- E *EX. SUBBASE (DEPTH VARIES)*
- F *3" ASPHALT ON 9" CONCRETE BASE ON 10" STONE BASE*
- G *3" ASPHALT ON 8" CONCRETE BASE ON 10" AGGREGATE BASE WITH 9" LIME SOIL STABILIZED SUBGRADE*

NOTE: FOOTER FOR 81" BARRIER WILL BE POURED SEPARATE FROM 81" BARRIER. PROVIDE DOWELS PER RM-4.3.

ARCADIS RESPONSE: Complied

DOWELS PER DOWELING DETAIL OF

TYPICAL SECTIONS

FRA-161-15.80 NOISE WALLS

MODEL: GY001 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:37:18 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720400_CAD\400-Engineering\Roadway\Sheets\117607_GY000.dgn

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DESIGNER NRS
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.6 TOTAL P.276

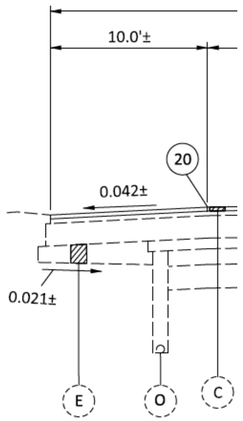
FOR LEGEND AND STEP DETAIL, SEE SHEET P.6

Plan sheet P.32 shows 1' sawcut in from edge of existing paved shoulder. It looks like the sawcut continues following 1' in from EOPS, but it could taper to the EOPS once the 4' min. is hit (like shown in this typical).

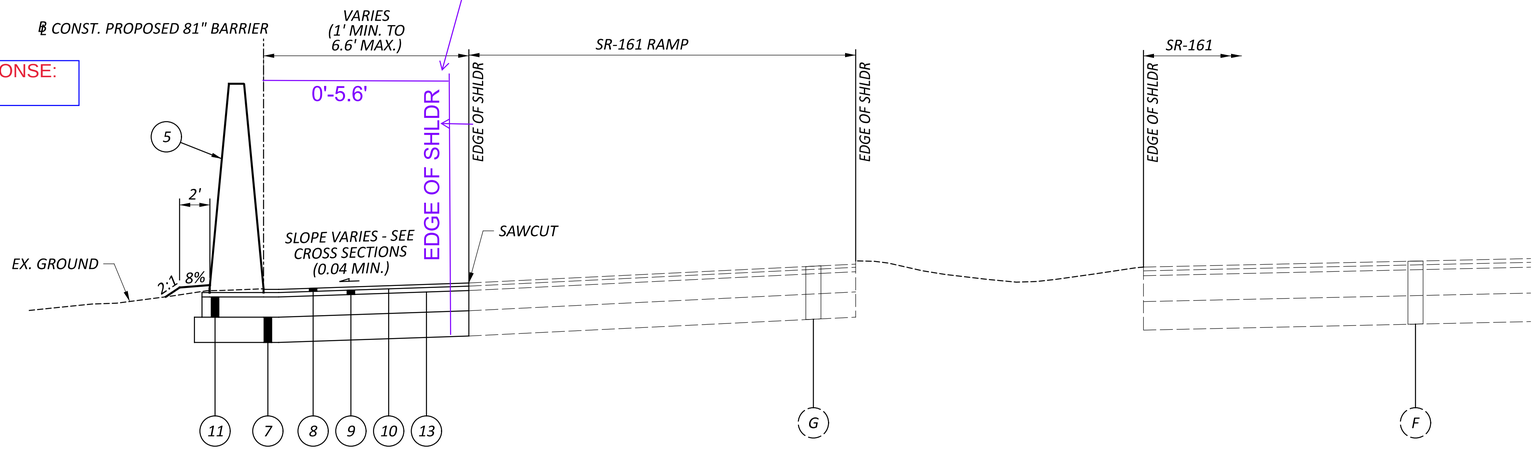
ARCADIS RESPONSE: Complied

ARCADIS RESPONSE: Complied

Here is the typical section for the left shoulder at Barrier 10 per 116322 widening plans. Accurately show aggregate slope direction and underdrain location.

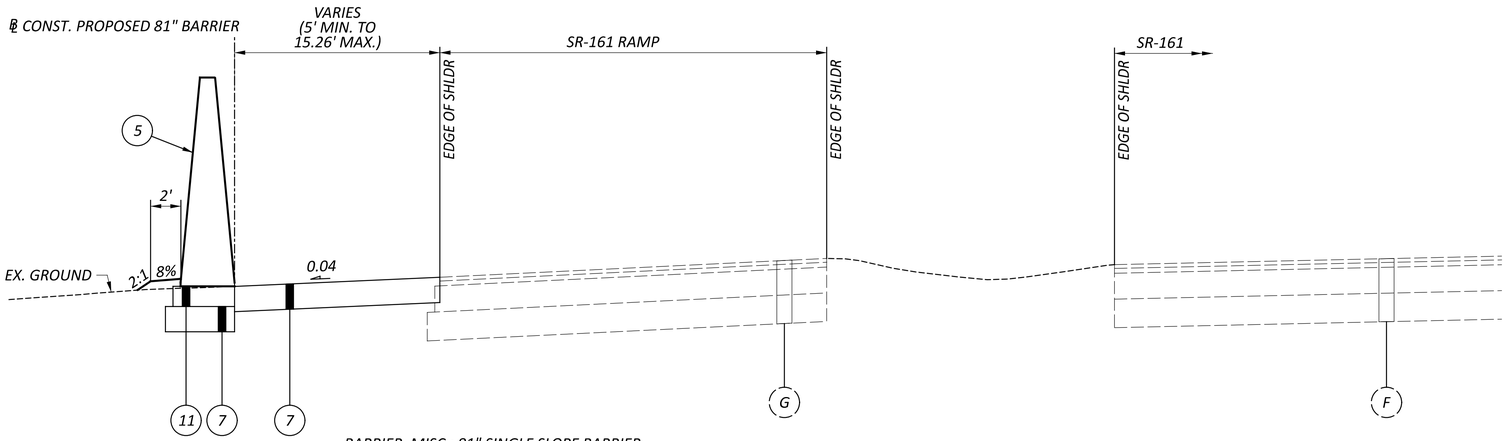


NORMAL SECTION - SR 161
STA. 2217+25.00 TO STA. 2218+35.42
STA. 2243+47.71 TO STA. 2298+56.36



BARRIER, MISC.: 81" SINGLE SLOPE BARRIER
(LEFT SIDE SHIFTED FROM EXISTING PAVEMENT EDGE)

81" BARRIER 10 - STA. 1012+70.07 TO STA. 1014+15.44



BARRIER, MISC.: 81" SINGLE SLOPE BARRIER
(LEFT SIDE SHIFTED FROM EXISTING PAVEMENT EDGE)

81" BARRIER 10 - STA. 1014+15.44 TO STA. 1016+49.64

TYPICAL SECTIONS

FRA-161-15.80 NOISE WALLS

MODEL: GY002 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:37:19 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GY000.dgn

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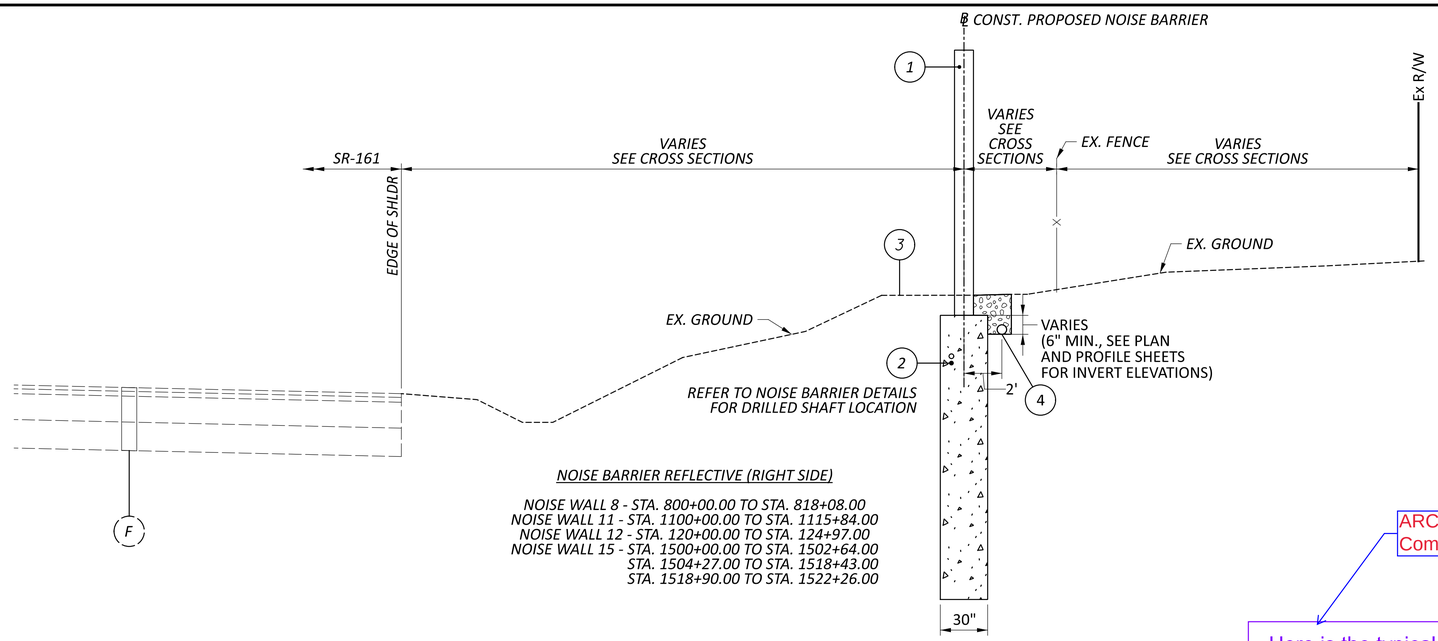
DESIGNER NRS
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.7 TOTAL P.276

FOR LEGEND AND STEP DETAIL, SEE SHEET P.6

ARCADIS RESPONSE:
Complied (typical added)

Typical section for paving and guardrail prior to Barrier 12? Maybe show on Wall 11's typical (~sta. 1114+15 to 1115+15). Paving width needs to be at least 4', from plan sheet P.37/P.276, it looks like it tapers to ~1'.

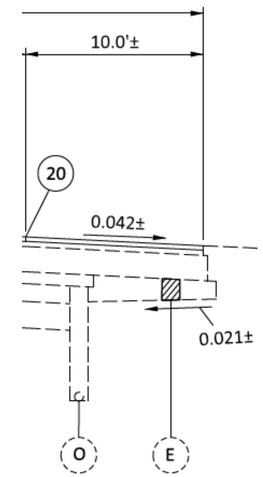


NOISE BARRIER REFLECTIVE (RIGHT SIDE)

NOISE WALL 8 - STA. 800+00.00 TO STA. 818+08.00
NOISE WALL 11 - STA. 1100+00.00 TO STA. 1115+84.00
NOISE WALL 12 - STA. 120+00.00 TO STA. 124+97.00
NOISE WALL 15 - STA. 1500+00.00 TO STA. 1502+64.00
STA. 1504+27.00 TO STA. 1518+43.00
STA. 1518+90.00 TO STA. 1522+26.00

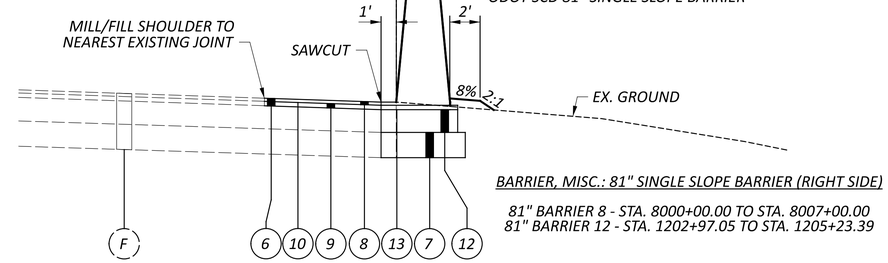
ARCADIS RESPONSE:
Complied

Here is the typical section for the left shoulder at Barrier 8 and Barrier 12 per 116322 widening plans. Accurately show aggregate slope direction and underdrain location.



NORMAL SECTION - SR 161 Barrier 8
STA. 2164+82.58 TO STA. 2217+25.00

SUPERELEVATED SECTION - SR 161 Barrier 12
STA. 2218+35.42 TO STA. 2243+47.71

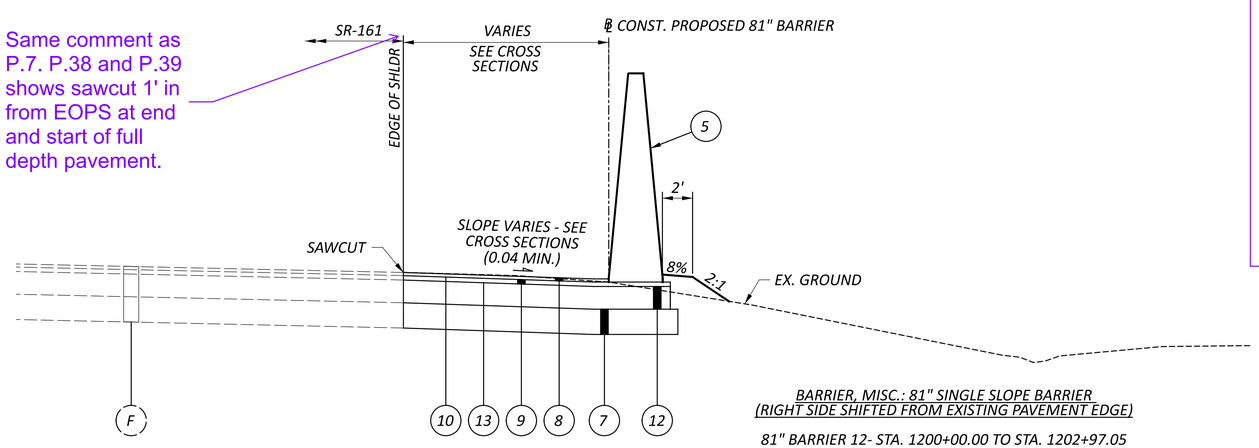


BARRIER, MISC.: 81" SINGLE SLOPE BARRIER (RIGHT SIDE)

81" BARRIER 8 - STA. 8000+00.00 TO STA. 8007+00.00
81" BARRIER 12 - STA. 1202+97.05 TO STA. 1205+23.39

ARCADIS RESPONSE:
Complied

Same comment as P.7. P.38 and P.39 shows sawcut 1' in from EOPS at end and start of full depth pavement.



BARRIER, MISC.: 81" SINGLE SLOPE BARRIER
(RIGHT SIDE SHIFTED FROM EXISTING PAVEMENT EDGE)

81" BARRIER 12- STA. 1200+00.00 TO STA. 1202+97.05
STA. 1205+23.39 TO STA. 1207+51.00

TYPICAL SECTIONS

FRA-161-15.80 NOISE WALLS

MODEL: GY003 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 1:14:15 PM USER: natalie.saklan
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\14372\0400_CAD\400-Engineering\Roadway\Sheets\117607_GY000.dgn

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DESIGNER NRS
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.8 TOTAL P.276

UTILITIES

LISTED BELOW ARE ALL UTILITIES LOCATED WITHIN THE PROJECT CONSTRUCTION LIMITS TOGETHER WITH THEIR RESPECTIVE OWNERS:

GAS
COLUMBIA GAS OF OHIO
3550 JOHNNY APPLESEED COURT
COLUMBUS, OH 43231
ATTN: ROB CALDWELL
OFFICE: 614-818-2104
CELL: 614-370-1906
CUSTOMER SERVICE: 1-800-344-4077
DAMAGE PREVENTION: 1-866-632-6243
COLUMBIAGAS_COLUMBUSENG@NISOURCE.COM
RCALDWELL@NISOURCE.COM

COLUMBIA GAS OF OHIO
TRANSMISSION
1600 EASTGATE PKWY
GAHANNA, OH 43230
ATTN: ROBERT REED
PHONE: 740-279-0870
ROBERT1_REED@TCENERGY.COM

TELEPHONE/CABLE/FIBER
AMERICAN ELECTRIC POWER (TELECOM)
777 HOPEWELL DRIVE
HEATH, OHIO 43056
ATTN: UNA BLANUSA
AEP SOLUTION CENTER: 800-277-2177
OHFIBERRELOCATE@AEP.COM

AT&T - OHIO
111 N. 4TH STREET
COLUMBUS, OH 43215
ATTN: DONALD G. MARSHALL, JR.
CELL: 614-216-2396
AT&T REPAIR SERVICE: 888-611-4466
DAMAGE PREVENTION: 937-296-3929
G01553@ATT.COM

AT&T (TRANSMISSION)
METROPOLITAN COMM. GROUP OHIO (MCG)
155 COMMERCE PARK DRIVE, SUITE 1
WESTERVILLE, OH 43082
ATTN: JAMES SCHNEIDER (PROJECT MANAGER)
CELL: 440-525-4322
JAMES.SCHNEIDER@MCGFIBER.COM
ATTN: WILLIAM TAGGART (FIELD ENGINEER)
CELL: 614-370-5414

CHARTER COMMUNICATIONS / SPECTRUM
3760 INTERCHANGE ROAD
COLUMBUS, OH 43204
DL-MOH-CONSTRUCTION-FRELO-TEAM@CHARTER.COM

COLUMBUS FIBERNET
1600 WALCUTT ROAD
COLUMBUS, OH 43228
PHONE: 614-921-8524
ATTN: MATT BLACKSTONE
MABLACKSTONE@COLUMBUSFIBER.NET
CFNINFO@COLUMBUSFIBER.NET

LUMEN
250 W. OLD WILSON BRIDGE, SUITE 130
WORTHINGTON, OH 43085
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RELOCATIONS@LUMEN.COM
RELOCATIONS@BRIGHTSPEED.COM
HALEY.WOOD@LUMEN.COM

CROWN CASTLE FIBER
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CELL: 614-940-2462
JON.TARNOWSKI@CROWNCASTLE.COM

VERIZON BUSINESS (AKA MCI/XO)
757 COMMERCE CT.
LEWIS CENTER, OH 43035
CELL: 614-593-6685 (MAURICE JONES)
CELL: 614-816-0361 (BOB DILLOW)
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BRIAN.ANSEL@VERIZON.COM
TERRY.SHUMATE@VERIZONWIRELESS.COM
JOHN.CORNELL@VERIZONWIRELESS.COM
MICHAEL.HENNON@VERIZONWIRELESS.COM
MICHAEL.BONDY@VERIZONWIRELESS.COM
SVEN.CHRISTIANSON@VERIZONWIRELESS.COM

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CITY OF COLUMBUS DIVISION OF WATER
910 DUBLIN RD.
COLUMBUS, OH 43215
PHONE: 614-645-7788

WATER (CONT.)
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PHONE: 614-882-6586 X50559
JELOGAN@AQUAAMERICA.COM

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PUBLICSERVICE@NEWALBANYOHIO.ORG

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ATTN: PAUL PAXTON
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AEP SOLUTION CENTER: 800-277-2177
PTPAXTON@AEP.COM

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PHONE: 380-205-5072
TL_PUBLICPROJECTS@AEP.COM

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DIVISION OF POWER
3500 INDIANOLA AVE.
COLUMBUS, OH 43214
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PHONE: 614-645-7569
DISPATCH CENTER: 614-645-7627
CRHORNER@COLUMBUS.GOV

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CITY OF COLUMBUS DPU
DIVISION OF SEWERAGE & DRAINAGE
1250 FAIRWOOD AVENUE
COLUMBUS, OH 43206
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ATTN: BRAD HEGWOOD
PHONE: 614-560-0839
BDHEGWOOD@COLUMBUS.GOV

ODOT DISTRICT 6 TRAFFIC
400 E. WILLIAM STREET
DELAWARE, OH 43015
PHONE: 740-833-8000
ATTN: TROY BRYANT

CITY OF NEW ALBANY
PUBLIC SERVICE
7800 BEVELHYMER ROAD
NEW ALBANY, OH 43054
PHONE: 614-855-0076
PUBLICSERVICE@NEWALBANYOHIO.ORG

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE SHEET P.2 - P.5 OF THE PLANS FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

USE THE FOLLOWING PROJECT CONTROL, VERTICAL POSITIONING, AND HORIZONTAL POSITIONING PARAMETERS FOR ALL SURVEYING:

PROJECT CONTROL

POSITIONING METHOD: ODOT VRS
MONUMENT TYPE: CLASS A

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID 18

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: FRANKLIN COUNTY LDP
COMBINED FACTOR SCALE: 1.00000000
ORIGIN OF COORDINATE SYSTEM: 0,0

USE THE POSITIONING METHODS AND MONUMENT TYPE USED IN THE ORIGINAL SURVEY TO RESTORE ALL MONUMENTS RELATED TO PRIMARY PROJECT CONTROL THAT ARE DAMAGED OR DESTROYED BY CONSTRUCTION ACTIVITIES. RESTORE THE DAMAGED OR DESTROYED MONUMENTS IN ACCORDANCE WITH CMS 623.

UNITS ARE IN INTERNATIONAL FT (ft).

CONSTRUCTION NOISE

ACTIVITIES AND LAND USE ADJACENT TO THIS PROJECT MAY BE AFFECTED BY CONSTRUCTION NOISE. IN ORDER TO MINIMIZE ANY ADVERSE CONSTRUCTION NOISE IMPACTS, DO NOT OPERATE POWER-OPERATED CONSTRUCTION-TYPE DEVICES BETWEEN THE HOURS OF 7:00 PM AND 7:00 AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

ITEM 524 - DRILLED SHAFTS

FOLLOW STANDARD DRAWING NBS-1-09 AND THE DETAILS OF THESE PLANS.

PAYMENT FOR THIS ITEM SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE) UNLESS OTHERWISE NOTED, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE)

THIS ITEM WILL BE USED TO INSTALL REFLECTIVE FIBERGLASS NOISE PANELS. SEE SHEET P.196 FOR COLOR, TEXTURE, AND LOCATION OF INSTALLATION.

NOISE WALL CONSTRUCTION SHALL ADHERE TO NBS-1-09.

SEEDING AND MULCHING IS REQUIRED. FOR AREAS ADJACENT TO A RESIDENTIAL PROPERTY, USE CMS 659 LAWN MIXTURE.

PAYMENT FOR ALL OF THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID PER SQUARE FOOT FOR ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE) UNLESS OTHERWISE NOTED, AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.

ITEM SPECIAL - SURVEY CONTROL VERIFICATION

THE CONTRACTOR SHALL PERFORM THIS WORK TO VERIFY THE PROVIDED SURVEY CONTROL. THE CONTRACTOR WILL PERFORM THE VERIFICATION USING ONE OF THE TWO METHODS BELOW DEPENDENT UPON THE CONTRACTOR'S CHOSEN MEANS OF SURVEY CONTROL TO BE USED ON THE PROJECT. THE WORK SHALL BE PERFORMED UNDER THE DIRECT SUPERVISION OF AN OHIO LICENSED SURVEYOR.

1) IF USING GPS DEVICES TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL:
   A. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   B. PERFORM A SITE CALIBRATION UTILIZING THE AVAILABLE HORIZONTAL AND VERTICAL CONTROL POINTS PROVIDED IN THE PLAN.
   C. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.
2) IF USING CONVENTIONAL SURVEY INSTRUMENTATION TO ESTABLISH AND OR PROVIDE SUPPLEMENTAL HORIZONTAL AND VERTICAL SURVEY CONTROL:
   A. LOCATE VERTICAL CONTROL POINTS PROVIDED IN THE PLANS AND PERFORM A DIFFERENTIAL LEVEL CIRCUIT.
   B. LOCATE AND OBSERVE ANGLE AND DISTANCE TO ALL AVAILABLE HORIZONTAL CONTROL POINTS PROVIDED IN THE PLAN.
   C. PROVIDE A REPORT, SIGNED BY AN OHIO LICENSED SURVEYOR, TO THE PROJECT ENGINEER COMPARING THE OBSERVED DATA TO THE PLAN DATA ALONG WITH A NARRATIVE DETAILING ANY DISCREPANCIES FOUND.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NECESSARY TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE LUMP SUM BID ITEM.

A LUMP SUM QUANTITY FOR ITEM SPECIAL - SURVEY CONTROL VERIFICATION HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE WORK DESCRIBED ABOVE.

CROSSINGS AND CONNECTIONS TO EXISTING PIPES AND UTILITIES

WHERE PLANS PROVIDE FOR A PROPOSED CONDUIT TO BE CONNECTED TO, OR CROSS OVER OR UNDER AN EXISTING SEWER OR UNDERGROUND UTILITY, LOCATE THE EXISTING PIPES OR UTILITIES BOTH AS TO LINE AND GRADE BEFORE STARTING TO LAY THE PROPOSED CONDUIT.

IF IT IS DETERMINED THAT THE ELEVATION OF THE EXISTING CONDUIT, OR EXISTING APPURTENANCE TO BE CONNECTED, DIFFERS FROM THE PLAN ELEVATION OR RESULTS IN A CHANGE IN THE PLAN CONDUIT SLOPE, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WILL BE AFFECTED BY THE VARIANCE IN THE EXISTING ELEVATIONS.

IF IT IS DETERMINED THAT THE PROPOSED CONDUIT WILL INTERSECT AN EXISTING SEWER OR UNDERGROUND UTILITY IF CONSTRUCTED AS SHOWN ON THE PLAN, NOTIFY THE ENGINEER BEFORE STARTING CONSTRUCTION OF ANY PORTION OF THE PROPOSED CONDUIT WHICH WOULD BE AFFECTED BY THE INTERFERENCE WITH AN EXISTING FACILITY.

PAYMENT FOR ALL THE OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEM.

Will need to call out special coordination with TC Energy in the Utility Note and reference that language here.

ARCADIS RESPONSE: Complied (see new sheet P.11)

REVIEW OF DRAINAGE FACILITIES

PRIOR TO THE START OF WORK AND AGAIN BEFORE FINAL ACCEPTANCE, PERFORM AN INSPECTION WITH REPRESENTATIVES OF THE DEPARTMENT, CONTRACTOR AND LOCALS OF ALL EXISTING DRAINAGE FACILITIES THAT ARE TO REMAIN IN SERVICE WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCES IS DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION ARE MAINTAINED BY THE DEPARTMENT.

CONFIRM ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE-MENTIONED PARTIES ARE MAINTAINED AND LEFT IN A CONDITION COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. THE CONTRACTOR IS RESPONSIBLE TO CORRECT ANY CHANGE IN THE CONDITION RESULTING FROM THEIR OPERATIONS AS DIRECTED AND APPROVED BY THE ENGINEER.

ARCADIS RESPONSE: Complied

PAYMENT FOR ALL OPERATIONS DESCRIBED ABOVE IS INCLUDED IN THE CONTRACT PRICE FOR THE PERTINENT 611 CONDUIT ITEMS.

CITY OF COLUMBUS

Move note to be with other City of Columbus note.

FOR THE DIVISION OF POWER

THE DIVISION OF POWER (DOP) MAY HAVE UNDERGROUND OR OVERHEAD PRIMARY POWER, SECONDARY POWER, CONDUIT SYSTEMS AND STREET LIGHTING AT THIS WORK LOCATION. THE CONTRACTOR IS HEREBY REQUIRED TO CONTACT OUPS AT 811 OR 1-800-362-2764 FORTY EIGHT HOURS PRIOR TO CONDUCTING ANY ACTIVITY WITHIN THE CONSTRUCTION AREA.

ANY REQUIRED RELOCATION, SUPPORT, PROTECTION, OR ANY OTHER ACTIVITY CONCERNED WITH THE CITY'S ELECTRICAL FACILITIES IN THE CONSTRUCTION AREA IS TO BE PERFORMED BY THE CONTRACTOR UNDER THE DIRECTION OF DOP PERSONNEL AND AT THE EXPENSE OF THE PROJECT. DOP SHALL MAKE ALL FINAL CONNECTIONS TO DOP'S EXISTING ELECTRICAL SYSTEM AT THE EXPENSE OF THE PROJECT. THE CONTRACTOR SHALL USE MATERIAL AND MAKE REPAIRS TO A CITY OF COLUMBUS STREET LIGHTING SYSTEM BY FOLLOWING DOP'S "MATERIAL AND INSTALLATION SPECIFICATIONS" (MIS) AND THE CITY OF COLUMBUS "CONSTRUCTION AND MATERIAL SPECIFICATIONS" (CMSC). ANY NEW OR RE-INSTALLED UNDERGROUND STREETLIGHT SYSTEM SHALL REQUIRE TESTING AS REFERRED TO IN SECTION 1001.18 OF THE CMSC MANUAL. THE CONTRACTOR SHALL CONFORM TO DOP'S EXISTING STREET LIGHTING LOCKOUT/TAGOUT (LOTO) PROCEDURE, MIS-01, COPIES OF WHICH ARE AVAILABLE FROM DOP.

IF ANY ELECTRIC FACILITY BELONGING TO DOP IS DAMAGED IN ANY MANNER BY THE CONTRACTOR, ITS AGENTS, SERVANTS, OR EMPLOYEES, AND REQUIRES EMERGENCY REPAIRS, THE DOP DISPATCH OFFICE SHOULD BE CONTACTED IMMEDIATELY AT (614) 645-7627. DOP SHALL MAKE ALL NECESSARY REPAIRS, AND THE EXPENSE OF SUCH REPAIRS AND OTHER RELATED COSTS SHALL BE PAID BY THE CONTRACTOR TO THE DIVISION OF POWER, CITY OF COLUMBUS, OHIO.

GENERAL NOTES

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DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.9 TOTAL P.276

MODEL: Sheet_SurvFI PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:37:36 PM USER: jennifer.kelley
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EXISTING SUBSURFACE DRAINAGE
PROVIDE UNOBSTRUCTED OUTLETS FOR ALL EXISTING UNDERDRAINS OR AGGREGATE DRAINS ENCOUNTERED DURING CONSTRUCTION.

PROVIDE AN OUTLET PER STANDARD CONSTRUCTION DRAWING DM-1.1 FOR ALL UNDERDRAINS THAT OUTLET TO A SLOPE. UNDERDRAINS THAT CAN BE CONNECTED TO THE NEW OR EXISTING UNDERDRAINS AT THE END OF THE PROJECT LIMITS AS WELL AS ALL NECESSARY BENDS OR BRANCHES REQUIRED FOR CONNECTION ARE INCLUDED IN THE BASIS OF PAYMENT FOR UNCLASSIFIED PIPE UNDERDRAINS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 601, TIED CONCRETE BLOCK MAT, TYPE 1 ____ SQ. YD.
ITEM 605, AGGREGATE DRAINS ____ FT.
ITEM 611, ____" CONDUIT, TYPE F ____ FT.
ITEM 611, PRECAST REINFORCED CONCRETE OUTLET ____ EACH
ITEM 605, ____" UNCLASSIFIED PIPE UNDERDRAINS ____ FT.

ITEM SPECIAL - AS-BUILT CONSTRUCTION RECORD DRAWINGS
PRIOR TO FINAL ACCEPTANCE OF THE WORK, THE CONTRACTOR SHALL FURNISH THE DEPARTMENT FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING PLANS. THE FORMAL AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL INCLUDE ALL RED-LINED CHANGES. RED-LINE CHANGE SHALL BE DENOTED UTILIZING CLOUDING IN MICROSTATION (OR OTHER CAD SOFTWARE) OR CLOUDING IN PDF EDITING SOFTWARE. THE AS-BUILT CONSTRUCTION RECORD-DRAWING SHALL HAVE A SIGNED VERIFICATION ON THE TITLE SHEET FROM THE CONTRACTOR INDICATING THAT ALL RED-LINED AND FIELD CHANGES HAVE BEEN INCORPORATED INTO AS-BUILT CONSTRUCTION RECORD-DRAWINGS. THE CONTRACTOR'S VERIFICATION STATEMENT INDICATES ALL KNOWN FIELD MODIFICATIONS MADE HAVE BEEN INCLUDED IN THE FORMAL RECORD-DRAWING.

THE CONTRACTOR'S VERIFICATION STATEMENT SHALL BE SIGNED BY THE CONTRACTOR'S PROJECT MANAGER (OR ACCEPTABLE REPRESENTATIVE).

IN ADDITION TO THE INFORMATION SHOWN ON THE CONSTRUCTION PLANS, THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL SHOW THE FOLLOWING:

1. ALL DEVIATIONS FROM THE ORIGINAL APPROVED CONSTRUCTION PLANS WHICH RESULT IN A CHANGE OF LOCATION, MATERIAL, TYPE OR SIZE OF WORK.
2. ANY UTILITIES, PIPES, WELLHEADS, ABANDONED PAVEMENTS, FOUNDATIONS OR OTHER MAJOR OBSTRUCTIONS DISCOVERED AND REMAINING IN PLACE WHICH ARE NOT SHOWN, OR DO NOT CONFORM TO LOCATIONS OR DEPTHS SHOWN IN THE PLANS. UNDERGROUND FEATURES SHALL BE SHOWN AND LABELED ON THE RECORD-DRAWING PLAN IN TERMS OF STATION, OFFSET AND ELEVATION.
3. THE FINAL OPTION AND SPECIFICATION NUMBER SELECTED FOR THOSE ITEMS WHICH ALLOW SEVERAL MATERIAL OPTIONS UNDER THE SPECIFICATION (E.G., CONDUIT).
4. CHANGES TO THE PAY ITEMS AND FINAL QUANTITIES AS PAID SHALL BE SHOWN ON THE GENERAL SUMMARY AND SUBSUMMARIES.
5. ADDITIONAL PLAN SHEETS MAY BE NEEDED IF NECESSARY TO SHOW WORK NOT INCLUDED IN THE CONSTRUCTION PLANS. IF ADDITIONAL PLAN SHEETS ARE NEEDED, THEY ARE REQUIRED TO BE PREPARED IN CONFORMANCE WITH THE LOCATION AND DESIGN MANUAL, VOLUME 3, SECTION 1200 - PLAN PREPARATION.

NOTATION SHALL ALSO BE MADE OF LOCATIONS AND THE EXTENT OF USE OF MATERIALS, OTHER THAN SOIL, FOR EMBANKMENT CONSTRUCTION (ROCK, BROKEN CONCRETE WITHOUT REINFORCING STEEL, ETC.).

THE PLAN INDEX SHALL SHOW THE PLAN SHEETS WHICH HAVE CHANGES APPEARING ON THEM. TWO COPIES OF THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS SHALL BE DELIVERED TO THE PROJECT ENGINEER FOR APPROVAL UPON COMPLETION OF THE PHYSICAL WORK BUT PRIOR TO THE REQUEST FOR FINAL PAYMENT. AFTER THE DEPARTMENT HAS APPROVED THE AS-BUILT CONSTRUCTION RECORD-DRAWINGS, THE ASSOCIATED ELECTRONIC FILES SHALL BE DELIVERED TO THE DISTRICT CAPITAL PROGRAMS ADMINISTRATOR. ACCEPTANCE OF THESE PLANS AND DELIVERY OF THE ASSOCIATED ELECTRONIC FILES IS REQUIRED PRIOR TO THE WORK BEING ACCEPTED AND THE FINAL ESTIMATE APPROVED.

PAYMENT FOR ALL THE ABOVE SHALL BE LUMP SUM UPON PROPER EXECUTION OF ALL WORK OF THIS ITEM AS DETERMINED BY THE PROJECT ENGINEER.

ITEM 606 - ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)
THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE GUARDRAIL END TERMINALS FOR TYPE MGS GUARDRAIL AS LISTED ON ROADWAY ENGINEERING'S WEB PAGE UNDER ROADSIDE SAFETY DEVICES FOR APPROVED GUARDRAIL END TREATMENTS. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH A SHEET OF TYPE G REFLECTIVE SHEETING, PER CMS 730.19.

REFER TO THE MANUFACTURER'S INSTRUCTIONS REGARDING THE INSTALLATION OF, AND THE GRADING AROUND THE FOUNDATION TUBES AND GROUND STRUT. THE TOP OF ANY FOUNDATION TUBE SHOULD BE LESS THAN 4 INCHES ABOVE THE GROUND. THE PLACEMENT OF THE FOUNDATION TUBES SHOULD BE AN APPROPRIATE DEPTH BELOW THE LEVEL LINE IN ORDER TO MAINTAIN THE FINISHED GUARDRAIL HEIGHT OF 31 INCHES FROM THE EDGE OF THE SHOULDER.

ON-SITE GRADING IS REQUIRED IF THE TOP OF THE FOUNDATION TUBES OR TOP OF THE GROUND STRUT DOES PROJECT MORE THAN 4 INCHES ABOVE THE GROUND LINE.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016), EACH, AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT A COMPLETE AND FUNCTIONAL ANCHOR ASSEMBLY SYSTEM, INCLUDING ALL RELATED TRANSITIONS, REFLECTIVE SHEETING, HARDWARE, GRADING, EMBANKMENT AND EXCAVATION NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

ITEM 633 - CONTROLLER WORK PAD, AS PER PLAN
IF NECESSARY, THE CONTRACTOR SHALL REPAIR THE CONCRETE WORK PAD IF DAMAGED DURING THE INSTALLATION OF THE NOISE WALL AND DRILLED SHAFTS. IF NECESSARY, THE CONTRACTOR SHALL GRADE THE SURROUNDING AREA SLIGHTLY IN ORDER TO INSTALL A LEVEL WORK PAD AND RESTORE SITE CONDITIONS AS APPROVED BY THE PROJECT ENGINEER. PAYMENT FOR ALL OF THE ABOVE WORK SHALL BE INCIDENTAL TO THE UNIT BID PRICE FOR ITEM 633, CONTROLLER WORK PAD, AS PER PLAN AND SHALL INCLUDE ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE ITEM.

CITY OF COLUMBUS DIVISION OF WATER GENERAL NOTES
THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2018 EDITION AND ALL REVISIONS, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN, UNLESS OTHERWISE NOTED.

ALL WATER MAIN MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER. ALL CITY OF COLUMBUS, DIVISION OF WATER STANDARD DRAWINGS SHALL APPLY TO THE PROJECT, UNLESS OTHERWISE NOTED.

FOR ANY EMERGENCIES INVOLVING THE WATER DISTRIBUTION SYSTEM, PLEASE CONTACT THE DIVISION OF WATER DISTRIBUTION MAINTENANCE OFFICE AT 614-645-7788.

ALL BRASS FITTINGS ASSOCIATED WITH WATER WORK, INCLUDING REPAIRS TO THE EXISTING SYSTEM, SHALL CONFORM TO THE REVISED ALLOWABLE LEAD EXTRACTION LIMIT PER THE UPDATED NSF/ANSI 61 STANDARD. THE DIVISION OF WATER'S APPROVED MATERIALS LIST HAS BEEN UPDATED TO REFLECT THIS REQUIREMENT.

IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER MAIN SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.

NO PERSON SHALL BEGIN CONSTRUCTION OR INSTALLATION OF A PUBLIC WATER MAIN UNTIL PLANS HAVE BEEN APPROVED BY THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA).

THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND PAY ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES & REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. PERMITS MAY BE OBTAINED BY ACCESSING HTTP://PORTAL.COLUMBUS.GOV/PERMITS/. COST TO BE INCLUDED IN THE VARIOUS BID ITEMS.

WHERE NEW CONDUIT IS PROPOSED TO CROSS AN EXISTING OR PROPOSED WATER MAIN OR WATER TAP/SERVICE LINE, A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE CONDUIT AND THE WATER MAIN OR TAP/SERVICE LINE. A MINIMUM OF 3-FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) IS REQUIRED AT LOCATIONS WHERE THE CONDUIT IS PARALLEL TO THE WATER MAIN AND AT LOCATIONS OF WATER MAIN THRUST BLOCKS.

I haven't seen this note before. Where did it come from?

ARCADIS RESPONSE: We removed the note. I don't recall the context of why Arcadis staff added this note. It was my (JDH) oversight for not catching this note being added and the note has been removed.

LOCATED AT SR 161 STA. XXXX+XX.XX, OFFSET XX.XX'
LT/NOISE WALL 9 STA. XXX+XX.XX, OFFSET X.XX' RT

ARCADIS RESPONSE: Complied

Add ODOT Post Construction BMP notes

CONVENTIONAL SYMBOLS

County Line
Township Line
Section Line
Corporation Line or
Fence Line (Ex) (Pr)
Center Line
Right of Way (Ex) Ex R/W
Right of Way (Pr) R/W
Standard Highway Ease.(Ex) Ex SH
Standard Highway Ease.(Pr) SH
Temporary Right of Way TMP
Channel Ease. (Pr) CH
Utility Ease. (Ex) Ex U
Railroad or
Guardrail (Ex) (Pr)
Construction Limits
Edge of Pavement (Ex)
Edge of Pavement (Pr)

Edge of Shoulder (Ex)
Edge of Shoulder (Pr)
Ditch / Creek (Ex)
Ditch / Creek (Pr)
Tree Line (Ex)
Ownership Hook Symbol , Example
Property Line Symbol , Example
Break Line Symbol , Example
Tree (Pr) Tree (Ex) Shrub (Ex)
Tree (Remove) , Shrub (Remove)
Evergreen (Ex) , Stump
Evergreen (Remove) , Stump (Remove)
Wetland (Pr) , Grass (Pr) , Aerial Target
Post (Ex) , Mailbox (Ex) MB , Mailbox (Pr) MB
Light (Ex) , Telephone Marker (Ex) TEL
Fire Hydrant (Ex) , Water Meter (Ex)
Water Valve (Ex) , Utility Valve Unknown (Ex.)
Telephone Pole (Ex) , Power Pole (Ex)
Light Pole (Ex)

GENERAL NOTES

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DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.10 TOTAL P.276

FRA-161-15.80 NOISE WALLS

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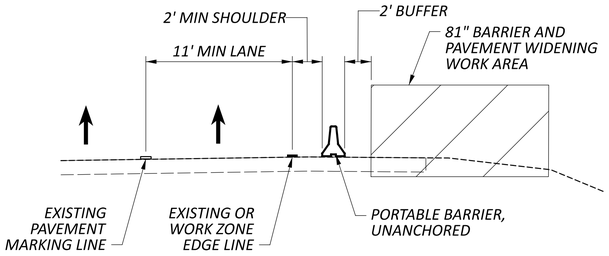
MAINTENANCE OF TRAFFIC SEQUENCE OF CONSTRUCTION

CONSTRUCT FOUNDATIONS, GRADING, PAVEMENT WIDENING, AND 81 INCH BARRIER 3 USING SHOULDER CLOSURES WITH PORTABLE BARRIER PER MT-95.45. RIGHT LANE WIDTH MAY BE REDUCED TO 11 FT MINIMUM.

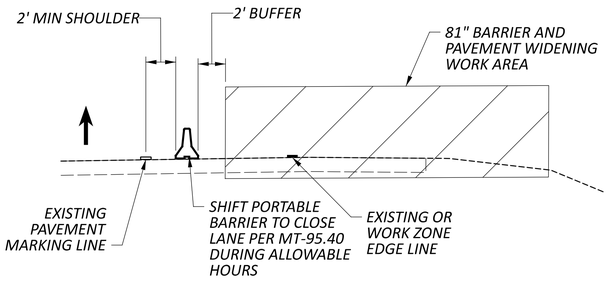
CONSTRUCT 81 INCH BARRIERS 6, 8, 10, AND 12 USING SINGLE LANE CLOSURES WITH PORTABLE BARRIER PER MT-95.40. LANE AND RAMP CLOSURES SHALL BE LIMITED TO HOURS LISTED IN THE LANE VALUE CONTRACT TABLE.

CONSTRUCT NOISE WALLS USING SHOULDER CLOSURES WITH DRUMS. ALL LANES ALONG SR-161 EASTBOUND AND WESTBOUND WILL BE MAINTAINED.

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS



SHOULDER CLOSURE



LANE CLOSURE

LANE VALUE CONTRACT TABLE				
CRITICAL WORK	RESTRICTED TIME PERIOD		TIME UNIT	DISINCENTIVE PER TIME UNIT
	WEEKDAY	WEEKEND		
SR-161 LANE CLOSURE	6 AM - 9 AM 2 PM - 7 PM	6 AM MON - 7 PM FRI	EACH MINUTE	$XX
NEW ALBANY RD TO SR-161 WB RAMP CLOSURE	6 AM - 7 PM	6 AM MON - 7 PM FRI	EACH MINUTE	$XX

Use attached tables: 0

Add note: ODOT RESERVES THE RIGHT TO AMED THE LANE AND RAMP CLOSURE TABLES. NO ADJACENT RAMP CLOSURES SHALL OCCUR CONCURRENTLY.

ITEM 614, MAINTAINING TRAFFIC

ALL EXISITING LANES ON SR-161 SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR SHORT TERM SINGLE LANE CLOSURES DURING ALLOWABLE PERIODS PER THE LANE VALUE CONTRACT TABLE. A MINIMUM OF ONE LANE OF TRAFFIC SHALL BE MAINTAINED ON RAMPS AT ALL TIMES EXCEPT THE NEW ALBANY RD TO SR-161 WB RAMP MAY BE CLOSED DURING ALLOWABLE PERIODS PER THE LANE VALUE CONTRACT TABLE.

NO WORK SHALL BE PERFORMED AND ALL TRAFFIC LANES SHALL BE OPEN TO TRAFFIC DURING THE FOLLOWING HOLIDAYS OR EVENTS:

ARCADIS RESPONSE: COMPLIED

Remove

NEW YEAR'S (OBSERVED)	LABOR DAY
~~TOTAL SOLAR ECLIPSE (4/8/24)~~	GENERAL/REGULAR ELECTION DAY (NOV)
MEMORIAL DAY	THANKSGIVING
FOURTH OF JULY (OBSERVED)	CHRISTMAS (OBSERVED)

THE PERIOD OF TIME THAT THE LANES ARE TO BE OPEN DEPENDS ON THE DAY OF THE WEEK ON WHICH THE HOLIDAY OR EVENT FALLS. THE FOLLOWING SCHEDULE SHALL BE USED TO DETERMINE THIS PERIOD:

DAY OF HOLIDAY OR EVENT	TIME ALL LANES MUST BE OPEN TO TRAFFIC
SUNDAY	12:00 N FRIDAY THROUGH 6:00 AM MONDAY
MONDAY	12:00 N FRIDAY THROUGH 6:00 AM TUESDAY
~~MONDAY (TOTAL SOLAR ECLIPSE)~~	~~12:00 N FRIDAY THROUGH 6:00 AM WEDNESDAY~~
TUESDAY	12:00 N MONDAY THROUGH 6:00 AM WEDNESDAY
TUESDAY (GEN./REG. ELECTION)	5:00 AM TUESDAY THROUGH 12:00 AM WEDNESDAY
WEDNESDAY	12:00 N TUESDAY THROUGH 6:00 AM THURSDAY
THURSDAY	12:00 N WEDNESDAY THROUGH 6:00 AM FRIDAY
THURSDAY (THANKSGIVING ONLY)	6:00 AM WEDNESDAY THROUGH 6:00 AM MONDAY
FRIDAY	12:00 N THURSDAY THROUGH 6:00 AM MONDAY
SATURDAY	12:00 N FRIDAY THROUGH 6:00 AM MONDAY

ARCADIS RESPONSE: COMPLIED

SHOULD THE CONTRACTOR FAIL TO MEET ANY OF THESE REQUIREMENTS, THE CONTRACTOR SHALL BE ASSESSED A DISINCENTIVE PER THE LANE VALUE CONTRACT (PN 127).

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF [illegible] OF TRAFFIC DEVICES SHALL BE [illegible] WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	SIGN DISPLAYED TO PUBLIC
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

ARCADIS RESPONSE: COMPLIED

[illegible]ISPLAY THE DATE OF THE CLOSURE IN MMM-DD [illegible] NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

FLOODLIGHTING

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

WORK ZONE MARKINGS

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

ITEM 614 -	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE 1 (WHITE)	xx MILE
ITEM 614 -	WORK ZONE DOTTED LINE, CLASS I, 6", 740.06, TYPE 1	XX FEET
ITEM 614 -	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 740.06, TYPE 1	XX FEET

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE.

INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT.

WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS (UNIDIRECTIONAL) __ EACH

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

DELINEATION OF PORTABLE AND PERMANENT BARRIER

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614,	PORTABLE BARRIER, UNANCHORED	__ FT
ITEM 614,	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)	__ EACH
ITEM 614,	OBJECT MARKER, ONE-WAY	__ EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

DUST CONTROL

THE CONTRACTOR SHALL FURNISH AND APPLY WATER FOR DUST CONTROL AS DIRECTED BY THE ENGINEER. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED FOR DUST CONTROL PURPOSES:

ITEM 616, WATER ___ M. GAL.

MAINTENANCE OF TRAFFIC GENERAL NOTES

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DESIGNER NRS/BSS

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.11 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:38:00 PM USER: jennifer.kelley
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ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS

USE OF LAW ENFORCEMENT OFFICERS (LEOS) BY CONTRACTORS OTHER THAN THE USES SPECIFIED BELOW WILL NOT BE PERMITTED AT PROJECT COST. LEOS SHOULD NOT BE USED WHERE THE OMUTCD INTENDS THAT FLAGGERS BE USED.

IN ADDITION TO THE REQUIREMENTS OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP-MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHALL BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS:

- DURING THE ENTIRE ADVANCE PREPARATION AND CLOSURE SEQUENCE WHERE COMPLETE BLOCKAGE OF TRAFFIC IS REQUIRED.

IN ADDITION TO THE REQUIREMENT OF C&MS 614 AND THE OMUTCD, A UNIFORMED LEO WITH AN OFFICIAL PATROL CAR (CAR WITH TOP MOUNTED EMERGENCY FLASHING LIGHTS AND COMPLETE MARKINGS OF THE APPROPRIATE LAW ENFORCEMENT AGENCY) SHOULD BE PROVIDED FOR THE FOLLOWING TRAFFIC CONTROL TASKS AS APPROVED BY THE ENGINEER:

- FOR LANE CLOSURES: DURING INITIAL SET-UP PERIODS, TEAR DOWN PERIODS, SUBSTANTIAL SHIFTS OF A CLOSURE POINT OR WHEN NEW LANE CLOSURE ARRANGEMENTS ARE INITIATED FOR LONG-TERM LANE CLOSURES/SHIFTS (FOR THE FIRST AND LAST DAY OF MAJOR CHANGES IN TRAFFIC CONTROL SETUP).

IN GENERAL, LEOS SHOULD BE POSITIONED IN ADVANCE OF AND ON THE SAME SIDE AS THE LANE RESTRICTION (OR AT THE POINT OF ROAD CLOSURE), AND TO MANUALLY CONTROL TRAFFIC MOVEMENTS THROUGH SIGNALIZED INTERSECTIONS IN WORK ZONES.

LEOS SHOULD NOT FORGO THEIR TRAFFIC CONTROL RESPONSIBILITIES TO APPREHEND MOTORISTS FOR ROUTINE TRAFFIC VIOLATIONS. HOWEVER, IF A MOTORIST'S ACTIONS ARE CONSIDERED TO BE RECKLESS, THEN PURSUIT OF THE MOTORIST IS APPROPRIATE.

THE LEOS WORK AT THE DIRECTION OF THE CONTRACTOR. THE CONTRACTOR IS RESPONSIBLE FOR SECURING THE SERVICES OF THE LEOS WITH THE APPROPRIATE AGENCIES AND COMMUNICATING THE INTENTIONS OF THE PLANS WITH RESPECT TO DUTIES OF THE LEOS. THE ENGINEER SHALL HAVE FINAL CONTROL OVER THE LEOS' DUTIES AND PLACEMENT, AND WILL RESOLVE ANY ISSUES THAT MAY ARISE BETWEEN THE TWO PARTIES.

ENSURE PROVIDED LEOS HAVE BEEN TRAINED APPROPRIATE TO THE JOB DECISIONS THEY ARE REQUIRED TO MAKE WHILE ON THE PROJECT, IN ACCORDANCE WITH C&MS 614.03.

THE LEO SHALL REPORT IN TO THE CONTRACTOR PRIOR TO THE START OF THE SHIFT, IN ORDER TO RECEIVE INSTRUCTIONS REGARDING SPECIFIC WORK ASSIGNMENTS DURING HIS/HER SHIFT. THE LEO IS EXPECTED TO STAY AT THE PROJECT SITE FOR THE ENTIRE DURATION OF HIS/HER SHIFT. THE LEO SHALL REPORT TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT. SHOULD IT BE NECESSARY TO LEAVE THE PROJECT SITE, THE LEO SHALL NOTIFY THE ENGINEER. THE CONTRACTOR SHALL PROVIDE THE LEO WITH A TWO-WAY COMMUNICATION DEVICE THAT SHALL BE RETURNED TO THE CONTRACTOR AT THE END OF HIS/HER SHIFT.

LEOS (WITH PATROL CAR) REQUIRED BY THE TRAFFIC MAINTENANCE TASKS ABOVE SHALL BE PAID FOR ON A UNIT PRICE (HOURLY) BASIS UNDER ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 300 HOURS

THE HOURS PAID SHALL INCLUDE ANY MINIMUM SHOW-UP TIME REQUIRED BY THE LAW ENFORCEMENT AGENCY INVOLVED.

ANY ADDITIONAL COSTS (ADMINISTRATIVE OR OTHERWISE) INCURRED BY THE CONTRACTOR TO OBTAIN THE SERVICES OF A LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN

THE CONTRACTOR SHALL FURNISH, INSTALL, MAINTAIN AND REMOVE, WHEN NO LONGER NEEDED, A CHANGEABLE MESSAGE SIGN. THE SIGN SHALL BE OF A TYPE SHOWN ON A LIST OF APPROVED PCMS UNITS AVAILABLE ON THE OFFICE OF MATERIALS MANAGEMENT WEB PAGE. THE LIST CONTAINS CLASS A AND B UNITS WITH MINIMUM LEGIBILITY DISTANCES OF 800 FEET AND 650 FEET, RESPECTIVELY.

EACH SIGN SHALL BE TRAILER-MOUNTED AND EQUIPPED WITH A FUNCTIONAL DIMMING MECHANISM, TO DIM THE SIGN DURING DARKNESS, AND A TAMPER AND VANDAL PROOF ENCLOSURE. EACH SIGN SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ON-SITE PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT. THE SIGN SHALL ALSO BE CAPABLE OF BEING POWERED BY AN ELECTRICAL SERVICE DROP FROM A LOCAL UTILITY COMPANY. THE PCMS SHALL BE DELINEATED IN ACCORDANCE WITH C&MS 614.03.

PLACEMENT, OPERATION, MAINTENANCE AND ALL ACTIVATION OF THE SIGNS BY THE CONTRACTOR SHALL BE AS DIRECTED BY THE ENGINEER. THE PCMS SHALL BE LOCATED IN A HIGHLY VISIBLE POSITION YET PROTECTED FROM TRAFFIC. THE CONTRACTOR SHALL, AT THE DIRECTION OF THE ENGINEER, RELOCATE THE PCMS TO IMPROVE VISIBILITY OR ACCOMMODATE CHANGED CONDITIONS. WHEN NOT IN USE, THE PCMS SHALL BE TURNED OFF. ADDITIONALLY, WHEN NOT IN USE FOR EXTENDED PERIODS OF TIME, THE PCMS SHALL BE TURNED AWAY FROM ALL TRAFFIC.

THE ENGINEER SHALL BE PROVIDED ACCESS TO EACH SIGN UNIT AND SHALL BE PROVIDED WITH APPROPRIATE TRAINING AND OPERATION INSTRUCTIONS TO ENABLE ODOT PERSONNEL TO OPERATE AND TROUBLESHOOT THE UNIT, AND TO REVISE SIGN MESSAGES, IF NECESSARY.

(THE CONTRACTOR SHALL IMPLEMENT A SYSTEM WHEREBY CHANGEABLE MESSAGES WILL BE IMPLEMENTED WITHIN _____ HOURS FOLLOWING TELEPHONE NOTIFICATION FROM THE PROJECT ENGINEER TO A DESIGNATED PHONE.)

ALL MESSAGES TO BE DISPLAYED ON THE SIGN WILL BE PROVIDED BY THE ENGINEER. A LIST OF ALL REQUIRED PRE-PROGRAMMED MESSAGES WILL BE GIVEN TO THE CONTRACTOR AT THE PROJECT PRECONSTRUCTION CONFERENCE. THE SIGN SHALL HAVE THE CAPABILITY TO STORE UP TO 99 MESSAGES. MESSAGE MEMORY OR PRE-PROGRAMMED DISPLAYS SHALL NOT BE LOST AS A RESULT OF POWER FAILURES TO THE ON-BOARD COMPUTER. THE SIGN LEGEND SHALL BE CAPABLE OF BEING CHANGED IN THE FIELD. THREE-LINE PRESENTATION FORMATS WITH UP TO SIX MESSAGE PHASES SHALL BE SUPPORTED. PCMS FORMAT SHALL PERMIT THE COMPLETE MESSAGE FOR EACH PHASE TO BE READ AT LEAST TWICE.

THE PCMS SHALL CONTAIN AN ACCURATE CLOCK AND PROGRAMMING LOGIC WHICH WILL ALLOW THE SIGN TO BE ACTIVATED, DEACTIVATED OR MESSAGES CHANGED AUTOMATICALLY AT DIFFERENT TIMES OF THE DAY FOR DIFFERENT DAYS OF THE WEEK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN, CONT'D

(THE PCMS SHALL CONTAIN A CELLULAR TELEPHONE DATA LINK WHICH WILL (IN ACTIVE CELLULAR PHONE AREAS) ALLOW REMOTE SIGN ACTIVATION, MESSAGE CHANGES, MESSAGE ADDITIONS AND REVISIONS TO TIME OF DAY PROGRAMS. THE SYSTEM SHALL ALSO PERMIT VERIFICATION OF CURRENT AND PROGRAMMED MESSAGES. ONE REMOTE DATA INPUT DEVICE (LAPTOP COMPUTER PLUS MODEM OR EQUIVALENT) SHALL BE FURNISHED FOR USE BY THE DISTRICT TRAFFIC ENGINEER, OR EQUIVALENT, AND SHALL BE INSURED AGAINST THEFT.) THE PCMS UNIT SHALL BE MAINTAINED IN GOOD WORKING ORDER BY THE CONTRACTOR IN ACCORDANCE WITH THE PROVISIONS OF C&MS 614.07. THE CONTRACTOR SHALL, PRIOR TO ACTIVATING THE UNIT, MAKE ARRANGEMENTS, WITH AN AUTHORIZED SERVICE AGENT FOR THE PCMS, TO ASSURE PROMPT SERVICE IN THE EVENT OF FAILURE. ANY FAILURE SHALL NOT RESULT IN THE SIGN BEING OUT OF SERVICE FOR MORE THAN 12 HOURS, INCLUDING WEEKENDS. FAILURE TO COMPLY MAY RESULT IN AN ORDER TO STOP WORK AND OPEN ALL TRAFFIC LANES AND/OR IN THE DEPARTMENT TAKING APPROPRIATE ACTION TO SAFELY CONTROL TRAFFIC. THE ENTIRE COST TO CONTROL TRAFFIC, ACCRUED BY THE DEPARTMENT DUE TO THE CONTRACTOR'S NONCOMPLIANCE, WILL BE DEDUCTED FROM MONEYS DUE, OR TO BECOME DUE THE CONTRACTOR ON HIS CONTRACT.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR 24-HOUR-PER-DAY OPERATION AND MAINTENANCE OF THESE SIGNS ON THE PROJECT FOR THE DURATION OF THE PHASES WHEN THE PLAN REQUIRES THEIR USE.

PAYMENT FOR THE ABOVE DESCRIBED ITEM SHALL BE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL INCLUDE ALL LABOR, MATERIALS, EQUIPMENT, FUELS, LUBRICATING OILS, SOFTWARE, HARDWARE AND INCIDENTALS TO PERFORM THE ABOVE DESCRIBED WORK.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN _____ SIGN MONTH ASSUMING _____ PCMS SIGN(S) FOR _____ MONTH(S)

NOTIFICATION OF TRAFFIC RESTRICTIONS

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM SPECIAL HAULING PERMITS SECTION (HAULING.PERMITS@DOT.OHIO.GOV) AND THE DISTRICT PUBLIC INFORMATION OFFICE (PIO). THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS.

INFORMATION SHOULD INCLUDE BUT IS NOT LIMITED TO ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION OF TRAFFIC RESTRICTIONS TIME TABLE

ITEM	DURATION OF CLOSURE	NOTIFICATION DUE TO DISTRICT 4 COMMUNICATIONS OFFICE
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME FRAME TABLE.

ARCADIS RESPONSE: COMPLIED

Add Coordination Between Contractors Note.

In case a ramp at New Albany needs to be closed, include the attached notes.

MAINTENANCE OF TRAFFIC GENERAL NOTES

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DESIGNER NRS/BSS

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.12 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:38:13 PM USER: jennifer.kelley
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will project 116322 construct guardrail here? will some rail need removed? will a connection between the rail nand the 81" be needed

ARCADIS RESPONSE: CONNECTION WILL BE MADE FROM EXISTING GUARDRAIL TO PROPOSED BARRIER

Should be gone by the time this project is constructed.

ARCADIS RESPONSE: REMOVED SIGN

ARCADIS RESPONSE: COMPLIED

Per 116322, dotted line from 5th lane merge ends at 2126+35.

ARCADIS RESPONSE: COMPLIED

Remove ex. dotted line.

add cross section

ARCADIS RESPONSE: ADDED MOT TYPICAL SECTIONS

use drums after PB to close the remainder of the drop lane

ARCADIS RESPONSE: COMPLIED

How are the existing lane lane and merge arrows being covered? Per CMS 614.11.G.1.b, blackout tape can be used for 15 days (either remove or replace after that duration). What are the durations of these work zones?

ARCADIS RESPONSE: PER DISCUSSION, EXISTING LANE LINES CAN BE REMOVED AND REPLACED IN THE SAME CONFIGURATION. EXISTING ARROWS ARE NOT CONFLICTING.

Future ex. W4-2R-48 sign at Sta 2151+00 (see sheet 454/846 of widening plans). Will need covered during MOT.

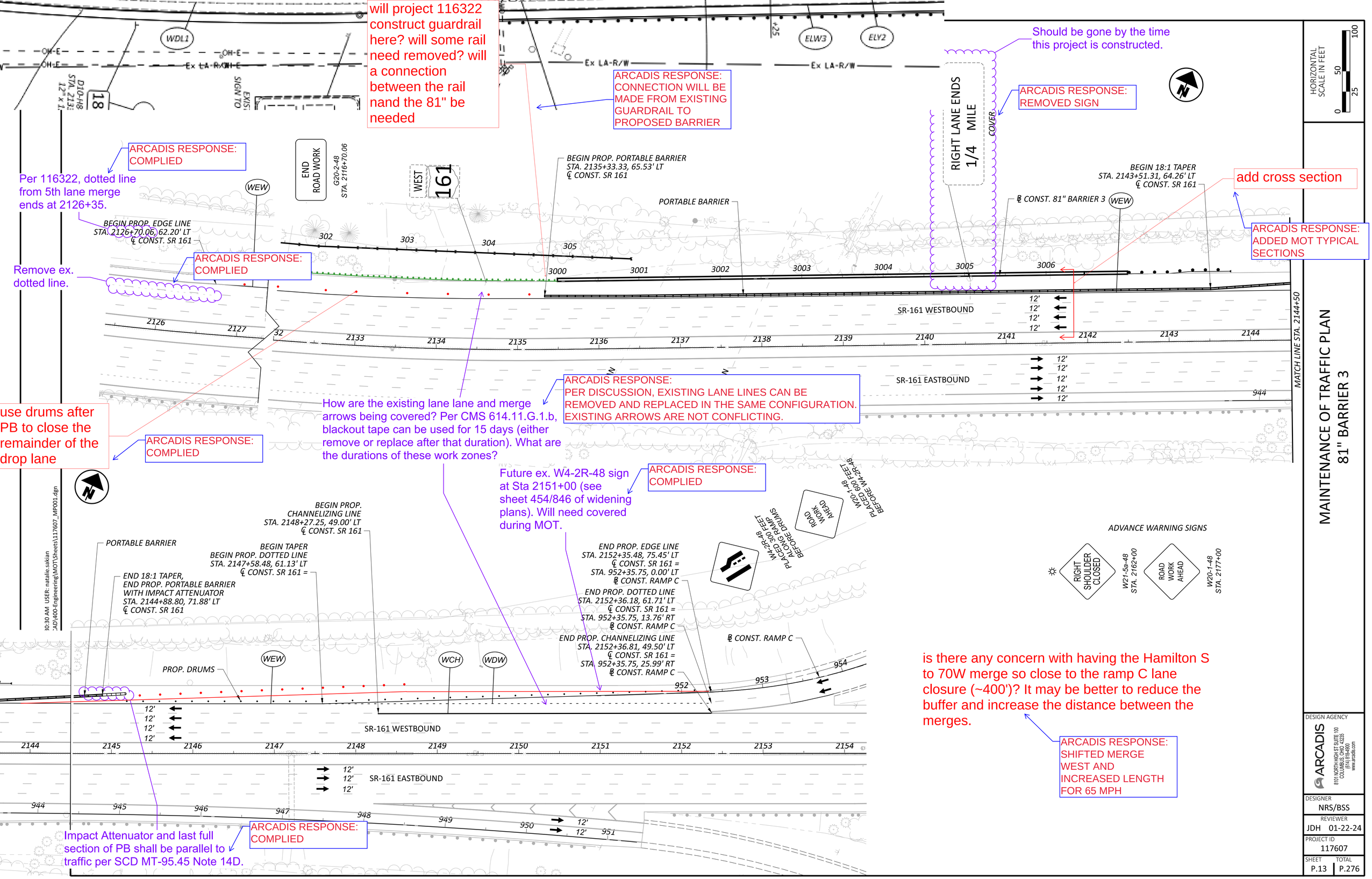
ARCADIS RESPONSE: COMPLIED

is there any concern with having the Hamilton S to 70W merge so close to the ramp C lane closure (~400')? It may be better to reduce the buffer and increase the distance between the merges.

ARCADIS RESPONSE: SHIFTED MERGE WEST AND INCREASED LENGTH FOR 65 MPH

Impact Attenuator and last full section of PB shall be parallel to traffic per SCD MT-95.45 Note 14D.

ARCADIS RESPONSE: COMPLIED



MAINTENANCE OF TRAFFIC PLAN
81" BARRIER 3

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DESIGNER NRS/BSS
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.13 TOTAL P.276

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FOR LEGEND SHEET P.13

what is being done with these signs in the final layout?

ARCADIS RESPONSE: CREEK SIGN WILL BE RELOCATED TO TOP OF PROPOSED BARRIER. CITY SIGN WILL BE RELOCATED BO OTHERS

add cross section

ARCADIS RESPONSE: ADDED MOT TYPICAL SECTIONS

Future ex. Exit 43 - Blendon Woods Metro Park sign at Sta. 2195+00 (sheet 456/846).

ARCADIS RESPONSE: ADDED SIGN

BEGIN PROP. PORTABLE BARRIER
STA. 2187+49.97, 56.61' LT
℄ CONST. SR 161

END ROAD WORK
G20-2-48
STA. 2177+50

ROCKY FORK CREEK

WELCOME TO The City of Columbus

℄ CONST. 81" BARRIER 6

PORTABLE BARRIER

EX. SAN

BEGIN 18:1 TAPER,
STA. 2197+01.21, 56.90' LT
℄ CONST. SR 161

SR-161 WESTBOUND

SR-161 EASTBOUND

MATCH LINE STA. 2197+50

ARCADIS RESPONSE: REMOVED SIGN

Removed with widening project.

ADVANCE WARNING SIGNS EASTBOUND

W16-2aP-30
STA. 2176+30

1100 FT

W21-5a-48

RIGHT SHOULDER CLOSED

LEFT LANE ENDS 1/4 MILE

161

ROCKY FORK CREEK

DRUMS PER MT-95.45

BEGIN PROP. PORTABLE BARRIER WITH IMPACT ATTENUATOR
2191+70.33, 64.29' RT
℄ CONST. SR 161

END TAPER
STA. 2192+34.57, 57.00' RT
℄ CONST. SR 161

PORTABLE BARRIER

℄ CONST. 81" BARRIER 8

ARCADIS RESPONSE: REMOVED SIGN

Impact Attenuator and last full section of PB shall be parallel to traffic per SCD MT-95.45 Note 14D.

ARCADIS RESPONSE: COMPLIED

W16-2aP-30
STA. 2161+30

1/2 MILE

W20-1-48

ROAD WORK AHEAD

W21-5a-48
STA. 2166+30

RIGHT SHOULDER CLOSED

Removed with widening project.

END 18:1 TAPER,
END PROP. PORTABLE BARRIER
WITH IMPACT ATTENUATOR
STA. 2198+36.21, 64.50' LT
℄ CONST. SR 161

Removed with widening project.

ARCADIS RESPONSE: REMOVED SIGN

EXIT 43

Hamilton Rd

1/2 MILE

ADVANCE WARNING SIGNS WESTBOUND

RIGHT SHOULDER CLOSED

W21-5a-48

1000 FT

W16-2aP-30
STA. 2213+40

ROAD WORK AHEAD

W20-1-48

1/2 MILE

W16-2aP-30
STA. 2228+40

PORTABLE BARRIER

Impact Attenuator and last full section of PB shall be parallel to traffic per SCD MT-95.45 Note 14D.

ARCADIS RESPONSE: COMPLIED

DRUMS PER MT-95.45

Moved to a truss with widening project (see sheet 456/846).

ARCADIS RESPONSE: MOVED SIGN

add cross section

ARCADIS RESPONSE: ADDED MOT TYPICAL SECTIONS

EXIT 45

New Albany Rd

1 MILE

END PROP. PORTABLE BARRIER
STA. 2200+51.21, 57.26' RT
℄ CONST. SR 161

END ROAD WORK
G20-2-48
STA. 2210+50

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC PLAN
81" BARRIERS 6 AND 8

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REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.14 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR163 - Barrier 6-8 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 4:07:45 PM USER: natalie.sakian
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Impact Attenuator and last full section of PB shall be parallel to traffic per SCD MT-95.45 Note 14D.

ARCADIS RESPONSE: COMPLIED

BEGIN PROP. PORTABLE BARRIER
STA. 2229+84.77, 56.00' LT
℄ CONST. SR 161

Future existing D10-H8-12 sign at Sta. 2232+50 (see sheet 457/846).

ARCADIS RESPONSE: ADDE SIGN TO PLAN & PROFILE SHEETS

add cross section

ARCADIS RESPONSE: ADDED MOT TYPICAL SECTIONS

℄ CONST. 81" BARRIER 10

PORTABLE BARRIER

FOOD-
NEXT RIGHT

ARCADIS RESPONSE: TODS SIGN TO BE RELOCATED BY OTHERS

HORIZONTAL SCALE IN FEET
0 25 50 100

END ROAD WORK
G20-2-48
STA. 2219+85

ADVANCE WARNING SIGNS EASTBOUND

RIGHT SHOULDER CLOSED
W21-5a-48
STA. 1191+50

1000 FT
W16-2aP-30
STA. 1181+50

RIGHT SHOULDER CLOSED
W21-5a-48

1/2 MILE
W16-2aP-30
STA. 1166+50

ROAD WORK AHEAD
W20-1-48

912 1000 1001 1002 1003 1004 1005 1006 1007 1008 1009 1010 1011 1012

12' 12' 12' SR-161 WESTBOUND

2230 2231 2232 2233 2234 2235 2236 2237 2238 2239 2240 2241 2242

12' 12' 12' SR-161 EASTBOUND

1111 1112 1113 1114 1115 1200 1201 1202 1203 1204 1205 1206 1207 120

EX. SAN

MATCH LINE STA. 2242+00

DRUMS PER MT-95.45

BEGIN PROP. PORTABLE BARRIER WITH IMPACT ATTENUATOR
BEGIN 18:1 TAPER
STA. 2230+44.23, 64.68' RT
℄ CONST. SR 161

END 18:1 TAPER
STA. 2231+84.62, 56.88' RT
℄ CONST. SR 161

PORTABLE BARRIER
℄ CONST. 81" BARRIER 12

BEGIN TAPER
STA. 1202+26.99, 16.46' LT
℄ CONST. 81" BARRIER 12 =
STA. 2236+31.31, 56.93' RT
℄ CONST. SR 161

EXIT 45
New Albany Rd

ARCADIS RESPONSE: MOVED SIGN

STA. 1203+23.74, 5.54' LT
℄ CONST. 81" BARRIER 12 =
STA. 2237+29.68, 68.46' RT
℄ CONST. SR 161

END PROP. PORTABLE BARRIER
STA. 2241+78.08, 71.76' RT
℄ CONST. SR 161

Exit sign moving to truss at Sta. 2241+80 with widening project (see sheet 457/846).

Future existing D10-H8-12 sign at Sta. 2232+50 (see sheet 457/846).

ARCADIS RESPONSE: ADDED SIGN TO PLAN & PROFILE SHEETS

will the 81" barrier block the view of this sign

ADVANCE WARNING SIGNS WESTBOUND

ROAD WORK AHEAD
W20-1-48

1/2 MILE
W16-2aP-30
STA. 2277+05

PLACED 600 FEET BEFORE W21-5a-48

ROAD WORK AHEAD
W20-1-48

PLACED 300 FEET ALONG RAMP BEFORE PB
W21-5a-48

RIGHT SHOULDER CLOSED

END PROP. PORTABLE BARRIER
WITH IMPACT ATTENUATOR
STA. 2247+39.35, 172.26' LT
℄ CONST. SR 161

PORTABLE BARRIER

BEGIN TAPER
STA. 2247+04.47, 152.37' LT
℄ CONST. SR 161

DRUMS PER MT-95.45

℄ CONST. 81" BARRIER 10

1013 1014 1015 1016

12' 15'

12' 12' 12' SR-161 WESTBOUND

MATCH LINE STA. 2242+00

2242 2243 2244 2245 2246 2247 2248 2249 2250 2251 2252 2253 2254

12' 12' 12' SR-161 EASTBOUND

15'

121 122 123 124

ARCADIS RESPONSE: COMPLIED

Impact Attenuator and last full section of PB shall be parallel to traffic per SCD MT-95.45 Note 14D.

EXIT 45

New Albany Rd

FOOD-

ARCADIS RESPONSE: ADDED SIGN

And DO NOT ENTER sign.

G20-2-48
STA. 2252+00
END ROAD WORK

FOR LEGEND SEE SHEET P.13

MAINTENANCE OF TRAFFIC PLAN
81" BARRIER 10 AND 12

DESIGN AGENCY
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DESIGNER
NRS/BSS

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.15 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Barrier 10-12 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 4:07:48 PM USER: natalie.sakian
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\MOT\Sheets\117607_MP001.dgn

Will need to check all existing/future existing signs with vertical and horizontal conflicts with the walls and 81" barriers.

ARCADIS RESPONSE: Complied - signs have been checked and notes added on the P&Ps and if necessary details added to the cross sections.

Ex LA-R/W

EX. FENCE (DND)

24" MULTI

BEGIN PROP. NOISE WALL 3
STA. 300+00.00, 0.00' LT
℄ CONST. WALL 3 =
STA. 2130+50.00, 119.00' LT
℄ CONST. SR 161

DS-1

300

192.00'
N70°31'40"E

301

PI STA
301+92.00
Δ = 02°51'26"
DS-9

302

12"

PROP. 6" UNDERDRAIN

℄ CONST. WALL 3

CONST. LIMITS

303

384.00'
N67°40'14"E

304

PROP. 6" UNDERDRAIN

FUTURE EX. CB-5
(PID 116322)

FUTURE EX. 24"
TYPE C (PID 116322)

TEMPORARY CTSS
(PID 116322)

FUTURE EX. 18" TYPE C (PID 116322)

FUTURE EX. CTSS
(PID 116322)

FUTURE EX. 18" TYPE B
(PID 116322)

EX. 18" CPP (TBR W/ PID 116322)

EX. MH
(TBR W/ PID 116322)

FUTURE EX. EDGE OF PAVED SHOULDER (PID 116322)

EX. CB
(TBR W/ PID 116322)

FUTURE EX. MASONRY COLLAR
DM-1.1 (PID 116322)

FUTURE EX. CB-5
(PID 116322)

FUTURE EX. 18" TYPE B
(PID 116322)

FUTURE EX. GUARDRAIL, TYPE MGS
(PID 116322) (DND)

Either provide a legend for this hatching or turn level off if it isn't relevant to this project.

Should this point to the FO line? If not, switch dashed line to CTSS linestyle and also label FO line.

WESTBOUND SR-161

EX. 18" CPP

Show this in the correct linestyle.

FUTURE EX. LIGHT POLE 848-C4
(8' OF MEDIAN BARRIER REPLACED PER SCD HL-20.13)
(PID 116322)

EX. CONC. BARRIER

30

2131

2132

2133

2134

21

FUTURE EX. LIGHT POLE 848-C3
(8' OF MEDIAN BARRIER REPLACED PER SCD HL-20.13)
(PID 116322)

℄ CONST. SR 161

FUTURE EX. LIGHTING
CIRCUIT 848, LEG C
IN EX. CONDUIT

EX. I-3B
(DND)

FUTURE EX. LIGHTING
CIRCUIT 848, LEG C
IN EX. CONDUIT

MATCH LINE STA. 2135+00.00
SEE SHEET P.17

ARCADIS RESPONSE: Complied and turned off the hatch.

ARCADIS RESPONSE: Complied and corrected the line style to FO.

ARCADIS RESPONSE: Complied

TOP OF WALL 3

979.50

980.50

981.00

981.50

982.00

982.50

24' (TYP)

3-1

3-10

DS-1

DS-9

DS-10

BEGIN PROP. WALL 3
STA. 300+00.00
℄ = 964.30

965.50

966.50

967.00

967.50

1.00%

968.00
℄ = 967.09

968.50

1.00%

℄ = 965.02

BOTTOM OF WALL 3

EX. GROUND AT ℄ CONST. WALL 3

PROP. 6" UNDERDRAIN

PROP. 6" UNDERDRAIN

990
985
980
975
970
965
960
955
950

300
301
302
303
304

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 3
STA. 2130+00.00 TO STA. 2135+00.00

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REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.16 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 3 - Plan 2 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 9:15:03 AM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP301.dgn

3A **CURVE DATA**
℄ CONST. 81" BARRIER 3
P.I. = STA. 3000+00.98
Δ = 00°01'46" LT
Dc = 01°29'57"
R = 3,822.15'
T = 0.98'
L = 1.96'
E = 0.00'

I think a dimension from the edge to face of 81" barrier needs to be provided. The plans are ambiguous regarding the shoulder width since nothing is dimensioned on sheet #6 of the typical sections. There needs to be some assurance the 10' paved shoulder is being perpetuated. This comment applies for other 81" barrier locations in these plans.

Regulated Stream 3

90' ± SCPZ WIDTH

90' SCPZ LINE

100-YEAR FLOODWAY

Ex LA-R/W

EX. FENCE (DND)

REGULATED STREAM 3

TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT

PROP. 81" BARRIER DRAINAGE WINDOW STA. 3004+00.00 SEE SHEET P.209

CONST. LIMITS

PROP. 6" UNDERDRAIN

℄ CONST. WALL 3

36" MULT.

12"

305

384.00'

N67°40'14"E

5.5'

POT STA. 3000+015.96

END PROP. NOISE WALL 3
STA. 305+76.00, 0.00' LT
℄ CONST. WALL 3 =
STA. 2136+41.07, 110.00' LT
℄ CONST. SR 161
DS-25

TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT

TEMPORARY CTSS (PID 116322) (SEE NOTE 1)

FUTURE EX. CTSS (PID 116322)

10.0'

PROP. 81" BARRIER 3

3000 3001 3002 3003 3004

N64°36'58"E

CURVE 3A

℄ CONST. 81" BARRIER 3

FUTURE EX. GUARDRAIL, TYPE MGS (PID 116322) (TBR)

CONST. LIMITS PROP. SAWCUT

FUTURE EX. EDGE OF PAVED SHOULDER (PID 116322)

LIMIT OF SHOULDER MILL/FILL

TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT

PROP. 81" BARRIER DRAINAGE WINDOW STA. 3001+00.00 SEE SHEET P.209

BEGIN PROP. 81" BARRIER 3
STA. 3000+00, 0.00' LT
℄ CONST. 81" BARRIER 3 =
STA. 2135+50.00, 83.50' LT
℄ CONST. SR 161

Show future ex. GR and include MGS BTA Type 2 to connect 81" barrier to GR. Transition section of 81" barrier will be needed.

ARCADIS RESPONSE: Complied.

ARCADIS RESPONSE: Complied and dimensions added.

ARCADIS RESPONSE: Complied and corrected the stream name based on guidance from environmental sub Lawhon Associates. L&A and ODOT discussed that the word regulated in this case should not be used, but rather "Stream 3 (DND) is how Central Office prefers.

EX. 15" SAN.

EX. OH ELECTRIC AEP-OHIO (DND)

EX. 84" RCP

WESTBOUND SR-161

MATCH LINE STA. 2135+00.00 SEE SHEET P.16

MATCH LINE STA. 2140+00.00 SEE SHEET P.18

35 2136 2137 2138 2139 21

FUTURE EX. LIGHT POLE 848-C5
(8' OF MEDIAN BARRIER REPLACED PER SCD HL-20.13)
(PID 116322)

℄ CONST. SR 161

FUTURE EX. LIGHTING CIRCUIT 848, LEG C IN EX. CONDUIT

FUTURE EX. LIGHT POLE 848-C6
(8' OF MEDIAN BARRIER REPLACED PER SCD HL-20.13)
(PID 116322)

NOTES
1.) TEMPORARY CTSS WILL NEED TO BE IN PLACE BEFORE PROP. 81" BARRIER CAN BE INSTALLED.

OVERHEAD TRANSMISSION

PROP. 81" BARRIER END ANCHORAGE, REINFORCED

PROP. 81" BARRIER DRAINAGE WINDOW SECTION

20.3'+ 20.3'+ 20.6'+

TOP OF 81" BARRIER ELEV. 979.56'

TOP OF 81" BARRIER ELEV. 979.66'

TOP OF 81" BARRIER ELEV. 979.78'

TOP OF PROP. 81" BARRIER 3

+75 +90 +10 +25

TOP OF WALL 3

982.50

24' (TYP)

3-20 3-24

DS-20 DS-25

+00 +15

968.50

1.00%

BEGIN PROP. 81" BARRIER 3
STA. 3000+00.00

END PROP. WALL 3
STA. 305+76.00

℄ = 968.00

BOTTOM OF PROP. 81" BARRIER 3

EX. GROUND AT ℄ CONST. 81" BARRIER 3

EX. GROUND AT ℄ CONST. WALL 3

BOTTOM OF WALL 3

990 985 980 975 970 965 960 955 950

305+00.00 = 3000+15.13 3001 3002 3003 3004

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 3 / 81" BARRIER 3
STA. 2135+00.00 TO STA. 2140+00.00

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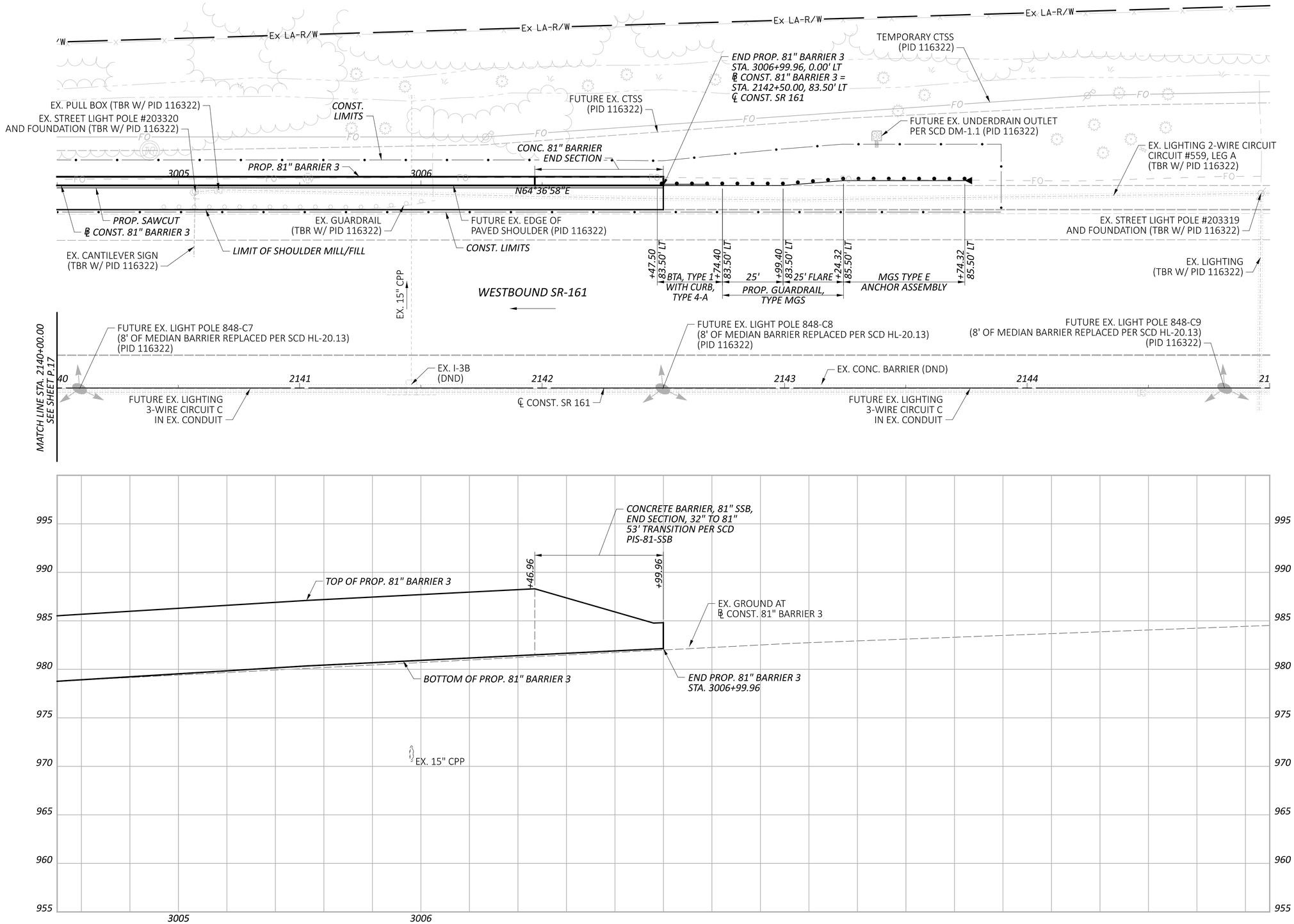
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.17 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 3 - Plan 3 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 9:15:44 AM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP302.dgn



HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN & PROFILE - 81" BARRIER 3
STA. 2140+00.00 TO STA. 2145+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 3 - Plan 4 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 9:15:59 AM USER: jennifer.kelley
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DESIGNER
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REVIEWER
JDH 01-22-24
PROJECT ID
117607
SHEET P.18 TOTAL P.276

ESR Mapping and Widening plans do not show these lines. Wetland M is on west side of Rocky Fork.

ARCADIS RESPONSE: Agreed that labeling was incorrect. Since Stage 2, Arcadis and Environmental sub L&A have worked together to adjust environmental line work appropriately throughout the plan set.

ARCADIS RESPONSE: Complied

Label ex. BTA as TBR

Label the EX LA - R/W or just make sure the layer is turned on. This comment applies to all applicable plan sheets

Two guardrail lines shown, remove old one.

ARCADIS RESPONSE: Complied

Label FO line.

500' ± SCPZ WIDTH

100-YEAR FLOODWAY AND 500' SCPZ LINE

ROCKY FORK

REGULATED WETLAND O

100-YEAR FLOODPLAIN

Ex R/W

100-YEAR FLOODWAY AND SCPZ LINE

WETLAND M

REGULATED DITCH DITCH 4 (DND)

500-YEAR FLOODPLAIN

TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT

EX. 12" RCP

EX. CTSS 288 STRAND FOC IN STRUCTURE MOUNTED CONDUIT

STRUCTURE NO FRA-00161-19.090 L & R

EX. FENCE (DND)

CONC. BARRIER END SECTION, AS PER PLAN SEE SHEET P.201

EX. UD

EX. 6" CPP

PROP. 81" BARRIER DRAINAGE WINDOW STA. 6000+60.00 SEE SHEET P.209

PROP. 81" BARRIER DRAINAGE WINDOW STA. 6002+50.00 SEE SHEET P.209

PI STA. 6002+00.00

CONST. LIMITS

10.0'

PROP. 81" BARRIER 6

6000 6001 6002 6003 6004

END EX. BRIDGE PARAPET STA. 2187+65.24, 66.89' LT ℄ CONST. SR 161

PI STA 6000+04.38 N64°08'19"E

PI STA. 6000+43.39 N65°23'48"E

N65°13'07"E

EX. GUARDRAIL (TBR)

EX. EDGE OF PAVED SHOULDER

PROP. SAWCUT

N64°36'58"E ℄ CONST. 81" BARRIER 6

BEGIN PROP. 81" BARRIER 6 STA. 5999+90.38, 0.00' LT ℄ CONST. 81" BARRIER 6 = STA. 2187+65.40, 66.09' LT ℄ CONST. SR 161

PI STA. 5999+94.38 N64°36'58"E

STA 2187+65.40 OFF 64.00' LT

STA 2188+79.90 OFF 64.00' LT

WESTBOUND SR-161

CONST. LIMITS

LIMIT OF SHOULDER MILL/FILL

EX. GUARDRAIL (TBR W/ PID 116322)

FUTURE EX. CONC. BARRIER, TYPE D (PID 116322)

FUTURE EX. CONC. BARRIER, TYPE D W/ CONC. CAP (PID 116322)

EX. BARRIER GUARDRAIL (TBR W/ PID 116322)

EX. CONCRETE (TBR W/ PID 116322)

FUTURE EX. BARRIER TRANSITION (PID 116322)

EX. CABLE BARRIER (TBR W/ PID 116322)

EX. CATCH BASIN (TBR W/ PID 116522)

FUTURE EX. CONC. BARRIER, TYPE C (PID 116322)

REGULATED WETLAND O

500-YEAR FLOODPLAIN

87 2188 2189 2190 2191 21

℄ CONST. SR 161

EX. 15" CPP

EX. 6" CPP

EX. GUARDRAIL (TBR W/ PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG A IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 849-A8 (PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG A IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 848-A9 (PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG A IN (1)-2" PVC CONDUIT (PID 116322)

MATCH LINE STA. 2192+00.00 SEE SHEET P.20

What is this line?

ARCADIS RESPONSE: THIS IS EOP PICKED UP BY OUR SUPPLEMENTAL SURVEY.

ARCADIS RESPONSE: Complied

CONCRETE BARRIER END SECTION, AS PER PLAN 53' TRANSITION PER DETAIL ON SHEET P.201

PROP. 81" BARRIER DRAINAGE WINDOW SECTION

PROP. 81" BARRIER END ANCHORAGE, REINFORCED

TOP OF PROP. 81" BARRIER 6

+90.38 +43.39 +50 +70 +85 +25 +40 +60 +75

ROCKY FORK CREEK HW = 957.40

EX. GROUND AT ℄ CONST. 81" BARRIER 6

BOTTOM OF PROP. 81" BARRIER 6

BEGIN PROP. 81" BARRIER 6 STA. 5999+90.38

980 975 970 965 960 955 950 945 940

6000 6001 6002 6003 6004

HORIZONTAL SCALE IN FEET 0 10 20 40

PLAN & PROFILE - 81" BARRIER 6 STA. 2187+00.00 TO STA. 2192+00.00

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DESIGNER JMK

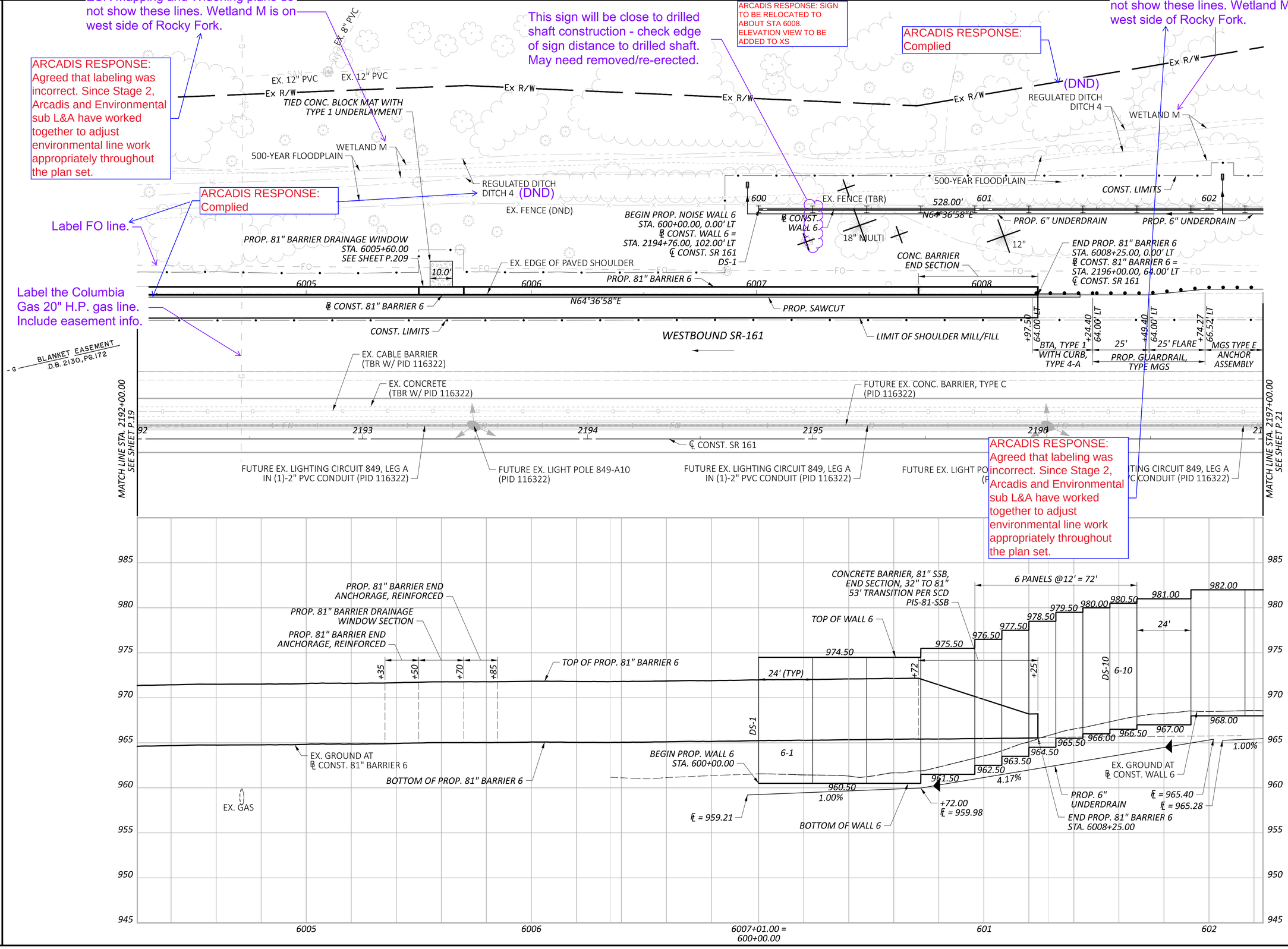
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.19 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 6 - Plan 5 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 9:34:40 AM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP601.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - 81" BARRIER 6 / WALL 6
STA. 2192+00.00 TO STA. 2197+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 6 - Plan 6 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 3:49:14 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP602.dgn

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DESIGNER
JMK
REVIEWER
JDH 01-22-24
PROJECT ID
117607
SHEET P.20 TOTAL P.276

ESR Mapping and Widening plans do not show these lines. Wetland M is on west side of Rocky Fork.

ARCADIS RESPONSE: Agreed that labeling was incorrect. Since Stage 2, Arcadis and Environmental sub L&A have worked together to adjust environmental line work appropriately throughout the plan set.

ESR Mapping and Widening plans do not show these lines. Wetland M is on west side of Rocky Fork.

ARCADIS RESPONSE: COMPLIED

Ex R/W — Ex R/W — Ex R/W — Ex R/W

WETLAND M

REGULATED DITCH DITCH 4 (DND)

EX. 15" CPP

CONST. LIMITS

END PROP. NOISE WALL 6
STA. 605+28.00, 0.00' LT
℄ CONST. WALL 6 =
STA. 2200+04.00, 102.00' LT
℄ CONST. SR 161
DS-26

603 — 528.00' N64°36'58"E — 604 — EX. FENCE (TBR) — 605

PROP. 6" UNDERDRAIN

℄ CONST. WALL 6

WETLAND M

REGULATED DITCH DITCH 4 (DND)

EX. FENCE (DND)

ARCADIS RESPONSE: COMPLIED

CONST. LIMITS

AEP TRANSMISSION LINE (DND)
MORSE 138KV

EX. CB

FO — FO — FO — FO — FO — FO

Removed with widening project.

EX. EDGE OF PAVED SHOULDER

WESTBOUND SR-161

EX. 15" CPP

+24.27
66.62' LT

MGS TYPE E ANCHOR ASSEMBLY

EX. CABLE BARRIER (TBR W/ PID 116322)

EX. CONCRETE (TBR W/ PID 116322)

EX. CATCH BASIN (TBR W/ PID 116322)

FUTURE EX. CONC. BARRIER, TYPE C (PID 116322)

EX. CABLE BARRIER (TBR W/ PID 116322)

EX. CONCRETE (TBR W/ PID 116322)

97 — 2198 — 2199 — 2200 — 2201 — 22

EX. 6" CPP

℄ CONST. SR 161

FUTURE EX. LIGHTING CIRCUIT 849, LEG A IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 849-A12 (PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG A IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 849-A13 (PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG A IN (1)-2" PVC CONDUIT (PID 116322)

ARCADIS RESPONSE: SYMBOL HAS BEEN REMOVED.

MATCH LINE STA. 2197+00.00
SEE SHEET P.20

OVERHEAD TRANSMISSION — OVERHEAD TRANSMISSION

25.5'± — 26.5'±

TOP OF BARRIER ELEV. 982.50' — TOP OF BARRIER ELEV. 982.50'

TOP OF WALL 6

982.00 — 982.50 — 983.00

24' (TYP)

DS-20 — 6-20 — 6-25 — DS-26

968.00 — 968.50 — 969.00

1.00%

END PROP. WALL 6
STA. 605+28.00

℄ = 968.50

PROP. 6" UNDERDRAIN

BOTTOM OF WALL 6

EX. GROUND AT ℄ CONST. WALL 6

EX. 15" CPP

990 / 985 / 980 / 975 / 970 / 965 / 960 / 955 / 950

603 — 604 — 605

HORIZONTAL SCALE IN FEET
0 — 10 — 20 — 40

PLAN & PROFILE - WALL 6
STA. 2197+00.00 TO STA. 2202+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 6 - Plan 28 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 3:49:40 PM USER: jennifer.kelley
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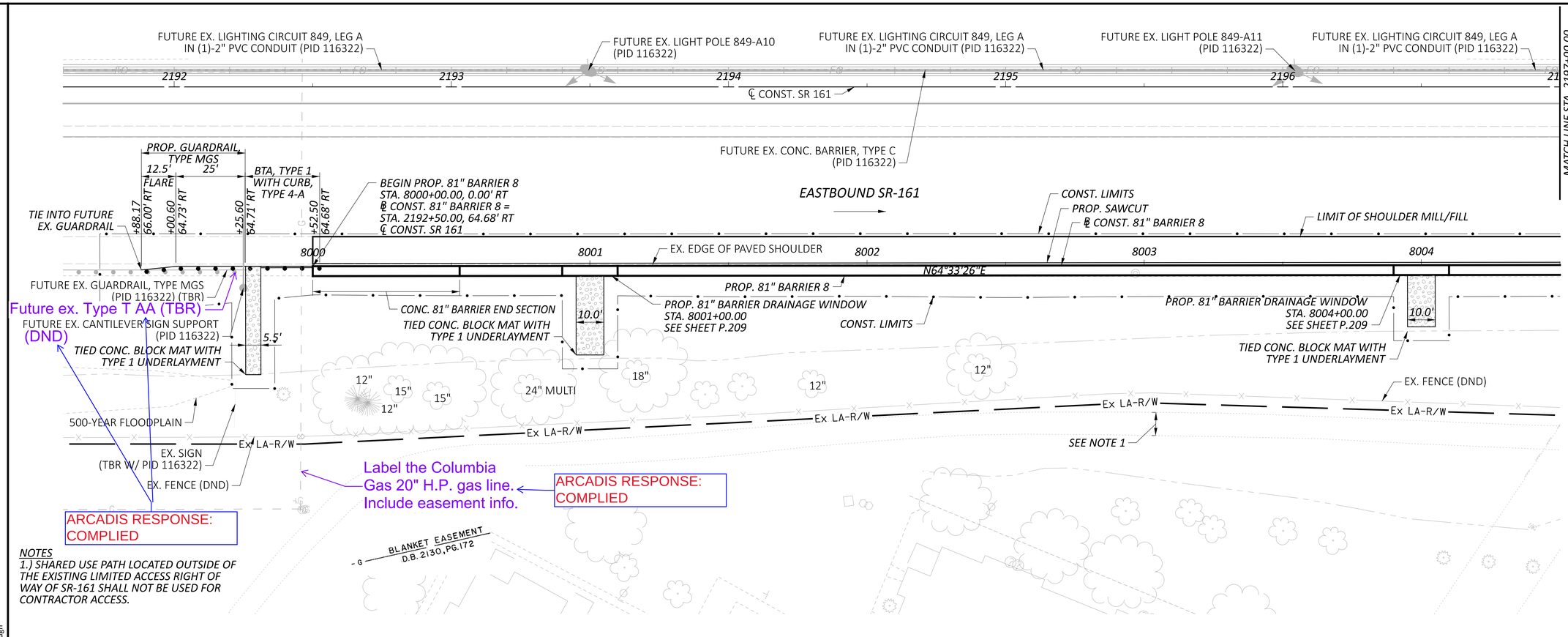
DESIGNER JMK

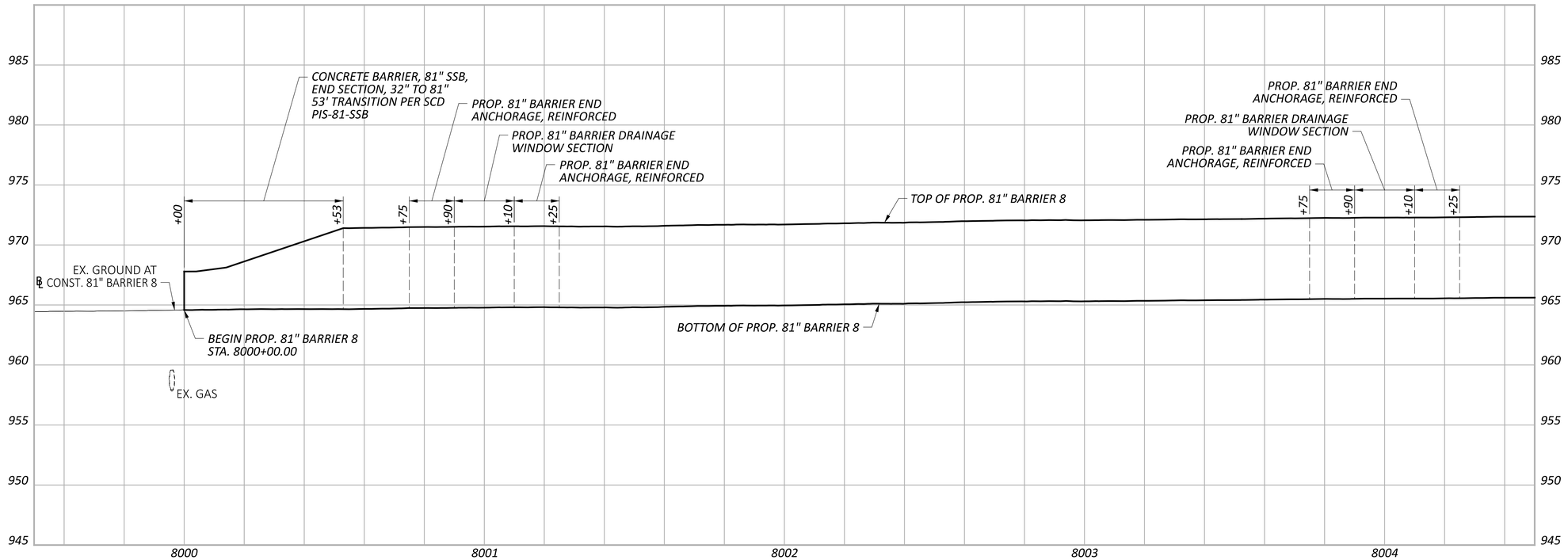
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.21 | TOTAL P.276



NOTES
1.) SHARED USE PATH LOCATED OUTSIDE OF THE EXISTING LIMITED ACCESS RIGHT OF WAY OF SR-161 SHALL NOT BE USED FOR CONTRACTOR ACCESS.



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - 81" BARRIER 8
STA. 2192+00.00 TO STA. 2197+00.00

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

DESIGNER
JMK

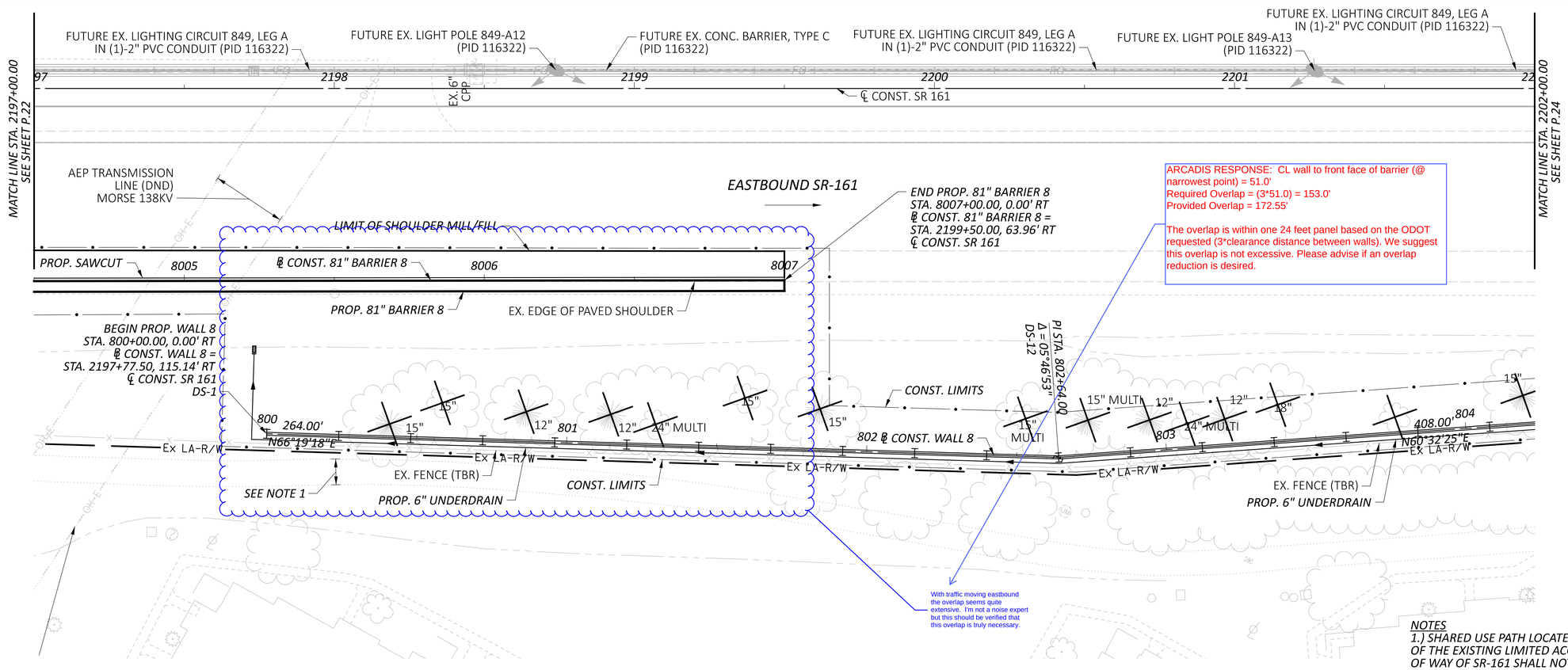
REVIEWER
JDH 01-22-24

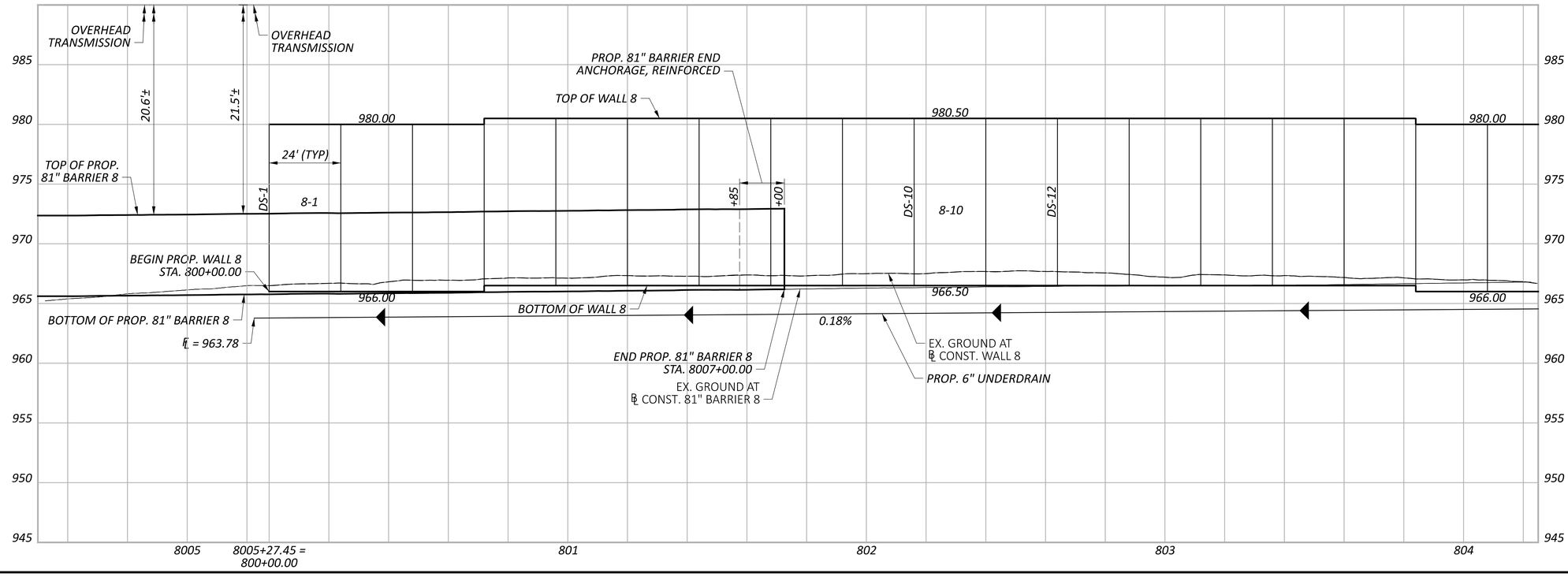
PROJECT ID
117607

SHEET P.22 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 7 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 3:50:43 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP801.dgn





HORIZONTAL SCALE IN FEET
0 10 20 40

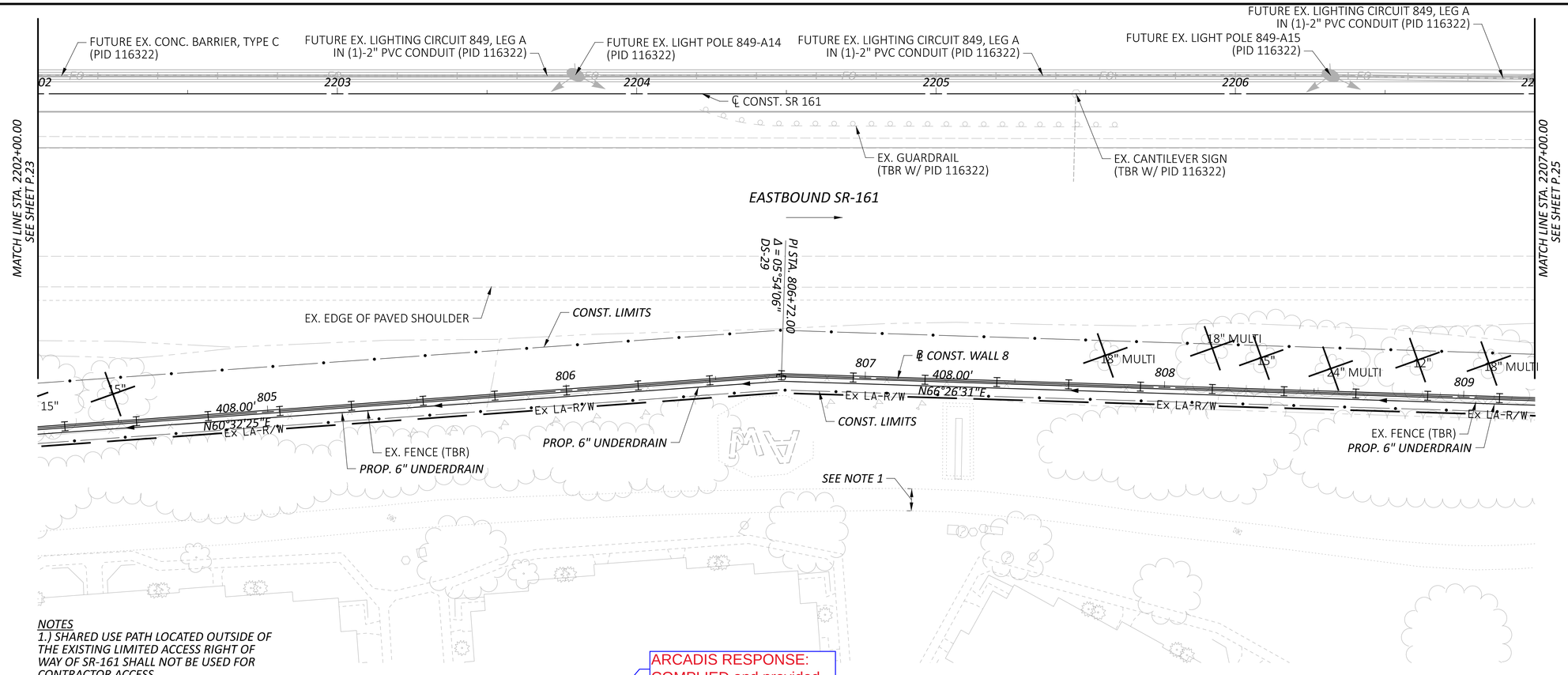
PLAN & PROFILE - 81" BARRIER 8 / WALL 8
STA. 2197+00.00 TO STA. 2202+00.00

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4600
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.23 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 8 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:43:16 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP802.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 8
STA. 2202+00.00 TO STA. 2207+00.00

FRA-161-15.80 NOISE WALLS

DESIGN AGENCY
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8101 NORTH HIGH ST SUITE 100
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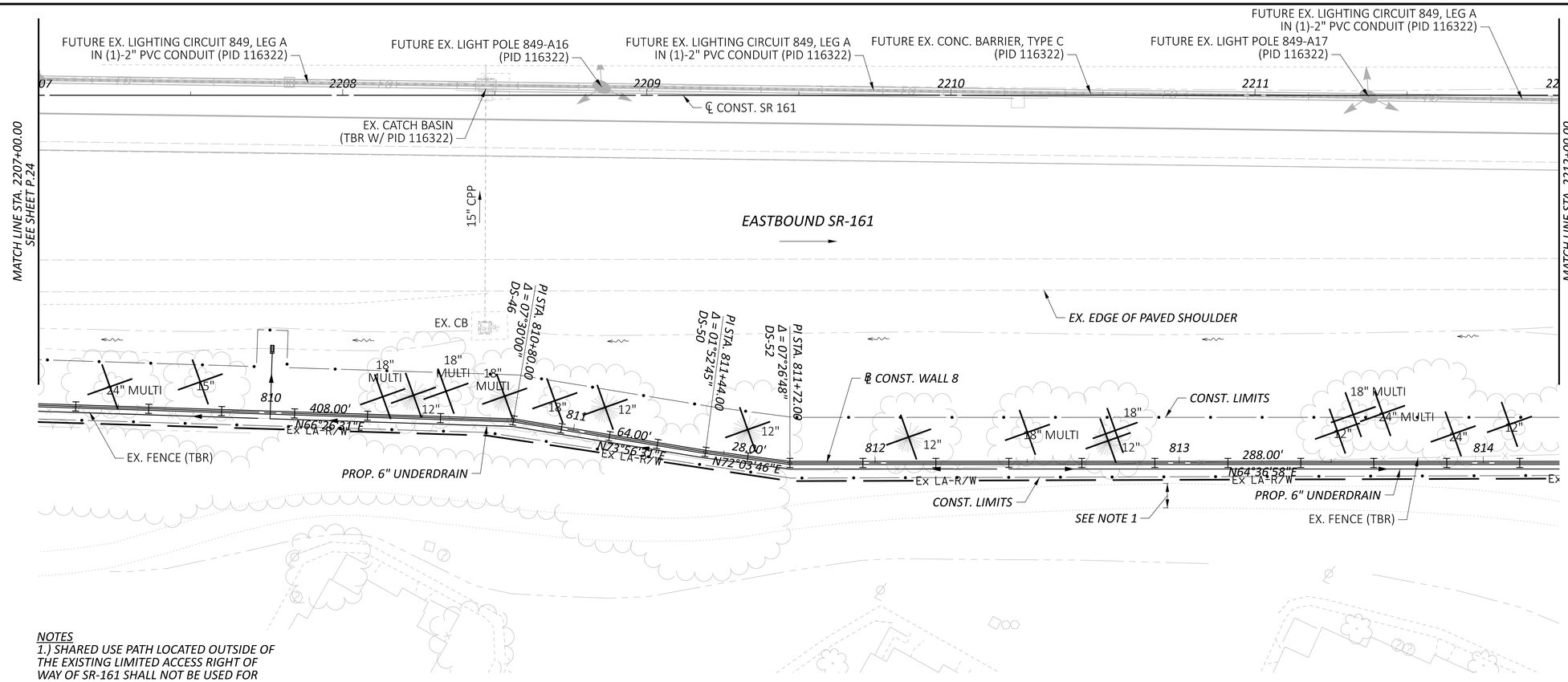
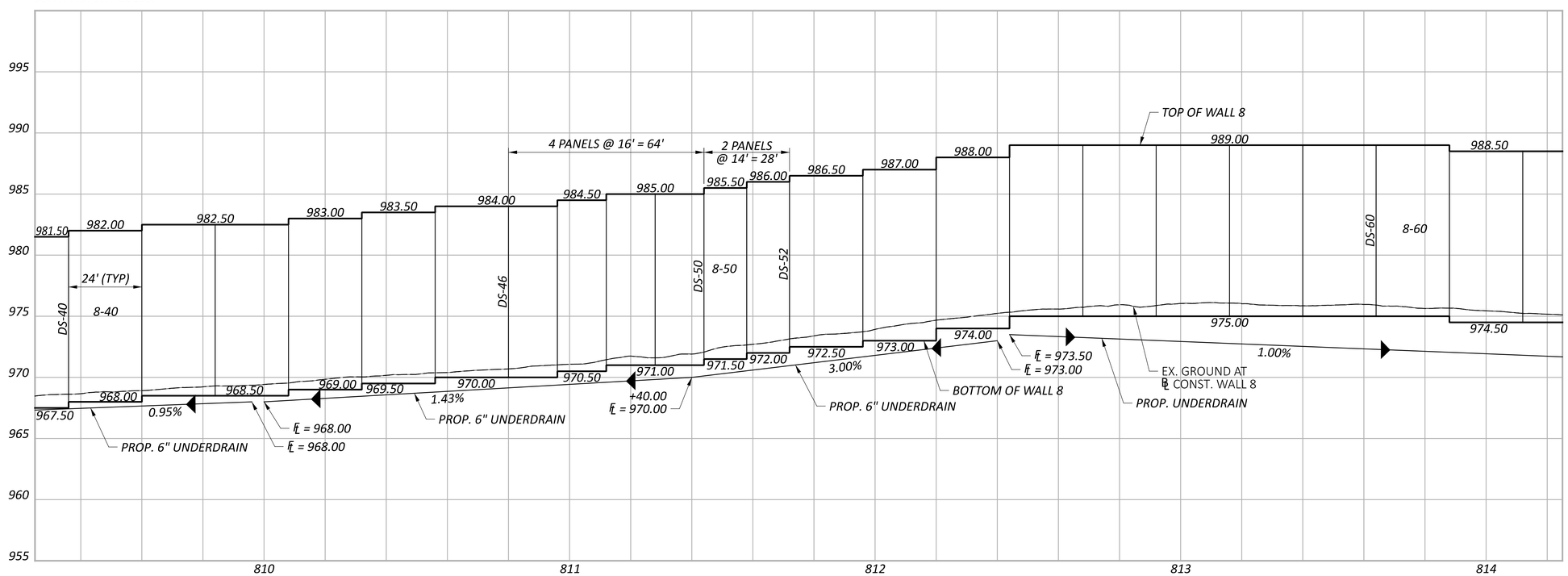
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.24 TOTAL P.276

MODEL: CLP_SR161 - Plan 9 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 11:48:14 AM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP803.dgn



NOTES
1.) SHARED USE PATH LOCATED OUTSIDE OF THE EXISTING LIMITED ACCESS RIGHT OF WAY OF SR-161 SHALL NOT BE USED FOR CONTRACTOR ACCESS.



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 8
STA. 2207+00.00 TO STA. 2212+00.00

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DESIGNER
JMK

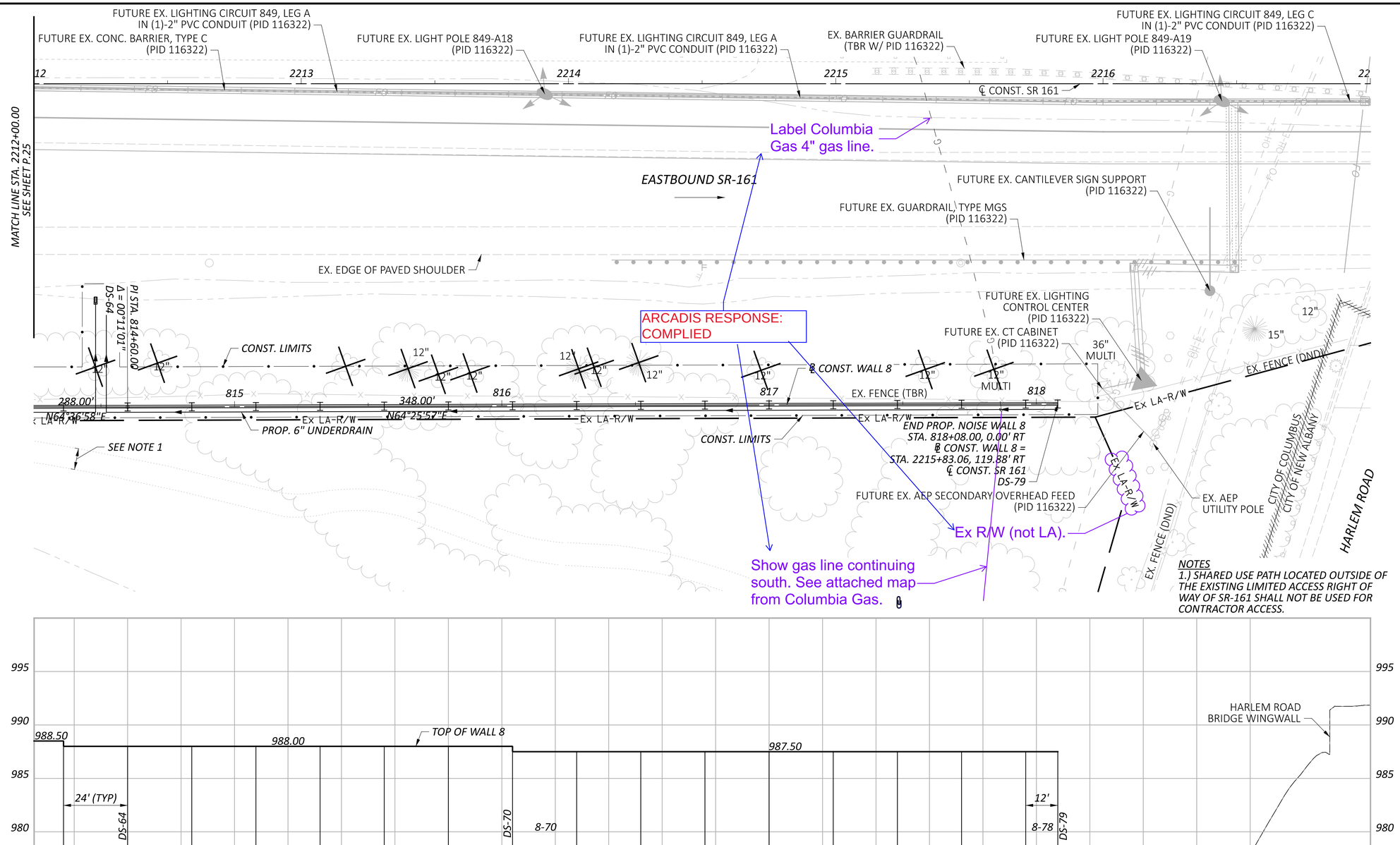
REVIEWER
JDH 01-22-24

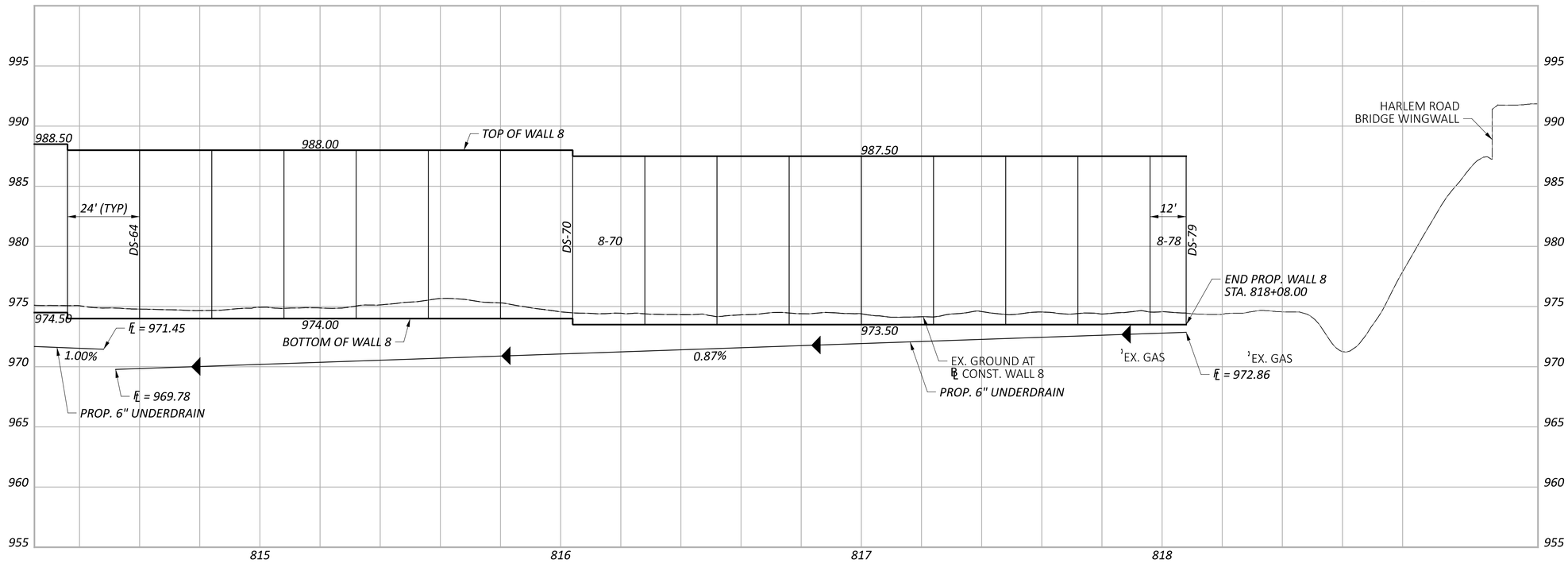
PROJECT ID
117607

SHEET P.25 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 10 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 9:49:54 AM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP804.dgn





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 8
STA. 2212+00.00 TO STA. 2217+00.00

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 11 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:44:23 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP805.dgn

DESIGN AGENCY
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8101 NORTH HIGH ST SUITE 100
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DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.26 TOTAL P.276

NOTES
1.) IF NECESSARY, REPAIR OF THE CONCRETE WORK PAD TO INSTALL THE NOISE WALL AND DRILLED SHAFTS WILL BE PAID PER ITEM 633 - CONTROLLER WORK PAD, AS PER PLAN.

SEE SHEET P.10 FOR ADDITIONAL INFORMATION.

ARCADIS RESPONSE: COMPLIED

Suitable Wooded Habitat - Do Not Disturb
See page 5/8 in pdf attached to sheet P.19.

ARCADIS RESPONSE: COMPLIED and labeled the wooded habitat on the sheet.

Regulated ditch 4 ends at ~ Sta. 2204+90 per widening plans and Resource Map.

Sign removed with widening project (sheet 457/846).

ARCADIS RESPONSE: COMPLIED and removed the sign.

ARCADIS RESPONSE: Agreed that labeling was incorrect. Since Stage 2, Arcadis and Environmental sub L&A have worked together to adjust environmental line work appropriately throughout the plan set.

Use correct linestyle.

ARCADIS RESPONSE: COMPLIED

HARLEM ROAD

STRUCTURE NO FRA-00111-00.682

END REGULATED DITCH 4

EX. 42" CMP

BEGIN PROP. NOISE WALL 9
STA. 900+00.00, 0.00' LT
℄ CONST. WALL 9 =
STA. 2218+61.00, 103.00' LT
℄ CONST. SR 161
DS-1

EX. FENCE (DND)

EX. FENCE (TBR)

900 — 901 — 256.00' N64°36'58"E — 902 — 326.00' N67°00'42"E — 903

SEE NOTE 1

℄ CONST. WALL 9

EX. 24" CPP

CONST. LIMITS

PROP. 6" UNDERDRAIN

DS-13

P.I. STA. 902+69.00
Δ = 20°23'44"

FUTURE EX. CONC. BARRIER, TYPE D (PID 116322)

EX. CB

EX. EDGE OF PAVED SHOULDER

FUTURE EX. GUARDRAIL, TYPE MGS (PID 116322)

EX. 16" WATER MAIN WITHIN 30" STEEL CASING (CTP0860_006/D.I.)

SR-161

24" CPP

EX. CABLE BARRIER (TBR W/ PID 116322)

EX. CONCRETE (TBR W/ PID 116322)

FUTURE EX. CONC. BARRIER, TYPE D (PID 116322)

FUTURE EX. CB-5 (PID 116322)

FUTURE EX. GUARDRAIL, TYPE MGS (PID 116322)

17 — 2218 — 2219 — FUTURE EX. 15" TYPE B (PID 116322) — 2220 — ℄ CONST. SR 161 — 2221 — 22

EX. BARRIER GUARDRAIL (TBR W/ PID 116322)

FUTURE EX. CB-5 (PID 116322)

FUTURE EX. CONC. BARRIER, TYPE C APP 2 (PID 116322)

EX. BARRIER GUARDRAIL (TBR W/ PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 849-C1 (PID 116322)

FUTURE EX. I-3, APP (PID 116322)

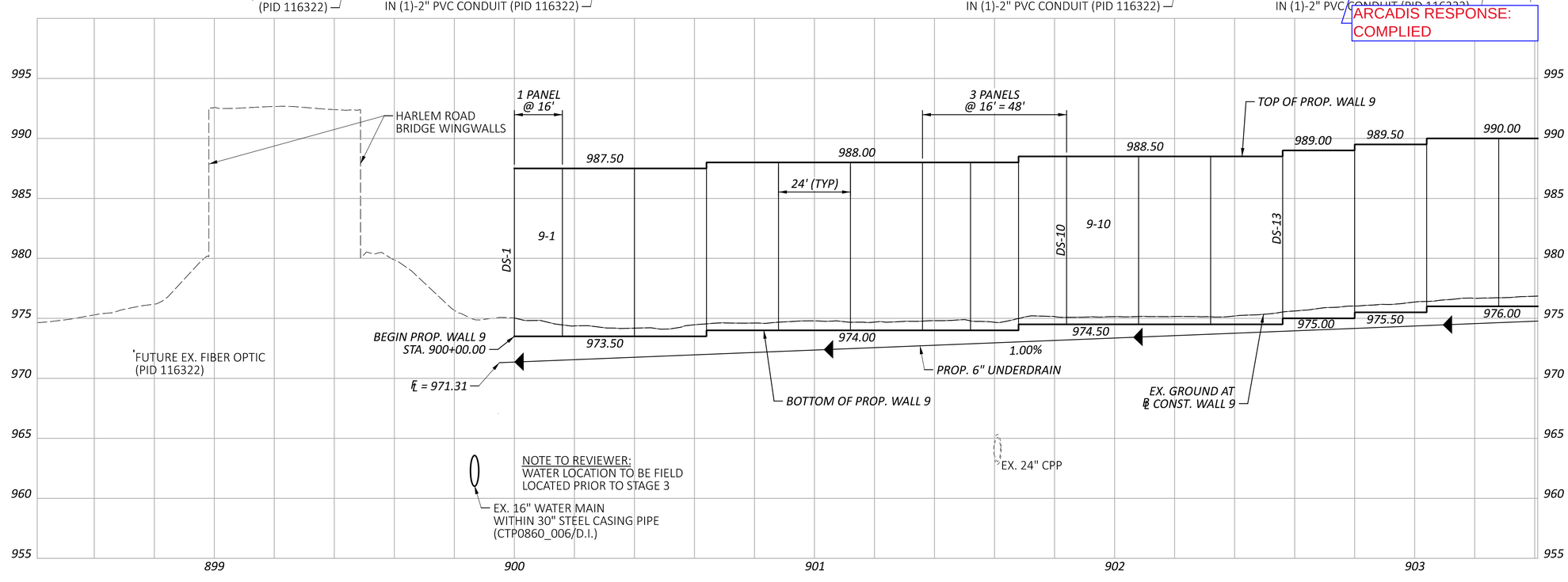
EX. CATCH BASIN (TBR W/ PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 849-C2 (PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)

MATCH LINE STA. 2222+00.00
SEE SHEET P.28



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 9
STA. 2217+00.00 TO STA. 2222+00.00

DESIGN AGENCY
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COLUMBUS, OHIO 43235
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www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.27 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 9 - Plan 12 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 3:52:32 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP901.dgn

Double lines showing.

ARCADIS RESPONSE:
COMPLIED - we believe only one line showing now.

Ex R/W

PLAIN TOWNSHIP
CITY OF COLUMBUS

PI STA. 905+92.00
Δ = 01°48'10"
DS-27

CONST. LIMITS

PROP. 6" UNDERDRAIN

EX. FENCE (TBR)

904 905 906 907 908

336.00'
N67°00'42"E

336.00'
N71°48'52"E

℄ CONST. WALL 9

12" 12" 12" 12" 15" MULTI 15" 15"

FO

EX. EDGE OF PAVED SHOULDER

Show and label future ex. GR (use correct linestyle).

EX. CABLE BARRIER (TBR W/ PID 116322)

EX. CONCRETE (TBR W/ PID 116322)

WESTBOUND SR-161

MATCH LINE STA. 2222+00.00
SEE SHEET P.27

MATCH LINE STA. 2227+00.00
SEE SHEET P.29

2223 2224 2225 2226

FUTURE EX. CONC. BARRIER, TYPE C APP 2 (PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 849-C3 (PID 116322)

℄ CONST. SR 161

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)

FUTURE EX. LIGHT POLE 849-C4 (PID 116322)

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)

ARCADIS RESPONSE:
Complied, but the future existing guardail actually ends prior to this location and shows up on the previous sheet.

TOP OF PROP. WALL 9

990.00 990.50 991.00 991.50 992.00 992.50 993.00 993.50 994.00 994.50 995.00

24' (TYP)

DS-20 9-20 DS-27 DS-30 9-30

976.00 976.50 977.00 977.50 978.00 978.50 979.00 979.50 980.00 980.50 981.00

1.00% 1.19%

℄ = 975.70 ℄ = 975.30 ℄ = 980.11 ℄ = 979.64

PROP. 6" UNDERDRAIN BOTTOM OF PROP. WALL 9 PROP. 6" UNDERDRAIN PROP. 6" UNDERDRAIN

EX. GROUND AT ℄ CONST. WALL 9

995 990 985 980 975 970 965 960

904 905 906 907 908

1000

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 9
STA. 2222+00.00 TO STA. 2227+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 9 - Plan 13 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:45:18 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP902.dgn

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4600
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.28 TOTAL P.276

Double lines showing.

ARCADIS RESPONSE: COMPLIED - we believe only one line showing now.

Overlap of the two systems seems excessive. Please verify length of need.

Arcadis Response: Please see overlap calculation below. The overlap seems reasonable.

CL wall to front face of barrier (@ narrowest point) = 35.16'
Required Overlap = (3*35.16) = 105.48'
Provided Overlap = 108.03'

ARCADIS RESPONSE: COMPLIED

The other locations where a wall overlaps a barrier shows both the wall and barrier on the profile view. Add this here too to show the relationship between tops of wall & barrier.

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 9
STA. 2227+00.00 TO STA. 2232+00.00

DESIGN AGENCY
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8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 318-4600
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.29 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 9 - Plan 14 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 3:51:39 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP903.dgn

10A CURVE DATA
℄ CONST. 81" BARRIER 10
P.I. = STA. 1001+17.86
Δ = 03°24'02" RT
Dc = 01°26'35"
R = 3,970.53'
T = 117.86'
L = 235.65'
E = 1.75'

10B CURVE DATA
℄ CONST. 81" BARRIER 10
P.I. = STA. 1004+09.87
Δ = 03°37'43" RT
Dc = 01°02'30"
R = 5,500.00'
T = 174.22'
L = 348.32'
E = 2.76'

NOTES
1.) CAUTION: EX. CTSS FIBER DEPTH BASED ON FIELD SURVEY SHOTS AT EX. PULL BOX LOCATIONS. THE CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING NEAR THE CTSS FIBER TO NOT EXCAVATE BELOW THE 81" BARRIER FOUNDATION LIMITS SHOWN ON THE TYPICAL SECTIONS.

HORIZONTAL SCALE IN FEET
0 10 20 40

Double lines showing.

Overlap of the two systems seems excessive. Please verify length of need.

ARCADIS RESPONSE: COMPLIED - we believe only one line showing now.

Arcadis Response: Please see overlap calculation below. The overlap seems reasonable.

CL wall to front face of barrier (@ narrowest point) = 35.16'
Required Overlap = (3*35.16) = 105.48'
Provided Overlap = 108.03'

Ex R/W
Ex LA-R/W
EX. SAN MH
TOWNSHIP OF COLUMBUS
EX. 12" PVC
SAN
EX. 15" CPP
CONST. LIMITS
EX. FENCE (TBR)
EX. FENCE (DND)
911
912
℄ CONST. WALL 9
TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT
PROP. 6" UNDERDRAIN
END PROP. NOISE WALL 9
STA. 912+70.00, 0.00' LT
℄ CONST. WALL 9 =
STA. 2231+05.30, 102.00' LT
℄ CONST. SR 161
DS-57
2-WIRE CIRCUIT
UIT #560, LEG A
W/ PID 116322)
OLE #202991
/ PID 116322)
PROP. 81" BARRIER DRAINAGE WINDOW
STA. 1004+00.00
SEE SHEET P.209
10.0'
5.5'
1000
1001
1002
1003
1004
PROP. 81" BARRIER 10
CURVE 10A
CURVE 10B
℄ CONST. 81" BARRIER 10
PROP. SAWCUT
CONST. LIMITS
EX. EDGE OF PAVED SHOULDER
BEGIN PROP. 81" BARRIER 10
STA. 1000+00.00, 0.00' LT
℄ CONST. 81" BARRIER 10 =
STA. 2230+00.00, 64.00' LT
℄ CONST. SR 161
EX. CABLE BARRIER
(TBR W/ PID 116322)
EX. CONCRETE
(TBR W/ PID 116322)
PROP. 81" BARRIER DRAINAGE WINDOW
STA. 1001+00.00
SEE SHEET P.209
LIMIT OF SHOULDER MILL/FILL
WESTBOUND SR-161
PCC STA. 1002+35.65
2230
2231
2232
2233
29
℄ CONST. SR 161
FUTURE EX. LIGHT POLE 849-C5
(PID 116322)
FUTURE EX. I-3, APP
(PID 116322)
FUTURE EX. CB-5
(PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C
IN (1)-2" PVC CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE 849-C6
(PID 116322)
FUTURE EX. CONC. BARRIER, TYPE C APP 2
(PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C
IN (1)-2" PVC CONDUIT (PID 116322)
MATCH LINE STA. 2234+00.00
SEE SHEET P.31

1005
1000
995
990
985
980
975
970
965
1000
1001
1002
1003
1004
PROP. 81" BARRIER END ANCHORAGE, REINFORCED
PROP. 81" BARRIER DRAINAGE WINDOW SECTION
PROP. 81" BARRIER END ANCHORAGE, REINFORCED
PROP. 81" BARRIER END ANCHORAGE, REINFORCED
+00
+15
+75
+90
+10
+25
TOP OF PROP. 81" BARRIER 10
PROP. 81" BARRIER DRAINAGE WINDOW SECTION
PROP. 81" BARRIER END ANCHORAGE, REINFORCED
+75
+90
BOTTOM OF PROP. 81" BARRIER 10
BEGIN PROP. 81" BARRIER 10
STA. 1000+00.00
EX. GROUND AT
℄ CONST. 81" BARRIER 10
EX. 15" CPP

PLAN & PROFILE - 81" BARRIER 10
STA. 2229+00.00 TO STA. 2234+00.00

DESIGN AGENCY
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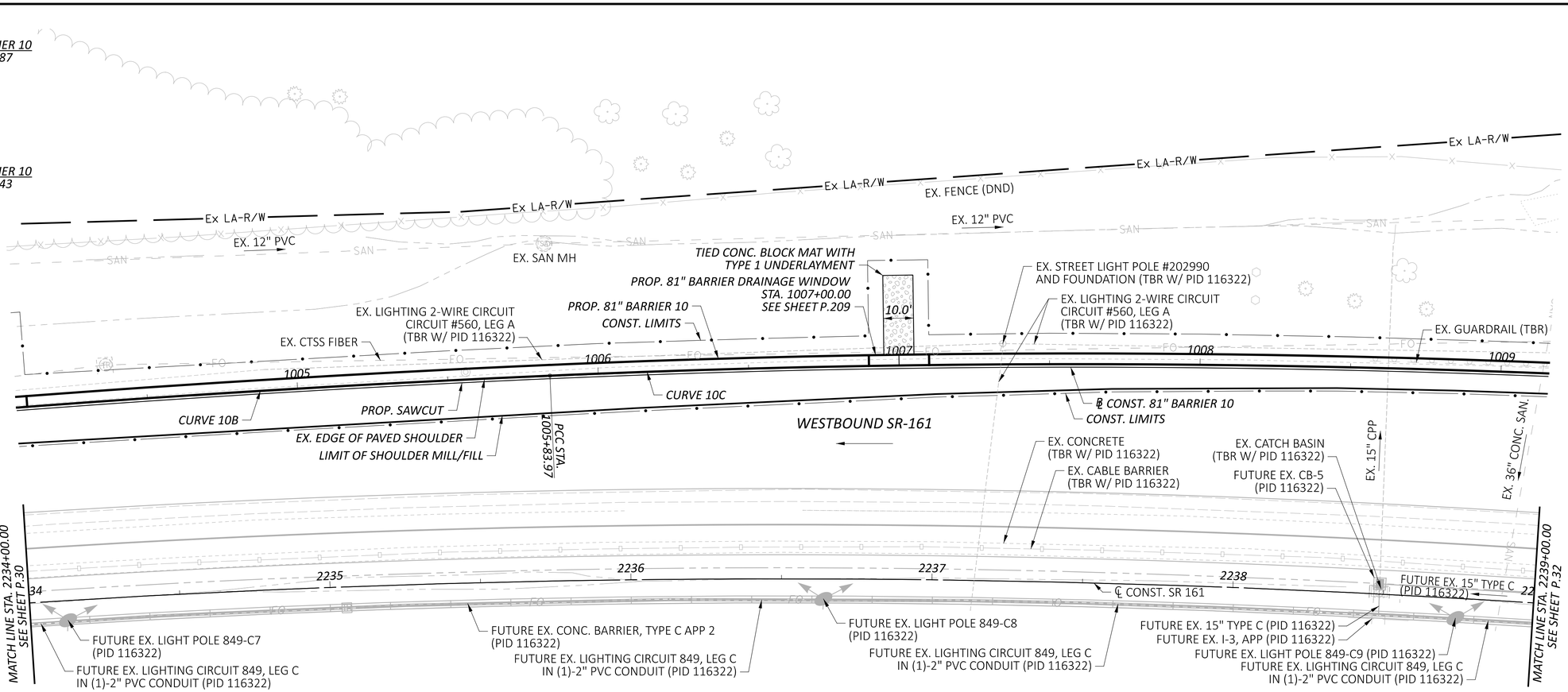
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.30 TOTAL P.276

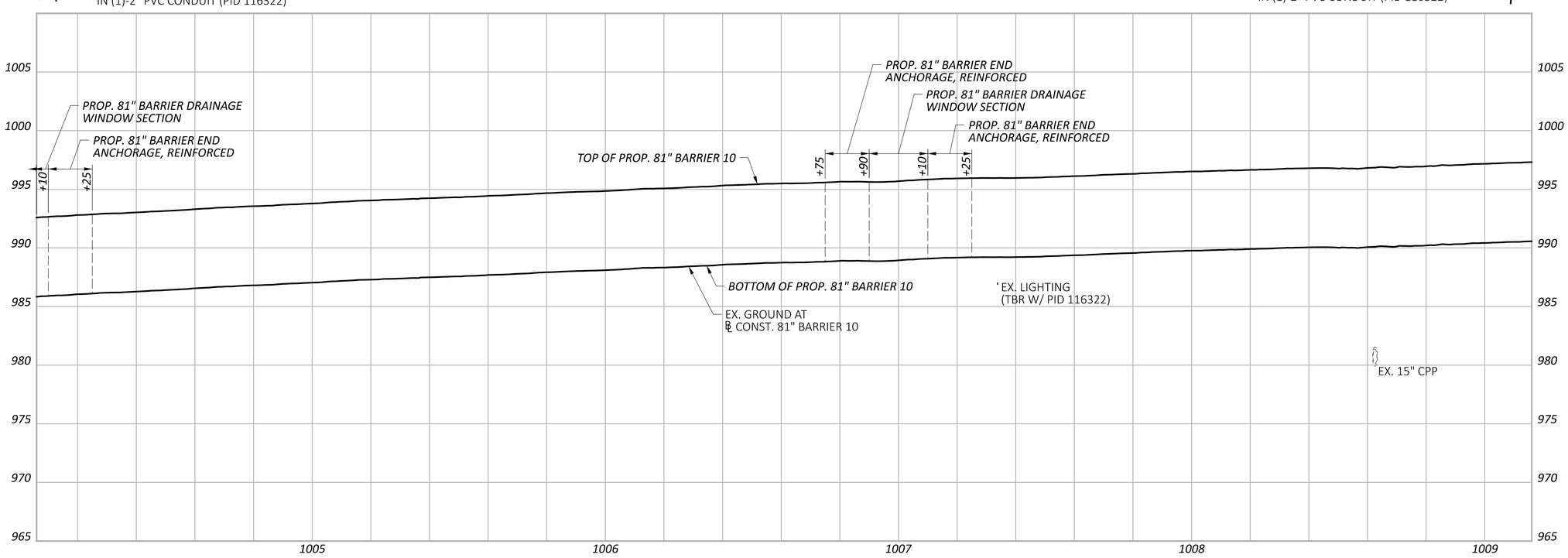
FRA-161-15.80 NOISE WALLS

MODEL: Wall 10 - Plan 15 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 4:03:10 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1001.dgn

10B **CURVE DATA**
℄ CONST. 81" BARRIER 10
P.I. = STA. 1004+09.87
Δ = 03°37'43" RT
Dc = 01°02'30"
R = 5,500.00'
T = 174.22'
L = 348.32'
E = 2.76'

10C **CURVE DATA**
℄ CONST. 81" BARRIER 10
P.I. = STA. 1008+34.43
Δ = 07°09'57" RT
Dc = 01°25'57"
R = 4,000.00'
T = 250.46'
L = 500.27'
E = 7.83'





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - 81" BARRIER 10
STA. 2234+00.00 TO STA. 2239+00.00

DESIGN AGENCY
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8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
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DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.31 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 10 - Plan 16 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 4:03:37 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1002.dgn

ESR Mapping and Widening plans do not show these lines or have this labeled as a Wetland.

Regulated Stream 5, DND

ARCADIS RESPONSE: Agreed that labeling was incorrect. Since Stage 2, Arcadis and Environmental sub L&A have worked together to adjust environmental line work appropriately throughout the plan set.

LEGEND

ITEM 304 - 10" AGGREGATE BASE

PROP. PAVED SHOULDER (SEE TYPICAL SECTIONS FOR PAVEMENT BUILDUP)

500-YEAR FLOODPLAIN
100-YEAR FLOODWAY
237' SCPZ LINE
237' ± SCPZ WIDTH
SUGAR RUN
Ex LA-R/W
REGULATED STREAM SUGAR RUN CREEK (DND)
EX. WETLAND
TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT
EX. FENCE (DND)
100-YEAR FLOODPLAIN AND SCPZ LINE
EX. 30" CONC.
EX. SAN MH
EX. DITCH
EX. 36" CONC.
STRUCTURE NO FRA-161-22509326
EX. LIGHTING 2-WIRE CIRCUIT CIRCUIT #560, LEG A (TBR W/ PID 116322)
CONST. LIMITS
EX. GUARDRAIL (TBR)
EX. CTSS FIBER
EX. STREET LIGHT POLE #202989 AND FOUNDATION (TBR W/ PID 116322)
10.0'
EX. EDGE OF PAVED SHOULDER
PROP. 81" BARRIER 10
PC STA. 1013+16.90
CURVE 10D
CURVE 10C
℄ CONST. 81" BARRIER 10
PROP. SAWCUT
LIMIT OF SHOULDER MILL/FILL
S88°14'40"E
PROP. 81" BARRIER DRAINAGE WINDOW STA. 1011+60.00 SEE SHEET P.209
+70.07
1'
6.6'
+15.44
PT STA. 1010+84.24
EX. 14' X 7' BOX CULVERT
WESTBOUND SR-161
EX. CONCRETE (TBR W/ PID 116322)
EX. BARRIER GUARDRAIL (TBR W/ PID 116322)
MATCH LINE STA. 2239+00.00 SEE SHEET P.31
MATCH LINE STA. 2244+00.00 SEE SHEET P.33
FUTURE EX. 15" TYPE C (PID 116322)
℄ CONST. SR 161
FUTURE EX. CB-5 (PID 116322)
15" TYPE C
FUTURE EX. I-3, APP (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE 849-C10 (PID 116322)
FUTURE EX. CONC. BARRIER, TYPE C APP 2 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE 849-C11 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
PROP. 81" BARRIER END ANCHORAGE, REINFORCED
PROP. 81" BARRIER DRAINAGE WINDOW SECTION
PROP. 81" BARRIER END ANCHORAGE, REINFORCED
TOP OF PROP. 81" BARRIER 10
+35
+50
+70
+85
BOTTOM OF PROP. 81" BARRIER 10
EX. GROUND AT ℄ CONST. 81" BARRIER 10
EX. 14' X 7' BOX CULVERTS

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - 81" BARRIER 10
STA. 2239+00.00 TO STA. 2244+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 10 - Plan 17 PAPERSIZE: 34x22 (in.) DATE: 2024-01-21 TIME: 11:00:36 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1003.dgn

DESIGN AGENCY
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www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.32 TOTAL P.276

ESR Mapping and Widening plans do not show these lines or have this labeled as a Wetland.

ARCADIS RESPONSE: Agreed that labeling was incorrect. Since Stage 2, Arcadis and Environmental sub L&A have worked together to adjust environmental line work appropriately throughout the plan set.

10D *CURVE DATA*
℄ CONST. 81" BARRIER 10
P.I. = STA. 1014+82.35
Δ = 15°41'58" LT
Dc = 04°46'29"
R = 1,200.00'
T = 165.44'
L = 328.81'
E = 11.35'

Ex LA-R/W
EX. FENCE (DND)
EX. WETLAND
TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT
EX. UD
EX. DITCH
Regulated Stream 5, DND
EX. EDGE OF PAVED SHOULDER
CONST. LIMITS
CURVE 10D
PROP. 81" BARRIER 10
℄ CONST. 81" BARRIER 10
CONST. LIMITS
EX. CTSS FIBER (SEE NOTE 1)
CONC. BARRIER END SECTION
POT STA. 1016+49.64
PT STA. 1016+45.71
END PROP. 81" BARRIER 10
STA. 1016+49.64, 0.00' LT
℄ BARRIER 10 = STA. 2246+25.00, 140.43' LT
℄ CONST. SR 161
10.0'
1016
1015
15.26'
N76°03'22"E
RAMP L
FUTURE EX. MIS-403 (PID
STA. 2247+03.73, 155.09' LT
℄ CONST. SR 161
FUTURE EX. LIGHT POLE 560-A9 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 560, LEG A MIS-403 (PID 116322)
PROP. 81" BARRIER DRAINAGE WINDOW STA. 1015+50.00 SEE SHEET P.209
FUTURE EX. LIGHT POLE 560-A8 (PID 116322)

LEGEND
ITEM 304 - 10" AGGREGATE BASE
PROP. PAVED SHOULDER (SEE TYPICAL SECTIONS FOR PAVEMENT BUILDUP)

NOTES
1.) CAUTION: EX. CTSS FIBER DEPTH BASED ON FIELD SURVEY SHOTS AT EX. PULL BOX LOCATIONS. THE CONTRACTOR SHALL USE EXTREME CAUTION WHILE WORKING NEAR THE CTSS FIBER TO NOT EXCAVATE BELOW THE 81" BARRIER FOUNDATION LIMITS SHOWN ON THE TYPICAL SECTIONS.

HORIZONTAL SCALE IN FEET
0 10 20 40

FYI - per 116322 IOS, max. ADT for Ramp L is 1720 (AM Peak Build Condition). All other conditions (AM Peak, and both AM & PM No Builds) are less than 1500 ADT. Based on highest ADT, 50mph design speed, and foreslope 6:1 or flatter (grading is 6:1 or flatter within within 32' of edge of traveled way), per L&D1 Figure 600-1, the clear zone is 17'. 21.26' provided.

Make sure grading does not bury or expose light pole - a note to grade aggregate around pole is probably sufficient.

Light pole is close. Katie will coordinate with 116322 to make sure access door is not facing the back.

ARCADIS RESPONSE: Noted

Make sure grading does not bury or expose light pole - a note to grade aggregate around pole is probably sufficient.

ARCADIS RESPONSE: Complied and note added.

WESTBOUND SR-161

Label the two Columbia Gas 20" H.P. gas lines, include easement information.

COLUMBIA GAS TRANSMISSION CORP.
2–20" H.P. GAS LINES
Vol. 1495 Pg. 566 &
Vol. 1495 Pg. 568
BLANKET EASEMENT

EX. CONCRETE (TBR W/ PID 116322)
EX. CABLE BARRIER (TBR W/ PID 116322)

MATCH LINE STA. 2244+00.00 SEE SHEET P.32

2244 2245 2246 2247 2248 22

℄ CONST. SR 161

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE 849-C12 (PID 116322)
FUTURE EX. CONC. BARRIER, TYPE C APP 2 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)

ARCADIS RESPONSE: Complied

ARCADIS RESPONSE: Noted

1010 1005 1000 995 990 985 980 975 970

PROP. 81" BARRIER END ANCHORAGE, REINFORCED
PROP. 81" BARRIER DRAINAGE WINDOW SECTION
PROP. 81" BARRIER END ANCHORAGE, REINFORCED
TOP OF PROP. 81" BARRIER 10
CONCRETE BARRIER, 81" SSB, END SECTION, 32" TO 81" 53' TRANSITION PER SCD PIS-81-SSB
+25 +40 +60 +75 +96.64 +49.64
BOTTOM OF PROP. 81" BARRIER 10
EX. GROUND AT ℄ CONST. 81" BARRIER 10
EX. GAS
EX. GAS
EX. LIGHTING
EX. FIBER OPTIC
END PROP. 81" BARRIER 10 STA. 1016+49.64

1015 1016

PLAN & PROFILE - 81" BARRIER 10 STA. 2244+00.00 TO STA. 2249+00.00

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DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.33 TOTAL P.276

FRA-161-15.80 NOISE WALLS

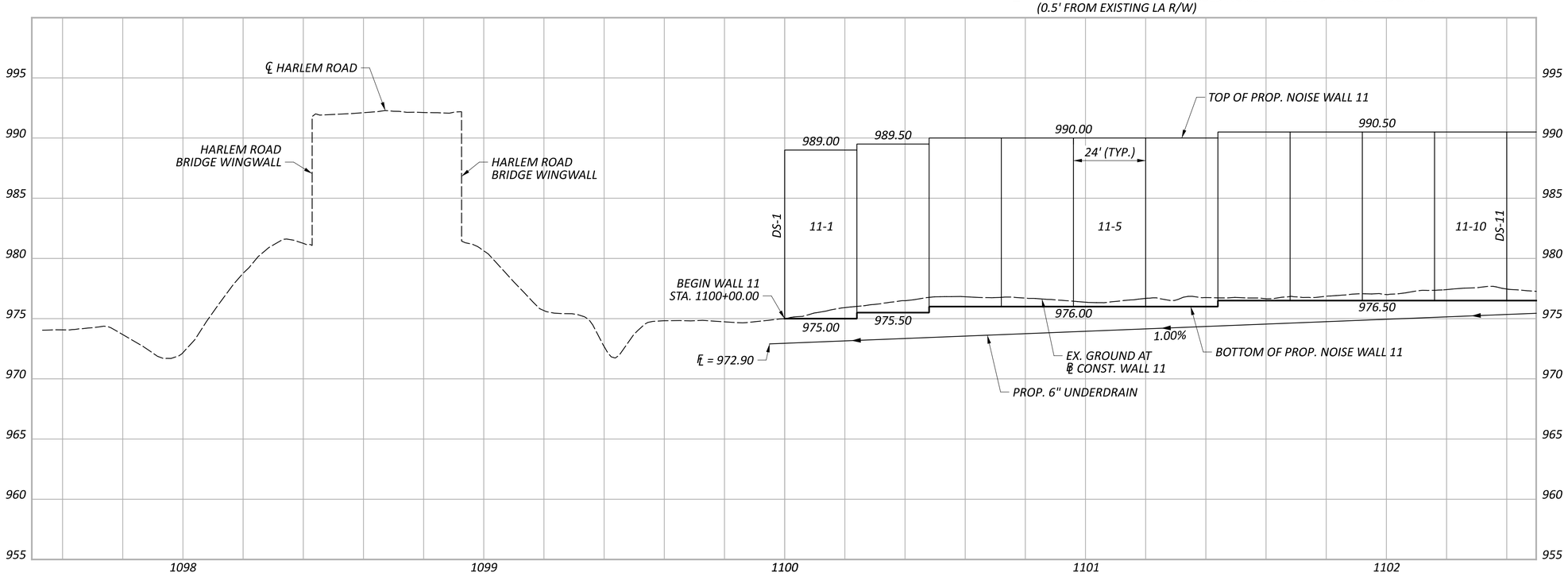
MODEL: Wall 10 - Plan 18 PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 4:04:16 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1004.dgn

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
EX. BARRIER GUARDRAIL (TBR W/ PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE 849-A19 (PID 116322)
FUTURE EX. CONC. BARRIER, TYPE D (PID 116322)
FUTURE EX. CB-5 (PID 116322)
FUTURE EX. GUARDRAIL, TYPE MGS (PID 116322)
EX. CABLE BARRIER (TBR W/ PID 116322)
FUTURE EX. LIGHT POLE 849-C1 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
EX. CONCRETE (TBR W/ PID 116322)
FUTURE EX. CB-5 (PID 116322)
EX. CATCH BASIN (TBR W/ PID 116322)

16 2217 2218 2219 2220 22

℄ CONST. SR 161

FUTURE EX. 15" TYPE B (PID 116322)
FUTURE EX. 15" TYPE C (PID 116322)
FUTURE EX. LIGHTING CONDUIT (PID 116322)
EX. BARRIER GUARDRAIL (TBR W/ PID 116322)
FUTURE EX. I-3, APP (PID 116322)
FUTURE EX. CANTILEVER SIGN SUPPORT (PID 116322)
EASTBOUND SR-161
FUTURE EX. CONC. BARRIER, TYPE C, APP 2 (PID 116322)
FUTURE EX. XX" TYPE B (PID 116322)
MATCH LINE STA. 2221+00.00 SEE SHEET P.35
EX. EGE OF PAVED SHOULDER
FUTURE EX. GUARDRAIL, TYPE MGS (PID 116322)
POT STA. 1100+00.00
15" MULTI
EX. 16" WATER MAIN (CTP08060_006/D.I.)
BEGIN PROP. NOISE WALL 11 STA. 1100+00.00, 0.00' RT
℄ CONST. WALL 11 = STA. 2218+46.22, 111.43' RT
℄ CONST. SR 161
EX. CATCH BASIN (DND)
PI STA. 1102+40.00
Δ = 00°00'00", DS-11
XX"
CONST. LIMITS
PROP. 6" UNDERDRAIN
36" MULTI
24" MULTI
1100
1101
1102
240.00'
N66°54'02"E
20.8Δ
22.2Δ
8.3Δ
15.5Δ
12"
15"
18" MULTI
Ex LA-R/W
CITY OF COLUMBUS
CITY OF NEW ALBANY
HARLEM ROAD
EX. FENCE (REMOVE AND REERECT 201')
℄ CONST. NOISE WALL 11
END FENCE REMOVE AND REERECT
EX. FENCE (DND)
BEGIN FENCE REMOVE AND REERECT
Δ = OFFSET FROM BACK OF PROPOSED NOISE WALL 11 TO FENCE RELOCATION (0.5' FROM EXISTING LA R/W)



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 11
STA. 2216+00.00 TO STA. 2221+00.00

DESIGN AGENCY
BG
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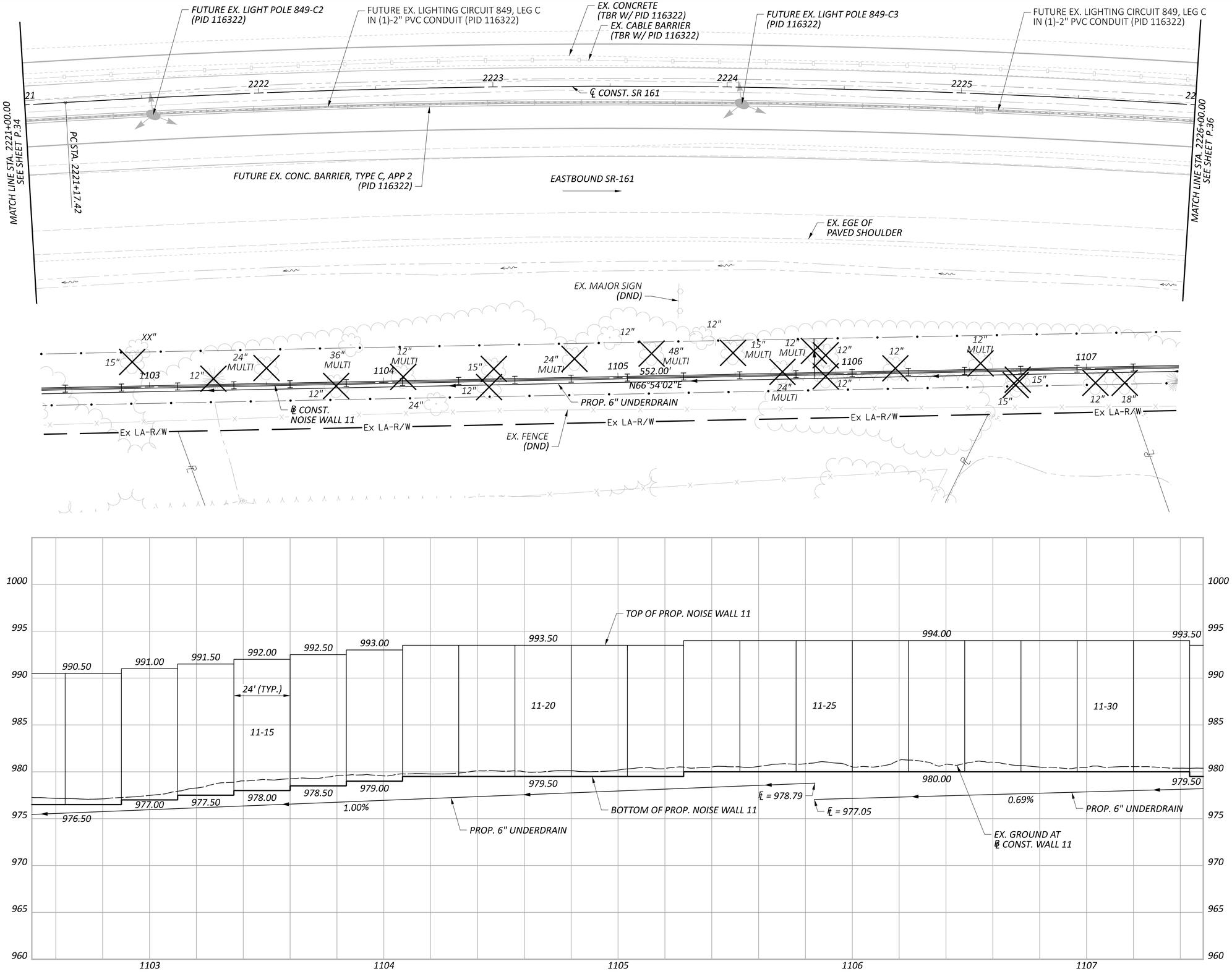
DUBLIN, OHIO 43016

DESIGNER	JEP
REVIEWER	RG 01-22-24
PROJECT ID	117607
SHEET	P.34
TOTAL	P.276

FRA-161-15.80 NOISE WALLS

MODEL: Plan PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:53:19 AM USER: JPerchinske
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1101.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 11
STA. 2221+00.00 TO STA. 2226+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Plan-1 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:53:40 AM USER: JPerchinske
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1102.dgn

DESIGN AGENCY
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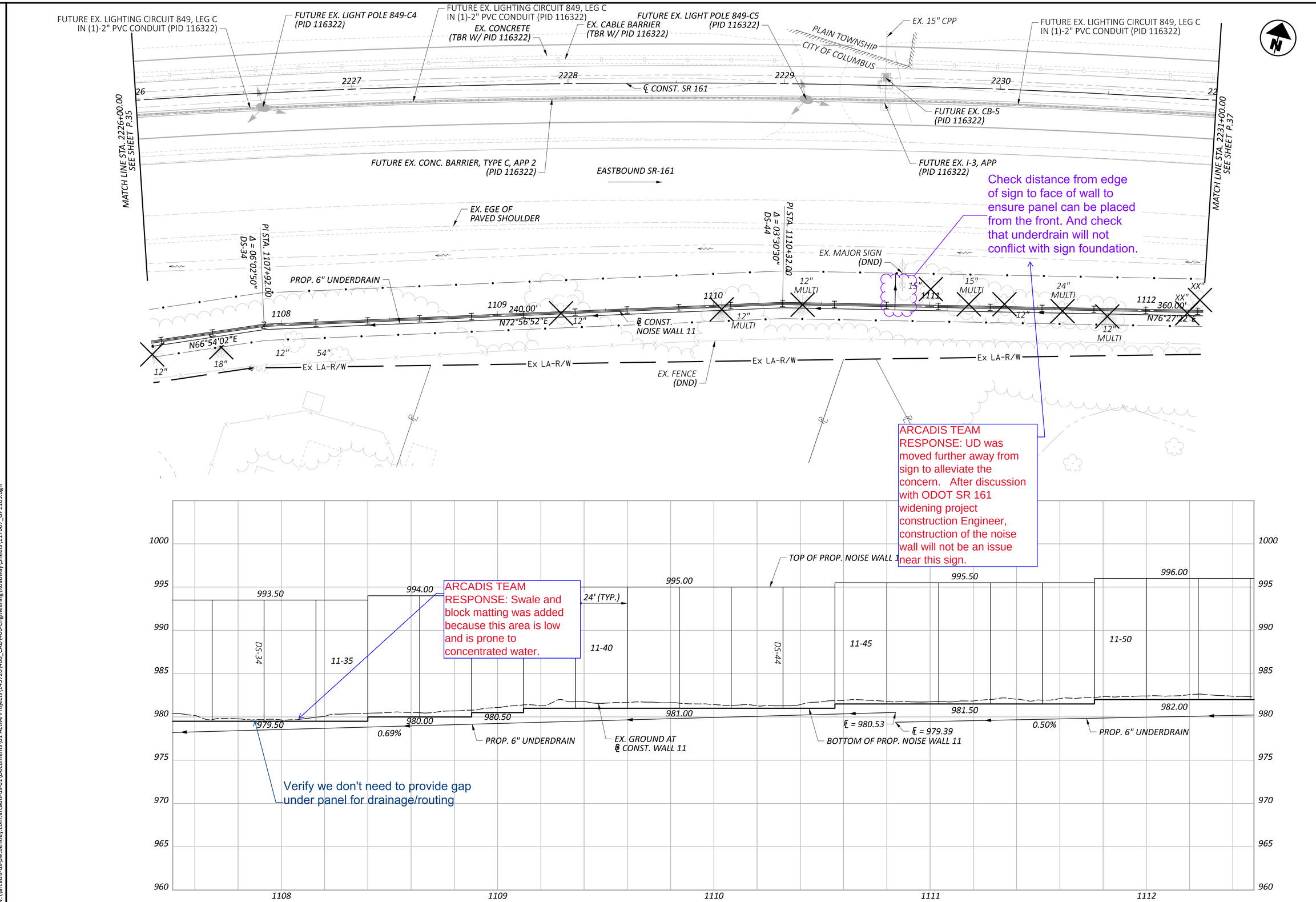
DUBLIN, OHIO 43016

DESIGNER JEP
REVIEWER RG 01-22-24
PROJECT ID 117607
SHEET P.35 TOTAL P.276



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 11
STA. 2226+00.00 TO STA. 2231+00.00

DESIGN AGENCY
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www.bgenggroup.com
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DUBLIN, OHIO 43016

DESIGNER
JEP

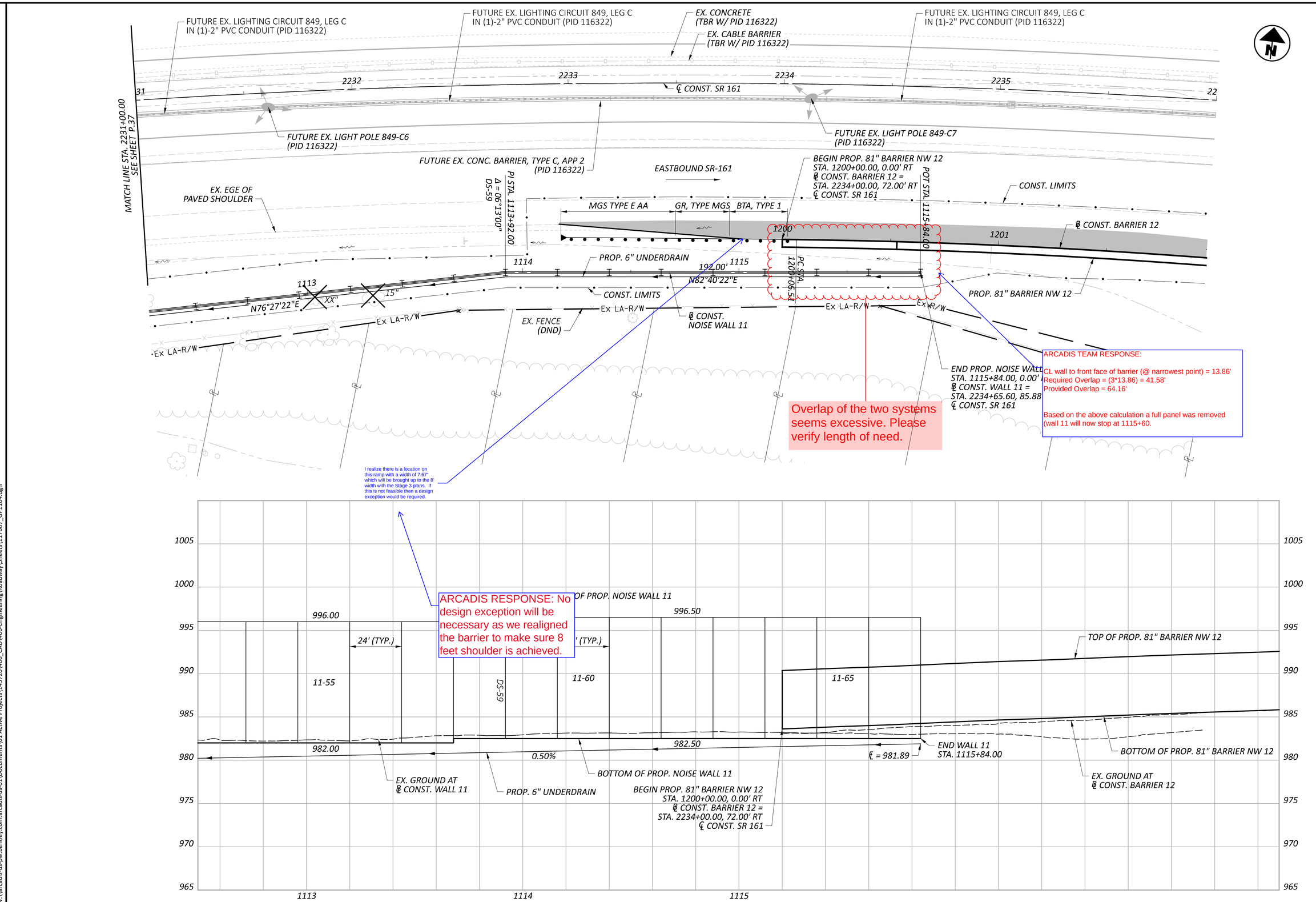
REVIEWER
RG 01-22-24

PROJECT ID
117607

SHEET P.36 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Plan-2 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:53:58 AM USER: JPerchinske
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1103.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 11
STA. 2231+00.00 TO STA. 2236+00.00

DESIGN AGENCY
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DESIGNER
JEP

REVIEWER
RG 01-22-24

PROJECT ID
117607

SHEET P.37 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Plan-3 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:54:17 AM USER: JPerchinske
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1104.dgn

LEGEND

ITEM 304 - 10" AGGREGATE BASE

PROP. PAVED SHOULDER
(SEE TYPICAL SECTIONS FOR PAVEMENT BUILDUP)

FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE 849-C7 (PID 116322)
FUTURE EX. CONC. BARRIER, TYPE C APP 2 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE 849-C8 (PID 116322)
FUTURE EX. CB-5 (PID 116322)
EX. CB (TBR W/ PID 116322)
FUTURE EX. 15" TYPE C (PID 116322)
℄ CONST. SR 161
FUTURE EX. 15" TYPE C (PID 116322)
FUTURE EX. I-3, APP (PID 116322)
FUTURE EX. LIGHT POLE 849-C9 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
EX. LIGHTING 2-WIRE CIRCUIT CIRCUIT #560, LEG A (TBR W/ PID 116322)
EX. STREET LIGHT POLE #202992 AND FOUNDATION (TBR W/ PID 116322)
FUTURE EX. LIGHTING CIRCUIT 849, LEG C IN (1)-2" PVC CONDUIT (PID 116322)
EX. 36" CONC. SAN.
MATCH LINE STA. 2239+00.00 - SEE SHEET P.39

EASTBOUND SR-161

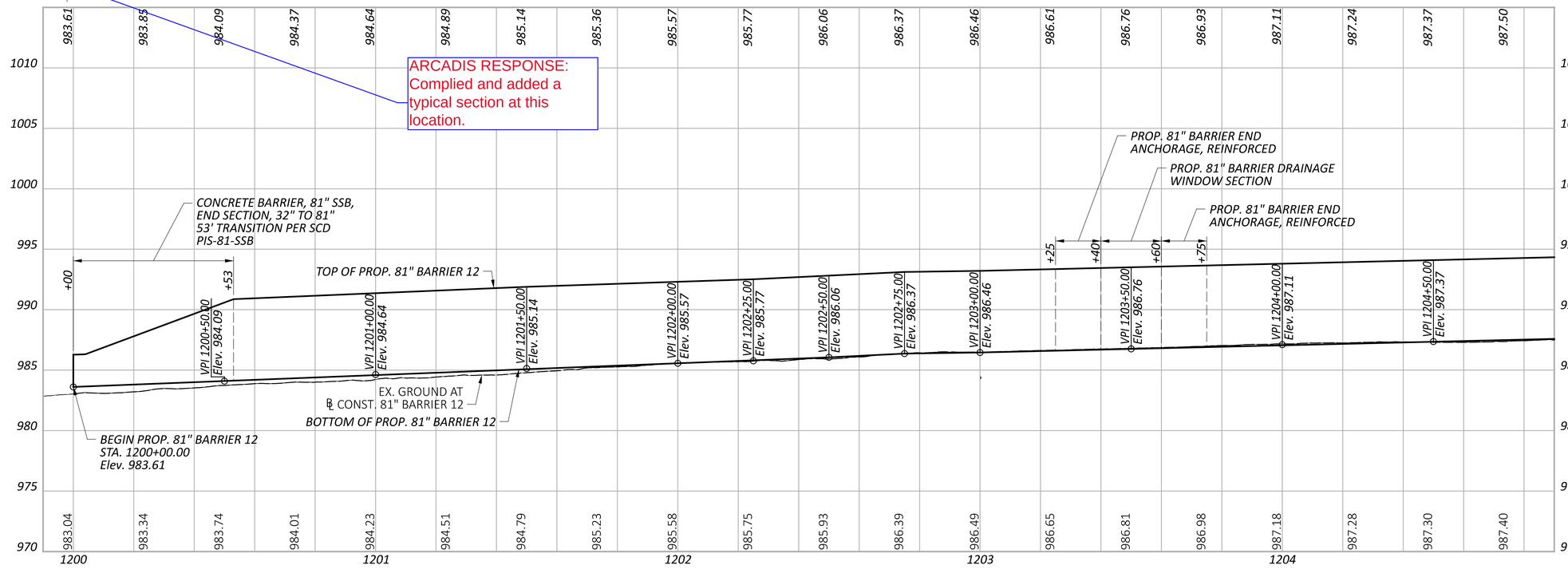
MGS TYPE E ANCHOR ASSEMBLY
25' PROP. GUARDRAIL, TYPE MGS
BTA, TYPE 1 WITH CURB, TYPE 4-A
CONC. 81" BARRIER END SECTION
℄ CONST. 81" BARRIER 12 CURVE 12A
EX. GUARDRAIL (TBR)
LIMIT OF SHOULDER MILL/FILL
PROP. 81" BARRIER DRAINAGE WINDOW STA. 1203+50.00 SEE SHEET P.209
CONST. LIMITS
PROP. SAWCUT
CURVE 12B
N87°52'00"E
EX. DITCH
PROP. 81" BARRIER 12 CONST. LIMITS
PT STA. 1202+38.95
PC STA. 1202+97.05
EX. UD
EX. LIGHTING 2-WIRE CIRCUIT CIRCUIT #560, LEG A (TBR W/ PID 116322)
EX. EDGE OF PAVED SHOULDER
TIED CONC. BLOCK MAT WITH TYPE 1 UNDERLAYMENT
500-YEAR FLOODPLAIN
EX. DITCH
EX. SAN MH
EX. FENCE (DND)
Ex LA-R/W
Ex R/W
℄ CONST. WALL 11
PC STA. 1200+06.51
END PROP. NOISE WALL 11 STA. 1115+84.00, 0.00' RT ℄ CONST. WALL 11 = STA. 2234+65.60, 85.88' RT ℄ CONST. SR 161
BEGIN PROP. 81" BARRIER 12 STA. 1200+00.00, 0.00' RT ℄ CONST. 81" BARRIER 12 = STA. 2234+00.00, 72.00' RT ℄ CONST. SR 161
N83°25'39"E

Label sign to be removed with PID 116322.

ARCADIS RESPONSE: Complied by removing the sign from the sheet.

Typical section needed for this paving work - ensure min. full depth paving width is at least 4'.

ARCADIS RESPONSE: Complied and added a typical section at this location.



12A CURVE DATA
℄ CONST. 81" BARRIER 12
P.I. = STA. 1201+22.78
Δ = 04°26'21" RT
Dc = 01°54'36"
R = 3,000.00'
T = 116.28'
L = 232.44'
E = 2.25'

12B CURVE DATA
℄ CONST. 81" BARRIER 12
P.I. = STA. 1204+10.25
Δ = 03°23'01" RT
Dc = 01°29'42"
R = 3,832.53'
T = 113.20'
L = 226.33'
E = 1.67'

FRA-161-15.80 NOISE WALLS

MODEL: Wall 12 - Plan 19 PAPERSIZE: 34x22 (in.) DATE: 2024-01-21 TIME: 9:38:51 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1201.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - 81" BARRIER 12
STA. 2233+00.00 TO STA. 2239+00.00

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8101 NORTH HIGH ST SUITE 100
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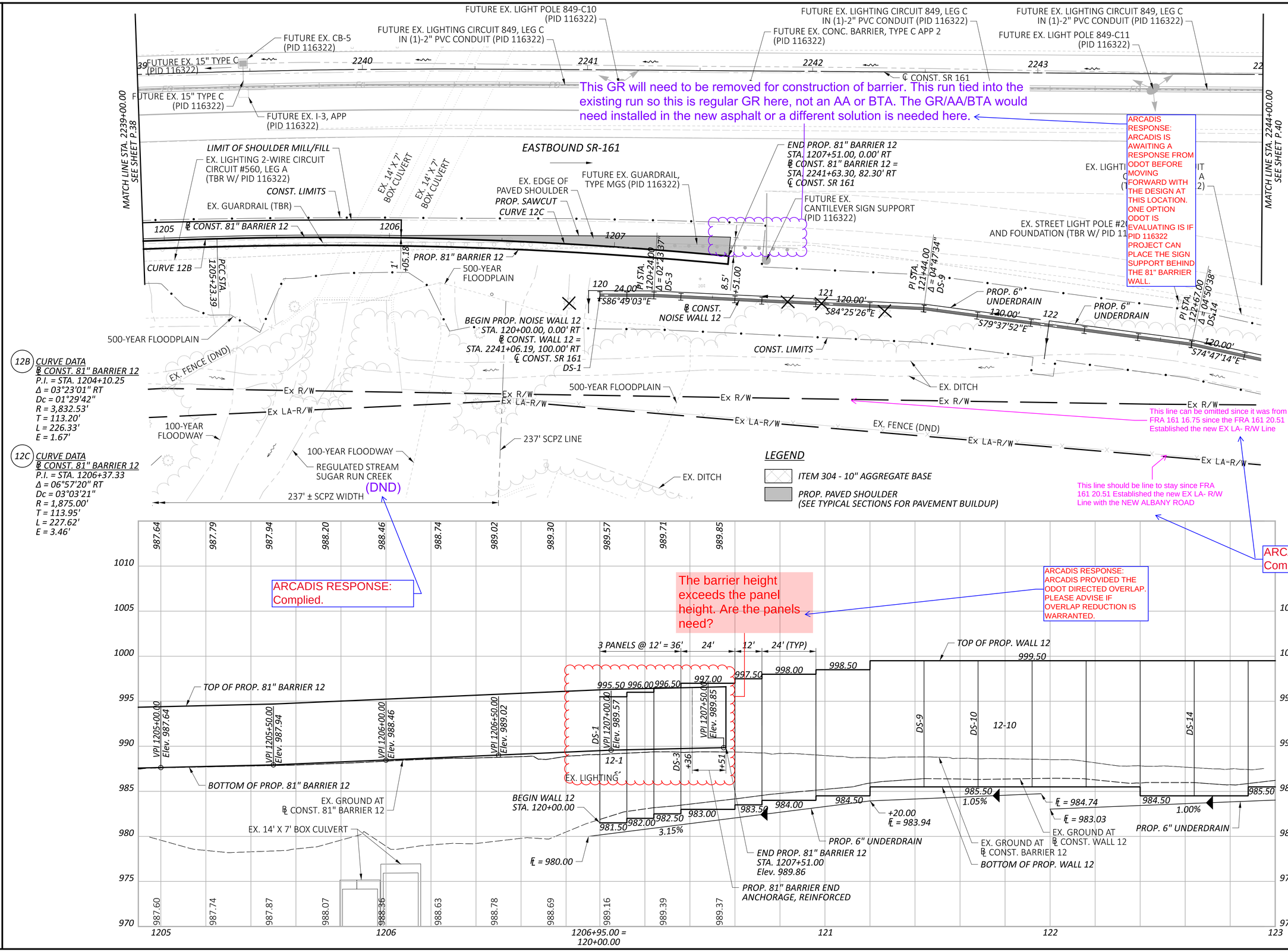
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.38 TOTAL P.276



(12B) *CURVE DATA*
℄ CONST. 81" BARRIER 12
P.I. = STA. 1204+10.25
Δ = 03°23'01" RT
Dc = 01°29'42"
R = 3,832.53'
T = 113.20'
L = 226.33'
E = 1.67'

(12C) *CURVE DATA*
℄ CONST. 81" BARRIER 12
P.I. = STA. 1206+37.33
Δ = 06°57'20" RT
Dc = 03°03'21"
R = 1,875.00'
T = 113.95'
L = 227.62'
E = 3.46'

LEGEND
- *ITEM 304 - 10" AGGREGATE BASE*
- *PROP. PAVED SHOULDER (SEE TYPICAL SECTIONS FOR PAVEMENT BUILDUP)*

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - 81" BARRIER 12 / WALL 12
STA. 2239+00.00 TO STA. 2244+00.00

DESIGN AGENCY
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8101 NORTH HIGH ST SUITE 100
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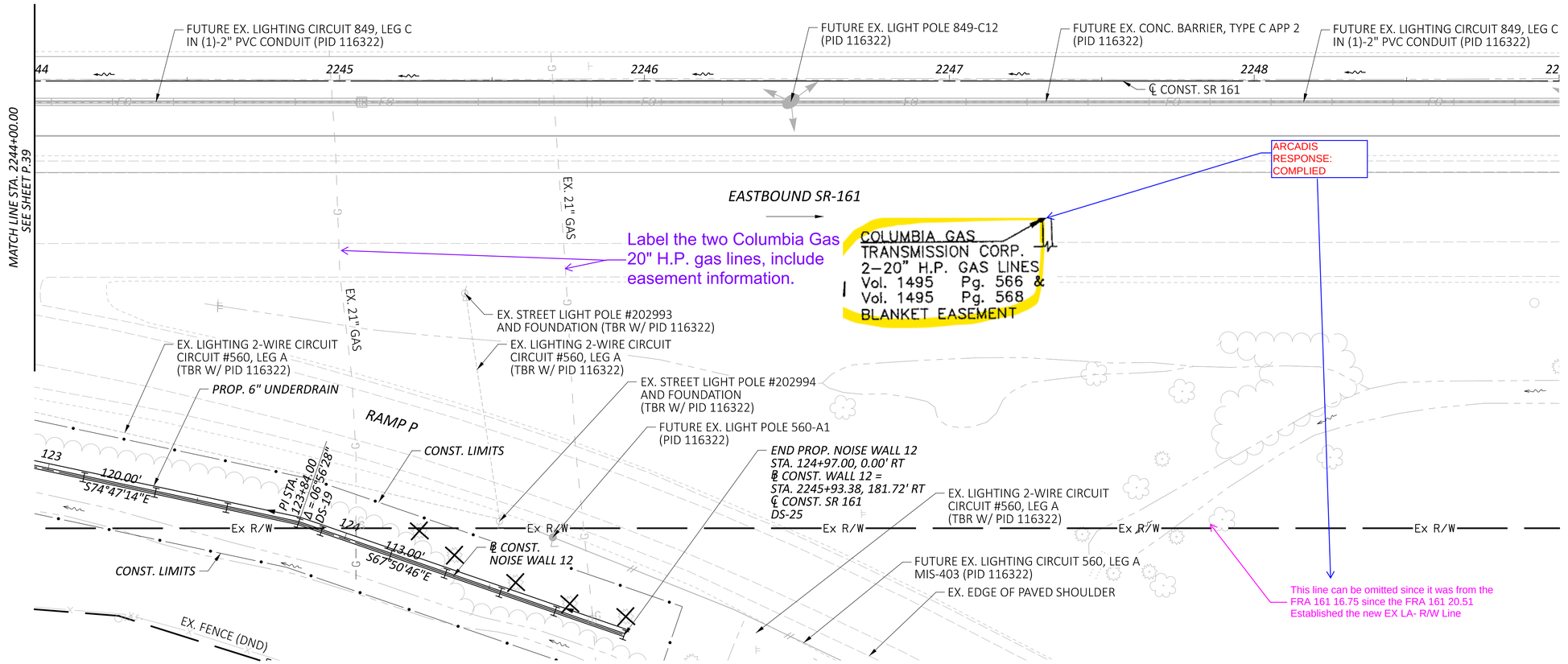
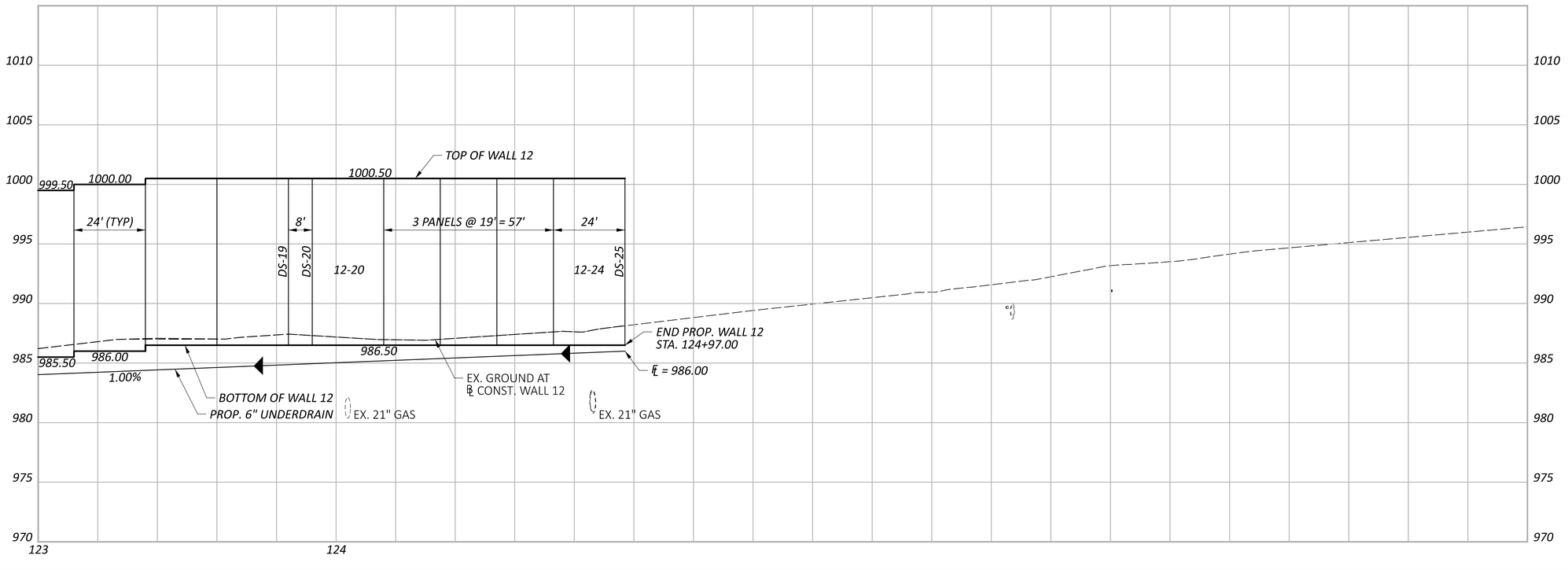
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.39 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 12 - Plan 20 PAPERSIZE: 34x22 (in.) DATE: 2024-01-21 TIME: 9:39:25 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1202.dgn





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 12
STA. 2244+00.00 TO STA. 2249+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 12 - Plan 21 PAPERSIZE: 34x22 (in.) DATE: 2024-01-21 TIME: 9:39:40 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1203.dgn

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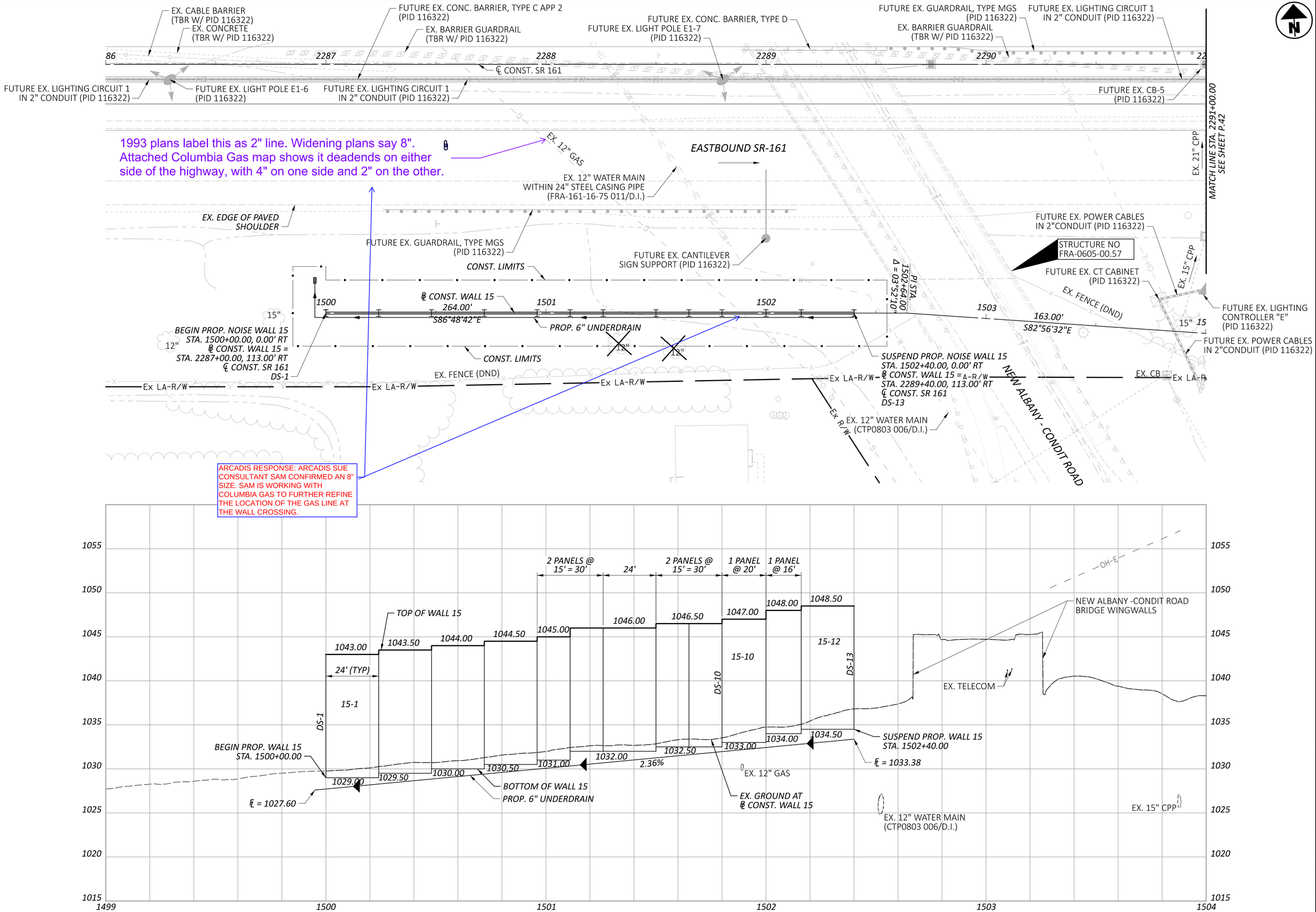
(614) 846-4500
www.arcadis.com

DESIGNER: JMK
REVIEWER: JDH 01-22-24
PROJECT ID: 117607
SHEET: P.40 TOTAL: P.276



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 15
STA. 2286+00.00 TO STA. 2291+00.00

DESIGN AGENCY
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DESIGNER
JMK

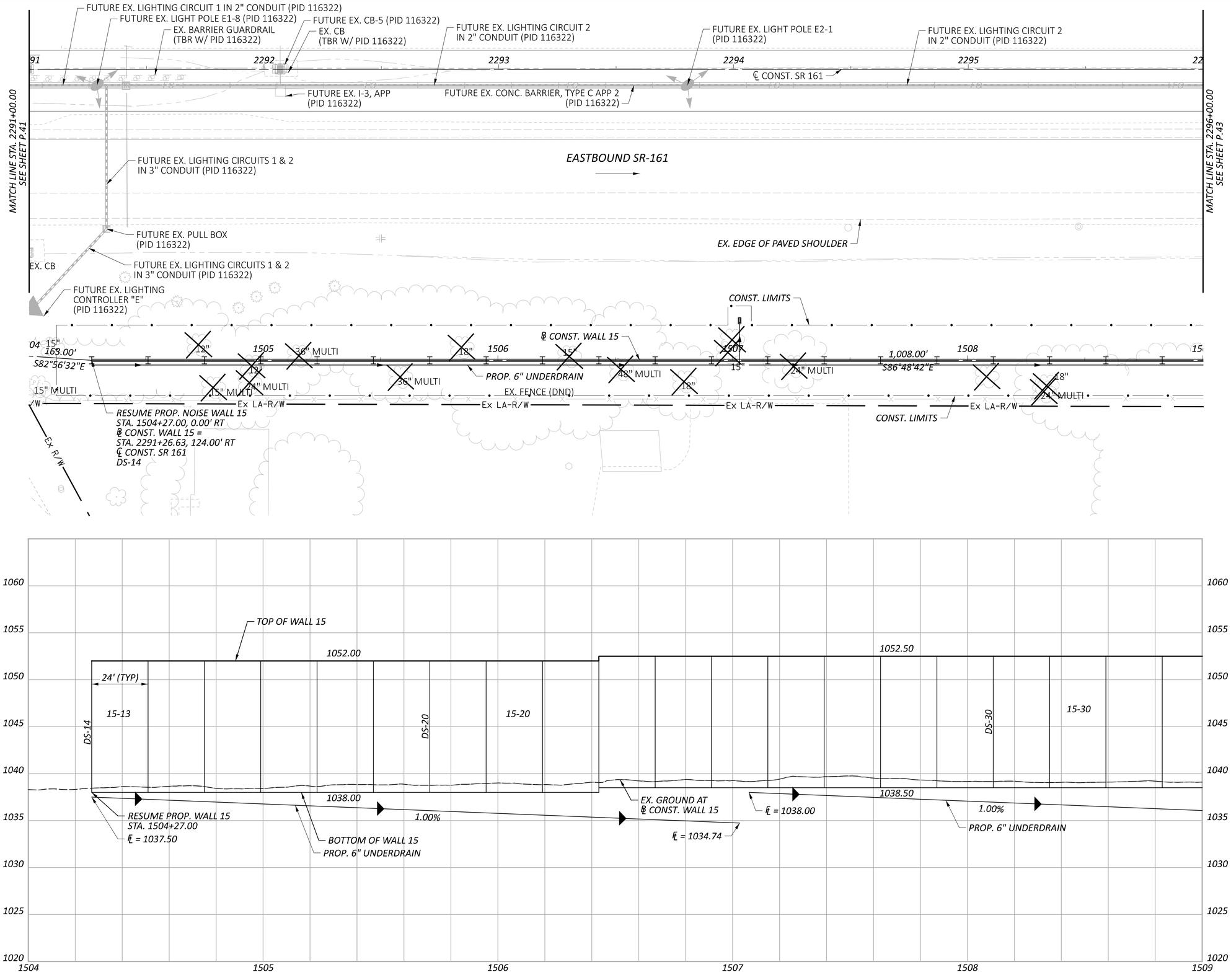
REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.41 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 22 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:51:29 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GP1501.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 15
STA. 2291+00.00 TO STA. 2296+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 23 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:52:00 PM USER: jennifer.kelley
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DESIGN AGENCY
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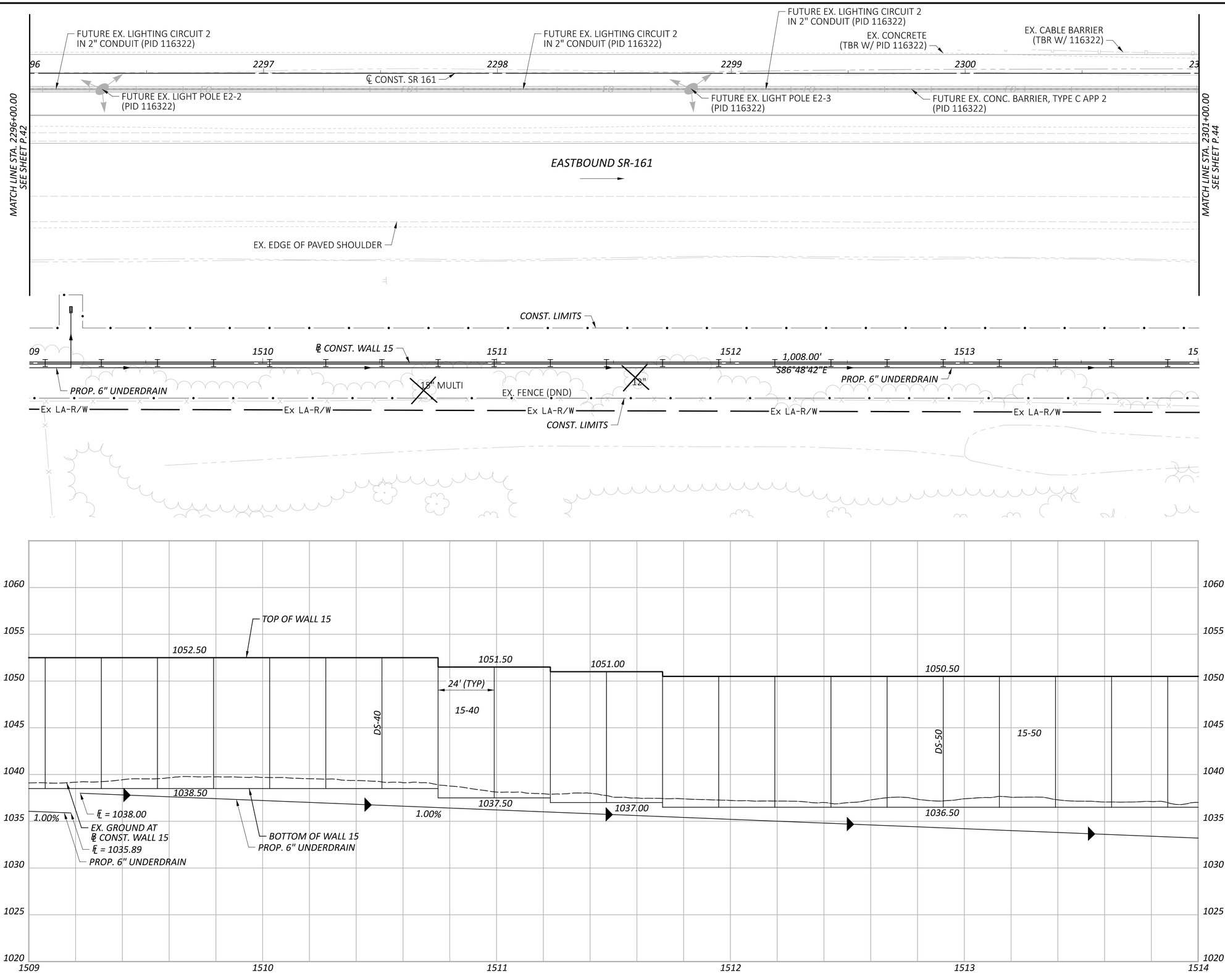
DESIGNER: JMK
REVIEWER: JDH 01-22-24
PROJECT ID: 117607
SHEET: P.42 TOTAL: P.276



HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 15
STA. 2296+00.00 TO STA. 2301+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 24 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:52:25 PM USER: jennifer.kelley
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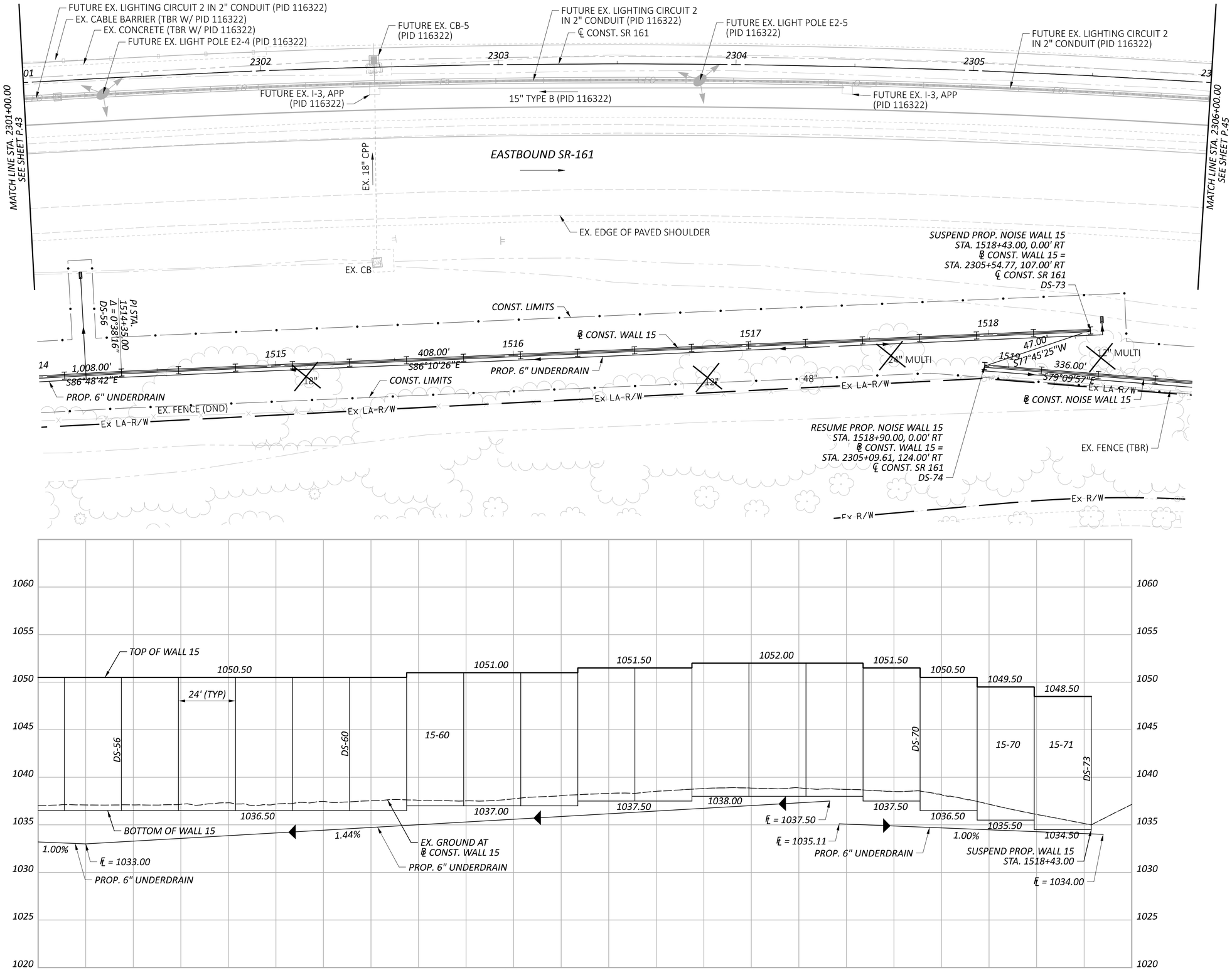
DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.43 | TOTAL P.276



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN & PROFILE - WALL 15
STA. 2301+00.00 TO STA. 2306+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 25 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:52:46 PM USER: jennifer.kelley
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DESIGNER: JMK
REVIEWER: JDH 01-22-24
PROJECT ID: 117607
SHEET: P.44 TOTAL: P.276

FUTURE EX. LIGHTING CIRCUIT 2 IN 2" CONDUIT (PID 116322)
FUTURE EX. LIGHT POLE E2-6 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 2 IN 2" CONDUIT (PID 116322)
FUTURE EX. CONC. BARRIER, TYPE C APP 2 (PID 116322)
FUTURE EX. LIGHT POLE E2-7 (PID 116322)
FUTURE EX. LIGHTING CIRCUIT 2 IN 2" CONDUIT (PID 116322)

2306
2307
2308
2309
2310

℄ CONST. SR 161

MATCH LINE STA. 2306+00.00
SEE SHEET P.44

EASTBOUND SR-161

EX. EDGE OF PAVED SHOULDER

FUTURE EX. GUARDRAIL, TYPE MGS (PID 116322)

EX. STREET LIGHT POLE AND FOUNDATION (TBR W/ PID 116322)

EX. LIGHTING CIRCUIT (TBR W/ PID 116322)

CONST. LIMITS

END PROP. NOISE WALL 15
STA. 1522+26.00, 0.00' RT
℄ CONST. WALL 15 =
STA. 2308+56.65, 122.00' RT
℄ CONST. SR 161
DS-88

1518
47.00'
S17°45'25"W
1519
1520
1521
336.00'
S79°09'57"E
1522

℄ CONST. WALL 15

Ex LA-R/W
EX. FENCE (TBR)
CONST. LIMITS
PROP. 6" UNDERDRAIN
EX. FENCE (DND)

RESUME PROP. NOISE WALL 15
STA. 1518+90.00, 0.00' RT
℄ CONST. WALL 15 =
STA. 2305+09.61, 124.00' RT
℄ CONST. SR 161
DS-74

Ex R/W

Do we need to deal with this swale?

ARCADIS RESPONSE: THE PROFILE BELOW APPEAR TO SHOW A HIGH POINT AT THIS LOCATION. ARCADIS WILL GO TO THE SITE AND CONFIRM THE SWALE DRAINS AWAY FROM THE WALL.

1060
1055
1050
1045
1040
1035
1030
1025
1020

TOP OF WALL 15
1051.50
1051.50
1051.00
1050.50
1050.00
24' (TYP)
15-72
15-80
15-85
DS-74
DS-80
DS-88
END PROP. WALL 15
STA. 1522+26.00
1037.50
1037.00
1036.50
1036.00
0.44%
℄ = 1037.00
PROP. 6" UNDERDRAIN
BOTTOM OF WALL 15
PROP. 6" UNDERDRAIN
EX. GROUND AT ℄ CONST. WALL 15
℄ = 1035.50
RESUME PROP. WALL 15
STA. 1518+90.00

1519
1520
1521
1522

HORIZONTAL SCALE IN FEET
0
10
20
40

PLAN & PROFILE - WALL 15
STA. 2306+00.00 TO STA. 2311+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 26 PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:53:04 PM USER: jennifer.kelley
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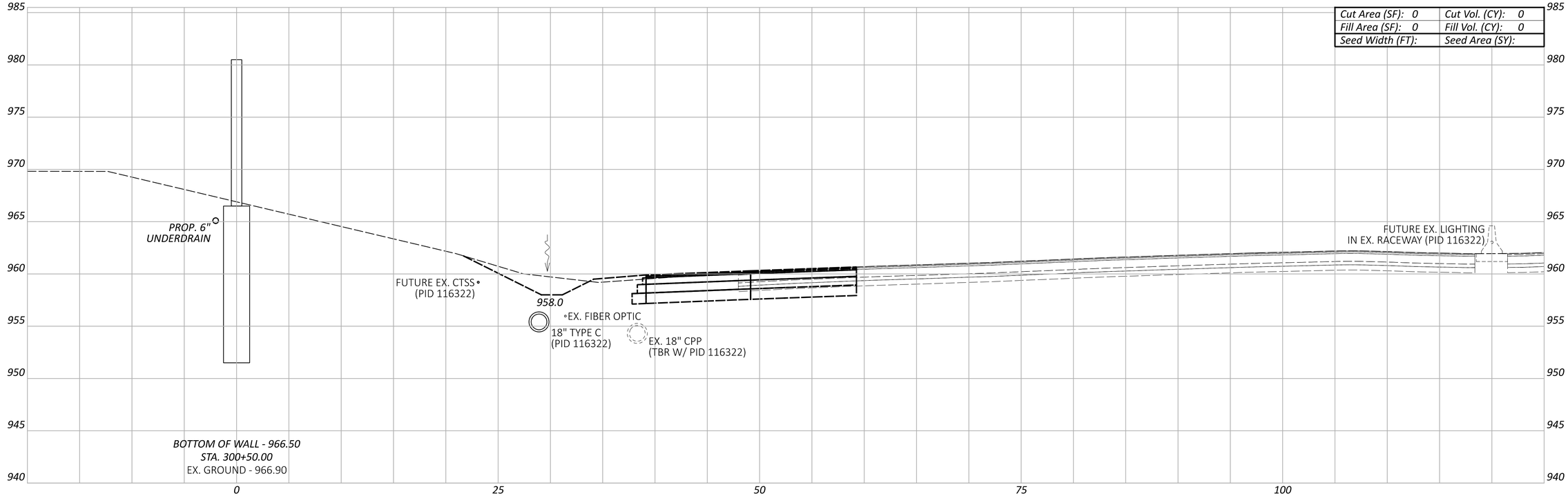
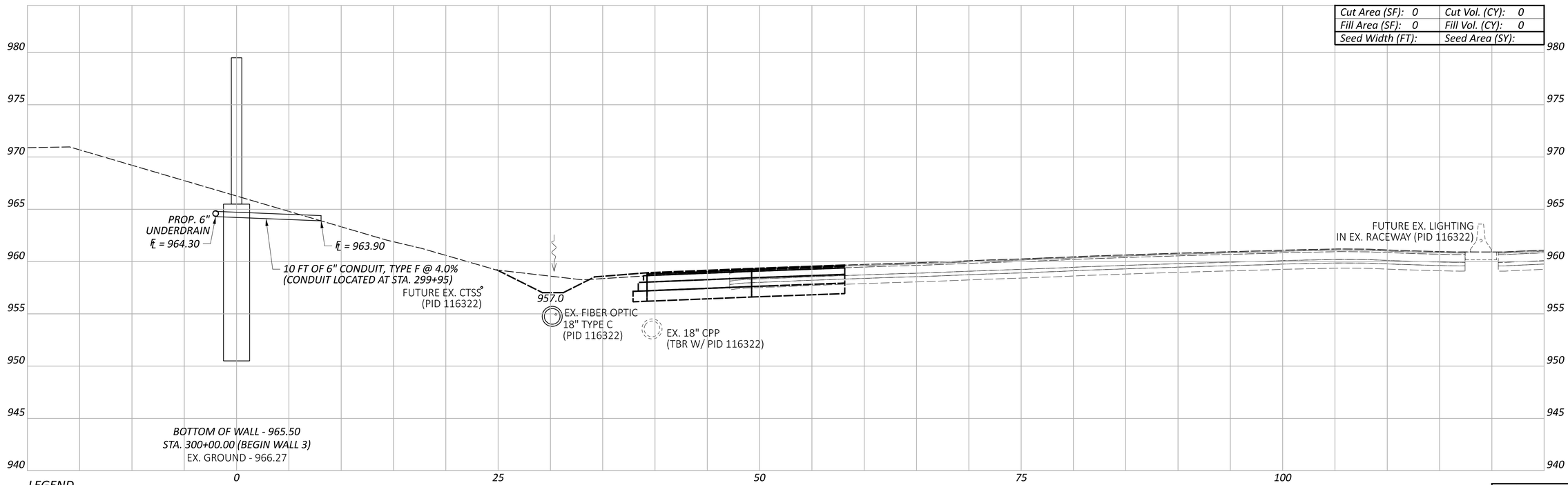
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.45 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 3
STA. 300+00.00 TO STA. 300+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL3 - 300+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 10:51:35 AM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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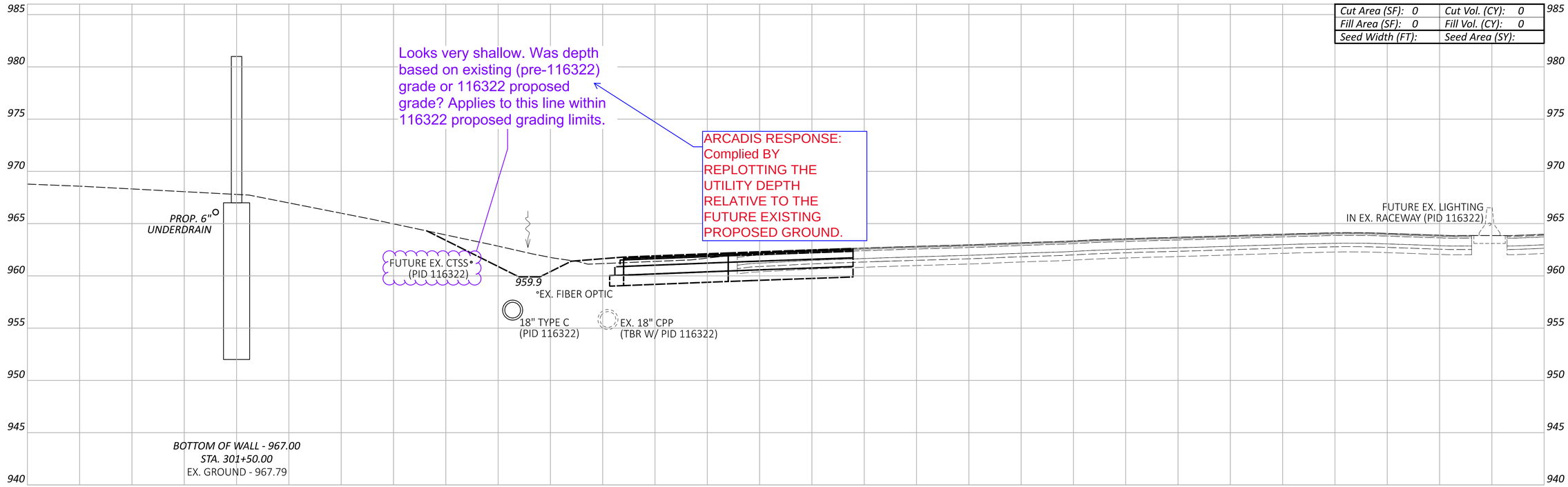
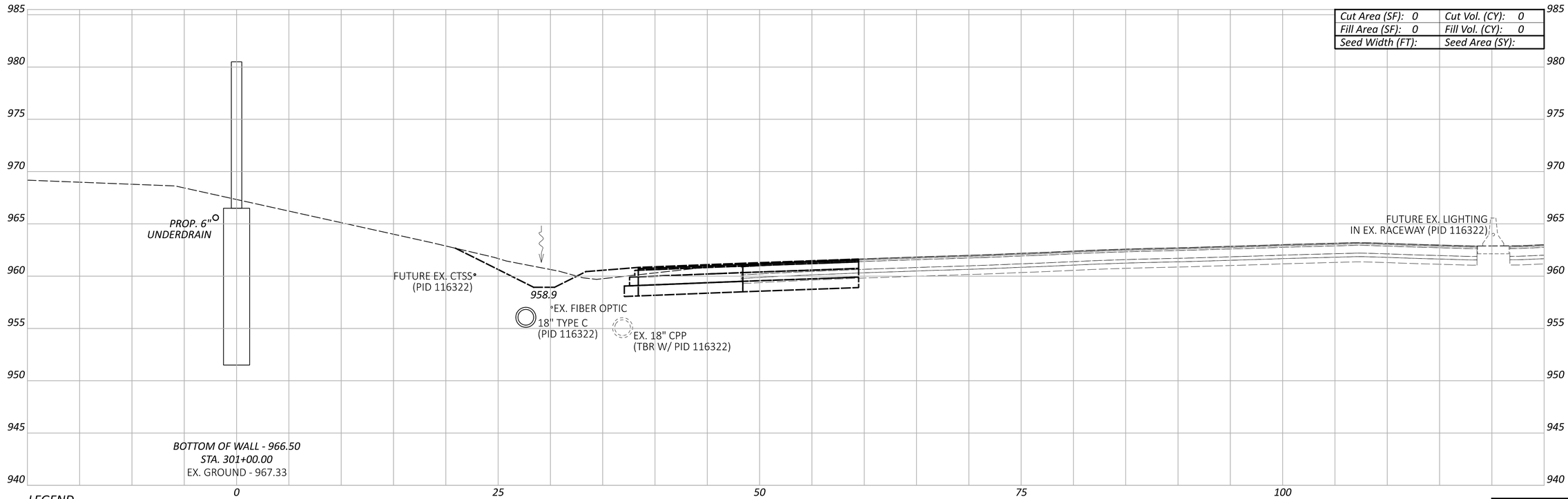
DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.46 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 3
STA. 301+00.00 TO STA. 301+50.00

MODEL: BLP_WALL3 - 301+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:54:35 PM USER: jennifer.kelley
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REVIEWER JDH 01-22-24

PROJECT ID 117607

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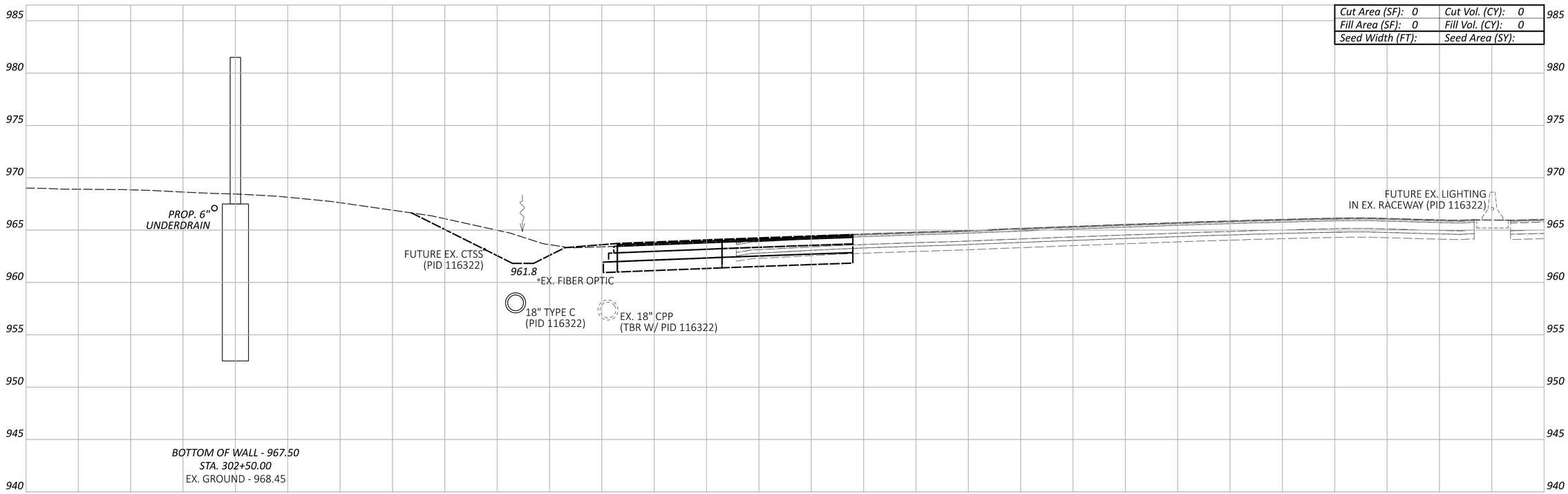
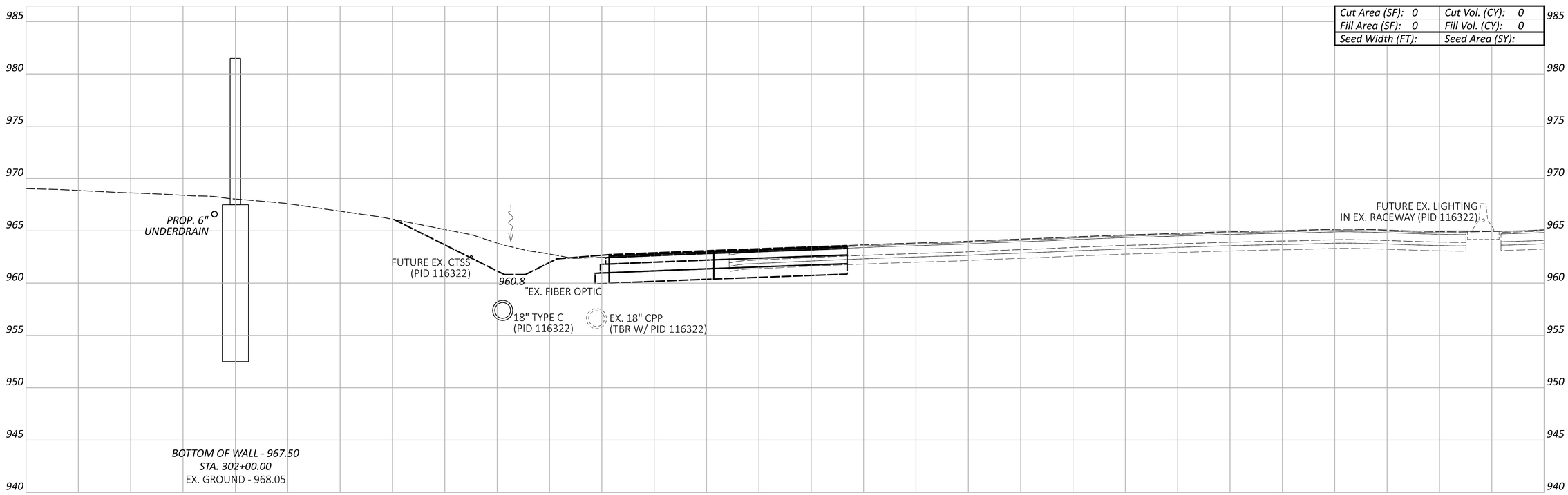
SHEET P.47 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 3
STA. 302+00.00 TO STA. 302+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL3 - 302+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:55:17 PM USER: jennifer.kelley
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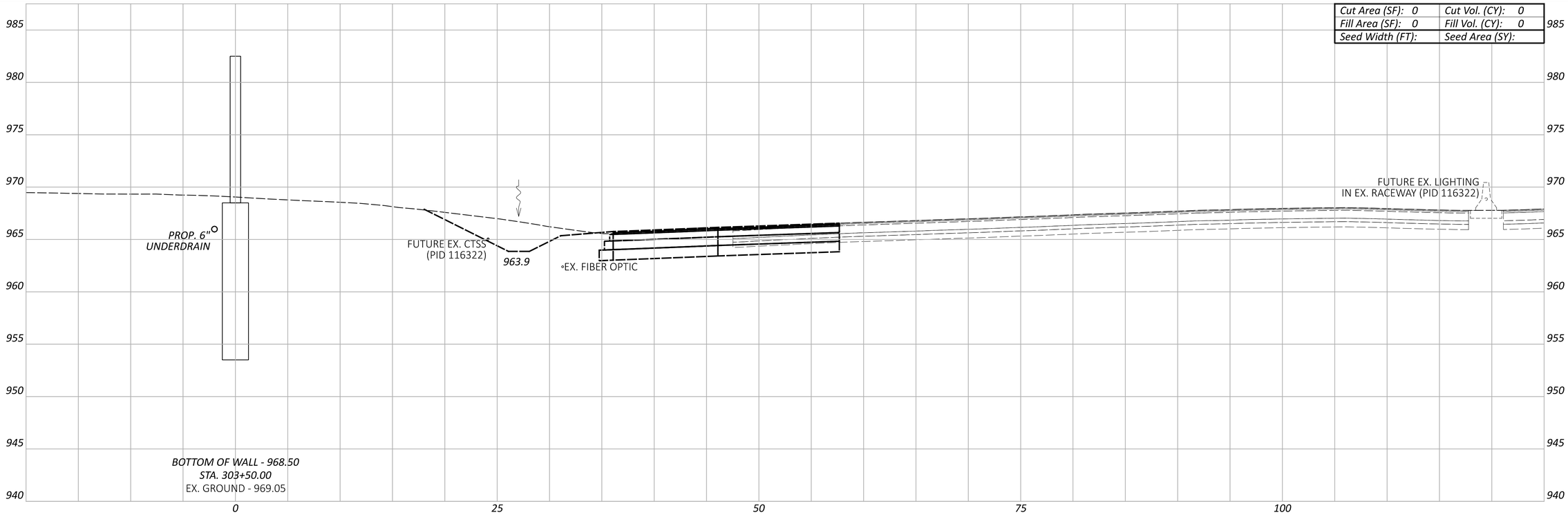
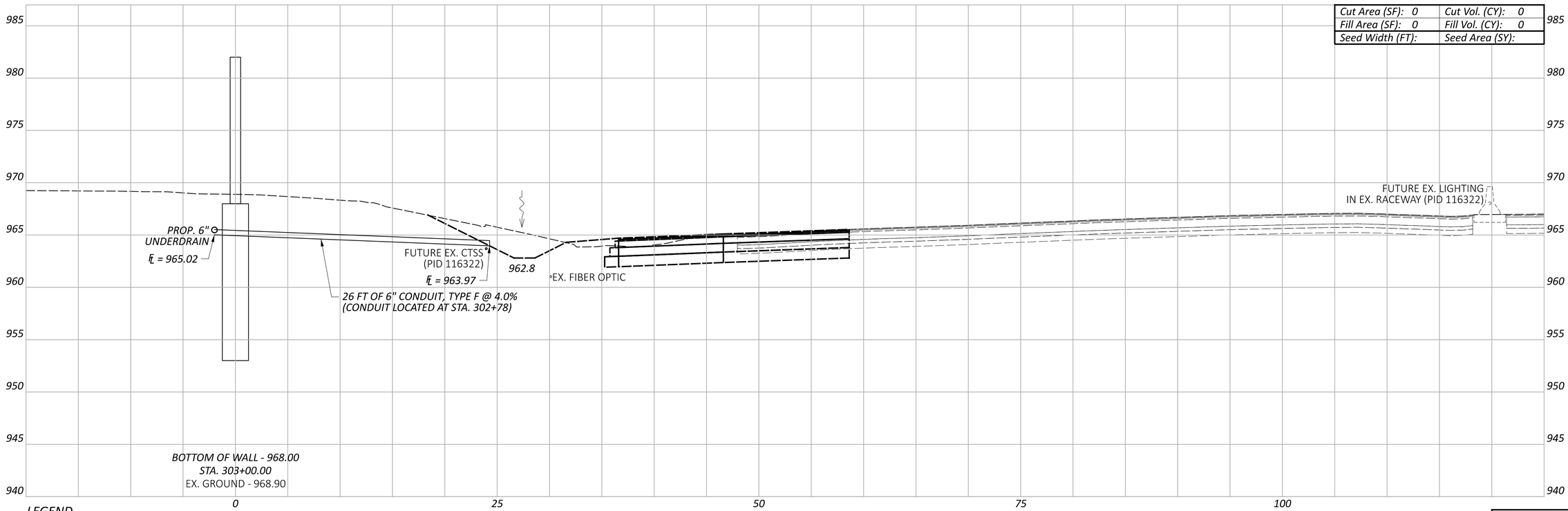
DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.48 TOTAL: P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 3
STA. 303+00.00 TO STA. 303+50.00

Sheet Totals		
Seeding	Cut	Fill

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DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.49 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL3 - 303+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 10:52:22 AM USER: jennifer.kelley
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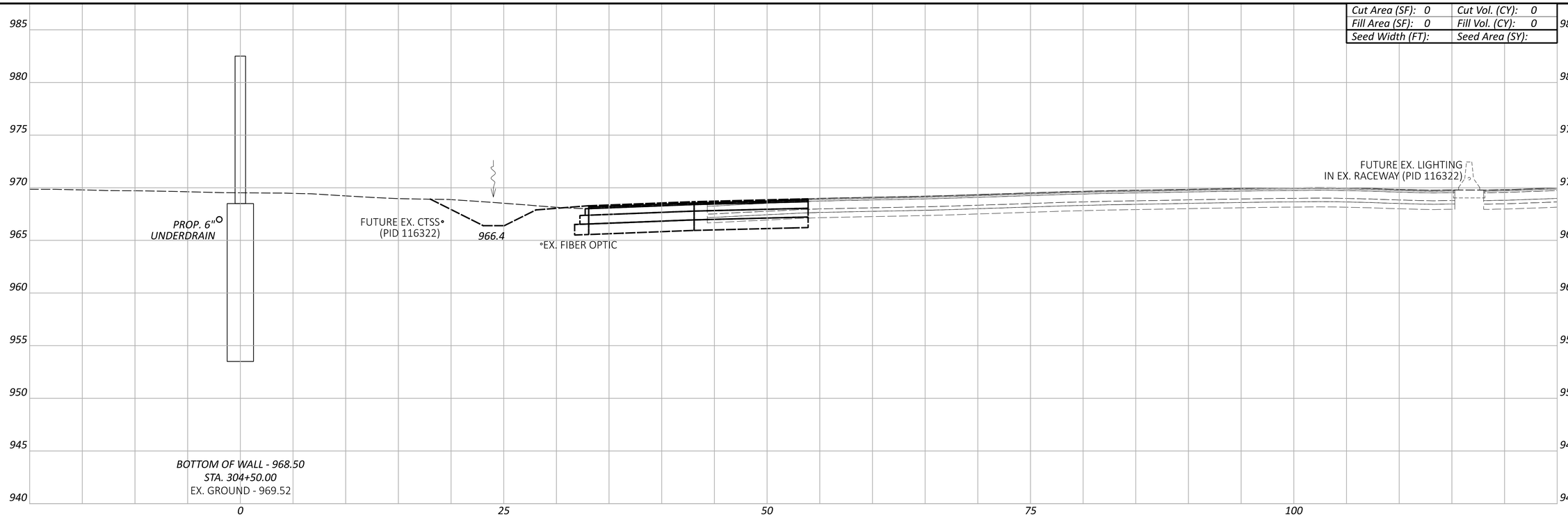

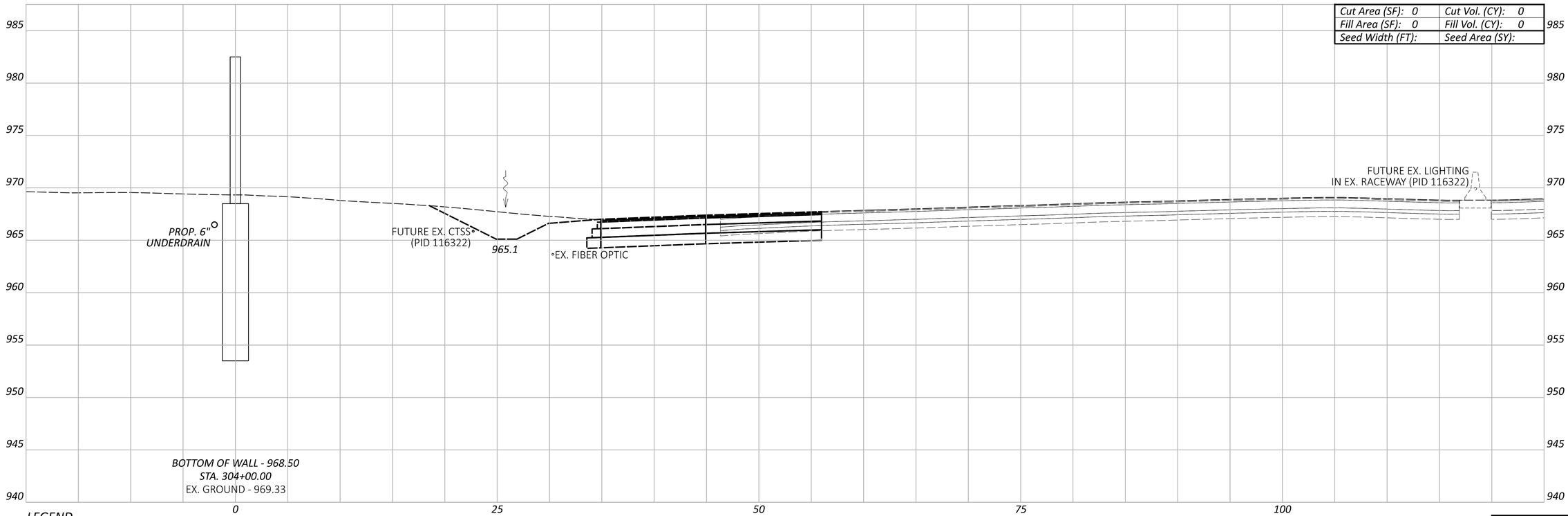

LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 3
STA. 304+00.00 TO STA. 304+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL3 - 304+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:56:42 PM USER: jennifer.kelley
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DESIGNER: JMK

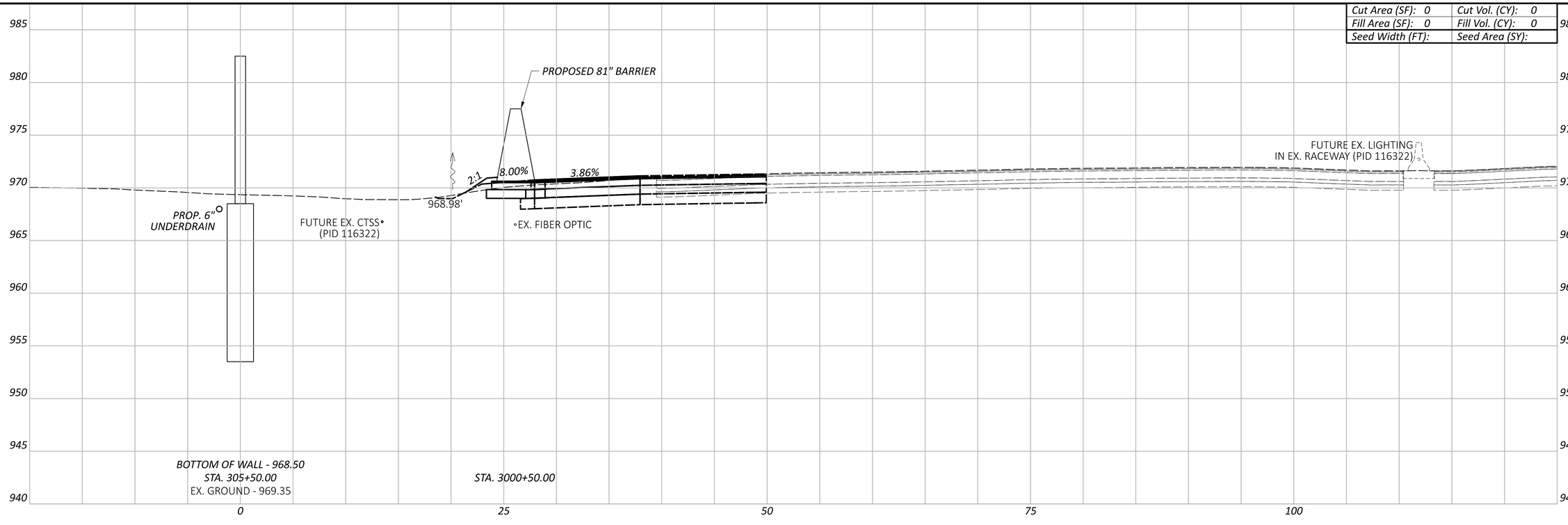
REVIEWER: JDH 01-22-24

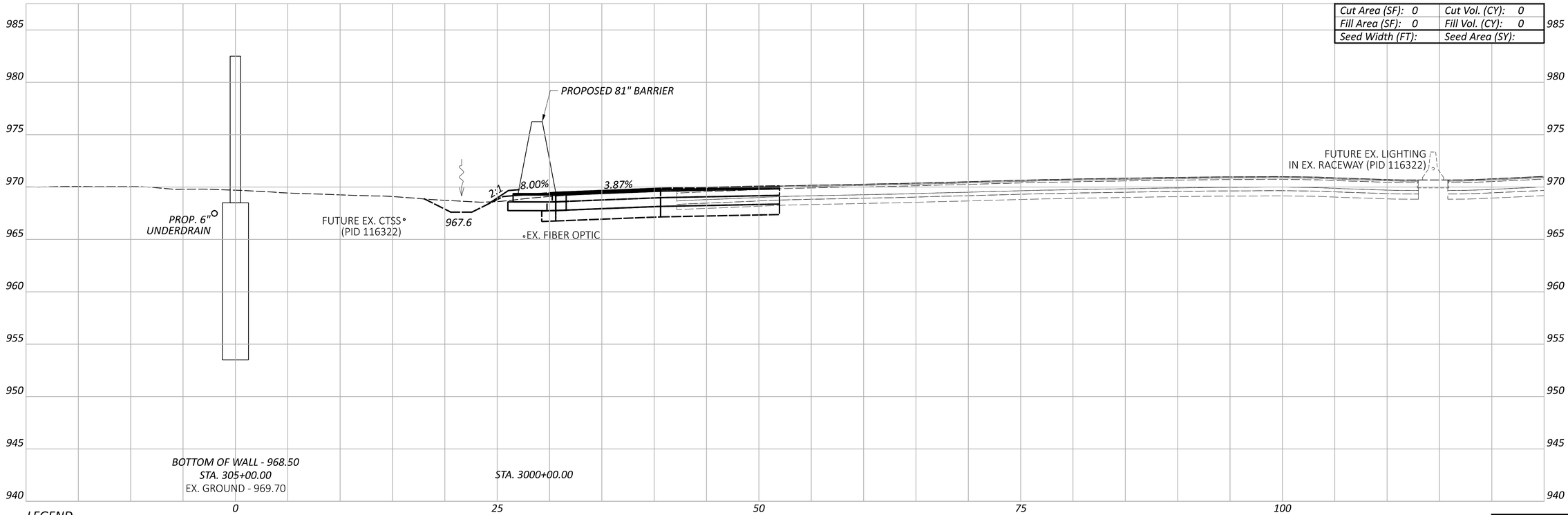
PROJECT ID: 117607

SHEET: P.50 TOTAL: P.276

Sheet Totals

Seeding	Cut	Fill





LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 3
STA. 305+00.00 TO STA. 305+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL3 - 305+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:57:25 PM USER: jennifer.kelley
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DESIGNER
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REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.51 TOTAL P.276

MODEL: BLP_WAL13 - 305+76.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:58:07 PM USER: jennifer.kelley
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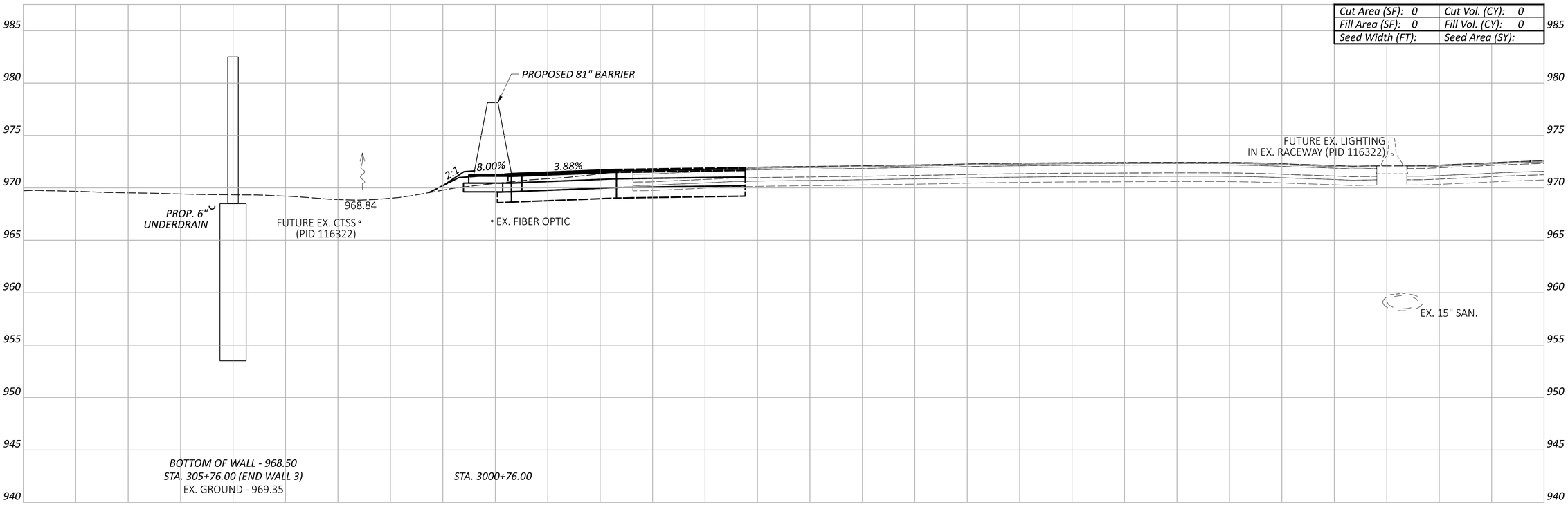
Seed Width (FT):	Seed Area (SY):



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 3
STA. 305+76.00

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DESIGNER
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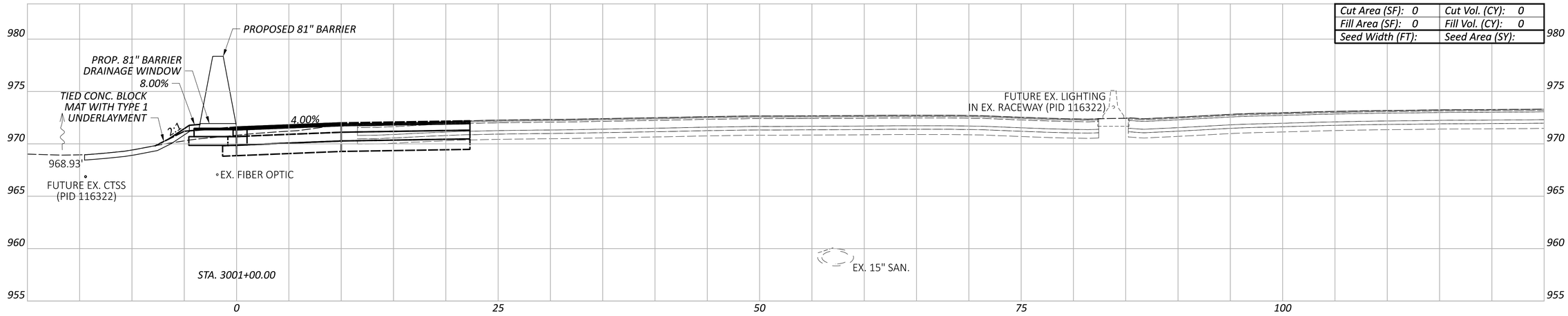
JDH 01-22-24

PROJECT ID
117607

SHEET	TOTAL
P.52	P.276



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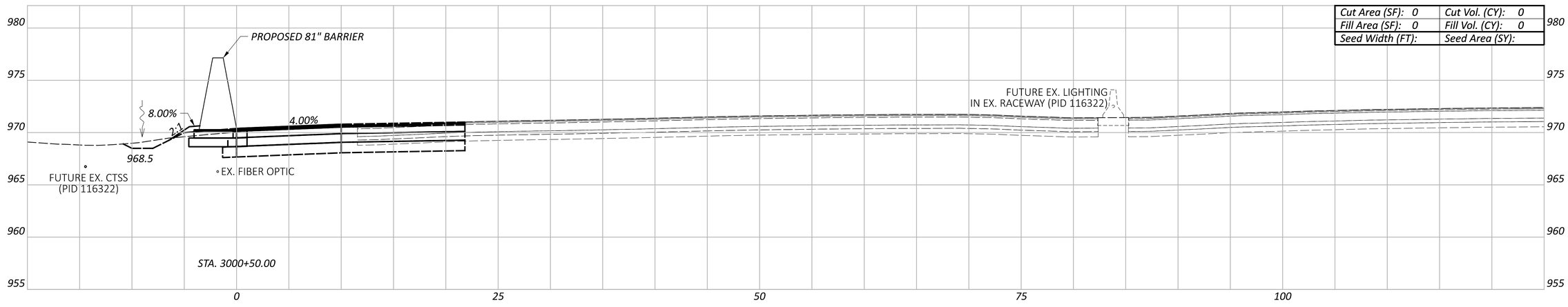

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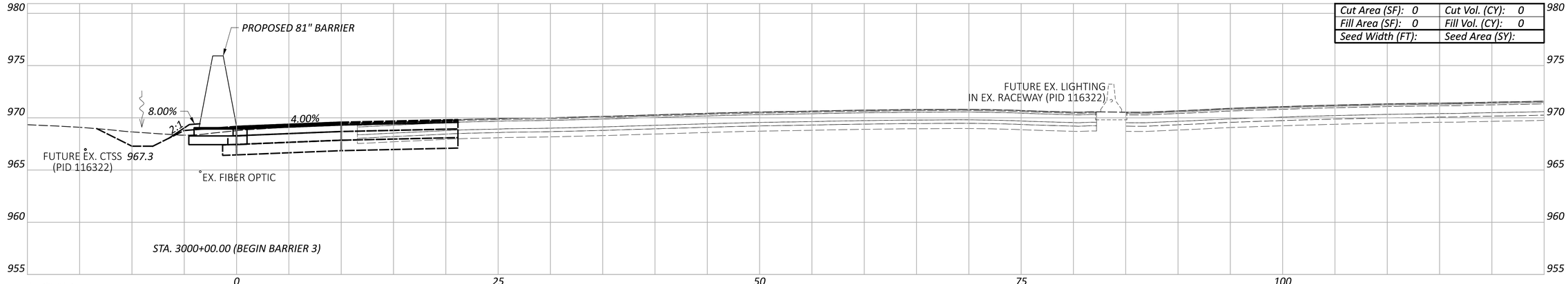

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LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 3
STA. 3000+00.00 TO STA. 3001+00.00

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DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.53 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER3 - 3000+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 6:58:50 PM USER: jennifer.kelley
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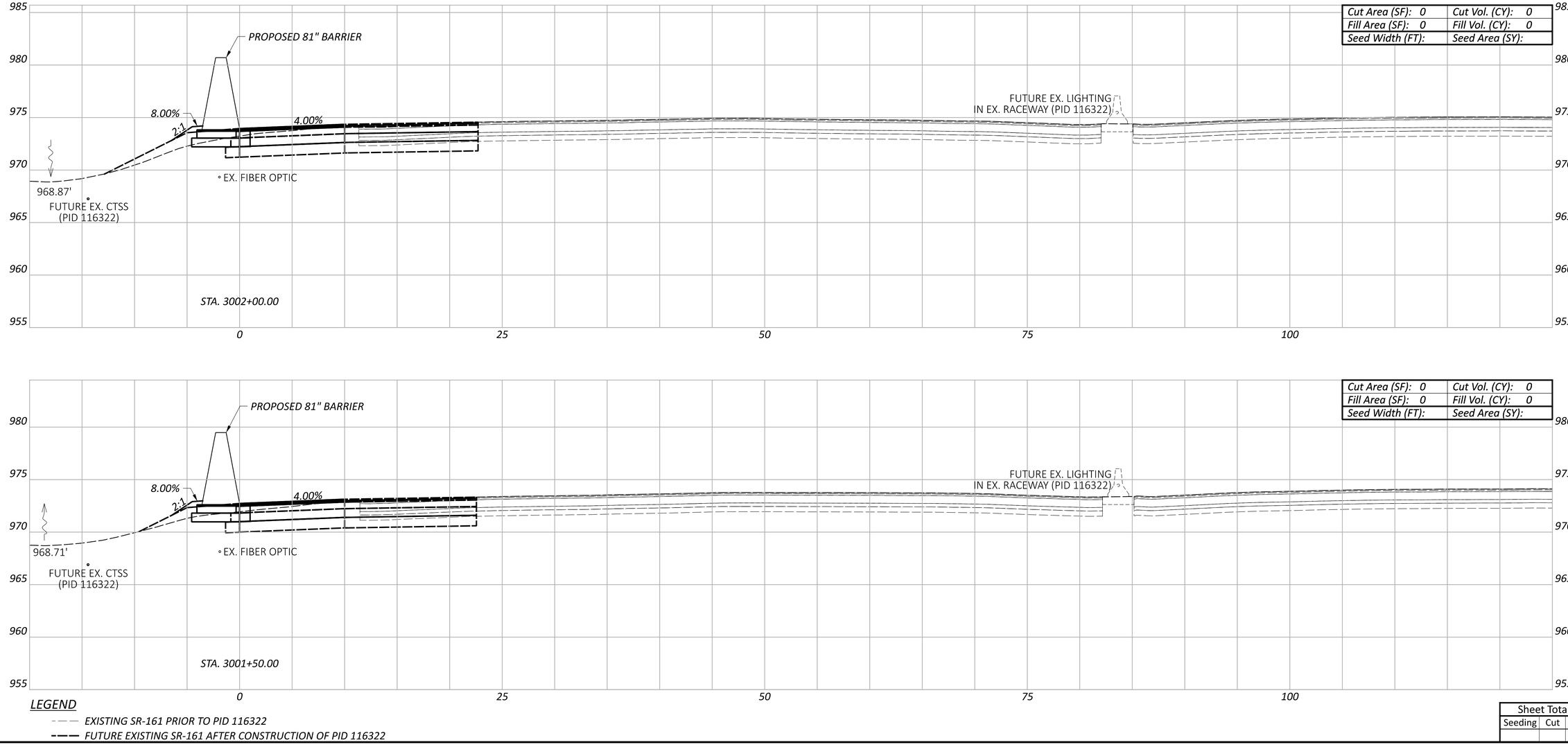

LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 3
STA. 3001+50.00 TO STA. 3002+00.00

Sheet Totals		
Seeding	Cut	Fill

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DESIGNER
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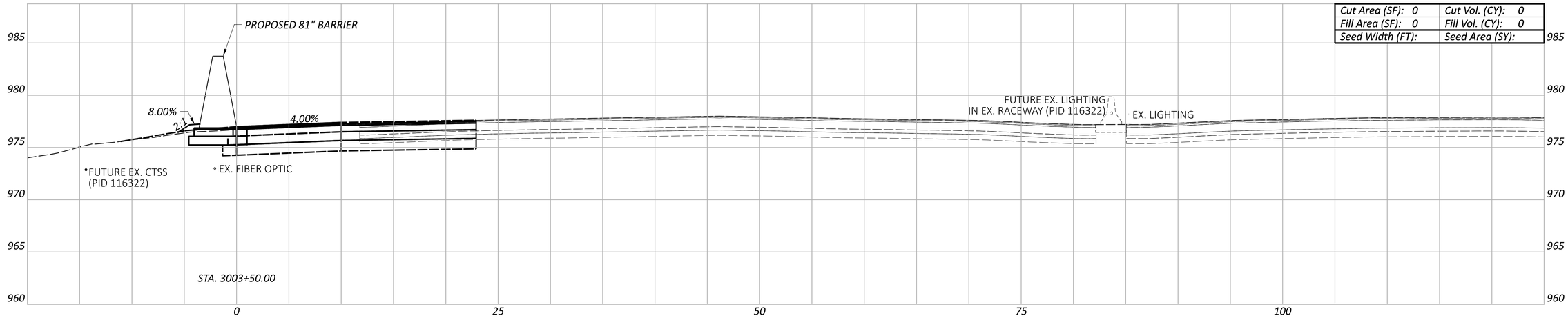
SHEET P.54 TOTAL P.276

MODEL: BLP_BARRIER3 - 3001+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:00:05 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS003B.dgn



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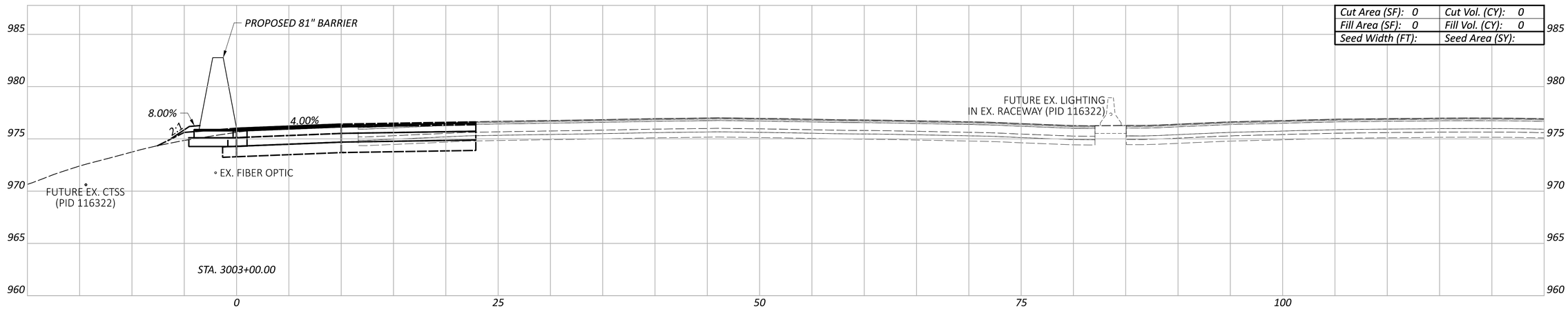

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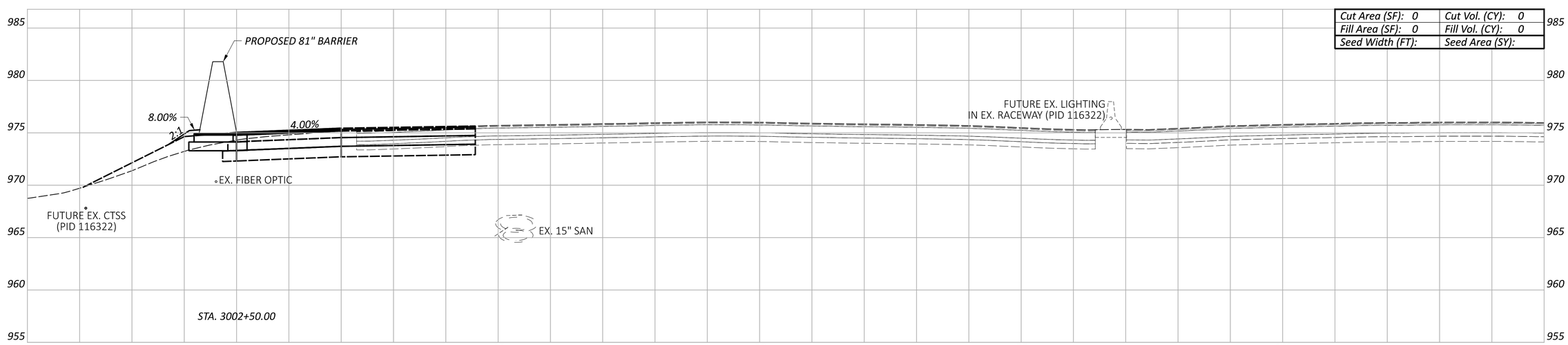

Cut Area (SF): 0	Cut Vol. (CY): 0
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Seed Width (FT):	Seed Area (SY):

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 3
STA. 3002+50.00 TO STA. 3003+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER3 - 3002+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:00:54 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS003B.dgn

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
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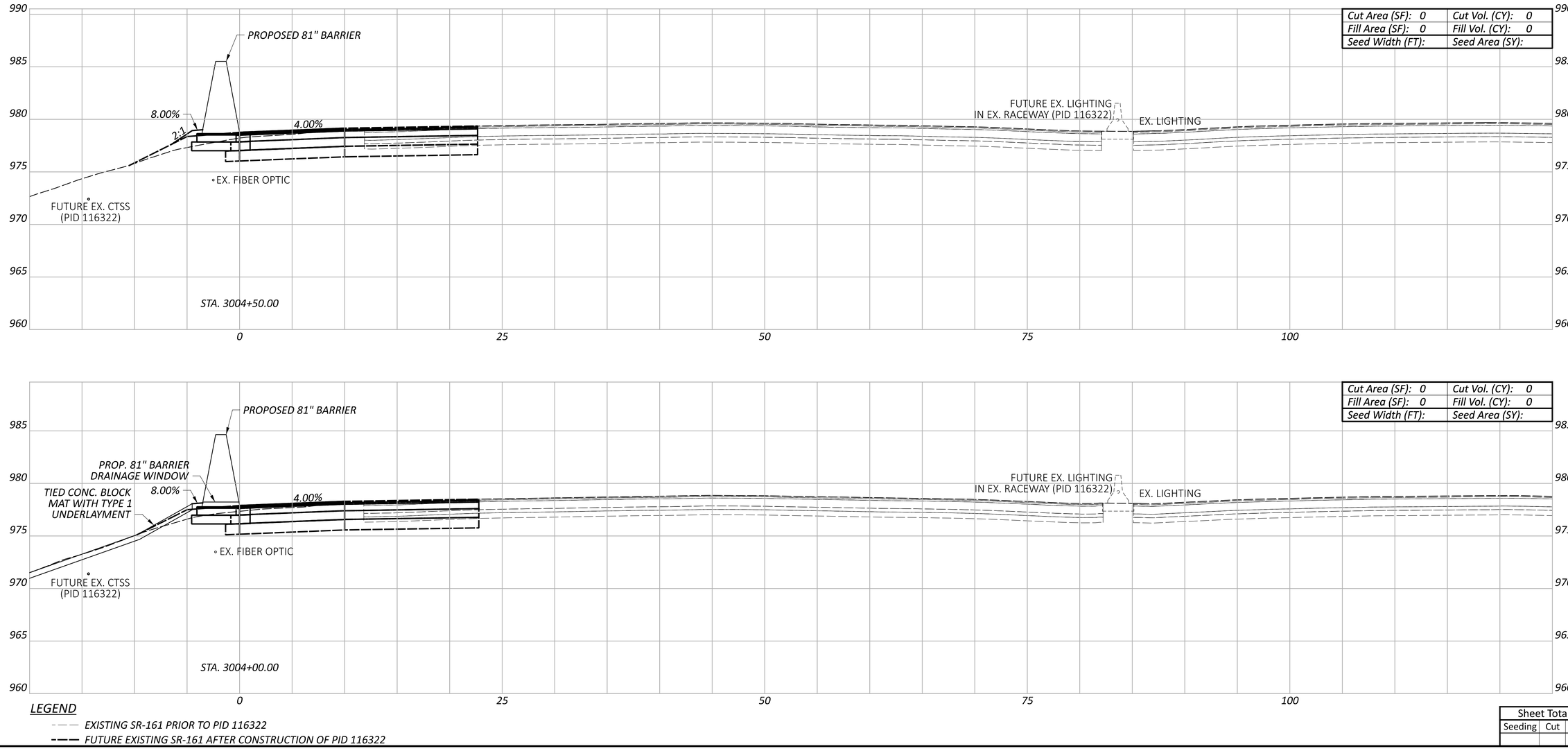
DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET	TOTAL
P.55	P.276



FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER3 - 3004+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:02:01 PM USER: jennifer.kelley
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CROSS SECTIONS - 81" BARRIER 3
STA. 3004+00.00 TO STA. 3004+50.00

Sheet Totals		
Seeding	Cut	Fill

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DESIGNER
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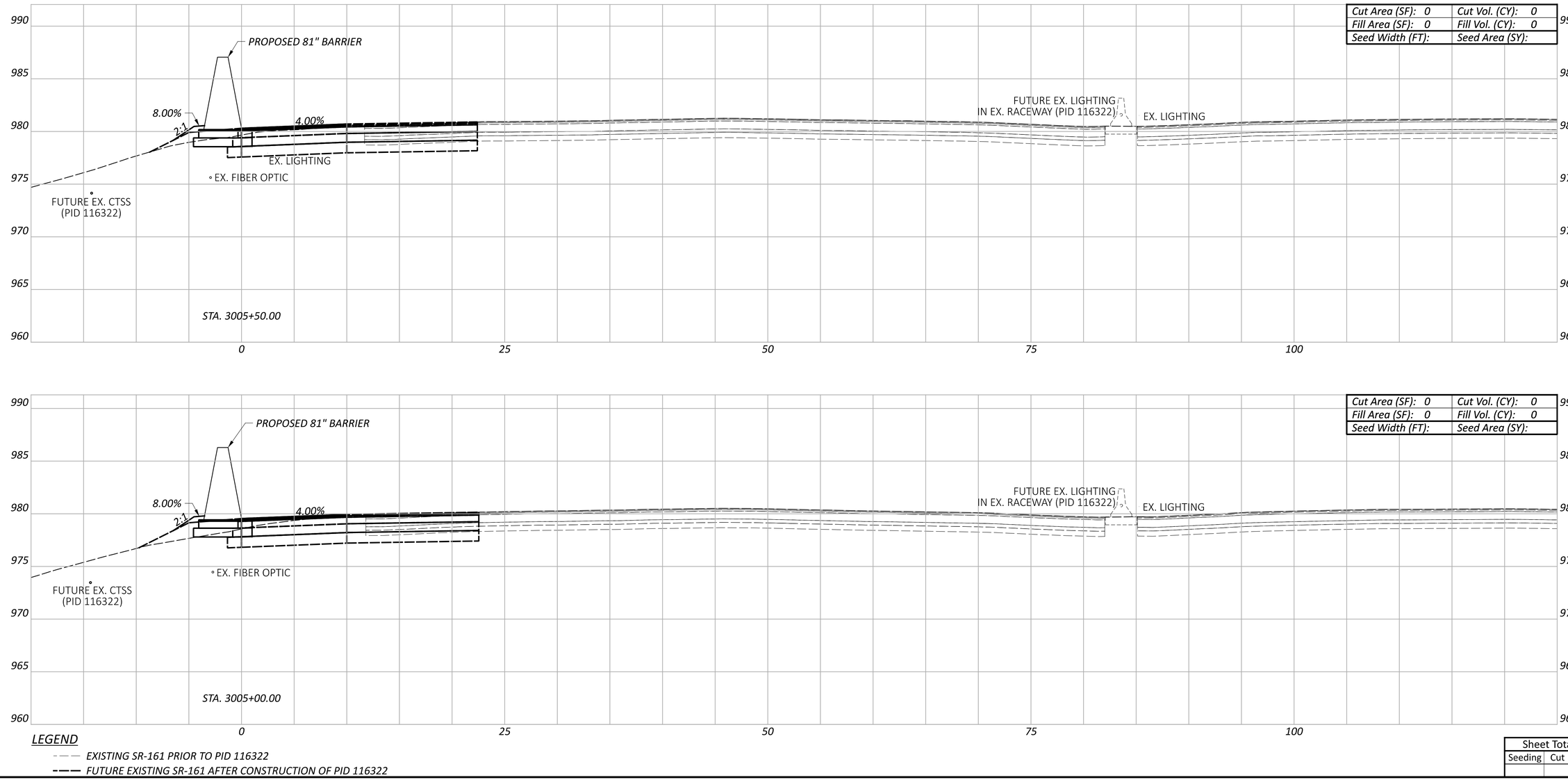
PROJECT ID
117607

SHEET P.56 TOTAL P.276



LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 3
STA. 3005+00.00 TO STA. 3005+50.00

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DESIGNER: JMK

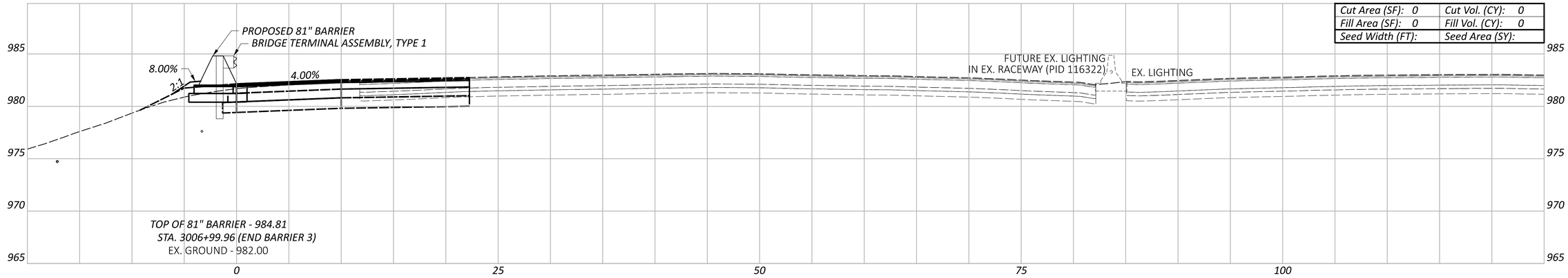
REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.57 | TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER3 - 3005+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:02:49 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS003B.dgn



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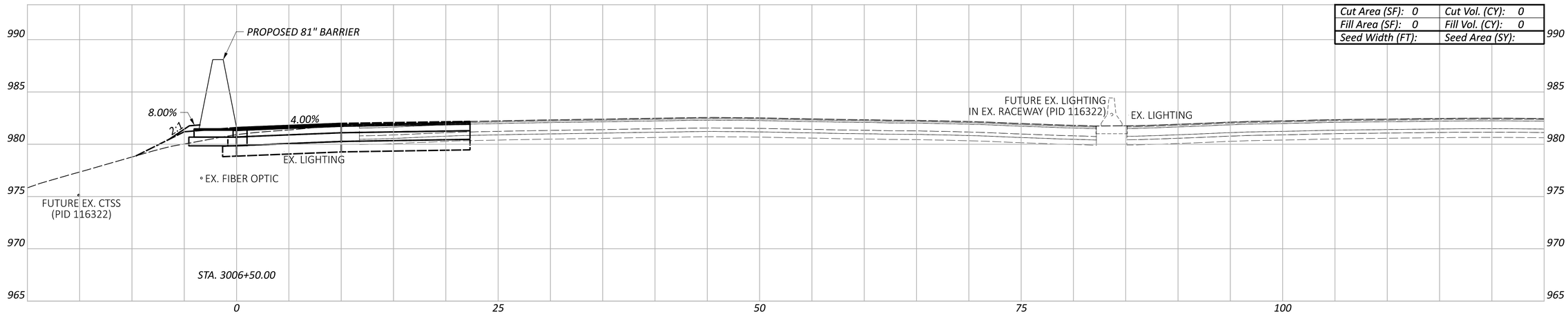

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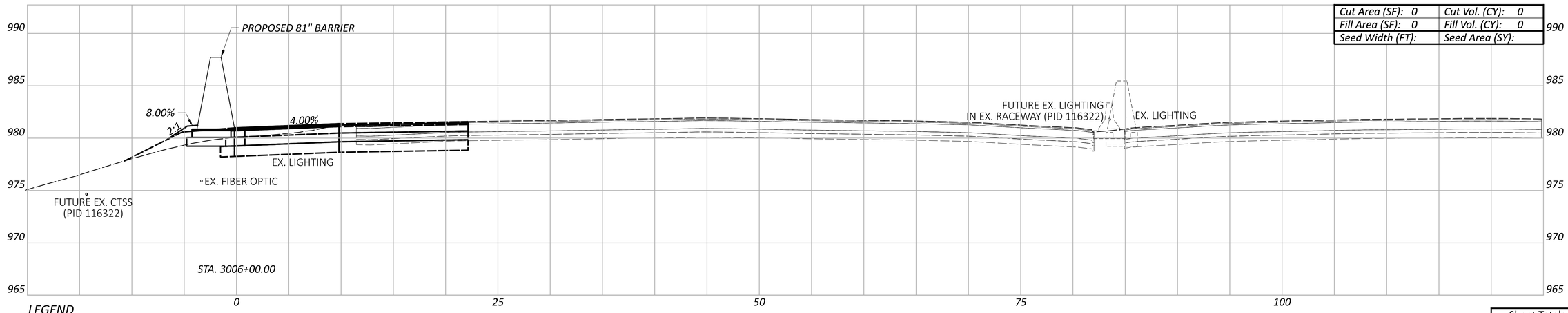

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Fill Area (SF): 0	Fill Vol. (CY): 0
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LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 3
STA. 3006+00.00 TO STA. 3006+99.96

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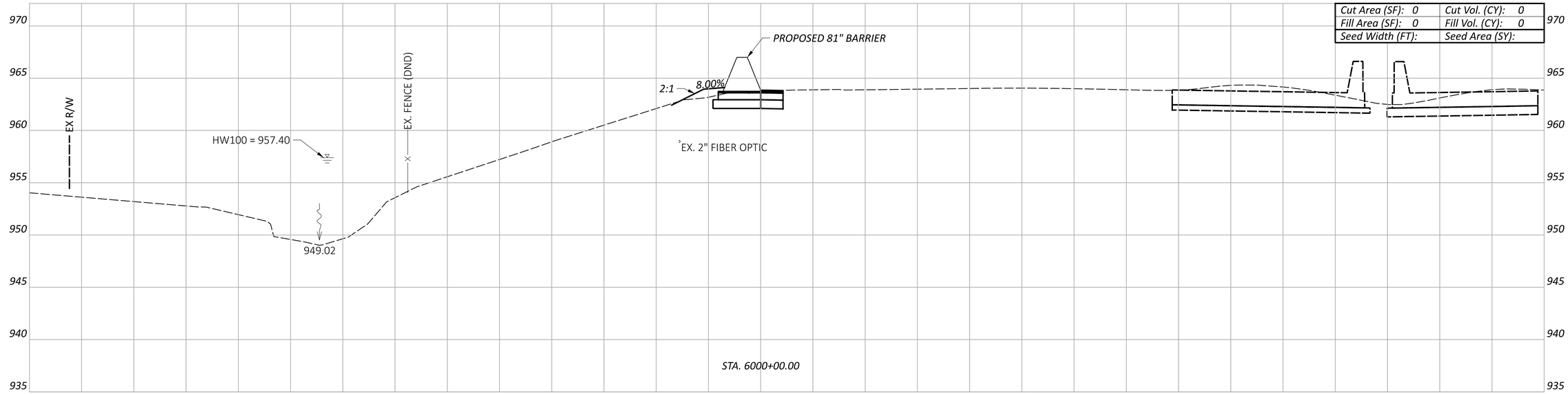
REVIEWER: JDH 01-22-24

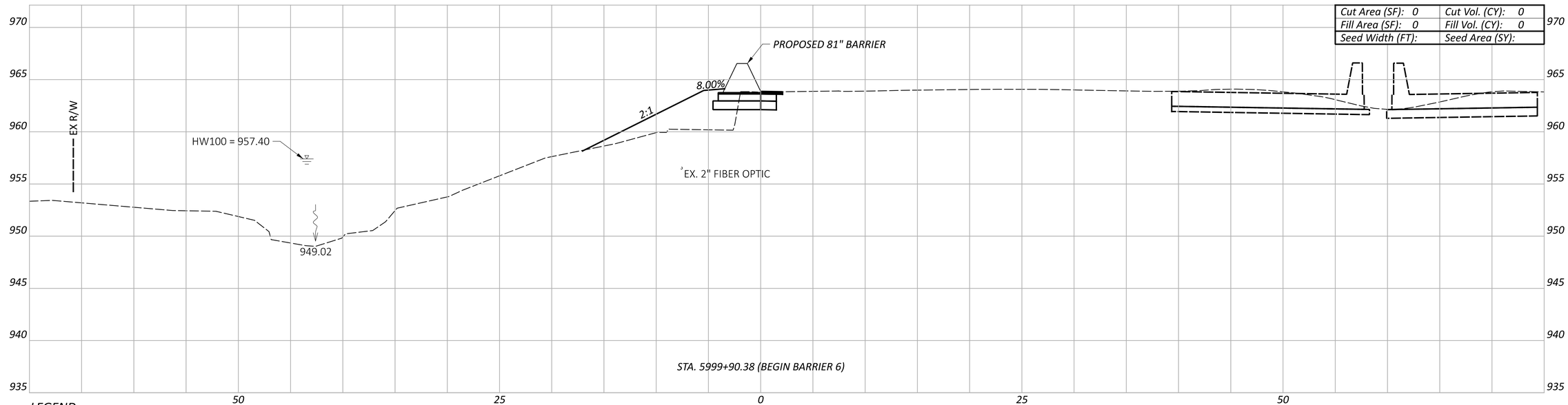
PROJECT ID: 117607

SHEET: P.58 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER3 - 3006+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:03:33 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS003B.dgn





LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 6
STA. 5999+90.38 TO STA. 6000+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER6 - 5999+90.38 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:05:08 PM USER: jennifer.kelley
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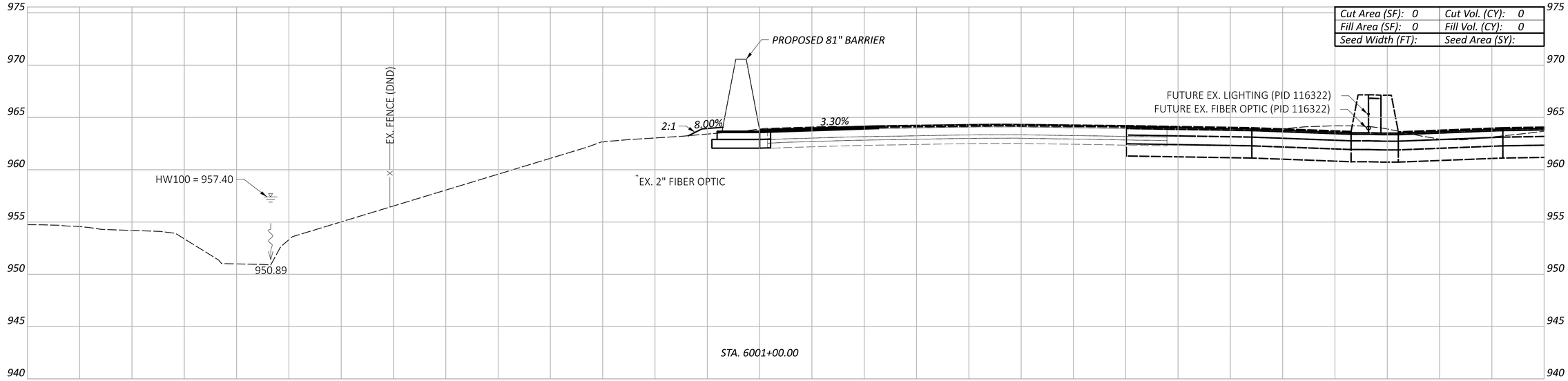
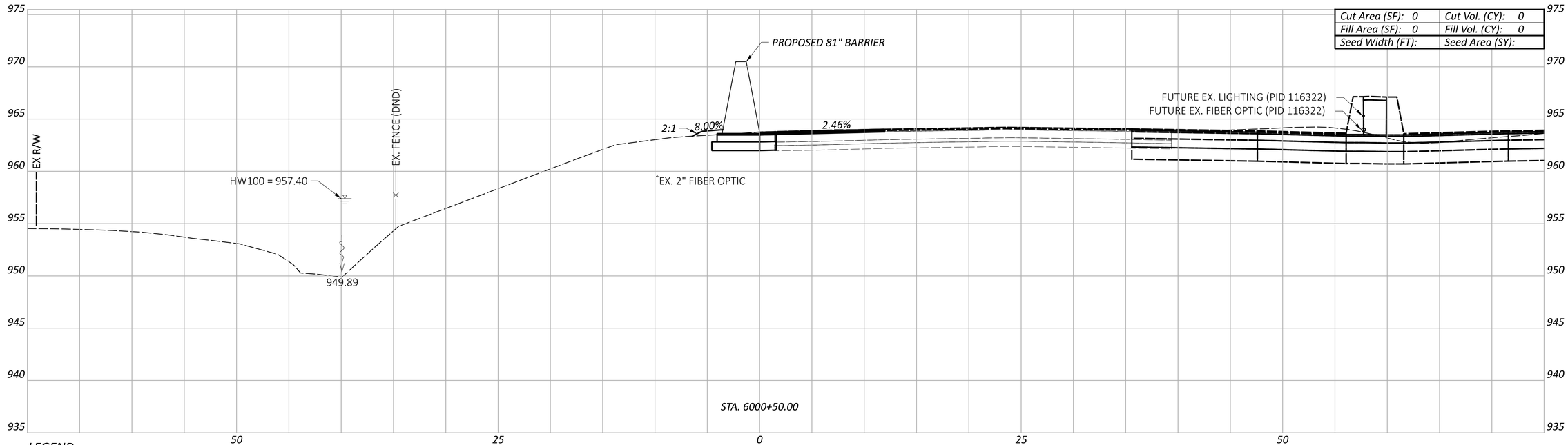
PROJECT ID
117607

SHEET P.59 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 6
STA. 6000+50.00 TO STA. 6001+00.00

Sheet Totals		
Seeding	Cut	Fill

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REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.60 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER6 - 6000+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:05:31 PM USER: jennifer.kelley
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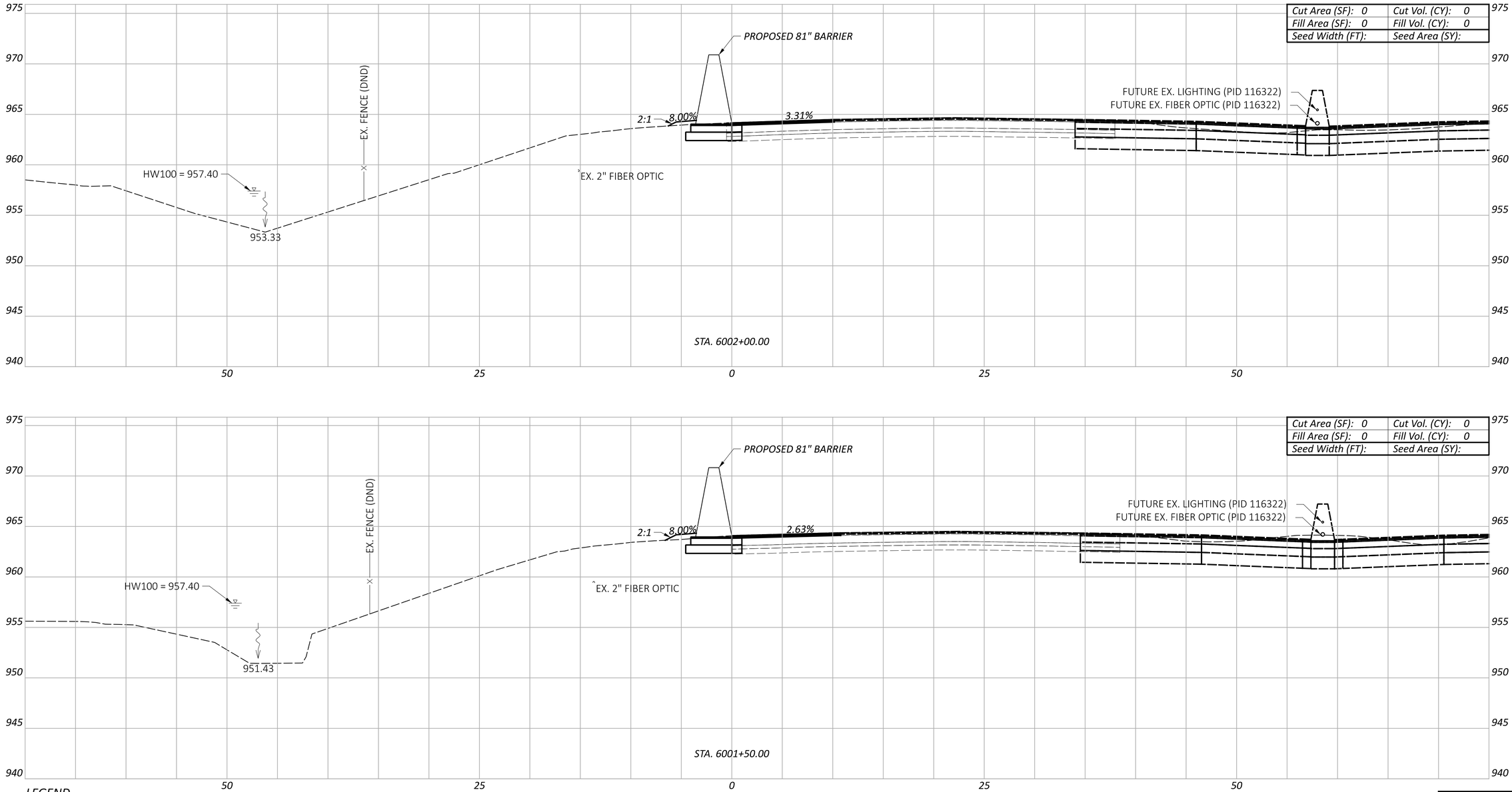

LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 6
STA. 6001+50.00 TO STA. 6002+00.00

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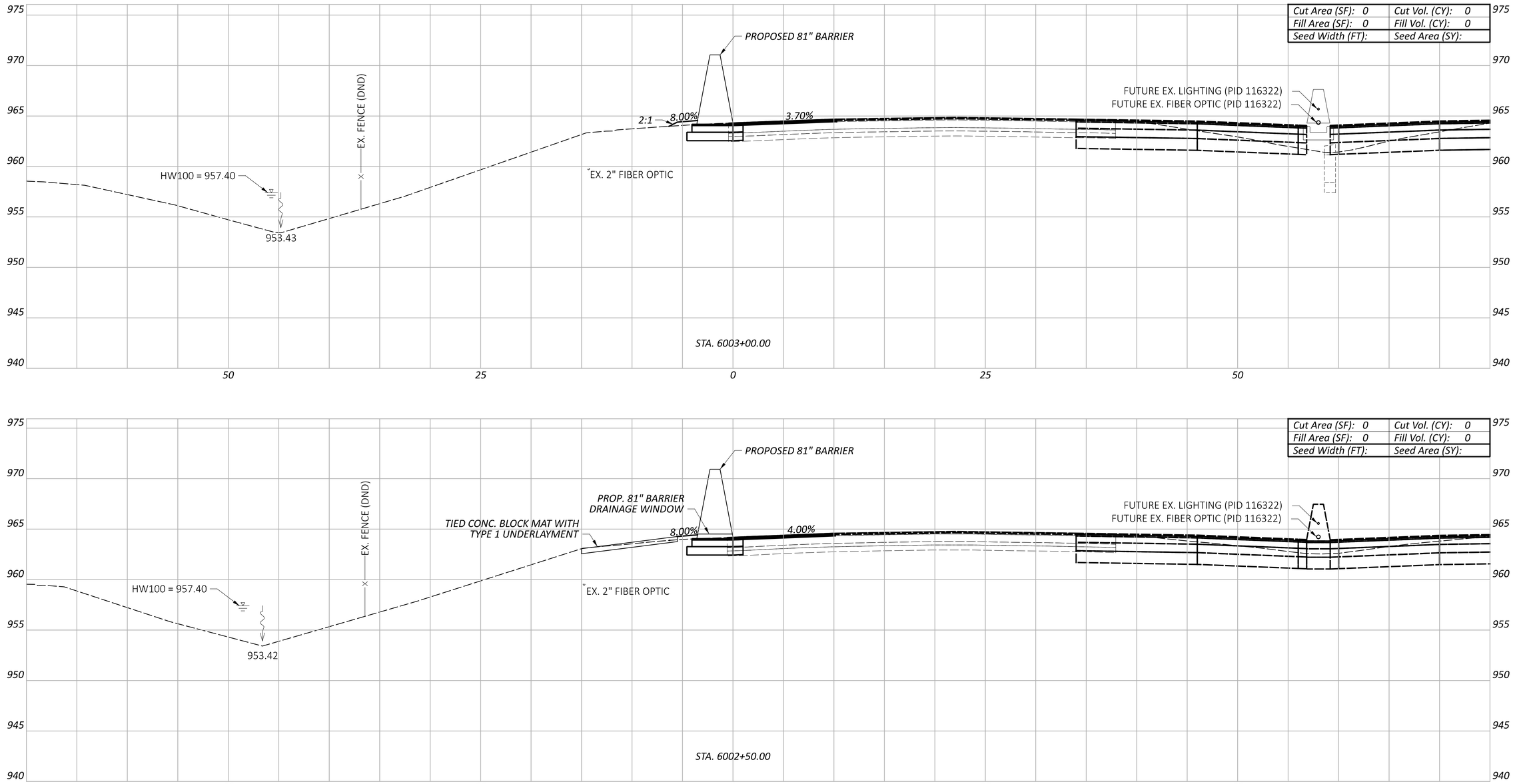
PROJECT ID: 117607
SHEET: P.61
TOTAL: P.276

MODEL: BLP_BARRIER6 - 6001+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:05:50 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006A.dgn



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 6
STA. 6002+50.00 TO STA. 6003+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER6 - 6002+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:06:07 PM USER: jennifer.kelley
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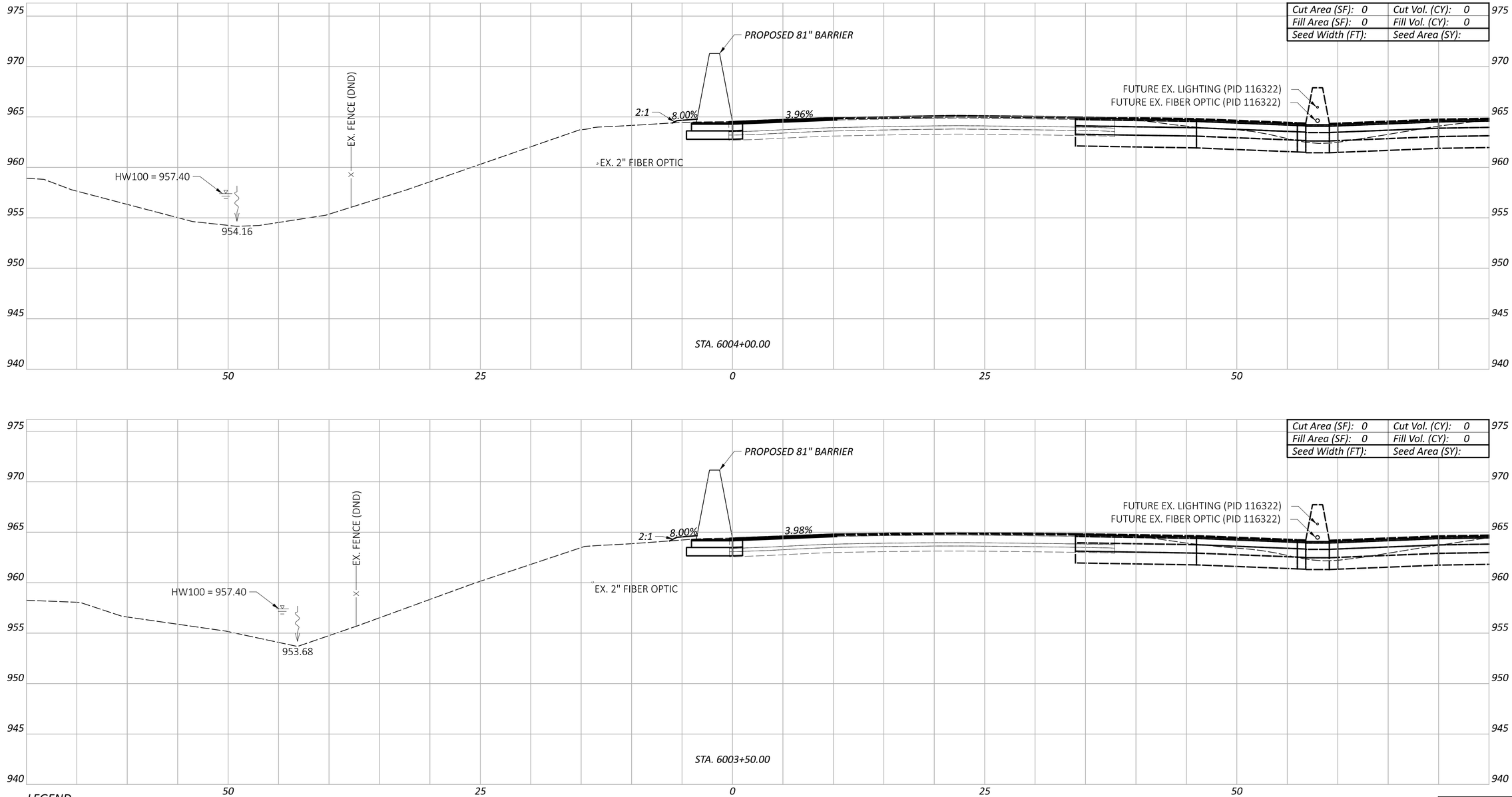
PROJECT ID
117607

SHEET	TOTAL
P.62	P.276



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 6
STA. 6003+50.00 TO STA. 6004+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER6 - 6003+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:06:27 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006A.dgn

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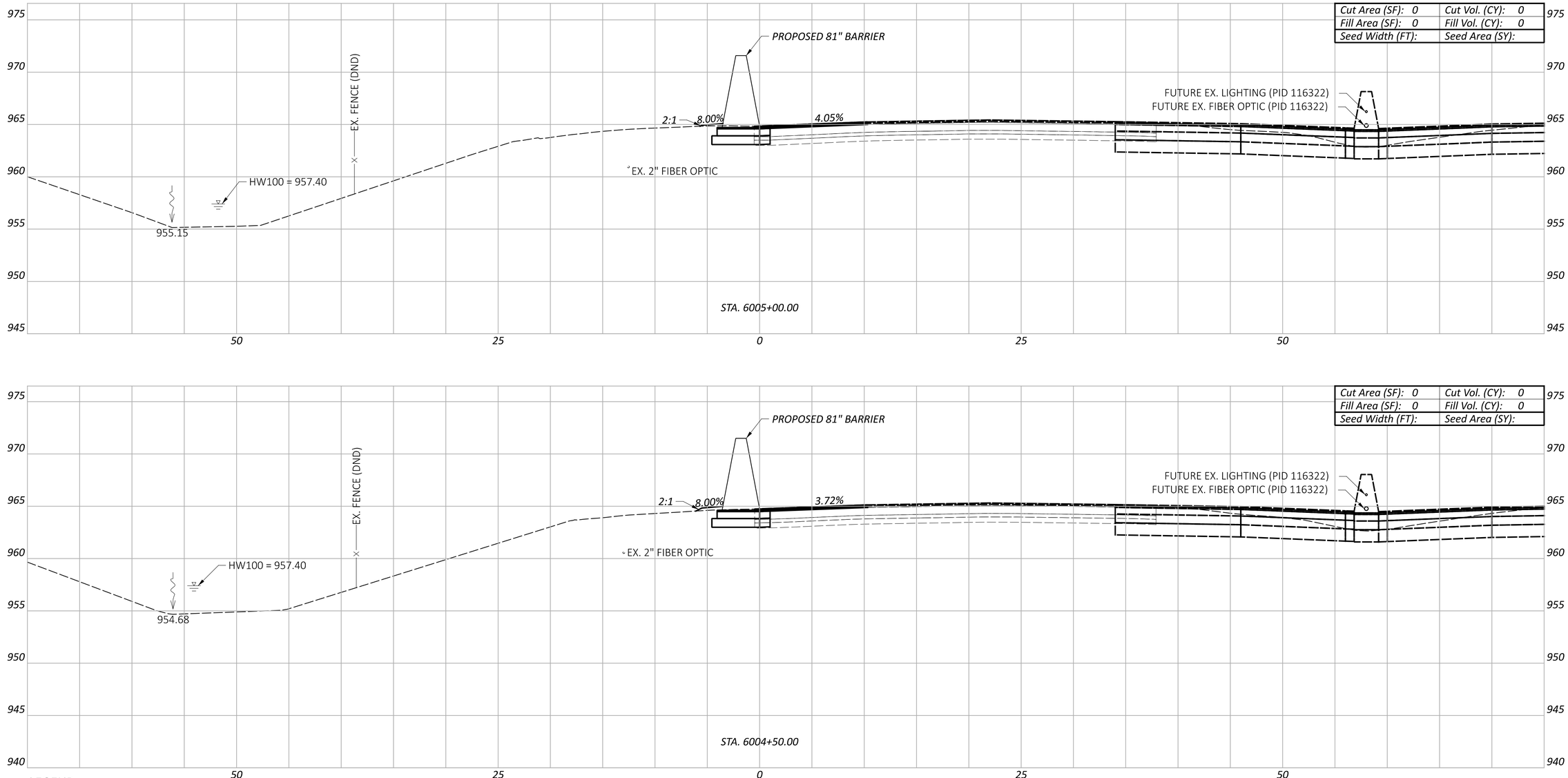
PROJECT ID
117607

SHEET	TOTAL
P.63	P.276



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER6 - 6004+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:06:45 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006A.dgn

CROSS SECTIONS - 81" BARRIER 6
STA. 6004+50.00 TO STA. 6005+00.00

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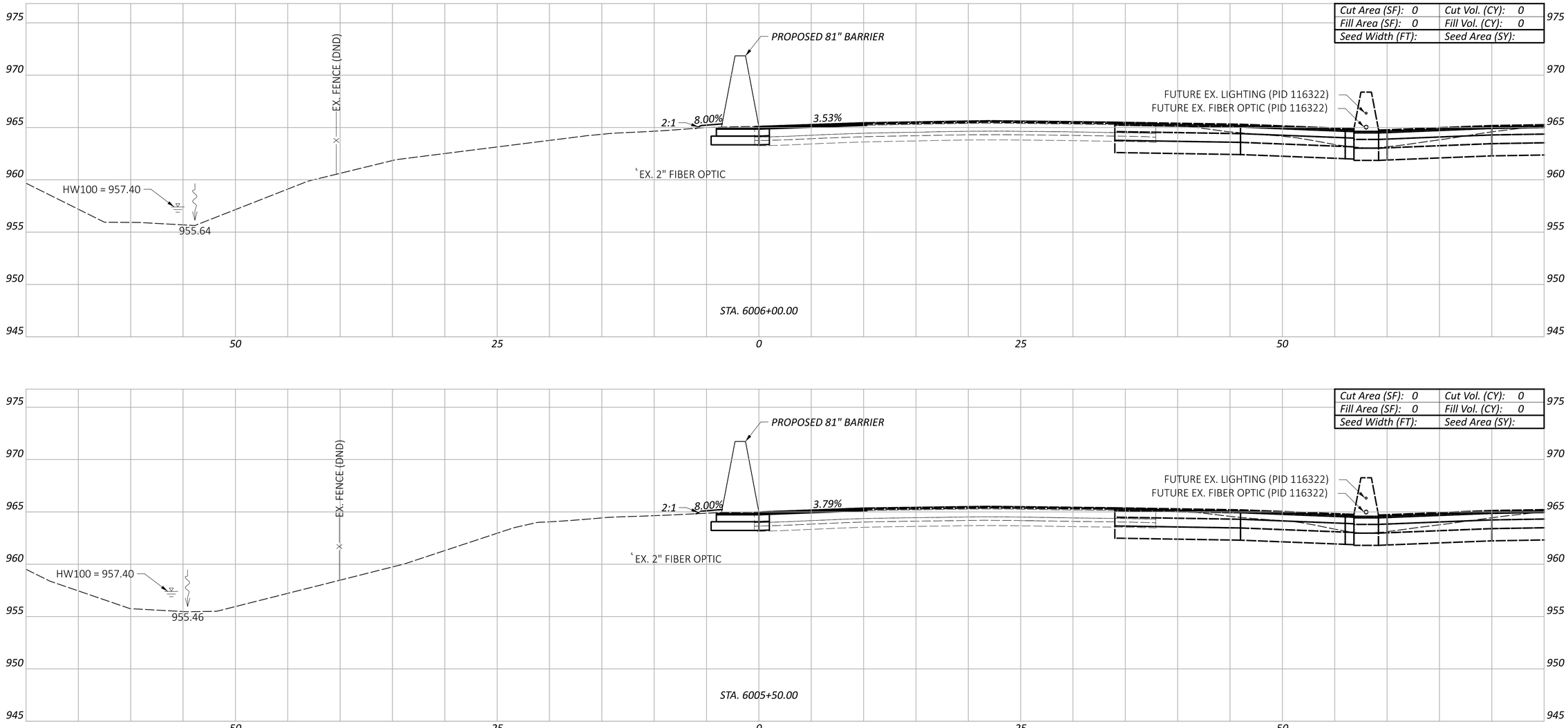
PROJECT ID
117607

SHEET	TOTAL
P.64	P.276



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 6
STA. 6005+50.00 TO STA. 6006+00.00

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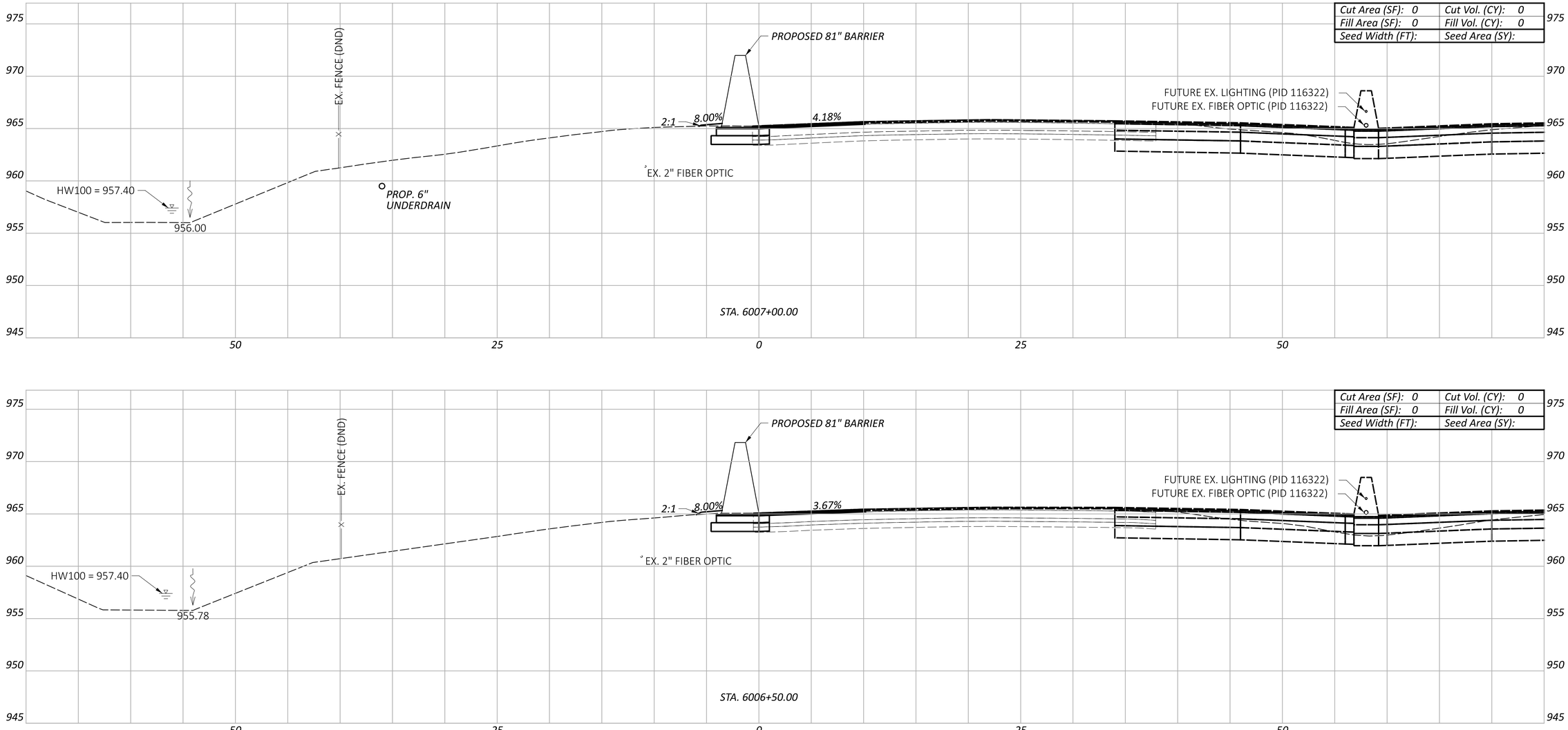
PROJECT ID: 117607

SHEET: P.65 | TOTAL: P.276

MODEL: BLP_BARRIER6 - 6005+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:07:03 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006A.dgn



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER6 - 6006+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:07:21 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006A.dgn

CROSS SECTIONS - 81" BARRIER 6
STA. 6006+50.00 TO STA. 6007+00.00

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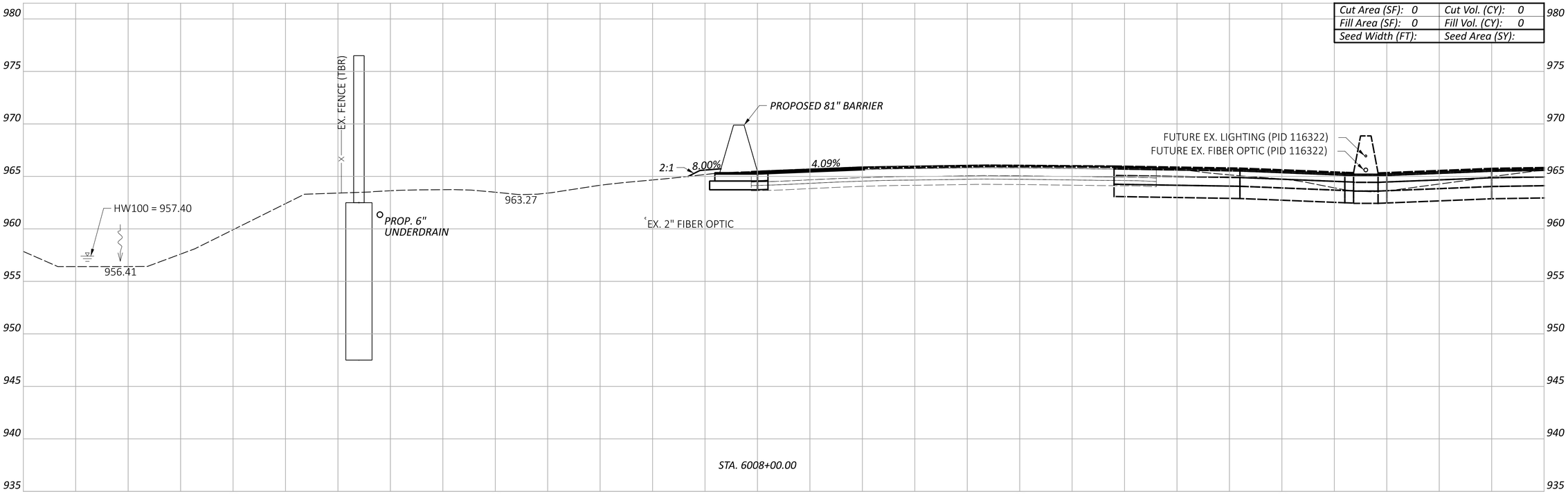
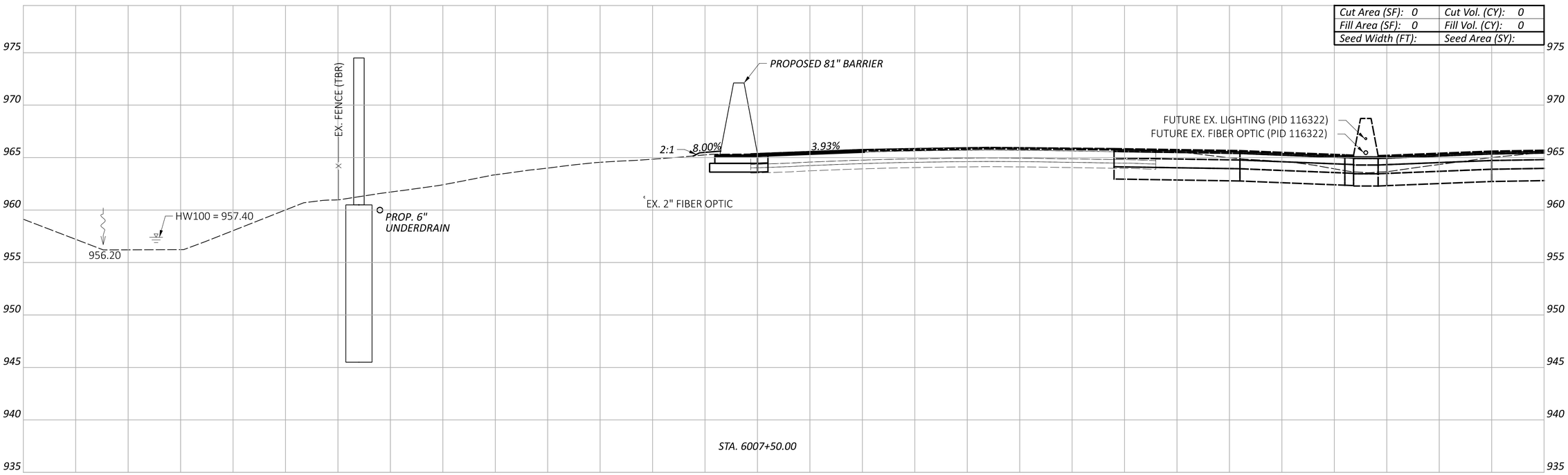
JDH 01-22-24

PROJECT ID
117607

SHEET P.66 | TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 6
STA. 6007+50.00 TO STA. 6008+00.00

Sheet Totals		
Seeding	Cut	Fill

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DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.67 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

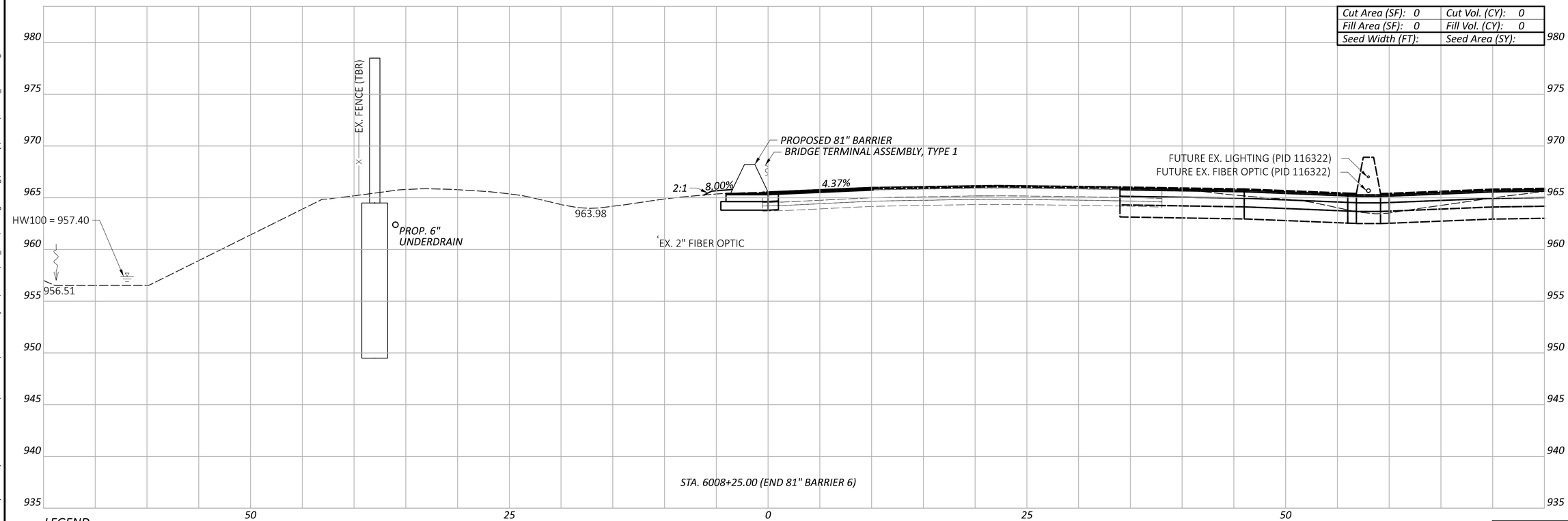
MODEL: BLP_BARRIER6 - 6007+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:07:39 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006A.dgn

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER6 - 6008+25.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:07:57 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006A.dgn

CROSS SECTIONS - 81" BARRIER 6
STA. 6008+25.00

Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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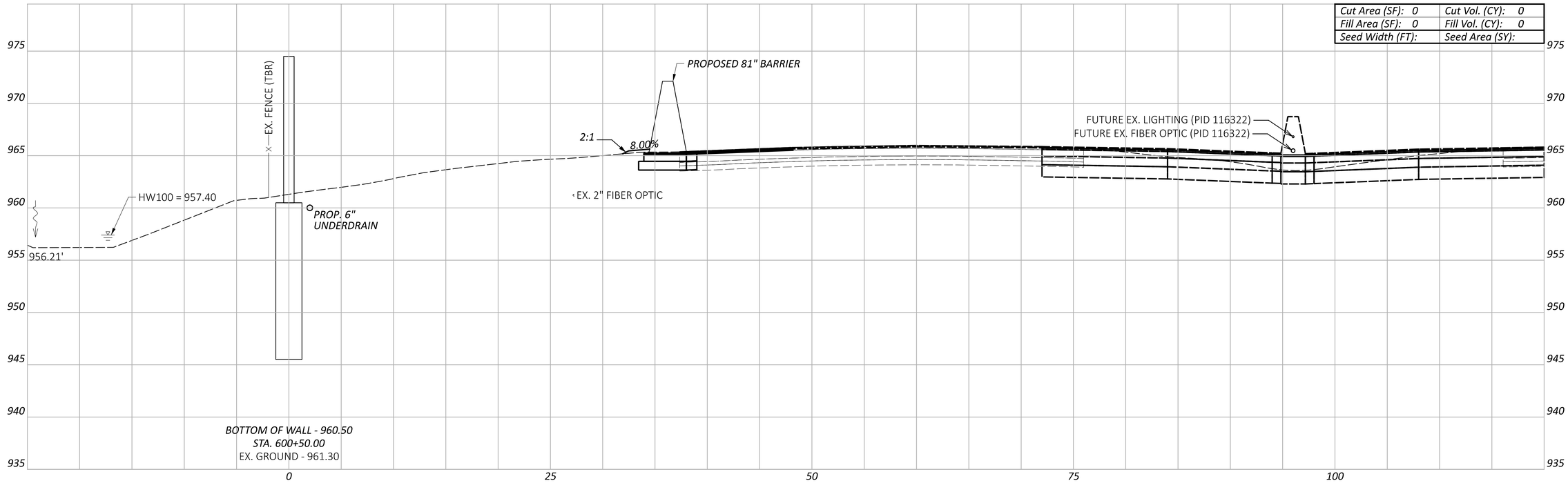
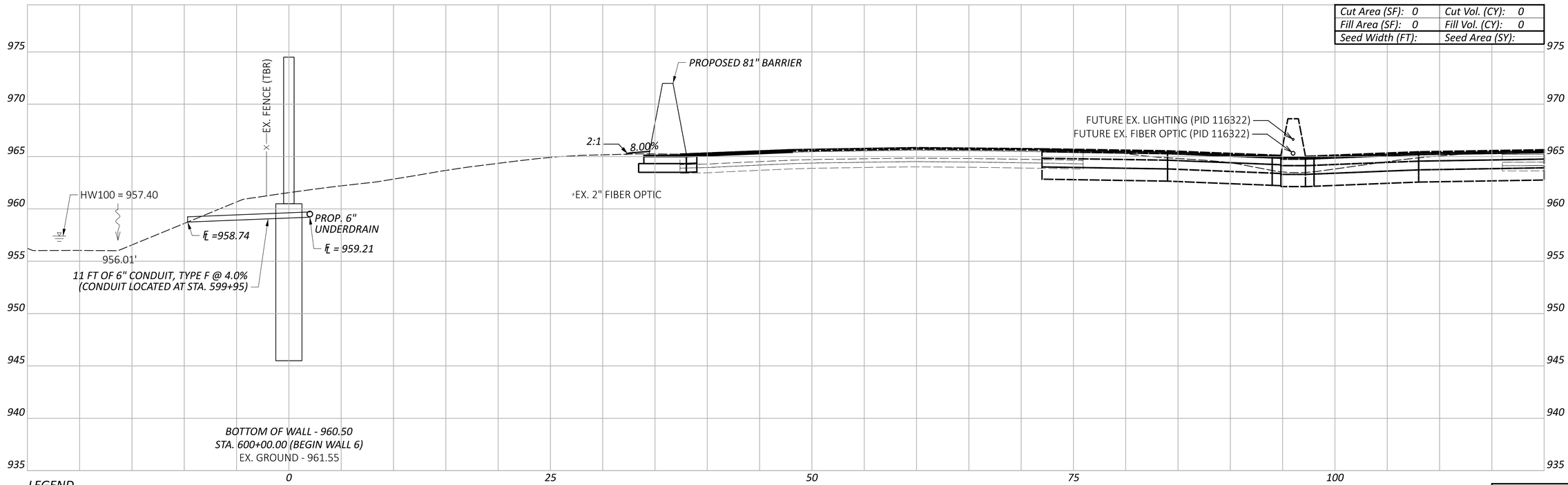
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET	TOTAL
P.68	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL6 - 600+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 11:12:37 AM USER: jennifer.kelley
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CROSS SECTIONS - WALL 6
STA. 600+00.00 TO STA. 600+50.00

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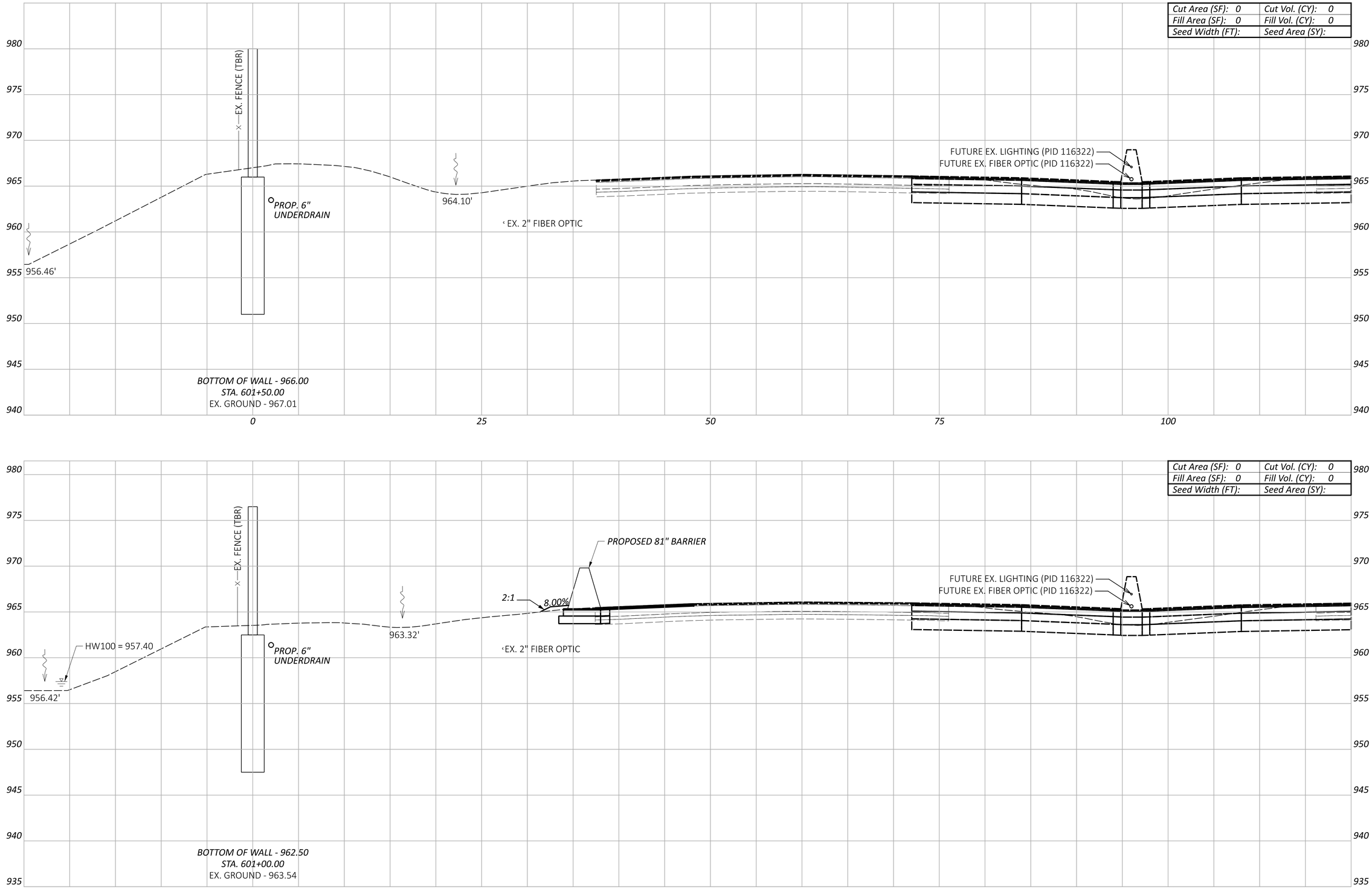
REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.69 | TOTAL P.276



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 6
STA. 601+00.00 TO STA. 601+50.00

MODEL: BLP_WALL6 - 601+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:08:49 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS006B.dgn

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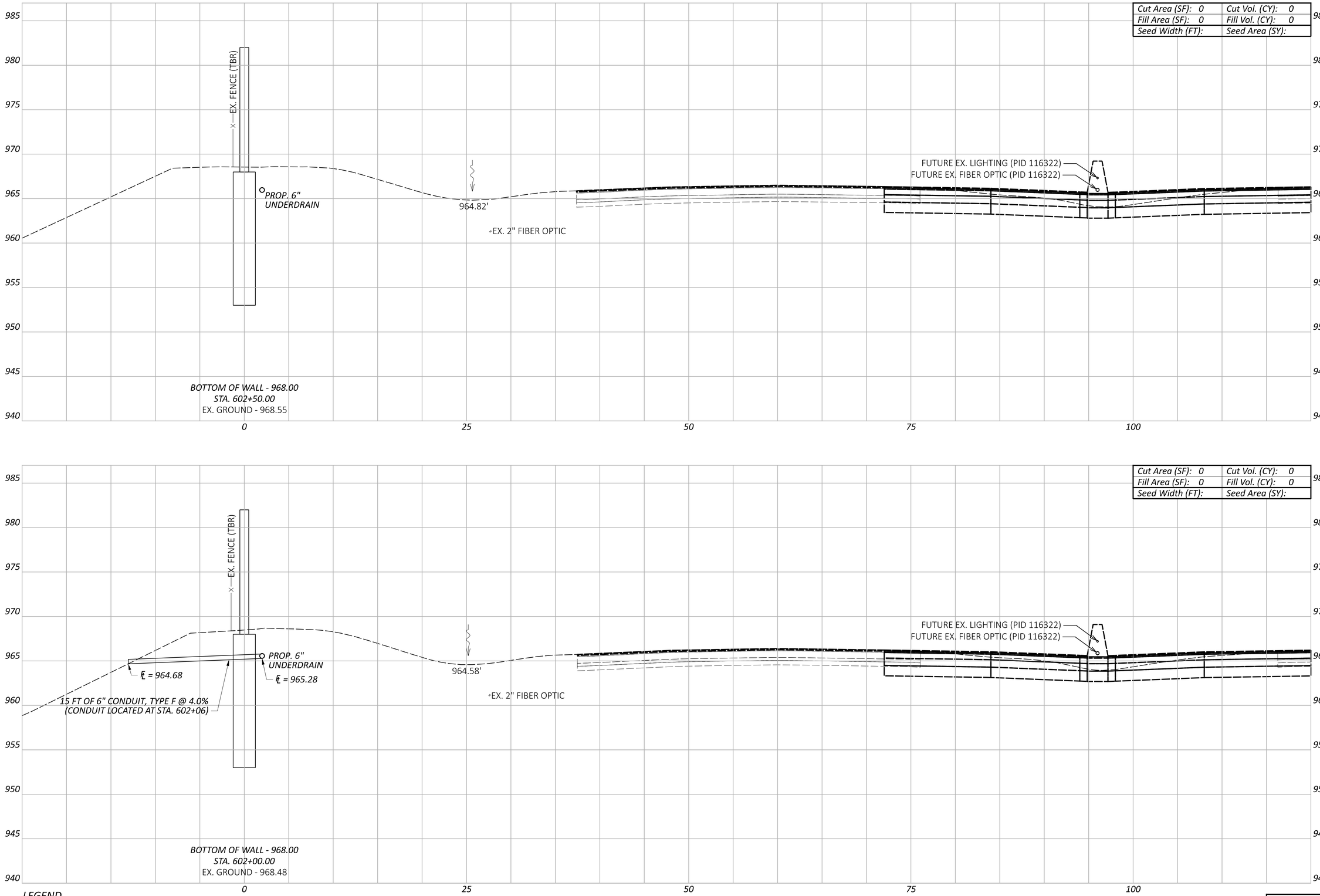
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.70 TOTAL P.276



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STA. 602+00.00 TO STA. 602+50.00

FRA-161-15.80 NOISE WALLS

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Sheet Totals		
Seeding	Cut	Fill

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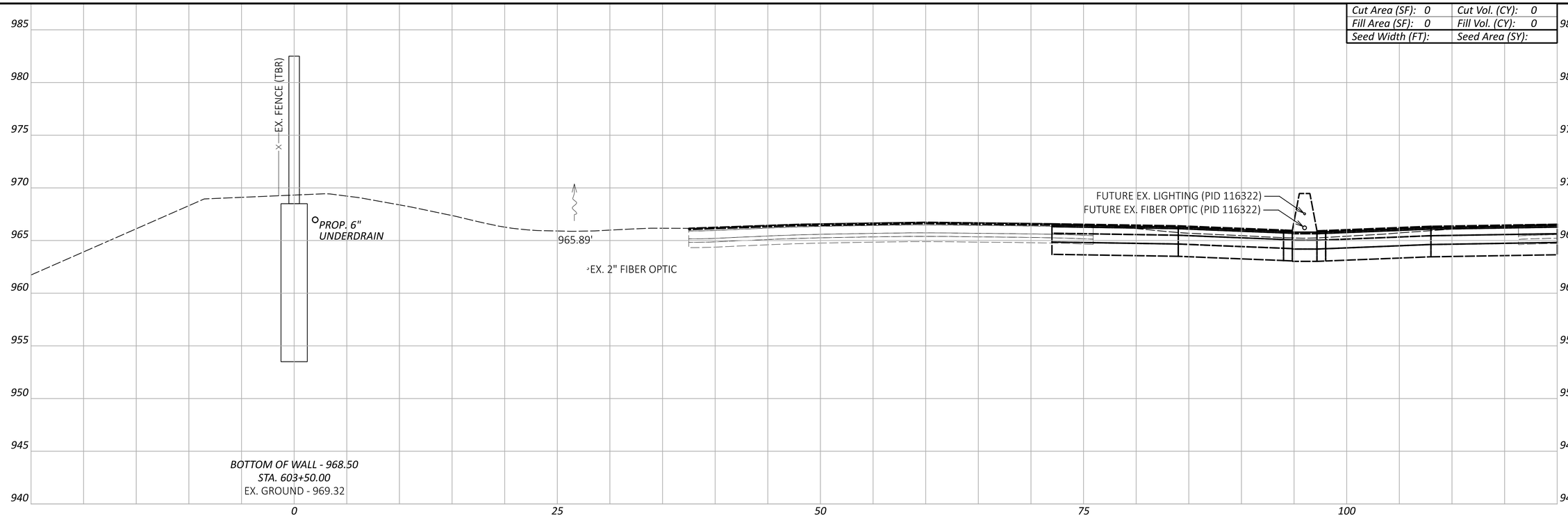
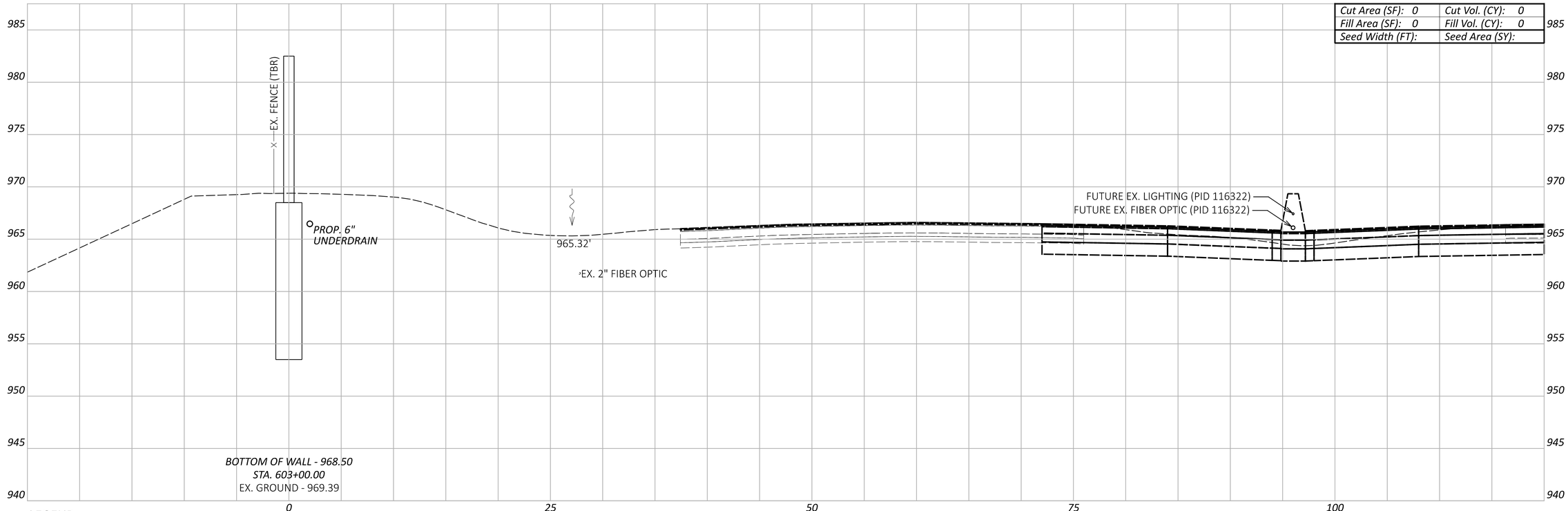
SHEET	TOTAL
P.71	P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 6
STA. 603+00.00 TO STA. 603+50.00

FRA-161-15.80 NOISE WALLS

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Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID 117607

SHEET P.72 TOTAL P.276

CROSS SECTIONS - WALL 6
STA. 604+00.00

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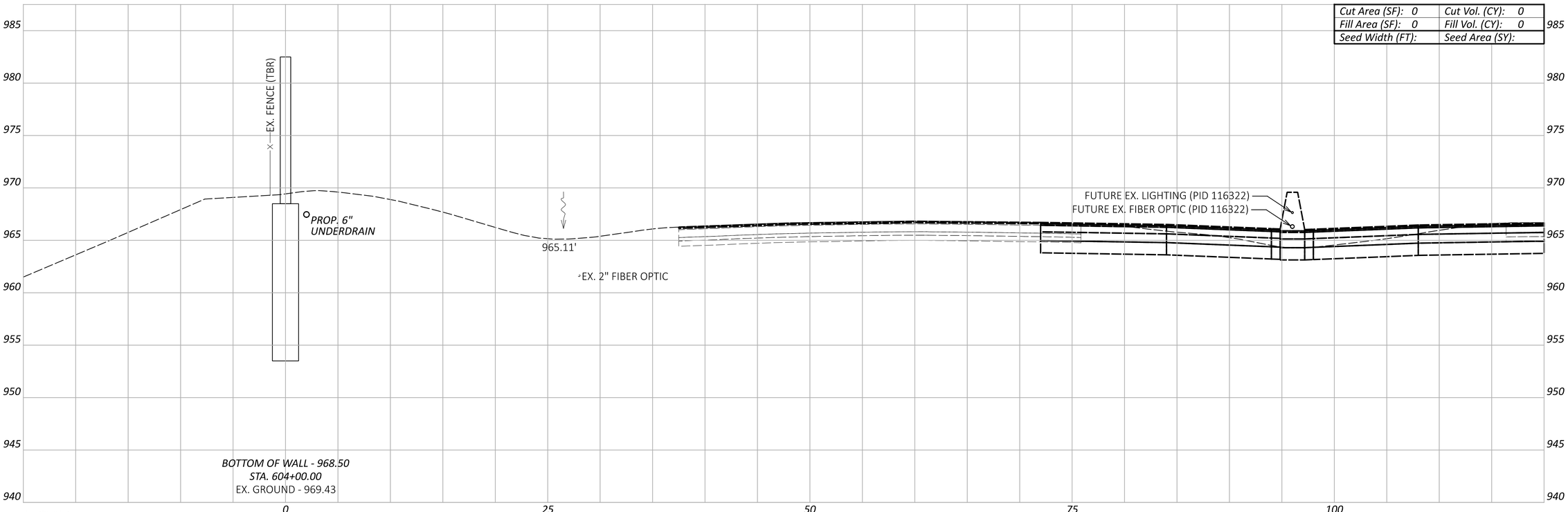

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL6 - 604+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:09:55 PM USER: jennifer.kelley
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SHEET P.73 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL6 - 604+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:10:08 PM USER: jennifer.kelley
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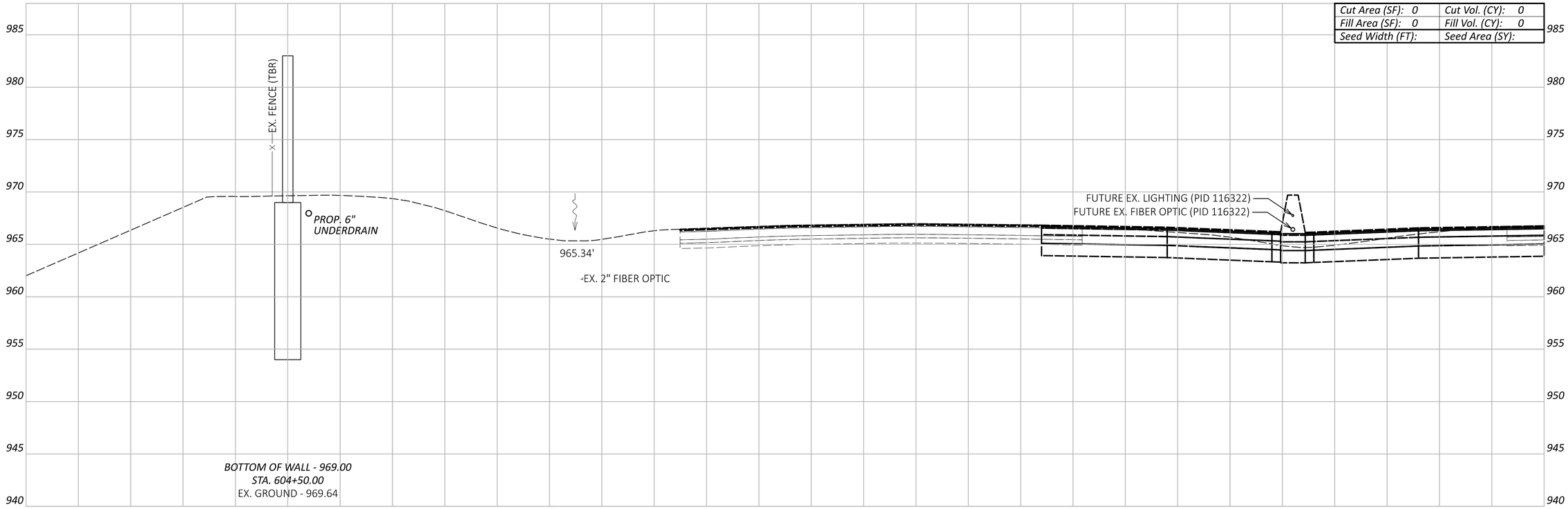

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 6
STA. 604+50.00

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SHEET P.74 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL6 - 605+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:10:22 PM USER: jennifer.kelley
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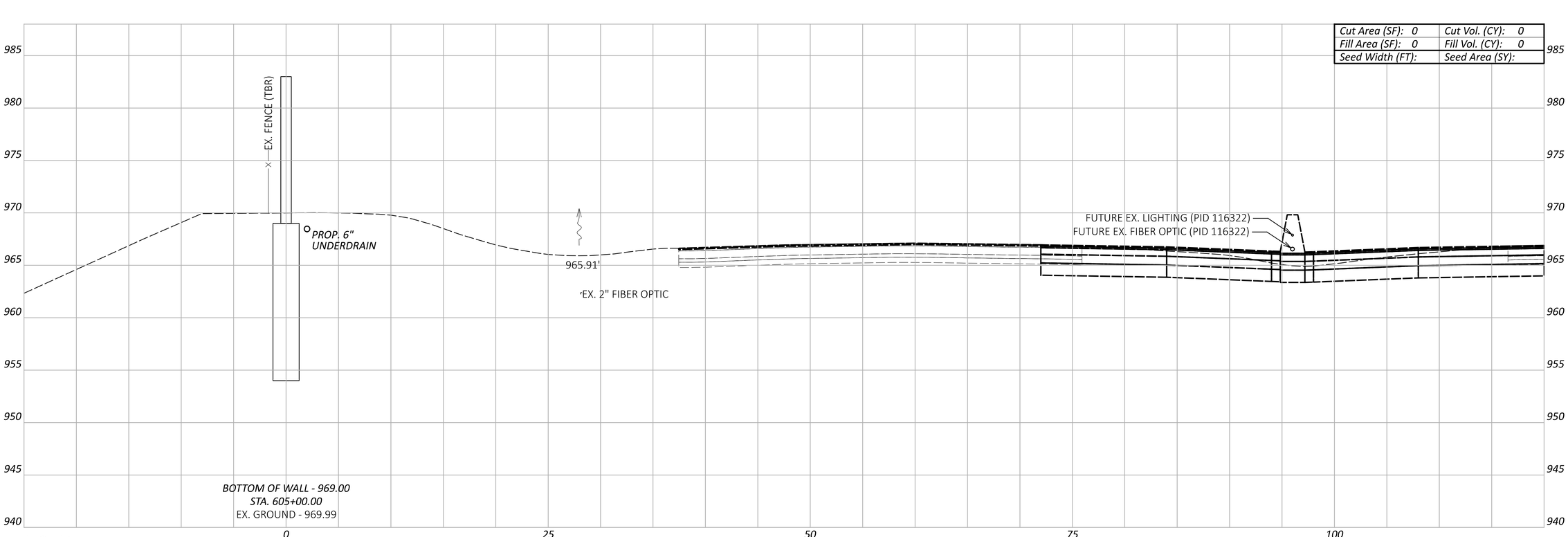
CROSS SECTIONS - WALL 6
STA. 605+00.00



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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SHEET	TOTAL
P.75	P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL6 - 605+28.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:10:35 PM USER: jennifer.kelley
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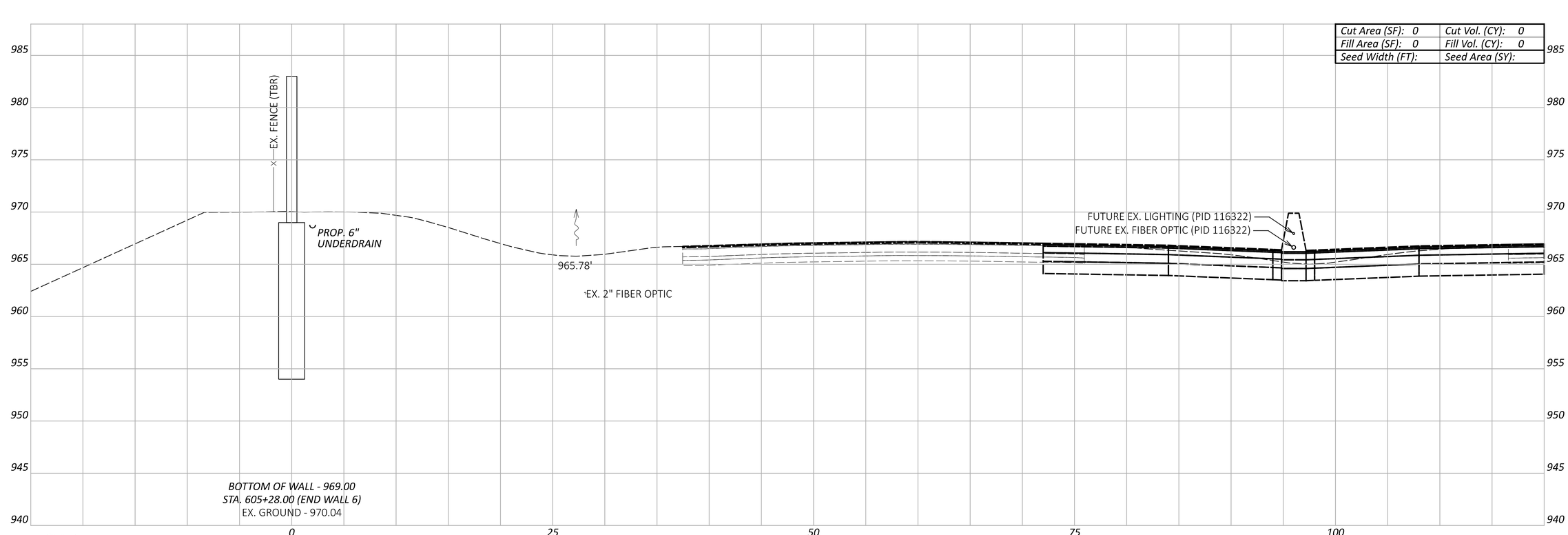
CROSS SECTIONS - WALL 6
STA. 605+28.00



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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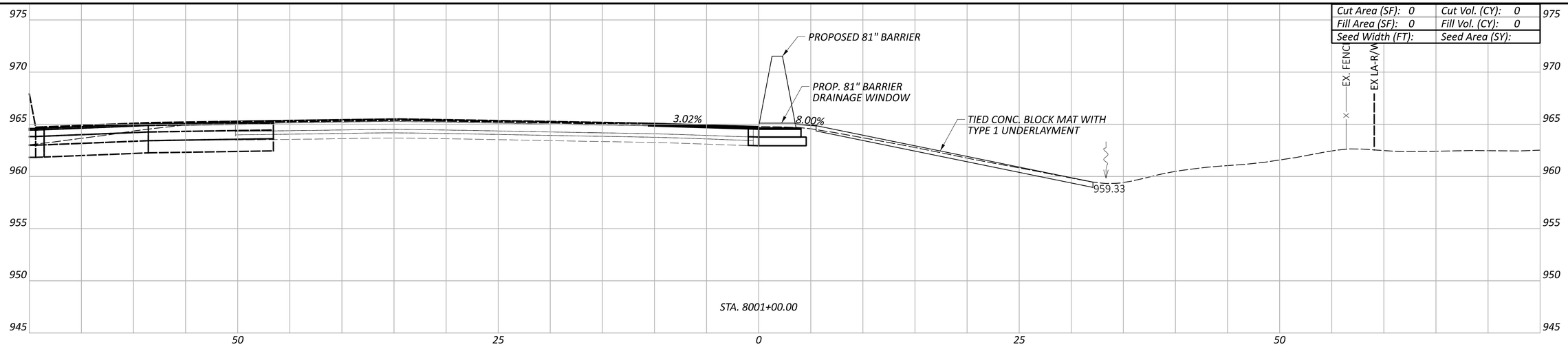
SHEET	TOTAL
P.76	P.276



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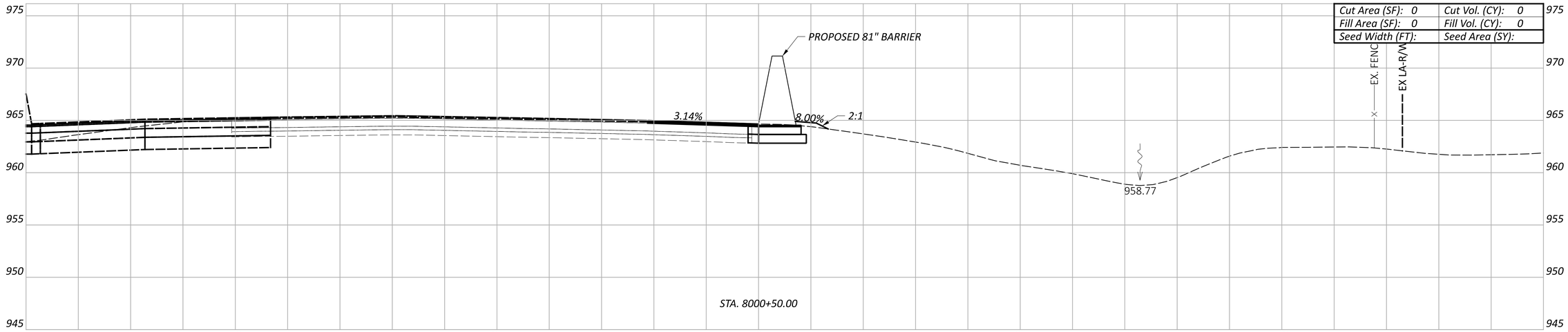

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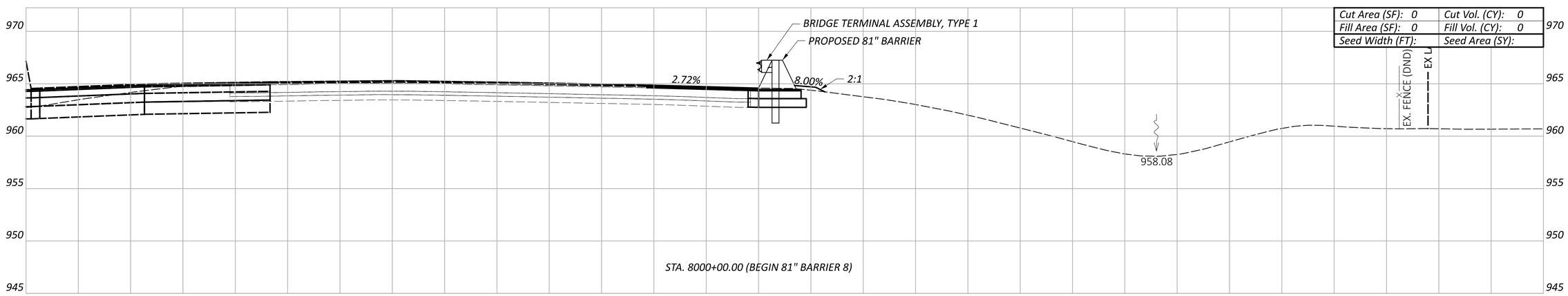

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LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 8
STA. 8000+00.00 TO STA. 8001+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER8 - 8000+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:11:18 PM USER: jennifer.kelley
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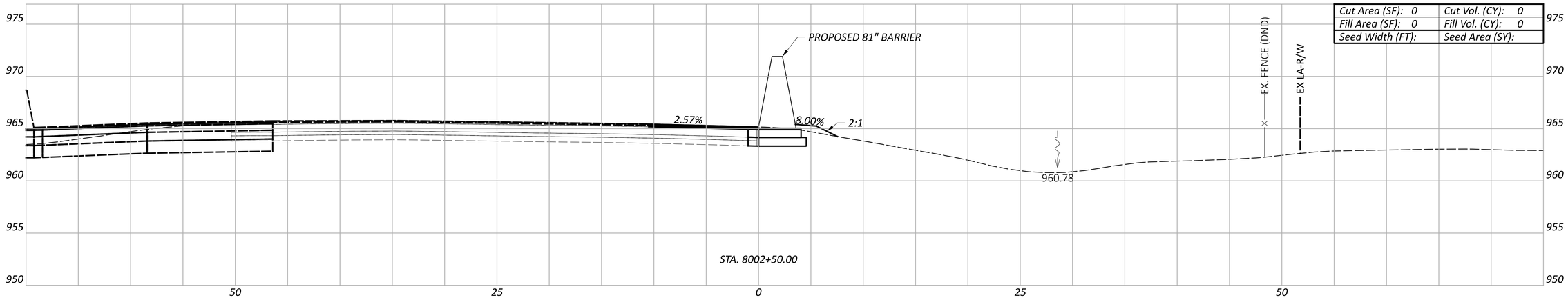
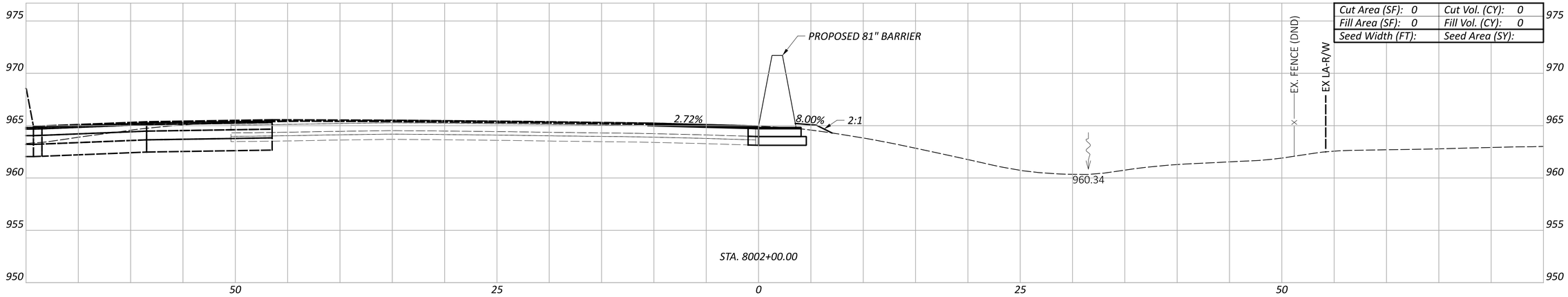
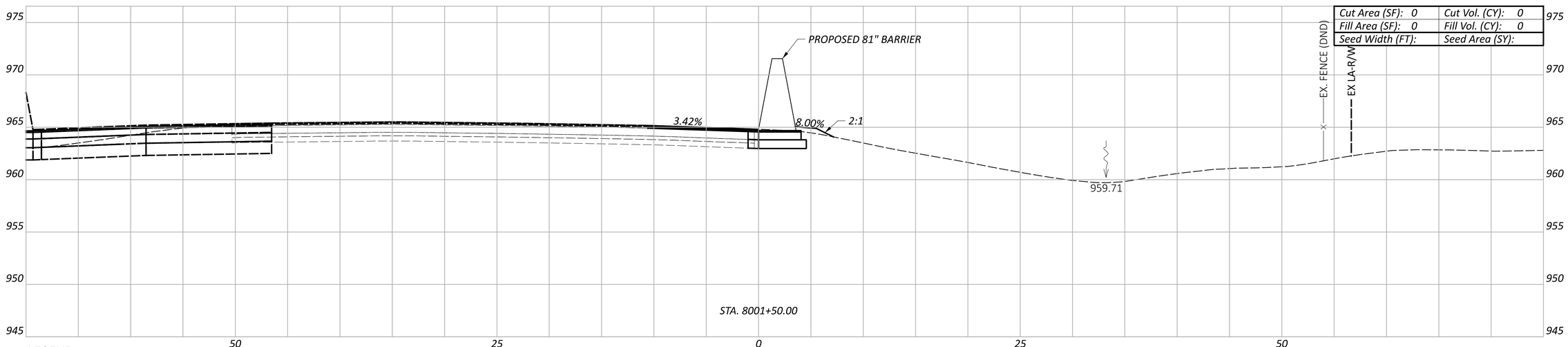
JDH 01-22-24

PROJECT ID
117607

SHEET P.77 TOTAL P.276







LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 8
STA. 8001+50.00 TO STA. 8002+50.00

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PROJECT ID: 117607

SHEET: P.78 | TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER8 - 8001+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:11:51 PM USER: jennifer.kelley
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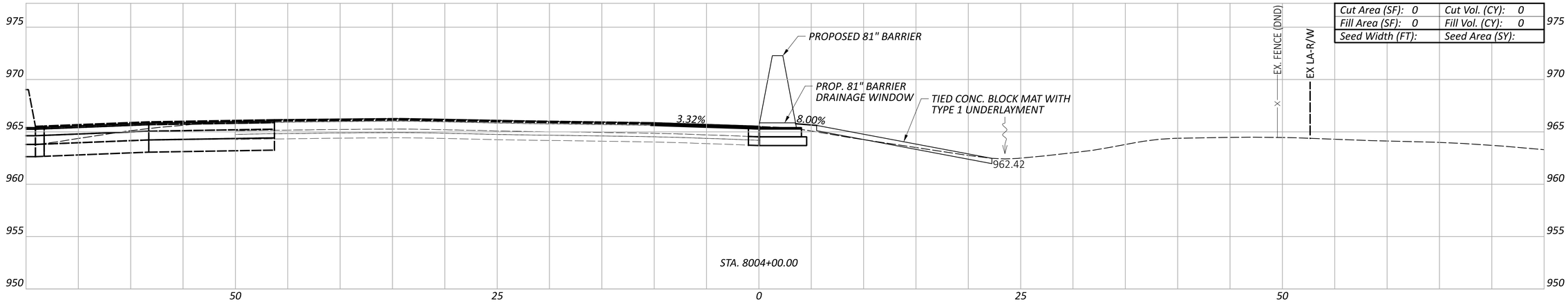

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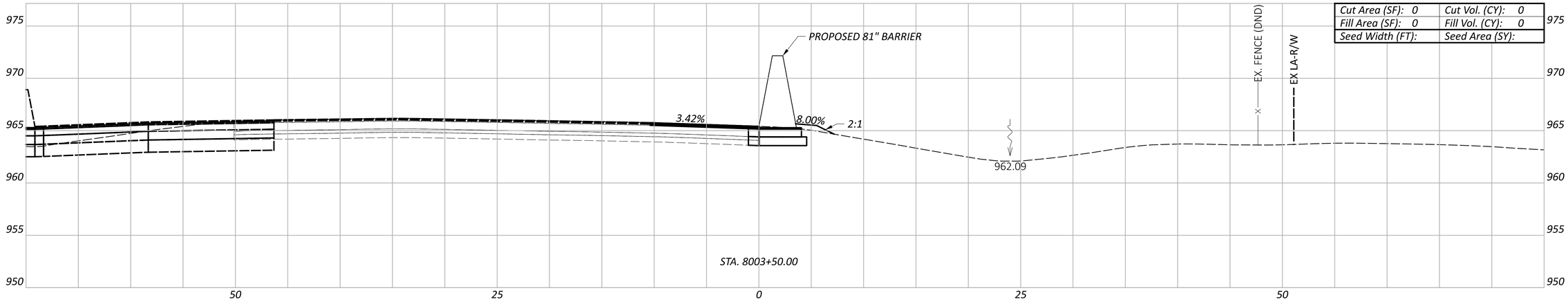

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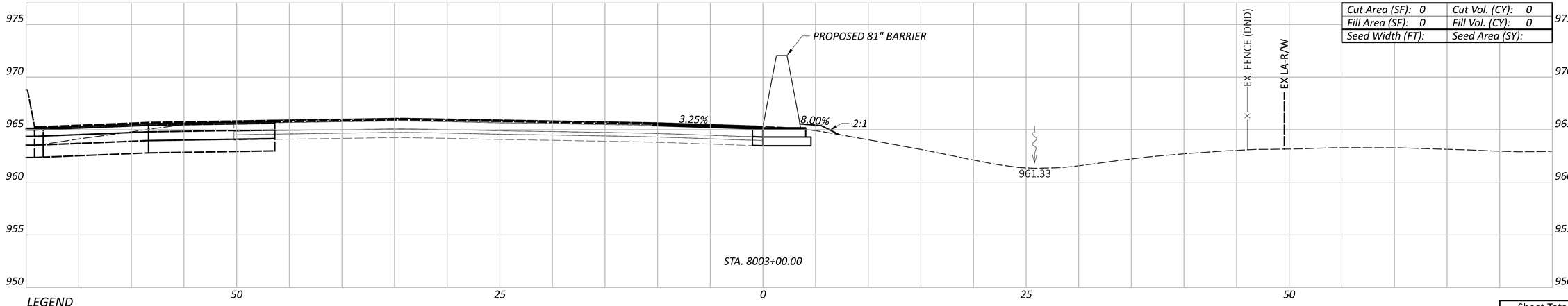

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Seed Width (FT):	Seed Area (SY):

LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 8
STA. 8003+00.00 TO STA. 8004+00.00

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PROJECT ID 117607

SHEET P.79 TOTAL P.276

MODEL: BLP_BARRIER8 - 8003+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:12:16 PM USER: jennifer.kelley
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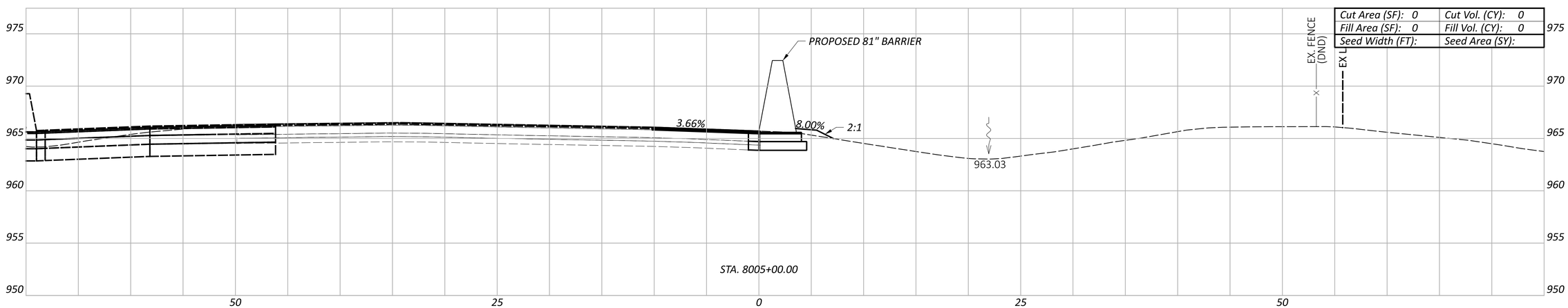

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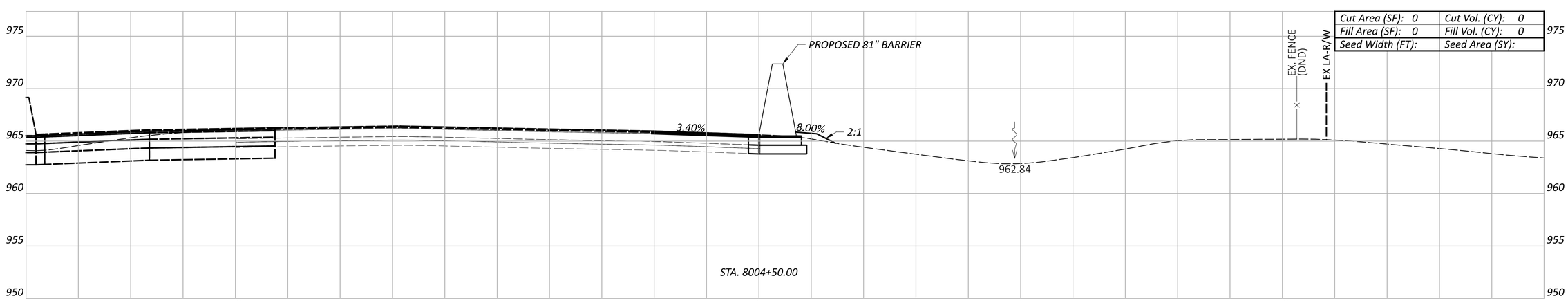

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LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 8
STA. 8004+50.00 TO STA. 8005+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER8 - 8004+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:12:41 PM USER: jennifer.kelley
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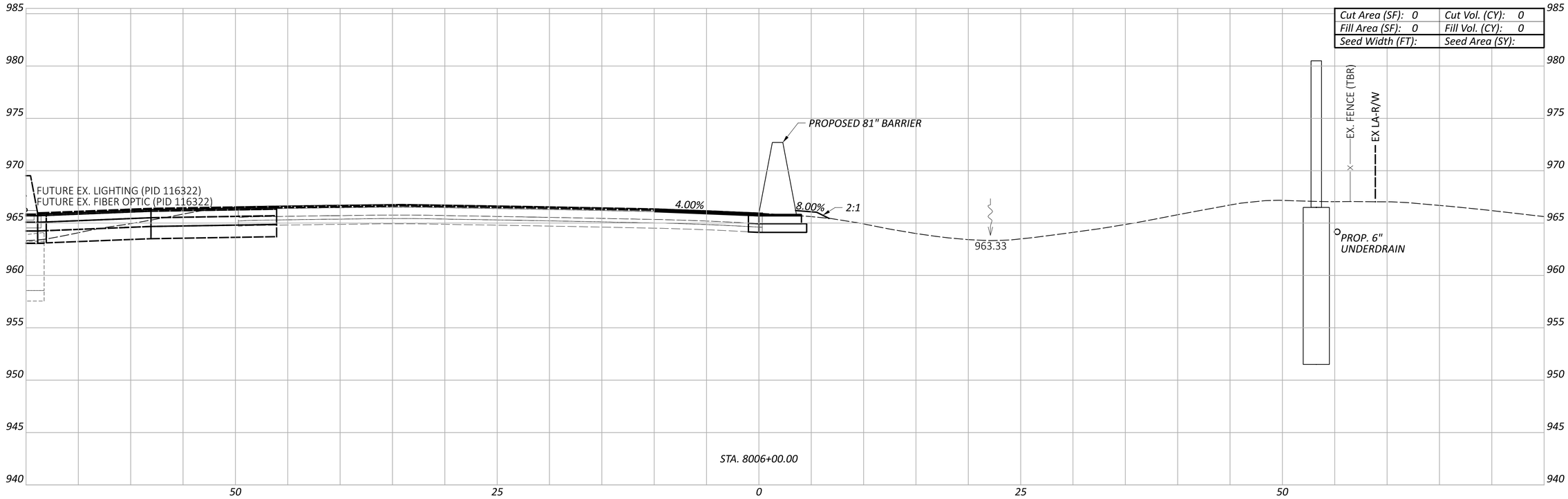
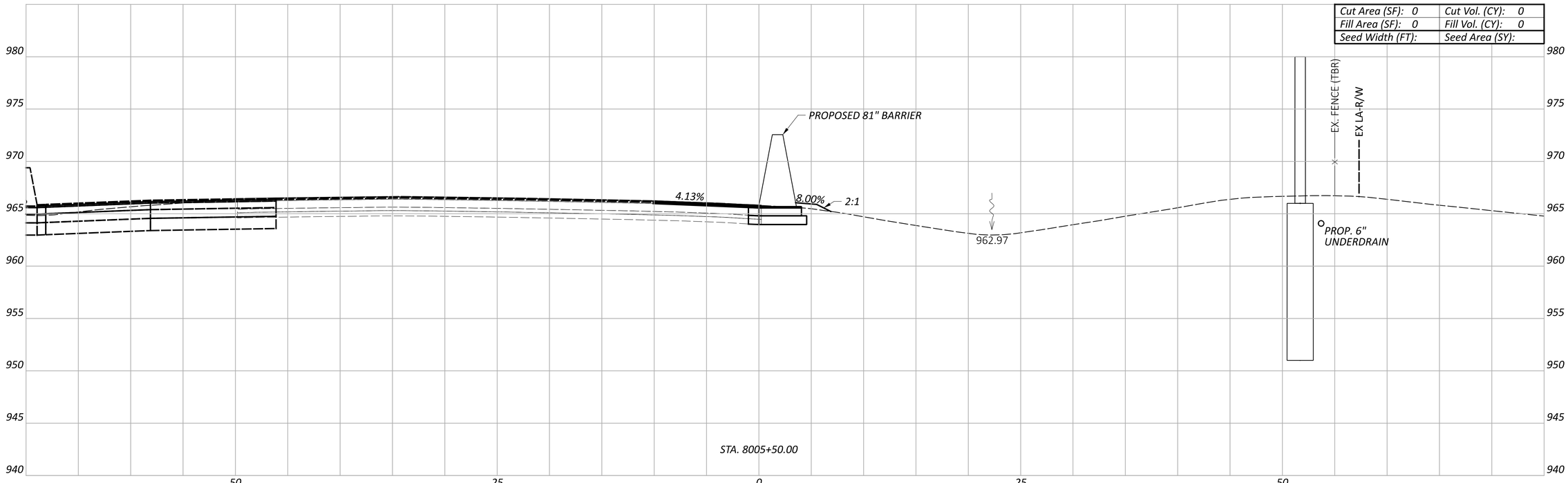
SHEET P.80 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 8
STA. 8005+50.00 TO STA. 8006+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER8 - 8005+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:12:59 PM USER: jennifer.kelley
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REVIEWER JDH 01-22-24

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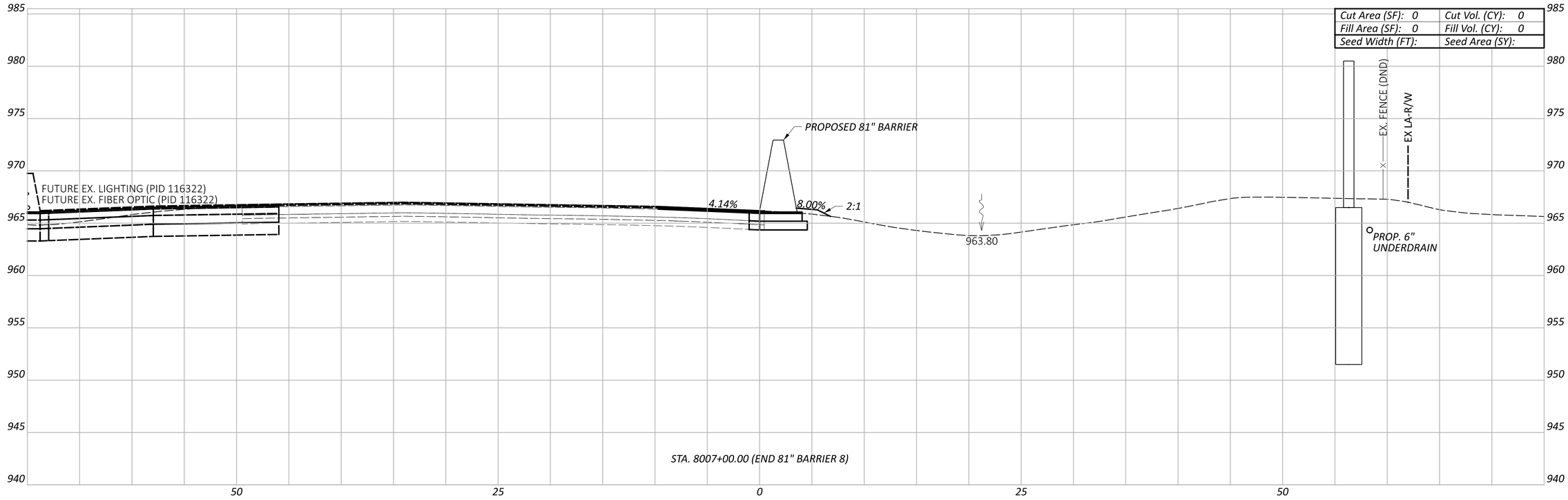
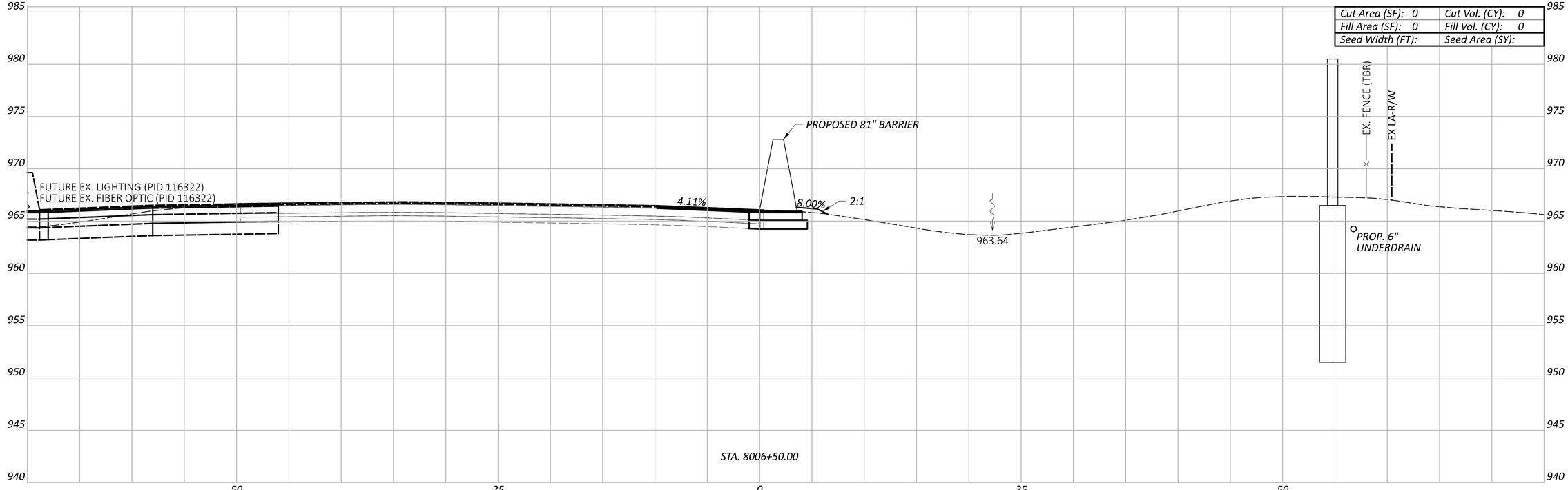
Sheet Totals		
Seeding	Cut	Fill

SHEET P.81 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 8
STA. 8006+50.00 TO STA. 8007+00.00

Sheet Totals		
Seeding	Cut	Fill

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REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.82 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER8 - 8006+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:13:16 PM USER: jennifer.kelley
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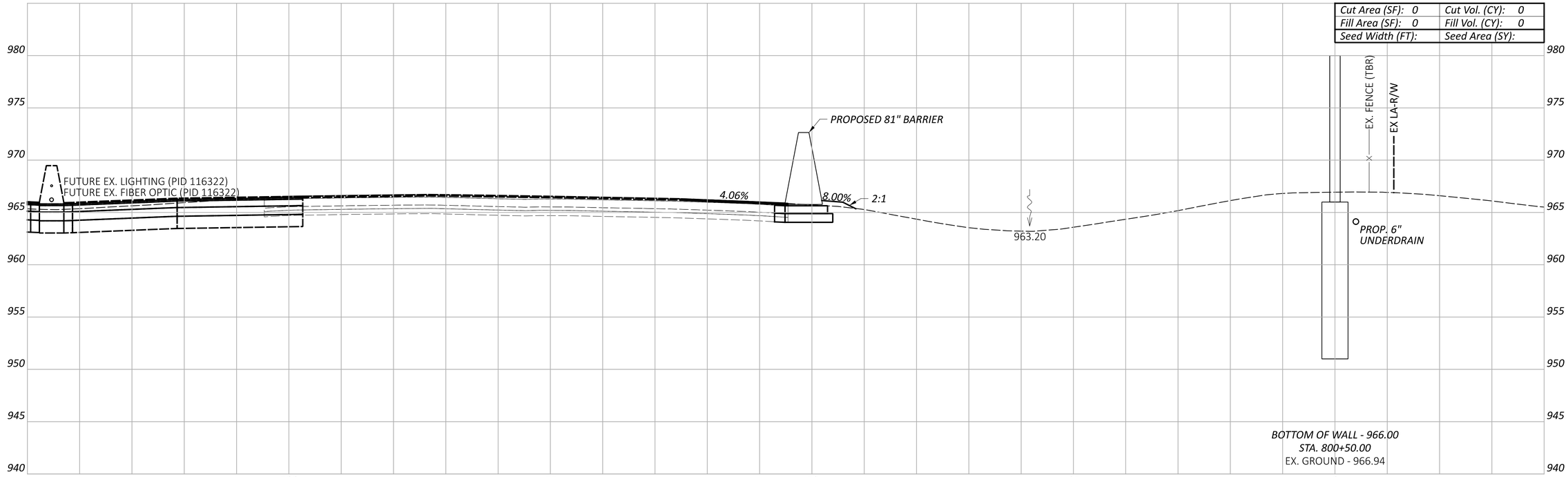

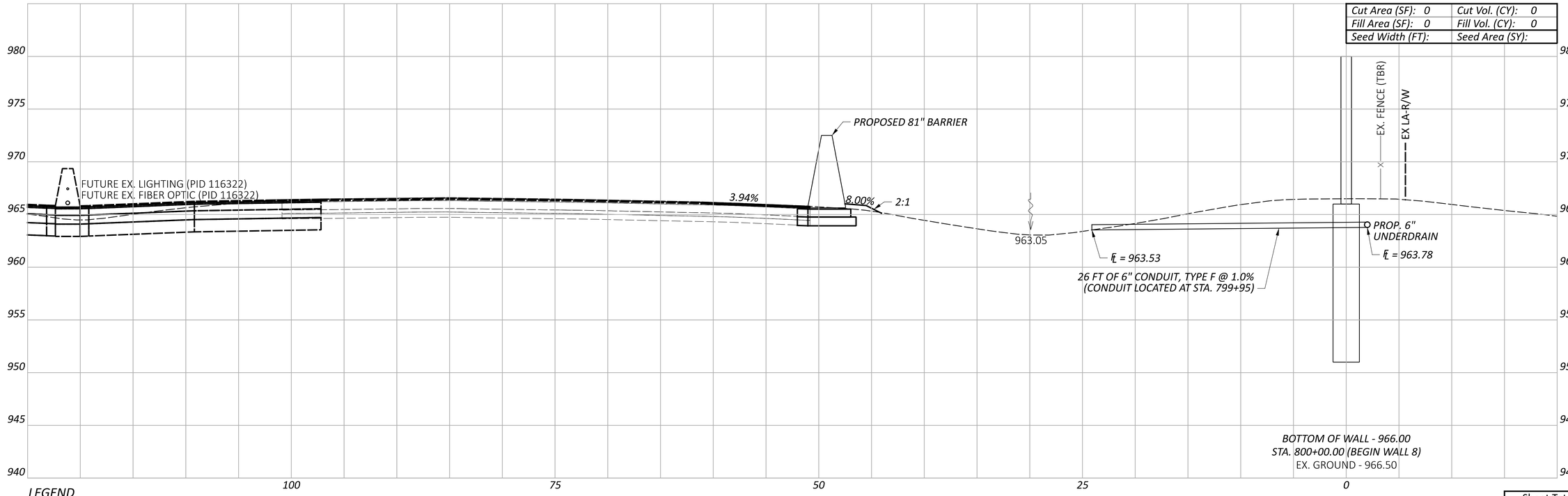

LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 8
STA. 800+00.00 TO STA. 800+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 800+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 1:36:08 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

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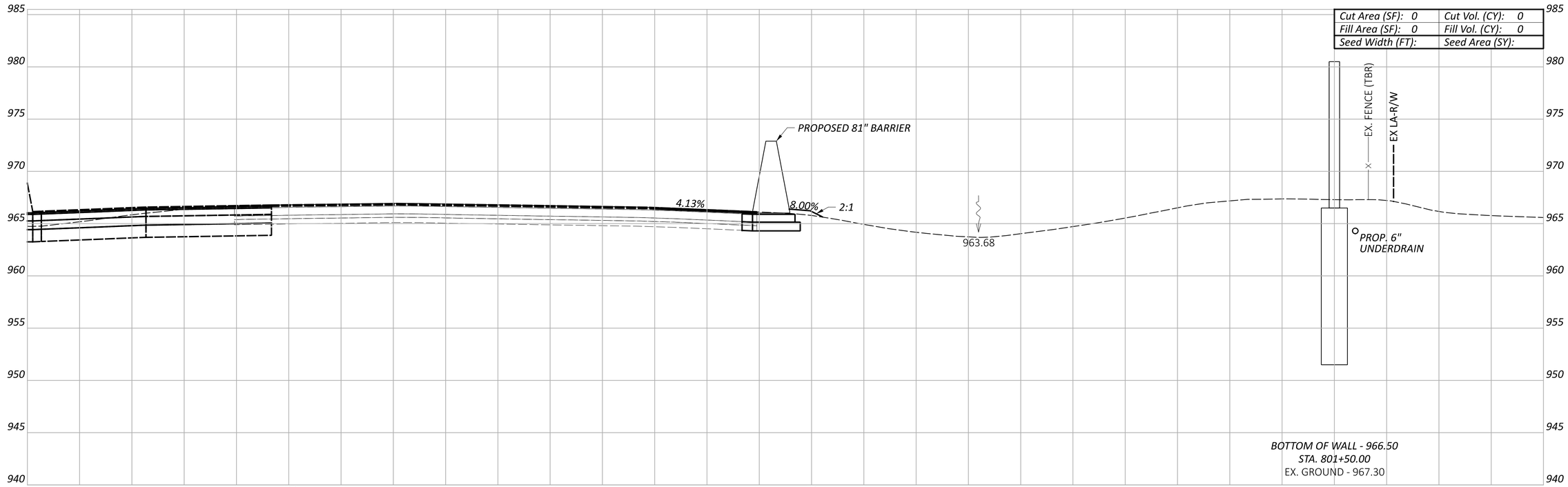
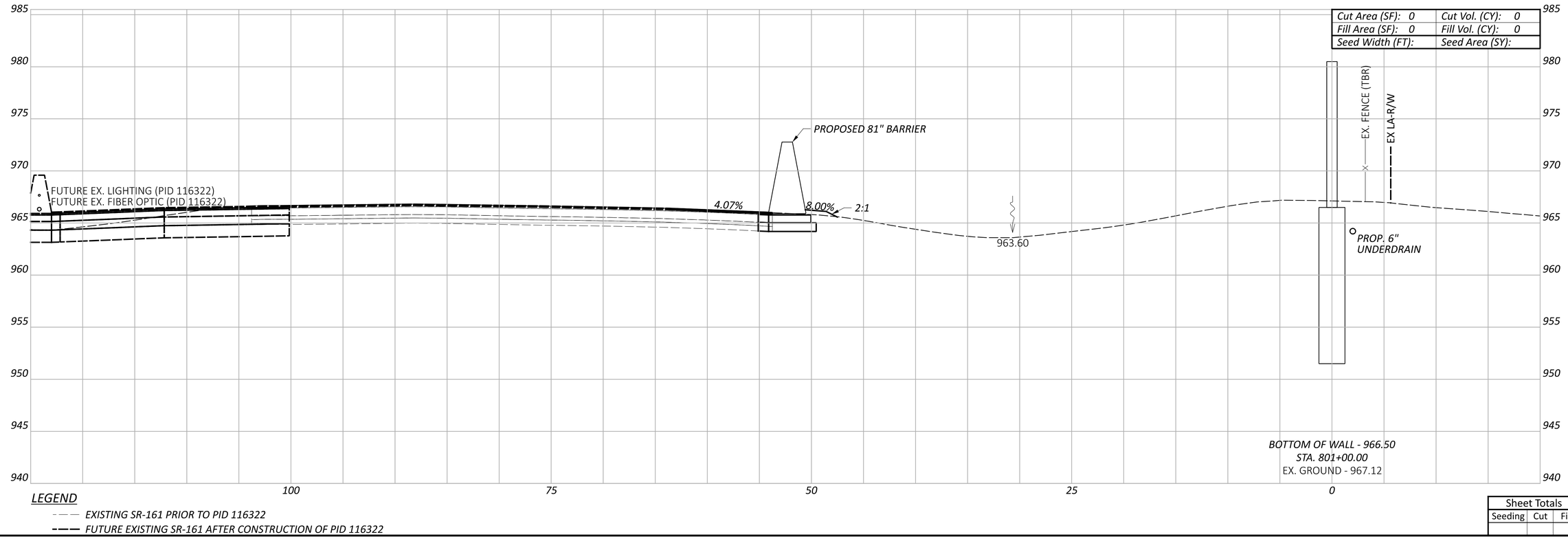
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.83 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 801+00.00 TO STA. 801+50.00

Sheet Totals		
Seeding	Cut	Fill

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REVIEWER JDH 01-22-24

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SHEET P.84 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 801+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:14:25 PM USER: jennifer.kelley
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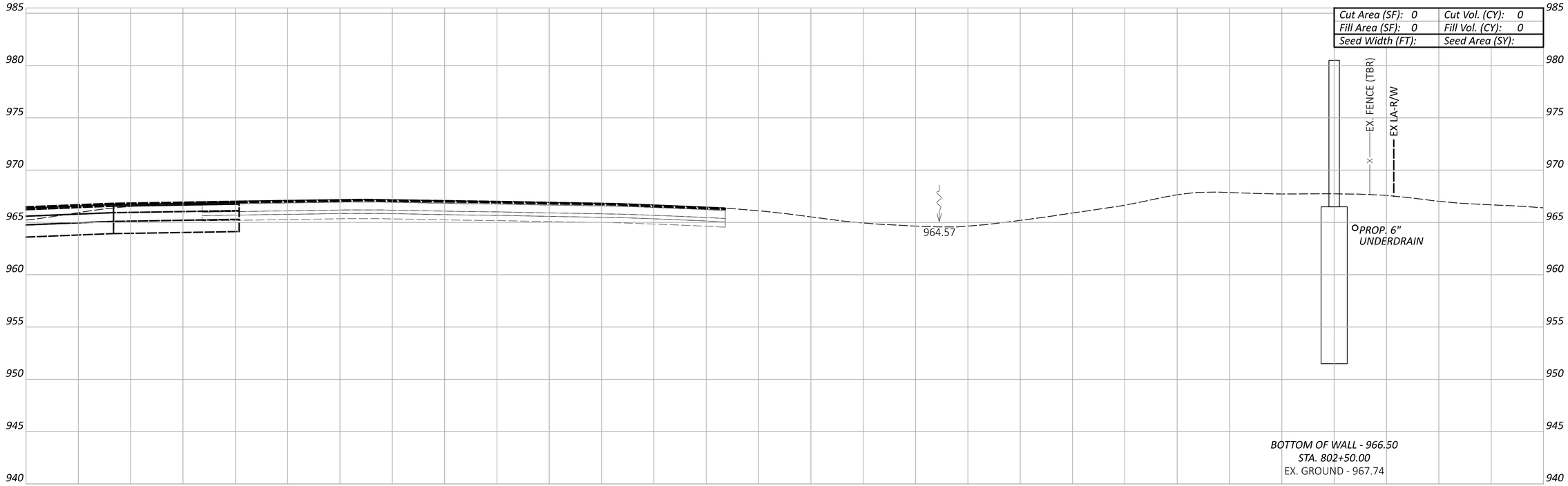

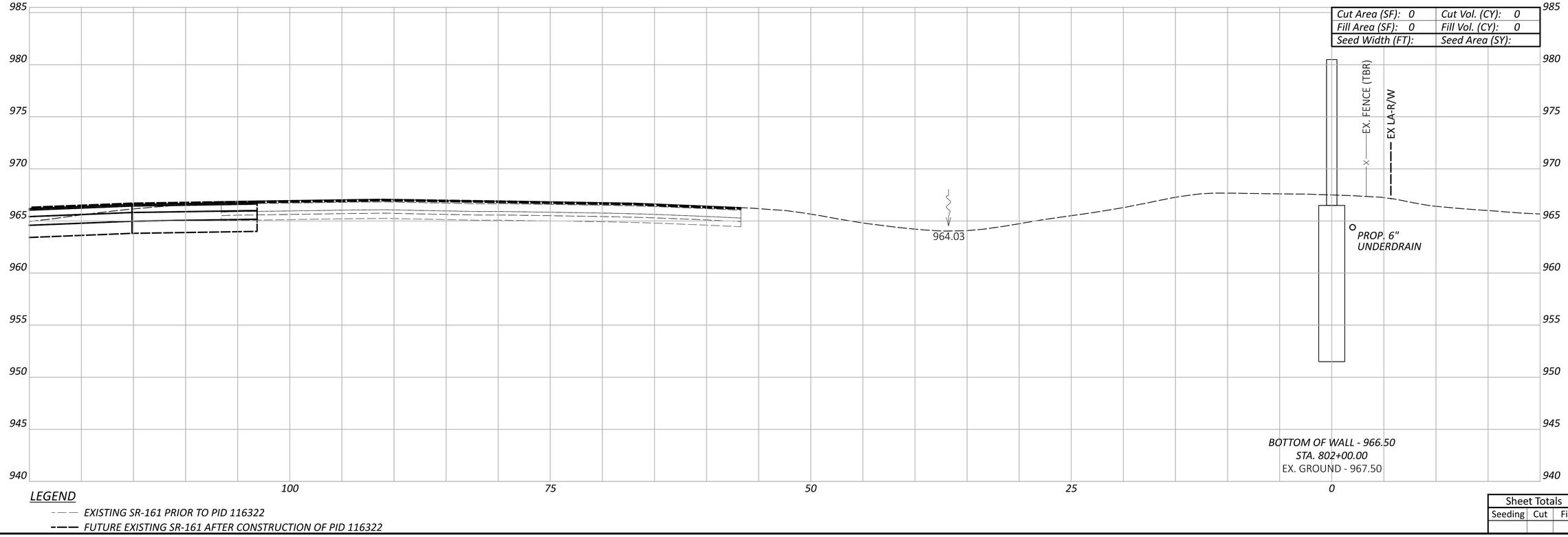

LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

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CROSS SECTIONS - WALL 8
STA. 802+00.00 TO STA. 802+50.00

Sheet Totals		
Seeding	Cut	Fill

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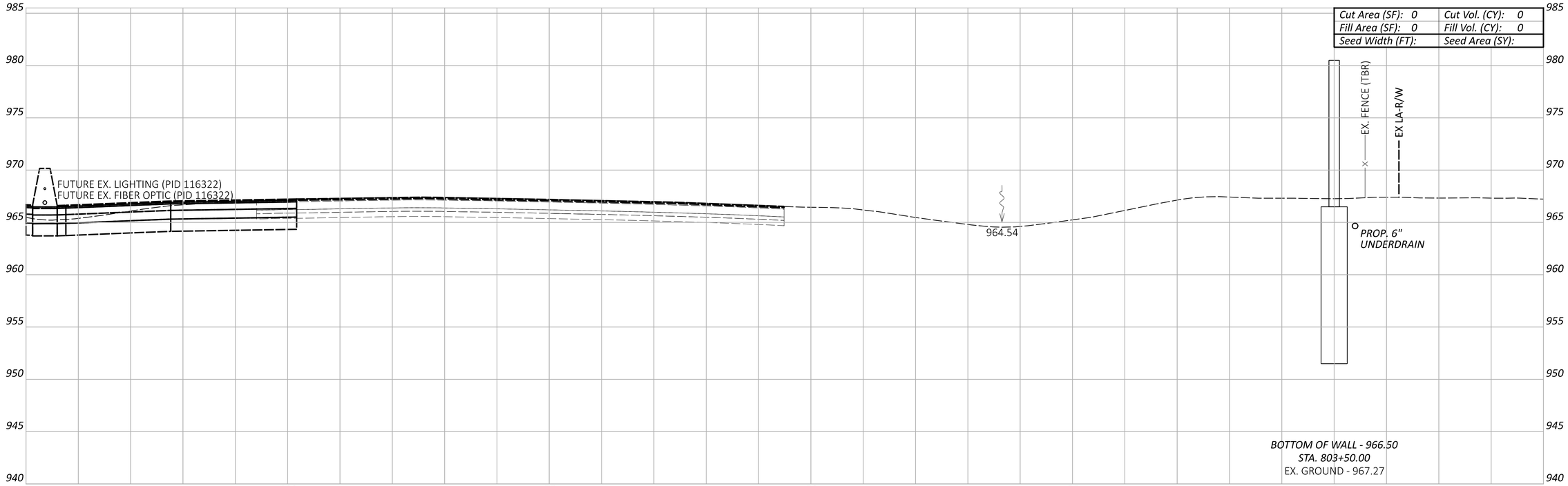
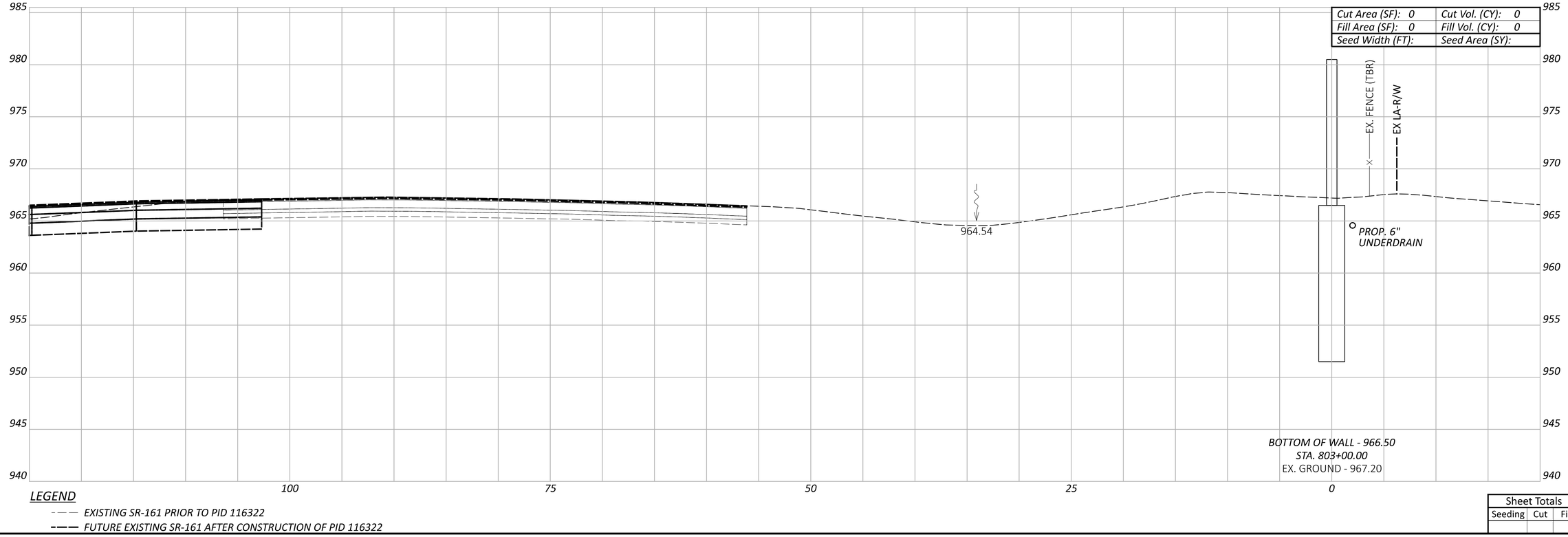
PROJECT ID 117607

SHEET P.85 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 803+00.00 TO STA. 803+50.00

Sheet Totals		
Seeding	Cut	Fill

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REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.86 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 803+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:15:26 PM USER: jennifer.kelley
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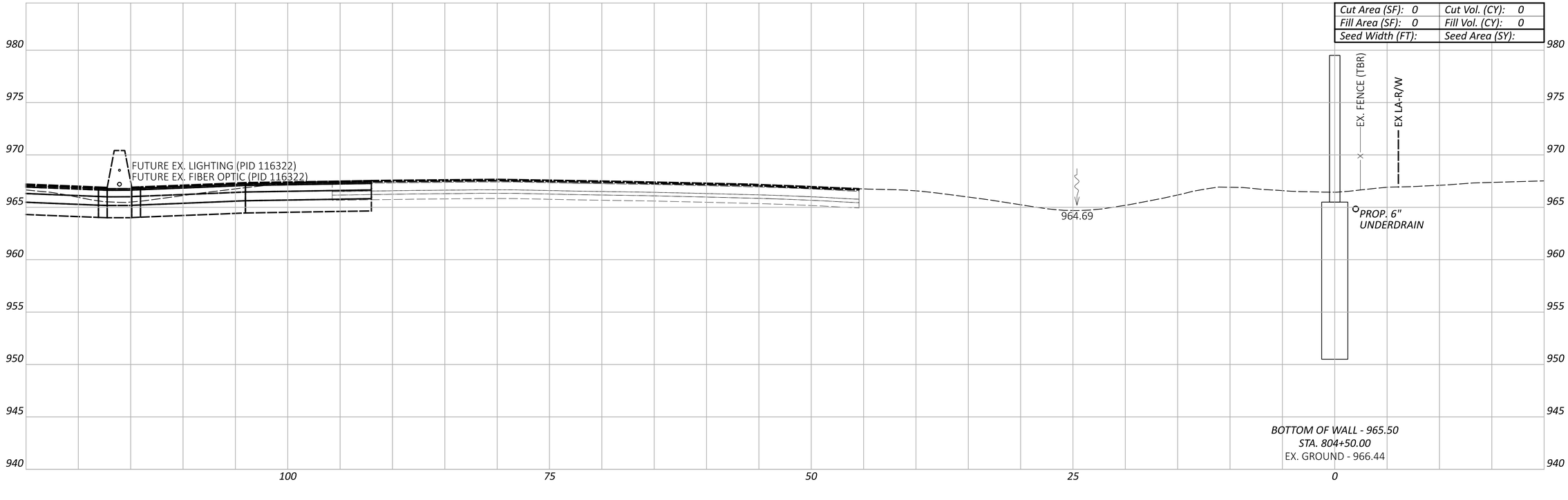

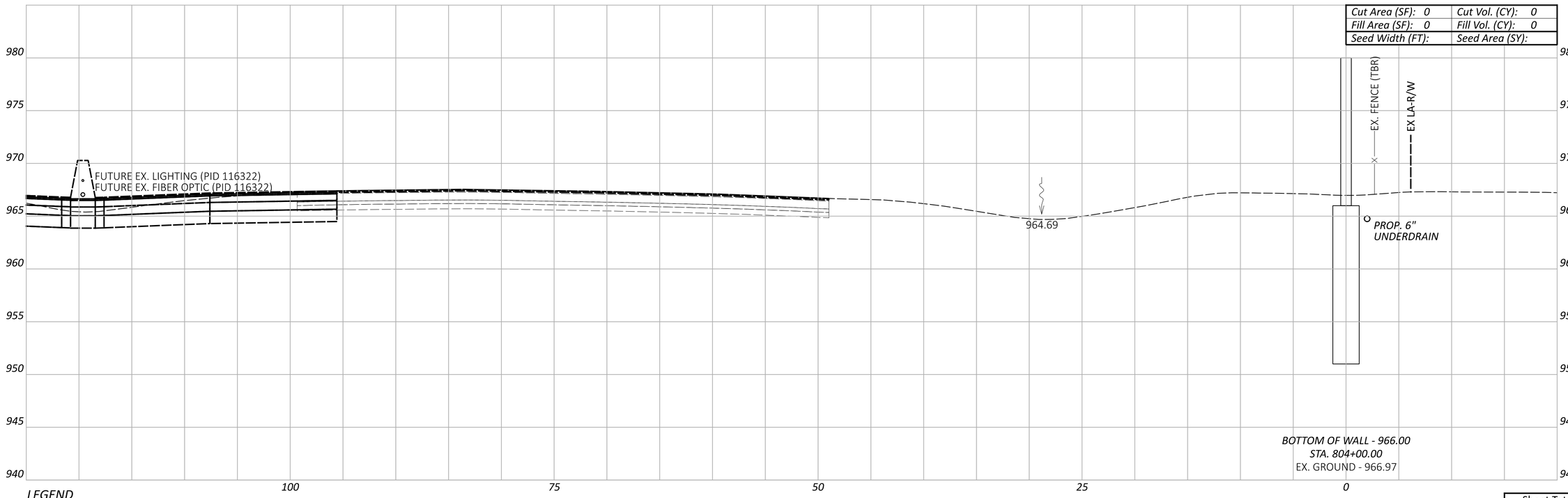

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 804+00.00 TO STA. 804+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 804+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:15:50 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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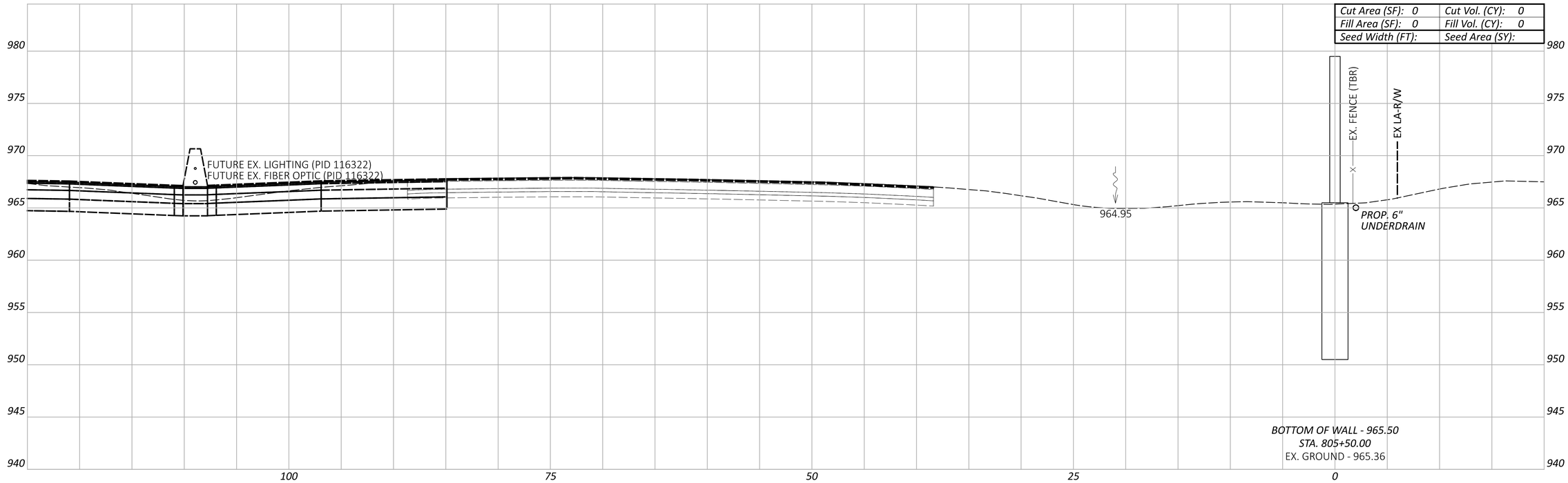
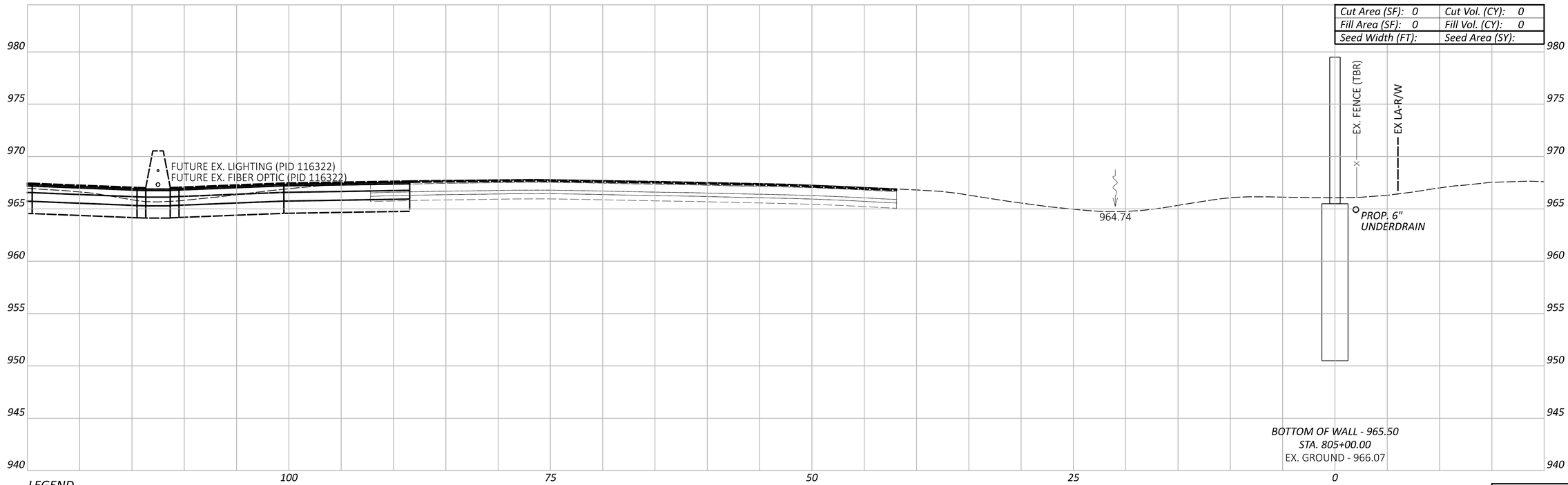
SHEET	TOTAL
P.87	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 805+00.00 TO STA. 805+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 805+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 12:03:01 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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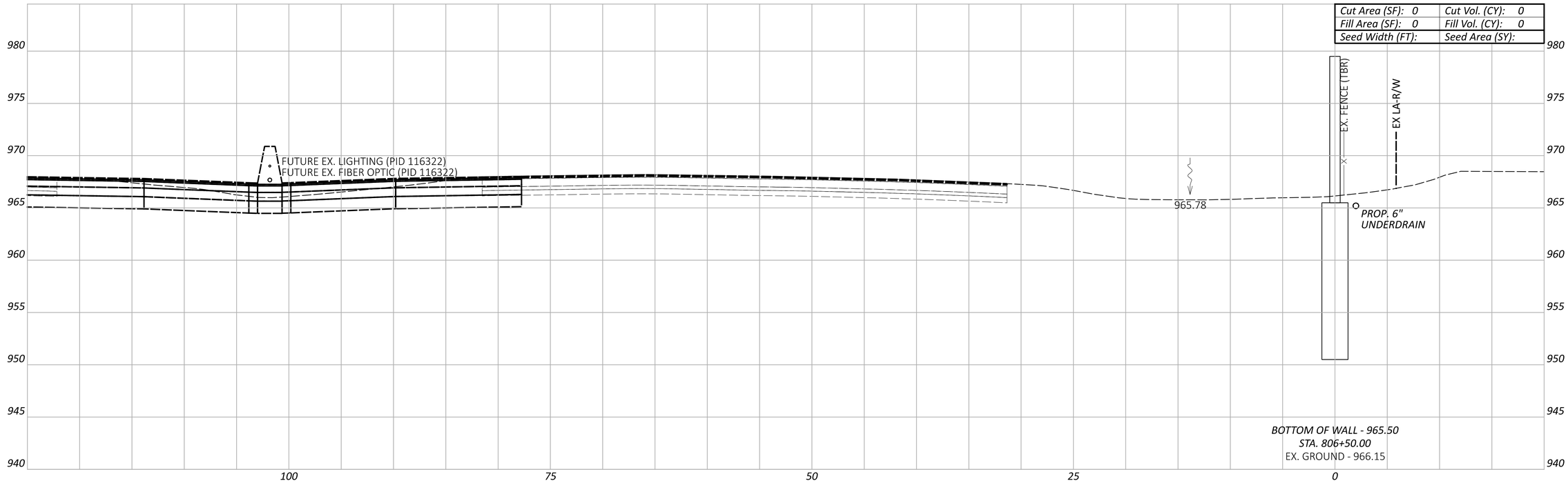
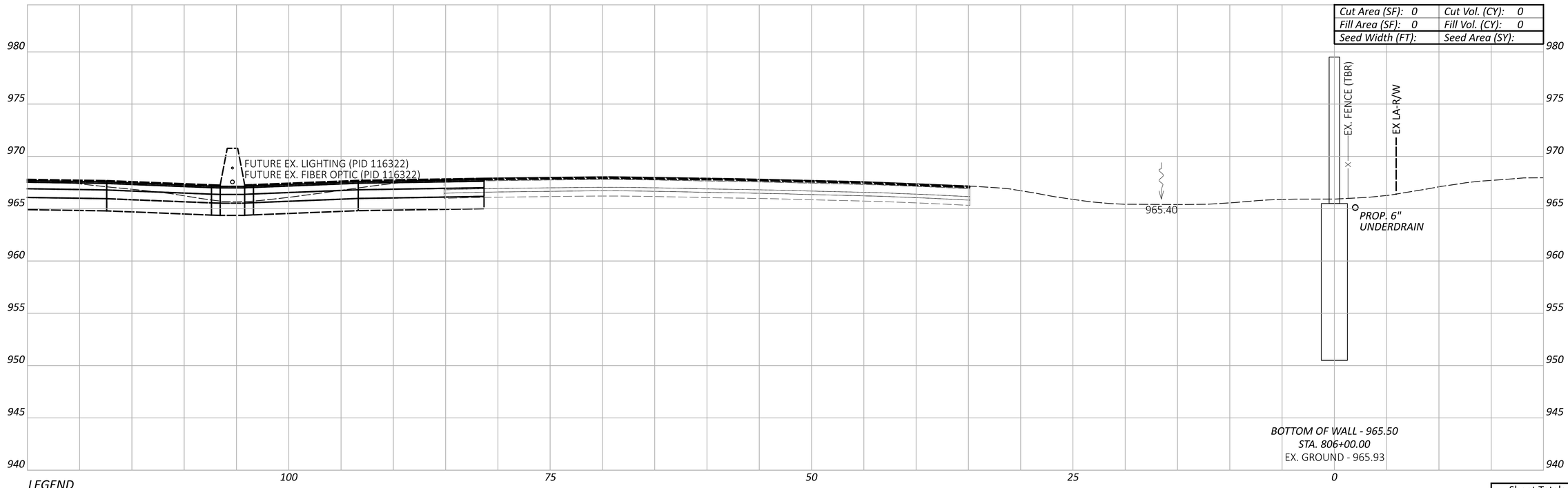
PROJECT ID 117607

SHEET P.88 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 806+00.00 TO STA. 806+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 806+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 12:03:39 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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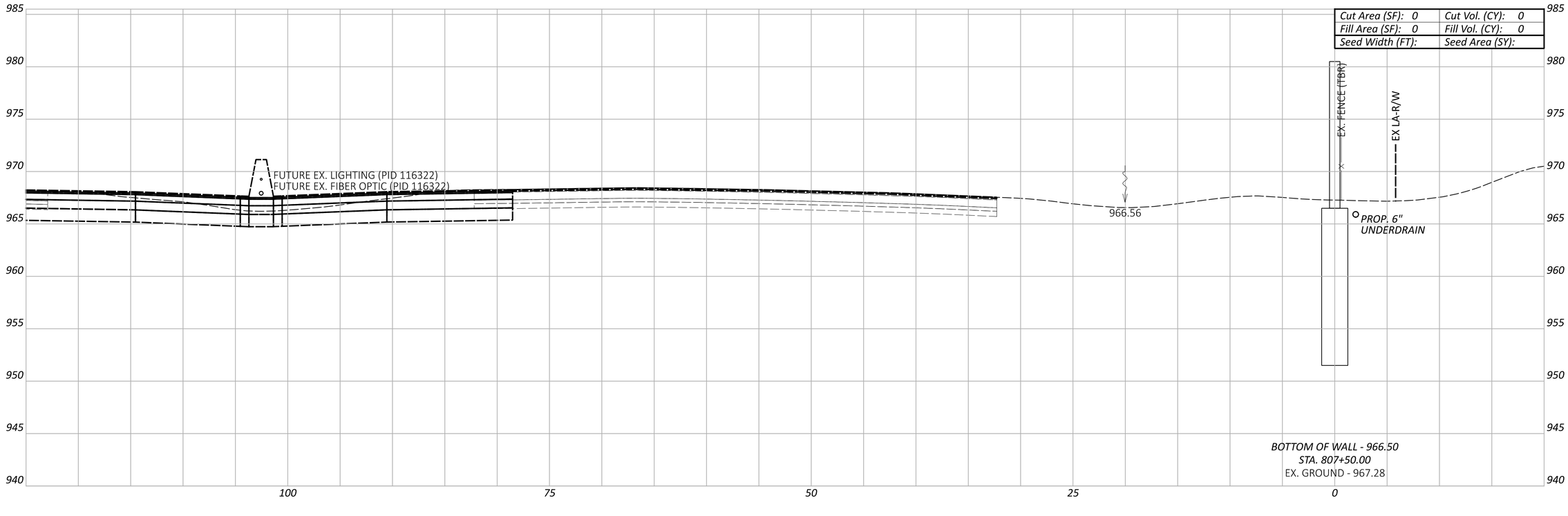
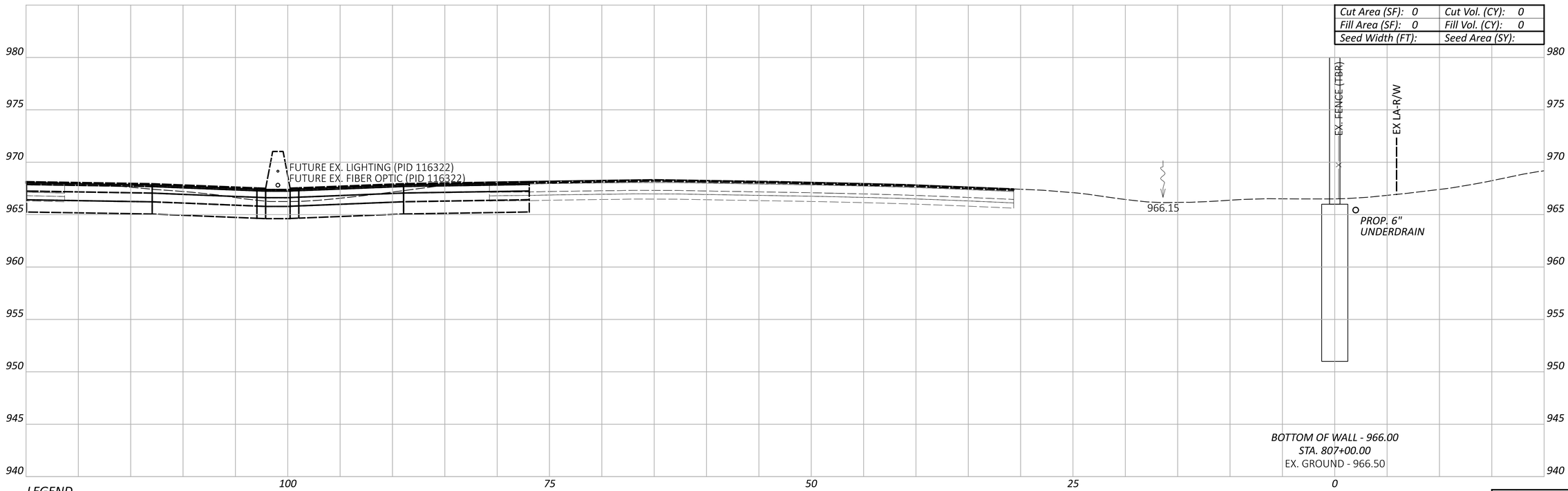
SHEET P.89 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 8
STA. 807+00.00 TO STA. 807+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 807+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:17:01 PM USER: jennifer.kelley
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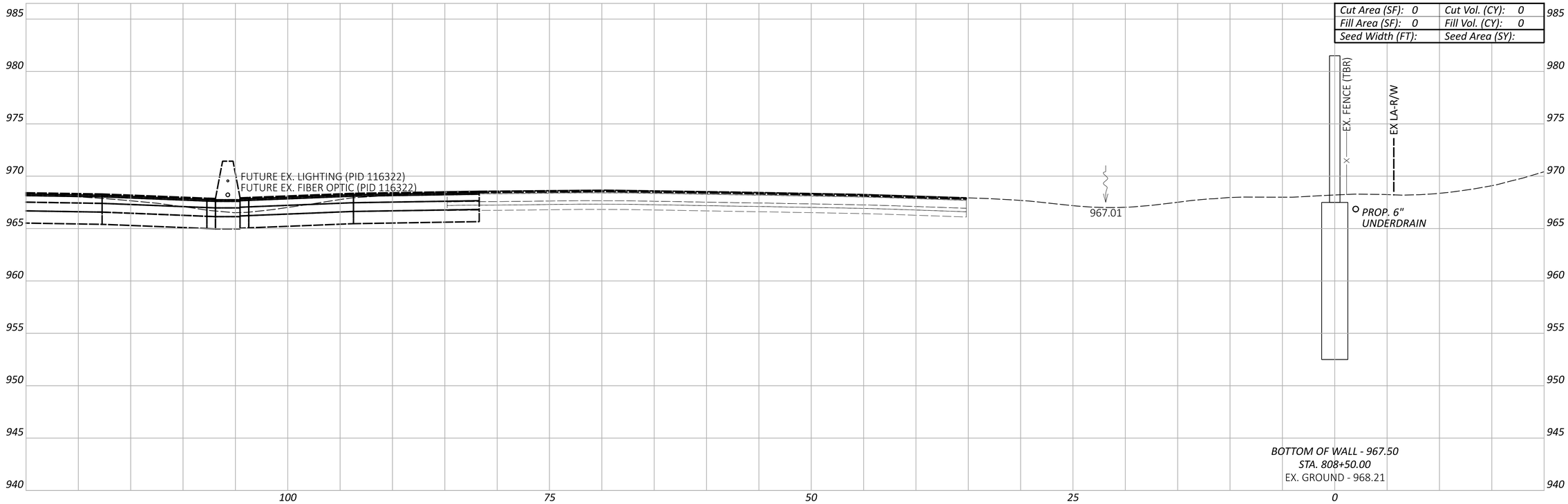
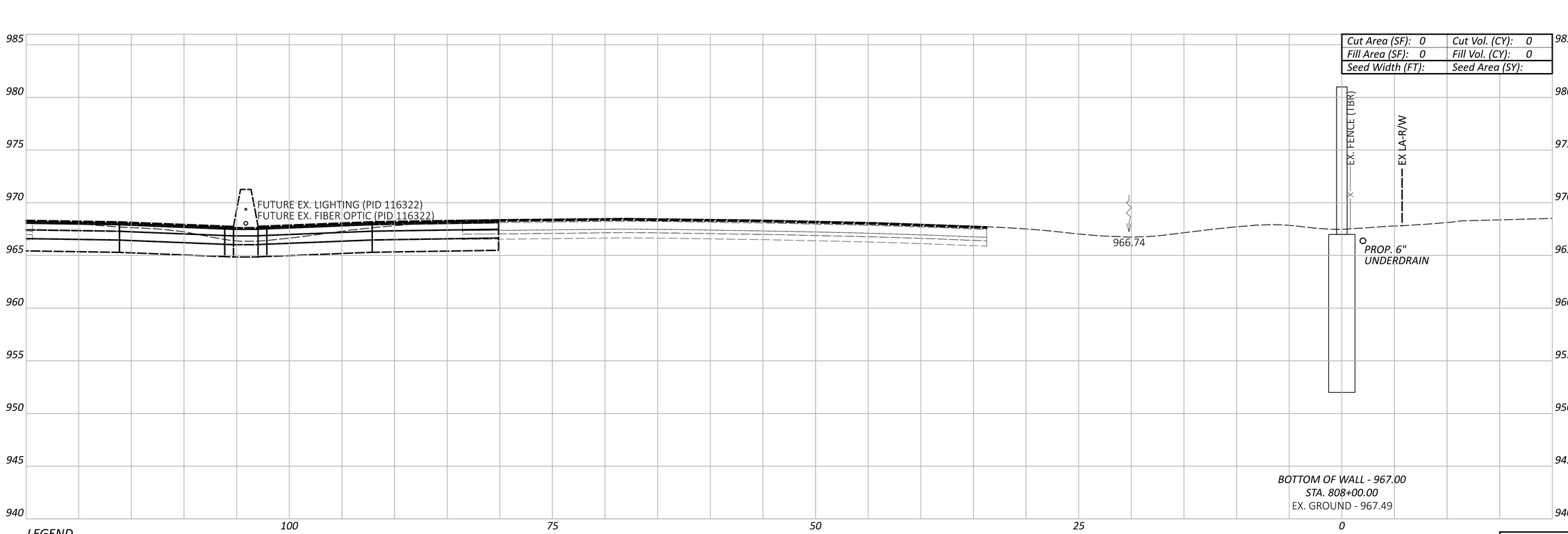
117607

SHEET	TOTAL
P.90	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 808+00.00 TO STA. 808+50.00

Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID 117607

SHEET P.91 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 808+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:17:26 PM USER: jennifer.kelley
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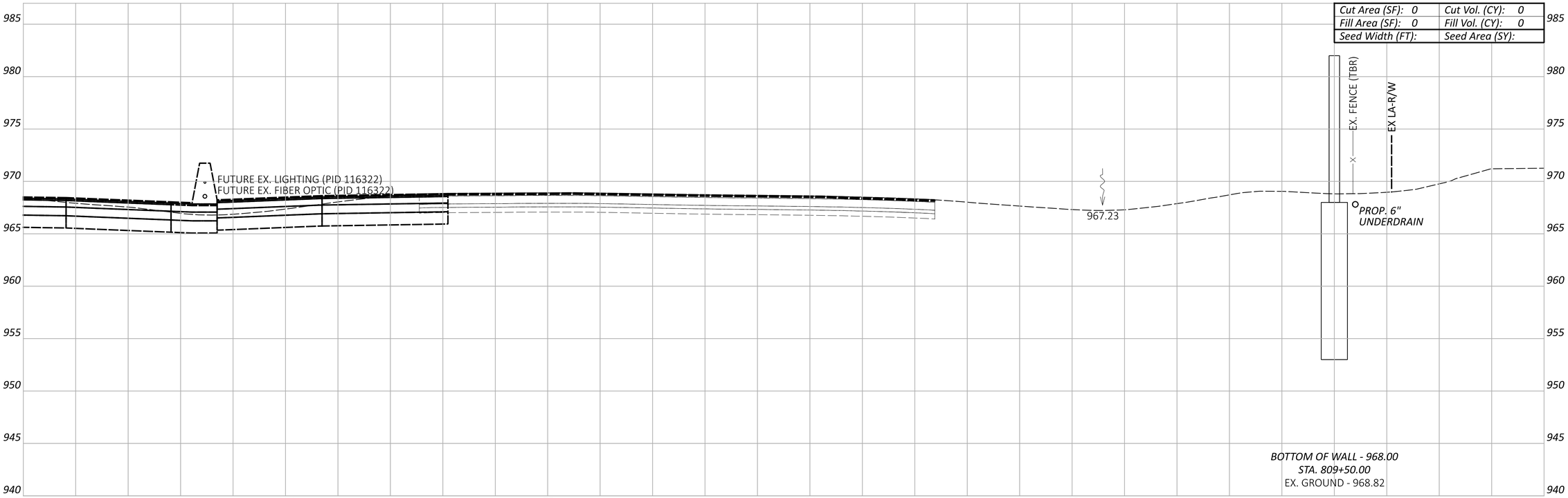

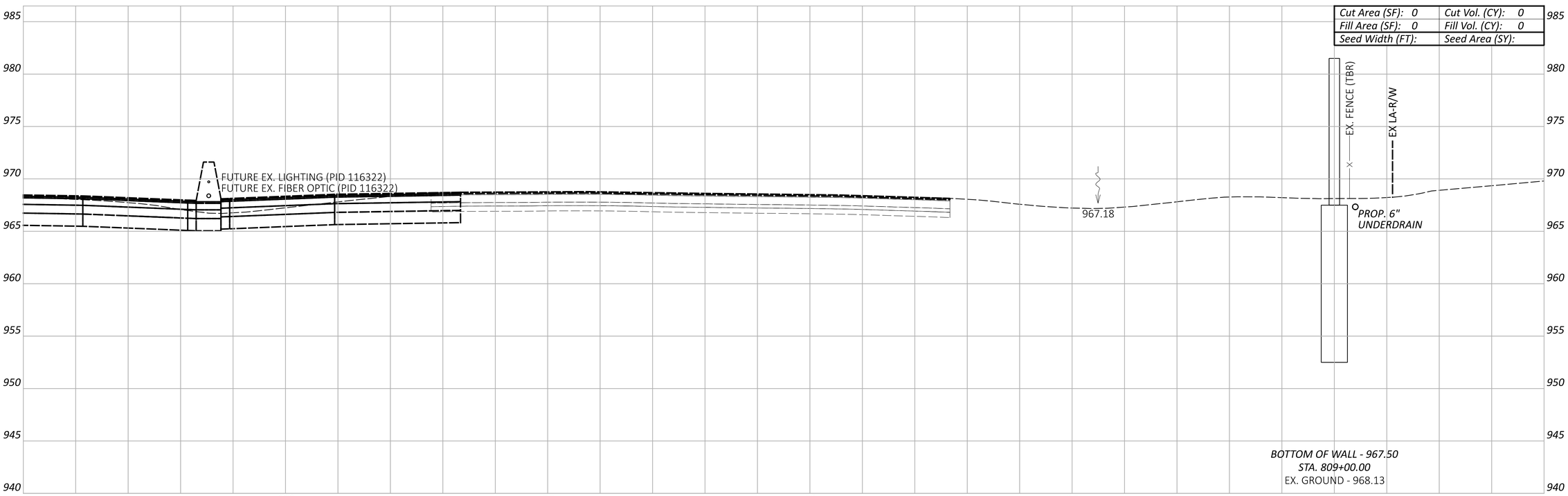

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 8
STA. 809+00.00 TO STA. 809+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL19 - 809+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:17:51 PM USER: jennifer.kelley
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PROJECT ID: 117607

SHEET: P.92 TOTAL: P.276

CROSS SECTIONS - WALL 8
STA. 810+00.00

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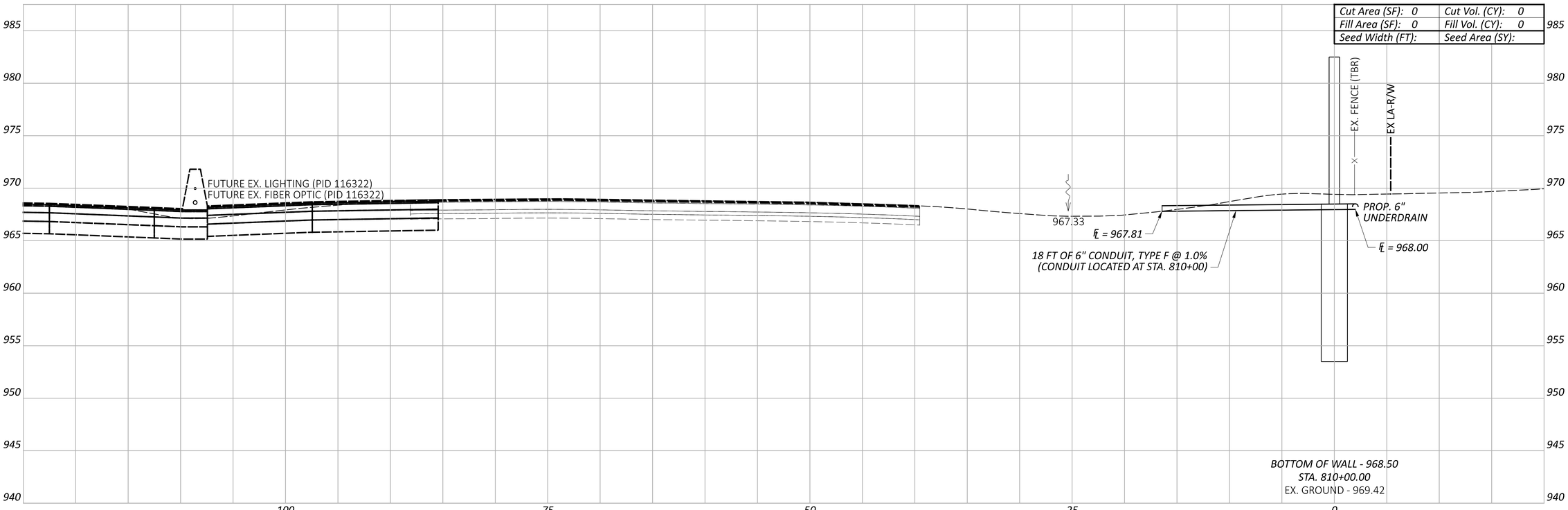

LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 810+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 1:41:14 PM USER: jennifer.kelley
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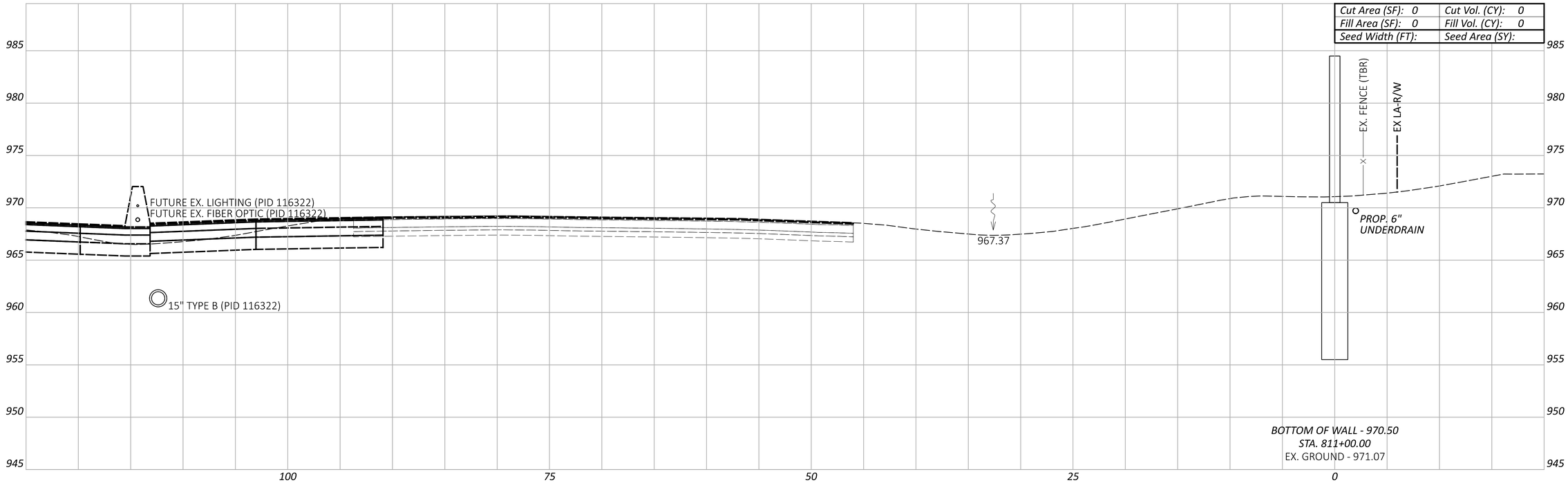
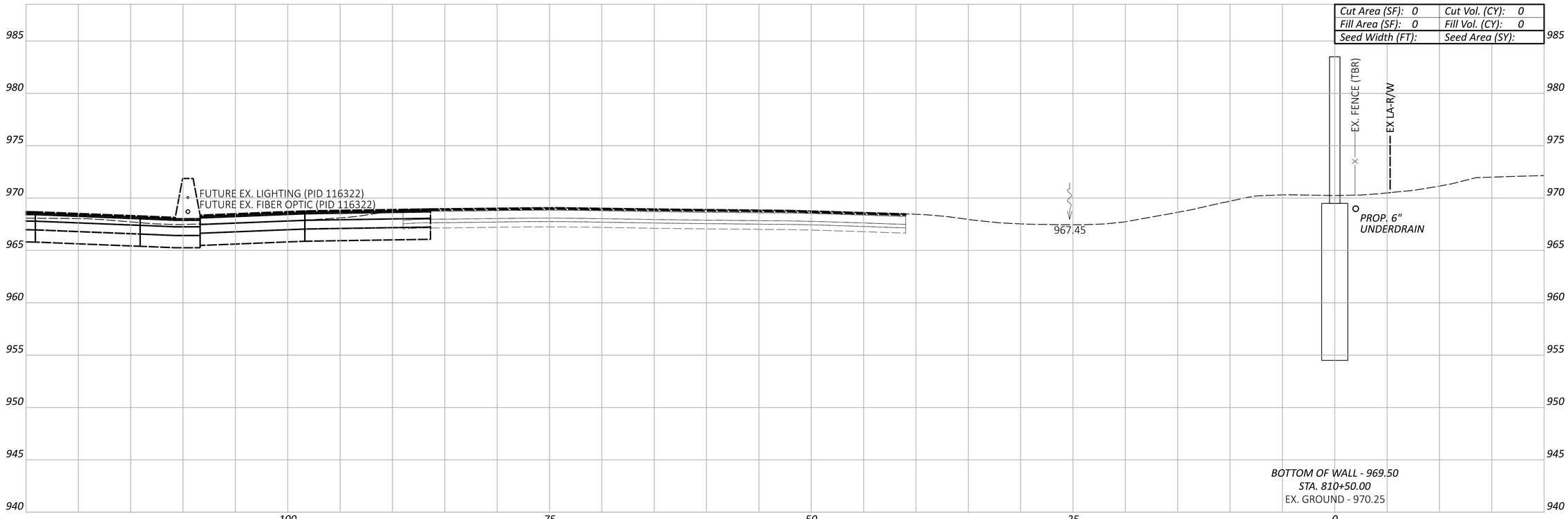
SHEET P.93 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 810+50.00 TO STA. 811+00.00

Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID 117607

SHEET P.94 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 810+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:18:31 PM USER: jennifer.kelley
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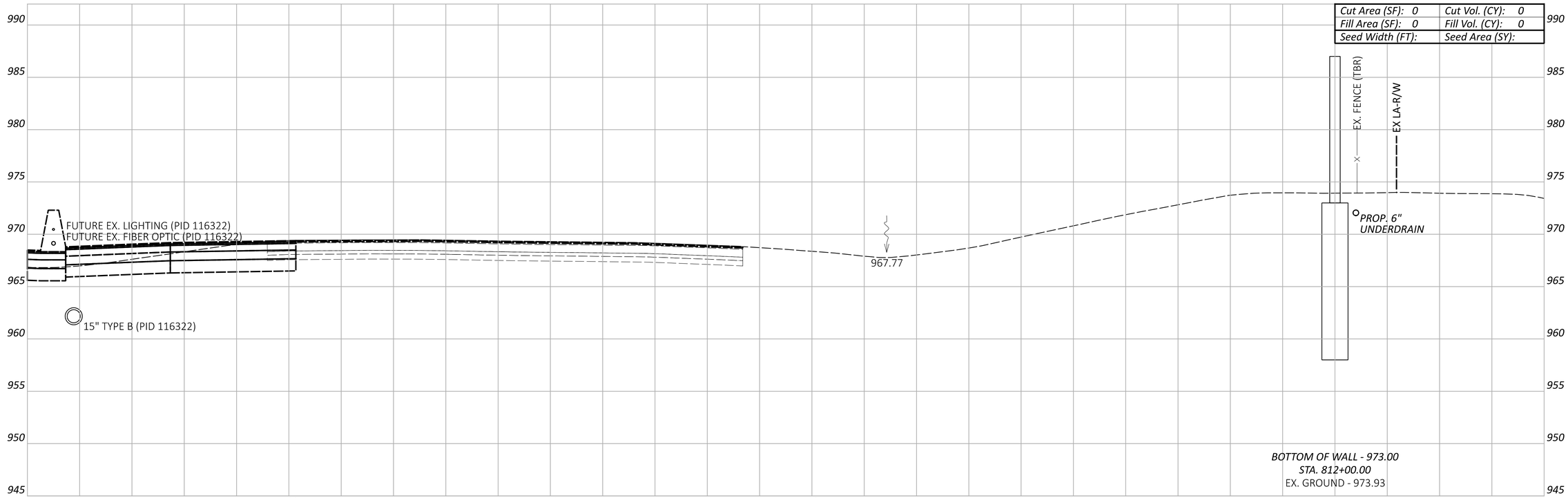

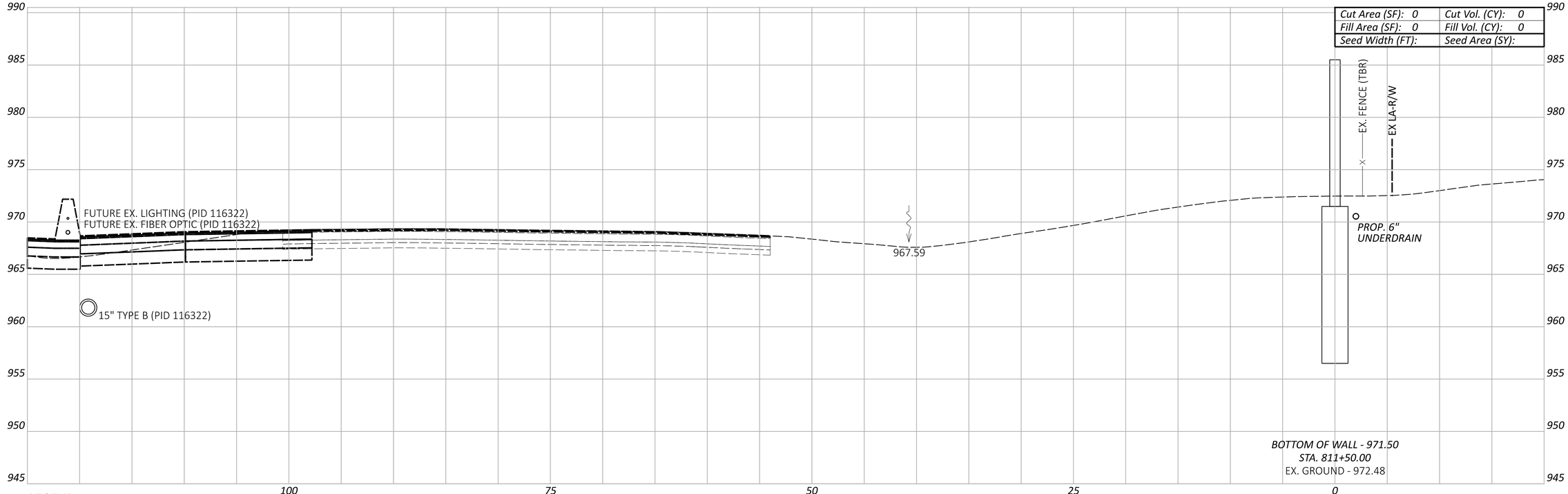

LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 811+50.00 TO STA. 812+00.00

Sheet Totals		
Seeding	Cut	Fill

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REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.95 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 811+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:18:56 PM USER: jennifer.kelley
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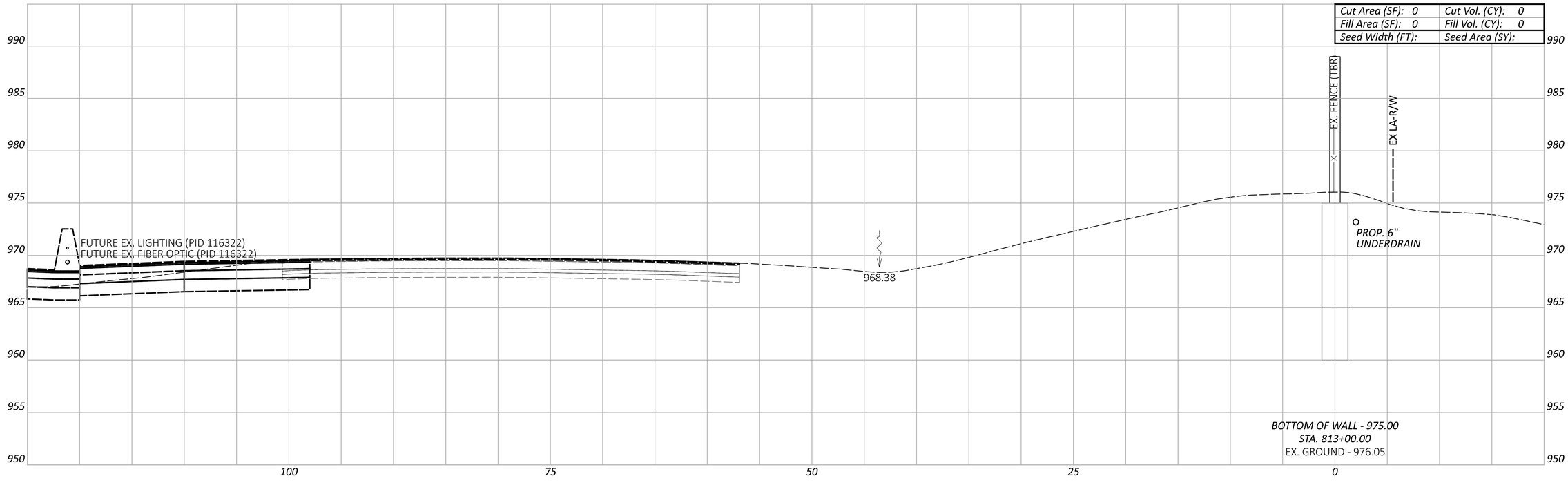

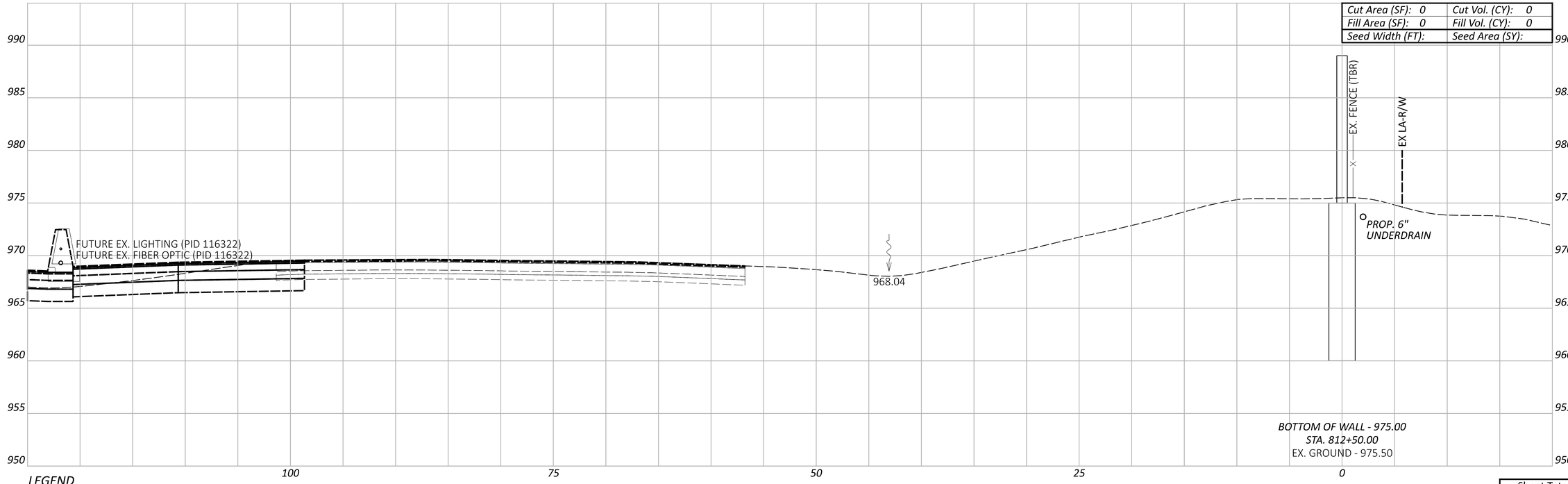

LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 8
STA. 812+50.00 TO STA. 813+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 812+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:19:17 PM USER: jennifer.kelley
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DESIGNER
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JDH 01-22-24

PROJECT ID
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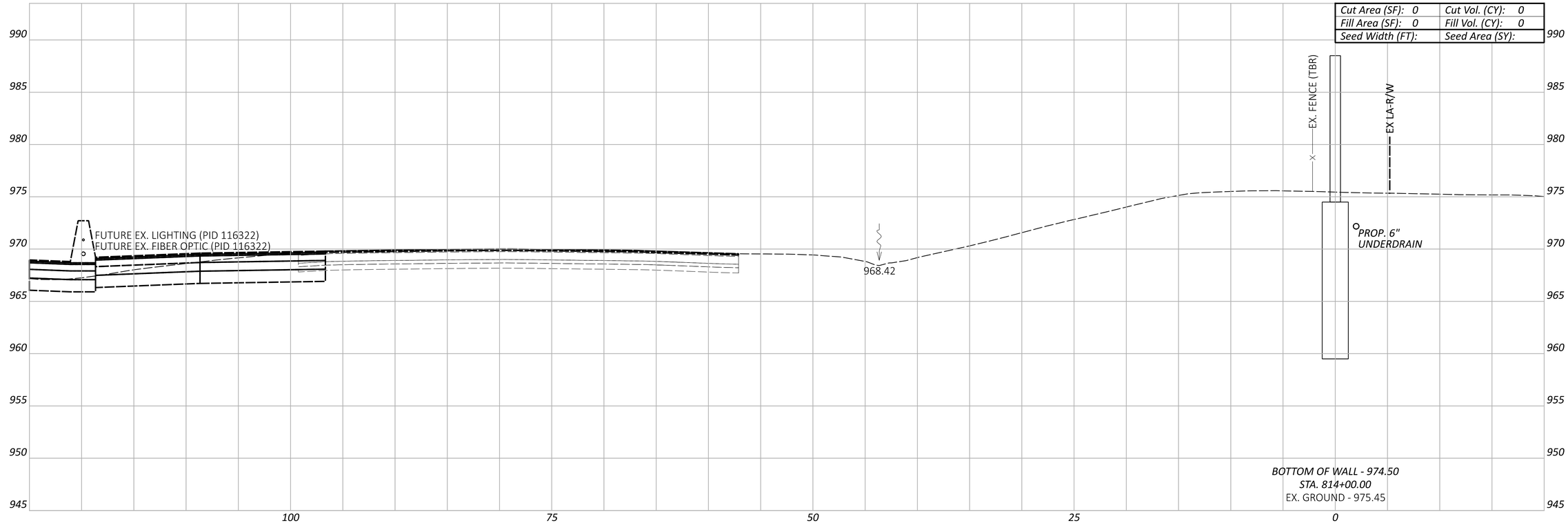
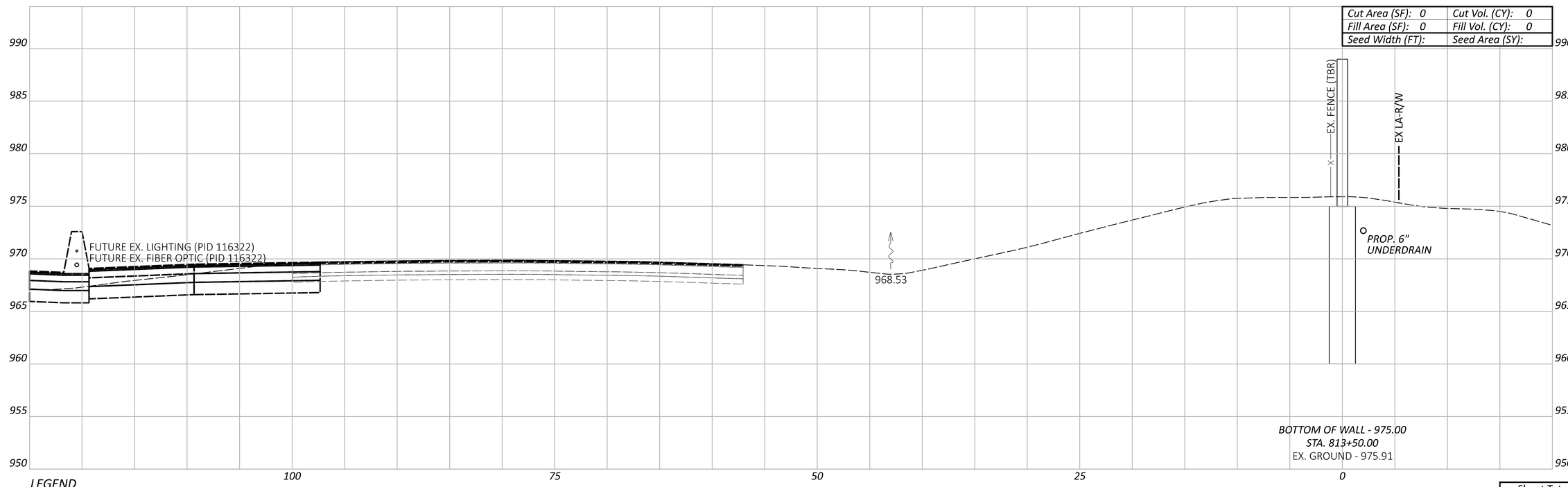
SHEET P.96 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 813+50.00 TO STA. 814+00.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
www.arcadis.com

DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.97 | TOTAL P.276

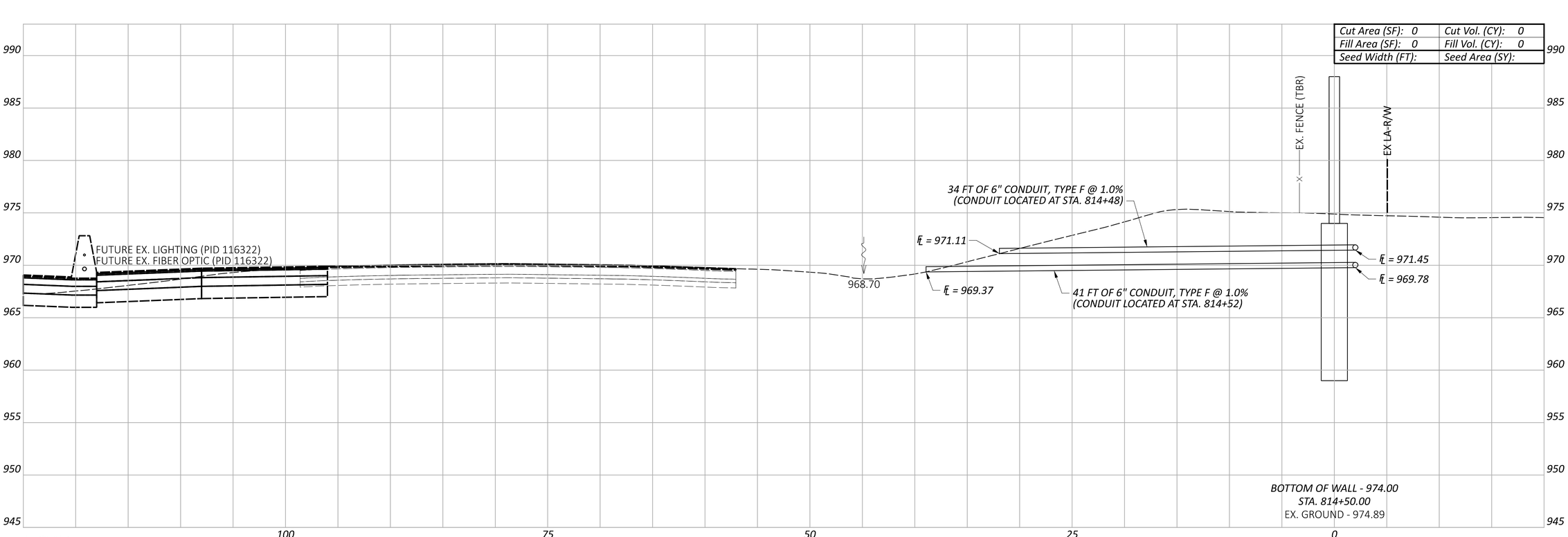
FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 813+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:19:38 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 814+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 1:37:04 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

CROSS SECTIONS - WALL 8
STA. 814+50.00



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
www.arcadis.com

DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.98 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 815+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:20:14 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

CROSS SECTIONS - WALL 8
STA. 815+00.00

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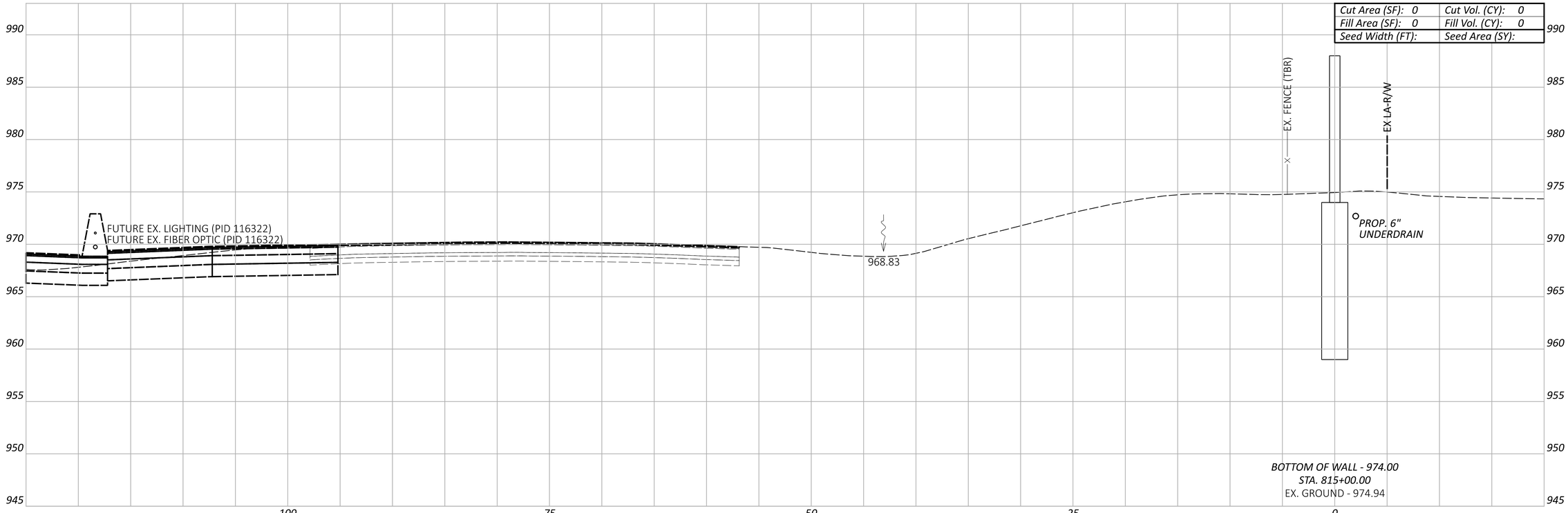
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER
JMK

REVIEWER
JDH 01-22-24

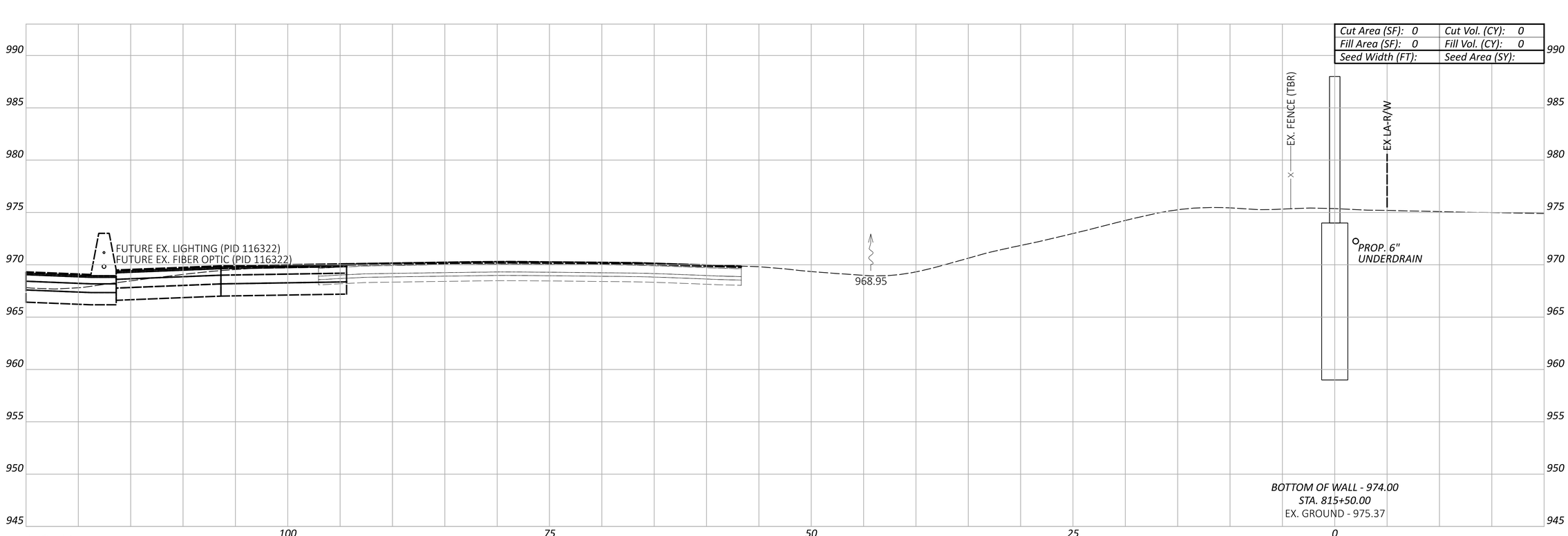
PROJECT ID
117607

SHEET P.99 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 815+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:20:27 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

CROSS SECTIONS - WALL 8
STA. 815+50.00



LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER: JMK

REVIEWER: JDH 01-22-24

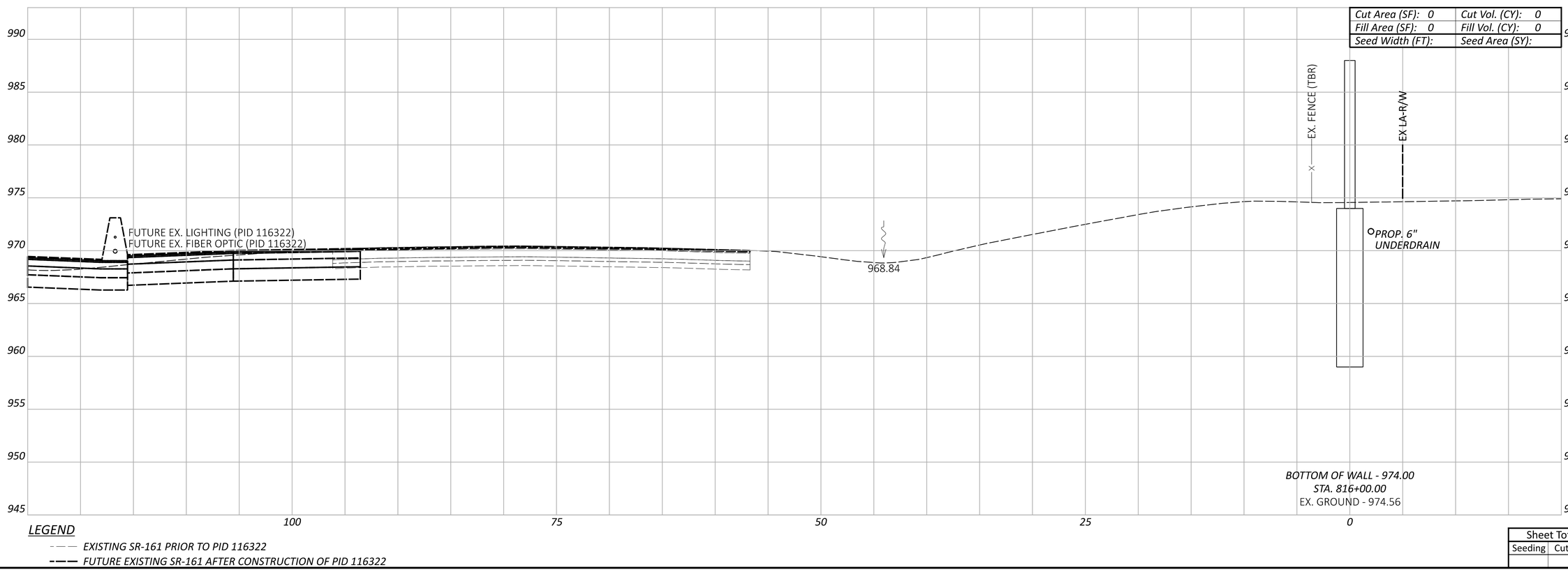
PROJECT ID: 117607

SHEET: P.100 | TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 816+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:20:41 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

CROSS SECTIONS - WALL 8
STA. 816+00.00



LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
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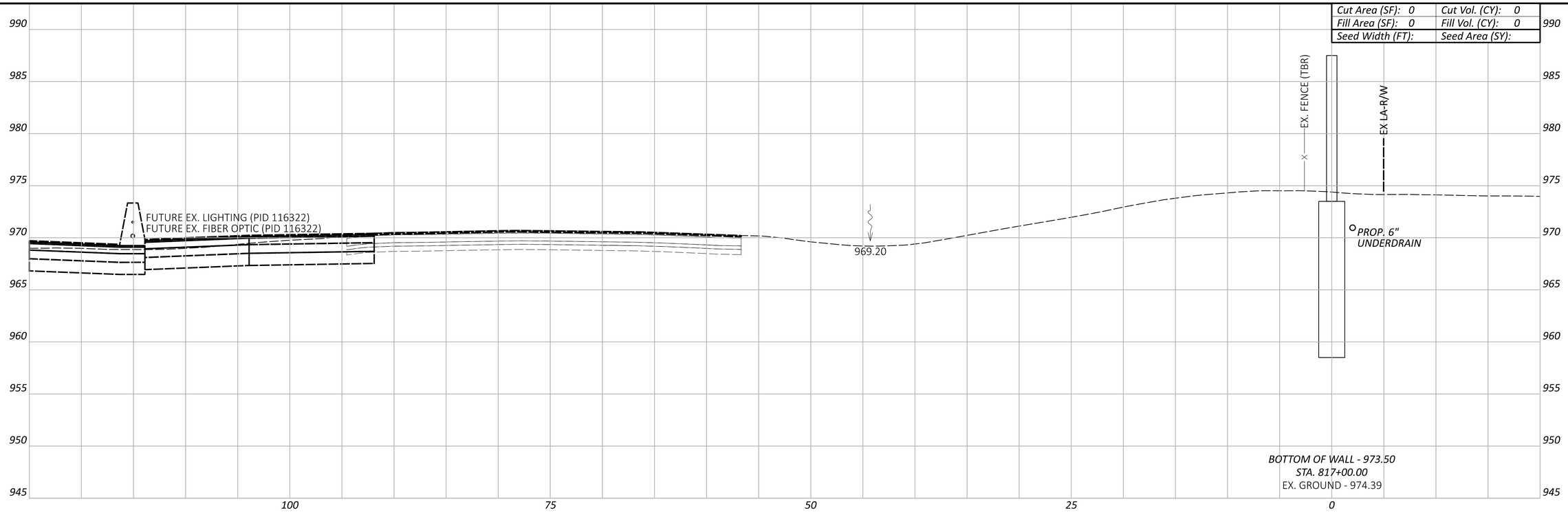
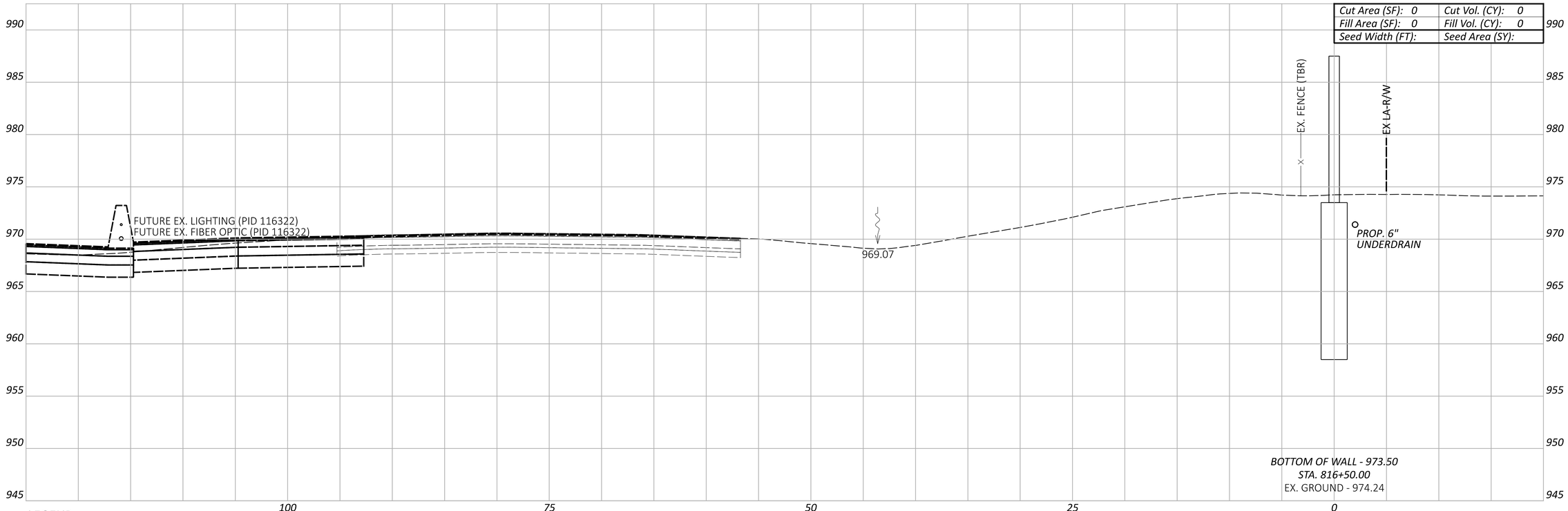
DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.101 TOTAL: P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 8
STA. 816+50.00 TO STA. 817+00.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
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DESIGNER JMK

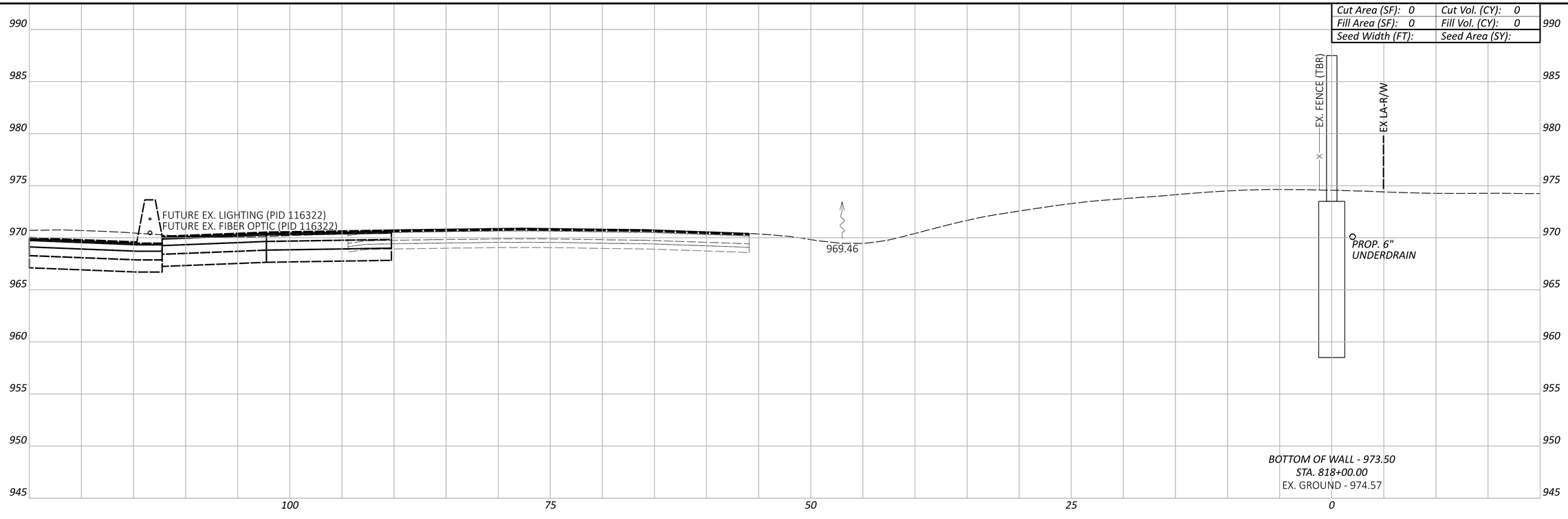
REVIEWER JDH 01-22-24

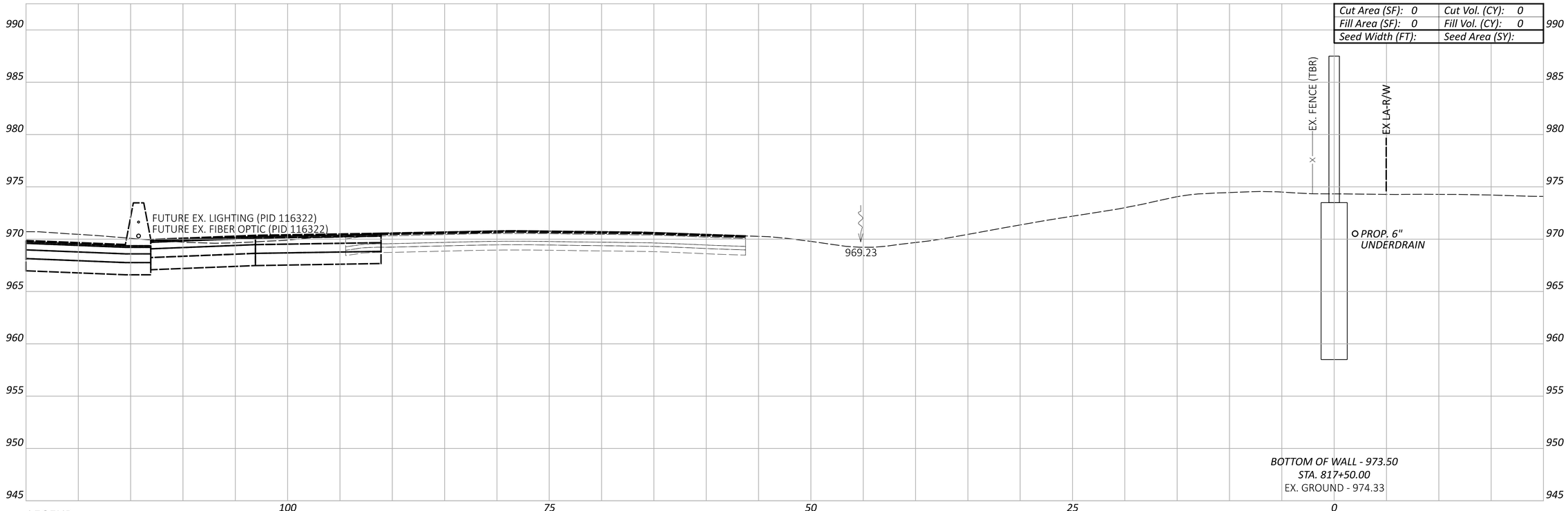
PROJECT ID 117607

SHEET P.102 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 816+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:20:54 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 8
STA. 817+50.00 TO STA. 818+00.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER: JMK
REVIEWER: JDH 01-22-24
PROJECT ID: 117607
SHEET: P.103 TOTAL: P.276

MODEL: BLP_WALL9 - 817+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:21:18 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 818+08.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:21:39 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS008B.dgn

CROSS SECTIONS - WALL 8
STA. 818+08.00

Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

990
985
980
975
970
965
960
955
950
945

100 75 50 25 0

FUTURE EX. LIGHTING (PID 116322)
FUTURE EX. FIBER OPTIC (PID 116322)
969.40
EX. FENCE (TBR)
EX LA-R/W
PROP. 6" UNDERDRAIN

BOTTOM OF WALL - 973.50
STA. 818+08.00 (END WALL 8)
EX. GROUND - 974.46

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
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COLUMBUS, OHIO 43235
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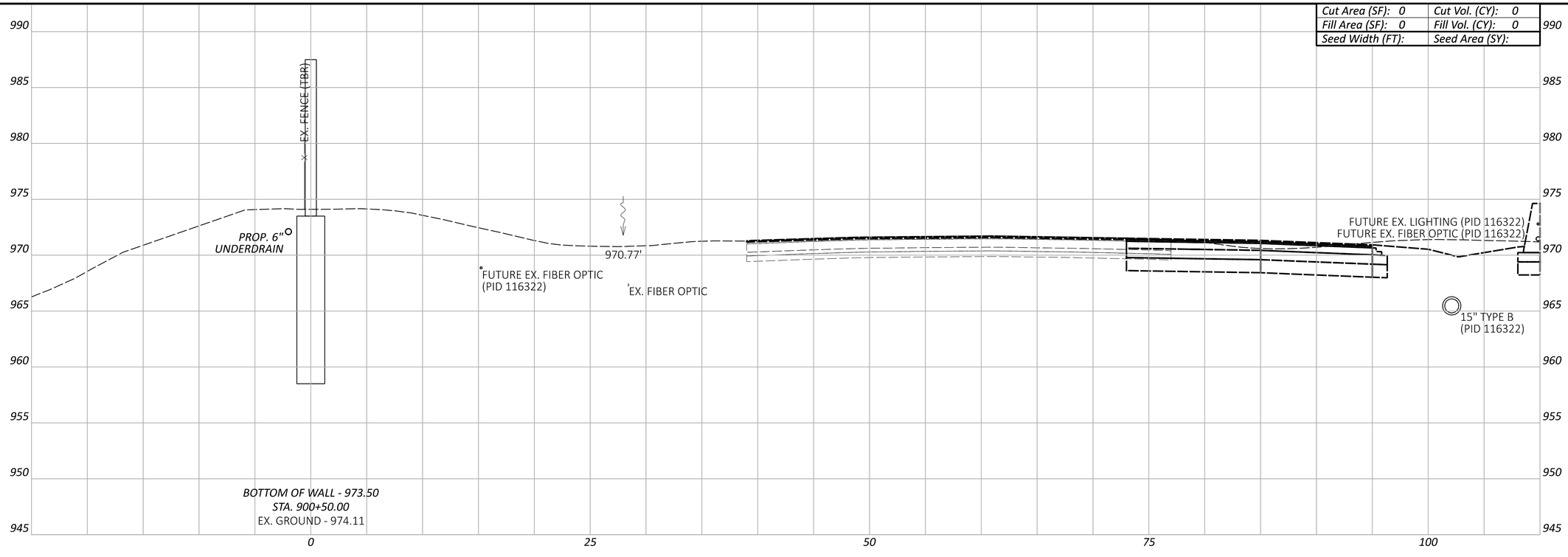
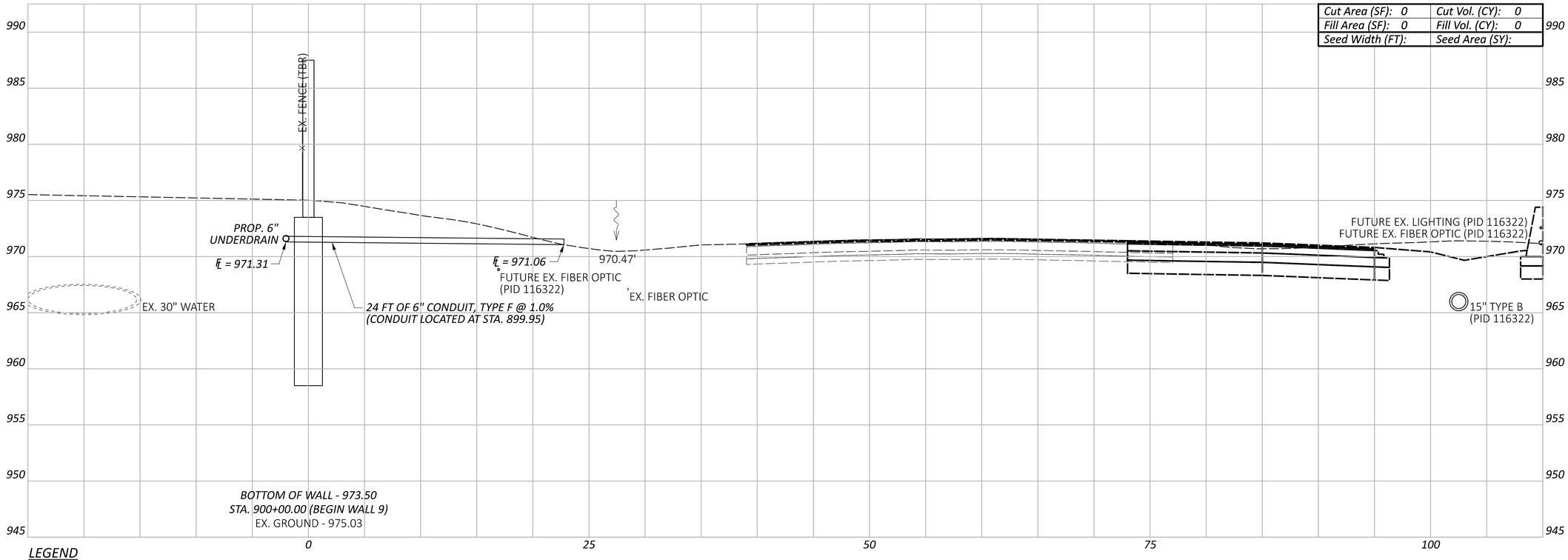
DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.104 TOTAL P.276





LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 900+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 2:16:52 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_X5009.dgn

CROSS SECTIONS - WALL 9
STA. 900+00.00 TO STA. 900+50.00

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

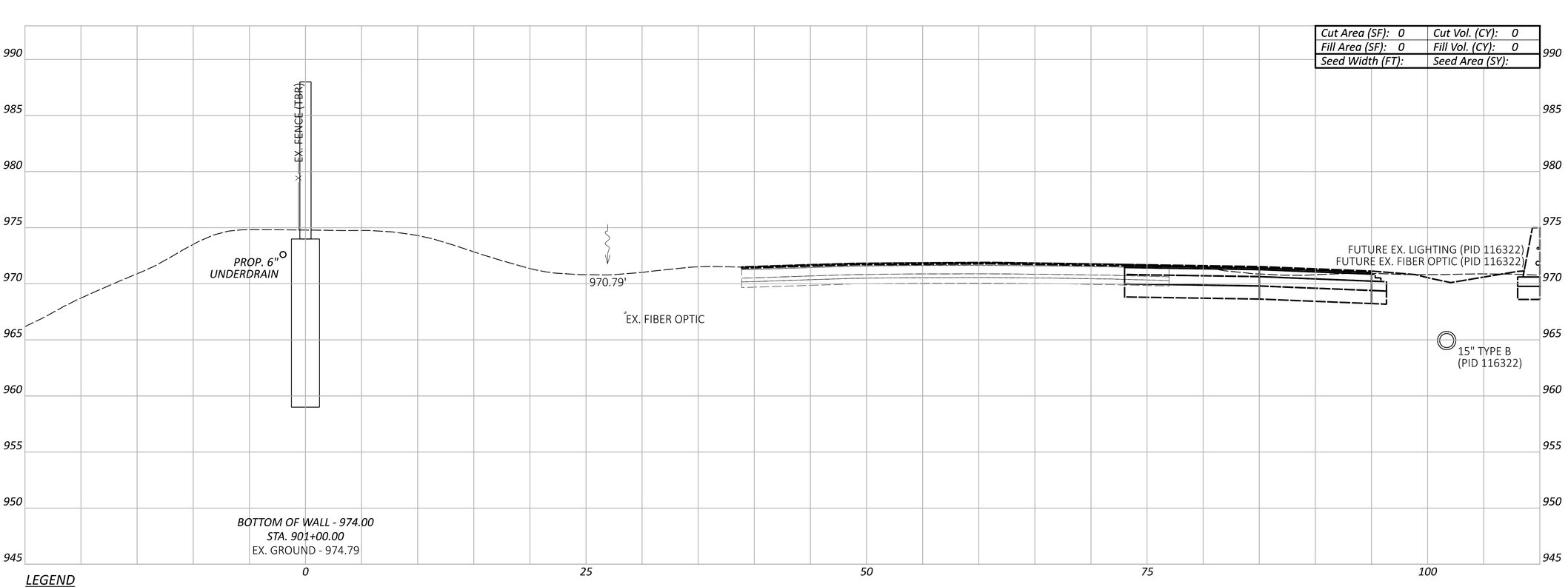
Sheet Totals		
Seeding	Cut	Fill

SHEET P.105 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 901+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:23:09 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS009.dgn

CROSS SECTIONS - WALL 9
STA. 901+00.00



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
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DESIGNER
JMK

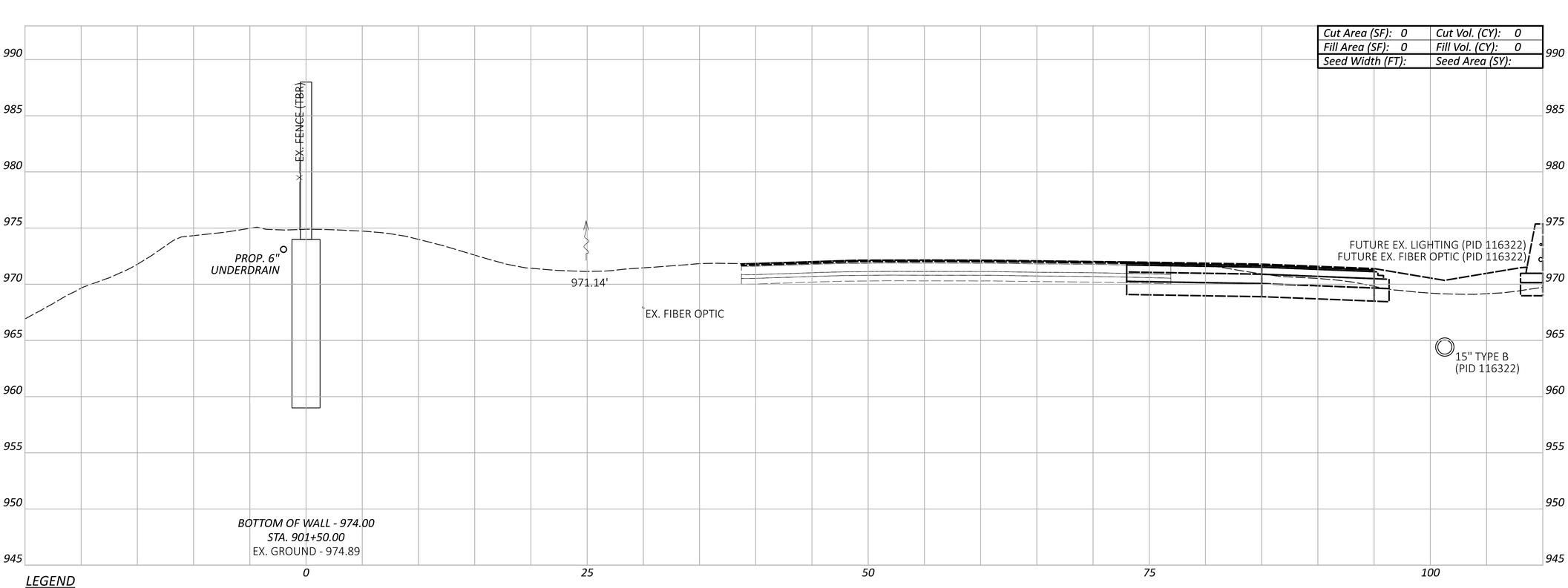
REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.106 | TOTAL P.276

MODEL: BLP_WAL9 - 901+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:23:31 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS009.dgn

CROSS SECTIONS - WALL 9
STA. 901+50.00



DESIGN AGENCY
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COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

Sheet Totals		
Seeding	Cut	Fill

SHEET P.107 TOTAL P.276

CROSS SECTIONS - WALL 9
STA. 902+00.00

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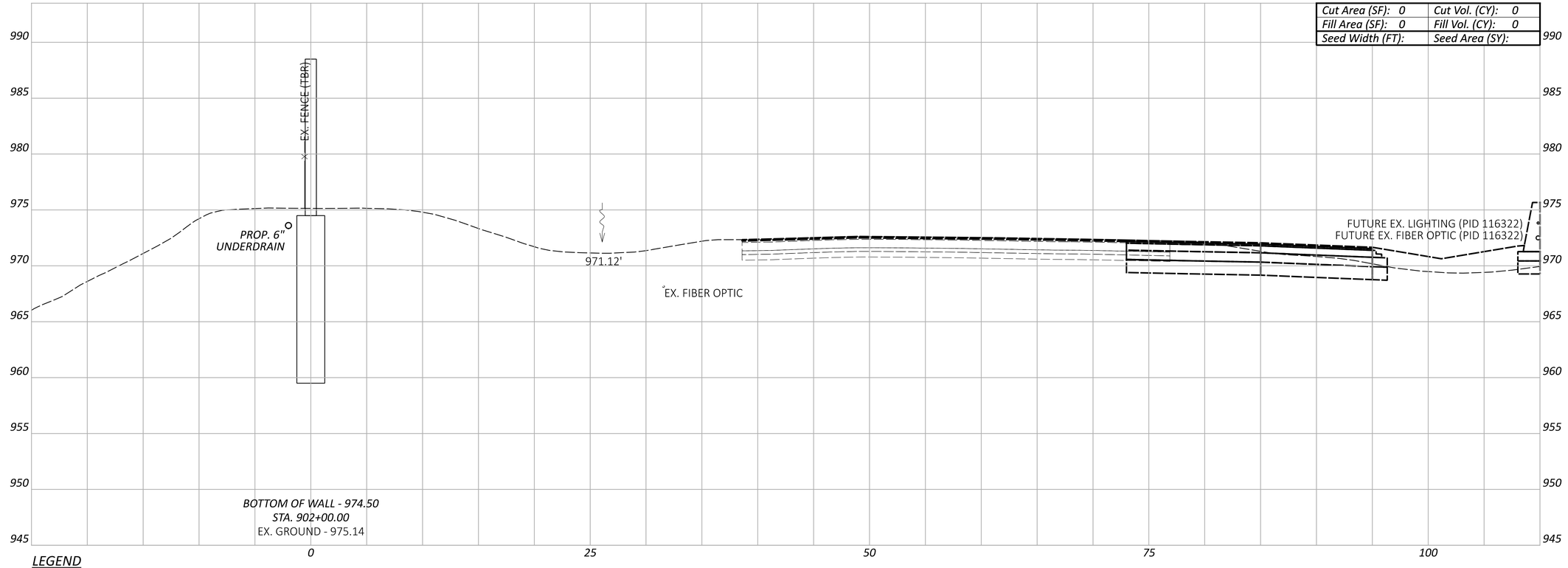
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
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DESIGNER JMK

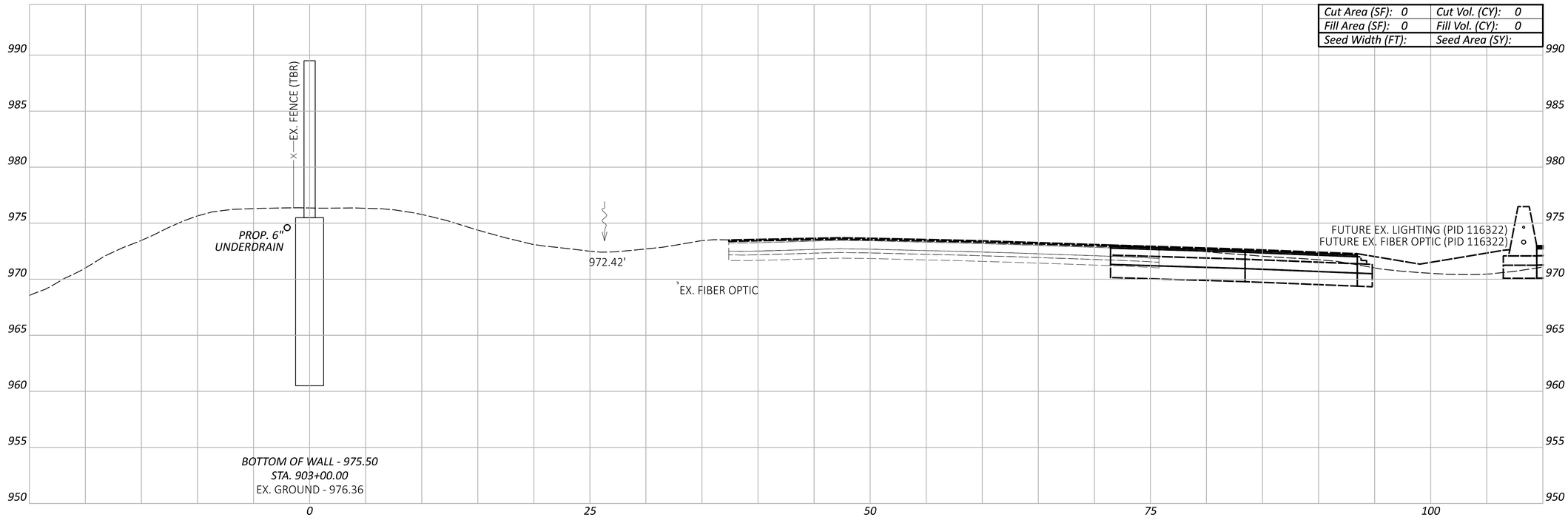
REVIEWER JDH 01-22-24

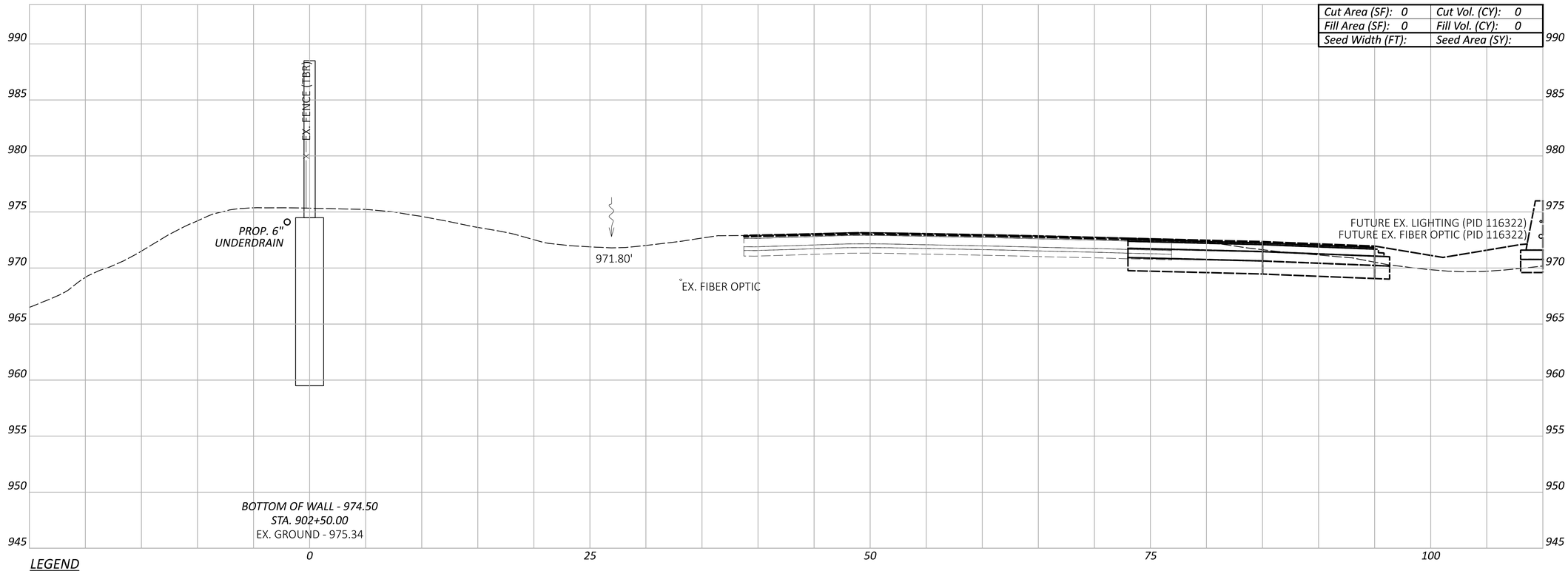
PROJECT ID 117607

SHEET P.108 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 902+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:23:50 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS009.dgn





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 902+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:24:09 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS009.dgn

CROSS SECTIONS - WALL 9
STA. 902+50.00 TO STA. 903+00.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
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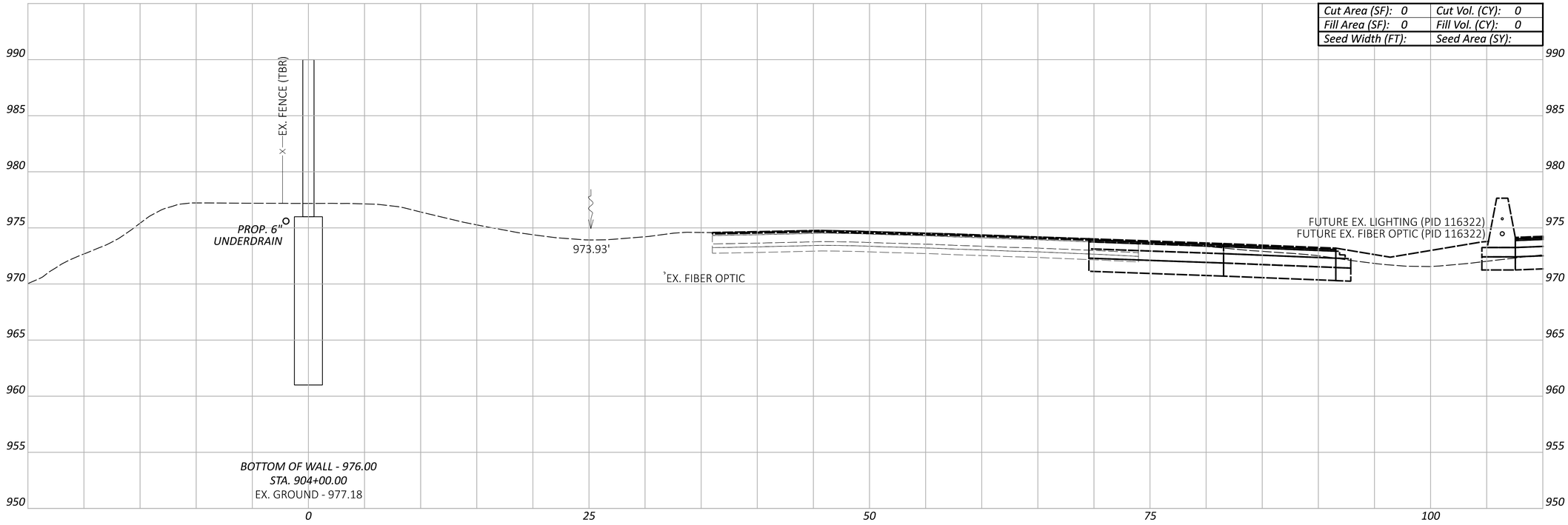
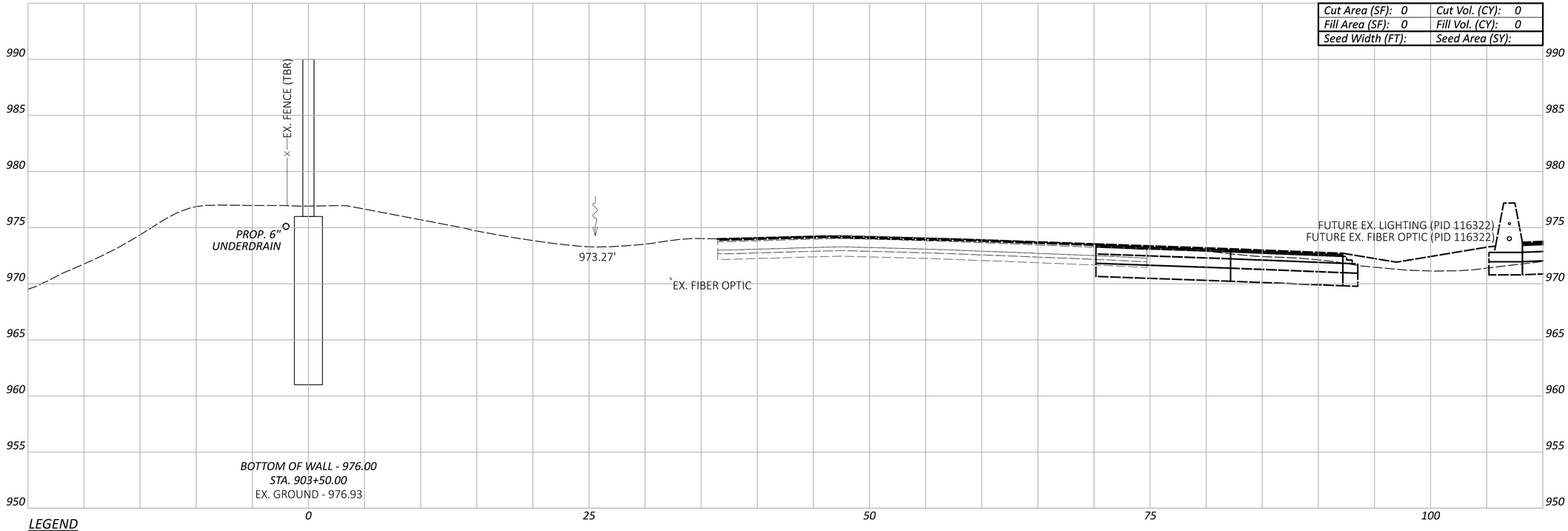
DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.109 TOTAL P.276





LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

—— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 9
STA. 903+50.00 TO STA. 904+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 903+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:24:41 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS009.dgn

Sheet Totals		
Seeding	Cut	Fill

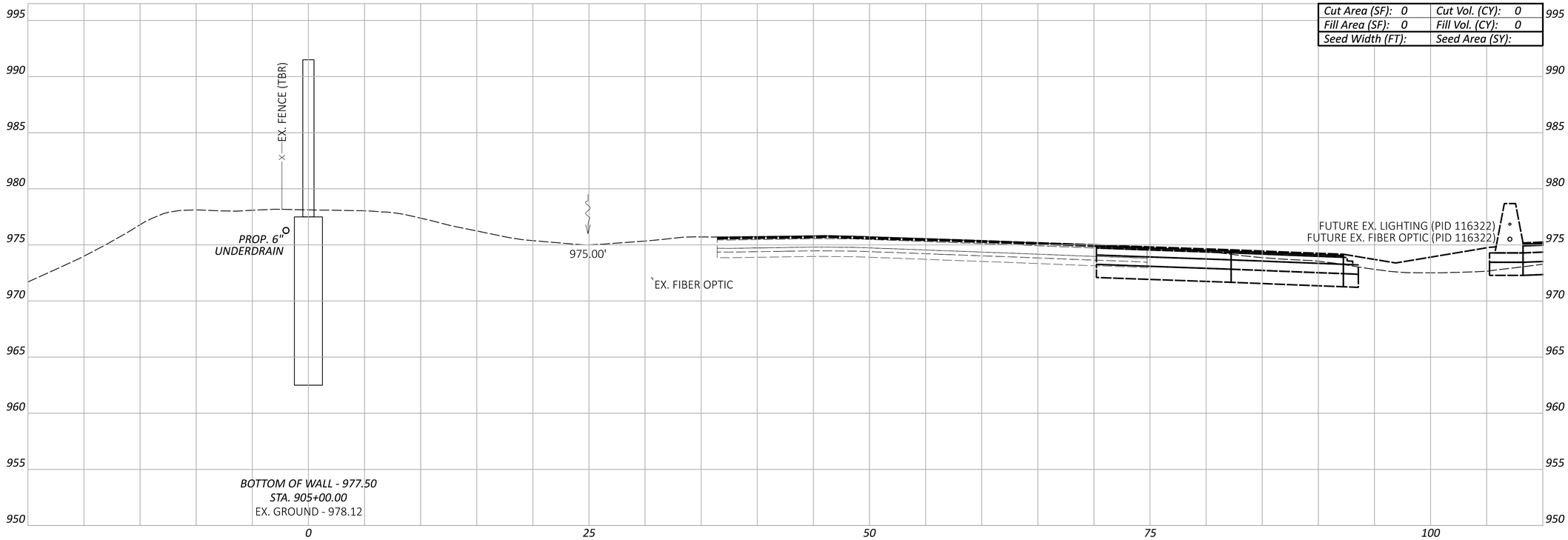
DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4800
www.arcadis.com

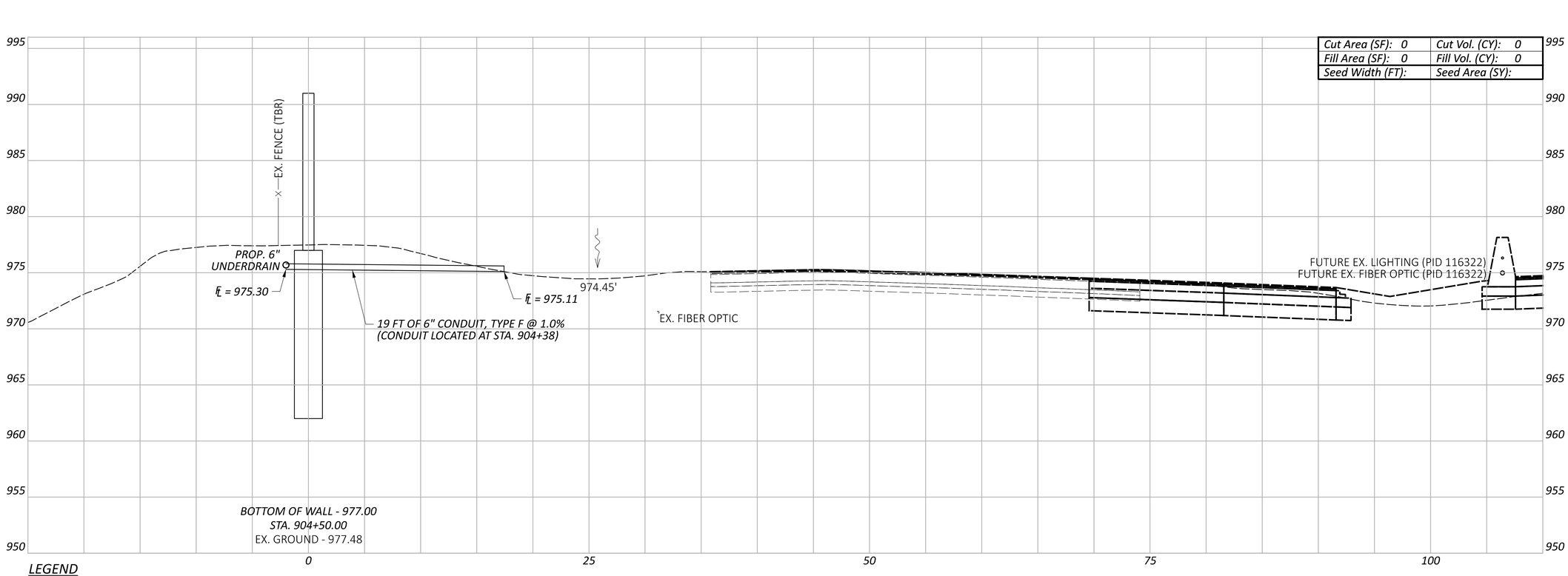
DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.110 | TOTAL P.276





CROSS SECTIONS - WALL 9
STA. 904+50.00 TO STA. 905+00.00

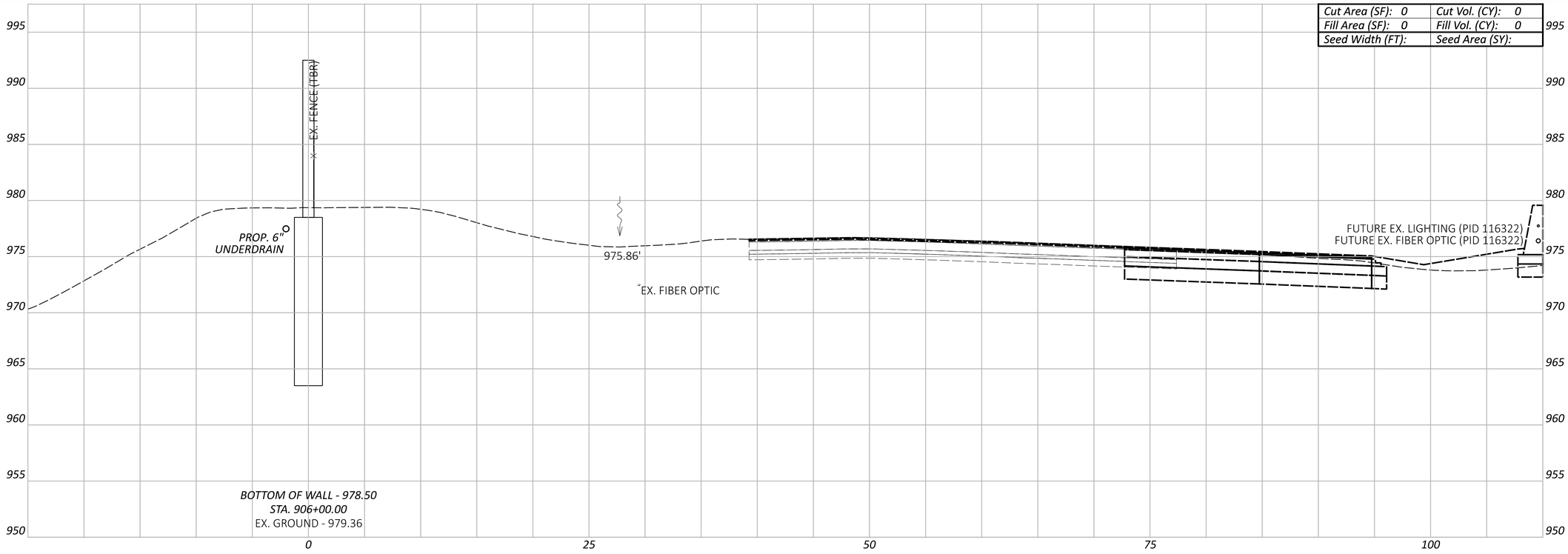
FRA-161-15.80 NOISE WALLS

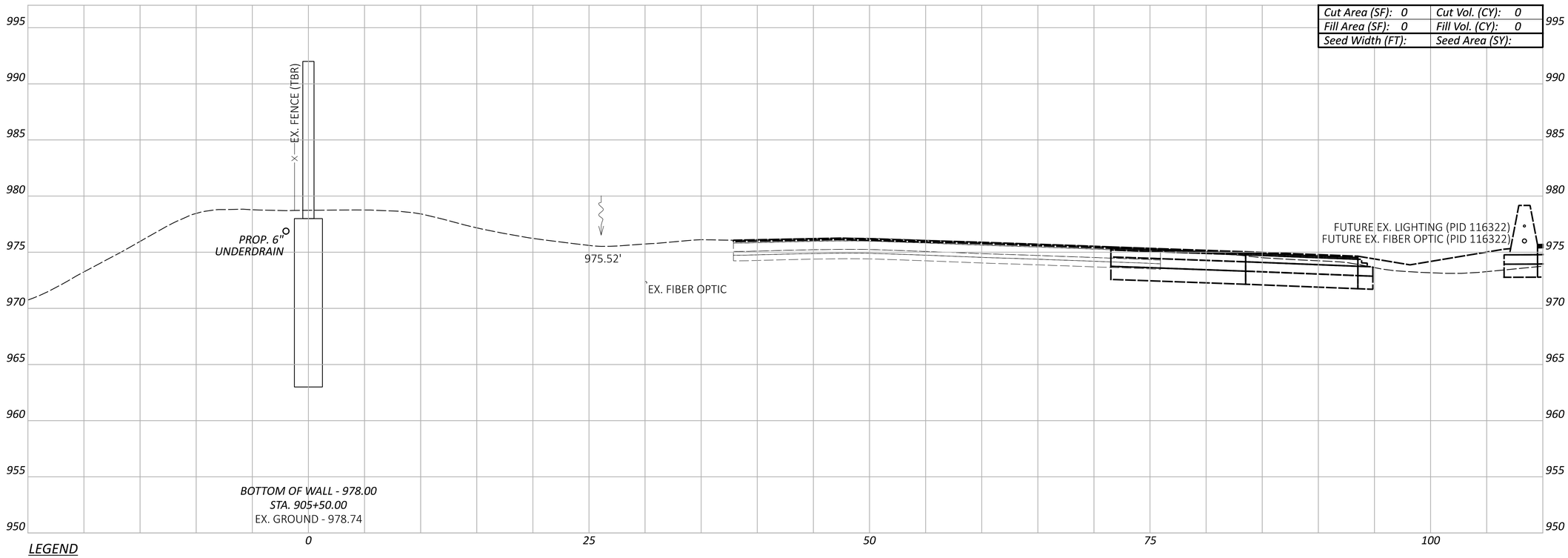
MODEL: BLP_WALL9 - 904+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 2:17:26 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS009.dgn

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4800
www.arcadis.com

DESIGNER: JMK
REVIEWER: JDH 01-22-24
PROJECT ID: 117607
SHEET: P.111 TOTAL: P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 9
STA. 905+50.00 TO STA. 906+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 905+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:25:39 PM USER: jennifer.kelley
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REVIEWER
JDH 01-22-24

PROJECT ID
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Sheet Totals		
Seeding	Cut	Fill

SHEET P.112 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 906+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:26:04 PM USER: jennifer.kelley
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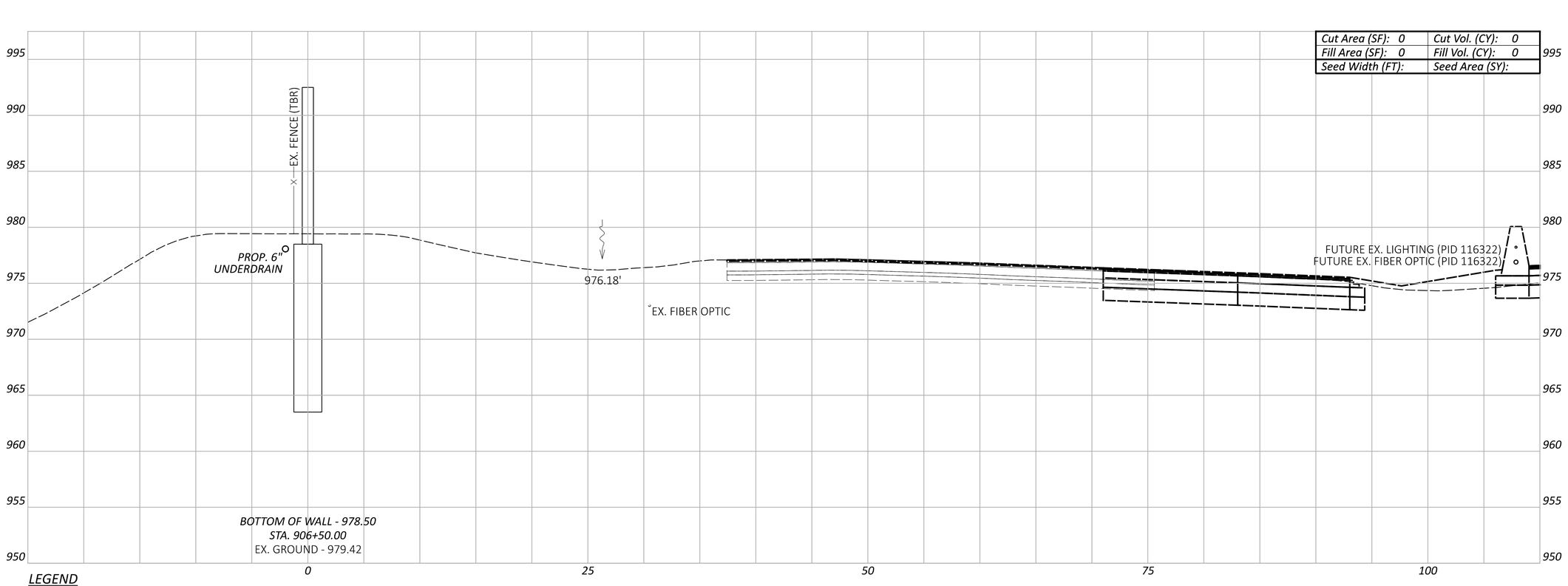
CROSS SECTIONS - WALL 9
STA. 906+50.00



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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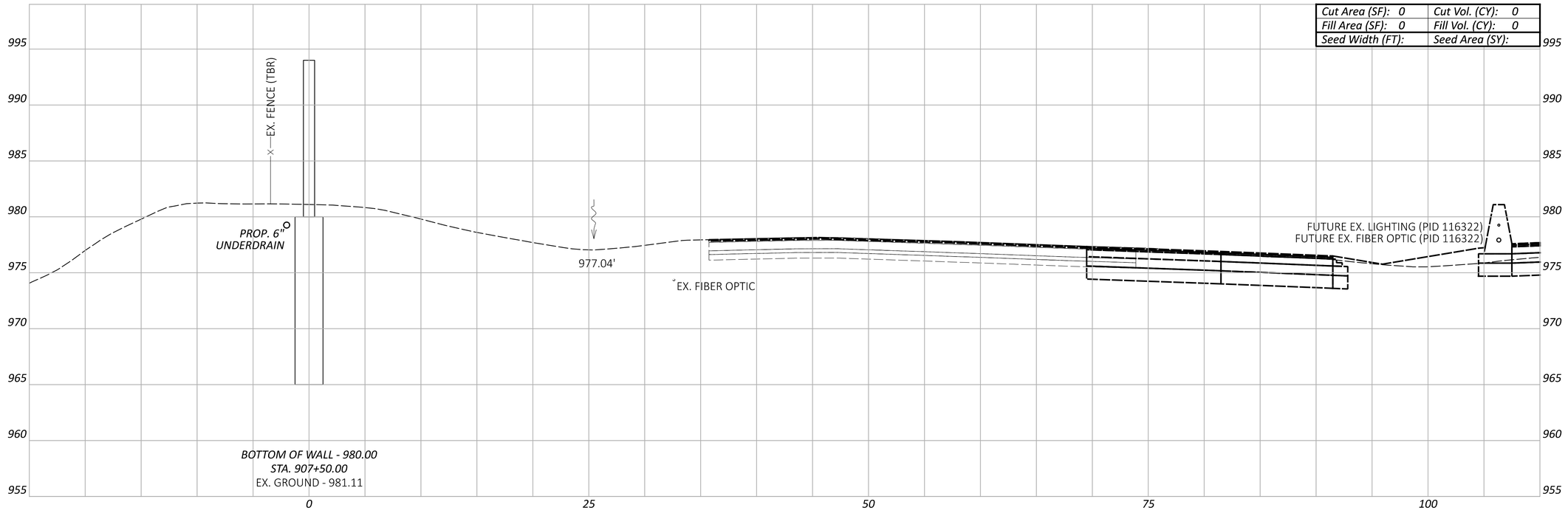
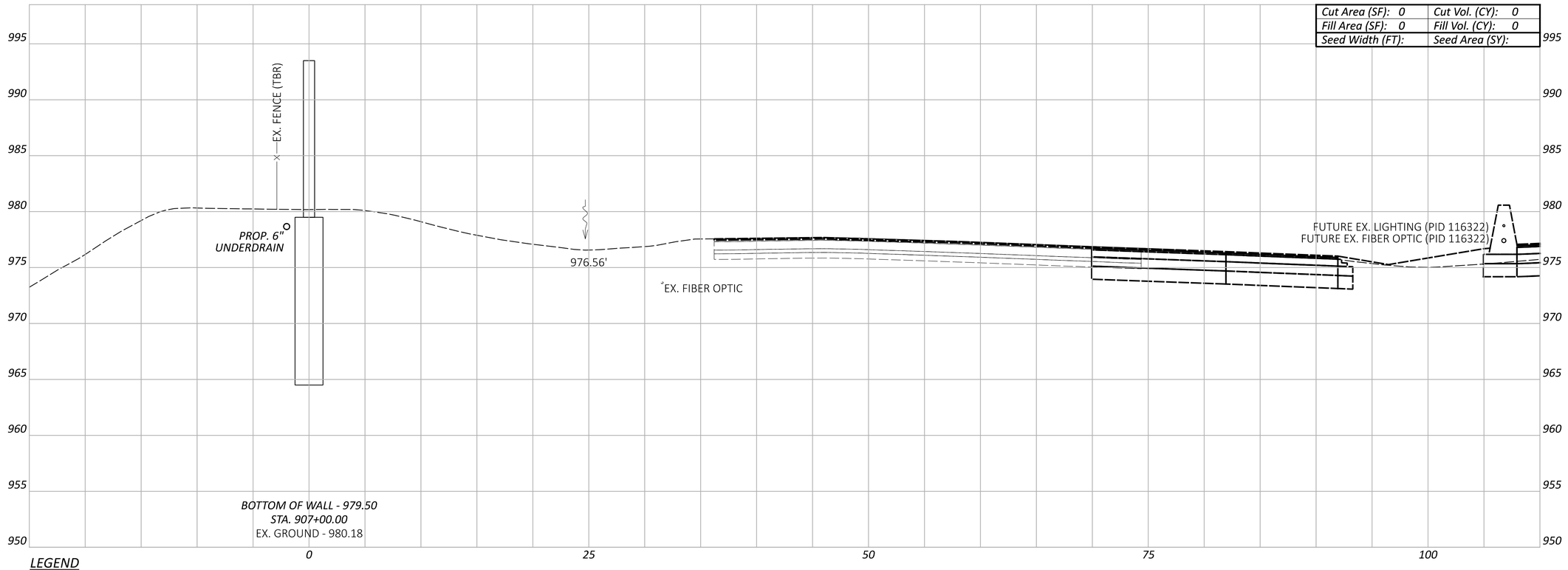
SHEET P.113 | TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 9
STA. 907+00.00 TO STA. 907+50.00

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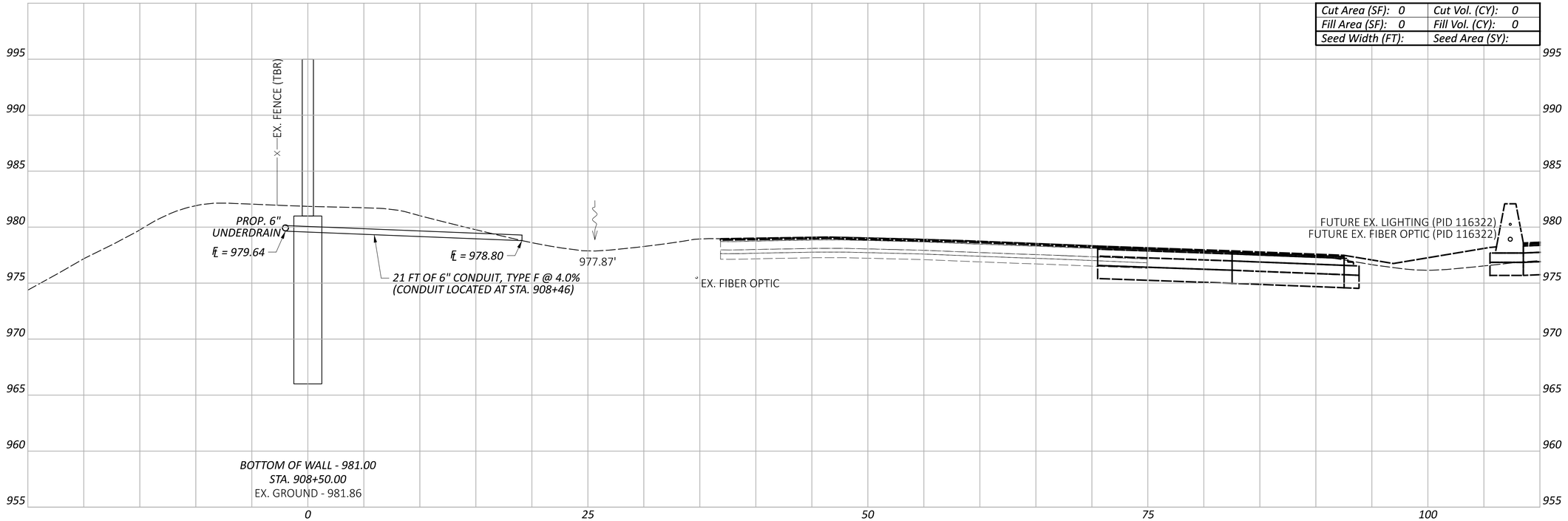
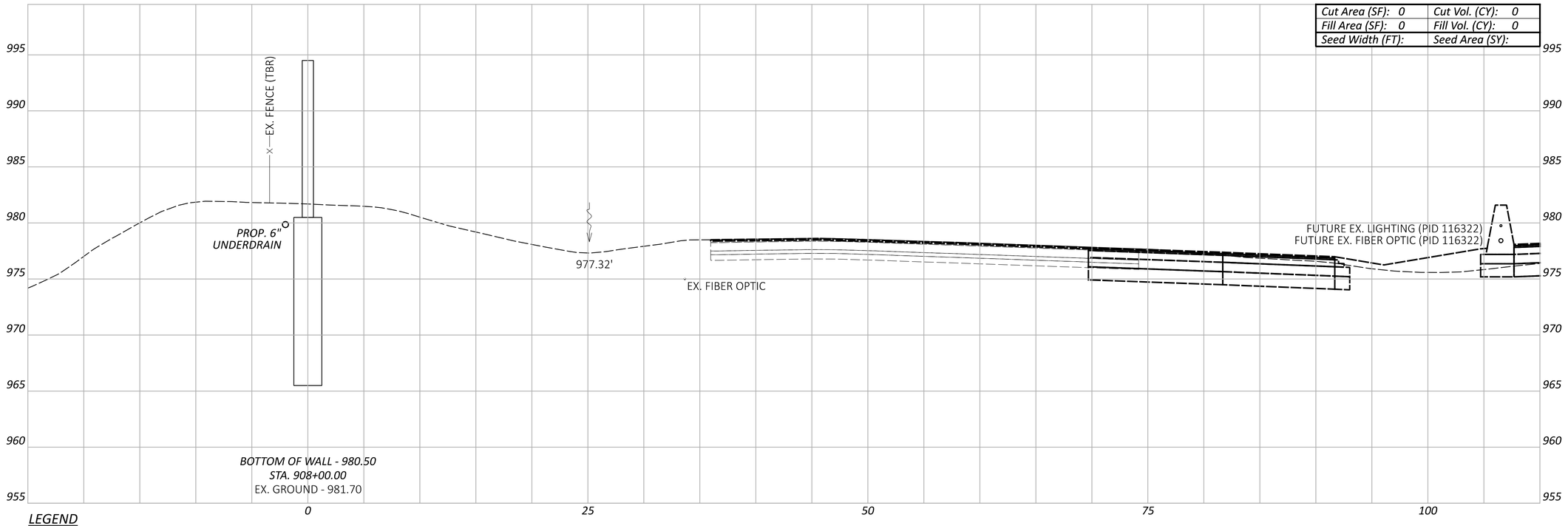
Sheet Totals		
Seeding	Cut	Fill

SHEET	TOTAL
P.114	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 9
STA. 908+00.00 TO STA. 908+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 908+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 2:20:28 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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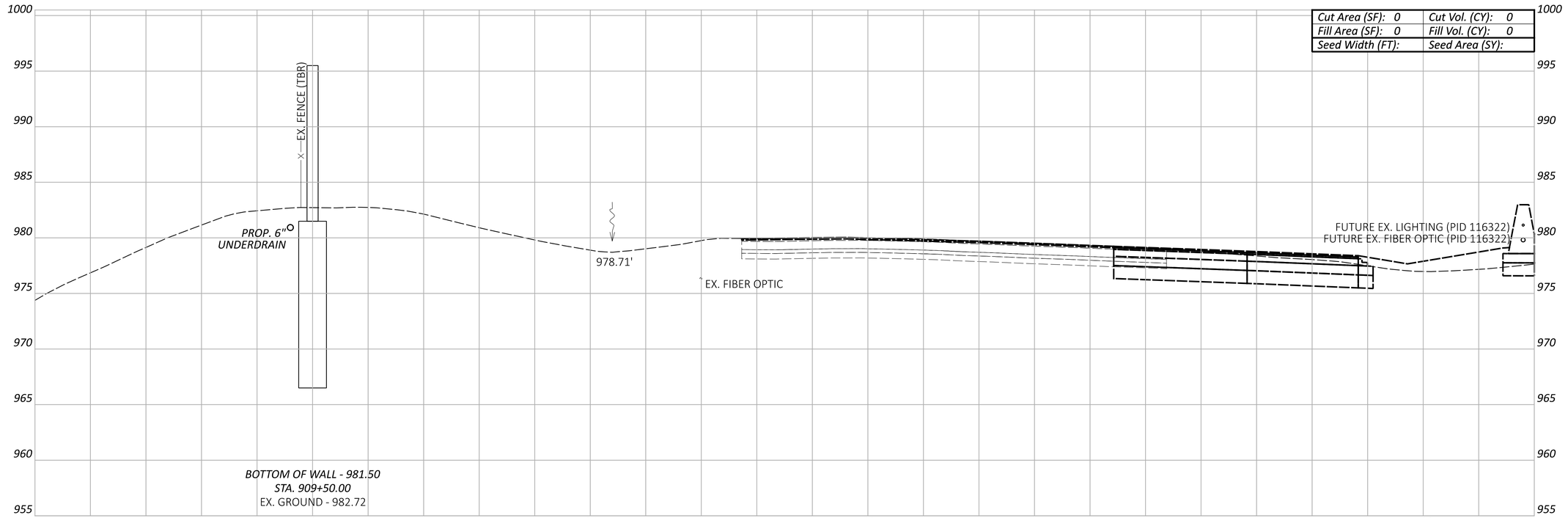
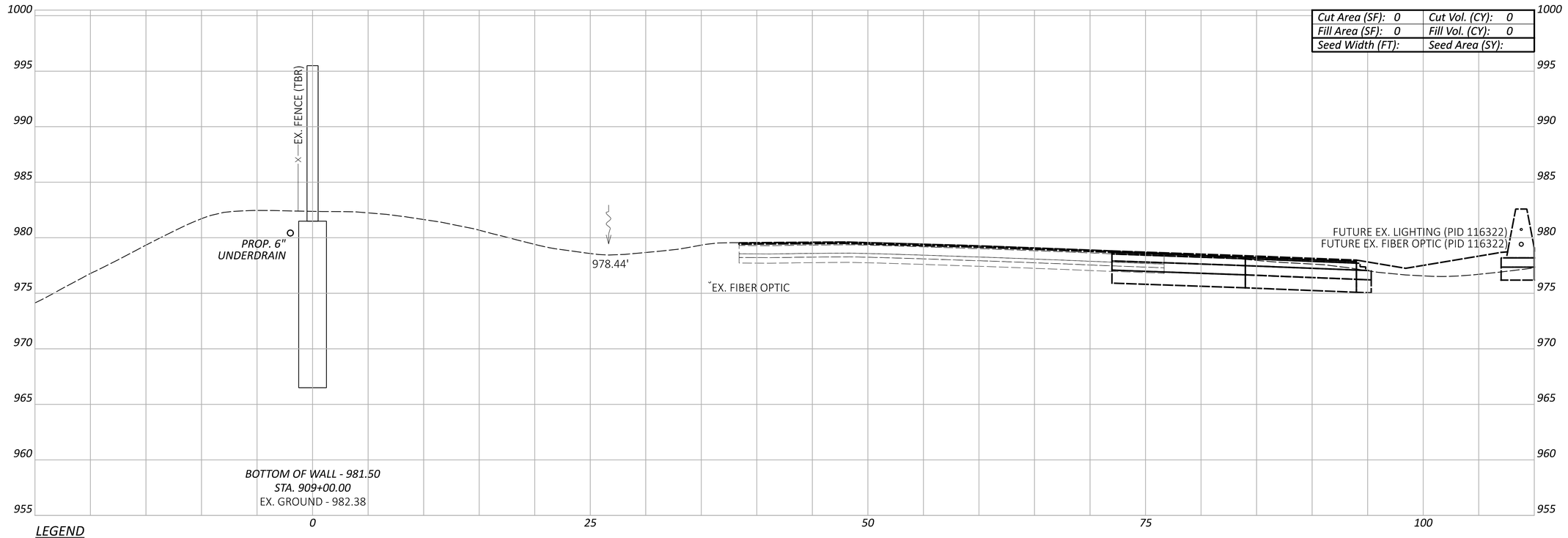
SHEET P.115 | TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 9
STA. 909+00.00 TO STA. 909+50.00

MODEL: BLP_WALL9 - 909+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:26:59 PM USER: jennifer.kelley
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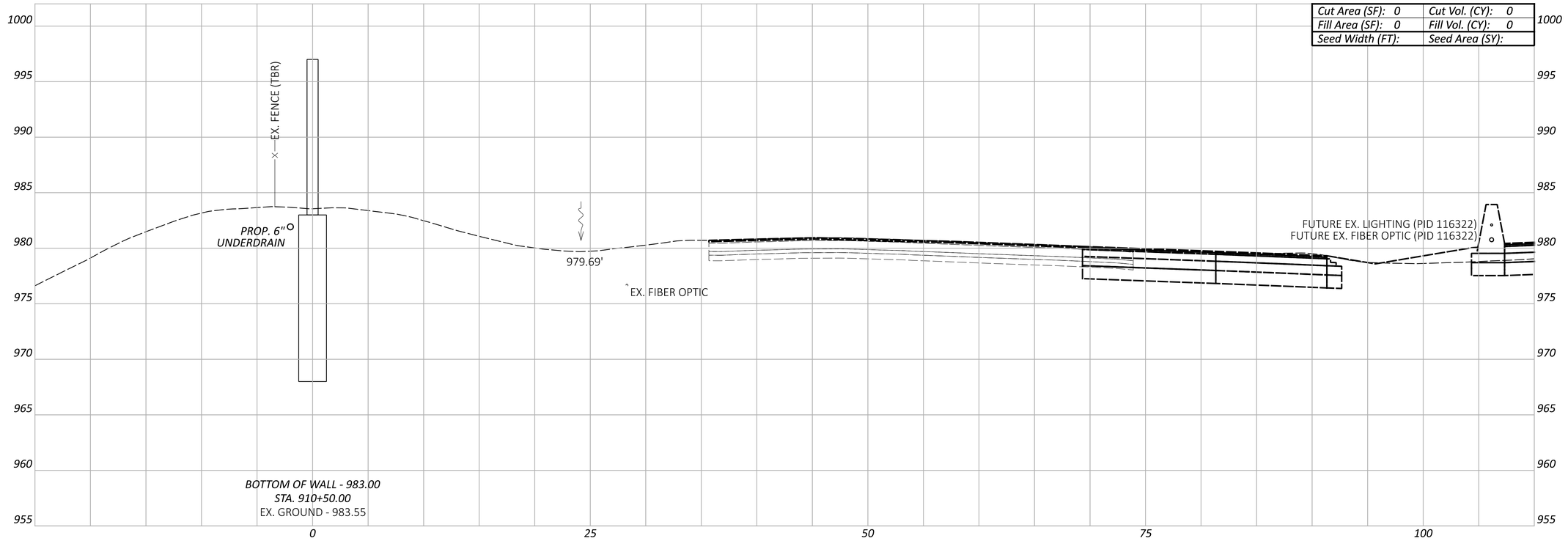
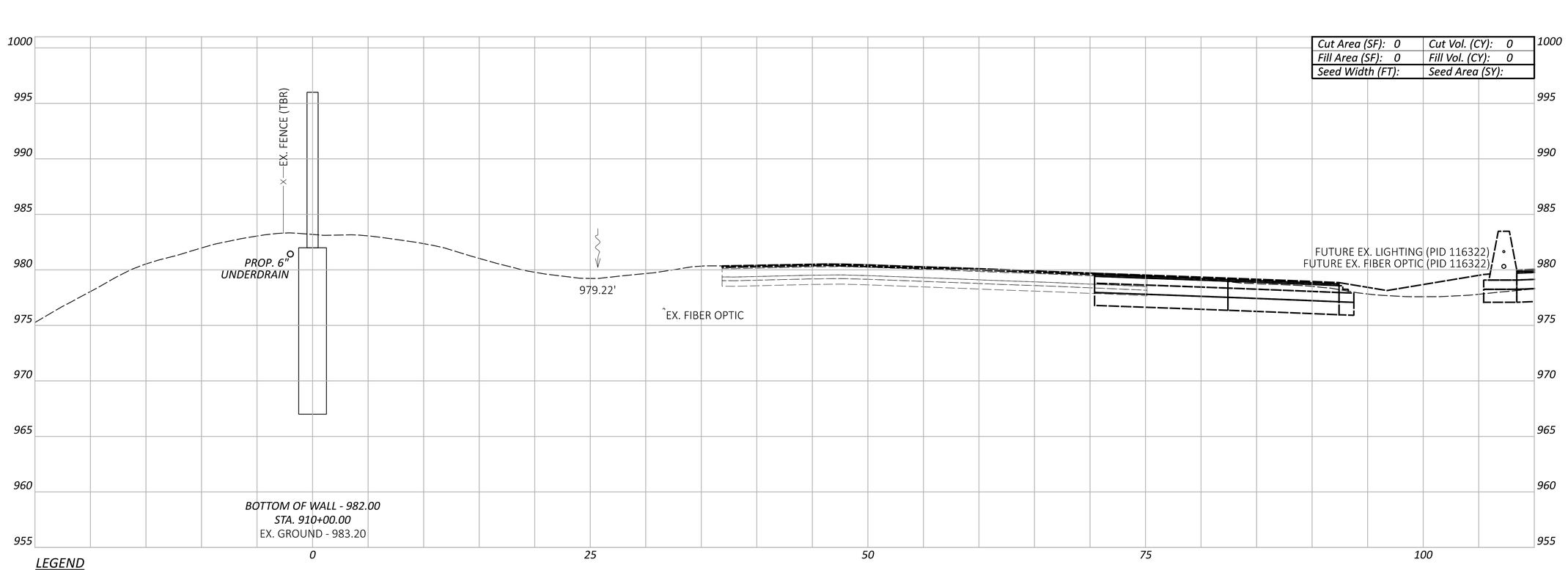
Seeding	Cut	Fill

SHEET P.116 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 9
STA. 910+00.00 TO STA. 910+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WAL9 - 910+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:27:17 PM USER: jennifer.kelley
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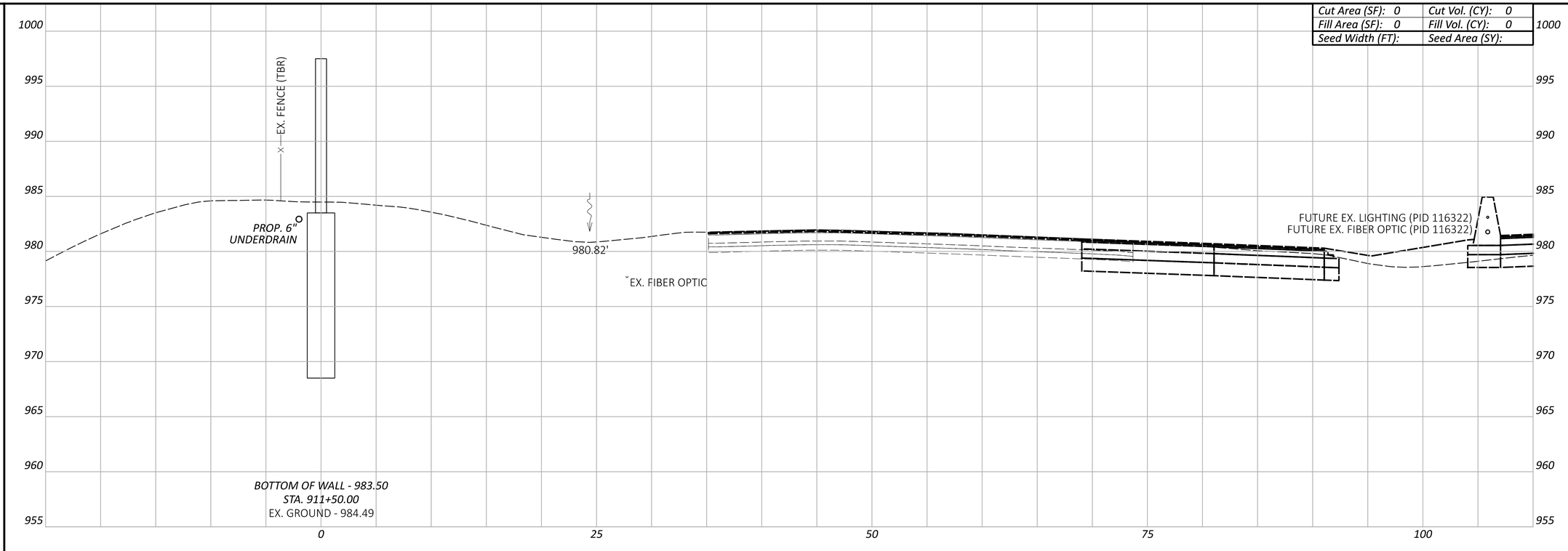
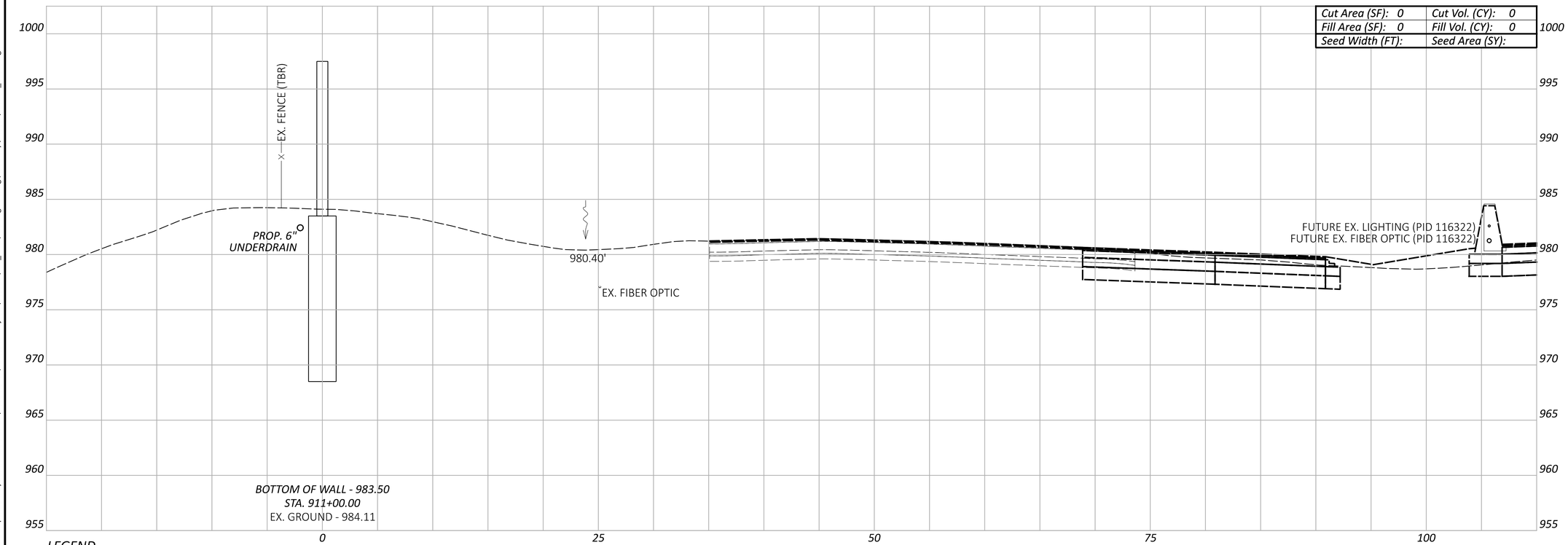
Sheet Totals		
Seeding	Cut	Fill

SHEET P.117 TOTAL P.276





LEGEND

- - - - *EXISTING SR-161 PRIOR TO PID 116322*

——— *FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322*

CROSS SECTIONS - WALL 9
STA. 911+00.00 TO STA. 911+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 911+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:27:33 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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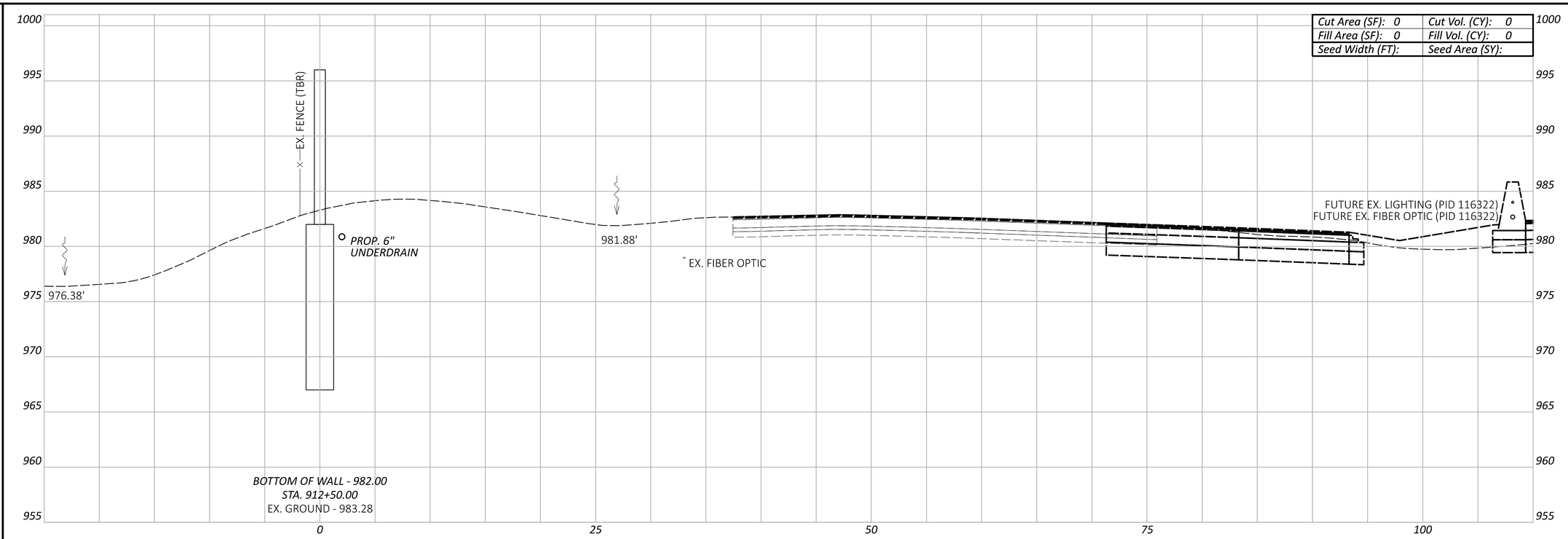
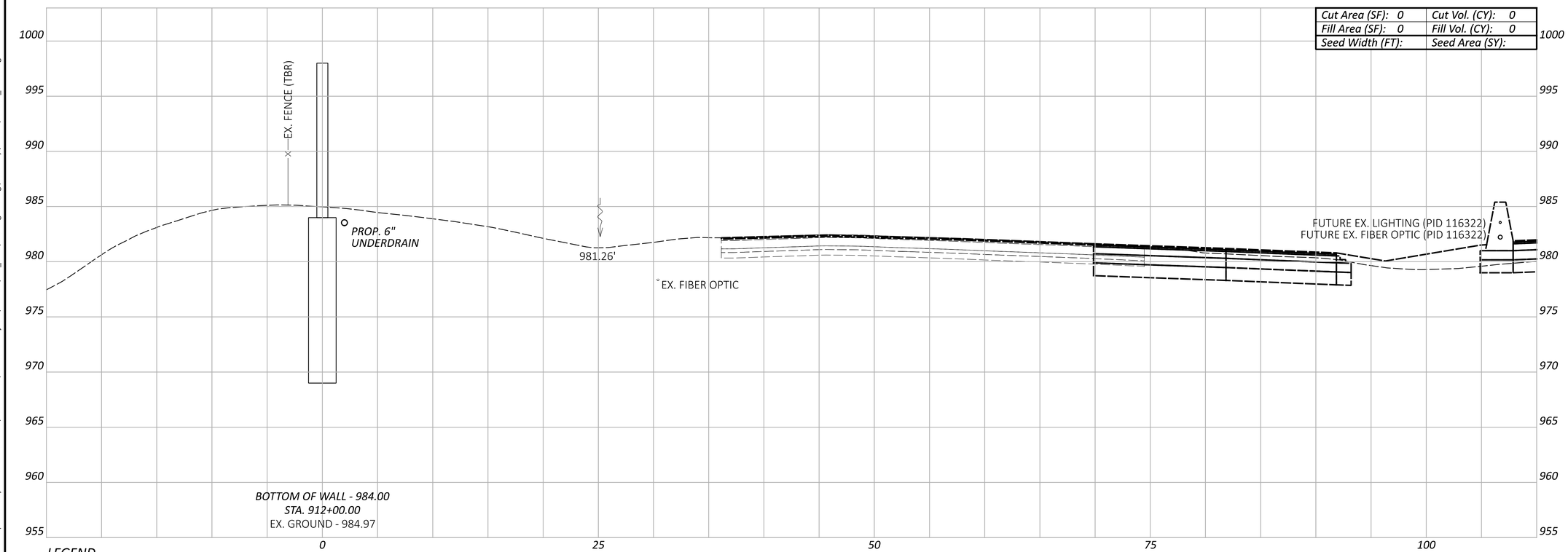
SHEET	TOTAL
P.118	P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 9
STA. 912+00.00 TO STA. 912+50.00

MODEL: BLP_WALL9 - 912+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:27:48 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

SHEET P.119 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL9 - 912+70.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:28:04 PM USER: jennifer.kelley
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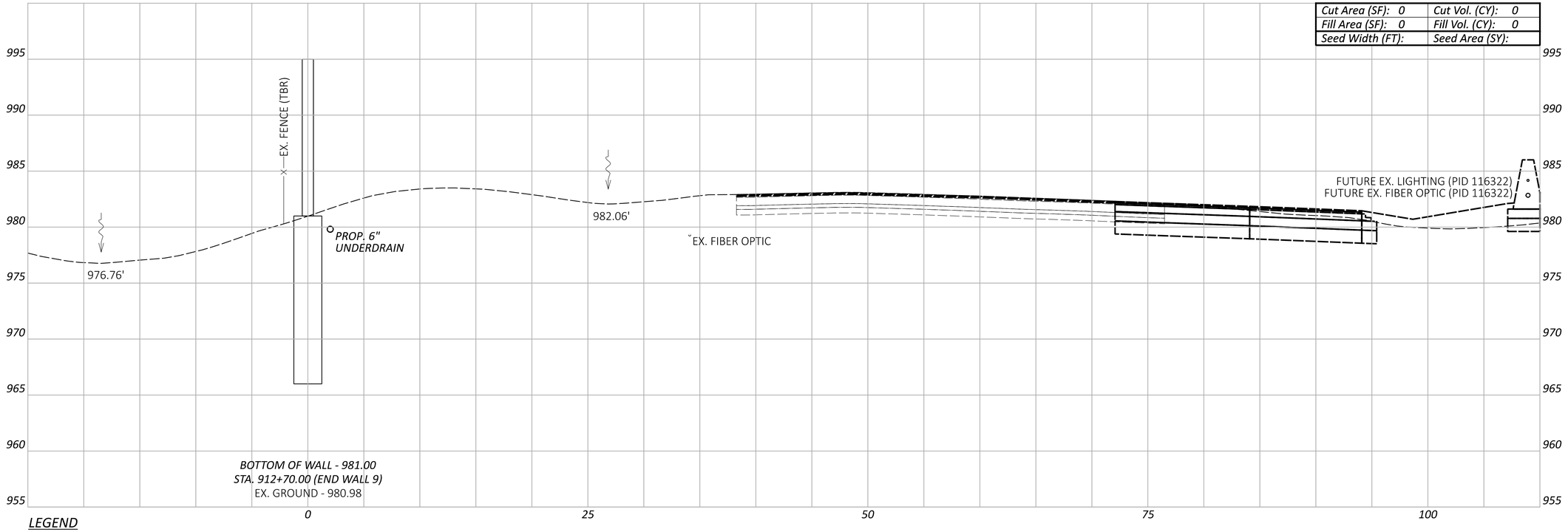
CROSS SECTIONS - WALL 9
STA. 912+70.00



LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID
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SHEET	TOTAL
P.120	P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1000+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:28:34 PM USER: jennifer.kelley
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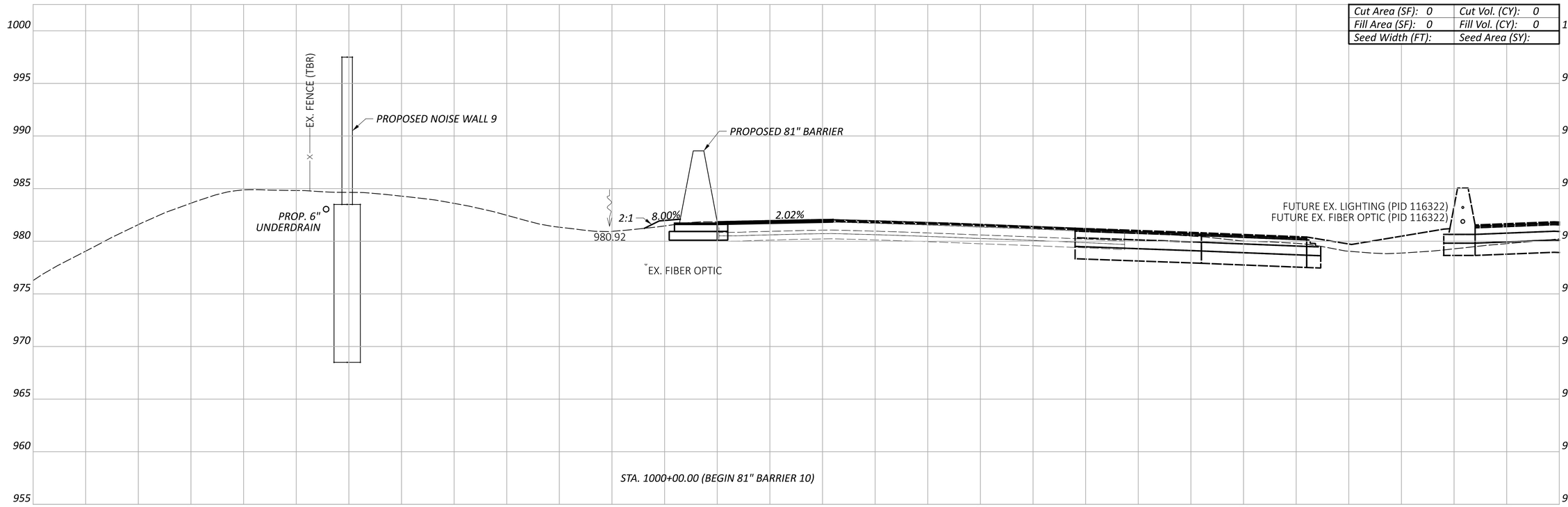

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 10
STA. 1000+00.00

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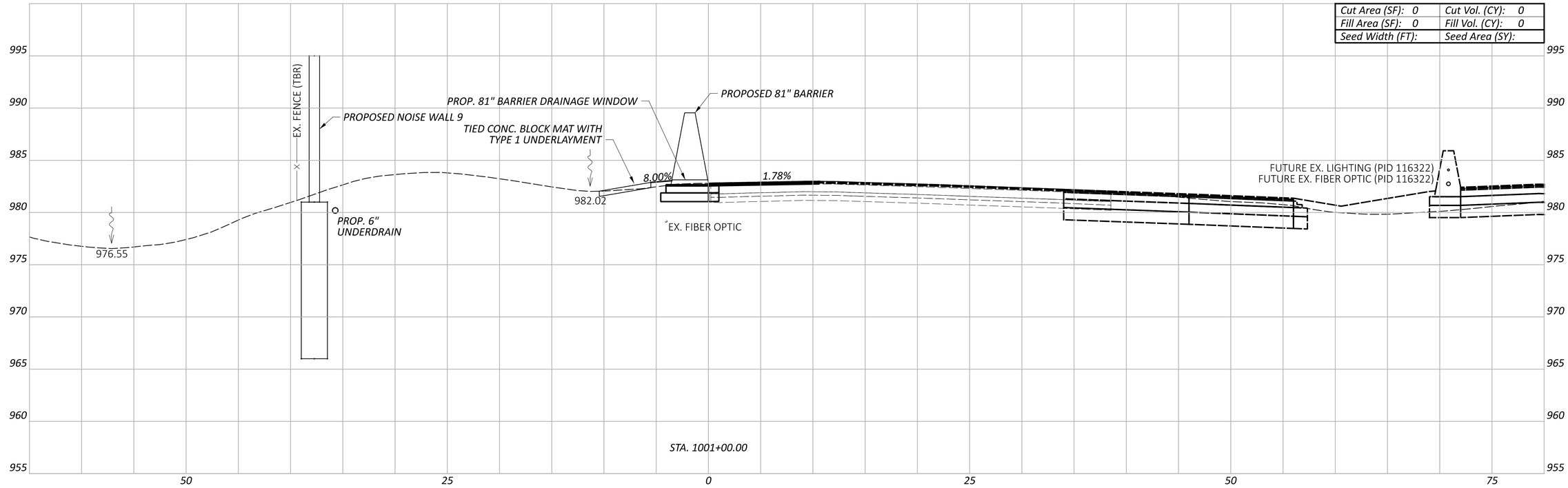
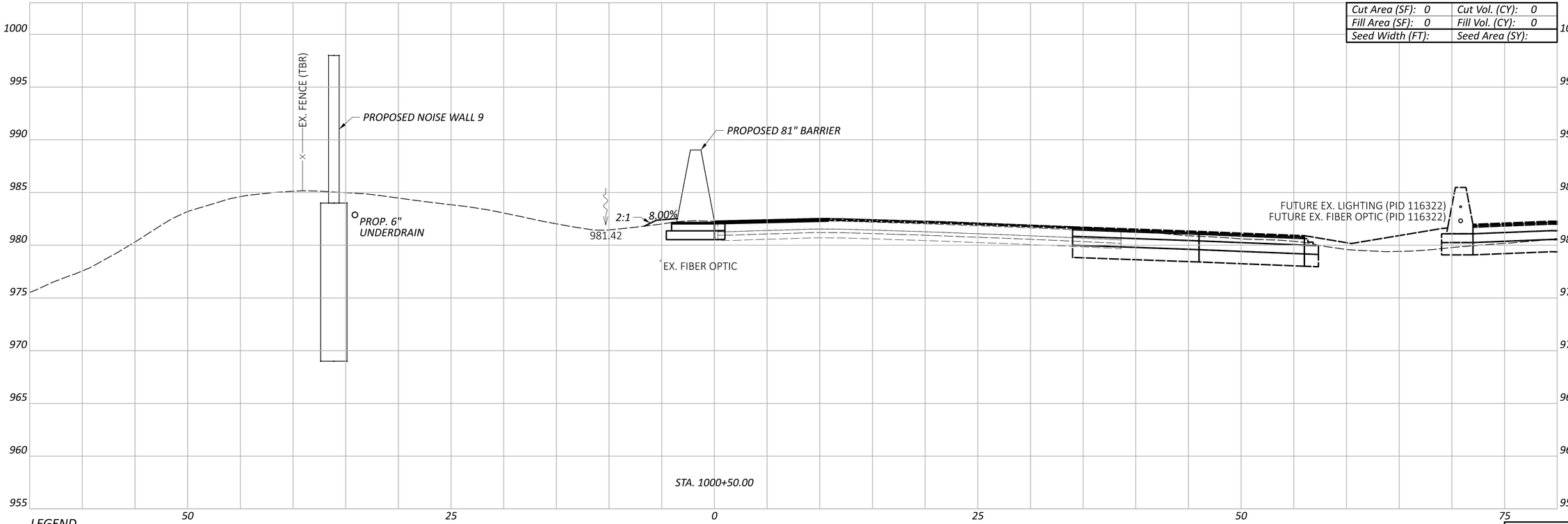
SHEET P.121 | TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 10
STA. 1000+50.00 TO STA. 1001+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1000+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:28:51 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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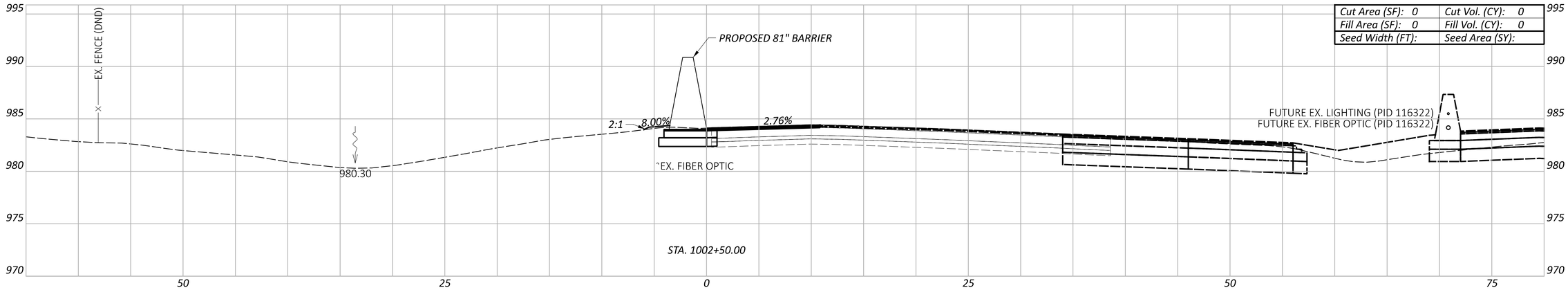
PROJECT ID 117607

SHEET P.122 TOTAL P.276



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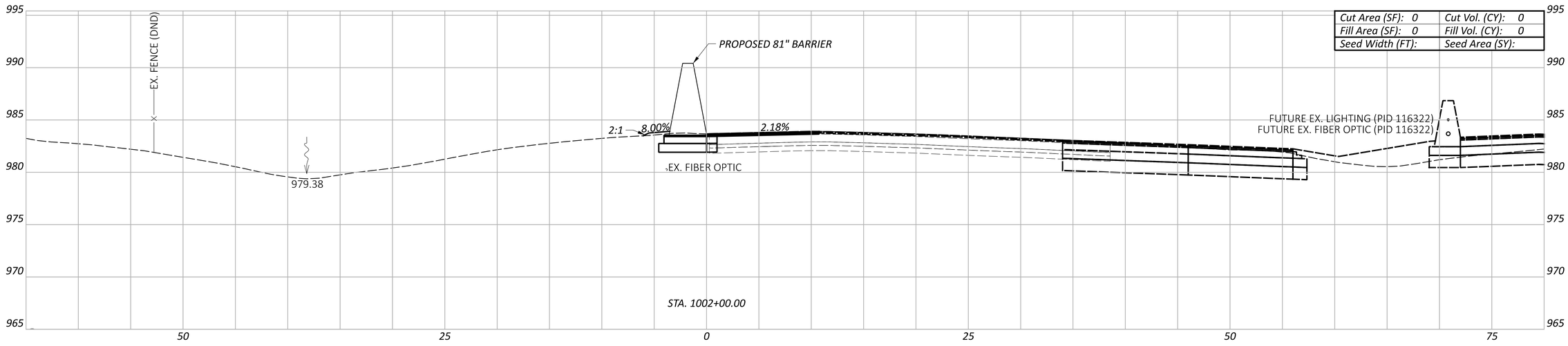

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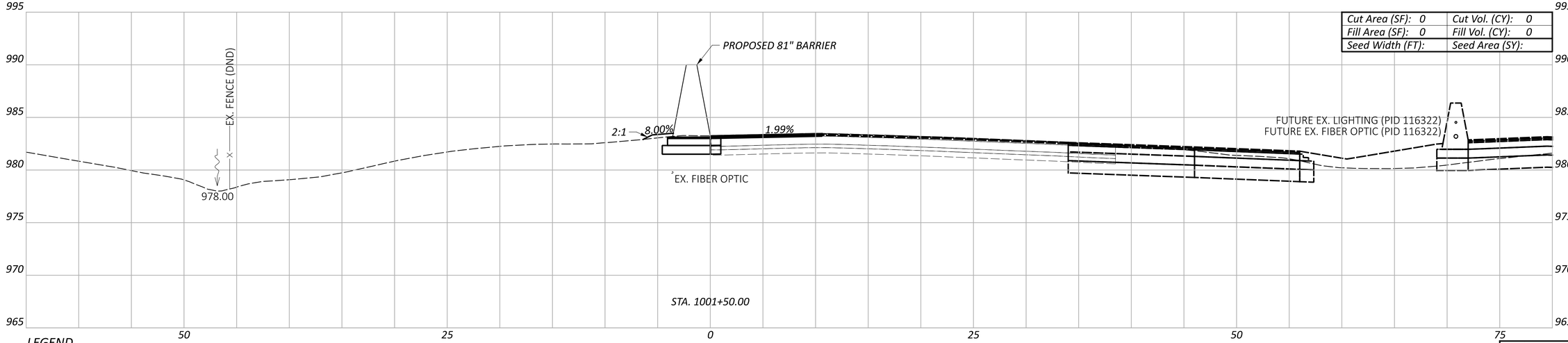

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LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 10
STA. 1001+50.00 TO STA. 1002+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1001+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:29:14 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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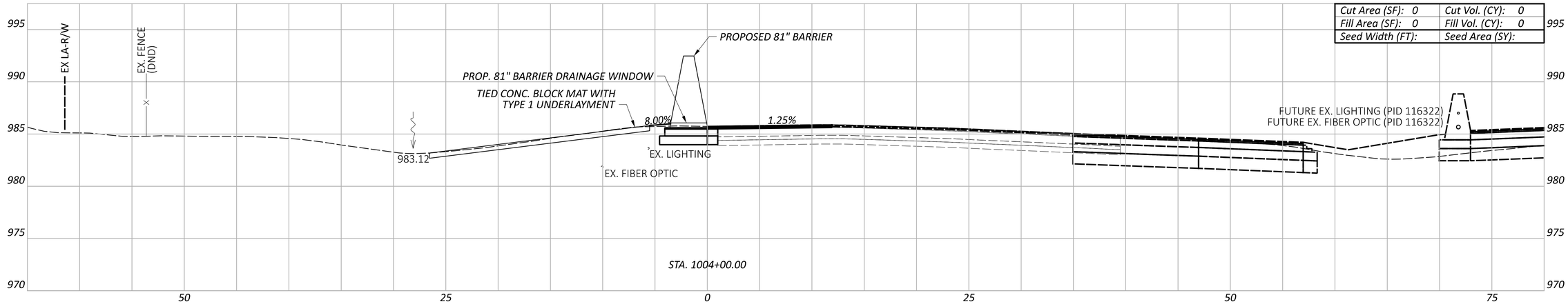
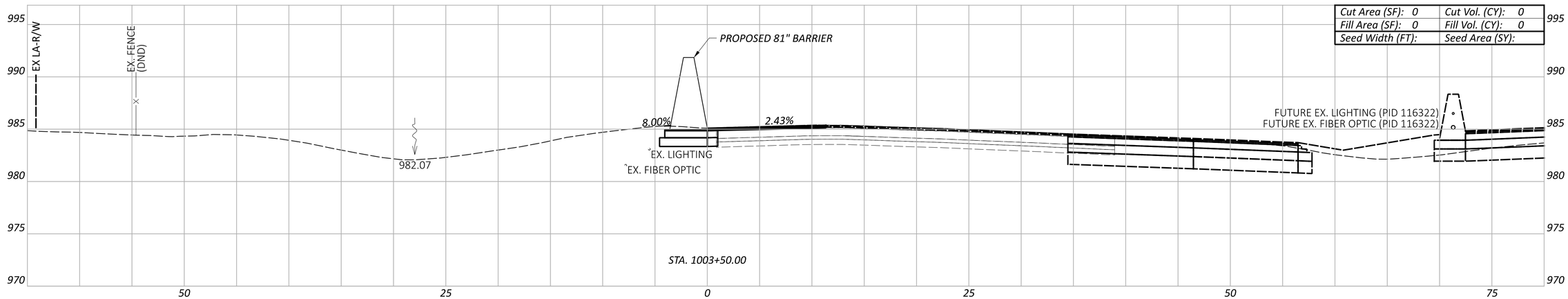
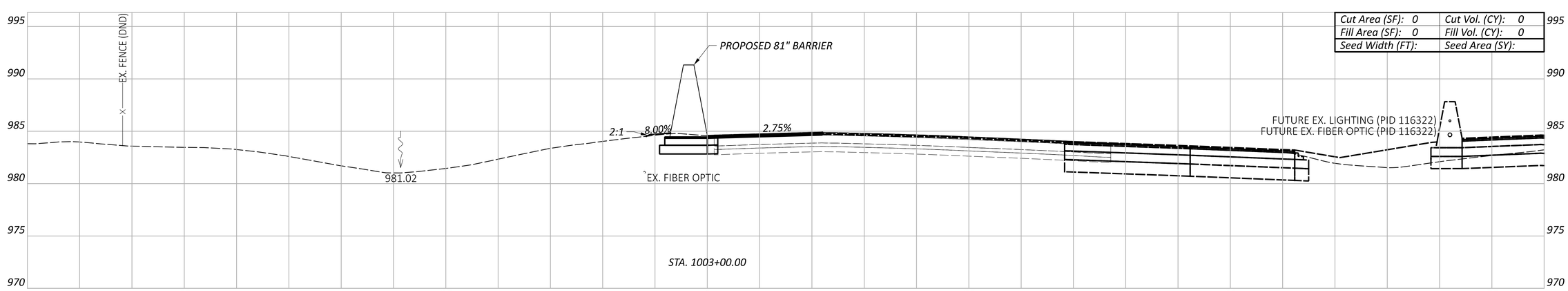
PROJECT ID 117607

SHEET P.123 TOTAL P.276







LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

—— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 10
STA. 1003+00.00 TO STA. 1004+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1003+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:29:49 PM USER: jennifer.kelley
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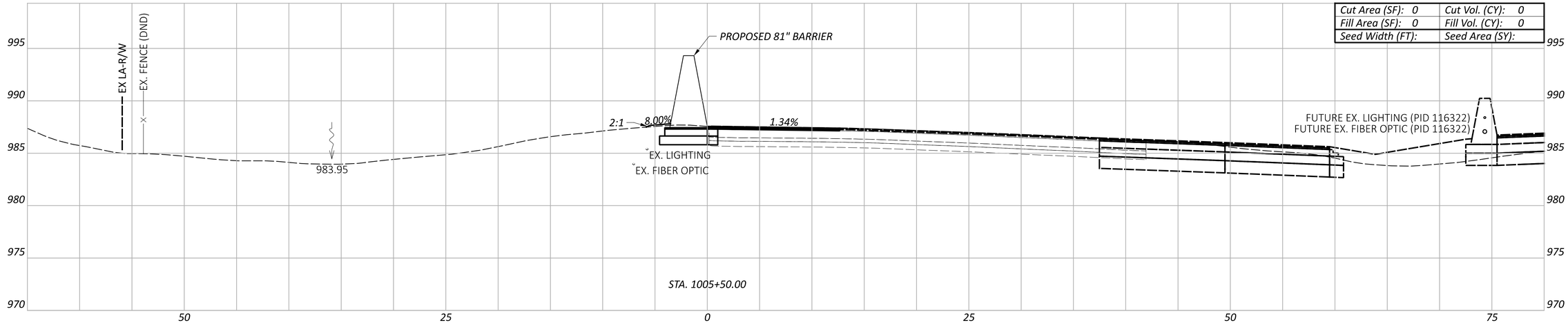
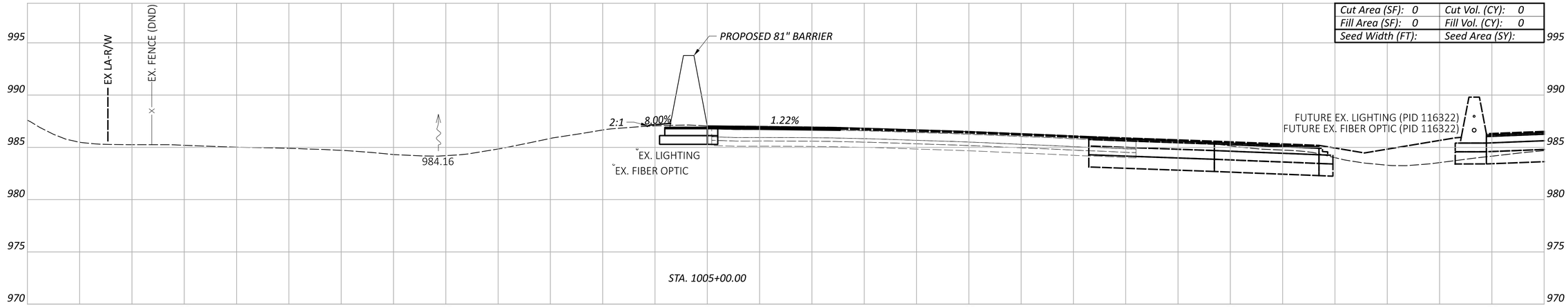
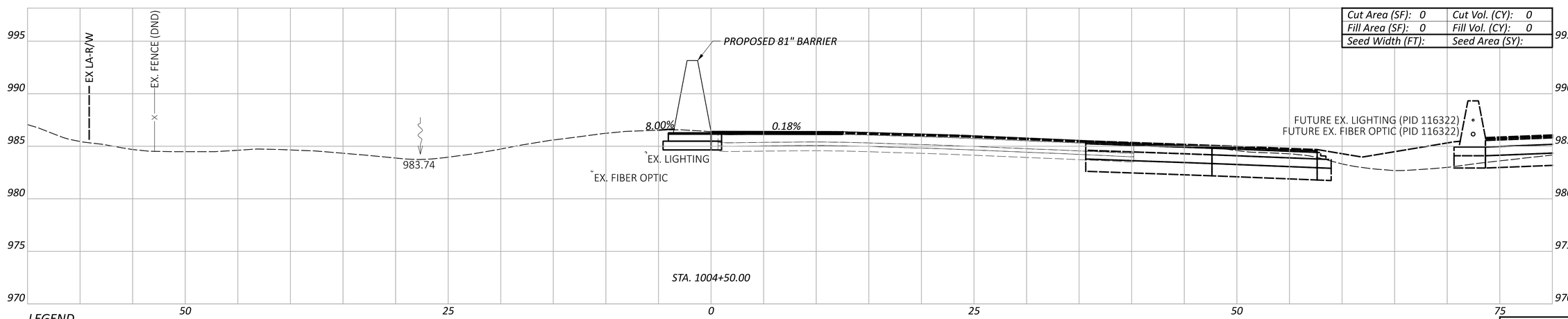
REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.124 TOTAL: P.276







LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 10
STA. 1004+50.00 TO STA. 1005+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1004+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:30:21 PM USER: jennifer.kelley
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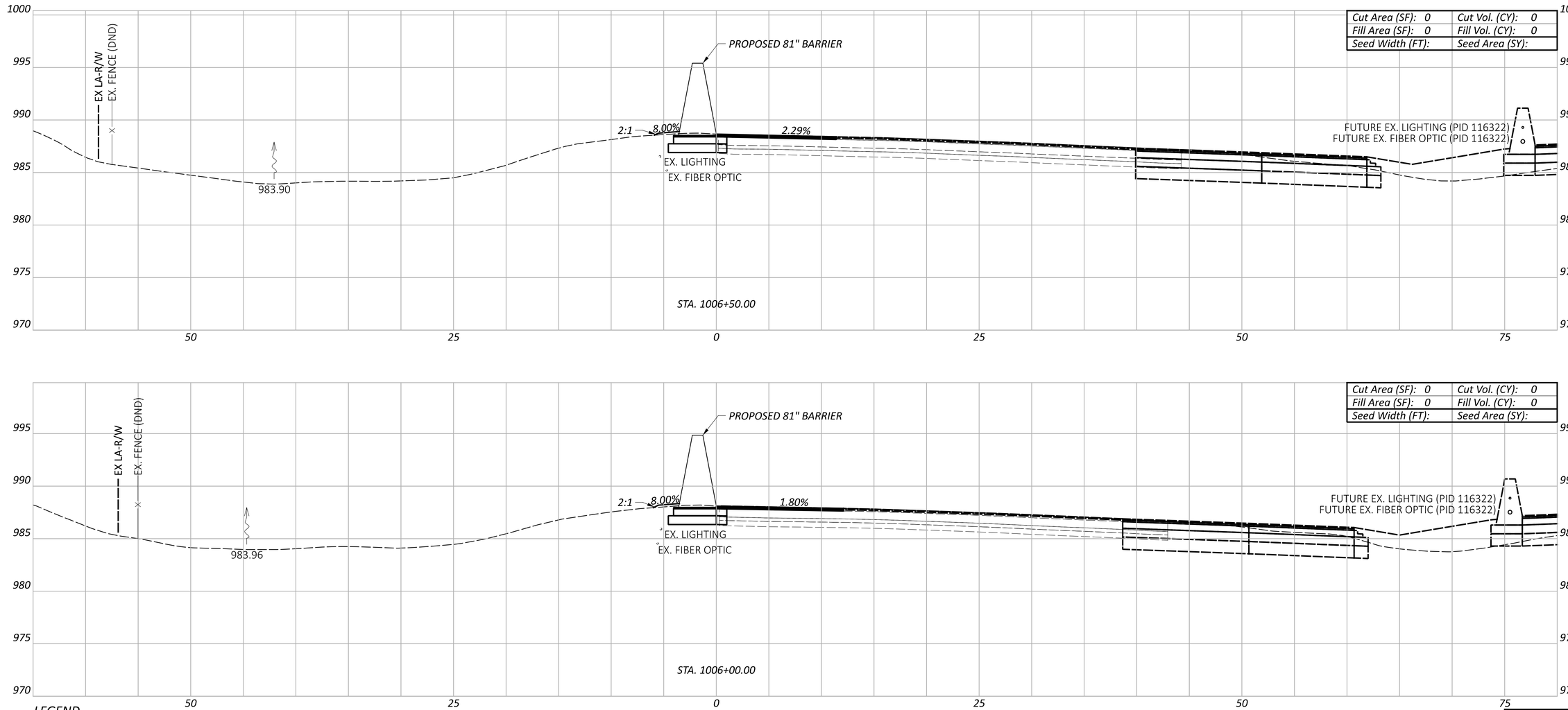
COLUMBUS, OHIO 43235
(614) 318-4600
www.arcadis.com

DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET	TOTAL
P.125	P.276



LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 10
STA. 1006+00.00 TO STA. 1006+50.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 318-4000
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DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.126 TOTAL P.276

MODEL: BLP_BARRIER11 - 1006+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:30:51 PM USER: jennifer.kelley
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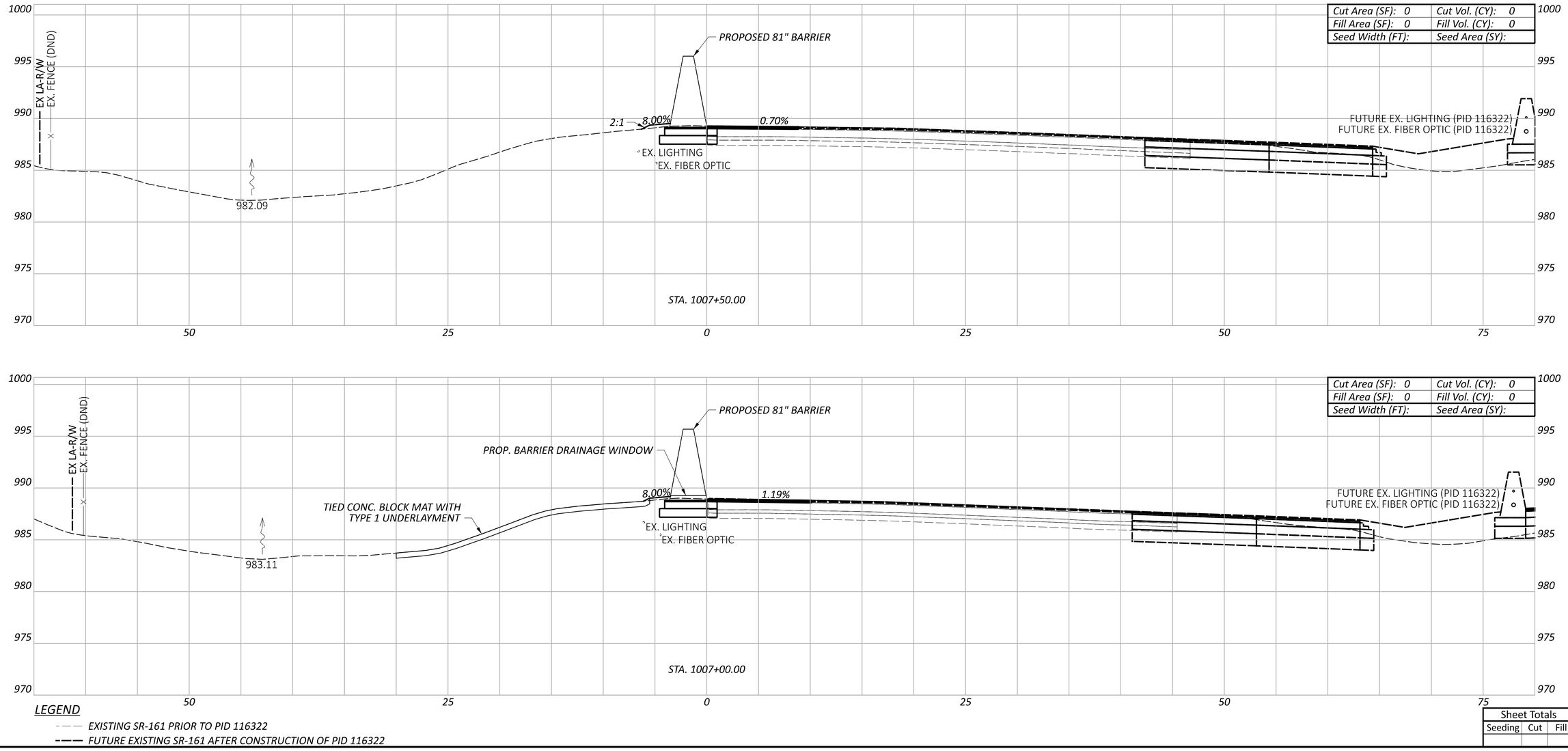

CROSS SECTIONS - 81" BARRIER 10
STA. 1007+00.00 TO STA. 1007+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1007+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:31:10 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS010.dgn

DESIGN AGENCY
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DESIGNER
JMK

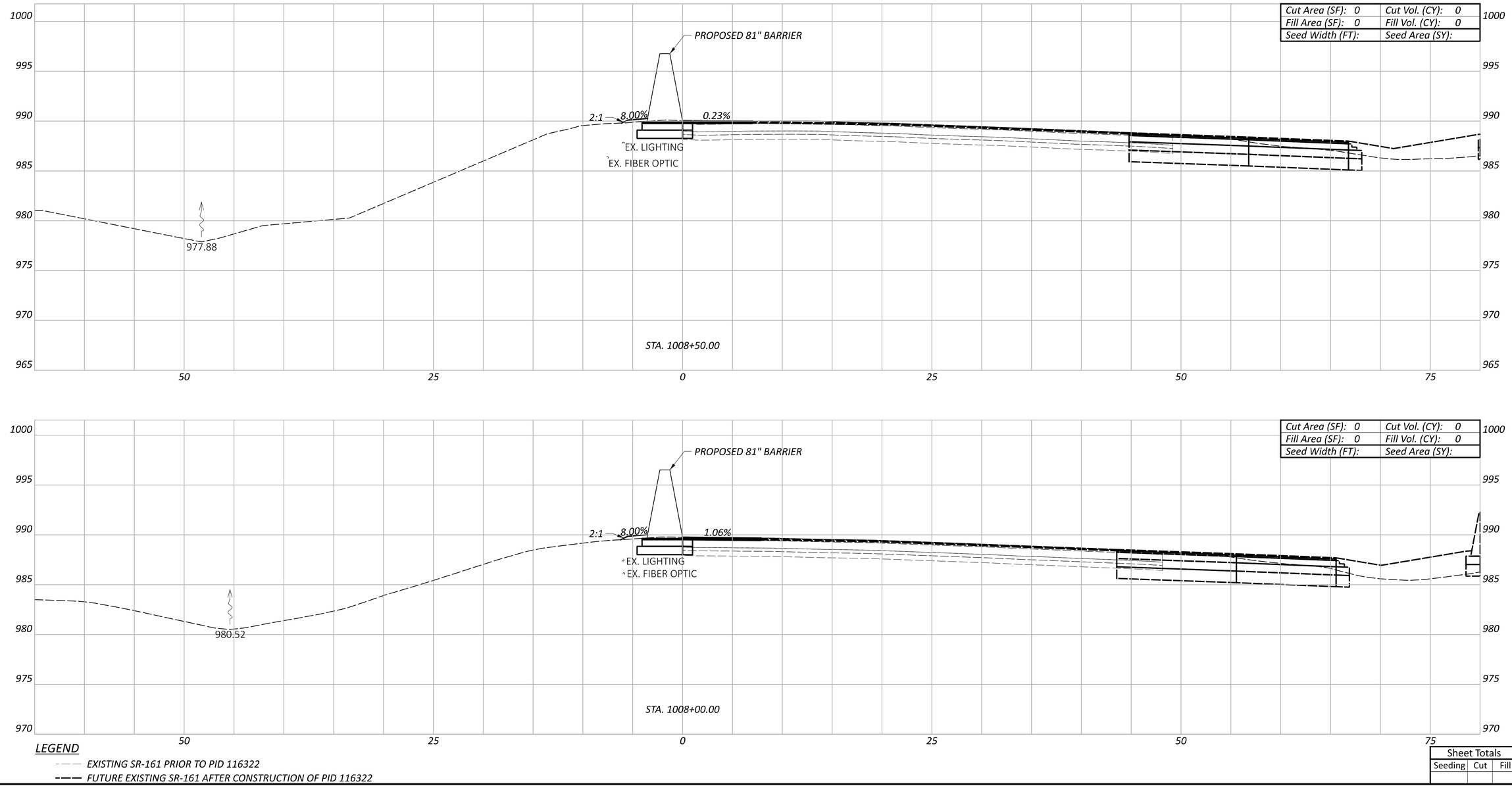
REVIEWER
JDH 01-22-24

PROJECT ID
117607

Sheet Totals

Seeding	Cut	Fill

SHEET P.127 TOTAL P.276



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1008+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:31:29 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS010.dgn

CROSS SECTIONS - 81" BARRIER 10
STA. 1008+00.00 TO STA. 1008+50.00

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
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DESIGNER
JMK

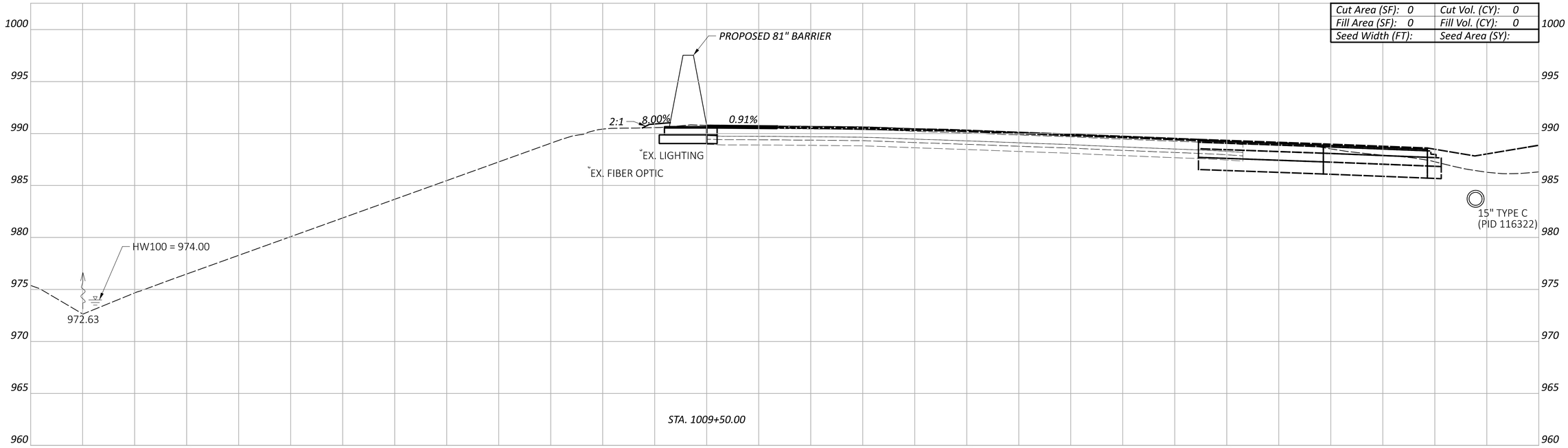
REVIEWER
JDH 01-22-24

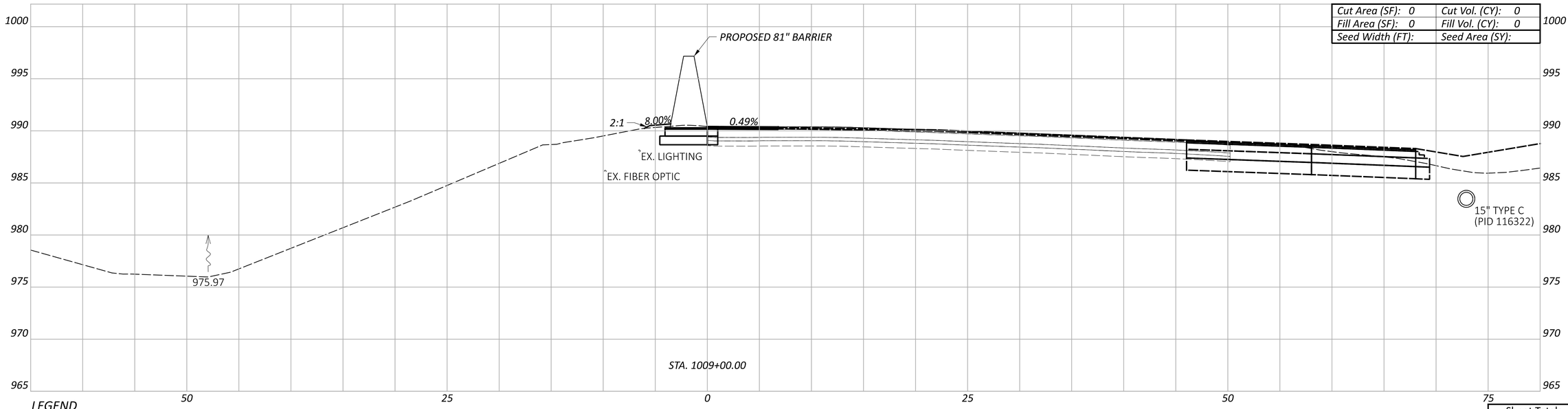
PROJECT ID
117607

Sheet Totals

Seeding	Cut	Fill

SHEET P.128 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 10
STA. 1009+00.00 TO STA. 1009+50.00

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
www.arcadis.com

DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.129 TOTAL P.276

MODEL: BLP_BARRIER11 - 1009+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:31:47 PM USER: jennifer.kelley
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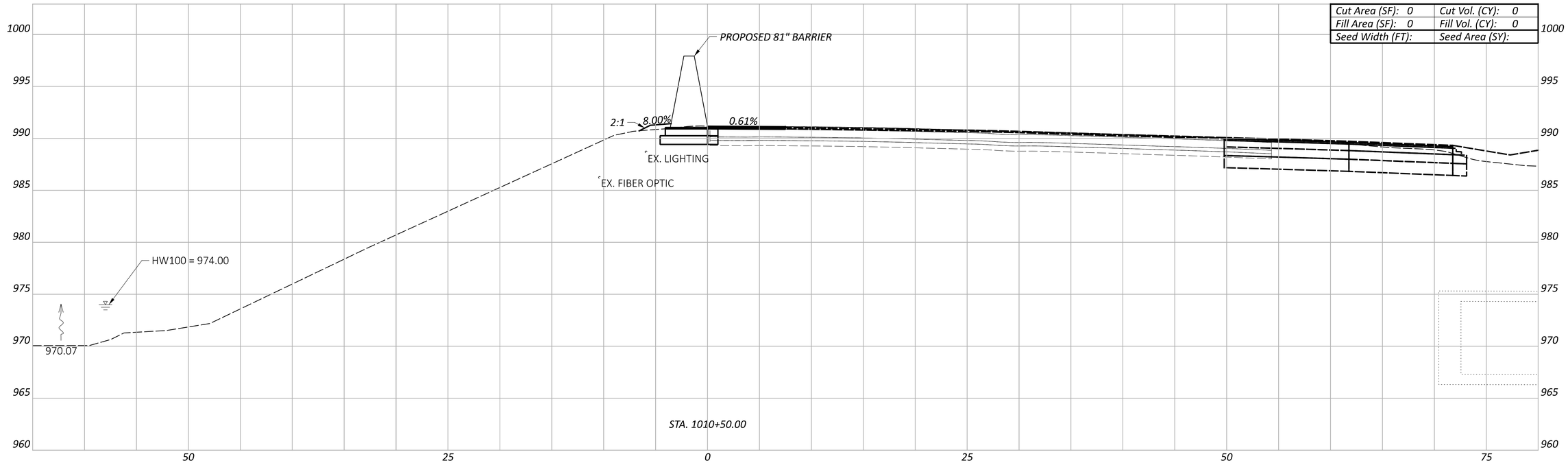

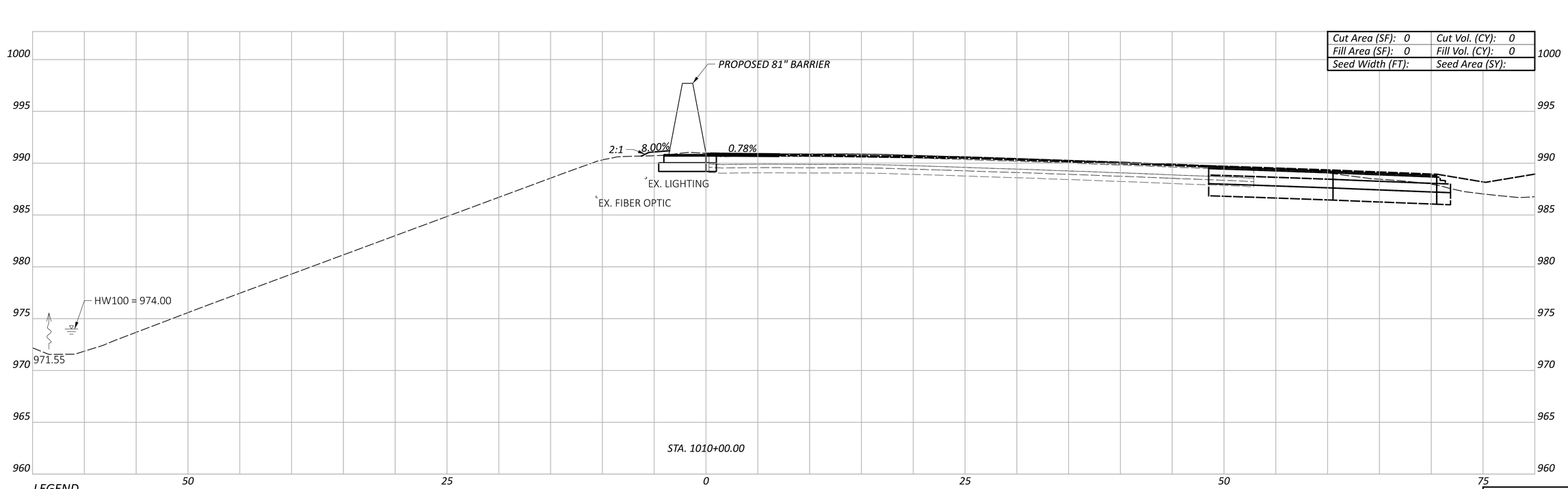

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 10
STA. 1010+00.00 TO STA. 1010+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1010+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:32:00 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
www.arcadis.com

DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

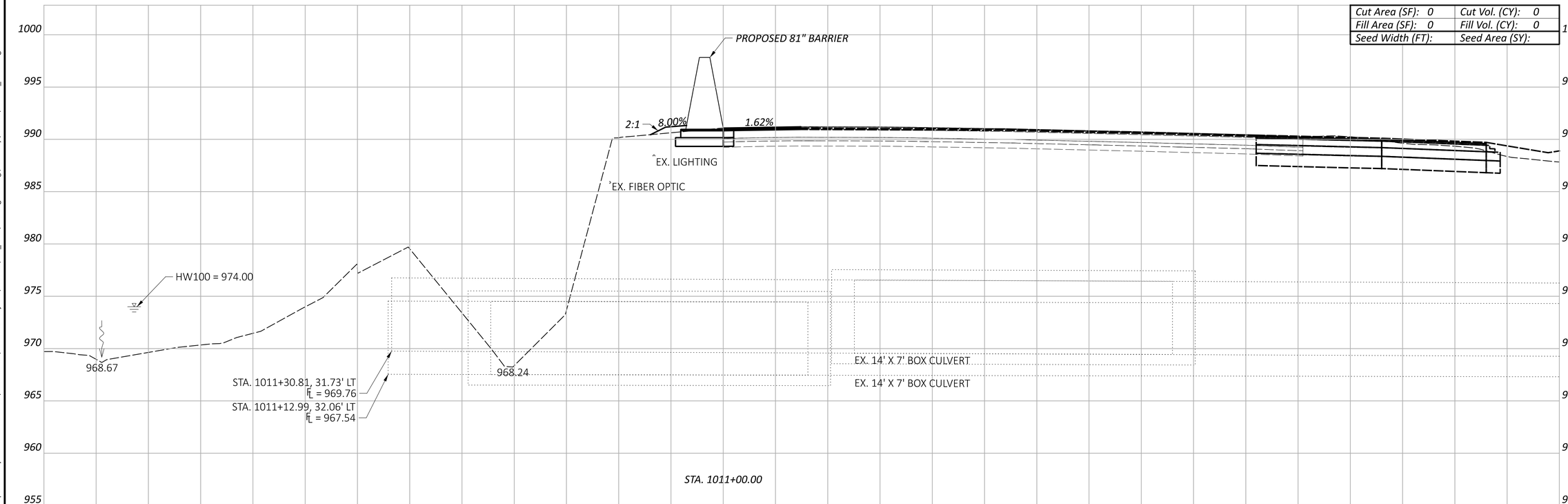
SHEET: P.130 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1011+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:32:13 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS010.dgn

CROSS SECTIONS - 81" BARRIER 10
STA. 1011+00.00

Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

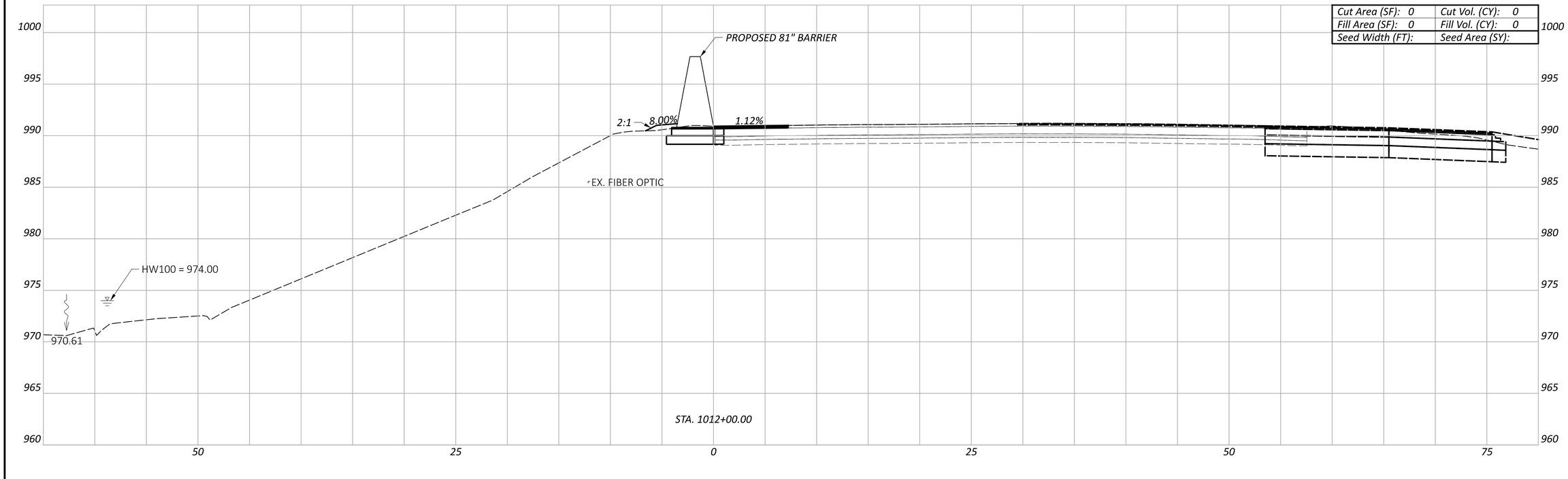
DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4800
www.arcadis.com

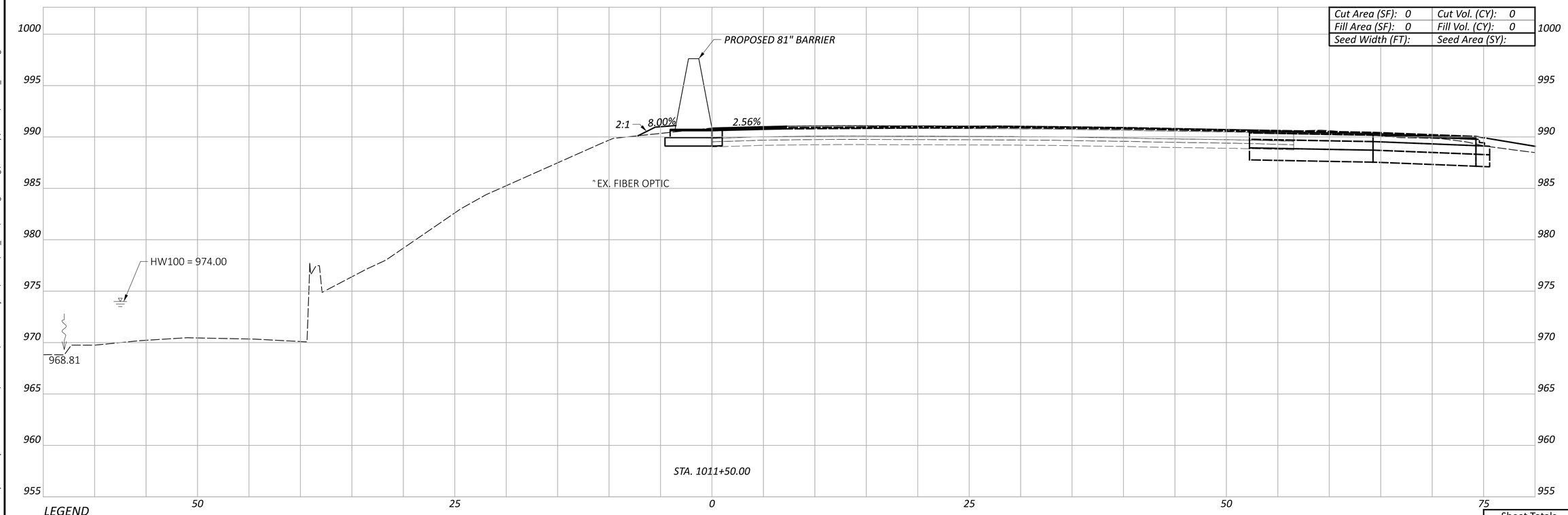
DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.131 TOTAL: P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 10
STA. 1011+50.00 TO STA. 1012+00.00

Sheet Totals		
Seeding	Cut	Fill

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8101 NORTH HIGH ST SUITE 100
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DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.132 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1011+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:32:22 PM USER: jennifer.kelley
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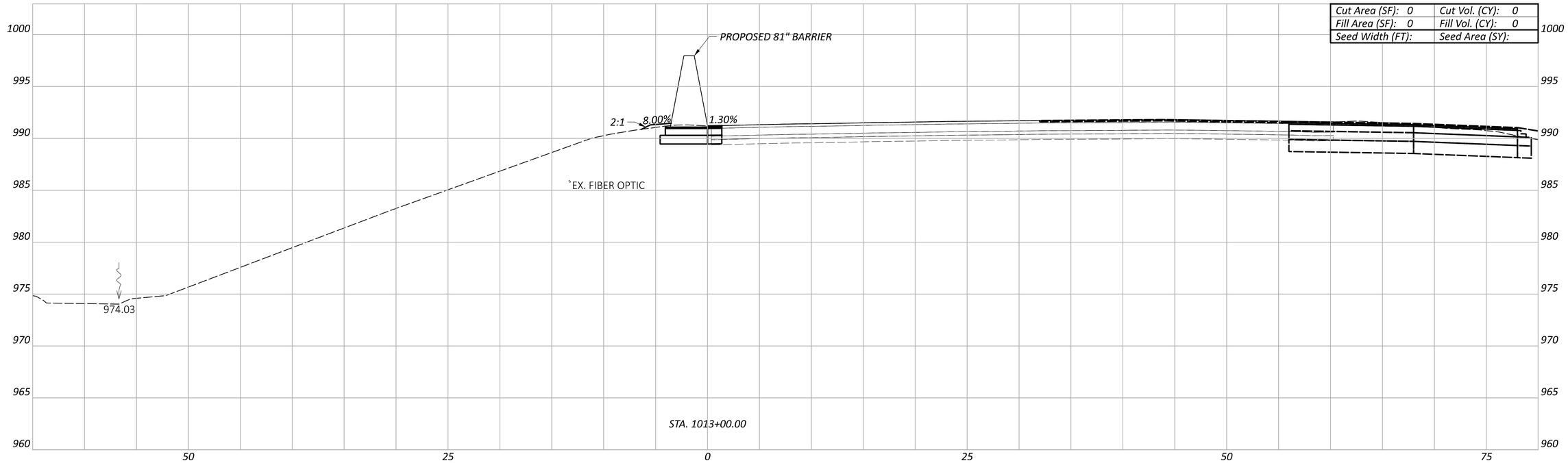

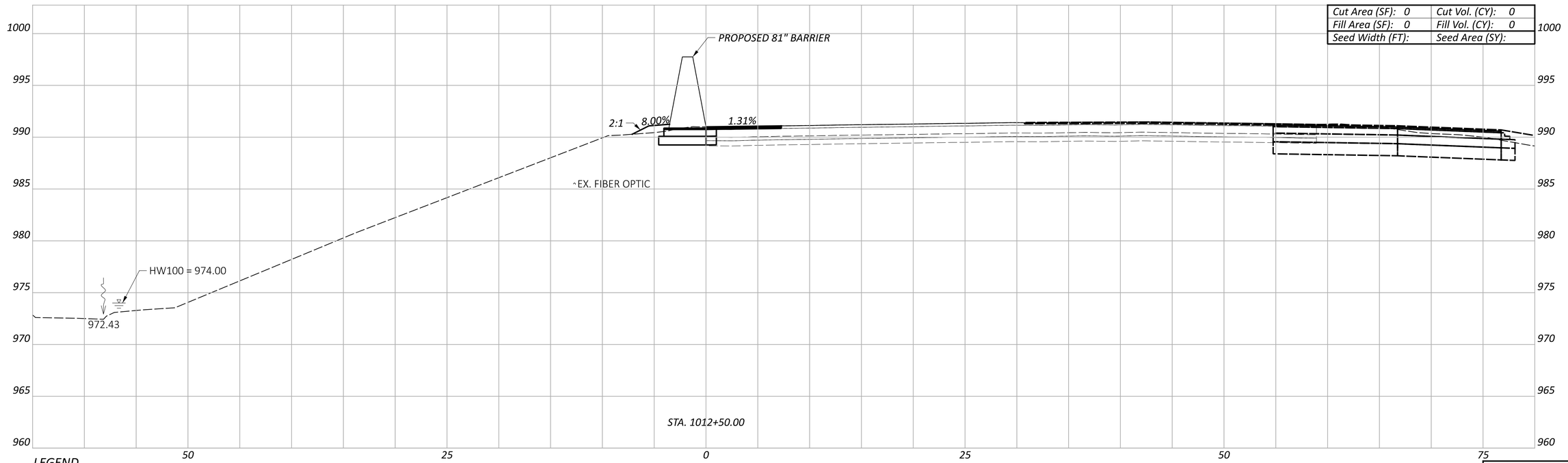

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 10
STA. 1012+50.00 TO STA. 1013+00.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.133 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1012+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:32:36 PM USER: jennifer.kelley
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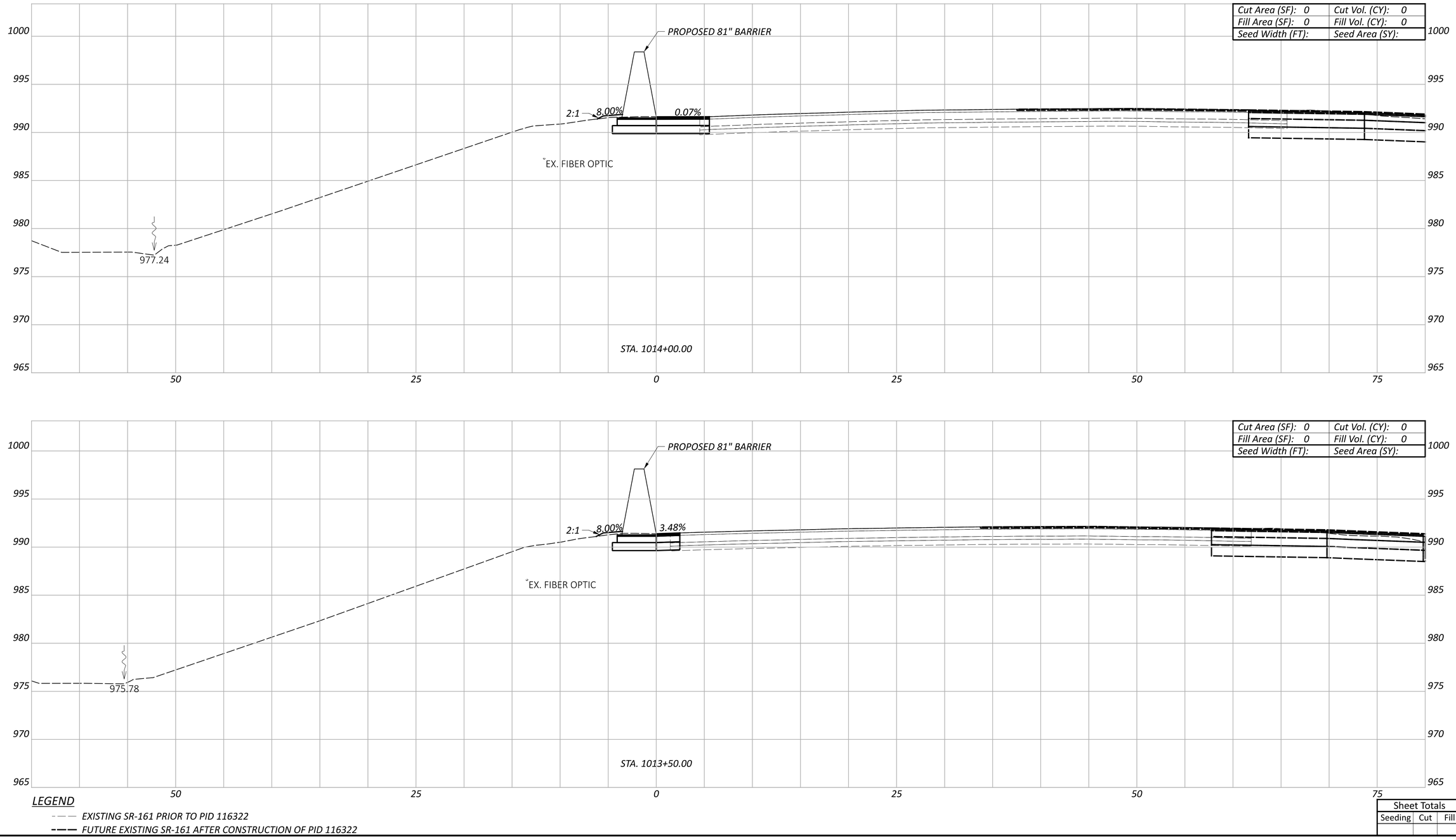

CROSS SECTIONS - 81" BARRIER 10
STA. 1013+50.00 TO STA. 1014+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1013+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:32:51 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

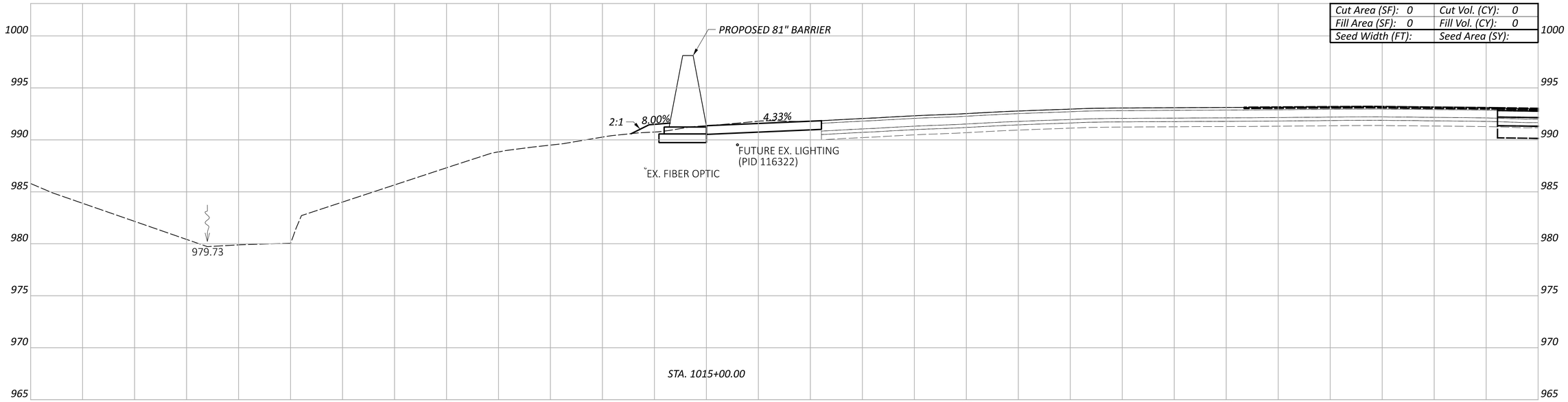
DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
www.arcadis.com

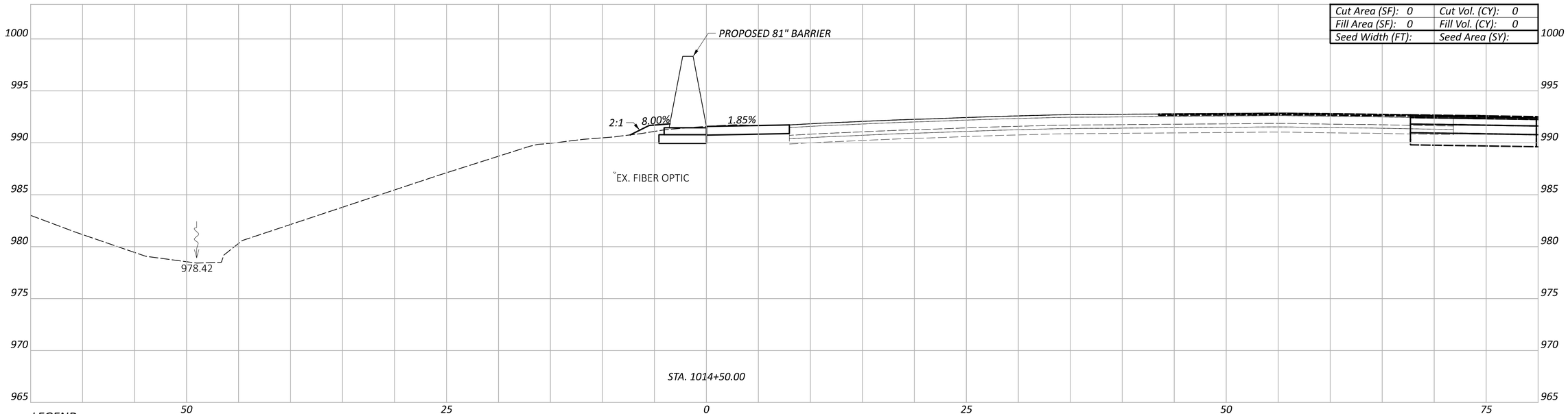
DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.134 | TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 10
STA. 1014+50.00 TO STA. 1015+00.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.135 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1014+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:33:05 PM USER: jennifer.kelley
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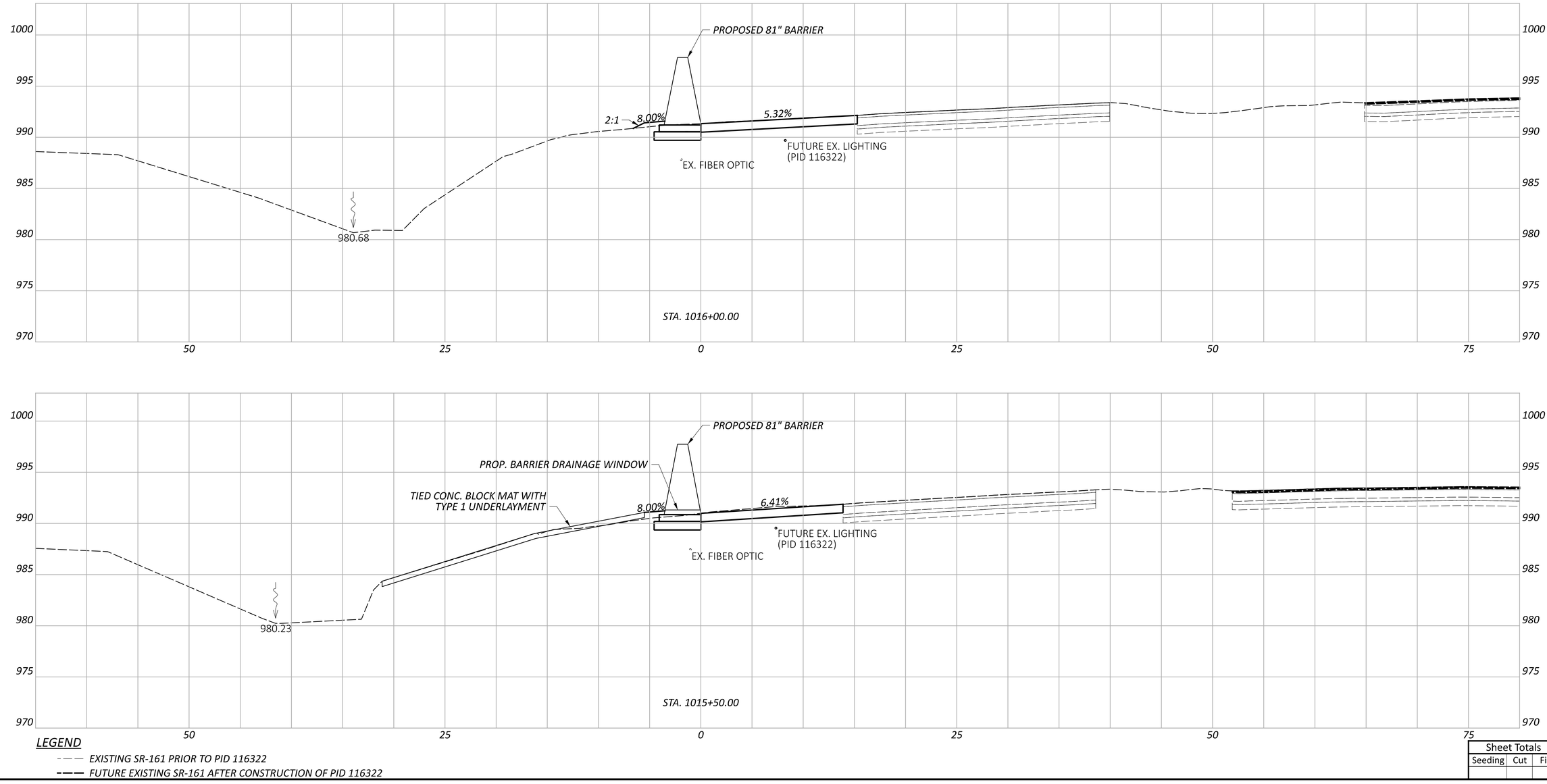

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1015+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:33:24 PM USER: jennifer.kelley
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CROSS SECTIONS - 81" BARRIER 10
STA. 1015+50.00 TO STA. 1016+00.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 846-4500
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DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.136 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER11 - 1016+49.64 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:33:44 PM USER: jennifer.kelley
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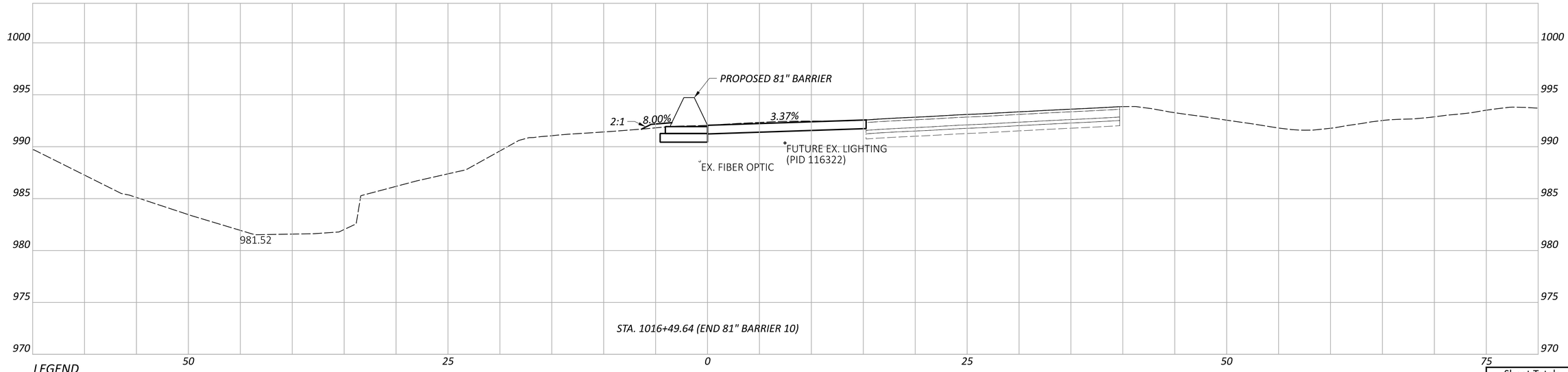
CROSS SECTIONS - 81" BARRIER 10
STA. 1016+49.64



LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

—— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

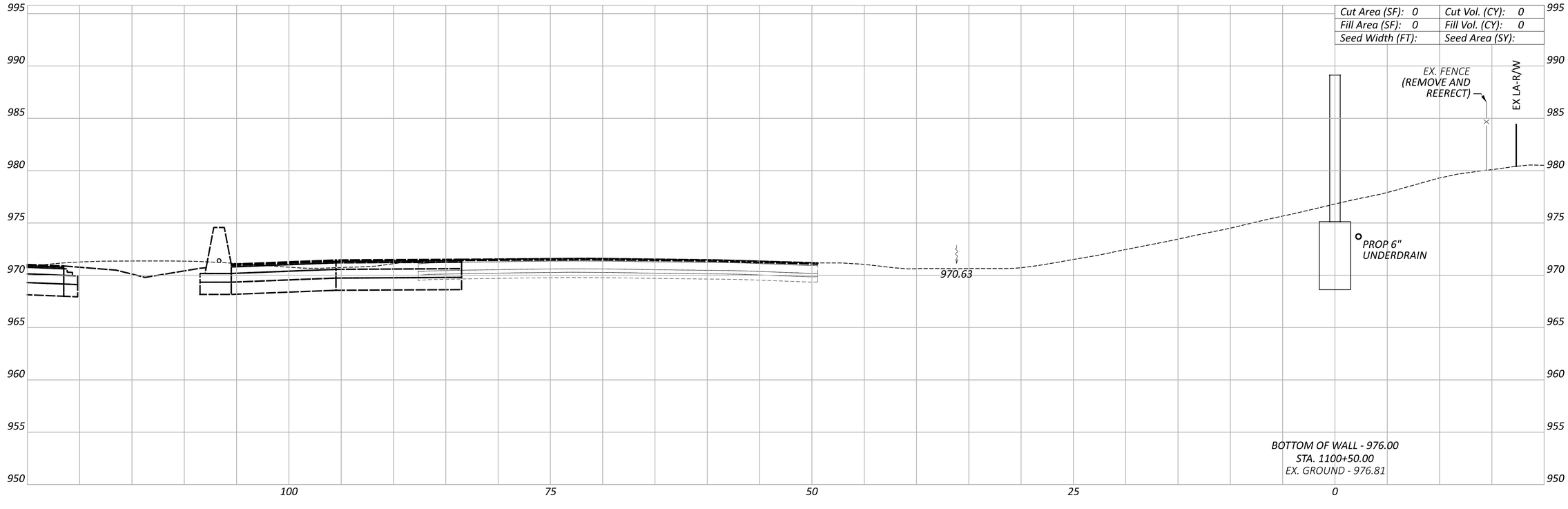
DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 847-4800
www.arcadis.com

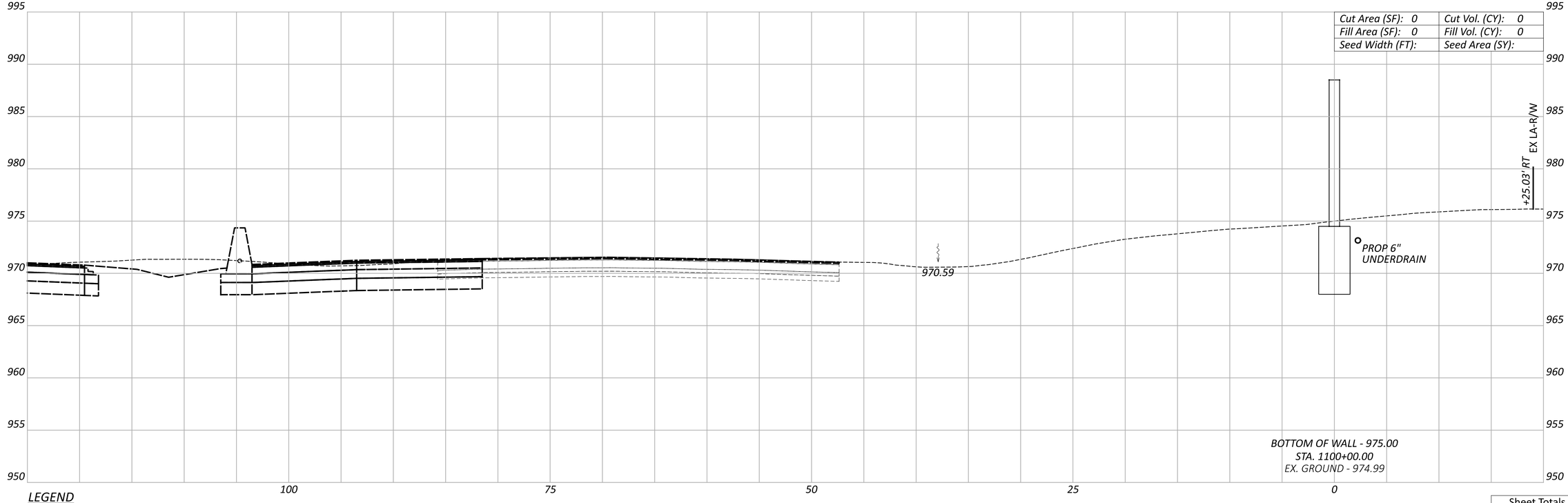
DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET	TOTAL
P.137	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 11
STA. 1100+00.00 TO STA. 1100+50.00

FRA-161-15.80 NOISE WALLS

MODEL: 1100+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:57:29 AM USER: JPerchinske
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS011.dgn

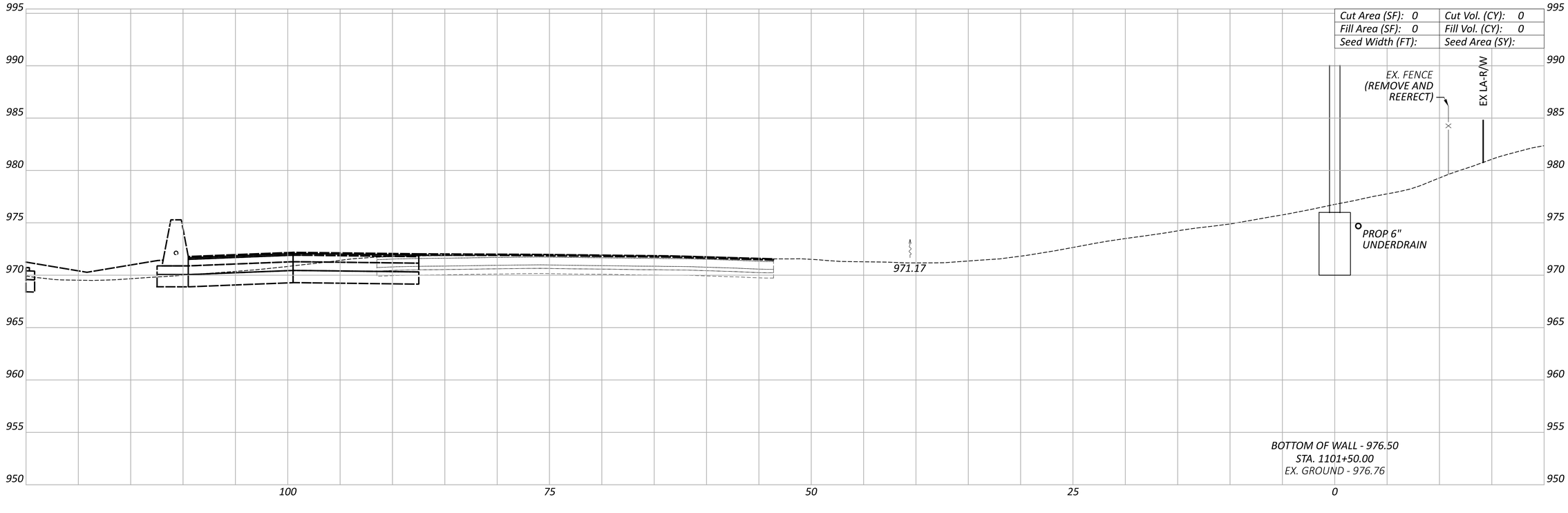
DESIGN AGENCY
BG
www.bgeng group.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

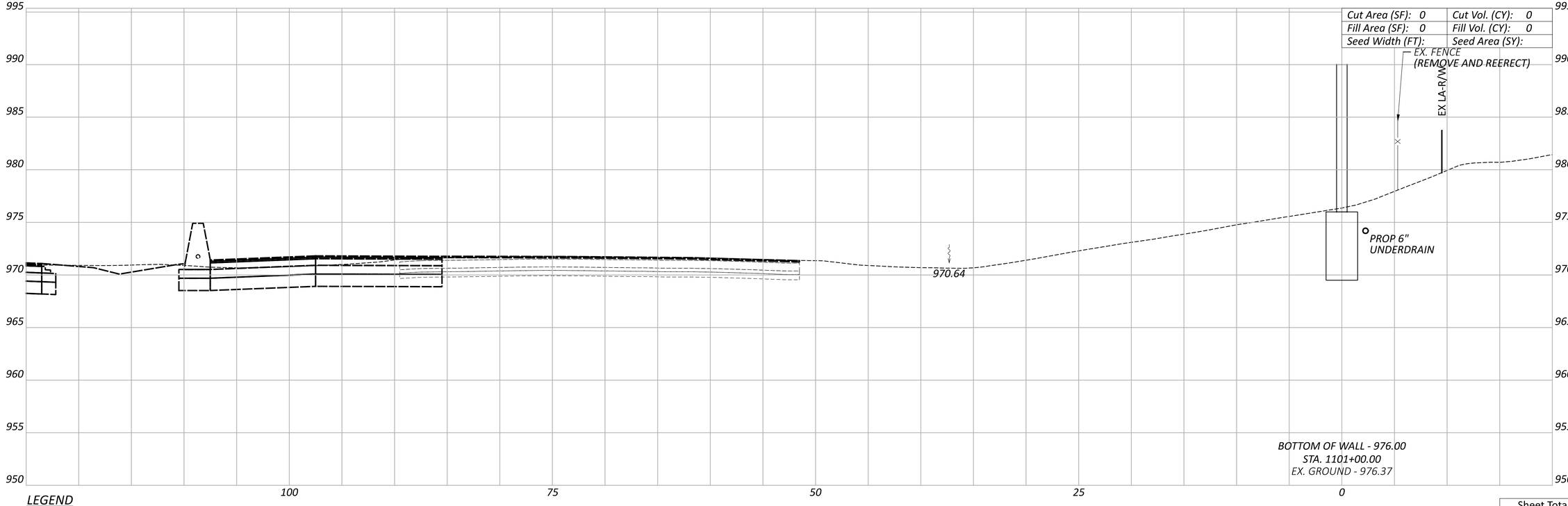
DESIGNER
JEP

REVIEWER
RG 01-22-24

PROJECT ID
117607

SHEET	TOTAL
P.138	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 11
STA. 1101+00.00 TO STA. 1101+50.00

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY

BG

www.bgenggroup.com

5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER JEP

REVIEWER RG 01-22-24

PROJECT ID 117607

SHEET P.139 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: 1101+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:57:41 AM USER: JPerchinske
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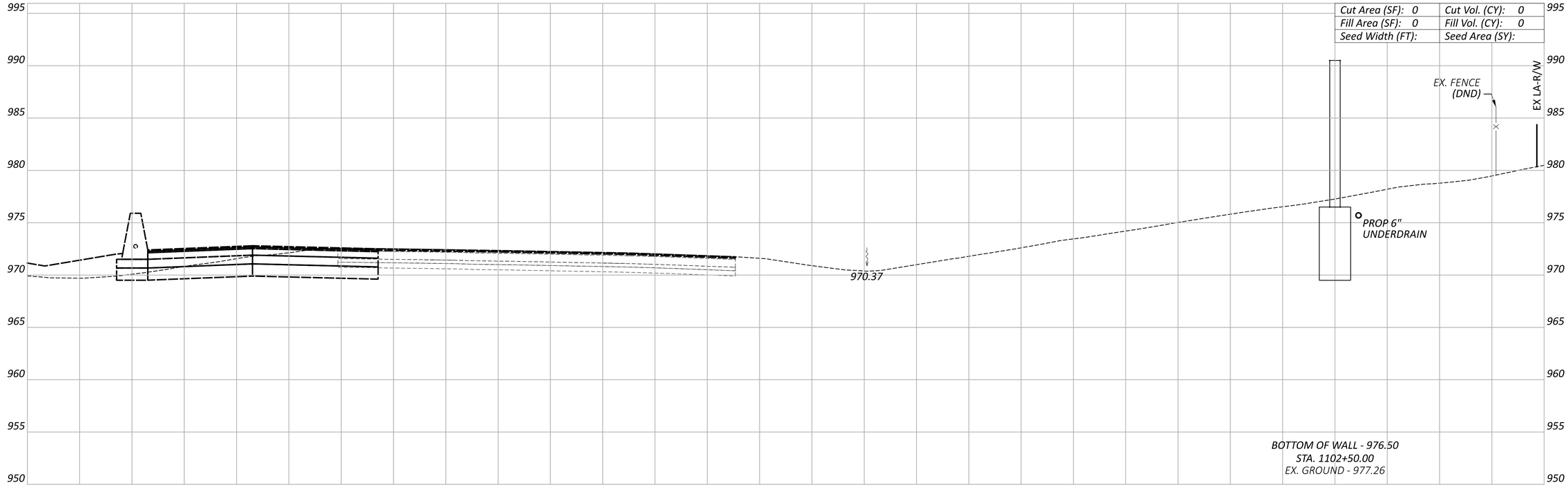

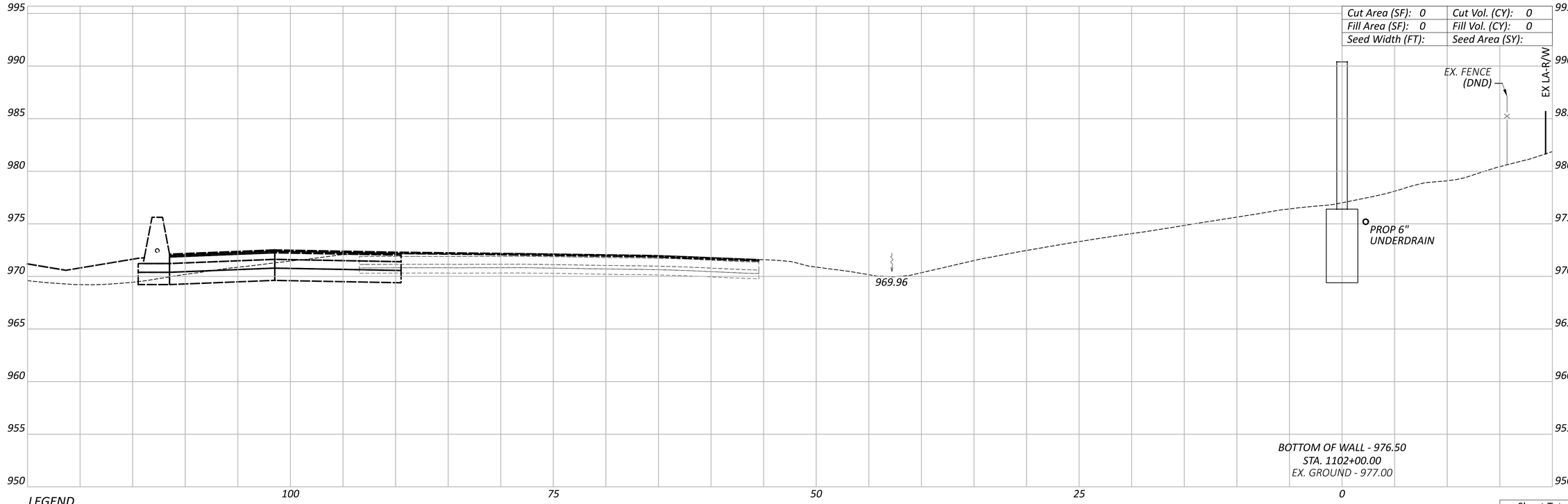

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 11
STA. 1102+00.00 TO STA. 1102+50.00

FRA-161-15.80 NOISE WALLS

MODEL: 1102+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:57:49 AM USER: JPerchinske
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS011.dgn

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY

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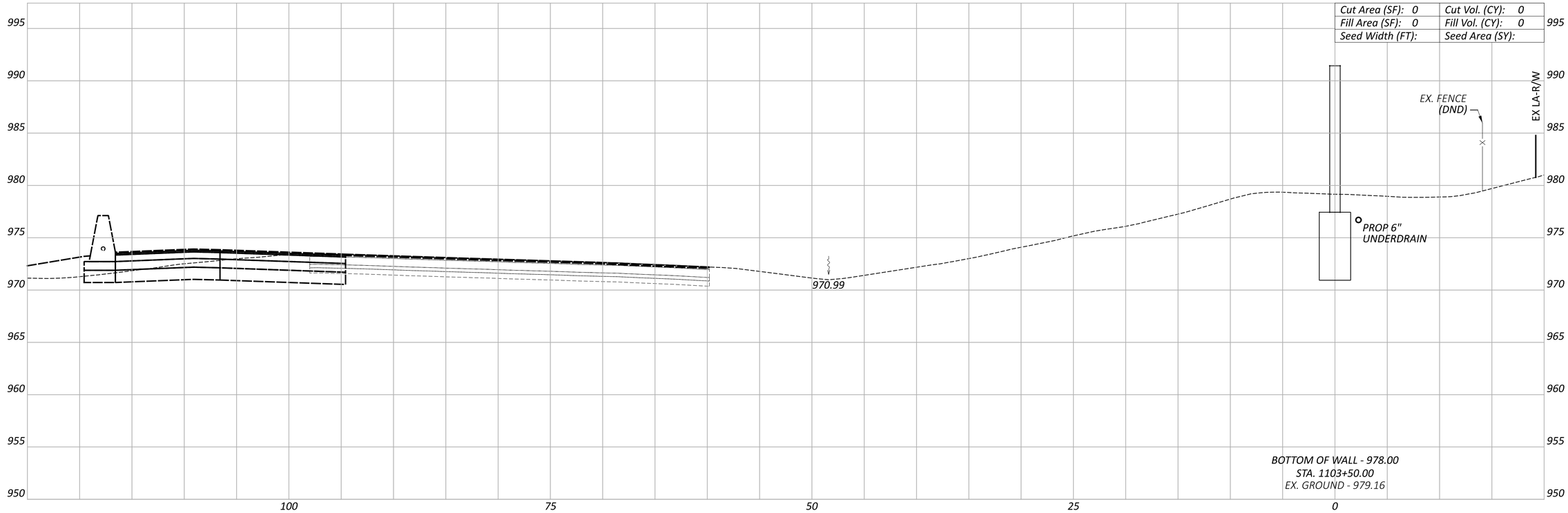
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

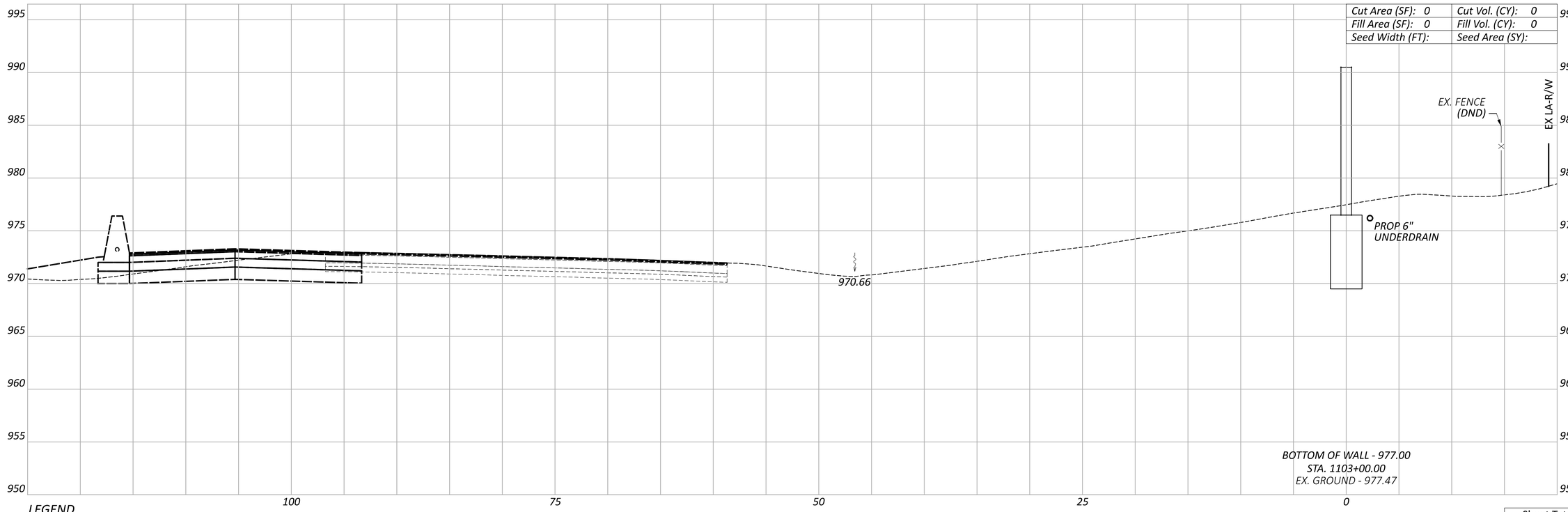
DESIGNER JEP

REVIEWER RG 01-22-24

PROJECT ID 117607

SHEET	TOTAL
P.140	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 11
STA. 1103+00.00 TO STA. 1103+50.00

FRA-161-15.80 NOISE WALLS

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Sheet Totals		
Seeding	Cut	Fill

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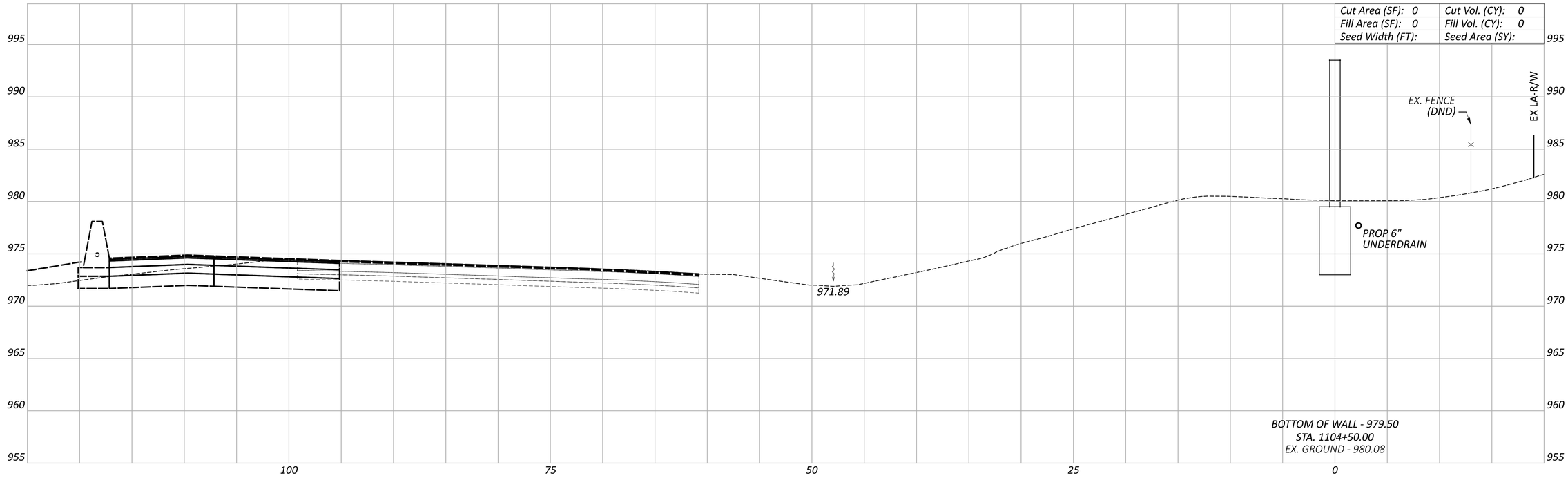
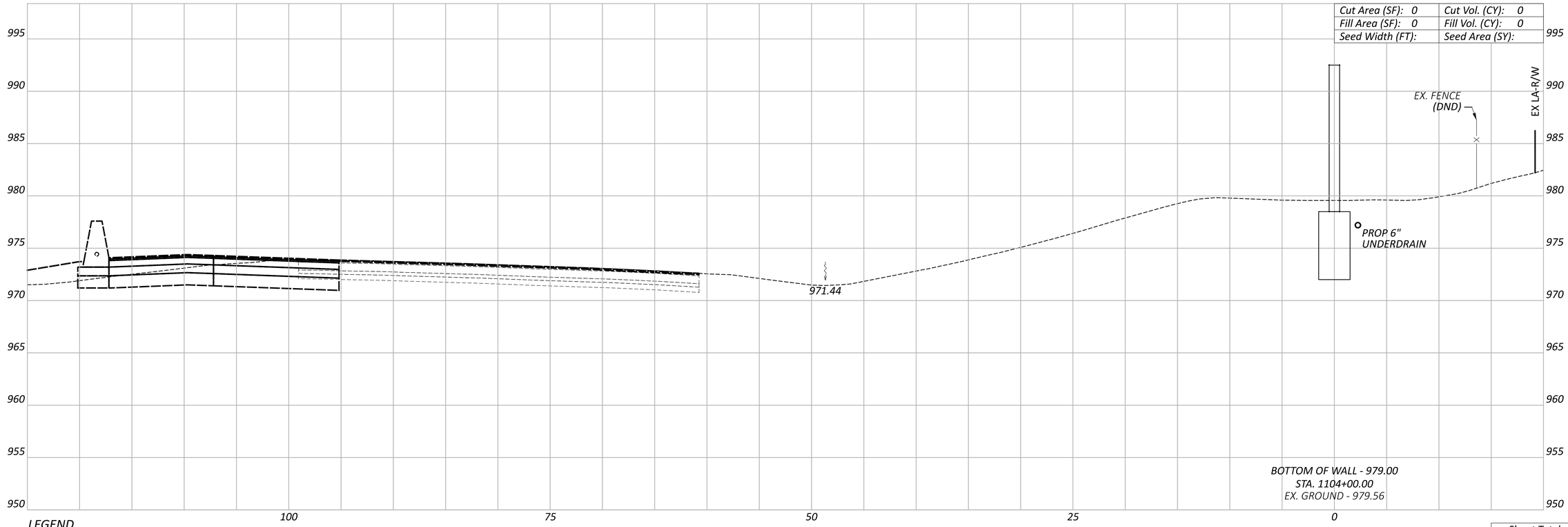
PROJECT ID 117607

SHEET P.141 TOTAL P.276





LEGEND

——— EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 11
STA. 1104+00.00 TO STA. 1104+50.00

Sheet Totals		
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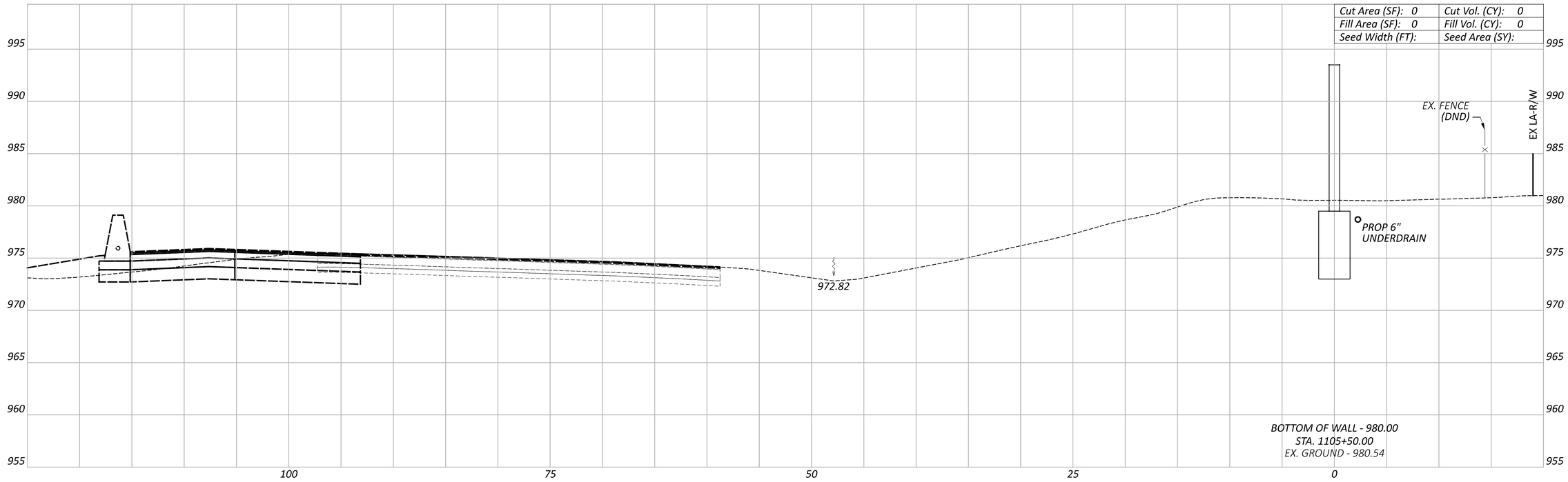

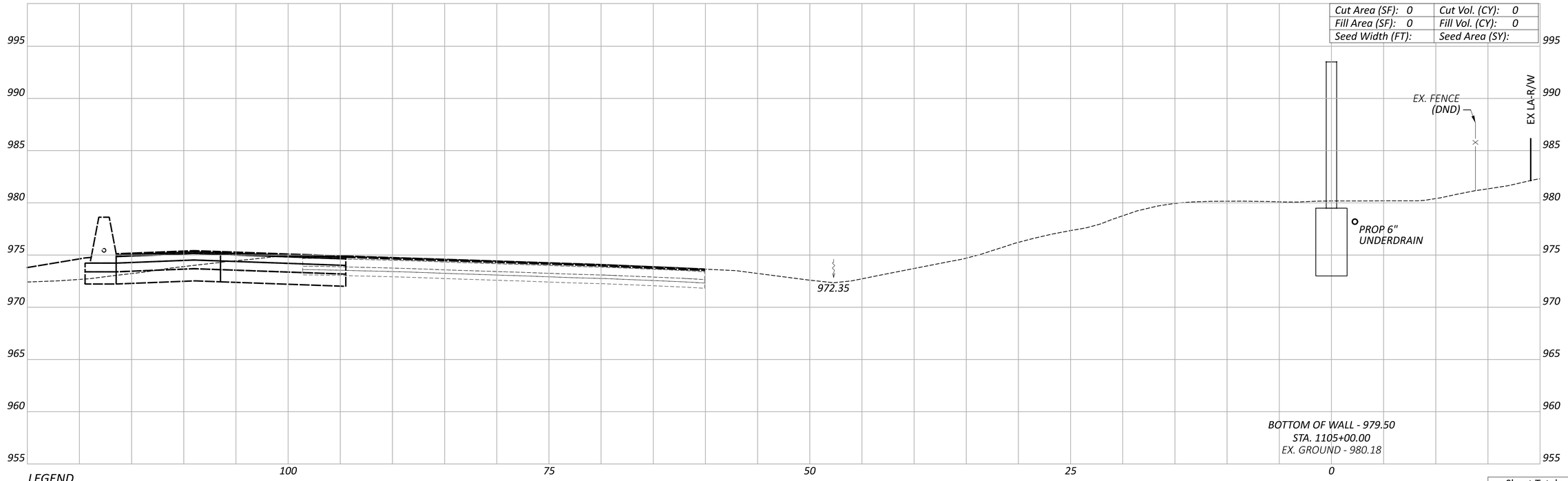

CROSS SECTIONS - WALL 11
STA. 1105+00.00 TO STA. 1105+50.00

FRA-161-15.80 NOISE WALLS

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LEGEND

——— *EXISTING SR-161 PRIOR TO PID 116322*

——— *FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322*

Sheet Totals		
Seeding	Cut	Fill

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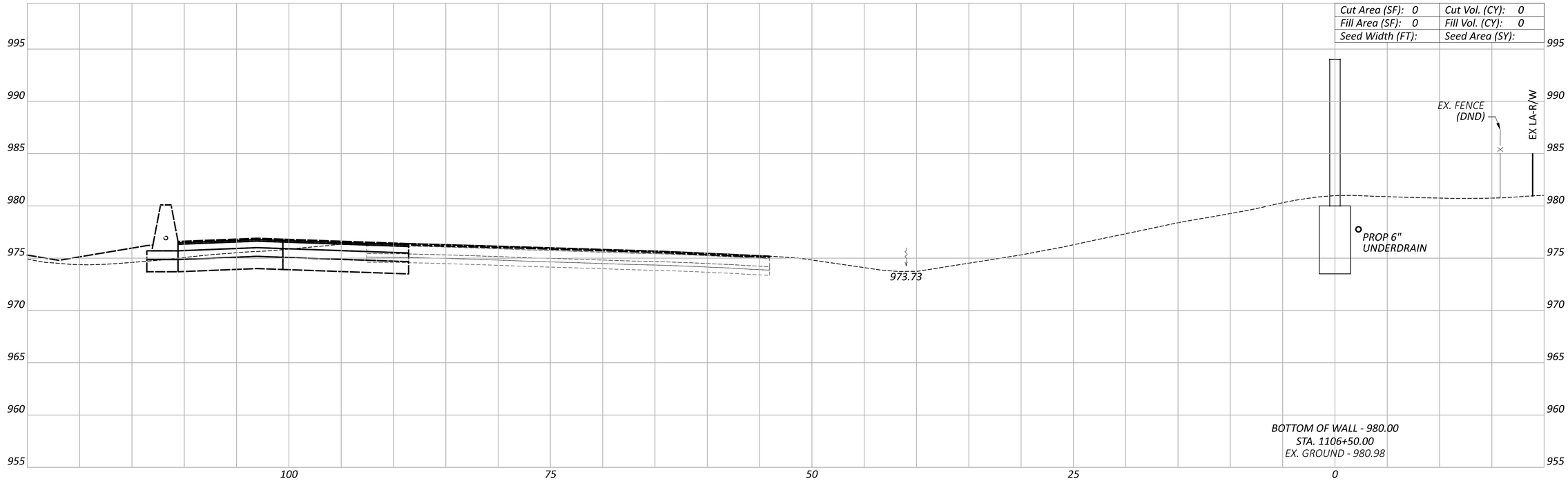
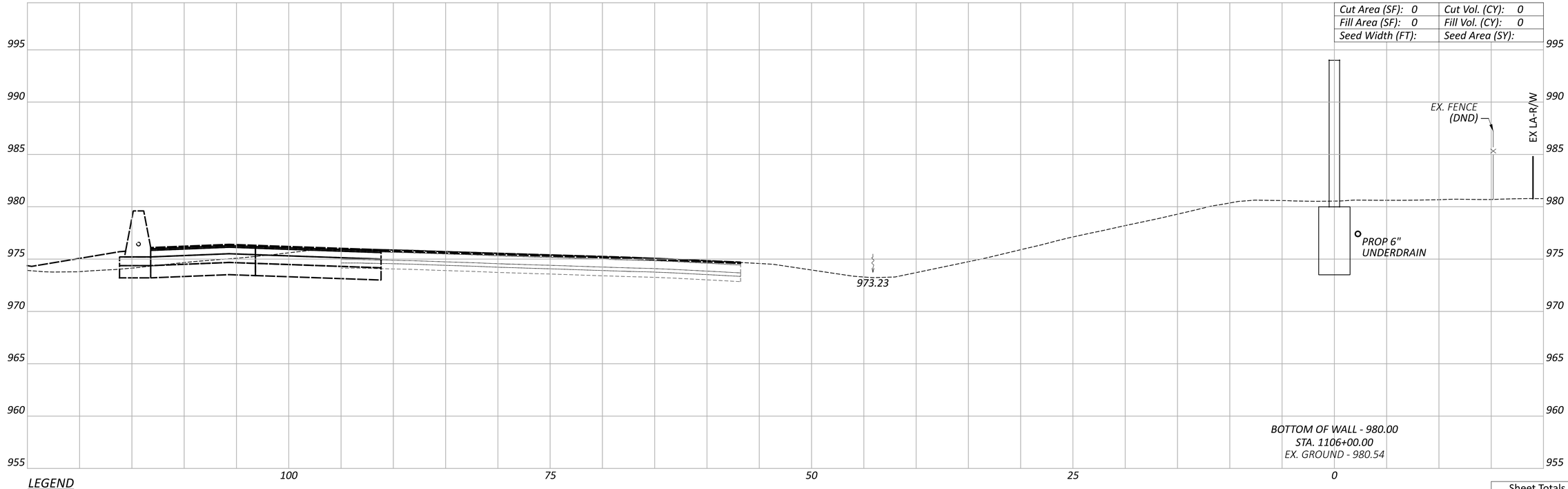
SHEET	TOTAL
P.143	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 11
STA. 1106+00.00 TO STA. 1106+50.00

Sheet Totals		
Seeding	Cut	Fill

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SHEET P.144 TOTAL P.276

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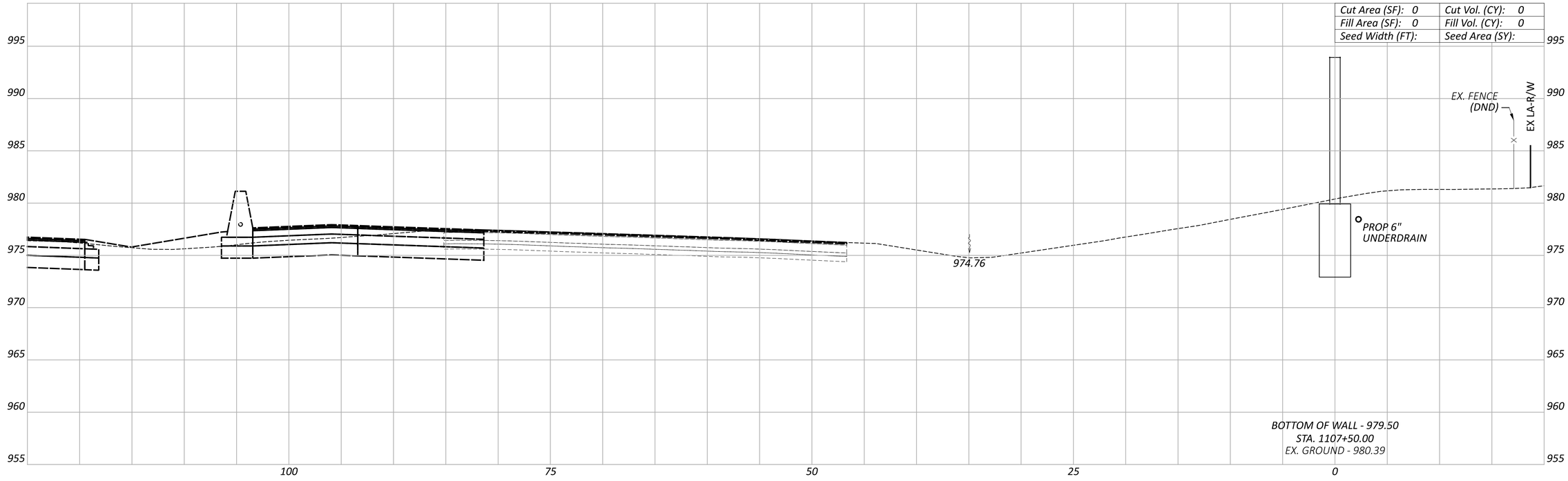

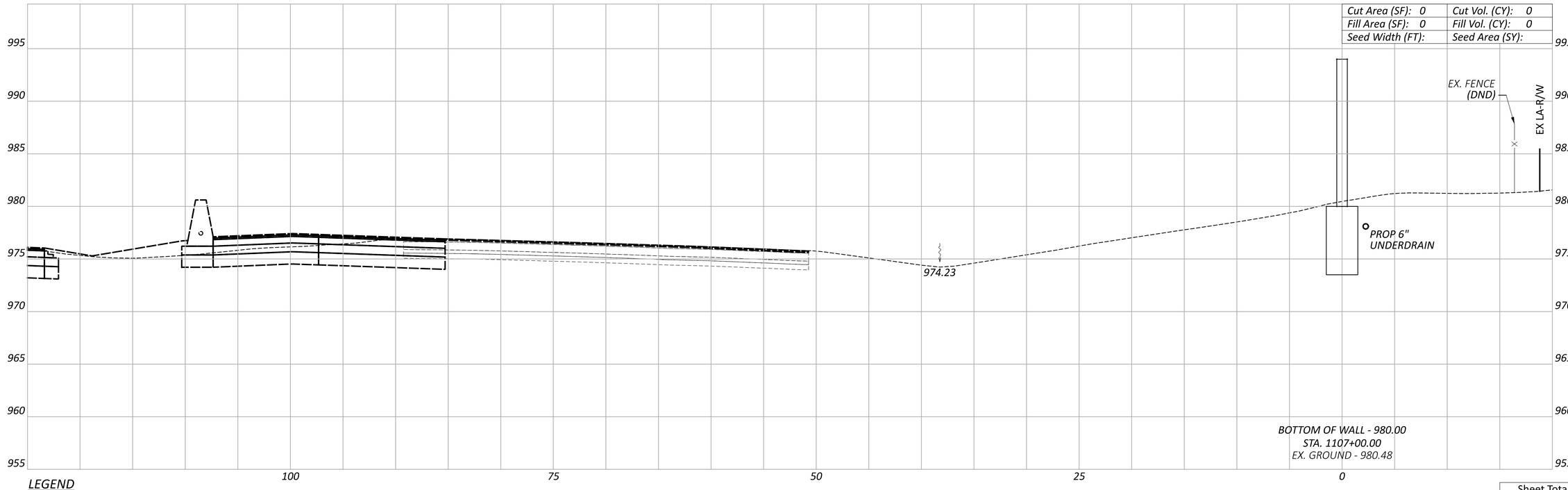

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 11
STA. 1107+00.00 TO STA. 1107+50.00

FRA-161-15.80 NOISE WALLS

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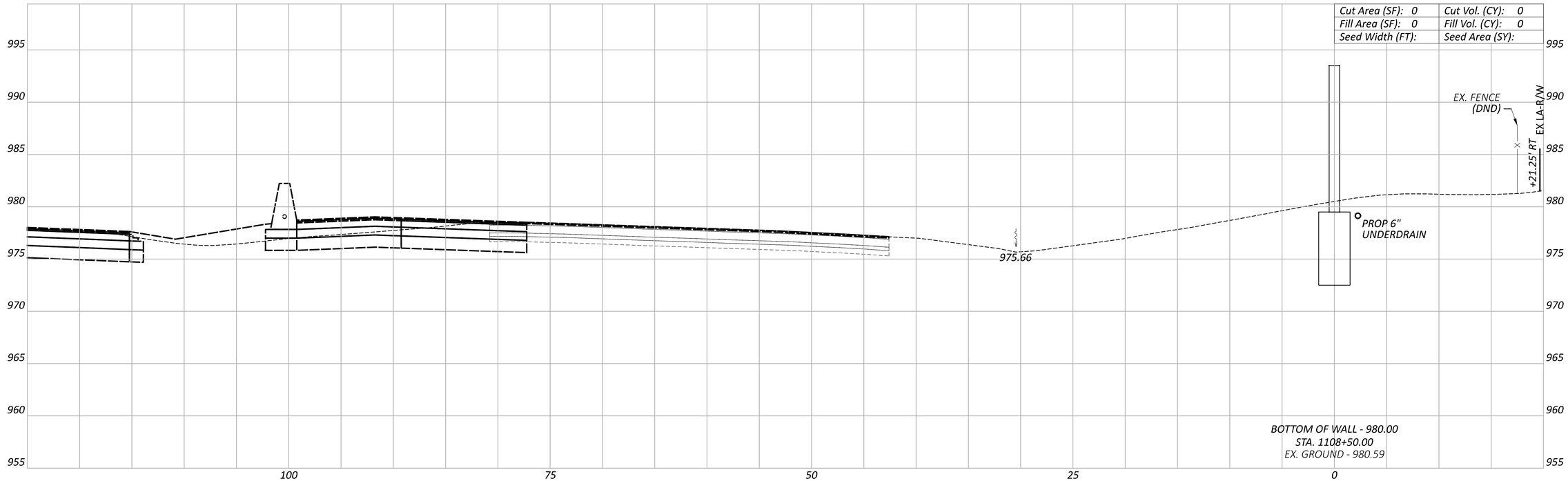
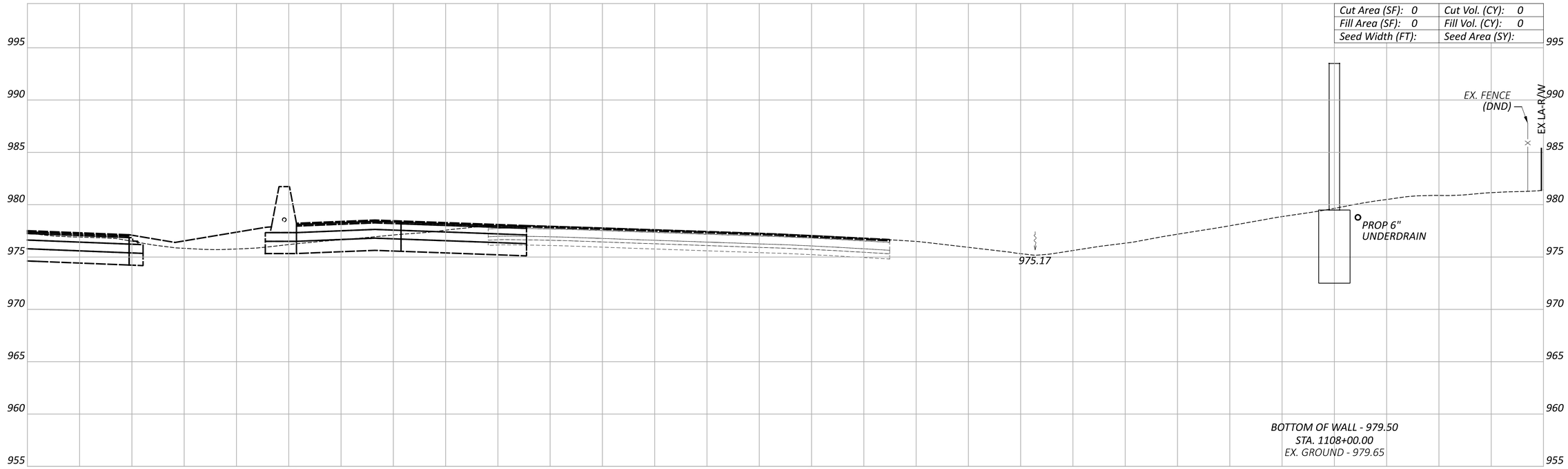
SHEET	TOTAL
P.145	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 11
STA. 1108+00.00 TO STA. 1108+50.00

FRA-161-15.80 NOISE WALLS

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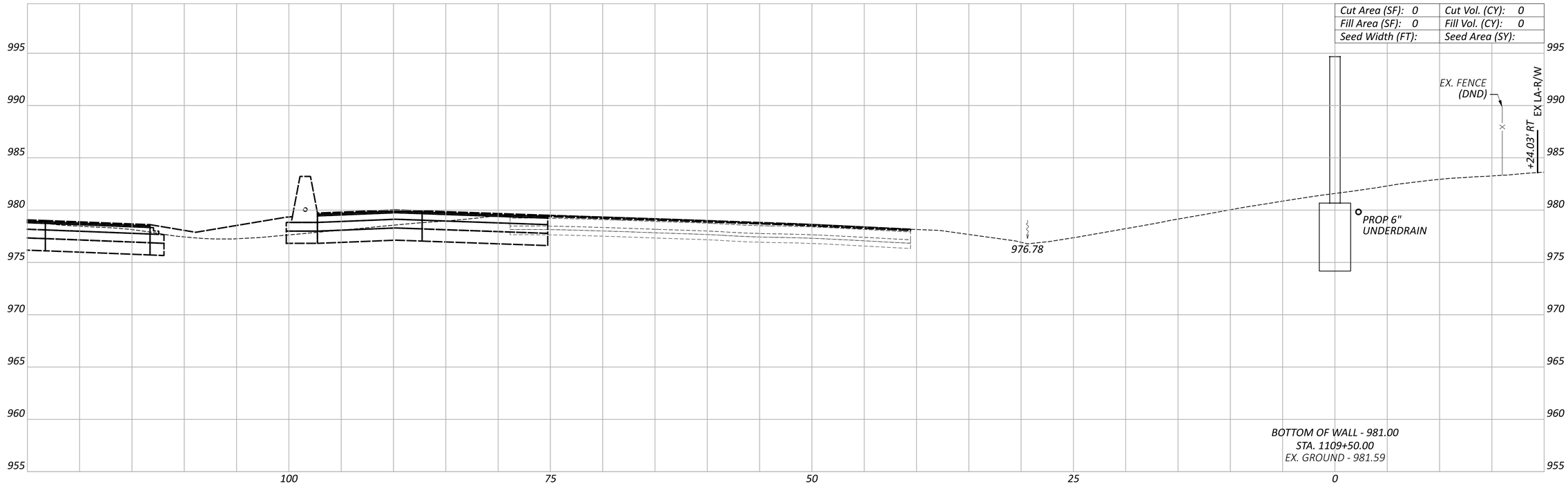
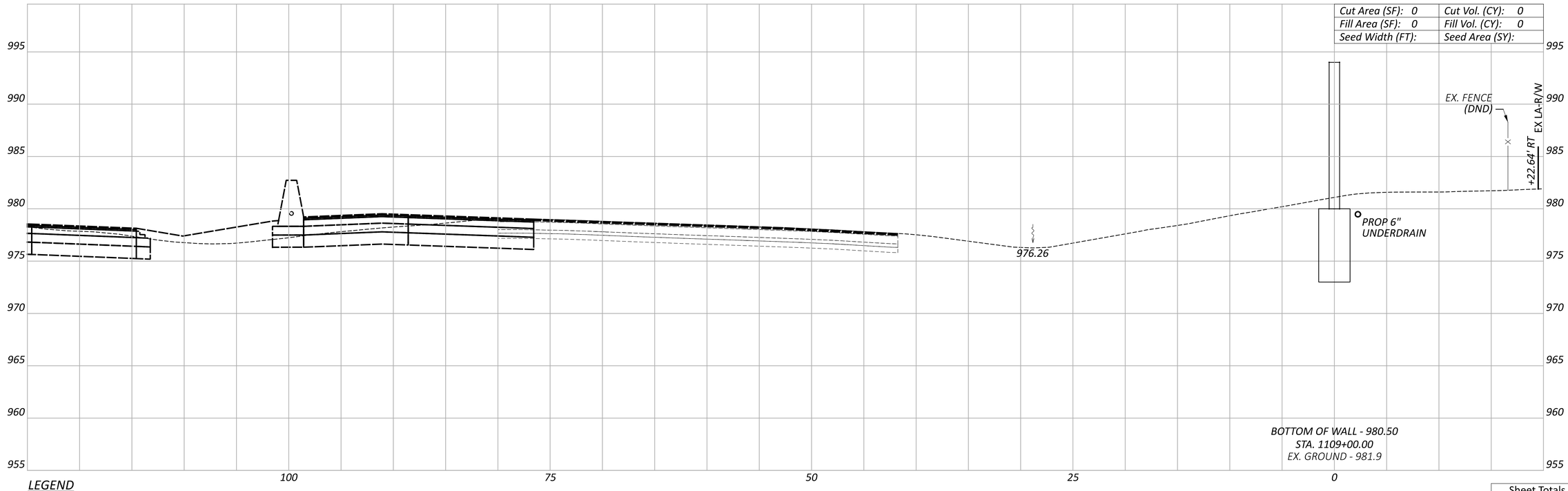
SHEET	TOTAL
P.146	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 11
STA. 1109+00.00 TO STA. 1109+50.00

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SHEET P.147 TOTAL P.276

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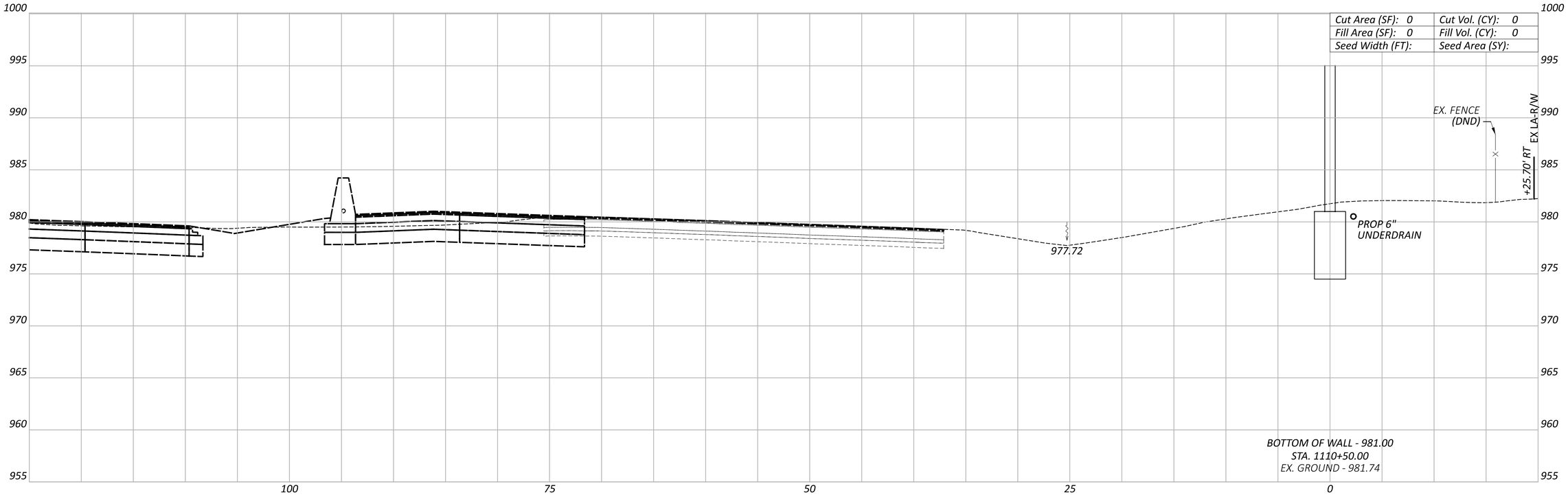

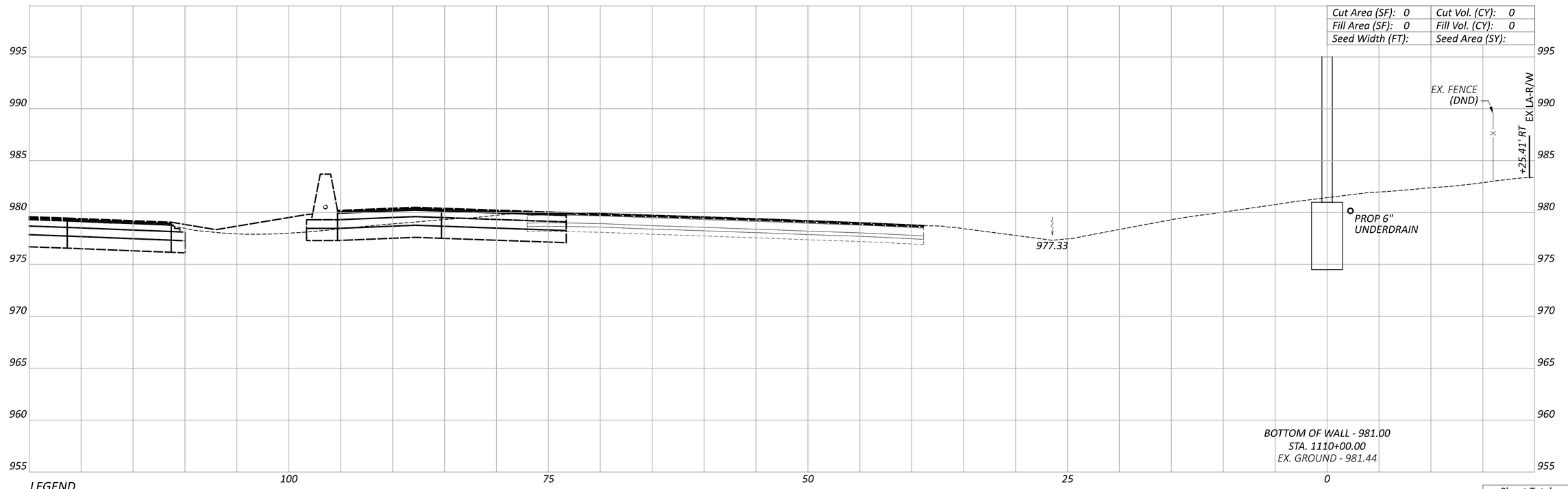

LEGEND

——— EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

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CROSS SECTIONS - WALL 11
STA. 1110+00.00 TO STA. 1110+50.00

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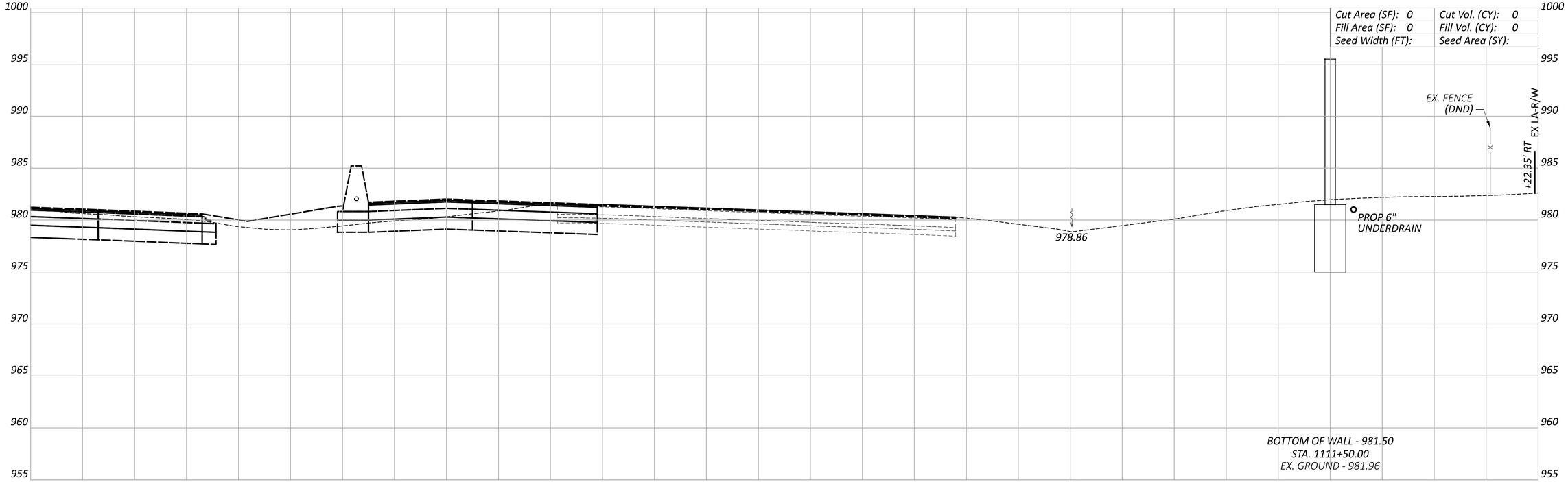
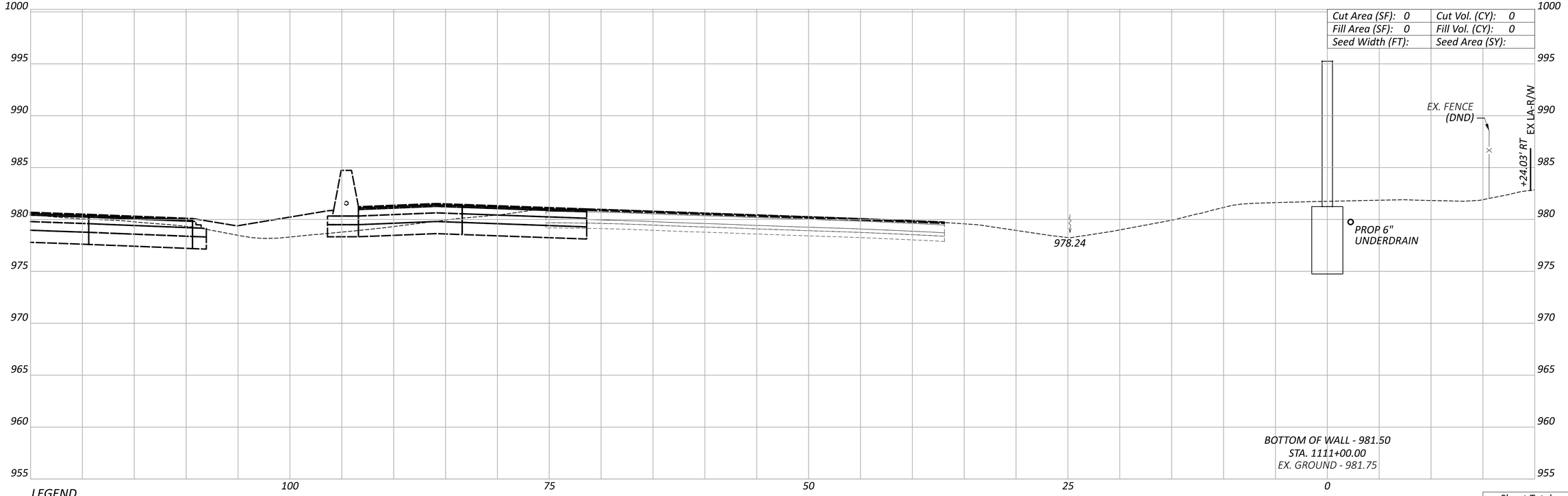
SHEET	TOTAL
P.148	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 11
STA. 1111+00.00 TO STA. 1111+50.00

FRA-161-15.80 NOISE WALLS

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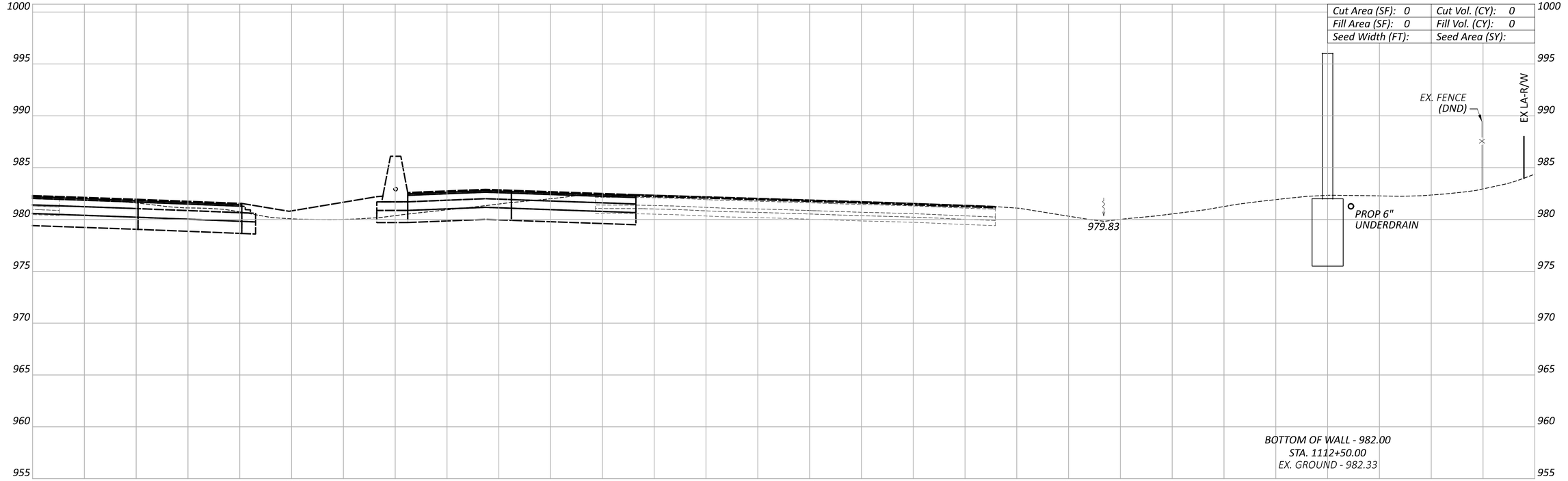
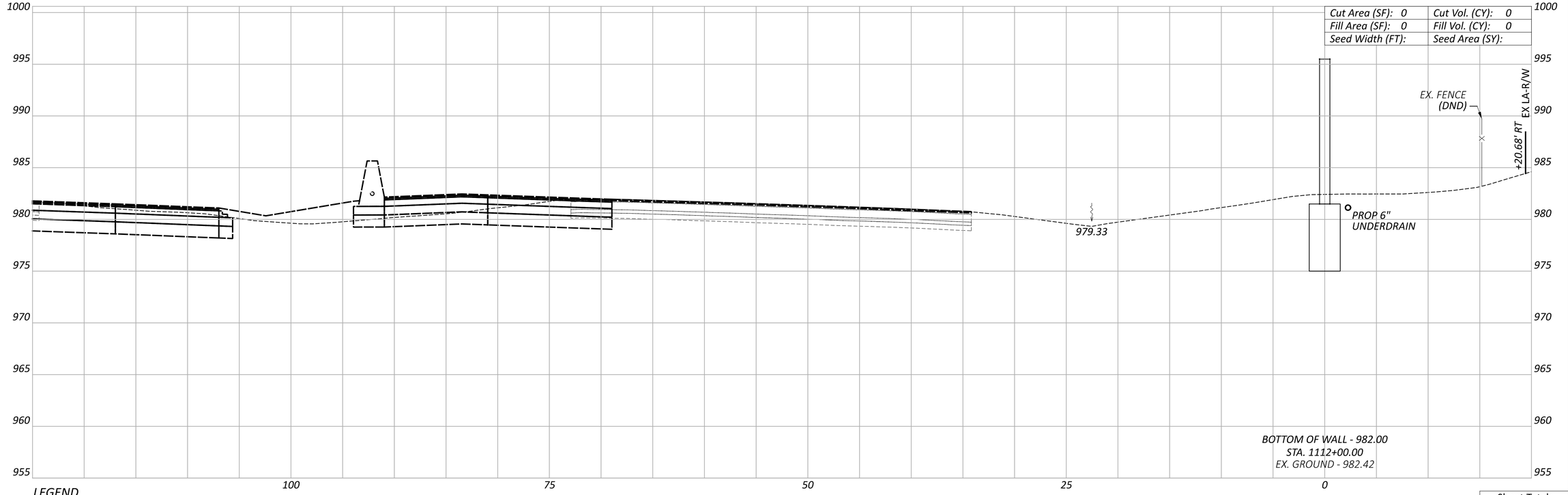
SHEET	TOTAL
P.149	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 11
STA. 1112+00.00 TO STA. 1112+50.00

FRA-161-15.80 NOISE WALLS

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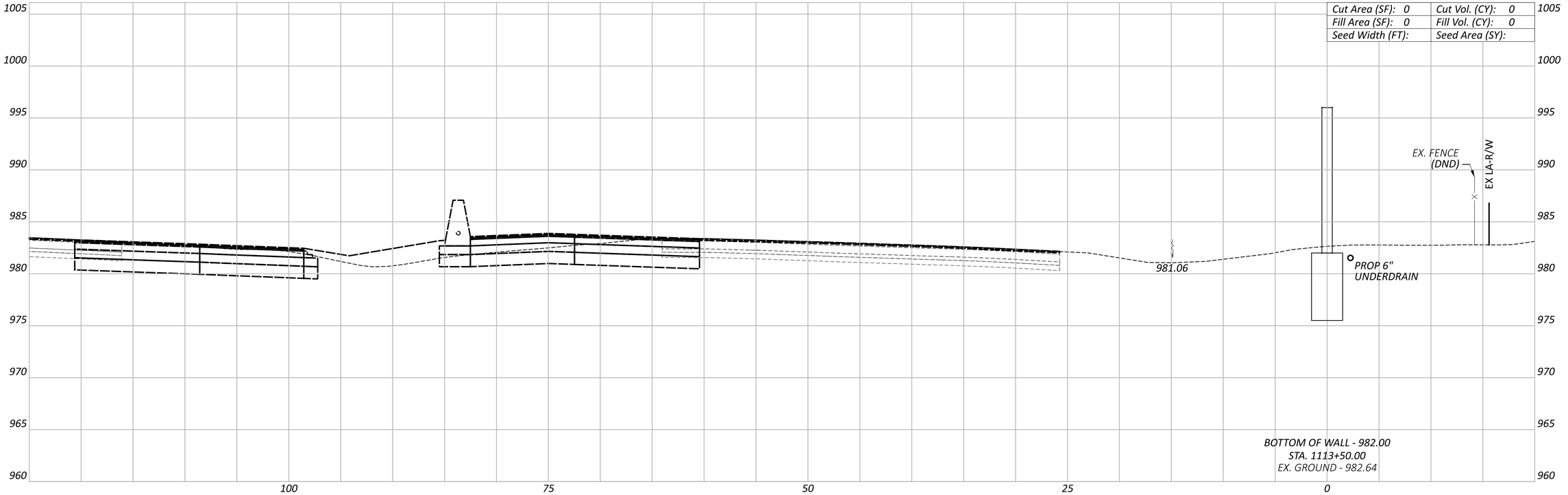
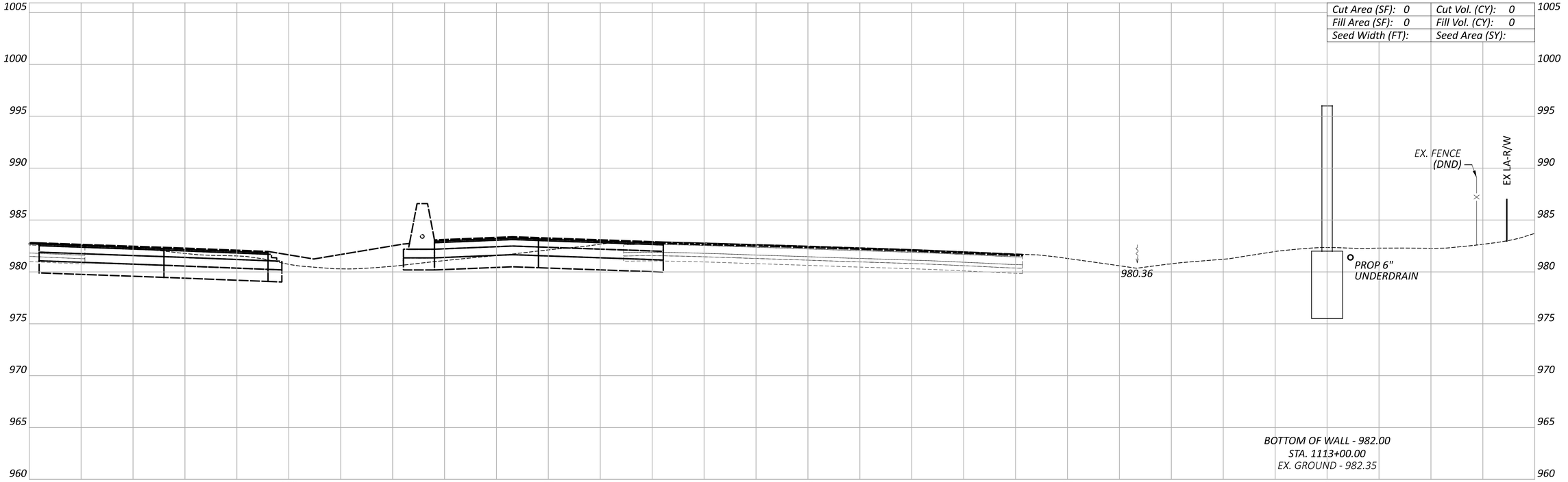
SHEET	TOTAL
P.150	P.276





LEGEND

——— EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 11
STA. 1113+00.00 TO STA. 1113+50.00

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SHEET	TOTAL
P.151	P.276

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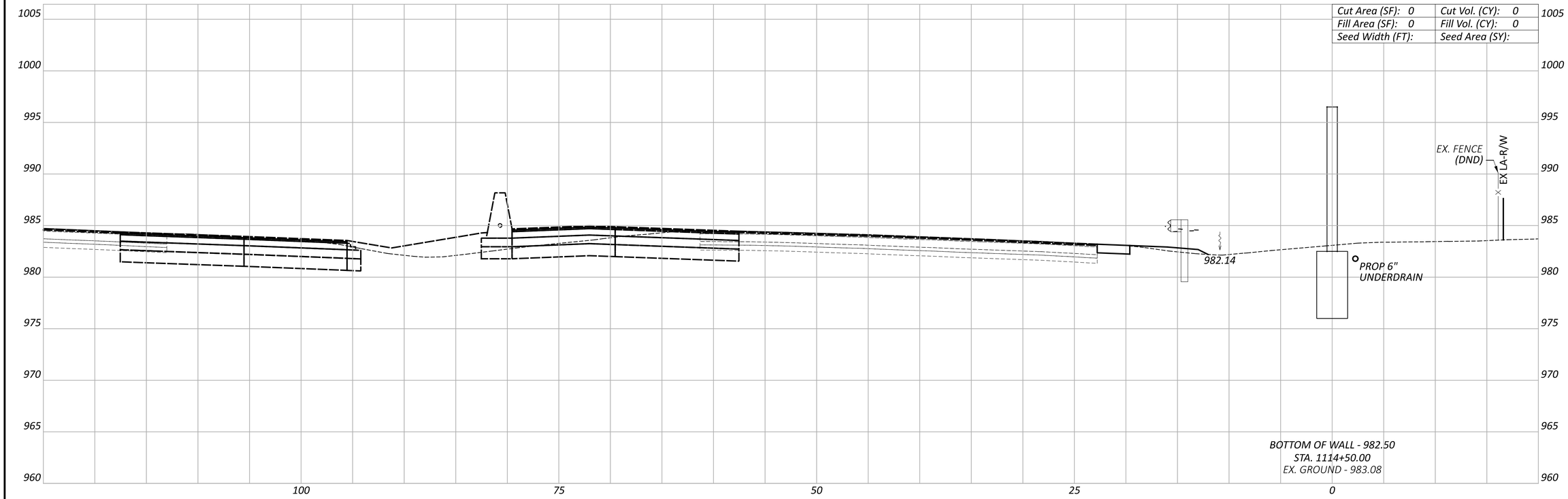

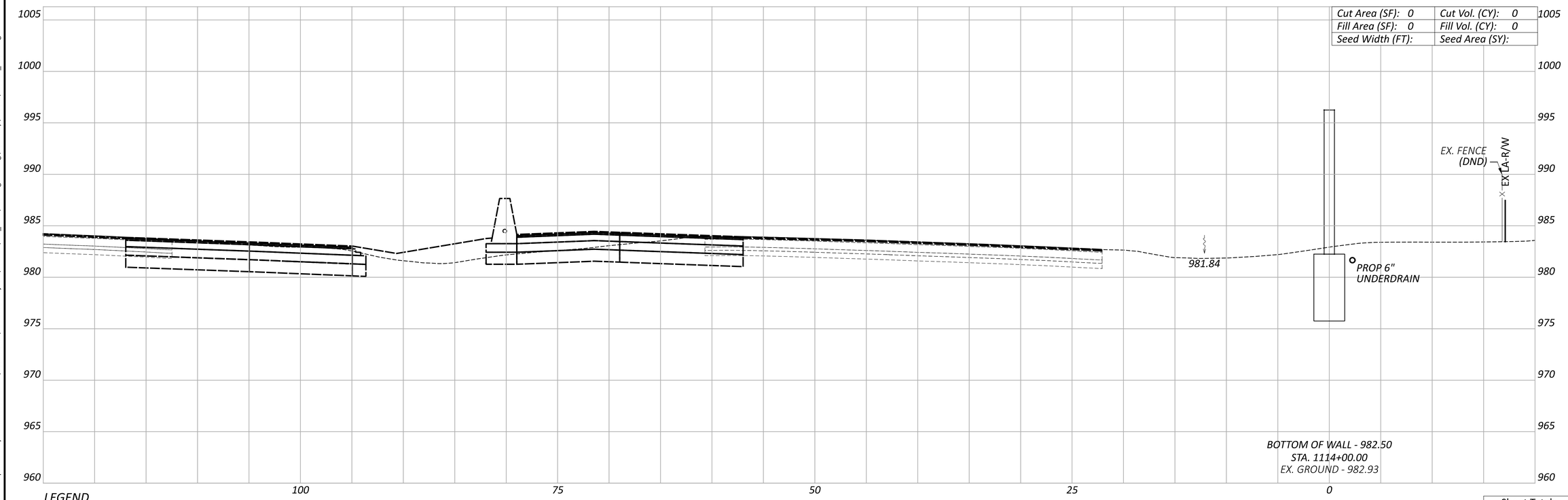

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

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CROSS SECTIONS - WALL 11
STA. 1114+00.00 TO STA. 1114+50.00

Sheet Totals		
Seeding	Cut	Fill

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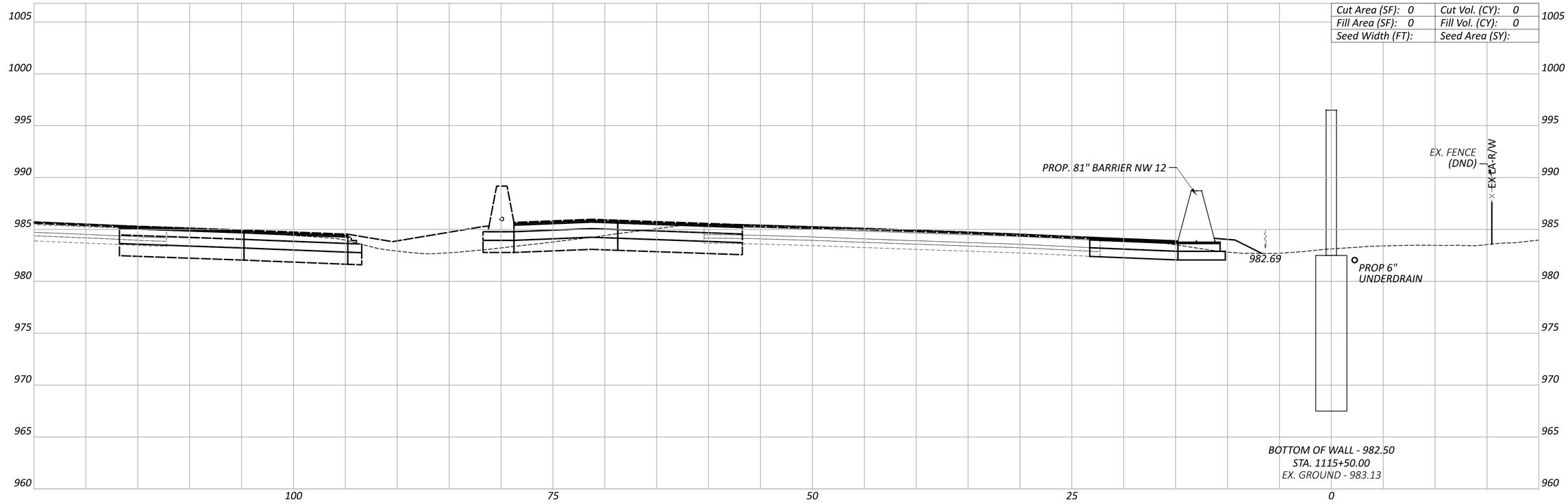
SHEET P.152 TOTAL P.276



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 11
STA. 1115+00.00 TO STA. 1115+50.00

MODEL: 1115+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:59:42 AM USER: JPerchinske
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SHEET	TOTAL
P.153	P.276

CROSS SECTIONS - WALL 11
STA. 1115+84.00

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Fill Area (SF): 0	Fill Vol. (CY): 0
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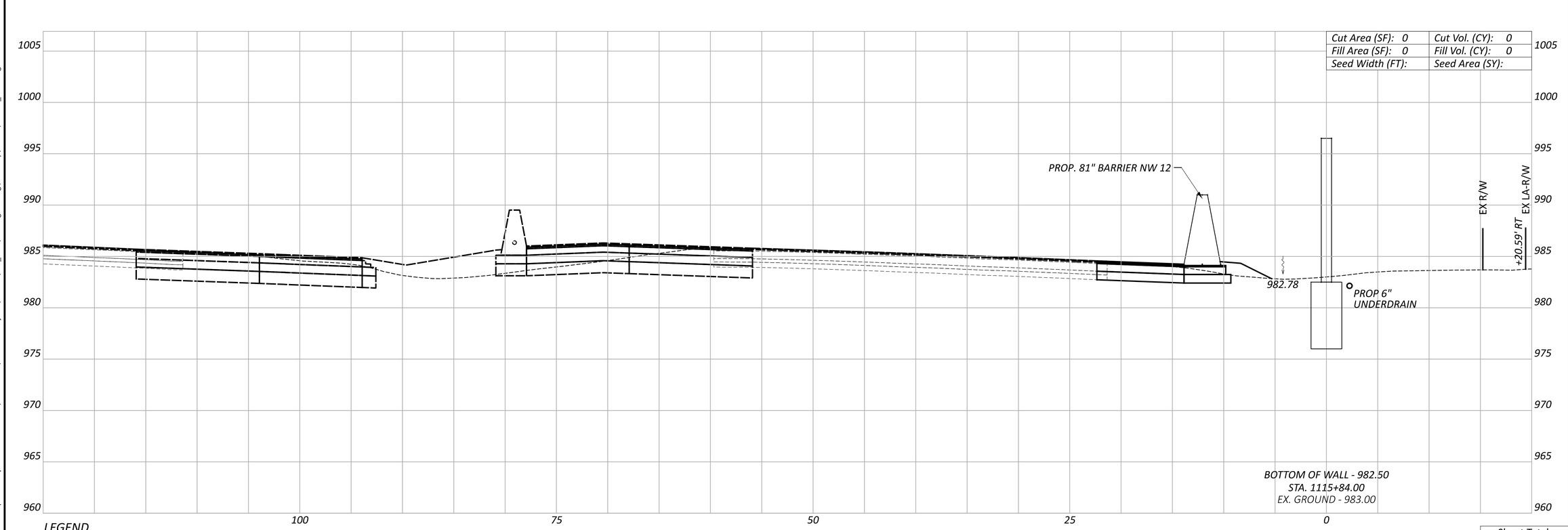

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

MODEL: 1115+84.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 11:59:51 AM USER: JPerchinske
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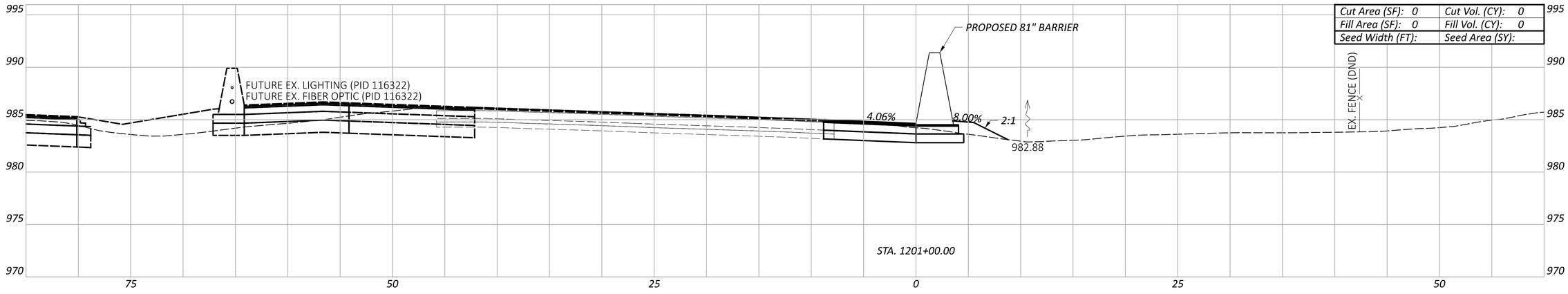
SHEET: P.154 TOTAL: P.276



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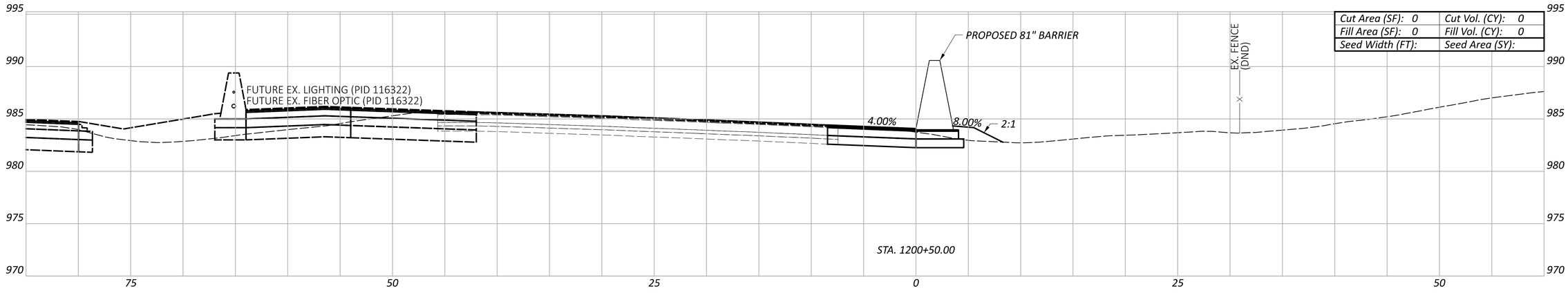
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



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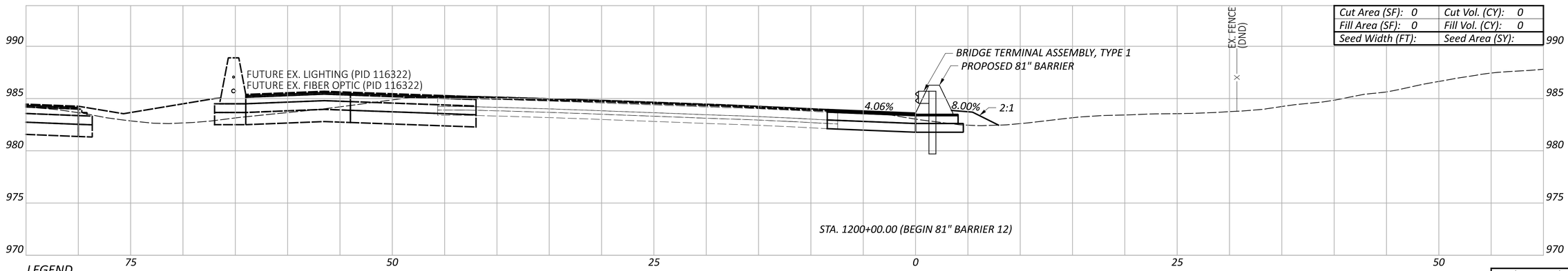

Cut Area (SF): 0	Cut Vol. (CY): 0
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

—·— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 12
STA. 1200+00.00 TO STA. 1201+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER12 - 1200+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:40:55 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS012A.dgn

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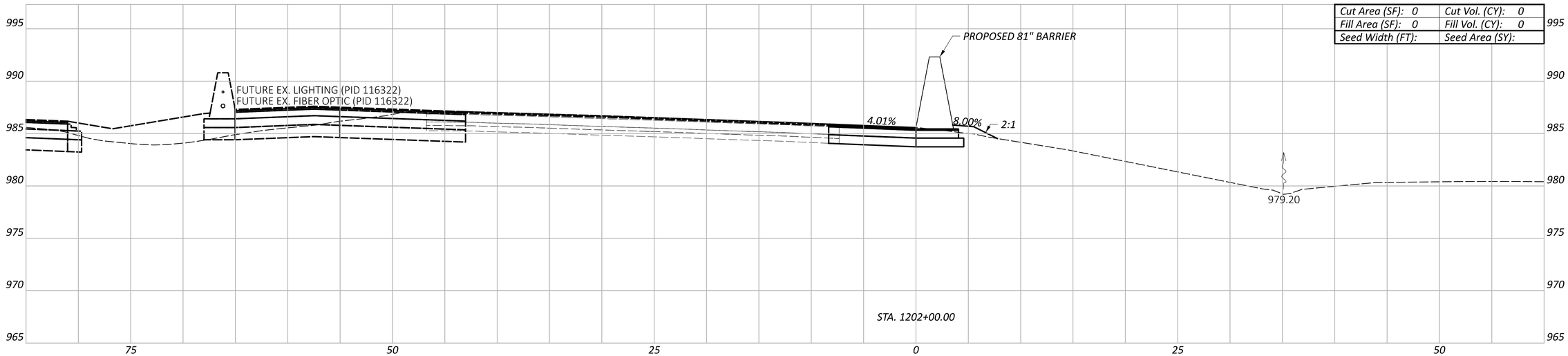
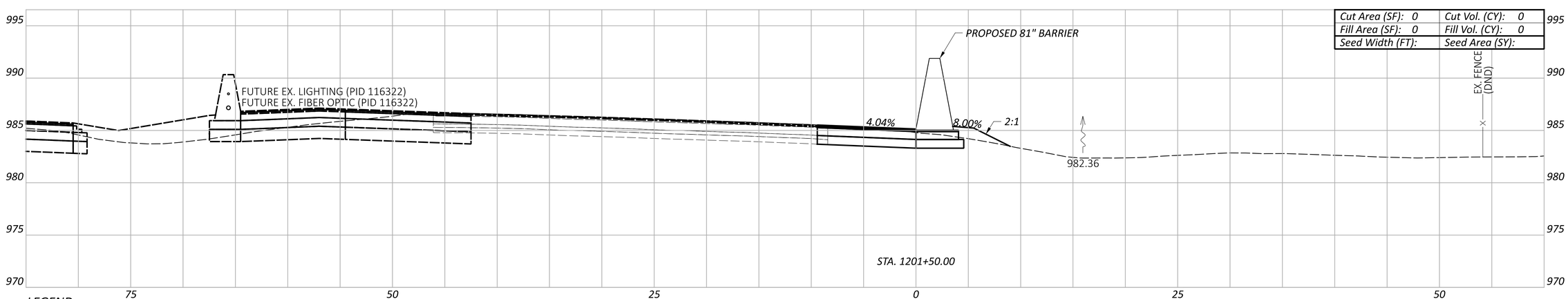
DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 12
STA. 1201+50.00 TO STA. 1202+00.00

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REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.156 TOTAL P.276

MODEL: BLP_BARRIER12 - 1201+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:41:44 PM USER: Jennifer.kelley
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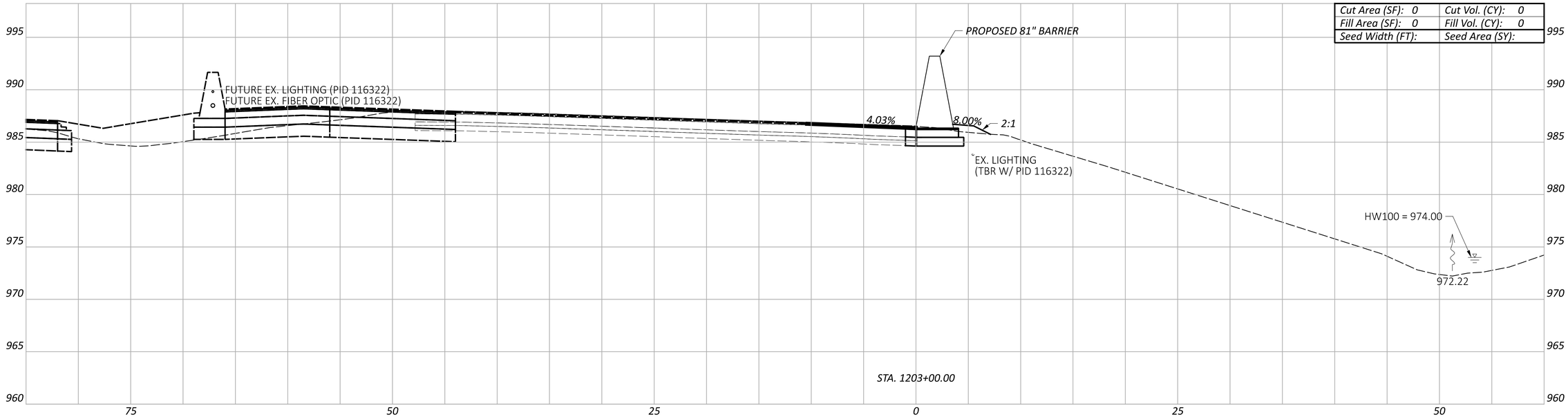

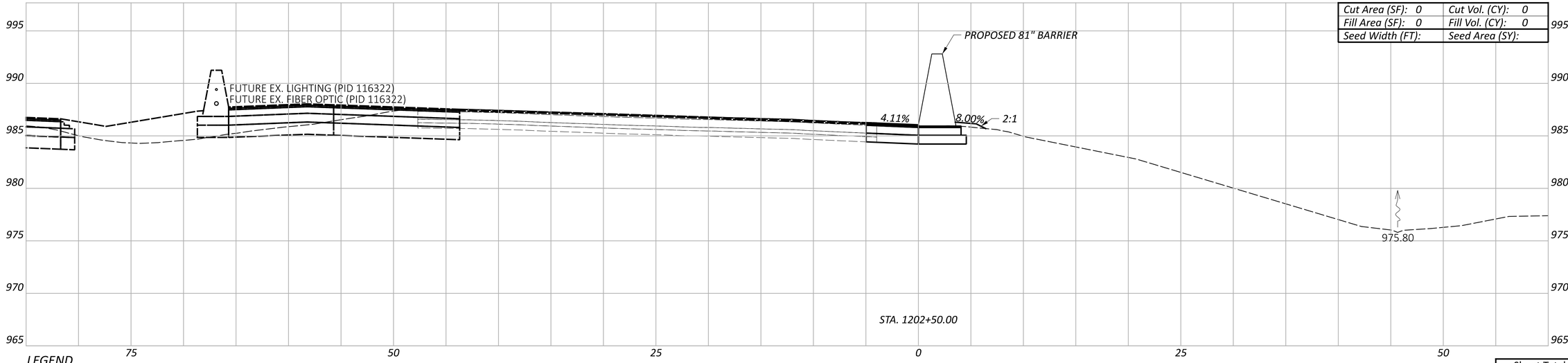

LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - 81" BARRIER 12
STA. 1202+50.00 TO STA. 1203+00.00

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REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.157 TOTAL: P.276

MODEL: BLP_BARRIER12 - 1202+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:42:09 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS012A.dgn

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Fill Area (SF): 0	Fill Vol. (CY): 0
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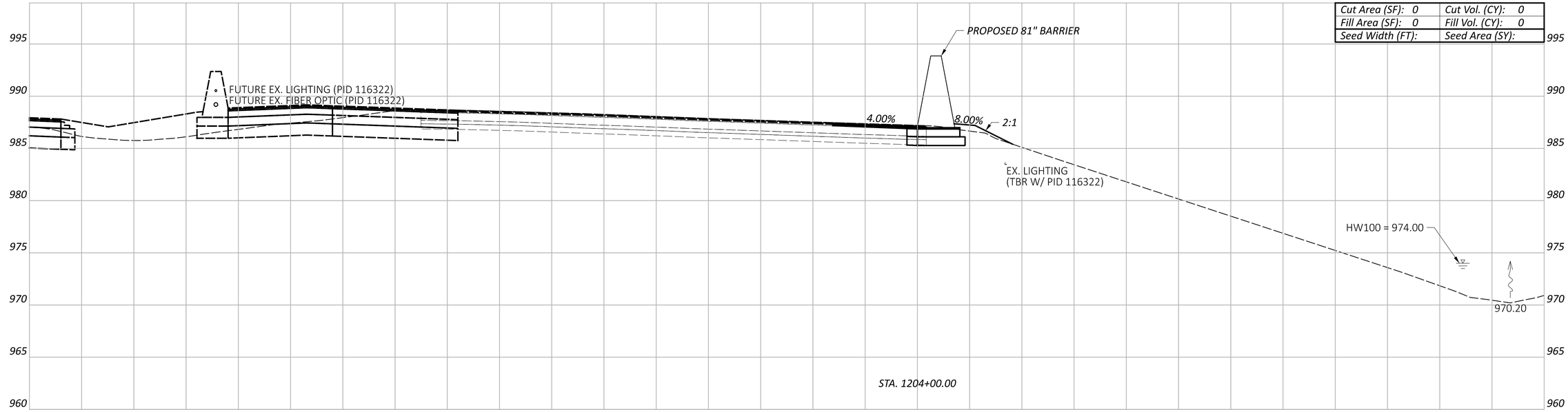

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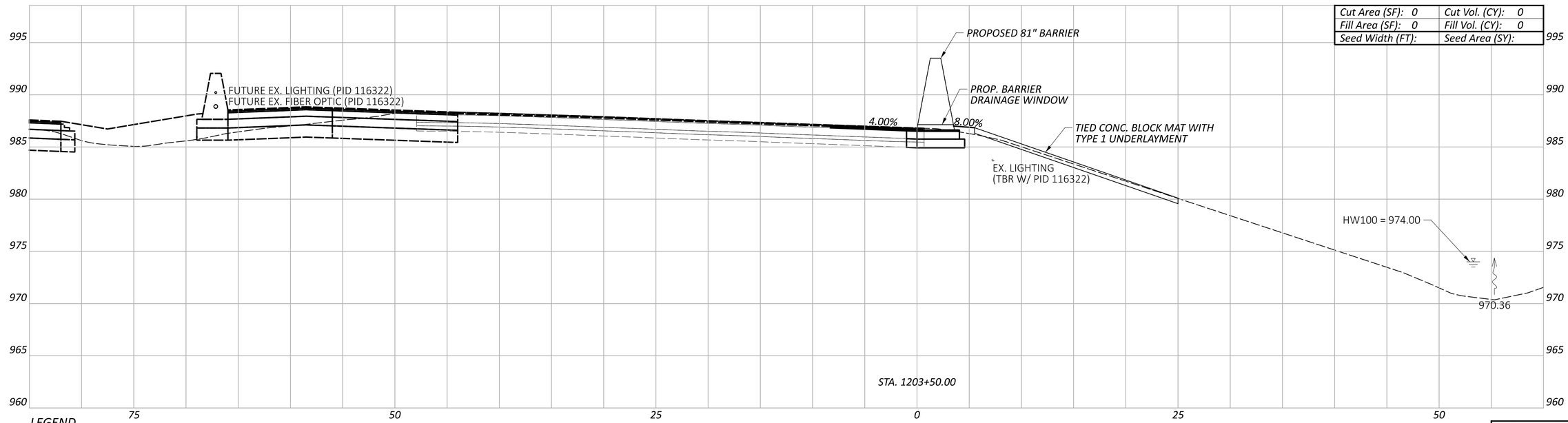
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 12
STA. 1203+50.00 TO STA. 1204+00.00

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REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.158 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER12 - 1203+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:42:34 PM USER: jennifer.kelley
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Fill Area (SF): 0	Fill Vol. (CY): 0
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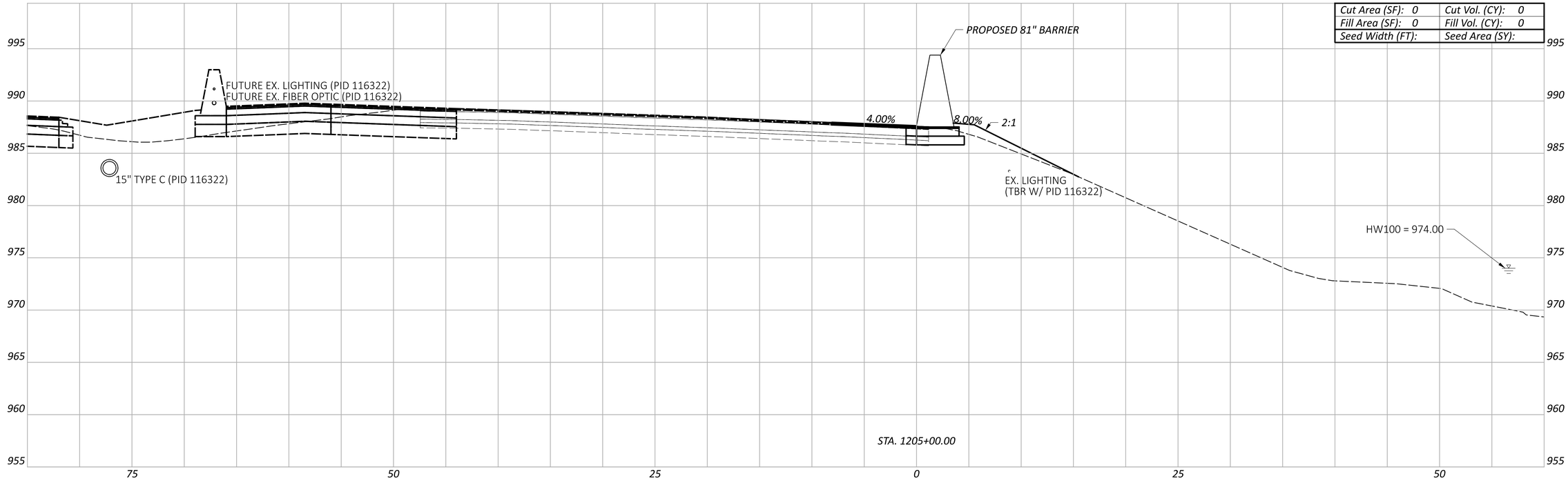

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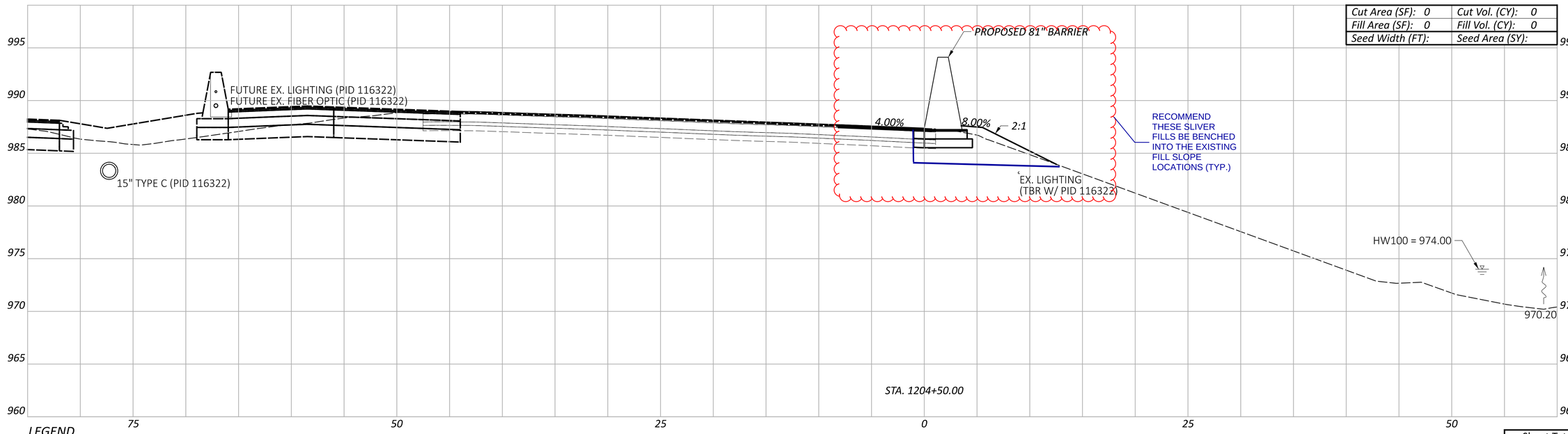

LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - 81" BARRIER 12
STA. 1204+50.00 TO STA. 1205+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER12 - 1204+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:42:53 PM USER: jennifer.kelley
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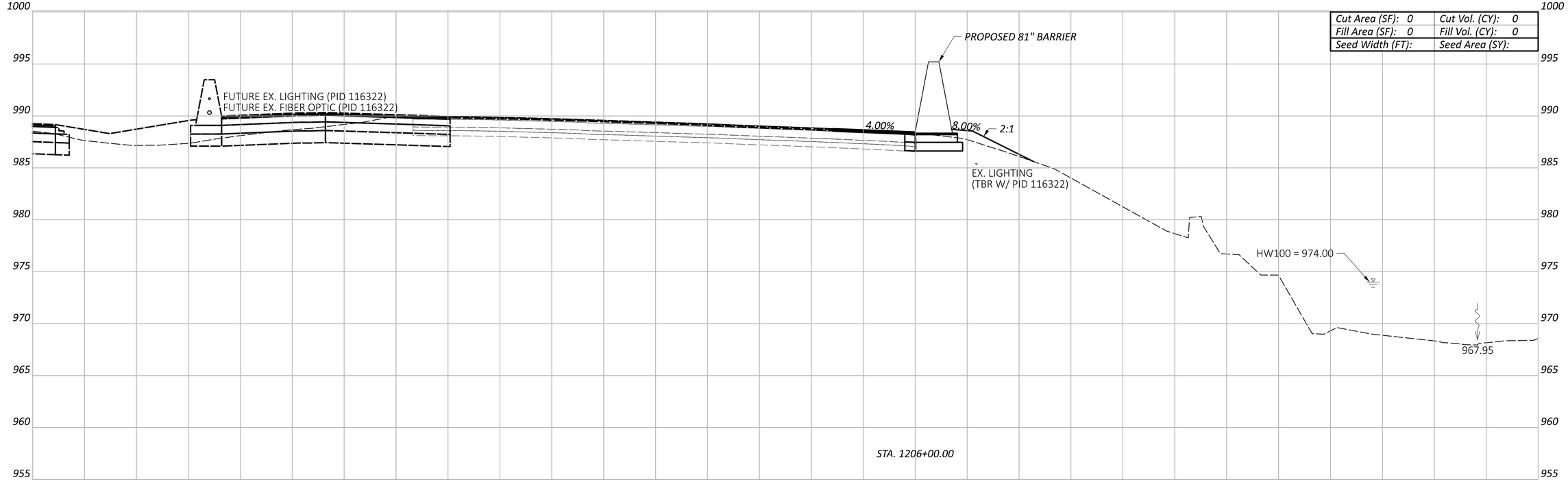
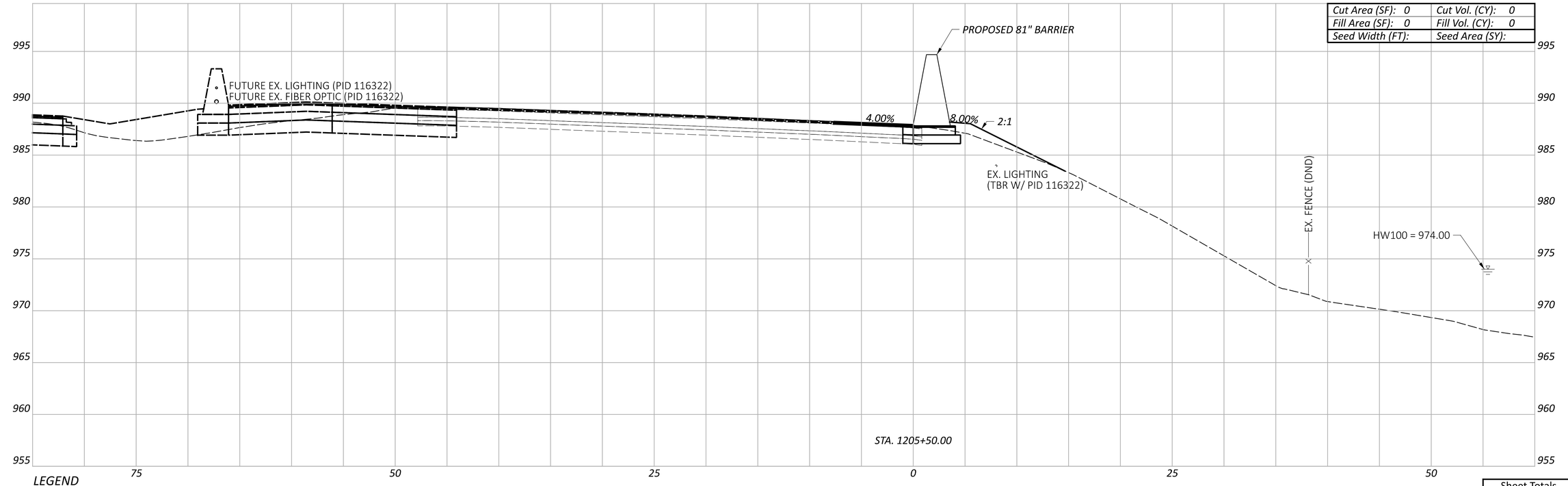
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.159 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 12
STA. 1205+50.00 TO STA. 1206+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER12 - 1205+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:43:12 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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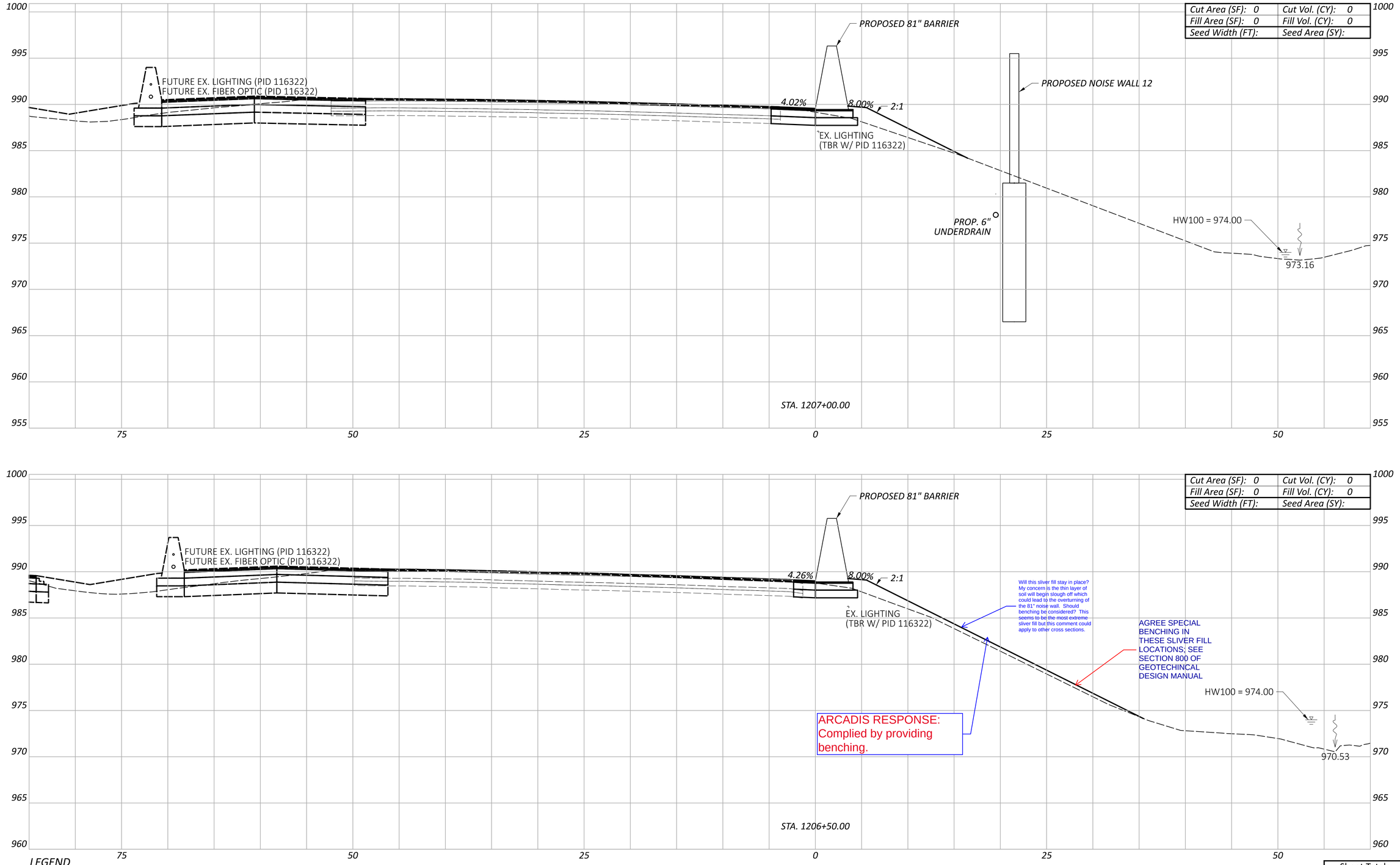
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.160 TOTAL P.276



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 12
STA. 1206+50.00 TO STA. 1207+00.00

Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID: 117607

SHEET: P.161 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER12 - 1206+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:43:30 PM USER: jennifer.kelley
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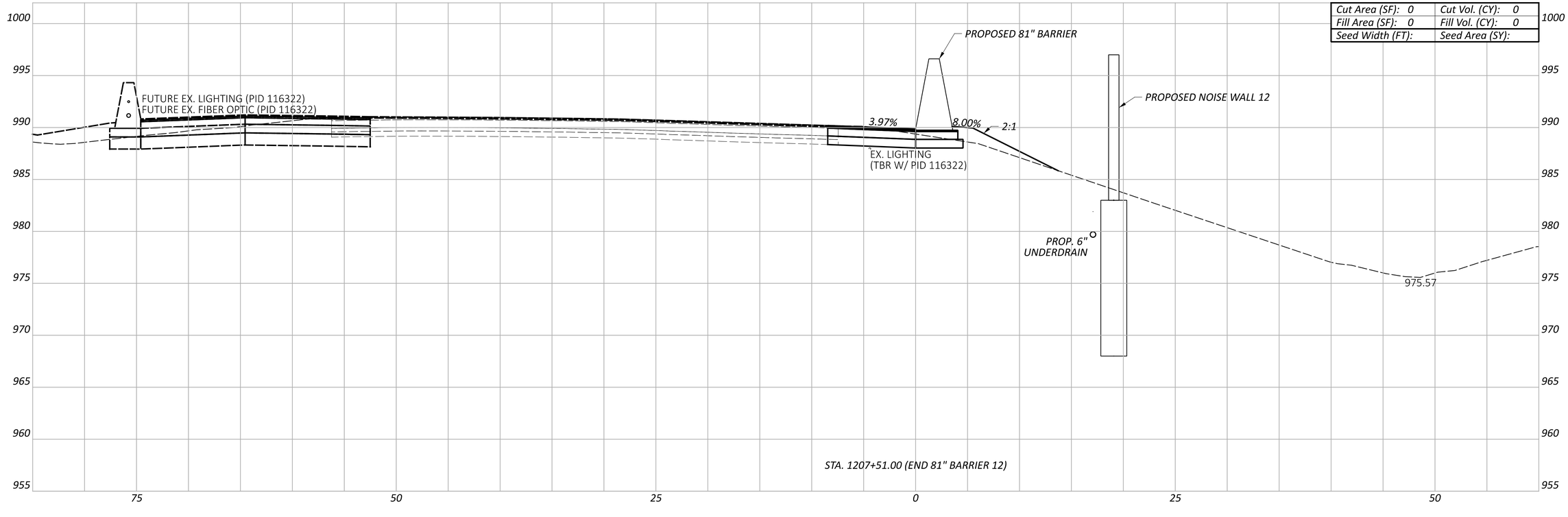

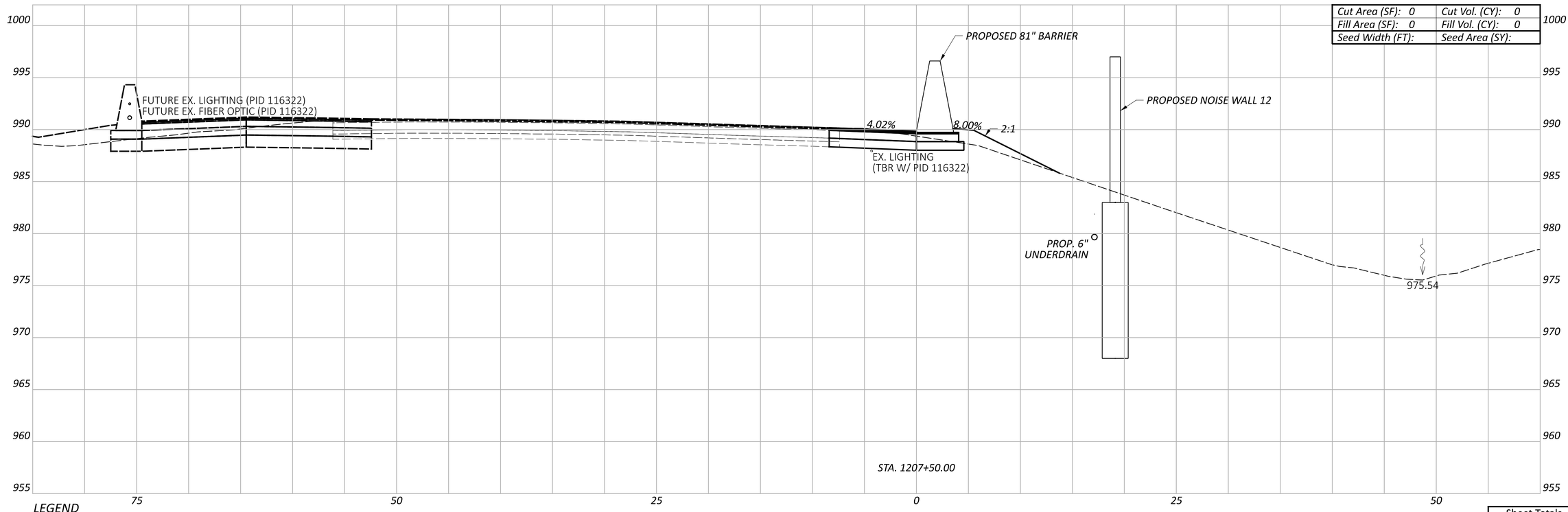

LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - 81" BARRIER 12
STA. 1207+50.00 TO STA. 1207+51.00

Sheet Totals		
Seeding	Cut	Fill

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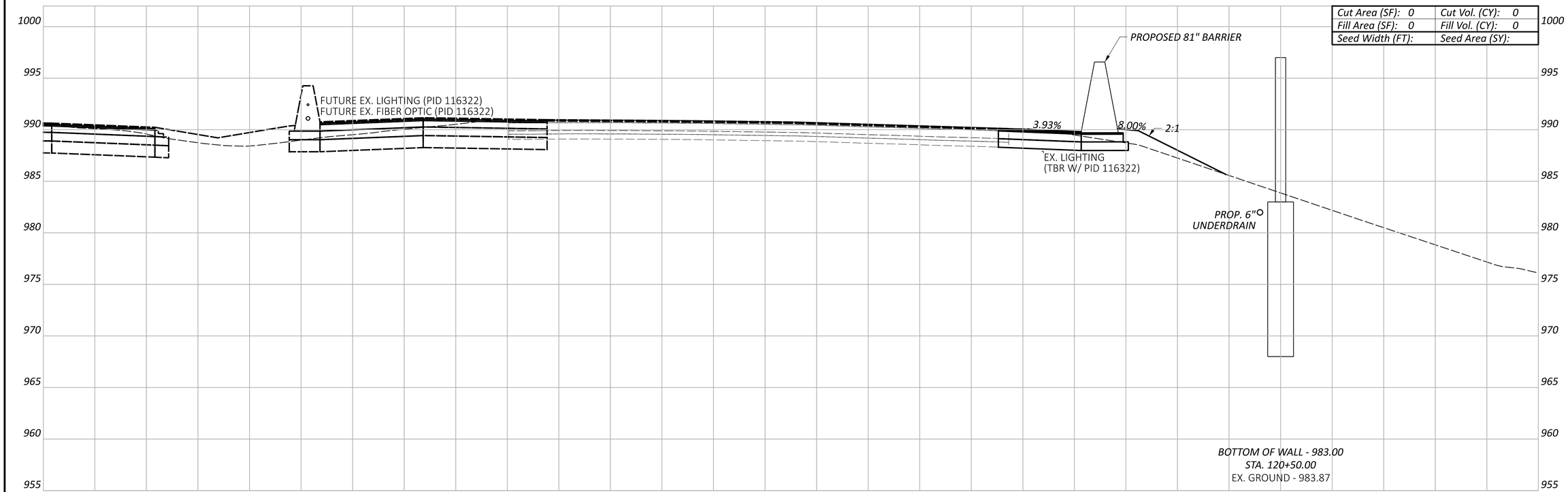
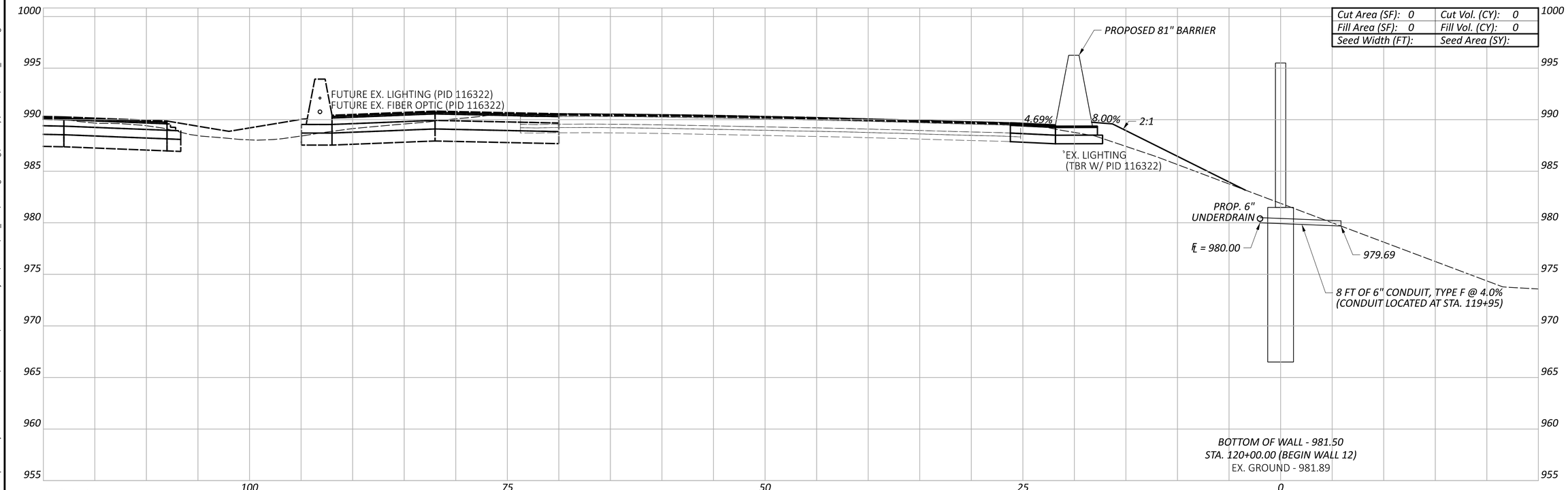
PROJECT ID: 117607

SHEET: P.162 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_BARRIER12 - 1207+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:43:50 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS012A.dgn





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 12
STA. 120+00.00 TO STA. 120+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL13 - 120+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:26:13 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID
117607

SHEET P.163 | TOTAL P.276

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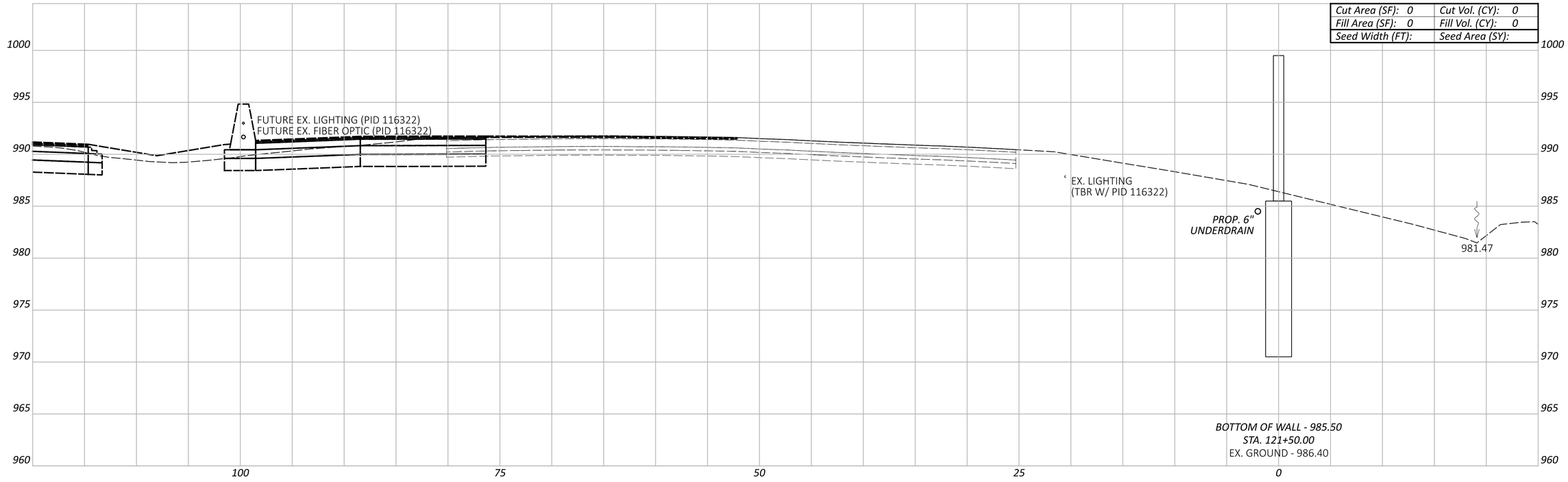
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



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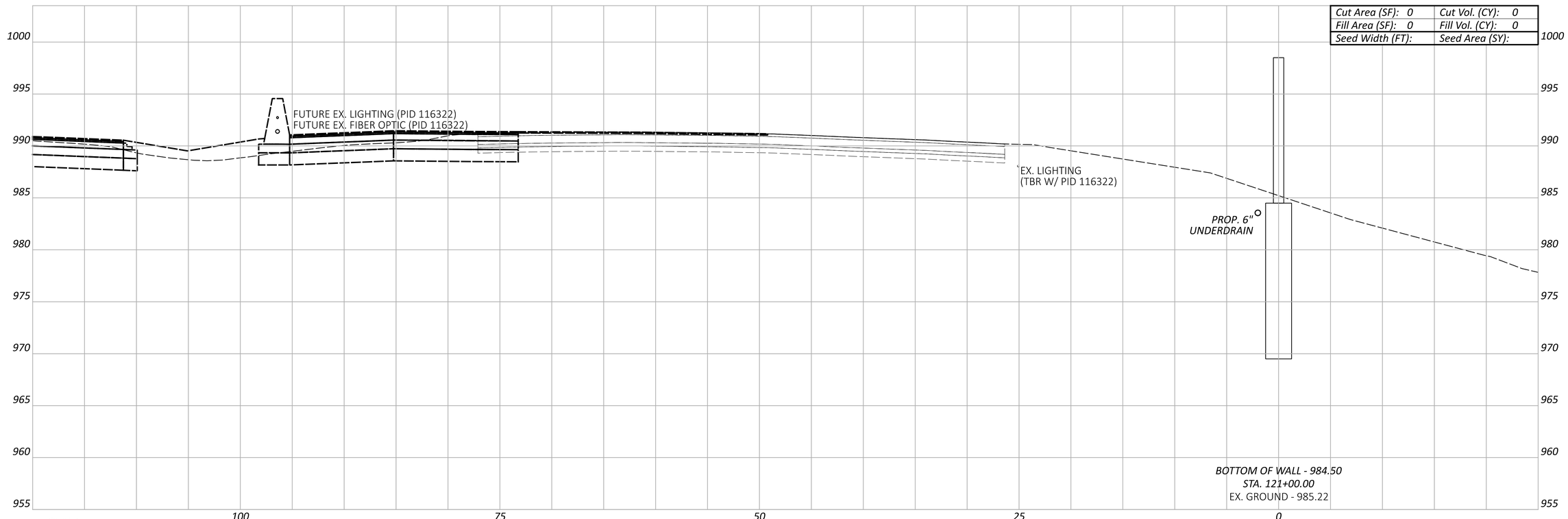
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL13 - 121+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:26:41 PM USER: jennifer.kelley
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CROSS SECTIONS - WALL 12
STA. 121+00.00 TO STA. 121+50.00

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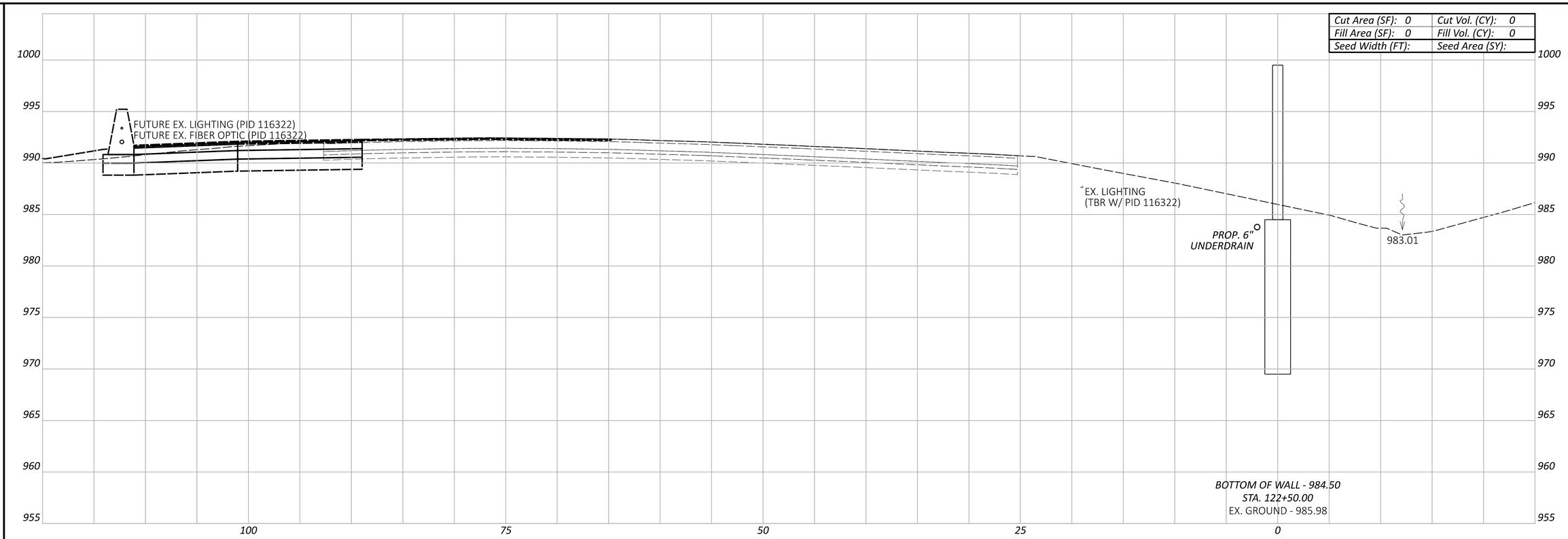
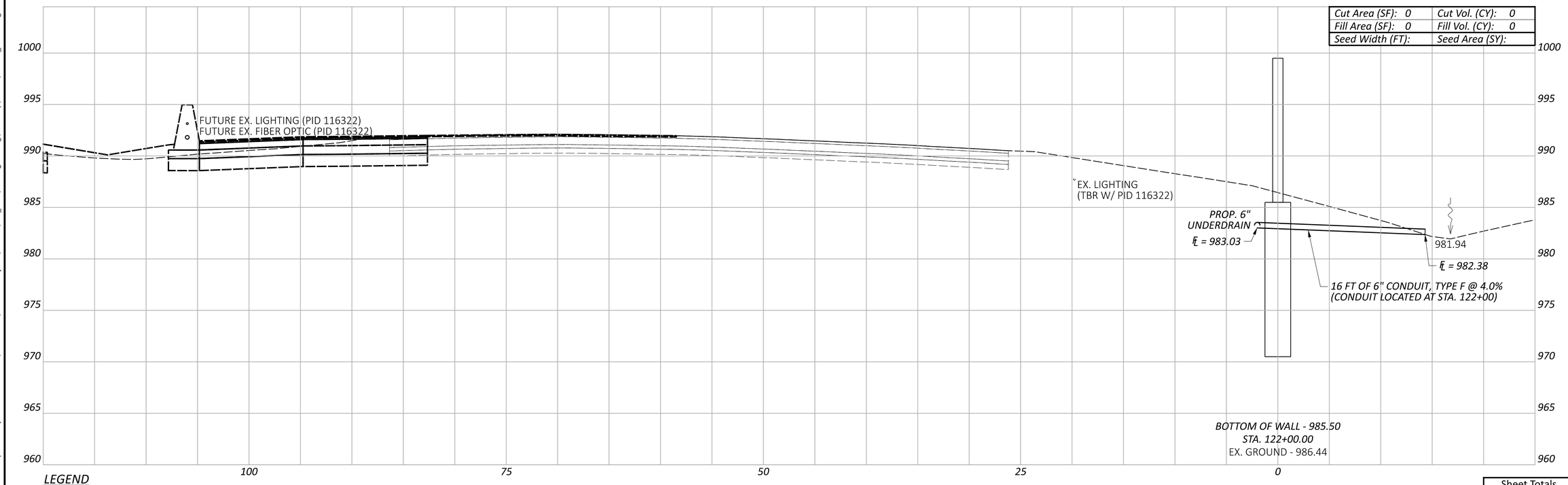
PROJECT ID 117607

SHEET P.164 | TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 12
STA. 122+00.00 TO STA. 122+50.00

Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID
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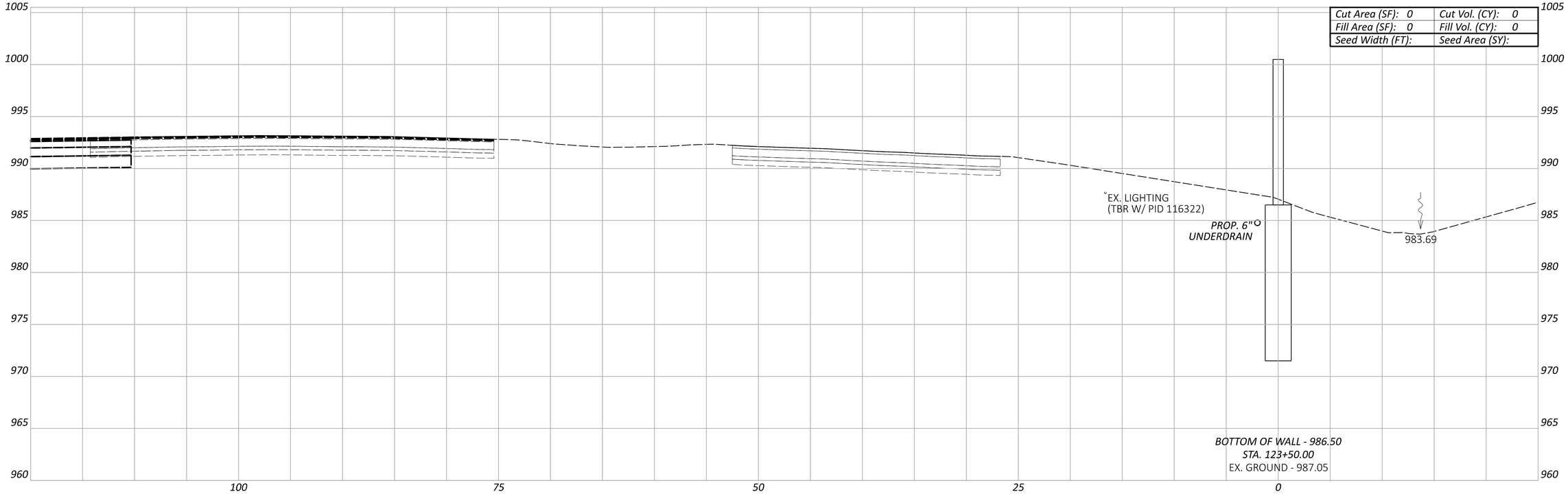
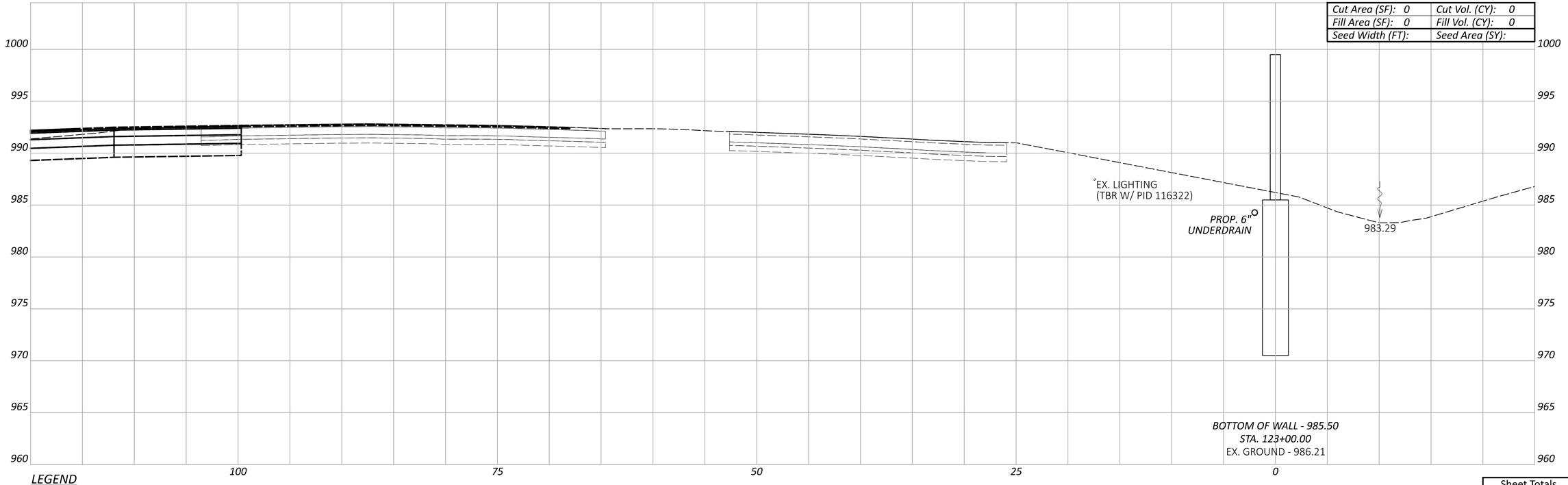
SHEET P.165 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL13 - 122+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:26:55 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS012B.dgn





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 12
STA. 123+00.00 TO STA. 123+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL13 - 123+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:27:11 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS012B.dgn

Sheet Totals		
Seeding	Cut	Fill

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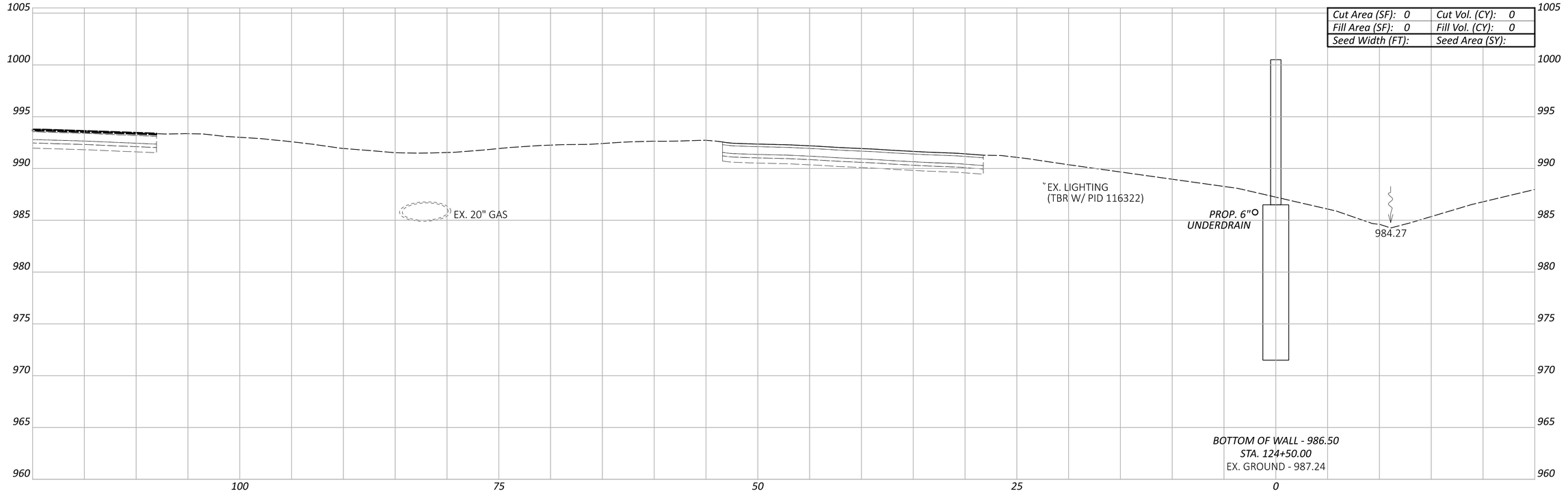
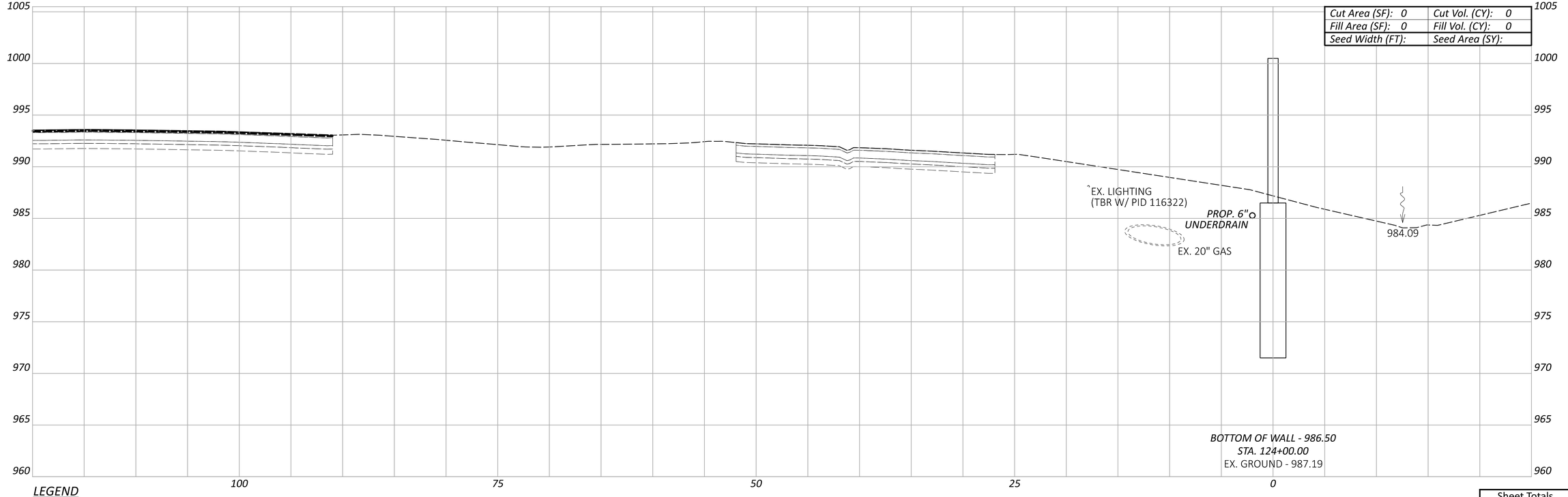
SHEET P.166 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 12
STA. 124+00.00 TO STA. 124+50.00

Sheet Totals		
Seeding	Cut	Fill

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SHEET P.167 | TOTAL P.276

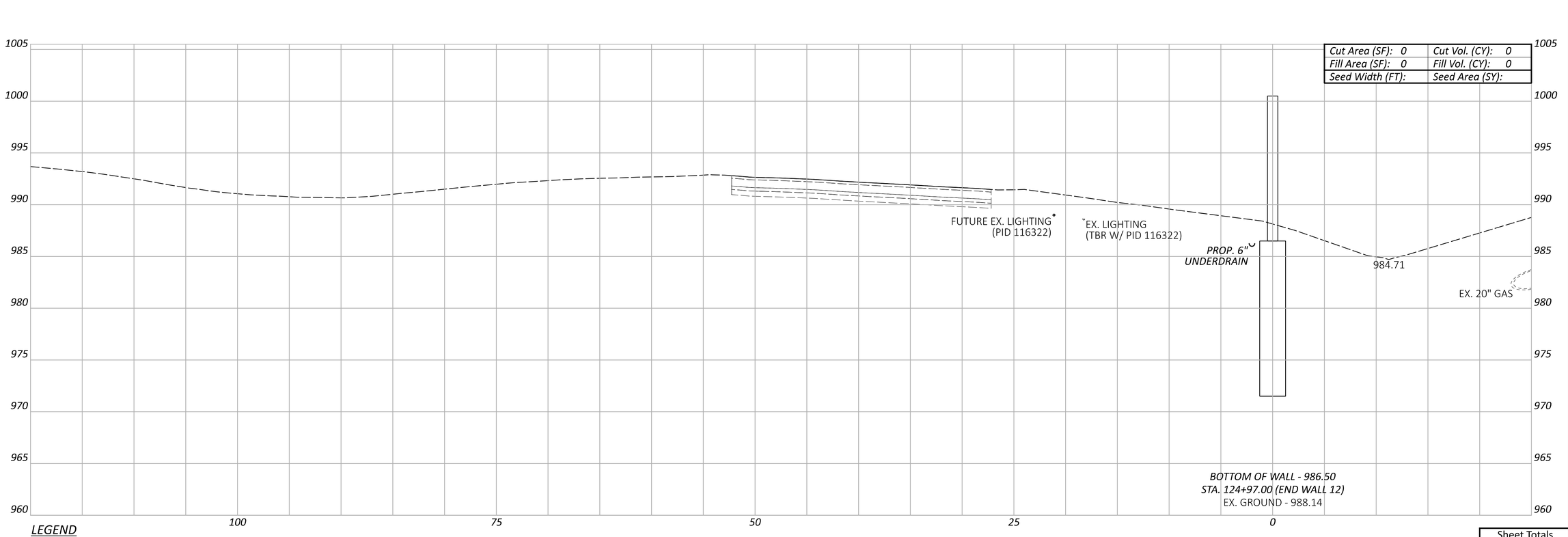
FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL13 - 124+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:27:27 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS012B.dgn

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL13 - 124+97.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:28:03 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS012B.dgn

CROSS SECTIONS - WALL 12
STA. 124+97.00



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
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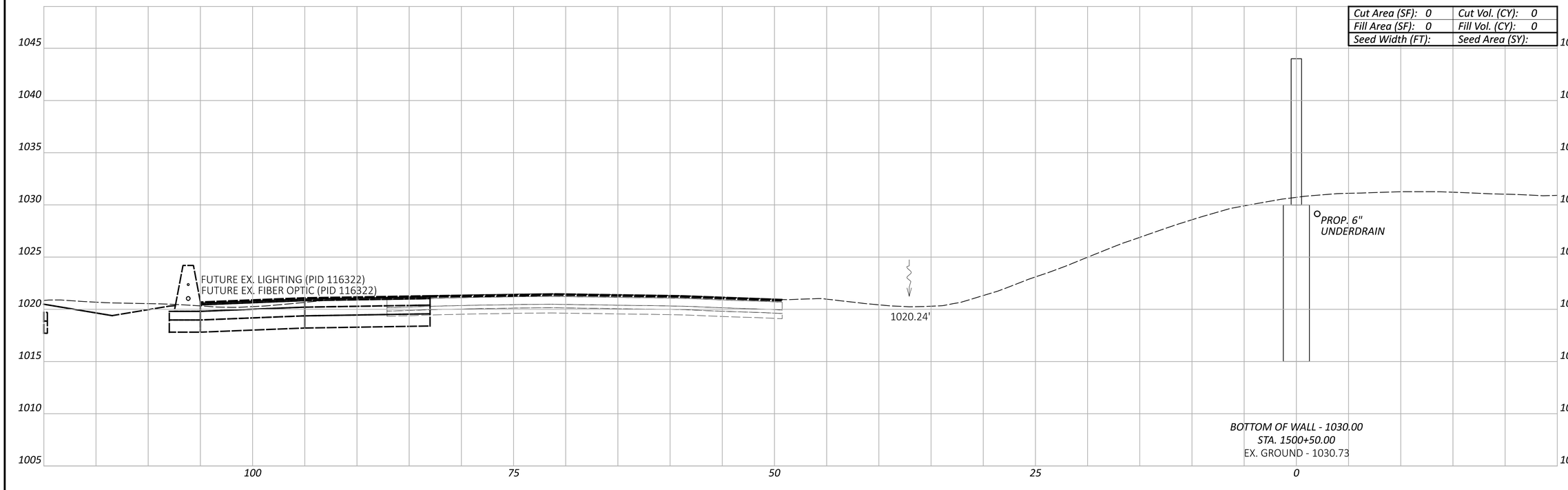
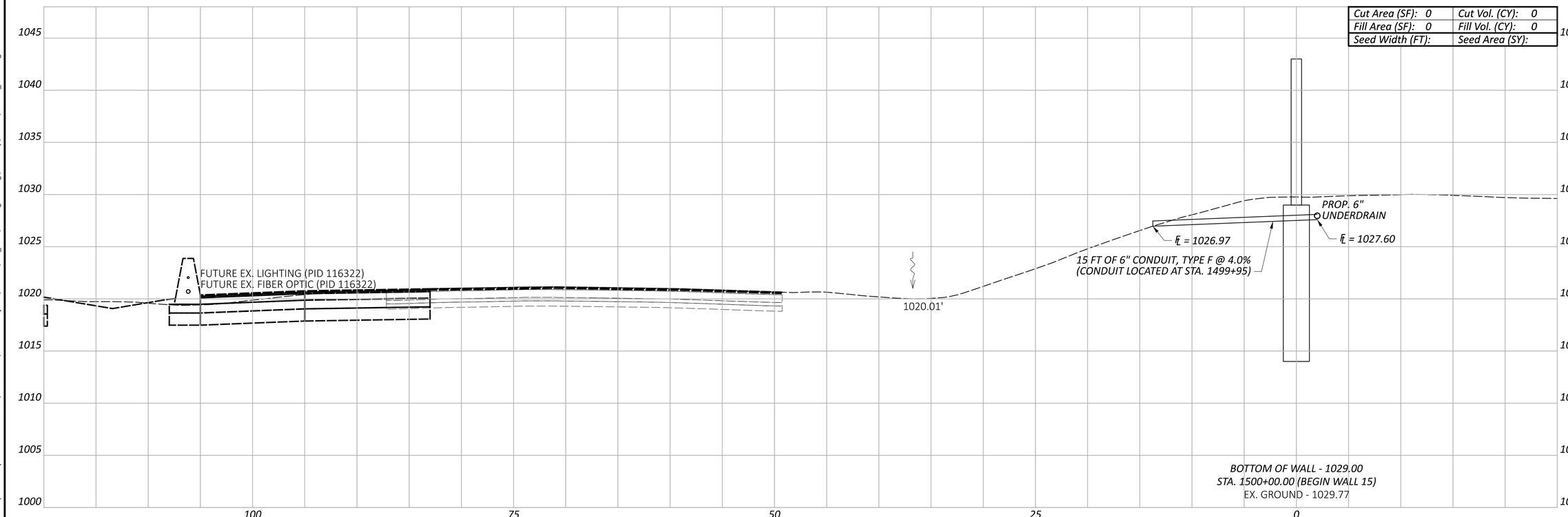
REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET	TOTAL
P.168	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 15
STA. 1500+00.00 TO STA. 1500+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1500+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 4:16:42 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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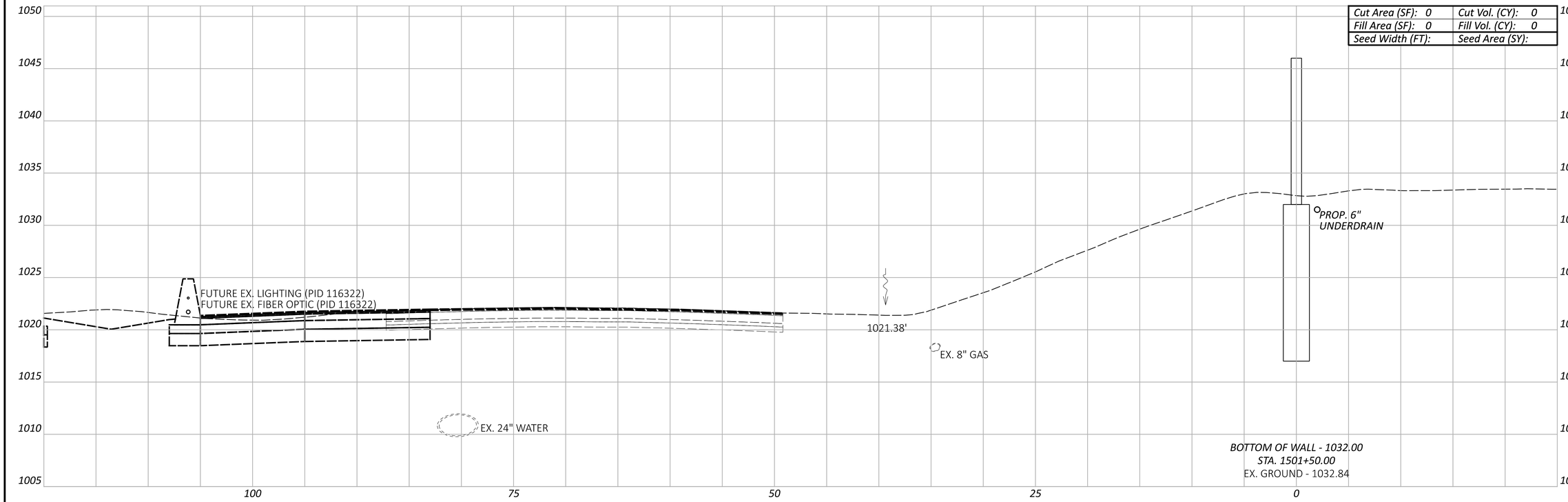
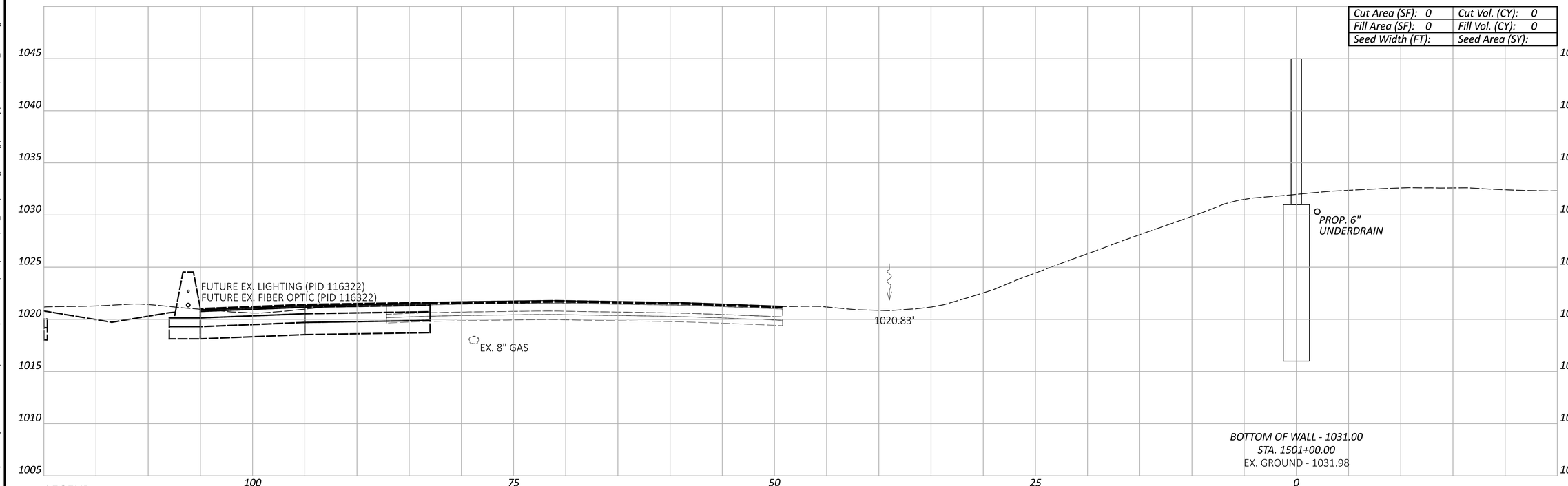
DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.169 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 15
STA. 1501+00.00 TO STA. 1501+50.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1501+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:48:41 PM USER: jennifer.kelley
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Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID 117607

SHEET P.170 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1502+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:49:08 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn

CROSS SECTIONS - WALL 15
STA. 1502+00.00

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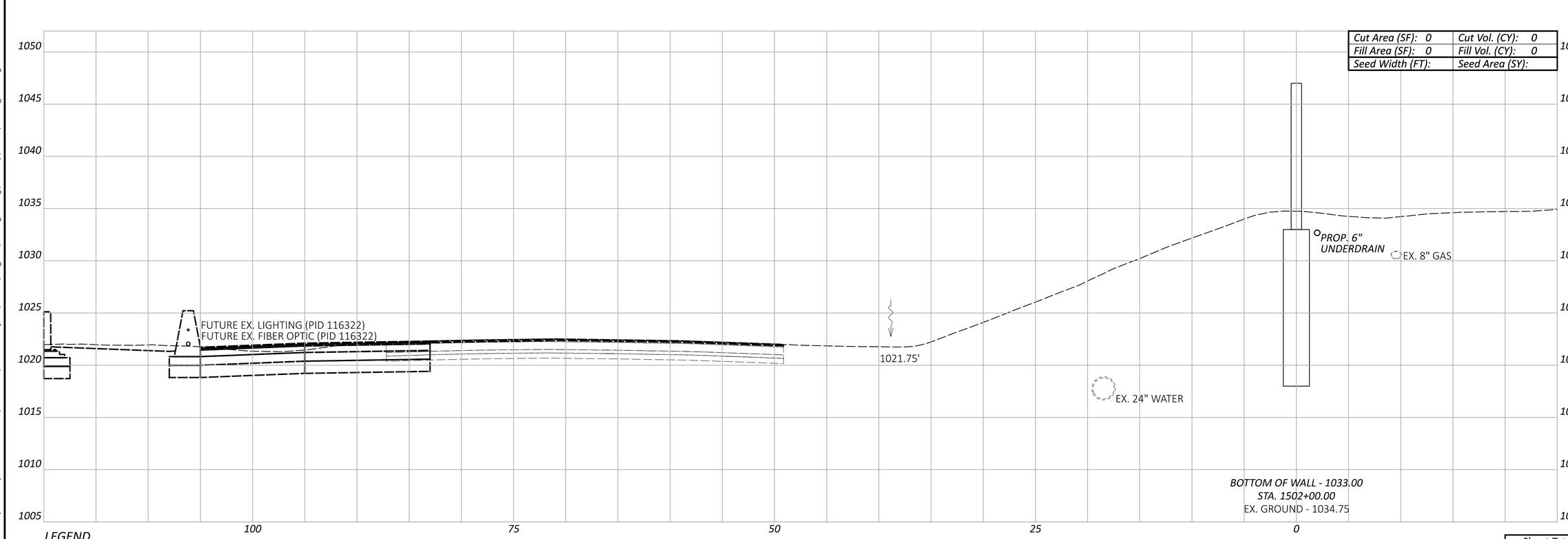
Seed Width (FT):	Seed Area (SY):



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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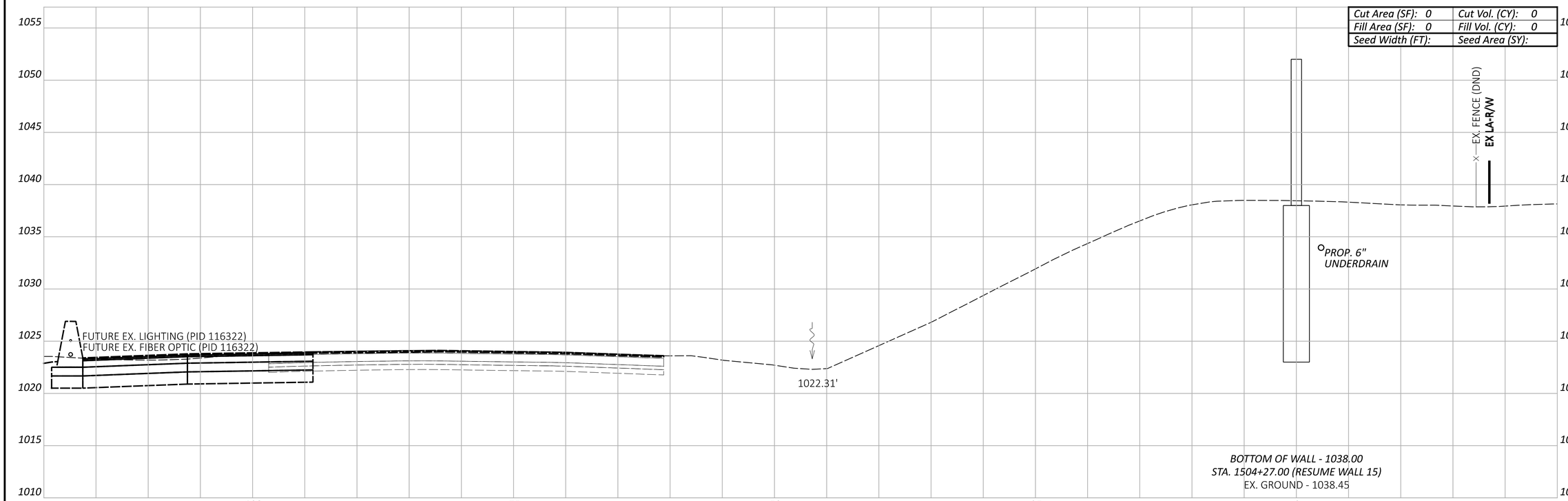
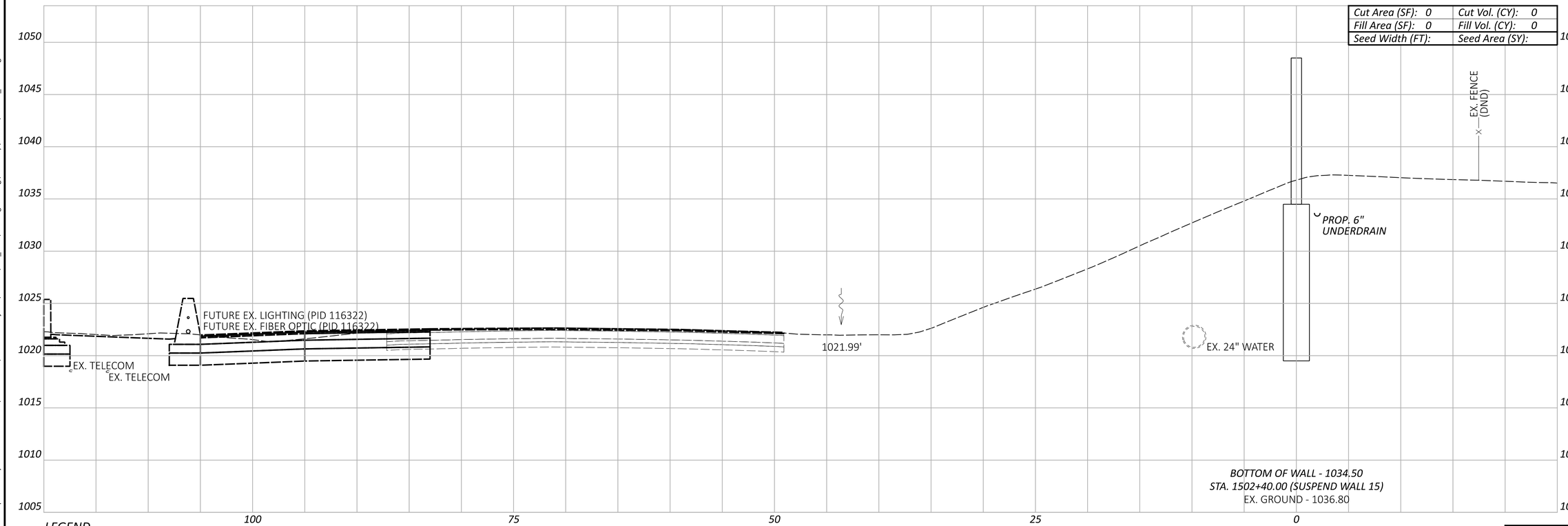
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.171 TOTAL P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1502+64.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-21 TIME: 11:11:22 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn

CROSS SECTIONS - WALL 15
STA. 1502+40.00 TO STA. 1504+27.00

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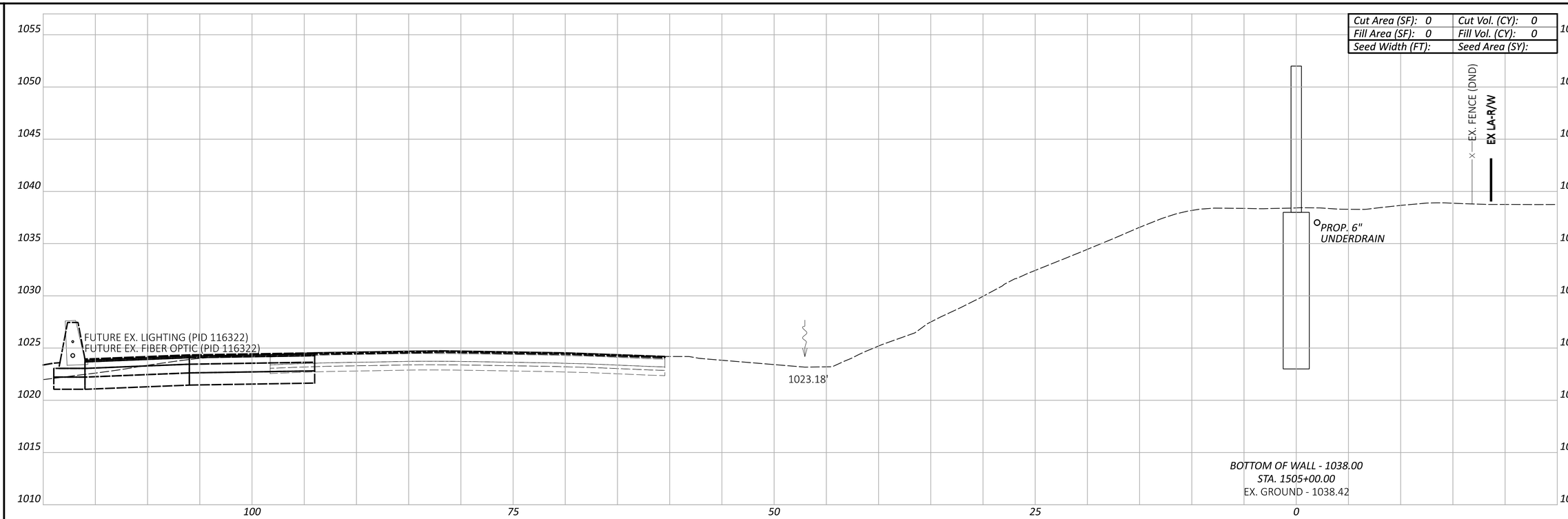
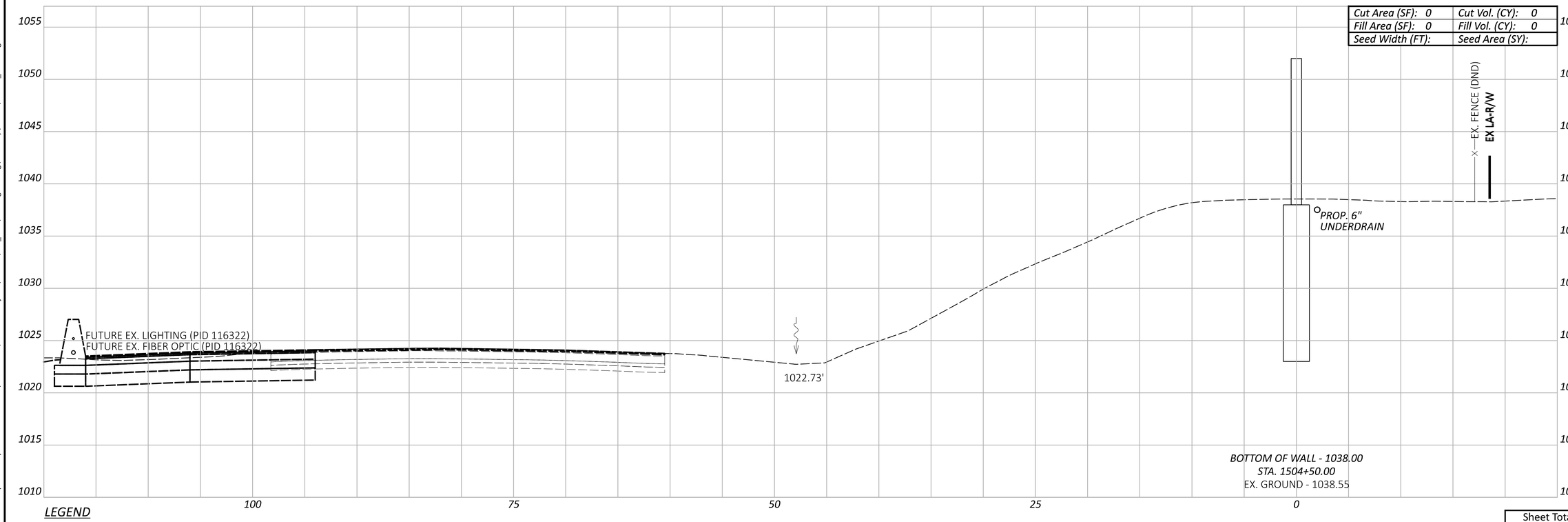
PROJECT ID
117607

Sheet Totals		
Seeding	Cut	Fill

SHEET	TOTAL
P.172	P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1504+50.00 TO STA. 1505+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1504+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:49:48 PM USER: jennifer.kelley
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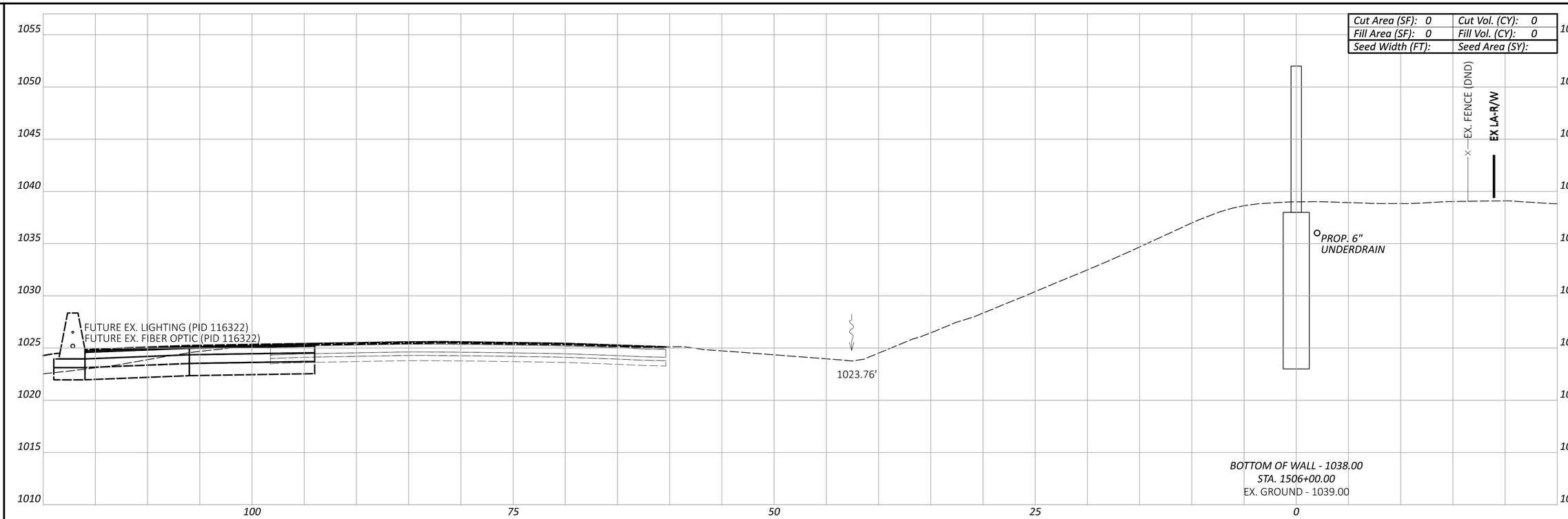
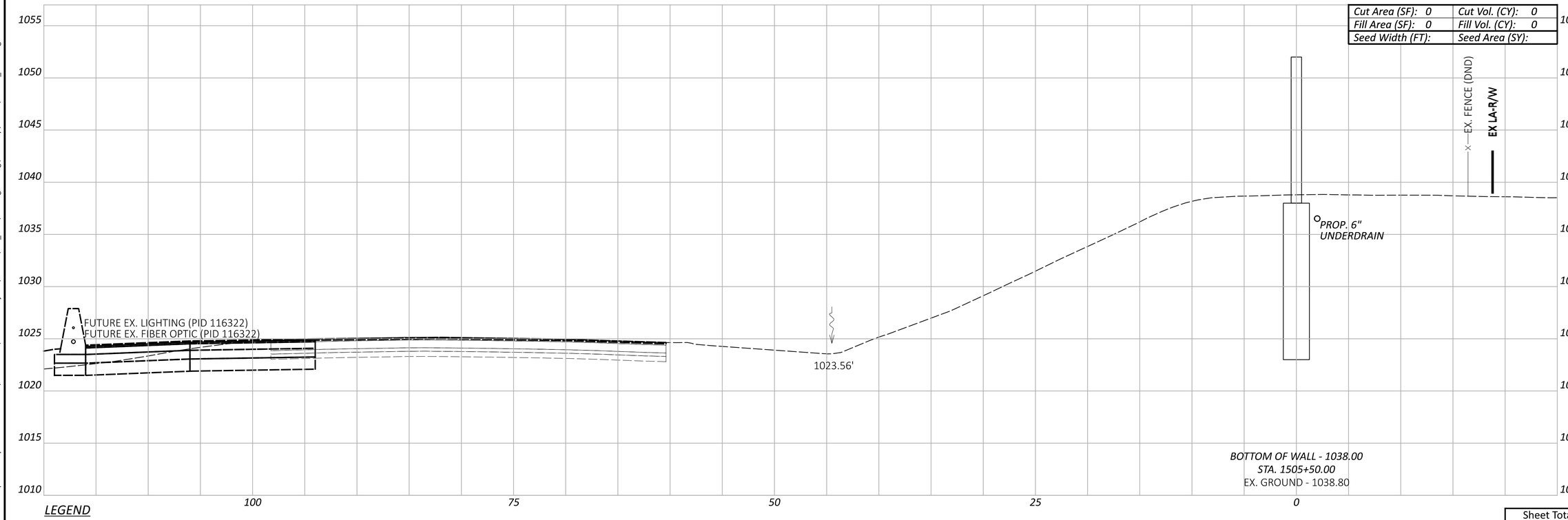
PROJECT ID
117607

SHEET	TOTAL
P.173	P.276





LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1505+50.00 TO STA. 1506+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1505+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:50:10 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn

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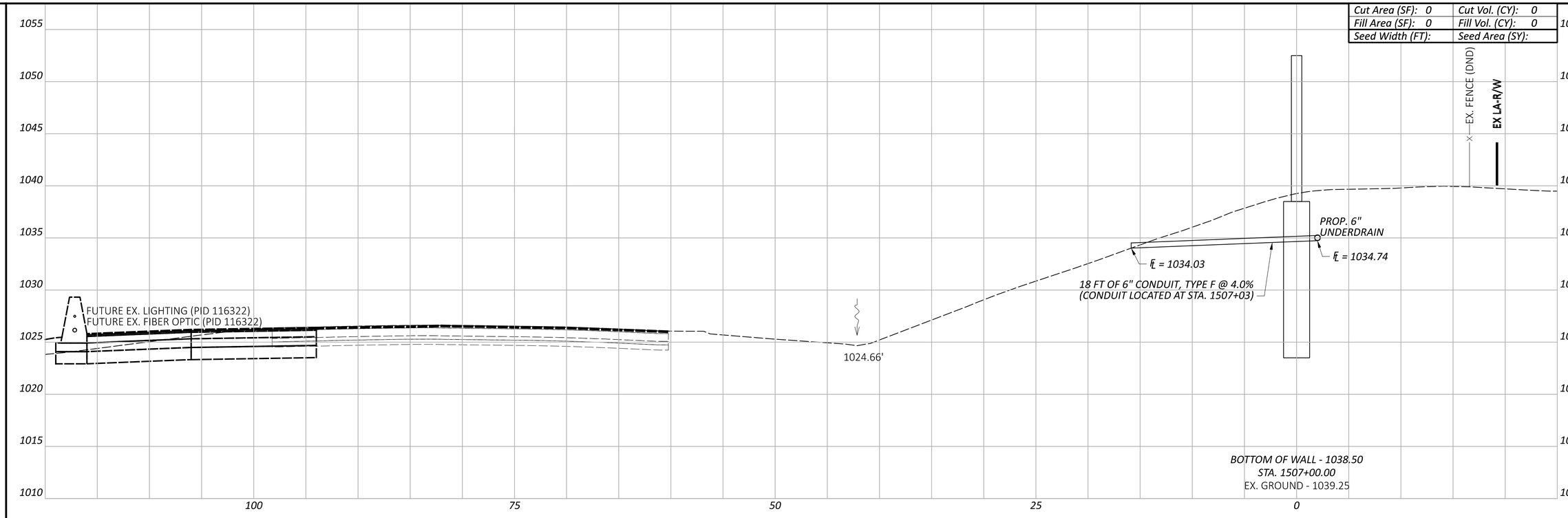
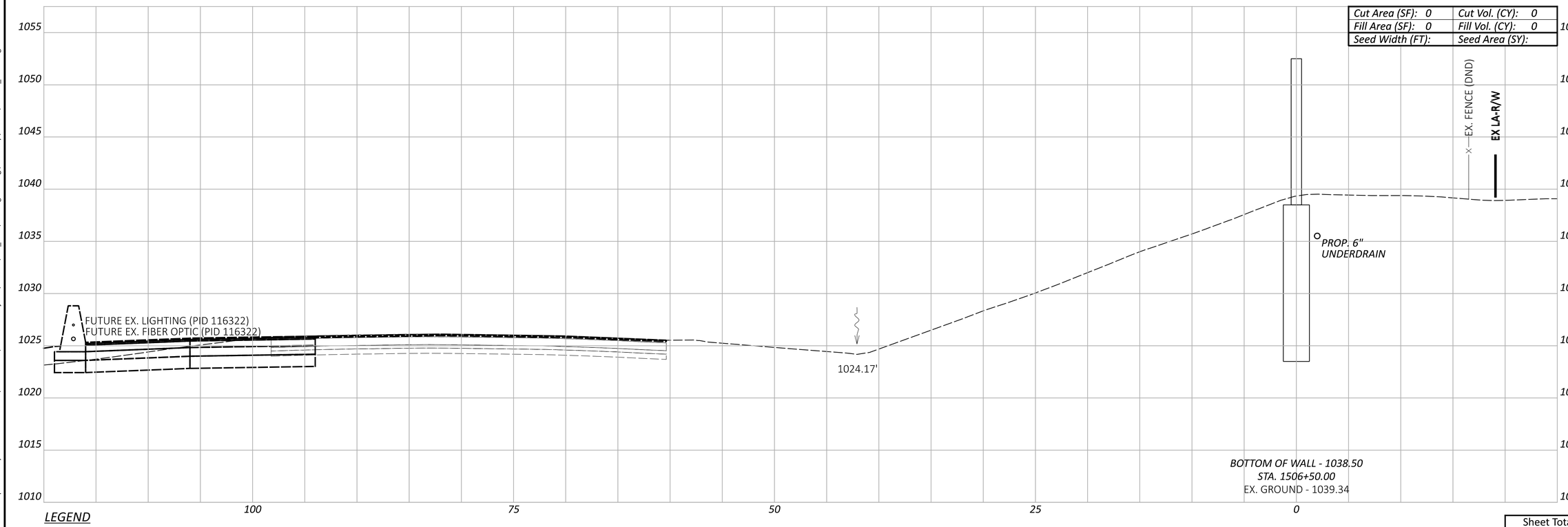
PROJECT ID 117607

SHEET P.174 | TOTAL P.276





LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1506+50.00 TO STA. 1507+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1506+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 4:17:22 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn

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PROJECT ID
117607

SHEET P.175 TOTAL P.276

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Fill Area (SF): 0	Fill Vol. (CY): 0
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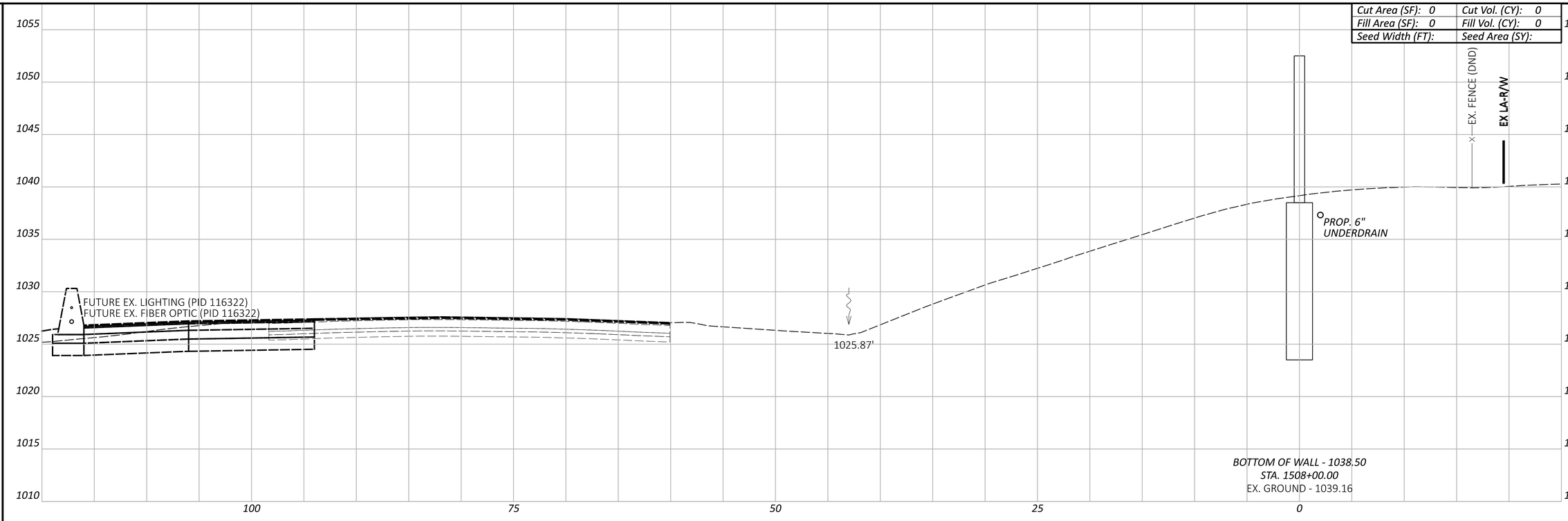

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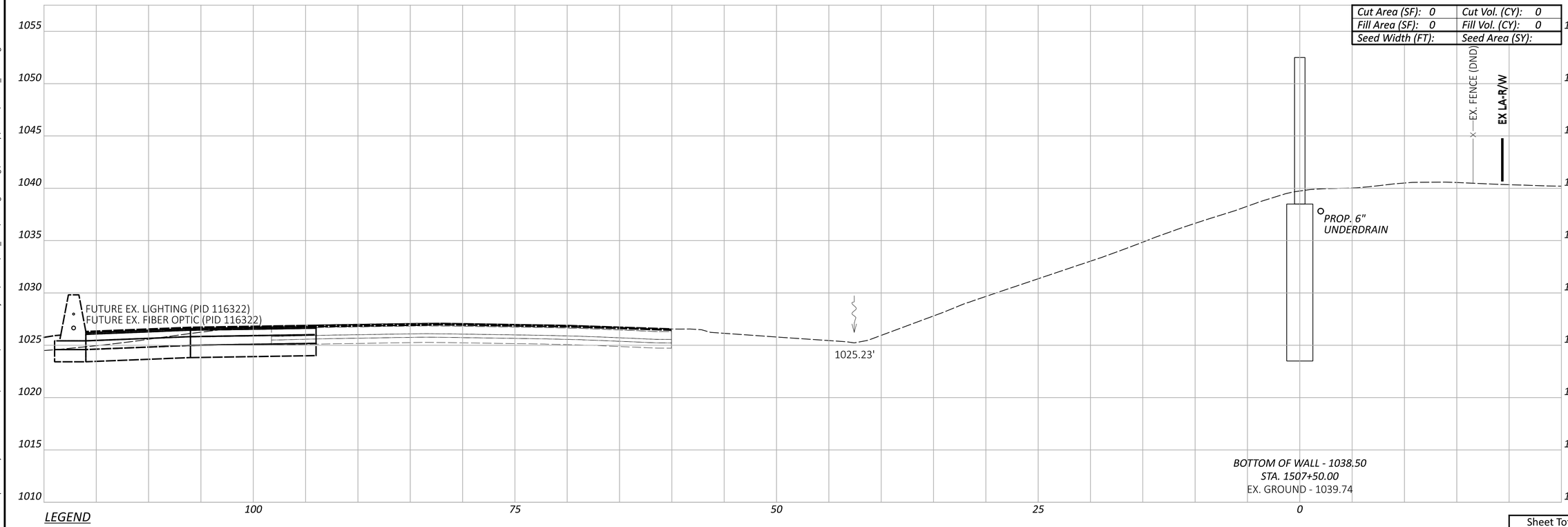

LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 15
STA. 1507+50.00 TO STA. 1508+00.00

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PROJECT ID 117607

SHEET P.176 | TOTAL P.276

MODEL: BLP_WALL15 - 1507+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:50:52 PM USER: jennifer.kelley
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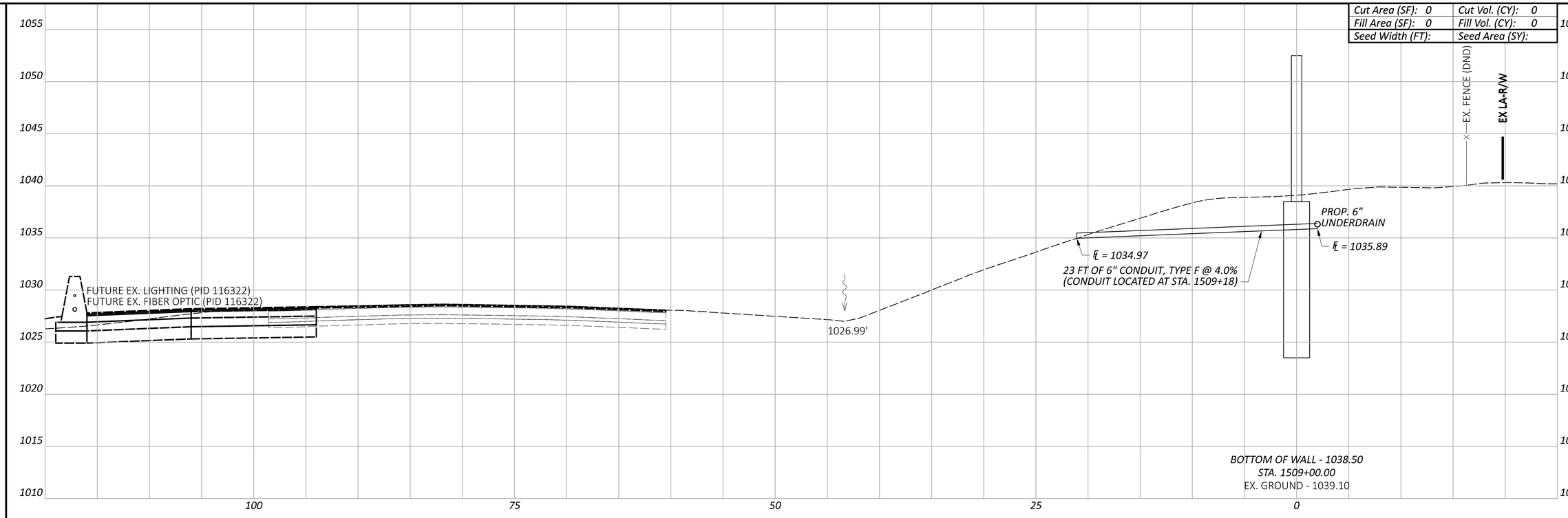

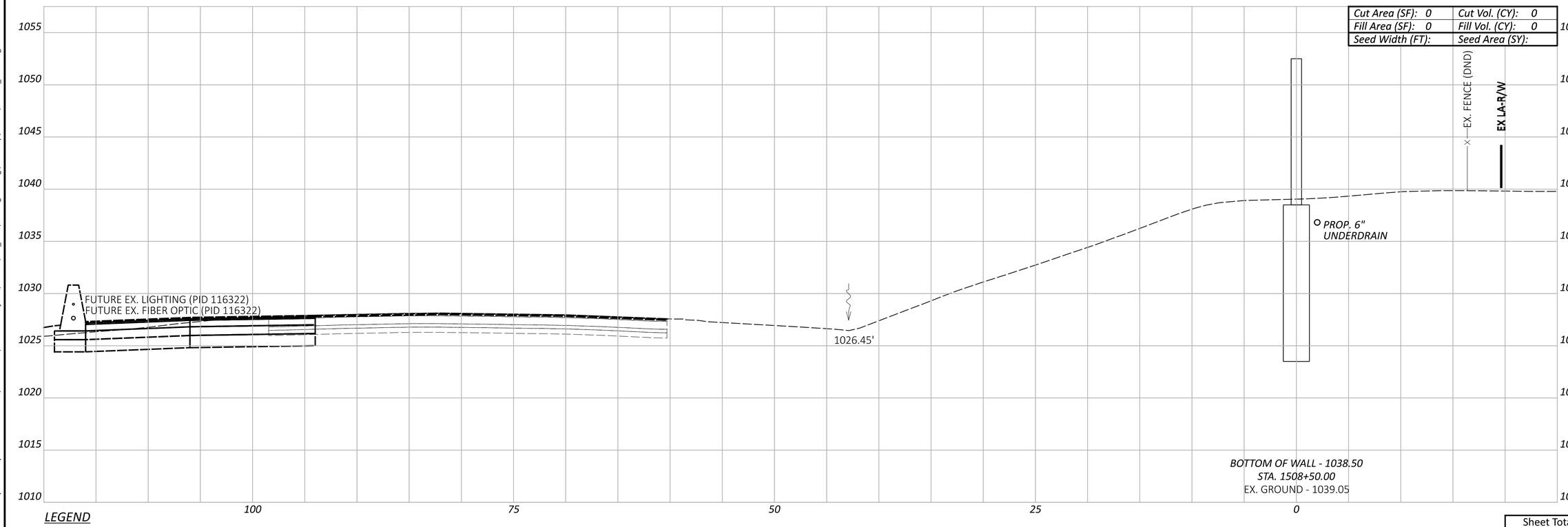

LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 15
STA. 1508+50.00 TO STA. 1509+00.00

18 FT C
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Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID
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SHEET	TOTAL
P.177	P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1508+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 4:17:42 PM USER: jennifer.kelley
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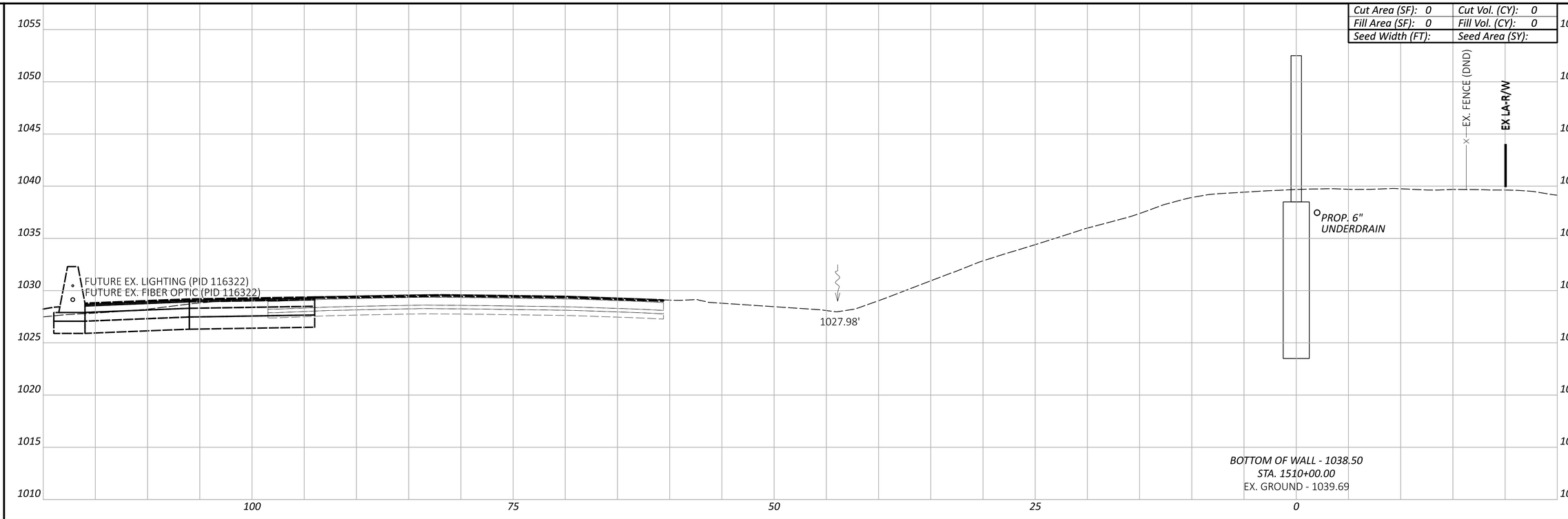

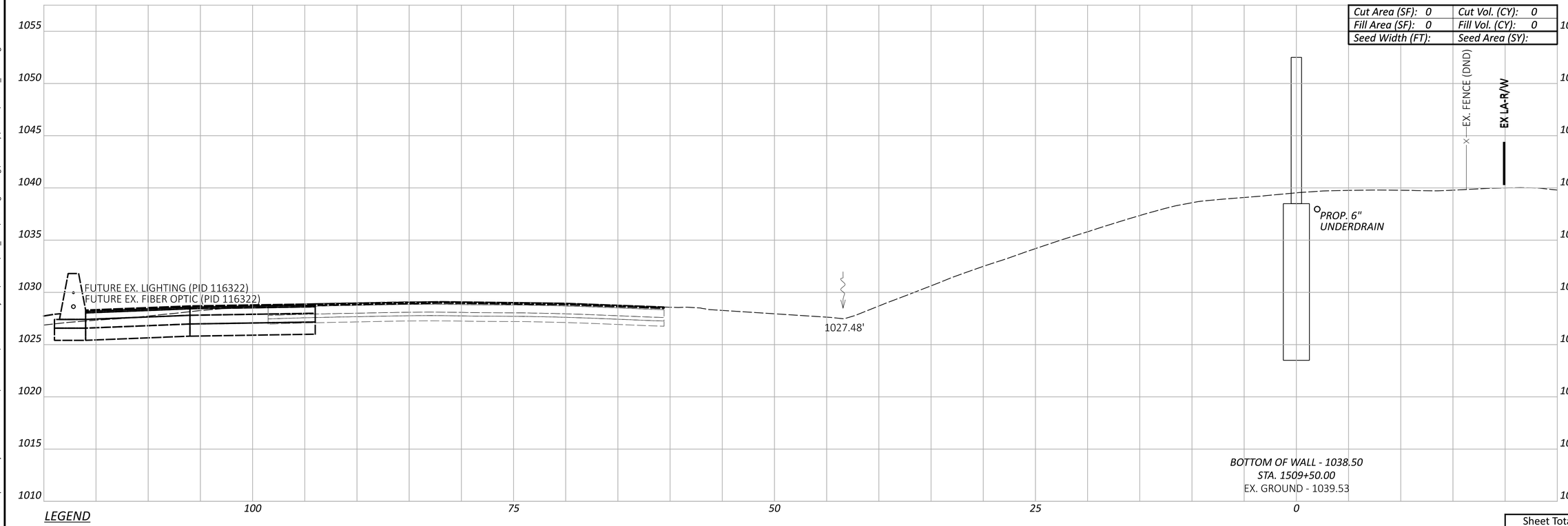

LEGEND

- - - EXISTING SR-161 PRIOR TO PID 116322

— — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1509+50.00 TO STA. 1510+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1509+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:51:34 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn

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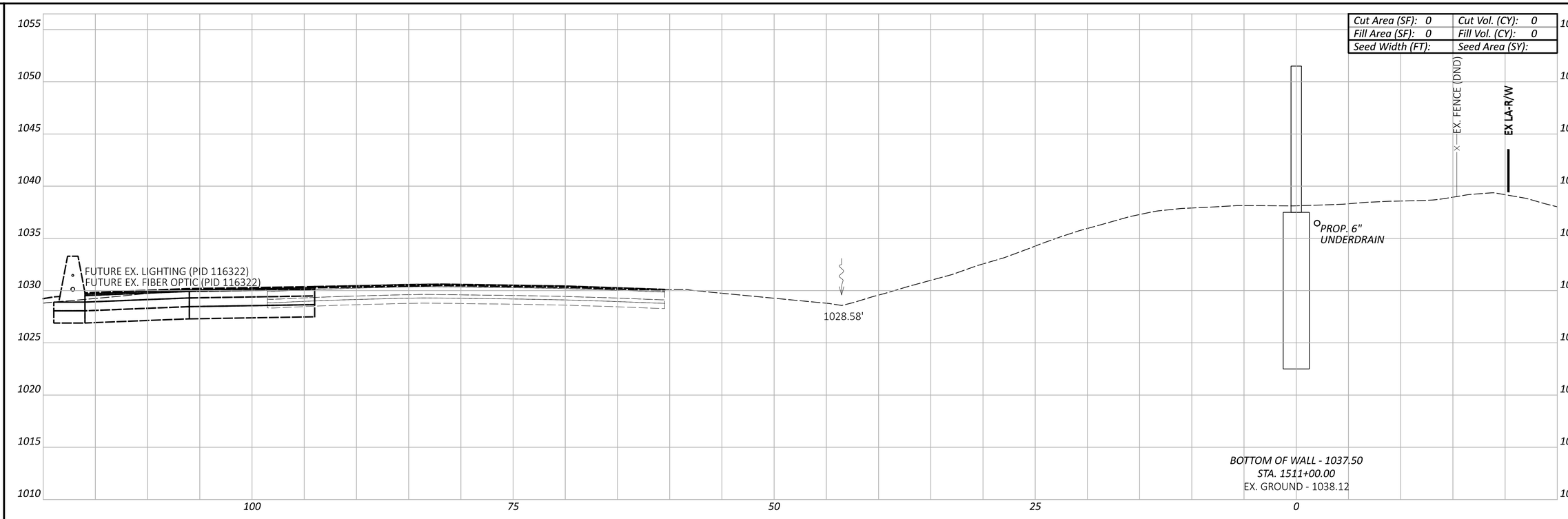
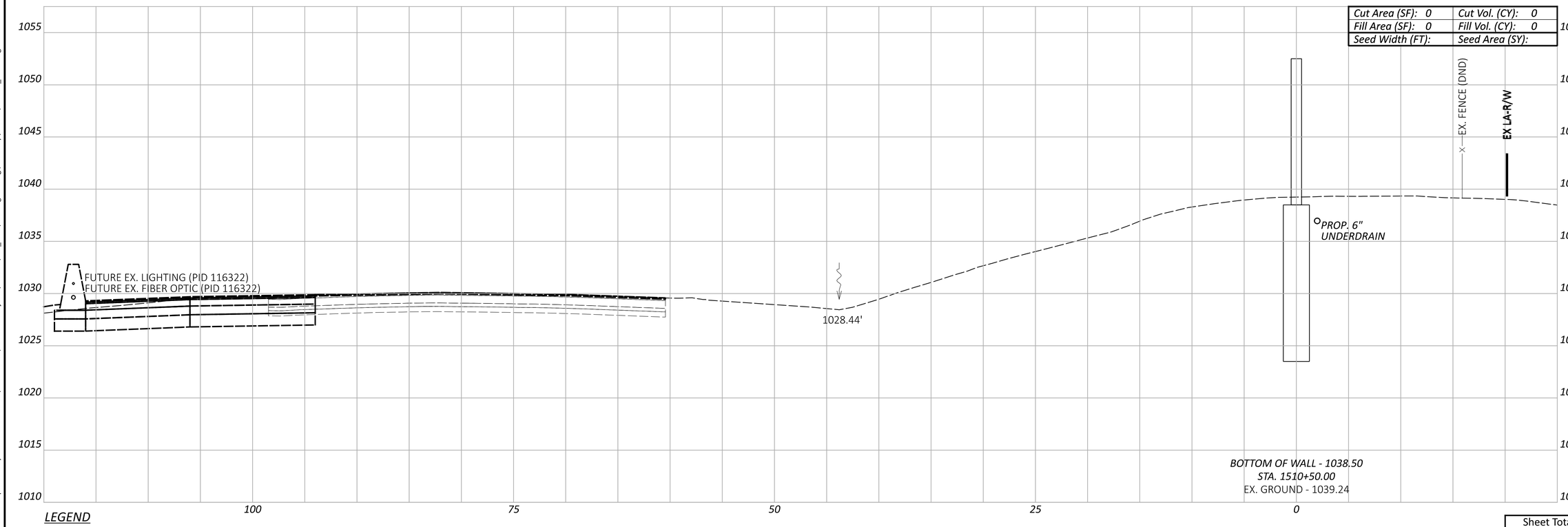
PROJECT ID 117607

SHEET P.178 TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1510+50.00 TO STA. 1511+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1510+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:51:55 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn

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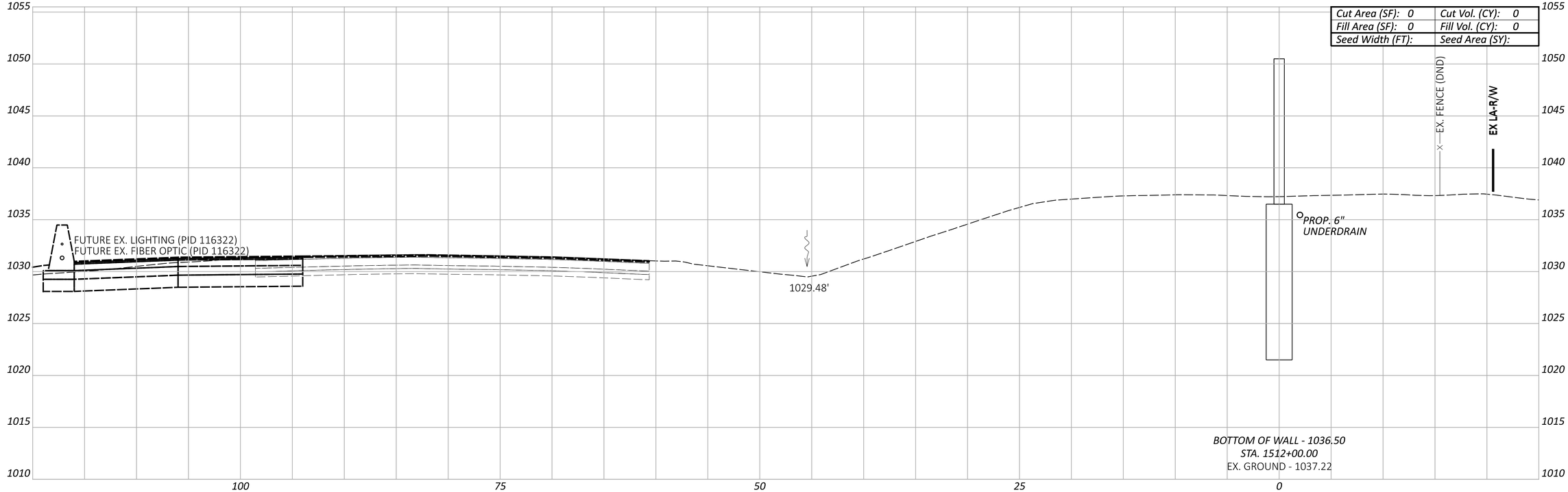
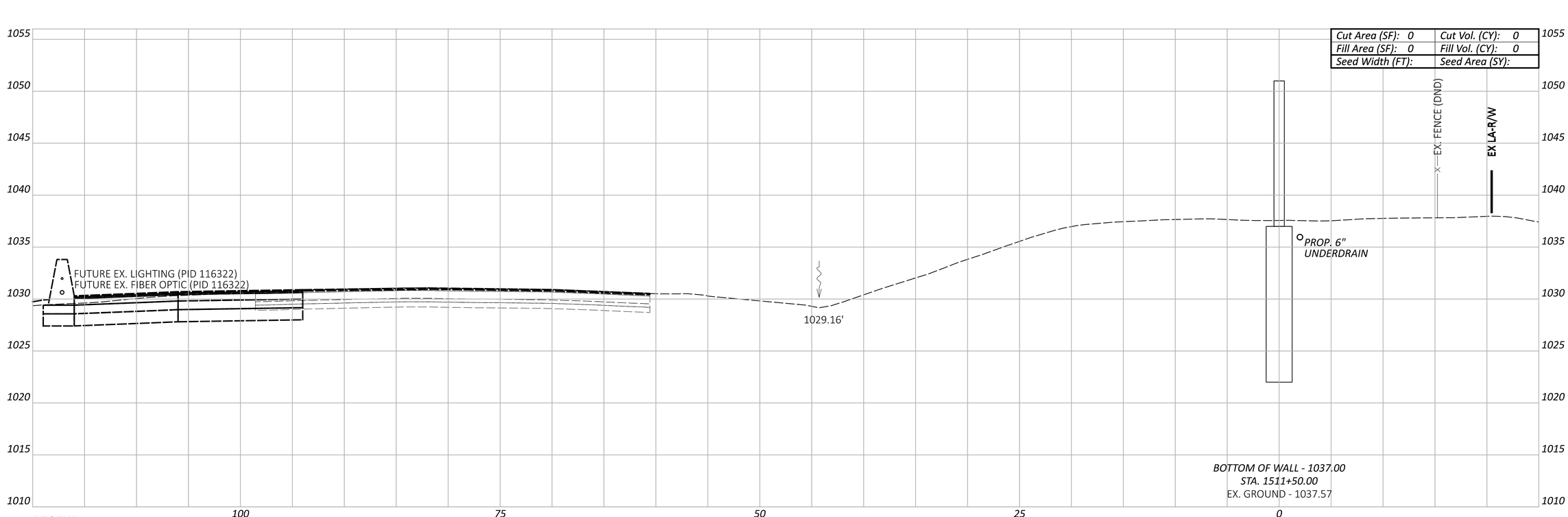
PROJECT ID 117607

SHEET	TOTAL
P.179	P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 15
STA. 1511+50.00 TO STA. 1512+00.00

Sheet Totals		
Seeding	Cut	Fill

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DESIGNER JMK

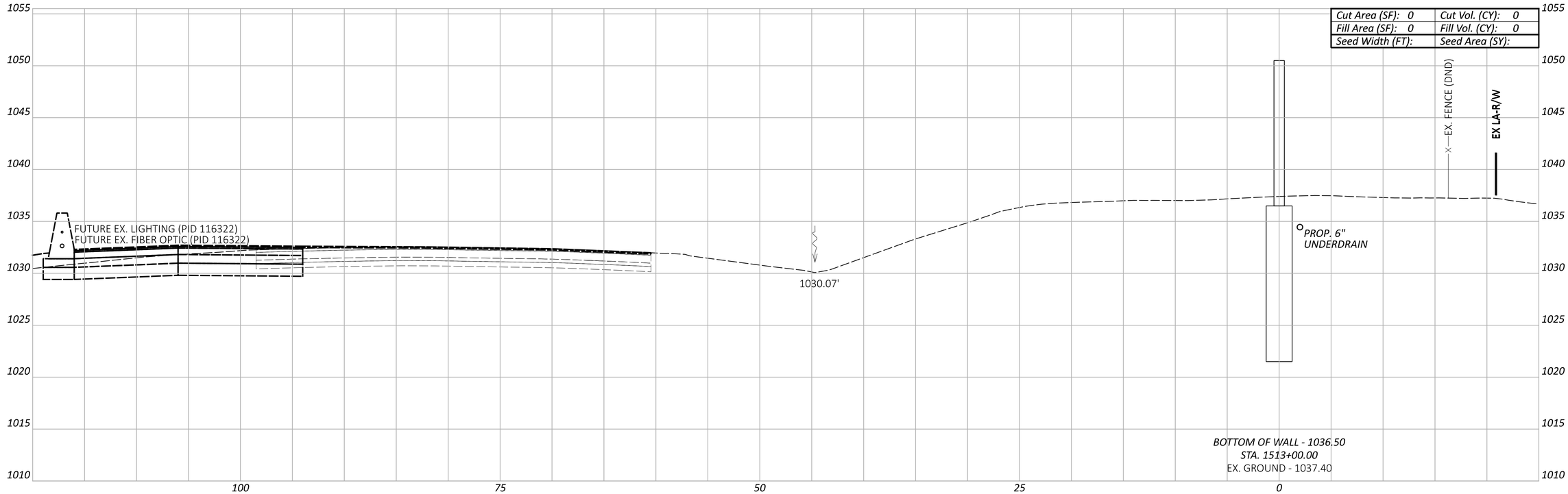
REVIEWER JDH 01-22-24

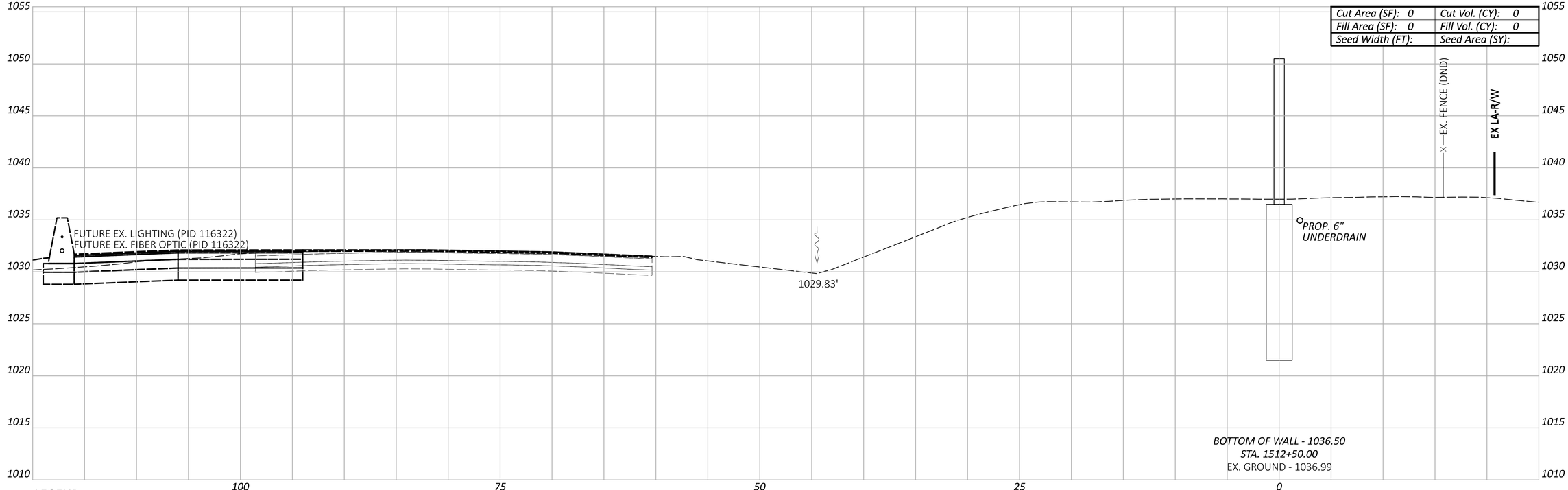
PROJECT ID 117607

SHEET P.180 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1511+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:52:15 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn





LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1512+50.00 TO STA. 1513+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1512+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:52:36 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn

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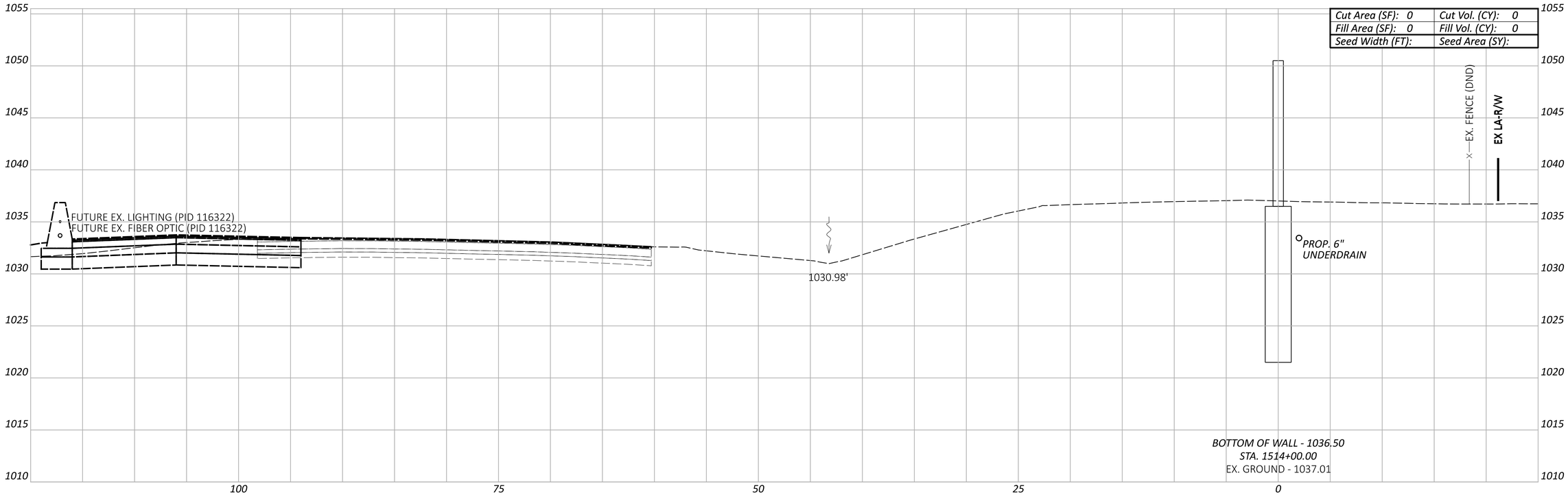
DESIGNER JMK

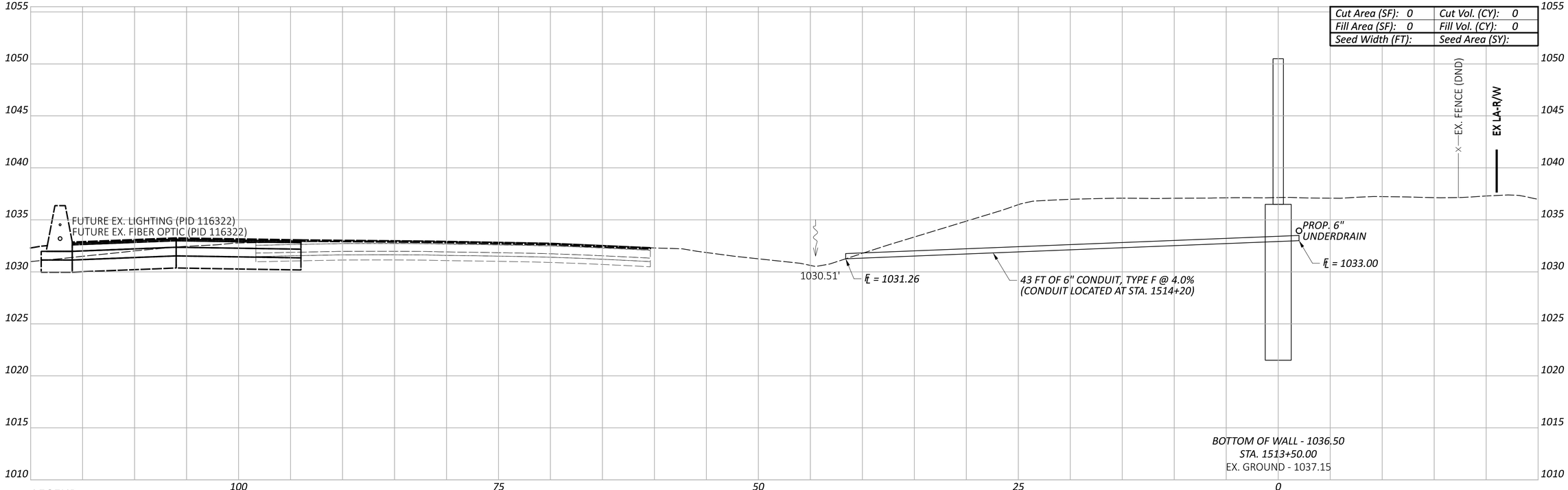
REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET	TOTAL
P.181	P.276

CROSS SECTIONS - WALL 15
STA. 1513+50.00 TO STA. 1514+00.00





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

——— FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID 117607

SHEET	TOTAL
P.182	P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1513+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 4:18:02 PM USER: jennifer.kelley
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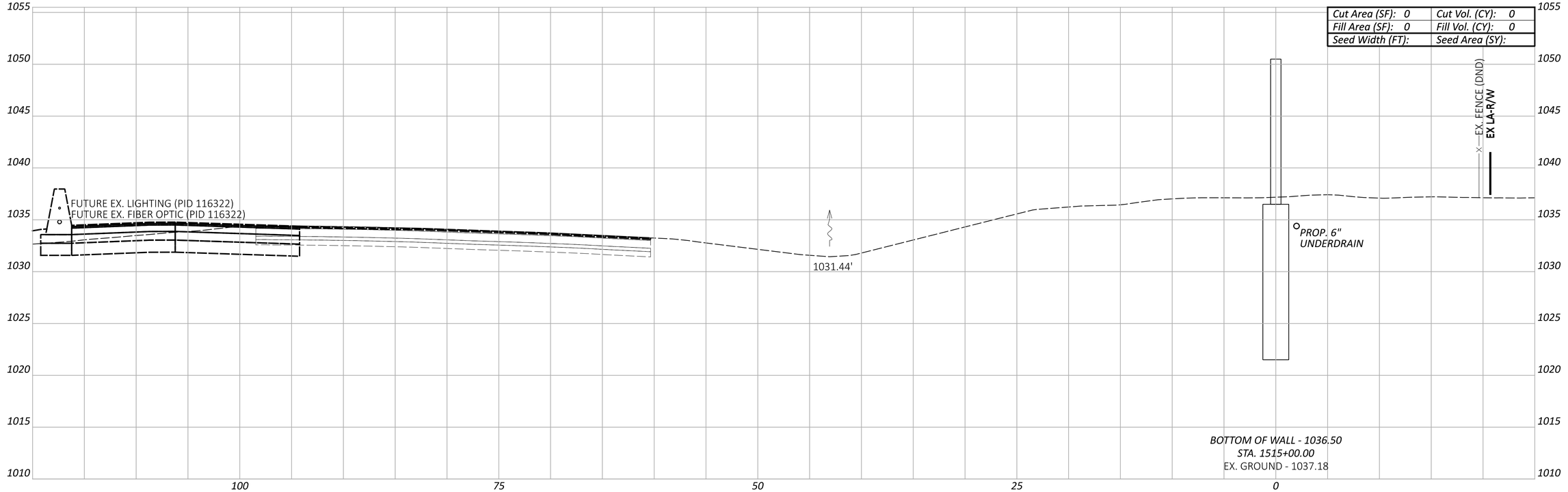

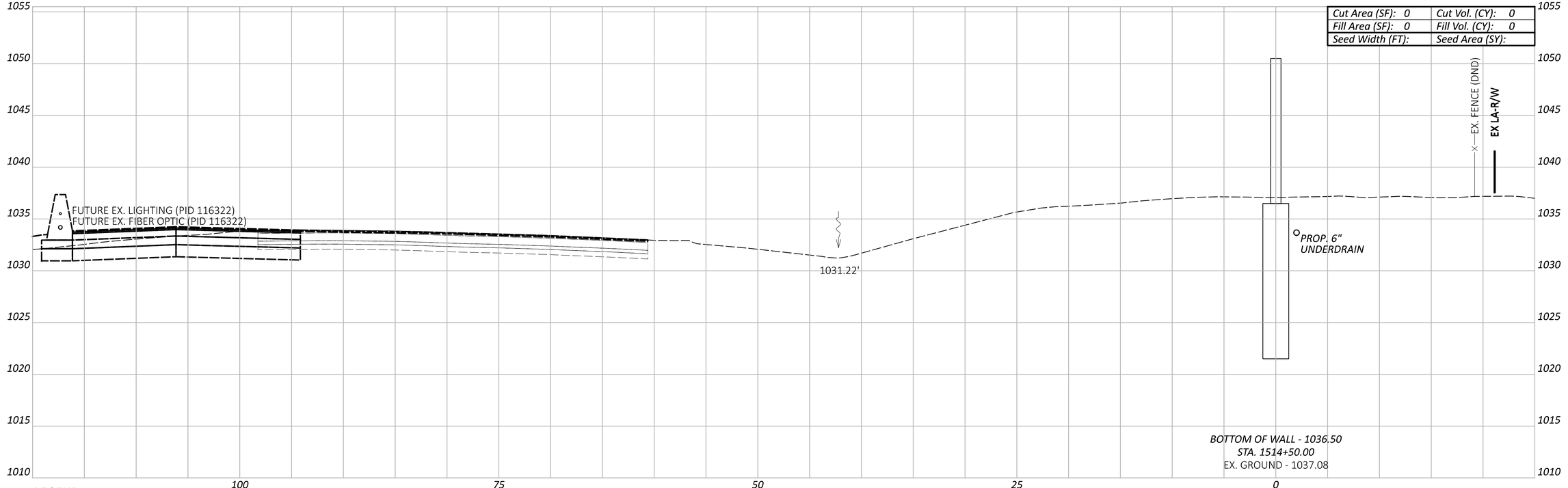

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

CROSS SECTIONS - WALL 15
STA. 1514+50.00 TO STA. 1515+00.00

Sheet Totals		
Seeding	Cut	Fill

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PROJECT ID 117607

SHEET P.183 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1514+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:53:15 PM USER: jennifer.kelley
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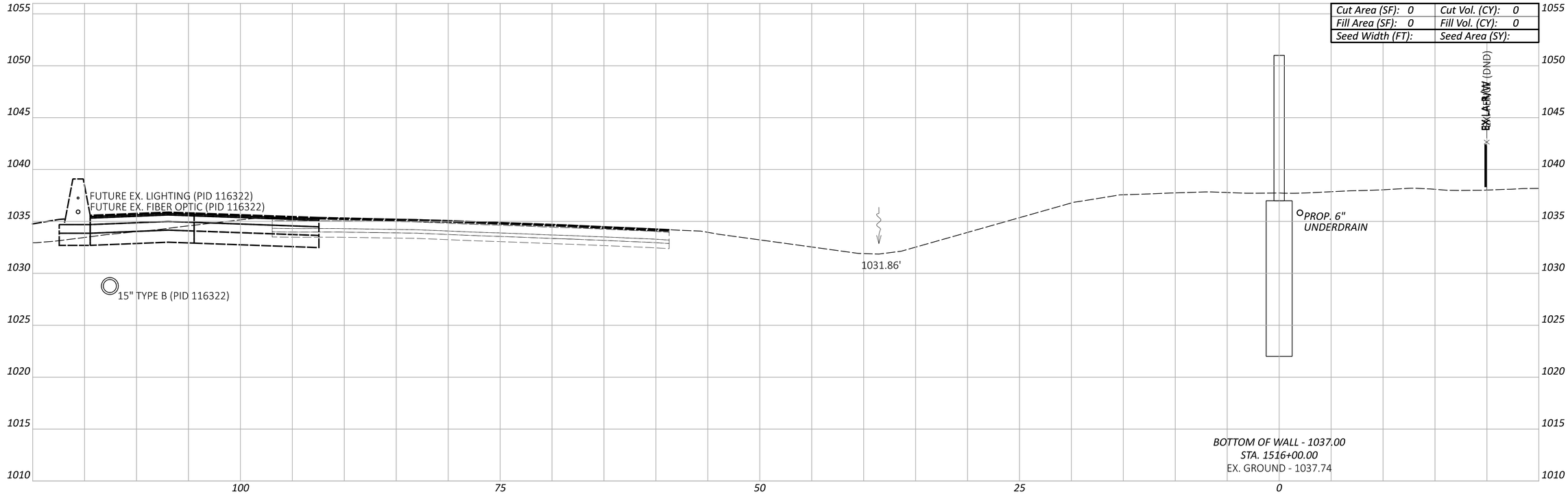

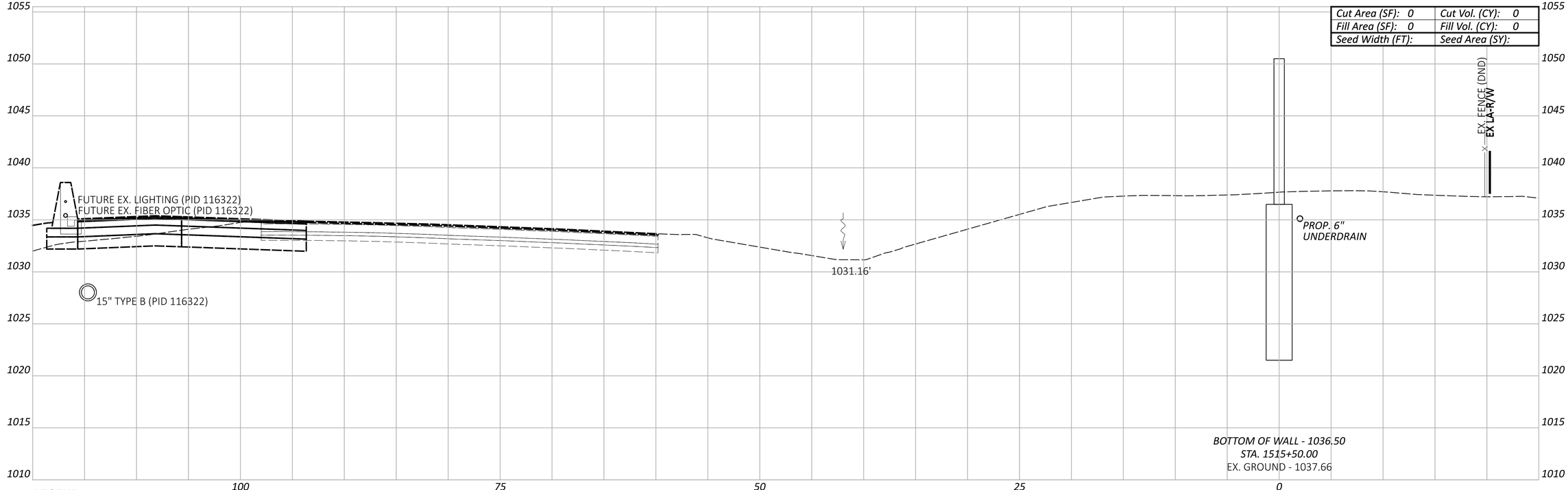

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1515+50.00 TO STA. 1516+00.00

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PROJECT ID 117607

SHEET P.184 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1515+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:53:36 PM USER: jennifer.kelley
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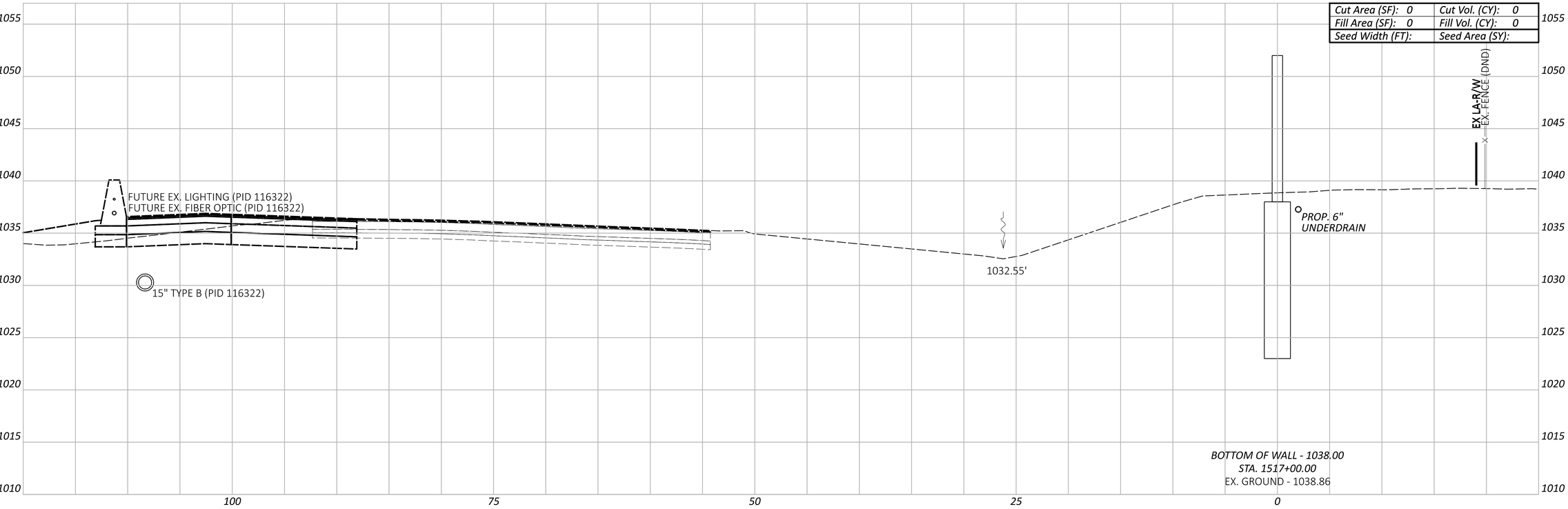

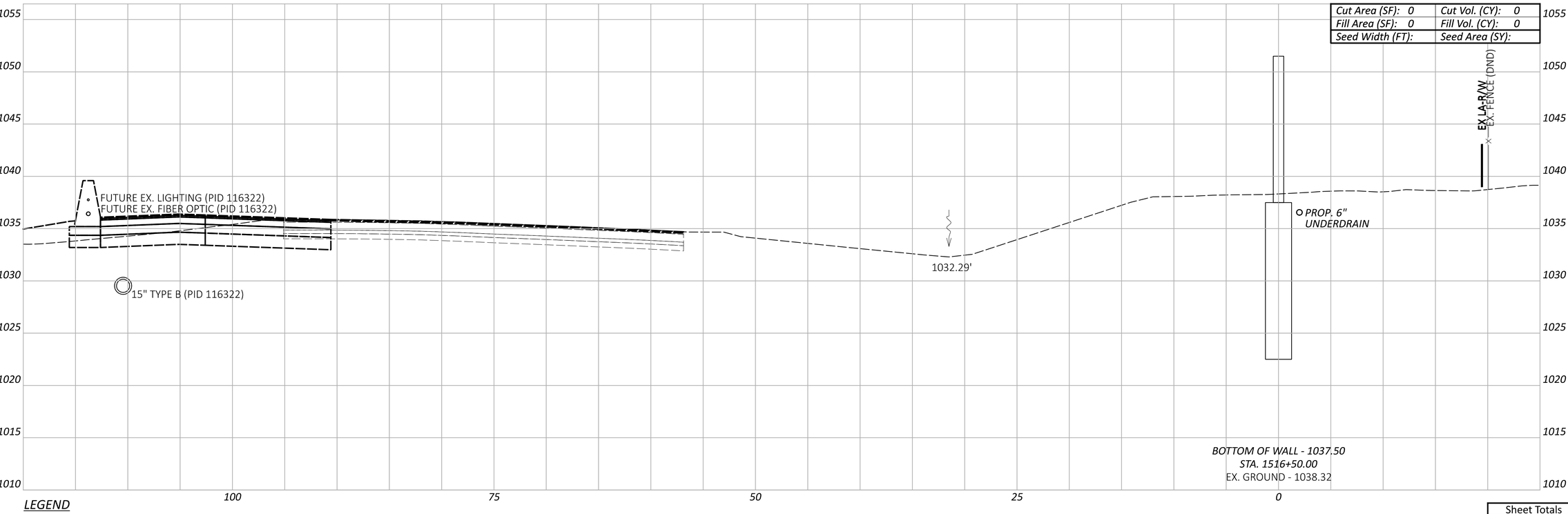

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals

Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1516+50.00 TO STA. 1517+00.00

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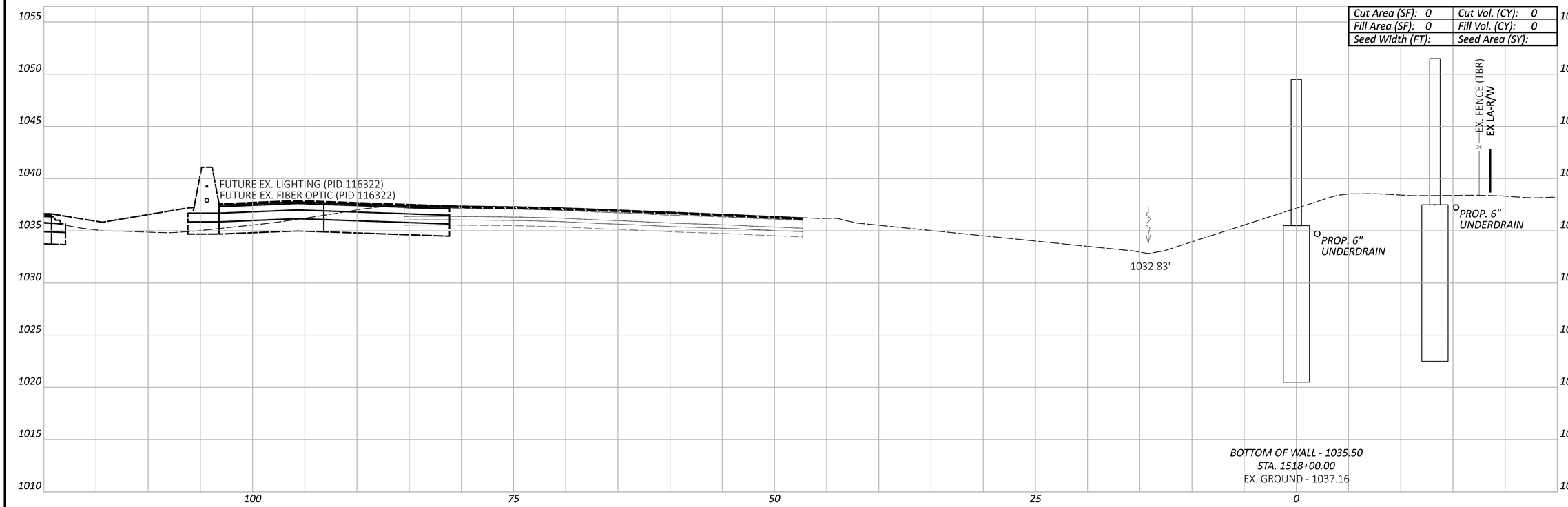
REVIEWER: JDH 01-22-24

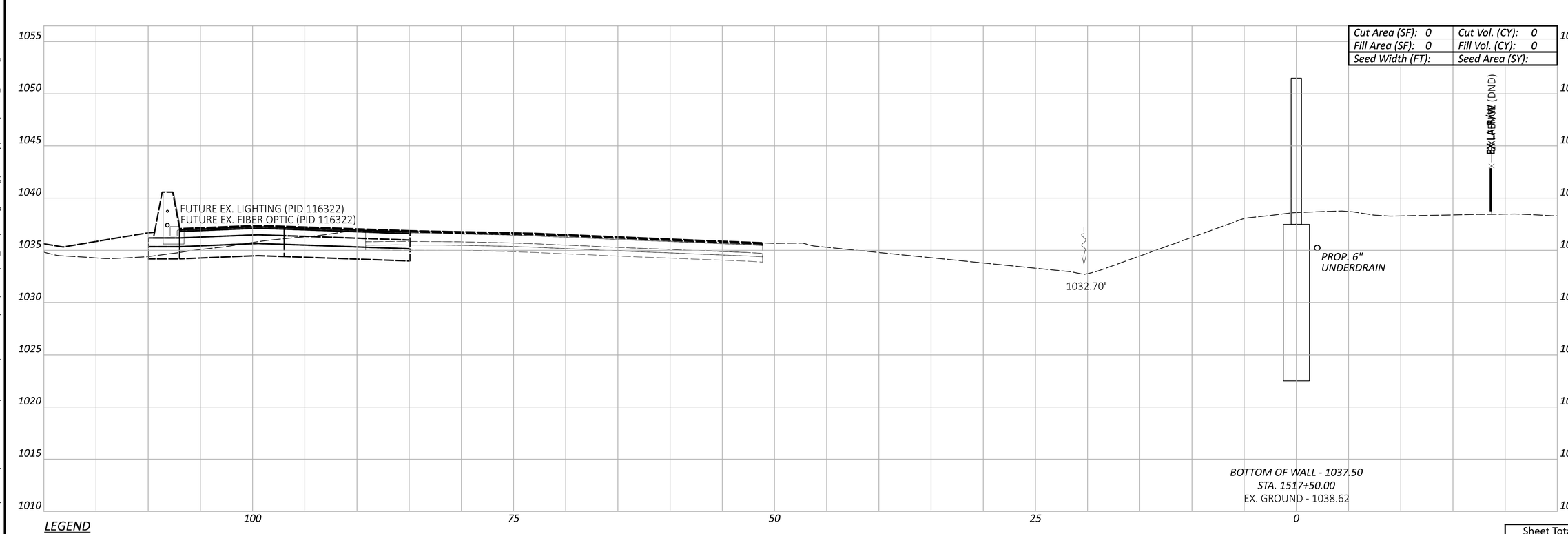
PROJECT ID: 117607

SHEET: P.185 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1516+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:53:57 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_XS015.dgn





LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1517+50.00 TO STA. 1518+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1517+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:54:16 PM USER: jennifer.kelley
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REVIEWER: JDH 01-22-24
PROJECT ID: 117607
SHEET: P.186 TOTAL: P.276

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1518+43.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 4:18:20 PM USER: jennifer.kelley
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Fill Area (SF): 0	Fill Vol. (CY): 0
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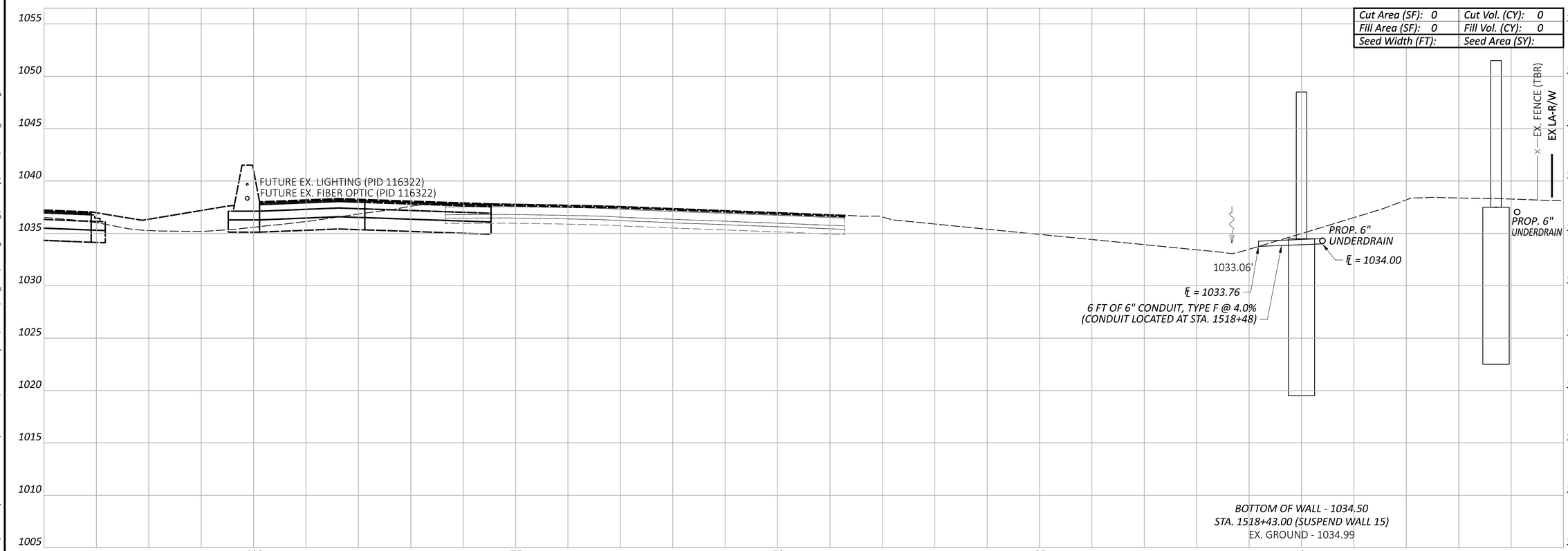

LEGEND

EXISTING SR-161 PRIOR TO PID 116322

FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1518+43.00

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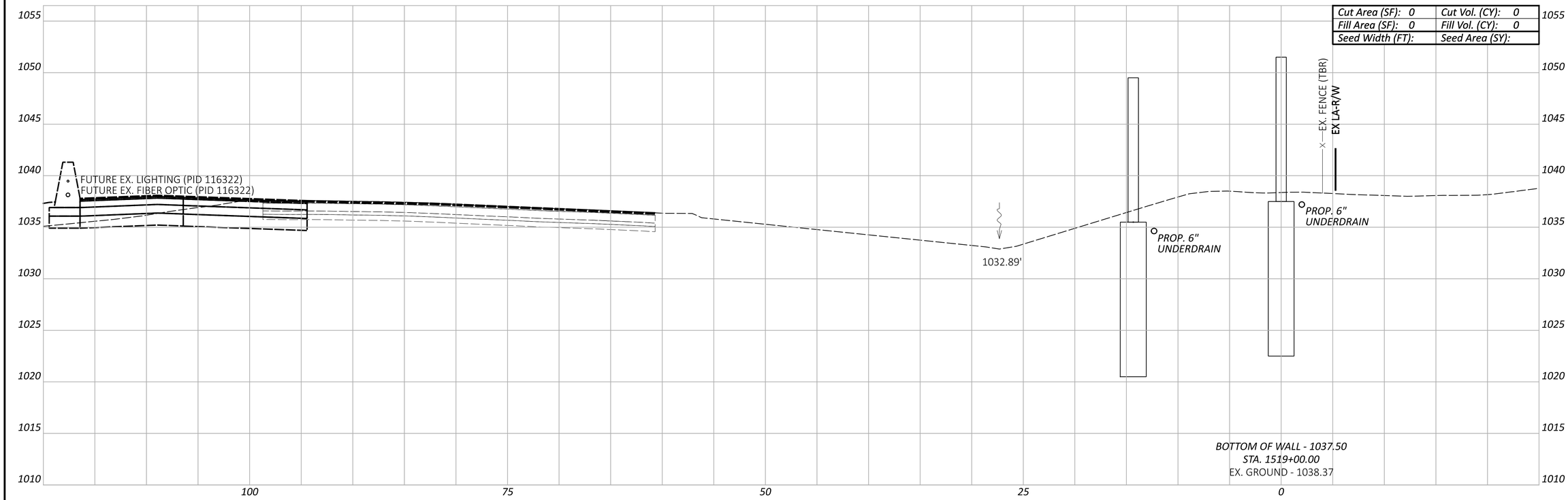
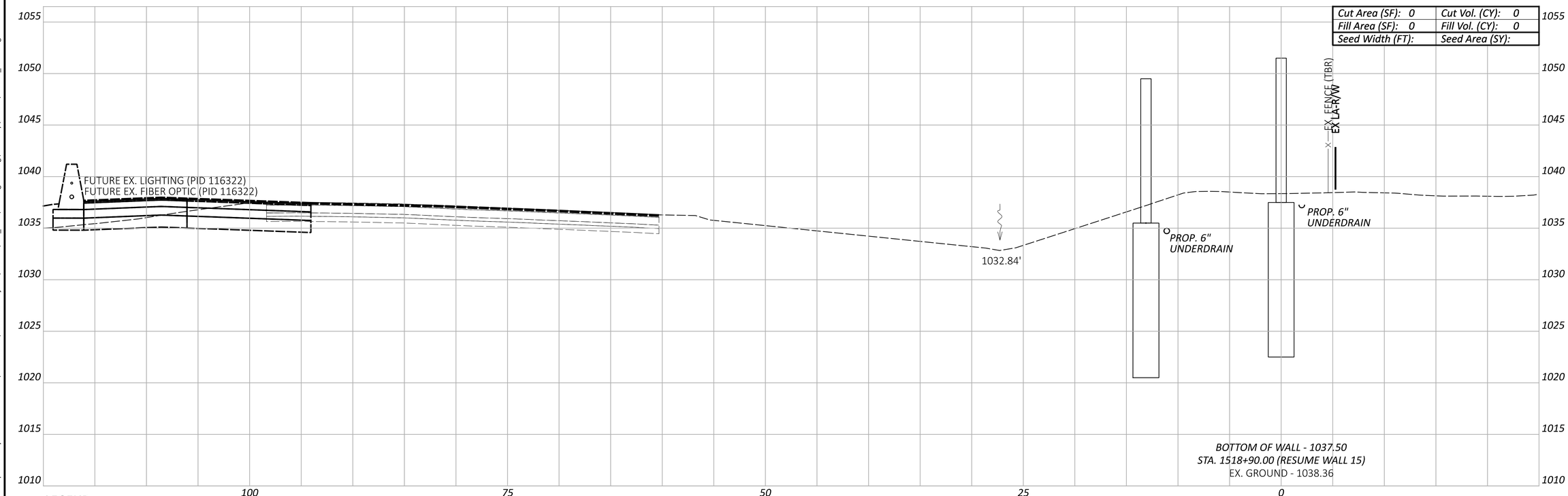
DESIGNER: JMK

REVIEWER: JDH 01-22-24

PROJECT ID: 117607

SHEET: P.187 TOTAL: P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 15
STA. 1518+90.00 TO STA. 1519+00.00

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PROJECT ID 117607

SHEET P.188 TOTAL P.276

MODEL: BLP_WALL15 - 1518+90.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:54:46 PM USER: jennifer.kelley
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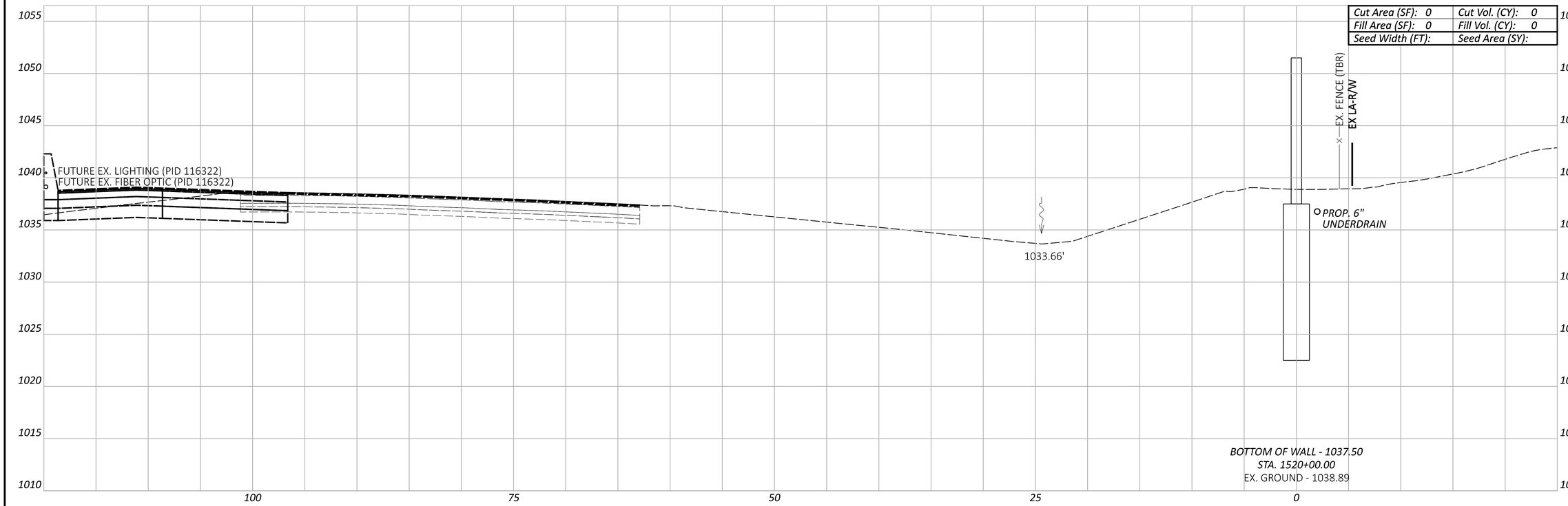

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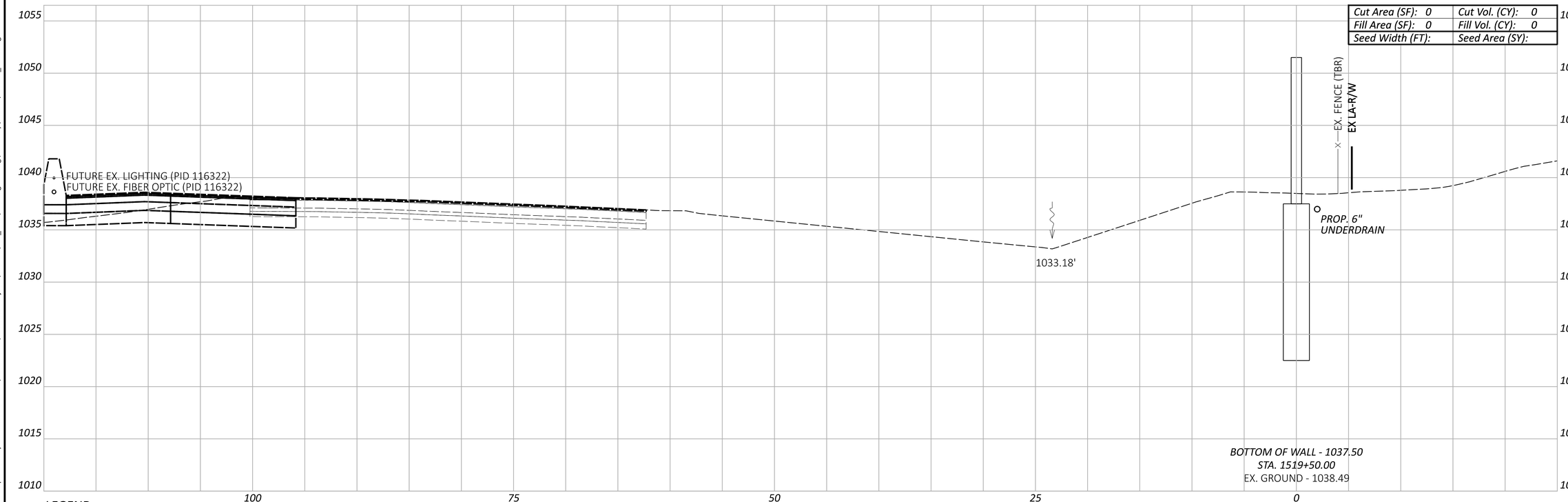

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Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):

LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1519+50.00 TO STA. 1520+00.00

FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1519+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:55:30 PM USER: jennifer.kelley
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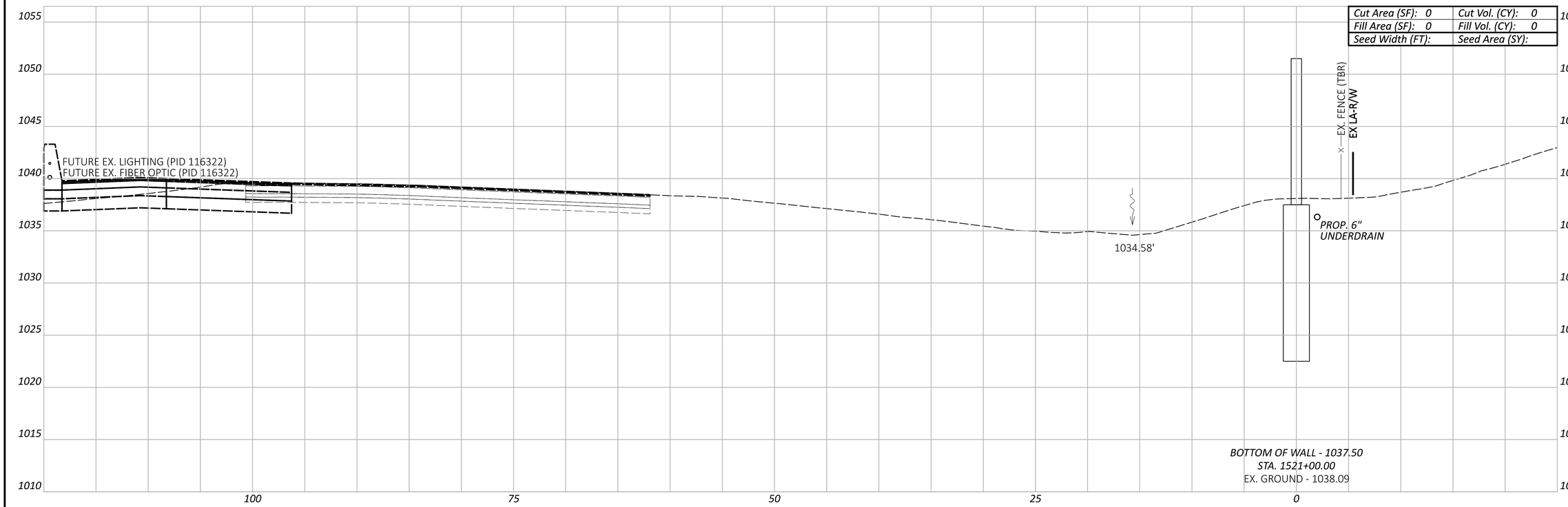
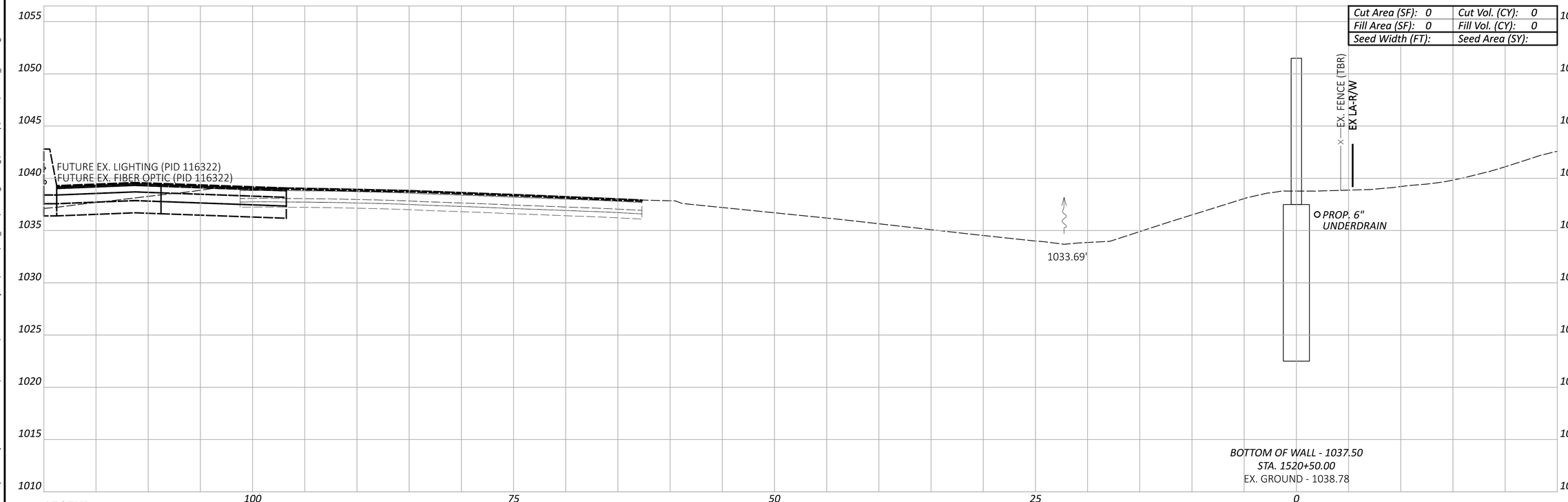
PROJECT ID 117607

SHEET P.189 | TOTAL P.276





LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

FRA-161-15.80 NOISE WALLS

CROSS SECTIONS - WALL 15
STA. 1520+50.00 TO STA. 1521+00.00

Sheet Totals		
Seeding	Cut	Fill

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SHEET P.190 TOTAL P.276

MODEL: BLP_WALL15 - 1520+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:56:14 PM USER: jennifer.kelley
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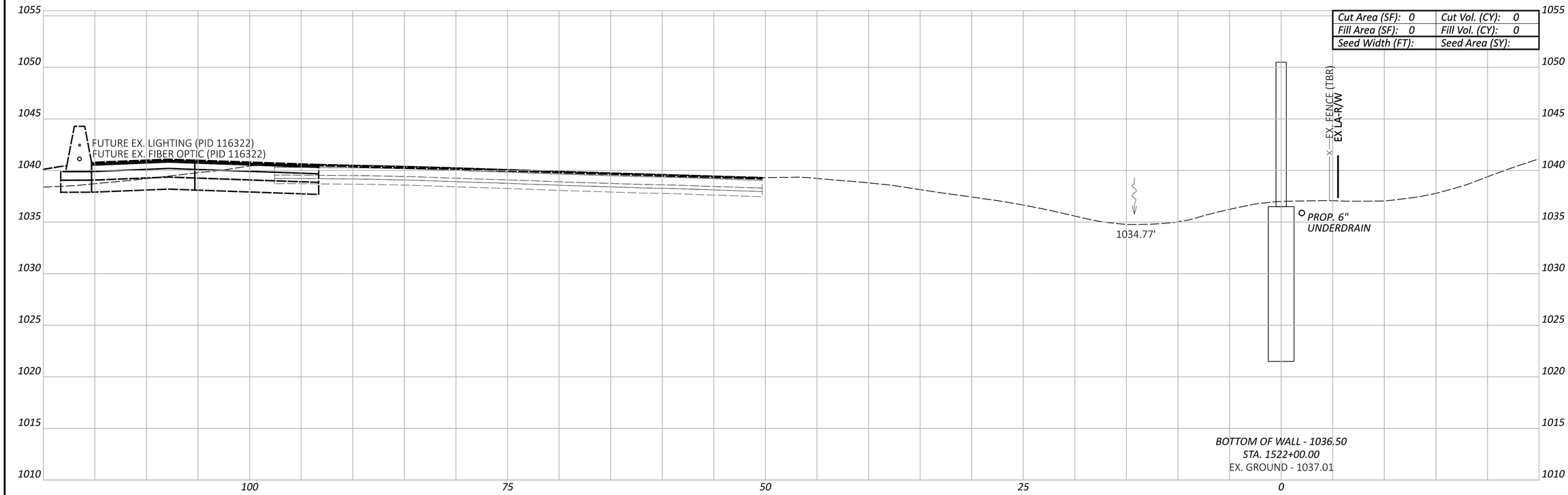

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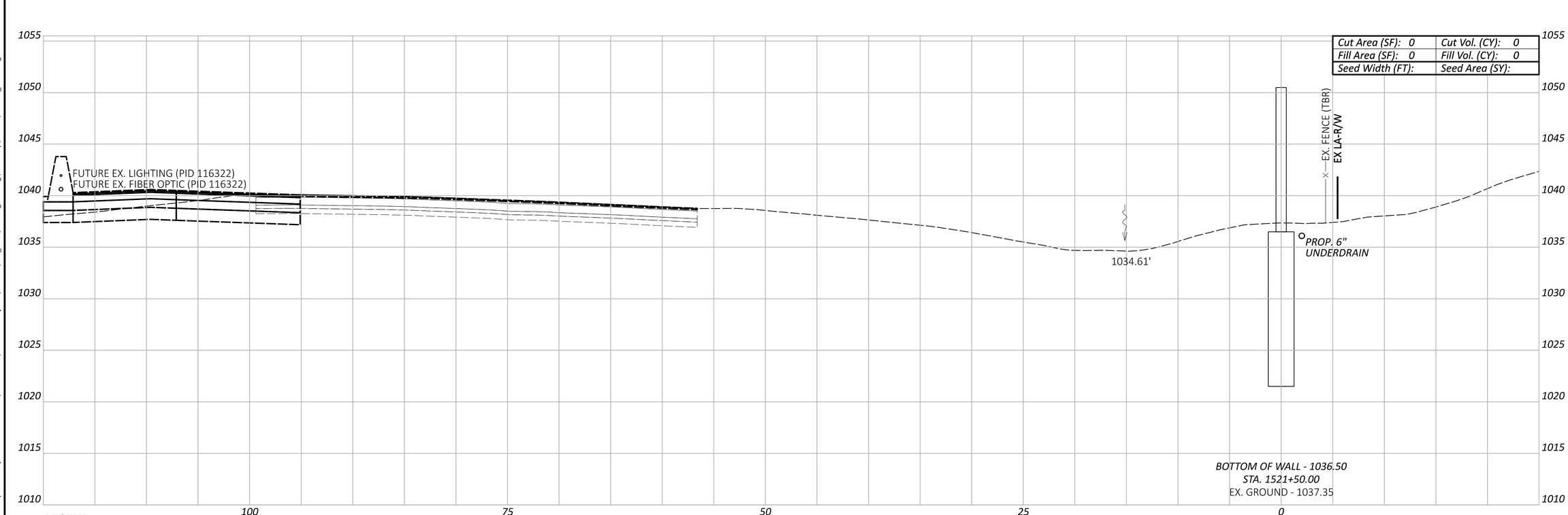

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LEGEND

- EXISTING SR-161 PRIOR TO PID 116322
- FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

CROSS SECTIONS - WALL 15
STA. 1521+50.00 TO STA. 1522+00.00

FRA-161-15.80 NOISE WALLS

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PROJECT ID 117607

SHEET P.191 | TOTAL P.276

MODEL: BLP_WALL15 - 1521+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:57:00 PM USER: jennifer.kelley
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FRA-161-15.80 NOISE WALLS

MODEL: BLP_WALL15 - 1522+26.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 4:32:15 PM USER: jennifer.kelley
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CROSS SECTIONS - WALL 15
STA. 1522+26.00

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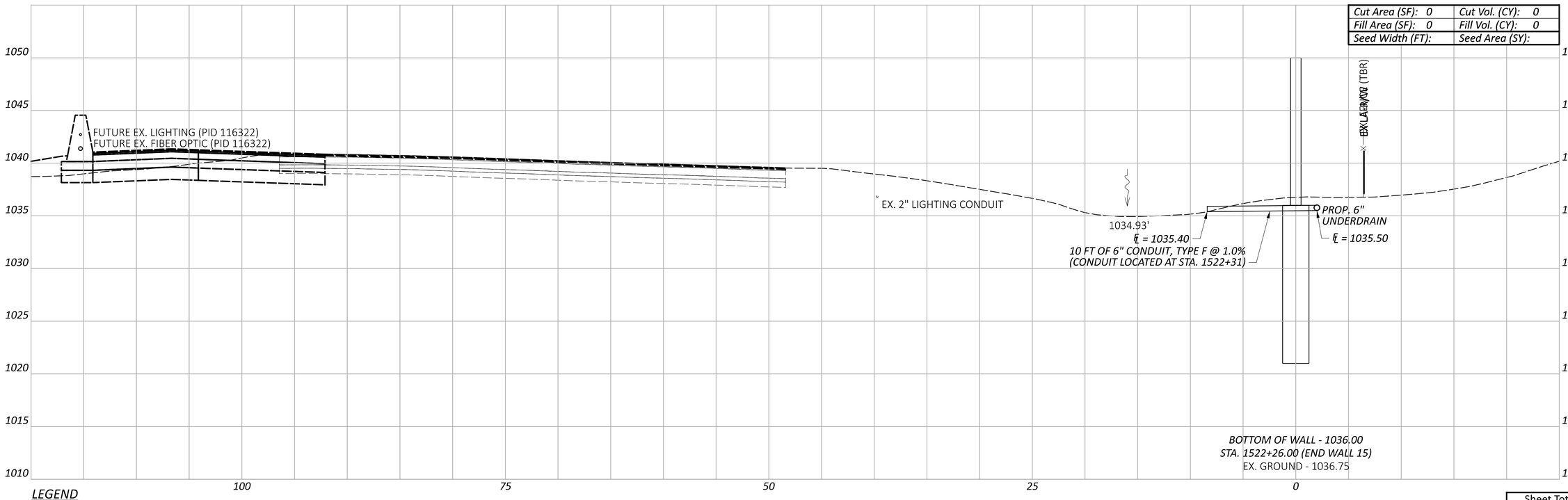
Seed Width (FT):	Seed Area (SY):



LEGEND

- - - - EXISTING SR-161 PRIOR TO PID 116322

— — — FUTURE EXISTING SR-161 AFTER CONSTRUCTION OF PID 116322

Sheet Totals		
Seeding	Cut	Fill

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DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.192 TOTAL P.276

NOISE WALL 3						
DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
1	300+00.00	00D0'00" LT	965.19	7.00	965.50	979.50
2	300+24.00	00D0'00" LT	965.19	7.00	965.50	979.50
3	300+48.00	00D0'00" LT	965.19	7.00	965.50	980.50
4	300+72.00	00D0'00" LT	966.19	7.00	966.50	980.50
5	300+96.00	00D0'00" LT	966.19	7.00	966.50	980.50
6	301+20.00	00D0'00" LT	966.19	8.00	966.50	981.00
7	301+44.00	00D0'00" LT	966.69	8.00	967.00	981.00
8	301+68.00	00D0'00" LT	966.69	8.00	967.00	981.00
9	301+92.00	02°51'26" LT	966.69	8.00	967.00	981.50
10	302+16.00	00D0'00" LT	967.19	8.00	967.50	981.50
11	302+40.00	00D0'00" LT	967.19	8.00	967.50	981.50
12	302+64.00	00D0'00" LT	967.19	8.00	967.50	982.00
13	302+88.00	00D0'00" LT	967.69	8.00	968.00	982.00
14	303+12.00	00D0'00" LT	967.69	6.50	968.00	982.50
15	303+36.00	00D0'00" LT	968.19	6.50	968.50	982.50
16	303+60.00	00D0'00" LT	968.19	6.50	968.50	982.50
17	303+84.00	00D0'00" LT	968.19	6.50	968.50	982.50
18	304+08.00	00D0'00" LT	968.19	6.50	968.50	982.50
19	304+32.00	00D0'00" LT	968.19	6.50	968.50	982.50
20	304+56.00	00D0'00" LT	968.19	6.50	968.50	982.50
21	304+80.00	00D0'00" LT	968.19	6.50	968.50	982.50
22	305+04.00	00D0'00" LT	968.19	6.50	968.50	982.50
23	305+28.00	00D0'00" LT	968.19	6.50	968.50	982.50
24	305+52.00	00D0'00" LT	968.19	6.50	968.50	982.50
25	305+76.00	00D0'00" LT	968.19	6.50	968.50	982.50

NOISE WALL 6						
DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
1	600+00.00	00D0'00" LT	960.19	7.00	960.50	974.50
2	600+24.00	00D0'00" LT	960.19	7.00	960.50	974.50
3	600+48.00	00D0'00" LT	960.19	7.00	960.50	974.50
4	600+72.00	00D0'00" LT	960.19	7.00	960.50	975.50
5	600+96.00	00D0'00" LT	961.19	7.00	961.50	976.50
6	601+08.00	00D0'00" LT	962.19	7.00	962.50	977.50
7	601+20.00	00D0'00" LT	963.19	7.00	963.50	978.50
8	601+32.00	00D0'00" LT	964.19	7.00	964.50	979.50
9	601+44.00	00D0'00" LT	965.19	7.00	965.50	980.00
10	601+56.00	00D0'00" LT	965.69	7.00	966.00	980.50
11	601+68.00	00D0'00" LT	966.19	7.00	966.50	981.00
12	601+92.00	00D0'00" LT	966.69	7.00	967.00	982.00
13	602+16.00	00D0'00" LT	967.69	7.00	968.00	982.00
14	602+40.00	00D0'00" LT	967.69	7.00	968.00	982.00
15	602+64.00	00D0'00" LT	967.69	7.00	968.00	982.50
16	602+88.00	00D0'00" LT	968.19	7.00	968.50	982.50
17	603+12.00	00D0'00" LT	968.19	7.00	968.50	982.50
18	603+36.00	00D0'00" LT	968.19	7.00	968.50	982.50
19	603+60.00	00D0'00" LT	968.19	7.00	968.50	982.50
20	603+84.00	00D0'00" LT	968.19	7.00	968.50	982.50
21	604+08.00	00D0'00" LT	968.19	7.00	968.50	983.00
22	604+32.00	00D0'00" LT	968.69	7.00	969.00	983.00
23	604+56.00	00D0'00" LT	968.69	7.00	969.00	983.00
24	604+80.00	00D0'00" LT	968.69	7.00	969.00	983.00
25	605+04.00	00D0'00" LT	968.69	7.00	969.00	983.00
26	605+28.00	00D0'00" LT	968.69	7.00	969.00	983.00

NOISE WALL 8													
DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION	DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
1	800+00.00	00°00'00" LT	965.69	6.50	966.00	980.00	41	809+60.00	00°00'00" RT	967.69	6.50	968.00	982.50
2	800+24.00	00°00'00" LT	965.69	6.50	966.00	980.00	42	809+84.00	00°00'00" RT	968.19	6.50	968.50	982.50
3	800+48.00	00°00'00" LT	965.69	6.50	966.00	980.00	43	810+08.00	00°00'00" RT	968.19	6.50	968.50	983.00
4	800+72.00	00°00'00" LT	965.69	6.50	966.00	980.50	44	810+32.00	00°00'00" RT	968.69	6.50	969.00	983.50
5	800+96.00	00°00'00" LT	966.19	6.50	966.50	980.50	45	810+56.00	00°00'00" RT	969.19	6.50	969.50	984.00
6	801+20.00	00°00'00" LT	966.19	6.50	966.50	980.50	46	810+80.00	07°30'00" RT	969.69	6.50	970.00	984.00
7	801+44.00	00°00'00" LT	966.19	6.50	966.50	980.50	47	810+96.00	00°00'00" RT	969.69	6.50	970.00	984.50
8	801+68.00	00°00'00" LT	966.19	6.50	966.50	980.50	48	811+12.00	00°00'00" RT	970.19	6.50	970.50	985.00
9	801+92.00	00°00'00" LT	966.19	6.50	966.50	980.50	49	811+28.00	00°00'00" RT	970.69	6.50	971.00	985.00
10	802+16.00	00°00'00" LT	966.19	6.50	966.50	980.50	50	811+44.00	01°52'45" LT	970.69	6.50	971.00	985.50
11	802+40.00	00°00'00" LT	966.19	6.50	966.50	980.50	51	811+58.00	00°00'00" LT	971.19	6.50	971.50	986.00
12	802+64.00	05°46'53" LT	966.19	6.50	966.50	980.50	52	811+72.00	07°26'48" LT	971.69	7.00	972.00	986.50
13	802+88.00	00°00'00" LT	966.19	6.50	966.50	980.50	53	811+96.00	00°00'00" LT	972.19	7.00	972.50	987.00
14	803+12.00	00°00'00" LT	966.19	6.50	966.50	980.50	54	812+20.00	00°00'00" LT	972.69	7.00	973.00	988.00
15	803+36.00	00°00'00" LT	966.19	6.50	966.50	980.50	55	812+44.00	00°00'00" LT	973.69	7.00	974.00	989.00
16	803+60.00	00°00'00" LT	966.19	6.50	966.50	980.50	56	812+68.00	00°00'00" LT	974.69	7.00	975.00	989.00
17	803+84.00	00°00'00" LT	965.69	6.50	966.00	980.50	57	812+92.00	00°00'00" LT	974.69	7.00	975.00	989.00
18	804+08.00	00°00'00" LT	965.69	6.50	966.00	980.00	58	813+16.00	00°00'00" LT	974.69	7.00	975.00	989.00
19	804+32.00	00°00'00" LT	965.19	6.50	965.50	980.00	59	813+40.00	00°00'00" LT	974.69	7.00	975.00	989.00
20	804+56.00	00°00'00" LT	965.19	6.50	965.50	979.50	60	813+64.00	00°00'00" LT	974.69	7.00	975.00	989.00
21	804+80.00	00°00'00" LT	965.19	6.50	965.50	979.50	61	813+88.00	00°00'00" LT	974.19	6.50	974.50	989.00
22	805+04.00	00°00'00" LT	965.19	6.50	965.50	979.50	62	814+12.00	00°00'00" LT	974.19	6.50	974.50	988.50
23	805+28.00	00°00'00" LT	965.19	6.50	965.50	979.50	63	814+36.00	00°00'00" LT	973.69	6.50	974.00	988.50
24	805+52.00	00°00'00" LT	965.19	6.50	965.50	979.50	64	814+60.00	00°11'01" LT	973.69	6.50	974.00	988.00
25	805+76.00	00°00'00" LT	965.19	6.50	965.50	979.50	65	814+84.00	00°00'00" LT	973.69	6.50	974.00	988.00
26	806+00.00	00°00'00" LT	965.19	6.50	965.50	979.50	66	815+08.00	00°00'00" LT	973.69	6.50	974.00	988.00
27	806+24.00	00°00'00" LT	965.19	6.50	965.50	979.50	67	815+32.00	00°00'00" LT	973.69	6.50	974.00	988.00
28	806+48.00	00°00'00" LT	965.19	6.50	965.50	979.50	68	815+56.00	00°00'00" LT	973.69	6.50	974.00	988.00
29	806+72.00	05°54'06" RT	965.19	6.50	965.50	979.50	69	815+80.00	00°00'00" LT	973.69	6.50	974.00	988.00
30	806+96.00	00°00'00" RT	965.19	6.50	965.50	980.00	70	816+04.00	00°00'00" LT	973.19	6.50	973.50	988.00
31	807+20.00	00°00'00" RT	965.69	6.50	966.00	980.50	71	816+28.00	00°00'00" LT	973.19	6.50	973.50	987.50
32	807+44.00	00°00'00" RT	966.19	6.50	966.50	980.50	72	816+52.00	00°00'00" LT	973.19	6.50	973.50	987.50
33	807+68.00	00°00'00" RT	966.19	6.50	966.50	981.00	73	816+76.00	00°00'00" LT	973.19	6.50	973.50	987.50
34	807+92.00	00°00'00" RT	966.69	6.50	967.00	981.00	74	817+00.00	00°00'00" LT	973.19	6.50	973.50	987.50
35	808+16.00	00°00'00" RT	966.69	6.50	967.00	981.00	75	817+24.00	00°00'00" LT	973.19	6.50	973.50	987.50
36	808+40.00	00°00'00" RT	966.69	6.50	967.00	981.50	76	817+48.00	00°00'00" LT	973.19	6.50	973.50	987.50
37	808+64.00	00°00'00" RT	967.19	6.50	967.50	981.50	77	817+72.00	00°00'00" LT	973.19	6.50	973.50	987.50
38	808+88.00	00°00'00" RT	967.19	6.50	967.50	981.50	78	817+96.00	00°00'00" LT	973.19	6.50	973.50	987.50
39	809+12.00	00°00'00" RT	967.19	6.50	967.50	981.50	79	818+08.00	00°00'00" LT	973.19	6.50	973.50	987.50
40	809+36.00	00°00'00" RT	967.19	6.50	967.50	982.00							

NOTE:
FOR POST TYPE SPECIFICATIONS, SEE SHEETS P.197 - P.200

NOISE WALL DETAILS - WALLS 3, 6 & 8

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.193 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-21 TIME: 9:09:33 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GM001.dgn

NOISE WALL 9

DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
1	900+00.00	00D0'00" RT	973.19	7.00	973.50	987.50
2	900+16.00	00D0'00" RT	973.19	7.00	973.50	987.50
3	900+40.00	00D0'00" RT	973.19	7.00	973.50	987.50
4	900+64.00	00D0'00" RT	973.19	7.00	973.50	988.00
5	900+88.00	00D0'00" RT	973.69	7.00	974.00	988.00
6	901+12.00	00D0'00" RT	973.69	7.00	974.00	988.00
7	901+36.00	00D0'00" RT	973.69	7.00	974.00	988.00
8	901+52.00	00D0'00" RT	973.69	7.00	974.00	988.00
9	901+68.00	00D0'00" RT	973.69	7.00	974.00	988.50
10	901+84.00	00D0'00" RT	974.19	7.00	974.50	988.50
11	902+08.00	00D0'00" RT	974.19	7.00	974.50	988.50
12	902+32.00	00D0'00" RT	974.19	7.00	974.50	988.50
13	902+56.00	02°23'44" RT	974.19	7.00	974.50	989.00
14	902+80.00	00D0'00" RT	974.69	7.00	975.00	989.50
15	903+04.00	00D0'00" RT	975.19	7.00	975.50	990.00
16	903+28.00	00D0'00" RT	975.69	7.00	976.00	990.00
17	903+52.00	00D0'00" RT	975.69	7.00	976.00	990.00
18	903+76.00	00D0'00" RT	975.69	7.00	976.00	990.00
19	904+00.00	00D0'00" RT	975.69	7.00	976.00	990.50
20	904+24.00	00D0'00" RT	976.19	7.00	976.50	990.50
21	904+48.00	00D0'00" RT	976.19	7.00	976.50	991.00
22	904+72.00	00D0'00" RT	976.69	7.00	977.00	991.00
23	904+96.00	00D0'00" RT	976.69	7.00	977.00	991.50
24	905+20.00	00D0'00" RT	977.19	7.00	977.50	991.50
25	905+44.00	00D0'00" RT	977.19	7.00	977.50	992.00
26	905+68.00	00D0'00" RT	977.69	7.00	978.00	992.50
27	905+92.00	04°48'10" RT	978.19	7.00	978.50	992.50
28	906+16.00	00D0'00" RT	978.19	7.00	978.50	992.50
29	906+40.00	00D0'00" RT	978.19	7.00	978.50	992.50
30	906+64.00	00D0'00" RT	978.19	7.00	978.50	993.00
31	906+88.00	00D0'00" RT	978.69	7.00	979.00	993.50
32	907+12.00	00D0'00" RT	979.19	7.00	979.50	993.50
33	907+36.00	00D0'00" RT	979.19	7.00	979.50	994.00
34	907+60.00	00D0'00" RT	979.69	7.00	980.00	994.50
35	907+84.00	00D0'00" RT	980.19	7.00	980.50	994.50
36	908+08.00	00D0'00" RT	980.19	7.00	980.50	994.50
37	908+32.00	00D0'00" RT	980.19	7.00	980.50	995.00
38	908+56.00	00D0'00" RT	980.69	7.00	981.00	995.00
39	908+80.00	00D0'00" RT	980.69	7.00	981.00	995.50
40	909+04.00	00D0'00" RT	981.19	7.00	981.50	995.50
41	909+28.00	05°00'48" RT	981.19	7.00	981.50	995.50
42	909+52.00	00D0'00" RT	981.19	7.00	981.50	996.00
43	909+76.00	00D0'00" RT	981.69	7.00	982.00	996.00
44	910+00.00	00D0'00" RT	981.69	7.00	982.00	996.00
45	910+24.00	00D0'00" RT	981.69	7.00	982.00	996.50
46	910+48.00	00D0'00" RT	982.19	7.00	982.50	997.00
47	910+72.00	00D0'00" RT	982.69	7.00	983.00	997.00
48	910+96.00	00D0'00" RT	982.69	7.00	983.00	997.50
49	911+20.00	00D0'00" RT	983.19	7.00	983.50	997.50
50	911+44.00	00D0'00" RT	983.19	7.00	983.50	997.50
51	911+68.00	00D0'00" RT	983.19	7.00	983.50	998.00
52	911+85.00	00D0'00" RT	983.69	7.00	984.00	998.00
53	912+02.00	00D0'00" RT	983.69	7.00	984.00	998.00
54	912+19.00	00D0'00" RT	982.69	7.00	983.00	998.00
55	912+36.00	00D0'00" RT	981.69	7.00	982.00	997.00
56	912+53.00	00D0'00" RT	980.69	7.00	981.00	996.00
57	912+70.00	00D0'00" RT	980.69	7.00	981.00	995.00

NOISE WALL 11

DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
1	1100+00.00	00°00'00" RT	974.69	6.50	975.00	989.00
2	1100+24.00	00°00'00" RT	974.69	6.50	975.00	989.50
3	1100+48.00	00°00'00" RT	975.19	6.50	975.50	990.00
4	1100+72.00	00°00'00" RT	975.69	6.50	976.00	990.00
5	1100+96.00	00°00'00" RT	975.69	6.50	976.00	990.00
6	1101+20.00	00°00'00" RT	975.69	7.00	976.00	990.00
7	1101+44.00	00°00'00" RT	975.69	7.00	976.00	990.50
8	1101+68.00	00°00'00" RT	976.19	7.00	976.50	990.50
9	1101+92.00	00°00'00" RT	976.19	7.00	976.50	990.50
10	1102+16.00	00°00'00" RT	976.19	7.00	976.50	990.50
11	1102+40.00	00°00'00" RT	976.19	7.00	976.50	990.50
12	1102+64.00	00°00'00" RT	976.19	7.00	976.50	990.50
13	1102+88.00	00°00'00" RT	976.19	7.00	976.50	991.00
14	1103+12.00	00°00'00" RT	976.69	6.50	977.00	991.50
15	1103+36.00	00°00'00" RT	977.19	6.50	977.50	992.00
16	1103+60.00	00°00'00" RT	977.69	6.50	978.00	992.50
17	1103+84.00	00°00'00" RT	978.19	6.50	978.50	993.00
18	1104+08.00	00°00'00" RT	978.69	6.50	979.00	993.50
19	1104+32.00	00°00'00" RT	979.19	6.50	979.50	993.50
20	1104+56.00	00°00'00" RT	979.19	6.50	979.50	993.50
21	1104+80.00	00°00'00" RT	979.19	6.50	979.50	993.50
22	1105+04.00	00°00'00" RT	979.19	6.50	979.50	993.50
23	1105+28.00	00°00'00" RT	979.19	6.50	979.50	994.00
24	1105+52.00	00°00'00" RT	979.69	6.50	980.00	994.00
25	1105+76.00	00°00'00" RT	979.69	6.50	980.00	994.00
26	1106+00.00	00°00'00" RT	979.69	6.50	980.00	994.00
27	1106+24.00	00°00'00" RT	979.69	6.50	980.00	994.00
28	1106+48.00	00°00'00" RT	979.69	6.50	980.00	994.00
29	1106+72.00	00°00'00" RT	979.69	6.50	980.00	994.00
30	1106+96.00	00°00'00" RT	979.69	6.50	980.00	994.00
31	1107+20.00	00°00'00" RT	979.69	7.00	980.00	994.00
32	1107+44.00	00°00'00" RT	979.19	7.00	979.50	994.00
33	1107+68.00	00°00'00" RT	979.19	7.00	979.50	993.50
34	1107+92.00	06°02'50" RT	979.19	7.00	979.50	993.50

DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
35	1108+16.00	00°00'00" RT	979.19	7.00	979.50	993.50
36	1108+40.00	00°00'00" RT	979.19	7.00	979.50	994.00
37	1108+64.00	00°00'00" RT	979.69	7.00	980.00	994.00
38	1108+88.00	00°00'00" RT	979.69	7.00	980.00	994.50
39	1109+12.00	00°00'00" RT	980.19	6.50	980.50	995.00
40	1109+36.00	00°00'00" RT	980.69	6.50	981.00	995.00
41	1109+60.00	00°00'00" RT	980.69	6.50	981.00	995.00
42	1109+84.00	00°00'00" RT	980.69	6.50	981.00	995.00
43	1110+08.00	00°00'00" RT	980.69	6.50	981.00	995.00
44	1110+32.00	03°30'30" RT	980.69	6.50	981.00	995.00
45	1110+56.00	00°00'00" RT	980.69	6.50	981.00	995.50
46	1110+80.00	00°00'00" RT	981.19	6.50	981.50	995.50
47	1111+04.00	00°00'00" RT	981.19	6.50	981.50	995.50
48	1111+28.00	00°00'00" RT	981.19	6.50	981.50	995.50
49	1111+52.00	00°00'00" RT	981.19	6.50	981.50	995.50
50	1111+76.00	00°00'00" RT	981.19	6.50	981.50	996.00
51	1112+00.00	00°00'00" RT	981.69	6.50	982.00	996.00
52	1112+24.00	00°00'00" RT	981.69	6.50	982.00	996.00
53	1112+48.00	00°00'00" RT	981.69	6.50	982.00	996.00
54	1112+72.00	00°00'00" RT	981.69	6.50	982.00	996.00
55	1112+96.00	00°00'00" RT	981.69	6.50	982.00	996.00
56	1113+20.00	00°00'00" RT	981.69	6.50	982.00	996.00
57	1113+44.00	00°00'00" RT	981.69	6.50	982.00	996.00
58	1113+68.00	00°00'00" RT	981.69	6.50	982.00	996.50
59	1113+92.00	06°13'00" RT	982.19	6.50	982.50	996.50
60	1114+16.00	00°00'00" RT	982.19	6.50	982.50	996.50
61	1114+40.00	00°00'00" RT	982.19	6.50	982.50	996.50
62	1114+64.00	00°00'00" RT	982.19	6.50	982.50	996.50
63	1114+88.00	00°00'00" RT	982.19	6.50	982.50	996.50
64	1115+12.00	00°00'00" RT	982.19	6.50	982.50	996.50
65	1115+36.00	00°00'00" RT	982.19	6.50	982.50	996.50
66	1115+60.00	00°00'00" RT	982.19	6.50	982.50	996.50
67	1115+84.00	00°00'00" RT	982.19	6.50	982.50	996.50

NOISE WALL 12

DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
1	120+00.00	00°00'00" RT	981.19	7.00	981.50	995.50
2	120+12.00	00°00'00" RT	981.19	7.00	981.50	996.00
3	120+24.00	02°23'37" RT	981.69	7.00	982.00	996.50
4	120+36.00	00°00'00" RT	982.19	7.00	982.50	997.00
5	120+60.00	00°00'00" RT	982.69	7.00	983.00	997.50
6	120+72.00	00°00'00" RT	983.19	7.00	983.50	998.00
7	120+96.00	00°00'00" RT	983.69	7.00	984.00	998.50
8	121+20.00	00°00'00" RT	984.19	7.00	984.50	999.50
9	121+44.00	04°47'34" RT	985.19	7.00	985.50	999.50
10	121+68.00	00°00'00" RT	985.19	7.00	985.50	999.50
11	121+92.00	00°00'00" RT	985.19	7.00	985.50	999.50
12	122+16.00	00°00'00" RT	985.19	7.00	985.50	999.50
13	122+40.00	00°00'00" RT	984.19	7.00	984.50	999.50

DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
14	122+64.00	04°50'38" RT	984.19	7.00	984.50	999.50
15	122+88.00	00°00'00" RT	984.19	7.00	984.50	999.50
16	123+12.00	00°00'00" RT	985.19	7.00	985.50	1000.00
17	123+36.00	00°00'00" RT	985.69	7.00	986.00	1000.50
18	123+60.00	00°00'00" RT	986.19	7.00	986.50	1000.50
19	123+84.00	06°56'28" RT	986.19	7.00	986.50	1000.50
20	123+92.00	00°00'00" RT	986.19	7.00	986.50	1000.50
21	124+16.00	00°00'00" RT	986.19	7.00	986.50	1000.50
22	124+35.00	00°00'00" RT	986.19	8.50	986.50	1000.50
23	124+54.00	00°00'00" RT	986.19	8.50	986.50	1000.50
24	124+73.00	00°00'00" RT	986.19	8.50	986.50	1000.50
25	124+97.00	00°00'00" RT	986.19	8.50	986.50	1000.50

NOTE:
FOR POST TYPE SPECIFICATIONS, SEE SHEETS P.197 - P.200

FRA-161-15.80 NOISE WALLS

NOISE WALL DETAILS - WALLS 9, 11 & 12

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:58:34 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\1437220\400_CAD\400-Engineering\Roadway\Sheets\117607_GM002.dgn

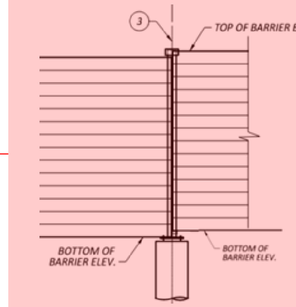
DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 318-4000
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.194 TOTAL P.276

NOISE WALL 15													
DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION	DRILLED SHAFT NO.	WORKPOINT STATION	DEFLECTION ANGLE	TOP OF DRILLED SHAFT ELEVATION	SHAFT LENGTH (FEET)	BOTTOM OF BARRIER ELEVATION	TOP OF BARRIER ELEVATION
1	1500+00.00	00°00'00" RT	1028.69	7.00	1029.00	1043.00	45	1511+71.00	00°00'00" RT	1036.19	7.00	1036.50	1051.00
2	1500+24.00	00°00'00" RT	1028.69	7.00	1029.00	1043.50	46	1511+95.00	00°00'00" RT	1036.19	7.00	1036.50	1050.50
3	1500+48.00	00°00'00" RT	1029.19	7.00	1029.50	1044.00	47	1512+19.00	00°00'00" RT	1036.19	7.00	1036.50	1050.50
4	1500+72.00	00°00'00" RT	1029.69	7.00	1030.00	1044.50	48	1512+43.00	00°00'00" RT	1036.19	7.00	1036.50	1050.50
5	1500+96.00	00°00'00" RT	1030.19	7.00	1030.50	1045.00	49	1512+67.00	00°00'00" RT	1036.19	7.00	1036.50	1050.50
6	1501+11.00	00°00'00" RT	1030.69	7.00	1031.00	1046.00	50	1512+91.00	00°00'00" RT	1036.19	7.00	1036.50	1050.50
7	1501+26.00	00°00'00" RT	1031.69	7.00	1032.00	1046.00	51	1513+15.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
8	1501+50.00	00°00'00" RT	1031.69	7.00	1032.00	1046.50	52	1513+39.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
9	1501+65.00	00°00'00" RT	1032.19	7.00	1032.50	1046.50	53	1513+63.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
10	1501+80.00	00°00'00" RT	1032.19	7.00	1032.50	1047.00	54	1513+87.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
11	1502+00.00	00°00'00" RT	1032.69	7.00	1033.00	1048.00	55	1514+11.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
12	1502+16.00	00°00'00" RT	1033.69	7.00	1034.00	1048.50	56	1514+35.00	00°38'16" RT	1036.19	6.50	1036.50	1050.50
13	1502+40.00	00°00'00" RT	1034.19	7.00	1034.50	1048.50	57	1514+59.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
SUSPEND NOISE WALL 15							58	1514+83.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
14	1504+27.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	59	1515+07.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
15	1504+51.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	60	1515+31.00	00°00'00" RT	1036.19	6.50	1036.50	1050.50
16	1504+75.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	61	1515+55.00	00°00'00" RT	1036.19	6.50	1036.50	1051.00
17	1504+99.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	62	1515+79.00	00°00'00" RT	1036.69	6.50	1037.00	1051.00
18	1505+23.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	63	1516+03.00	00°00'00" RT	1036.69	6.50	1037.00	1051.00
19	1505+47.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	64	1516+27.00	00°00'00" RT	1036.69	6.50	1037.00	1051.50
20	1505+71.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	65	1516+51.00	00°00'00" RT	1037.19	6.50	1037.50	1051.50
21	1505+95.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	66	1516+75.00	00°00'00" RT	1037.19	6.50	1037.50	1052.00
22	1506+19.00	00°00'00" RT	1037.69	7.00	1038.00	1052.00	67	1516+99.00	00°00'00" RT	1037.69	6.50	1038.00	1052.00
23	1506+43.00	00°00'00" RT	1037.69	7.00	1038.00	1052.50	68	1517+23.00	00°00'00" RT	1037.69	8.50	1038.00	1052.00
24	1506+67.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	69	1517+47.00	00°00'00" RT	1037.19	8.50	1037.50	1052.00
25	1506+91.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	70	1517+71.00	00°00'00" RT	1036.19	8.50	1036.50	1051.50
26	1507+15.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	71	1517+95.00	00°00'00" RT	1035.19	8.50	1035.50	1050.50
27	1507+39.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	72	1518+19.00	00°00'00" RT	1034.19	8.50	1034.50	1049.50
28	1507+63.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	73	1518+43.00	00°00'00" RT	1034.19	8.50	1034.50	1048.50
29	1507+87.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	SUSPEND NOISE WALL 15						
30	1508+11.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	74	1518+90.00	00°00'00" RT	1037.19	8.50	1037.50	1051.50
31	1508+35.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	75	1519+14.00	00°00'00" RT	1037.19	8.50	1037.50	1051.50
32	1508+59.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	76	1519+38.00	00°00'00" RT	1037.19	8.50	1037.50	1051.50
33	1508+83.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	77	1519+62.00	00°00'00" RT	1037.19	8.50	1037.50	1051.50
34	1509+07.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	78	1519+86.00	00°00'00" RT	1037.19	7.00	1037.50	1051.50
35	1509+31.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	79	1520+10.00	00°00'00" RT	1037.19	7.00	1037.50	1051.50
36	1509+55.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	80	1520+34.00	00°00'00" RT	1037.19	7.00	1037.50	1051.50
37	1509+79.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	81	1520+58.00	00°00'00" RT	1037.19	7.00	1037.50	1051.50
38	1510+03.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	82	1520+82.00	00°00'00" RT	1037.19	7.00	1037.50	1051.50
39	1510+27.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	83	1521+06.00	00°00'00" RT	1036.69	7.00	1037.00	1051.50
40	1510+51.00	00°00'00" RT	1038.19	7.00	1038.50	1052.50	84	1521+30.00	00°00'00" RT	1036.19	7.00	1036.50	1051.00
41	1510+75.00	00°00'00" RT	1037.19	7.00	1037.50	1052.50	85	1521+54.00	00°00'00" RT	1036.19	9.50	1036.50	1050.50
42	1510+99.00	00°00'00" RT	1037.19	7.00	1037.50	1051.50	86	1521+78.00	00°00'00" RT	1036.19	9.50	1036.50	1050.50
43	1511+23.00	00°00'00" RT	1036.69	7.00	1037.00	1051.50	87	1522+02.00	00°00'00" RT	1035.69	9.50	1036.00	1050.50
44	1511+47.00	00°00'00" RT	1036.69	7.00	1037.00	1051.00	88	1522+26.00	00°00'00" RT	1035.69	9.50	1036.00	1050.00

ARCADIS RESPONSE:
Complied BY adding the note.

Add note to clarify which elvation



Note: checked bottommost and topmost elevations on plan sheets - they match these tables (all walls).

ARCADIS RESPONSE:
Noted

NOTE:
FOR POST TYPE SPECIFICATIONS, SEE SHEETS P.197 - P.200

NOISE WALL DETAILS - WALL 15

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.195 TOTAL P.276

FRA-161-15.80 NOISE WALLS

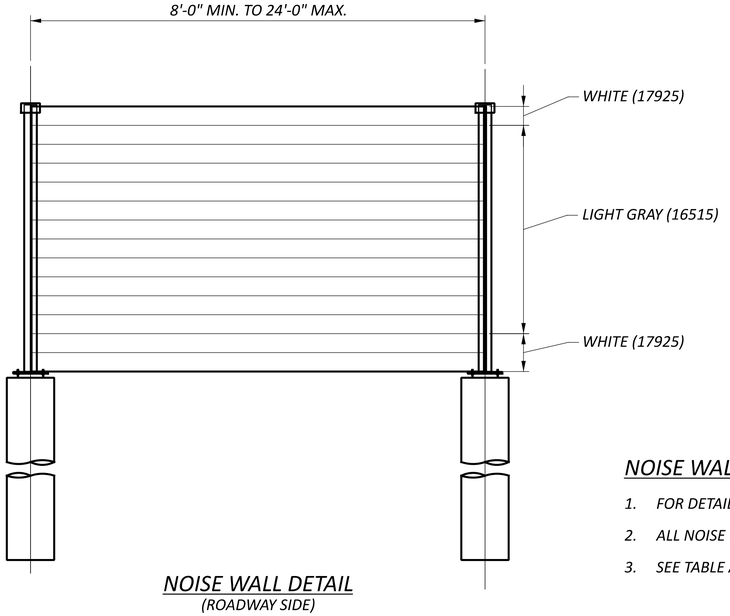
MODEL: Sheet_SurvFl PAPERSIZE: 34x22 (in.) DATE: 2024-01-21 TIME: 9:09:46 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\1143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GM003.dgn

PANEL MATERIAL AND ARCHITECTURAL SURFACE TREATMENT

NOISE BARRIER	PANEL MATERIAL	RESIDENTIAL SIDE TREATMENT		ROADWAY SIDE TREATMENT	
		COLOR	TEXTURE	COLOR	TEXTURE
		FEDERAL COLOR NUMBER	FORMLINER ID	FEDERAL COLOR NUMBER	FORMLINER ID
WALL 3	FIBERGLASS	POST COVERS: LIGHT GRAY (16515) PANELS: LIGHT GRAY (16515)	N/A	POST COVERS: WHITE (17925) TOP PANEL OF EACH BAY: WHITE (17925) BOTTOM TWO PANELS OF EACH BAY: WHITE (17925) ALL OTHER PANELS*: LIGHT GRAY (16515)	N/A
WALL 6	FIBERGLASS	POST COVERS: LIGHT GRAY (16515) PANELS: LIGHT GRAY (16515)	N/A	POST COVERS: WHITE (17925) TOP PANEL OF EACH BAY: WHITE (17925) BOTTOM TWO PANELS OF EACH BAY: WHITE (17925) ALL OTHER PANELS*: LIGHT GRAY (16515)	N/A
WALL 8	FIBERGLASS	POST COVERS: LIGHT GRAY (16515) PANELS: LIGHT GRAY (16515)	N/A	POST COVERS: WHITE (17925) TOP PANEL OF EACH BAY: WHITE (17925) BOTTOM TWO PANELS OF EACH BAY: WHITE (17925) ALL OTHER PANELS*: LIGHT GRAY (16515)	N/A
WALL 9	FIBERGLASS	POST COVERS: LIGHT GRAY (16515) PANELS: LIGHT GRAY (16515)	N/A	POST COVERS: WHITE (17925) TOP PANEL OF EACH BAY: WHITE (17925) BOTTOM TWO PANELS OF EACH BAY: WHITE (17925) ALL OTHER PANELS*: LIGHT GRAY (16515)	N/A
WALL 11	FIBERGLASS	POST COVERS: LIGHT GRAY (16515) PANELS: LIGHT GRAY (16515)	N/A	POST COVERS: WHITE (17925) TOP PANEL OF EACH BAY: WHITE (17925) BOTTOM TWO PANELS OF EACH BAY: WHITE (17925) ALL OTHER PANELS*: LIGHT GRAY (16515)	N/A
WALL 15	FIBERGLASS	POST COVERS: LIGHT GRAY (16515) PANELS: LIGHT GRAY (16515)	N/A	POST COVERS: WHITE (17925) TOP PANEL OF EACH BAY: WHITE (17925) BOTTOM TWO PANELS OF EACH BAY: WHITE (17925) ALL OTHER PANELS*: LIGHT GRAY (16515)	N/A

** INCLUDES ALL PANELS BETWEEN THE TOP PANEL AND THE BOTTOM TWO PANELS*

AESTHETIC SURFACE TREATMENT:
THE SURFACE OF ALL NOISE PANELS SHALL HAVE A PATTERN SPECIFIED BY THE CHART ABOVE. PATTERN RELIEF SHALL BE A MINIMUM OF 1". THE COLOR SHALL BE AS SPECIFIED BY THE CHART ABOVE, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS.



NOISE WALL DETAIL
(ROADWAY SIDE)

NOISE WALL PANEL NOTES:

1. *FOR DETAILS NOT SHOWN SEE STD. DWG. NBS-1-09*
2. *ALL NOISE WALL PANELS SHALL BE REFLECTIVE.*
3. *SEE TABLE ABOVE FOR ARCHITECTURAL SURFACE TREATMENTS.*

NOISE WALL DETAILS

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.196 TOTAL P.276

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:58:56 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GM004.dgn

From:	Butler, Steve
To:	Hackenbracht, Jeff; Saeed, Shirwan
Subject:	FW: Pages from PID 117607_FRA-161-15.80 Noise Walls_Stage 2_01-22-24_Markups.pdf
Date:	Thursday, March 21, 2024 11:27:24 AM
Attachments:	image001.png

Please see response in Magenta below.

Steven Butler PE
Associate - Principal
23 Triangle Park Drive | Cincinnati | OH | 45246 | USA
T: +1 513 942 3141 ext 51915
www.arcadis.com

You don't often get email from katherine.montoya@dot.ohio.gov. Learn why this is important

Jeff,
Below are Mike Loeffler's (blue) and my (green) responses to your questions. Let me know if you'd like me to set up a meeting with Mike.
Thanks,
Katie

From: Hackenbracht, Jeff <jeff.hackenbracht@arcadis.com>
Sent: Monday, March 18, 2024 11:35 AM
To: Montoya, Katherine <Katherine.Montoya@dot.ohio.gov>
Cc: Saeed, Shirwan <shirwan.saeed@arcadis.com>; Butler, Steve <steven.butler@arcadis.com>; Kelley, Jenn <jennifer.kelley@arcadis.com>
Subject: FW: Pages from PID 117607_FRA-161-15.80 Noise Walls_Stage 2_01-22-24_Markups.pdf

Hi Katie,

Our structural staff has a few Stage 2 comments that we have provided responses for ODOT's consideration and/or requests for additional guidance. Please see below for the comments.

Your help in coordinating answers to our responses would be appreciated. If we need to have a follow up call, please advise.

Thanks,
jeff

From: Saeed, Shirwan <shirwan.saeed@arcadis.com>
Sent: Monday, March 18, 2024 11:27 AM
To: Hackenbracht, Jeff <jeff.hackenbracht@arcadis.com>; Butler, Steve <steven.butler@arcadis.com>
Cc: Jennifer Kelley <jennifer.kelley@ibigroup.com>
Subject: RE: Pages from PID 117607_FRA-161-15.80 Noise Walls_Stage 2_01-22-24_Markups.pdf

Good morning Jeff,

Few questions for ODOT:

1. Comment on P.199: General question - is there any reason the back-up bracket has to be an L4x3x5/16 and not just a 4x5/16 plate weld to the web. The use of the straight plate aids in less material, less maintenance issues, and warping issues during galvanizing.
   Arcadis Response: We believe that use of plates could lead to fatigue issues over time. Arcadis respectfully recommends utilizing the L shape.

This question stemmed from several details that were inconsistent in the plans. The plans submitted showed the angle attached two different way, one sheet showed the angle connected with a bolt. No information was given on bolt spacing, type of connection, or if the angle was to be galvanized prior too or after bolting. A second detailed, of the same post, showed the angles welded to the post web. The weld was shown only along the outstanding leg to the post web. The weld detailed had additional fabrication issues to be addressed. So, from the response they elected to go with bolting, which OSE has not seen any details.

If the consultant would like to use fatigue on the weld as a maintenance concern. Could they please state what the stress cyclic levels are on the weld holding the panels and should ODOT be concerned with the welded details at the column to base plated connection?

Arcadis Response: The original intent was to attach an angle to the steel posts by welding before galvanizing except at skewed posts where bolting connections allowed for adjustments as needed for better seating. The previous details were incomplete and did not fully show this. Based upon comments received and discussions, we believe that utilizing a welded connection to both sides of the angle would be the best connection method as the number of bolts required to meet the sealing requirements of AASHTO 6.13.2.6 would be excessive. It should be noted that the bottom buried panels in areas of sloped backfill will likely need to be thicker to accommodate the earth pressure. With these bottom panels likely being thicker, they would not slide between the flange and welded angle and would need to be bolted in at the bottom. A detail has been provided to show this.

2. Comment on P.200: Don't include post caps. From previous installations, they do not hold up well.
   Arcadis Response: Please confirm. It was our understanding that this was an aesthetic requirement for this project.
   Only the post covers and panel colors were part of the aesthetic requirement. Noel's experience shows the caps do not last so they can be left off on this project. Ensure the post covers extend to the top of post.
   Arcadis Response: Complied. The caps have been removed from the plans.

3. Comment on P.200: How do covers work at skewed post?
   Arcadis Response: A fabricator has been contacted to ask this question. Fiber Glass cover can be installed on skewed posts with the use of shims.

OSE has no issues with this detail. Please be sure the shims are to be part of the manufactured system and any adhesive to be used.

Arcadis Response: Complied. The shim specifications have been added.

ITEM SPECIAL - NOISE BARRIERS

GENERAL NOTES:

DESCRIPTION:

THIS WORK CONSISTS OF PREPARING ANY NECESSARY SHOP DRAWINGS, AND MANUFACTURING, TESTING, TRANSPORTING, STORING, AND INSTALLING NOISE BARRIERS; FURNISHING AND INSTALLING DRILLED SHAFTS; EXCAVATING AND BACKFILLING; AND RESTORING THE WORK AREA IN ACCORDANCE WITH THESE PROVISIONS AND IN CONFORMITY WITH THE DIMENSIONS, LINES AND GRADES SHOWN ON THE PROJECT PLANS. ALL APPLICABLE REQUIREMENTS OF THE STANDARD BRIDGE DRAWING NBS-1-09 SHALL BE MET UNLESS DIRECTED OTHERWISE BY THIS PLAN SET.

STANDARD DRAWINGS:

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:
NBS-1-09 REVISED 01-15-21

DESIGN SPECIFICATIONS:

THIS STRUCTURE CONFORMS TO THE 9TH EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020

DESIGN LOADING:

WIND LOAD: APPLIED WIND LOAD ON POSTS AND PANELS IS 35 PSF.
ICE LOAD: APPLIED ICE LOAD IS 3 INCHES AT 57.3 PCF = 14.32 PSF

MATERIAL SPECIFICATIONS:

REINFORCING STEEL:
REINFORCING STEEL SHALL BE EPOXY-COATED AS PER CMS 709.00 OR GALVANIZED AS PER CMS 709.16.
THE REQUIREMENTS OF 509.09 SHALL APPLY TO BOTH EPOXY-COATED AND GALVANIZED REINFORCING STEEL.
REINFORCING STEEL SHALL CONFORM TO CMS 709.01, GRADE 60.

CONCRETE:
CONCRETE CLASS QC5 = 4,000 PSI (DRILLED SHAFTS)
CONCRETE FOR DRILLED SHAFTS SHALL CONFORM TO CMS 524.

STRUCTURAL STEEL:
ASTM A709, GRADE 50 AS PER CMS 711.01.

PANELS, POST COVERS AND CAPS:
NOISE BARRIER PANEL, POST COVER AND CAP MATERIALS SHALL BE GLASS FIBER REINFORCED PULTRUSION BY CARSONITE COMPOSITES OR AN APPROVED EQUAL. REFER TO SHEET P.200 FOR EXAMPLE SCHEMATIC PANEL, POST COVER AND CAP DETAILS.

FASTENERS:
ANCHOR BOLTS SHALL BE ASTM F1554, GRADE 105
THREADED RODS SHALL BE DEFORMED, ONE-END THREADED, ASTM A615, GRADE 60
NUTS SHALL BE ASTM A563, GRADE DH
WASHERS SHALL BE ASTM F436

GALVANIZING:

GALVANIZE ALL STEEL POSTS, STRUCTURAL STEEL, BASE PLATES, ANCHOR BOLTS, THREADED RODS, NUTS, AND WASHERS AS PER CMS 711.02. ENSURE THAT THE ENTIRE LENGTH OF ANCHOR BOLTS AND THREADED RODS ARE GALVANIZED.

BEARING PADS:

ALL BOTTOM NOISE BARRIER PANELS REQUIRE A NEOPRENE PREFORMED BEARING PAD BETWEEN THE BOTTOM OF THE NOISE PANEL AND THE BEARING SURFACE. THE BEARING PADS SHALL BE A MINIMUM 1/8" THICK AND COVER A MINIMUM OF 25 SQUARE INCHES. THE BEARING PADS SHALL CONFORM TO ODOT CMS SECTION 711.21, PREFORMED BEARING PADS.

DRILLED SHAFTS:

THE NOISE BARRIER POSTS SHALL BE SUPPORTED BY 30" DIAMETER DRILLED SHAFT FOUNDATION.

AVOIDANCE OF UNEXPECTED OBSTRUCTIONS:

IF THE AVOIDANCE OF UNEXPECTED UTILITIES OR OTHER OBSTRUCTIONS REQUIRES THE USE OF CLOSER POST SPACINGS THAN WHAT WAS SHOWN ON THE PROJECT PLANS FURNISH AND INSTALL ADDITIONAL FOUNDATIONS, POSTS, AND PANELS AS DIRECTED BY THE ENGINEER. THE ADDITIONAL FOUNDATIONS, POSTS, AND PANELS SHALL CONFORM TO THESE STANDARD DRAWINGS AND PROVISIONS. THE TOP AND BOTTOM ELEVATIONS OF THE ADDITIONAL POSTS AND PANELS, AND PANEL JOINT LOCATION.

SHOP DRAWINGS:

PROVIDE SHOP DRAWINGS FOR ALL NOISE WALL COMPONENTS THAT REQUIRE SHOP FABRICATION. INCLUDE THE FABRICATION SCHEDULE FOR ALL NOISE BARRIER WALL COMPONENTS IN THE PROJECT PROGRESS SCHEDULE AS REQUIRED BY C&MS 108.02.

NOISE BARRIER PANELS AND POSTS:

THE NOISE BARRIER PANELS, POST COVER AND CAPS SHALL BE GLASS FIBER REINFORCED, AND FABRICATED AND INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS. THE SURFACE TEXTURE AND FINISH COLOR SHALL BE AS SHOWN IN THE PLANS. THE MANUFACTURER SHALL DESIGN AND PROVIDE SUPPLEMENTARY REINFORCEMENT FOR THE BOTTOM PANELS INSTALLED BELOW FINISHED GRADE SEALED AND SIGNED BY AN OHIO REGISTERED PROFESSIONAL ENGINEER.

CONSTRUCTION METHODS:

CONSTRUCTION METHODS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD BRIDGE DRAWING NBS-1-09.

METHOD OF MEASUREMENT:

THE DEPARTMENT WILL MEASURE THE NOISE BARRIER BY THE NUMBER OF SQUARE FEET.

THE DEPARTMENT WILL DETERMINE THE AREA OF INDIVIDUAL NOISE BARRIER SEGMENTS FROM PROJECT PLAN DIMENSIONS USING A HEIGHT FROM THE BOTTOM OF THE BOTTOM PANEL TO THE TOP OF THE CAP ON THE TOP PANEL, AND SPAN LENGTHS MEASURED FROM CENTER TO CENTER POSTS.

BASIS OF PAYMENT:

PAYMENT FOR NOISE BARRIERS IS FULL COMPENSATION FOR FURNISHING AND INSTALLING FOUNDATIONS, POSTS INCLUDING APPARATUS SUCH AS BACKUP BRACKETS, SUPPORT BRACKETS AND BENT PLATES, PANELS, POST COVERTS AND CAPS, STEEL BASE PLATES AND CONNECTIONS, ARCHITECTURAL SURFACE TREATMENTS, SAMPLE POST(S) AND PANEL(S), BEARING PADS, EXCAVATION, DRAINAGE AND BACKFILL, AND OTHER ITEMS THAT DO NOT HAVE SEPARATE PAY ITEMS BUT ARE NECESSARY TO COMPLETE THE NOISE BARRIER.

THE DEPARTMENT WILL PAY FOR THE ADDITIONAL LENGTH OF DRILLED SHAFTS CONSTRUCTED AT THE DIRECTION OF THE ENGINEER IN UNEXPECTED AREAS OF POOR SOIL AS EXTRA WORK IN ACCORDANCE WITH C&MS 109.05.

THE DEPARTMENT WILL PAY FOR THE ADDITIONAL FOUNDATIONS, POSTS, AND PANELS FURNISHED AND INSTALLED AT THE DIRECTION OF THE ENGINEER TO AVOID UNEXPECTED UTILITIES OR OTHER OBSTRUCTIONS AS EXTRA WORK IN ACCORDANCE WITH C&MS 109.05.

WHERE THE DRILLED SHAFT LENGTH WAS DECREASED FROM THE PROJECT PLAN DIMENSION DUE TO INTERFERENCE WITH UNEXPECTED BEDROCK, THE DEPARTMENT WILL NON-PERFORM THE SHAFT LENGTH BELOW THE BEDROCK ELEVATION AND PAY FOR THE ROCK SOCKET AND INCIDENTALS AS EXTRA WORK ACCORDING TO C&MS 109.05.

THE DEPARTMENT WILL NOT PAY FOR REPAIRED OR REPLACED COMPONENTS DAMAGED BY IMPROPER HANDLING, TRANSPORTING, STORING, OR ERECTING.

THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICES AS FOLLOWS:

ITEM 606 - SPECIAL - NOISE BARRIER (REFLECTIVE)

consider changing to "post covers and post caps"

Arcadis Response: No longer applicable as post caps will no longer be used.

Not sure what this means or loads to be used?

Arcadis Response: Some of the bottom panels are subjected to earth pressure as they are placed below grade within a slope. It is the intent for the manufacturer to design the bottom panels to account for this earth pressure. The grade information can be obtained from wall cross sections. It is the intent for the loads to be determined by the manufacturer's engineer. This note has been updated for clarity.

OSE is recommending the use of expandable foam to fill the gap between the base plate and top of 30" drilled shaft to increases the corrosion resistance of the proposed detail. We recommend the designer add call outs and notes for expendable foam similar to Supplemental Specification 842 or SS 864

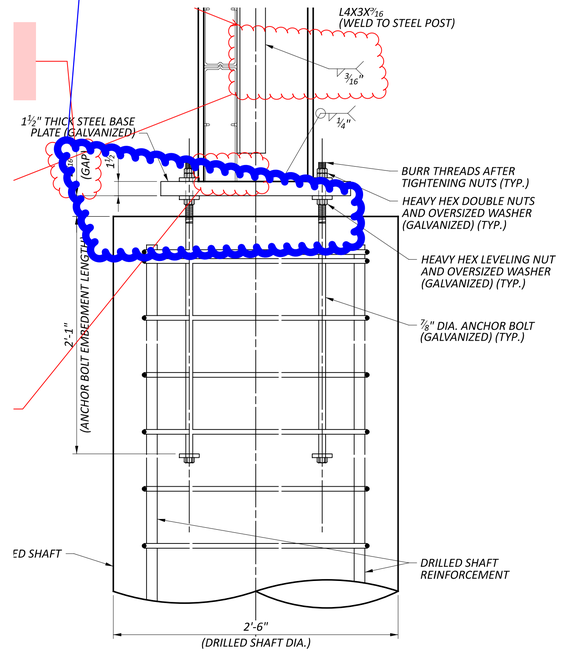
Arcadis Response: Complied.

Please clarify if a bearing pad is required between each 1'-0" panel or only at the base plate or support angle.

Arcadis Response: Bearing pads are only required for the bottom panel supported on the baseplate and support angles. The note has been reworded for clarity.

ADD STATEMENT SIMILAR TO NBS-1-09 "CONSTRUCT DRILLED SHAFTS ACCORDING TO C&MS 524"

Arcadis Response: Complied.



STEEL BASE PLATE ELEVATION

NOISE WALL GENERAL NOTES
WALLS 3, 6, 8, 9, 11, 12, & 15

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DESIGNER AIS
REVIEWER SS 01-12-24
PROJECT ID 117607
SHEET P.197 TOTAL P.276

FRA-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 3:22:58 PM USER: jennifer.kelley
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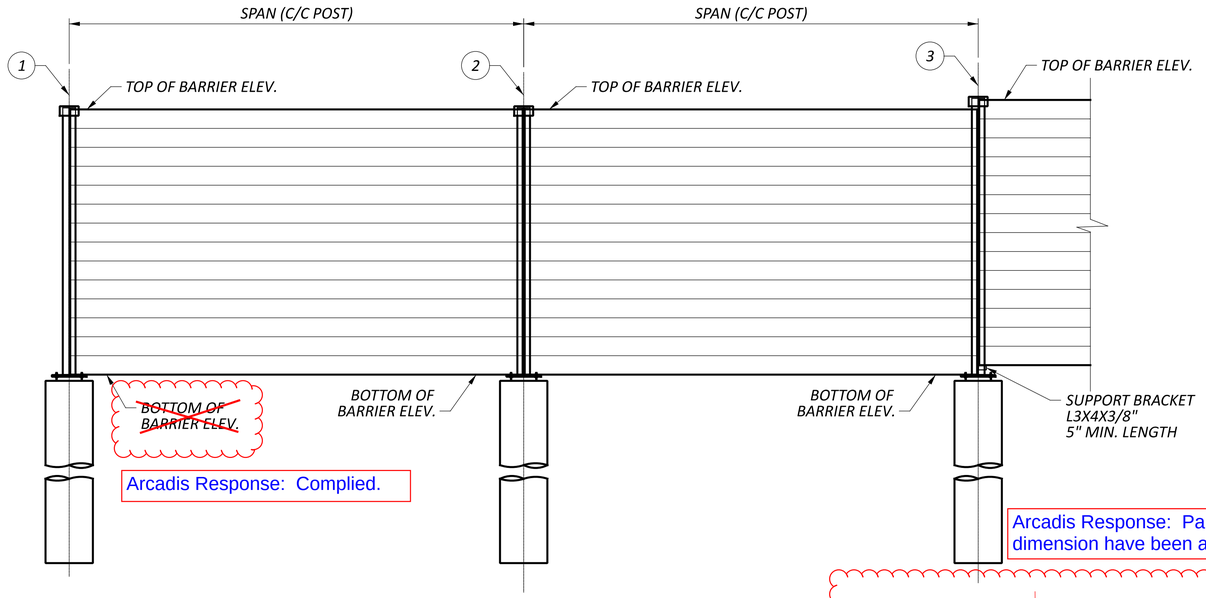


PARTIAL ELEVATION

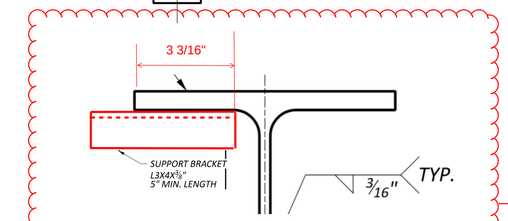
Arcadis Response: Complied.

LEGEND:

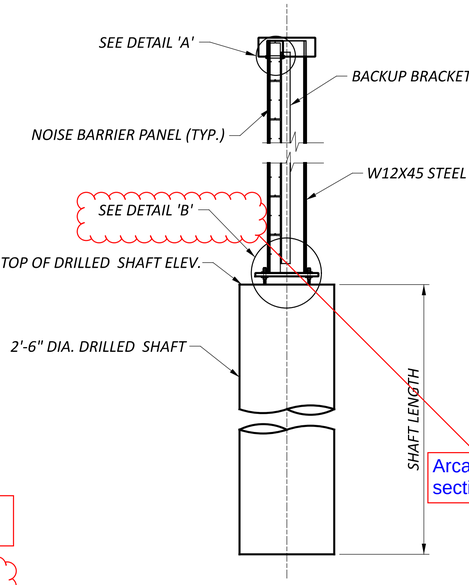
(X) - DRILLED SHAFT NUMBER

NOTES:

1. FOR NOISE WALL PLANS AND PROFILE, SEE SHEETS P.16 TO P.45 .
2. FOR NOISE WALL ELEVATION TABLES, SEE SHEETS P.193 TO P.195.



Arcadis Response: Panel and dimension have been added.

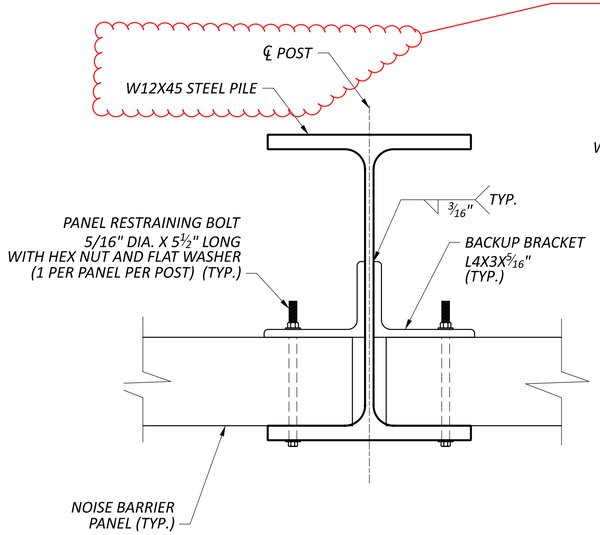


TYPICAL SECTION

Arcadis Response: A second section has been added.

NOT the same detail

Detail sheet 2 of 3 calls the W12x45 "posts" recommend using the same nomenclature to prevent confusion

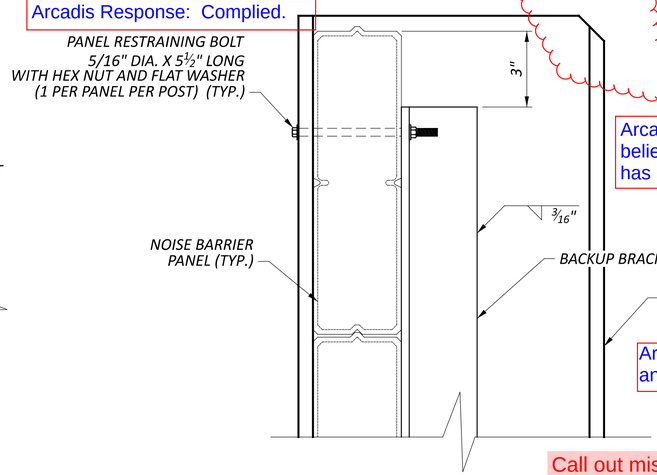


PARTIAL PLAN

Add statement "Post covers not shown"

Arcadis Response: Complied.

Arcadis Response: Complied.



Arcadis Response: Upon further review, we do not believe that this clip is needed here and the detail has been modified accordingly.

Clip dimensions?

Arcadis Response: Bearing pad and callout has been added.

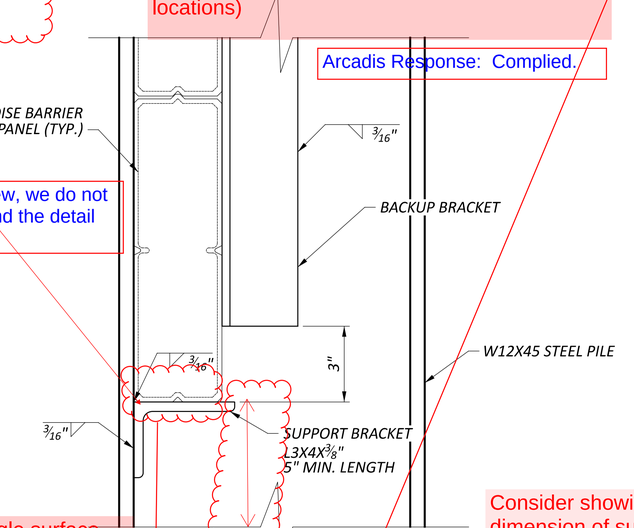
DETAIL 'A'

Post Cap not shown

Arcadis Response: A statement that the "post covers not shown" has been added.

Recommend adding additional detail and show minimum weld length (note start and stop locations)

Arcadis Response: Complied.



DETAIL 'B'

Call out missing for bearing pad - note angle surface isn't 25 sq in.

BEARING PADS:

ALL BOTTOM NOISE BARRIER PANELS REQUIRE A NEOPRENE PREFORMED BEARING PAD BETWEEN THE BOTTOM OF THE NOISE PANEL AND THE BEARING SURFACE. THE BEARING PADS SHALL BE A MINIMUM 1/8" THICK AND COVER A MINIMUM OF 25 SQUARE INCHES. THE BEARING PADS SHALL CONFORM TO ODOT CMS SECTION 711.21, PREFORMED BEARING PADS.

Consider showing dimension of support bracket as the post needs to be fabricated prior to galvanizing.

Arcadis Response: Additional detailing has been added to allow for the manufacturer to determine all dimensions.

NOISE WALL DETAILS – 1 OF 3
WALLS 3, 6, 8, 9, 11, 12, & 15

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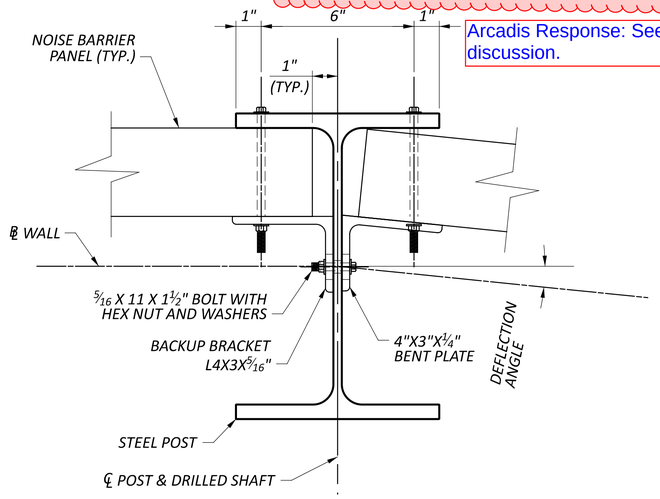
DESIGNER AIS
REVIEWER SS 01-12-24
PROJECT ID 117607
SHEET P.198 TOTAL P.276

FRA-15.80 NOISE WALLS

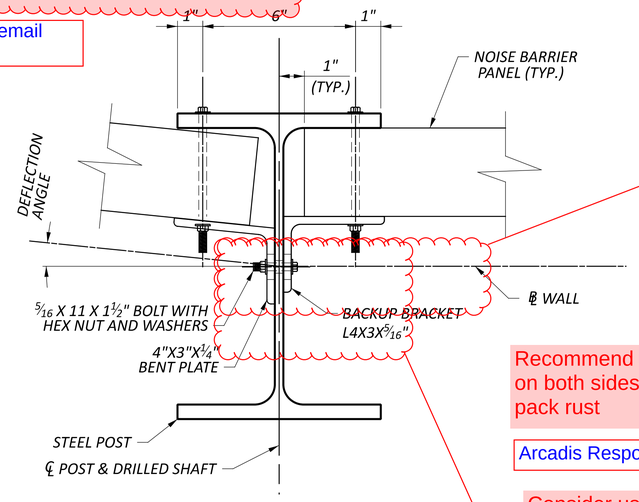
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 9:44:19 AM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_WD002.dgn

General question - is there any reason the back-up bracket has to be an L4x3x5/16 and not just a 4x5/16 plate weld to the the web. The use of the straight plate aids in less material, less maintenance issues, and warping issues during galvanizing

Arcadis Response: See email discussion.



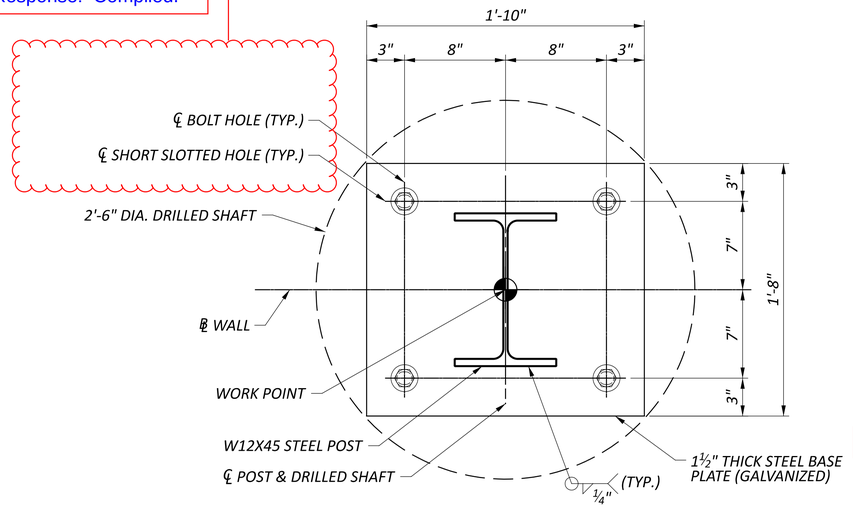
SKEWED POST DETAILS - 1



SKEWED POST DETAILS - 2

Recommend only one call out - show direction of slotted hole and dimensions

Arcadis Response: Complied.



STEEL BASE PLATE PLANS

Recommend using a weld on both sides to prevent pack rust

Arcadis Response: Complied.

Consider using 1/4" increments (note this will change wall elevation tables)

Arcadis Response: Complied.

There is some confusion with attachment of the backup angle to the steel post. Verify backup bracket connection method.

Arcadis Response: This has been modified to the welded connection.

Call out missing for bearing pad

BEARING PADS:

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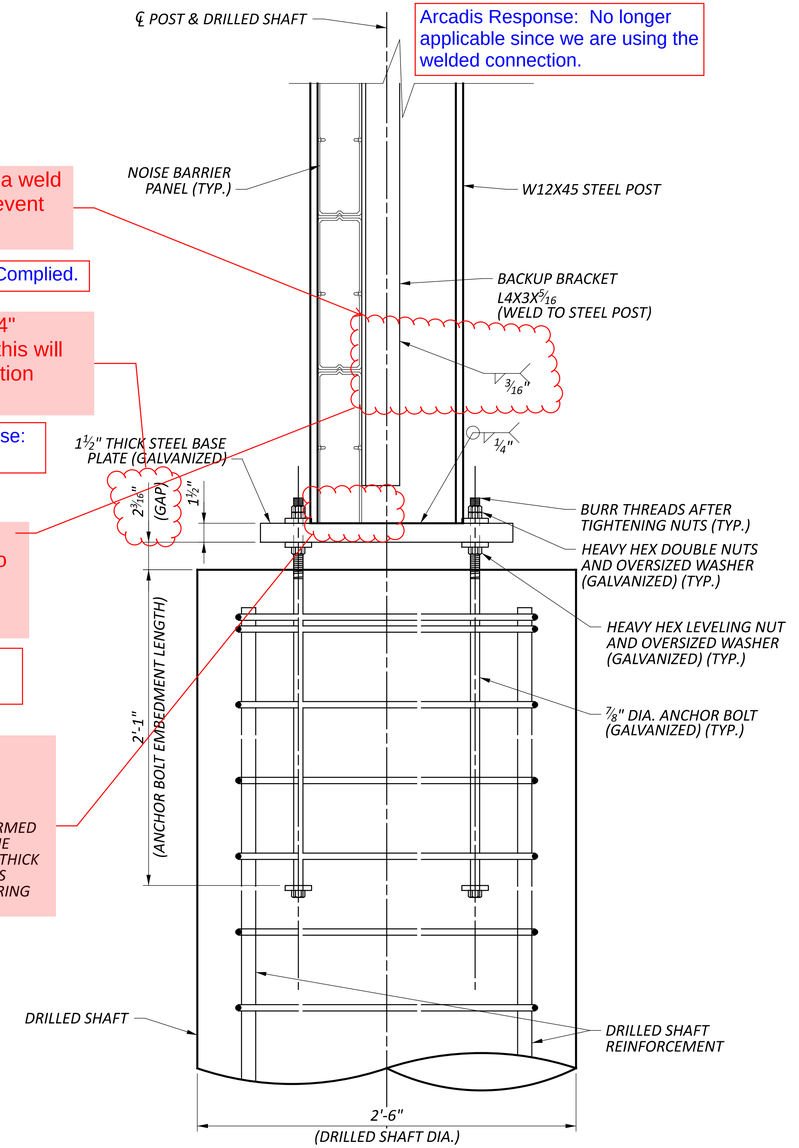
Arcadis Response: Complied.

NOTES:

1. *FOR WALL DEFLECTION ANGLES, SEE TABLES ON SHEETS P.193 TO P.195.*
2. *FOR ADDITIONAL BASE PLATE AND DRILLED SHAFT NOTES AND DETAILS, REFER TO STD. DWG. NBS-1-09.*

Verify max spacing uses AASTHO 6.13.2.6.2 for sealing against penetration of moisture

Arcadis Response: No longer applicable since we are using the welded connection.



STEEL BASE PLATE ELEVATION

NOISE WALL DETAILS – 2 OF 3
WALLS 3, 6, 8, 9, 11, 12, & 15

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FRA-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 3:23:11 PM USER: jennifer.kelley
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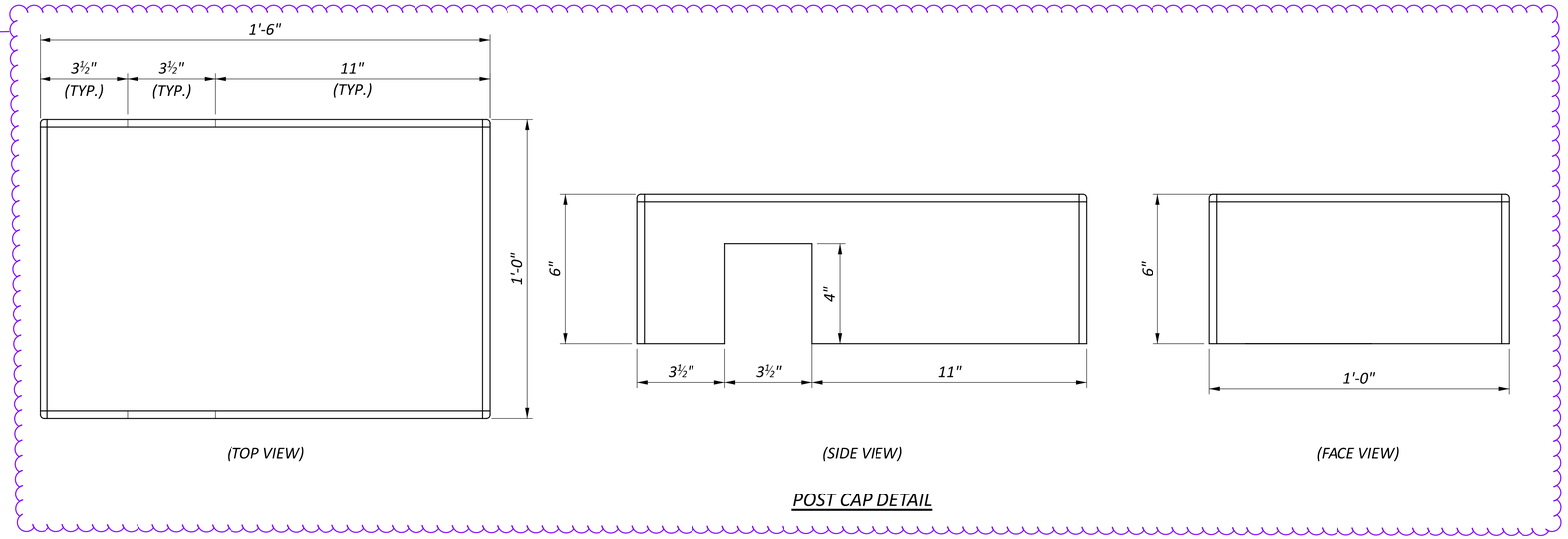
Don't include post caps. From previous installations, they do not hold up well.

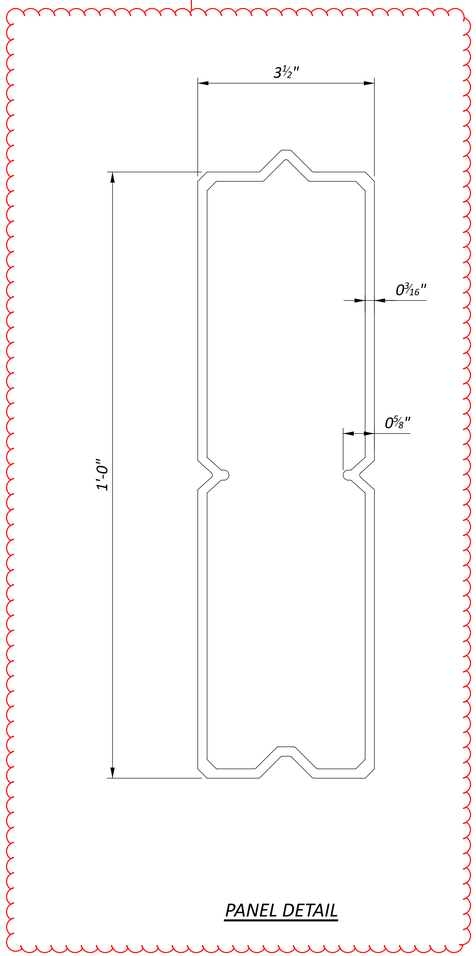
Arcadis Response: See email discussion.



POST CAP DETAIL

Add note about bolt holes - predrilled, fielded drilled, or optional

Arcadis Response: Complied. The holes in the structural steel shall be shop drilled before galvanizing, and the holes in the panels shall be field drilled to aid tight fit.



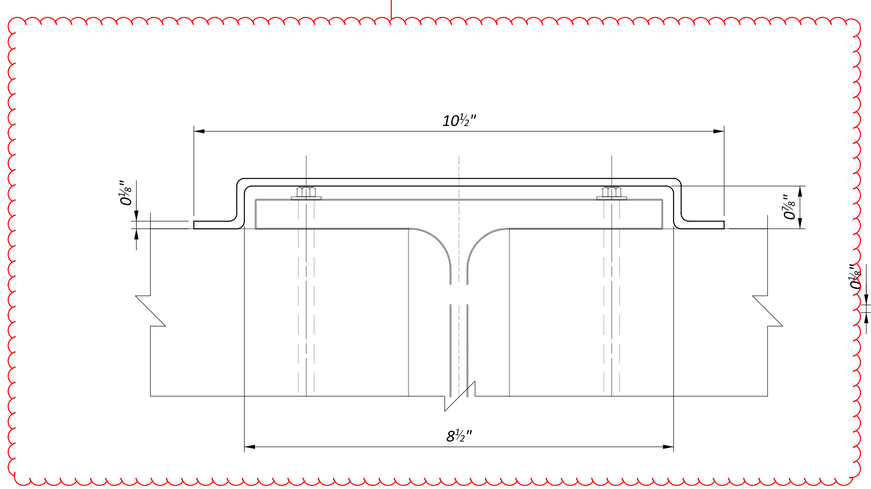
PANEL DETAIL

NOTES:

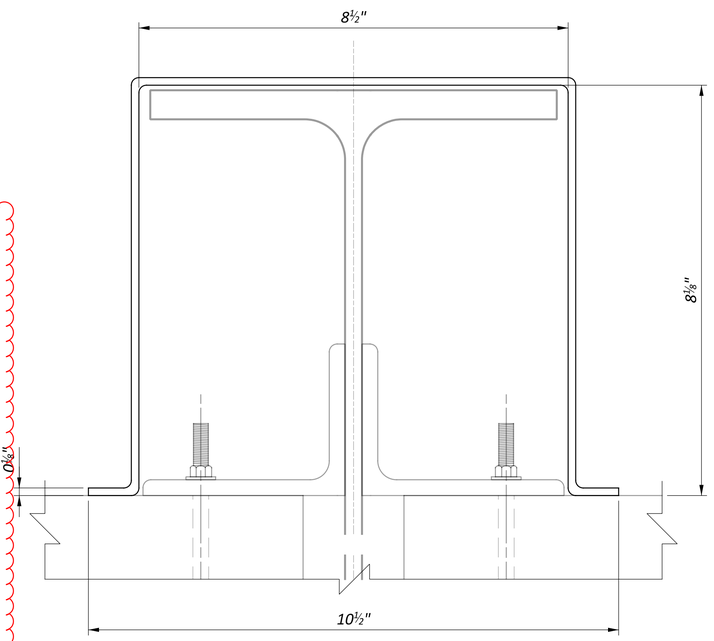
1. INSTALL POST COVER AND CAPS PER MANUFACTURER'S RECOMMENDATIONS.
2. PANELS, POST COVER AND CAPS SHALL BE GLASS FIBER REINFORCED FROM CARSONITE COMPOSITES AS SHOWN OR AN APPROVED EQUAL.

How do covers work at skewed post?

Arcadis Response: See email discussion.



FRONT FACE POST COVER DETAIL



REAR FACE POST COVER DETAIL

FRA-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 2024-01-19 TIME: 9:44:40 AM USER: jennifer.kelley
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NOISE WALL DETAILS – 3 OF 3
WALLS 3, 6, 8, 9, 11, 12, & 15

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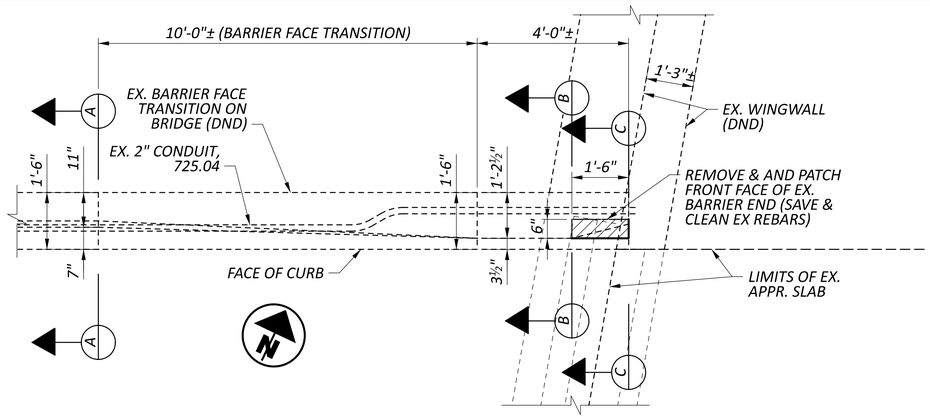
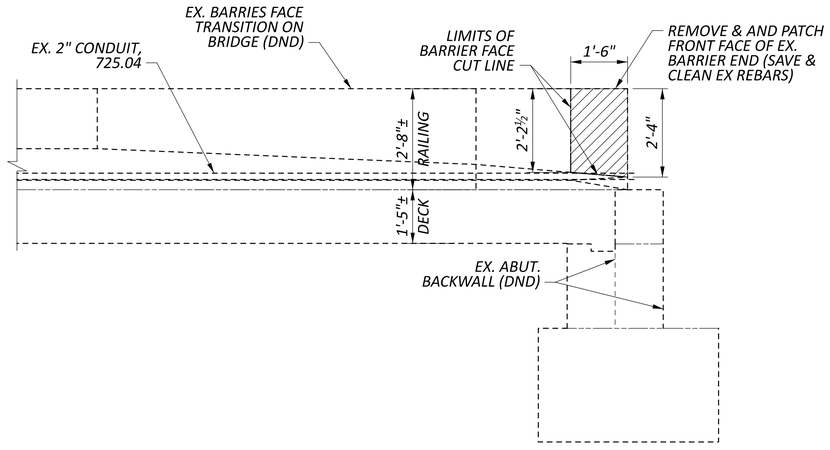
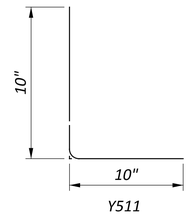


PLAN



ELEVATION

STEEL LIST (For Estimating Purposes Only)					
Mark	Bar	Shape	No.	Length	Weight (lb)
X510	#5	Straight	4	1'-10"	8
Y510	#5	Straight	2	2'-8"	6
Y511	#5	Bent	2	1'-7"	3
				Total =	17



BENDING DIAGRAM

Arcadis Response: Complied.

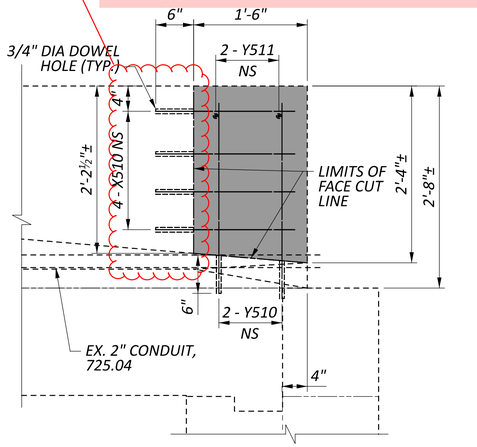
NOTES:

1. REMOVE EX. CONCRETE BARRIER FRONT FACE ON ABUTMENT WINGWALL AS SHOWN. THE COST SHALL BE INCLUDED WITH THE UNIT PRICE FOR ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN FOR PAYMENT.
2. ALL EX. DIMENSIONS ARE ±.
3. INSTALL DOWEL BARS IN ACCORDANCE WITH CMS 510 USING NON-SHRINK NONMETALLIC GROUT.
4. FOR ADDITIONAL CONCRETE RAILING NOTES AND DETAILS, SEE STD. DWG. BR-1-13.
5. PAYMENT FOR PATCHING CONCRETE BARRIER END SECTION SHALL BE MADE AT THE UNIT PRICE FOR ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN AND SHALL INCLUDE ALL MATERIALS, LABOR, DOWEL HOLES AND REINFORCING STEEL REQUIRED TO PATCH THE BARRIER END SECTION AS SHOWN.

Call out appropriate date from archived drawings and add to standard drawing to notes sheet

Arcadis Response: Complied.

Recommend keeping the X510 NS bars, but not doweling the X510 NS bars into the existing concrete. As the original design (TL classification) is not compromised with the additional concrete



ELEVATION
(PATCHING BARRIER END SECTION)

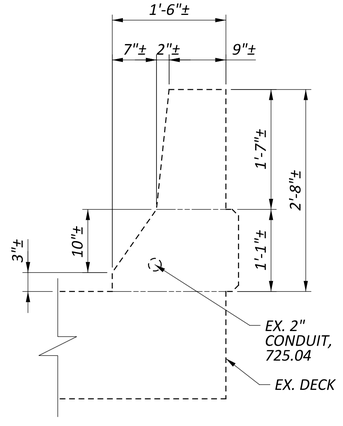
LEGEND:

EX. CONCRETE BARRIER REMOVAL

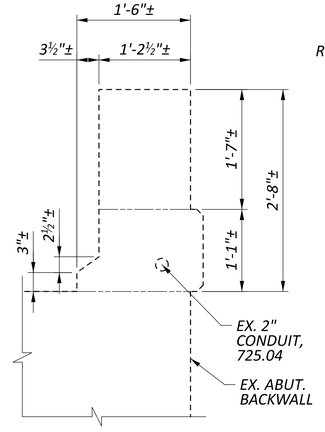
PATCHING OF CONCRETE

ABBREVIATIONS:

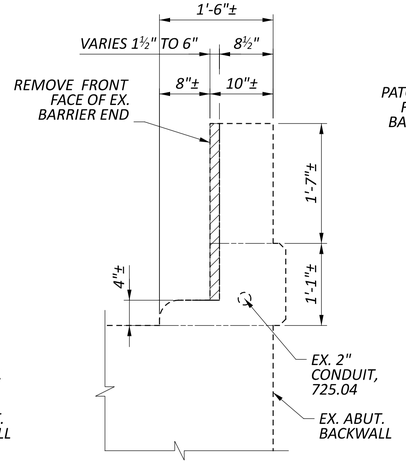
CONST. = CONSTRUCTION
DND = DO NOT DISTURB
ES = EACH SIDE
EX. = EXISTING
FS = FAR SIDE
NS = NEAR SIDE
PEJF = PREFORMED EXPANSION JOINT FILLER
PROP. = PROPOSED
TYP. = TYPICAL



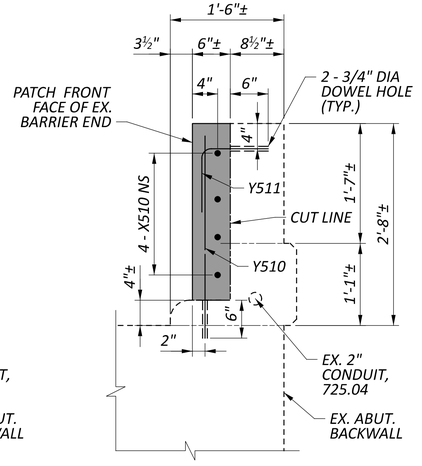
SECTION A-A
(EX. BARRIER)



SECTION B-B
(EX. BARRIER END SECTION)



SECTION C-C
(EX. BARRIER END SECTION REMOVAL)



SECTION C-C
(PATCHING BARRIER END SECTION)

CONCRETE 81" BARRIER 6 END SECTION, AS PER PLAN

DESIGN AGENCY
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

DESIGNER	
SS	
REVIEWER	
JDH	01-22-24
PROJECT ID	
117607	
SHEET	TOTAL
P.201	P.276

FRA-161-15.80 NOISE WALLS

MODEL: SHEET - 1 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:40:38 PM USER: jennifer.kelley
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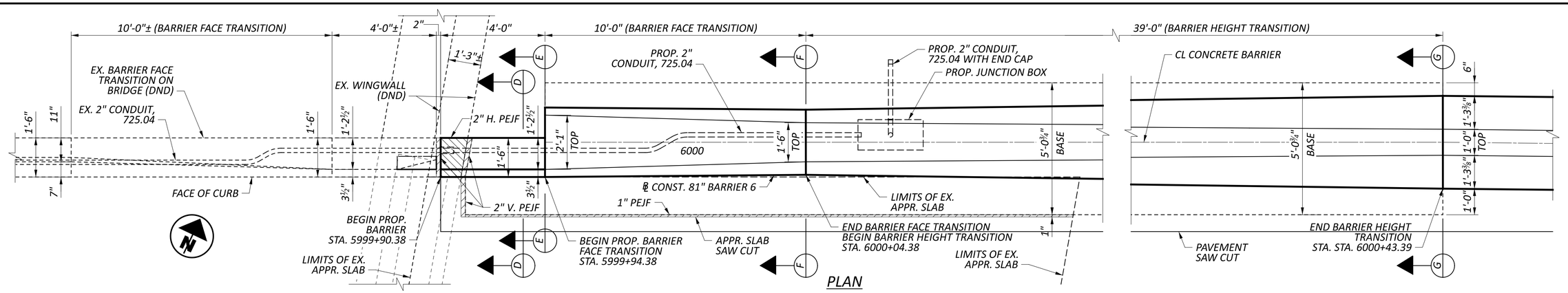
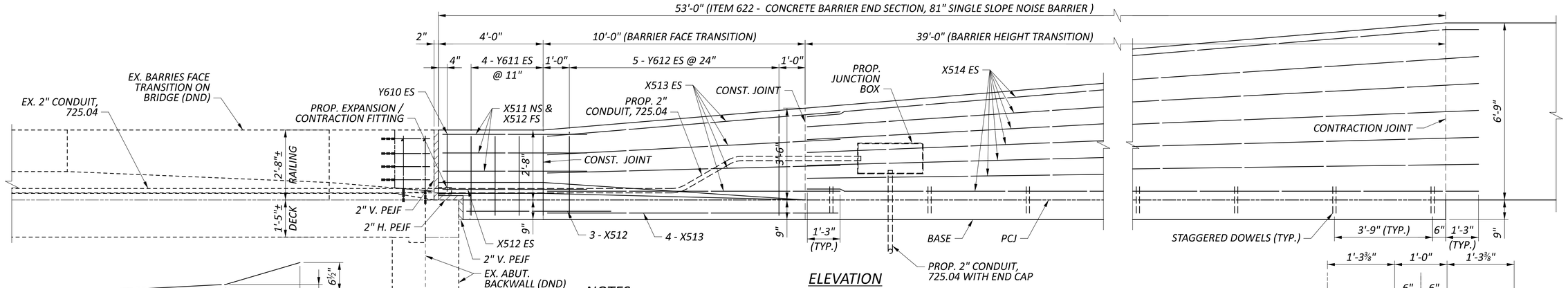
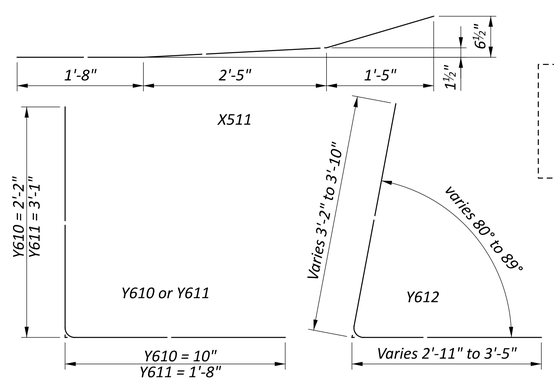


PLAN



ELEVATION

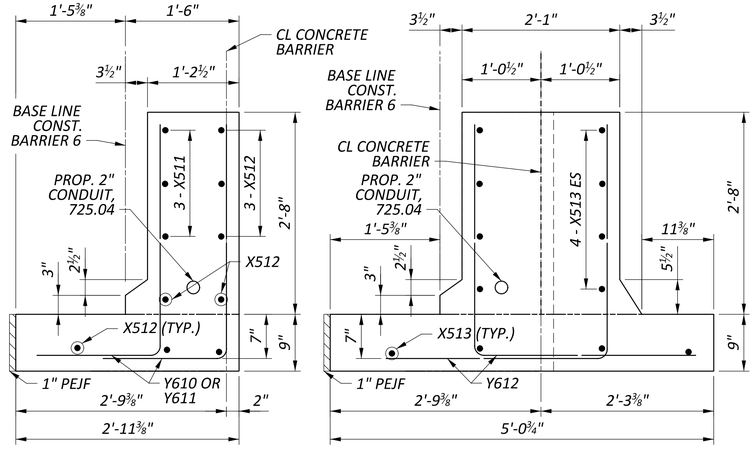


BENDING DIAGRAMS

STEEL LIST (For Estimating Purposes Only)					
Mark	Bar	Shape	No.	Length	Weight (lb)
X511	#5	Bent	3	5'-6"	17
X512	#5	Straight	8	5'-6"	46
X513	#5	Straight	12	11'-1"	139
X514	#5	Straight	14	40'-3"	588
Y610	#6	Bent	2	2'-10"	9
Y611	#6	Bent	8	4'-7"	55
Y612	#6	Bent	2 SERIES OF 5	Varies 5'-11" to 7'-1"	98
				Total =	955

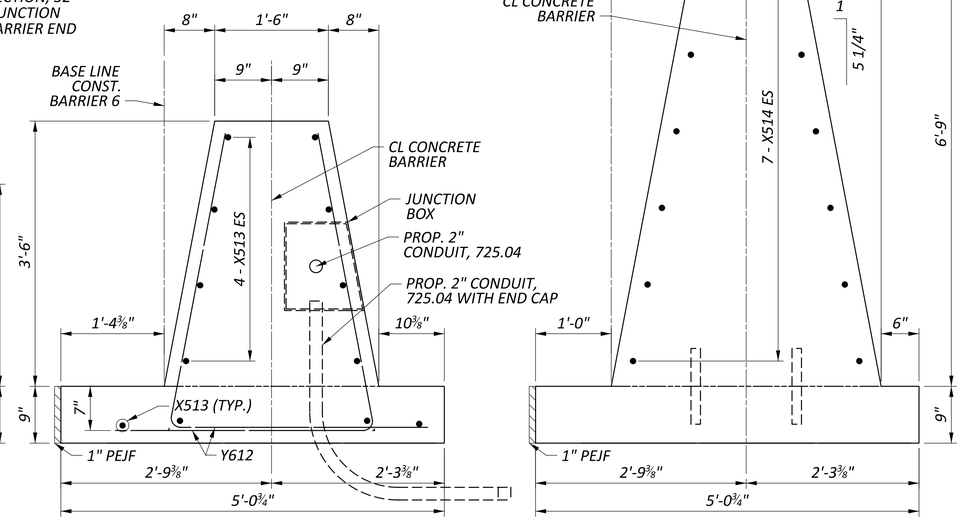
NOTES:

1. FOR ADDITIONAL NOTES AND DETAILS, SEE STD. DWG. RM-4.3.
2. FOR ADDITIONAL JUNCTION BOX AND CONDUIT NOTES AND DETAILS, SEE STD. DWG. HL-30.31.
3. ALL EX. DIMENSIONS ARE ±.
4. PAYMENT FOR THE CONCRETE BARRIER END SECTION SHALL BE MADE AT THE UNIT PRICE FOR ITEM 622 - CONCRETE BARRIER, 81" SSB, END SECTION, 32" TO 81" AND SHALL INCLUDE ALL MATERIALS, LABOR, CONDUIT, JUNCTION BOX, AND REINFORCING STEEL REQUIRED TO CONSTRUCT THE BARRIER END SECTION AS SHOWN.



SECTION D-D

SECTION E-E



SECTION F-F

SECTION G-G

CONCRETE 81" BARRIER 6 END SECTION, AS PER PLAN

FRA-161-15.80 NOISE WALLS

MODEL: SHEET - 2 PAPERSIZE: 34x22 (in.) DATE: 2024-01-22 TIME: 3:40:39 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_WD001.dgn

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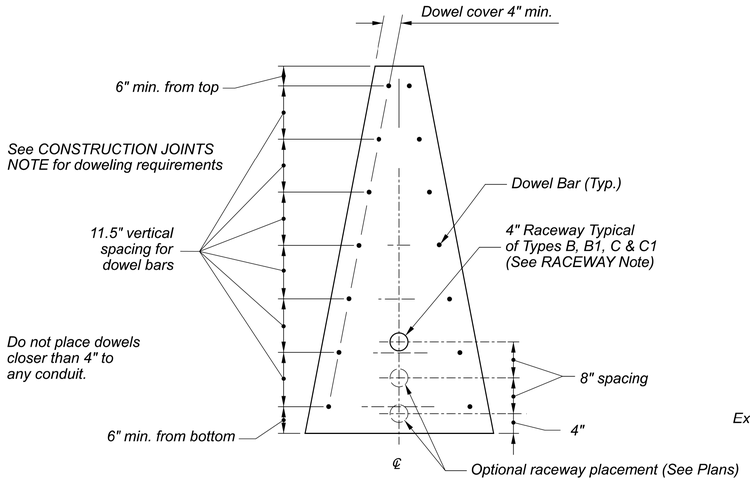
DESIGNER SS

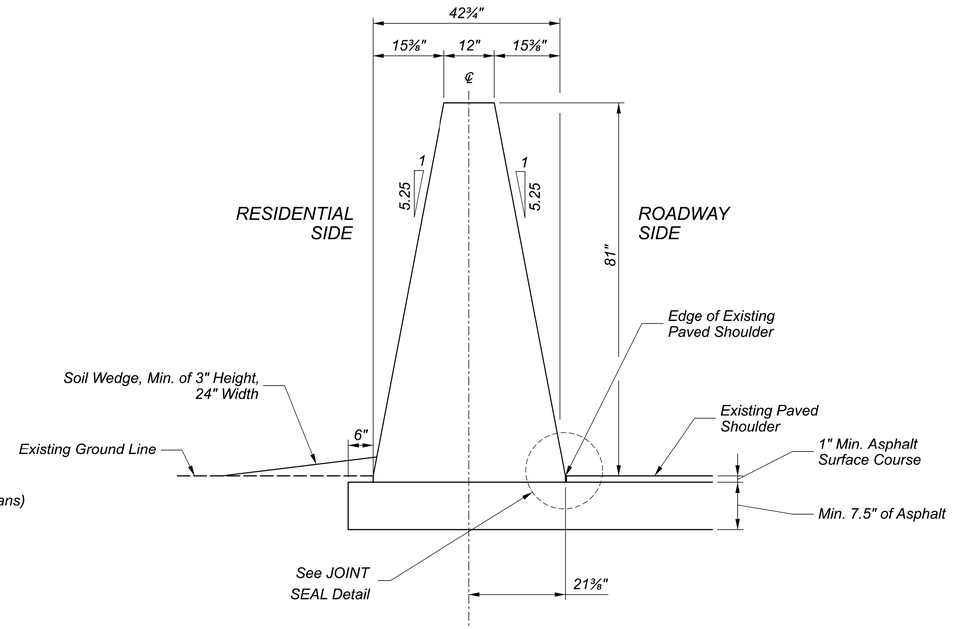
REVIEWER AMP 01-22-24

PROJECT ID 117607

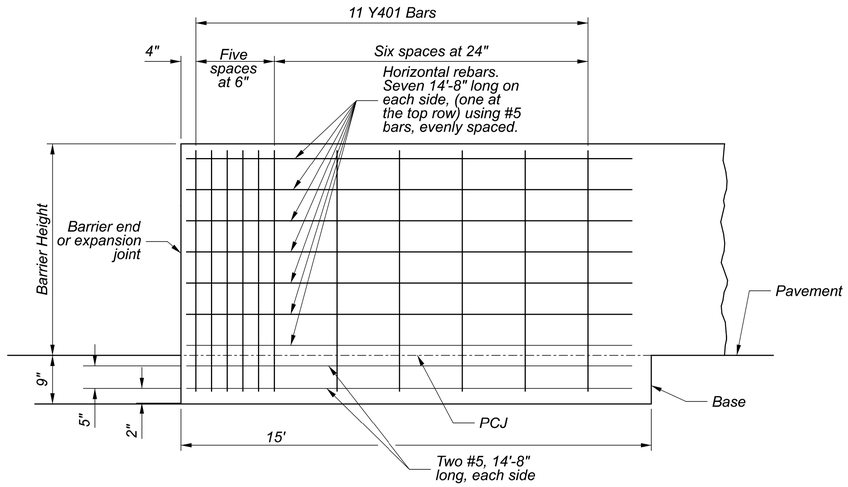
SHEET P.202 | TOTAL P.276



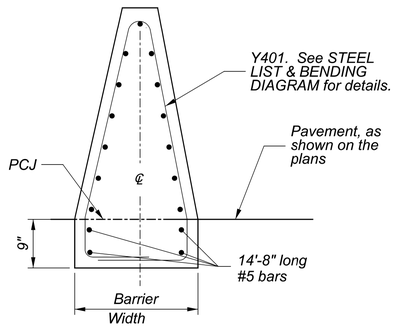
RACEWAY AND DOWEL BAR PLACEMENT



DETAIL FOR ASPHALT PAVEMENT

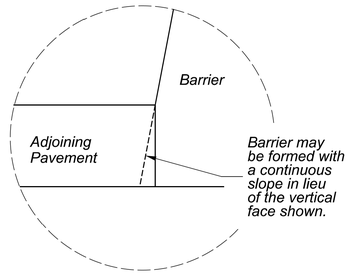


ELEVATION



SECTION

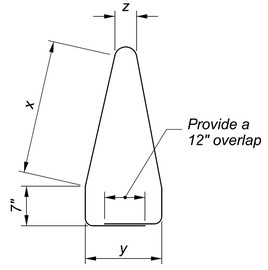
END ANCHORAGE



ALTERNATE TOE DETAIL

Dimensions for Y401 (English)			
x	y	z	Length
74"	37"	9"	18'-8"

Y401 STEEL LIST & BENDING DIAGRAM



Y401 #4

REINFORCED END ANCHORAGES are required at the ends of concrete barrier runs and at interruptions in barrier caused by expansion joints. When barrier does not abut another barrier run, construct the last 15' using the END ANCHORAGE Detail as shown here.

At expansion joints, construct an End Anchorage on both sides of joint, with a maximum gap of 2" for the open joint. The maximum expansion joint spacing shall be 800'. This anchorage is not needed at construction joints, provide dowel bar connections instead. See CONSTRUCTION JOINT NOTE for doweling details.

NOTES

81" SINGLE SLOPE BARRIER may be cast-in-place or slip formed.

MATERIALS: Construct using concrete with a minimum design strength of 4000 psi conforming to the requirements of CMS 499. Construct top and end edges with either a 1" radius or ¾" chamfer, except at light pole foundations.

CONTRACTION JOINTS: Maximum allowable spacing of unsealed joints is 20' throughout the run of the barrier. Construct joints by using metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled, or sawed joints will have a 3" depth. Construct all joints for the full height of the barrier. Saw as soon as curing will allow to prevent spalling. When used in conjunction with concrete pavement, match joints to those in the concrete pavement but not exceeding the maximum allowable spacing.

ADJOINING PAVEMENT: Place barrier directly on the intermediate or bituminous aggregate base. Construct the surface course directly against the barrier.

TRANSITIONS: Make linear transitions between different types of barrier within a 20' length.

CONSTRUCTION JOINTS: Barrier runs with abutting vertical surfaces at either required or permissible construction joints are to be doweled to each other by use of 3/4" dia. by 18" long epoxy coated deformed dowel bars as per CMS 622.02. Bars are to be placed as shown on the RACEWAY and DOWEL BAR PLACEMENT detail on this sheet. Provide a 4" clearance to barrier surfaces and to any raceways.

STATION MARKINGS: Impress markings in the "green" concrete on both sides at the top of the barrier. The cost is incidental to the unit cost bid for this barrier.

RACEWAY: Locate as shown on in RACEWAY PLACEMENT Detail, unless otherwise directed by the Engineer. Ensure that the electrical raceway is clear of obstructions.

Cost of the 4" polyvinyl chloride raceway is included where shown on the plans. The cost for additional raceways and No. 10 AWG copperclad or aluminum-clad wire is also included where shown on the plans for future installation of circuits.

PAYMENT: will be made at the unit price bid per Foot for ITEM 622 - Concrete Barrier, 81" SSB. Include all materials, labor, raceways, dowel holes, markings and other incidentals necessary to construct the barrier.

Payment for any reinforced end anchors, as shown on the END ANCHORAGE details will be made at the unit price bid per Each for ITEM 622 - Concrete Barrier, 81" SSB, End Anchorage, Reinforced. This includes all materials, labor, and other incidentals necessary to construct this anchor.

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

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DESIGNER JMK

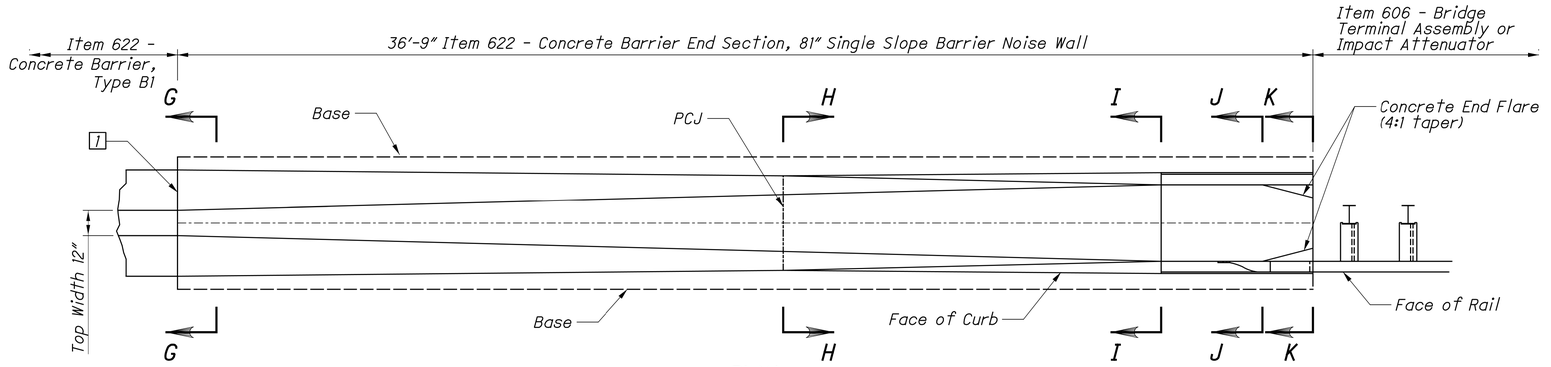
REVIEWER JDH 01-22-24

PROJECT ID 117607

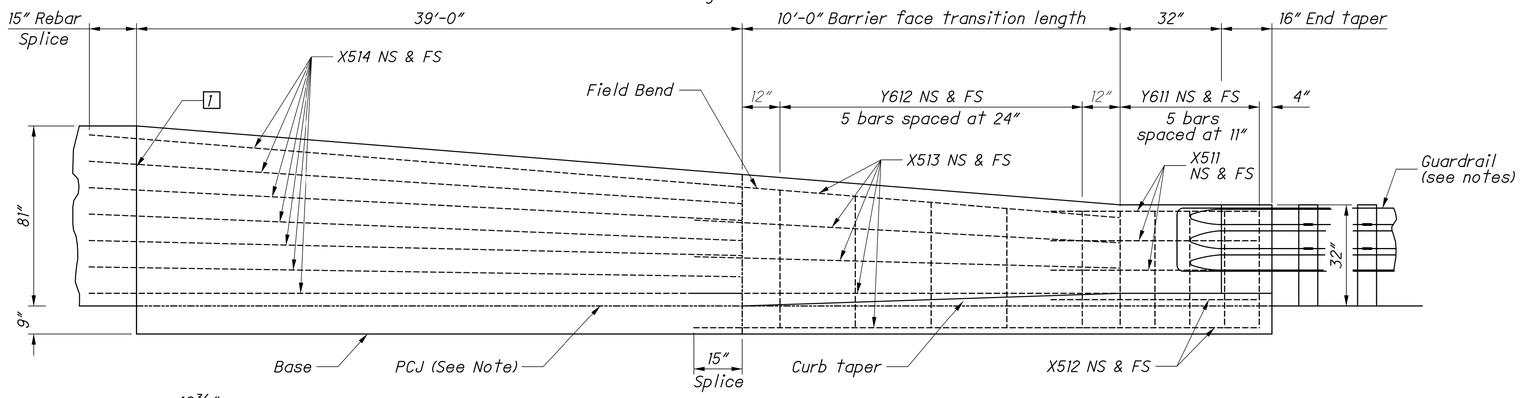
SHEET P.203 | TOTAL P.276

FRA-161-15.80 NOISE WALLS

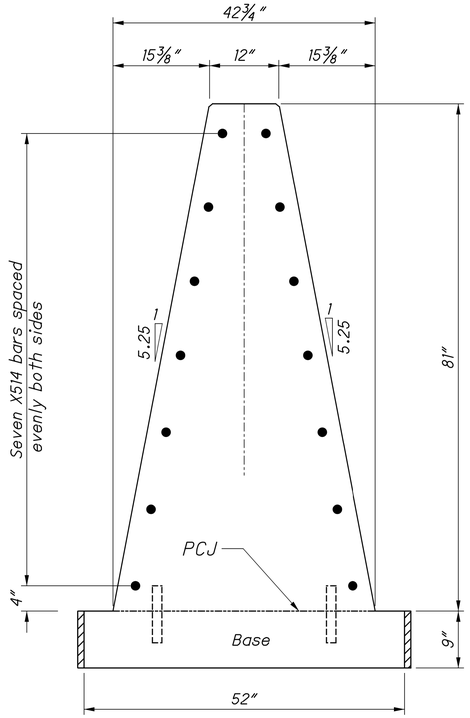
MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 7:59:29 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GR001.dgn



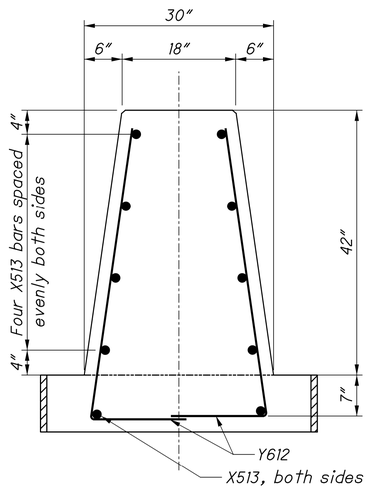
PLAN
Reinforcing not shown



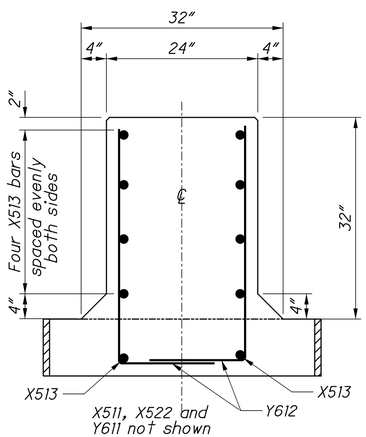
ELEVATION



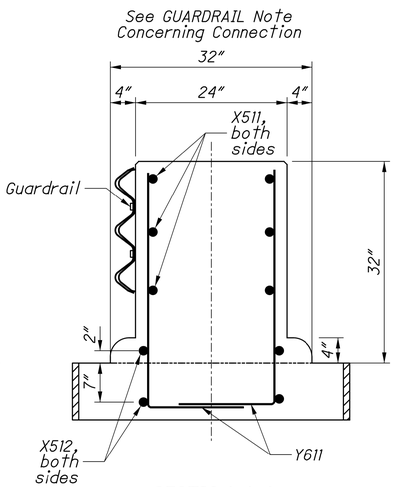
SECTION G-G



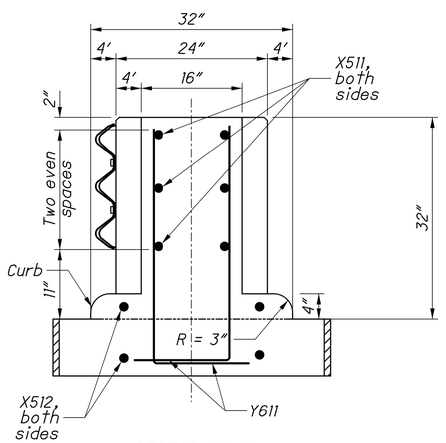
SECTION H-H



SECTION I-I



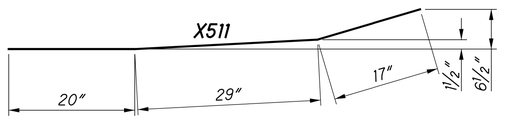
SECTION J-J



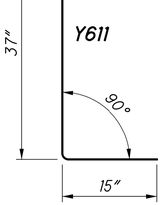
SECTION K-K

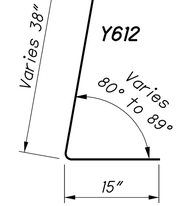
NS = Near Side
FS = Far Side

1 Contraction Joint. See NOTES on 1/8. Provide rebar cover of 3½".



BENDING DIAGRAMS





NOTES

GENERAL: See 1/8 for 81" Single Slope Barrier details and materials. Provide 2" concrete cover over rebars, except as noted.

GUARDRAIL: For Bridge Terminal Assembly and attachment details see SCD MGS-1.1 (SCD GR-3.5 if connecting to Type 5 Guardrail). Information on Impact Attenuators is found in the Location and Design Manual, Volume 1, Section 603.

BARRIER FACE TRANSITIONS: To prevent vehicle snagging, smooth transitions from vertical faces to the single slope faces are made over a 10' distance.

PCJ: Permissible Construction Joint. In the unreinforced base section, barrier may be placed on top of concrete base if doweled as shown on SCD RM-4.3.

PAYMENT: Payment for the Concrete End Section shall be made at the unit price for Item 622 - Concrete Barrier, 81" SSB, End Section, 32" to 81" and shall include all materials, labor, and reinforcing steel required to construct the barrier end section as shown.

TYPE B1 STEEL LIST

Mark	Bar	Shape	No.	Length
X511	#5	Bent	6	5'-6"
X512	#5	Straight	4	5'-6"
X513	#5	Straight	10	11'-1"
X514	#5	Straight	10	40'-3"
Y611	#6	Bent	10	4'-2"
Y612	#6	Bent	2 series of 5	Varies 4'-3" to 5'-3"

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 8:00:37 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GR002.dgn

DESIGN AGENCY
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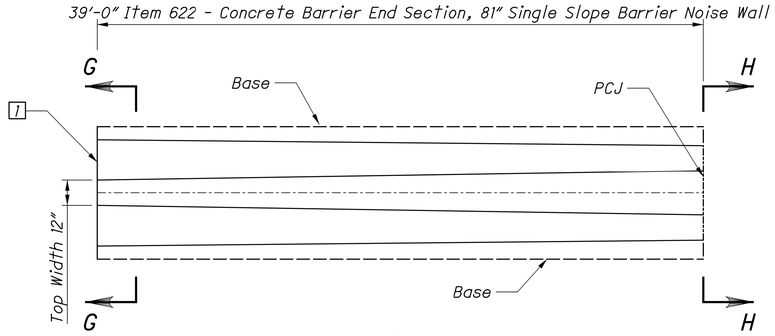
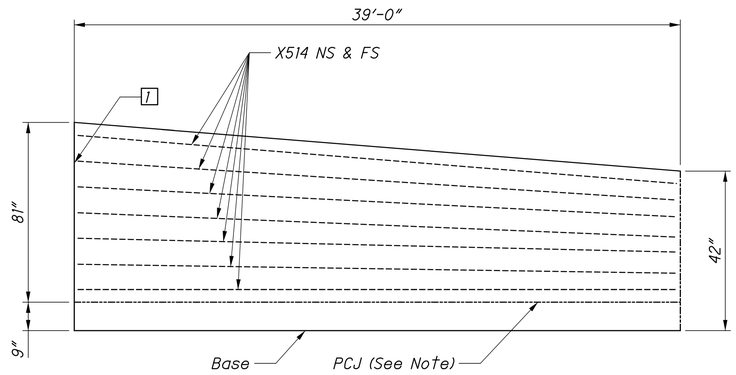
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.204 TOTAL P.276



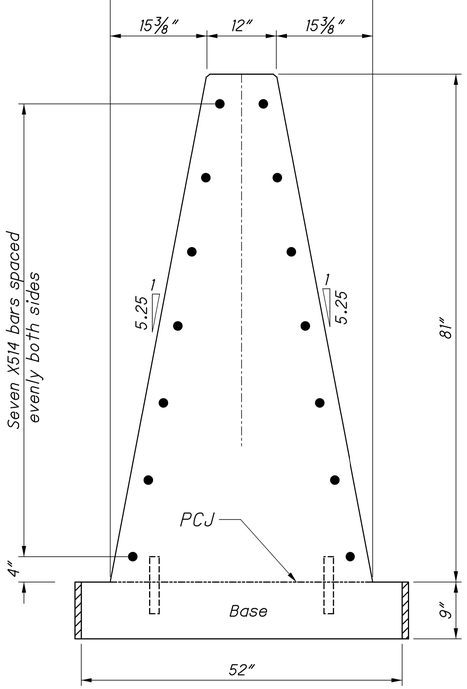
PLAN
Reinforcing not shown



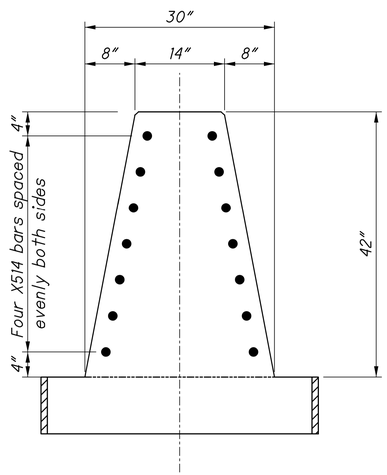
ELEVATION

NS = Near Side
FS = Far Side

1 Contraction Joint. See NOTES on 1/8.
Provide rebar cover of 3½".



SECTION G-G



SECTION H-H

NOTES

GENERAL: See 1/8 for 81" Single Slope Barrier details and materials. Provide 2" concrete cover over rebars, except as noted.

BARRIER FACE TRANSITIONS: To prevent vehicle snagging, smooth transitions from vertical faces to the single slope faces are made over a 10' distance.

PCJ: Permissible Construction Joint. In the unreinforced base section, barrier may be placed on top of concrete base if doweled as shown on SCD RM-4.3.

PAYMENT: Payment for the Concrete End Section shall be made at the unit price for Item 622 - Concrete Barrier, 81" SSB, End Section, 42" to 81" and shall include all materials, labor, and reinforcing steel required to construct the barrier end section as shown.

TYPE B1 STEEL LIST

Mark	Bar	Shape	No.	Length
X514	#5	Straight	10	38'-5"

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 8:01:43 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GR003.dgn

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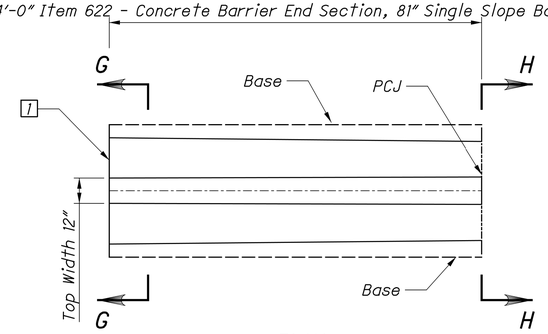
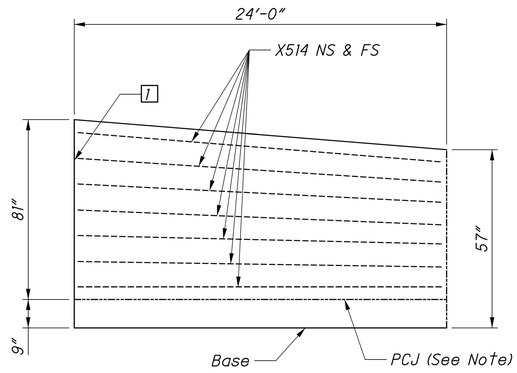
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.205 TOTAL P.276

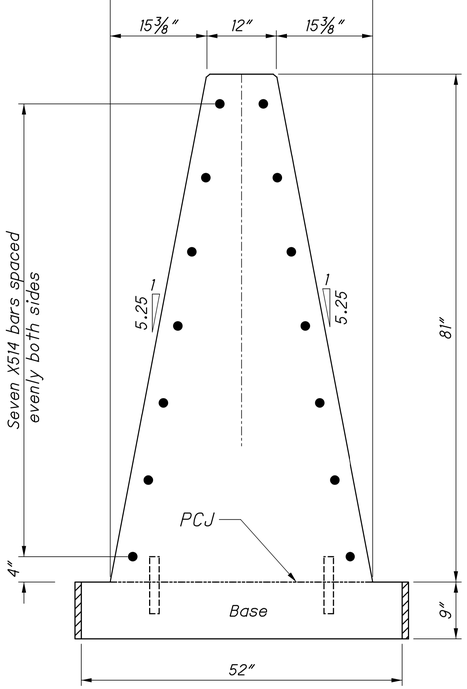
24'-0" Item 622 - Concrete Barrier End Section, 81" Single Slope Barrier Noise Wall



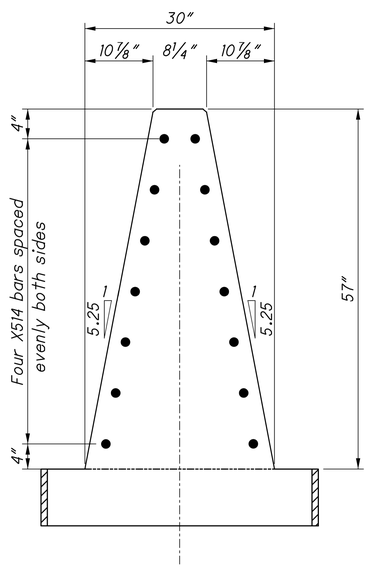
PLAN
Reinforcing not shown



ELEVATION



SECTION G-G



SECTION H-H

NS = Near Side
FS = Far Side

1 Contraction Joint. See NOTES on 1/8. Provide rebar cover of 3½".

NOTES

GENERAL: See 1/8 for 81" Single Slope Barrier details and materials. Provide 2" concrete cover over rebars, except as noted.

BARRIER FACE TRANSITIONS: To prevent vehicle snagging, smooth transitions from vertical faces to the single slope faces are made over a 10' distance.

PCJ: Permissible Construction Joint. In the unreinforced base section, barrier may be placed on top of concrete base if doweled as shown on SCD RM-4.3.

PAYMENT: Payment for the Concrete End Section shall be made at the unit price for Item 622 - Concrete Barrier, 81" SSB, End Section, 57" to 81" and shall include all materials, labor, and reinforcing steel required to construct the barrier end section as shown.

TYPE B1 STEEL LIST				
Mark	**Bar**	**Shape**	**No.**	**Length**
X514	#5	Straight	10	23'-5"

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 8:02:41 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GR004.dgn

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

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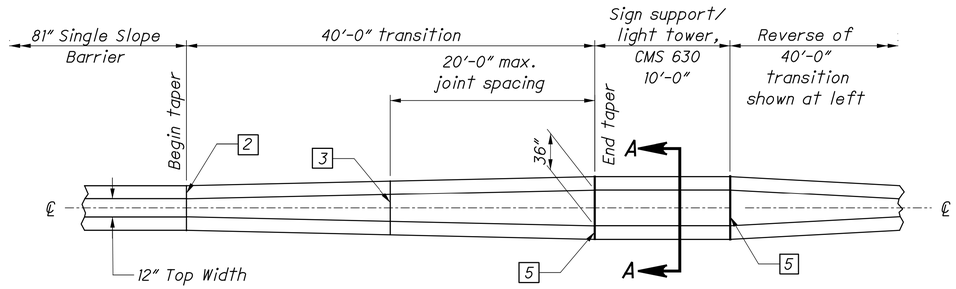
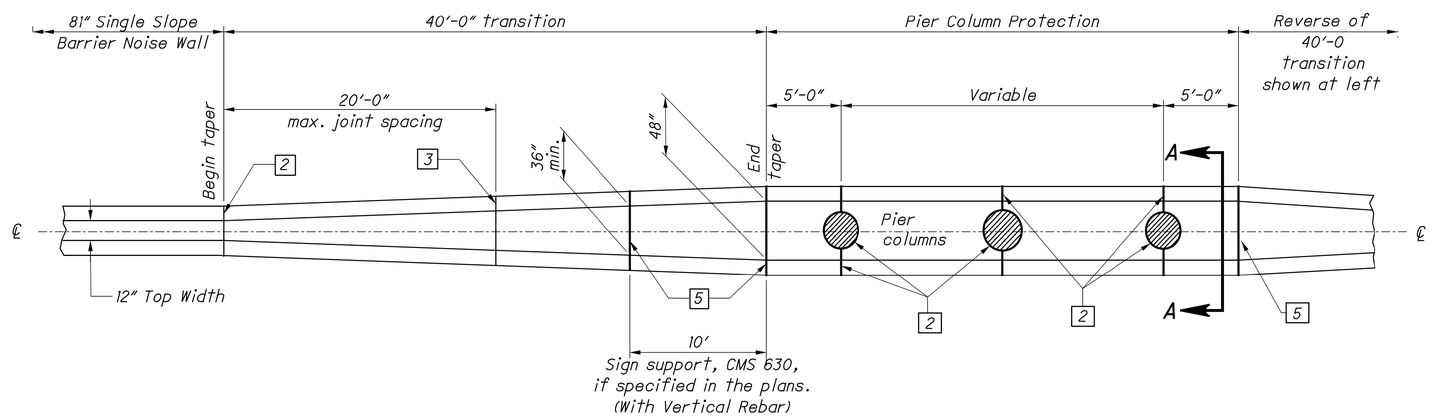
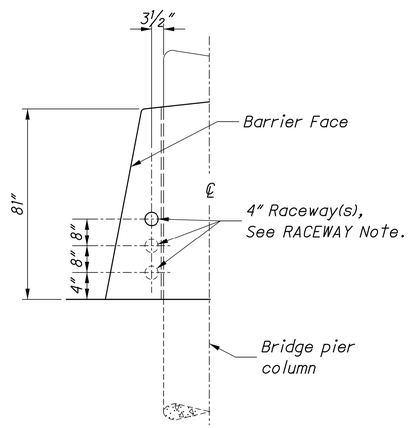
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.206 TOTAL P.276



PLAN VIEW - SIGN SUPPORT TRANSITION / LIGHT TOWER HIGHWAY LIGHTING HL-20.24

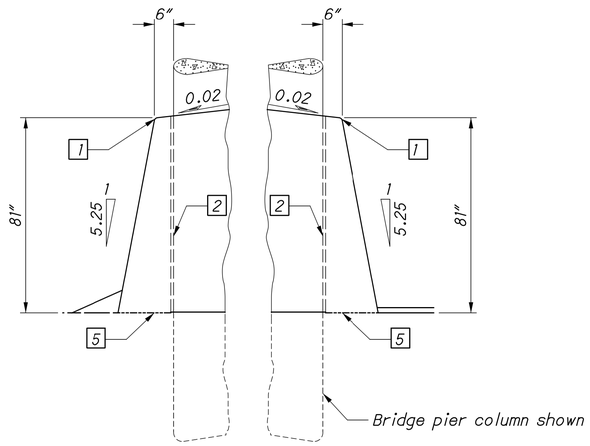


PLAN VIEW - BRIDGE PIER TRANSITION (With Sign Support)



Rebar Not Shown

RACEWAY PLACEMENT



SECTION A-A

NOTES

STANDARD BARRIERS: Construct 81" Single Slope Barrier as shown on 1/8 For barrier information not shown on this drawing, see CMS 622.

CONCRETE: Use concrete with a minimum design strength of 4000 psi conforming to the requirements of CMS 499. Construct top and end edges with either a 1" radius or ¾" chamfer, except at light pole foundations. The area between barrier faces shall be completely filled with concrete.

CONTRACTION JOINTS: Maximum allowable spacing of unsealed joints is 20' throughout the run of the barrier. Construct joints by using metal inserts inside the forms, preformed full width joint filler, a grooving tool, or by sawing. Inserts, tooled, or sawed joints will have a 3" depth. Construct all joints for the full height of the barrier. Saw as soon as curing will allow to prevent spalling. When used in conjunction with concrete pavement, match joints to those in the concrete pavement but not exceeding the maximum allowable spacing.

CONSTRUCTION JOINTS: Barrier runs with abutting vertical surfaces at either required or permissible construction joints are to be doweled to each other by use of 3/4" dia. by 18" long epoxy coated deformed dowel bars as per CMS 622.02. Bars are to be placed as shown on the RACEWAY and DOWEL BAR PLACEMENT detail on 1/4.

EXPANSION JOINTS: Construct ¾" joint with CMS 705.03 filler at indicated positions.

Reinforced end anchorage sections, as shown on 1/4 are required only at the expansion joint between the normal barrier section and the start of the transition, not at expansion joints within the limits of the pier column protection.

RACEWAY: Locate as shown on in RACEWAY PLACEMENT Detail, unless otherwise directed by the Engineer. Keep raceway clear of obstructions. Gradually adjust the raceway height to match placement in abutting barrier.

Cost of the 4" polyvinyl chloride raceway is included where shown on the plans. The cost for additional raceways and No. 10 AWG copper-clad or aluminum-clad wire is also included where shown on the plans for future installation of circuits.

PAYMENT will be made at the unit price bid per Foot for ITEM 622 - Concrete Barrier, 81" SSB, and include all materials, labor, raceways and other incidentals necessary to construct the barrier transition.

Payment for the reinforced end anchors, will be made at the unit price bid per Each for ITEM 622 - Concrete Barrier, 81" SSB, End Anchorage, Reinforced. This includes all materials, labor, and other incidentals necessary to construct this anchor.

LEGEND

1. 1" radius or ¾" chamfer.
2. Expansion joint, ¾" min. Preformed Filler, CMS 705.03 (See NOTES).
3. Contraction joint (see NOTES).
4. See **1/8** for adjoining pavement details.
5. PCJ: Permissible construction joint.

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

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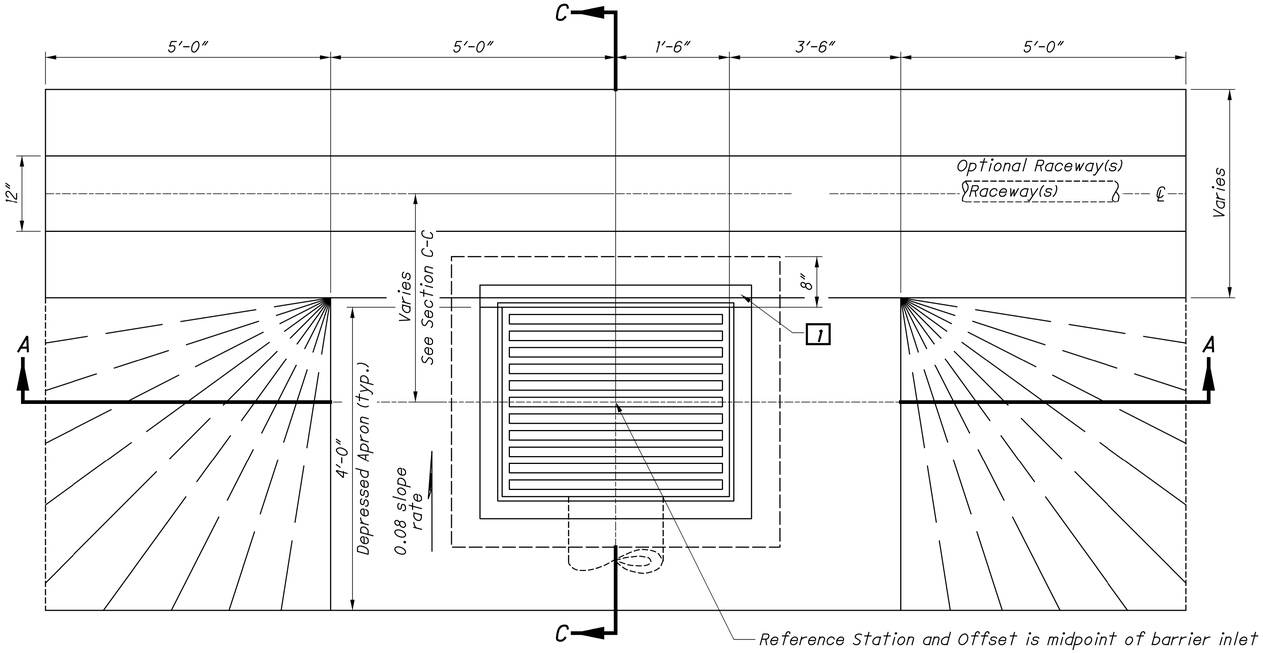
ARCADIS
8101 NORTH HIGH ST SUITE 100
COLUMBUS, OHIO 43235
(614) 818-4900
www.arcadis.com

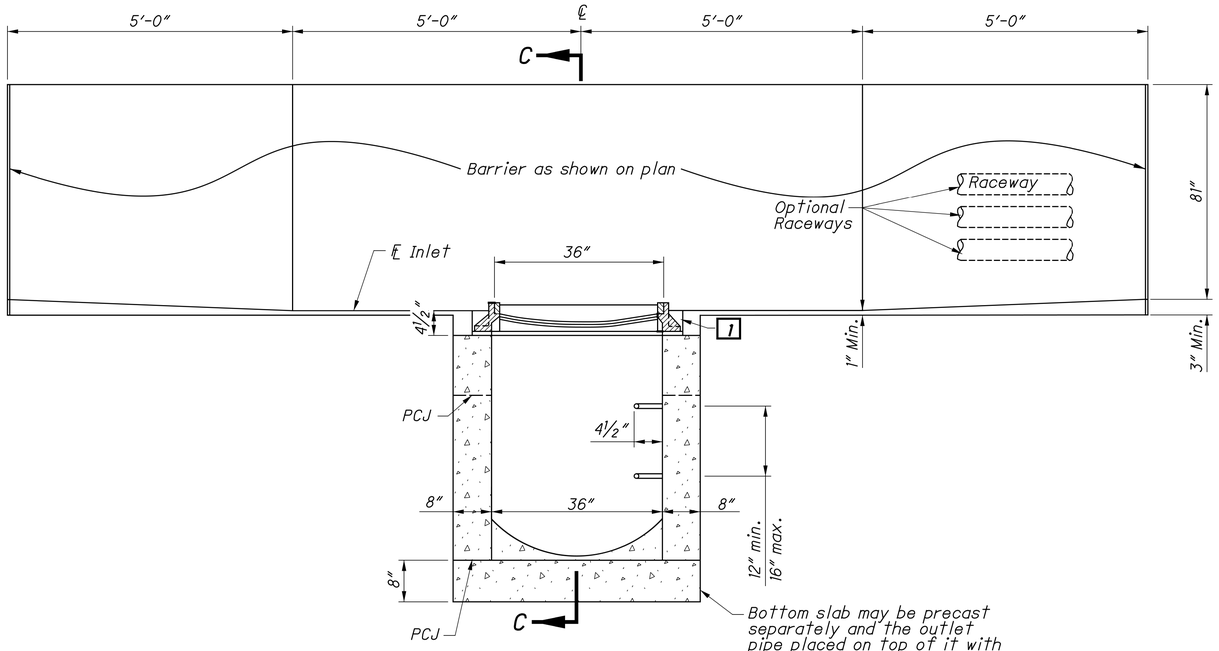
DESIGNER JMK
REVIEWER JDH 01-22-24
PROJECT ID 117607
SHEET P.207 TOTAL P.276

FRA-161-15.80 NOISE WALLS

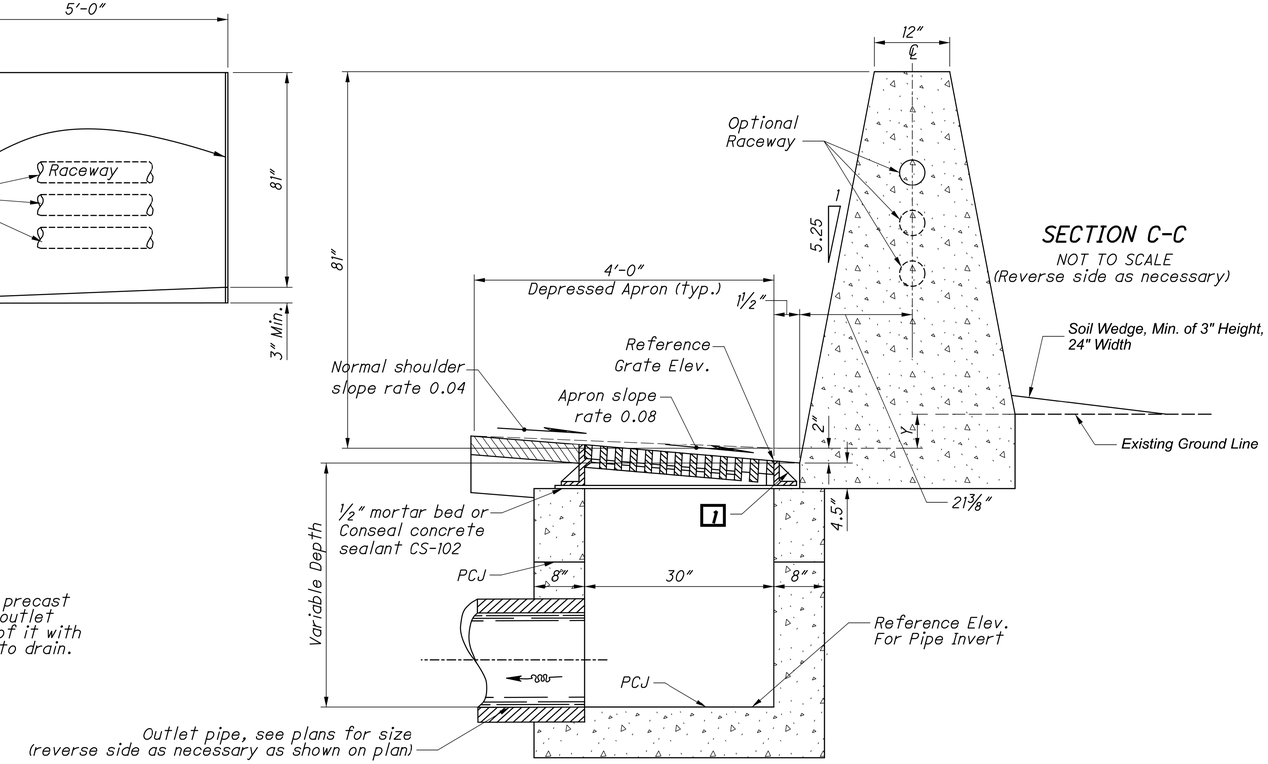
MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 8:03:41 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720400_CAD\400-Engineering\Roadway\Sheets\117607_GR005.dgn



PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE



SECTION C-C
NOT TO SCALE
(Reverse side as necessary)

LEGEND

1 After casting is placed, fill void with 4000 psi compressive strength concrete.

NOTES

GENERAL: For details of 81" Single Slope Barrier, see Sheet 1/8.

WALLS: The walls between the bottom slab and the upper permissible construction joint may be built of brick, concrete block or cast-in-place concrete, 8" nominal thickness for depths of 12' or less. Precast walls have a minimum thickness of 6" and are reinforced sufficiently to permit shipping and handling without damage. The unit above the upper permissible construction joint may be precast or cast-in-place.

CONCRETE: Provide 4000 psi compressive strength concrete for cast-in-place structures. When precast, provide concrete that meets the requirements of CMS 706.13. Mark the inlet number on the structure. Seal the exposed concrete surfaces of the barrier per CMS Item 512 when specified in the plans.

REINFORCING STEEL: Provide epoxy coated reinforcing steel in accordance with CMS 509.09.

CASTINGS: Provide casting according to SCD I-3B.

INLETS OVER 12 FEET IN DEPTH: Provide precast or cast-in-place concrete for inlets over 12 feet in depth. Reinforce with #5 bars on 12" centers both vertically and horizontally with 2" clearance from the inside wall face.

OPENINGS: Pipe openings are the outside diameter of the pipe being supplied plus 2" when fabricated or field cut. Fill any voids per CMS 611.

PCJ: Permissible construction joint.

STEPS: Provide steps according to SCD MH-1.

PAYMENTS: Payment will be made at the unit price bid per Each for Item 611 - Barrier Inlet, 81" SSB and includes all materials, reinforcing steel, castings, raceways, wiring and labor required to construct the inlet as shown. Sealing of exposed concrete and sealing of the barrier will be paid for under Item 512 when specified in the plans.

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 8:04:51 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GR006.dgn

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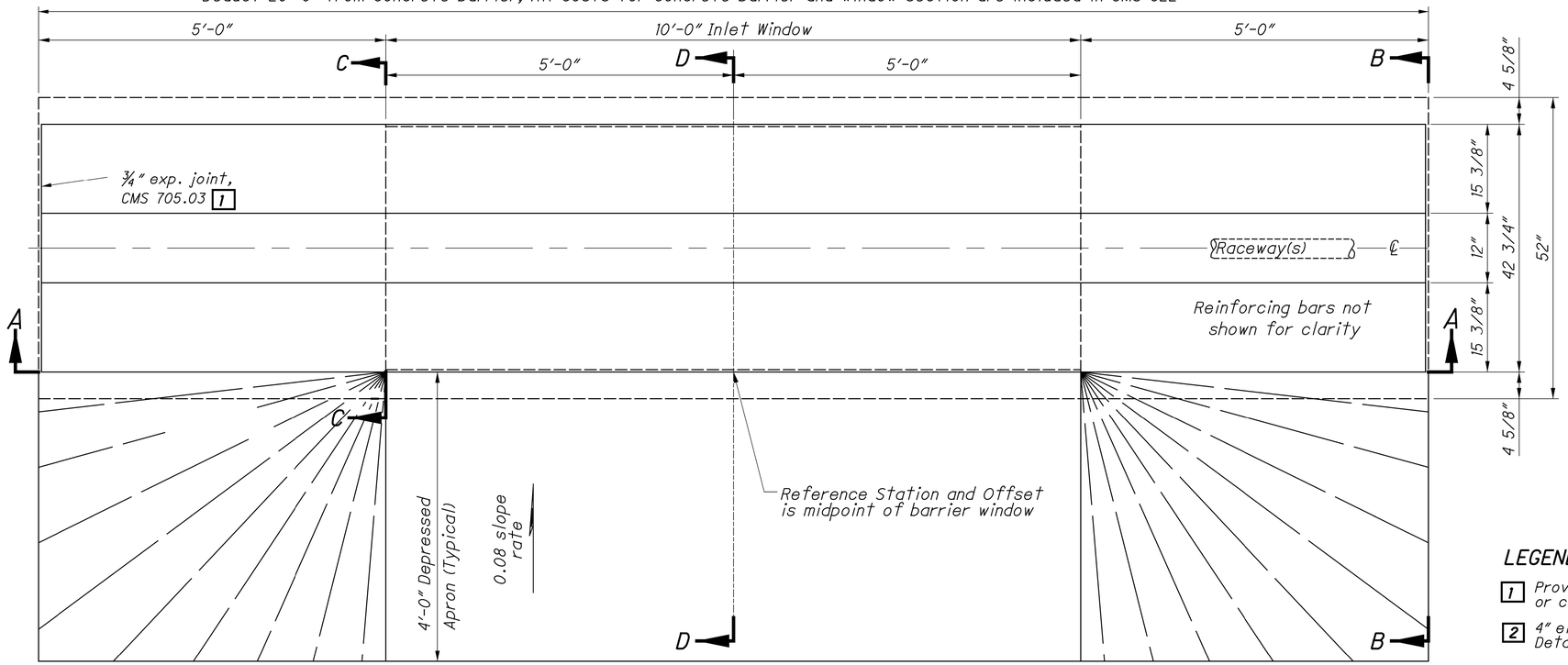
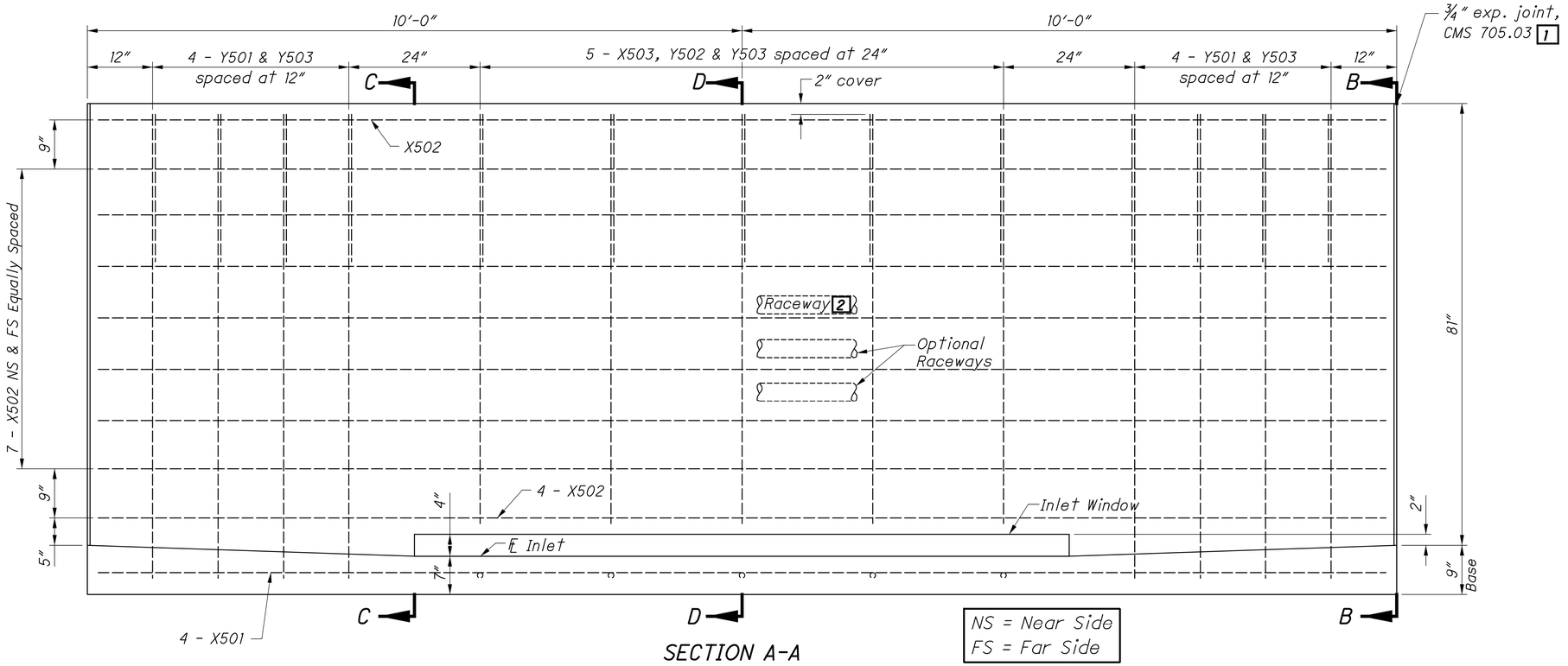
DESIGNER	JMK
REVIEWER	JDH 01-22-24
PROJECT ID	117607
SHEET	P.208
TOTAL	P.276



PLAN VIEW



SECTION A-A

NOTES

1. For additional notes and details, see SCD I-3B.

2. For sections B-B, C-C, & D-D, see sheet 8/8 .

PAYMENT: Payment for the Concrete Barrier Window Section shall be made at the unit price bid for Item 622 - Concrete Barrier, 81" SSB, Window Section, Each and shall includes all materials, reinforcing steel, castings, labor and incidentals required to construct the Concrete Barrier Window Section as shown.

Tied Concrete Block Mat with Type 1 Underlayment is paid at the contract unit price bid for Item 601 - Tied Concrete Block Mat with Type 1 Underlayment

LEGEND

1 Provide a 1½" minimum exp. joint in concrete pavement or concrete shoulders.

2 4" electrical raceway. See Sheet DD002for RACEWAY PLACEMENT Details.

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

FRA-161-15.80 NOISE WALLS

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 2024-01-18 TIME: 8:06:10 PM USER: jennifer.kelley
pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GR007.dgn

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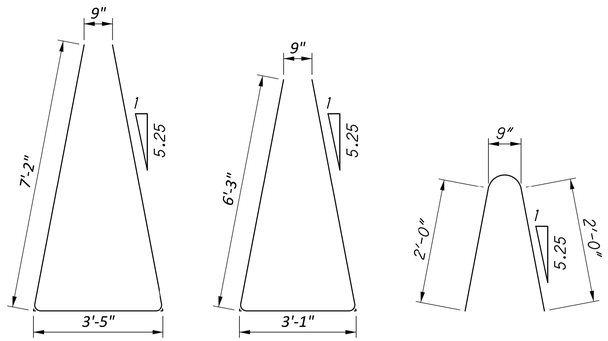
DESIGNER JMK

REVIEWER JDH 01-22-24

PROJECT ID 117607

SHEET P.209 TOTAL P.276

STEEL LIST (For Estimating Purposes Only)											
X501 #5 Bar		X502 #5 Bar		X503 #5 Bar		Y501 #5 Bar		Y502 #5 Bar		Y503 #5 Bar	
Straight		Straight		Straight		Bent		Bent		Bent	
No.	Length	No.	Length	No.	Length	No.	Length	No.	Length	No.	Length
4	19'-8"	19	19'-6"	5	4'-0"	8	17'-6"	5	15'-4"	13	5'-2"



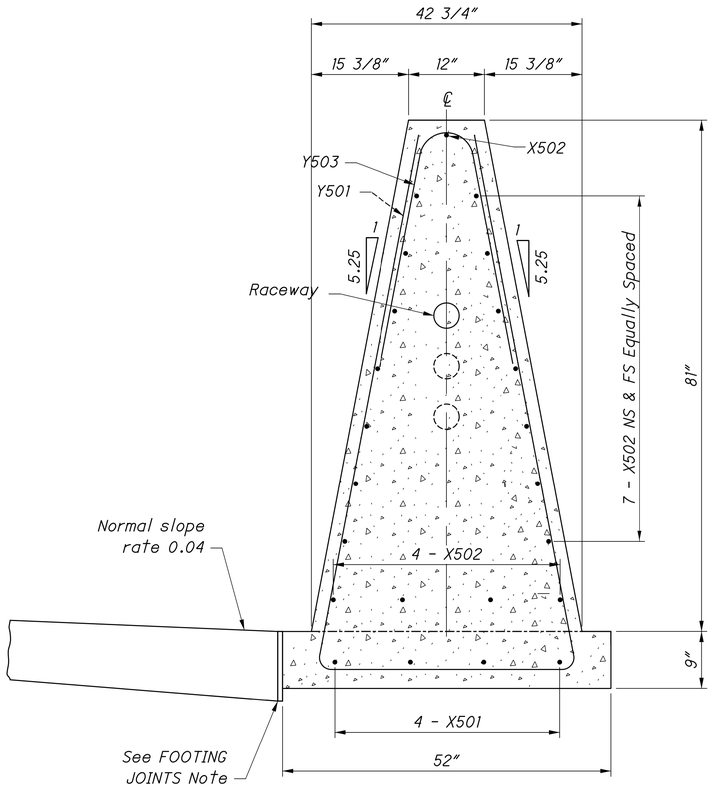
Y501 Y502 Y503

BENDING DIAGRAMS

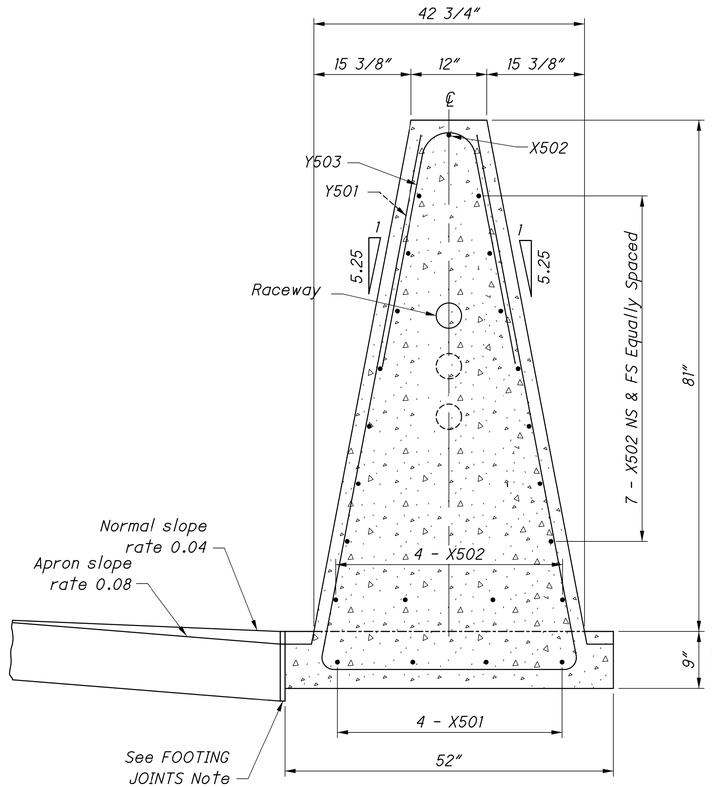
NOTES

1. For additional notes and details, see SCD I-3B.
2. For location of sections A-A, B-B & C-C, see sheet 7/8.
3. Reinforcing Steel: Provide epoxy coated reinforcing steel in accordance with CMS 509.09.

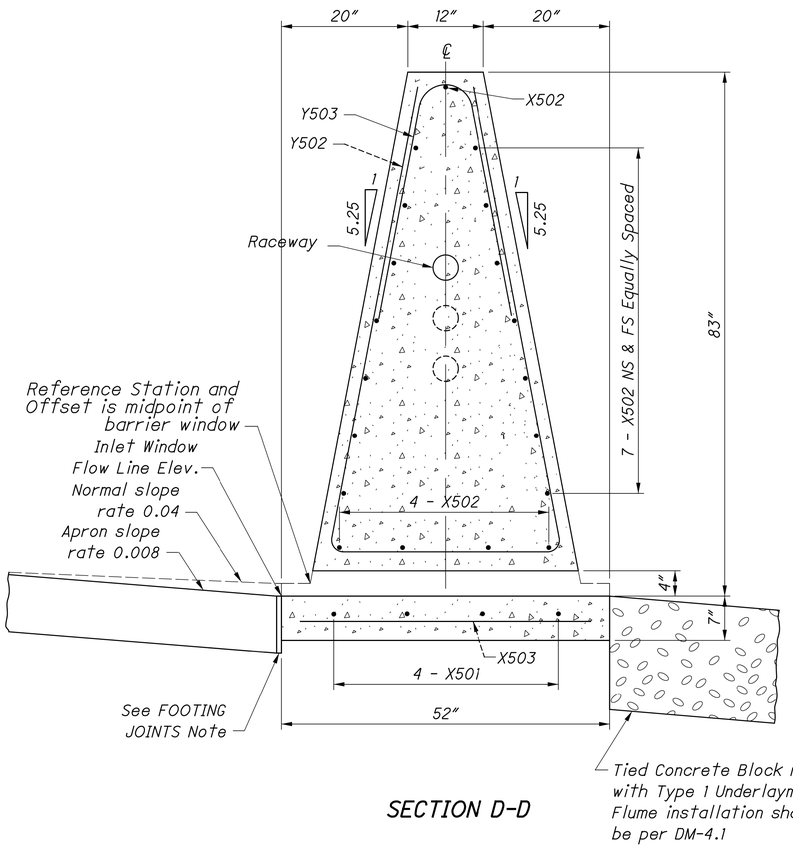
FOOTING JOINTS: Provide a sealed joint with the vertical walls between the barrier footing and a concrete pavement or concrete base as detailed on SCD RM-4.3.



SECTION B-B



SECTION C-C



SECTION D-D

81" SINGLE SLOPE BARRIER NOISE WALL DETAIL (PIS-81-SSB)

FRA-161-15.80 NOISE WALLS

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pw:\\arcadis-us-pw.bentley.com:arcadis-us-01\Documents\01 Active Projects\143720\400_CAD\400-Engineering\Roadway\Sheets\117607_GR008.dgn

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DESIGNER
JMK

REVIEWER
JDH 01-22-24

PROJECT ID
117607

SHEET P.210 TOTAL P.276

PROJECT DESCRIPTION

THE PROJECT CONSISTS OF THE CONSTRUCTION OF EIGHT (8) NEW NOISE WALLS ALONG SR 161 BETWEEN ULRY ROAD NAD US 62 IN FRANKLIN COUNTY, OHIO. BASED ON THE AVAILABLE PROJECT INFORMATION, IT IS UNDERSTOOD THAT THE WALLS WILL RANGE FROM 497 TO 2,226 FEET IN LENGTH AND WILL BE 14 FEET HIGH. NOISE WALLS 3, 6, 8, 9, 11, 12 AND 15, AS DESIGNATED AND SHOWN ON THE PROJECT DOCUMENTS, ARE INCLUDED AS PART OF THIS INVESTIGATION.

HISTORIC RECORDS

HISTORIC GEOTECHNICAL RECORDS WERE OBTAINED FROM ODOT'S TRANSPORTATION INFORMATION MAPPING SYTEM (TIMS). RESULTS OF THESE EXPLORATIONS INDICATED THAT PREDOMINANTLY EXISTING COHESIVE AND GRANULAR SOILS ARE PRESENT BELOW THE EXISTING GROUND SURFACE, AND ARE UNDERLAIN BY AND SHALE BEDROCK. THESE RESULTS WERE NOT UTILIZED DURING THE CURRENT DESIGN

GEOLOGY

PHYSIOGRAPHICALLY, THE PROJECT SITE FALLS WITHIN GALION GLACIATED LOW PLATEAU. THIS REGION IS CHARACTERIZED BY ROLLING UPLANDS WHICH ARE TRANSITIONAL BETWEEN THE GENTLY ROLLING TILL PLAINS AND HILL GLACIATED ALLEGHENY PLATEAU. THE SOILS CONSIST OF THIN TO THICK DRIFT WITH MODERATE RELIEF.

BASED ON BEDROCK GEOLOGY AND TOPOGRAPHY MAPS OF THE AREA FROM THE OHIO DEPARTMENT OF NATURAL RESOURCES (ODNR), THE UNDERLYING BEDROCK BENEATH THE SITE IS MISSISSIPPIAN-AGE SHALES AND SANDSTONES THE BEDROCK SURFACE IN THE VICINITY OF THE SITE RANGES BETWEEN APPROXIMATELY 5 TO 25 FEET BELOW THE EXISTING SURFACE GRADE.

RECONNAISSANCE

FIELD RECONNAISSANCE WAS COMPLETED BY PERSONNELL FROM RESOURCE INTERNATIONAL, INC (RII) BETWEEN OCTBER 18 AND NOVEMBER 15,2023. THE PROJECT SITE IS LOCATED ALONG SR 161 IN FRANKLIN COUNTY, OHIO. THE PROJECT SITE EXTENDS FROM URLY ROAD TO APPROXIMATELY 0.3 MILES WEST OF US 62. SR 161 WITHIN THE PROJECT LIMITS IS A BIDIRECTIONAL, DIVIDED, ASPHALT PAVED ROADWAY WITH TWO LANES IN EACH DIRECTION. ALONG THE PROJECT ALIGNMENT, THE LAND USE SURROUNDING SR 161 IS PRIMARILY RESIDENTIAL WITH SOME COMMERCIAL AND/OR INDUSTRIAL PURPOSE. SURFACE DRAINAGE APPEARS TO BE COLLECTED IN THE DRAINAGE DITCHES ALONG THE MAJORITY OF THE ROADWAY ALIGNMENT.

SUBSURFACE EXPLORATION

BETWEEN OCTOBER 23 AND DECEMBER 5, 2023, A TOTAL OF FIFTY-THREE (53) BORINGS, DESIGNATED AS B-001-0-23 THROUGH B-053-0-23, WERE PERFORMED AS PART OF THE SUBSURFACE EXPLORATION. THE BORINGS WERE DRILLED AND SAMPLED WITH DIEDRICH D50 TRACK MOUNTED DRILL RIG UTILIZING 3.25-INCH HOLLOW STEM AUGERS TO ADVANCE THE HOLES. STANDARD PENETRATION TESTING (SPT) AND SPLIT SPOON SAMPLING WERE PERFORMED AT 2.5-FOOT INTERVALS IN ALL BORINGS EITHER TO THE BORING TERMINATION DEPTHS OR TO AUGER REFUSAL ON BEDROCK. THE HAMMER UTILIZED IN DIEDRICH D50 TRACK RIG WAS CALIBRATED ON MARCH 21, 2022 AND HAD AN ENERGY RATIO OF 86.4 PERCENT.

THE DEPTH TO BEDROCK WAS DETERMINED BY SPLIT SPOON SAMPLER REFUSAL AND/OR AUGER REFUSAL ON BEDROCK. WHERE THE BORINGS WERE EXTENDED INTO THE BEDROCK, AN NQ2 SIZED, DOUBLE TUBE, DIAMOND BIT CORE BARREL (UTILIZING WIRE LINE EQUIPMENT) WAS USED TO CORE THE BEDROCK. THE ROCK CORES OBTAINED FROM THE BORINGS WERE LOGGED IN THE FIELD AND VISUALLY CLASSIFIED IN THE LABORATORY. THE RETRIEVED CORES WERE ANALYZED TO IDENTIFY THE TYPE OF ROCK, COLOR, MINERAL CONTENT, BEDDING PLANES AND OTHER GEOLOGICAL AND MECHANICAL FEATURES OF INTEREST IN THIS PROJECT.

EXPLORATION FINDINGS

THIS GEOTECHNICAL EXPLORATION WAS PERFORMED IN ACCORDANCE WITH THE STATE THE BORINGS WERE GENERALLY PERFORMED IN THE VICINITY OF THE PROPOSED NOISE WALL ALIGNMENTS. ALL BORINGS, EXCEPT B-038-0-23, ENCOUNTERED TOPSOIL THICKNESSES BETWEEN 1 INCH AND 10 INCHES. BORING B-038-0-23 ENCOUNTERED 3.0 INCHES OF ASPHALT OVERLYING 6.5 INCHES OF CONCRETE OVERLYING 3.5 INCHES OF AGGREGATE BASE.

UNDERLYING THE SURFICIAL SOILS, THE NATURAL SOILS WERE ENCOUNTERED, CONSISTING OF BOTH COHESIVE AND GRANULAR DEPOSITS. THE NATURAL COHESIVE SOILS WERE DESCRIBED AS SANDY SILT, SILT AND CLAY, SILTY CLAY, AND CLAY (ODOT A-4A, A-6A, A-6B, A-7-6). THE SHEAR STRENGTH AND CONSISTENCY OF THE COHESIVE SOILS ARE PRIMARILY DERIVED FROM THE HAND PENETROMETER VALUES (HP). THE COHESIVE SOILS ENCOUNTERED RANGED FROM MEDIUM STIFF (0.5 < HP 1.0 TSF) TO HARD (HP 4.0 TSF). THE UNCONFINED COMPRESSIVE STRENGTH OF THE COHESIVE SOIL SAMPLES TESTED, OBTAINED FROM THE HAND PENETROMETER, RANGED FROM 0.75 TO OVER 4.5 TSF (LIMIT OF THE INSTRUMENT).

THE GRANULAR SOILS WERE DESCRIBED AS GRAVEL, GRAVEL WITH SAND, GRAVEL WITH SAND AND SILT, GRAVEL WITH SAND AND SILT AND CLAY, AND COARSE AND FINE SAND (ODOT A-1-A, A1B, A-2-4, A-2-6, A-3A). THE RELATIVE DENSITY OF GRANULAR SOILS IS PRIMARILY DERIVED FROM SPT BLOW COUNTS (N_{60}). BASED ON THE SPT BLOW COUNTS OBTAINED, THE GRANULAR SOILS ENCOUNTERED RANGED FROM LOOSE (5 < N_{60} <10 BLOWS PER FOOT [BPF]) TO VERY DENSE (N_{60} > 50 BPF). BLOW COUNTS RECORDED FROM THE SPT SAMPLING WITHIN THE GRANULAR SOIL DEPOSITS RANGED FROM 9 TO 96 BPF.

BEDROCK WAS ENCOUNTERED IN BORINGS B-001-0-23, B-002-0-23, B-003-0-23, B-004-0-23, B-018-0-23, B-019-0-23, B-020-0-23, B-021-0-23, B-022-0-23, B-023-0-23, B-024-0-23, B-027-0-23, B-028-0-23, B-038-0-23, B-039-0-23, B-040-0-23, B-041-0-23, B-042-0-23, B-043-0-23, B-044-0-23, B-045-0-23, B-046-0-23, B-047-0-23, B-048-0-23, B-049-0-23, B-050-0-23, B-051-0-23, B-052-0-23, AND B-053-0-23 AT DEPTHS RANGING FROM 4.3 TO 23.0 FEET BENEATH THE EXISTING GROUND SURFACE. THE BEDROCK WAS [illegible] WEATHERED GRAY AND BROWN SANDSTONE, HIGHLY WEATHERED [illegible] RED GRAY AND BLACK SILT, AND HIGHLY WEATHERED GRAY SI[illegible]

LEGEND

	DESCRIPTION	ODOT CLASS	CLASSIFIED MECH./VISUAL	
	GRAVEL AND/OR STONE FRAGMENTS	A-1-a	2	4
	GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b	11	23
	GRAVEL AND/OR STONE FRAGS. WITH SAND & SILT	A-2-4	12	57
	GR. AND/OR ST. FRAGS. WITH SAND, SILT & CLAY	A-2-6	-	2
	COARSE AND FINE SAND	A-3a	1	9
	SANDY SILT	A-4a	18	58
	SILT AND CLAY	A-6a	26	102
	SILTY CLAY	A-6b	12	38
	CLAY	A-7-6	7	9
		TOTAL	89	302
	SANDSTONE	VISUAL		
	SHALE	VISUAL		
	SILTSTONE	VISUAL		
	PAVEMENT OR BASE = X = APPROXIMATE THICKNESS	VISUAL		
	SOD AND TOPSOIL = X = APPROXIMATE THICKNESS	VISUAL		

BORING LOCATION - PLAN VIEW.

DRIVE SAMPLE AND/OR ROCK CORE BORING PLOTTED TO VERTICAL SCALE ONLY. HORIZO[illegible]GE IN STRATIGRAPHY.

WC — INDICA[illegible]ENT.

N_{60} — INDICATES STANDARD PENETRATION RESISTANCE NORMALIZED TO 60% DRILL ROD ENERGY RATIO.

X/Y/Z — NUMBER OF BLOWS FOR STANDARD PENETRATION TEST (SPT):
X= NUMBER OF BLOWS FOR FIRST 6 INCHES.
Y= NUMBER OF BLOWS FOR SECOND 6 INCHES.
Z= NUMBER OF BLOWS FOR THIRD 6 INCHES.

W — INDICATES FREE WATER ELEVATION.

● — INDICATES A PLASTIC MATERIAL WITH A MOISTURE CONTENT EQUAL TO OR GREATER THAN THE LIQUID LIMIT MINUS 3.

▽ — INDICATES A NON-PLASTIC MATERIAL WITH A MOISTURE CONTENT GREATER THAN 25 % OR GREATER THAN 19 % WITH A WET APPEARANCE.

SS — INDICATES A SPLIT SPOON SAMPLE.

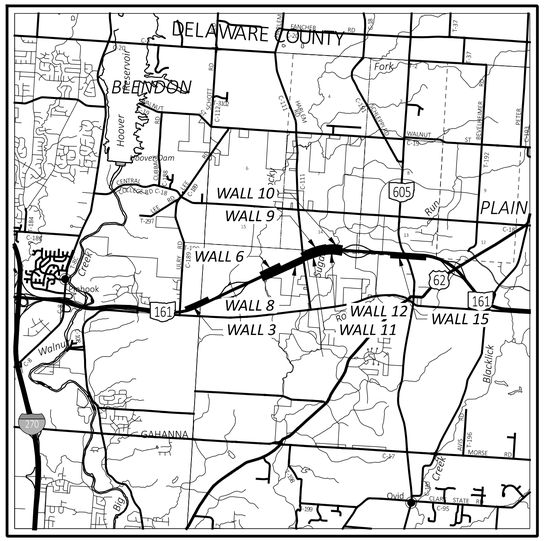
NP — INDICATES A NON-PLASTIC SAMPLE.

SPECIFICATIONS

THIS GEOTECHNICAL EXPLORATION[illegible]DANCE WITH THE STATE OF OHIO, DEPARTMENT OF TRANS[illegible]CHNICAL ENGINEERING, SPECIFICATIONS FOR GEOTECHNIC[illegible]Y 2022.

AVAILABLE INFORMATI[illegible]

THE SOIL, BEDROCK, AND GROUNDWATER INFORMATION COLLECTED FOR THIS SUBSURFACE EXPLORATION THAT CAN BE CONVENIENTLY DISPLAYED ON THE GEOTECHNICAL PROFILE SHEETS HAS BEEN PRESENTED. GEOTECHNICAL REPORTS, IF PREPARED, ARE AVAILABLE FOR REVIEW ON THE OFFICE OF CONTRACT SALES WEBSITE.



LOCATION MAP

SCALE IN MILES

0 1 2 3 4

PARTICLE SIZE DEFINITIONS

12"	3"	2.0 mm	0.42 mm	0.074 mm	0.005 mm
BOULDERS	COBBLES	GRAVEL	COARSE SAND	FINE SAND	SILT	CLAY
		No. 10 SIEVE	No. 40 SIEVE	No. 200 SIEVE		

INDEX OF SHEETS

SUMMARY OF SOIL TEST DATA, SHEETS 2 - 5.

LOCATION FROM STA.	TO STA.	PLAN	PROFILE
℄ CONST. SR 161			
NOISE WALL 3			
2130+00	2135+00	6	6
2135+00	2140+00	7	7
NOISE WALL 6			
2192+00	2197+00	8	8
2197+00	2202+00	9	9
NOISE WALL 8			
2192+00	2197+00	10	10
2197+00	2202+00	11	11
2202+00	2207+00	12	12
2207+00	2212+00	13	13
2212+00	2217+00	14	14
NOISE WALL 9			
2217+00	2222+00	15	15
2222+00	2227+00	16	16
2227[illegible]			17

INDEX OF SHEETS (CON'T)

LOCATION FROM STA.	TO STA.	PLAN	PROFILE
℄ CONST. SR 161			
NOISE WALL 11			
2216+00	2221+00	18	18
2221+00	2226+00	19	19
2226+00	2231+00	20	20
2231+00	2236+00	21	21
NOISE WALL 12			
2239+00	2244+00	22	22
2244+00	2249+00	23	23
NOISE WALL 15			
2286+00	2291+00	24	24
2291+00	2296+00	25	25
2296+00	2301+00	26	26
2301+00	2306+00	27	27
2306+00	2311+00	28	28

BORING LOGS, SHEETS 29 - 66.

DRILLING - TG 10/23 - 12/05/2023

DRAWN - JAS, KSJ 01/18/2023

REVIEWED - DEK 01/18/2023

GEOTECHNICAL PROFILE - NOISE WALLS

FRA-161-15.80 NOISE WALLS

MODEL: COVER SHEET PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:05:13 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZC001.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43221
(614) 923-4949

DESIGNER	
JAS	
REVIEWER	
DEK	1/19/24
PROJECT ID	
117607	
SUBSET	TOTAL
1	66
SHEET	TOTAL
P.211	276

Rii Response: This has been updated.

Rii Response: This has been updated.

this first sentence appears to be incomplete. Are you referring that these were performed in accordance with the SGE?

NO NOTE INDICATING PRESENCE OF GROUNDWATER.

Rii Response: This has been updated.

Rii Response: This has been updated.

Rii Response: This has been added.

Please note presence of cobbles and boulders within the overburden soils. As these may pose difficult drilling conditions for the contractor to accurately bid

Rii Response: This has been updated.

is this supposed to be siltstone?

CONSOLIDATE THIS TEXT (B-001-B-004 ETC TO SAVE TEXT SPACE)

PLEASE ADD SUMMARY OF BEDROCK TEST RESULTS IN TABULAR FORMAT. SEE REFER TO EXAMPLE GEOTECHNICAL PROFILE-LANDSLIDE WITHIN THE APPENDIX OF THE SGE.

RESOURCE INTERNATIONAL, INC.
Engineering Consultants

6350 Presidential Gatew. | 9885 Rockside Road | 4480 Lake Forest Drive
Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Unconfined Compressive Strength of Intact Rock Core Specimens

(ASTM D 7012-14)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: KL/EM

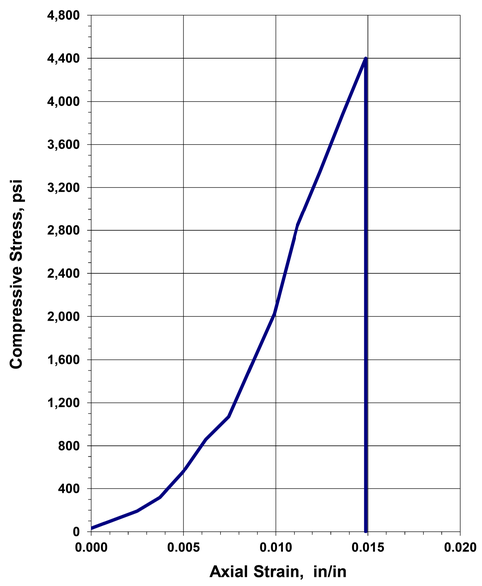
Rock Description: Gray Sandstone
Rock Formation:

Boring No.:	B-001-0-23		Average Length:	4.030	in
Sample No:	RC-2		Average Diameter:	1.993	in
Depth (ft):	14.0'	feet	Length to diameter ratio:	2.022	
Moisture condition:	As received		Cross Sectional Area:	3.120	in^2
Sample Mass:	470.86	grams	Volume:	0.0073	ft^3
Testing Temperature:	23	°C	Unit Weight (sample specimen)*:	142.68	lbs/ft3
Rate of Loading:	62.1	lbs/sec	Failure Load:	13,727	lbs
Testing Time:	221	sec	Axial Strain at Failure:	0.0149	in/in
(Rate 2-15 min			Compressive Strength:	4,400	psi

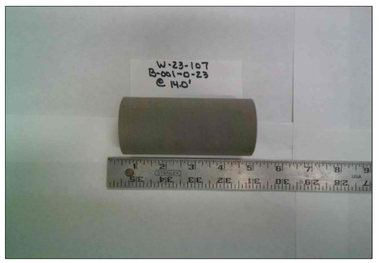
Sample Preparation: Per ASTM D4543

**Actual test sample used for unit weight prior to testing.*

Unconfined Compression Test



Before Testing



After Failure

REMARKS:

1

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Engineering Consultants

6350 Presidential Gatew. | 9885 Rockside Road | 4480 Lake Forest Drive
Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Unconfined Compressive Strength of Intact Rock Core Specimens

(ASTM D 7012-14)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: KL/EM

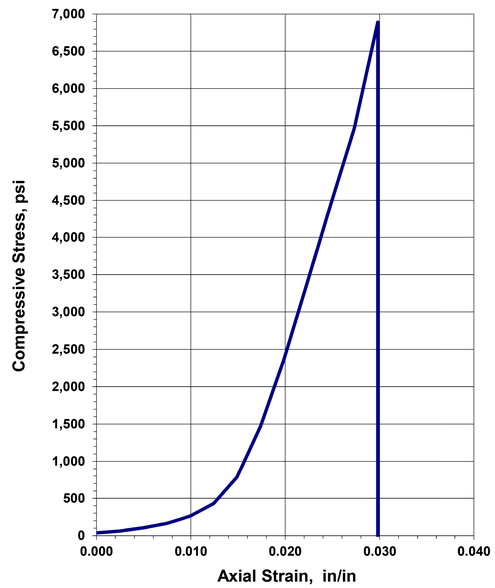
Rock Description: Gray Sandstone
Rock Formation:

Boring No.:	B-003-0-23		Average Length:	4.028	in
Sample No:	RC-2		Average Diameter:	1.995	in
Depth (ft):	13.8'	feet	Length to diameter ratio:	2.019	
Moisture condition:	As received		Cross Sectional Area:	3.126	in^2
Sample Mass:	480.55	grams	Volume:	0.0073	ft^3
Testing Temperature:	23	°C	Unit Weight (sample specimen)*:	145.39	lbs/ft3
Rate of Loading:	75.1	lbs/sec	Failure Load:	21,542	lbs
Testing Time:	287	sec	Axial Strain at Failure:	0.0298	in/in
(Rate 2-15 min			Compressive Strength:	6,891	psi

Sample Preparation: Per ASTM D4543

**Actual test sample used for unit weight prior to testing.*

Unconfined Compression Test



Before Testing

After Failure

REMARKS:

1

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:47:21 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL0001.dgn

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 3
LABORATORY TEST DATA - UNCONFINED COMPRESSIVE STRENGTH OF INTACT ROCK

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	JAS
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	2
TOTAL	66
SHEET	P.212
TOTAL	276

RESOURCE INTERNATIONAL, INC.
Engineering Consultants

6350 Presidential Gatew. | 9885 Rockside Road | 4480 Lake Forest Drive
Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Unconfined Compressive Strength of Intact Rock Core Specimens

(ASTM D 7012-14)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: KL/EM

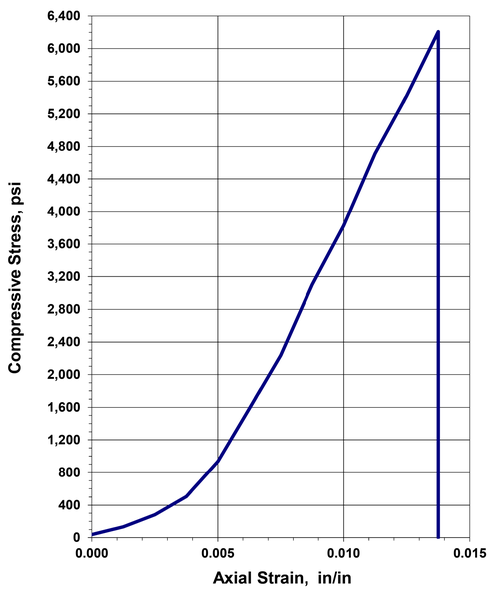
Rock Description: Gray Sandstone
Rock Formation:

Boring No.:	B-043-0-23		Average Length:	4.000	in
Sample No:	RC-2		Average Diameter:	1.988	in
Depth (ft):	21.00	feet	Length to diameter ratio:	2.012	
Moisture condition:	As received		Cross Sectional Area:	3.104	in^2
Sample Mass:	460.53	grams	Volume:	0.0072	ft^3
Testing Temperature:	23	°C	Unit Weight (sample specimen)*:	141.30	lbs/ft3
Rate of Loading:	87.2	lbs/sec	Failure Load:	19,269	lbs
Testing Time:	221	sec	Axial Strain at Failure:	0.0138	in/in
(Rate 2-15 min			Compressive Strength:	6,208	psi

Sample Preparation: Per ASTM D4543

**Actual test sample used for unit weight prior to testing.*

Unconfined Compression Test



Before Testing

After Failure

REMARKS:

RESOURCE INTERNATIONAL, INC.
Engineering Consultants

6350 Presidential Gatew. | 9885 Rockside Road | 4480 Lake Forest Drive
Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Unconfined Compressive Strength of Intact Rock Core Specimens

(ASTM D 7012-14)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: KL/EM

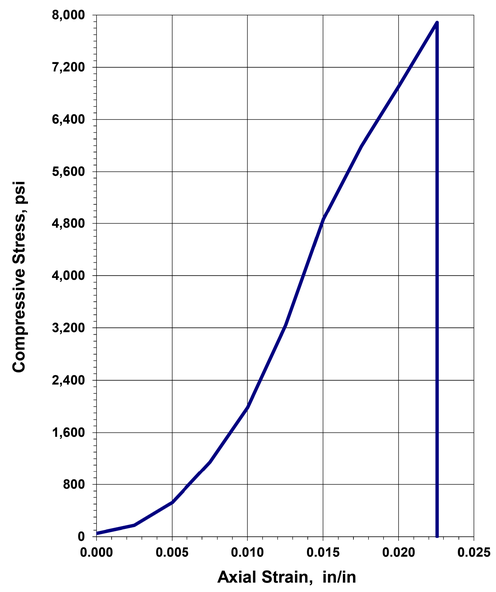
Rock Description: Gray Sandstone
Rock Formation:

Boring No.:	B-046-0-23		Average Length:	3.992	in
Sample No:	RC-2		Average Diameter:	1.995	in
Depth (ft):	22.0'	feet	Length to diameter ratio:	2.001	
Moisture condition:	As received		Cross Sectional Area:	3.126	in^2
Sample Mass:	519.17	grams	Volume:	0.0072	ft^3
Testing Temperature:	23	°C	Unit Weight (sample specimen)*:	158.49	lbs/ft3
Rate of Loading:	101.9	lbs/sec	Failure Load:	24,655	lbs
Testing Time:	242	sec	Axial Strain at Failure:	0.0225	in/in
(Rate 2-15 min			Compressive Strength:	7,887	psi

Sample Preparation: Per ASTM D4543

**Actual test sample used for unit weight prior to testing.*

Unconfined Compression Test



Before Testing

After Failure

REMARKS:

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
LABORATORY TEST DATA - UNCONFINED COMPRESSIVE STRENGTH OF INTACT ROCK

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER: JAS
REVIEWER: DEK 1/19/24
PROJECT ID: 117607
SUBSET: 3 | TOTAL: 66
SHEET: P.213 | TOTAL: 276

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:47:43 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL0002.dgn

RESOURCE INTERNATIONAL, INC.
Engineering Consultants

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Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Unconfined Compressive Strength of Intact Rock Core Specimens

(ASTM D 7012-14)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: KL/EM

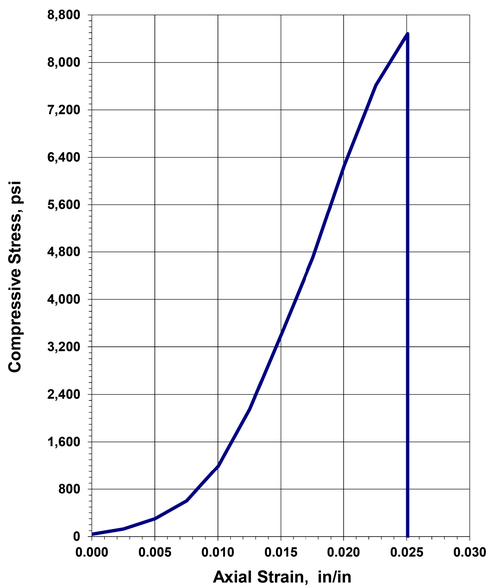
Rock Description: Gray Sandstone
Rock Formation:

Boring No.:	B-050-0-23		Average Length:	3.988	in
Sample No:	RC-2		Average Diameter:	1.985	in
Depth (ft):	21.0'	feet	Length to diameter ratio:	2.009	
Moisture condition:	As received		Cross Sectional Area:	3.095	in^2
Sample Mass:	455.36	grams	Volume:	0.0071	ft^3
Testing Temperature:	23	°C	Unit Weight (sample specimen)*:	140.56	lbs/ft3
Rate of Loading:	108.5	lbs/sec	Failure Load:	26,255	lbs
Testing Time: *(Rate 2-15 min*	242	sec	Axial Strain at Failure:	0.0251	in/in
			Compressive Strength:	8,484	psi

Sample Preparation: Per ASTM D4543

**Actual test sample used for unit weight prior to testing.*

Unconfined Compression Test



Before Testing

After Failure

REMARKS:

RESOURCE INTERNATIONAL, INC.
Engineering Consultants

6350 Presidential Gatew. | 9885 Rockside Road | 4480 Lake Forest Drive
Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Unconfined Compressive Strength of Intact Rock Core Specimens

(ASTM D 7012-14)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: KL/EM

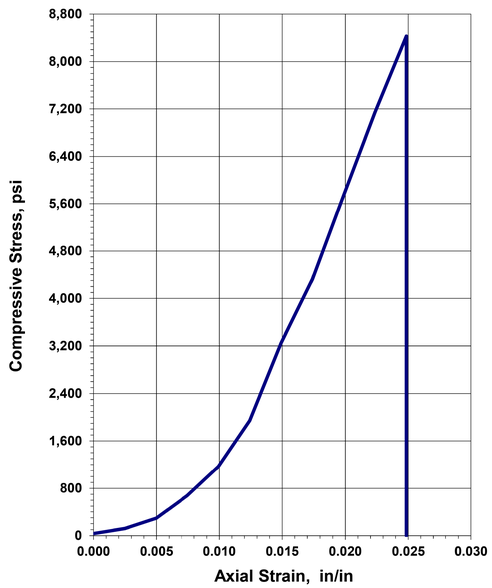
Rock Description: Gray Sandstone
Rock Formation:

Boring No.:	B-052-0-23		Average Length:	4.024	in
Sample No:	RC-2		Average Diameter:	1.993	in
Depth (ft):	21.20	feet	Length to diameter ratio:	2.019	
Moisture condition:	As received		Cross Sectional Area:	3.120	in^2
Sample Mass:	505.98	grams	Volume:	0.0073	ft^3
Testing Temperature:	23	°C	Unit Weight (sample specimen)*:	153.55	lbs/ft3
Rate of Loading:	112.4	lbs/sec	Failure Load:	26,295	lbs
Testing Time: *(Rate 2-15 min*	234	sec	Axial Strain at Failure:	0.0249	in/in
			Compressive Strength:	8,429	psi

Sample Preparation: Per ASTM D4543

**Actual test sample used for unit weight prior to testing.*

Unconfined Compression Test



Before Testing

After Failure

REMARKS:

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
LABORATORY TEST DATA - UNCONFINED COMPRESSIVE STRENGTH OF INTACT ROCK

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	JAS
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	4
TOTAL	66
SHEET	P.214
TOTAL	276

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:48:01 AM USER: kevin]
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL0003.dgn

RESOURCE INTERNATIONAL, INC.
Engineering Consultants

6350 Presidential Gatew. | 9885 Rockside Road | 4480 Lake Forest Drive
Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Point Load Strength Index of Rock Specimens
(ASTM D 5731-08)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: EM/KL

Rock Description: Gray Shale

Boring No.: B-23-0-23
Station / Offset: RC-3
Sample No. / Depth: 21.5'-23.5'

Test Apparatus: Forney-LA 0080
Serial Number: A125/AZ/0014
Date of Calibration: 4/25/2023

Sample No.	Test Type	Depth (ft)	Width (mm)	Diameter (mm)	Load (N)	D_e^2 (mm^2)	D_e (mm)	F	Is (MPa)	$Is_{(50)}$ (MPa)	σ_c (MPa)
1	a ⊥	21.5-23.5	49.7	21.1	503	1,336	36.5	0.87	0.38	0.33	4.52
2	a ⊥	21.5-23.5	49.6	25.8	783	1,631	40.4	0.91	0.48	0.44	5.76
3	a ⊥	21.5-23.5	49.7	23.1	525	1,463	38.3	0.89	0.36	0.32	4.31
4	a ⊥	21.5-23.5	49.7	28.5	814	1,802	42.5	0.93	0.45	0.42	5.42
5	a ⊥	21.5-23.5	49.7	30.0	854	1,895	43.5	0.94	0.45	0.42	5.41
6	a ⊥	21.5-23.5	49.7	25.1	916	1,589	39.9	0.90	0.58	0.52	6.92
7	a ⊥	21.5-23.5	49.7	24.6	816	1,555	39.4	0.90	0.52	0.47	6.30
8	a ⊥	21.5-23.5	49.7	22.6	798	1,429	37.8	0.88	0.56	0.49	6.70
9	a ⊥	21.5-23.5	49.7	21.5	789	1,361	36.9	0.87	0.58	0.51	6.96
10	a ⊥	21.5-23.5	49.7	22.5	801	1,427	37.8	0.88	0.56	0.49	6.73

STATISTICS	
Mean $Is_{(50)}$ ⊥	0.44 MPa (64 psi)
Mean $Is_{(50)}$ ‖	
$Ia_{(50)}$	

Specific Specimen Shape:
d = diametrical
a = axial
b = block
i = irregular lump
⊥ = perpendicular to bedding plane
‖ = parallel to bedding plane

Estimated Unaxial Compression, $\sigma_c = K*Is$
K = 12
*Per Section 206.1.3 of 2011 ODOT Rock Slope Design Guide

Mean σ_c = 5.90 MPa (0,856 psi)

Remarks: 1

RESOURCE INTERNATIONAL, INC.
Engineering Consultants

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Columbus, OH 43231 | Cleveland, OH 44125 | Cincinnati, Ohio 45242
Phone (614) 823-4949 | Phone (216) 573-0955 | Phone (513) 769-6998

Point Load Strength Index of Rock Specimens
(ASTM D 5731-08)

Project: FRA-161-15.80
Project No.: W-23-107
Date of Testing: 1/8/2024
Test Performed by: EM/KL

Rock Description: Gray Shale

Boring No.: B-39-0-23
Station / Offset: RC-2
Sample No. / Depth: 15.0-20.0

Test Apparatus: Forney-LA 0080
Serial Number: A125/AZ/0014
Date of Calibration: 4/25/2023

Sample No.	Test Type	Depth (ft)	Width (mm)	Diameter (mm)	Load (N)	D_e^2 (mm^2)	D_e (mm)	F	Is (MPa)	$Is_{(50)}$ (MPa)	σ_c (MPa)
1	a ⊥	17.5-18.5	49.9	21.7	50	1,381	37.2	0.88	0.04	0.03	0.43
2	a ⊥	17.5-18.5	49.5	24.4	45	1,539	39.2	0.90	0.03	0.03	0.35
3	a ⊥	17.5-18.5	50.5	20.4	40	1,309	36.2	0.86	0.03	0.03	0.37
4	a ⊥	17.5-18.5	50.6	23.9	48	1,538	39.2	0.90	0.03	0.03	0.37
5	a ⊥	17.5-18.5	50.6	22.3	49	1,440	38.0	0.88	0.03	0.03	0.41
6	a ⊥	17.5-18.5	50.6	21.1	49	1,362	36.9	0.87	0.04	0.03	0.43
7	a ⊥	17.5-18.5	50.6	22.6	53	1,455	38.1	0.89	0.04	0.03	0.44
8	a ⊥	17.5-18.5	50.6	22.6	48	1,456	38.2	0.89	0.03	0.03	0.40
9	a ⊥	17.5-18.5	50.6	35.0	51	2,255	47.5	0.98	0.02	0.02	0.27
10	a ⊥	17.5-18.5	50.6	22.2	52	1,429	37.8	0.88	0.04	0.03	0.44

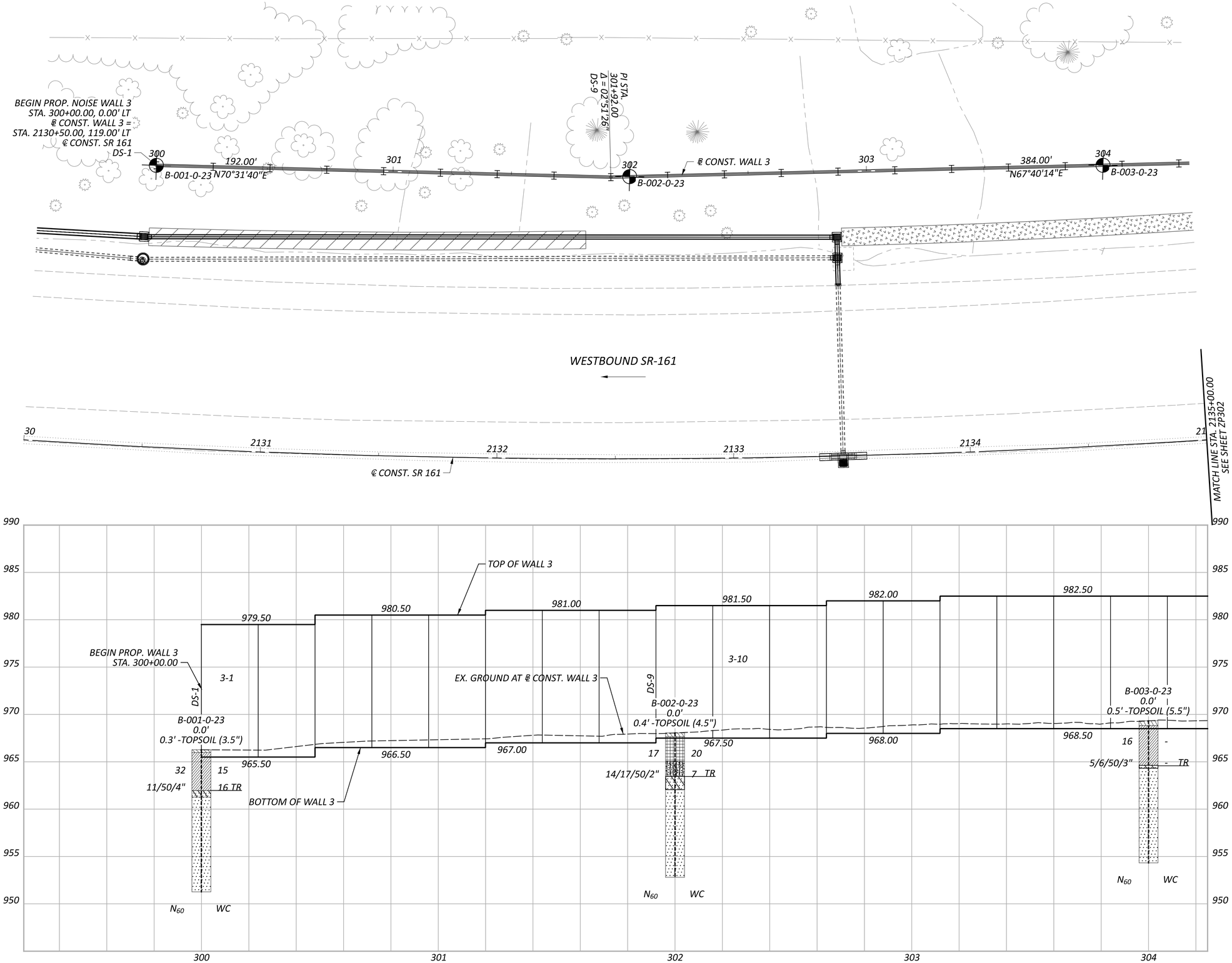
STATISTICS	
Mean $Is_{(50)}$ ⊥	0.03 MPa (4 psi)
Mean $Is_{(50)}$ ‖	
$Ia_{(50)}$	

Specific Specimen Shape:
d = diametrical
a = axial
b = block
i = irregular lump
⊥ = perpendicular to bedding plane
‖ = parallel to bedding plane

Estimated Unaxial Compression, $\sigma_c = K*Is$
K = 12
*Per Section 206.1.3 of 2011 ODOT Rock Slope Design Guide

Mean σ_c = 0.39 MPa (0,057 psi)

Remarks:



HORIZONTAL SCALE IN FEET
0 10 20 40

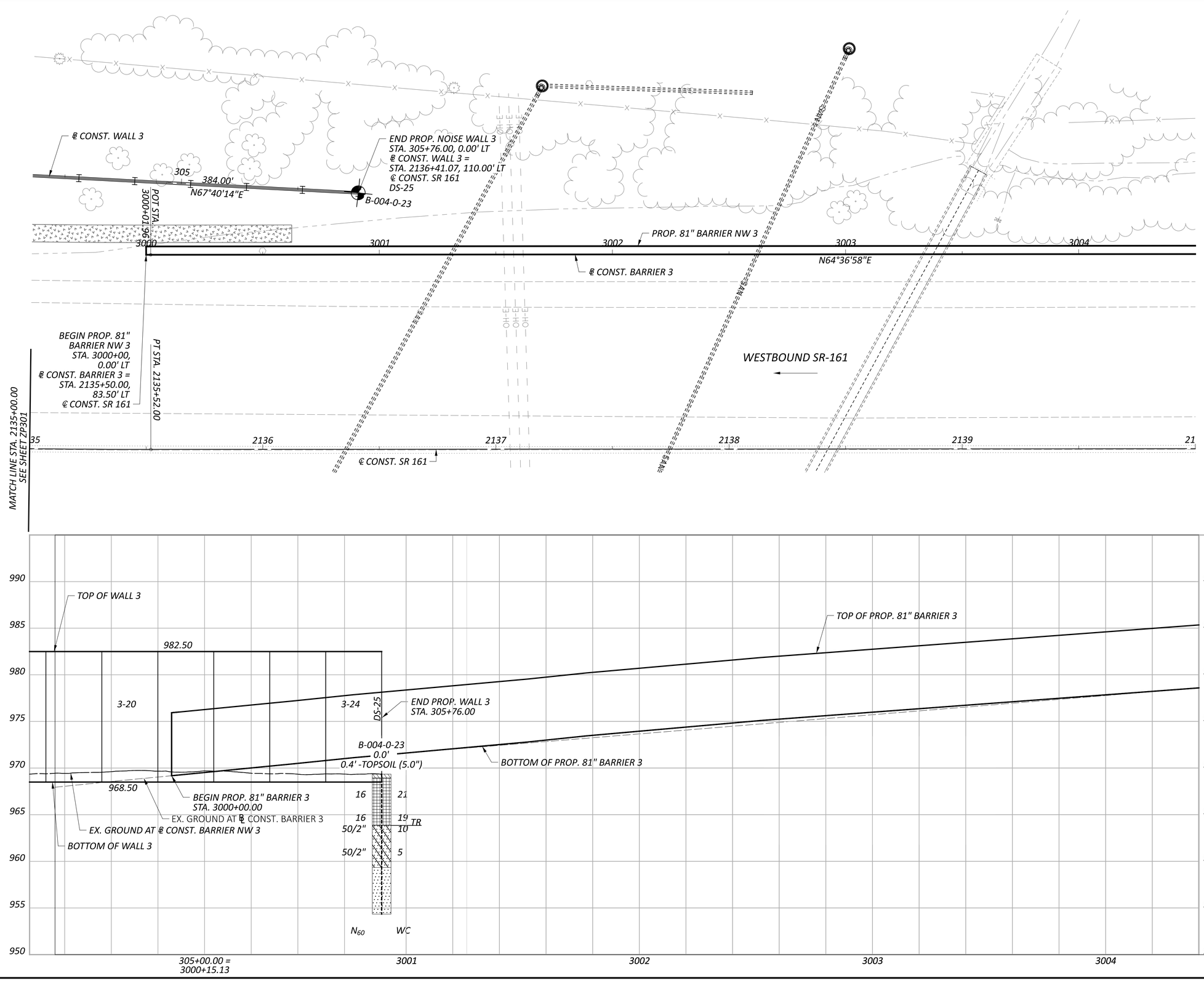
GEOTECHNICAL PROFILE - NOISE WALL 3
STA. 2130+00.00 TO STA. 2135+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 3 - Plan 2 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:06:46 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP301.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	6
TOTAL	66
SHEET	P.216
TOTAL	276



HORIZONTAL SCALE IN FEET
0 10 20 40

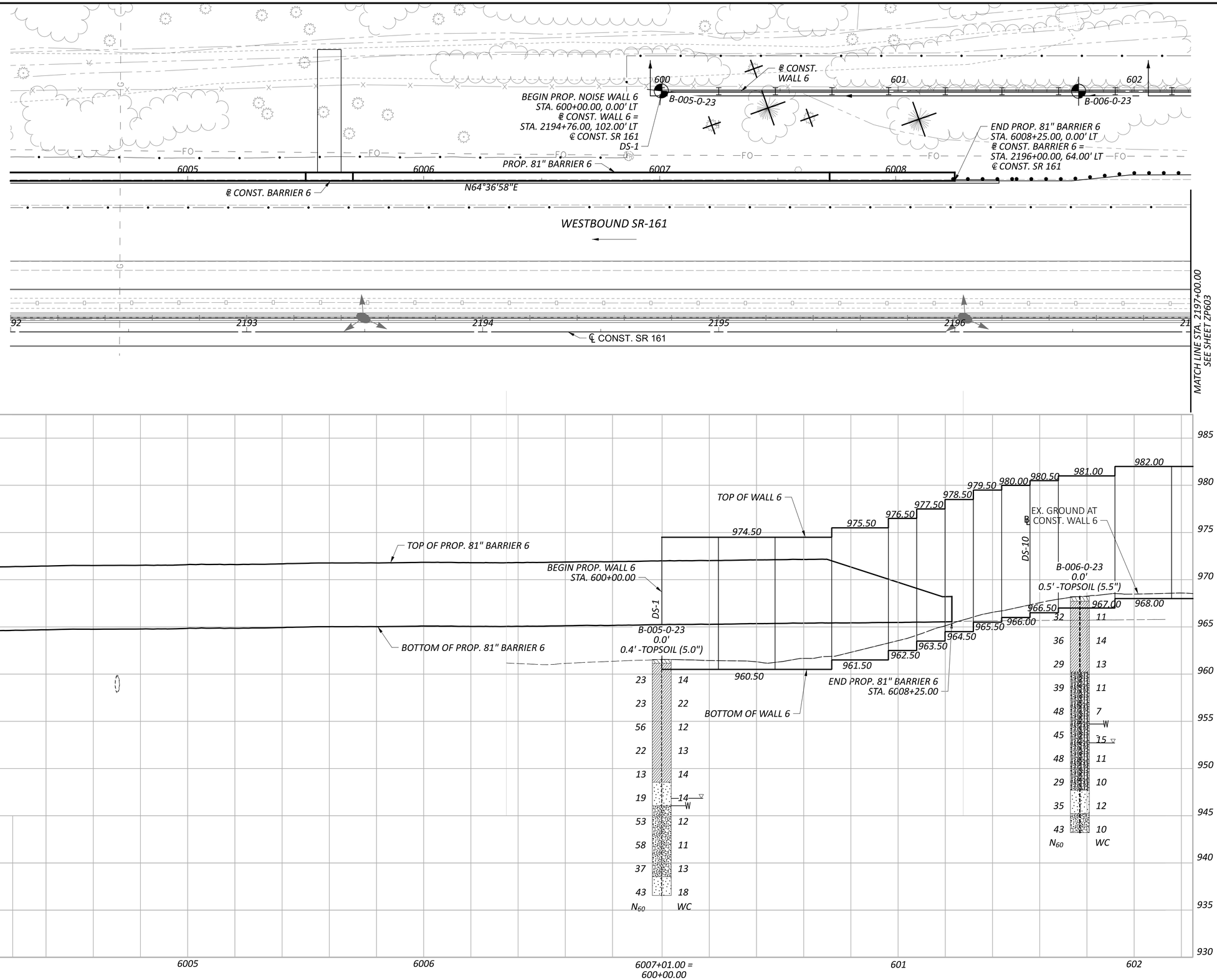
GEOTECHNICAL PROFILE - NOISE WALL 3
STA. 2135+00.00 TO STA. 2140+00.00

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	7
TOTAL	66
SHEET	P.217
TOTAL	276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 3 - Plan 3 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:07:28 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP302.dgn



GEOTECHNICAL PROFILE - NOISE WALL 6
STA. 2192+00.00 TO STA. 2197+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

FRA-161-15.80 NOISE WALLS

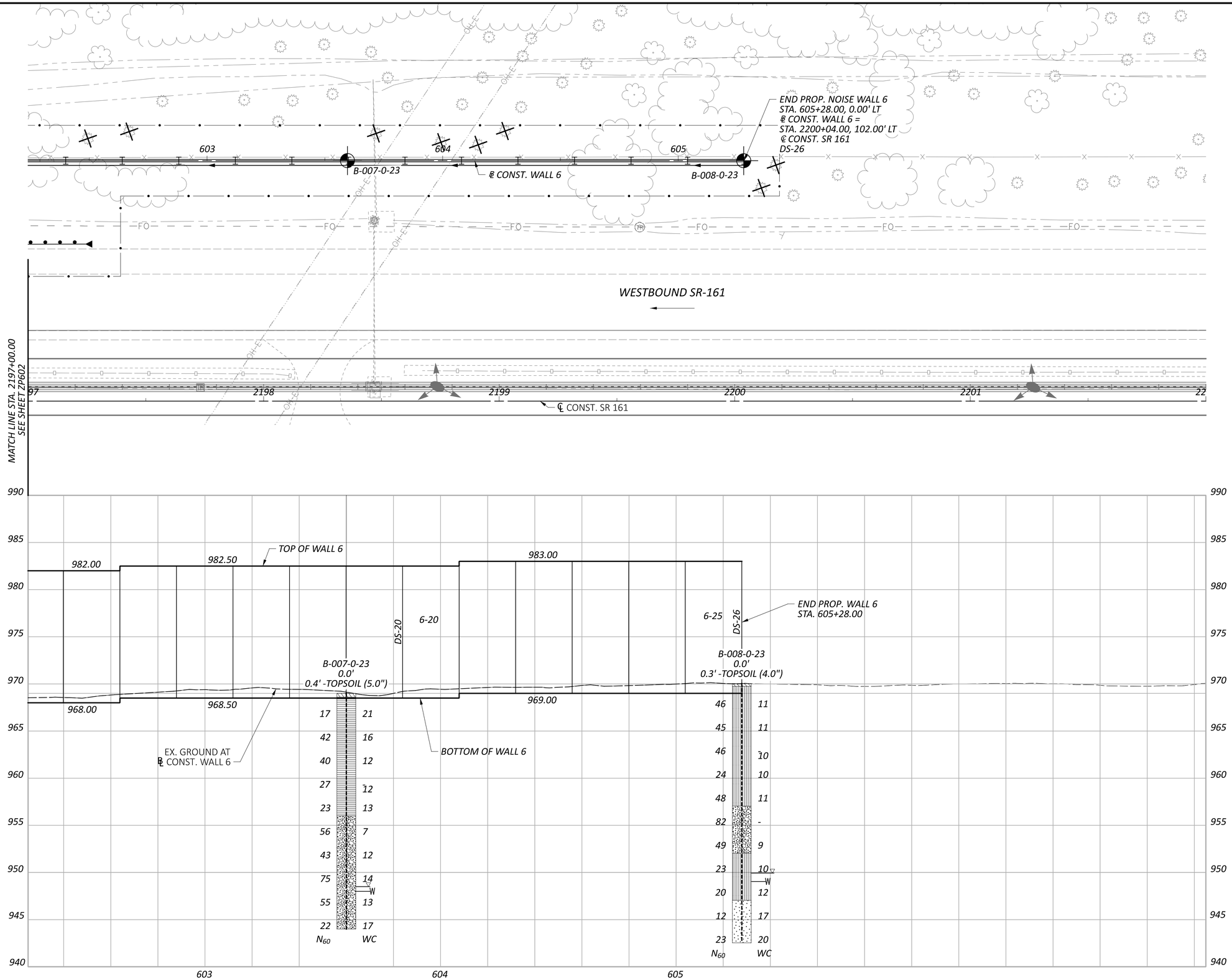
MODEL: Wall 6 - Plan 6 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:07:39 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP602.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	8
TOTAL	66
SHEET	P.218
TOTAL	276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 6 - Plan 28 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:07:52 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP603.dgn

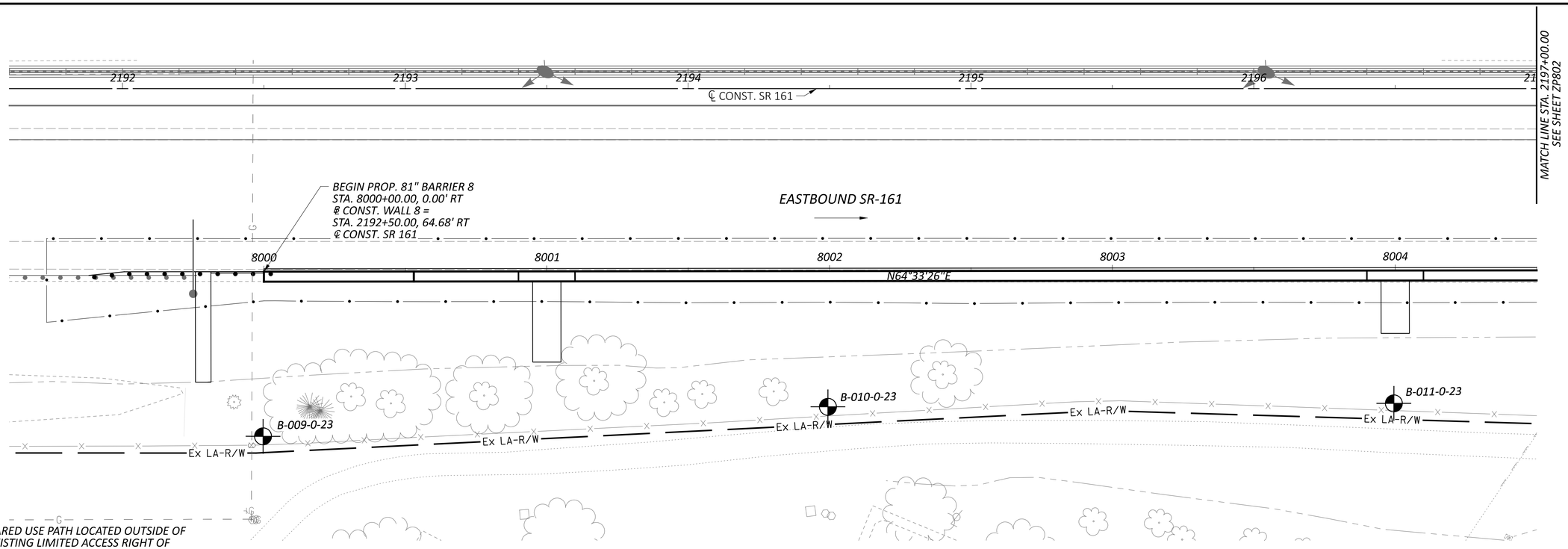


HORIZONTAL SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - NOISE WALL 6
STA. 2197+00.00 TO STA. 2202+00.00

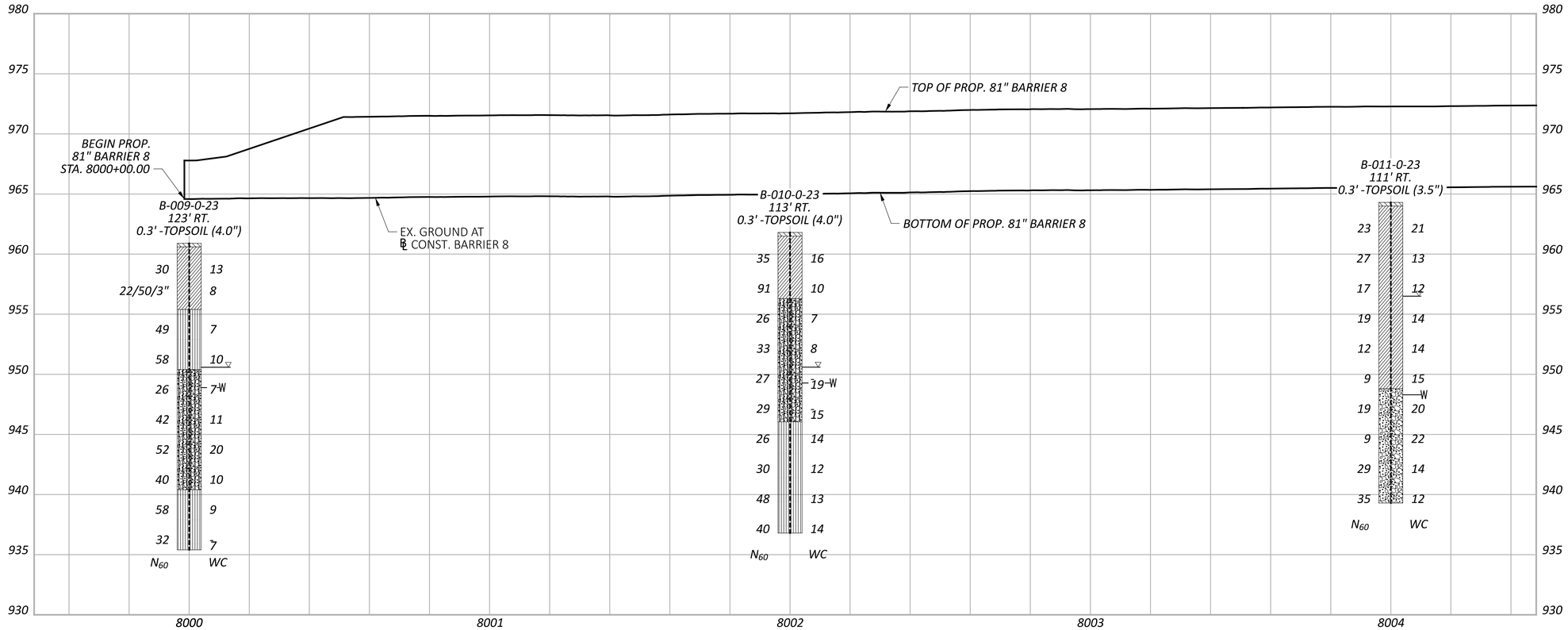
DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	9
TOTAL	66
SHEET	P.219
TOTAL	276



NOTES

1.) SHARED USE PATH LOCATED OUTSIDE OF THE EXISTING LIMITED ACCESS RIGHT OF WAY OF SR-161 SHALL NOT BE USED FOR CONTRACTOR ACCESS.



FRA-161-15.80 NOISE WALLS

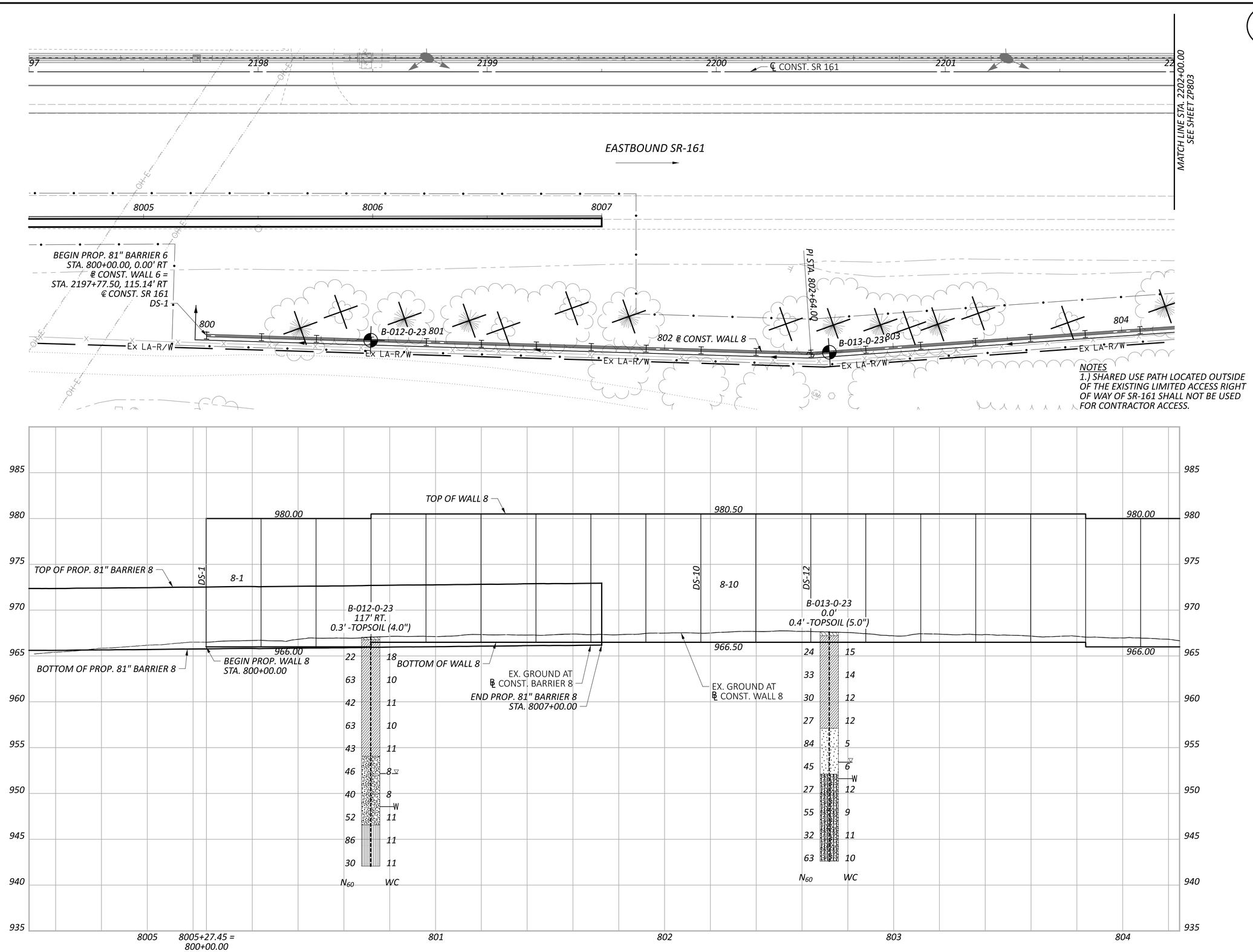
MODEL: CLP_SR161 - Plan 7 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:08:01 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP801.dgn

HORIZONTAL
SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - NOISE WALL 8
STA. 2192+00.00 TO STA. 2197+00.00

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER KSJ
REVIEWER DEK 1/19/24
PROJECT ID 117607
SUBSET 10 TOTAL 66
SHEET P.220 TOTAL 276



HORIZONTAL
SCALE IN FEET
0 10 20 40

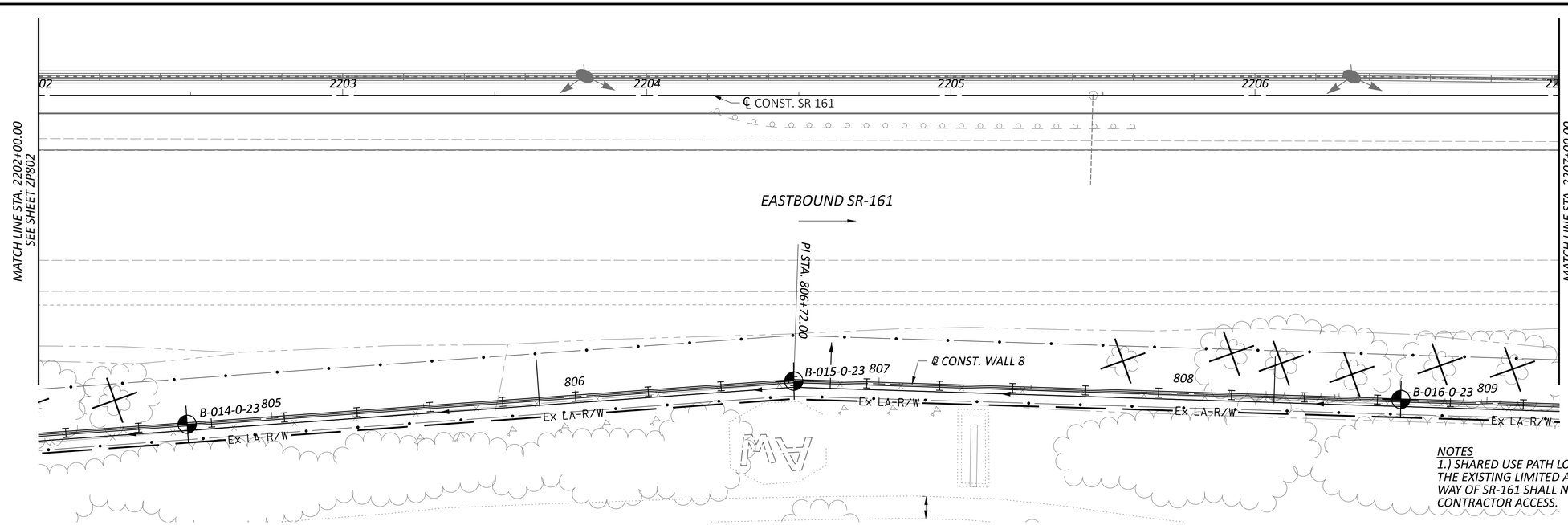
GEOTECHNICAL PROFILE - NOISE WALL 8
STA. 2197+00.00 TO STA. 2202+00.00

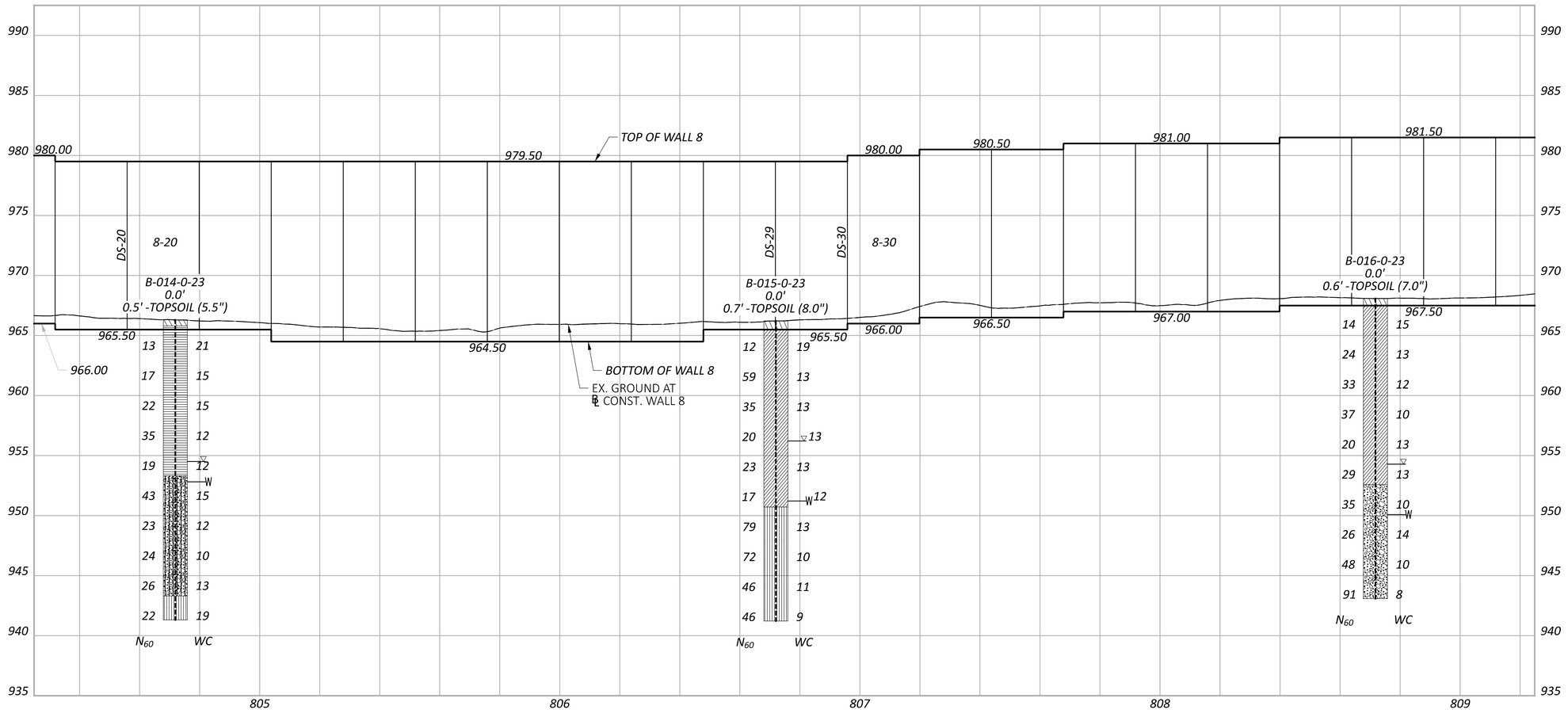
FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 8 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:08:10 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP802.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	11
TOTAL	66
SHEET	P.221
TOTAL	276





HORIZONTAL SCALE IN FEET
0 10 20 40

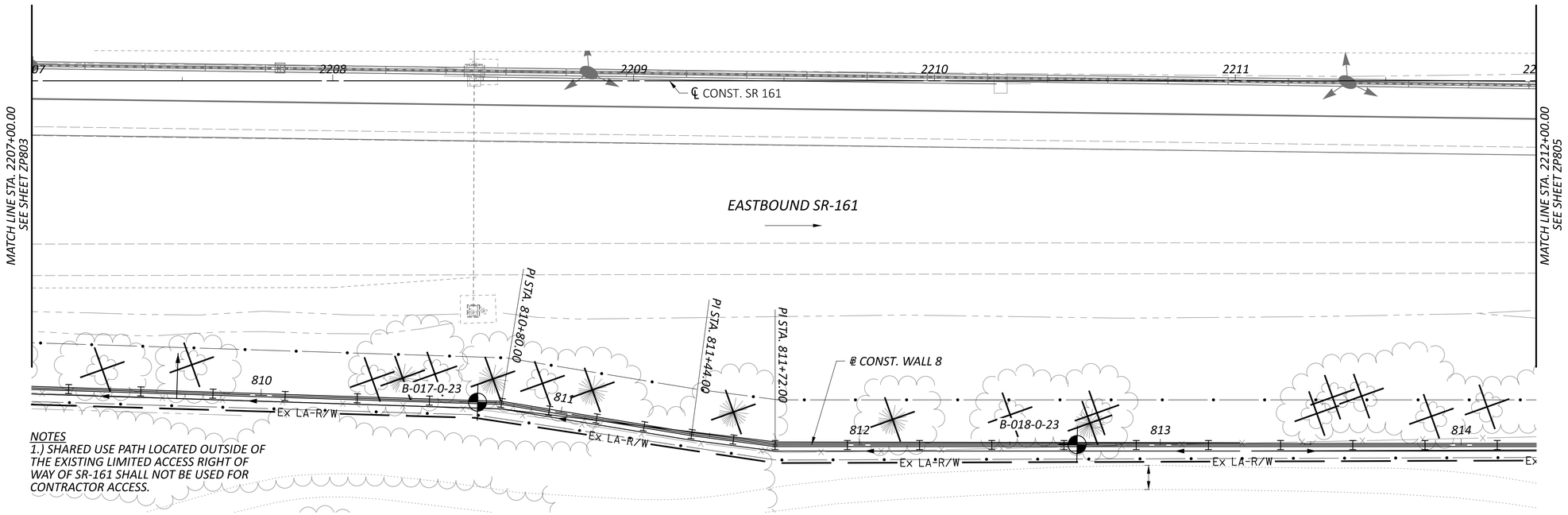
GEOTECHNICAL PROFILE - NOISE WALL 8
STA. 2202+00.00 TO STA. 2207+00.00

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 9 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:08:23 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP803.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER KSJ
REVIEWER DEK 1/19/24
PROJECT ID 117607
SUBSET 12 TOTAL 66
SHEET P.222 TOTAL 276



HORIZONTAL SCALE IN FEET
0 10 20 40

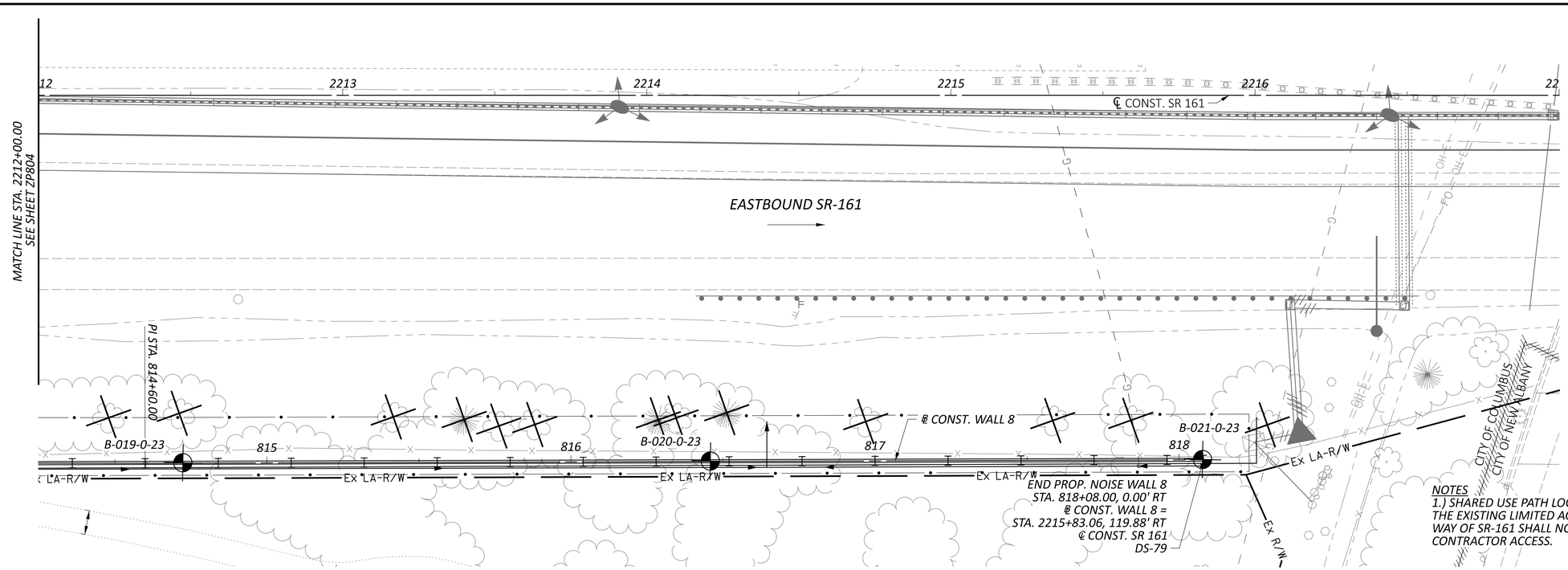
GEOTECHNICAL PROFILE - NOISE WALL 8
STA. 2207+00.00 TO STA. 2212+00.00

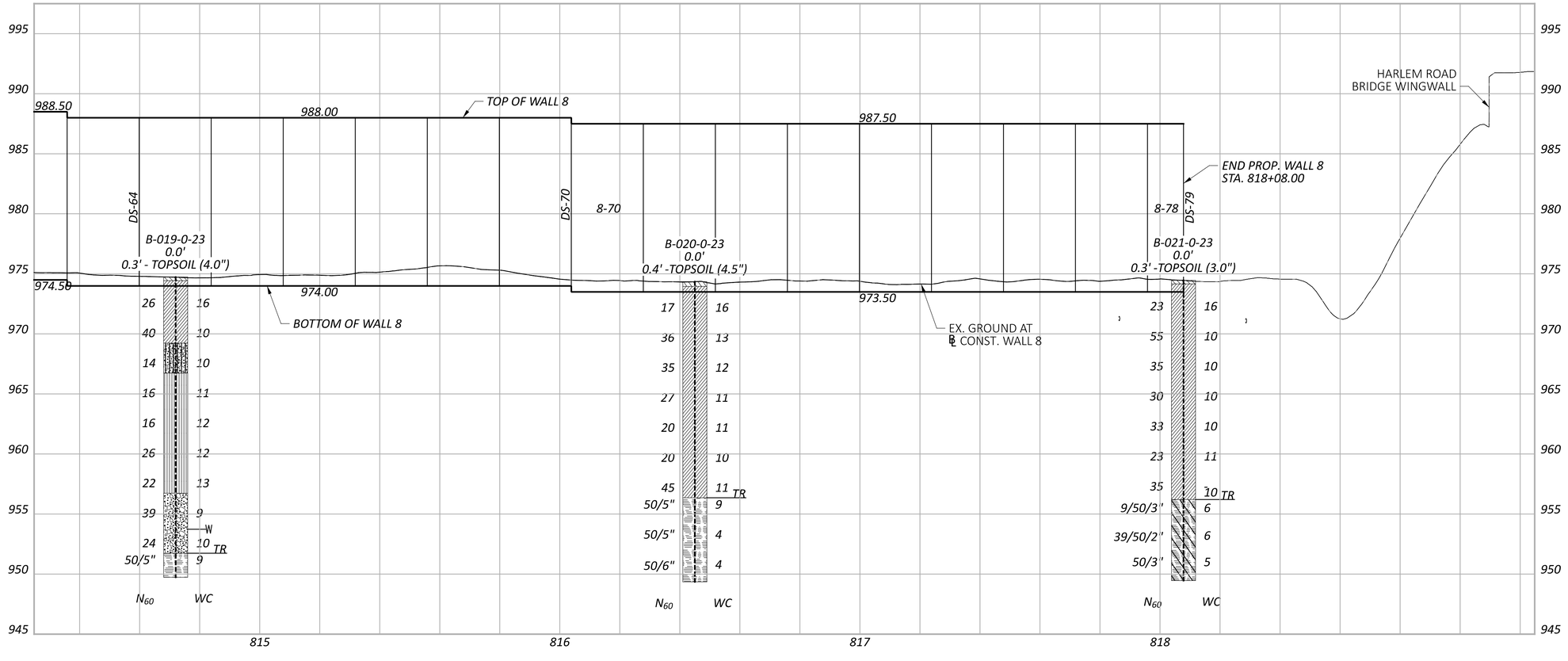
FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 10 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:08:34 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP804.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER KSJ
REVIEWER DEK 1/19/24
PROJECT ID 117607
SUBSET 13 TOTAL 66
SHEET P.223 TOTAL 276





GEOTECHNICAL PROFILE - NOISE WALL 8
STA. 2212+00.00 TO STA. 2217+00.00

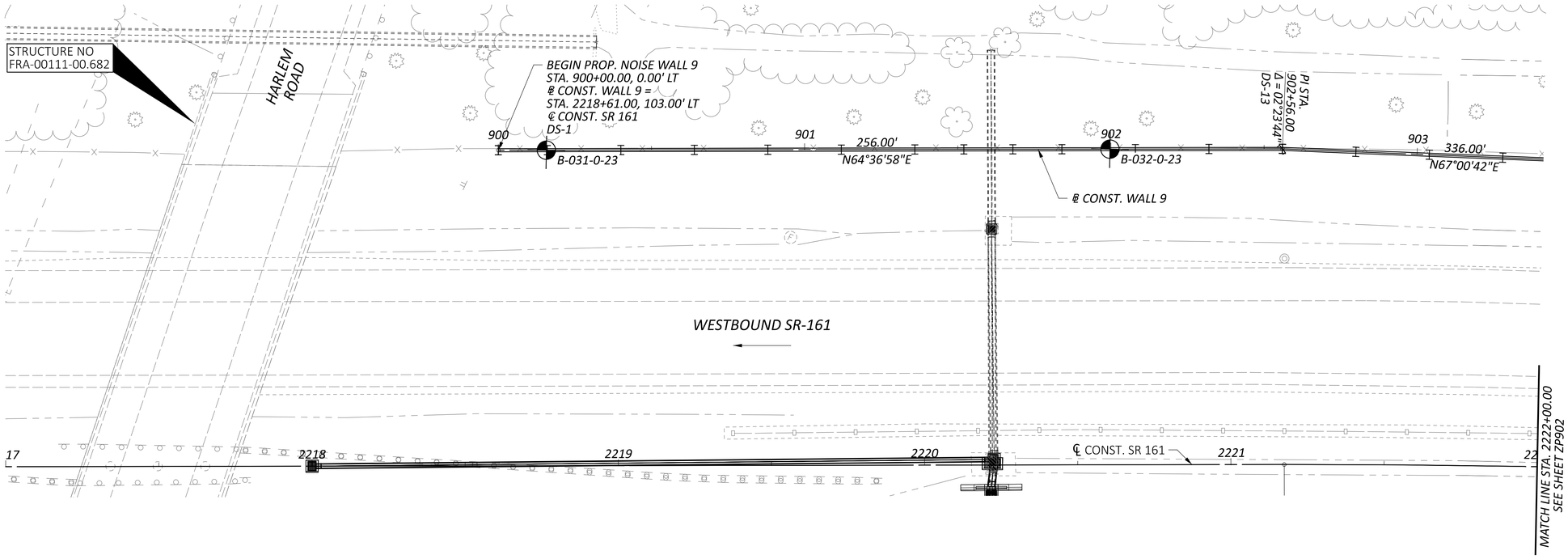
HORIZONTAL SCALE IN FEET
0 10 20 40

FRA-161-15.80 NOISE WALLS

MODEL: CLP_SR161 - Plan 11 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:08:46 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP805.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	14
TOTAL	66
SHEET	P.224
TOTAL	276



HORIZONTAL SCALE IN FEET
0 10 20 40

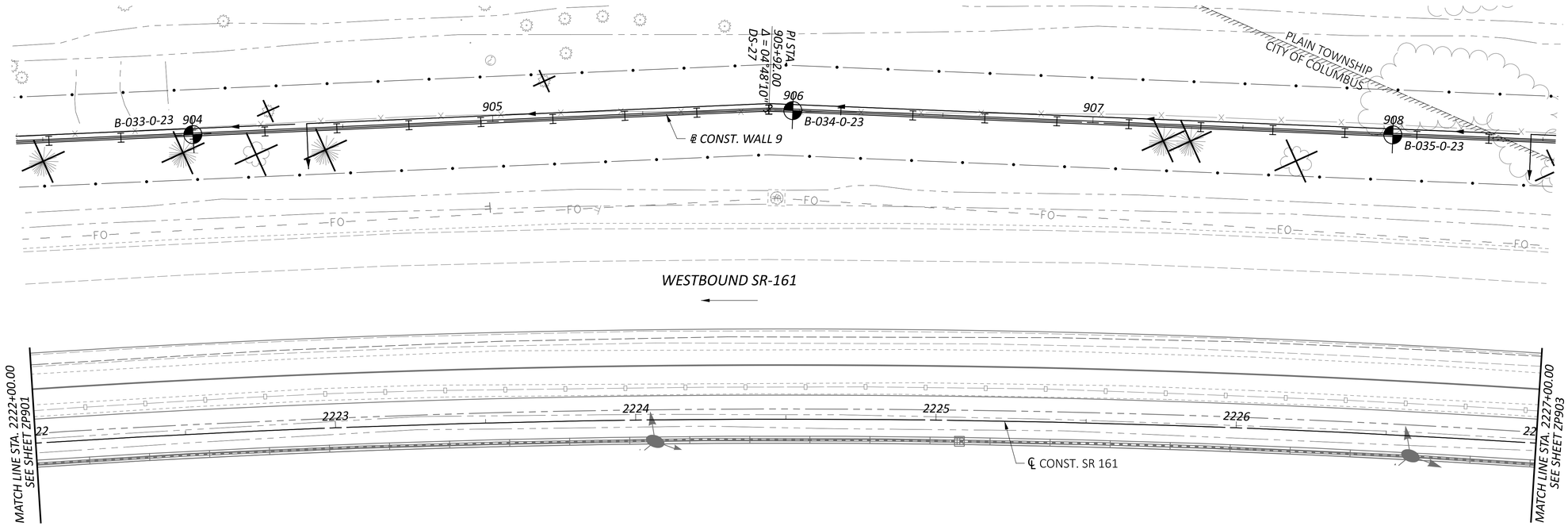
GEOTECHNICAL PROFILE - NOISE WALL 9
STA. 2217+00.00 TO STA. 2222+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 9 - Plan 12 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:09:08 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP901.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	15
TOTAL	66
SHEET	P.225
TOTAL	276



HORIZONTAL SCALE IN FEET
0 10 20 40

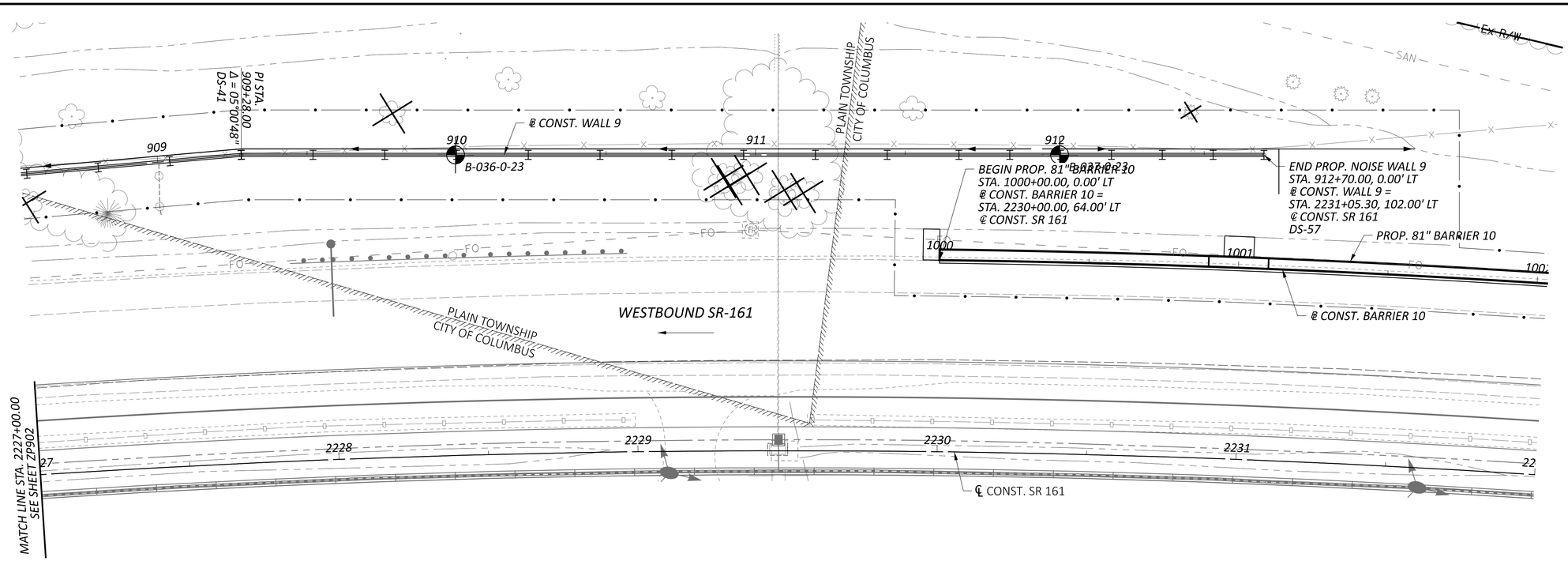
GEOTECHNICAL PROFILE - NOISE WALL 9
STA. 2222+00.00 TO STA. 2227+00.00

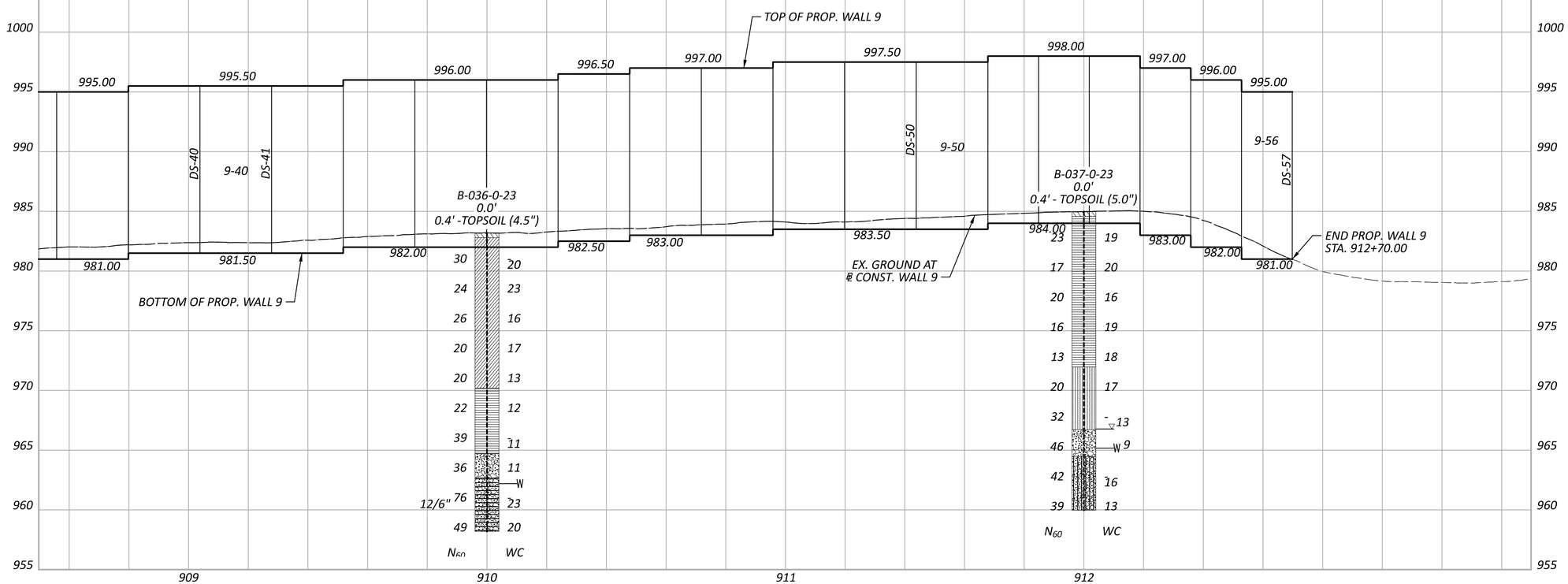
FRA-161-15.80 NOISE WALLS

MODEL: Wall 9 - Plan 13 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:09:16 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP902.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	16
TOTAL	66
SHEET	P.226
TOTAL	276





FRA-161-15.80 NOISE WALLS

MODEL: Wall 9 - Plan 14 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:09:27 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_2P903.dgn

HORIZONTAL
SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - NOISE WALL 9
STA. 2227+00.00 TO STA. 2232+00.00

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

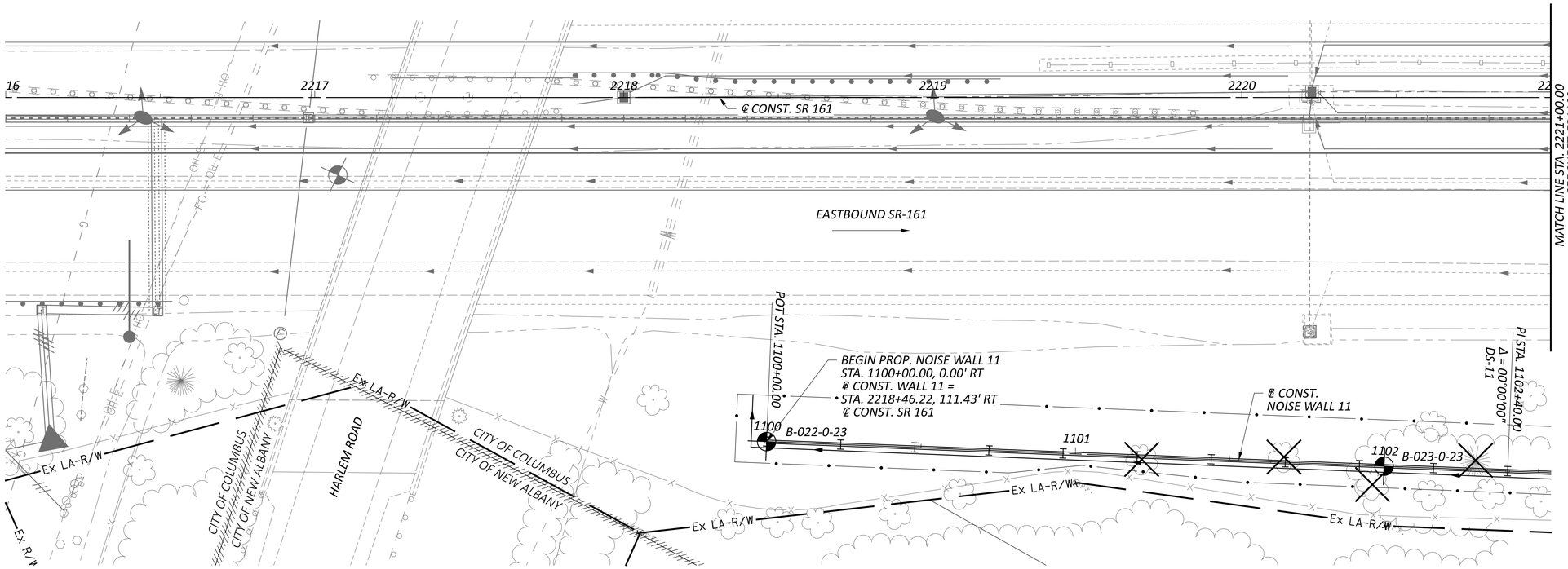
DESIGNER
KSJ

REVIEWER
DEK 1/19/24

PROJECT ID
117607

SUBSET 17 | TOTAL 66

SHEET P.227 | TOTAL 276



HORIZONTAL SCALE IN FEET
0 10 20 40

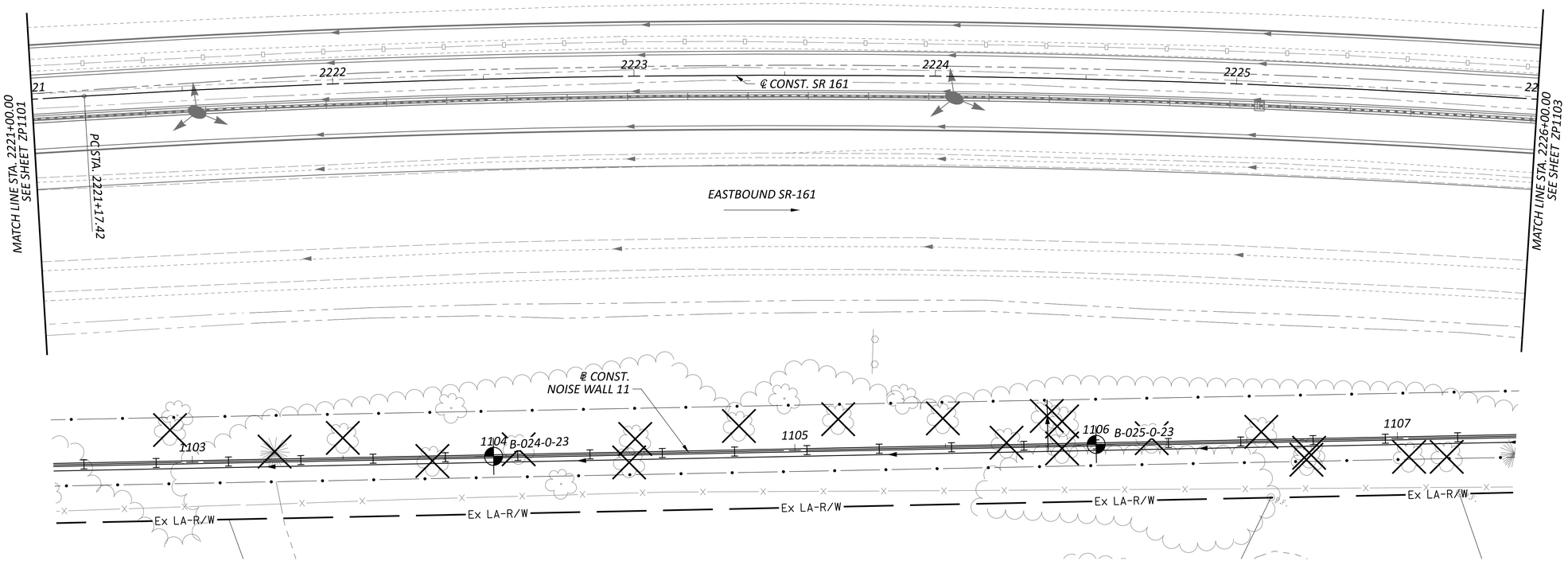
GEOTECHNICAL PROFILE - NOISE WALL 11
STA. 2216+00.00 TO STA. 2221+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Plan PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:09:46 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1101.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER KSJ
REVIEWER DEK 1/19/24
PROJECT ID 117607
SUBSET 18 TOTAL 66
SHEET P.228 TOTAL 276



HORIZONTAL SCALE IN FEET
0 10 20 40

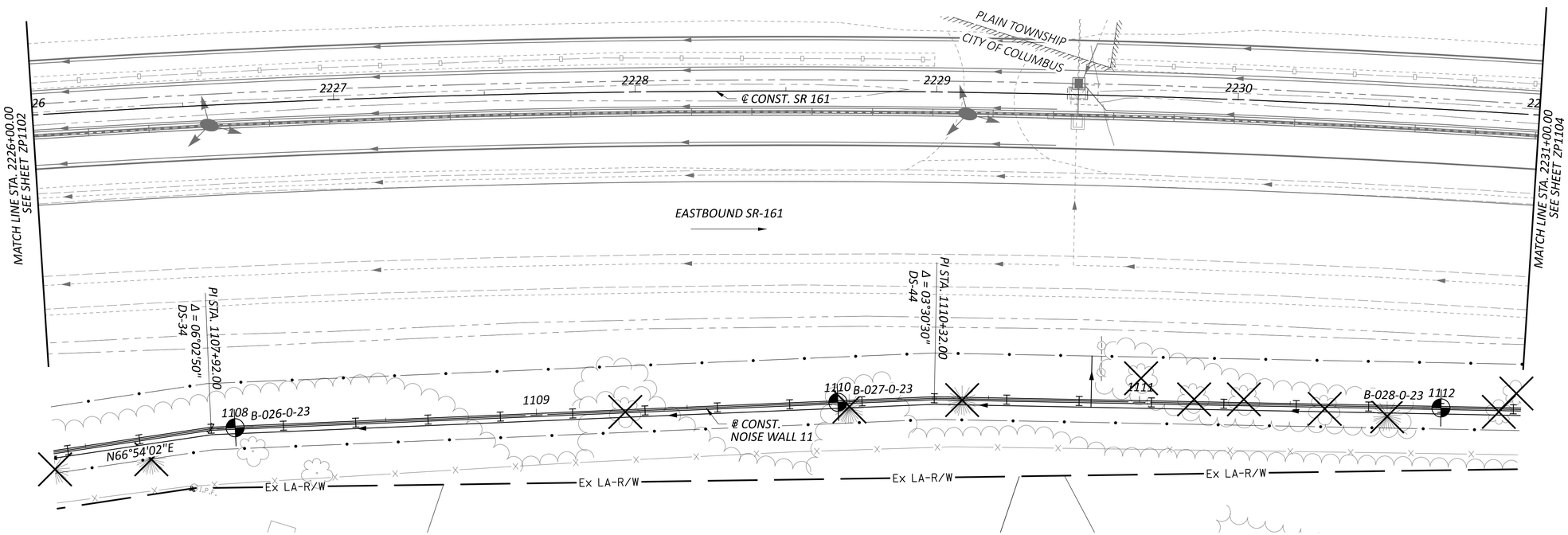
GEOTECHNICAL PROFILE - NOISE WALL 11
STA. 2221+00.00 TO STA. 2226+00.00

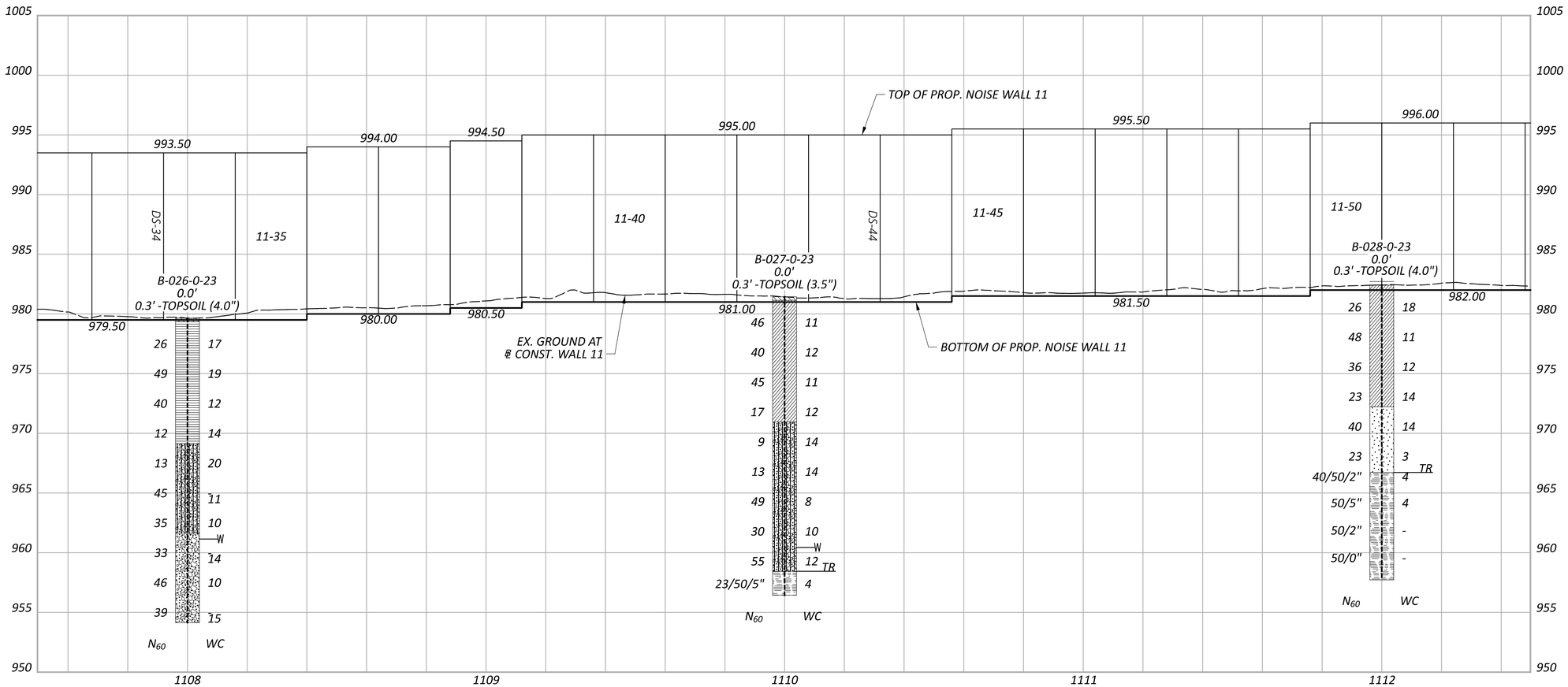
FRA-161-15.80 NOISE WALLS

MODEL: Plan-1 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:09:58 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1102.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	19
TOTAL	66
SHEET	P.229
TOTAL	276





HORIZONTAL SCALE IN FEET
0 10 20 40

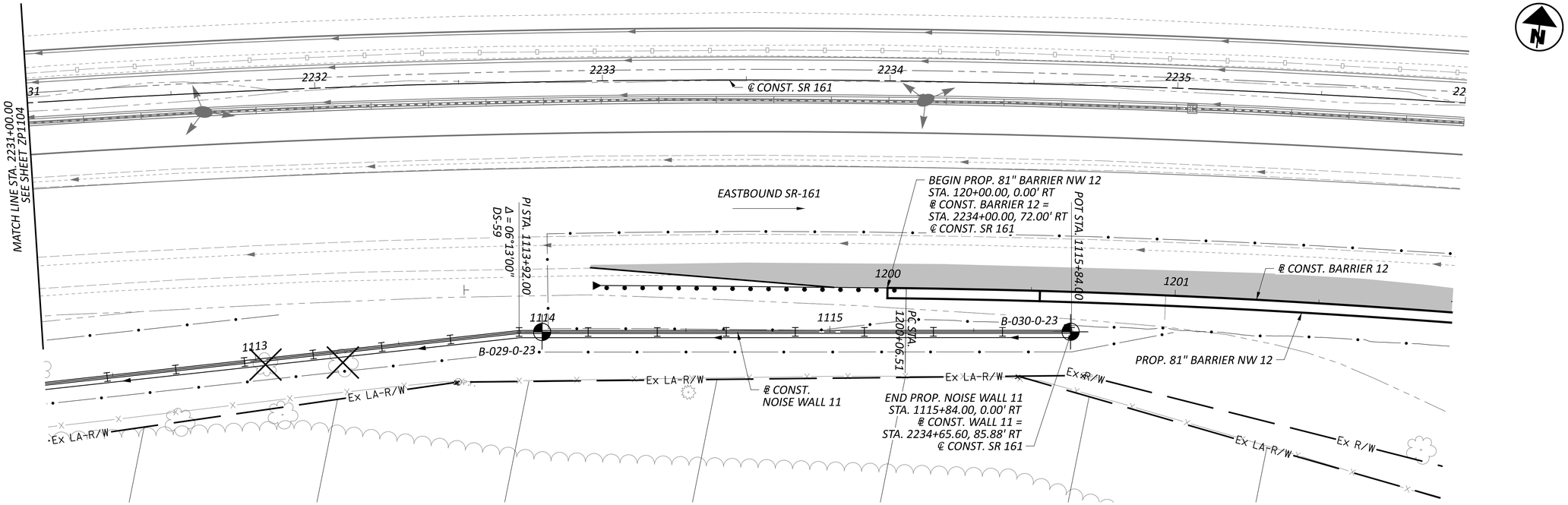
GEOTECHNICAL PROFILE - NOISE WALL 11
STA. 2226+00.00 TO STA. 2231+00.00

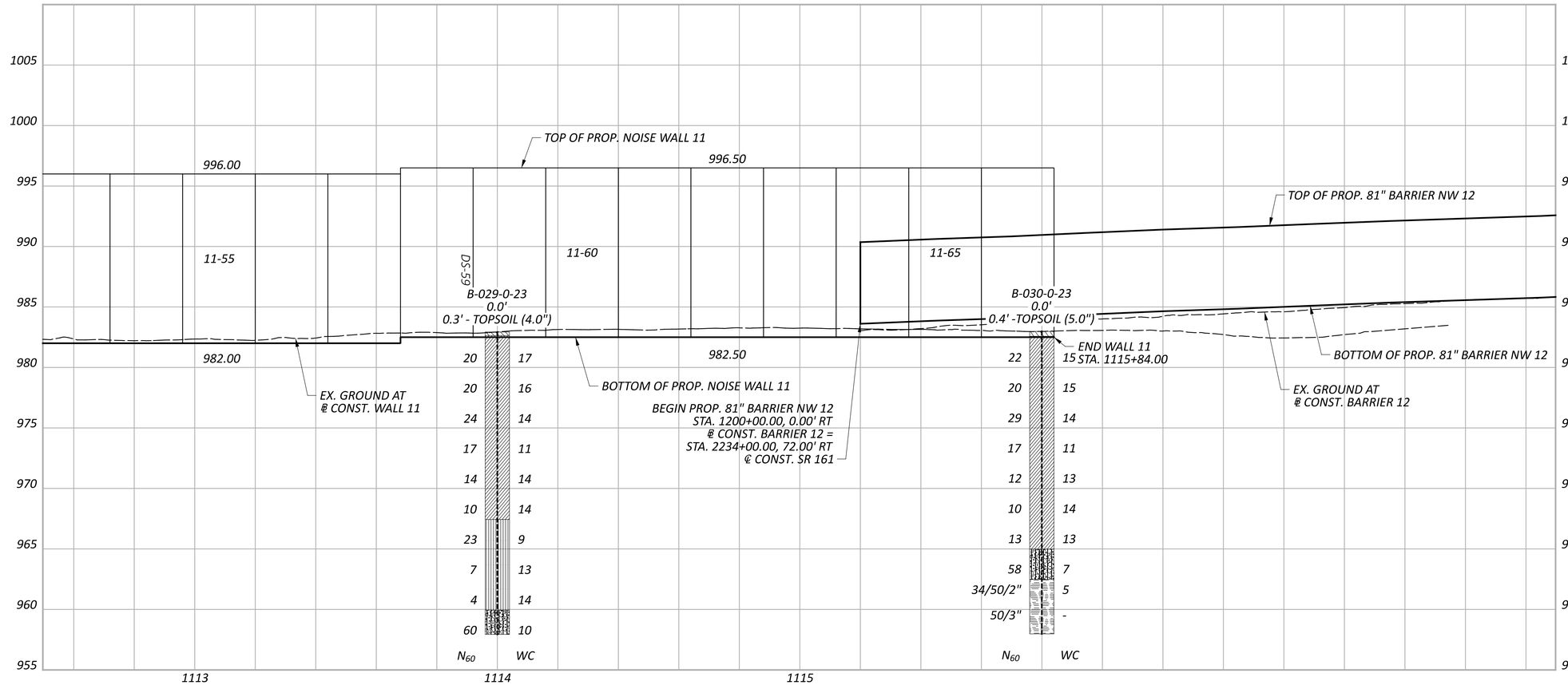
FRA-161-15.80 NOISE WALLS

MODEL: Plan-2 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:10:10 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1103.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER KSJ
REVIEWER DEK 1/19/24
PROJECT ID 117607
SUBSET 20 TOTAL 66
SHEET P.230 TOTAL 276





HORIZONTAL SCALE IN FEET
0 10 20 40

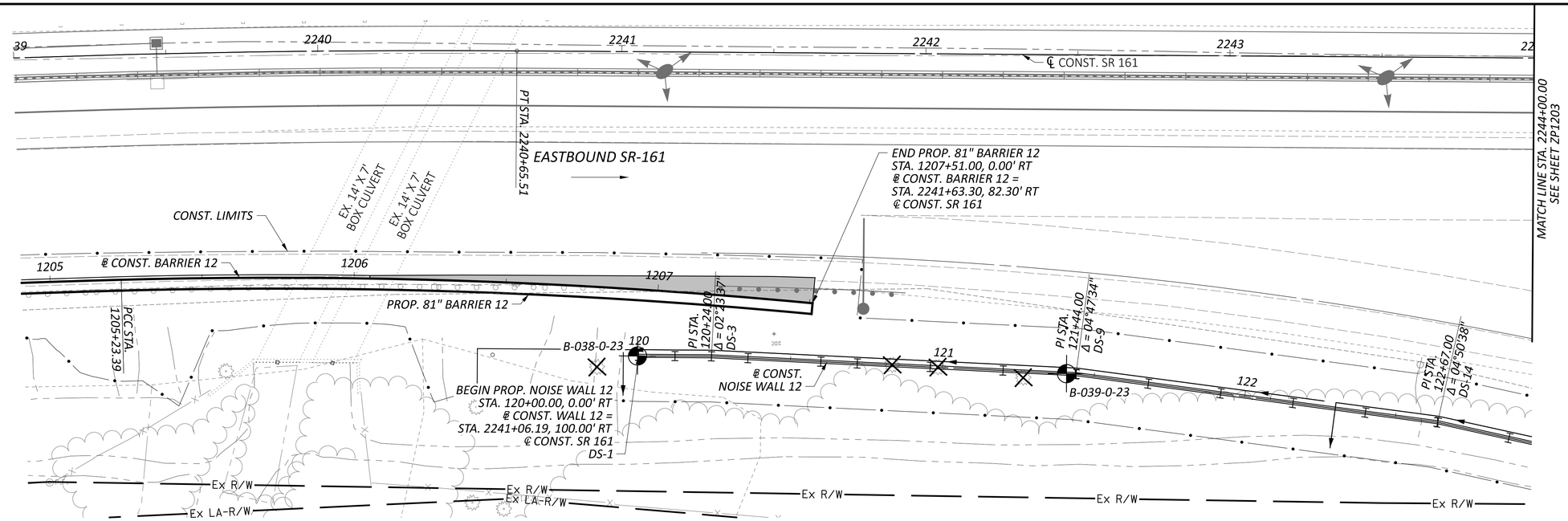
GEOTECHNICAL PROFILE - NOISE WALL 11
STA. 2231+00.00 TO STA. 2236+00.00

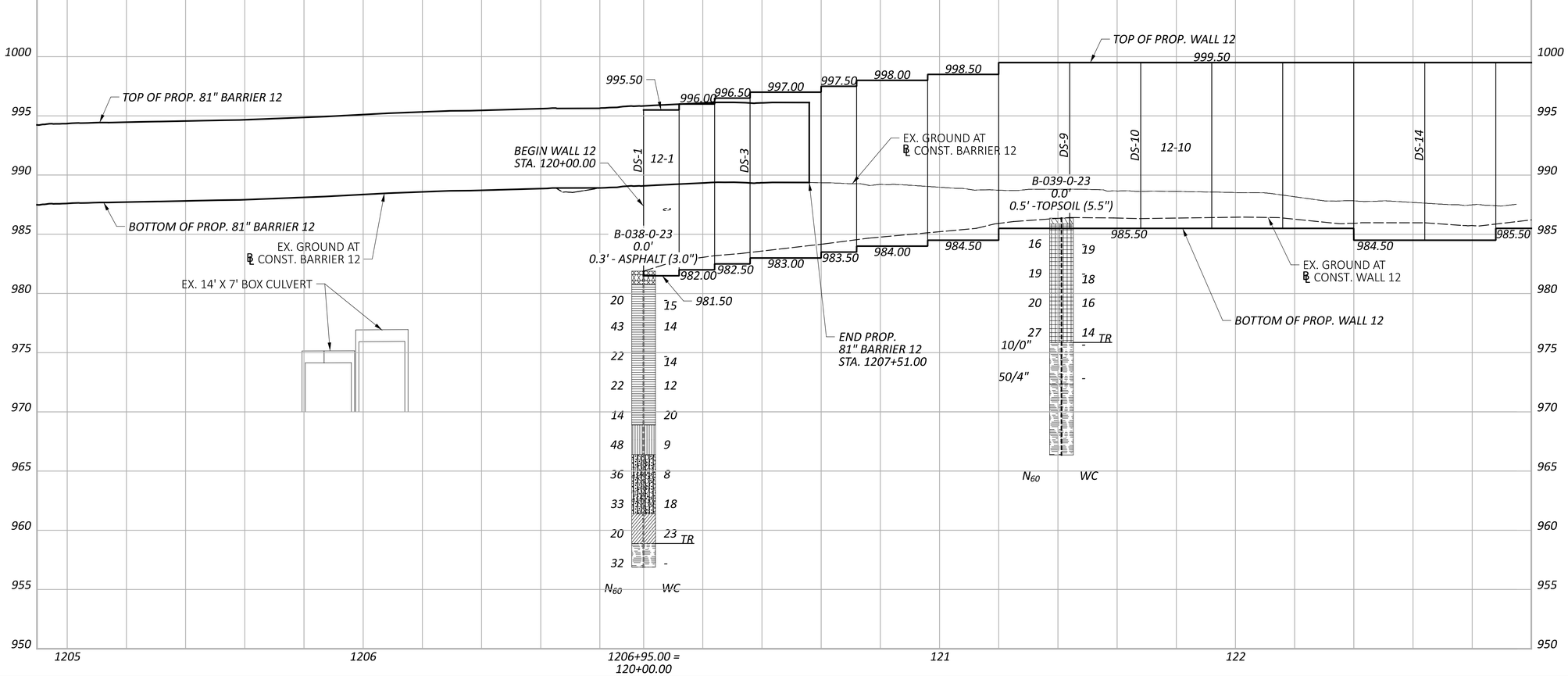
FRA-161-15.80 NOISE WALLS

MODEL: Plan-3 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:10:22 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1104.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	21
TOTAL	66
SHEET	P.231
TOTAL	276





FRA-161-15.80 NOISE WALLS

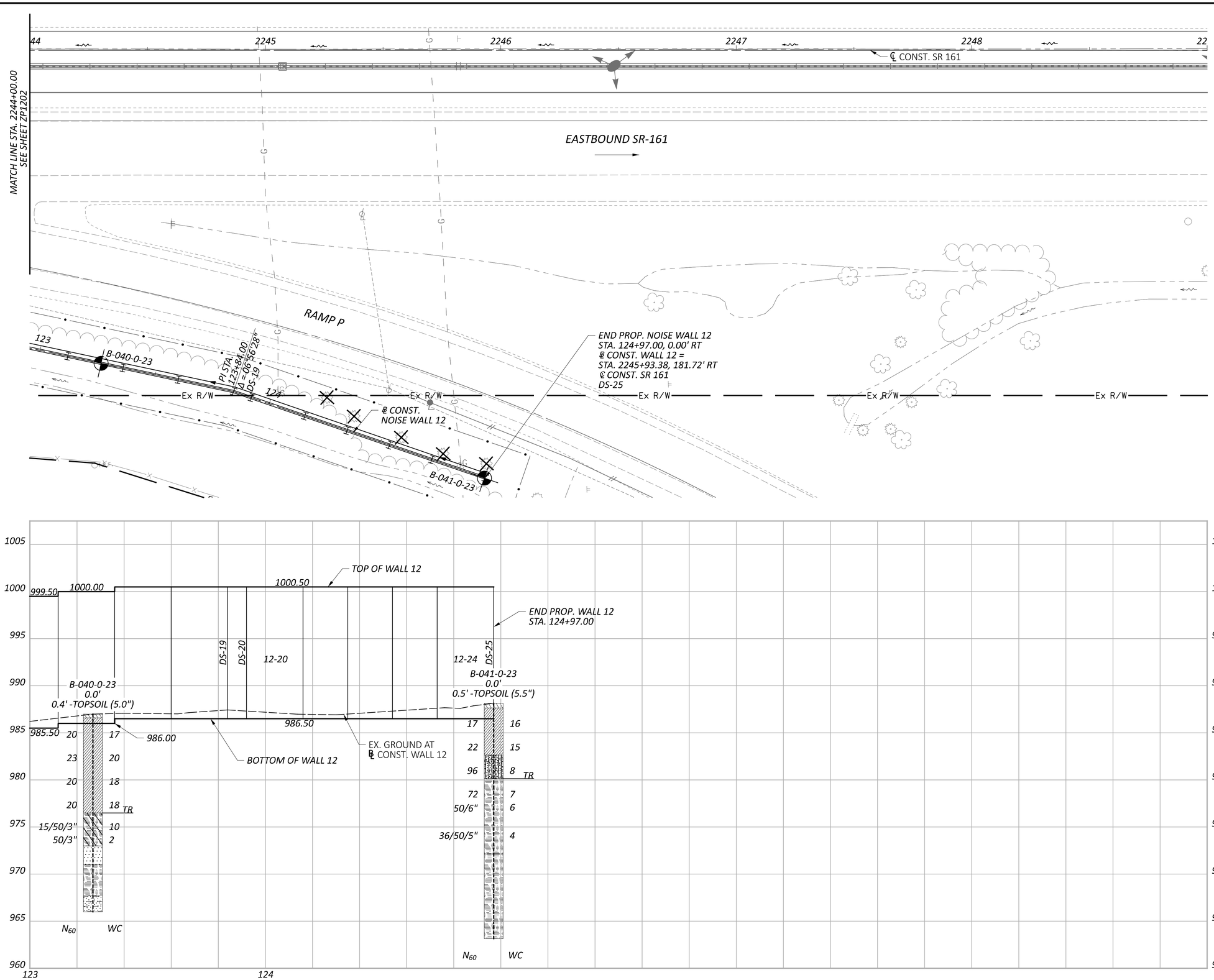
MODEL: Wall 12 - Plan 20 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:10:30 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1202.dgn

HORIZONTAL SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - NOISE WALL 12
STA. 2239+00.00 TO STA. 2244+00.00

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	22
TOTAL	66
SHEET	P.232
TOTAL	276



HORIZONTAL SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - NOISE WALL 12
STA. 2244+00.00 TO STA. 2249+00.00

FRA-161-15.80 NOISE WALLS

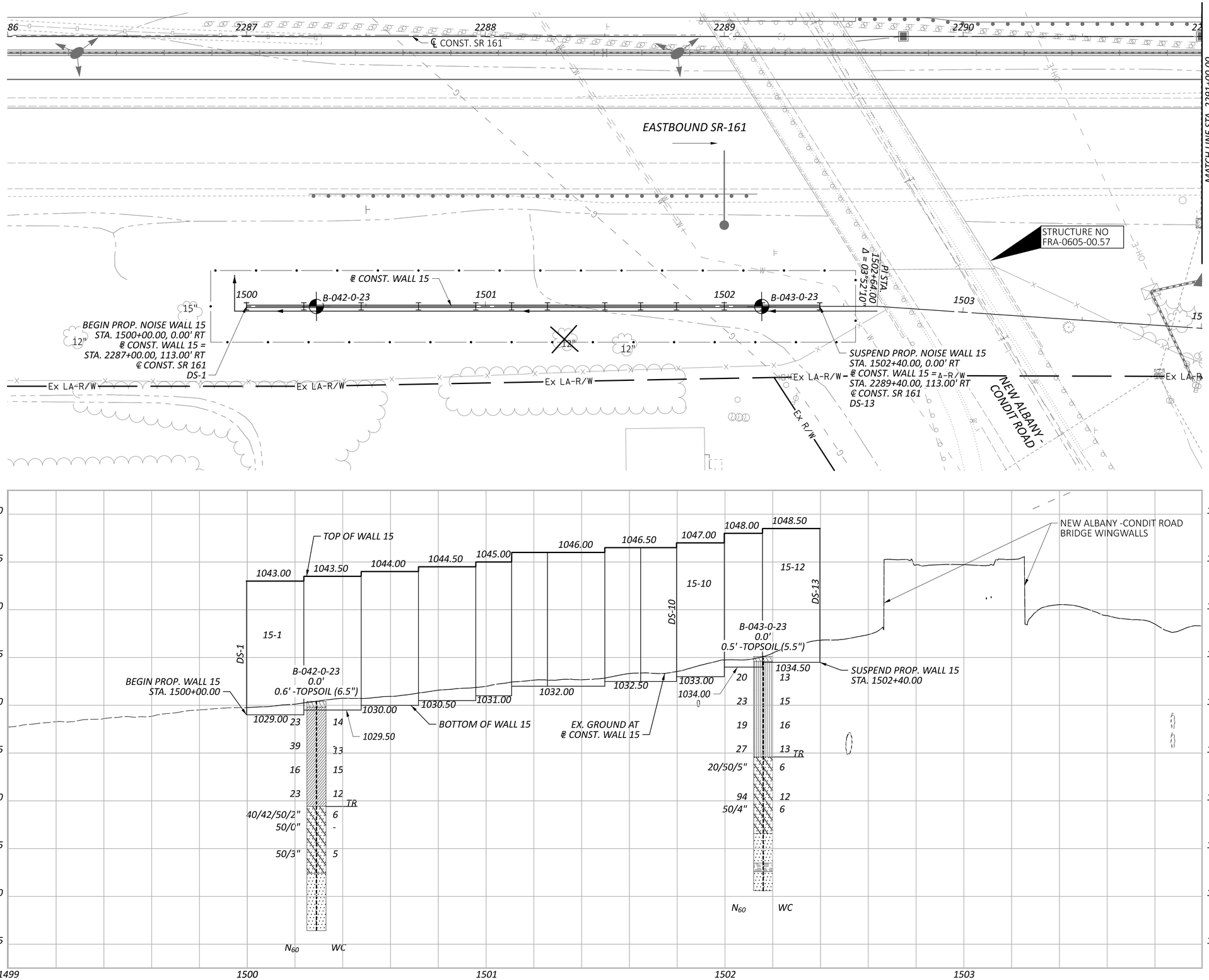
MODEL: Wall 12 - Plan 21 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:10:40 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1203.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER: KSJ
REVIEWER: DEK 1/19/24
PROJECT ID: 117607
SUBSET: 23 TOTAL: 66
SHEET: P.233 TOTAL: 276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 22 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:10:48 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1501.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

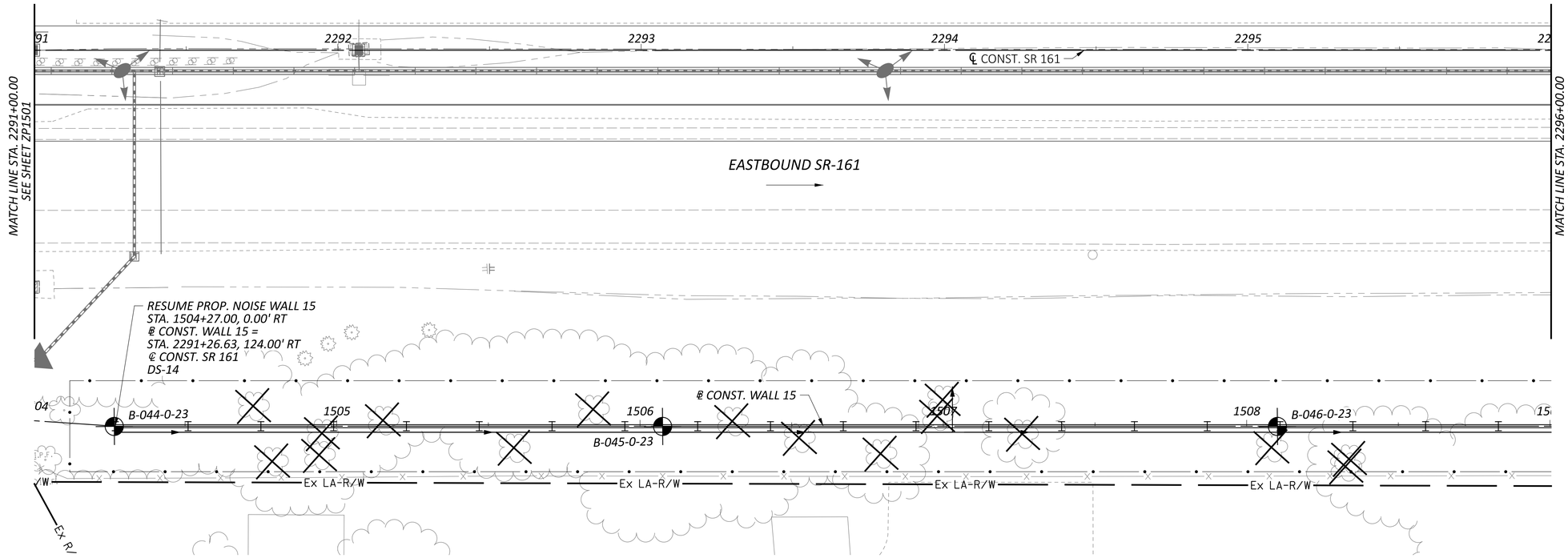
GEOTECHNICAL PROFILE - NOISE WALL 15
STA. 2286+00.00 TO STA. 2291+00.00

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	24
TOTAL	66
SHEET	P.234
TOTAL	276

GEOTECHNICAL PROFILE - NOISE WALL 15
STA. 2291+00.00 TO STA. 2296+00.00

HORIZONTAL SCALE IN FEET
0 10 20 40

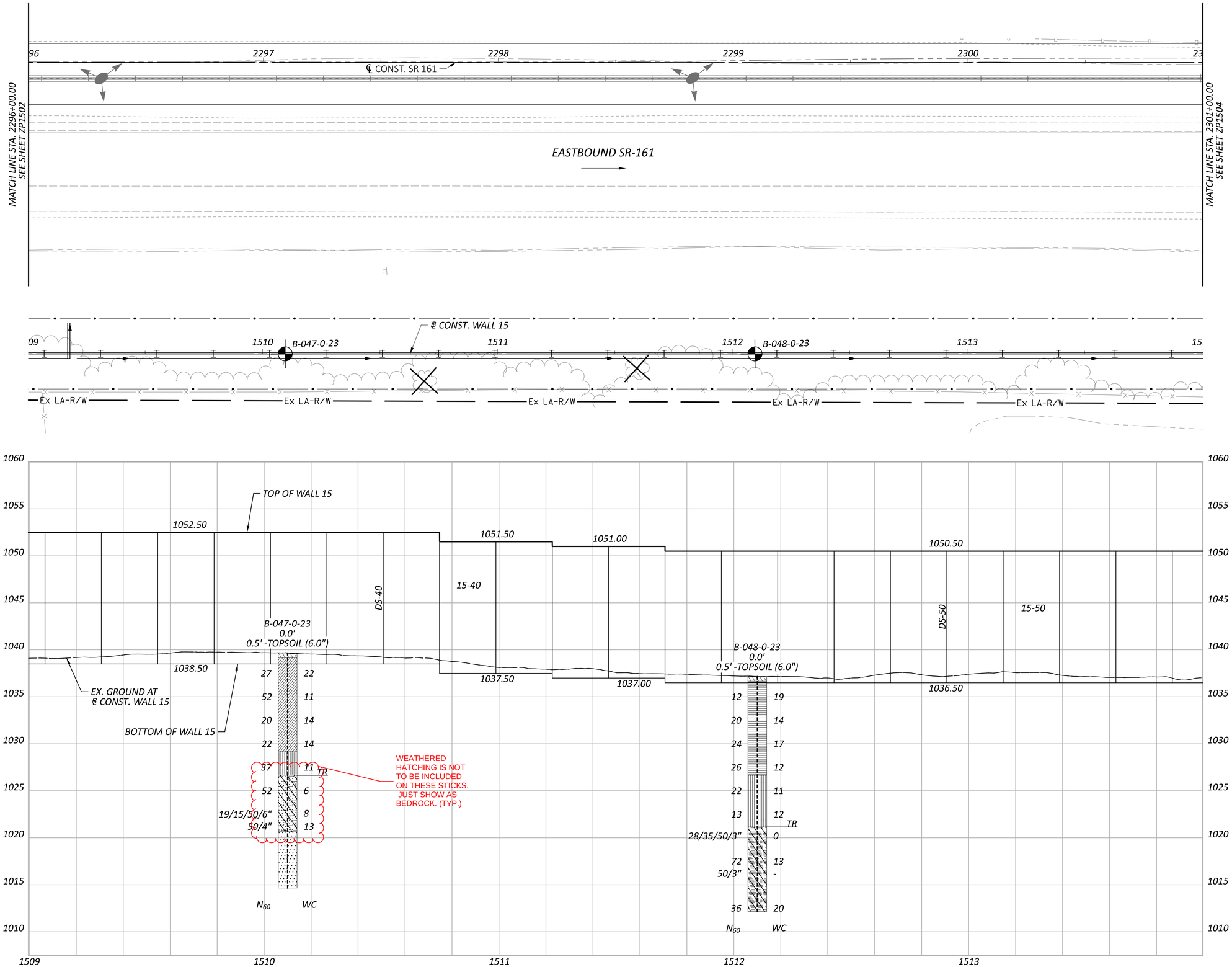


DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	25
TOTAL	66
SHEET	P.235
TOTAL	276

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 23 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:11:00 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1502.dgn



HORIZONTAL SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - NOISE WALL 15
STA. 2296+00.00 TO STA. 2301+00.00

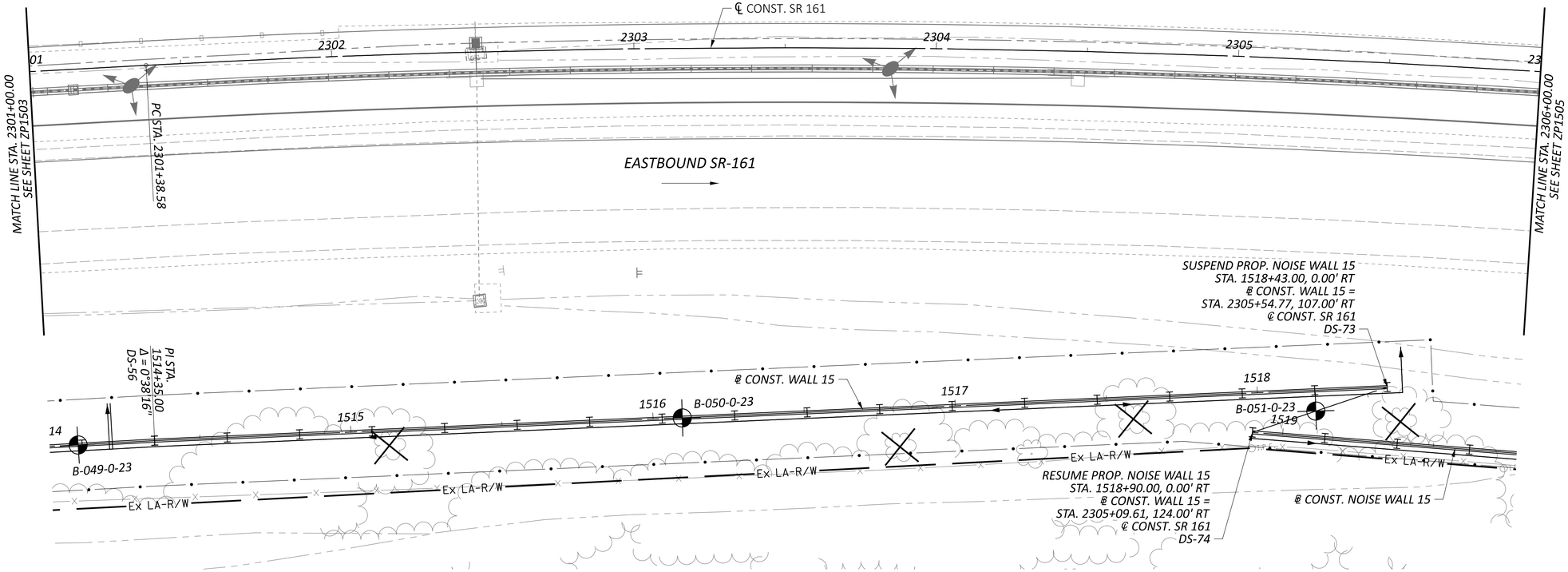
FRA-161-15.80 NOISE WALLS

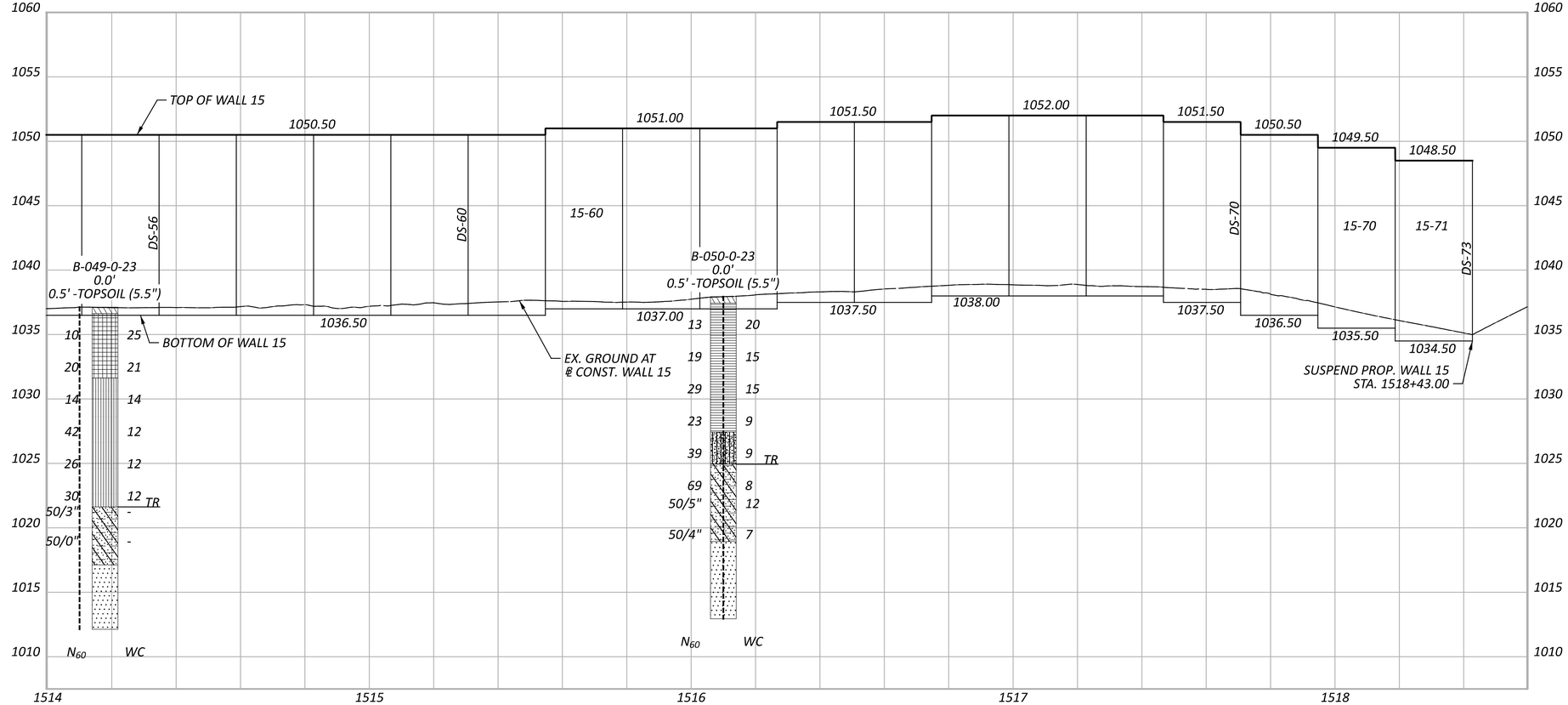
MODEL: Wall 15 - Plan 24 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:11:12 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1503.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	26
TOTAL	66
SHEET	P.236
TOTAL	276

GEOTECHNICAL PROFILE - NOISE WALL 15
STA. 2301+00.00 TO STA. 2306+00.00





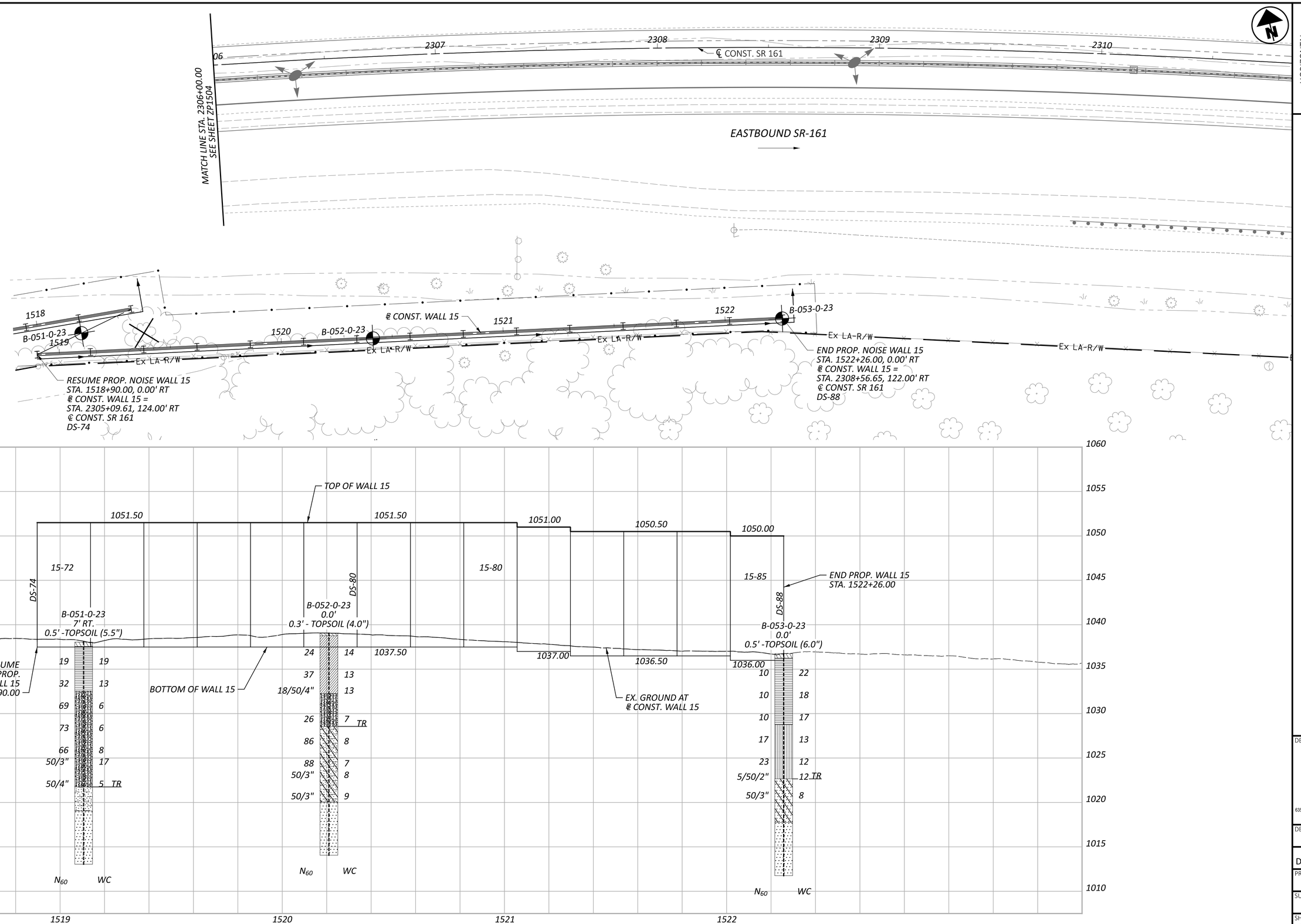
HORIZONTAL SCALE IN FEET
0 10 20 40

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 25 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:11:22 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1504.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER: KSJ
REVIEWER: DEK 1/19/24
PROJECT ID: 117607
SUBSET 27 | TOTAL 66
SHEET P.237 | TOTAL 276



HORIZONTAL SCALE IN FEET
0 10 20 40

GEOTECHNICAL PROFILE - NOISE WALL 15
STA. 2306+00.00 TO STA. 2311+00.00

FRA-161-15.80 NOISE WALLS

MODEL: Wall 15 - Plan 26 PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:11:31 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZP1505.dgn

DESIGN AGENCY
RESOURCE INTERNATIONAL
6350 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 823-4949

DESIGNER	KSJ
REVIEWER	DEK 1/19/24
PROJECT ID	117607
SUBSET	28
TOTAL	66
SHEET	P.238
TOTAL	276

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 300+00 / 0'	EXPLORATION ID B-001-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 3	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 966.3 (MSL) EOB: 15.0 ft.	PAGE 1 OF 1
START: 11/22/23 END: 11/22/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.080429, -82.864610	

MATERIAL DESCRIPTION AND NOTES	ELEV. 966.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.3' -TOPSOIL (3.5")	966.0																	
HARD, BROWN **SILT AND CLAY**, LITTLE GRAVEL, TRACE SAND, DAMP.		1	6															
		2	10 12	32	56	SS-1	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		3																
	962.0	4	11 50/4"	-	100	SS-2	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
SANDSTONE : GRAY, HIGHLY WEATHERED.	961.3	TR																
SANDSTONE : BROWN AND GRAY, MODERATELY TO SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, IRON STAINED, PYRITIC, FRACTURED, NARROW APERTURE, SLIGHTLY ROUGH SURFACES, BLOCKY, GOOD SURFACE CONDITION. -HIGHLY FRACTURED AND HEAVILY IRON STAINED FROM 5.0' - 7.0' -@ 6.6' - 7.0' 60 DEGREE FRACTURE		5																
		6																
		7																
		8	0		80	NQ2-1											CORE	
		9																
		10																
-@ 10.3' - 10.8' 45 DEGREE FRACTURE AND HEAVILY IRON STAINED -@10.8' - 13.6' SPECKLES OF PYRITE THROUGHOUT		11																
		12																
		13	45		100	NQ2-2											CORE	
		14																
	951.3	EOB 15																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 23.5 LBS CEMENT / 12 LBS BENTONITE POWDER / 20 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
1

Boring:
B-001-0-23

RC-1: 5.0-10.0'
REC (%):80
RQD (%):0

RC-2: 10.0-15.0'
REC (%):100
RQD (%):45

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 3
BORING LOG & ROCK CORE PHOTO FOR B-001-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 302+00 / 0'	EXPLORATION ID B-002-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 3	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 968.1 (MSL) EOB: 15.3 ft.	PAGE 1 OF 1
START: 11/22/23 END: 11/22/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.080609, -82.863925	

MATERIAL DESCRIPTION AND NOTES	ELEV. 968.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.4' -TOPSOIL (4.5")	967.7																	
HARD, BROWN-GRAY **CLAY**, SOME SILT, LITTLE COARSE TO FINE SAND, TRACE SAND AND GRAVEL, MOIST. -@2.8' - 3.4' COBBLES	965.1		3 5 7	17	56	SS-1	4.5+	3	5	8	34	50	55	21	34	20	A-7-6 (19)	
VERY DENSE, GRAY **GRAVEL WITH SAND AND SILT**, DAMP.	963.5		14 17 50/2"	-	100	SS-2	4.5+	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
SANDSTONE : GRAY, HIGHLY WEATHERED.	962.1	TR																
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, PYRITIC, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACES, BLOCKY, GOOD SURFACE. -@6.0' - 9.7' APPROXIMATELY 4MM PYRITE NODULES THROUGHOUT -@9.7' CLAY SEAM			0		68	NQ2-1											CORE	
-@10.25' - 12.0' MANY PYRITE FLECKS THROUGHOUT -@11.0' - 15.75' FEW PYRITE FLECKS	952.9	EOB	53		96	NQ2-2											CORE	

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 23.5 LBS CEMENT / 12 LBS BENTONITE POWDER / 20 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
2

Boring:
B-002-0-23

RC-1: 6.0-10.25'
REC (%):68
RQD (%):0

RC-2: 10.25-15.25'
REC (%):96
RQD (%):53

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.240 TOTAL 276	30 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 823-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 3
BORING LOG & ROCK CORE PHOTO FOR B-002-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 304+00 / 0'	EXPLORATION ID B-003-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 3	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 969.1 (MSL) EOB: 15.0 ft.	PAGE 1 OF 1
START: 11/20/23 END: 11/22/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.080806, -82.863307	

MATERIAL DESCRIPTION AND NOTES	ELEV. 969.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	968.6																	
HARD, BROWN **SILT AND CLAY**, TRACE GRAVEL		1	3															
		2	5 6	16	47	SS-1	4.5+	-	-	-	-	-	-	-	-	-	A-6a (V)	
		3																
	964.4	4	5 6 50/3"	-	60	SS-2	4.5+	-	-	-	-	-	-	-	-	-	A-6a (V)	
SANDSTONE : BROWN, HIGHLY WEATHERED.	964.1	TR 5																
SANDSTONE : BROWN TO GRAY, MODERATELY TO SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, PYRITIC, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE. -@7.0' - 9.0' HIGHLY FRACTURED, RED IRON OXIDE STAINING IN FRACTURES		6 7 8 9 10	0		80	NQ2-1											CORE	
-@10.0' - 11.0' 4MM PYRITE NODULES THROUGHOUT -@11.0' - 11.2' CLAY SEAM -@11.2' - 13.5' MANY TINY PYRTIE SPECKS THROUGHOUT		11 12 13	55		100	NQ2-2											CORE	
-@13.5' - 15.0' LITTLE PYRITE	954.1	EOB 15																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 23.5 LBS CEMENT / 12 LBS BENTONITE POWDER / 20 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80	**Location:** Franklin County, Ohio

Photo No.
3

Boring:
B-003-0-23

RC-1: 5.0-10.0'
REC (%):80
RQD (%):0

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 3
BORING LOG & ROCK CORE PHOTO FOR B-003-0-23

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:49:35 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL004.dgn

Project Name: FRA-161-15.80	**Location:** Franklin County, Ohio
Photo No. **4**	
Boring: B-003-0-23	
RC-2: 10.0-15.0' REC (%):100 RQD (%):55	

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 3
BORING LOG & ROCK CORE PHOTO FOR B-003-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 305+76 / 0'	EXPLORATION ID B-004-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 3	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 969.2 (MSL) EOB: 15.0 ft.	PAGE 1 OF 1
START: 11/20/23 END: 11/20/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.081003, -82.862692	

MATERIAL DESCRIPTION AND NOTES	ELEV. 969.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.4' -TOPSOIL (5.0")	968.8																	
HARD, MOTTLED BROWN **CLAY**, SOME SILT, TRACE COARSE TO FINE SAND, MOIST.		1	3															
		2	4 7	16	36	SS-1	4.5+	0	1	6	35	58	52	20	32	21	A-7-6 (18)	
		3																
		4	4															
		5	4 7	16	50	SS-2	4.5+	-	-	-	-	-	-	-	-	19	A-7-6 (V)	
	963.7	TR																
SANDSTONE : GRAY, HIGHLY WEATHERED.		6	50/2"	-	100	SS-3	-	-	-	-	-	-	-	-	-	10	Rock (V)	
		7																
		8																
		9	50/2"	-	100	SS-4	-	-	-	-	-	-	-	-	-	5	Rock (V)	
	959.2																	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, PYRITIC, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE. -@11.8' - 12.4' FRACTURE -@13.3' - 15.0' MANY TINY PYRITE NODULES THROUGHOUT		10																
		11																
		12																
		13	0		75	NQ2-1											CORE	
		14																
	954.2	EOB 15																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 23.5 LBS CEMENT / 12 LBS BENTONITE POWDER / 20 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
5

Boring:
B-004-0-23

RC-1: 10.0-15.0'
REC (%):75
RQD (%):0

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 3
BORING LOG & ROCK CORE PHOTO FOR B-004-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:50:01 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL006.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 600+00 / 0' | **EXPLORATION ID B-005-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 6 | PAGE 1 OF 1
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 961.5 (MSL) EOB: 25.0 ft.
START: 11/20/23 END: 11/20/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.087831, -82.843714

MATERIAL DESCRIPTION AND NOTES	ELEV. 961.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (5.0")	961.1																	
VERY STIFF TO HARD, DARK BROWN TO BROWNISH GRAY **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE GRAVEL, DAMP TO MOIST.			6 8 8	23	72	SS-1	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
			5 6 10	23	56	SS-2	4.5+	-	-	-	-	-	-	-	-	22	A-6a (V)	
			8 16 23	56	100	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
			7 7 8	22	56	SS-4	4.5+	9	11	16	31	33	28	16	12	13	A-6a (7)	
			4 4 5	13	33	SS-5	2.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
	948.5																	
MEDIUM DENSE, DARK GRAY **COARSE AND FINE SAND**, LITTLE SILT, TRACE GRAVEL, WET.		▽ 946.8	5 5 8	19	47	SS-6	-	-	-	-	-	-	-	-	-	14	A-3a (V)	
	946.0	W 946.0																
DENSE TO VERY DENSE, DARK GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, WET.			21 21 16	53	50	SS-7	-	-	-	-	-	-	-	-	-	12	A-1-b (V)	
			31 15 25	58	53	SS-8	-	-	-	-	-	-	-	-	-	11	A-1-b (V)	
			9 10 16	37	53	SS-9	-	51	17	10	13	9	NP	NP	NP	13	A-1-b (0)	
	938.5																	
DENSE, DARK GRAY **COARSE AND FINE SAND**, TRACE FINE GRAVEL, TRACE SILT, WET.			8 12 18	43	64	SS-10	-	-	-	-	-	-	-	-	-	18	A-3a (V)	
	936.5	EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 15.5' AND UPON COMPLETION @ 14.7'; CAVE-IN DEPTH @ 11.8'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIB\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 601+77 / 0' | **EXPLORATION ID B-006-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 6 | PAGE 1 OF 1
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 968.1 (MSL) EOB: 25.0 ft.
START: 11/20/23 END: 11/20/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.088035, -82.843136

MATERIAL DESCRIPTION AND NOTES	ELEV. 968.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.5' -TOPSOIL (5.5")	967.6																	
HARD, BROWN **SILT AND CLAY**, SOME CLAY, TRACE FINE GRAVEL, DAMP.			6 10 12	32	78	SS-1	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
			7 12 13	36	75	SS-2	4.5+	7	11	16	32	34	29	17	12	14	A-6a (7)	
			7 9 11	29	100	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
	960.1																	
DENSE TO MEDIUM DENSE, BROWN GRAY **GRAVEL WITH SAND, SILT, AND CLAY**, MOIST.			6 11 16	39	72	SS-4	-	-	-	-	-	-	-	-	-	11	A-2-4 (V)	
			7 17 16	48	33	SS-5	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
		W 954.6																
			9 15 16	45	0	SS-6	-	-	-	-	-	-	-	-	-	-		
		▽ 952.6	13	-	67	2S-6A	-	-	-	-	-	-	-	-	-	15	A-2-4 (V)	
			21 18 15	48	44	SS-7	-	36	19	14	19	12	24	17	7	11	A-2-4 (0)	
			16 12 8	29	64	SS-8	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	
	947.6																	
DENSE, GRAY **COARSE AND FINE SAND**, LITTLE FINE GRAVEL, LITTLE SILT, WET.			10 12 12	35	83	SS-9	-	-	-	-	-	-	-	-	-	12	A-3a (V)	
	945.1																	
DENSE, GRAY **GRAVEL WITH SAND**, TRACE SILT, WET.			16 15 15	43	97	SS-10	-	-	-	-	-	-	-	-	-	10	A-1-b (V)	
	943.1	EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 13.5' AND UPON COMPLETION @ 15.5'; CAVE-IN DEPTH @ 12.2'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIB\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.244 / TOTAL 276	34 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 6
BORING LOGS B-005-0-23 AND B-006-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:50:32 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL007.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 603+60 / 0' | **EXPLORATION ID B-007-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 6
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 969.0 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/17/23 END: 11/17/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.088448, -82.842572

MATERIAL DESCRIPTION AND NOTES	ELEV. 969.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (5.0")	968.6																	
HARD, BROWN TO BROWNISH GRAY **SILTY CLAY**, LITTLE COARSE TO FINE SAND, TRACE GRAVEL, DAMP TO MOIST.			5 5 7	17	83	SS-1	4.5+	4	10	13	31	42	34	18	16	21	A-6b (10)	
			12 14 15	42	36	SS-2	4.5+	-	-	-	-	-	-	-	-	16	A-6b (V)	
			8 12 16	40	100	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
			9 9 10	27	0	SS-4	-	-	-	-	-	-	-	-	-	-		
			22	-	100	2S-4A	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
			8 8 8	23	78	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
	956.0																	
MEDIUM DENSE TO VERY DENSE, GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST TO WET.			12 19 20	56	83	SS-6	-	-	-	-	-	-	-	-	-	7	A-1-b (V)	
			13 13 17	43	83	SS-7	-	24	39	15	12	10	NP	NP	NP	12	A-1-b (0)	
			15 16 36	75	100	SS-8	-	-	-	-	-	-	-	-	-	14	A-1-b (V)	
		▽ 948.5																
		W 948.0																
			16 20 18	55	42	SS-9	-	-	-	-	-	-	-	-	-	13	A-1-b (V)	
			5 7 8	22	44	SS-10	-	-	-	-	-	-	-	-	-	17	A-1-b (V)	
	944.0	EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 21.0' AND UPON COMPLETION @ 20.5'; CAVE-IN DEPTH @ 13.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 605+28 / 0' | **EXPLORATION ID B-008-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 6
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 970.0 (MSL) EOB: 27.5 ft. | PAGE 1 OF 1
START: 11/17/23 END: 11/17/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.088448, -82.842015

MATERIAL DESCRIPTION AND NOTES	ELEV. 970.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (4.0")	969.7																	
HARD, BROWN TO BROWN/GRAY **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP.			10 14 18	46	75	SS-1	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	
			10 10 21	45	61	SS-2	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	
			13 16 16	46	0	SS-3	-	-	-	-	-	-	-	-	-	-		
			28	-	67	2S-3A	4.5+	-	-	-	-	-	-	-	-	10	A-4a (V)	
			5 7 10	24	69	SS-4	4.5+	13	11	16	30	30	16	14	2	10	A-4a (5)	
			5 9 24	48	78	SS-5	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	
	957.0																	
VERY DENSE TO DENSE, GRAY **GRAVEL WITH SAND**, LITTLE SILT, MOIST.			29 29 28	82	0	SS-6	-	-	-	-	-	-	-	-	-	-		
			10 17 17	49	44	SS-7	-	-	-	-	-	-	-	-	-	9	A-1-b (V)	
	952.0																	
VERY STIFF TO HARD, GRAY **SANDY SILT**, SOME CLAY, SOME FINE GRAVEL, DAMP. -COBBLES FROM 18.0' - 18.5'			6 8 8	23	36	SS-8	4.5+	27	10	13	27	23	24	14	10	10	A-4a (3)	
		▽ 949.9																
		W 949.0																
			10 7 7	20	44	SS-9	3.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
	947.0																	
MEDIUM DENSE, BROWN TO BROWNISH GRAY **COARSE AND FINE SAND**, TRACE FINE GRAVEL, TRACE SILT, WET.			3 4 4	12	69	SS-10	-	-	-	-	-	-	-	-	-	17	A-3a (V)	
			3 6 10	23	100	SS-11	-	-	-	-	-	-	-	-	-	20	A-3a (V)	
	942.5	EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 21.0' AND UPON COMPLETION @ 20.1'; CAVE-IN DEPTH @ 13.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.245 / TOTAL 276	35 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 823-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 6
BORING LOGS B-007-0-23 AND B-008-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:51:02 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL008.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 2192+50 / 123' RT | **EXPLORATION ID B-009-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL SR 161
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 960.9 (MSL) EOB: 25.5 ft.
START: 11/2/23 END: 11/2/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.086999, -82.844104 | PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 960.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (4.0")	960.6																	
HARD, BROWN **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP.		1	5 8 13	30	50	SS-1	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
-COBBLES @ 4.0'		2																
		3																
		4	22 50/3"	-	50	SS-2	4.5+	-	-	-	-	-	-	-	-	8	A-6a (V)	
	955.4	5																
DENSE TO VERY DENSE, LIGHT BROWN **SANDY SILT**, LITTLE CLAY, TRACE GRAVEL, DAMP.		6																
		7	9 15 19	49	69	SS-3	-	-	-	-	-	-	-	-	-	7	A-4a (V)	
		8																
		9	24 26 14	58	36	SS-4	-	-	-	-	-	-	-	-	-	10	A-4a (V)	
	950.4	10	▽ 950.6															
MEDIUM DENSE TO VERY DENSE, DARK GRAY TO GRAY **GRAVEL WITH SAND AND SILT**, MOIST.		11	W 948.9															
		12	9 10 8	26	64	SS-5	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
		13																
		14	11 13 16	42	33	SS-6	-	-	-	-	-	-	-	-	-	11	A-2-4 (V)	
		15																
		16	15 18 18	52	33	SS-7	-	-	-	-	-	-	-	-	-	20	A-2-4 (V)	
		17																
		18																
		19	10 14 14	40	47	SS-8	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	
	940.4	20																
DENSE TO VERY DENSE, GRAY **SILTY SAND**, TRACE CLAY, TRACE FINE GRAVEL, MOIST.		21																
		22	12 20 20	58	56	SS-9	-	-	-	-	-	-	-	-	-	9	A-4a (V)	
		23																
		24	5 9 13	32	0	SS-10	-	-	-	-	-	-	-	-	-	-		
	935.4	25	21	-	100	2S-10A	-	-	-	-	-	-	-	-	-	7	A-4a (V)	
		EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 12.0' AND UPON COMPLETION @ 10.3'; CAVE-IN DEPTH @ 19.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 2194+49 / 112' RT | **EXPLORATION ID B-010-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL SR 161
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 961.8 (MSL) EOB: 25.0 ft.
START: 11/3/23 END: 11/3/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.087252, -82.843476 | PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 961.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GR	CS	FS	SI	CL	LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (4.0")	961.5																	
HARD, BROWN **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE GRAVEL, DAMP TO MOIST.		1																
		2	8 12 12	35	33	SS-1	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
		3																
-COBBLES FROM 3.8' - 4.5'		4	15 45 18	91	42	SS-2	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
	956.3	5																
MEDIUM DENSE TO DENSE, BROWN **GRAVEL WITH SAND AND SILT**, WET.		6																
		7	11 9 9	26	56	SS-3	-	44	16	14	16	10	27	19	8	7	A-2-4 (0)	
		8																
		9	9 11 12	33	67	SS-4	-	-	-	-	-	-	-	-	-	8	A-2-4 (V)	
		10																
		11	▽ 950.6															
		12	W 949.3 6 8 11	27	0	SS-5	-	-	-	-	-	-	-	-	-	-		
		13	7	-	100	2S-5A	-	-	-	-	-	-	-	-	-	19	A-2-4 (V)	
		14	10 10 10	29	0	SS-6	-	-	-	-	-	-	-	-	-	-		
	946.1	15	5	-	100	2S-6A	-	-	-	-	-	-	-	-	-	15	A-2-4 (V)	
HARD, BROWN **SANDY SILT**, LITTLE CLAY, TRACE FINE GRAVEL, DAMP.		16																
		17	7 8 10	26	47	SS-7	4.5+	-	-	-	-	-	-	-	-	14	A-4a (V)	
		18																
		19	5 8 13	30	75	SS-8	4.5+	12	11	14	39	24	26	17	9	12	A-4a (6)	
		20																
		21																
		22	9 16 17	48	78	SS-8	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
		23																
	936.8	24	10 15 13	40	67	SS-10	4.5+	-	-	-	-	-	-	-	-	14	A-4a (V)	
		EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 12.5' AND UPON COMPLETION @ 11.2'; CAVE-IN DEPTH @ 13.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:55 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.246 TOTAL 276	36 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC.

8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 823-4949

GEOTECHNICAL PROFILE - NOISE WALLS

BORING LOGS B-009-0-23 AND B-010-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:51:33 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL009.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 2196+50 / 111' RT | **EXPLORATION ID B-011-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL SR 161
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 964.3 (MSL) EOB: 25.0 ft.
START: 11/3/23 END: 11/3/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.087493, -82.842814 | PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 964.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (3.5")	964.0																	
STIFF TO HARD, BROWN TO GRAY **SILT AND CLAY**, "AND" COARSE TO FINE SAND, LITTLE FINE GRAVEL, DAMP TO MOIST.			5 7 9	23	53	SS-1	4.5+	-	-	-	-	-	-	-	-	21	A-6a (V)	
			7 9 10	27	61	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
ELEVATED HYDROSTATIC PRESSURES NEED TO BE INCLUDED IN THE NOTES TO MAKE THE CONTRACTOR AWARE OF ADVERSE WATER CONDITIONS PRIOR TO BIDDING.		▽ 956.5	4 6 6	17	81	SS-3	4.5+	17	11	15	30	27	27	16	11	12	A-6a (5)	
			5 5 8	19	89	SS-4	3.75	-	-	-	-	-	-	-	-	14	A-6a (V)	
			2 3 5	12	56	SS-5	2.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
			1 2 4	9	53	SS-6	1.25	-	-	-	-	-	-	-	-	15	A-6a (V)	
	948.8	W 948.3																
LOOSE TO DENSE, BROWN **GRAVEL WITH SAND**, TRACE SILT, TRACE CLAY, WET.			3 6 7	19	39	SS-7	-	-	-	-	-	-	-	-	-	20	A-1-b (V)	
			2 2 4	9	67	SS-8	-	9	68	17	1	5	NP	NP	NP	22	A-1-b (0)	
-HEAVE @ 21.0' AND 23.0'			5 9 11	29	100	SS-9	-	-	-	-	-	-	-	-	-	14	A-1-b (V)	
	939.3	EOB	7 10 14	35	100	SS-10	-	-	-	-	-	-	-	-	-	12	A-1-b (V)	

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 16.0' AND UPON COMPLETION @ 7.8'; CAVE-IN DEPTH @ 13.9'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 800+72 / 117' RT | **EXPLORATION ID B-012-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL SR 161
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 967.1 (MSL) EOB: 25.0 ft.
START: 11/3/23 END: 11/3/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.087734, -82.842176 | PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 967.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (4.0")	966.8																	
HARD, LIGHT BROWN **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.			5 6 9	22	53	SS-1	4.5+	-	-	-	-	-	-	-	-	18	A-6a (V)	
			14 16 28	63	72	SS-2	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
-COBBLES FROM 4.8' - 5.2' -AUGER REFUSAL @ 5.2'. OFFSET 7.0' SW, CONTINUED SAMPLING AT 6.0'			11 13 16	42	78	SS-3	4.5+	8	10	15	33	34	30	17	13	11	A-6a (8)	
			20 28 16	63	47	SS-4	-	-	-	-	-	-	-	-	-	10	A-6a (V)	
			5 18 12	43	33	SS-5	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
	954.1																	
DENSE TO VERY DENSE, DARK GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST.		▽ 952.2	7 14 18	46	53	SS-6	-	46	21	8	18	7	NP	NP	NP	8	A-1-b (0)	
			15 18 10	40	72	SS-7	-	-	-	-	-	-	-	-	-	8	A-1-b (V)	
		W 948.6																
			17 18 18	52	61	SS-8	-	-	-	-	-	-	-	-	-	11	A-1-b (V)	
	946.6																	
HARD, BROWN **SANDY SILT**, LITTLE CLAY, TRACE FINE GRAVEL, MOIST.			18 34 26	86	50	SS-9	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	
	942.1	EOB	6 9 12	30	47	SS-10	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 18.5' AND UPON COMPLETION @ 14.9'; CAVE-IN DEPTH @ 18.5'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.247 / TOTAL 276	37 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 8
BORING LOGS B-011-0-23 AND B-012-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:52:03 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL010.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 802+72 / 0' | **EXPLORATION ID B-013-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 967.4 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/3/23 END: 11/3/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.087953, -82.841539

MATERIAL DESCRIPTION AND NOTES	ELEV. 967.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (5.0")	967.0																	
HARD, LIGHT BROWN TO BROWN **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.			5 7 10	24	61	SS-1	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
			9 10 13	33	58	SS-2	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
			11 10 11	30	100	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
			7 8 11	27	61	SS-4	4.5+	9	8	16	35	32	28	15	13	12	A-6a (8)	
	956.9																	
DENSE TO VERY DENSE, GRAY **COARSE AND FINE SAND**, TRACE FINE GRAVEL, TRACE SILT, DAMP.			10 17 41	84	64	SS-5	-	-	-	-	-	-	-	-	-	5	A-3a (V)	
		▽ 953.2	18 15 16	45	33	SS-6	-	-	-	-	-	-	-	-	-	6	A-3a (V)	
	951.9	W 951.4																
MEDIUM DENSE TO VERY DENSE, GRAY **GRAVEL WITH SAND AND SILT**, MOIST.			5 8 11	27	61	SS-7	-	-	-	-	-	-	-	-	-	12	A-2-4 (V)	
			14 24 14	55	47	SS-8	-	-	-	-	-	-	-	-	-	9	A-2-4 (V)	
-AUGER LOST IN BORING @ 18.5' - 23.5'			9 12 10	32	44	SS-9	-	65	10	6	12	7	23	16	7	11	A-2-4 (0)	
	942.4	EOB	23 23 21	63	47	SS-10	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 16.0' AND UPON COMPLETION @ 14.2'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 804+72 / 0' | **EXPLORATION ID B-014-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 966.4 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/6/23 END: 11/2/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.088209, -82.840922

MATERIAL DESCRIPTION AND NOTES	ELEV. 966.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.5' -TOPSOIL (5.5")	965.9																	
HARD, LIGHT BROWN TO GRAY **SILTY CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.			3 3 6	13	72	SS-1	4.5+	-	-	-	-	-	-	-	-	21	A-6b (V)	
			5 5 7	17	47	SS-2	4.5+	8	6	12	34	40	40	19	21	15	A-6b (12)	
			4 6 9	22	53	SS-3	4.5+	-	-	-	-	-	-	-	-	15	A-6b (V)	
			16 14 10	35	64	SS-4	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
		▽ 954.6	5 5 8	19	72	SS-5	4.25	-	-	-	-	-	-	-	-	12	A-6b (V)	
	953.4	W 952.9																
MEDIUM DENSE TO DENSE, GRAY **GRAVEL WITH SAND AND SILT**, WET.			8 14 16	43	33	SS-6	-	-	-	-	-	-	-	-	-	15	A-2-4 (V)	
			5 8 8	23	61	SS-7	-	43	25	11	13	8	28	20	8	12	A-2-4 (0)	
			6 8 9	24	78	SS-8	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	
			9 8 10	26	36	SS-9	-	-	-	-	-	-	-	-	-	13	A-2-4 (V)	
	943.4																	
MEDIUM DENSE, GRAY **SANDY SILT**, TRACE CLAY, TRACE FINE GRAVEL, MOIST.			5 7 8	22	39	SS-10	-	-	-	-	-	-	-	-	-	19	A-4a (V)	
	941.4	EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 13.5' AND UPON COMPLETION @ 11.8'; CAVE-IN DEPTH @ 12.3'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.248 TOTAL 276	38 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC.

6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 8
BORING LOGS B-013-0-23 AND B-014-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:52:33 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL011.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 806+72 / 0' | **EXPLORATION ID B-015-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 966.5 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/23/23 END: 10/23/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.088482, -82.840308

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.7' -TOPSOIL (8.0")	965.8																	
VERY STIFF, BROWNISH GRAY TO GRAY **SILTY CLAY**, SOME COARSE TO FINE SAND, TRACE GRAVEL AND SAND, DAMP TO MOIST.			3 4 4	12	61	SS-1	3.50	-	-	-	-	-	-	-	-	19	A-6b (V)	
			10 30 11	59	100	SS-2	4.00	-	-	-	-	-	-	-	-	13	A-6b (V)	
			8 11 13	35	47	SS-3	3.50	16	8	13	33	30	34	18	16	13	A-6b (8)	
		▽ 956.5	9 6 8	20	50	SS-4	3.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
			6 6 10	23	39	SS-5	3.50	-	-	-	-	-	-	-	-	13	A-6b (V)	
	951.0	W 951.5	6 7 5	17	47	SS-6	3.50	-	-	-	-	-	-	-	-	12	A-6b (V)	
HARD, BROWN **SANDY SILT**, "AND" FINE GRAVEL, LITTLE CLAY, DAMP.			17 30 25	79	44	SS-7	-	-	-	-	-	-	-	-	-	13	A-4a (V)	
			19 24 26	72	56	SS-8	-	42	13	8	24	13	26	17	9	10	A-4a (0)	
			10 18 14	46	53	SS-9	-	-	-	-	-	-	-	-	-	11	A-4a (V)	
	941.5	EOB	9 15 17	46	69	SS-10	-	-	-	-	-	-	-	-	-	9	A-4a (V)	

NOTES: SEEPAGE @ 14.0'; GROUNDWATER INTIALLY ENCOUNTERED @ 15.0' AND UPON COMPLETION @ 10.0'; CAVE-IN DEPTH @ 14.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 808+72 / 0' | **EXPLORATION ID B-016-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 968.4 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/23/23 END: 10/23/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.088693, -82.839666

MATERIAL DESCRIPTION AND NOTES	ELEV.	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.6' -TOPSOIL (7.0")	967.8																	
VERY STIFF TO HARD, LIGHT BROWN TO BROWN **SILT AND CLAY**, SOME COARSE TO FINE GRAVEL, LITTLE FINE GRAVEL, DAMP TO MOIST.			5 5 5	14	50	SS-1	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
			8 8 9	24	100	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
			11 11 12	33	58	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
			8 13 13	37	56	SS-4	4.5+	14	11	15	33	27	28	16	12	10	A-6a (6)	
			7 7 7	20	78	SS-5	3.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
		▽ 954.6	5 11 9	29	44	SS-6	3.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
	952.9																	
MEDIUM DENSE TO VERY DENSE, GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST.			12 12 12	35	61	SS-7	-	50	23	9	12	6	23	17	6	10	A-1-b (0)	
		W 950.4	11 9 9	26	56	SS-8	-	-	-	-	-	-	-	-	-	14	A-1-b (V)	
			16 16 17	48	83	SS-9	-	-	-	-	-	-	-	-	-	10	A-1-b (V)	
	943.4	EOB	13 31 32	91	89	SS-10	-	-	-	-	-	-	-	-	-	8	A-1-b (V)	

NOTES: SEEPAGE @ 17.5'; GROUNDWATER INTIALLY ENCOUNTERED @ 18.0' AND UPON COMPLETION @ 13.8'; CAVE-IN DEPTH @ 21.0'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.249 TOTAL 276	39 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 825-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 8
BORING LOGS B-015-0-23 AND B-016-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:53:02 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL012.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 810+72 / 0' | **EXPLORATION ID B-017-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 970.7 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/23/23 END: 10/23/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.088908, -82.839020

MATERIAL DESCRIPTION AND NOTES	ELEV. 970.7	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (5.0")	970.3																	
HARD TO VERY STIFF, BROWN TO GRAY **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.		1	6 9 12	30	81	SS-1	4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
		2																
		3																
		4	20 22 20	60	36	SS-2	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		5																
		6																
		7	12 11 11	32	89	SS-3	4.5+	9	10	16	37	28	28	17	11	10	A-6a (6)	
		8																
		9	7 10 15	36	86	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		10																
		11																
		12	5 5 6	16	33	SS-5	4.00	-	-	-	-	-	-	-	-	11	A-6a (V)	
		13																
		14	5 5 12	24	44	SS-6	3.50	-	-	-	-	-	-	-	-	10	A-6a (V)	
	955.2	15																
DENSE TO VERY DENSE, GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, DAMP TO MOIST.		16																
		17	10 12 15	39	53	SS-7	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
W 952.7		18																
		19	10 15 20	50	78	SS-8	-	45	15	12	22	6	NP	NP	NP	11	A-2-4 (0)	
		20																
		21																
		22	15 30 28	84	100	SS-9	-	-	-	-	-	-	-	-	-	9	A-2-4 (V)	
		23																
		24	13 17 26	62	69	SS-10	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
	945.7	EOB 25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 18.0'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 812+76 / 0' | **EXPLORATION ID B-018-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 975.5 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/23/23 END: 10/23/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.089106, -82.838365

MATERIAL DESCRIPTION AND NOTES	ELEV. 975.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (5.0")	975.1																	
VERY STIFF TO HARD, BROWN TO GRAY **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP TO MOIST.		1	6 10 12	32	58	SS-1	4.5+	-	-	-	-	-	-	-	-	14	A-4a (V)	
		2																
		3																
		4	12 13 19	46	92	SS-2	4.5+	-	-	-	-	-	-	-	-	10	A-4a (V)	
		5																
		6																
		7	17 13 15	40	92	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
		8																
		9	8 9 11	29	94	SS-4	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	
		10																
		11																
		12	7 8 8	23	72	SS-5	3.25	13	11	15	35	26	24	15	9	12	A-4a (5)	
		13																
		14	6 8 9	24	89	SS-6	3.25	-	-	-	-	-	-	-	-	12	A-4a (V)	
		15																
		16																
		17	3 4 5	13	81	SS-7	2.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
	957.5	18																
DENSE TO VERY DENSE, BROWN-GRAY TO GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST.		19	8 13 14	39	58	SS-8	-	61	15	8	11	5	26	20	6	8	A-1-b (0)	
		20																
		21																
		22	11 29 34	91	0	SS-9	-	-	-	-	-	-	-	-	-	-		
	953.0	TR																
SHALE : GRAY, HIGHLY WEATHERED.		23	38	-	100	2S-9A	-	-	-	-	-	-	-	-	-	8	Rock (V)	
		24	28 50/3"	-	89	SS-10	-	-	-	-	-	-	-	-	-	5	Rock (V)	
	950.5	EOB 25																

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 16.4'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.250 TOTAL 276	40 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 8
BORING LOGS B-017-0-23 AND B-018-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:53:32 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL013.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 814+72 / 0' | **EXPLORATION ID B-019-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 974.9 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/23/23 END: 10/23/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.089329, -82.837734

MATERIAL DESCRIPTION AND NOTES	ELEV. 974.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' - TOPSOIL (4.0")	974.6																	
HARD, BROWN **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.		1	7 9 9	26	83	SS-1	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
		2																
		3																
		4	8 12 16	40	94	SS-2	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
	969.4	5																
MEDIUM DENSE, BROWN **GRAVEL WITH SAND AND SILT**, MOIST.		6	4 7 3	14	61	SS-3	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	
	966.9	7																
VERY STIFF TO HARD, GRAY **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP TO MOIST.		8																
		9	3 5 6	16	100	SS-4	4.25	12	11	17	35	25	24	14	10	11	A-4a (5)	
		10																
		11	4 5 6	16	56	SS-5	2.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
		12																
		13																
		14	6 8 10	26	44	SS-6	2.50	-	-	-	-	-	-	-	-	12	A-4a (V)	
		15																
		16																
		17	5 6 9	22	89	SS-7	3.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
	956.9	18																
MEDIUM DENSE TO DENSE, GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST.		19	10 12 15	39	47	SS-8	-	53	18	10	13	6	24	18	6	9	A-1-b (0)	
		20																
W 953.9		21	8 9 8	24	56	SS-9	-	-	-	-	-	-	-	-	-	10	A-1-b (V)	
	951.9	22																
SHALE : GRAY, HIGHLY WEATHERED.		TR 23																
		24	50/5"	-	100	SS-10	-	-	-	-	-	-	-	-	-	9	Rock (V)	
	949.9	EOB 25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 21.0' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 17.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 816+46 / 0' | **EXPLORATION ID B-020-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 974.3 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/27/23 END: 10/27/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.089531, -82.837178

MATERIAL DESCRIPTION AND NOTES	ELEV. 974.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (4.5")	973.9																	
HARD, BROWN TO GRAY **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE TO LITTLE FINE GRAVEL, DAMP TO MOIST.		1																
		2	5 5 7	17	44	SS-1	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
		3																
		4	6 10 15	36	11	SS-2	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		5																
		6																
		7	10 10 14	35	58	SS-3	4.5+	8	10	15	34	33	29	17	12	12	A-6a (7)	
		8																
		9	9 9 10	27	58	SS-4	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		10																
		11																
		12	4 6 8	20	58	SS-5	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		13																
		14	4 6 8	20	56	SS-6	4.5+	11	11	15	34	29	26	15	11	10	A-6a (6)	
		15																
		16																
		17	4 16 15	45	56	SS-7	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
	956.3	18																
SHALE : GRAY, HIGHLY WEATHERED.		TR 19	50/5"	-	67	SS-8	-	-	-	-	-	-	-	-	-	9	Rock (V)	
		20																
		21	50/5"	-	56	SS-9	-	-	-	-	-	-	-	-	-	4	Rock (V)	
		22																
		23																
		24	50/6"	-	73	SS-10	-	-	-	-	-	-	-	-	-	4	Rock (V)	
	949.3	EOB 25																

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 17.2'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.251 / TOTAL 276	41 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC.

6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 823-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 8
BORING LOGS B-019-0-23 AND B-020-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:54:01 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL014.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 818+03 / 0' | **EXPLORATION ID B-021-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 8
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 974.1 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/27/23 END: 10/27/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.089729, -82.836617

MATERIAL DESCRIPTION AND NOTES	ELEV. 974.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (3.0")	973.8																	
HARD, BROWN TO GRAY **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE TO LITTLE FINE GRAVEL, DAMP TO MOIST.		1	6 8 8	23	44	SS-1	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
		2																
		3	17 19 19	55	64	SS-2	4.5+	9	10	15	33	33	31	17	14	10	A-6a (8)	
		4																
		5	10 12 12	35	64	SS-3	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
		6																
		7	9 9 12	30	72	SS-4	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
		8																
		9	8 10 13	33	64	SS-5	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
		10																
ELIMINATE WEATHERED HATCHING (TYPICAL)		11	6 7 9	23	72	SS-6	4.5+	19	11	14	32	24	26	15	11	11	A-6a (5)	
		12																
		13	12 12 12	35	0	SS-7	-	-	-	-	-	-	-	-	-	-		
	955.9	14	12	-	58	2S-7A	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
																		TR
SHALE : GRAY, HIGHLY WEATHERED.		15	9 50/3"	-	100	SS-8	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		16																
		17																
		18																
		19																
		20																
		21	39 50/2"	-	100	SS-9	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		22																
		23																
		24	50/3"	-	100	SS-10	-	-	-	-	-	-	-	-	-	5	Rock (V)	
	949.1	25																EOB

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 19.7'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 09:47 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1100+00 / 0' | **EXPLORATION ID B-022-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 11
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 975.0 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 10/30/23 END: 10/30/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.090031, -82.835839

MATERIAL DESCRIPTION AND NOTES	ELEV. 975.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' - TOPSOIL (4.0")	974.7																	
VERY STIFF TO HARD, BROWN **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP TO MOIST.		1	9 14 17	45	67	SS-1	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
		2																
		3	11 14 17	45	44	SS-2	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	
		4																
		5	8 8 9	24	39	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
		6																
		7																
		8																
	965.3	9	3 3 3	9	56	SS-4	3.00	12	10	15	36	27	25	15	10	13	A-4a (6)	▽
		10																
		11	3 3 4	10	39	SS-5	2.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
	962.0	12																
VERY STIFF TO HARD, GRAY **SANDY SILT**, SOME FINE GRAVEL, TRACE CLAY, DAMP.		13																
		14	5 7 8	22	78	SS-6	-	-	-	-	-	-	-	-	-	14	A-4a (V)	
	959.0	15																W
		16	7 14 15	42	50	SS-7	-	26	21	15	28	10	24	17	7	9	A-4a (1)	
		17																
		18																
		19	5 9 10	27	72	SS-8	-	-	-	-	-	-	-	-	-	10	A-4a (V)	
	954.6	20																TR
SHALE : GRAY, HIGHLY WEATHERED.		21	50/3"	-	33	SS-9	-	-	-	-	-	-	-	-	-	5	Rock (V)	
		22																
		23																
		24	45 50/3"	-	83	SS-10	-	-	-	-	-	-	-	-	-	7	Rock (V)	
	950.0	25																EOB

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 16.0' AND UPON COMPLETION @ 9.7'; CAVE-IN DEPTH @ 17.6'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.252	42	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC.
TOTAL 276	TOTAL 66				8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALLS 8 AND 11
BORING LOGS B-021-0-23 AND B-022-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1102+00 / 0'	EXPLORATION ID B-023-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 11	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 977.0 (MSL) EOB: 24.5 ft.	PAGE 1 OF 1
START: 10/30/23 END: 10/30/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090244, -82.835195	

MATERIAL DESCRIPTION AND NOTES	ELEV. 977.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.3' -TOPSOIL (4.0")	976.7																	
VERY STIFF TO HARD, BROWN TO GRAY **SANDY SILT**, SOME CLAY, TRACE FINE GRAVEL, DAMP TO MOIST.		1	7 10 12	32	67	SS-1	4.5+	-	-	-	-	-	-	-	-	14	A-4a (V)	
		2																
		3																
		4	6 6 6	17	75	SS-2	4.5+	8	11	16	39	26	25	16	9	14	A-4a (6)	
		5																
		6																
		7	4 5 8	19	50	SS-3	4.00	-	-	-	-	-	-	-	-	10	A-4a (V)	
		8																
		9	4 5 9	20	61	SS-4	3.50	-	-	-	-	-	-	-	-	13	A-4a (V)	
	966.5	10																
SHALE : GRAY, HIGHLY WEATHERED.		TR 11	42 50/3"	-	100	SS-5	-	-	-	-	-	-	-	-	-	4	Rock (V)	
		12																
		13																
	962.6	14	50/3"	-	100	SS-6	-	-	-	-	-	-	-	-	-	5	Rock (V)	
SHALE : BLACK, HIGHLY WEATHERED, WEAK, VERY FINE GRAINED, LAMINATED, HIGHLY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, DISTURBED, SEAMY, VERY POOR SURFACE.		15	0		0	NQ2-1												CORE	
		16																
		17	0		35	NQ2-2												CORE
		18																
		19																
		20																
		21																
		22	0		100	NQ2-3												CORE
	952.5	23																
		EOB 24																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 16.1'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
6

Boring:
B-023-0-23

RC-1: 14.4-15.0'
REC (%):0
RQD (%):0

RC-2: 15.0-19.5'
REC (%):35
RQD (%):0

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 11
BORING LOGS & ROCK CORE PHOTO FOR B-023-0-23

Project Name: FRA-161-15.80	**Location:** Franklin County, Ohio
Photo No. 7	
Boring: B-023-0-23	
RC-3: 19.5-24.5' REC (%):100 RQD (%):0	

RESOURCE INTERNATIONAL, INC.
8500 PRESIDENTIAL GATEWAY
COLUMBUS, OHIO 43231
(614) 822-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 11
BORING ROCK CORE PHOTO FOR B-023-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:54:55 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL017.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1104+00 / 0'	EXPLORATION ID B-024-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 11	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 3/21/22	ELEVATION: 979.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/31/23 END: 10/31/23	SAMPLING METHOD: SPT	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090471, -82.834551	

MATERIAL DESCRIPTION AND NOTES	ELEV. 979.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.1' -TOPSOIL (1.0")	979.5																	
HARD, BROWN **CLAY**, SOME SILT, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.		1	5 5 8	19	47	SS-1	4.5+	-	-	-	-	-	-	-	-	19	A-7-6 (V)	
		2																
		3																
		4	8 10 16	37	78	SS-2	4.5+	3	4	10	35	48	42	20	22	17	A-7-6 (13)	
	974.1	5																
VERY STIFF TO HARD, BROWN **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP.		6																
		7	17 28 26	78	78	SS-3	4.5+	-	-	-	-	-	-	-	-	9	A-6a (V)	
		8																
		9	28 18 12	43	33	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		10																
		11	5 6 5	16	36	SS-5	2.50	-	-	-	-	-	-	-	-	10	A-6a (V)	
	966.6	12																
DENSE TO VERY DENSE, GRAY TO BLACK **GRAVEL WITH SAND AND SILT**, LITTLE CLAY, MOIST.		13																
		14	10 17 21	55	67	SS-6	-	-	-	-	-	-	-	-	-	8	A-2-4 (V)	
		15																
		16	10 14 15	42	92	SS-7	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
		17																
		18																
		19	6 14 17	45	75	SS-8	-	40	14	12	21	13	25	18	7	11	A-2-4 (0)	
		20																
		21																
		22	6 11 50/4"	-	75	SS-9	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	
	956.6	23																
SHALE : GRAY, HIGHLY WEATHERED.		TR																
		24	50/6"	-	36	SS-10	-	-	-	-	-	-	-	-	-	3	Rock (V)	
	954.6	EOB 25																

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 18.5'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1106+00 / 0'	EXPLORATION ID B-025-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 11	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 3/21/22	ELEVATION: 980.2 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 10/31/23 END: 10/31/23	SAMPLING METHOD: SPT	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090688, -82.833893	

MATERIAL DESCRIPTION AND NOTES	ELEV. 980.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.2' -TOPSOIL (1.5")	980.0																	
HARD, BROWN **SILT AND CLAY**, LITTLE GRAVEL AND SAND, DAMP.		1																
		2	4 5 7	17	50	SS-1	4.5+	-	-	-	-	-	-	-	-	20	A-6a (V)	
		3																
		4	8 12 17	42	61	SS-2	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		5																
		6																
		7	12 17 21	55	61	SS-3	4.5+	10	10	16	34	30	27	16	11	8	A-6a (6)	
		8																
		9	10 13 14	39	64	SS-4	4.5+	-	-	-	-	-	-	-	-	10	A-6a (V)	
	969.7	10																
DENSE TO VERY DENSE, BROWN **GRAVEL WITH SAND AND SILT**, TRACE CLAY, DAMP TO MOIST.		11																
		12	18 21 27	69	83	SS-5	-	-	-	-	-	-	-	-	-	8	A-2-4 (V)	
		13																
		14	9 12 15	39	78	SS-6	-	38	23	12	17	10	27	20	7	6	A-2-4 (0)	
		15																
		16																
		17	14 21 28	71	64	SS-7	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
		18																
		19	12 22 30	75	39	SS-8	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
-SHALE FRAGMENTS PRESENT THROUGHOUT		20																
	W 959.2	21																
		22	12 16 13	42	61	SS-9	-	-	-	-	-	-	-	-	-	14	A-2-4 (V)	
		23																
		24	8 15 17	46	61	SS-10	-	-	-	-	-	-	-	-	-	11	A-2-4 (V)	
	955.2	EOB 25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 21.0' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 15.3'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.255 TOTAL 276	45 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OH 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 11
BORING LOGS B-024-0-23 AND B-025-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:55:24 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL018.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1108+00 / 0' | EXPLORATION ID: B-026-0-23
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 11
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 979.8 (MSL) EOB: 25.5 ft.
START: 10/31/23 END: 10/31/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.090906, -82.833225
PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 979.8	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (4.0")	979.5																	
VERY STIFF TO HARD, LIGHT BROWN **SILTY CLAY**, "AND" FINE TO COARSE SAND, LITTLE FINE GRAVEL, DAMP TO MOIST.		1	4 5 13	26	67	SS-1	4.5+	-	-	-	-	-	-	-	-	17	A-6b (V)	
		2																
		3																
		4	18 18 16	49	39	SS-2	4.5+	-	-	-	-	-	-	-	-	19	A-6b (V)	
		5																
		6																
		7	9 13 15	40	89	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
		8																
		9	4 4 4	12	50	SS-4	4.00	19	24	12	23	22	36	19	17	14	A-6b (4)	
		10																
MEDIUM DENSE TO DENSE, BROWN TO DARK GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, MOIST.	969.3	11	3 4 5	13	56	SS-5	-	-	-	-	-	-	-	-	-	20	A-2-4 (V)	
		12																
		13																
		14	14 15 16	45	0	SS-6	-	-	-	-	-	-	-	-	-	-		
		15	7	-	100	2S-6A	-	-	-	-	-	-	-	-	-	11	A-2-4 (V)	
		16																
		17	14 14 10	35	72	SS-7	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	
	961.8	18																
DENSE, GRAY TO BLACK **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST.	W 961.3	19	9 9 14	33	0	SS-8	-	-	-	-	-	-	-	-	-	-		
-SHALE FRAGMENTS PRESENT THROUGHOUT		20	14	-	100	2S-8A	-	-	-	-	-	-	-	-	-	14	A-1-b (V)	
		21																
		22	12 15 17	46	75	SS-9	-	50	20	11	11	8	24	18	6	10	A-1-b (0)	
		23																
		24	11 14 13	39	0	SS-10	-	-	-	-	-	-	-	-	-	-		
	954.3	25	8	-	100	2S-10A	-	-	-	-	-	-	-	-	-	15	A-1-b (V)	
		EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 18.5' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 13.5'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1110+00 / 0' | EXPLORATION ID: B-027-0-23
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 11
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 981.5 (MSL) EOB: 25.0 ft.
START: 11/1/23 END: 11/1/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091062, -82.832539
PAGE 1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 981.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (3.5")	981.2																	
HARD, LIGHT BROWN **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE GRAVEL, DAMP.		1	7 13 19	46	61	SS-1	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		2																
		3																
		4	11 13 15	40	67	SS-2	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
		5																
		6																
		7	13 16 15	45	64	SS-3	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		8																
		9	8 5 7	17	61	SS-4	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
	971.0	10																
LOOSE TO VERY DENSE, GRAY **GRAVEL WITH SAND AND SILT**, TRACE TO LITTLE CLAY, DAMP.		11	3 3 3	9	67	SS-5	-	-	-	-	-	-	-	-	-	14	A-2-4 (V)	
		12																
		13																
		14	4 4 5	13	58	SS-6	-	35	20	14	19	12	29	19	10	14	A-2-4 (0)	
		15																
		16																
		17	7 16 18	49	67	SS-7	-	-	-	-	-	-	-	-	-	8	A-2-4 (V)	
		18																
		19	6 9 12	30	67	SS-8	-	54	20	8	13	5	28	18	10	10	A-2-4 (0)	
		20																
	W 960.5	21																
		22	12 14 24	55	78	SS-9	-	-	-	-	-	-	-	-	-	12	A-2-4 (V)	
	958.5	TR																
SHALE : GRAY, HIGHLY WEATHERED.		23																
		24	23 50/5"	-	27	SS-10	-	-	-	-	-	-	-	-	-	4	Rock (V)	
	956.5	EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 21.0' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 16.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.256 TOTAL 276	46 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 11
BORING LOGS B-026-0-23 AND B-027-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:55:54 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL019.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1112+00 / 0' | **EXPLORATION ID B-028-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 11 | PAGE 1 OF 1
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 982.2 (MSL) EOB: 25.0 ft.
START: 11/1/23 END: 11/1/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091197, -82.831841

MATERIAL DESCRIPTION AND NOTES	ELEV. 982.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' - TOPSOIL (4.0")	981.9																	
VERY STIFF TO HARD, BROWNISH GRAY TO GRAY **SILT AND CLAY**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, DAMP TO MOIST.		1	6 8 10	26	64	SS-1	4.5+	-	-	-	-	-	-	-	-	18	A-6a (V)	
		2																
		3																
		4	11 15 18	48	83	SS-2	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		5																
		6																
		7	10 11 14	36	72	SS-3	4.5+	17	10	13	31	29	31	17	14	12	A-6a (7)	
		8																
		9	4 6 10	23	58	SS-4	3.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
	971.7	10																
MEDIUM DENSE TO DENSE, GRAY TO BROWN **COARSE AND FINE SAND**, SOME SILT, TRACE CLAY, TRACE FINE GRAVEL, DAMP TO MOIST.		11																
		12	23 13 15	40	64	SS-5	-	-	-	-	-	-	-	-	-	14	A-3a (V)	
		13																
		14	5 8 8	23	100	SS-6	-	1	32	38	22	7	NP	NP	NP	3	A-3a (0)	
	966.2	15																
SHALE : GRAY, HIGHLY WEATHERED.		16 TR	40 50/2"	-	63	SS-7	-	-	-	-	-	-	-	-	-	4	Rock (V)	
		17																
		18																
		19	50/5"	-	33	SS-8	-	-	-	-	-	-	-	-	-	4	Rock (V)	
		20																
		21	50/2"	-	0	SS-9	-	-	-	-	-	-	-	-	-	-		
		22																
		23																
		24	50/0"	-		SS-10	-	-	-	-	-	-	-	-	-	-		
	957.2	25 EOB																

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 15.2'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1114+00 / 0' | **EXPLORATION ID B-029-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 11 | PAGE 1 OF 1
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 983.0 (MSL) EOB: 25.0 ft.
START: 11/1/23 END: 11/1/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091321, -82.831138

MATERIAL DESCRIPTION AND NOTES	ELEV. 983.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' - TOPSOIL (4.0")	982.7																	
HARD TO VERY STIFF, BROWN TO GRAY **SILT AND CLAY**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, DAMP TO MOIST.		1	3 5 9	20	53	SS-1	4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
		2																
		3																
		4	4 6 8	20	81	SS-2	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
		5																
		6																
		7	4 7 10	24	89	SS-3	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		8																
		9	4 5 7	17	61	SS-4	4.5+	19	11	14	34	22	26	15	11	11	A-6a (5)	
		10																
		11																
		12	3 3 7	14	81	SS-5	2.50	-	-	-	-	-	-	-	-	14	A-6a (V)	
		13																
		14	2 3 4	10	42	SS-6	2.00	-	-	-	-	-	-	-	-	14	A-6a (V)	
	967.5	15																
MEDIUM STIFF TO VERY STIFF, BLACK TO GRAY **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP TO MOIST.		16																
		17	4 7 9	23	56	SS-7	3.00	-	-	-	-	-	-	-	-	9	A-4a (V)	
		18																
		19	2 2 3	7	56	SS-8	2.25	12	15	16	34	23	25	15	10	13	A-4a (4)	
		20																
		21																
		22	1 1 2	4	33	SS-9	0.75	-	-	-	-	-	-	-	-	14	A-4a (V)	
	960.0	23																
VERY DENSE, DARK GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, MOIST. -SHALE FRAGMENTS IN SS-10	958.0	24	8 19 23	60	83	SS-10	-	-	-	-	-	-	-	-	-	10	A-2-4 (V)	
		25 EOB																

NOTES: SEEPAGE @ 22.4' - 25.0' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 13.0'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	DESIGNER	DESIGN AGENCY
P.257 / TOTAL 276	47 / TOTAL 66	117607 REVIEWER DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OH 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 11
BORING LOGS B-028-0-23 AND B-029-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:56:21 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL020.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1115+84 / 0' | **EXPLORATION ID B-030-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 11 | PAGE 1 OF 1
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 983.0 (MSL) EOB: 25.0 ft.
START: 11/1/23 END: 11/1/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091378, -82.830480

MATERIAL DESCRIPTION AND NOTES	ELEV. 983.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (5.0")	982.6																	
VERY STIFF TO HARD, BROWN TO DARK BROWN TO GRAY **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE TO LITTLE FINE GRAVEL, DAMP TO MOIST.		1	3 6 9	22	78	SS-1	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		2																
		3																
		4	5 6 8	20	100	SS-2	4.5+	9	11	15	35	30	30	17	13	15	A-6a (7)	
		5																
		6	4 8 12	29	94	SS-3	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		7																
		8																
		9	4 5 7	17	86	SS-4	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		10																
		11	2 3 5	12	39	SS-5	3.25	-	-	-	-	-	-	-	-	13	A-6a (V)	
		12																
		13																
		14	2 2 5	10	50	SS-6	2.00	20	11	14	32	23	27	15	12	14	A-6a (5)	
		15																
		16																
		17	2 4 5	13	61	SS-7	3.00	-	-	-	-	-	-	-	-	13	A-6a (V)	
	965.0	18																
VERY DENSE, DARK GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, MOIST.		19	8 20 20	58	86	SS-8	-	-	-	-	-	-	-	-	-	7	A-2-4 (V)	
	962.5	20																
SHALE : GRAY, HIGHLY WEATHERED.		21	34 50/2"	-	50	SS-9	-	-	-	-	-	-	-	-	-	5	Rock (V)	
		22																
		23																
		24	50/3"	-	0	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	958.0	EOB 25																

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 22.3'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 900+16 / 0' | **EXPLORATION ID B-031-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 9 | PAGE 1 OF 1
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 974.5 (MSL) EOB: 25.0 ft.
START: 11/16/23 END: 11/16/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.090580, -82.836109

MATERIAL DESCRIPTION AND NOTES	ELEV. 974.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.5' -TOPSOIL (5.5")	974.0																	
HARD, BROWN TO GRAY **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP TO MOIST.		1	4 5 7	17	78	SS-1	4.5+	-	-	-	-	-	-	-	-	19	A-4a (V)	
		2																
		3																
		4	18 9 7	23	0	SS-2	-	-	-	-	-	-	-	-	-	-		
		5	9	-	0	2S-2A	-	-	-	-	-	-	-	-	-	-		
-COBBLES @ 6.0'-6.5'		6																
		7	30 16 12	40	83	SS-3	4.5+	-	-	-	-	-	-	-	-	10	A-4a (V)	
		8																
		9	13 10 10	29	78	SS-4	4.5+	-	-	-	-	-	-	-	-	11	A-4a (V)	
		10																
		11	6 6 7	19	83	SS-5	4.5+	11	10	16	36	27	25	15	10	12	A-4a (6)	
		12																
		13																
		14	6 7 8	22	0	SS-6	-	-	-	-	-	-	-	-	-	-		
		15	12	-	100	2S-6A	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
		16																
		17	4 5 5	14	75	SS-7	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
		18																
		19	3 4 10	20	83	SS-8	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
	W 954.7	20																
	954.0 ▽ 954.0																	
MEDIUM DENSE, DARK GRAY **GRAVEL WITH SAND**, TRACE SILT, TRACE CLAY, MOIST.		21	4 8 10	26	78	SS-9	-	39	35	11	9	6	NP	NP	NP	16	A-1-b (0)	
-SHALE FRAGMENTS PRESENT THROUGHOUT		22																
		23																
-1.5' OF HEAVING SANDS @23.5'		24	8 8 12	29	92	SS-10	-	-	-	-	-	-	-	-	-	16	A-1-b (V)	
	949.5	EOB 25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 19.8' AND UPON COMPLETION @ 20.5'; CAVE-IN DEPTH @ 13.8'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.258 / TOTAL 276	48 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALLS 11 AND 9
BORING LOGS B-030-0-23 AND B-031-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:56:46 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL021.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 902+00 / 0' | **EXPLORATION ID B-032-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 9
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 975.2 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/16/23 END: 11/16/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.090809, -82.835481

MATERIAL DESCRIPTION AND NOTES	ELEV. 975.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (5.0")	974.8																	
HARD, BROWN **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP.		1	9 14 14	40	86	SS-1	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
		2																
		3																
		4	8 8 9	24	61	SS-2	4.5+	9	10	19	34	28	27	16	11	11	A-6a (6)	
		5																
		6	7 20 14	49	56	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
		7																
		8																
		9	5 8 9	24	75	SS-4	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
		10																
		11	5 7 8	22	0	SS-5	-	-	-	-	-	-	-	-	-	-		
		12	12	-	67	2S-5A	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
		13																
		14	6 8 9	24	0	SS-6	-	-	-	-	-	-	-	-	-	-		
	959.5	15	12	-	33	2S-6A	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
MEDIUM DENSE TO DENSE, GRAY **GRAVEL WITH SAND AND SILT**, LITTLE CLAY, MOIST.		16																
		17	4 9 9	26	53	SS-7	-	41	14	12	21	12	24	16	8	8	A-2-4 (0)	
W 956.7		18																
		19	8 10 11	30	50	SS-8	-	-	-	-	-	-	-	-	-	15	A-2-4 (V)	
▽ 954.7		20																
		21	15 22 18	58	64	SS-9	-	-	-	-	-	-	-	-	-	16	A-2-4 (V)	
		22																
		23																
	950.2	24	5 8 12	29	67	SS-10	-	-	-	-	-	-	-	-	-	13	A-2-4 (V)	
	EOB	25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 18.5' AND UPON COMPLETION @ 20.5'; CAVE-IN DEPTH @ 15.1'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 904+00 / 0' | **EXPLORATION ID B-033-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 9
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 977.2 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/16/23 END: 11/16/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091043, -82.834836

MATERIAL DESCRIPTION AND NOTES	ELEV. 977.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' - TOPSOIL (5.0")	976.8																	
HARD, BROWN TO GRAY **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP.		1	7 12 14	37	67	SS-1	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
		2																
		3																
		4	10 10 10	29	81	SS-2	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
		5																
		6																
		7	8 20 14	49	47	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
		8																
		9	6 9 10	27	83	SS-4	4.5+	12	9	16	39	24	25	15	10	11	A-4a (6)	
		10																
		11	6 7 8	22	78	SS-5	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
	964.2	12																
DENSE, GRAY TO BLACK **GRAVEL**, SOME FINE TO COARSE SAND, LITTLE SILT, MOIST. -LIMESTONE FRAGMENTS IN SS-6		13																
		14	7 13 12	36	56	SS-6	-	-	-	-	-	-	-	-	-	4	A-1-a (V)	
		15																
		16																
	959.2	17	8 12 11	33	72	SS-7	-	59	21	9	-	11 -	NP	NP	NP	7	A-1-a (0)	
MEDIUM DENSE TO DENSE, DARK GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, MOIST. -SHALE FRAGMENTS PRESENT THROUGHOUT		18																
W 958.7		19	9 13 12	36	64	SS-8	-	-	-	-	-	-	-	-	-	12	A-2-4 (V)	
▽ 956.7		20																
		21																
		22	17 15 15	43	44	SS-9	-	-	-	-	-	-	-	-	-	12	A-2-4 (V)	
		23																
	952.2	24	12 10 10	29	59	SS-10	-	-	-	-	-	-	-	-	-	18	A-2-4 (V)	
	EOB	25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 18.5' AND UPON COMPLETION @ 20.5'; CAVE-IN DEPTH @ 14.5'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.259 / TOTAL 276	49 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC.

8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 9
BORING LOGS B-032-0-23 AND B-033-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:57:14 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL022.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 906+00 / 0' | **EXPLORATION ID B-034-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 9
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 979.3 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/16/23 END: 11/16/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091273, -82.834170

MATERIAL DESCRIPTION AND NOTES	ELEV. 979.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4 - TOPSOIL (5.0")	978.9																	
HARD, BROWN **SILT AND CLAY**, LITTLE GRAVEL AND SAND, DAMP.		1	6 10 13	33	92	SS-1	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
		2																
		3																
		4	7 8 10	26	75	SS-2	4.5+	11	10	15	38	26	30	18	12	14	A-6a (7)	
		5																
		6	10 12 14	37	89	SS-3	4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
		7																
		8																
-ROOT FIBERS IN SS-4		9	9 10 10	29	36	SS-4	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
	968.8	10																
DENSE TO VERY DENSE, GRAY **GRAVEL**, LITTLE COARSE TO FINE SAND, TRACE SILT, DAMP.		11																
		12	7 15 20	50	0	SS-5	-	-	-	-	-	-	-	-	-	-		
		13	18	-	100	2S-5A	-	-	-	-	-	-	-	-	-	6	A-1-a (V)	
		14	20 14 18	46	69	SS-6	-	74	10	6	- 10 -		NP	NP	NP	4	A-1-a (0)	
		15																
		16																
		17	10 10 11	30	72	SS-7	-	-	-	-	-	-	-	-	-	6	A-1-a (V)	
		18																
		19	12 14 10	35	39	SS-8	-	-	-	-	-	-	-	-	-	6	A-1-a (V)	
	958.8	20																
MEDIUM DENSE TO VERY DENSE, BLACK **GRAVEL WITH SAND AND SILT**, MOIST.	W 958.3	21																
-SHALE FRAGMENTS PRESENT THROUGHOUT		22	6 7 10	24	75	SS-9	-	-	-	-	-	-	-	-	-	16	A-2-4 (V)	
		23																
		24	8 11 42	76	69	SS-10	-	-	-	-	-	-	-	-	-	11	A-2-4 (V)	
	954.3	25 EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 21.0' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 14.0'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 908+00 / 0' | **EXPLORATION ID B-035-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 9
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 981.4 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/15/23 END: 11/15/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091443, -82.833496

MATERIAL DESCRIPTION AND NOTES	ELEV. 981.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' - TOPSOIL (5.0")	981.0																	
HARD, BROWN TO GRAY **SILTY CLAY**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, DAMP.		1	7 9 12	30	36	SS-1	4.5+	-	-	-	-	-	-	-	-	17	A-6b (V)	
		2																
		3																
		4	10 15 17	46	83	SS-2	4.5+	13	8	13	38	28	34	18	16	12	A-6b (9)	
		5																
		6																
		7	13 18 20	55	39	SS-3	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
		8																
		9	6 12 14	37	89	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-6b (V)	
		10																
		11																
-CHERT FRAGMENTS IN SS-5		12	8 9 9	26	47	SS-5	4.5+	-	-	-	-	-	-	-	-	11	A-6b (V)	
	968.4	13																
MEDIUM DENSE, BROWN TO BLACK **GRAVEL WITH SAND AND SILT**, TRACE CLAY, DAMP.		14	6 7 6	19	83	SS-6	-	-	-	-	-	-	-	-	-	16	A-2-4 (V)	
-SHALE FRAGMENTS IN SS-6	965.9	15																
DENSE, GRAY **COARSE AND FINE SAND**, LITTLE GRAVEL, TRACE SILT, DAMP.		16																
		17	7 13 18	45	42	SS-7	-	-	-	-	-	-	-	-	-	5	A-3a (V)	
	963.4	18																
DENSE TO VERY DENSE, DARK GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST.		19	10 14 18	46	69	SS-8	-	57	17	9	15	2	NP	NP	NP	8	A-1-b (0)	
	W 961.7	20																
		21																
		22	5 11 12	33	64	SS-9	-	-	-	-	-	-	-	-	-	12	A-1-b (V)	
		23																
		24	18 24 20	63	50	SS-10	-	-	-	-	-	-	-	-	-	13	A-1-b (V)	
	956.4	25 EOB																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 19.7' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 14.3'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:56 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.260 TOTAL 276	50 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 9
BORING LOGS B-034-0-23 AND B-035-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:57:41 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL023.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 910+00 / 0' | **EXPLORATION ID B-036-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 9
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 983.2 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/15/23 END: 11/15/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091597, -82.832807

MATERIAL DESCRIPTION AND NOTES	ELEV. 983.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' -TOPSOIL (4.5")	982.8																	
HARD, BROWN **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.		1	9 10 11	30	0	SS-1	-	-	-	-	-	-	-	-	-	-		
		2	12	-	100	2S-1A	4.5+	-	-	-	-	-	-	-	-	20	A-6a (V)	
		3	6 6 11	24	72	SS-2	4.25	-	-	-	-	-	-	-	-	23	A-6a (V)	
		4																
		5	9 9 9	26	83	SS-3	4.5+	-	-	-	-	-	-	-	-	16	A-6a (V)	
		6																
		7	6 7 7	20	100	SS-4	4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
		8																
		9	6 7 7	20	36	SS-5	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
	970.2	10																
SOFT, DARK BROWN **SILTY CLAY**, SOME FINE TO COARSE SAND, SOME FINE GRAVEL, DAMP.		11	5 7 8	22	39	SS-6	-	33	15	13	29	10	38	21	17	12	A-6b (2)	
		12																
		13	10 10 17	39	0	SS-7	-	-	-	-	-	-	-	-	-	-		
		14	20	-	67	2S-7A	-	-	-	-	-	-	-	-	-	11	A-6b (V)	
	964.7	15																
DENSE, DARK GRAY **GRAVEL WITH SAND**, LITTLE SILT, TRACE CLAY, MOIST.		16	11 13 12	36	69	SS-8	-	31	31	16	20	2	23	17	6	11	A-1-b (0)	
	962.7	17																
DENSE TO VERY DENSE, GRAY **GRAVEL WITH SAND, SILT, AND CLAY**, WET.		18	W 962.2															
		19	10 18 35	76	0	SS-9	-	-	-	-	-	-	-	-	-	-		
		20	12	-	100	2S-9A	-	-	-	-	-	-	-	-	-	23	A-2-6 (V)	
		21																
		22	10 17 17	49	33	SS-10	-	-	-	-	-	-	-	-	-	20	A-2-6 (V)	
	958.2	23	EOB															
		24																
		25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 21.0' AND DRY UPON COMPLETION; CAVE-IN DEPTH @ 14.3'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 912+00 / 0' | **EXPLORATION ID B-037-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 9
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 984.9 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/15/23 END: 11/15/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091724, -82.832101

MATERIAL DESCRIPTION AND NOTES	ELEV. 984.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.4' - TOPSOIL (5.0")	984.5																	
VERY STIFF TO HARD, LIGHT BROWN **SILTY CLAY**, SOME COARSE TO FINE SAND, TRACE FINE GRAVEL, MOIST.		1	5 7 9	23	50	SS-1	4.5+	-	-	-	-	-	-	-	-	19	A-6b (V)	
		2																
		3	4 5 7	17	100	SS-2	4.5+	-	-	-	-	-	-	-	-	20	A-6b (V)	
		4																
		5	4 5 9	20	72	SS-3	4.5+	9	8	13	40	30	37	18	19	16	A-6b (11)	
		6																
		7	5 6 5	16	94	SS-4	4.5+	-	-	-	-	-	-	-	-	19	A-6b (V)	
		8																
		9	4 4 5	13	61	SS-5	3.50	-	-	-	-	-	-	-	-	18	A-6b (V)	
	971.9	10																
MEDIUM DENSE TO DENSE, BROWN **SANDY SILT**, SOME CLAY AND GRAVEL, MOIST TO DAMP.		11	4 7 7	20	53	SS-6	-	-	-	-	-	-	-	-	-	17	A-4a (V)	
		12																
		13	3 9 13	32	0	SS-7	-	-	-	-	-	-	-	-	-	-		
	966.7	14	16 ▽ 966.7	-	75	SS-7A	-	28	16	12	33	11	28	19	9	13	A-4a (2)	
DENSE, GRAY **GRAVEL WITH SAND**, TRACE SILT, MOIST.		15	W 965.1															
		16	13 16 16	46	100	SS-8	-	-	-	-	-	-	-	-	-	9	A-1-b (V)	
	964.4	17																
DENSE, DARK GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, MOIST.		18																
		19	9 14 15	42	0	SS-9	-	-	-	-	-	-	-	-	-	-		
		20	14	-	100	SS-9A	-	-	-	-	-	-	-	-	-	16	A-2-4 (V)	
		21																
		22	12 12 15	39	61	SS-10	-	-	-	-	-	-	-	-	-	13	A-2-4 (V)	
	959.9	23	EOB															
		24																
		25																

NOTES: GROUNDWATER INTIALLY ENCOUNTERED @ 19.8' AND UPON COMPLETION @ 18.2'; CAVE-IN DEPTH @ 19.0'
ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	TOTAL	SUBSET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.261	276	51	66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 8500 FREEDOM CROSSING BLVD. GAHANNA, OHIO 43230 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 9
BORING LOGS B-036-0-23 AND B-037-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 9:58:10 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL024.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 120+00 / 0' | **EXPLORATION ID B-038-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 12
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 979.3 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 12/5/23 END: 12/5/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.091445, -82.828386

MATERIAL DESCRIPTION AND NOTES	ELEV. 979.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' - ASPHALT (3.0")	979.0																	
0.5' - CONCRETE (6.5")	978.5																	
0.3' - AGGREGATE BASE (3.5")	978.2																	
VERY STIFF TO HARD, BROWN TO GRAY **SILTY CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, MOIST.			6 7 7	20	0	SS-1	-	-	-	-	-	-	-	-	-	-		
			9	-	67	2S-1A	4.5+	-	-	-	-	-	-	-	-	15	A-6b (V)	
			7 10 20	43	50	SS-2	4.5+	-	-	-	-	-	-	-	-	14	A-6b (V)	
			6 6 9	22	0	SS-3	-	-	-	-	-	-	-	-	-	-		
			14	-	100	2S-3A	4.5+	17	9	10	32	32	39	18	21	14	A-6b (10)	
			5 6 9	22	33	SS-4	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
	966.3		4 5 5	14	81	SS-5	4.00	-	-	-	-	-	-	-	-	20	A-6b (V)	
LOOSE TO MEDIUM DENSE, BROWN **SANDY SILT**, SOME FINE GRAVEL, LITTLE CLAY, MOIST.	963.8		7 13 20	48	50	SS-6	-	-	-	-	-	-	-	-	-	9	A-4a (V)	
LOOSE TO MEDIUM DENSE, GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, MOIST.	958.8		14 15 10	36	39	SS-7	4.5+	50	13	7	22	8	26	21	5	8	A-2-4 (0)	
			9 18 5	33	81	SS-8	-	-	-	-	-	-	-	-	-	18	A-2-4 (V)	
VERY STIFF, BROWN **SILT AND CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, MOIST.	956.3		5 6 8	20	56	SS-9	-	-	-	-	-	-	-	-	-	23	A-2-4 (V)	
SHALE : BLACK, HIGHLY WEATHERED.	954.3	TR EOB	14 11 11	32	72	SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 14.3'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. PAVEMENT PATCHED WITH COLD PATCH ASPHALT. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.262 / TOTAL 276	52 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL 6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 12
BORING LOGS B-038-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 121+41.21 / 0'	EXPLORATION ID B-039-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 12	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 986.4 (MSL) EOB: 20.0 ft.	PAGE 1 OF 1
START: 12/4/23 END: 12/4/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.091317, -82.827731	

MATERIAL DESCRIPTION AND NOTES	ELEV. 986.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	985.9																	
HARD, BROWN **CLAY**, LITTLE COARSE TO FINE SAND, TRACE FINE GRAVEL, MOIST.		1	7 5 6	16	0	SS-1	-	-	-	-	-	-	-	-	-	-		
		2	9	-	100	2S-1A	4.5+	-	-	-	-	-	-	-	-	19	A-7-6 (V)	
		3	4 6 7	19	0	SS-2	-	-	-	-	-	-	-	-	-	-		
		4	10	-	50	2S-2A	4.5+	-	-	-	-	-	-	-	-	18	A-7-6 (V)	
		5	8 8 6	20	81	SS-3	4.5+	28	9	7	25	31	50	20	30	16	A-7-6 (13)	
		6																
		7																
		8	9 9 10	27	75	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
	975.9	9																
SHALE : GRAY, HIGHLY WEATHERED.		TR 10	10/0"	-		SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	972.4	11	50/4"	-	0	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
SHALE : GRAY, MODERATELY WEATHERED, WEAK, VERY FINE GRAINED, LAMINATED, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, DISTURBED, SEAMY, POOR SURFACE.		12	0		0	NQ2-1											CORE	
		13																
		14																
		15																
		16																
		17	43		100	NQ2-2											CORE	
		18																
		19																
	966.4	EOB 20																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 11.2'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
8

Boring:
B-039-0-23

RC-1: 14.0-15.0'
REC (%):0
RQD (%):0

RC-2: 15.0-20.0'
REC (%):100
RQD (%):43

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 12
BORING LOG & ROCK CORE PHOTO FOR B-039-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 123+26.79 / 0'	EXPLORATION ID B-040-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 12	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 987.0 (MSL) EOB: 21.0 ft.	PAGE 1 OF 1
START: 12/4/23 END: 12/4/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.091207, -82.827079	

MATERIAL DESCRIPTION AND NOTES	ELEV. 987.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.4' -TOPSOIL (5.0") HARD, BROWN TO GRAY **SILT AND CLAY**, LITTLE TO TRACE SAND AND GRAVEL, DAMP TO MOIST.	986.6		3 6 8	20	72	SS-1	4.5+	-	-	-	-	-	-	-	-	17	A-6a (V)	
			6 7 9	23	69	SS-2	4.5+	-	-	-	-	-	-	-	-	20	A-6a (V)	
			4 6 8	20	81	SS-3	4.5+	7	9	15	37	32	33	18	15	18	A-6a (9)	
			4 6 8	20	47	SS-4	4.5+	-	-	-	-	-	-	-	-	18	A-6a (V)	
SHALE : GRAY, HIGHLY WEATHERED.	976.5	TR	8 15 50/3"	-	87	SS-5	-	-	-	-	-	-	-	-	-	10	Rock (V)	
	973.0		50/3"	-	60	SS-6	-	-	-	-	-	-	-	-	-	2	Rock (V)	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE. -@14.3' IRON STAINING IN FRACTURE -@15.0' - 15.2' ZONE OF FRACTURES -@15.7' CLAY SEAM	971.0		0		37	NQ2-1											CORE	
SHALE : GRAY, MODERATELY WEATHERED, WEAK, FINE GRAINED, LAMINATED, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, DISTURBED, SEAMY, POOR SURFACE.	967.7		0		100	NQ2-2											CORE	
SILTSTONE : GRAY, SLIGHTLY WEATHERED, MODERATELY STRONG, VERY FINE GRAINED, VERY THIN, HIGHLY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, DISTURBED, SEAMY, FAIR SURFACE.	966.0	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 94 LBS CEMENT / 25 LBS BENTONITE POWDER / 40 GAL WATER. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
9

Boring:
B-040-0-23

RC-1: 14.0-16.0'
REC (%):37
RQD (%):0

RC-2: 16.0-21.0'
REC (%):100
RQD (%):0

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 12
BORING LOG & ROCK CORE PHOTO FOR B-040-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 124+97.00 / 0'	EXPLORATION ID B-041-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 12	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 988.2 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 12/4/23 END: 12/4/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.091033, -82.826474	

MATERIAL DESCRIPTION AND NOTES	ELEV. 988.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	987.7																	
VERY STIFF, BROWN **SILTY CLAY**, SOME TO LITTLE SAND, LITTLE GRAVEL, MOIST.			4 5 7	17	64	SS-1	3.50	-	-	-	-	-	-	-	-	16	A-6a (V)	
			5 5 10	22	67	SS-2	3.00	6	12	19	34	29	30	17	13	15	A-6a (7)	
	982.7																	
VERY DENSE, GRAY **GRAVEL WITH SAND AND SILT**, TRACE CLAY, MOIST.			13 32 35	96	69	SS-3	-	-	-	-	-	-	-	-	-	8	A-2-4 (V)	
	980.2	TR																
SHALE : GRAY, HIGHLY WEATHERED.			10 21 29	72	89	SS-4	-	-	-	-	-	-	-	-	-	7	Rock (V)	
			50/6"	-	100	SS-5	-	-	-	-	-	-	-	-	-	6	Rock (V)	
			36 50/5"	-	100	SS-6	-	-	-	-	-	-	-	-	-	4	Rock (V)	
	972.2																	
SHALE : GRAY, MODERATELY TO SLIGHTLY WEATHERED, WEAK, FINE GRAINED, LAMINATED TO THIN BEDDED, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACES, BLOCKY, DISTURBED, SEAMY, POOR TO GOOD SURFACE. -0.3' CLAYSTONE SEAM @ 16.0' -@17.4' CLAY SEAM -@18.0' CLAY SEAM -SILTSTONE SEAM @ 21.4'-23.0'			20		68	NQ2-1											CORE	
			40		100	NQ2-2											CORE	
	963.2	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 12.1'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 94 LBS CEMENT / 25 LBS BENTONITE POWDER / 40 GAL WATER. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
10

Boring:
B-041-0-23

RC-1: 16.0-20.0'
REC (%):68
RQD (%):20

RC-2: 20.0-25.0'
REC (%):100
RQD (%):40

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 12
BORING LOG & ROCK CORE PHOTO FOR B-041-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1500+29 / 0'	EXPLORATION ID B-042-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1030.3 (MSL) EOB: 24.0 ft.	PAGE 1 OF 1
START: 11/9/23 END: 11/9/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090577, -82.811738	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1030.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.6' -TOPSOIL (6.5")	1029.7																	
HARD, BROWN **SILT AND CLAY**, SOME COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.			3 8 8	23	44	SS-1	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
			14 14 13	39	0	SS-2	-	-	-	-	-	-	-	-	-	-		
			17	-	100	2S-2A	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
			4 5 6	16	58	SS-3	4.5+	9	11	16	37	27	27	16	11	15	A-6a (6)	
			4 8 8	23	58	SS-4	4.5+	-	-	-	-	-	-	-	-	12	A-6a (V)	
	1019.3																	
SANDSTONE : GRAY, HIGHLY WEATHERED.		TR	40 42 50/2"	-	100	SS-5	-	-	-	-	-	-	-	-	-	6	Rock (V)	
			50/0"	-		SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/3"	-	67	SS-7	-	-	-	-	-	-	-	-	-	5	Rock (V)	
	1012.3																	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATLY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACES, BLOCKY, GOOD SURFACE.			58		75	NQ2-1											CORE	
			68		92	NQ2-2											CORE	
	1006.3	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 16.9'

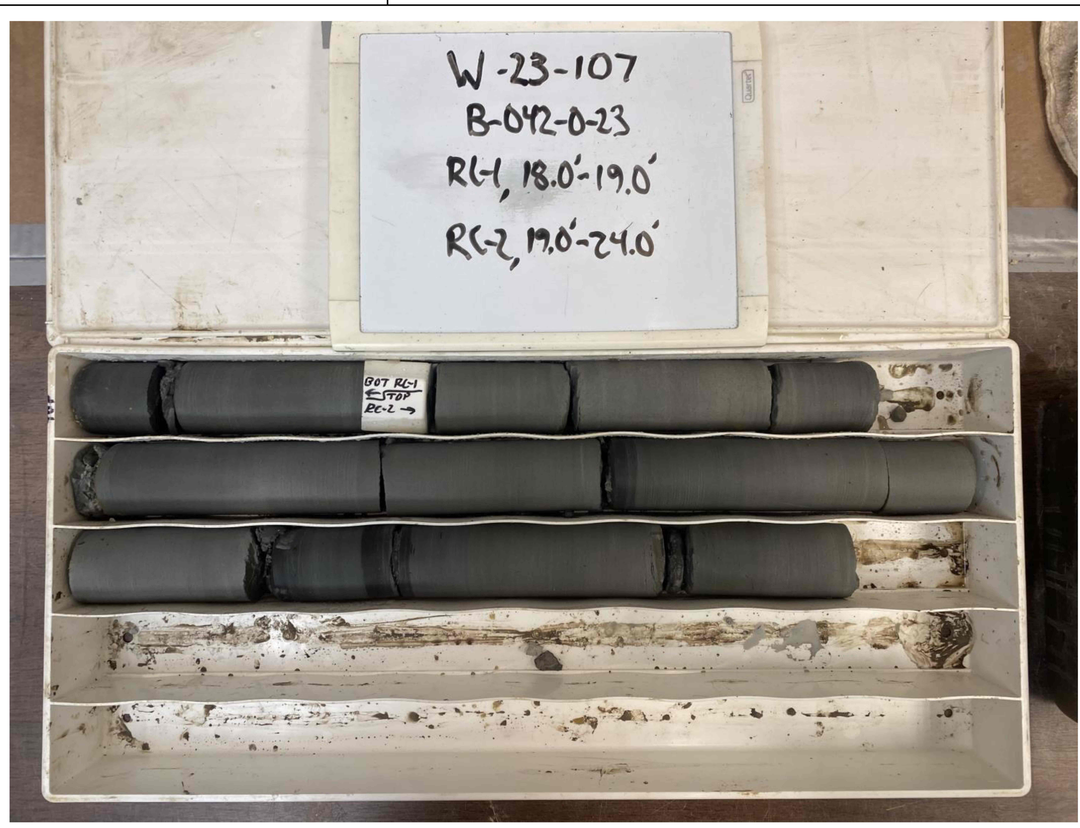
ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
11



Boring:
B-042-0-23

RC-1: 18.0-19.0'
REC (%):75
RQD (%):58

RC-2: 19.0-24.0'
REC (%):92
RQD (%):68

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-042-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1502+16 / 0'	EXPLORATION ID B-043-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1035.0 (MSL) EOB: 24.5 ft.	PAGE 1 OF 1
START: 11/9/23 END: 11/9/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090545, -82.811039	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1035.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	1034.5																	
HARD, BROWN **SANDY SILT**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, MOIST TO DAMP.			3 5 9	20	72	SS-1	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
			7 8 8	23	72	SS-2	4.5+	-	-	-	-	-	-	-	-	15	A-4a (V)	
			3 5 8	19	100	SS-3	4.5+	14	11	14	34	27	27	17	10	16	A-4a (5)	
			4 5 14	27	61	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
	1024.5	TR																
SANDSTONE : GRAY, HIGHLY WEATHERED.			20 50/5"	-	55	SS-5	-	-	-	-	-	-	-	-	-	6	Rock (V)	
			20 30 35	94	67	SS-6	-	-	-	-	-	-	-	-	-	12	Rock (V)	
			50/4"	-	38	SS-7	-	-	-	-	-	-	-	-	-	6	Rock (V)	
	1016.5																	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE.			0		75	NQ2-1											CORE	
	1013.4																	
SHALE : GRAY, MODERATELY WEATHERED, WEAK, FINE GRAINED, LAMINATED, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, DISTURBED, SEAMY, POOR SURFACE.	1012.5		33		68	NQ2-2											CORE	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE.	1010.5	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 15.2'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
12

Boring:
B-043-0-23

RC-1: 18.5-19.5'
REC (%):75
RQD (%):0

RC-2: 19.5-24.5'
REC (%):68
RQD (%):33

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-043-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:00:05 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL030.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1504+27 / 0' | **EXPLORATION ID B-044-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 15
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 1038.3 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/14/23 END: 11/14/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.090479, -82.810313

MATERIAL DESCRIPTION AND NOTES	ELEV. 1038.3	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (4.0")	1038.0																	
HARD, LIGHT BROWN **SILT AND CLAY**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, DAMP TO MOIST.		1	4 7 6	19	67	SS-1	4.5+	-	-	-	-	-	-	-	-	15	A-6a (V)	
		2																
		3																
		4	12 13 13	37	33	SS-2	-	-	-	-	-	-	-	-	-	9	A-6a (V)	
		5																
		6																
		7	10 12 12	35	100	SS-3	4.5+	15	10	14	39	22	30	17	13	14	A-6a (6)	
		8																
		9	8 9 13	32	67	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		10																
		11																
		12	6 10 9	27	72	SS-5	4.5+	-	-	-	-	-	-	-	-	11	A-6a (V)	
	1025.3	TR 13																
SANDSTONE : GRAY, HIGHLY WEATHERED.		14	50/4"	-	63	SS-6	-	-	-	-	-	-	-	-	-	7	Rock (V)	
		15																
		16																
		17	38 50/4"	-	84	SS-7	-	-	-	-	-	-	-	-	-	10	Rock (V)	
		18																
		19	50/6"	-	100	SS-8	-	-	-	-	-	-	-	-	-	5	Rock (V)	
		20																
		21	50/6"	-	100	SS-9	-	-	-	-	-	-	-	-	-	5	Rock (V)	
		22																
		23																
		24	50/5"	-	100	SS-10	-	-	-	-	-	-	-	-	-	5	Rock (V)	
	1013.3	EOB 25																

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 12.8'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80 | DRILLING FIRM / OPERATOR: RII / TG | DRILL RIG: DIEDRICH D-50 (# 313) | STATION / OFFSET: 1506+08 / 0' | **EXPLORATION ID B-045-0-23**
TYPE: NOISE WALLS | SAMPLING FIRM / LOGGER: RII / MJ | HAMMER: AUTOMATIC | ALIGNMENT: CL WALL 15
PID: 117607 SFN: NA | DRILLING METHOD: 3.25" HSA | CALIBRATION DATE: 3/21/22 | ELEVATION: 1038.9 (MSL) EOB: 25.0 ft. | PAGE 1 OF 1
START: 11/14/23 END: 11/14/23 | SAMPLING METHOD: SPT | ENERGY RATIO (%): 86.4 | LAT / LONG: 40.090452, -82.809651

MATERIAL DESCRIPTION AND NOTES	ELEV. 1038.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.3' -TOPSOIL (4.0")	1038.6																	
HARD, LIGHT BROWN TO BROWN **CLAY**, "AND" SILT, TRACE COARSE TO FINE SAND, DAMP.		1	5 5 6	16	56	SS-1	4.5+	0	3	8	51	38	48	20	28	17	A-7-6 (17)	
		2																
		3																
		4	9 10 12	32	50	SS-2	4.5+	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
		5																
		6																
		7	10 13 13	37	100	SS-3	4.5+	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
	1030.9	8																
HARD, BROWN **SILT AND CLAY**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, MOIST.		9	8 12 13	36	83	SS-4	-	11	13	16	7	53	28	17	11	12	A-6a (5)	
		10																
		11																
		12	4 6 15	30	78	SS-5	-	-	-	-	-	-	-	-	-	13	A-6a (V)	
	1025.9	TR 13																
SILTSTONE : GRAY TO DARK GRAY, HIGHLY WEATHERED.		14	50/4"	-	75	SS-6	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		15																
		16	50/4"	-	88	SS-7	-	-	-	-	-	-	-	-	-	7	Rock (V)	
		17																
		18																
		19	50/4"	-	86	SS-8	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		20																
		21	50/2"	-	75	SS-9	-	-	-	-	-	-	-	-	-	6	Rock (V)	
		22																
		23																
		24	50/0"	-		SS-10	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1013.9	EOB 25																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 13.9'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.268 / TOTAL 276	58 / TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 823-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOGS B-044-0-23 AND B-045-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1508+10 / 0'	**EXPLORATION ID**	
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	**B-046-0-23**	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1039.1 (MSL) EOB: 25.0 ft.	PAGE	
START: 11/10/23 END: 11/10/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090415, -82.808921	1 OF 1	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1039.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	1038.6																	
HARD, BROWNISH GRAY **CLAY**, "AND" SILT, LITTLE FINE GRAVEL, LITTLE COARSE TO FINE SAND, DAMP.			5 7 8	22	44	SS-1	4.5+	20	3	9	31	37	42	20	22	16	A-7-6 (12)	
	1033.6		12 14 14	40	50	SS-2	4.5+	-	-	-	-	-	-	-	-	14	A-7-6 (V)	
HARD, BROWNISH GRAY **SILT AND CLAY**, SOME COARSE TO FINE SAND, SOME FINE GRAVEL, MOIST.			15 16 16	46	0	SS-3	-	-	-	-	-	-	-	-	-	-		
			10	-	42	2S-3A	4.5+	21	10	14	31	24	27	16	11	15	A-6a (4)	
	1028.6		8 12 15	39	64	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
SANDSTONE : GRAY, HIGHLY WEATHERED.		TR	11 18 16	49	42	SS-5	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			6 16 32	69	61	SS-6	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/4"	-	100	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1020.1		50/4"	-	50	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACES, BLOCKY, GOOD SURFACE. -@21.3' - 21.5' SHALE -@22.5' CLAY SEAM			0		33	NQ2-1											CORE	
	1014.6		37		93	NQ2-2											CORE	
-@ 24.5'-25.0' SHALE		EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 15.2'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
13

Boring:
B-046-0-23

RC-1: 19.0-20.0'
REC (%):33
RQD (%):0

RC-2: 20.0-25.0'
REC (%):93
RQD (%):37

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-046-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1510+10 / 0'	EXPLORATION ID B-047-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1039.2 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 11/10/23 END: 11/10/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090391, -82.808171	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1039.2	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (6.0")	1038.7																	
HARD, BROWN **SILT AND CLAY**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, DAMP.			4 8 11	27	44	SS-1	4.5+	-	-	-	-	-	-	-	-	22	A-6a (V)	
			11 17 19	52	81	SS-2	4.5+	11	9	13	36	31	31	17	14	11	A-6a (8)	
			5 6 8	20	75	SS-3	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
			5 7 8	22	58	SS-4	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
	1028.7																	
HARD, BROWN **SANDY SILT**, LITTLE CLAY, SOME FINE GRAVEL, DAMP.			12 14 12	37	61	SS-5	4.5+	23	14	13	32	18	26	17	9	11	A-4a (3)	
	1026.2	TR																
SILTSTONE : GRAY, HIGHLY WEATHERED.			15 20 16	52	36	SS-6	-	-	-	-	-	-	-	-	-	6	Rock (V)	
			19 15 50/6"	-	54	SS-7	-	-	-	-	-	-	-	-	-	8	Rock (V)	
	1020.2		50/4"	-	100	SS-8	-	-	-	-	-	-	-	-	-	13	Rock (V)	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACES, BLOCKY, GOOD SURFACE.			0		42	NQ2-1											CORE	
-@22.4' CLAY SEAM -@ 19.0' - 25.0' RED IRON STAINING THROUGHOUT			55		92	NQ2-2											CORE	
	1014.2	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 14.9'

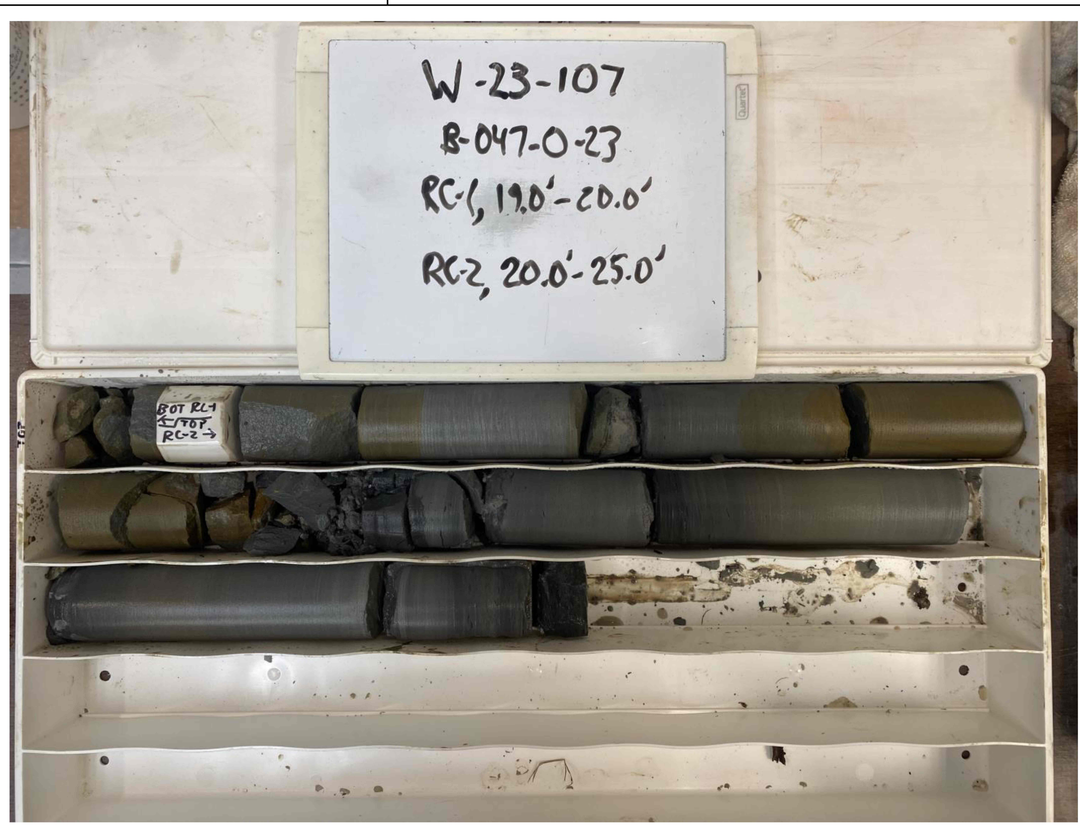
ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
14



Boring:
B-047-0-23

RC-1: 19.0-20.0'
REC (%):42
RQD (%):0

RC-2: 20.0-25.0'
REC (%):92
RQD (%):55

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-047-0-23

FRA-161-15.80 NOISE WALLS

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 1/19/2024 TIME: 10:01:16 AM USER: kevinj
J:\GEOTECH\Geotech Connect Projects\2023\W-23-107 FRA-161-15.80 NOISE WALLS\117607\400-Engineering\Geotechnical\Sheets\117607_ZL033.dgn

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1512+10 / 0'	EXPLORATION ID B-048-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA	CALIBRATION DATE: 3/21/22	ELEVATION: 1037.4 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 11/10/23 END: 11/10/23	SAMPLING METHOD: SPT	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090360, -82.807478	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1037.4	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	BACK FILL
0.5' -TOPSOIL (6.0")	1036.9																	
HARD, BROWN TO GRAY **SILTY CLAY**, SOME COARSE TO FINE SAND, TRACE FINE GRAVEL, DAMP TO MOIST.		1	3 3 5	12	39	SS-1	4.5+	-	-	-	-	-	-	-	-	19	A-6b (V)	
		2																
		3																
		4	6 7 7	20	100	SS-2	4.5+	10	5	19	32	34	36	17	19	14	A-6b (10)	
		5																
		6	6 6 11	24	33	SS-3	4.5+	-	-	-	-	-	-	-	-	17	A-6b (V)	
		7																
		8																
		9	6 8 10	26	69	SS-4	4.5+	-	-	-	-	-	-	-	-	12	A-6b (V)	
	1026.9	10																
VERY STIFF TO HARD, GRAY **SANDY SILT**, SOME CLAY, LITTLE FINE GRAVEL, DAMP.		11																
		12	5 6 9	22	83	SS-5	4.5+	18	11	14	33	24	26	16	10	11	A-4a (4)	
		13																
		14	3 4 5	13	64	SS-6	3.00	-	-	-	-	-	-	-	-	12	A-4a (V)	
	1021.4	15																
SHALE : BROWN, SEVERELY WEATHERED.		TR 16	28 35 50/3"	-	40	SS-7	-	-	-	-	-	-	-	-	-	0	Rock (V)	
		17																
		18																
		19	15 24 26	72	83	SS-8	-	-	-	-	-	-	-	-	-	13	Rock (V)	
		20																
		21	50/3"	-	0	SS-9	-	-	-	-	-	-	-	-	-	-	Rock (V)	
		22																
		23																
	1012.4	24 EOB 25	11 10 15	36	50	SS-10	-	-	-	-	-	-	-	-	-	20	Rock (V)	

NOTES: GROUNDWATER NOT ENCOUNTERED DURING DRILLING; CAVE-IN DEPTH @ 16.1'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: BACKFILLED WITH 50 LBS. BENTONITE CHIPS AND SOIL CUTTINGS. .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

SHEET P.271	SUBSET 61	PROJECT ID 117607	REVIEWER DEK 1/19/24	DESIGNER JAS	8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 823-4949	DESIGN AGENCY RESOURCE INTERNATIONAL, INC.
TOTAL 276	TOTAL 66					

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG B-048-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1514+10 / 0'	EXPLORATION ID B-049-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1038.9 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 11/10/23 END: 11/10/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090327, -82.806756	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1038.9	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	1038.4																	
VERY STIFF TO HARD, BROWN **CLAY**, SOME SILT, SOME FINE GRAVEL, TRACE COARSE TO FINE SAND, MOIST TO DAMP.			1 3 4	10	53	SS-1	2.25	28	2	5	27	38	53	20	33	25	A-7-6 (16)	
	1033.4		5 6 8	20	100	SS-2	4.00	-	-	-	-	-	-	-	-	21	A-7-6 (V)	
HARD, GRAY **SANDY SILT**, TRACE GRAVEL, MOIST TO DAMP.			3 4 6	14	44	SS-3	4.00	-	-	-	-	-	-	-	-	14	A-4a (V)	
			8 13 16	42	89	SS-4	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
			4 8 10	26	83	SS-5	4.5+	8	14	16	34	28	26	16	10	12	A-4a (5)	
			5 7 14	30	100	SS-6	4.5+	-	-	-	-	-	-	-	-	12	A-4a (V)	
	1023.4	TR																
SILTSTONE : GRAY, HIGHLY WEATHERED.			50/3"	-	-	SS-7	-	-	-	-	-	-	-	-	-	-	Rock (V)	
			50/0"	-	-	SS-8	-	-	-	-	-	-	-	-	-	-	Rock (V)	
	1018.9		0		0	NQ2-1											CORE	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACES, BLOCKY, GOOD SURFACE.			28		42	NQ2-2											CORE	
	1013.9	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 17.1'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
15

Boring:
B-049-0-23

RC-1: 19.0-20.0'
REC (%):0
RQD (%):0

RC-2: 20.0-25.0'
REC (%):42
RQD (%):28

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-049-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1516+10 / 0'	EXPLORATION ID B-050-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1038.0 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 11/13/23 END: 11/13/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090286, -82.806054	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1038.0	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	1037.5																	
VERY STIFF TO HARD, BROWN TO GRAY **SILTY CLAY**, SOME COARSE TO FINE SAND, LITTLE FINE GRAVEL, DAMP TO MOIST.			2 4 5	13	56	SS-1	4.00	-	-	-	-	-	-	-	-	20	A-6b (V)	
			5 7 6	19	72	SS-2	3.25	13	8	13	39	27	37	19	18	15	A-6b (9)	
			8 10 10	29	64	SS-3	4.00	-	-	-	-	-	-	-	-	15	A-6b (V)	
			4 5 11	23	36	SS-4	4.5+	-	-	-	-	-	-	-	-	9	A-6b (V)	
DENSE, BROWN **GRAVEL WITH SAND AND SILT**, TRACE CLAY, DAMP.	1027.5		18 15 12	39	64	SS-5	-	-	-	-	-	-	-	-	-	9	A-2-4 (V)	
SILTSTONE : GRAY, HIGHLY WEATHERED.	1025.0	TR	6 16 32	69	39	SS-6	-	-	-	-	-	-	-	-	-	8	Rock (V)	
			50/5"	-	40	SS-7	-	-	-	-	-	-	-	-	-	12	Rock (V)	
	1019.0		50/4"	-	75	SS-8	-	-	-	-	-	-	-	-	-	7	Rock (V)	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACES, BLOCKY, GOOD SURFACE. -@21.0' RED STAINING			0		25	NQ2-1											CORE	
			82		100	NQ2-2											CORE	
	1013.0	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 13.0'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GI8\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
16

Boring:
B-050-0-23

RC-1: 19.0-20.0'
REC (%):0
RQD (%):25

RC-2: 20.0-25.0'
REC (%):100
RQD (%):82

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.273 TOTAL 276	63 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 8500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 823-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-050-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1519+10.6 / 8.77' LT	EXPLORATION ID B-051-0-23	
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15		
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1038.1 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1	
START: 11/13/23 END: 11/13/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090226, -82.805330		

MATERIAL DESCRIPTION AND NOTES	ELEV. 1038.1	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (5.5")	1037.6																	
HARD, BROWN **SILTY CLAY**, LITTLE GRAVEL AND SAND, DAMP.			3 6 7	19	39	SS-1	4.5+	-	-	-	-	-	-	-	-	19	A-6b (V)	
			10 10 12	32	83	SS-2	4.5+	7	6	12	43	32	40	19	21	13	A-6b (12)	
	1032.6																	
VERY DENSE, BROWN TO GRAY **GRAVEL WITH SAND AND SILT**, DAMP.			36 26 22	69	61	SS-3	-	-	-	-	-	-	-	-	-	6	A-2-4 (V)	
-@ 6.0' - 8.0' COBBLES			17 19 32	73	72	SS-4	-	-	-	-	-	-	-	-	-	6	A-2-4 (V)	
			14 17 29	66	44	SS-5	-	-	-	-	-	-	-	-	-	8	A-2-4 (V)	
			50/3"	-	50	SS-6	-	-	-	-	-	-	-	-	-	17	Rock (V)	
	1021.8	TR	50/4"	-	88	SS-7	-	-	-	-	-	-	-	-	-	5	A-2-4 (V)	
SILTSTONE : GRAY, HIGHLY WEATHERED.	1019.1																	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE.			50		75	NQ2-1											CORE	
-VERTICAL FRACTURE @ 20.3', 20.9', 23.2' AND 24.7'			50		97	NQ2-2											CORE	
	1013.1	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 14.8'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 94 LBS CEMENT / 25 LBS BENTONITE POWDER / 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
17

Boring:
B-051-0-23

RC-1: 19.0-20.0'
REC (%):75
RQD (%):50

RC-2: 20.0-25.0'
REC (%):97
RQD (%):50

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-051-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1520+41 / 0'	EXPLORATION ID B-052-0-23
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1038.6 (MSL) EOB: 25.0 ft.	PAGE 1 OF 1
START: 11/13/23 END: 11/13/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090130, -82.804859	

MATERIAL DESCRIPTION AND NOTES	ELEV. 1038.6	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.3' - TOPSOIL (4.0")	1038.3																	
HARD, BROWN **SILT AND CLAY**, LITTLE GRAVEL AND SAND, DAMP.		1	6 7 10	24	78	SS-1	4.5+	-	-	-	-	-	-	-	-	14	A-6a (V)	
		2																
		3																
		4	12 13 13	37	69	SS-2	4.5+	7	8	13	43	29	33	18	15	13	A-6a (9)	
		5																
	1031.8	6	18 50/4"	-	90	SS-3	4.5+	-	-	-	-	-	-	-	-	13	A-6a (V)	
MEDIUM DENSE, BROWN **GRAVEL WITH SAND AND SILT**, DAMP. -COBBLES @ 6.5'-8.0'		7																
		8																
		9	12 10 8	26	53	SS-4	-	44	16	11	21	8	27	17	10	7	A-2-4 (0)	
	1028.1	10	TR															
SILTSTONE : GRAY, HIGHLY WEATHERED.		11																
		12	10 25 35	86	56	SS-5	-	-	-	-	-	-	-	-	-	8	Rock (V)	
		13																
		14	28 19 42	88	61	SS-6	-	-	-	-	-	-	-	-	-	7	Rock (V)	
		15																
		16	50/3"	-	100	SS-7	-	-	-	-	-	-	-	-	-	8	Rock (V)	
		17																
		18																
	1019.6	19	50/3"	-	0	SS-8	-	-	-	-	-	-	-	-	-	9	Rock (V)	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE.		20	92		92	NQ2-1												CORE	
		21																
		22																
-SHALE SEAMS @ 22.6', 23.0, 24.2'		23	77		93	NQ2-2												CORE
		24																
	1013.6	25	EOB															

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 13.8'

ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
18

Boring:
B-052-0-23

RC-1: 19.0-20.0'
REC (%):92
RQD (%):92

RC-2: 20.0-25.0'
REC (%):93
RQD (%):77

SHEET	SUBSET	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P.275 TOTAL 276	65 TOTAL 66	117607	DEK 1/19/24	JAS	RESOURCE INTERNATIONAL, INC. 6500 PRESIDENTIAL GATEWAY COLUMBUS, OHIO 43231 (614) 882-4949

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-052-0-23

RESOURCE INTERNATIONAL, INC.

PROJECT: FRA-161-15.80	DRILLING FIRM / OPERATOR: RII / TG	DRILL RIG: DIEDRICH D-50 (# 313)	STATION / OFFSET: 1522+26 / 0'	**EXPLORATION ID**	
TYPE: NOISE WALLS	SAMPLING FIRM / LOGGER: RII / MJ	HAMMER: AUTOMATIC	ALIGNMENT: CL WALL 15	**B-053-0-23**	
PID: 117607 SFN: NA	DRILLING METHOD: 3.25" HSA / NQ2	CALIBRATION DATE: 3/21/22	ELEVATION: 1036.5 (MSL) EOB: 25.0 ft.		PAGE
START: 11/14/23 END: 11/14/23	SAMPLING METHOD: SPT / NQ2	ENERGY RATIO (%): 86.4	LAT / LONG: 40.090039, -82.804245		1 OF 1

MATERIAL DESCRIPTION AND NOTES	ELEV. 1036.5	DEPTHS	SPT/ RQD	N_{60}	REC (%)	SAMPLE ID	HP (tsf)	GRADATION (%) GR	CS	FS	SI	CL	ATTERBERG LL	PL	PI	WC	ODOT CLASS (GI)	HOLE SEALED
0.5' -TOPSOIL (6.0")	1036.0																	
VERY STIFF TO HARD, BROWN TO GRAY **SILTY CLAY**, SOME TO TRACE SAND, TRACE GRAVEL, MOIST.			1-2-5	10	47	SS-1	4.00	-	-	-	-	-	-	-	-	22	A-6b (V)	
			3-3-4	10	100	SS-2	4.25	4	8	13	33	42	35	19	16	18	A-6b (10)	
			2-3-4	10	83	SS-3	4.5+	-	-	-	-	-	-	-	-	17	A-6b (V)	
	1028.5																	
HARD, BROWN TO BROWN GRAY **SANDY SILT**, TRACE GRAVEL, DAMP TO MOIST.			3-5-7	17	78	SS-4	4.5+	-	-	-	-	-	-	-	-	13	A-4a (V)	
			5-7-9	23	94	SS-5	4.5+	13	13	14	29	31	25	15	10	12	A-4a (5)	
	1022.4	TR	5-50/2"	-	63	SS-6	-	-	-	-	-	-	-	-	-	12	Rock (V)	
SANDSTONE : GRAY, HIGHLY WEATHERED.			50/3"	-	100	SS-7	-	-	-	-	-	-	-	-	-	8	Rock (V)	
	1017.5																	
SANDSTONE : GRAY, SLIGHTLY WEATHERED, STRONG, FINE GRAINED, THIN BEDDED, MODERATELY FRACTURED, NARROW APERTURES, SLIGHTLY ROUGH SURFACE, BLOCKY, GOOD SURFACE. -@22.2' FRACTURE -@22.8' SHALE SEAM			50		50	NQ2-1											CORE	
-@24.0 CLAY SEAM			68		100	NQ2-2											CORE	
	1011.5	EOB																

NOTES: GROUNDWATER NOT MEASURED UPON COMPLETION DUE TO INFLUENCE OF CORE WATER; CAVE-IN DEPTH @ 15.8'

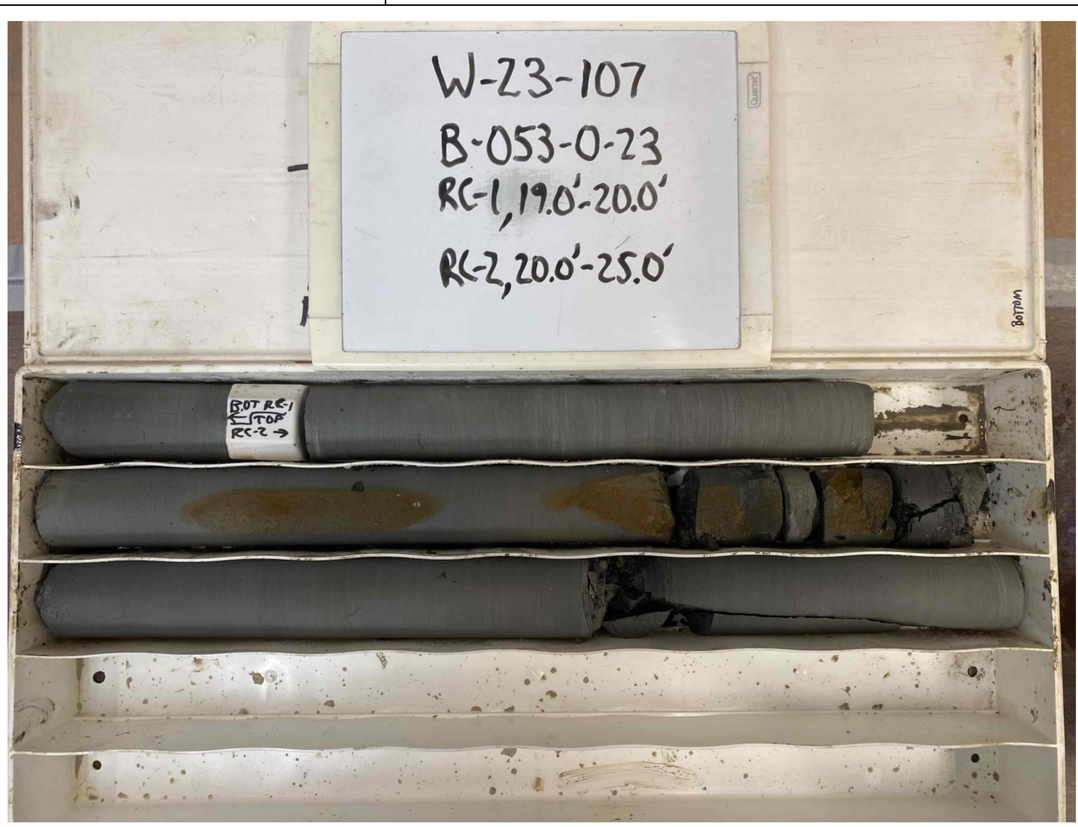
ABANDONMENT METHODS, MATERIALS, QUANTITIES: PUMPED 47 LBS CEMENT, 25 LBS BENTONITE POWDER AND 40 GAL WATER .

000-23 RII STA ODOT BORING LOG (8.5X11) - OH DOT.GDT - 1/11/24 07:57 - U:\GIS\PROJECTS\2023\W-23-107.GPJ

Project Name: FRA-161-15.80

Location:
Franklin County, Ohio

Photo No.
19



Boring:
B-053-0-23

RC-1: 19.0-20.0'
REC (%):50
RQD (%):50

RC-2: 20.0-25.0'
REC (%):100
RQD (%):68

GEOTECHNICAL PROFILE - NOISE WALLS
NOISE WALL 15
BORING LOG & ROCK CORE PHOTO FOR B-053-0-23