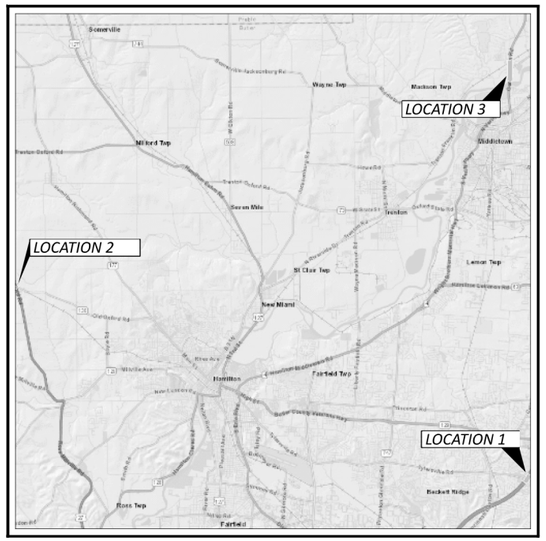
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
BUT IR 75/VAR 5.22/VAR

WEST CHESTER TOWNSHIP
HANOVER TOWNSHIP
MADISON TOWNSHIP
BUTLER COUNTY



LOCATION MAP

LATITUDE: 39°28'29.20" LONGITUDE: 84°27'21.00"

Add negative sign

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

DESIGN DESIGNATION

Per the Ellis project schedule:
current year = 2028
design year = 2048

Provide design designation data for SR 130.

Design Designation	BUT-75	BUT-27	BUT-4
Current ADT (2027)	133,000	7,600	11,500
Design Year ADT (2047)	160,000	7,600	13,000
Design Hourly Volume (2047)	16,000	1,000	1,600
Directional Distribution	56%	52.6%	53.7%
Trucks (24 Hour B&C)	11%	4%	4%
Trucks (Design Hour B&C)	7%	1%	2%
Design Speed	70 MPH	45 MPH	45 MPH
Legal Speed	65 MPH	45 MPH	45 MPH
Design Functional Classification	Urban Interstate	Rural Principal Arterial	Urban Principal Arterial
NHS Project	Yes	Yes	Yes

DESIGN EXCEPTIONS

DESIGN FEATURE	APPROVAL DATES	SHEET NUMBER
SHOULDER WIDTH		
SUPERELEVATION RATE		

ADA DESIGN WAIVERS

NONE

INDEX OF SHEETS:

TITLE SHEET	P.01
SCHEMATIC PLAN	P.02 - P.04
TYPICAL SECTIONS	P.05 - P.15
GENERAL NOTES	P.16 - P.18
MAINTENANCE OF TRAFFIC	P.19 - P.97
PLAN AND PROFILE - I.R. 75	P.98 - P.101
PLAN AND PROFILE - U.S. 27	P.102 - P.104
PLAN AND PROFILE - S.R. 130	P.105
PLAN AND PROFILE - S.R. 4	P.106 - P.114
CROSS SECTIONS - I.R. 75	P.115 - P.138
CROSS SECTIONS - U.S. 27	P.139 - P.147
CROSS SECTIONS - S.R. 130	P.148 - P.150
CROSS SECTIONS - S.R. 4	P.151 - P.156
SUPERELEVATION TABLES	P.157 - P.158
INTERSECTION DETAILS	P.159 - P.160
DRIVE DETAILS	P.161 - P.163
DRAINAGE PROFILES	P.164
CHANNEL DETAILS	P.165 - P.166
CHANNEL CROSS SECTIONS	P.167 - P.170
DRAINAGE DETAILS	P.171
RETAINING WALLS	P.172 - P.176
TRAFFIC CONTROL	P.177 - P.192
SIGNAL PLAN	P.193 - P.194

Existing Retention Pond Excavation

comments were made on the drainage reports

When completing the drainage report revisions: A meeting is required if the "Cover - HGL" column still show negative values

FEDERAL PROJECT NUMBER

E230529

RAILROAD INVOLVEMENT

CSX

PROJECT DESCRIPTION

LOWERING THE PAVEMENT BENEATH 3 BRIDGES IN BUTLER COUNTY

This will need broken up into the three sites. Show the EDA chart per site and label each EDA chart

EDA for US27
EDA for SR 4 - This location will need a NOI since the Project EDA is 0.99 acres. Please confirm the Project EDA, but at 0.99 acres, BMP are not required
EDA for I75 - The EDA associated with the Crossover is considered Contractor EDA (assuming it is being removed before the project is complete.)

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	18.73 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.75 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	19.48 ACRES

REVIEW COMPLETE

PM	Katherine S. DeStefano, P.E. 09/19/2025
BRIDGES	
CONSTRUCT	
DRAINAGE	Tami Brehm, P.E. 10/27/2025
ENVIRON	L. Keith Smith, P.E. 10/22/2025
GEOTECH	Casey Carriere, P.E. 10/07/2025
ITS	
MOT	
PAVEMENT	Jennifer Elston, 10/19/2025
ROADWAY	Katherine S. DeStefano, P.E. 09/19/2025
R/W	Matthew Couch, 09/22/2025
SURVEY	
TRAFFIC	Teri C. Scanlon, P.E. 10/16/2025
UTILITIES	Lucas W. Braun, P.E. 10/21/2025
OTHER	Amy Shell, P.E 09/22/2025
OTHER	Tom Mazza, 10/24/2025

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.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO TRAFFIC OF THE HIGHWAY EXCEPT AS NOTED ON SHEET P.24 - P.26, AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON THE PLANS.

Douglas A. Gruver, P.E.
District 08 Deputy Director

Pamela Boratyn
Director, Department of Transportation

ENGINEER'S SEAL
ALL OTHER SHEETS

ENGINEER'S SEAL
RETAINING WALLS

STANDARD CONSTRUCTION DRAWINGS	SUPPLEMENTAL SPECIFICATIONS	SPECIAL PROVISIONS
	SS809	

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:
CHAGRIN VALLEY ENGINEERING, LTD.
Creative Engineers. Intelligent Solutions.
22999 Forbes Road, Suite B Cleveland, Ohio 44146-5667
Phone • 440.439.1999 Fax • 440.439.1969 www.cvelimited.com

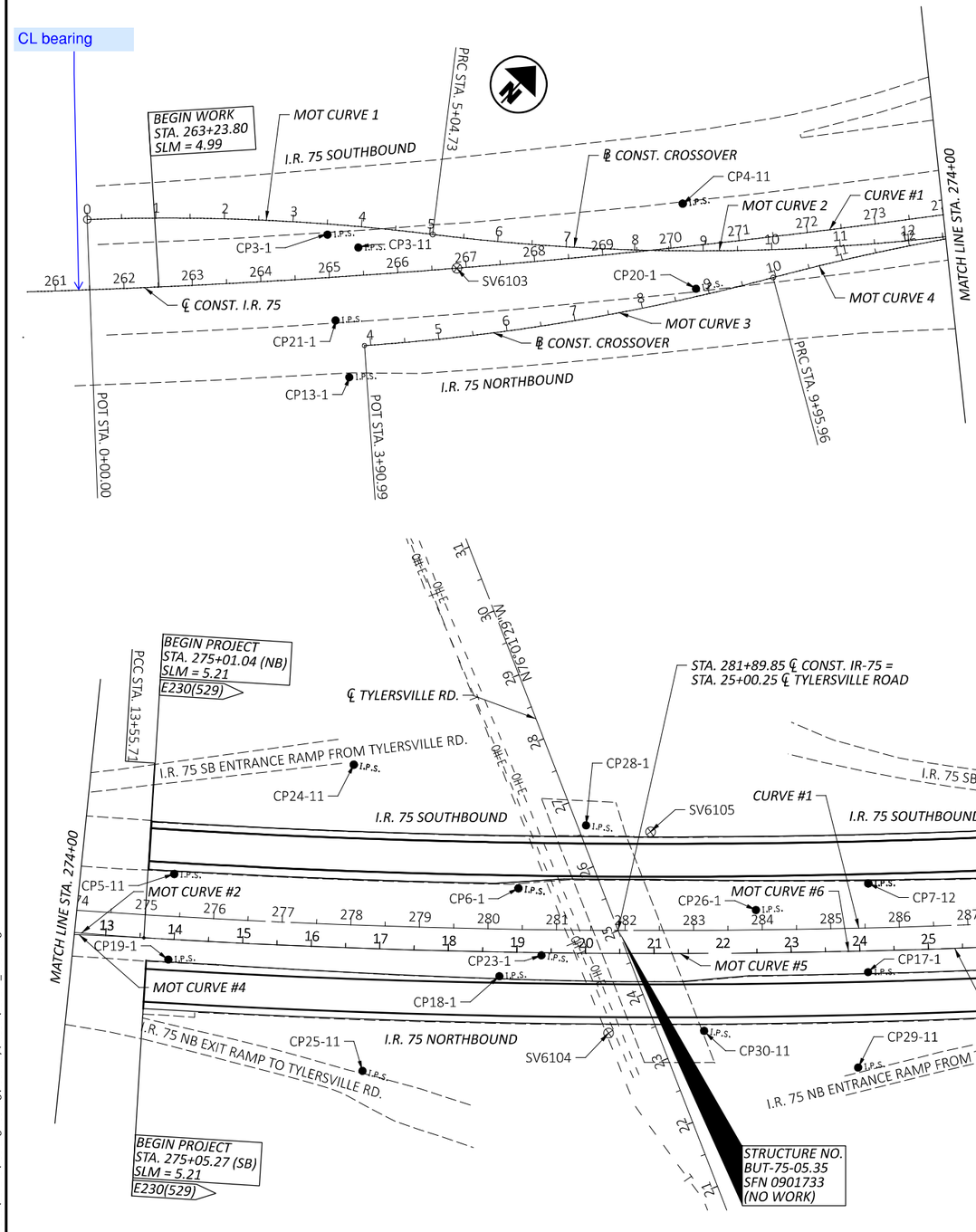
TITLE SHEET

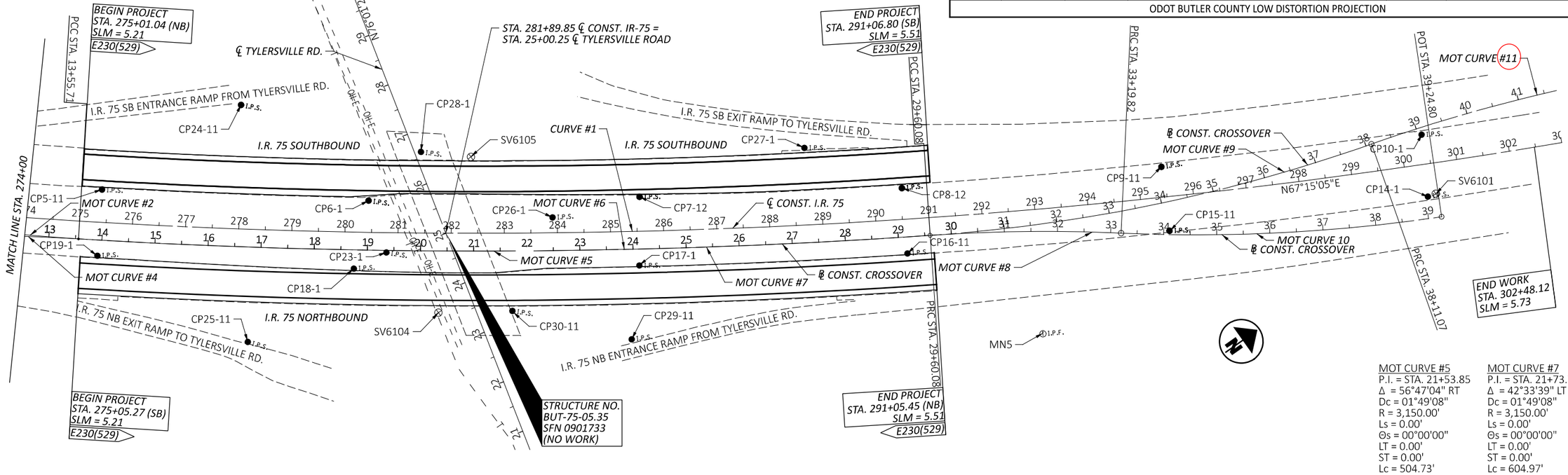
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.001 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GT001.dgn





CURVE #1
P.I. = STA. 288+41.28
Δ = 62°34'07" LT
Dc = 00°28'00"
R = 12,278.89'
T = 7,461.08'
L = 13,408.90'
E = 2,089.09'
emax = 0.018

MOT CURVE #1
P.I. = STA. 2+52.90
Δ = 09°10'50" RT
Dc = 01°49'08"
R = 3,150.00'
T = 252.9'
L = 504.73'
E = 10.14'
emax = 0.055

MOT CURVE #2
P.I. = STA. 9+32.83
Δ = 15°28'43" LT
Dc = 01°49'08"
R = 3,150.00'
T = 428.10'
L = 850.99'
E = 28.96'
emax = 0.055

MOT CURVE #3
P.I. = STA. 6+94.41
Δ = 11°00'14" LT
Dc = 01°49'08"
R = 3,150.00'
T = 303.42'
L = 604.97'
E = 14.58'
emax = 0.055

MOT CURVE #4
P.I. = STA. 11+76.03
Δ = 06°32'37" RT
Dc = 01°49'08"
R = 3,150.00'
T = 180.07'
L = 359.75'
E = 5.14'
emax = 0.055

MOT CURVE #6
P.I. = STA. 21+59.03
Δ = 07°27'57" LT
Dc = 00°27'55"
R = 12,312.39'
T = 803.32'
L = 1,604.37'
E = 26.18'
emax = 0.018

MOT CURVE #8
P.I. = STA. 31+40.14
Δ = 06°32'37" RT
Dc = 01°49'08"
R = 3,150.00'
T = 180.07'
L = 359.75'
E = 5.14'
emax = 0.055

MOT CURVE #9
P.I. = STA. 33+88.18
Δ = 15°28'43" LT
Dc = 01°49'08"
R = 3,150.00'
T = 428.10'
L = 850.99'
E = 28.96'
emax = 0.055

MOT CURVE #10
P.I. = STA. 36+23.24
Δ = 11°00'14" LT
Dc = 01°49'08"
R = 3,150.00'
T = 303.42'
L = 604.97'
E = 14.58'
emax = 0.055

MOT CURVE #11
P.I. = STA. 40+63.97
Δ = 09°10'50" RT
Dc = 01°49'08"
R = 3,150.00'
T = 252.9'
L = 504.73'
E = 10.14'
emax = 0.055

CENTERLINE R/W & CONSTRUCTION REFERENCES AND BENCHMARKS - I.R. 75

POINT	ALIGNMENT	STATION	OFFSET (FT)	SIDE	US SURVEY FEET		ELEVATION (FT)	DESCRIPTION
					NORTHING	EASTING		
CP31-1	I.R. 75	265+19.20	147.04	RIGHT	473746.521	198851.3045	846.83	IRON PIN SET
CP21-1	I.R. 75	265+04.82	62.95	RIGHT	473793.641	198780.1667	847.26	IRON PIN SET
CP3-1	I.R. 75	265+01.24	62.48	LEFT	473877.1355	198686.4907	847.54	IRON PIN SET
CP3-11	I.R. 75	265+45.05	40.85	LEFT	473894.0747	198732.1353	847.54	IRON PIN SET
SV6103	I.R. 75	266+86.33	0.12	RIGHT	473969.69	198858.064	838.58	BENCHMARK FOUND
CP4-11	I.R. 75	270+23.91	62.66	LEFT	474262.8374	199035.2092	849.45	IRON PIN SET
CP20-1	I.R. 75	270+29.70	62.70	RIGHT	474185.1283	199133.7388	849.31	IRON PIN SET
CP19-1	I.R. 75	275+37.28	63.07	RIGHT	474577.3675	199459.9268	853.90	IRON PIN SET
CP5-11	I.R. 75	275+38.74	61.96	LEFT	474656.3684	199363.0112	853.90	IRON PIN SET
CP24-11	I.R. 75	277+95.79	233.66	LEFT	474962.222	199383.6134	868.26	IRON PIN SET
CP25-11	I.R. 75	278+24.46	212.15	RIGHT	474715.1906	199755.8252	861.86	IRON PIN SET
CP18-1	I.R. 75	280+18.11	68.77	RIGHT	474957.9083	199758.0432	858.16	IRON PIN SET
CP6-1	I.R. 75	280+43.65	59.87	LEFT	475054.537	199669.3571	857.96	IRON PIN SET
CP23-1	I.R. 75	280+78.64	37.29	RIGHT	475025.5712	199768.4714	860.53	IRON PIN SET
CP28-1	I.R. 75	281+41.79	152.88	LEFT	475187.8879	199651.1319	858.34	IRON PIN SET
SV6104	I.R. 75	281+76.91	149.62	RIGHT	475040.261	199917.492	858.51	BENCHMARK FOUND
SV6105	I.R. 75	282+37.08	143.97	LEFT	475259.379	199713.029	860.64	BENCHMARK FOUND
CP30-11	I.R. 75	283+14.48	146.41	RIGHT	475155.8574	199995.1541	859.95	IRON PIN SET
CP26-1	I.R. 75	283+91.17	29.07	LEFT	475319.1349	199894.796	861.89	IRON PIN SET
CP29-11	I.R. 75	285+35.16	203.03	RIGHT	475308.6082	200168.2589	874.07	IRON PIN SET
CP17-1	I.R. 75	285+52.77	64.38	RIGHT	475400.5712	200062.9913	862.80	IRON PIN SET
CP7-12	I.R. 75	285+56.23	65.11	LEFT	475475.4405	199957.2822	863.26	IRON PIN SET
CP27-1	I.R. 75	288+72.57	145.31	LEFT	475782.0901	200060.9873	866.63	IRON PIN SET
CP8-12	I.R. 75	290+52.88	59.04	LEFT	475888.3926	200228.6558	868.99	IRON PIN SET
CP16-11	I.R. 75	290+55.26	64.48	RIGHT	475825.9918	200335.2841	869.34	IRON PIN SET
MN5	I.R. 75	292+95.29	234.64	RIGHT	475947.1744	200606.0014	879.50	IRON PIN AND CAP FOUND
CP15-11	I.R. 75	295+47.94	64.20	RIGHT	476253.7533	200584.8082	874.99	IRON PIN SET
CP9-11	I.R. 75	295+45.36	57.24	LEFT	476310.6416	200477.49	874.43	IRON PIN SET
CP14-1	I.R. 75	300+36.16	61.24	RIGHT	476688.394	200812.5535	879.07	IRON PIN SET
CP10-1	I.R. 75	300+41.30	55.93	LEFT	476745.8954	200710.3372	878.98	IRON PIN SET
SV6101	I.R. 75	300+51.51	57.88	RIGHT	476703.674	200816.526	878.65	BENCHMARK FOUND
ODOT BUTLER COUNTY LOW DISTORTION PROJECTION								

MOT CURVE #5
P.I. = STA. 21+53.85
Δ = 56°47'04" RT
Dc = 01°49'08"
R = 3,150.00'
Ls = 0.00'
Θs = 00°00'00"
LT = 0.00'
ST = 0.00'
Lc = 504.73'
Ts = 2,153.85'
Es = 665.96'
Emax = 0.055
T.S. =
S.C. = 0+00.00
C.S. = 5+04.73
S.T. =

MOT CURVE #7
P.I. = STA. 21+73.72
Δ = 42°33'39" LT
Dc = 01°49'08"
R = 3,150.00'
Ls = 0.00'
Θs = 00°00'00"
LT = 0.00'
ST = 0.00'
Lc = 604.97'
Ts = 1,782.73'
Es = 469.48'
Emax = 0.055
T.S. =
S.C. = 3+90.99
C.S. = 9+95.96
S.T. =

NOTE:
THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.

HORIZONTAL SCALE IN FEET
0 50 100 200

SCHEMATIC PLAN
I.R. 75

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.002 TOTAL 194

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GB301.dgn

CURVE #1 DATA
P.I. = STA. 13+17.94
Δ = 11°07'05" LT
Dc = 02°29'59"
R = 2,292.06'
T = 223.08'
L = 444.76'
E = 10.83'
emax = 0.039

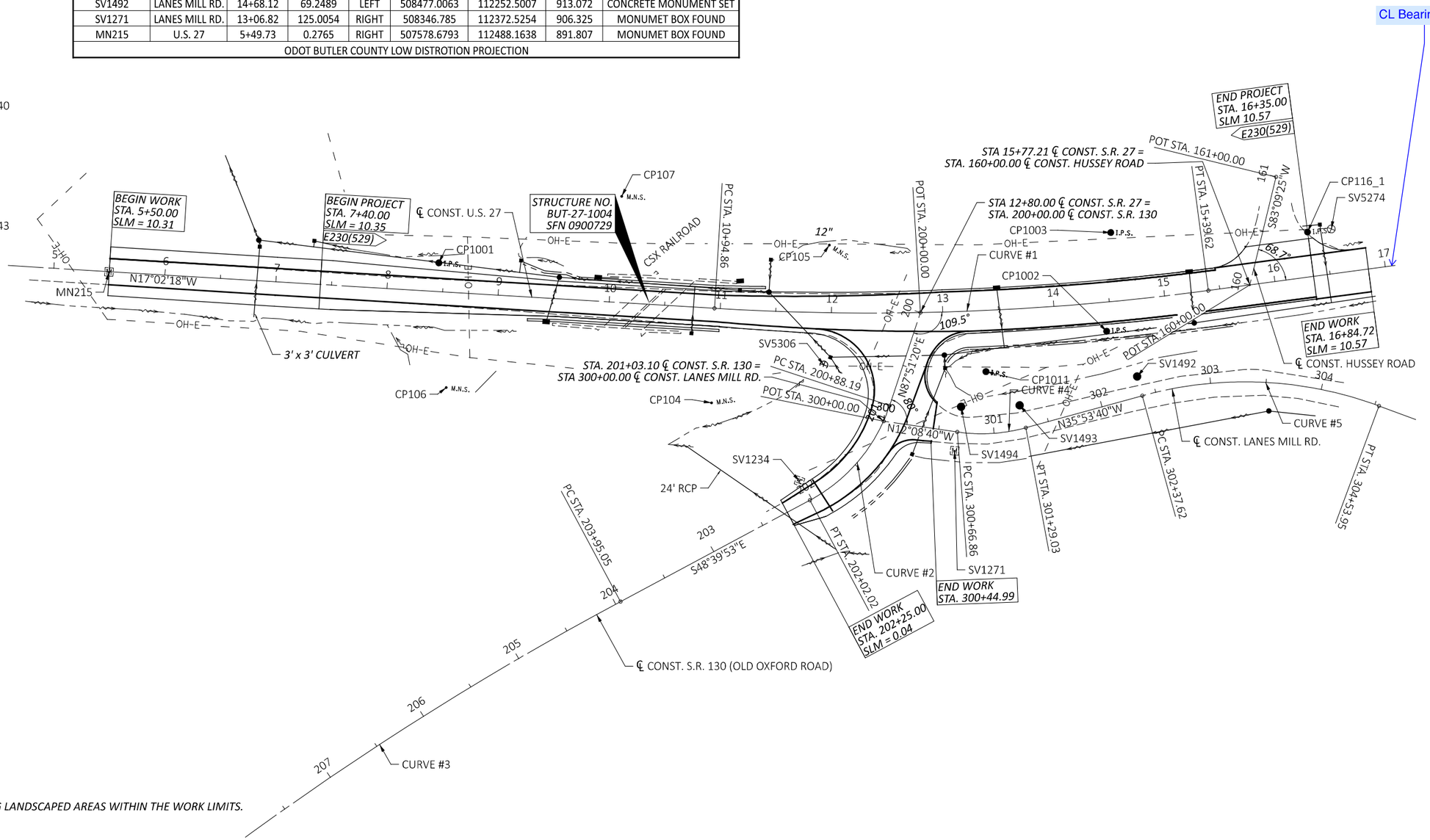
CURVE #2 DATA
P.I. = STA. 201+48.00
Δ = 43°28'47" RT
Dc = 38°11'50"
R = 150.00'
T = 59.81'
L = 113.83'
E = 11.49'
emax = 0.04

CURVE #3 DATA
P.I. = STA. 206+45.69
Δ = 10°00'05" LT
Dc = 02°00'01"
R = 2,864.38'
T = 250.64'
L = 500.00'
E = 10.94'
emax = 0.032

CURVE #4 DATA
P.I. = STA. 300+98.40
Δ = 23°45'00" LT
Dc = 38°12'10"
R = 149.98'
T = 31.54'
L = 62.17'
E = 3.28'
emax = 0.08

CURVE #5 DATA
P.I. = STA. 303+49.43
Δ = 35°42'03" RT
Dc = 16°30'08"
R = 347.20'
T = 111.81'
L = 216.34'
E = 17.56'
emax = 0.059

CENTERLINE R/W & CONSTRUCTION REFERENCES AND BENCHMARKS - U.S. 27								
POINT	ALIGNMENT	STATION	OFFSET (FT)	SIDE	US SURVEY FEET		ELEVATION	DESCRIPTION
					NORTHING	EASTING		
CP1001	U.S. 27	8+45.08	25.808	LEFT	507853.4184	112376.6851	889.72	IRON PIN SET
CP106	U.S. 27	8+58.46	85.7016	RIGHT	507898.8866	112479.3796	892.171	MAG NAIL SET
CP107	U.S. 27	10+05.51	95.4205	LEFT	507986.4111	112263.1203	897.726	MAG NAIL SET
CP104	U.S. 27	10+97.26	84.9804	RIGHT	508127.0424	112408.7044	900.528	MAG NAIL SET
SV5306	U.S. 27	11+94.08	47.0502	RIGHT	508209.7194	112341.4506	901.727	BENCHMARK FOUND
SV1234	S.R. 130	11+75.20	151.9263	LEFT	508225.7143	112446.9537	906.605	MONUMET BOX FOUND
CP105	U.S. 27	11+97.12	60.8221	LEFT	508176.5134	112238.7716	906.363	MAG NAIL SET
CP1003	U.S. 27	14+57.36	61.8559	LEFT	508409.4329	112139.6361	911.23	IRON PIN SET
CP116_1	U.S. 27	16+34.92	40.206	LEFT	508574.9278	112077.3333	914.136	IRON PIN SET
SV5274	U.S. 27	16+56.45	40.1338	LEFT	508593.9565	112067.2415	914.635	BENCHMARK FOUND
CP1002	U.S. 27	14+45.23	26.0811	RIGHT	508437.0569	112223.9835	909.63	IRON PIN SET
CP1011	U.S. 27	13+36.48	54.9766	RIGHT	508348.2247	112296.0262	907.9	IRON PIN SET
SV1494	LANES MILL RD.	13+13.59	85.7016	LEFT	508338.3428	112333.4599	905.098	CONCRETE MONUMENT SET
SV1493	LANES MILL RD.	13+64.30	85.7016	LEFT	508387.1666	112313.792	907.934	CONCRETE MONUMENT SET
SV1492	LANES MILL RD.	14+68.12	69.2489	LEFT	508477.0063	112252.5007	913.072	CONCRETE MONUMENT SET
SV1271	LANES MILL RD.	13+06.82	125.0054	RIGHT	508346.785	112372.5254	906.325	MONUMET BOX FOUND
MN215	U.S. 27	5+49.73	0.2765	RIGHT	507578.6793	112488.1638	891.807	MONUMET BOX FOUND
ODOT BUTLER COUNTY LOW DISTROTION PROJECTION								



NOTE:
THERE ARE NO EXISTING LANDSCAPED AREAS WITHIN THE WORK LIMITS.

HORIZONTAL SCALE IN FEET
0 25 50 100

SCHEMATIC PLAN
U.S. 27

BUT IR 75/VAR 5.22/VAR

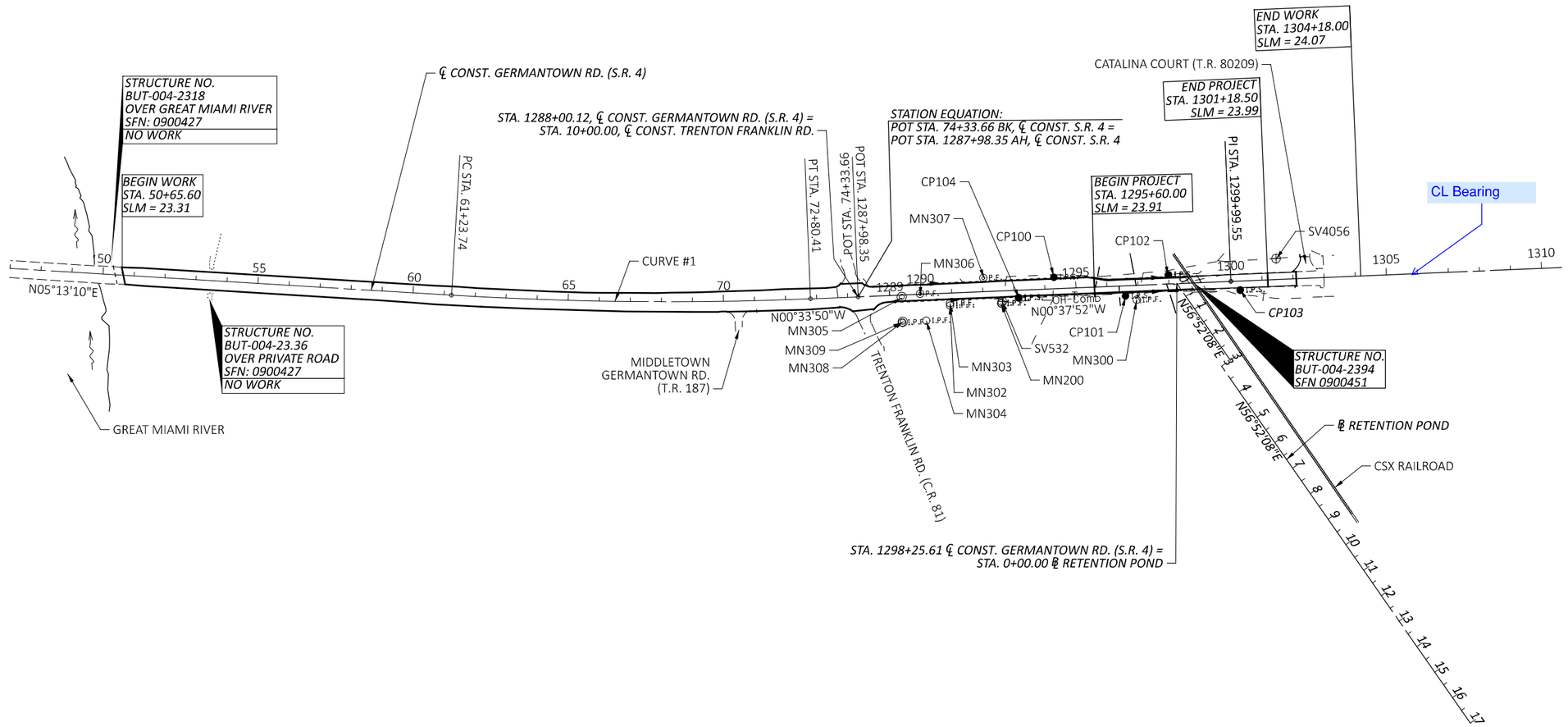
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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GB101.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	JRS
REVIEWER	SHT 08/29/25
PROJECT ID	117275
SHEET	P.003
TOTAL	194

CENTERLINE R/W & CONSTRUCTION REFERENCES AND BENCHMARKS - S.R. 4								
POINT	ALIGNMENT	STATION	OFFSET (FT)	SIDE	US SURVEY FEET		ELEVATION (FT)	DESCRIPTION
					NORTHING	EASTING		
MN309	S.R. 4	1289+36.68	88.27	RIGHT	545440.7284'	197023.4200'	655.49	IRON PIN FOUND
MN308	S.R. 4	1289+38.96	86.20	RIGHT	545442.6877'	197020.9587'	656.15	CONCRETE MONUMENT FOUND
MN305	S.R. 4	1289+38.73	5.84	RIGHT	545441.8746'	196940.9657'	655.16	CONCRETE MONUMENT FOUND
MN306	S.R. 4	1289+98.16	1.42	LEFT	545501.2214'	196933.0575'	654.50	IRON PIPE FOUND
MN304	S.R. 4	1290+14.36	85.67	RIGHT	545518.3736'	197019.9580'	655.23	IRON PIN FOUND
MN303	S.R. 4	1290+92.93	32.87	RIGHT	545596.3546'	196966.3036'	655.71	IRON PIN FOUND
MN302	S.R. 4	1290+93.01	40.03	RIGHT	545596.5211'	196973.4573'	655.95	IRON PIN FOUND
MN307	S.R. 4	1292+03.46	44.01	LEFT	545706.0356'	196888.2098'	654.28	IRON PIPE FOUND
MN200	S.R. 4	1292+58.07	39.98	RIGHT	545761.5651'	196971.5950'	654.59	IRON PIN FOUND
SV532	S.R. 4	1292+61.44	34.25	RIGHT	545764.8775'	196965.8267'	656.02	BENCHMARK FOUND
CP104	S.R. 4	1293+14.17	24.23	RIGHT	545817.4901'	196955.2208'	654.41	IRON PIN SET
CP100	S.R. 4	1294+30.66	36.66	LEFT	545933.2991'	196893.0546'	653.92	IRON PIN SET
CP101	S.R. 4	1296+58.65	32.92	RIGHT	546162.0503'	196960.1176'	653.60	IRON PIN SET
MN300	S.R. 4	1296+94.32	46.63	RIGHT	546197.8686'	196973.4403'	655.09	IRON PIN AND CAP FOUND
CP102	S.R. 4	1297+99.43	29.31	LEFT	546302.1277'	196896.3483'	653.35	IRON PIN SET
CP103	S.R. 4	1300+28.34	29.15	RIGHT	546531.6725'	196952.2750'	653.46	IRON PIN SET
SV4056	S.R. 4	1301+47.73	67.05	LEFT	546649.9907'	196854.7692'	659.22	BENCHMARK FOUND
ODOT BUTLER COUNTY LOW DISTORTION PROJECTION								

CURVE #1
P.I. = STA. 67+02.57
Δ = 05°47'00" LT
Dc = 00°30'00"
R = 11,459.16'
T = 578.83'
L = 1,156.67'
E = 14.61'



HORIZONTAL SCALE IN FEET
0 100 200 400

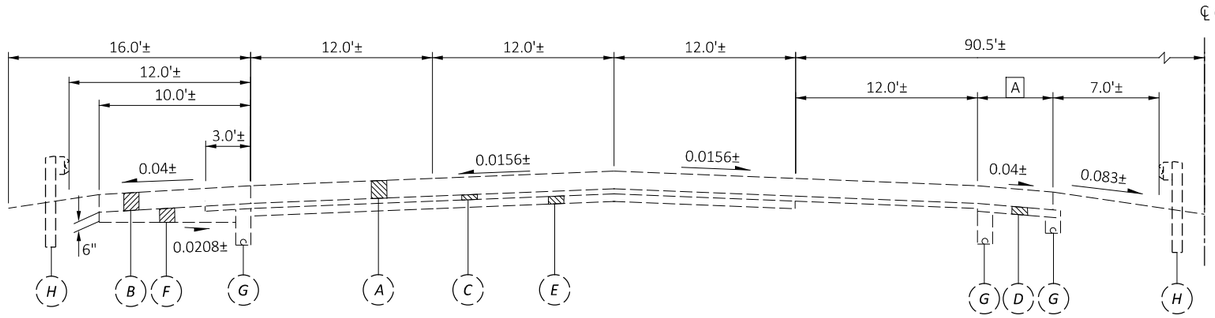
SCHEMATIC PLAN
S.R. 4

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.004 TOTAL 194

MODEL: CLX_SR-5 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:29:53 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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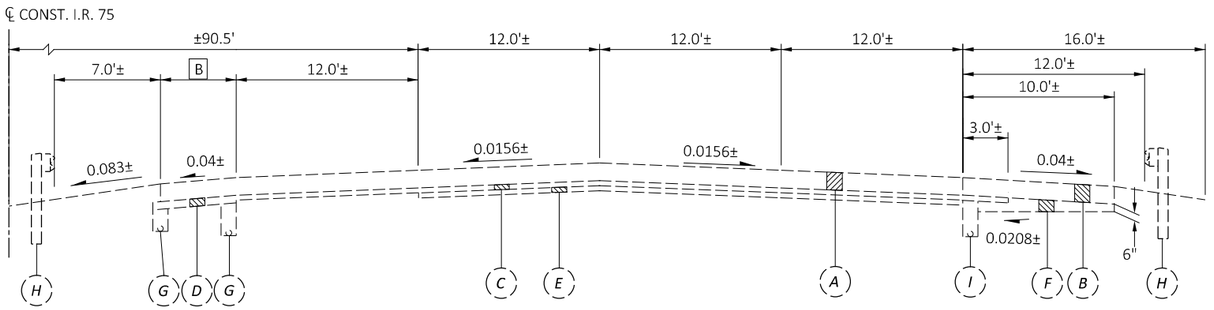


EXISTING NORMAL SECTION - I.R. 75 SB

STA. 275+01.04 TO STA. 291+06.80

EXISTING LEGEND (I.R. 75)

- (A) 14" REINFORCED CONCRETE PAVEMENT
- (B) 14" PLAIN CONCRETE PAVEMENT
- (C) 4" CEMENT OR ASPHALT TREATED FREE DRAINING BASE
- (D) 6" AGGREGATE BASE
- (E) 4" AGGREGATE BASE
- (F) AGGREGATE BASE (VARIABLE DEPTH)
- (G) 6" PIPE UNDERDRAIN
- (H) GUARDRAIL



EXISTING NORMAL SECTION - I.R. 75 NB

STA. 275+05.27 TO STA. 291+05.45

A 12.0'± FROM STA. 275+01.04 TO STA. 279+80.00
VARIES 12.0'± TO 4.0'± FROM STA. 279+80.00 TO STA. 280+80.00
4.0'± STA. 280+80.00 TO STA. 282+00.00
VARIES 4.0'± TO 12.0'± FROM STA. 282+00.00 TO STA. 287+60.00
12.0'± FROM STA. 287+60.00 TO STA. 291+06.80

B 12.0'± FROM STA. 275+05.27 TO STA. 275+80.00
VARIES 12.0'± TO 4.0'± FROM STA. 275+80.00 TO STA. 281+40.00
4.0'± STA. 281+40.00 TO STA. 282+50.00
VARIES 4.0'± TO 12.0'± FROM STA. 282+50.00 TO STA. 283+50.00
12.0'± FROM STA. 283+50.00 TO STA. 291+05.45

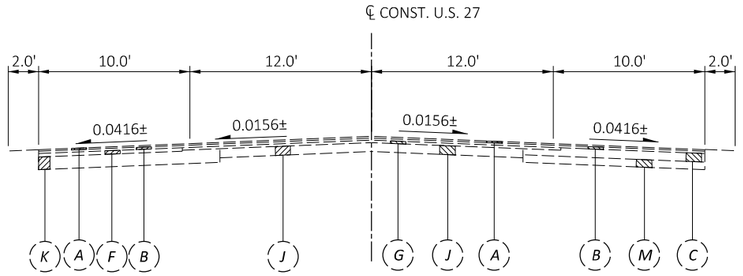
EXISTING TYPICAL SECTIONS - I.R.-75

BUT IR 75/VAR 5.22/VAR

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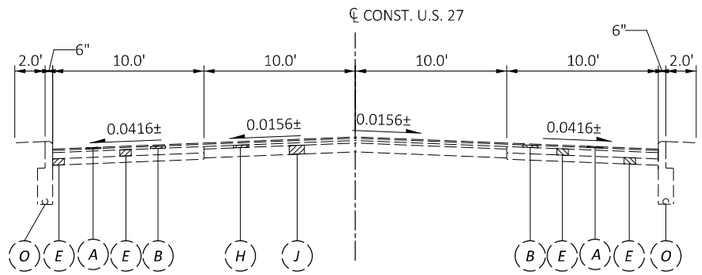
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.005
TOTAL	194



EXISTING NORMAL SECTION: U.S. 27

STA. 5+50.00 TO STA. 7+50.00



EXISTING NORMAL SECTION: U.S. 27

STA. 17+62.75 TO STA. 18+27.00

EXISTING LEGEND (U.S. 27 & S.R. 130)

- (A) 1.25" ASPHALT CONCRETE SURFACE COURSE
- (B) 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE
- (C) 7" ASPHALT CONCRETE BASE
- (D) 6" ASPHALT CONCRETE BASE
- (E) 5" ASPHALT CONCRETE BASE
- (F) 3" ASPHALT CONCRETE
- (G) 2" ASPHALT CONCRETE
- (H) VARIABLE DEPTH ASPHALT CONCRETE BASE
- (I) 10" REINFORCED CONCRETE PAVEMENT
- (J) 7" REINFORCED CONCRETE PAVEMENT
- (K) 10" AGGREGATE BASE
- (L) 8" AGGREGATE BASE
- (M) 6" AGGREGATE BASE
- (N) AGGREGATE BASE (VARIABLE DEPTH)
- (O) 6" PIPE UNDERDRAIN
- (P) CURB, TYPE 6
- (Q) BRIDGE ABUTMENT
- (R) GUARDRAIL

EXISTING TYPICAL SECTIONS - U.S. 27

BUT IR 75/VAR 5.22/VAR

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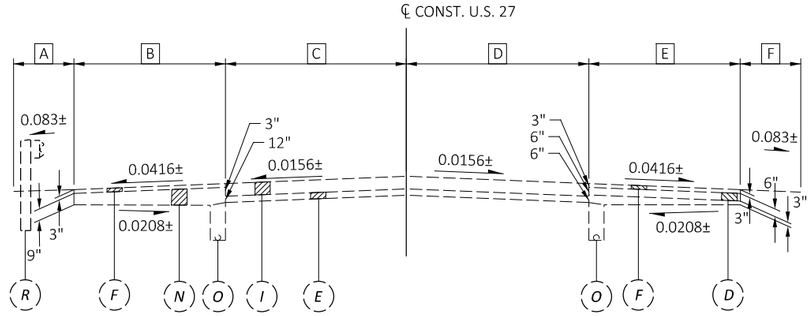
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP

REVIEWER CWP 08/29/25

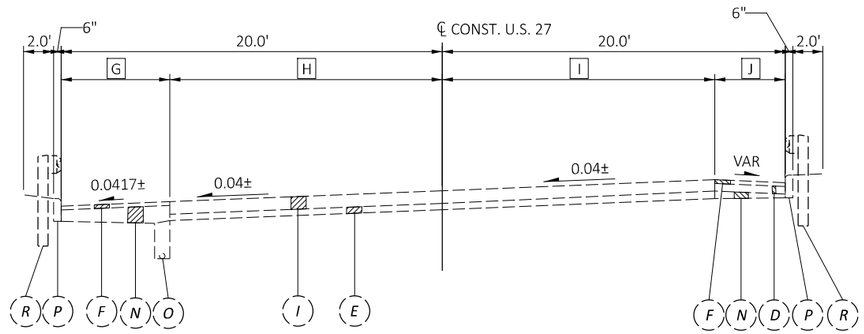
PROJECT ID 117275

SHEET P.006 TOTAL 194



EXISTING NORMAL SECTION: U.S. 27

STA. 7+50.00 TO STA. 9+41.50



EXISTING SUPEREVEVATED SECTION: U.S. 27

STA. 9+41.50 TO STA. 9+54.00 (RT.)
STA. 9+41.50 TO STA. 9+72.00 (LT.)
STA. 10+72.00 TO STA. 12+00.00 (RT.)
STA. 11+15.00 TO STA. 12+00.00 (LT.)

Where is the typical section that shows the permanent concrete barrier and the paved gutter for US 27?

A VARIES 0.0'± TO 4.0'± FROM STA. 7+50.00 TO STA. 8+25.00
4.0'± FROM STA. 9+00.00 TO STA. 9+41.50

B VARIES 4.0'± TO 10.0'± FROM STA. 7+50.00 TO STA. 8+25.00
10.0'± FROM STA. 9+00.00 TO STA. 9+41.50

C VARIES 10.5'± TO 12.0'± FROM STA. 7+50.00 TO STA. 8+25.00
VARIES 12.0'± TO 12.83'± FROM STA. 9+00.00 TO STA. 9+41.50

D VARIES 10.5'± TO 12.0'± FROM STA. 7+50.00 TO STA. 8+25.00
VARIES 12.0'± TO 12.83'± FROM STA. 9+00.00 TO STA. 9+41.50

E VARIES 4.0'± TO 10.0'± FROM STA. 7+50.00 TO STA. 8+25.00
10.0'± FROM STA. 9+00.00 TO STA. 9+41.50

F VARIES 0.0'± TO 4.0'± FROM STA. 7+50.00 TO STA. 8+25.00
4.0'± FROM STA. 9+00.00 TO STA. 9+41.50

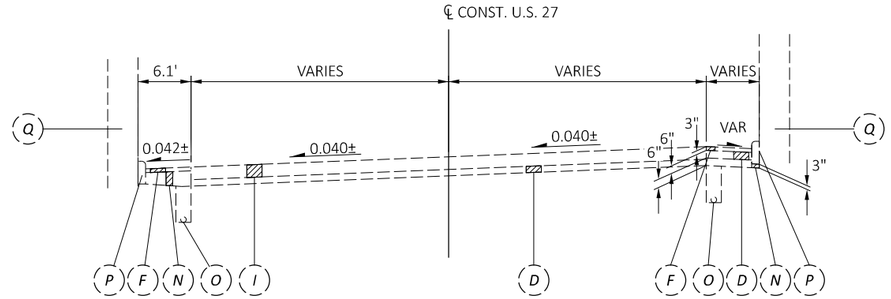
G VARIES 7.0'± TO 10.0'± FROM STA. 9+41.50 TO STA. 11+15.00
VARIES 2.0'± TO 7.0'± FROM STA. 11+50.00 TO STA. 12+00.00

H VARIES 12.83'± TO 16.30'± FROM STA. 9+41.50 TO STA. 11+15.00
VARIES 16.30'± TO 18.00'± FROM STA. 11+50.00 TO STA. 12+00.00

I VARIES 12.83'± TO 15.36'± FROM STA. 9+41.50 TO STA. 10+68.00
VARIES 15.36'± TO 18.00'± FROM STA. 11+50.00 TO STA. 12+00.00

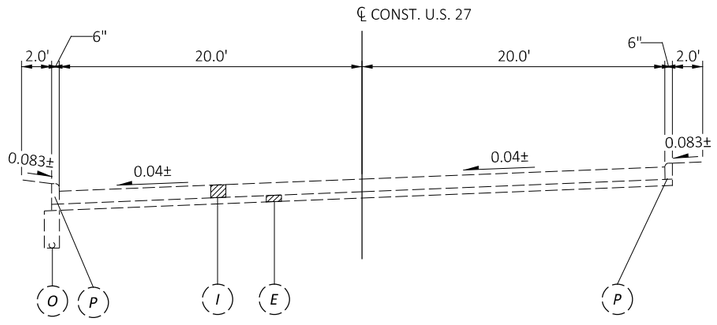
J VARIES 4.64'± TO 10.00'± FROM STA. 9+41.50 TO STA. 11+15.00
VARIES 2.0'± TO 4.64'± FROM STA. 11+50.00 TO STA. 12+00.00

Reminder that shoulder design meets criteria discussed in email 8/30/2024. pw:\\ohiodot-pw.bentley.com:ohiodot-pw-02\Documents\01 Active Projects\District 08\Butler\117275\950-Reviews\Stage 2\Comments\117275-Roadway Design Review-8-30-24.pdf



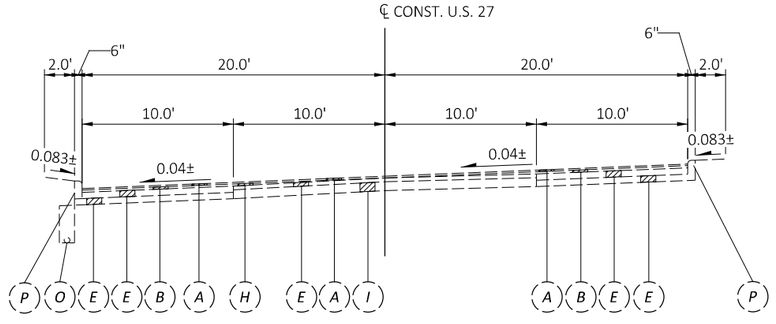
EXISTING SUPERELEVATED SECTION: U.S. 27

STA. 9+54.00 TO STA. 10+72.00 (RT.)
STA. 9+72.00 TO STA. 11+15.00 (LT.)



EXISTING SUPEREVEVATED SECTION: U.S. 27

STA. 12+00.00 TO STA. 14+50.00



EXISTING SUPEREVEVATED SECTION: U.S. 27

STA. 14+50.00 TO STA. 17+62.75

NOTES:
1. FOR EXISTING LEGEND (U.S. 27), SEE SHEET P.6

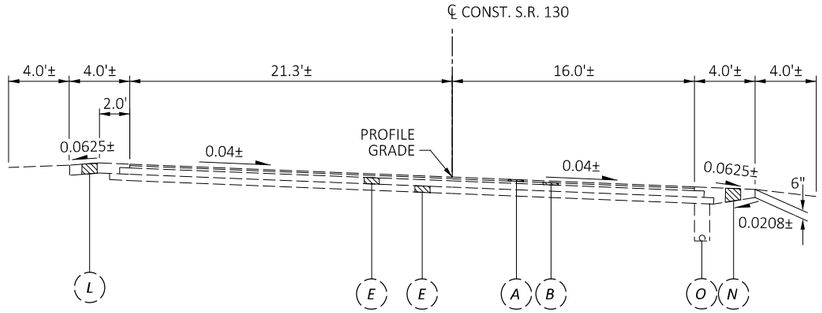
EXISTING TYPICAL SECTIONS - U.S. 27

BUT IR 75/VAR 5.22/VAR

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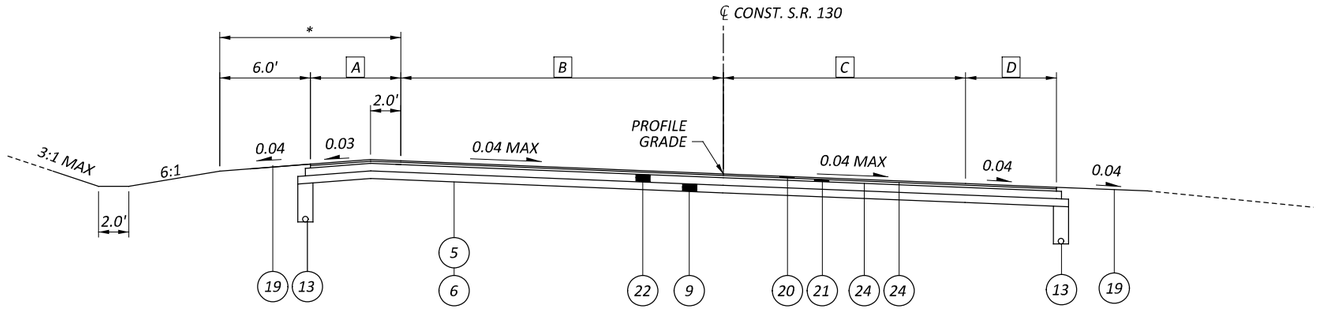
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.007 TOTAL 194



EXISTING SUPEREVEVATED SECTION- S.R. 130

STA. 200+21.22 TO STA. 202+25.00



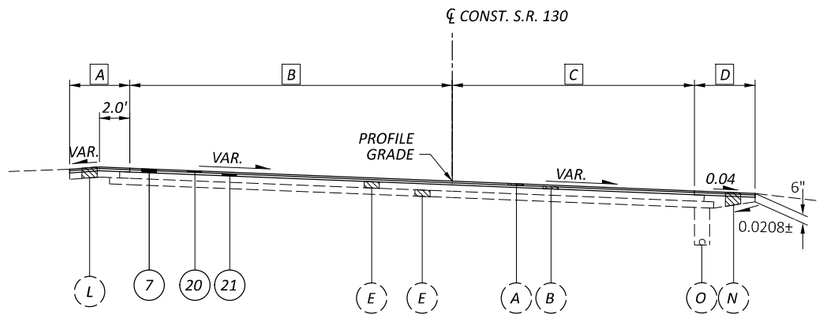
DITCH - FROM STA. 201+20.00 TO 201+80.00

SUPEREVEVATED SECTION- S.R. 130

STA. 200+17.82 TO STA. 201+90.00

**LANES MILL ROAD INTERSECTION FROM STA. 200+43.44 TO STA. 201+26.92*

The maximum underdrain spacing is 24'



RESURFACING SUPEREVEVATED SECTION- S.R. 130

STA. 201+90.00 TO STA. 202+25.00

NOTES:
1. FOR PROPOSED LEGEND, SEE SHEET P.11

EXISTING LEGEND (U.S 27 & S.R. 130)

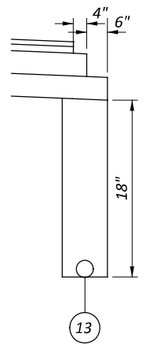
- (A) 1.25" ASPHALT CONCRETE SURFACE COURSE
- (B) 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE
- (C) 7" ASPHALT CONCRETE BASE
- (D) 6" ASPHALT CONCRETE BASE
- (E) 5" ASPHALT CONCRETE BASE
- (F) 3" ASPHALT CONCRETE
- (G) 2" ASPHALT CONCRETE
- (H) VARIABLE DEPTH ASPHALT CONCRETE BASE
- (I) 10" REINFORCED CONCRETE PAVEMENT
- (J) 7" REINFORCED CONCRETE PAVEMENT
- (K) 10" AGGREGATE BASE
- (L) 8" AGGREGATE BASE
- (M) 6" AGGREGATE BASE
- (N) AGGREGATE BASE (VARIABLE DEPTH)
- (O) 6" PIPE UNDERDRAIN
- (P) CURB, TYPE 6
- (Q) BRIDGE ABUTMENT
- (R) GUARDRAIL

[A] 2.0' FROM STA. 200+17.82 TO STA. 200+43.44
6.0' FROM STA. 201+26.92 TO STA. 10+97.37
VARIES 6.0'± TO 1.3'± FROM STA. 201+97.33 TO STA. 202+25.00

[B] VARIES 48.4' (SKEWED) TO 20.0' FROM STA. 202+17.82 TO STA. 200+43.44
VARIES 20.0' TO 17.4' FROM STA. 200+43.44 TO STA. 201+26.92
VARIES 17.4' TO 12.0' FROM STA. 201+26.92 TO STA. 202+25.00

[C] VARIES 88.0' (SKEWED) TO 14.4' FROM STA. 200+17.82 TO STA. 200+95.16
VARIES 14.4' TO 11.6' FROM STA. 200+95.16 TO STA. 201+90.00
VARIES 11.6' TO 9.5' FROM STA. 201+90.00 TO STA. 202+25.00

[D] VARIES 4.2' TO 4.0' FROM STA. 200+17.82 TO STA. 201+06.31
4.0' FROM STA. 201+06.31 TO STA. 201+90.00
VARIES 4.0' TO 2.8' FROM STA. 201+90.00 TO STA. 202+25.00



STEP DETAIL

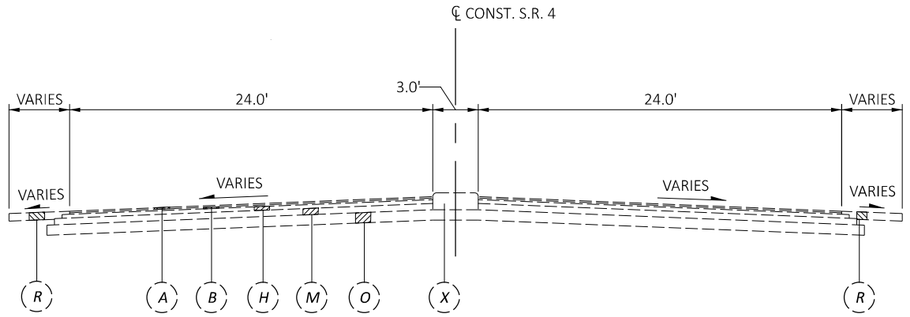
EXISTING AND PROPOSED TYPICAL SECTIONS - S.R. 130

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.008 TOTAL 194

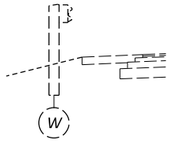
BUT IR 75/VAR 5.22/VAR

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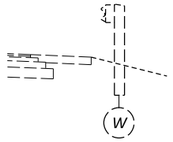


EXISTING NORMAL SECTION: S.R. 4

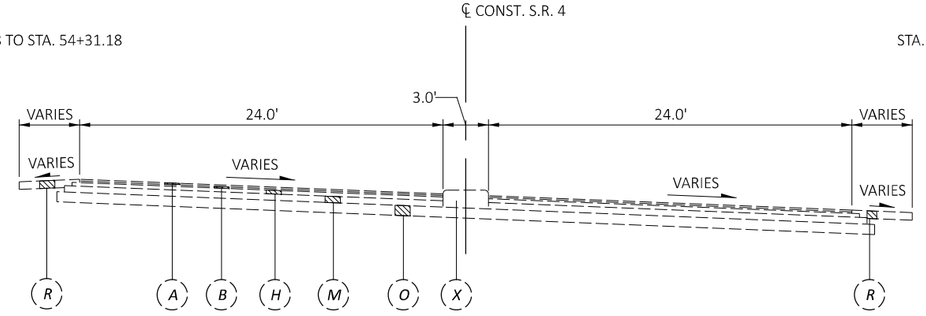
STA. 50+65.60 TO STA. 58+25.00



STA. 50+58.28 TO STA. 54+31.18

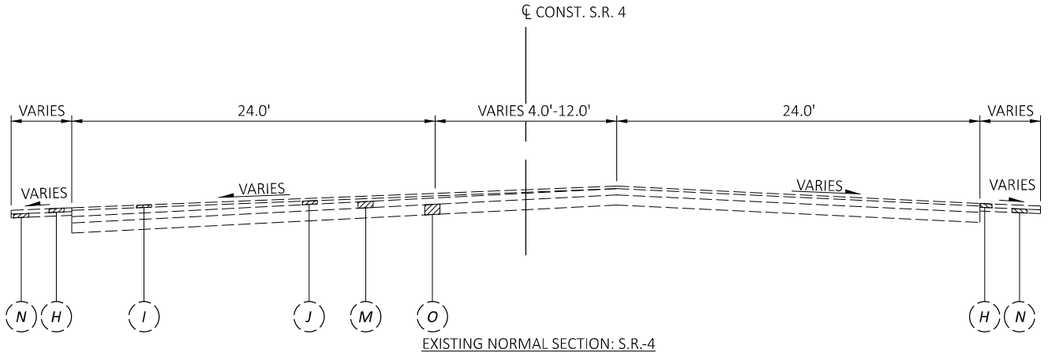


STA. 50+73.78 TO STA. 56+50.98



EXISTING SUPERELEVATED SECTION: S.R. 4

STA. 58+25.00 TO STA. 67+11.00



EXISTING NORMAL SECTION: S.R.-4

STA. 67+11.00 TO STA. 74+33.66



STA. 73+79.15 TO STA. 74+33.66



STA. 73+73.62 TO STA. 74+14.40



STA. 74+14.40 TO STA. 74+33.66

EXISTING LEGEND (S.R. 4)

- (A) 1.25" ASPHALT CONCRETE SURFACE COURSE
- (B) 1.25" ASPHALT CONCRETE INTERMEDIATE COURSE
- (C) 1.5" ASPHALT CONCRETE SURFACE COURSE
- (D) 1.5" ASPHALT CONCRETE INTERMEDIATE COURSE
- (E) 1" (AVG) ASPHALT CONCRETE INTERMEDIATE COURSE
- (F) 6" ASPHALT CONCRETE BASE
- (G) 5.5" ASPHALT CONCRETE
- (H) 3" ASPHALT CONCRETE BASE
- (I) 2" ASPHALT CONCRETE
- (J) VARIABLE DEPTH ASPHALT CONCRETE BASE
- (K) 7" REINFORCED CONCRETE PAVEMENT
- (L) 6" AGGREGATE BASE
- (M) 5" AGGREGATE BASE
- (N) 3" AGGREGATE BASE
- (O) 8" SUBBASE
- (P) 5" SUBBASE
- (Q) 8" CRUSHED AGGREGATE BASE
- (R) 6" STABILIZED CRUSHED AGGREGATE
- (S) 6" PIPE UNDERDRAIN
- (T) RETAINING WALL
- (U) COMBINATION CURB AND GUTTER, TYPE 2
- (V) BRIDGE ABUTMENT
- (W) GUARDRAIL
- (X) CONCRETE MEDIAN
- (Y) 4" CONCRETE WALK

EXISTING TYPICAL SECTIONS - S.R. 4

BUT IR 75/VAR 5.22/VAR

MODEL: Sheet 1 PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:29:59 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: tfis@cvelimited.com
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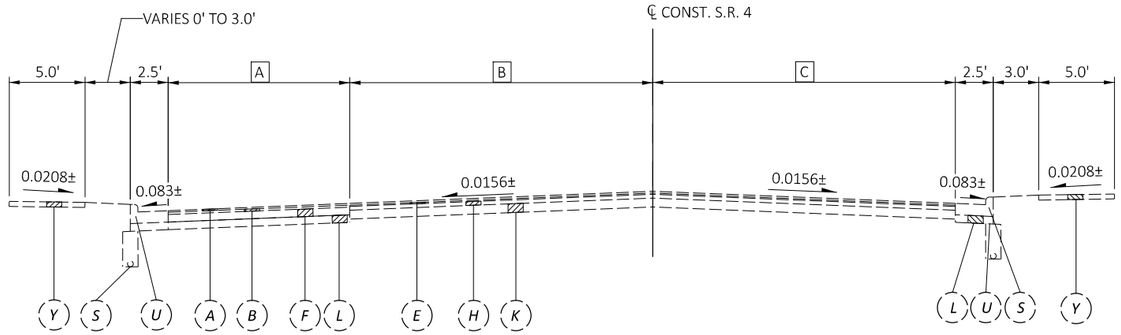
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP

REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.009 | TOTAL 194



EXISTING NORMAL SECTION: S.R. 4

STA. 1287+98.35 TO STA. 1296+01.30

TRENTON FRANKLIN RD. INTERSECTION

STA. 1287+98.35 TO STA. 1288+12.59

TRENTON FRANKLIN RD. INTERSECTION

STA. 1287+98.35 TO STA. 1288+48.75

A
26.9' FROM STA. 1287+98.35 TO STA. 1288+12.59
26.9' TO 13.3' FROM STA. 1288+12.59 TO STA. 1288+46.91
13.3' TO 13.9' FROM STA. 1288+46.91 TO STA. 1295+39.54
13.9' TO 0.0' FROM STA. 1295+39.54 TO STA. 1296+01.30

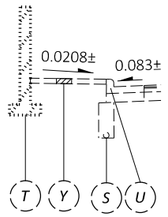
B
16.8' FROM STA. 1287+98.35 TO STA. 1288+12.59
16.8' TO 18.3' FROM STA. 1288+12.59 TO STA. 1295+39.54
18.3' TO 20.0' FROM STA. 1295+39.54 TO STA. 1296+01.30

C
44.8' TO 41.4' FROM STA. 1287+98.35 TO STA. 1288+48.75
41.4' TO 20.1' FROM STA. 1288+48.75 TO STA. 1289+11.07
20.1' TO 20.0' FROM STA. 1289+11.07 TO STA. 1296+01.30

D
20.0' TO 20.7' FROM STA. 1296+01.30 TO STA. 1298+34.51
22.2' TO 22.4' FROM STA. 1298+34.51 TO STA. 1302+10.00

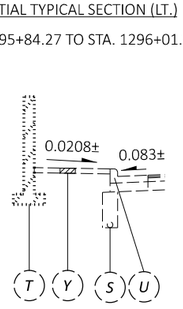
E
20.0' TO 20.2' FROM STA. 1296+01.30 TO STA. 1298+46.44
22.9' TO 23.1' FROM STA. 1298+46.44 TO STA. 1302+10.00

F
3.0' FROM STA. 1296+01.30 TO STA. 1297+60.64
0.0' FROM STA. 1297+60.64 TO STA. 1298+46.44



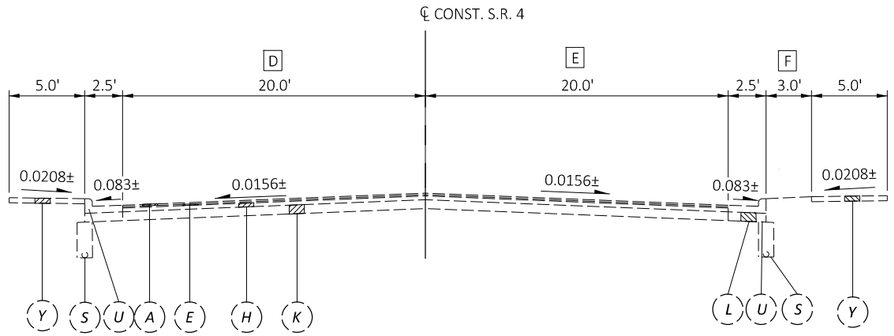
PARTIAL TYPICAL SECTION (LT.)

STA. 1295+84.27 TO STA. 1296+01.30



PARTIAL TYPICAL SECTION (LT.)

STA. 1296+01.30 TO STA. 1296+76.13

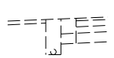


EXISTING NORMAL SECTION: S.R. 4

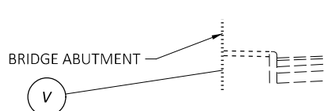
STA. 1296+01.30 TO STA. 1302+10.00



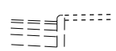
STA. 1298+34.51 TO STA. 1298+41.28
&
STA. 1298+96.17 TO STA. 1301+64.38



STA. 1301+64.38 TO STA. 1302+10.00



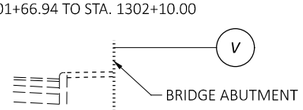
STA. 1298+41.28 TO STA. 1298+96.17



STA. 1298+46.44 TO STA. 1298+74.62
&
STA. 1299+29.94 TO STA. 1301+66.94



STA. 1301+66.94 TO STA. 1302+10.00



STA. 1298+74.62 TO STA. 1299+29.94

NOTES:
1. FOR EXISTING LEGEND (S.R. 4), SEE SHEET P.9

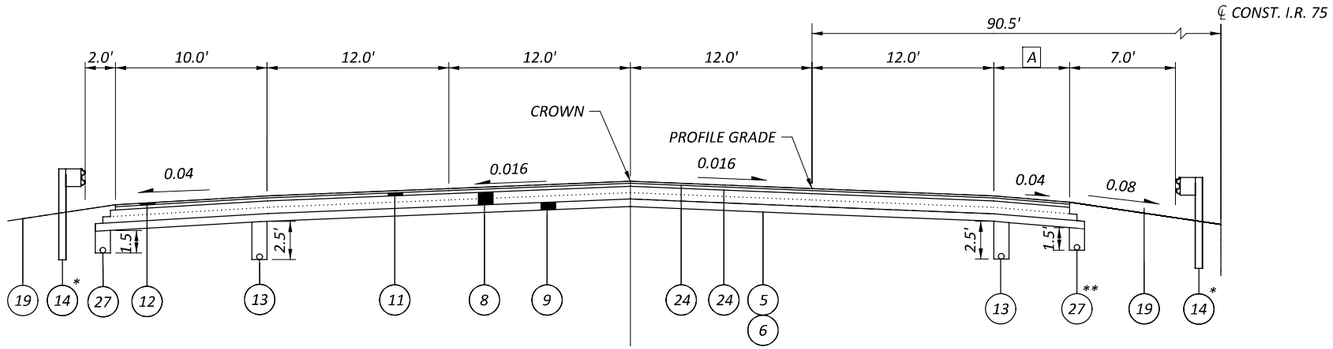
EXISTING TYPICAL SECTIONS

BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GY201.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.010 TOTAL 195

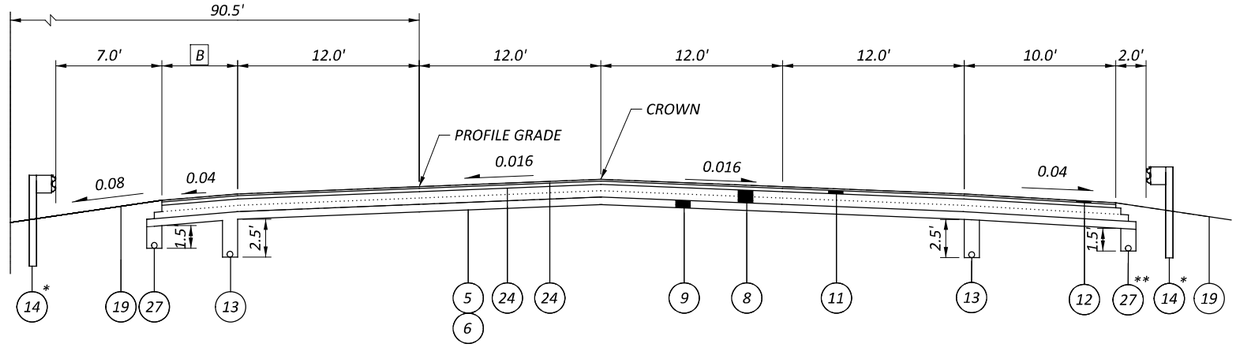


PROPOSED NORMAL SECTION: I.R. 75 SB

STA. 275+01.04 TO STA. 291+06.80
UNDERDRAIN BEGINS STA. 275+05.00
UNDERDRAIN ENDS STA. 291+02.00

* - *LEFT: STA. 282+08.83 TO STA. 288+21.91*
RIGHT: STA. 282+40.90 TO STA. 284+47.71

** - *ENDS AT STA. 281+00.00*
RESUMES AT STA. 283+06.47

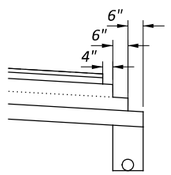


PROPOSED NORMAL SECTION: I.R. 75 NB

STA. 275+05.27 TO STA. 291+05.45
UNDERDRAIN BEGINS STA. 275+10.00
UNDERDRAIN ENDS STA. 291+00.00

* - *LEFT: STA. 279+61.00 TO STA. 281+65.40*
RIGHT: STA. 280+09.37 TO STA. 282+00.33

** - *ENDS AT STA. 281+00.00*
RESUMES AT STA. 283+50.17



STEP DETAIL

PROPOSED LEGEND

1. *ITEM 202 - PAVEMENT REMOVED*
2. *ITEM 202 - CURB REMOVED*
3. *ITEM 202 - WALK REMOVED*
4. *ITEM 203 - EXCAVATION*
5. *ITEM 204 - SUBGRADE COMPACTION*
6. *ITEM 204 - PROOF ROLLING*
7. *ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 3”*
8. *ITEM 302- 10" ASPHALT CONCRETE BASE, PG 64-22, (449) (2 LIFTS - 5" PER LIFT)*
9. *ITEM 304 - 6" AGGREGATE BASE*
10. *ITEM 407 - TACK COAT, 702.13*
11. *ITEM 442 - 2.5" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A (448)*
12. *ITEM 442 - 1.5" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (448)*
13. *ITEM 605 - 6” SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC*
14. *ITEM 606 - GUARDRAIL, TYPE MGS*
15. *ITEM 608 - 4”CONCRETE WALK*
16. *ITEM 609 - COMBINATION CURB AND GUTTER, TYPE 2*
17. *ITEM 609 - CURB, TYPE 6*
18. *ITEM 622 - CONCRETE BARRIER, SINGLE SLOPE, TYPE D*
19. *ITEM 659 - SEEDING AND MULCHING*
20. *ITEM 441 - 1.25" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22*
21. *ITEM 441 - 1.75" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)*
22. *ITEM 301 - 6" ASPHALT CONCRETE BASE, PG64-22, (449)*
23. *ITEM 204 - GEOGRID*
24. *ITEM 407 - NON-TRACKING TACK COAT*
25. *ITEM 204 - EXCAVATION OF SUBGRADE, 14" DEEP*
26. *ITEM 204 - GRANULAR MATERIAL , TYPE C, AS PER PLAN*
27. *ITEM 605 - 6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC*
28. *ITEM 304 - 8" AGGREGATE BASE*
29. *ITEM 441 - ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1,(448) (VARIABLE THICKNESS)*
30. *ITEM 601 - PAVED GUTTER, TYPE 1-2*
31. *ITEM 609 - CURB, TYPE 7*
32. *PROPOSED WALL*

* *MATCH EXISTING TOP OF CURB ELEVATION*

GDM 605 requires chemical stabilization on all interstates more than 1-mile in project length. Although this project will be less than 1-mile, subgrade stabilization is required on main line I75. It is recommended that 14 inches of cement stabilized subgrade is utilized. Subgrade compaction is not sufficient.

Subgrade treatment is missing for all locations

A *12.0' FROM STA. 275+01.04 TO STA. 280+10.00*
VARIES 12.0' TO 4.0' FROM STA. 280+10.00 TO STA. 281+10.00
4.0' STA. 281+10.00 TO STA. 282+30.00
VARIES 4.0' TO 12.0' FROM STA. 282+30.00 TO STA. 288+00.00
12.0' FROM STA. 288+00.00 TO STA. 291+06.80

B *12.0' FROM STA. 275+05.27 TO STA. 276+10.00*
VARIES 12.0' TO 4.0' FROM STA. 276+10.00 TO STA. 281+80.00
4.0' STA. 281+80.00 TO STA. 282+80.00
VARIES 4.0' TO 12.0' FROM STA. 282+80.00 TO STA. 283+80.00
12.0' FROM STA. 283+80.00 TO STA. 291+05.45

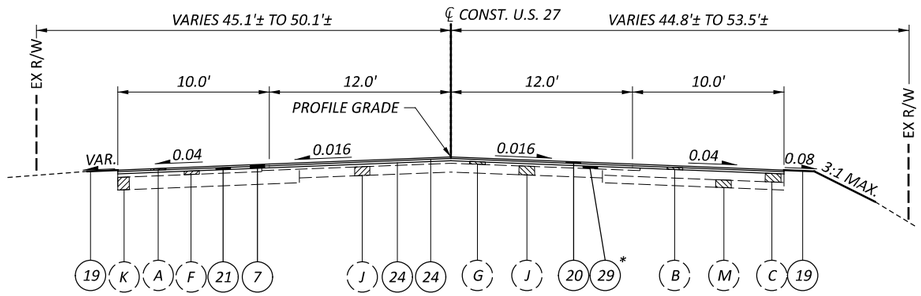
PROPOSED TYPICAL SECTIONS - I.R. 75

BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GY302.dgn

DESIGN AGENCY
CVE
CHAGRIN VALLEY ENGINEERING, LTD.

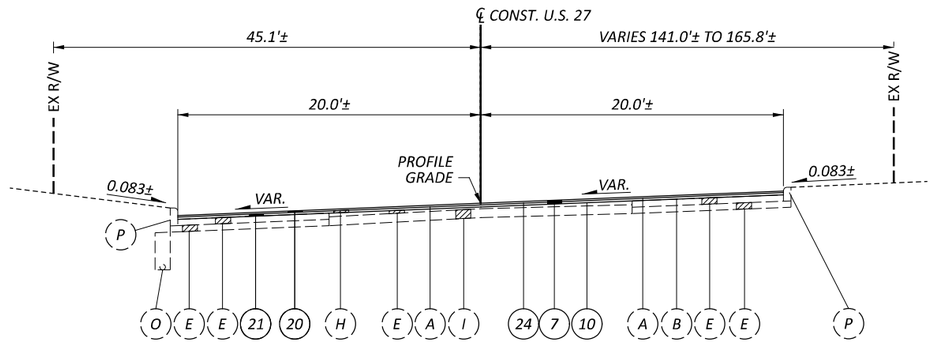
DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.011 TOTAL 194



RESURFACING NORMAL SECTION - U.S. 27

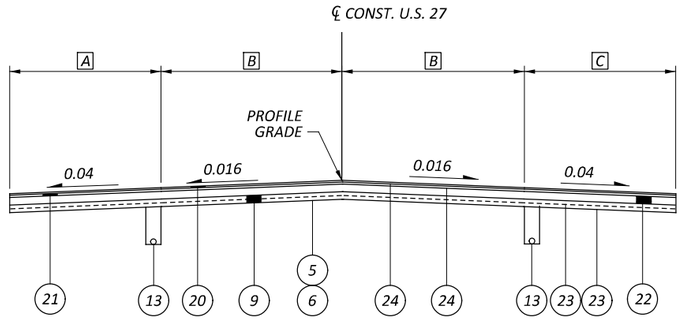
STA. 5+50.00 TO STA. 7+40.00

* - STA. 6+50.00 TO STA. 7+40.00



RESURFACING SUPERELEVATED SECTION - U.S. 27

STA. 16+35.00 TO STA. 16+84.72



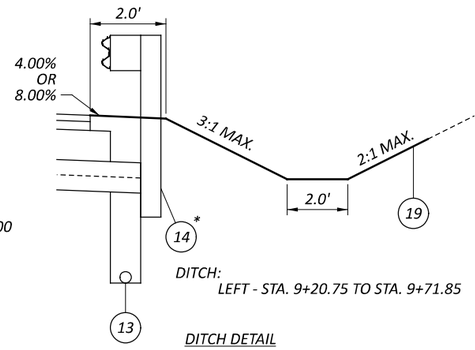
PROPOSED NORMAL SECTION - U.S. 27

STA. 7+40.00 TO STA. 9+90.00

A 10.0' FROM STA. 7+40.00 TO STA. 7+50.00
VARIES 10.0' TO 4.0' FROM STA. 7+50.00 TO STA. 9+52.50
4.0' FROM STA. 9+52.50 TO STA. 11+59.21
VARIES FROM 4.0' TO 2.0' FROM STA. 11+59.21 TO STA. 13+00.00
2.0' FROM STA. 13+00.00 TO STA. 15+48.00

B 12.0' FROM STA. 7+50.00 TO STA. 10+97.50
VARIES FROM 12.0' TO 18.0' FROM STA. 10+97.50 TO STA. 13+00.00
18.0' FROM STA. 13+00.00 TO STA. 16+35.00

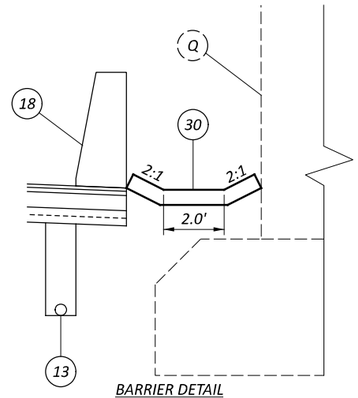
C 10.0' FROM STA. 7+40.00 TO STA. 7+50.00
VARIES 10.0' TO 4.0' FROM STA. 7+50.00 TO STA. 9+52.50
4.0' FROM STA. 9+52.50 TO STA. 11+86.70
2.0' FROM STA. 13+22.10 TO STA. 16+35.00



DITCH DETAIL

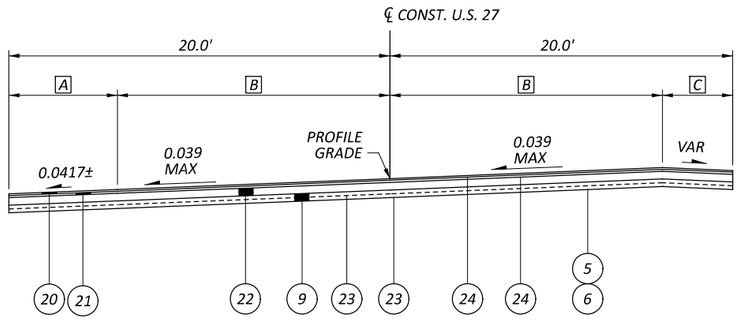
LEFT - STA. 7+40.00 TO STA. 9+71.85
RIGHT - STA. 7+40.00 TO STA. 8+15.65

* - LEFT - STA. 9+09.59 TO STA. 9+71.85



BARRIER DETAIL

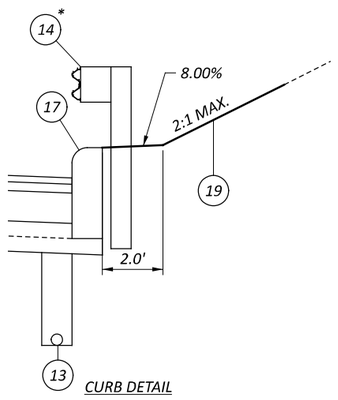
LEFT - STA. 9+71.85 TO STA. 11+40.00
RIGHT - STA. 9+27.57 TO STA. 11+00.00



PROPOSED SUPERELEVATED SECTION - U.S. 27

STA. 9+90.00 TO STA. 16+35.00

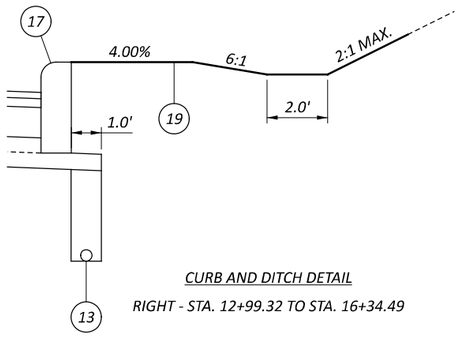
underdrains are needed



CURB DETAIL

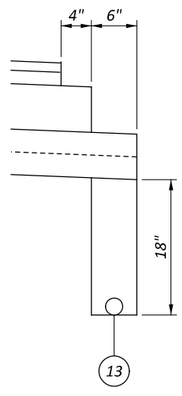
LEFT:
STA. 11+40.00 TO STA. 15+48.22
RIGHT:
STA. 8+15.64 TO STA. 9+27.57
STA. 11+00.00 TO STA. 12+08.61

* - LEFT:
STA. 11+40.00 TO STA. 12+65.47
RIGHT:
STA. 8+15.64 TO STA. 9+27.57
STA. 11+00.00 TO STA. 11+72.48



CURB AND DITCH DETAIL

RIGHT - STA. 12+99.32 TO STA. 16+34.49



STEP DETAIL

NOTES:
1. FOR PROPOSED LEGEND, SEE SHEET P.11

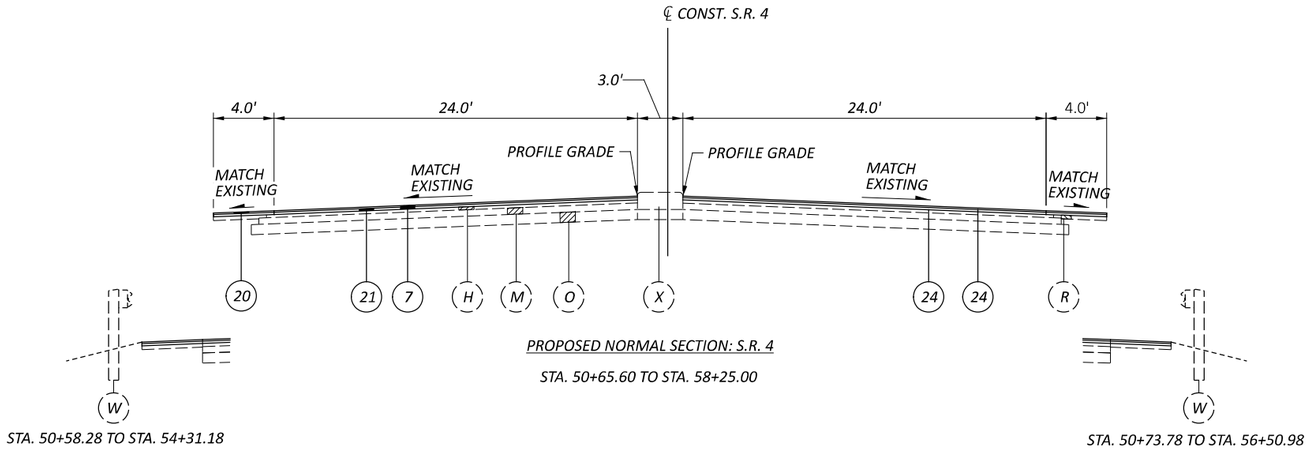
PROPOSED TYPICAL SECTIONS - U.S. 27

BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GY102.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.012 TOTAL 194

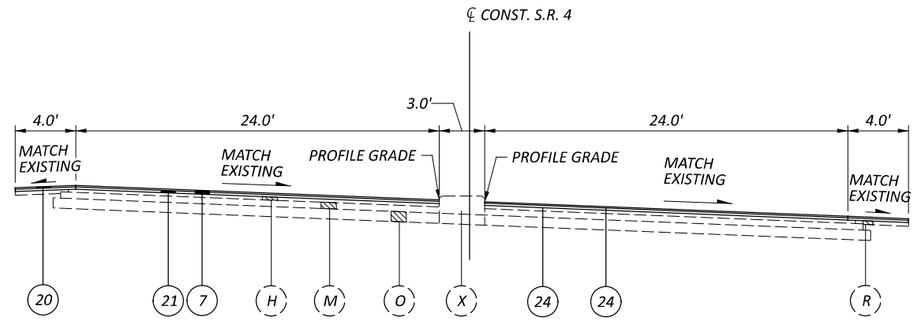


PROPOSED NORMAL SECTION: S.R. 4

STA. 50+65.60 TO STA. 58+25.00

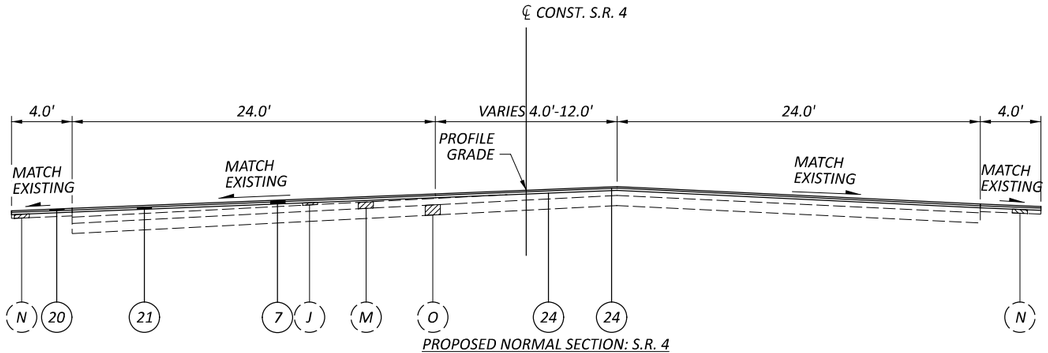
STA. 50+58.28 TO STA. 54+31.18

STA. 50+73.78 TO STA. 56+50.98



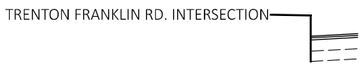
PROPOSED SUPERELEVATED SECTION: S.R. 4

STA. 58+25.00 TO STA. 67+11.00



PROPOSED NORMAL SECTION: S.R. 4

STA. 67+11.00 TO STA. 74+33.66



STA. 73+79.15 TO STA. 74+33.66



STA. 73+73.62 TO STA. 74+14.40



STA. 74+14.40 TO STA. 74+33.66

NOTES:
1. FOR PROPOSED LEGEND, SEE SHEET P.11.

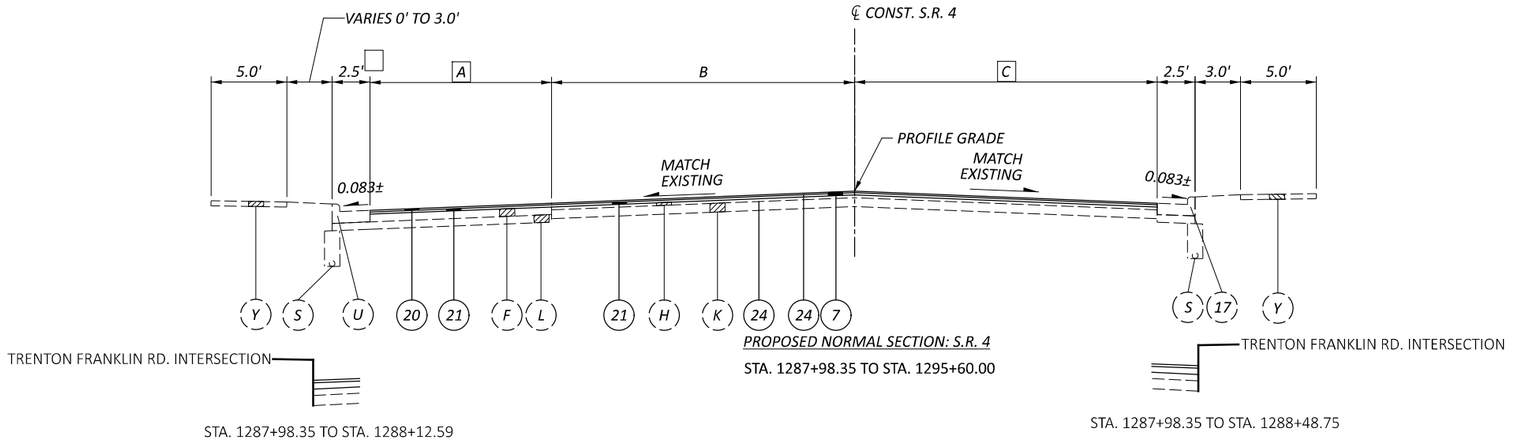
PROPOSED TYPICAL SECTIONS - S.R. 4

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.013 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GY202.dgn



PROPOSED NORMAL SECTION: S.R. 4

STA. 1287+98.35 TO STA. 1295+60.00

STA. 1287+98.35 TO STA. 1288+12.59

STA. 1287+98.35 TO STA. 1288+48.75

A
26.9' FROM STA. 1287+98.35 TO STA. 1288+12.59
26.9' TO 13.3' FROM STA. 1288+12.59 TO STA. 1288+46.91
13.3' TO 13.9' FROM STA. 1288+46.91 TO STA. 1295+39.54
13.9' TO 9.7' FROM STA. 1295+39.54 TO STA. 1295+60.00

B
16.8' FROM STA. 1287+98.35 TO STA. 1288+12.59
16.8' TO 18.3' FROM STA. 1288+12.59 TO STA. 1295+39.54
18.3' FROM STA. 1295+39.54 TO STA. 1295+60.00

C
44.8' TO 41.4' FROM STA. 1287+98.35 TO STA. 1288+48.75
41.4' TO 20.1' FROM STA. 1288+48.75 TO STA. 1289+11.07
20.1' TO 19.9' FROM STA. 1289+11.07 TO STA. 1295+60.00

D
28.2' TO 20.0' FROM STA. 1295+60.00 TO STA. 1296+01.30
20.0' TO 19.2' FROM STA. 1296+01.30 TO STA. 1297+55.00
19.2' FROM STA. 1294+55.00 TO STA. 1298+95.00
19.2' TO 21.3' FROM STA. 1298+95.00 TO STA. 1301+18.50

E
19.9' TO 19.8' FROM STA. 1295+60.00 TO STA. 1297+63.00
19.8' FROM STA. 1297+63.00 TO STA. 1299+28.00
19.8' TO 21.9' FROM STA. 1299+28.00 TO STA. 1300+50.00
21.9' FROM STA. 1300+50.00 TO STA. 1301+18.50

F
2.5' FROM STA. 1295+60.00 TO STA. 1298+16.50
2.5' TO 1.0' FROM STA. 1298+16.50 TO STA. 1298+41.28
1.0' TO 0.5' FROM STA. 1298+41.28 TO STA. 1298+50.00

G
2.5' FROM STA. 1295+60.00 TO STA. 1298+30.00
2.5' TO 0.5' FROM STA. 1298+30.00 TO STA. 1298+76.00

H
7.0' TO 4.0' FROM STA. 1295+60.00 TO STA. 1295+96.21
4.0' TO 5.0' FROM STA. 1295+96.21 TO STA. 1295+01.30
5.0' TO 6.0' FROM STA. 1296+01.30 TO STA. 1297+55.00
6.0' FROM STA. 1294+55.00 TO STA. 1301+18.50

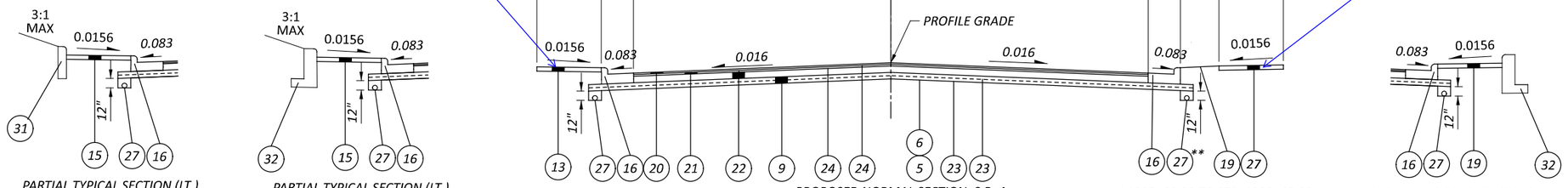
I
4.8' TO 5.0' FROM STA. 1295+60.00 TO STA. 1297+63.53
5.0' TO 4.4' FROM STA. 1297+63.53 TO STA. 1298+34.07
6.0' FROM STA. 1298+34.07 TO STA. 1301+18.50

Minimum curb attached sidewalk in a commerical setting is 8'.

Can an 8' curb attached sidewalk be provided?

Minimum buffer on a 45 mph roadway is 6'.

Minimum sidewalk width in a commercial setting is 6'.



PARTIAL TYPICAL SECTION (LT.)

STA. 1295+83.11 TO STA. 1295+96.37

PARTIAL TYPICAL SECTION (LT.)

STA. 1296+00.68 TO STA. 1296+77.16
STA. 1297+03.69 TO STA. 1298+17.59

PROPOSED NORMAL SECTION: S.R. 4

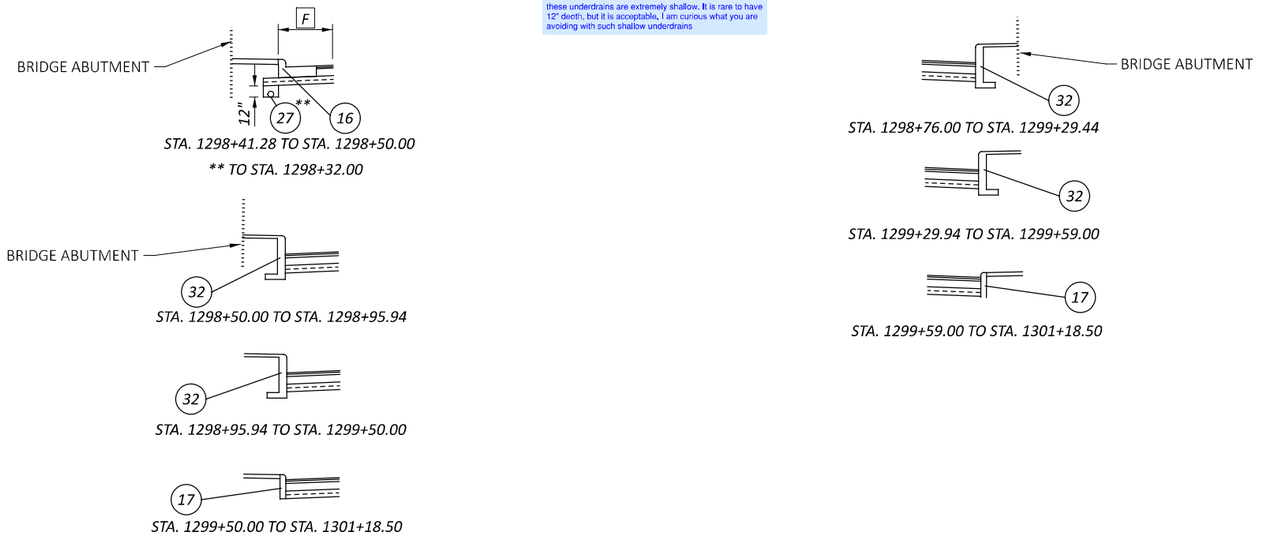
STA. 1295+60.00 TO STA. 1301+18.50

these underdrains are extremely shallow. It is rare to have 12" depth, but it is acceptable. I am curious what you are avoiding with such shallow underdrains

** 1295+60.00 TO STA. 1298+42.00

PARTIAL TYPICAL SECTION (RT.)

STA. 1296+51.00 TO STA. 1297+75.20



STA. 1298+41.28 TO STA. 1298+50.00

*** TO STA. 1298+32.00*

STA. 1298+50.00 TO STA. 1298+95.94

STA. 1298+95.94 TO STA. 1299+50.00

STA. 1299+50.00 TO STA. 1301+18.50

STA. 1298+76.00 TO STA. 1299+29.44

STA. 1299+29.94 TO STA. 1299+59.00

STA. 1299+59.00 TO STA. 1301+18.50

NOTES:
1. FOR EXISTING LEGEND (S.R. 4), SEE SHEET P.9.
1. FOR PROPOSED LEGEND (S.R. 4), SEE SHEET P.11.

PROPOSED TYPICAL SECTIONS - S.R. 4

BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GY202.dgn

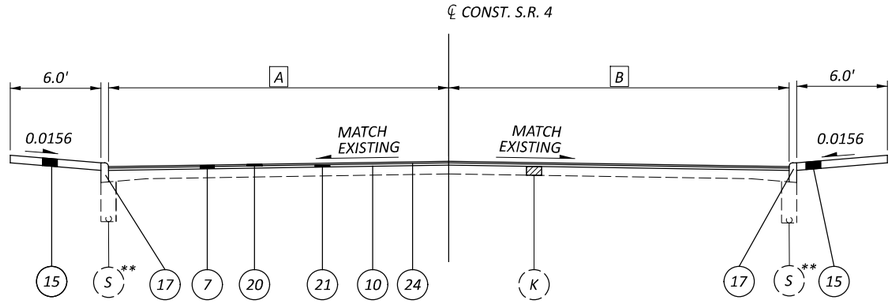
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP

REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.014 TOTAL 194

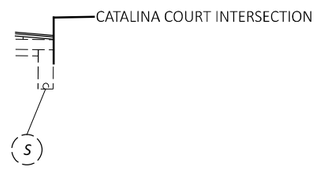


PROPOSED NORMAL SECTION: S.R. 4

STA. 1301+18.50 TO STA. 1302+10.00
*** STA. 1301+71.00 TO STA. 1302+10.00*



STA. 1301+98.67 TO STA. 1302+10.00



STA. 1302+05.50 TO STA. 1302+10.00

A *21.3' TO 22.5' STA. 1301+18.50 TO STA. 1302+10.00*

B *21.9' STA. 1301+18.50 TO STA. 1301+95.00*
21.9' TO 23.2 STA. 1301+95.00 TO STA. 1302+10.00

NOTES:
1. FOR EXISTING LEGEND (S.R. 4), SEE SHEET P.9.
1. FOR PROPOSED LEGEND (S.R. 4), SEE SHEET P.11.

PROPOSED TYPICAL SECTIONS - S.R. 4

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.015 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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GENERAL

ROUNDING

THE ROUNDING AT SLOPE BREAKPOINTS SHOWN ON THE TYPICAL SECTIONS APPLIES TO ALL CROSS-SECTIONS, EVEN THOUGH OTHERWISE SHOWN.

UTILITIES

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

BUT-75-5.22

ELECTRIC
DUKE ENERGY
2010 DANA AVENUE
CINCINNATI, OH 45207
ATTN: CHRIS TEPE
PHONE: 513-514-8209
EMAIL: CHRIS.TEPE@DUKE-ENERGY.COM

GAS
DUKE ENERGY
139 EAST 4th STREET, ROOM 460A
CINCINNATI, OH 45202
ATTN: MARK BRANSCUM
PHONE: 513-287-2517
EMAIL: MARK.BRANSCUM@DUKE-ENERGY.COM
SEND ALL PLANS TO: OH/KYHOUSEBILL@DUKE-ENERGY.COM

TELECOMMUNICATIONS
CHARTER COMMUNICATIONS
10920 KENWOOD ROAD
BLUE ASH, OH 45242
ATTN: KENT RIEGER
PHONE: 513-386-5499
EMAIL: KENT.RIEGER@CHARTER.COM
SEND ALL PLANS TO: DL-SOUTHERN-OHIO-OUTSIDE-PLANT@CHARTER.COM

MCI/VERIZON
8800 GOVERNOR HILL DR
CINCINNATI, OH 45249
ATTN: STEPHEN HOWELL
PHONE: 254-721-8977
EMAIL: STEPHEN.HOWELL@VERIZON.COM

SEWER
BUTLER COUNTY WATER & SEWER
130 HIGH STREET
HAMILTON, OH 45011
ATTN: JEFF FRECHTLING
PHONE: 513-887-3220
EMAIL: JEFF.FRECHTLING@BCOHIO.US

TRAFFIC
ODOT D8 TRAFFIC
505 SOUTH SR741
LEBANON, OHIO 45036
ATTN: JIM JUDD
PHONE: 513-933-6692
EMAIL: JIM.JUDD@DOT.OHIO.GOV

ITS (FORMERLY ARTIMIS)
ODOT CENTRAL OFFICE OF TRAFFIC OPERATIONS
1980 WEST BROAD STREET COLUMBUS, OH 43223
ATTN: BRYAN COMER
PHONE: (614) 387-1253
PHONE: ITS LOCATE LINE: 614-387-4113
EMAIL: BRYAN.COMER@DOT.OHIO.GOV

ODOT CO ITS
1606 WEST BROAD ST
COLUMBUS, OHIO 43223
PHONE: 614-387-4113
EMAIL: CEN.ITS.LAB@DOT.OHIO.GOV

*ODOT ITS IS AN OUPS MEMBER SO LOCATES CAN BE DONE THROUGH OUPS REQUEST

BUT-27-10.38

ELECTRIC
BUTLER RURAL ELECTRIC COOPERATIVE, INC.
3888 STILLWELL BECKET ROAD
OXFORD, OH 45056
ATTN: RAY BRUNNER
PHONE: 513-867-4438
EMAIL: RAYB@BUTLERRURAL.COOP

DUKE ENERGY
2010 DANA AVENUE
CINCINNATI, OH 45207
ATTN: CHRIS TEPE
PHONE: 513-514-8209
EMAIL: CHRIS.TEPE@DUKE-ENERGY.COM

GAS
DUKE ENERGY
139 EAST 4th STREET, ROOM 460A
CINCINNATI, OH 45202
ATTN: MARK BRANSCUM
PHONE: 513-287-2517
EMAIL: MARK.BRANSCUM@DUKE-ENERGY.COM
SEND ALL PLANS TO: OH/KYHOUSEBILL@DUKE-ENERGY.COM

TELECOMMUNICATIONS
ALTAFIBER (FORMERLY CINCINNATI BELL TELEPHONE)
221 EAST 4th STREET (BLDG. 121-900)
CINCINNATI, OH 45201
ATTN: ROB STROCHINSKY
PHONE: 513-565-6014
EMAIL: ROBERT.STROCHINSKY@CINBELL.COM
ROADPROJECTS@CINBELL.COM

CHARTER COMMUNICATIONS
10920 KENWOOD ROAD
BLUE ASH, OH 45242
ATTN: KENT RIEGER
PHONE: 513-386-5499
EMAIL: KENT.RIEGER@CHARTER.COM
SEND ALL PLANS TO: DL-SOUTHERN-OHIO-OUTSIDE-PLANT@CHARTER.COM

WATER
SOUTHWEST REGIONAL WATER DISTRICT
3640 OLD OXFORD RD.
HAMILTON, OH 45013
ATTN: TOM PUCKETT
PHONE: 513-863-0828
EMAIL: PUCKETTT@SWWATER.ORG

TRAFFIC
ODOT D8 TRAFFIC
505 SOUTH SR741
LEBANON, OHIO 45036
ATTN: JIM JUDD
PHONE: 513-933-6692
EMAIL: JIM.JUDD@DOT.OHIO.GOV

BUT-4-23.90

ELECTRIC
DUKE ENERGY
2010 DANA AVENUE
CINCINNATI, OH 45207
ATTN: CHRIS TEPE
PHONE: 513-514-8209
EMAIL: CHRIS.TEPE@DUKE-ENERGY.COM

GAS
DUKE ENERGY
139 EAST 4th STREET, ROOM 460A
CINCINNATI, OH 45202
ATTN: MARK BRANSCUM
PHONE: 513-287-2517
EMAIL: MARK.BRANSCUM@DUKE-ENERGY.COM
SEND ALL PLANS TO: OH/KYHOUSEBILL@DUKE-ENERGY.COM

TELECOMMUNICATIONS
AT&T OHIO
7201 FAR HILLS AVE.
DAYTON, OH 45459
ATTN: HOWARD LAUDERMILK
PHONE: 937-296-3588
EMAIL: HL1596@ATT.COM

AT&T TRANSMISSION
8372 E BROAD ST
REYNOLDSBURG, OH 43068
ATTN: WILLIAM TAGGART
PHONE: 614-868-2511
EMAIL: WT2462@ATT.COM

WATER
SOUTHWEST REGIONAL WATER DISTRICT
3640 OLD OXFORD RD.
HAMILTON, OH 45013
ATTN: TOM PUCKETT
PHONE: 513-863-0828
EMAIL: PUCKETTT@SWWATER.ORG

THE LOCATION OF THE UNDERGROUND UTILITIES SHOWN ON THE PLANS ARE AS OBTAINED FROM THE OWNERS AS REQUIRED BY SECTION 153.64 O.R.C.

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 8 PM AND 7 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.

Just state that the project will comply with all local noise ordinances. The note, as written, is not enforceable.

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE THIS SHEET ON 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 REAL TIME NETWORK (2011) AND DIFFERENTIAL LEVELING MONUMENT TYPE: TYPE B

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD 88
GEOID: 18 (CONUS)

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83 (2011) (EPOCH 2010.0)
ELLIPSOID: GRS 80
COORDINATE SYSTEM: BUTLER COUNTY (OCCS)
MAP PROJECTION: TRANSVERSE MERCATOR (TM)
CENTRAL LATITUDE: N 38°03'00"
CENTRAL LONGITUDE: E 275°30'00"
FALSE NORTHING: 0 METERS
FALSE EASTING: 50,000 METERS
PROJECT SCALE FACTOR: 1.000032

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 U.S. SURVERY FEET.

GENERAL NOTES

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.016 TOTAL 194

MODEL: GN001 PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:07 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: lls@cvelimited.com WORKSPACE: OHDOTCE\v02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

CLEARING AND GRUBBING

THE DEPARTMENT HAS NOT MARKED INDIVIDUAL TREES AND STUMPS FOR REMOVAL. UNLESS SPECIFICALLY DESIGNATED AS" DO NOT DISTURB" IN THE PLANS, REMOVE ALL TREES AND STUMPS WITHIN THE CONSTRUCTION LIMITS UNDER THE LUMP SUM BID FOR ITEM 201 CLEARING AND GRUBBING.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE. CONSTRICT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA.

ANY ITEMS DAMAGED BEYOND THE CONSTRUCTION LIMITS, AS DEFINED ABOVE, WILL BE REPLACED IN KIND OR AS APPROVED BY THE PROJECT ENGINEER.

ITEM 204 - PROOF ROLLING

THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING. SEE PLAN SHEET NO_____ FOR ADDITIONAL INFORMATION.

ITEM 204 – PROOF ROLLING_____ HOUR.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 18 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT MANAGER.

FEDERAL AVIATION ADMINISTRATION
SOUTHWEST REGIONAL OFFICE
EVALUATION GROUP
10101 HILLWOOD PARKWAY
FORT WORTH, TX 76177
FAX: (817) 222-5920
HTTP://CEAAA.FAA.GOV

OHIO DEPARTMENT OF TRANSPORTATION
OFFICE OF AVIATION OBSTRUCTION
2829 WEST DUBLIN-GRANVILLE ROAD
COLUMBUS, OH 43235
OHIO.AIRPORT.PROTECTION@DOT.OHIO.GOV

ROADWAY

ITEM 606 – ANCHOR ASSEMBLY, MGS TYPE E

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING ANY OF THE MASH 2016 TYPE E TANGENETIAL END TREATMENTS FOR TYPE MGS GUARDRAIL AS LISTED UNDER "PRODUCTS ACCEPTED FOR NEW INSTALLATIONS" ON THE ROADWAY APPROVED PRODUCTS LIST POSTED ON ROADWAY ENGINEERING'S WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS, IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS. REFER TO THE POSTED SHOP DRAWINGS FOR THE MOST CURRENT APPROVED PRODUCT MODELS.

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. 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. 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.

THE FACE OF THE TYPE E IMPACT HEAD SHALL BE COVERED WITH SOLID FLUORESCENT YELLOW REBOUNDABLE RETROREFLECTIVE SHEETING, PER CMS 730.191.

WHEN THE FACE OF THE ADJACENT (ATTACHED) GUARDRAIL IS LESS THAN 4' OFFSET FROM THE PROPOSED EDGE LINE, AND PERMITTING SITE CONDITIONS EXIST: THE PROPOSED TYPE E ANCHOR ASSEMBLY SHALL BE INSTALLED AT A CONSISTENT FLARE RATE THROUGH THE FULL LENGTH OF THE SYSTEM. THE FLARE RATE SHALL BE A MAXIMUM OF 25:1 (RESULTING IN A 2' OFFSET). THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE SHOP DRAWINGS, PRODUCT INSTALLATION MANUAL/GUIDANCE, AND AS DIRECTED BY THE ENGINEER.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID FOR ITEM 606, ANCHOR ASSEMBLY, MGS TYPE E, 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.

PAVEMENT RESTORATION FOR PIPE INSTALLATIONS AND/OR REMOVALS

THE FOLLOWING QUANTITY HAS BEEN PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION AND/OR REMOVAL OF PIPES. ITEM 301 - ASPHALT CONCRETE BASE, PG64-22 _____ CU. YDS. THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF _____ INCHES AND A PAVEMENT RESTORATION WIDTH THAT INCLUDES THE TRENCH WIDTH PLUS TWO FEET ON EACH SIDE OF THE TRENCH. PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

PAVEMENT RESTORATION FOR DRAINAGE STRUCTURE INSTALLATIONS

THE FOLLOWING QUANTITY IS PROVIDED FOR PAVEMENT RESTORATION FOLLOWING INSTALLATION OF ITEM 611, DRAINAGE STRUCTURES. ITEM 301, ASPHALT CONCRETE BASE, PG64-22 _____ CU. YDS. THE ABOVE QUANTITY IS BASED ON A 301 THICKNESS OF _____ INCHES AND A WIDTH OF TWO FEET AROUND THE PERIMETER OF THE DRAINAGE STRUCTURE. PROVIDE ANY MATERIALS USED OUTSIDE THE LIMITS STATED ABOVE AT NO ADDITIONAL COST.

DRAINAGE

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.

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.

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

GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.017 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: GN001A PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:08 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: tfis@cveltimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GN001.dgn

DRAINAGE (CONTINUED)

DRAINAGE DISCHARGE CONTINUANCE

FURNISH A DRAINAGE DISCHARGE CONTINUANCE FOR ANY DRAINAGE DISCHARGE DISTURBED BY THE WORK AND NOT SHOWN IN THE PLANS. THE LOCATION, TYPE (CONDUIT OR SWALE), SIZE AND GRADE OF THE DRAINAGE DISCHARGE CONTINUANCE WILL BE AGREED TO BY THE ENGINEER.

FURNISH AN INSPECTION WELL AT THE RIGHT OF WAY LINE IN PER STANDARD CONSTRUCTION DRAWING DM-3.1 FOR EACH DRAINAGE DISCHARGE THAT OUTLETS THROUGH A CURB OPENING OR INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST IS INCLUDED IN ITEM 611, INSPECTION WELL.

FURNISH A WELL GRADED TRANSITION BETWEEN THE DITCH AND THE SWALE WHEN OUTLETTING A SWALE TO A DITCH. THE COST FOR THE GRADED TRANSITION IS INCLUDED IN ITEM 203, EMBANKMENT, AS PER PLAN.

FURNISH AN EROSION CONTROL PAD AS SHOWN IN STANDARD CONSTRUCTION DRAWING DM-1.1 WHEN OUTLETTING A CONDUIT TO A DITCH. THE COST FOR THE EROSION CONTROL PAD IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE _ FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED HOLE OR A CURB SECTION WHEN OUTLETTING A CONDUIT THROUGH A CURB OPENING. THE COST OF DRILLING OR FURNISHING THE CURB SECTION WITH HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE _ FOR DRAINAGE DISCHARGE CONTINUANCE.

FURNISH A DRILLED CORE HOLE WHEN OUTLETTING INTO A STORM SEWER OR DRAINAGE STRUCTURE. THE COST OF THE DRILLED CORE HOLE IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE _ FOR DRAINAGE DISCHARGE CONTINUANCE.

DOCUMENTATION

PROVIDE WRITTEN DOCUMENTATION TO THE ENGINEER AND TO THE DISTRICT R/W PERMIT OFFICE. THE DOCUMENTATION INCLUDES THE CONSTRUCTION PROJECT NUMBER, PID, COUNTY, ROUTE, SECTION, LATITUDE AND LONGITUDE OF THE DRAINAGE DISCHARGE AT THE R/W, THE NAME OF PROPERTY OWNER WITH ADDRESS, THE DATE THE DRAINAGE DISCHARGE WAS LOCATED, THE DATE THE DRAINAGE DISCHARGE CONTINUANCE WAS FURNISHED, A DETAILED DESCRIPTION OF THE WORK AND PICTURES OF THE DRAINAGE DISCHARGE CONTINUANCE (IN PDF OR JPEG FORMAT). THE DOCUMENTATION IS INCLUDED IN ITEM 611, CONDUIT, MISC TYPE _ FOR DRAINAGE DISCHARGE CONTINUANCE OR ITEM 203, EMBANKMENT, AS PER PLAN

DRAINAGE DISCHARGE CONTINUANCE REMOVAL

THE ENGINEER MAY REQUIRE THE NEWLY INSTALLED DRAINAGE DISCHARGE CONTINUANCE TO BE REMOVED.

REMOVE THE NEWLY INSTALLED CONDUIT AND ANY EXISTING CONDUIT TO THE RIGHT OF WAY LINE. FOR CONDUIT THAT OUTLETS THROUGH THE CURB, RESTORE THE CURB BY FILLING THE HOLE WITH CLASS QC 1 CONCRETE OR REPLACE THE CURB SECTION. FOR CONDUIT THAT OUTLETS TO A STORM SEWER OR DRAINAGE STRUCTURE LEAVE 6 INCHES PROTRUDING OUTSIDE OF THE CONDUIT. PLUG THE PROTRUDING CONDUIT WITH EITHER A MANUFACTURED CAP OR CLASS QC 1 CONCRETE. FOR CONDUIT THAT OUTLETS TO THE DITCH REMOVE THE EROSION CONTROL PAD. RESTORE ALL AREAS AS REQUIRED. PLUG THE EXISTING CONDUIT REGARDLESS OF SIZE AT THE RIGHT OF WAY LINE WITH CLASS QC 1 CONCRETE AND RESTORE ALL AREAS AS REQUIRED. ALL COSTS ARE INCLUDED IN ITEM 202, REMOVAL MISC.: CONDUIT.

DAM THE SWALE THAT OUTLETS TO THE DITCH AT THE R/W AS DIRECTED BY THE ENGINEER. ALL COSTS ARE INCLUDED IN ITEM 203, EMBANKMENT AS PER PLAN

DRAINAGE DISCHARGE CONTINUANCE (CONTINUED)

REMOVE THE INSPECTION WELL AND RESTORE ALL AREAS AS REQUIRED. THE COST IS INCLUDED IN ITEM 202, REMOVAL MISC.: INSPECTION WELL.

CONDUIT MATERIAL TYPES

THE FOLLOWING CONDUIT MATERIAL TYPES ARE PERMITTED: 707.33, 707.41 NON-PERFORATED, 707.42, 707.43, 707.45, 707.46, 707.47, AND 707.51.

PAY ITEMS

EACH OF THE PAY ITEMS LISTED BELOW FOR CONDUIT MISCELLANEOUS TYPES B, C, E AND F FOR DRAINAGE DISCHARGE CONTINUANCE INCLUDE CONDUIT SIZES 2 INCH TO 10 INCH. THERE IS NO COST DIFFERENTIATION FOR SIZE IN THESE PAY ITEMS.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER IN MAKING THE ABOVE DRAINAGE DISCHARGE CONTINUANCE:

ITEM 611, INSPECTION WELL	___EACH
ITEM 611, CONDUIT, MISC.: TYPE C FOR DRAINAGE DISCHARGE CONTINUANCE	___FT
ITEM 611, CONDUIT, MISC.: TYPE E FOR DRAINAGE DISCHARGE CONTINUANCE	___FT
ITEM 611, CONDUIT, MISC.: TYPE F FOR DRAINAGE DISCHARGE CONTINUANCE	___FT
ITEM 202, REMOVAL MISC.: CONDUIT	___FT
ITEM 202, REMOVAL MISC.: INSPECTION WELL	___EACH
ITEM 203, EMBANKMENT, AS PER PLAN	___CY

ITEM SPECIAL- MISCELLANEOUS METAL

EXISTING CASTINGS MAY PROVE TO BE UNSUITABLE FOR REUSE, AS DETERMINED BY THE ENGINEER. THE CONTRACTOR IS RESPONSIBILE TO PROVIDE THE CASTINGS OF THE REQUIRED TYPE, SIZE AND STRENGTH (HEAVY OR LIGHT DUTY) FOR THE PARTICULAR STRUCTURE IN QUESTION. FURNISH MATERIALS PER 611 WITH PRIOR APPROVAL OF THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER.

ITEM SPECIAL, MISCELLANEOUS METAL ___ LB

REPLACE EXISTING CASTINGS DAMAGED BY CONTRACTOR NEGLIGENCE, AS DETERMINED BY THE ENGINEER, AT THE EXPENSE OF THE CONTRACTOR.

ITEM SPECIAL - PIPE CLEANOUT

THIS WORK CONSISTS OF REMOVING SEDIMENT AND DEBRIS FROM THE EXISTING DRAINAGE CONDUITS SPECIFIED IN THE PLANS. DISPOSE OF ALL MATERIAL PER 105.16 AND 105.17. CLEAN OUT TO THE APPROVAL OF THE ENGINEER.

CLEANOUT OF THE PIPE IS PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL, PIPE CLEANOUT. THIS PRICE INCLUDES THE COST FOR MATERIAL, EQUIPMENT, LABOR, AND ALL INCIDENTALS REQUIRED TO COMPLETE THE CLEANOUT.

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

ITEM SPECIAL, PIPE CLEANOUT, 24" AND UNDER	___ FT
ITEM SPECIAL, PIPE CLEANOUT, 27" TO 48"	___ FT
ITEM SPECIAL, PIPE CLEANOUT, OVER 48"	___ FT

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	___ SY
ITEM 605, AGGREGATE DRAINS	___ FT
ITEM 611, " CONDUIT, TYPE F	___ FT
ITEM 611, PRECAST REINFORCED CONCRETE OUTLET	___ EACH
ITEM 605, " UNCLASSIFIED PIPE UNDERDRAINS	___ FT

Masonry Collar:

Whenever a proposed conduit is to be connected to an existing conduit, the existing conduit should be removed to a Manufactured Joint. The proposed conduit should match the existing conduit material. Connect the two conduits with coupling bands (approved by the conduit manufacture) or bell and spigot joints. The Masonry Collar per DM-1.1 should encase the joint to ensure a stable connection.

EROSION CONTROL

SEEDING AND MULCHING

THE FOLLOWING QUANTITIES ARE PROVIDED TO PROMOTE GROWTH AND CARE OF PERMANENT SEEDED AREAS:

ITEM 659, SOIL ANALYSIS TEST	___ EACH
ITEM 659, TOPSOIL	___ CY
ITEM 659, SEEDING AND MULCHING	___ SY
ITEM 659, REPAIR SEEDING AND MULCHING	___ SY
ITEM 659, INTER-SEEDING	___ SY
ITEM 659, COMMERCIAL FERTILIZER	___ TON
ITEM 659, LIME	___ ACRES
ITEM 659, WATER	___ MGAL
ITEM 659, MOWING	___ MSF

APPLY SEEDING AND MULCHING S TO ALL AREAS OF EXPOSED SOIL BETWEEN THE RIGHT-OF-WAY LINES AND WITHIN THE CONSTRUCTION LIMITS FOR AREAS OUTSIDE THE RIGHT-OF-WAY LINES COVERED BY WORK AGREEMENT OR SLOPE EASEMENT. QUANTITY CALCULATIONS FOR SEEDING AND MULCHING ARE BASED ON THESE LIMITS.

WATER QUALITY

POST CONSTRUCTION STORM WATER TREATMENT

POST CONSTRUCTION STORM WATER TREATMENT.

VEGETATED BIOFILTER

THIS PLAN UTILIZES VEGETATED BIOFILTER(S) FOR POST CONSTRUCTION STORM WATER TREATMENT. PLACE EITHER ITEM 660 SODDING OR ITEM 659 SEEDING AND MULCHING WITH A 4-INCH LIFT OF TOPSOIL AS SHOWN IN THE PLANS TO ANY DISTURBED AREA ON THE SHOULDER AND FORESLOPE DRAINING TO A VEGETATED BIOFILTER. THE DITCH FOR EACH VEGETATED BIOFILTER IS TRAPEZOIDAL, AS SHOWN IN THE PLAN CROSS SECTIONS. PROVIDE ITEM 670 AS SPECIFIED IN THE PLANS.

GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.018 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: GN001B PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:09 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: lfis@cveltmited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GN001.dgn

MAINTENANCE OF TRAFFIC

SUGGESTED SEQUENCE OF CONSTRUCTION

EACH LOCATION IS INDEPENDENT OF EACH OTHER AND MAY BE CONSTRUCTED AT THE SAME TIME. ACCESS TO ALL PROPERTIES SHALL BE MAINTAINED AT ALL TIMES, OR IF APPROVED BY THE ENGINEER, OTHER ACCEPTABLE MEANS OF VEHICLE EGRESS/STORAGE SHALL BE PROVIDED.

BUT-75-5.22

PRE-PHASE 1

CONSTRUCT NORTHERN AND SOUTHERN MEDIAN CROSSOVERS FOR SOUTHBOUND DIRECTION. THE WORK INCLUDES EARTHWORK, TEMPORARY DRAINAGE AND TEMPORARY PAVEMENT. ALL LANES OF TRAFFIC AND ALL RAMPS MUST BE MAINTAINED AT ALL TIMES ON I.R. 75 FOLLOWING ODOT'S PERMITTED LANE CLOSURES.

PHASE 1

CONSTRUCT PROPOSED WORK ON THE SOUTHBOUND PORTION OF I.R. 75 WHILE SOUTHBOUND TRAFFIC IS MAINTAINED ON THE CROSSOVER. TRAFFIC ON NORTHBOUND I.R. 75 WILL TRAVEL ON EXISTING PAVEMENT. LIMIT CLOSURE AND USE OF CROSSOVER TO 60 CALENDAR DAYS.

PRE-PHASE 2

REMOVE CONFLICTING PORTIONS OF NORTHERN AND SOUTHERN MEDIAN CROSSOVERS FOR NORTHBOUND DIRECTION. CONSTRUCT NORTHERN AND SOUTHERN MEDIAN CROSSOVERS FOR NORTHBOUND DIRECTION. THE WORK INCLUDES EARTHWORK, TEMPORARY DRAINAGE AND TEMPORARY PAVEMENT. ALL LANES OF TRAFFIC AND ALL RAMPS MUST BE MAINTAINED AT ALL TIMES ON I.R. 75 FOLLOWING ODOT'S PERMITTED LANE CLOSURES.

PHASE 2

CONSTRUCT PROPOSED WORK ON THE NORTHBOUND PORTION OF I.R. 75 WHILE NORTHBOUND TRAFFIC IS MAINTAINED ON THE CROSSOVER. TRAFFIC ON SOUTHBOUND I.R. 75 WILL TRAVEL ON NEWLY CONSTRUCTED PAVEMENT. LIMIT CLOSURE AND USE OF CROSSOVER TO 60 CALENDAR DAYS.

POST-PHASE 2

REMOVE TEMPORARY CROSSOVERS AND REGRADE THE MEDIAN. ALL LANES OF I.R. 75 AND ALL RAMPS SHALL BE MAINTAINED AT ALL TIMES DURING THIS PHASE OF CONSTRUCTION.

BUT-27-10.38

PHASE 1

CLOSE U.S. 27 SOUTH OF HUSSEY ROAD AND SOUTH OF THE RAILROAD BRIDGE. CLOSE S.R. 130 FROM U.S. 27 TO LANES MILL ROAD. CONSTRUCT ALL PROPOSED WORK WITHIN THESE CLOSURE LIMITS INCLUDING S.R. 130. CONSTRUCT WORK OUTSIDE THESE LIMITS USING FLAGGERS. LANES MILL ROAD WILL REMAIN OPEN AT ALL TIMES. LIMIT U.S. 27 AND S.R. 130 CLOSURE AND DETOUR TO 60 CALENDAR DAYS.

SUGGESTED SEQUENCE OF CONSTRUCTION (CONTINUED)

BUT-4-23.90

STAGE 1, PHASE 1

CLOSE S.R. 4 SOUTH OF CATALINA COURT AND SOUTH OF THE RAILROAD BRIDGE. CONSTRUCT PROPOSED WORK WITHIN THESE LIMITS INCLUDING THE RETENTION POND EXCAVATION. CONSTRUCT PAVEMENT UP TO THE INTERMEDIATE COURSE. LIMIT CLOSURE AND DETOUR TO 60 CALENDAR DAYS. IN ORDER TO ACCOMMODATE THE MADISON TOWNSHIP FIRE STATION, THE CONTRACTOR IS TO PROVIDE TWO-WAY EMERGENCY SERVICES ACCESS AT ALL TIMES.

STAGE 1, PHASE 2

THE WORK IN THIS PHASE INCLUDES RESURFACING AND RESTRIPING OF S.R. 4.

STAGE 2

REDUCE S.R. 4 SOUTHBOUND TRAFFIC TO ONE LANE FOR THE FLAP GATE CONSTRUCTION. CONSTRUCT FLAP GATE IMPROVEMENTS.

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF 4 LANE(S) OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON I.R. 75 BY USE OF EXISTING PAVEMENT, THE COMPLETED PAVEMENT, ITEM 615 PAVEMENT FOR MAINTAINING TAFFIC, ITEM 615 ROADS FOR MAINTAINING TRAFFIC, AND TEMPORARY SURFACES USING ITEMS 410 AND 614.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON U.S. 27 EXCEPT FOR A PERIOD NOT TO EXCEED 60 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET ___. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $16,270 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON S.R. 4 EXCEPT FOR A PERIOD NOT TO EXCEED 60 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET ___. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF $61,191 PER DAY FOR EACH CALENDAR DAY THE ROADWAY REMAINS CLOSED TO TRAFFIC BEYOND THE SPECIFIED LIMIT.

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 UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS (W20-H14) 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 AND ROAD CLOSURES	≥ 2 WEEKS	14 CALENDAR DAYS*
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS*
	< 12 HOURS	2 BUSINESS DAYS*

*DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H14 SIGN LISTS THE NAME OF THE DEPARTMENT, i.e. "THE OHIO DEPT. OF TRANS."

ITEM 614, MAINTAINING TRAFFIC (CONTINUED)

THE CONTRACTOR SHALL PROVIDE, ERECT AND MAINTAIN STANDARD 48 X 30 INCH ROAD CLOSED SIGNS, SIGN SUPPORTS, BARRICADES, AND LIGHTS, AS DETAILED IN TRAFFIC SCD MT-101.60 AT THE LOCATIONS SHOWN IN THE PLANS DURING PERIODS IN WHICH THE AFFECTED ROADS ARE CLOSED TO TRAFFIC.

THE CONTRACTOR SHALL PROVIDE, ERRECT AND MAINTAIN SIGNS AND SIGN SUPPORTS, AS DETAILED IN THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, AND TYPE III BARRICADES OF THE TYPE AND LOCATIONS SHOWN IN THE PLANS.

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 MATERIAL SHALL BE INCLUDED IN THE PUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

PLACEMENT OF ASPHALT CONCRETE

TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES EXCEPT THAT ONE-WAY TRAFFIC WILL BE PERMITTED FOR MINIMUM PERIODS OF TIME CONSISTENT WITH THE REQUIREMENTS OF THE SPECIFICATIONS FOR PROTECTION OF COMPLETED ASPHALT CONCRETE COURSES.

PERMITTED LANE CLOSURE SCHEDULE (PLCS)

LANE CLOSURE(S) SHALL CONFORM TO THE PLCS. PUBLISHED PLCS INFORMATION CAN BE FOUND ON THE ODOT WEBSITE.

THE MONTHLY PUBLISHED SCHEDULES REQUIRED TO BE USED, FOR EACH PLCS SEGMENT WITHIN THE PROJECT AREA, ARE THOSE THAT COMPRISE THE CONSECUTIVE 12-MONTH PERIOD BEGINNING 15 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE AND ENDING 4 MONTHS PRIOR TO THE MONTH AND YEAR OF SALE. THESE SAME 12 MONTHS APPLY FOR THE LIFE OF THE PROJECT AND SHALL BE APPLIED TO EACH RESPECTIVE MONTH OF CONSTRUCTION (MONTH OF LANE CLOSURE(S) SHALL MATCH MONTH OF PLCS USED). LANE CLOSURE(S) IN PLACE FOR MULTIPLE MONTHS SHALL ALWAYS COMPLY WITH THE CURRENT RESPECTIVE MONTH.

(FOR EXAMPLE: IF THE SALE DATE FOR THE PROJECT WAS MARCH OF 2021, THE MONTHLY PUBLISHED SCHEDULES FOR EACH APPLICABLE PLCS SEGMENT WOULD BE DECEMBER 2019 TO NOVEMBER 2020. IF THIS WAS A THREE-YEAR PROJECT, YEAR THREE WOULD STILL BE USING THE DECEMBER 2019 TO NOVEMBER 2020 MONTHLY SCHEDULES. IF THE PROJECT DESIRED TO CLOSE TWO LANES IN JUNE 2021, REFERENCE WOULD BE MADE TO THE JUNE 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S). IF THE SAME TWO LANES WERE DESIRED TO BE CLOSED AGAIN IN JULY 2021, REFERENCE WOULD BE MADE TO THE JULY 2020 SCHEDULE(S) FOR THE RESPECTIVE PLCS SEGMENT(S).)

MORE RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE AT THE DISCRETION OF THE ENGINEER IN ORDER TO COMPLY WITH THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)).

LESS RESTRICTIVE CHANGES TO THE ALLOWABLE LANE CLOSURE HOURS ARE SUBJECT TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY (21-008(P)) AND STANDARD PROCEDURE (123-001(SP)) AND SHALL NOT BE IMPLEMENTED UNTIL, AND UNLESS, APPROVED BY THE PROPER ODOT AUTHORITY. [EXISTING MOT EXCEPTIONS THAT HAVE ALREADY BEEN APPROVED IN ACCORDANCE TO THE TRAFFIC MANAGEMENT IN WORK ZONES POLICY AND STANDARD PROCEDURE ARE DETAILED IN THE APPROVED MAINTENANCE OF TRAFFIC (MOT) POLICY EXCEPTION(S) PLAN NOTE.]

ALLOWABLE LANE CLOSURE HOURS FOR FACILITIES NOT COVERED BY THE PLCS, IF ANY, SHALL BE AS SPECIFIED ELSEWHERE IN THE PLANS.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.019 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: MN001 PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:11 PM PLTDRV: OHDOT_PDF.plt;fg PENTBL: OHDOT_Pen.tbl USER: tfis@cvellimited.com
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_MN001.dgn

MAINTENANCE OF TRAFFIC

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	XX M. GAL.

WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ REVISION NUMBER(S)	COUNTY-ROUTE-SECTION(S)	DIRECTION(S)
WZ -		
WZ -		
WZ -		

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF 55 MPH OR GREATER, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ.

WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, APPROVED LIST, SUPPLEMENTAL SPECIFICATIONS (SS) 808 AND 908, AND TRAFFIC SCD MT-104.10.

WORK ZONE SPEED ZONES (WZSZS) (CONTINUED)

WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS SHALL BE IN ACCORDANCE WITH THIS NOTE AND SCD MT-104.10. ADDITIONALLY PAYMENT MAY BE REMOVED, OR A DISINCENTIVE APPLIED, FOR WZSZS USING TEMPORARY FLATSHEET SPEED LIMIT SIGNS THE SAME AS DESCRIBED IN THE MOST RECENT PUBLICATION OF SS 808 IN REGARDS TO WZSZS USING DSL SIGN ASSEMBLIES (SEE SS 808.06 PARAGRAPHS 4 THROUGH 7, INCLUDING TABLE 1).

ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMUTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRE-CONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (55 MPH OR GREATER) MULTI-LANE HIGHWAYS

	WITH POSITIVE PROTECTION	WITHOUT POSITIVE PROTECTION		
ORIGINAL POSTED SPEED LIMIT	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 614, WORK ZONE SPEED LIMIT SIGN	___ EACH
ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY ASSUMING _____ DSL SIGN ASSEMBLY(IES)FOR _____ MONTHS	___ SIGN MNTH

WORK ZONE INCREASED PENALTIES SIGN (R11-H5A)

R11-H5A-48 SIGNS SHALL BE FURNISHED, ERECTED, AND MAINTAINED IN GOOD CONDITION AND/OR REPLACED AS NECESSARY AND SUBSEQUENTLY REMOVED BY THE CONTRACTOR. SIGNS SHALL BE MOUNTED AT THE APPROPRIATE OFFSETS AND ELEVATIONS AS PRESCRIBED BY THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. THEY SHALL BE MAINTAINED ON SUPPORTS MEETING CURRENT SAFETY CRITERIA.

THE SIGNS MAY BE ERECTED OR UNCOVERED NO MORE THAN FOUR HOURS BEFORE THE ACTUAL START OF WORK. THE SIGNS SHALL BE REMOVED OR COVERED NO LATER THAN FOUR HOURS FOLLOWING RESTORATION OF ALL LANES TO TRAFFIC WITH NO RESTRICTIONS, OR SOONER AS DIRECTED BY THE ENGINEER. TEMPORARY SIGN COVERING AND UNCOVERING DUE TO TEMPORARY LANE RESTORATIONS SHALL BE GUIDED BY THE FOUR-HOUR LIMITATIONS STATED ABOVE. SUCH LANE RESTORATIONS SHOULD BE EXPECTED TO REMAIN IN EFFECT FOR 30 OR MORE CONSECUTIVE CALENDAR DAYS, SUCH AS DURING WINTER SHUT-DOWNS.

THE SIGNS ON THE MAINLINE SHALL BE DUAL MOUNTED UNLESS NOT PHYSICALLY POSSIBLE. THE FIRST SIGN SHALL BE PLACED BETWEEN THE ROAD WORK AHEAD (W20-1) SIGN AND THE NEXT SIGN IN THE SEQUENCE. SIGNS SHALL BE ERECTED ON EACH ENTRANCE RAMP AND EVERY 2 MILES THROUGH THE CONSTRUCTION WORK LIMITS. SIGNS ON THE MAINLINE SHALL BE R11-H5A-48. SIGNS USED ON THE RAMPS SHALL BE R11-H5A-24. R11-H5A-24 SIGNS MAY BE USED IN THE MEDIAN IN LIEU OF R11-H5A-48 SIGNS IF IT IS NOT PHYSICALLY POSSIBLE TO PROVIDE R11-H5A-48 SIGNS IN THE MEDIAN.

THE R11-H5A-48 SIGNS SHALL BE MOUNTED ON 2 NO. 3 POSTS WHEN LOCATED WITHIN CLEAR ZONES.

THE CONTRACTOR MAY USE SIGNS AND SUPPORTS IN USED, BUT GOOD, CONDITION PROVIDED THE SIGNS MEET CURRENT ODOT SPECIFICATIONS.

WORK ZONE INCREASED PENALTIES SIGNS AND SUPPORTS WILL BE MEASURED AS THE NUMBER OF SIGN INSTALLATIONS, INCLUDING THE SIGN AND NECESSARY SUPPORTS. IF A SIGN AND SUPPORT COMBINATION IS REMOVED AND REERECTED AT ANOTHER LOCATION AS DIRECTED BY THE ENGINEER, IT SHALL BE CONSIDERED ANOTHER UNIT.

PAYMENT FOR ACCEPTED QUANTITIES, COMPLETE, IN PLACE WILL BE MADE AT THE CONTRACT UNIT PRICE. PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIALS, LABOR, INCIDENTALS AND EQUIPMENT FOR FURNISHING, ERECTING, MAINTAINING, COVERING DURING SUSPENSION OF WORK, AND REMOVAL OF THE SIGN AND SUPPORT.

ITEM 614 - WORK ZONE INCREASED PENALTIES SIGN 8 EACH

WORK ZONE INCREASED PENALTIES SIGNS WILL BE PLACED AT THE FOLLOWING LOCATIONS:

PRE-PHASE 1 NORTHBOUND - SHEET P.28
PRE-PHASE 1 SOUTHBOUND - SHEET P.31
PHASE 1 NORTHBOUND - SHEET P.32
PHASE 1 SOUTHBOUND - SHEET P.36
PRE-PHASE 2 NORTHBOUND - SHEET P.37
PRE-PHASE 2 SOUTHBOUND - SHEET P.40
PHASE 2 NORTHBOUND - SHEET P.41

EARTHWORK FOR MAINTAINING TRAFFIC

THE FOLLOWING QUANTITIES HAVE BEEN INCLUDED IN THE PLAN FOR INFORMATION ONLY.

EXCAVATION FOR MAINTAINING TRAFFIC	____ CU. YD.
EMBANKMENT FOR MAINTAINING TRAFFIC	____ CU. YD.

WHEN UNDERCUTS ARE NECESSARY FOR MAINLINE PAVEMENT OR EMBANKMENT CONSTRUCTION, EVALUATE THE NEED FOR TEMPORARY ROAD UNDERCUTS IF WITHIN A CLOSE PROXIMITY TO THE MAINLINE UNDERCUTS. A GEOTECHNICAL EVALUATION SHOULD BE CONSIDERED TO DETERMINE IF THE EXISTING SOIL CONDITIONS ARE ADEQUATE TO SUPPORT THE TEMPORARY ROAD. ADDITIONAL SOIL BORINGS ALONG THE TEMPORARY ROAD ARE NOT NORMALLY REQUIRED.

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.

ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (UNIDIRECTIONAL OR BIDIRECTIONAL)

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 BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS.

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.

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.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.020 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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MAINTENANCE OF TRAFFIC

ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM

THIS WORK SHALL CONSIST OF FURNISHING, ERECTING, OPERATING, MAINTAINING AND REMOVING A WORK ZONE LIGHTING SYSTEM FOR A SINGLE CROSSOVER, OR OVERLAPPING A PAIR OF CROSSOVERS. THE SYSTEM SHALL BE AS SHOWN ON TRAFFIC SCD MT 100.00. THE CONTRACTOR SHALL ARRANGE FOR AND PAY FOR POWER. ALL MATERIALS AND CONSTRUCTION SHALL COMPLY WITH APPLICABLE PORTIONS OF 625 AND 725 EXCEPT: THE PERFORMANCE TEST OF 625.19F, AND CERTIFIED DRAWING REQUIREMENT OF 625.06, ARE WAIVED AND USED MATERIALS IN GOOD CONDITION ARE ACCEPTABLE.

POLES WHICH ARE NOT PROTECTED BY GUARDRAIL OR PORTABLE BARRIER SHALL BE LOCATED OUTSIDE THE CLEAR ZONE, AND SHOULD BE LOCATED AT LEAST 30 FEET (PREFERABLY 40 FEET) FROM THE EDGE OF PAVEMENT WHEN POSSIBLE. ADDITIONAL POLE LINES, CABLES AND APPURTENANCES NECESSARY TO FURNISH POWER TO THE LIGHTING SYSTEM SHALL BE INCLUDED IN THIS ITEM. SERVICE POLES SHALL BE POSITIONED WITH THE SAME CONSTRAINTS AS THE LIGHTING POLES AS A MINIMUM.

PAYMENT WILL BE MADE AT THE UNIT PRICE PER EACH FOR ITEM 614, WORK ZONE CROSSOVER LIGHTING SYSTEM THROUGHOUT ALL PHASES OF WORK WHEN THE CROSSOVER ROADWAYS ARE USED.

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.

THE PROBABLE PCMS LOCATIONS AND WORK LIMITS FOR THOSE LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER. 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.

ITEM 614, PORTABLE CHANGEABLE MESSAGE SIGNS, AS PER PLAN (CONTINUED)

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.

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 ASSUMING 4 PCMS SIGN(S) FOR 3 MONTH(S)	12 SIGN MONTH

MAINTENANCE OF TRAFFIC SIGNAL/INTERSECTION CONTROL BEACON INSTALLATION

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNALS AND INTERSECTION CONTROL BEACONS INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/INTERSECTION CONTROL BEACON INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
2. NEW OR REUSED SIGNAL/INTERSECTION CONTROL BEACON INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL CORRECT AS QUICKLY AS POSSIBLE ALL OUTAGES OR MALFUNCTIONS. HE SHALL PROVIDE THE MAINTAINING AGENCY AND THE ENGINEER SUCH ADDRESSES AND PHONE NUMBERS WHERE HIS MAINTENANCE FORCES CAN BE CONTACTED. THE CONTRACTOR SHALL PROVIDE ONE OR MORE PERSONS TO RECEIVE ALL CALLS AND DISPATCH THE NECESSARY MAINTENANCE FORCES TO CORRECT OUTAGES. SUCH A PERSON OR PERSONS MAY BE USED TO PERFORM OTHER DUTIES AS LONG AS PROMPT ATTENTION IS GIVEN TO THESE CALLS AND A PERSON IS READILY AVAILABLE CONTINUOUSLY 24 HOURS A DAY, 7 DAYS A WEEK. ALL LAMP OUTAGES, CABLE OUTAGES, ELECTRICAL FAILURES, EQUIPMENT MALFUNCTIONS AND MISALIGNED SIGNAL HEADS SHALL BE CORRECTED TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK TO SERVICE WITHIN TWO HOURS AFTER THE CONTRACTOR HAS BEEN NOTIFIED OF THE OUTAGE.

IN THE EVENT NEW SIGNALS ARE DAMAGED PRIOR TO ACCEPTANCE, ALL DAMAGED EQUIPMENT EXCEPT POLES AND CONTROL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER WITH THE SIGNAL BACK IN SERVICE WITHIN 8 HOURS AFTER THE CONTRACTOR'S NOTIFICATION OF THE OUTAGE. THE CONTRACTOR SHALL ARRANGE FOR FULL TRAFFIC CONTROL UNTIL THE SIGNAL IS BACK IN OPERATION.

IF POLES AND/OR CONTROL EQUIPMENT ARE DAMAGED AND MUST BE REPLACED, THE CONTRACTOR SHALL MAKE TEMPORARY REPAIRS AS NECESSARY TO BRING THE SIGNAL BACK INTO FULL OPERATION WITHIN THE ALLOWED 8-HOUR PERIOD, AND SHALL MAKE PERMANENT REPAIRS OR REPLACEMENT AS SOON THEREAFTER AS POSSIBLE.

NONE OF THE ABOVE SHALL BE CONSTRUED AS COLLECTIVE OR CONSECUTIVE OUTAGE TIME PERIODS AT ANY ONE LOCATION. THAT IS, WHERE MORE THAN ONE OUTAGE OCCURS AT ANY ONE LOCATION THEN THE ALLOTTED TIME LIMIT SHALL BE FOR THE WORST SINGLE OUTAGE.

WHERE OUTAGES ARE THE DIRECT RESULT OF A VEHICLE CRASH THE RESPONSE OF THE CONTRACTOR SHALL BE AS OUTLINED ABOVE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COLLECTION OF ANY COMPENSATION FOR THIS WORK FROM THOSE PARTIES RESPONSIBLE FOR THE DAMAGE.

WHERE THE CONTRACTOR HAS FAILED TO, OR CANNOT RESPOND TO, AN OUTAGE OR SIGNAL EQUIPMENT MALFUNCTION, AT THESE LOCATIONS WITHIN HIS RESPONSIBILITY, WITHIN PERIODS AS SPECIFIED ABOVE, THE ENGINEER MAY INVOKE THE PROVISIONS OF SECTION 105.15 AND ANY SUBSEQUENT BILLINGS TO THE STATE OR BUTLER COUNTY SHERIFF'S OFFICE FOR POLICE SERVICES AND MAINTENANCE SERVICES BY BUTLER COUNTY SHERIFF'S OFFICE FORCES SHALL BE DEDUCTED FROM MONIES DUE OR TO BECOME DUE THE CONTRACTOR IN ACCORDANCE WITH PROVISIONS OF SECTION 105.15.

MAINTENANCE OF TRAFFIC SIGNAL/INTERSECTION CONTROL BEACON INSTALLATION (CONTINUED)

THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC SIGNALS AND INTERSECTION CONTROL BEACONS INSTALLATIONS WITHIN THE PROJECT UNDER THE FOLLOWING CONDITIONS:

1. EXISTING SIGNAL/INTERSECTION CONTROL BEACON INSTALLATIONS WHICH THE PLANS REQUIRE THE CONTRACTOR TO ADJUST, MODIFY, ADD ONTO OR REMOVE, OR WHICH THE CONTRACTOR ACTUALLY ADJUSTS, MODIFIES OR OTHERWISE DISTURBS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INSTALLATION (AT AN INTERSECTION) FROM THE TIME HIS OPERATIONS FIRST DISTURB THE INSTALLATION UNTIL THE INSTALLATION HAS BEEN SUBSEQUENTLY REMOVED OR MODIFIED AND THE WORK IS ACCEPTED.
2. NEW OR REUSED SIGNAL/INTERSECTION CONTROL BEACON INSTALLATIONS OR DEVICES, INSTALLED BY THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTENANCE OF THESE FROM THE TIME OF INSTALLATION UNTIL THE WORK IS ACCEPTED.

THE CONTRACTOR SHALL PROVIDE THE MAINTENANCE SERVICE ENTIRELY WITH HIS FORCES OR HE MAY CHOOSE TO ENTER INTO A COOPERATIVE UNDERSTANDING WITH THE LOCAL MAINTAINING AGENCY TO PROVIDE THE MAINTENANCE. THE CONTRACTOR SHALL INFORM THE ENGINEER, IN WRITING, OF THE MAINTENANCE METHOD SELECTED.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE TO ANY TRAFFIC SIGNAL COMPONENTS REQUIRED TO BE HANDLED DURING THE RELOCATION OF POLES AND REVISIONS TO THE SIGNAL SYSTEM. WHEN A TRAFFIC SIGNAL MUST BE TAKEN OUT OF SERVICE BY THE CONTRACTOR, DUE TO CONSTRUCTION PROCEDURES, THIS OUTAGE SHALL NOT EXCEED 4 HOURS AND SHALL NOT INCLUDE THE HOURS OF 6:00 AM TO 10:00 AM AND 3:00 PM TO 7:00 PM. ANY SIGNALIZED INTERSECTION, WHERE THE SIGNAL IS OUT OF SERVICE DUE TO CONSTRUCTION PROCEDURES, OR DUE TO AN OUTAGE OR MALFUNCTION OF EQUIPMENT AS DESCRIBED ABOVE, SHALL BE PROTECTED, BY THE CONTRACTOR, BY THE INSTALLATION OF TEMPORARY "STOP" SIGNS, EXCEPT FOR THE FOLLOWING INTERSECTIONS WHICH SHALL BE PROTECTED BY OFF-DUTY BUTLER COUNTY SHERIFFS OFFICE, HIRED BY THE CONTRACTOR:

1. U.S. 27 & S.R. 130
2. S.R. 4 & TRENTON FRANKLIN RD.

ANY VEHICULAR TRAFFIC SIGNAL HEAD, EITHER NEW OR EXISTING WHICH WILL BE OUT OF OPERATION SHALL BE COVERED IN THE MANNER DESCRIBED IN 632.25.

THE CONTRACTOR SHALL MAINTAIN COMPLETE RECORDS OF MALFUNCTIONS INCLUDING:

1. TIME OF NOTIFICATION OF MALFUNCTION;
2. TIME OF WORK CREWS ARRIVAL TO CORRECT THE MALFUNCTION;
3. ACTIONS TAKEN TO CORRECT THE MALFUNCTION, INCLUDING A LIST OF PARTS REPAIRED OR REPLACED;
4. A DIAGNOSIS OF REASON FOR THE MALFUNCTION AND PROBABILITY OF REOCCURRENCE;
5. TIME OF COMPLETION OF THE REPAIR AND SYSTEM RESTORED TO FULL SERVICE.

A COPY OF THESE RECORDS SHALL BE PROVIDED TO THE ENGINEER WITHIN THREE (3) WORKING DAYS FOLLOWING COMPLETION OF EACH REPAIR.

ALL COSTS RESULTING FROM THE ABOVE REQUIREMENTS SHALL BE CONSIDERED TO BE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.
DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.021 TOTAL 194

BUT IR 75/VAR 5.22/VAR
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MAINTENANCE OF TRAFFIC

ITEM 614, WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN

WORK ZONE RAISED PAVEMENT MARKERS, AS PER PLAN, AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614 OR C&MS 621 AS SPECIFIED HEREIN.

- *RAISED PAVEMENT MARKERS IN USE DURING THE SNOW-PLOWING SEASON SHALL CONFORM TO 621.*
- *RAISED PAVEMENT MARKERS IN USE DURING THE NON-SNOW-PLOW SEASON SHALL CONFORM TO EITHER 614 OR TO 621.*

THE SNOW-PLOWING SEASON SHALL RUN FROM _____ THROUGH _____.

IF PROJECT DELAYS, NOT THE FAULT OF ODOT, CAUSE THE WORK TO EXTEND INTO THE SNOW-PLOWING SEASON, THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING WORK ZONE RAISED PAVEMENT MARKERS (WZRPMS) CONFORMING TO C&MS 614, WITH RAISED PAVEMENT MARKERS CONFORMING TO 621, AS DETERMINED BY THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

THIS ITEM SHALL INCLUDE PURCHASE, INSTALLATION AND REMOVAL OF ITEM 614 WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN, INCLUDING FILLING OF ANY DEPRESSIONS CREATED IN THE PAVEMENT AS PER C&MS 621.08.

RESURFACING OF THE TRANSITION AREAS SHALL BE PERFORMED AT THE TIME THAT THE SURFACE COURSE IS BEING APPLIED TO THE ENTIRE PROJECT. PRIOR TO APPLICATION OF THE SURFACE COURSE ON THE PROJECT, THE EXISTING PAVEMENT WITHIN THE TRANSITION AREA SHALL BE REMOVED TO A DEPTH NECESSARY TO REACH THE LEVEL OF THE INTERMEDIATE COURSE OF THE PAVEMENT, AS DETERMINED BY THE ENGINEER.

THE FOLLOWING BID ITEMS SHOULD BE INCLUDED IN THE PLANS:

ITEM 254	*PAVEMENT PLANING, ASPHALT CONCRETE*	*___ SQUARE YARDS*
ITEM 614	*WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN*	*___ EACH*

PAYMENT FOR RESURFACING WITHIN THE TRANSITION AREA SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEMS FOR THE WORK REQUIRED, AS PROVIDED FOR IN THE PLANS.

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 OR PERMANENT BARRIER (INCLUDING BRIDGE PARAPETS) CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

INCREASED BARRIER DELINEATION, AS SPECIFIED HEREIN, SHALL BE INSTALLED ON ALL PB AND PERMANENT CONCRETE BARRIER LOCATED WITHIN 5 FEET OF THE EDGE OF THE TRAVELED LANE UNDER EITHER OF THE FOLLOWING CONDITIONS: ALONG TAPERS AND TRANSITION AREAS; OR ALONG CURVES (OUTSIDE ONLY) WITH DEGREE OF CURVATURE GREATER THAN OR EQUAL TO 3 DEGREES.

DELINEATION OF PORTABLE AND PERMANENT BARRIER (CONTINUED)

THE INCREASED BARRIER DELINEATION SHALL CONSIST OF EITHER DELINEATION PANELS OR THE TRIPLE STACKING OF WORK ZONE BARRIER REFLECTORS.

DELINEATION PANELS SHALL CONSIST OF PANELS OF DELINEATION, APPROXIMATELY 34 INCHES LONG AND 6 INCHES WIDE AND SHALL BE " CRIMPED."PANELS SHALL BE INSTALLED AND SPACED PER TRAFFIC SCD MT-101.70.

TRIPLE-STACKED BARRIER REFLECTORS SHALL CONSIST OF ALIGNING THREE BARRIER REFLECTORS VERTICALLY, AT LOCATIONS WHERE A SINGLE BARRIER REFLECTOR WOULD BE OTHERWISE ATTACHED. THERE SHALL BE NO OPEN SPACE BETWEEN THE ADJACENT BARRIER REFLECTORS. THE TRIPLE-STACKED BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THEY SHALL BE SPACED AND ALIGNED PER TRAFFIC SCD MT-101.70.

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

ITEM 614,	*BARRIER REFLECTOR, TYPE 1 (ONE-WAY OR BI-DIRECTIONAL)*	*____ EACH*
ITEM 614,	*OBJECT MARKER, ____-WAY*	*____ EACH*
ITEM 614,	*INCREASED BARRIER DELINEATION*	*____ FEET*

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

ALONG RUNS OF INCREASED BARRIER DELINEATION WHERE THIS ITEM IS PROVIDED, THE QUANTITY SHALL BE MEASURED AS THE ENTIRE LENGTH OF THE RUN OF INCREASED BARRIER DELINEATION, INCLUDING THE SPACES BETWEEN THE INDIVIDUAL DELINEATION PANELS OR STACKS OF BARRIER REFLECTORS.

DELINEATION OF TEMPORARY AND PERMANENT GUARDRAIL

BARRIER REFLECTORS SHALL BE INSTALLED ON ALL TEMPORARY GUARDRAIL USED FOR TRAFFIC CONTROL; AND, ON ALL PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. BARRIER REFLECTORS SHALL CONFORM TO C&MS 626 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET.

OBJECT MARKERS SHALL BE INSTALLED ON ALL TEMPORARY AND PERMANENT GUARDRAIL LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE. GUARDRAIL-MOUNTING OF OBJECT MARKERS SHALL BE MADE BY INSTALLING THE OBJECT MARKERS ON THE EXTENSION BLOCKS RATHER THAN DIRECTLY ONTO THE GUARDRAIL ITSELF. OBJECT MARKERS SHALL CONFORM TO C&MS 614.03 AND THE SPACING SHALL BE APPROXIMATELY 50 FEET WITH A 25 FOOT OFFSET FROM THE BARRIER REFLECTORS.

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

ITEM 614,	*BARRIER REFLECTOR, TYPE (2, 3, 4, OR 5) (ONE-WAY OR BI-DIRECTIONAL)*	*____ EACH*
ITEM 614,	*OBJECT MARKER, ____-WAY*	*____ EACH*

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING THE ABOVE ITEM(S).

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 SHALL NOT BE PERMITTED AT PROJECT COST NOR TIME COMPENSATION. 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.*
- *DURING A TRAFFIC SIGNAL INSTALLATION WHEN IMPACTING THE NORMAL FUNCTION OF THE SIGNAL OR THE FLOW OF TRAFFIC, OR WHEN TRAFFIC NEEDS TO BE DIRECTED THROUGH AN ENERGIZED TRAFFIC SIGNAL CONTRARY TO THE SIGNAL DISPLAY (E.G., DIRECTING MOTORISTS THROUGH A RED LIGHT).*
- *DURING PERIODS WHERE TRAFFIC NEEDS TO BE DIRECTED CONTRARY TO A TRAFFIC CONTROL DEVICE (FLAGGER, SIGN [E.G. STOP SIGN, STREET OR HIGHWAY SIGNS, ETC], SIGNAL OR OTHER DEVICE USED TO REGULATE, WARN OR GUIDE TRAFFIC). TRAFFIC IN THIS INSTANCE INCLUDES VEHICULAR, PEDESTRIAN AND/OR SHARED USE PATH USERS.*

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 THAT MEET ALL OF THE CRITERIA LISTED BELOW: 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).*
  - *CRITERIA*
    - *ON A MULTI-LANE DIVIDED INTERSTATE, OTHER FREEWAY OR EXPRESSWAY; AND,*
    - *AN AUTHORIZED SPEED LIMIT OF 45 MPH OR GREATER THAT IS IN EFFECT AT THE TIME OF THE OPERATION; AND,*
    - *AADT OF 50,000 (OR AADT OF 30,000 WITH 25% OR HIGHER PERCENT TRUCKS)*

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 AND/OR IN CONTRARY TO OTHER TRAFFIC CONTROL DEVICES 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.

ITEM 614, LAW ENFORCEMENT OFFICER (WITH PATROL CAR) FOR ASSISTANCE DURING CONSTRUCTION OPERATIONS (CONTINUED)

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*	*120 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 AN LEO ARE INCLUDED WITH THE BID UNIT PRICE FOR ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE.

MAINTENANCE OF TRAFFIC GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.022 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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MAINTENANCE OF TRAFFIC

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 THE 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 RESTRICTIONS TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO PERMITS AND PIO*
RAMP AND/OR ROAD CLOSURES	2 WEEKS OR GREATER	21 CALENDAR DAYS
	12 HOURS TO 2 WEEKS	14 CALENDAR DAYS
	12 HOURS OR LESS	4 BUSINESS DAYS
LANE CLOSURES AND RESTRICTIONS	2 WEEKS OR GREATER	14 CALENDAR DAYS
	LESS THAN 2 WEEKS	5 BUSINESS DAYS
START OF CONSTRUCTION AND TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

* - PRIOR TO CLOSURE DATE, UNLESS NOTED OTHERWISE

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

ITEM 615 - ROADS FOR MAINTAINING TRAFFIC

THIS WORK SHALL INCLUDE ALL PRE-CONSTRUCTION REMOVALS, INSTALLATION OF THE MAINTENANCE OF TRAFFIC DESIGN IN THESE PLANS, MAINTENANCE, POST-CONSTRUCTION REMOVALS, AND RESTORATION OF ALL DISTURBED AREAS DETAILED IN THE PLANS NECESSARY TO PROVIDE A COMPLETE, FUNCTIONAL, AND SAFE CROSSOVER INSTALLATION FOR PUBLIC USE.

ITEMS TO BE INCLUDED IN THE COST OF THE UNIT PRICE ARE, BUT NOT LIMITED TO, REMOVALS AND INSTALLATION OF PAVEMENT, STABILIZED AGGREGATE, EXCAVATION, EMBANKMENT, PIPE AND DRAINAGE ITEMS, AND SEEDING AND MULCHING.

PAYMENT WILL BE MADE AT THE LUMP SUM UNIT PRICE FOR ITEM 615 - ROADS FOR MAINTAINING TRAFFIC THROUGHOUT ALL PHASES OF WORK.

RUMBLE STRIP REMOVAL AND REPLACEMENT

ALL EXISTING RUMBLE STRIPS THAT ARE IN CONFLICT WITH THE PROPOSED MOVEMENT OF TRAFFIC DURING THE MOT OPERATIONS SHALL BE REMOVED BY PAVEMENT PLANING. THE REMOVED RUMBLE STRIP AREAS SHALL BE FILLED WITH ASPHALT CONCRETE SURFACE COURSE. THE RUMBLE STRIP REMOVAL AND REPLACEMENT AREA SHALL BE 2.5 FEET WIDE AND 1.5 INCHES DEEP, CENTERED ON THE RUMBLE STRIP. THE PAVEMENT PLANING AND PLACEMENT OF ASPHALT CONCRETE SURFACE COURSE SHOULD BE COMPLETED IN THE SAME OPERATION. THE ESTIMATED REMOVAL AND REPLACEMENT LENGTH IS 149 FT FOR THE OUTSIDE CHANNELIZING LINE.

IMMEDIATELY FOLLOWING COMPLETION OF MOT OPERATIONS AND RESTORING THE TRAFFIC TO ITS ORIGINAL POSITION, NEW RUMBLE STRIPS SHALL BE INSTALLED AT THE LOCATION WHERE THE EXISTING RUMBLE STRIPS WERE REMOVED.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

TOTAL (OUTSIDE EDGE LINE)	
ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	X SY
ITEM 407 NON-TRACKING TACK COAT	X GAL
ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A (449), AS PER PLAN, PG 76-22M	X CY
ITEM 618 RUMBLE STRIPS, SHOULDER, (ASPHALT CONCRETE)	XXX FT

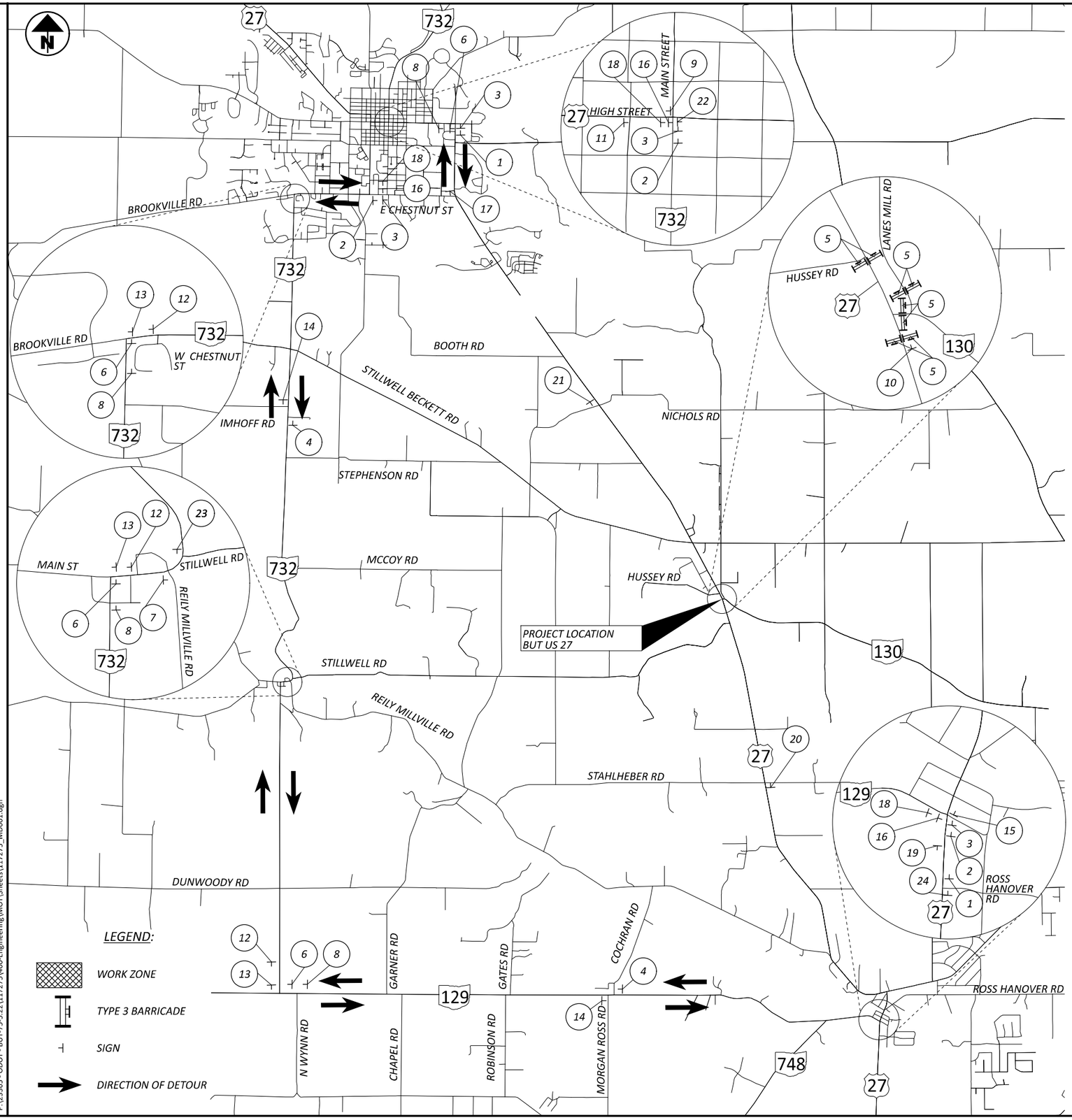
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.023 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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1 — DETOUR AHEAD / NORTH 27
W20-2-48 M3-1-24 M1-4-24-2

2 — DETOUR NORTH 27
M4-8-24 M3-1-24 M1-4-24-2 M5-1L-21

3 — DETOUR NORTH 27
M4-8-24 M3-1-24 M1-4-24-2 M6-1L-21

4 — DETOUR NORTH 27
M4-8-24 M3-1-24 M1-4-24-2 M6-3-21

5 — ROAD CLOSED
R11-2-48
MOUNTED ON TYPE III BARRICADE

6 — DETOUR NORTH 27 →
M4-8-24 M3-1-24 M1-4-24-2 M6-1R-21

7 — DETOUR NORTH 27 ↖
M4-8-24 M3-1-24 M1-4-24-2 M6-2L-21

8 — DETOUR NORTH 27 ↱
M4-8-24 M3-1-24 M1-4-24-2 M5-1R-21

9 — END DETOUR NORTH 27
M4-8a-24 M3-1-24 M1-4-24-2

10 — ROAD CLOSED 500 FT
W20-3-48

11 — DETOUR AHEAD / SOUTH 27
W20-2-48 M3-3-24 M1-4-24-2

12 — DETOUR SOUTH 27
M4-8-24 M3-3-24 M1-4-24-2 M5-1L-21

13 — DETOUR SOUTH 27
M4-8-24 M3-3-24 M1-4-24-2 M6-1L-21

14 — DETOUR SOUTH 27
M4-8-24 M3-3-24 M1-4-24-2 M6-3-21

15 — ROAD CLOSED 4.5 MILES AHEAD LOCAL TRAFFIC ONLY / DETOUR
R11-3a-60 M4-10L-48
MOUNTED ON TYPE III BARRICADE WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

16 — DETOUR SOUTH 27 →
M4-8-24 M3-3-24 M1-4-24-2 M6-1R-21

17 — DETOUR SOUTH 27 ↖
M4-8-24 M3-3-24 M1-4-24-2 M6-2L-21

18 — DETOUR SOUTH 27 ↱
M4-8-24 M3-3-24 M1-4-24-2 M5-1R-21

19 — END DETOUR SOUTH 27
M4-8a-24 M3-3-24 M1-4-24-2

20 — ROAD CLOSED AHEAD / NORTH 27
W20-3-48 M3-1-24 M1-4-24-2

21 — ROAD CLOSED AHEAD / SOUTH 27
W20-3-48 M3-3-24 M1-4-24-2

22 — ROAD CLOSED 5.8 MILES AHEAD LOCAL TRAFFIC ONLY / DETOUR
R11-3a-60 M4-10R-48
MOUNTED ON TYPE III BARRICADE WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

23 — DETOUR SOUTH 27 ↗
M4-8-24 M3-3-24 M1-4-24-2 M6-2R-21

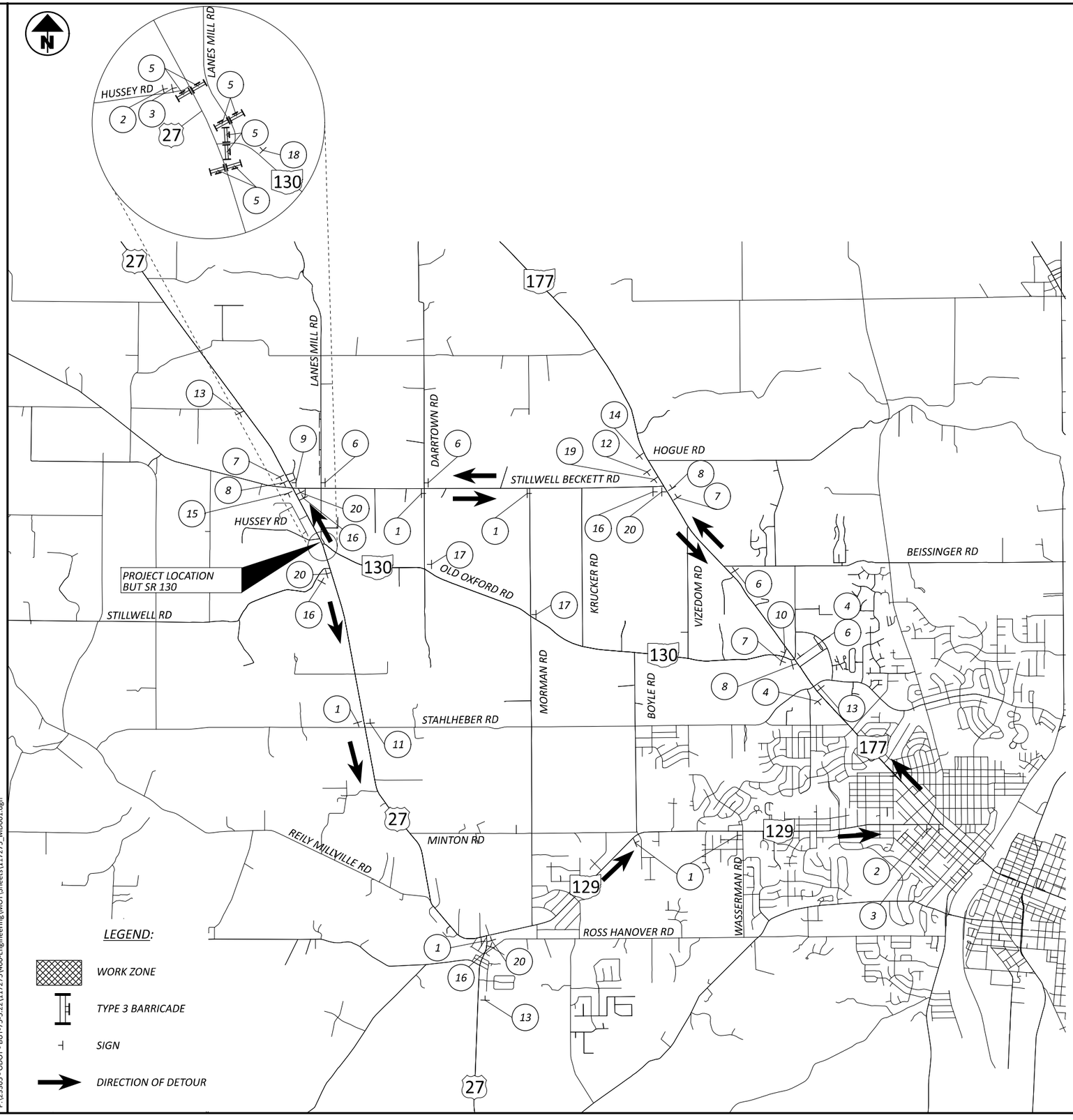
24 — ROAD CLOSED AHEAD
W20-3-48

HORIZONTAL SCALE IN FEET
0 1320 2640 5280

MAINTENANCE OF TRAFFIC - DETOUR PLAN U.S. 27

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.024
TOTAL	194



1

DETOUR
EAST
130

M4-8-24
M3-1-24
M1-5-30-3
M6-3-21

2

DETOUR
EAST
130

M4-8-24
M3-1-24
M1-5-30-3
M5-1L-21

3

DETOUR
EAST
130

M4-8-24
M3-1-24
M1-5-30-3
M6-1L-21

4

END
DETOUR
EAST
130

M4-8a-24
M3-1-24
M1-5-30-3

5

ROAD
CLOSED

R11-2-48
MOUNTED ON TYPE III BARRICADE
WITH 1 TYPE B FLASHING
WARNING LIGHT (PER BARRICADE)

6

DETOUR
WEST
130

M4-8-24
M3-1-24
M1-5-30-3
M6-3-21

7

DETOUR
WEST
130

M4-8-24
M3-1-24
M1-5-30-3
M5-1L-21

8

DETOUR
WEST
130

M4-8-24
M3-1-24
M1-5-30-3
M6-1L-21

9

END
DETOUR
WEST
130

M4-8a-24
M3-1-24
M1-5-30-3

10

ROAD CLOSED
4.7 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR

R11-3a-60
M4-10R-48
MOUNTED ON TYPE III BARRICADE
WITH 1 TYPE B FLASHING
WARNING LIGHT (PER BARRICADE)

11

ROAD
CLOSED
AHEAD
EAST
130

W20-3-48
M3-1-24
M1-5-30-3

12

DETOUR
WEST
130

M4-8-24
M3-3-24
M1-5-30-3
M5-1R-21

13

DETOUR
AHEAD
EAST
130

W20-2-48
M3-1-24
M1-5-30-3

14

DETOUR
AHEAD
WEST
130

W20-2-48
M3-1-24
M1-5-30-3

15

ROAD CLOSED
0.6 MILES AHEAD
LOCAL TRAFFIC ONLY
DETOUR

R11-3a-60
M4-10L-48
MOUNTED ON TYPE III BARRICADE
WITH 1 TYPE B FLASHING
WARNING LIGHT (PER BARRICADE)

16

DETOUR
EAST
130

M4-8-24
M3-3-24
M1-5-30-3
M5-1R-21

17

ROAD
CLOSED
AHEAD
WEST
130

W20-3-48
M3-1-24
M1-5-30-3

18

ROAD
CLOSED
500 FT

W20-3-48

19

DETOUR
WEST
130

M4-8-24
M3-3-24
M1-5-30-3
M6-1R-21

20

DETOUR
EAST
130

M4-8-24
M3-1-24
M1-5-30-3
M6-1R-21

HORIZONTAL
SCALE IN FEET
0 1320 2640 5280

MAINTENANCE OF TRAFFIC - DETOUR PLAN
S.R. 130 CLOSURE AT U.S. 27

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
MJP

REVIEWER
CWP 08/29/25

PROJECT ID
117275

SHEET P.025 TOTAL 194

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MAINTENANCE OF TRAFFIC - DETOUR PLAN
S.R. 4

HORIZONTAL SCALE IN FEET
0 1320 2640 5280



1 — ROAD CLOSED AHEAD / NORTH 4
W20-3-48 M3-3-24 M1-5-24-2

2 — DETOUR AHEAD / NORTH 4
W20-2-48 M3-1-24 M1-5-24-2

3 — DETOUR / NORTH 4
M4-8-24 M3-1-24 M1-5-24-2 M6-3-21

4 — DETOUR / NORTH 4
M4-8-24 M3-1-24 M1-5-24-2 M5-1R-21

5 — ROAD CLOSED 1.6 MILES AHEAD / LOCAL TRAFFIC ONLY / DETOUR
R11-3a-60 M4-10R-48 MOUNTED ON TYPE III BARRICADE WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

6 — DETOUR / NORTH 4
M4-8-24 M3-1-24 M1-5-24-2 M5-1L-21

7 — DETOUR / NORTH 4
M4-8-24 M3-1-24 M1-5-24-2 M6-2R-21

8 — DETOUR / NORTH 4
M4-8-24 M3-1-24 M1-5-24-2 M6-1R-21

9 — END DETOUR / NORTH 4
M4-8a-24 M3-1-24 M1-5-24-2

10 — ROAD CLOSED 4.6 MILES AHEAD / LOCAL TRAFFIC ONLY / DETOUR
R11-3a-60 M4-10L-48 MOUNTED ON TYPE III BARRICADE WITH 1 TYPE B FLASHING WARNING LIGHT (PER BARRICADE)

11 — DETOUR / NORTH 4
M4-8-24 M3-1-24 M1-5-24-2 M6-1L-21

12 — DETOUR / SOUTH 4
M4-8-24 M3-3-24 M1-5-24-2 M5-1R-21

13 — DETOUR / SOUTH 4
M4-8-24 M3-3-24 M1-5-24-2 M6-1R-21

14 — DETOUR / SOUTH 4
M4-8-24 M3-3-24 M1-5-24-2 M6-2L-21

15 — ROAD CLOSED
R11-2-48 MOUNTED ON TYPE III BARRICADE

16 — DETOUR / SOUTH 4
M4-8-24 M3-3-24 M1-5-24-2 M6-3-21

17 — END DETOUR / SOUTH 4
M4-8a-24 M3-3-24 M1-5-24-2

18 — DETOUR AHEAD / SOUTH 4
W20-2-48 M3-3-24 M1-5-24-2

19 — ROAD CLOSED AHEAD / SOUTH 4
W20-3-48 M3-3-24 M1-5-24-2

20 — ROAD CLOSED 500 FT
W20-3-48

21 — ROAD CLOSED AHEAD
W20-3-48

22 — DETOUR / SOUTH 4
M4-8-24 M3-3-24 M1-5-24-2 M6-1L-21

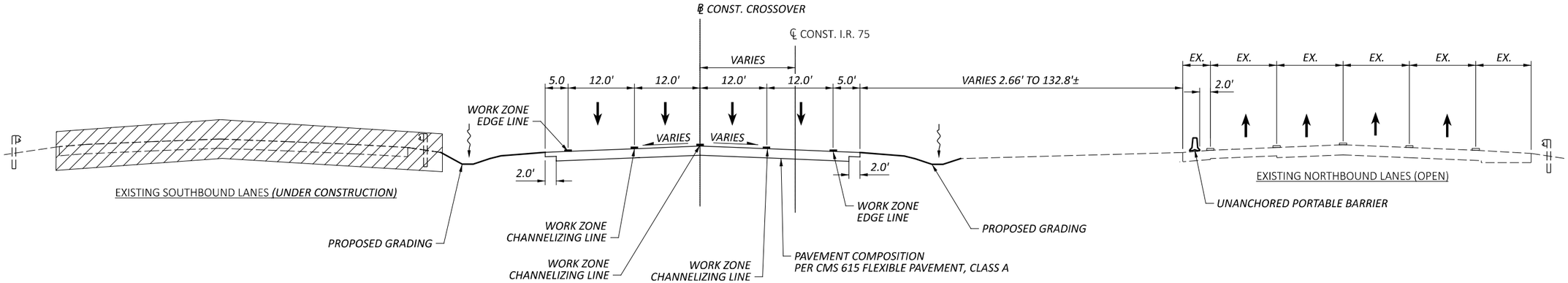
23 — DETOUR / SOUTH 4
M4-8-24 M3-3-24 M1-5-24-2 M5-1L-21

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.026
TOTAL	194

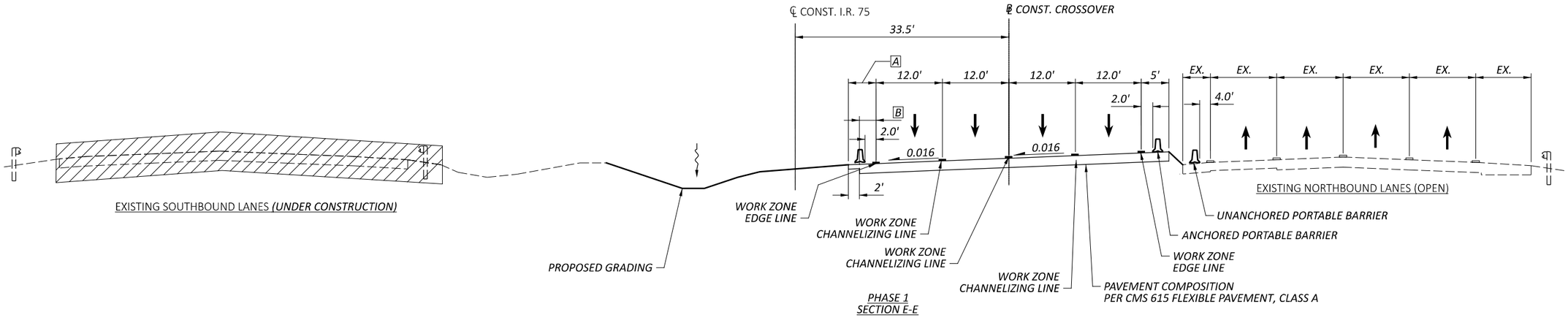
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PHASE 1
SECTION D-D

STA. 263+23.80 TO STA. 275+00.00
STA. 291+00.00 TO STA. 302+48.12



PHASE 1
SECTION E-E

STA. 275+00.00 TO STA. 291+00.00

A	VARIES 5.0' TO 7.0'	STA. 275+00.00	TO	STA. 276+30.00
	7.0'	STA. 276+30.00	TO	STA. 289+70.00
	VARIES 7.0' TO 5.0'	STA. 289+70.00	TO	STA. 291+00.00
B	VARIES 3.0' TO 5.0'	STA. 275+00.00	TO	STA. 276+30.00
	5.0'	STA. 276+30.00	TO	STA. 289+70.00
	VARIES 5.0' TO 3.0'	STA. 289+70.00	TO	STA. 291+00.00

LEGEND

- WORK AREA
- MAINTAINED LANE

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS - I.R. 75

BUT IR 75/VAR 5.22/VAR

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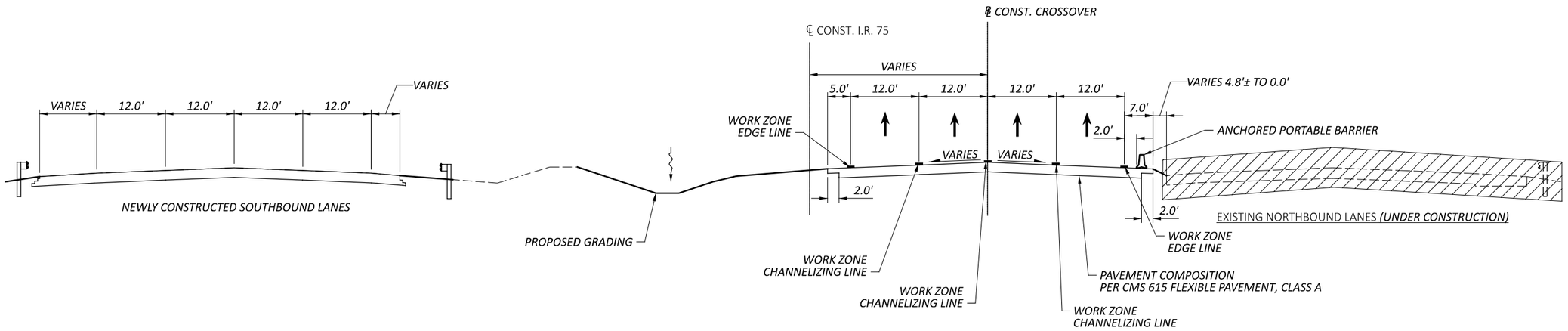
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
CJD

REVIEWER
CWP 08/29/25

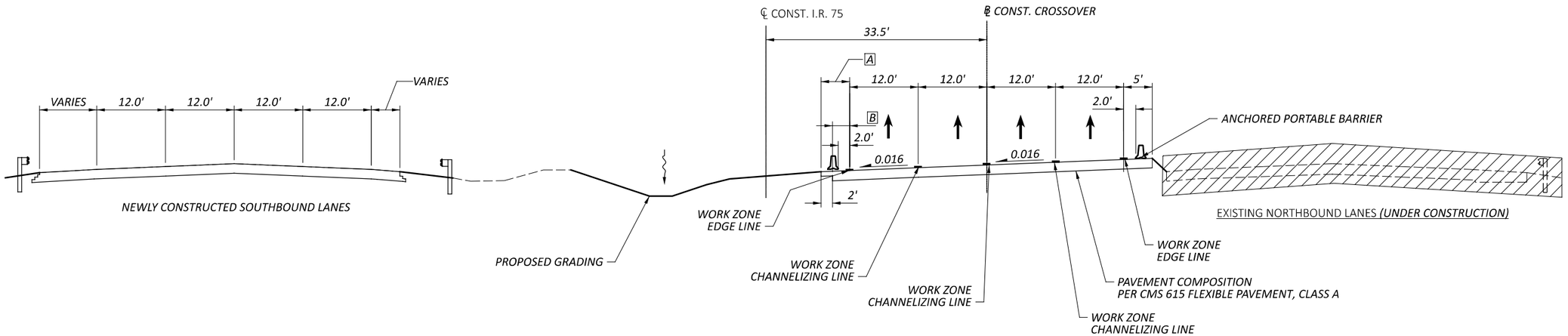
PROJECT ID
117275

SHEET P.027 | TOTAL 194



PHASE 2 CROSSOVER
SECTION F-F

STA. 267+76.99 TO STA. 275+00.00
STA. 291+00.00 TO STA. 298+40.01



PHASE 2
SECTION G-G

STA. 275+00.00 TO STA. 291+00.00

A	VARIES 5.0' TO 7.0'	STA. 275+00.00	TO	STA. 276+30.00
	7.0'	STA. 276+30.00	TO	STA. 289+70.00
	VARIES 7.0' TO 5.0'	STA. 289+70.00	TO	STA. 291+00.00
B	VARIES 3.0' TO 5.0'	STA. 275+00.00	TO	STA. 276+30.00
	5.0'	STA. 276+30.00	TO	STA. 289+70.00
	VARIES 5.0' TO 3.0'	STA. 289+70.00	TO	STA. 291+00.00

LEGEND

- WORK AREA
- MAINTAINED LANE

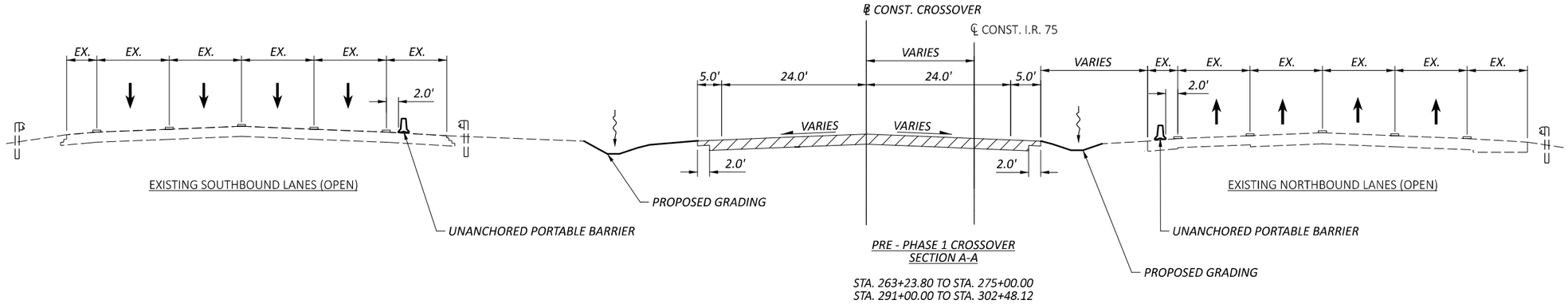
MAINTENANCE OF TRAFFIC TYPICAL SECTIONS - I.R. 75

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

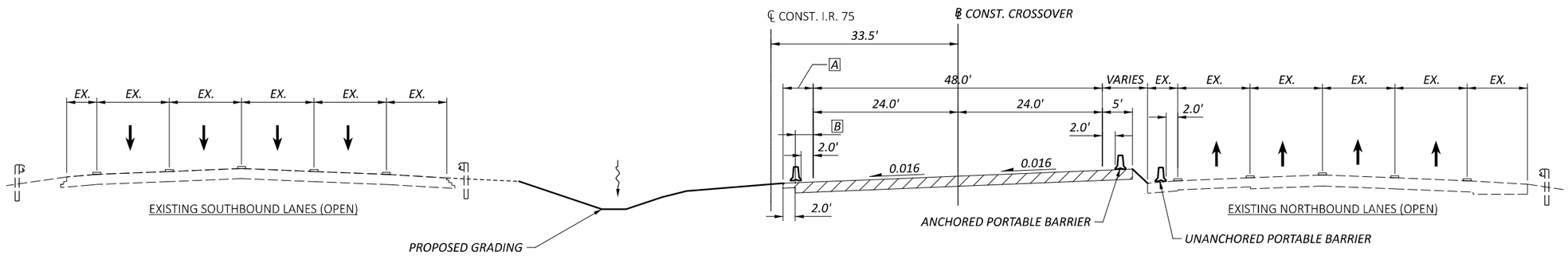
DESIGNER CJD
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.028 TOTAL 194

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PRE - PHASE 1 CROSSOVER
SECTION A-A

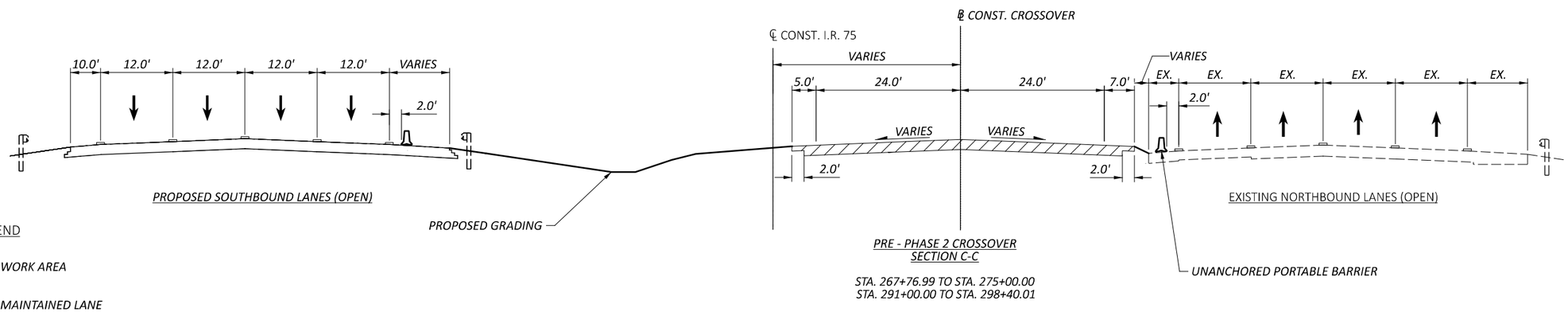
STA. 263+23.80 TO STA. 275+00.00
STA. 291+00.00 TO STA. 302+48.12



SHARED PORTION OF CROSSOVER PRE-PHASE 1 AND PRE-PHASE 2 (CONSTRUCTED IN PRE-PHASE 1)
SECTION B-B

STA. 275+00.00 TO STA. 291+00.00

A	VARIES 5.0' TO 7.0'	STA. 275+00.00	TO	STA. 276+30.00
	7.0'	STA. 276+30.00	TO	STA. 289+70.00
	VARIES 7.0' TO 5.0'	STA. 289+70.00	TO	STA. 291+00.00
B	VARIES 3.0' TO 5.0'	STA. 275+00.00	TO	STA. 276+30.00
	5.0'	STA. 276+30.00	TO	STA. 289+70.00
	VARIES 5.0' TO 3.0'	STA. 289+70.00	TO	STA. 291+00.00



PRE - PHASE 2 CROSSOVER
SECTION C-C

STA. 267+76.99 TO STA. 275+00.00
STA. 291+00.00 TO STA. 298+40.01

LEGEND

- WORK AREA
- MAINTAINED LANE

MAINTENANCE OF TRAFFIC TYPICAL SECTIONS - I.R. 75

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

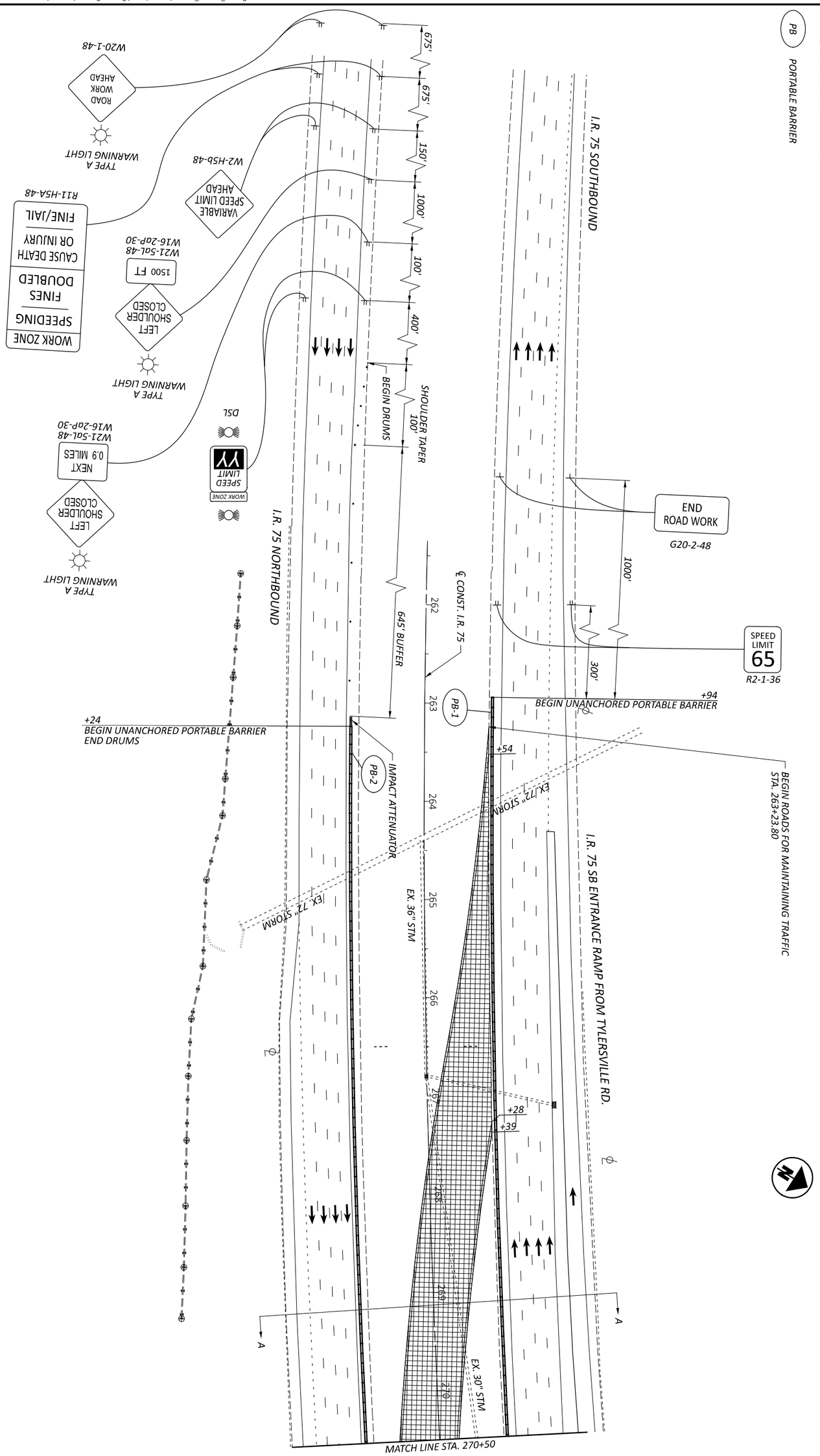
DESIGNER CJD
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.029 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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BUT IR 75/VAR 5.22/VAR

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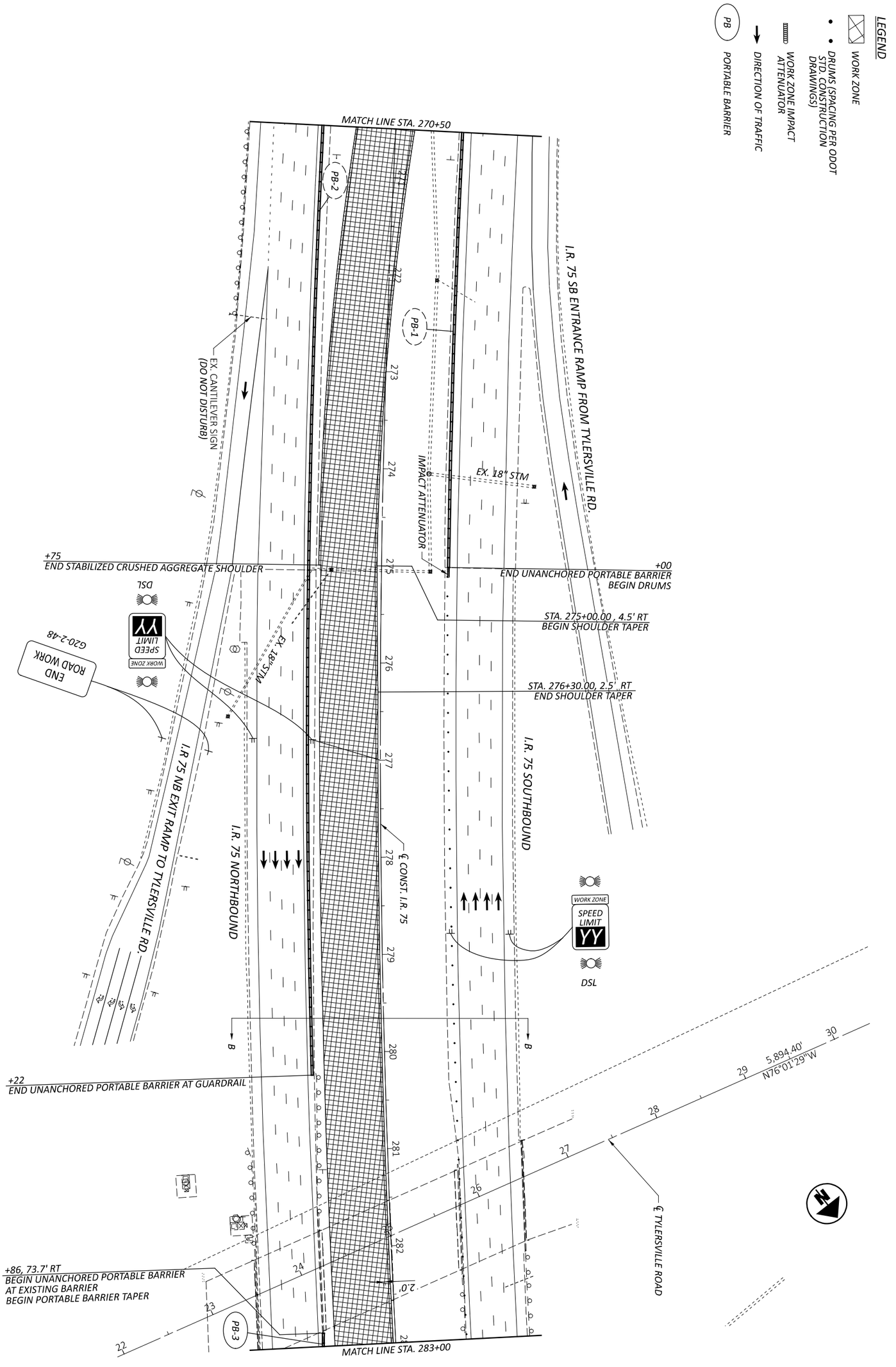


SHEET P.030 TOTAL 194	PROJECT ID 117275	REVIEWER CWP 08/29/25	DESIGNER CJD	DESIGN AGENCY CHAGRIN VALLEY ENGINEERING, LTD.

MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 1
BEGIN TO STA. 270+50

HORIZONTAL SCALE IN FEET
0 50
25 100

MODEL: CLX_1 - Plan 2 (Sheet) PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:25 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 1
STA. 270+50 TO STA. 283+00

SHEET	P.031
TOTAL	194
PROJECT ID	117275
REVIEWER	CWP 08/29/25
DESIGNER	CJD
DESIGN AGENCY	CHAGRIN VALLEY ENGINEERING, LTD.

HORIZONTAL SCALE IN FEET
0 50
25 100

LEGEND

- WORK ZONE
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- PB — PORTABLE BARRIER

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 1
STA. 283+00 TO STA. 295+50

BUT IR 75/VAR 5.22/VAR

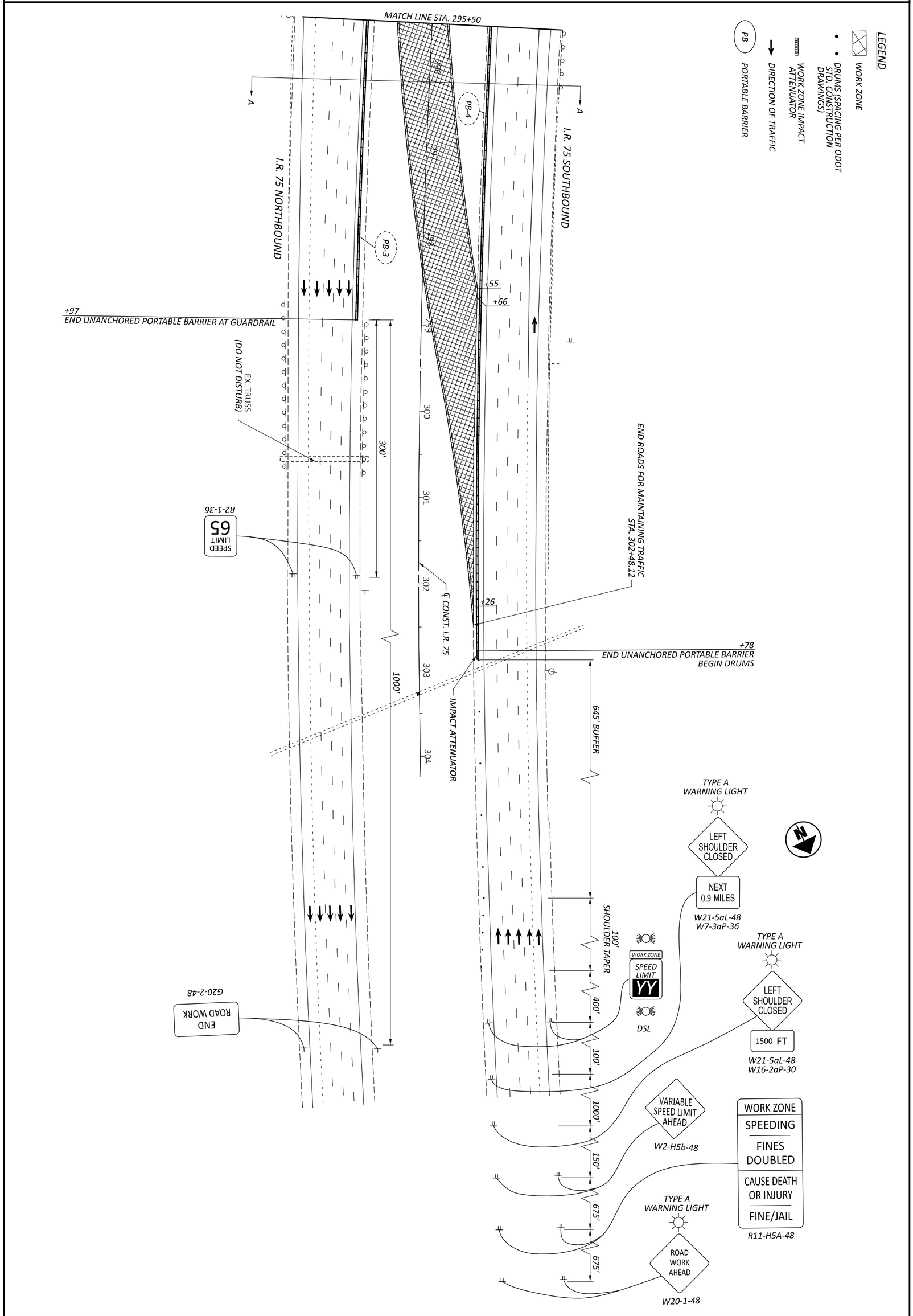
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: CJD
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.032 TOTAL: 194

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BUT IR 75/VAR 5.22/VAR

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER CJD
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.033 | TOTAL 194

MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 1
STA. 295+50 TO END

HORIZONTAL SCALE IN FEET
0 50
25 100

MODEL: CLX_1 - Plan 0 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:29 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
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BUT IR 75/VAR 5.22/VAR

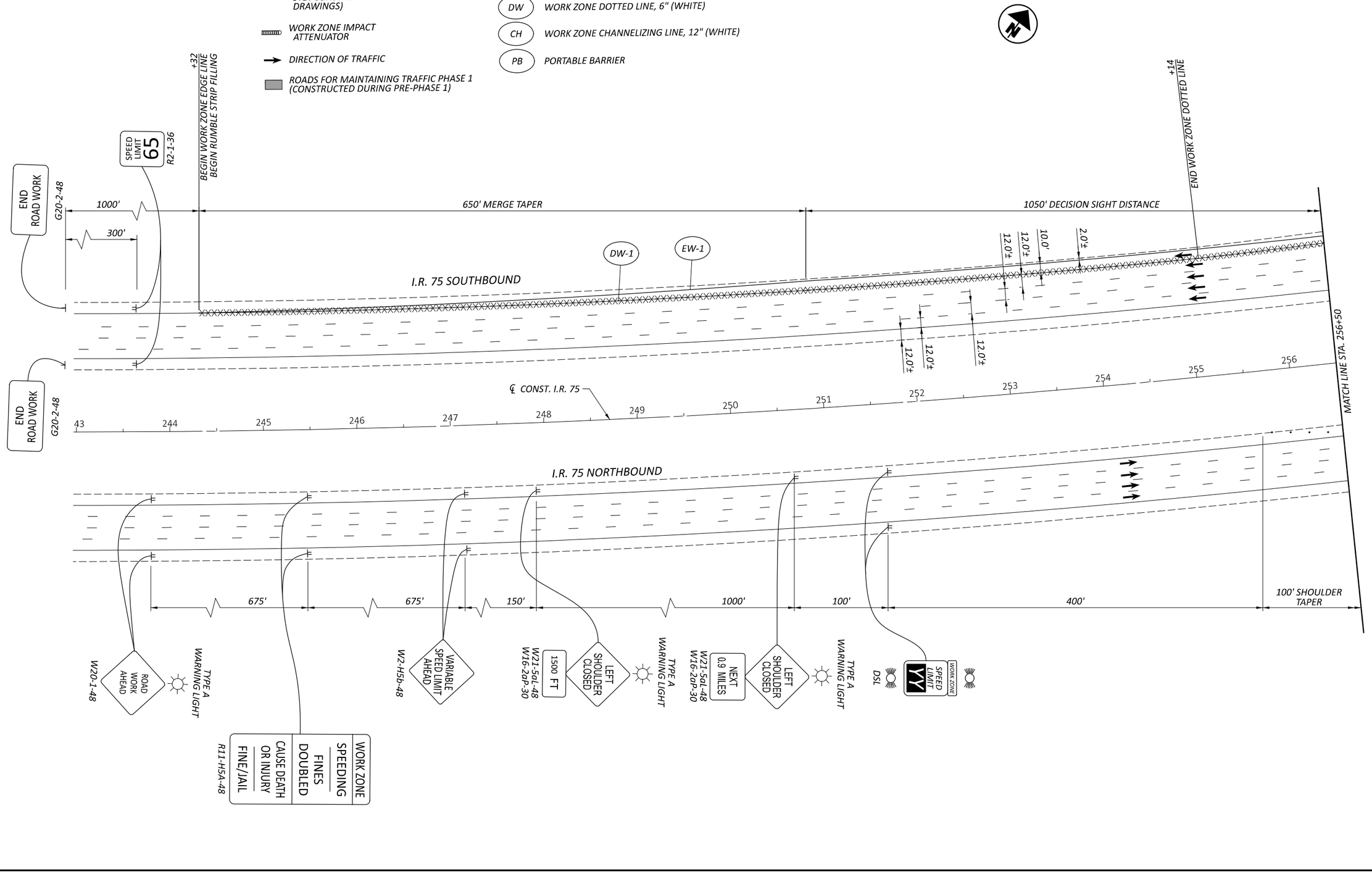
LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PHASE 1.



HORIZONTAL SCALE IN FEET
0 25 50 100

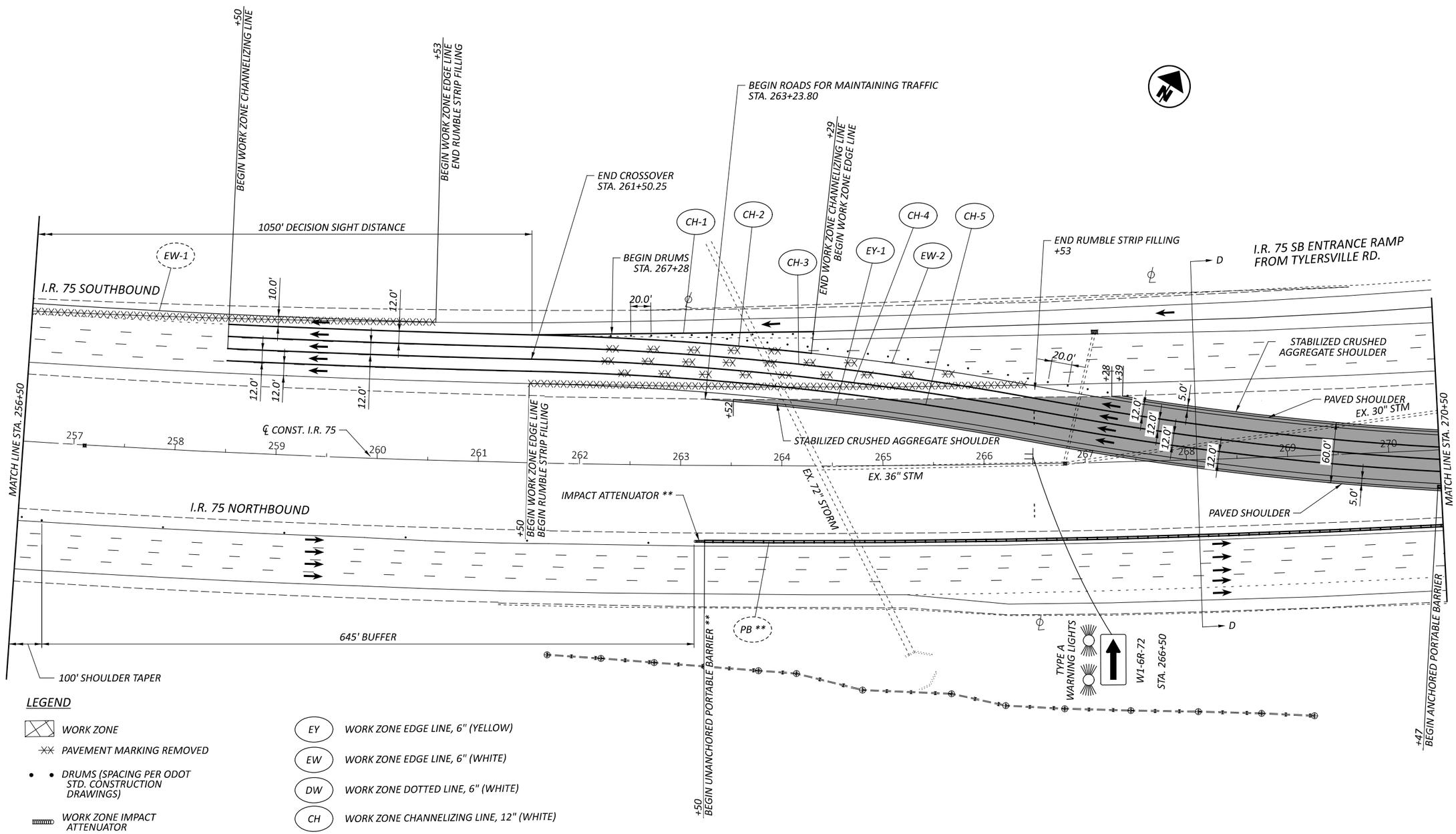
MAINTENANCE OF TRAFFIC - PHASE 1
BEGIN TO STA. 256+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.034
TOTAL	194

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BUT IR 75/VAR 5.22/VAR



LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PHASE 1.

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 256+50 TO STA. 270+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER CJD
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.035 TOTAL 194

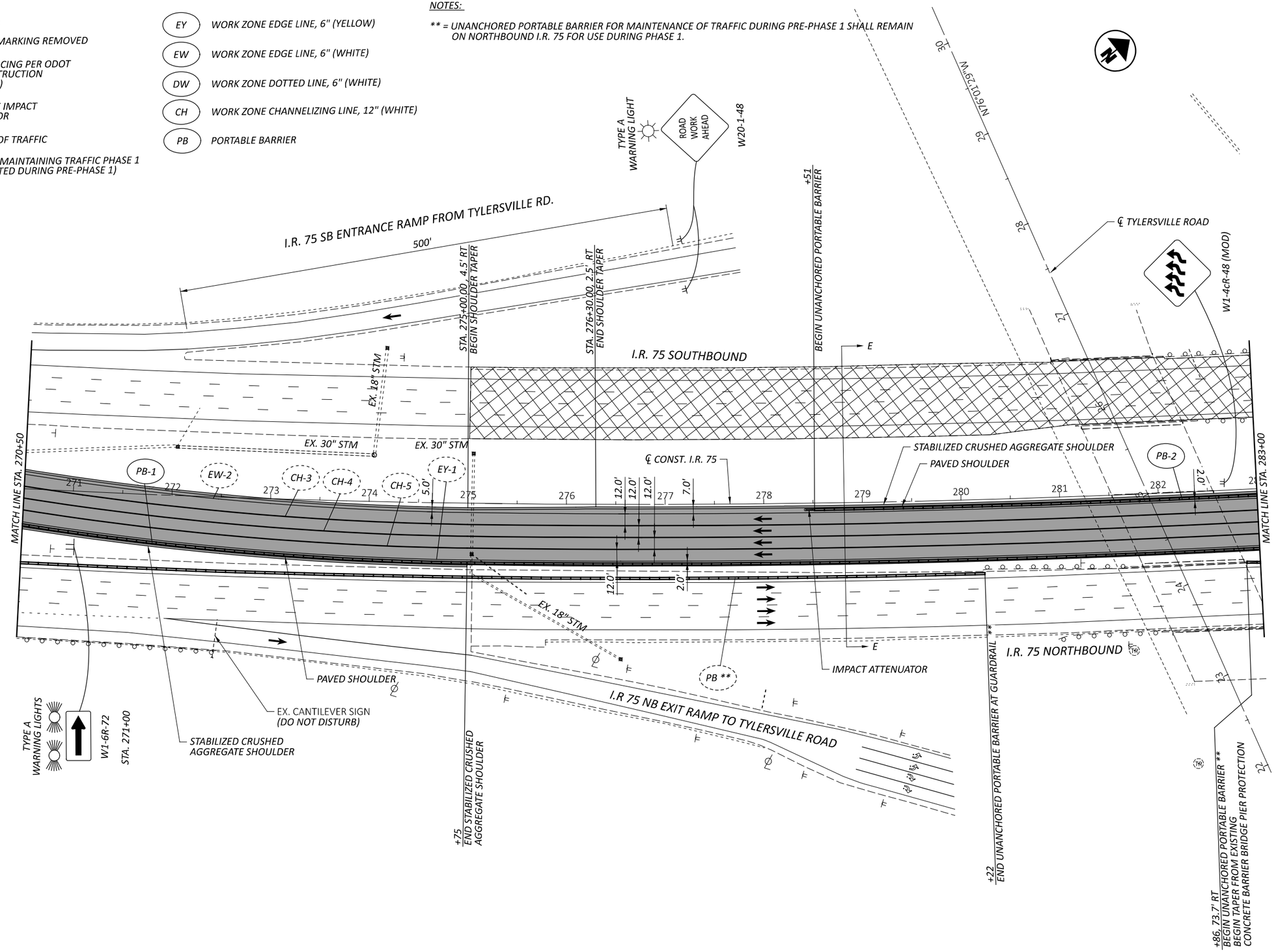
LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PHASE 1.



HORIZONTAL SCALE IN FEET
0 25 50 100

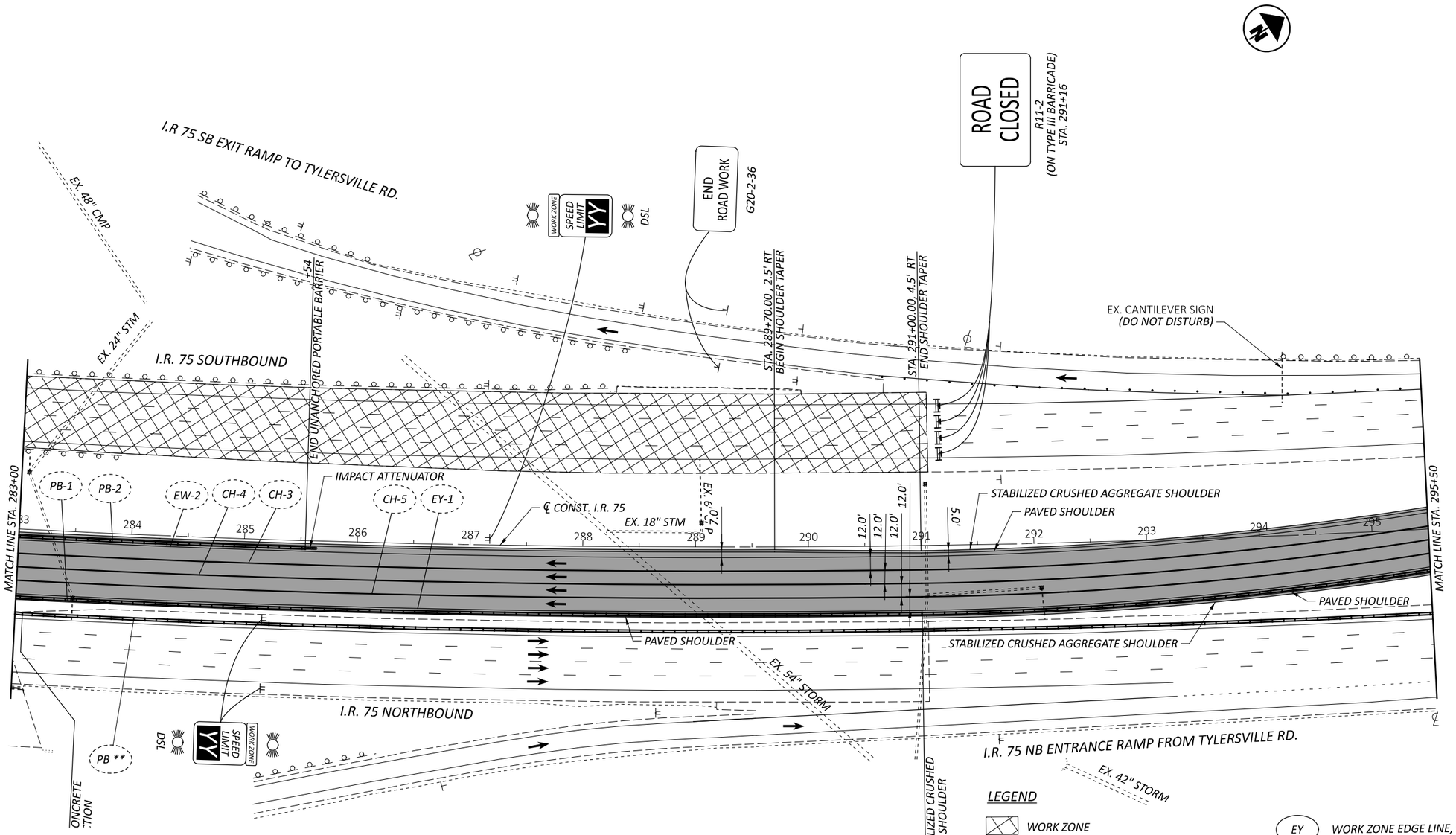
MAINTENANCE OF TRAFFIC - PHASE 1
STA. 270+50 TO STA. 283+00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.036
TOTAL	194

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LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)
- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PHASE 1.

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 283+00 TO STA. 295+50

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER CJD
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.037 TOTAL 194

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LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PHASE 1.

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - PHASE 1
STA. 295+50 TO END

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.038
TOTAL	194

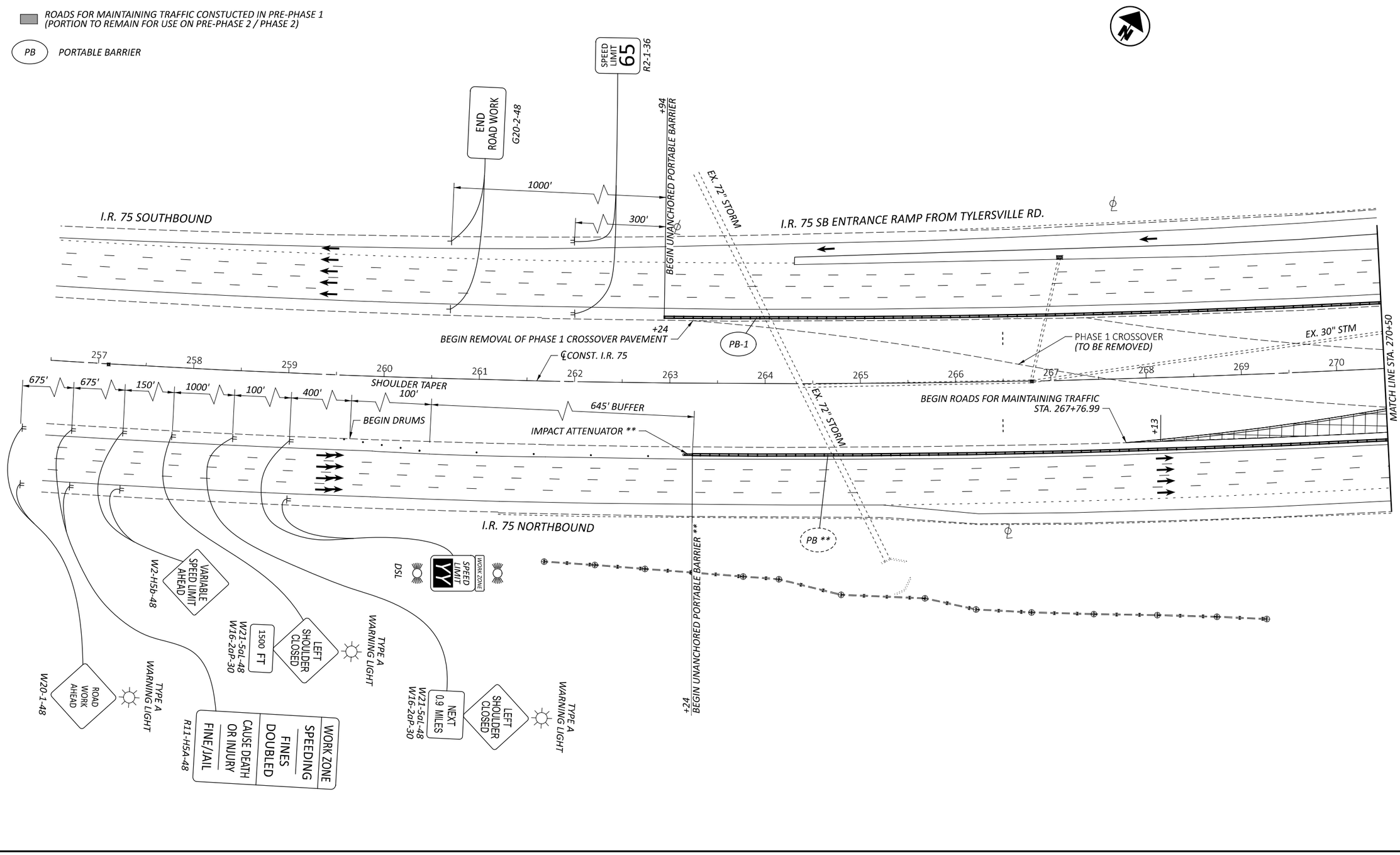
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LEGEND

- WORK ZONE
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC CONSTUCTED IN PRE-PHASE 1 (PORTION TO REMAIN FOR USE ON PRE-PHASE 2 / PHASE 2)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 (AND PHASE 1) SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PRE-PHASE 2.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 2 BEGIN TO STA. 270+50

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:34 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

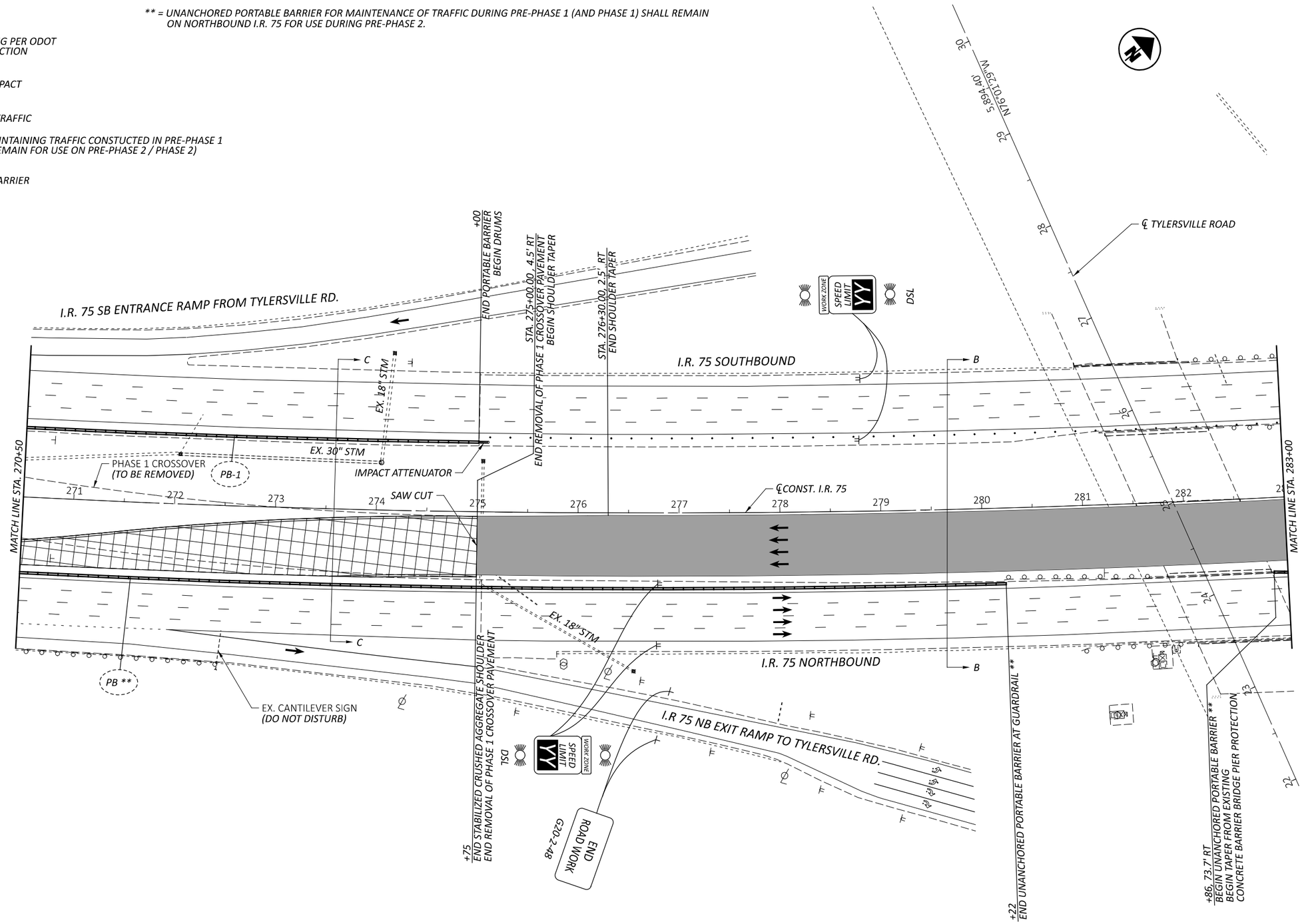
DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.039
TOTAL	194

LEGEND

- WORK ZONE
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC CONSTUCTED IN PRE-PHASE 1 (PORTION TO REMAIN FOR USE ON PRE-PHASE 2 / PHASE 2)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 (AND PHASE 1) SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PRE-PHASE 2.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 2
STA. 270+50 TO STA. 283+00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:35 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

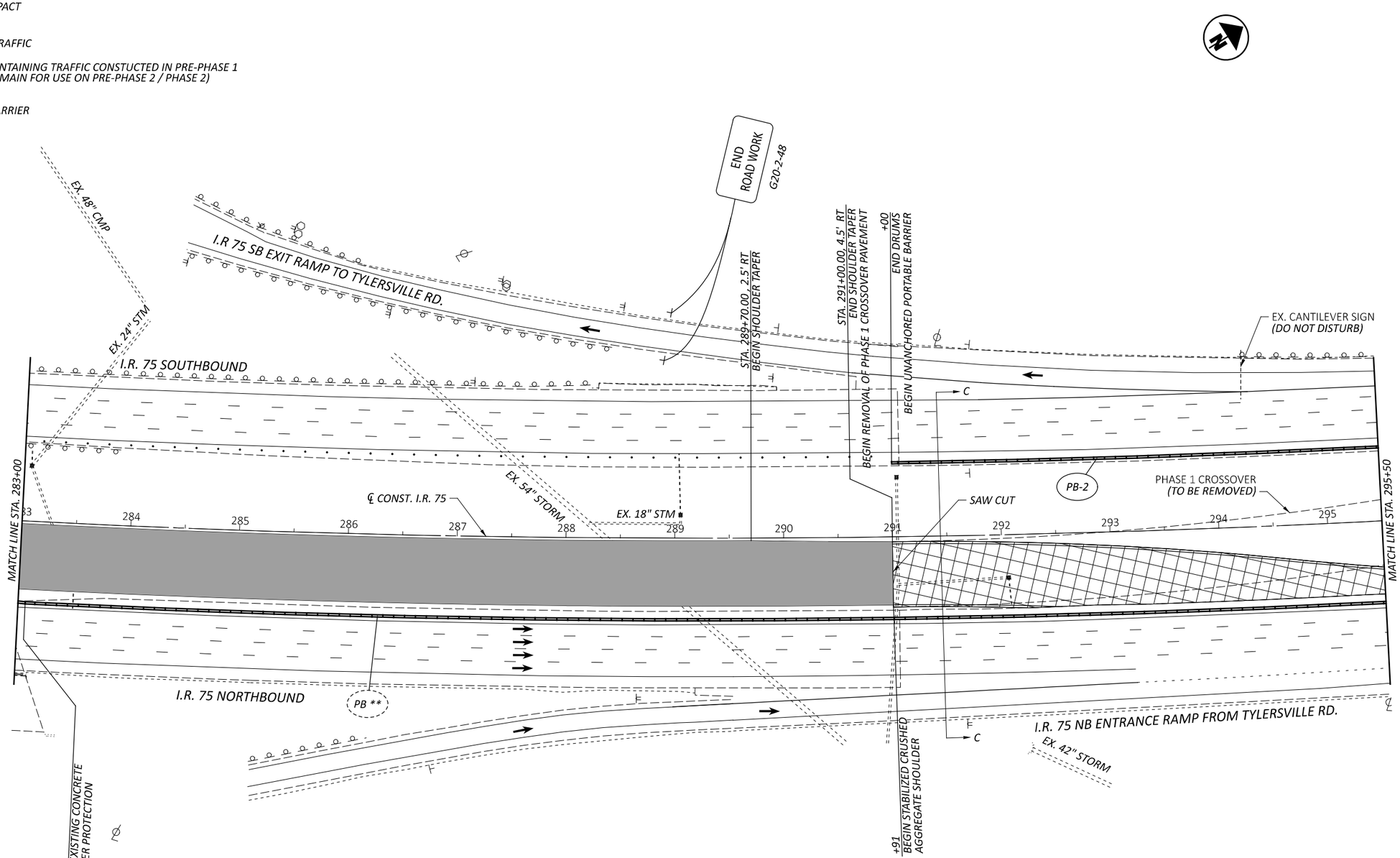
DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.040
TOTAL	194

LEGEND

- WORK ZONE
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC CONSTUCTED IN PRE-PHASE 1 (PORTION TO REMAIN FOR USE ON PRE-PHASE 2 / PHASE 2)
- PB — PORTABLE BARRIER

NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 (AND PHASE 1) SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PRE-PHASE 2.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 2
STA. 283+00 TO STA. 295+50

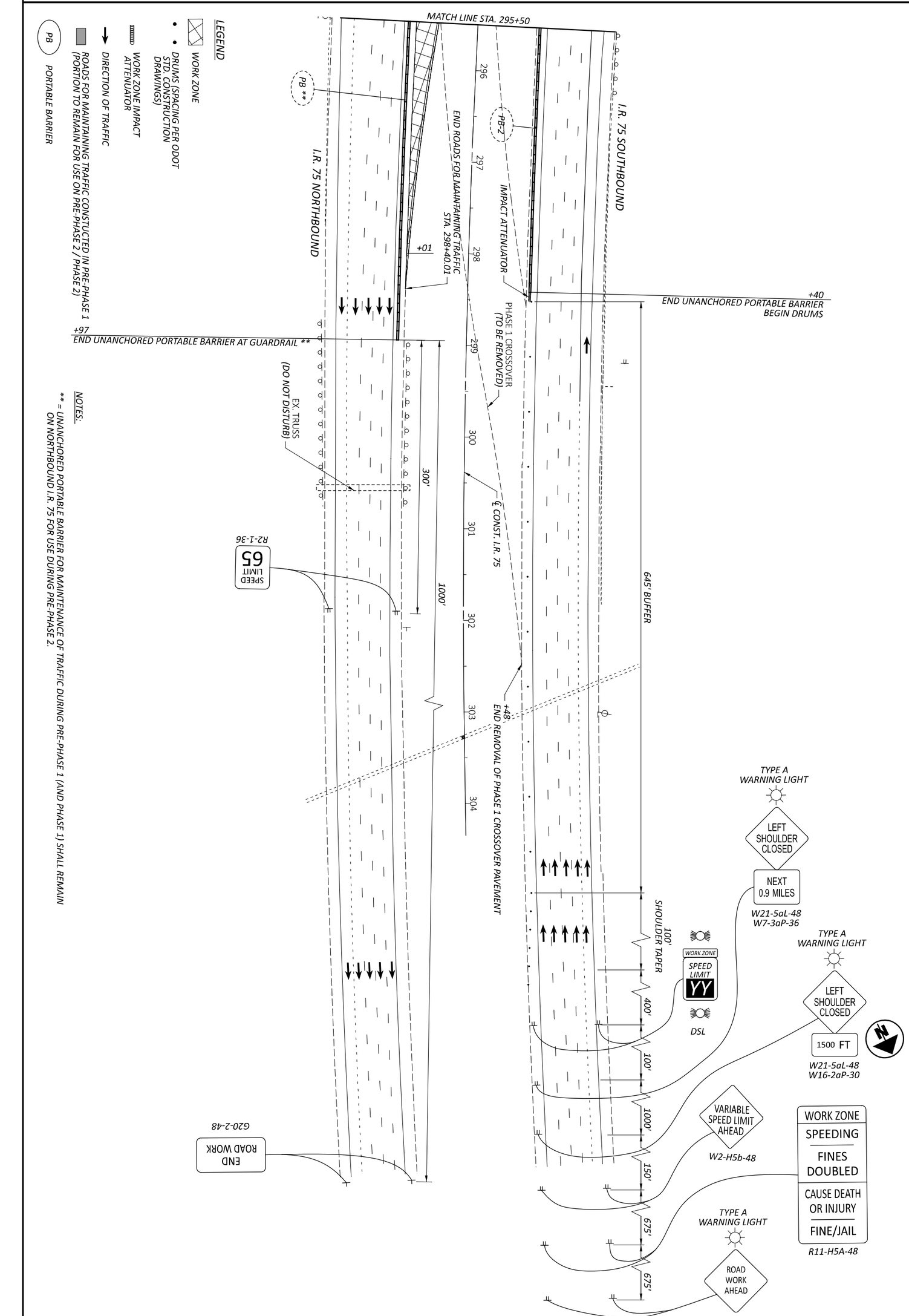
BUT IR 75/VAR 5.22/VAR

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.041
TOTAL	194

MODEL: CLX_1 - Plan 4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:36 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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NOTES:

** = UNANCHORED PORTABLE BARRIER FOR MAINTENANCE OF TRAFFIC DURING PRE-PHASE 1 (AND PHASE 1) SHALL REMAIN ON NORTHBOUND I.R. 75 FOR USE DURING PRE-PHASE 2.

MAINTENANCE OF TRAFFIC PLAN - PRE-PHASE 2
STA. 295+50 TO END

DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.
DESIGNER: CJD
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.042 | TOTAL: 194

HORIZONTAL SCALE IN FEET
0 50
25 100

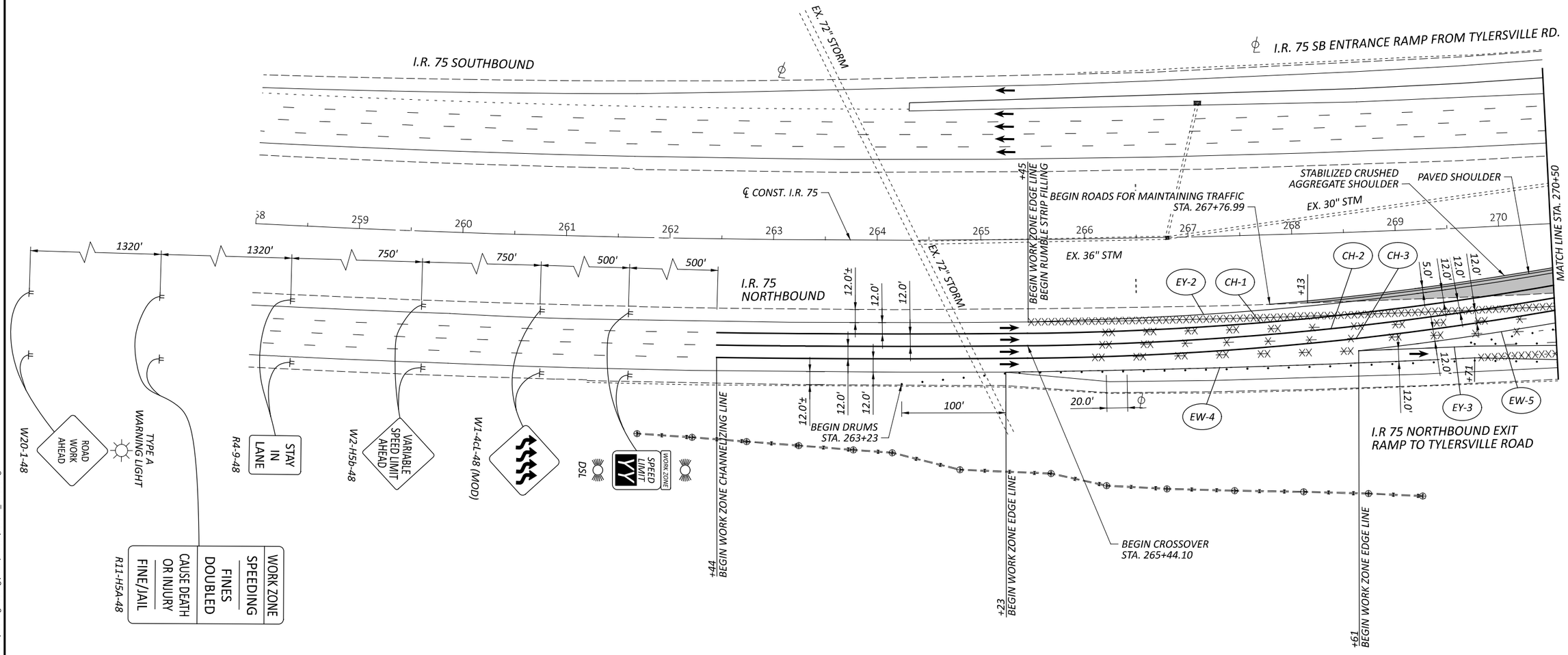
LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)
- ROADS FOR MAINTAINING TRAFFIC PHASE 2 (CONSTRUCTED DURING PRE-PHASE 2)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

* = MAINTENANCE OF TRAFFIC PAVEMENT MARKINGS (EXCEPT FOR WORK ZONE EDGE LINES), TEMPORARY ROAD AND ANCHORED PORTABLE BARRIER FROM PHASE 1 SHALL BE USED ON PHASE 2 BETWEEN STA. 275+00.00 TO STA. 291+00.00.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - PHASE 2
BEGIN TO STA. 270+50

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:38 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.043
TOTAL	194

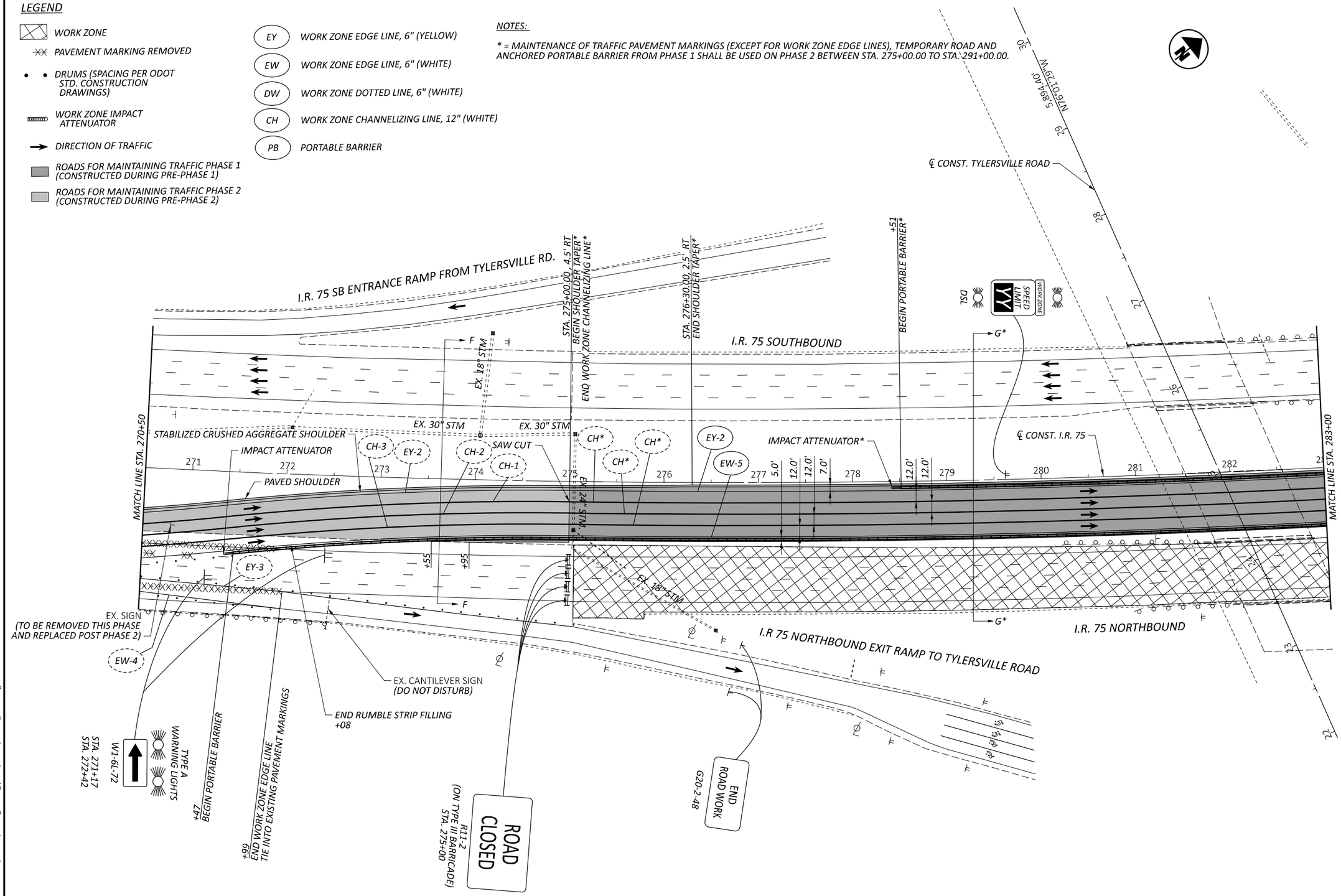
LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)
- ROADS FOR MAINTAINING TRAFFIC PHASE 2 (CONSTRUCTED DURING PRE-PHASE 2)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

* = MAINTENANCE OF TRAFFIC PAVEMENT MARKINGS (EXCEPT FOR WORK ZONE EDGE LINES), TEMPORARY ROAD AND ANCHORED PORTABLE BARRIER FROM PHASE 1 SHALL BE USED ON PHASE 2 BETWEEN STA. 275+00.00 TO STA. 291+00.00.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - PHASE 2
STA. 270+00 TO STA. 283+00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:39 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com
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WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.044
TOTAL	194

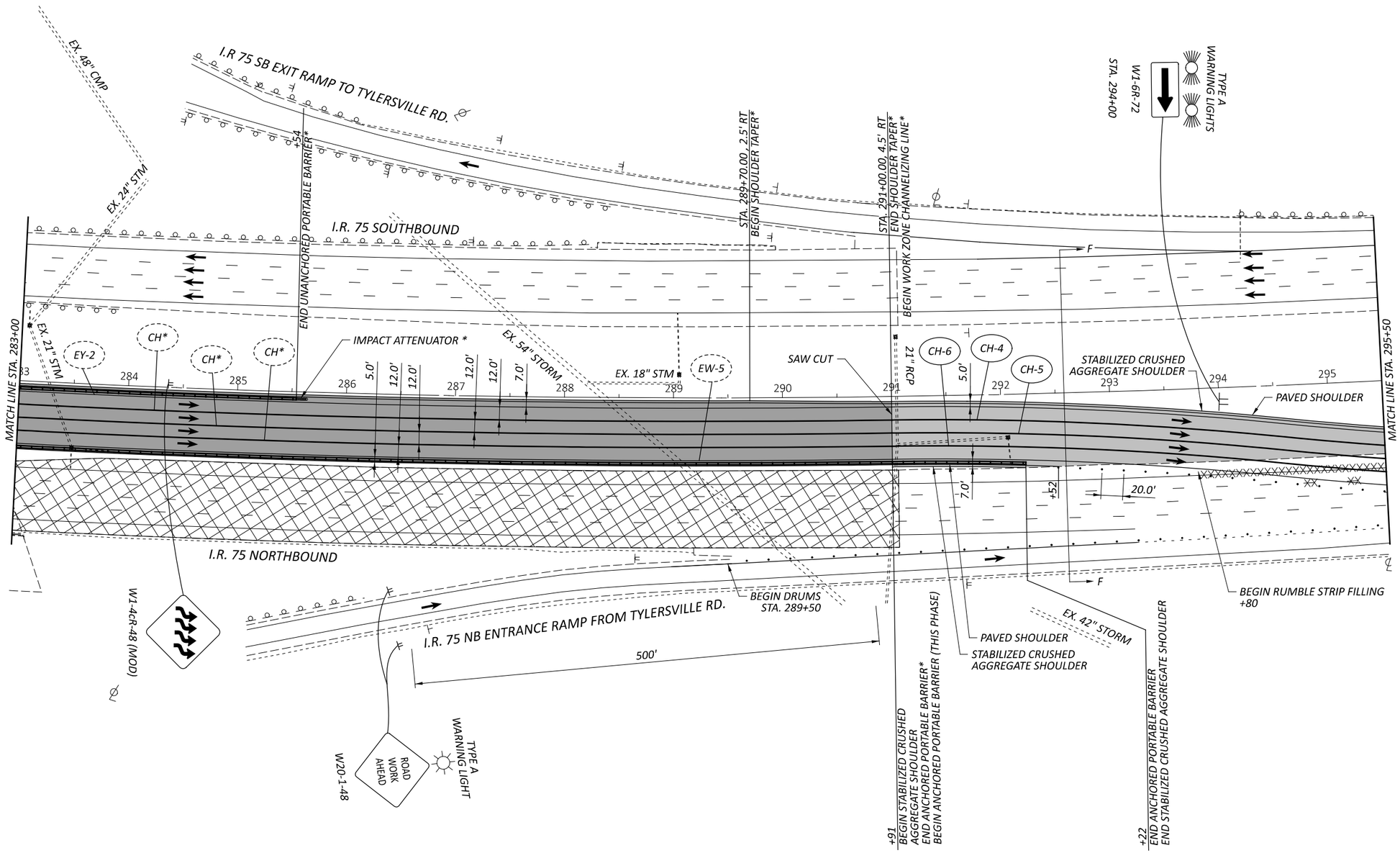
LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)
- ROADS FOR MAINTAINING TRAFFIC PHASE 2 (CONSTRUCTED DURING PRE-PHASE 2)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

* = MAINTENANCE OF TRAFFIC PAVEMENT MARKINGS (EXCEPT FOR WORK ZONE EDGE LINES), TEMPORARY ROAD AND ANCHORED PORTABLE BARRIER FROM PHASE 1 SHALL BE USED ON PHASE 2 BETWEEN STA. 275+00.00 TO STA. 291+00.00.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - PHASE 2
STA. 283+00 TO STA. 295+50

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: CJD
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.045 TOTAL: 194

MODEL: CLX_1 - Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:40 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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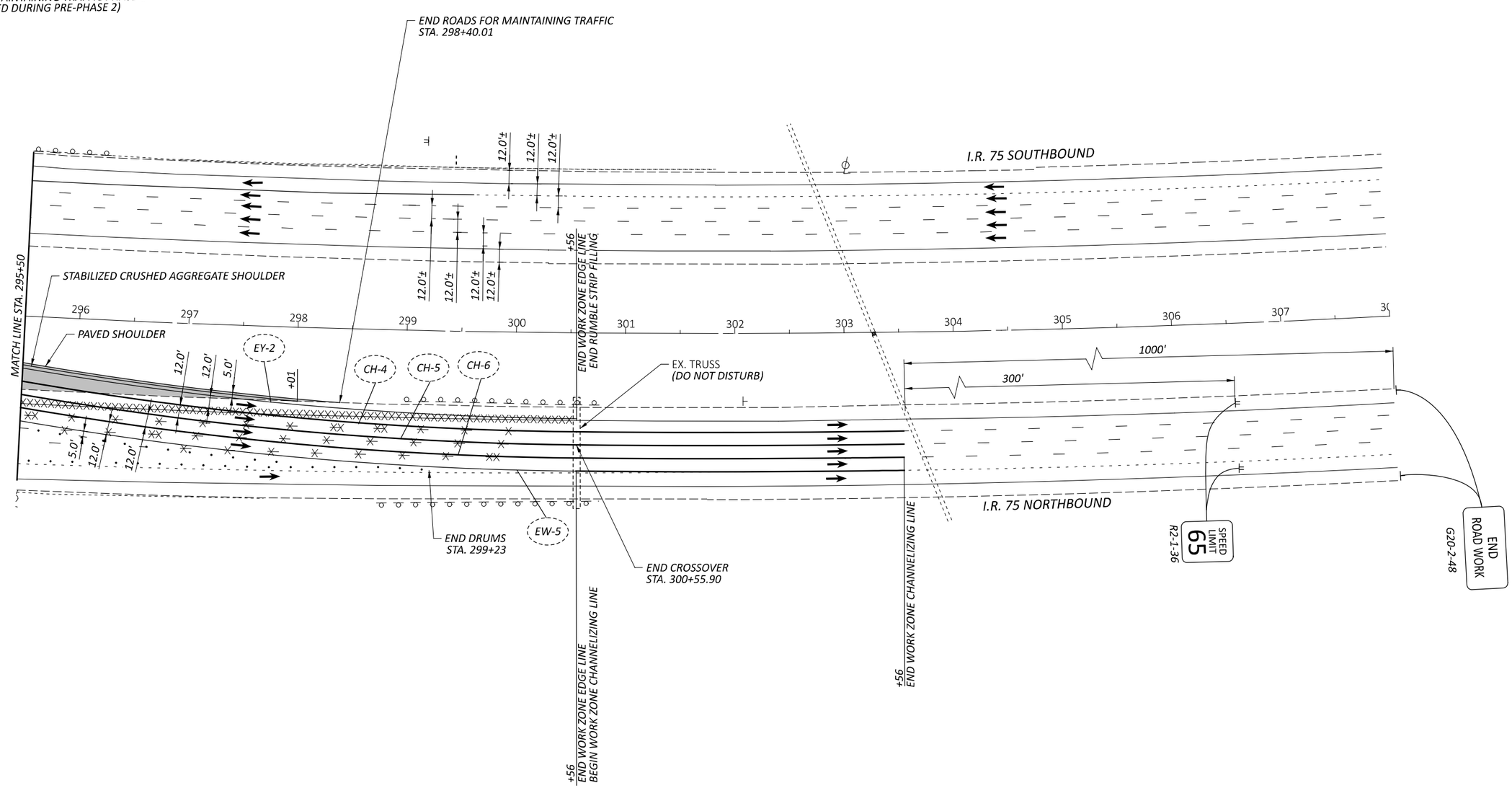
LEGEND

- WORK ZONE
- PAVEMENT MARKING REMOVED
- DRUMS (SPACING PER ODOT STD. CONSTRUCTION DRAWINGS)
- WORK ZONE IMPACT ATTENUATOR
- DIRECTION OF TRAFFIC
- ROADS FOR MAINTAINING TRAFFIC PHASE 1 (CONSTRUCTED DURING PRE-PHASE 1)
- ROADS FOR MAINTAINING TRAFFIC PHASE 2 (CONSTRUCTED DURING PRE-PHASE 2)

- EY — WORK ZONE EDGE LINE, 6" (YELLOW)
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)
- CH — WORK ZONE CHANNELIZING LINE, 12" (WHITE)
- PB — PORTABLE BARRIER

NOTES:

* = MAINTENANCE OF TRAFFIC PAVEMENT MARKINGS (EXCEPT FOR EDGE LINES), TEMPORARY ROAD AND ANCHORED PORTABLE BARRIER FROM PHASE 1 SHALL BE USED ON PHASE 2 BETWEEN STA. 275+00.00 TO STA. 291+00.00.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC - PHASE 2
STA. 295+50 TO END

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - Plan 4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:41 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: CJD
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.046 TOTAL: 194

MODEL: CLX_1 - Plan 10 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:43 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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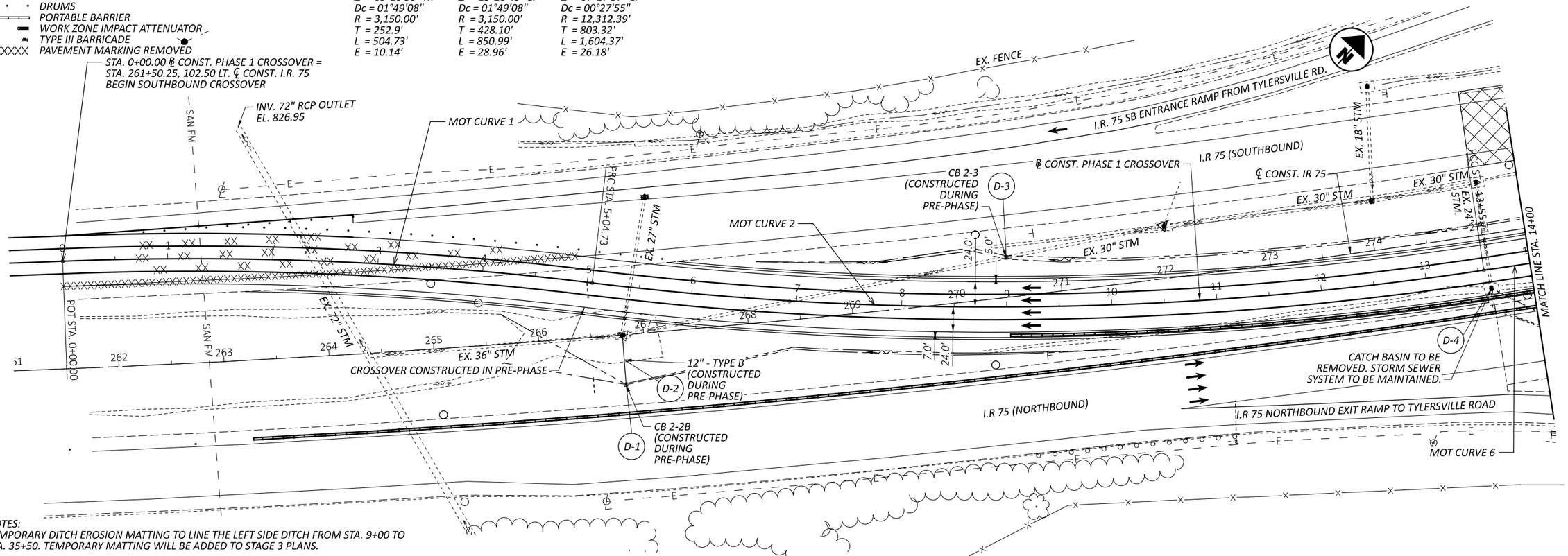
LEGEND

- DIRECTION OF TRAFFIC
- DRUMS
- PORTABLE BARRIER
- WORK ZONE IMPACT ATTENUATOR
- TYPE III BARRICADE
- XXXXXXXX PAVEMENT MARKING REMOVED

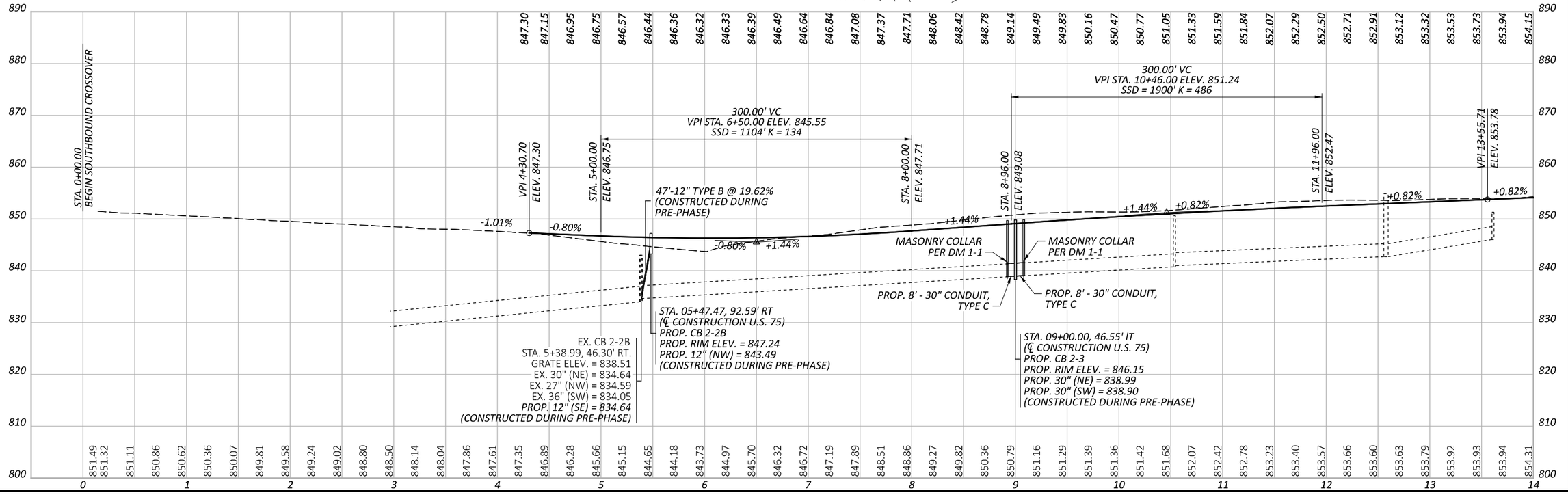
MOT CURVE 1
P.I. = STA. 2+52.90
Δ = 09°10'50" RT
Dc = 01°49'08"
R = 3,150.00'
T = 252.9'
L = 504.73'
E = 10.14'

MOT CURVE 2
P.I. = STA. 9+32.83
Δ = 15°28'43" LT
Dc = 01°49'08"
R = 3,150.00'
T = 428.10'
L = 850.99'
E = 28.96'

MOT CURVE 6
P.I. = STA. 21+59.03
Δ = 07°27'57" LT
Dc = 00°27'55"
R = 12,312.39'
T = 803.32'
L = 1,604.37'
E = 26.18'



NOTES:
TEMPORARY DITCH EROSION MATTING TO LINE THE LEFT SIDE DITCH FROM STA. 9+00 TO STA. 35+50. TEMPORARY MATTING WILL BE ADDED TO STAGE 3 PLANS.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC PHASE 1 CROSSOVER - BEGIN TO STA. 14+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	SDK 08/29/25
PROJECT ID	117275
SHEET	P.047
TOTAL	194

MOT CURVE 6
P.I. = STA. 21+59.03
Δ = 07°27'57" LT
Dc = 00°27'55"
R = 12,312.39'
T = 803.32'
L = 1,604.37'
E = 26.18'

CATCH BASIN TO REMAIN

EX. 24" STM

I.R 75 (SOUTHBOUND)

I.R 75 SOUTHBOUND EXIT RAMP TO TYLERSVILLE ROAD

CATCH BASIN TO BE REMOVED. STORM SEWER SYSTEM TO BE MAINTAINED.

D-6

EX. 18" STM

℄ CONST. I.R. 75

MOT CURVE 6

CROSSOVER CONSTRUCTED IN PRE-PHASE

℄ CONST. PHASE 1 CROSSOVER

EX. 21" STM

MATCH LINE STA. 14+00

MATCH LINE STA. 28+50

24.0'

7.0'

5.0'

24.0'

EX. 18" STM

D-5

CATCH BASIN TO BE REMOVED. STORM SEWER SYSTEM TO BE MAINTAINED.

If the catch basin is being removed, where will water drain?

I.R 75 (NORTHBOUND)

EX. 54"

I.R 75 NORTHBOUND EXIT RAMP TO TYLERSVILLE ROAD

I.R 75 ENTRANCE RAMP FROM TYLERSVILLE RD.

NOTES:
TEMPORARY DITCH EROSION MATTING TO LINE THE LEFT SIDE DITCH FROM STA. 9+00 TO STA. 35+50. TEMPORARY MATTING WILL BE ADDED TO STAGE 3 PLANS.

LEGEND

- DIRECTION OF TRAFFIC
- DRUMS
- PORTABLE BARRIER
- WORK ZONE IMPACT ATTENUATOR
- TYPE III BARRICADE
- XXXXXXXX PAVEMENT MARKING REMOVED

400.00' VC
VPI STA. 21+50.00 ELEV. 860.33
SSD = INF' K = 568

STA. 19+50.00
ELEV. 858.68

STA. 23+50.00
ELEV. 863.39

300.00' VC
VPI STA. 27+28.05 ELEV. 869.17
SSD = 1624' K = 410

STA. 25+78.05
ELEV. 866.88

+0.82%
+0.82%
+1.53%
+1.53%
+1.53%
+0.80%

HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC
PHASE 1 CROSSOVER - STA. 14+00 TO STA. 28+50

BUT IR 75/VAR 5.22/VAR

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER CJD
REVIEWER SDK 08/29/25
PROJECT ID 117275
SHEET P.048 TOTAL 194

MODEL: CLX_1 - Plan 12 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:45 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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BUT IR 75/VAR 5.22/VAR

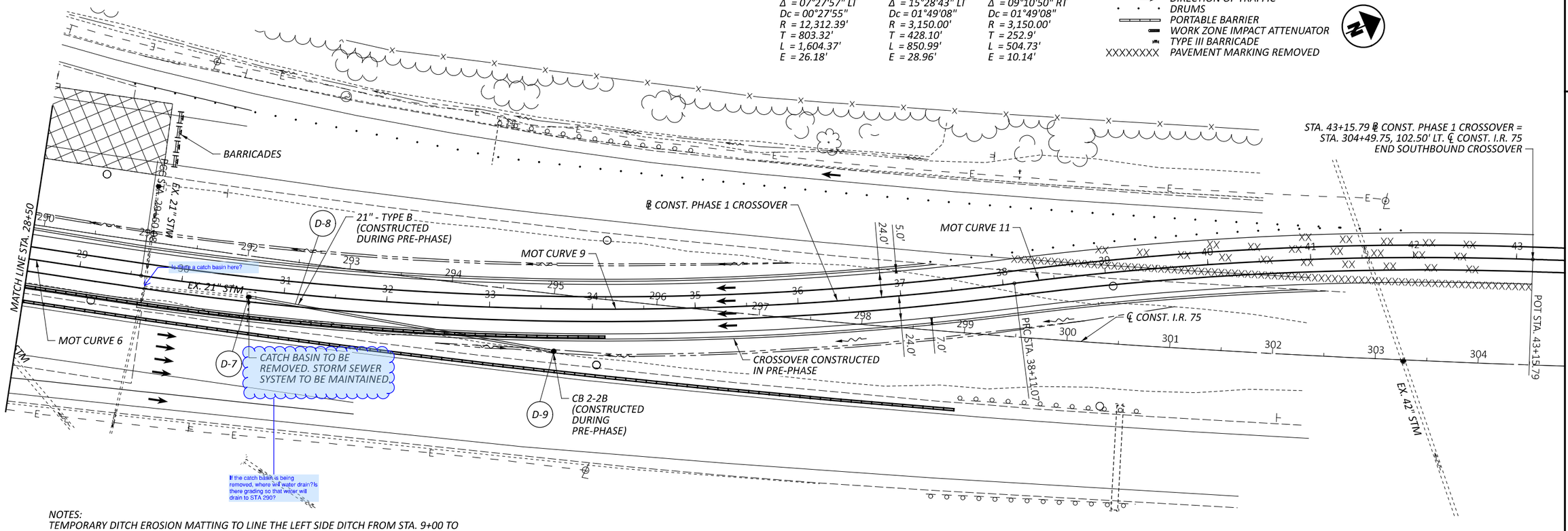
MOT CURVE 6
P.I. = STA. 21+59.03
Δ = 07°27'57" LT
Dc = 00°27'55"
R = 12,312.39'
T = 803.32'
L = 1,604.37'
E = 26.18'

MOT CURVE 9
P.I. = STA. 33+88.18
Δ = 15°28'43" LT
Dc = 01°49'08"
R = 3,150.00'
T = 428.10'
L = 850.99'
E = 28.96'

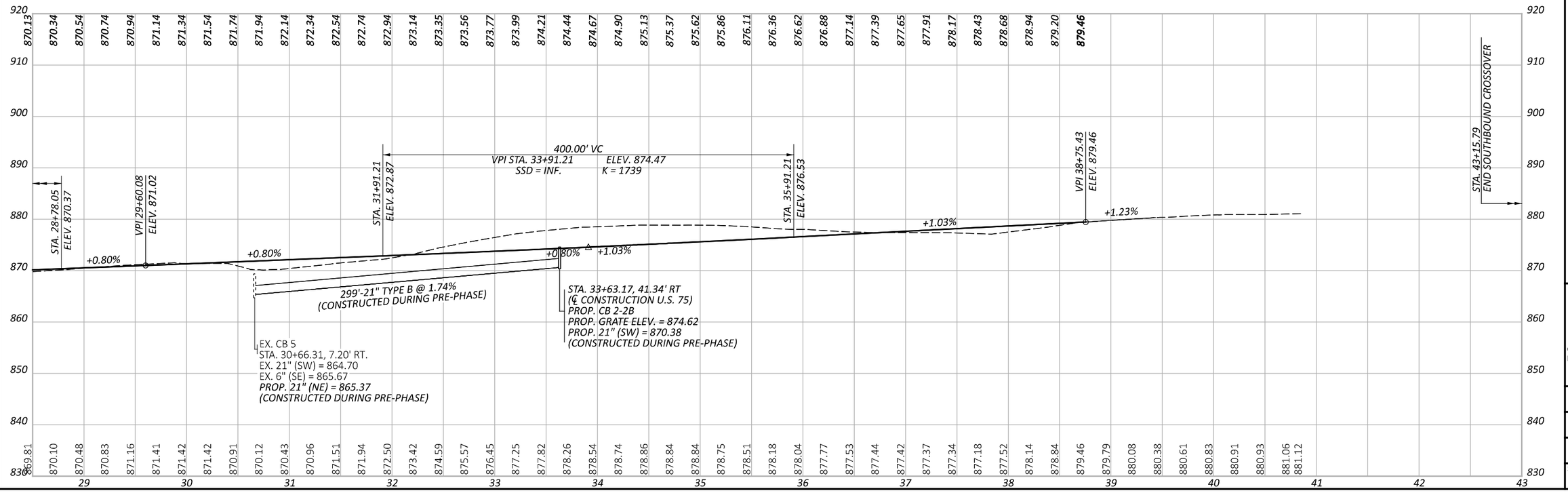
MOT CURVE 11
P.I. = STA. 40+63.97
Δ = 09°10'50" RT
Dc = 01°49'08"
R = 3,150.00'
T = 252.9'
L = 504.73'
E = 10.14'

LEGEND
- DIRECTION OF TRAFFIC
- DRUMS
- PORTABLE BARRIER
- WORK ZONE IMPACT ATTENUATOR
- TYPE III BARRICADE
- XXXXXXXX PAVEMENT MARKING REMOVED

HORIZONTAL SCALE IN FEET
0 25 50 100



NOTES:
TEMPORARY DITCH EROSION MATTING TO LINE THE LEFT SIDE DITCH FROM STA. 9+00 TO STA. 35+50. TEMPORARY MATTING WILL BE ADDED TO STAGE 3 PLANS.



MAINTENANCE OF TRAFFIC PHASE 1 CROSSOVER - STA. 28+50 TO END

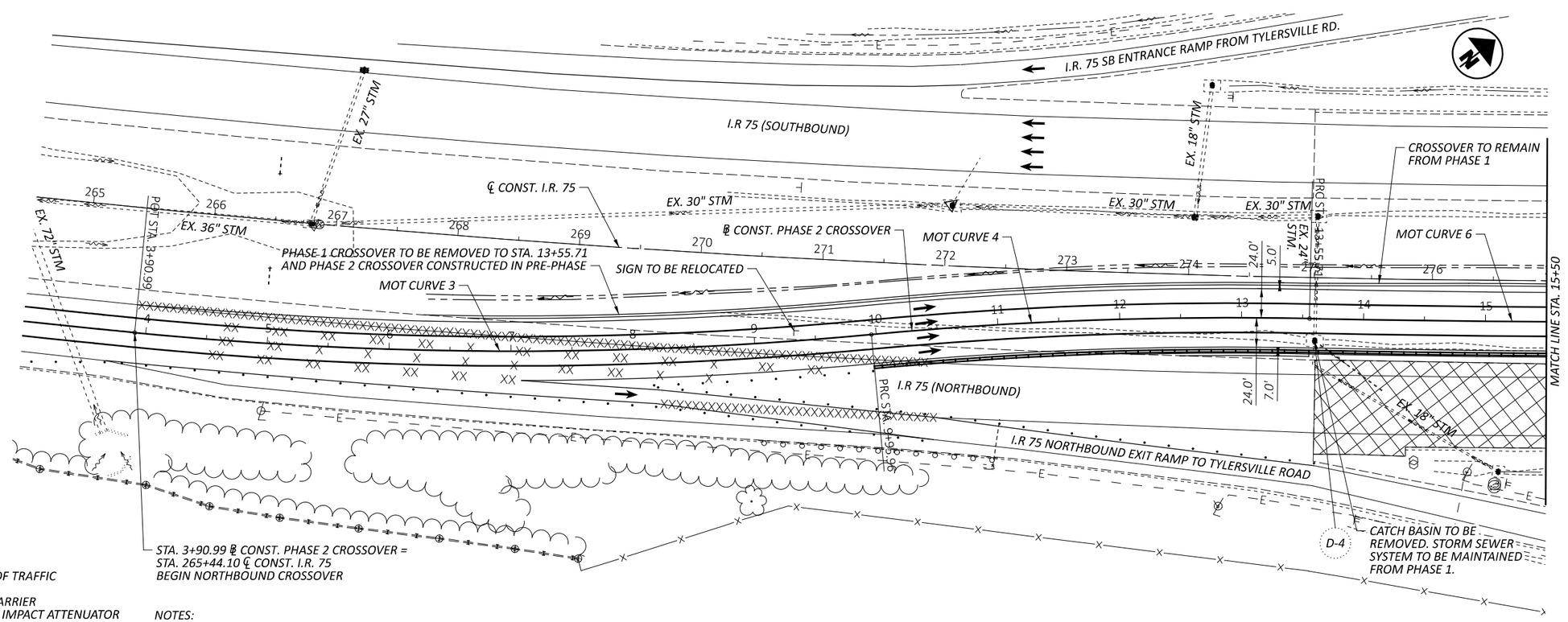
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER CJD
REVIEWER SDK 08/29/25
PROJECT ID 117275
SHEET P.049 TOTAL 194

MOT CURVE 3
P.I. = STA. 6+94.41
Δ = 11°00'14" LT
Dc = 01°49'08"
R = 3,150.00'
T = 303.42'
L = 604.97'
E = 14.58'

MOT CURVE 4
P.I. = STA. 11+76.03
Δ = 06°32'37" RT
Dc = 01°49'08"
R = 3,150.00'
T = 180.07'
L = 359.75'
E = 5.14'

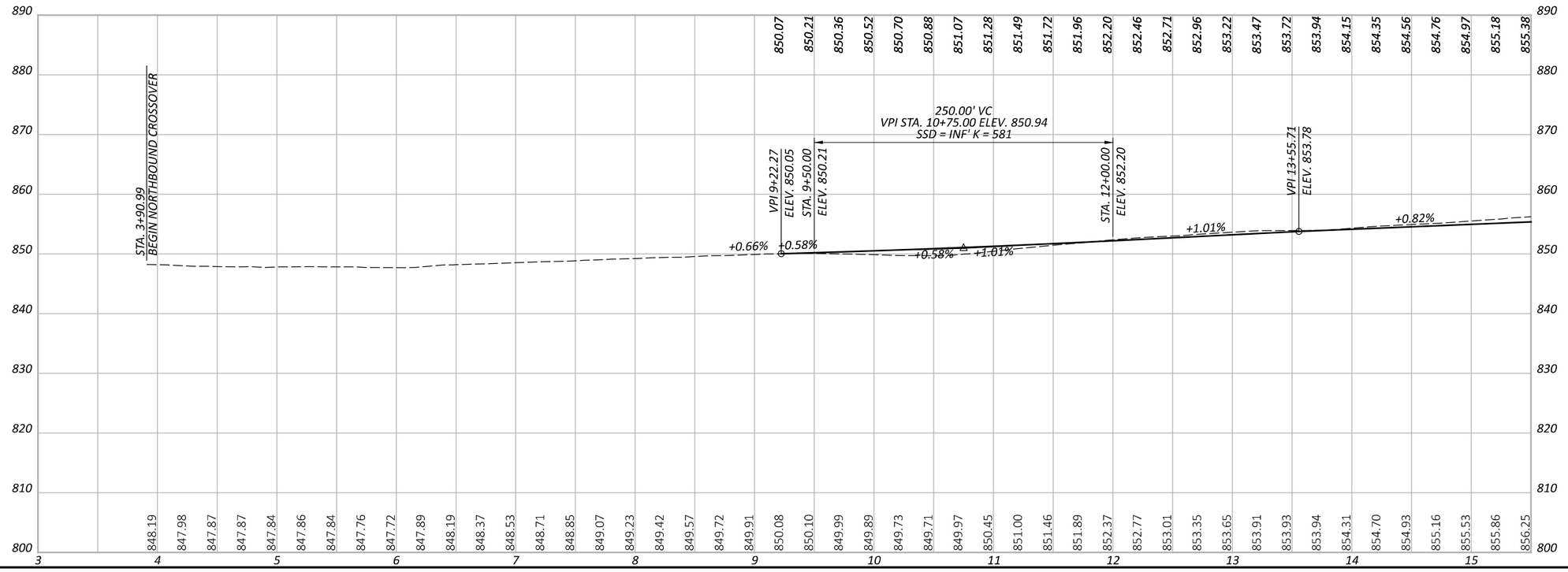
MOT CURVE 6
P.I. = STA. 21+59.03
Δ = 07°27'57" LT
Dc = 00°27'55"
R = 12,312.39'
T = 803.32'
L = 1,604.37'
E = 26.18'



LEGEND

- *DIRECTION OF TRAFFIC*
- *DRUMS*
- *PORTABLE BARRIER*
- *WORK ZONE IMPACT ATTENUATOR*
- *TYPE III BARRICADE*
- XXXXXXXX *PAVEMENT MARKING REMOVED*

NOTES:
TEMPORARY DITCH EROSION MATTING TO REMAIN IN THE LEFT SIDE DITCH FROM PHASE 1 STA. 9+00 TO STA. 29+60.08. TEMPORARY MATTING WILL BE ADDED TO THE STAGE 3 PLANS.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC
PHASE 2 CROSSOVER - BEGIN TO STA. 15+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER CJD
REVIEWER SDK 08/29/25
PROJECT ID 117275
SHEET P.050 TOTAL 194

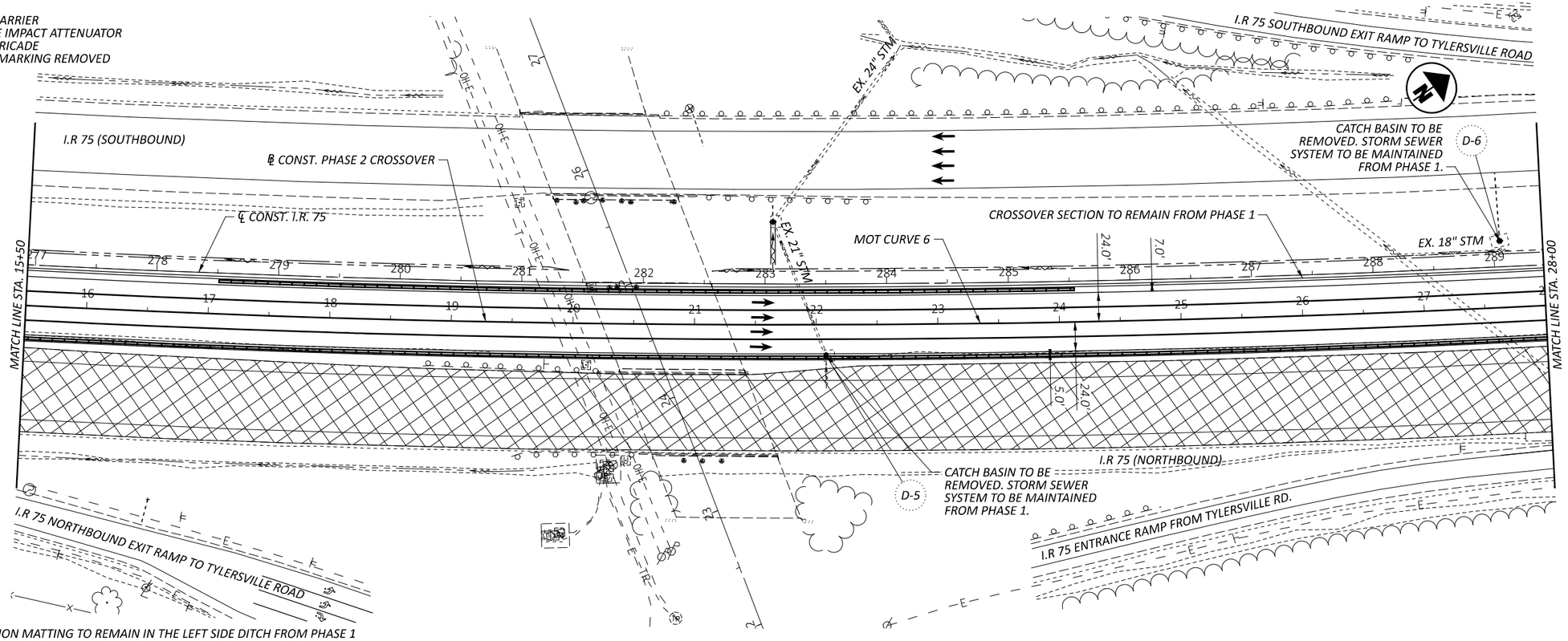
BUT IR 75/VAR 5.22/VAR

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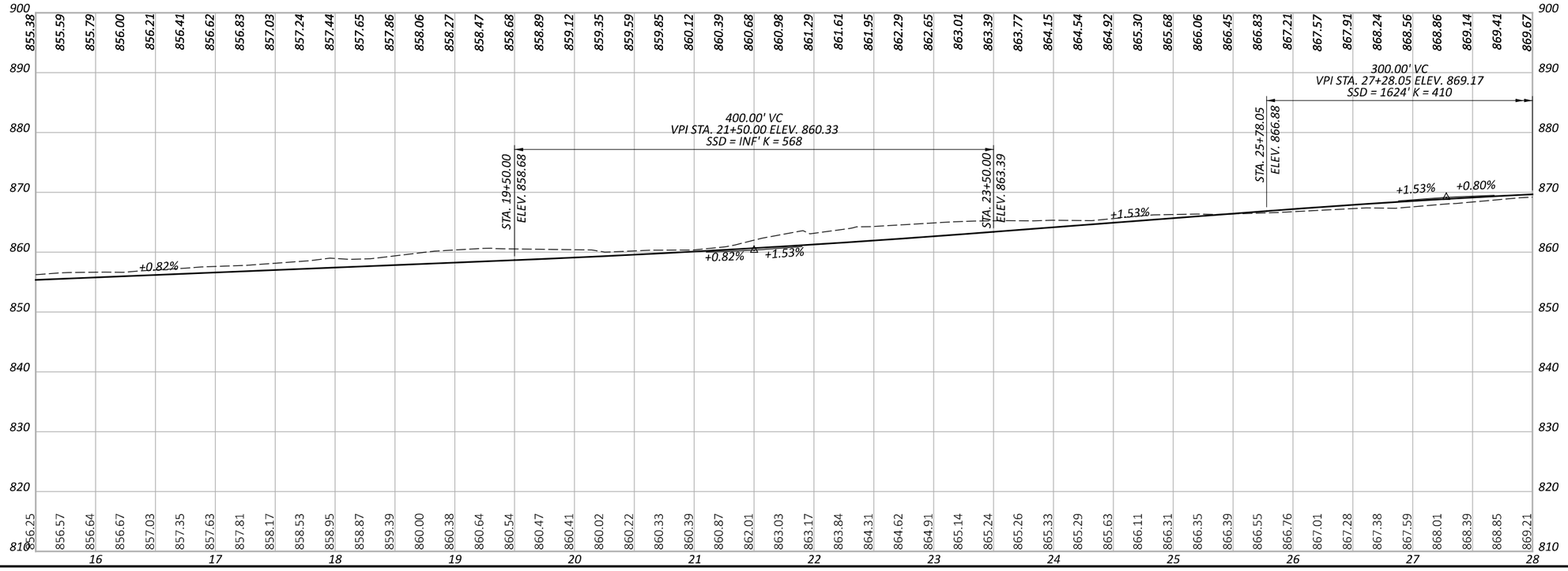
LEGEND

- DIRECTION OF TRAFFIC
- DRUMS
- PORTABLE BARRIER
- WORK ZONE IMPACT ATTENUATOR
- TYPE III BARRICADE
- XXXXXXXXX PAVEMENT MARKING REMOVED

MOT CURVE 6
P.I. = STA. 21+59.03
Δ = 07°27'57" LT
Dc = 00°27'55"
R = 12,312.39'
T = 803.32'
L = 1,604.37'
E = 26.18'



NOTES:
TEMPORARY DITCH EROSION MATTING TO REMAIN IN THE LEFT SIDE DITCH FROM PHASE 1 STA. 9+00 TO STA. 29+60.08. TEMPORARY MATTING WILL BE ADDED TO THE STAGE 3 PLANS.



HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC
PHASE 2 CROSSOVER - STA. 15+50 TO STA. 28+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	SDK 08/29/25
PROJECT ID	117275
SHEET	P.051
TOTAL	194

BUT IR 75/VAR 5.22/VAR

MODEL: CIX_1 - Plan 8 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:49 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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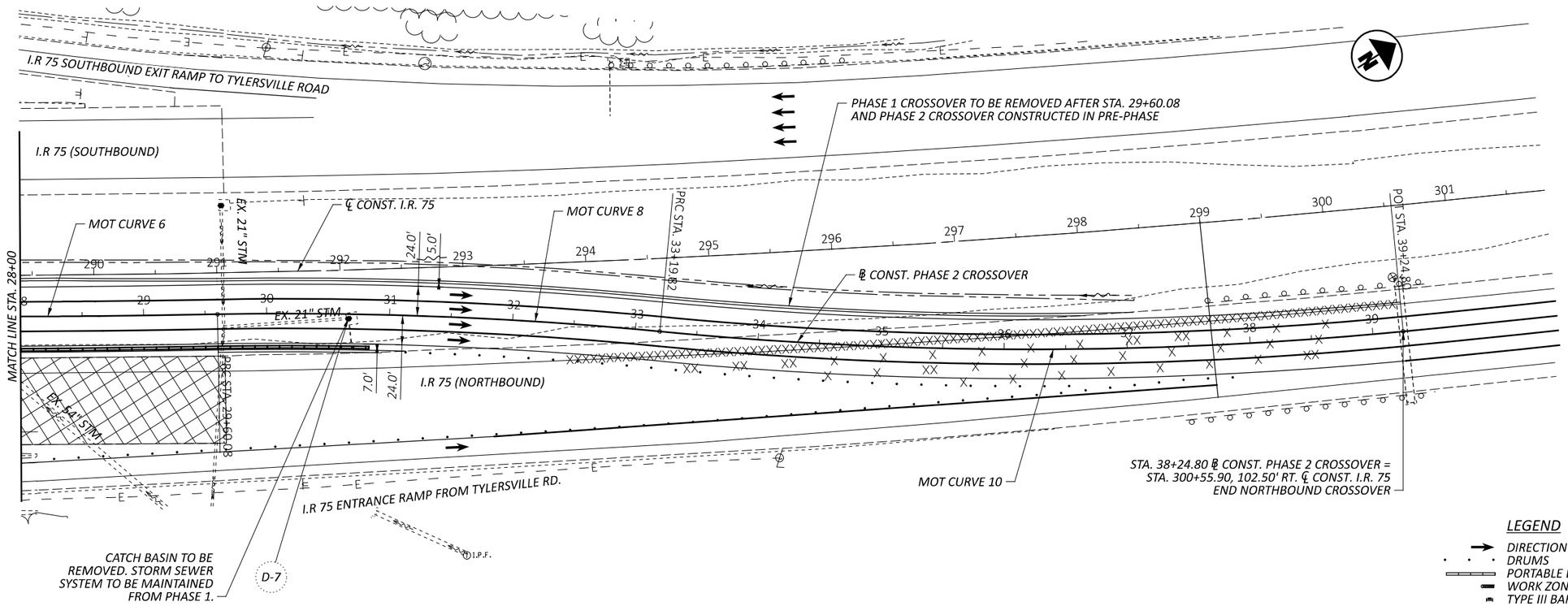
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - Plan 9 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:49 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvellimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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MOT CURVE 6
P.I. = STA. 21+59.03
Δ = 07°27'57" LT
Dc = 00°27'55"
R = 12,312.39'
T = 803.32'
L = 1,604.37'
E = 26.18'

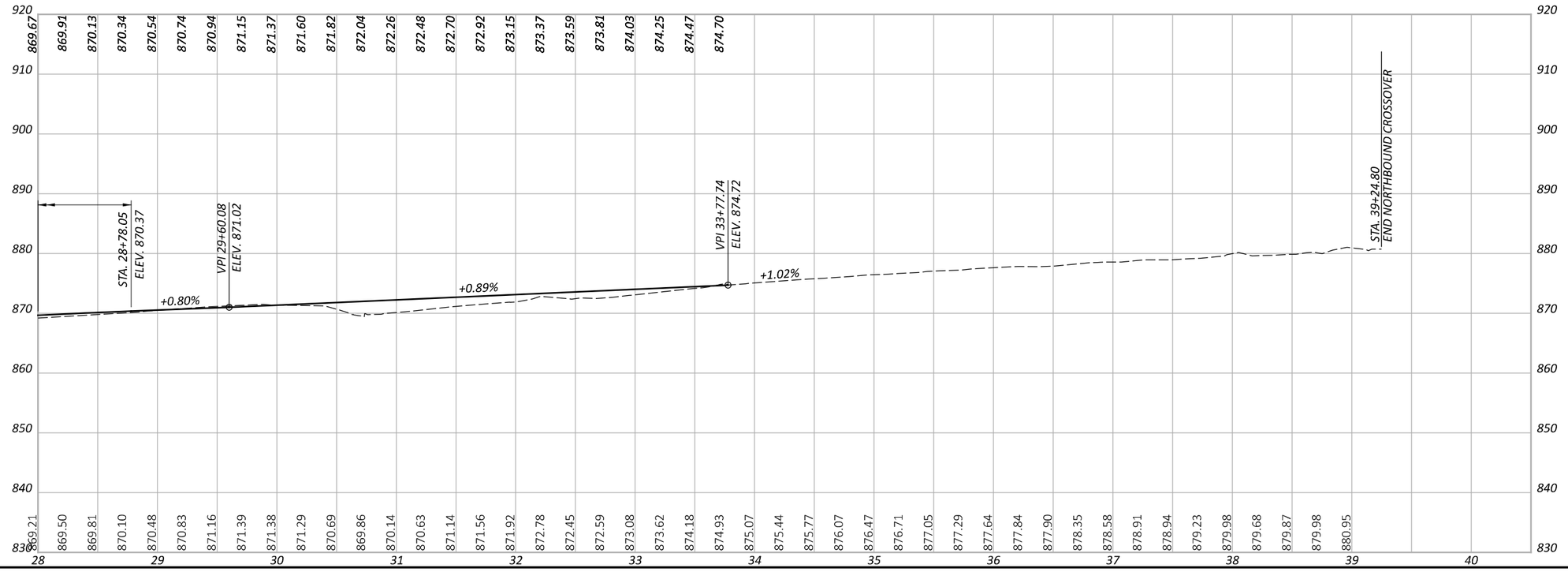
MOT CURVE 8
P.I. = STA. 31+40.14
Δ = 06°32'37" RT
Dc = 01°49'08"
R = 3,150.00'
T = 180.07'
L = 359.75'
E = 5.14'

MOT CURVE 10
P.I. = STA. 36+23.24
Δ = 11°00'14" LT
Dc = 01°49'08"
R = 3,150.00'
T = 303.42'
L = 604.97'
E = 14.58'



LEGEND
- *DIRECTION OF TRAFFIC*
- *DRUMS*
- *PORTABLE BARRIER*
- *WORK ZONE IMPACT ATTENUATOR*
- *TYPE III BARRICADE*
- XXXXXXXX *PAVEMENT MARKING REMOVED*

NOTES:
TEMPORARY DITCH EROSION MATTING TO REMAIN IN THE LEFT SIDE DITCH FROM PHASE 1 STA. 9+00 TO STA. 29+60.08. ADDITIONAL TEMPORARY DITCH EROSION MATTING TO BE ADDED FROM STA. 29+60.08 TO STA. 32+00.00 TEMPORARY MATTING WILL BE ADDED TO THE STAGE 3 PLANS.



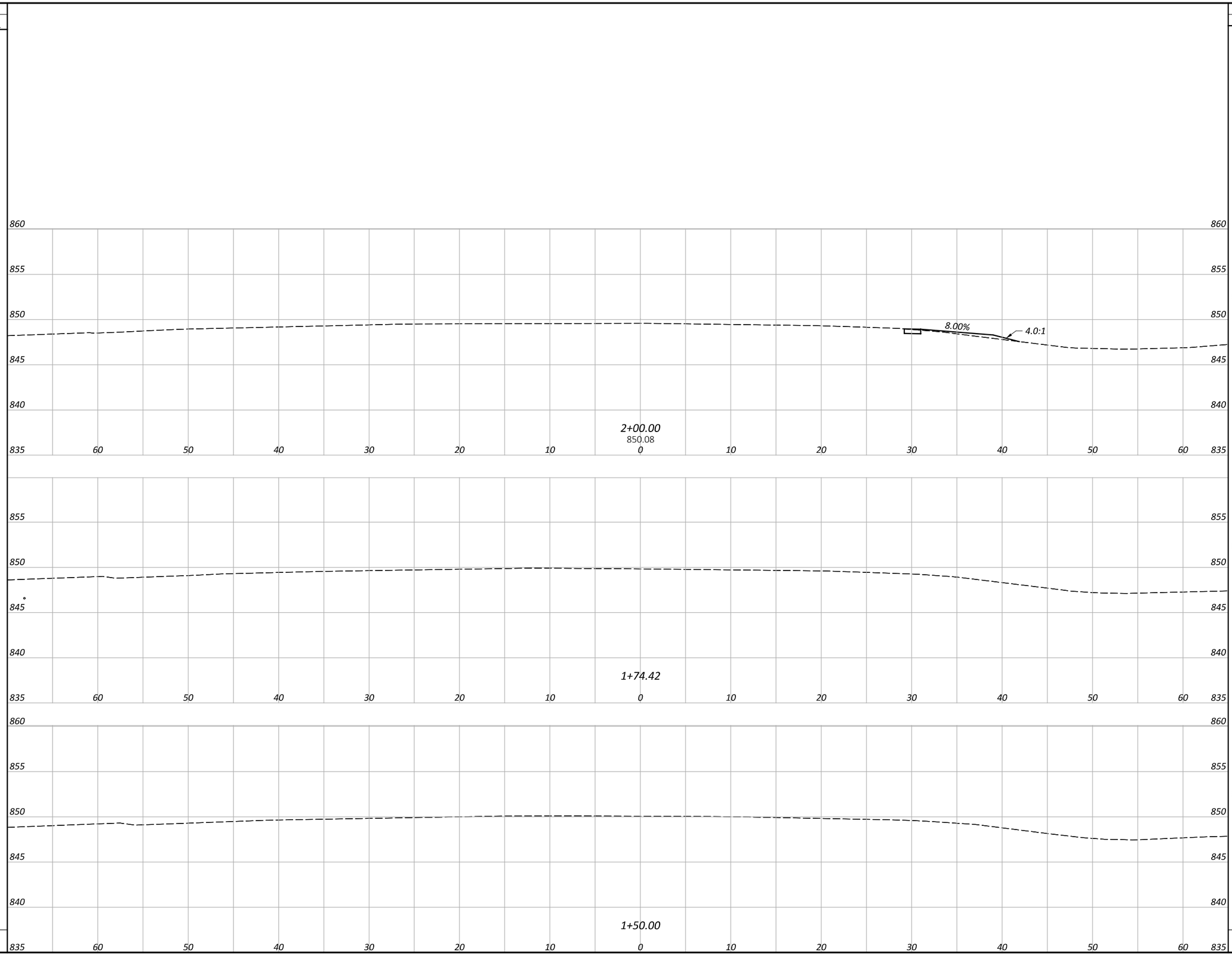
HORIZONTAL SCALE IN FEET
0 25 50 100

MAINTENANCE OF TRAFFIC
PHASE 2 CROSSOVER - STA. 28+00 TO END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	SDK 08/29/25
PROJECT ID	117275
SHEET	P.052
TOTAL	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0
0	0	0	0
0	0	0	0
SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 1+50.00 TO STA. 2+00.00

BUT IR 75/VAR 5.22/VAR

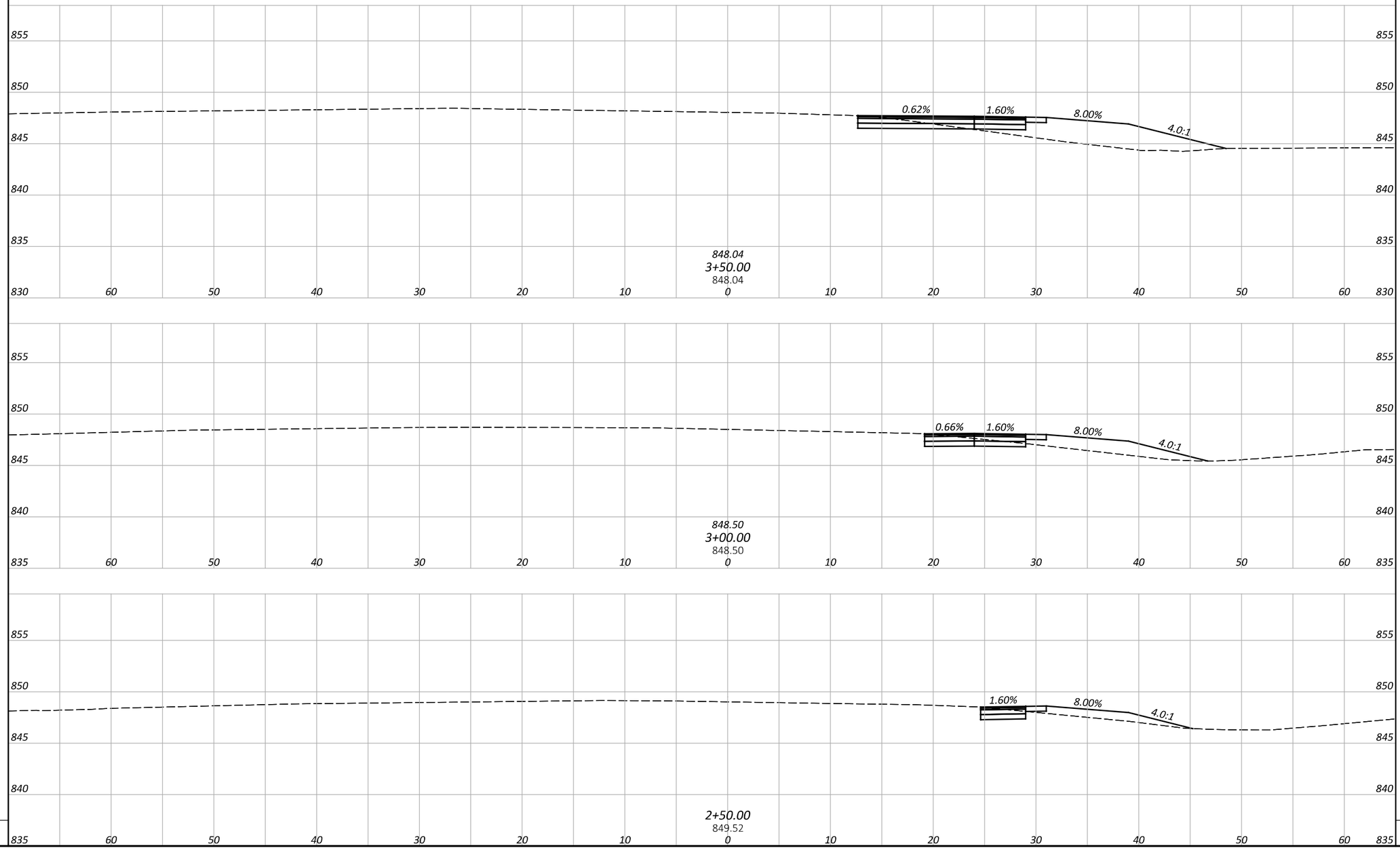
SHEET TOTAL

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.053 TOTAL: 194

MODEL: CLX_1 - 1+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:52 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH) STA. 2+50.00 TO STA. 3+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 2+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:56 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

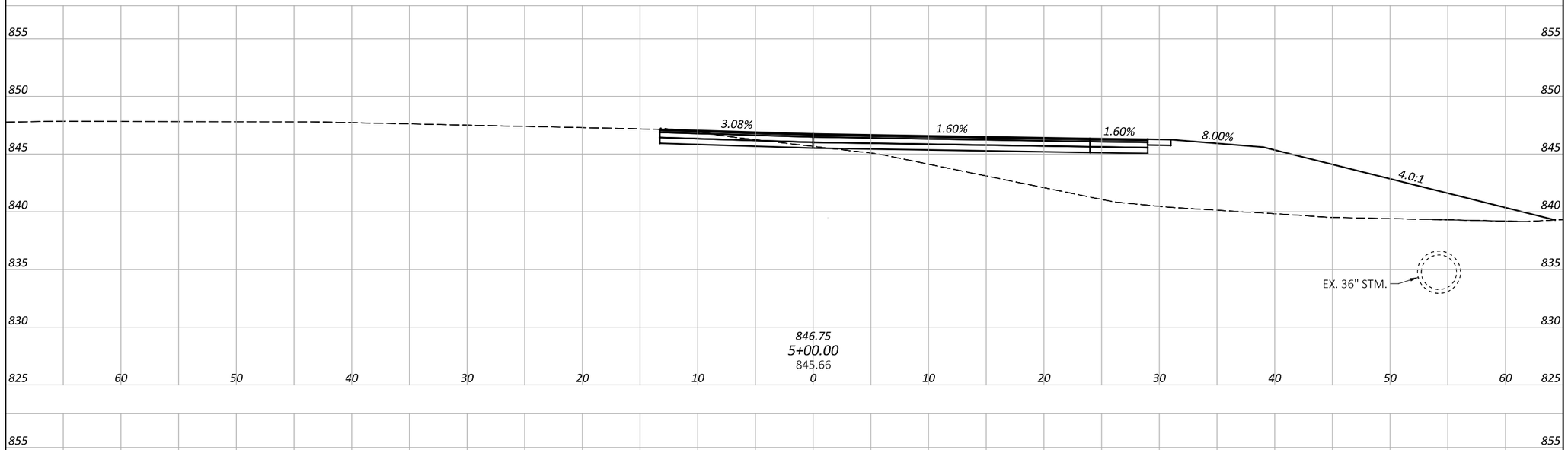
DESIGNER SHT

REVIEWER CWP 08/29/25

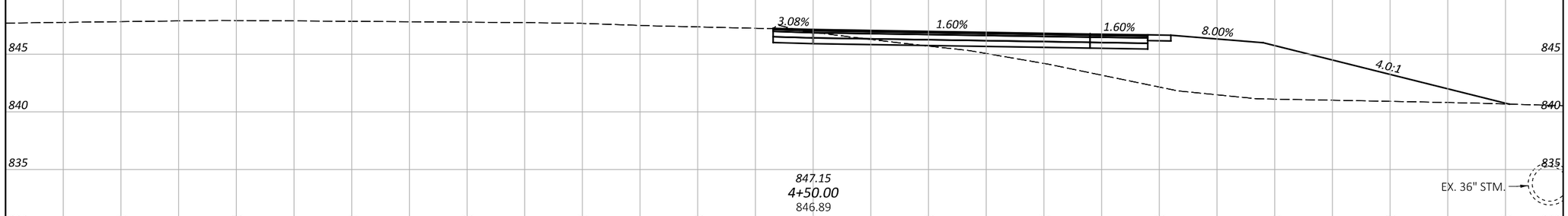
PROJECT ID 117275

SHEET P.054 TOTAL 194

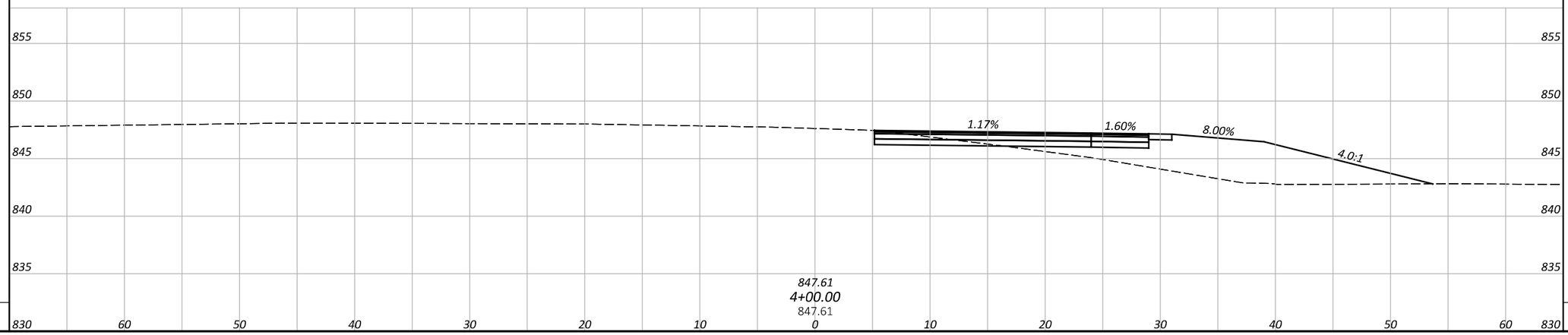
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0	0	0	0



0	0	0	0



0	0	0	0

SHEET TOTAL		SHEET TOTALS			

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 4+00.00 TO STA. 5+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

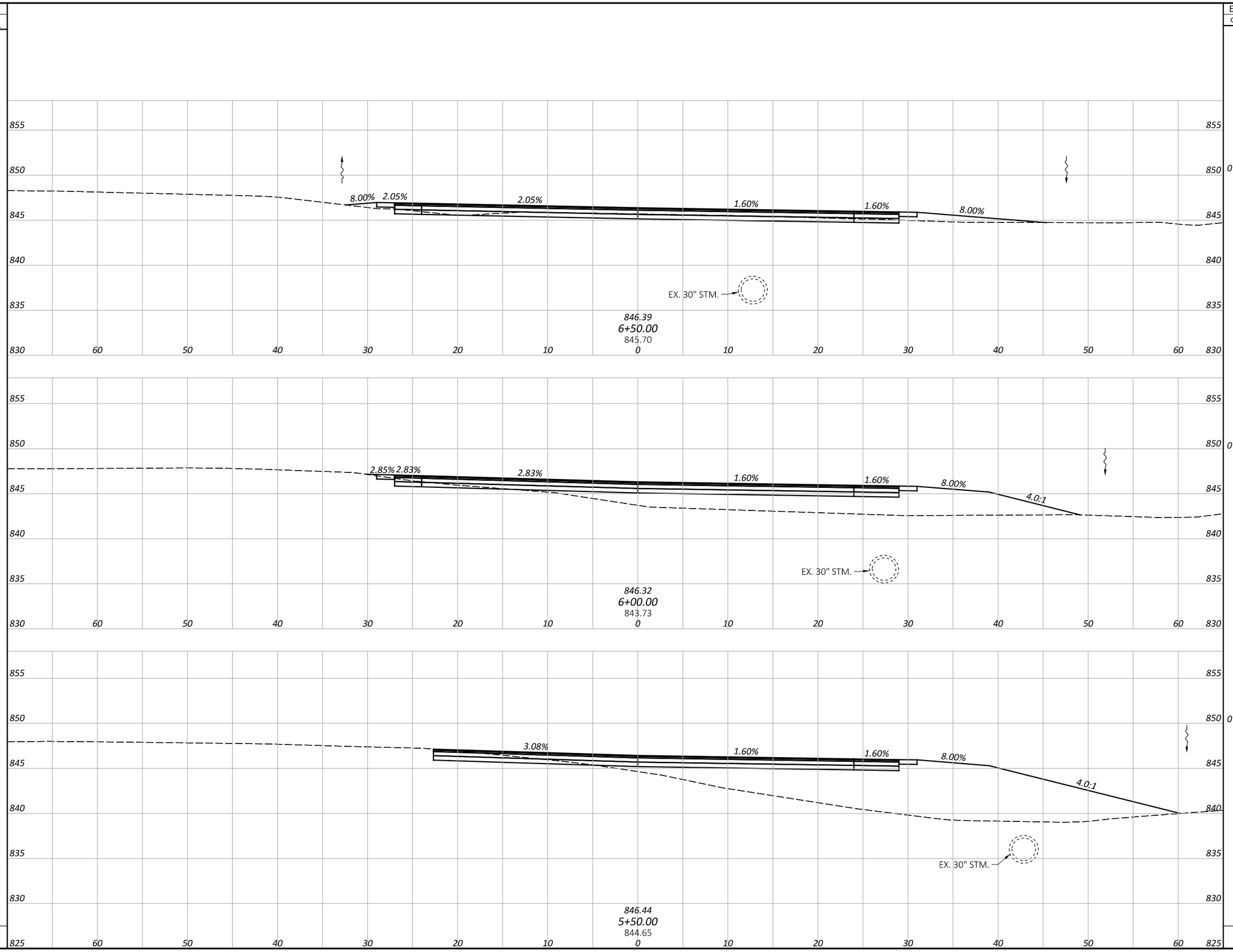
REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.055 TOTAL 194

MODEL: CLX_1 - 4+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:30:59 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

SEEDING	
END WIDTH	SQ. YDS.



END AREA	
CUT	FILL
0	0
0	0
0	0
0	0
SHEET TOTALS	

VOLUME	
CUT	FILL
0	0
0	0

SHEET TOTAL	

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 5+50.00 TO STA. 6+50.00

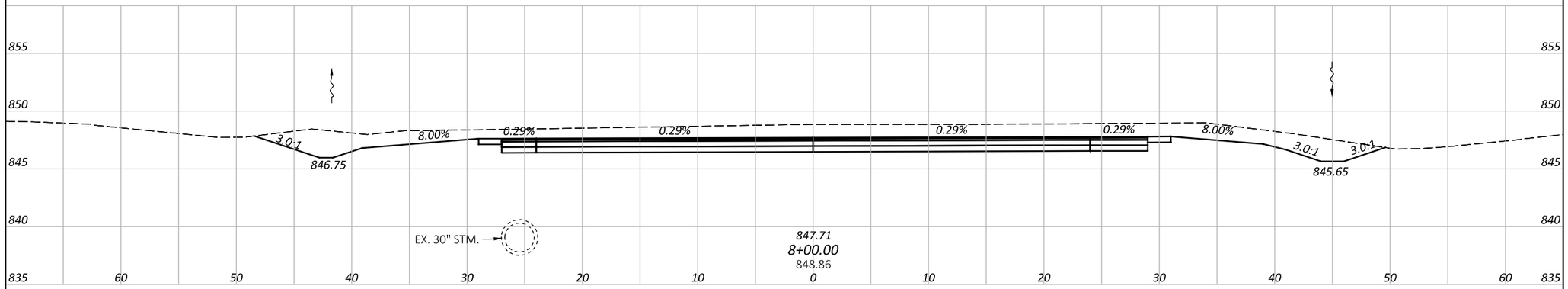
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

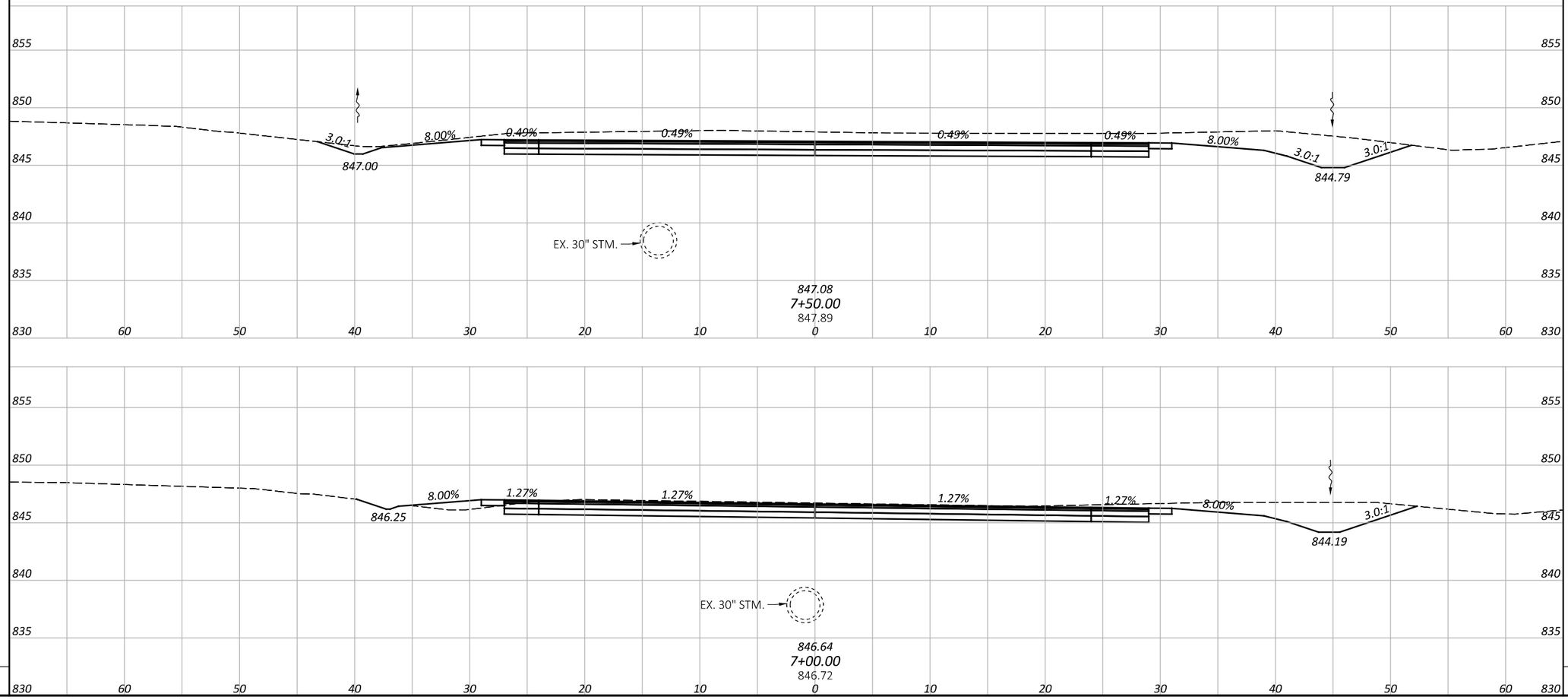
DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.056
TOTAL	194

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 5+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:02 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ris@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			





CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 7+00.00 TO STA. 8+00.00

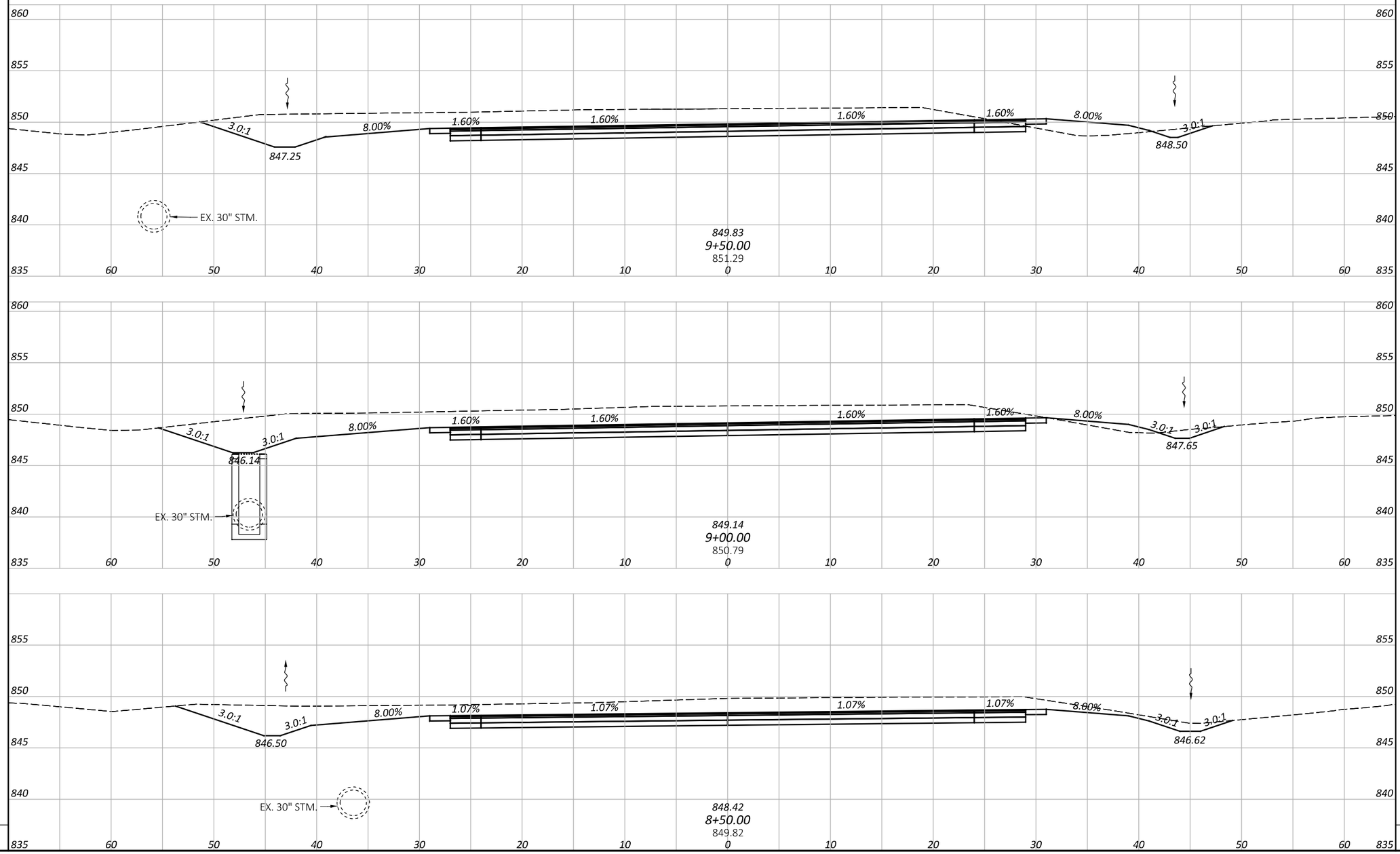
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.057 TOTAL: 194

BUT IR 75/VAR 5.22/VAR

MODEL: CIX_1 - 7+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:06 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cveltd.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH) STA. 8+50.00 TO STA. 9+50.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

REVIEWER CWP 08/29/25

PROJECT ID 117275

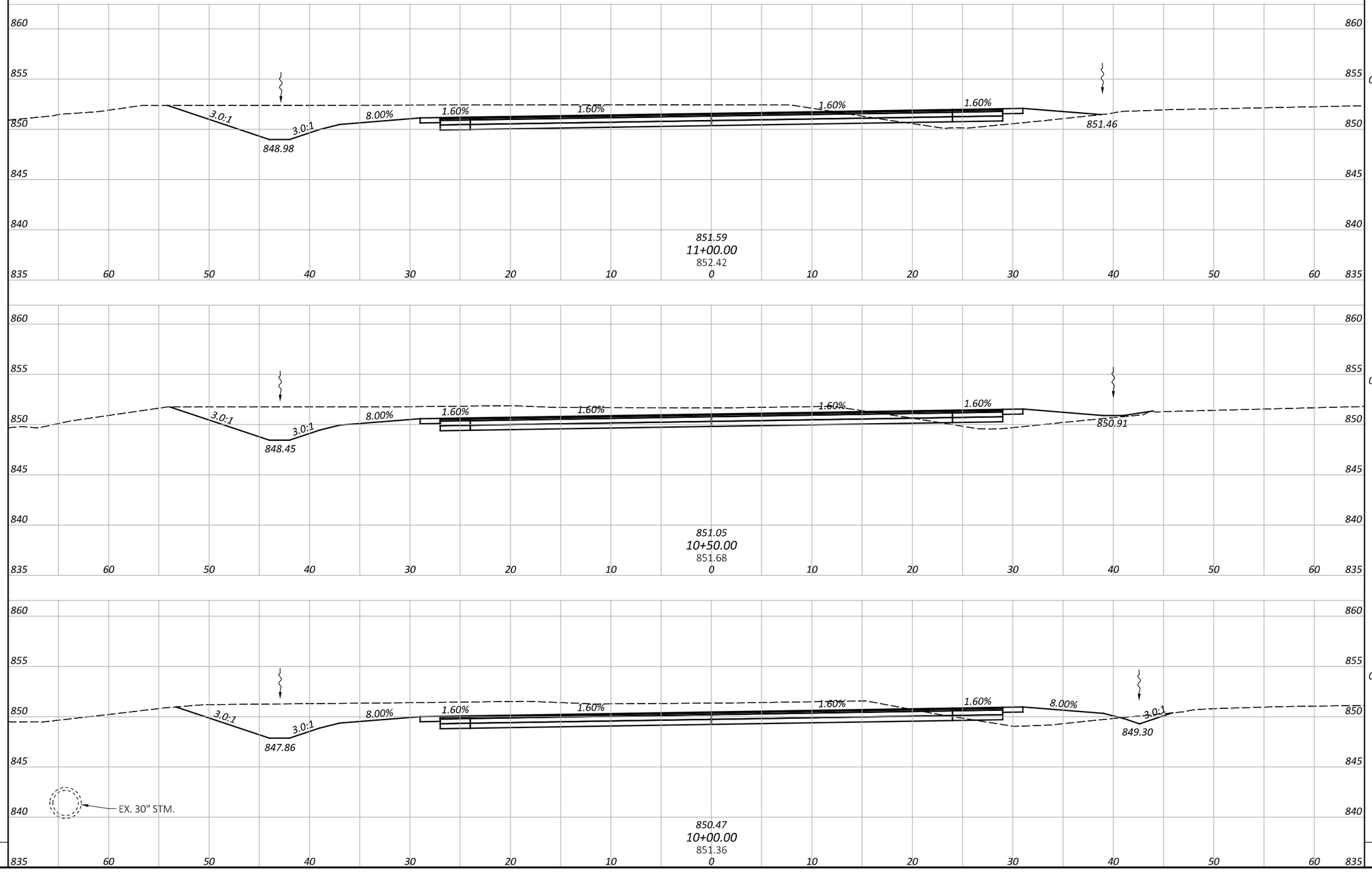
SHEET P.058 TOTAL 194

MODEL: CLX_1 - 8+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:09 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 10+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:16 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEx02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 10+00.00 TO STA. 11+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.059 TOTAL: 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL

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0	0	0	0		
0	0	0	0		
SHEET TOTALS					

BUT IR 75/VAR 5.22/VAR

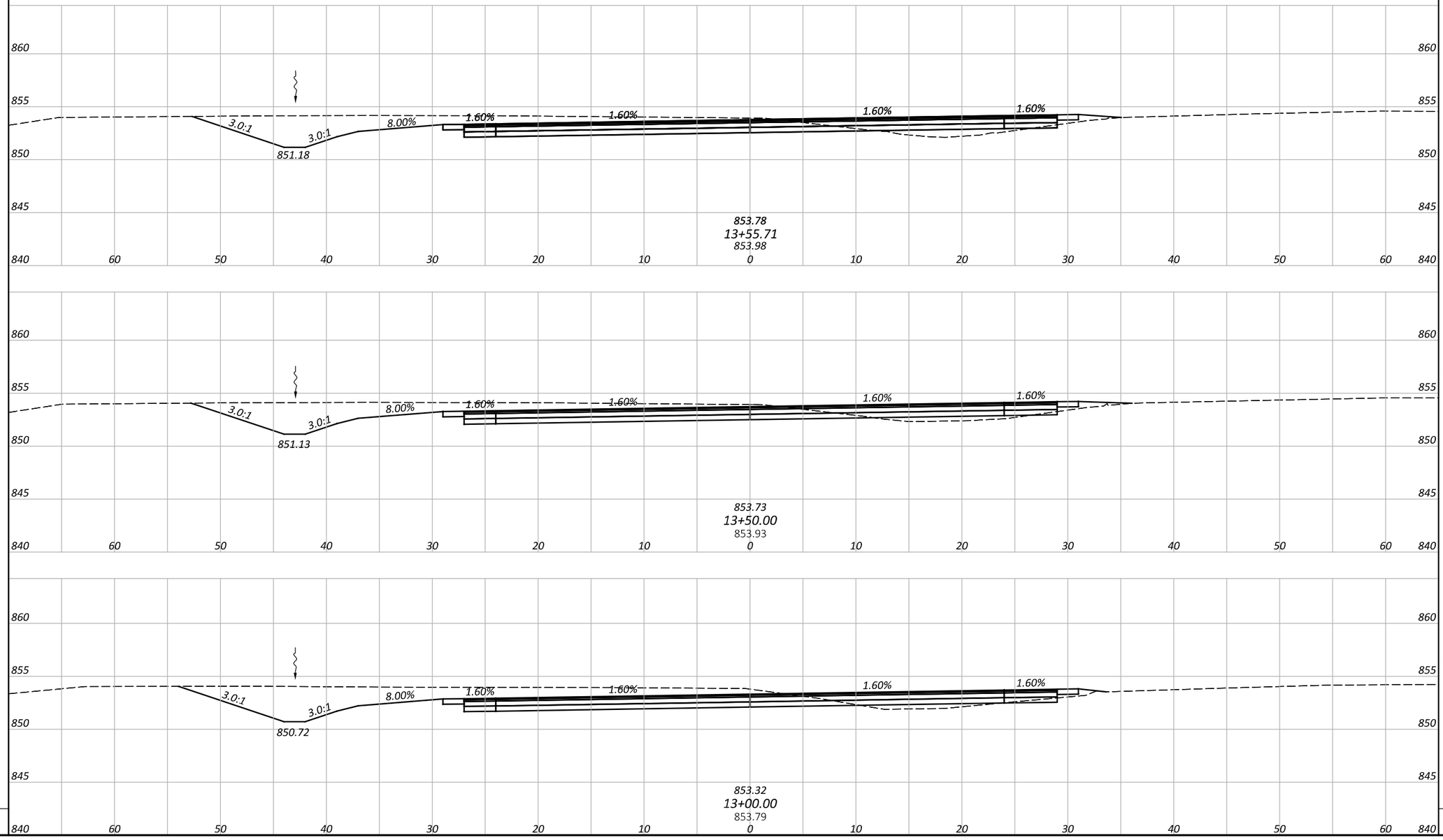
CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 11+50.00 TO STA. 12+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.060 | TOTAL: 194

MODEL: CLX_1 - 11+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:24 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0	0				
0	0	0	0		
0	0				
SHEET TOTALS					

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 13+00.00 TO STA. 13+55.71

BUT IR 75/VAR 5.22/VAR

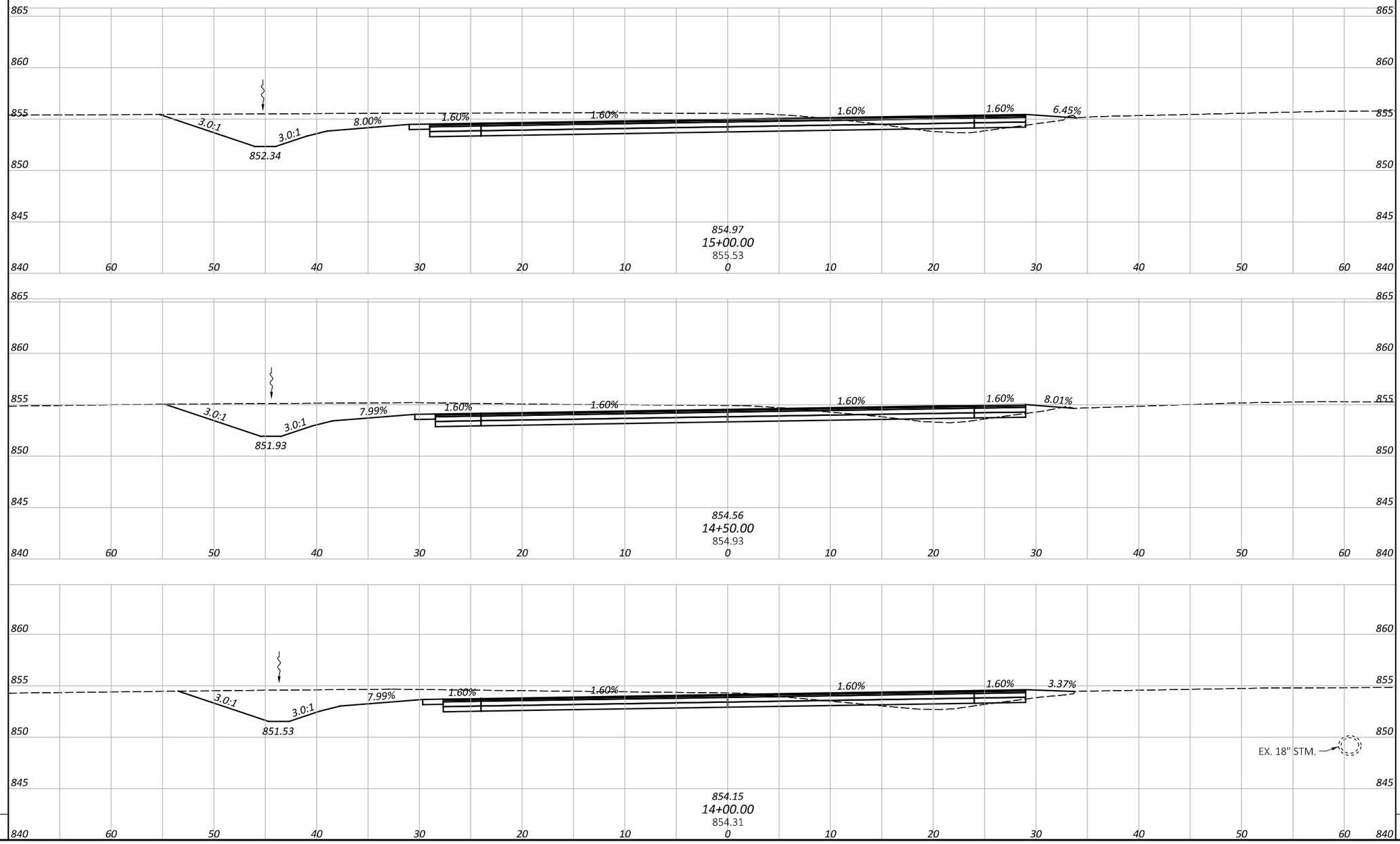
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.061 | TOTAL: 194

SHEET TOTAL

MODEL: CLX_1 - 13+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:27 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ftis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\MOT\Sheets\117275_XM302.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0		
				0	0
		0	0		
				0	0
		0	0		
				0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 14+00.00 TO STA. 15+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SHT

REVIEWER
CWP 08/29/25

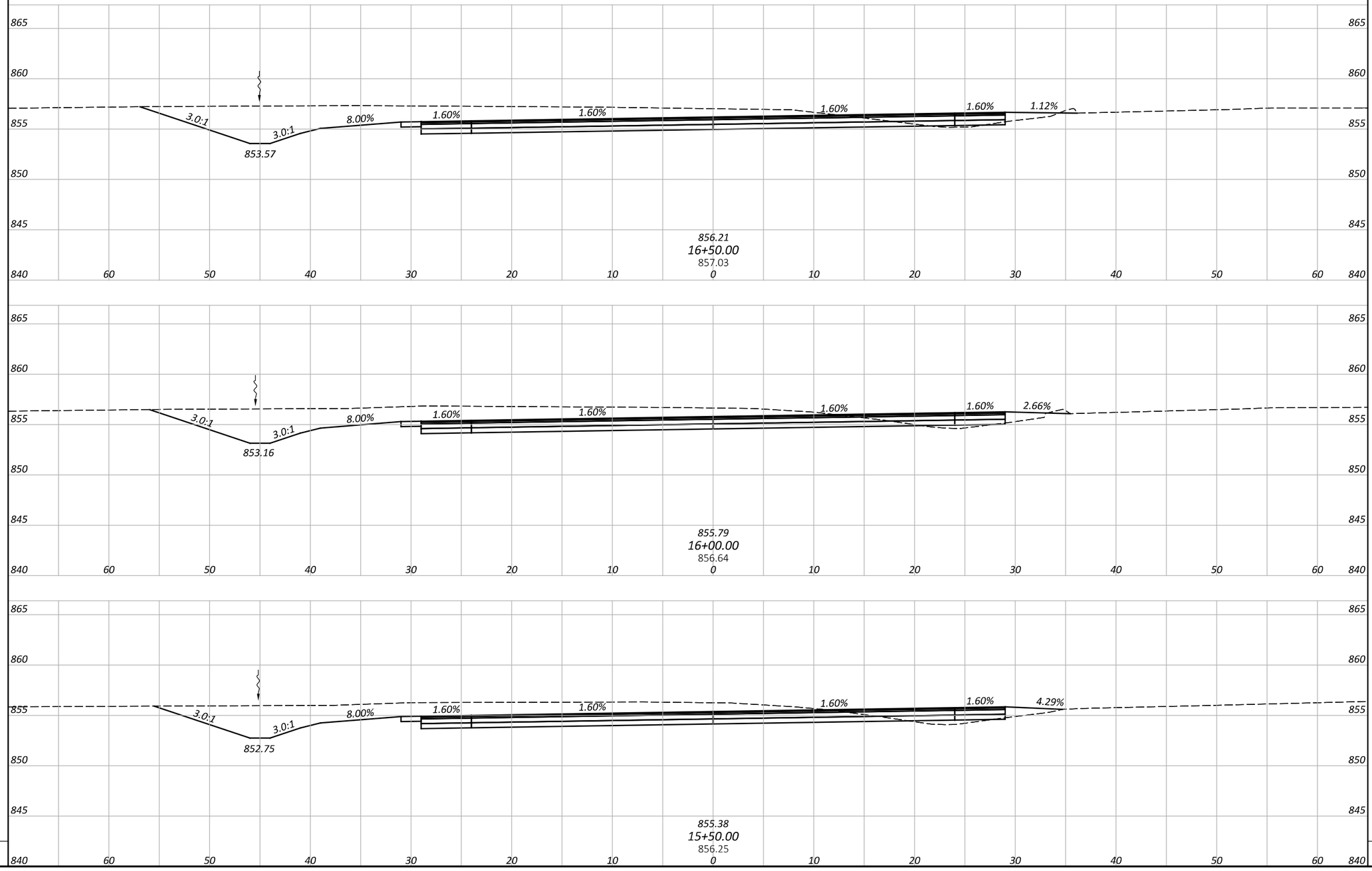
PROJECT ID
117275

SHEET P.062 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0		
				0	0
		0	0		
				0	0
		0	0		
				0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 15+50.00 TO STA. 16+50.00

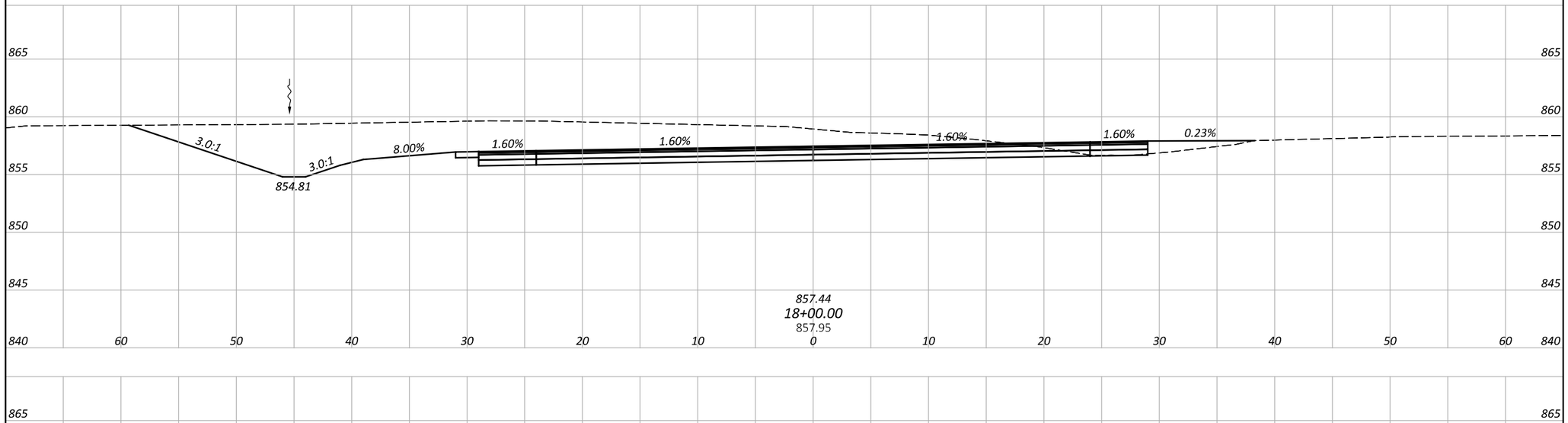
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 15+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:36 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

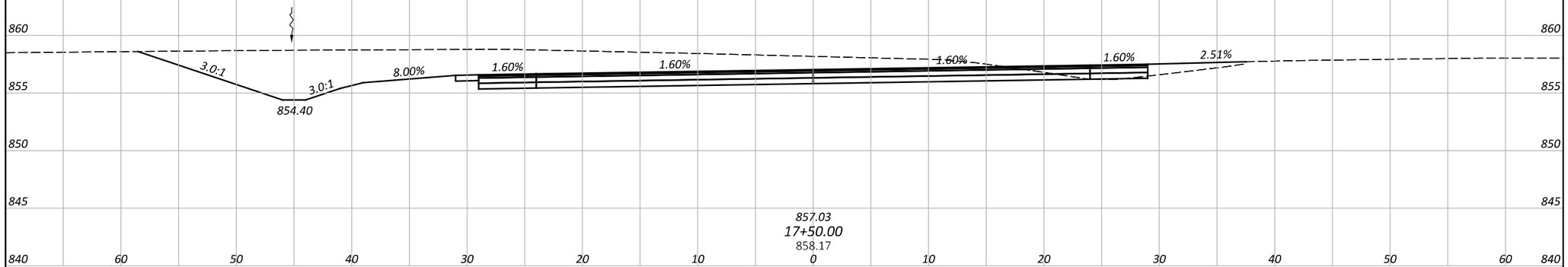
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.063
TOTAL	194

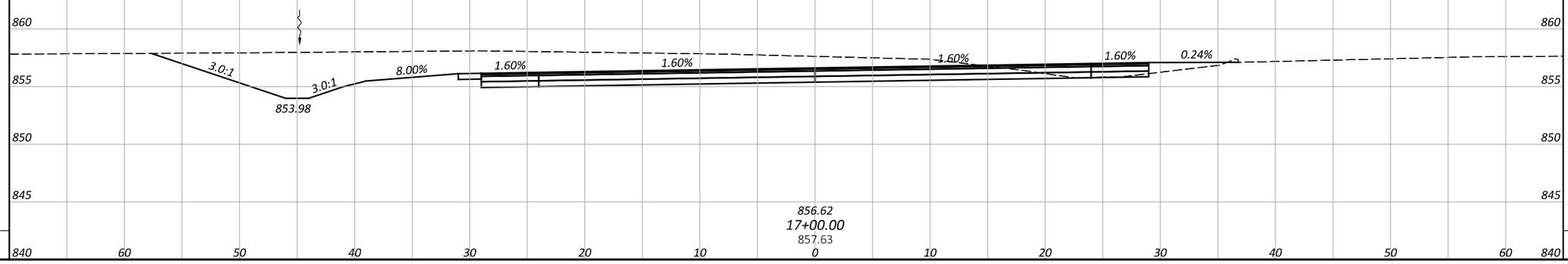
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0	0	0	0



0	0	0	0



0	0	0	0

SHEET TOTAL	SHEET TOTALS

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 17+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:41 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 17+00.00 TO STA. 18+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

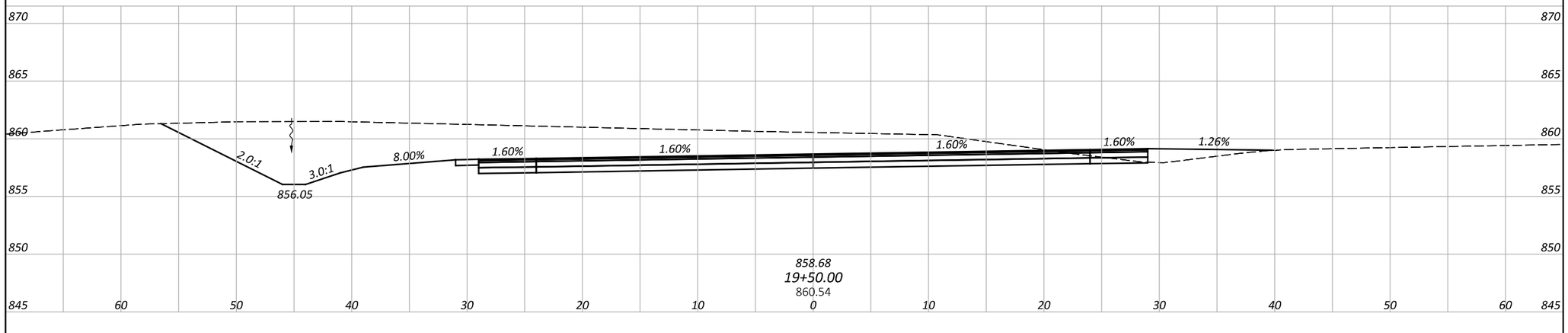
DESIGNER
SHT

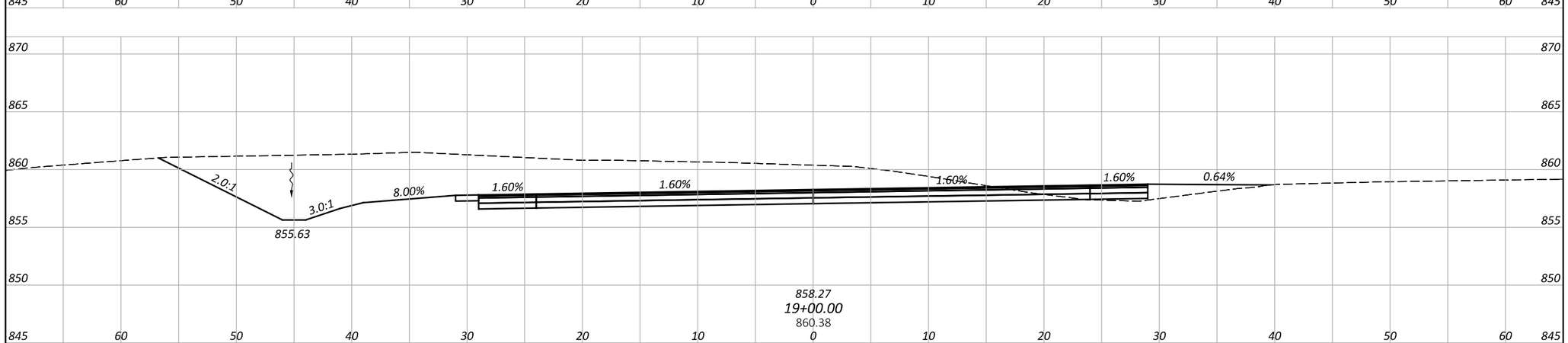
REVIEWER
CWP 08/29/25

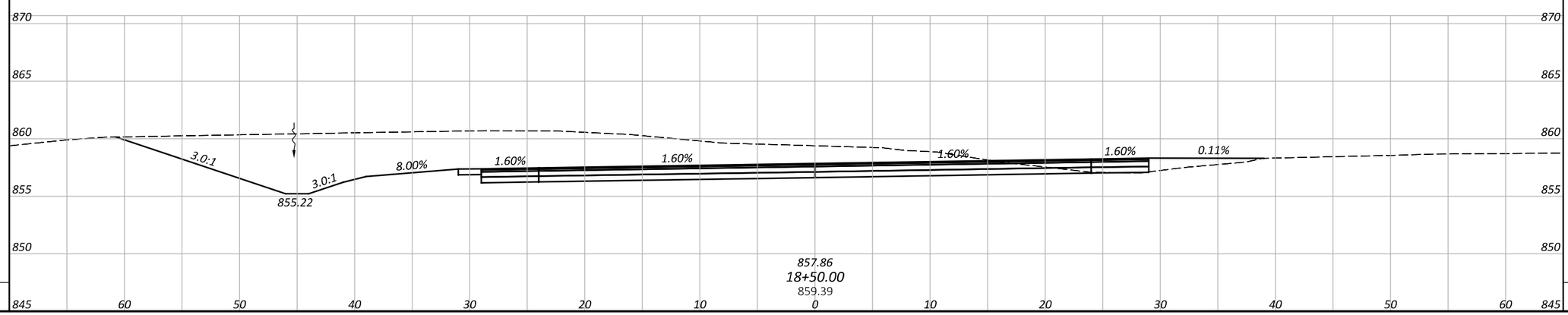
PROJECT ID
117275

SHEET P.064 TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL







		0	0		
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 18+50.00 TO STA. 19+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 18+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:45 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

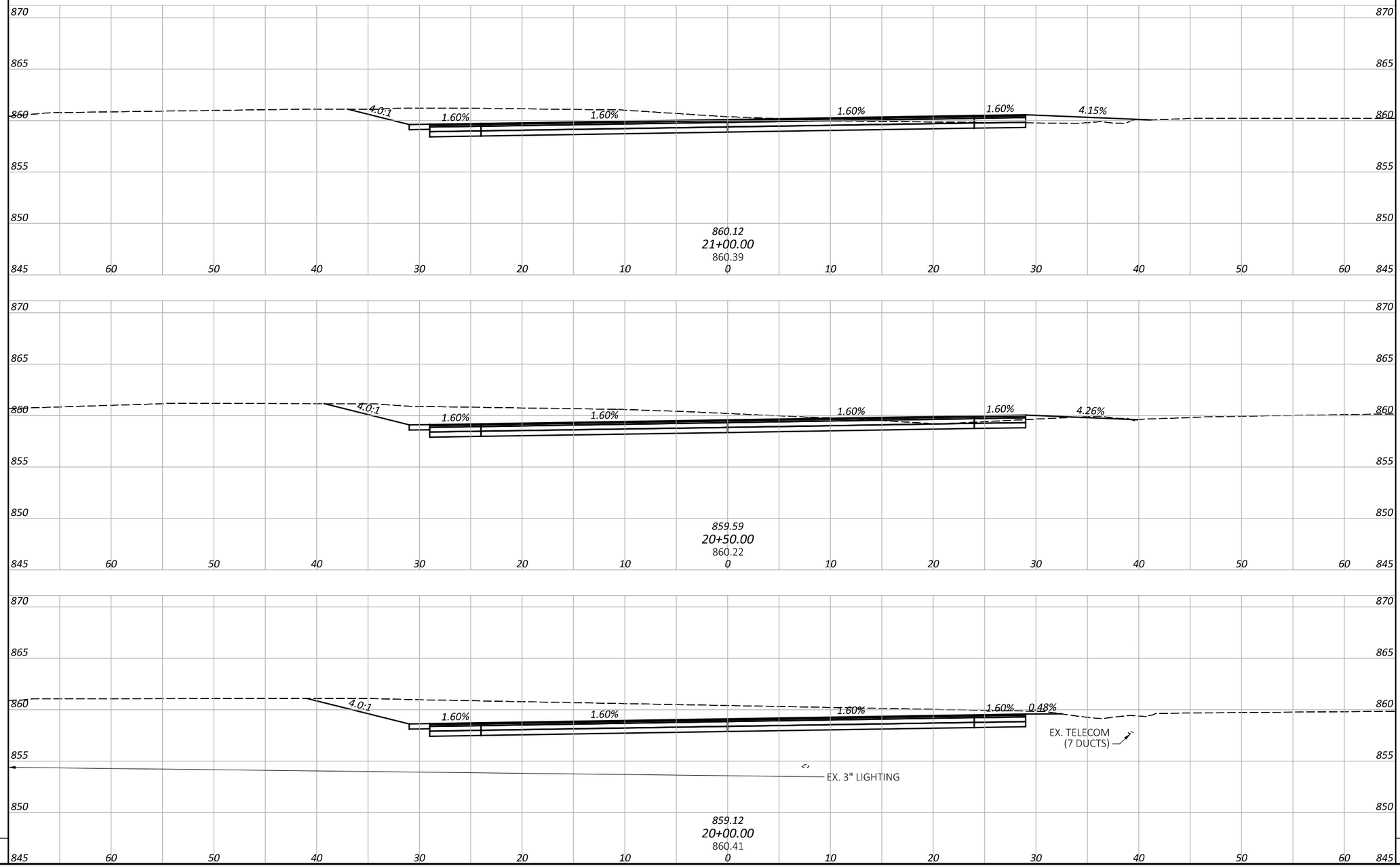
DESIGNER SHT

REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.065 TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0



SHEET TOTAL		SHEET TOTALS	0	0	0	0

BUT IR 75/VAR 5.22/VAR

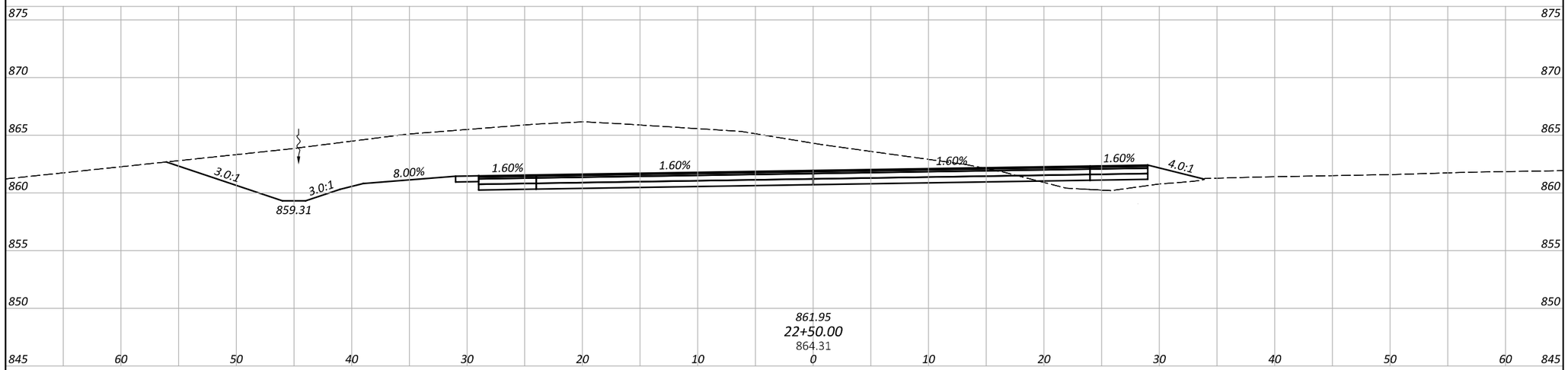
CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 20+00.00 TO STA. 21+00.00

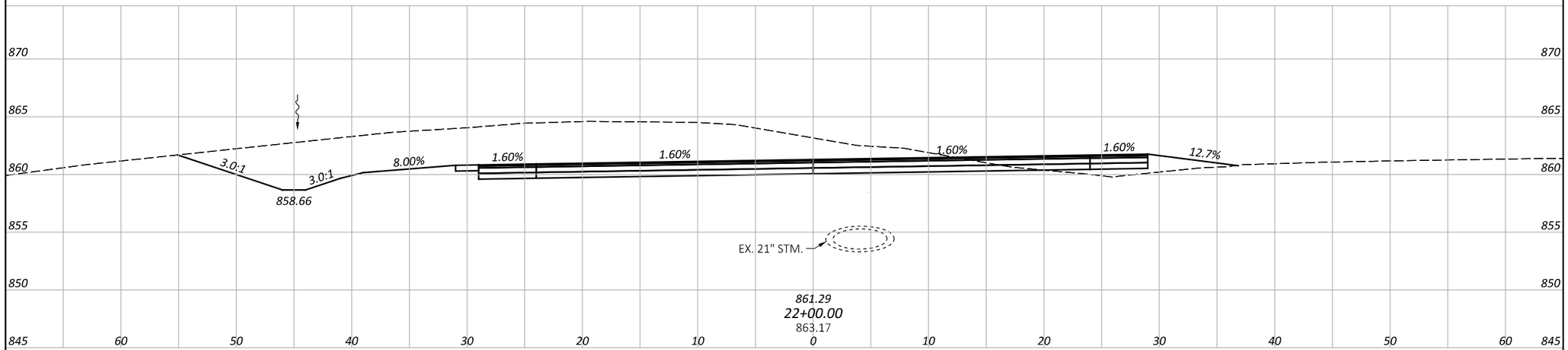
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

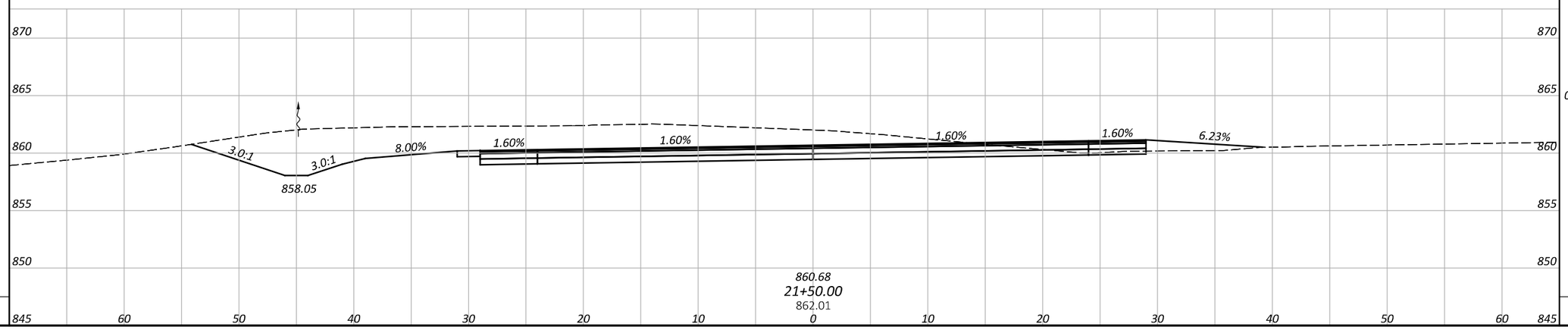
DESIGNER SHT
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.066 TOTAL 194

MODEL: CLX_1 - 20+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:49 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn WORKSPACE: OHDOTCEx02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			







CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 21+50.00 TO STA. 22+50.00

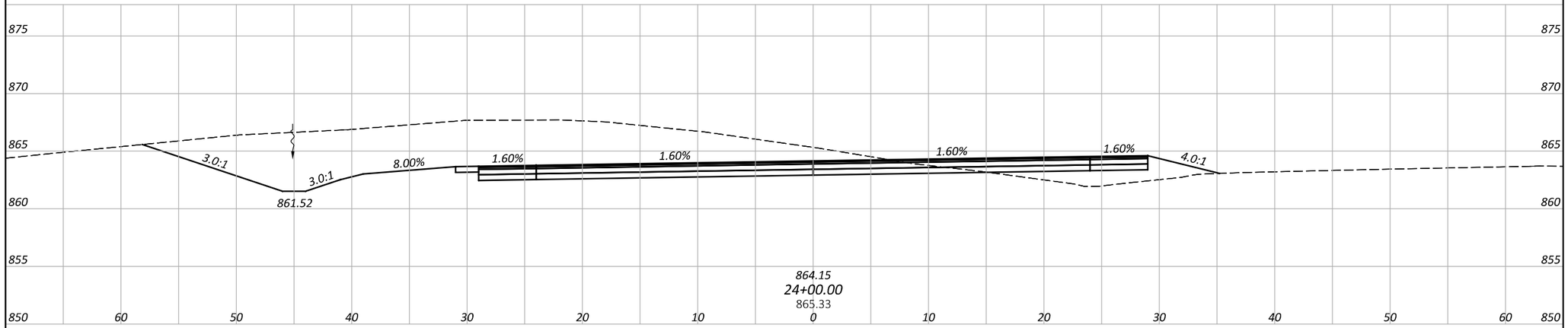
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 21+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:31:53 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

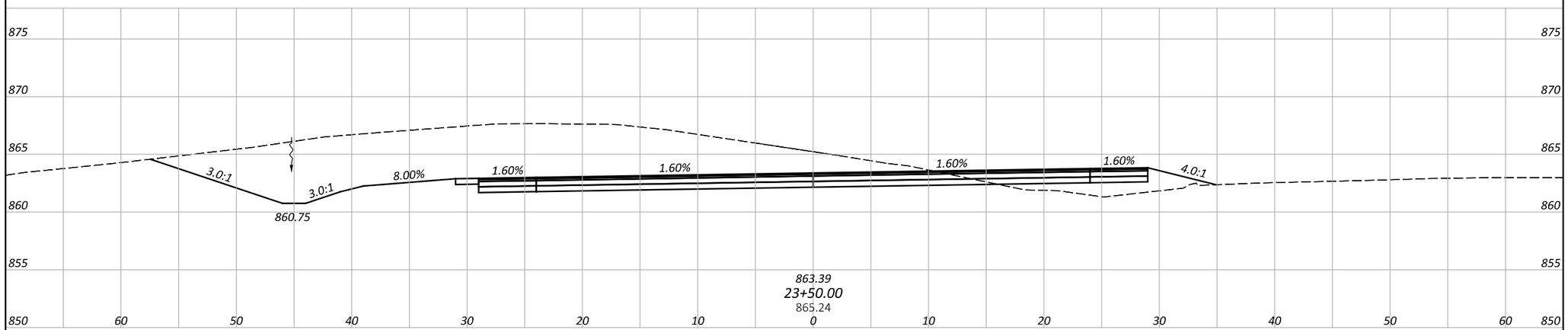
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.067 TOTAL: 194

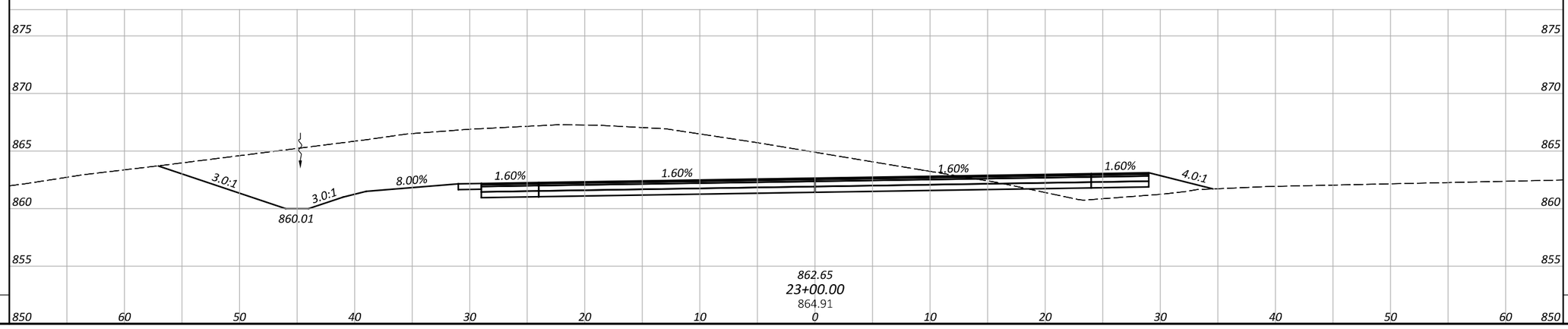
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0		



		0	0	0	0



		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 23+00.00 TO STA. 24+00.00

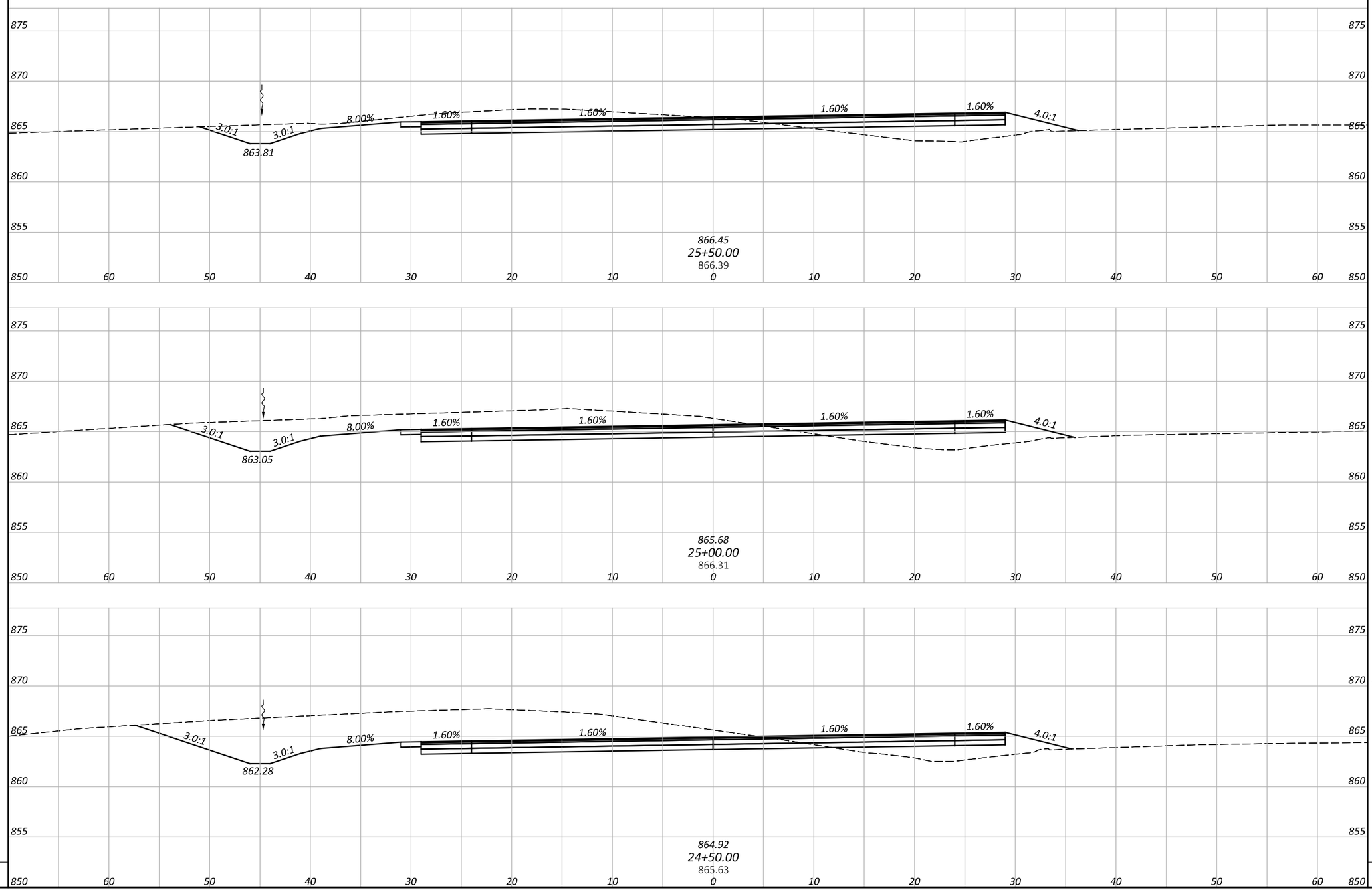
BUT IR 75/VAR 5.22/VAR

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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.068
TOTAL	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0	0	0	0
0	0	0	0
0	0	0	0
SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 24+50.00 TO STA. 25+50.00

BUT IR 75/VAR 5.22/VAR

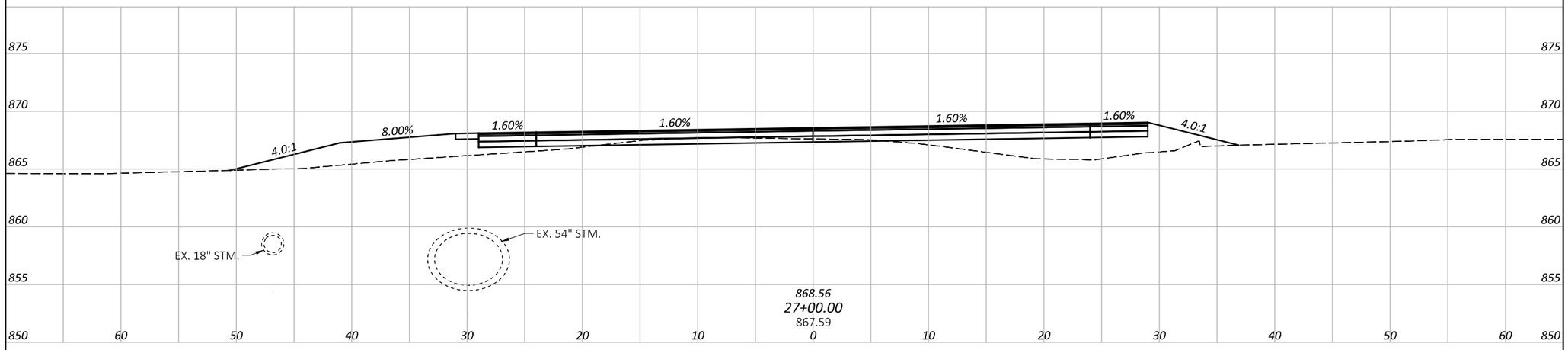
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P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\MOT\Sheets\117275_XM302.dgn

SHEET TOTAL

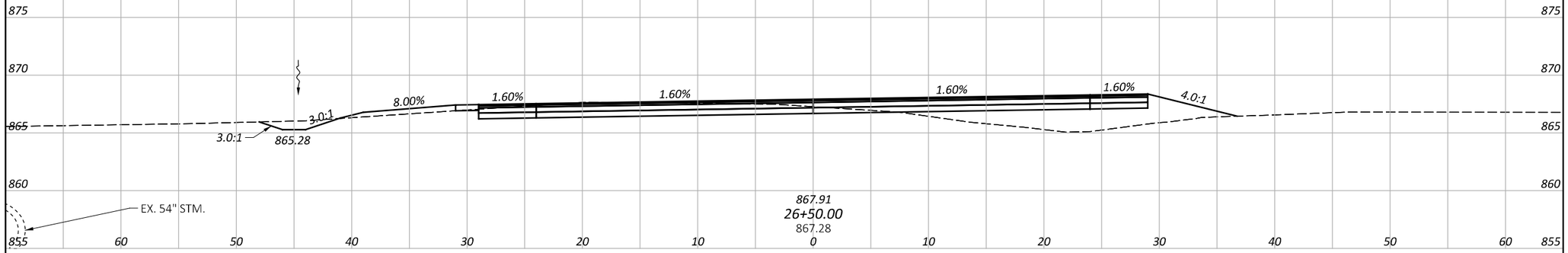
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.069
TOTAL	194

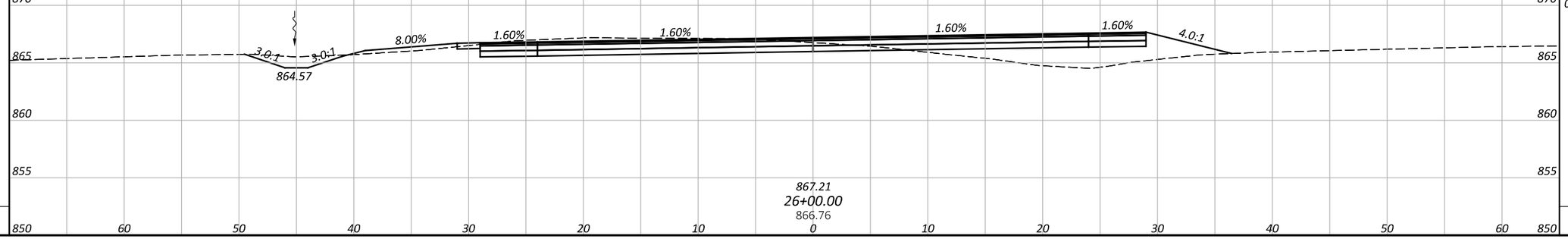
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0 0 0 0



0 0 0 0



0 0 0 0

SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 26+00.00 TO STA. 27+00.00

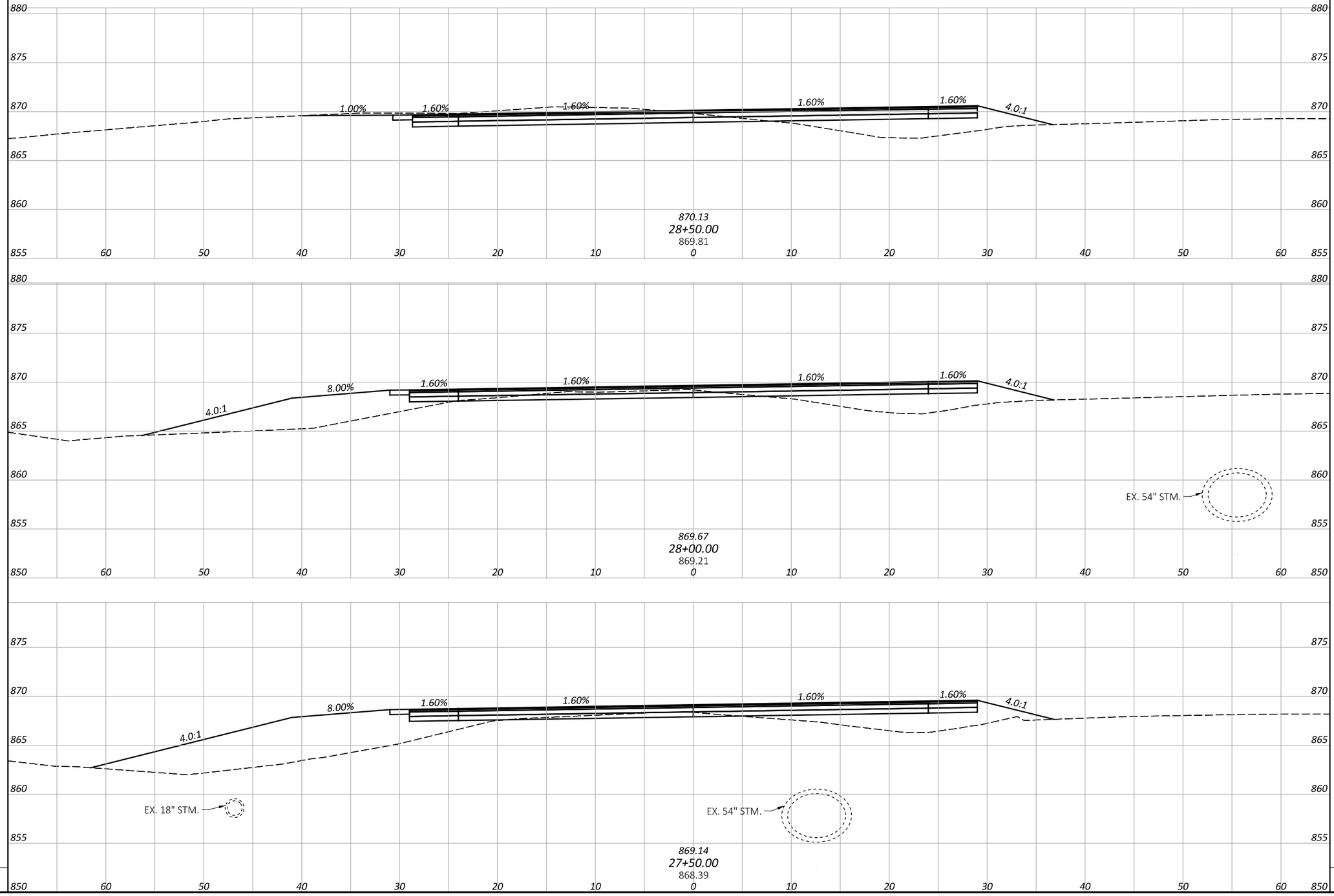
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.070 | TOTAL: 194

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 26+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:07 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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SEEDING	
END WIDTH	SQ. YDS.



END AREA	
CUT	FILL
0	0
0	0
0	0
0	0

VOLUME	
CUT	FILL
0	0
0	0

SHEET TOTAL		
SHEET TOTALS	0	0

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 27+50.00 TO STA. 28+50.00

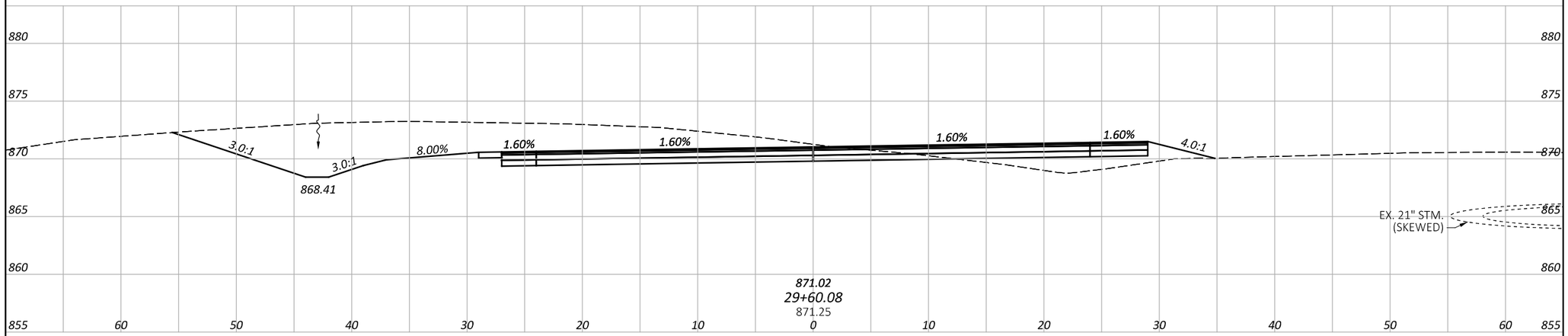
BUT IR 75/VAR 5.22/VAR

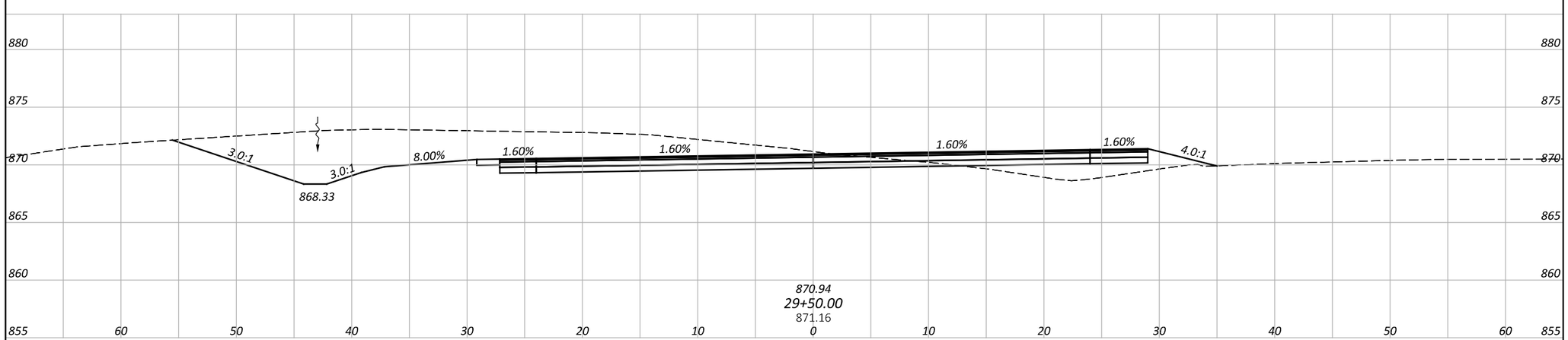
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

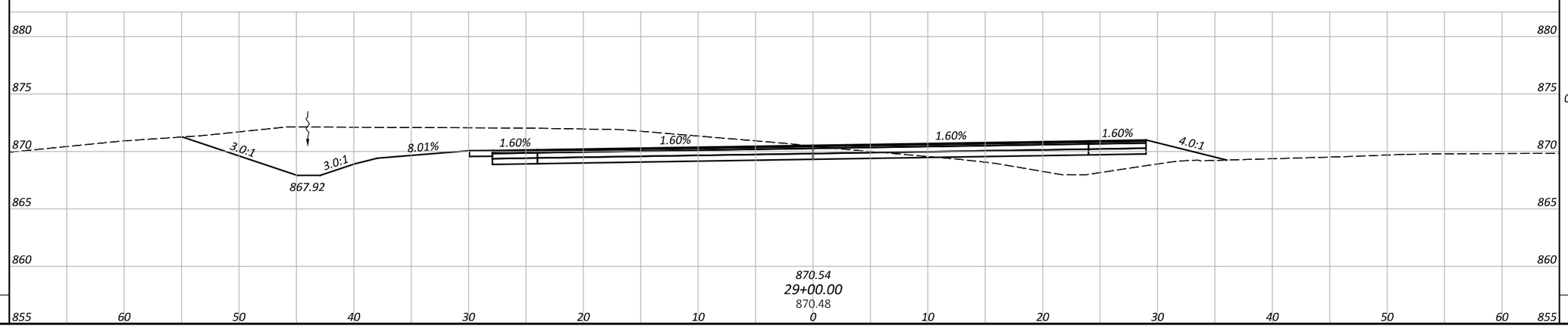
DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.071 TOTAL: 194

MODEL: CLX_1 - 27+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:11 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL







0	0				
0	0				
				0	0
0	0				
0	0				
SHEET TOTALS					

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 29+00.00 TO STA. 29+60.08

BUT IR 75/VAR 5.22/VAR

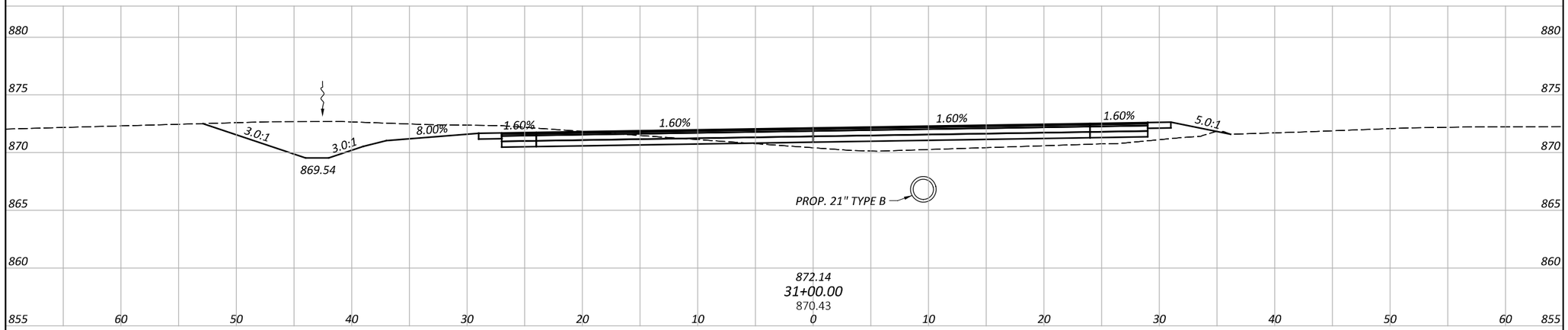
SHEET TOTAL

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

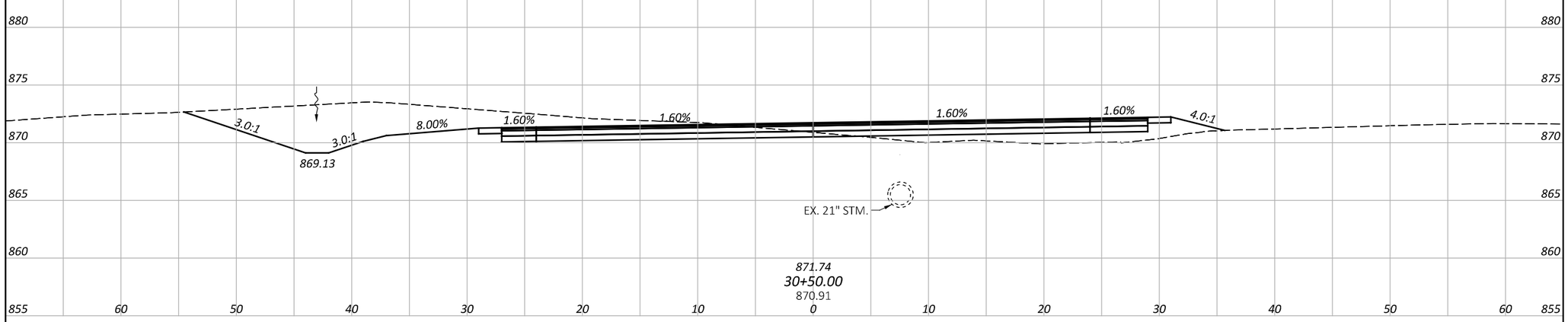
DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.072 | TOTAL: 194

MODEL: C1X_1 - 29+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:16 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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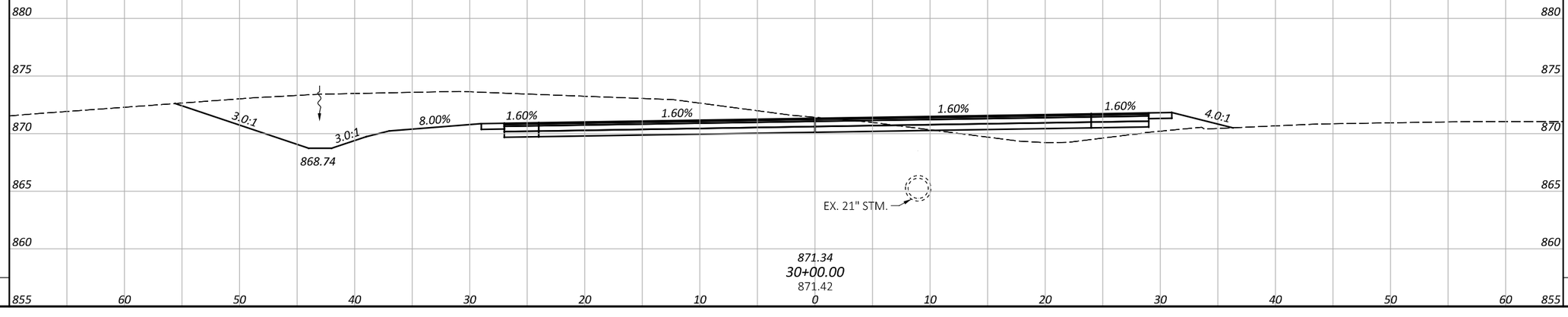
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0		



		0	0	0	0



		0	0	0	0

SHEET TOTAL		SHEET TOTALS			

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 30+00.00 TO STA. 31+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

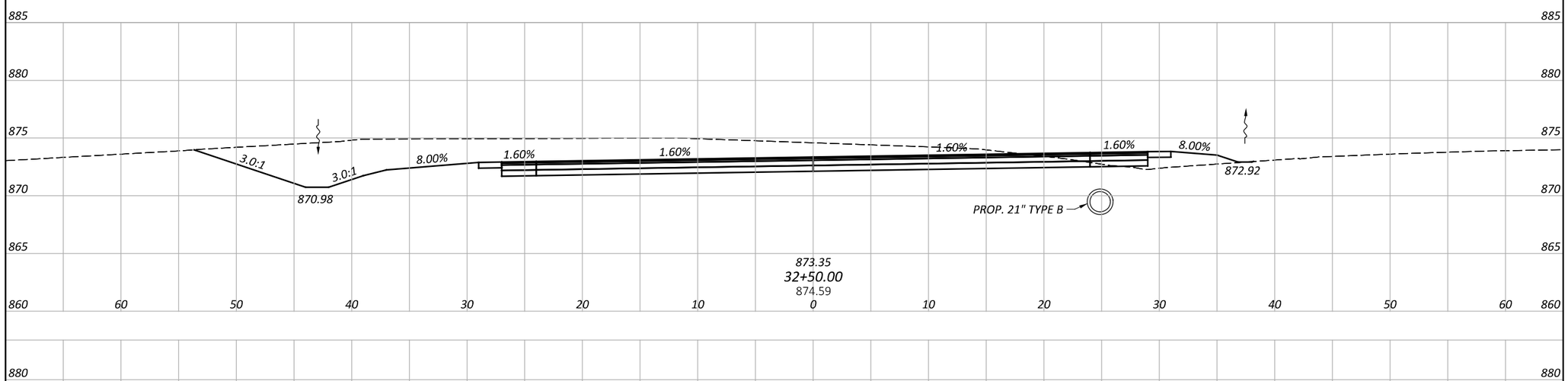
REVIEWER CWP 08/29/25

PROJECT ID 117275

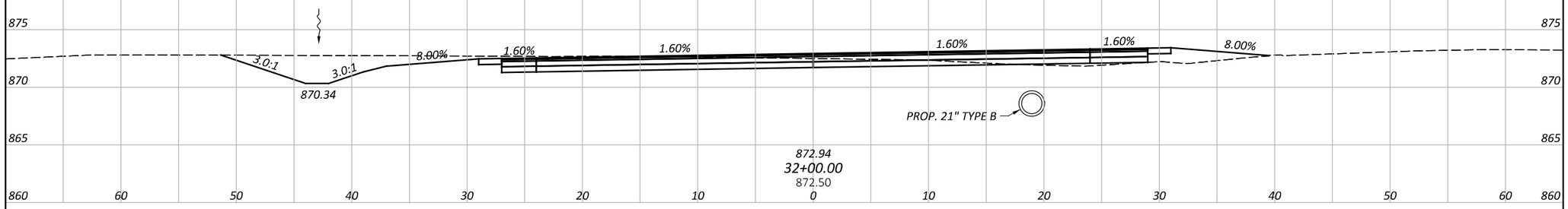
SHEET P.073 TOTAL 194

MODEL: CLX_1 - 30+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:21 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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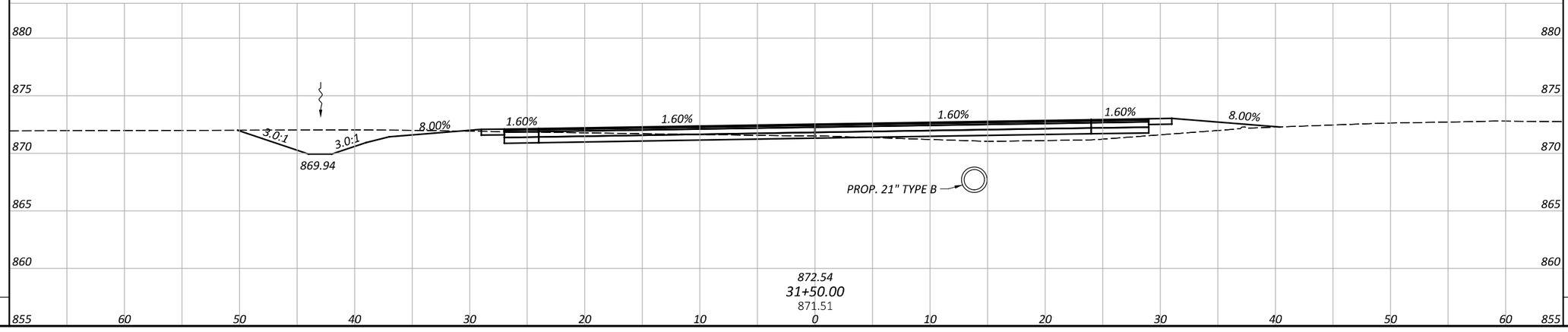
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0	0



0	0



0	0

0	0	0	0

SHEET TOTAL

SHEET TOTALS

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 31+50.00 TO STA. 32+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 31+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:24 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

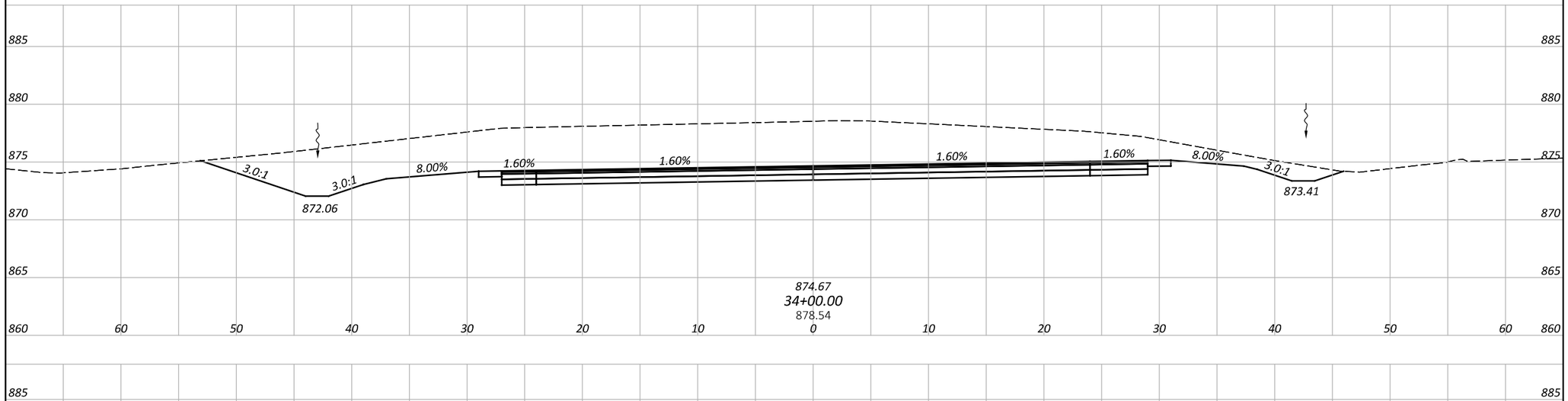
DESIGNER
SHT

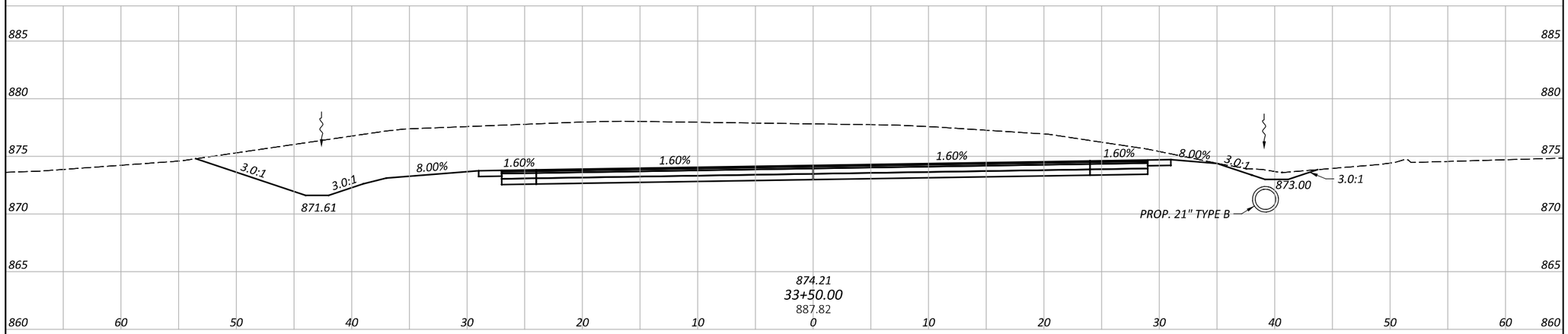
REVIEWER
CWP 08/29/25

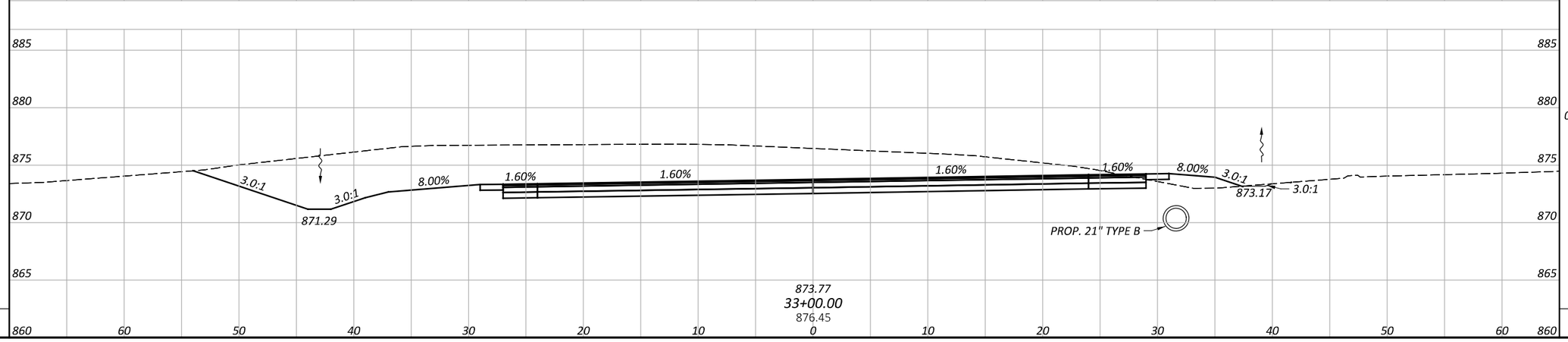
PROJECT ID
117275

SHEET P.074 TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL







		0	0		
				0	0
		0	0		
				0	0
		0	0		
SHEET TOTAL		SHEET TOTALS			

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 33+00.00 TO STA. 34+00.00

DESIGN AGENCY
CVE
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SHT

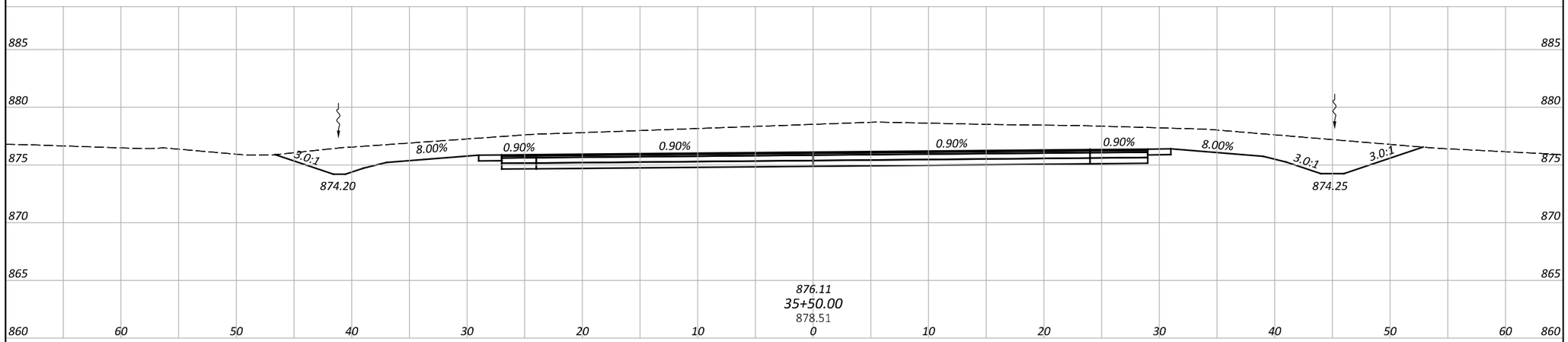
REVIEWER
CWP 08/29/25

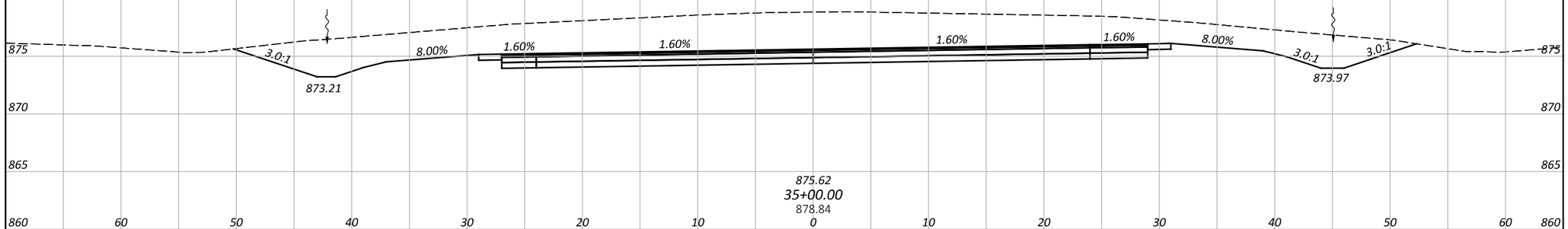
PROJECT ID
117275

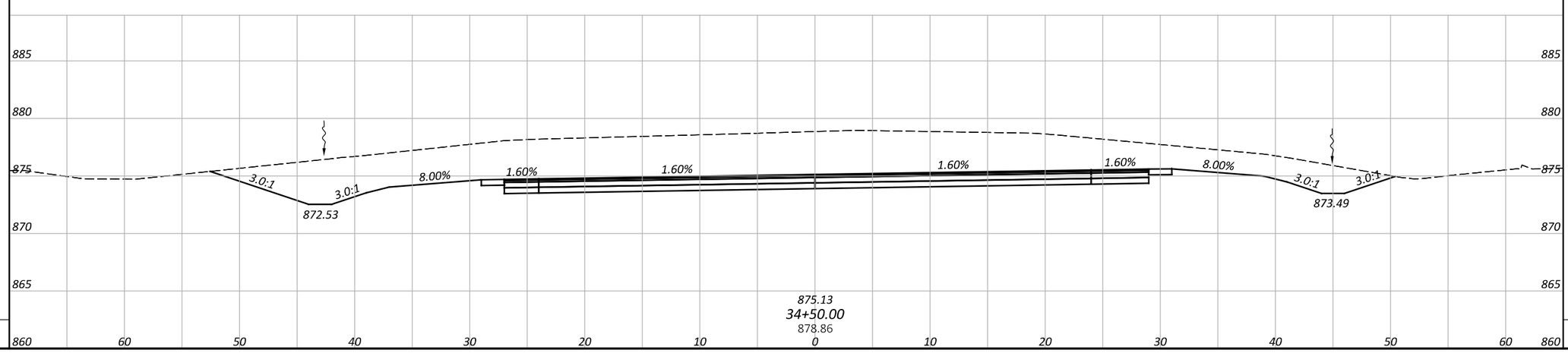
SHEET P.075 TOTAL 194

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SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			







CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 34+50.00 TO STA. 35+50.00

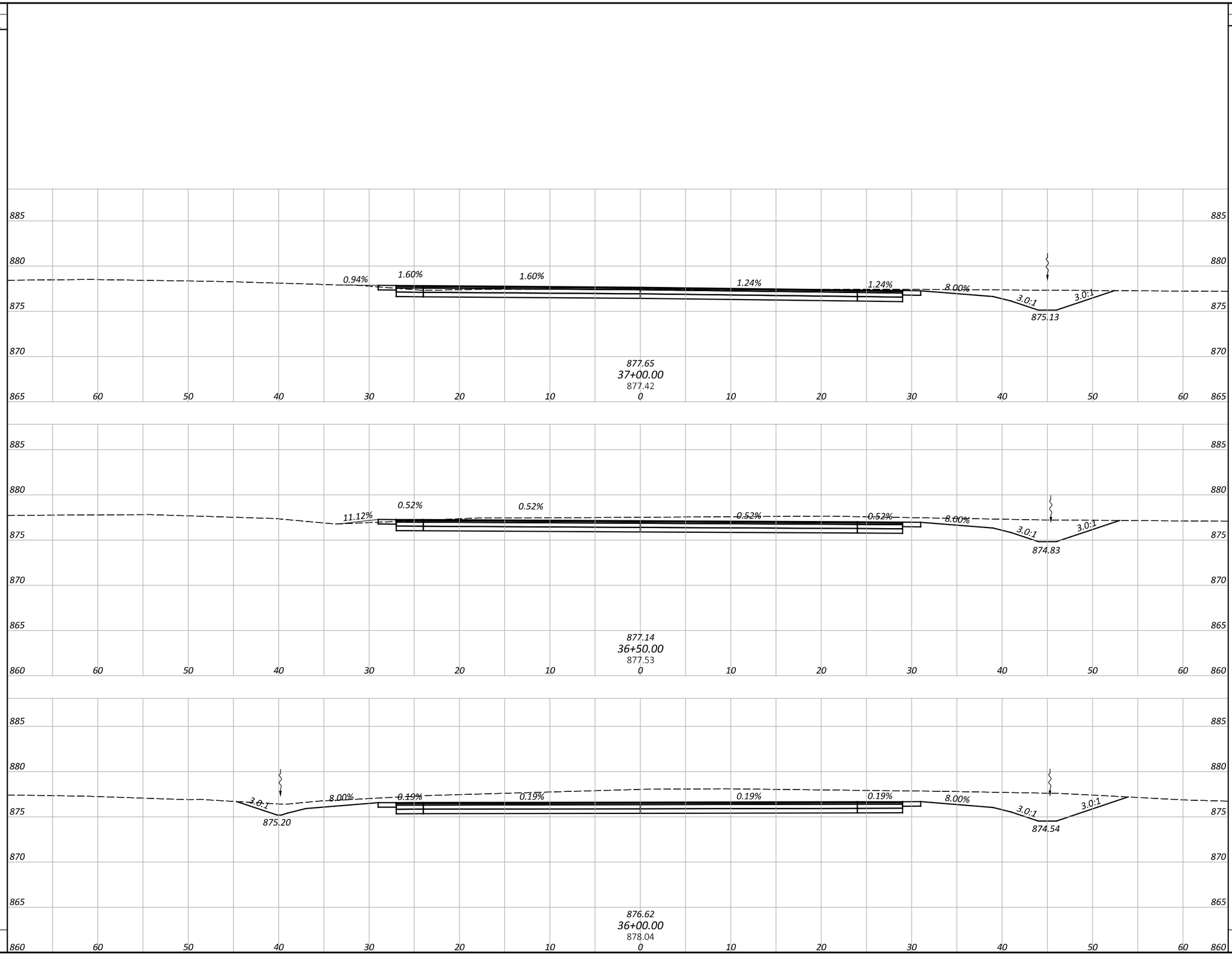
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 34+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:32 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvellimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
SHT	CWP 08/29/25	117275	P.076	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0		
		0	0	0	0
		0	0		
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 36+00.00 TO STA. 37+00.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 36+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:35 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

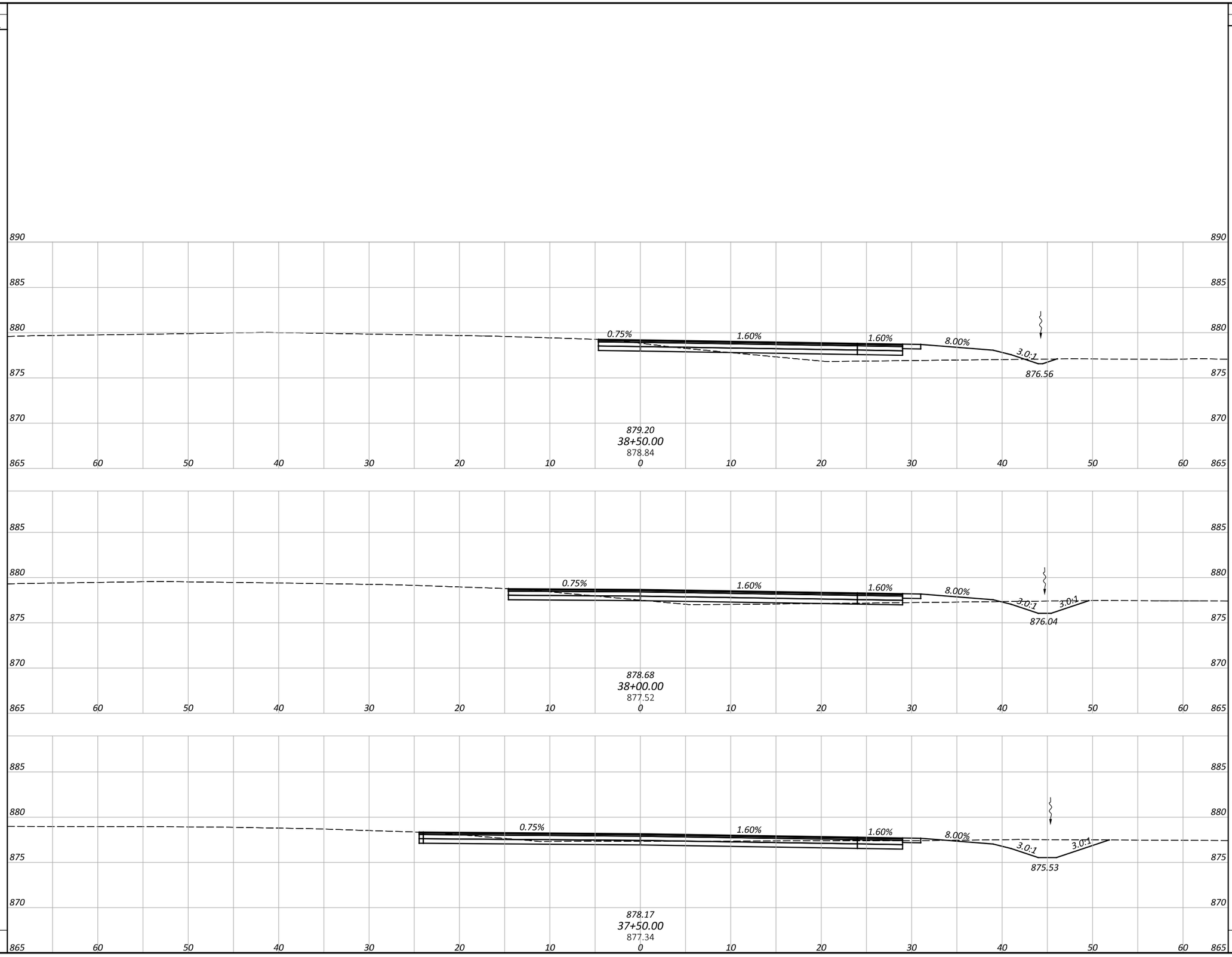
DESIGNER SHT

REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.077 TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
0	0		
0	0	0	0
0	0		
0	0		
SHEET TOTALS		0	0

CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 37+50.00 TO STA. 38+50.00

BUT IR 75/VAR 5.22/VAR

SHEET TOTAL

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

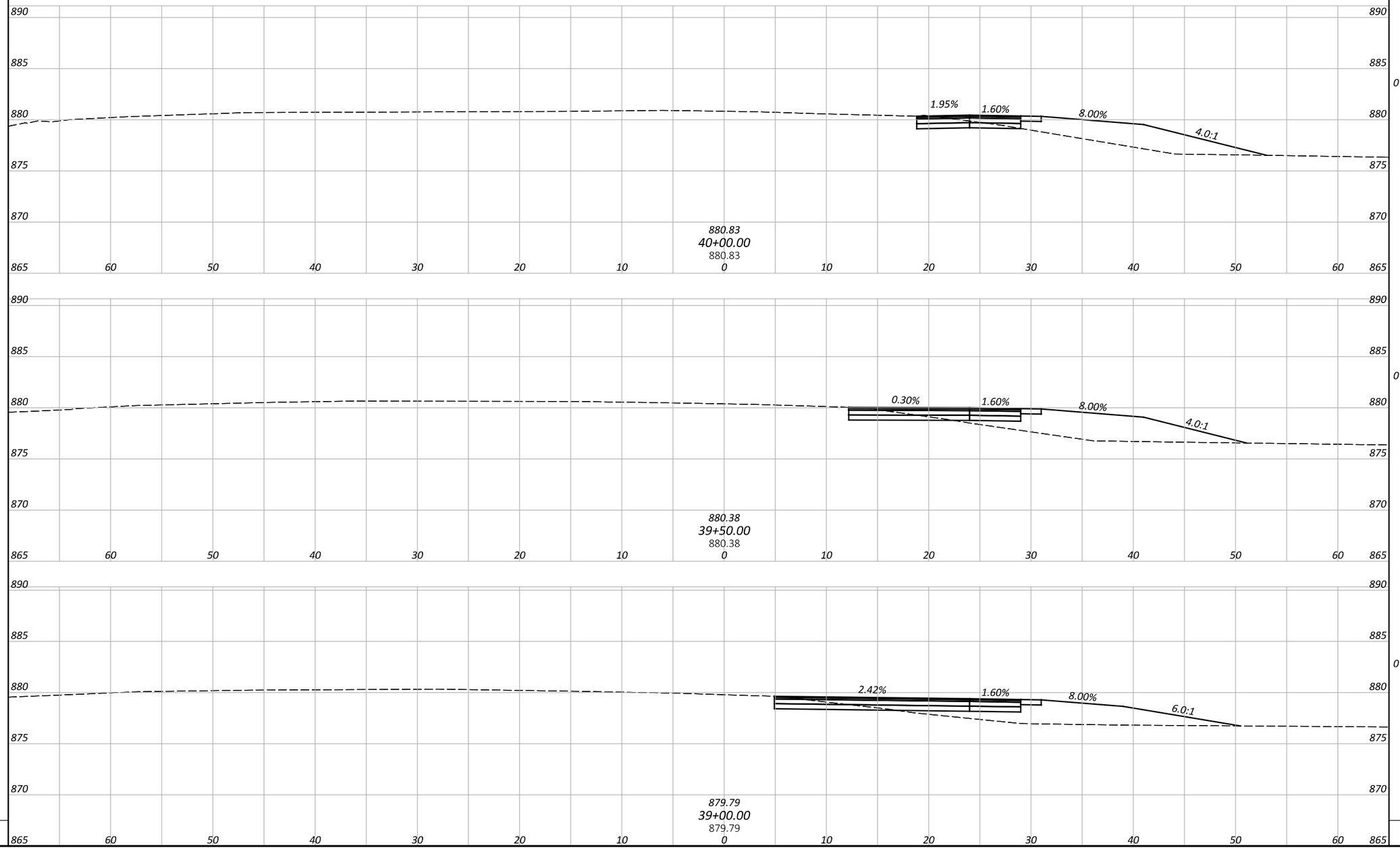
REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.078 | TOTAL 194

MODEL: CLX_1 - 37+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:39 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ftis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 39+00.00 TO STA. 40+00.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 39+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:42 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

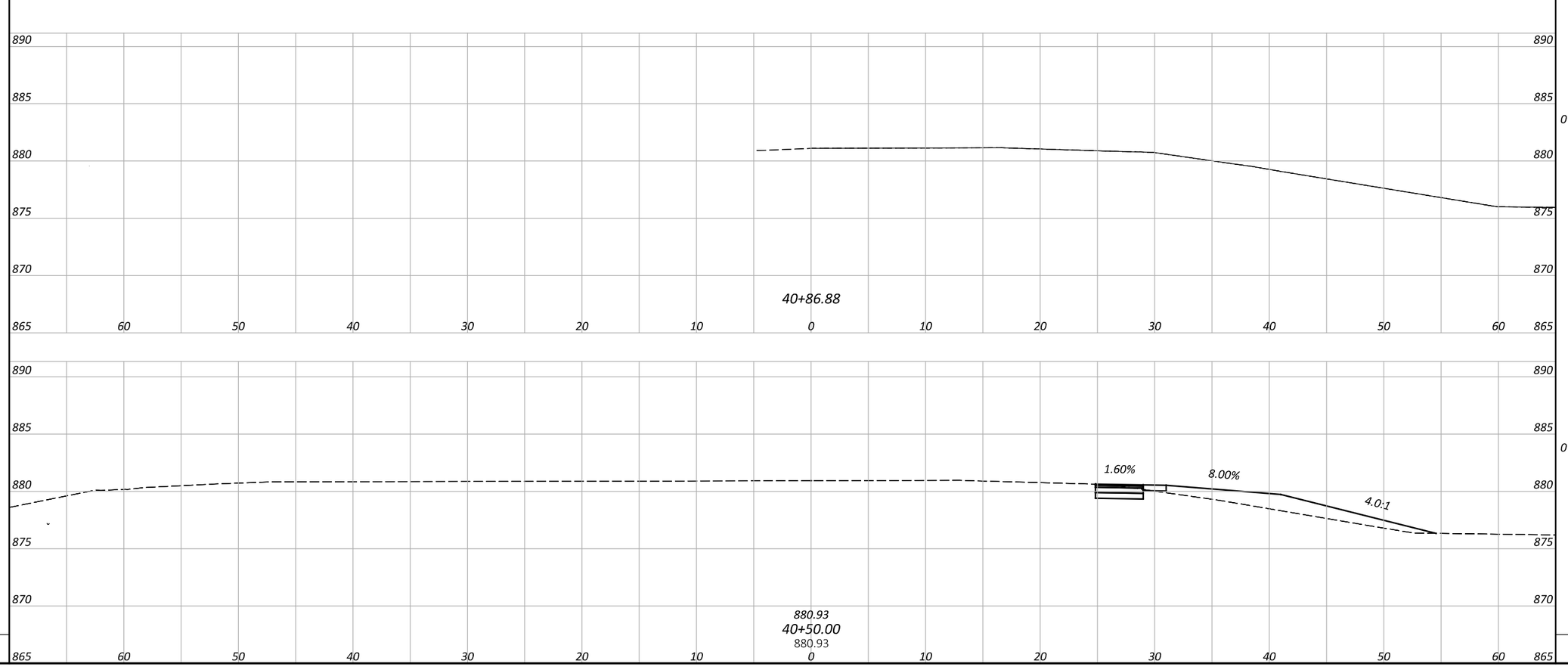
DESIGNER: SHT

REVIEWER: CWP 08/29/25

PROJECT ID: 117275

SHEET: P.079 | TOTAL: 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 1 CROSSOVER (SOUTH)
STA. 40+50.00 TO STA. 40+86.88

BUT IR 75/VAR 5.22/VAR

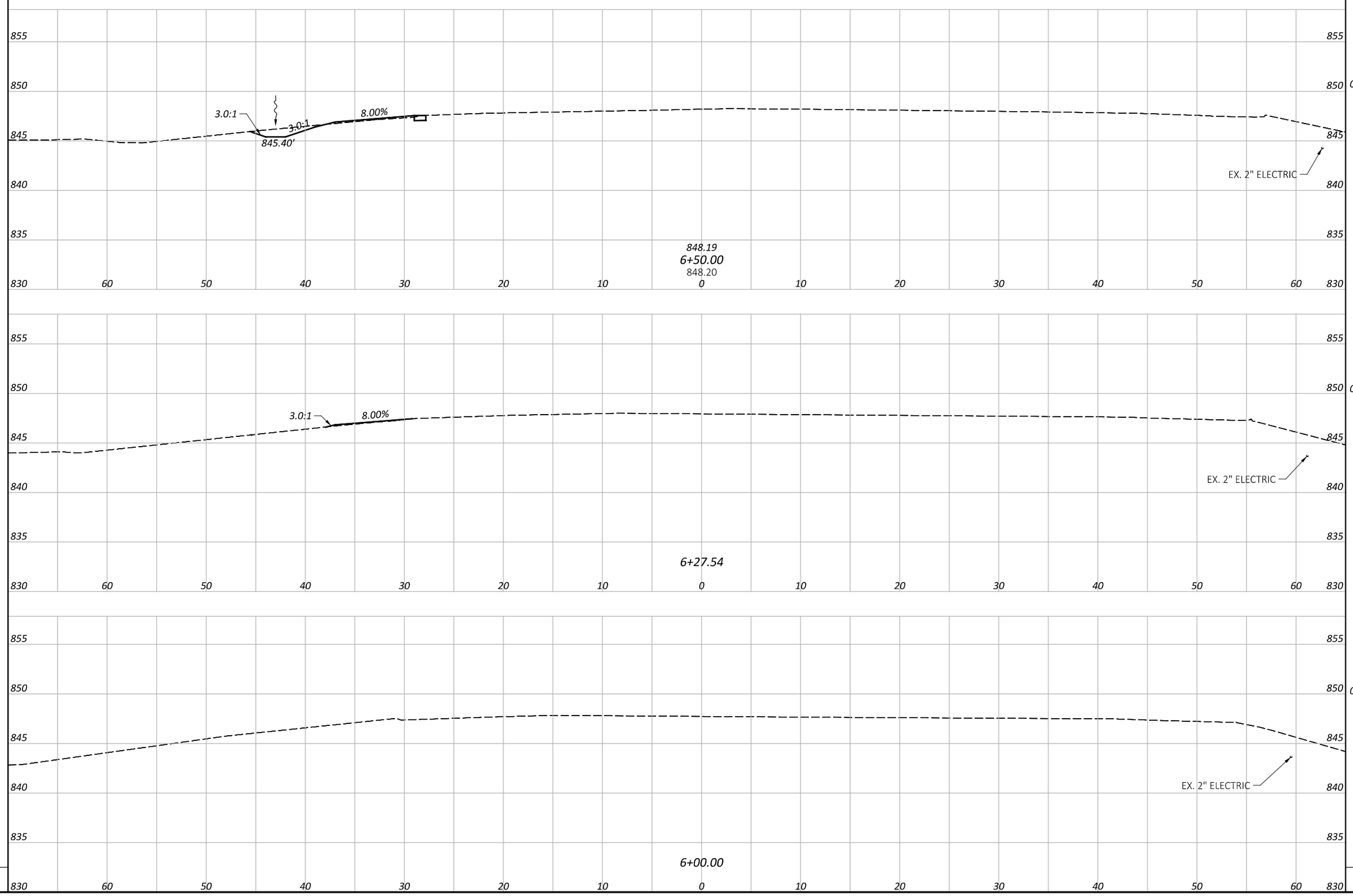
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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
SHT	CWP 08/29/25	117275	P.080	194

CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 6+00.00 TO STA. 6+50.00

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 6+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:49 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cveltd.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\MOT\Sheets\117275_XM303.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

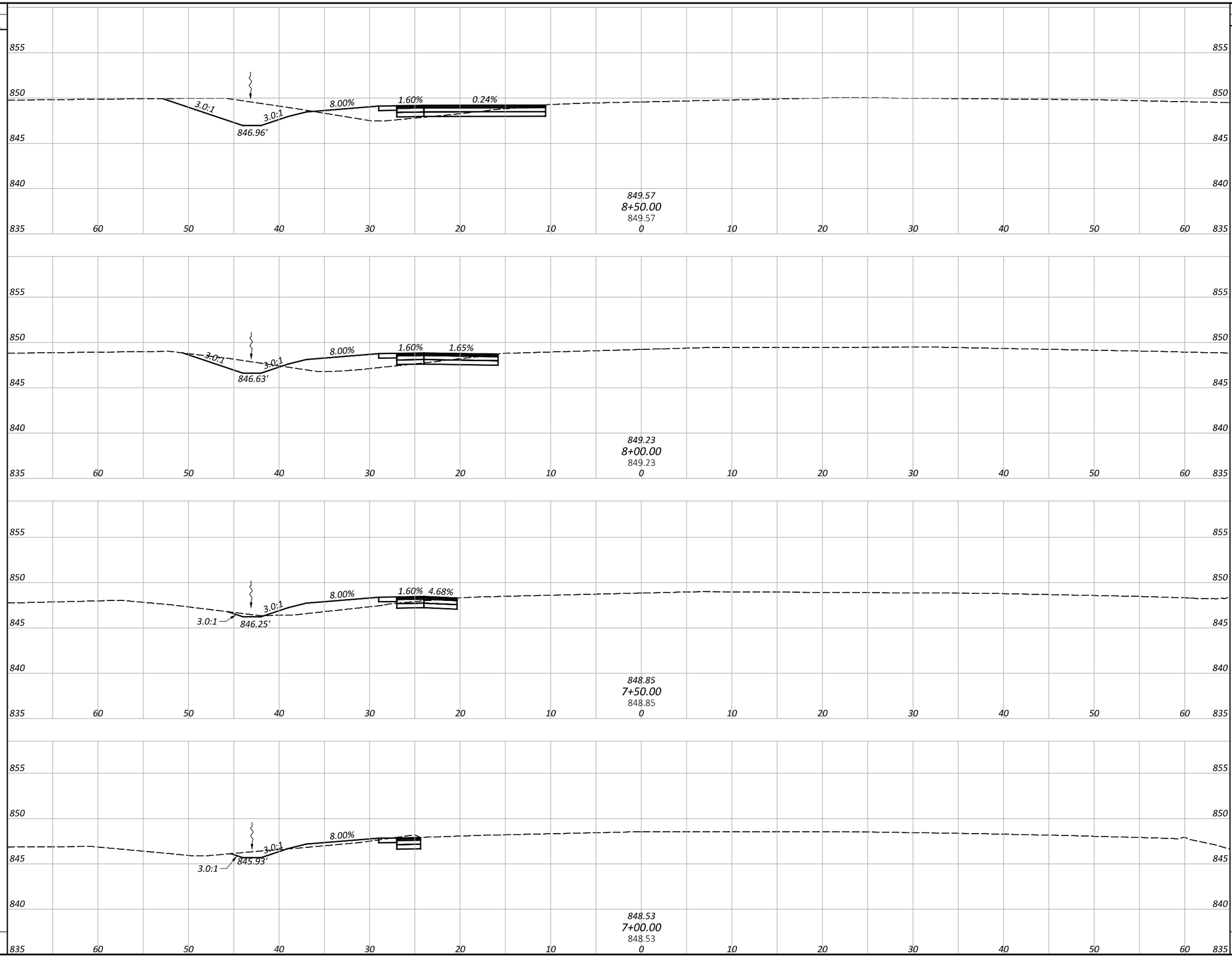
DESIGNER
SHT

REVIEWER
CWP 08/29/25

PROJECT ID
117275

SHEET P.081 TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0	0	0
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 7+00.00 TO STA. 8+50.00

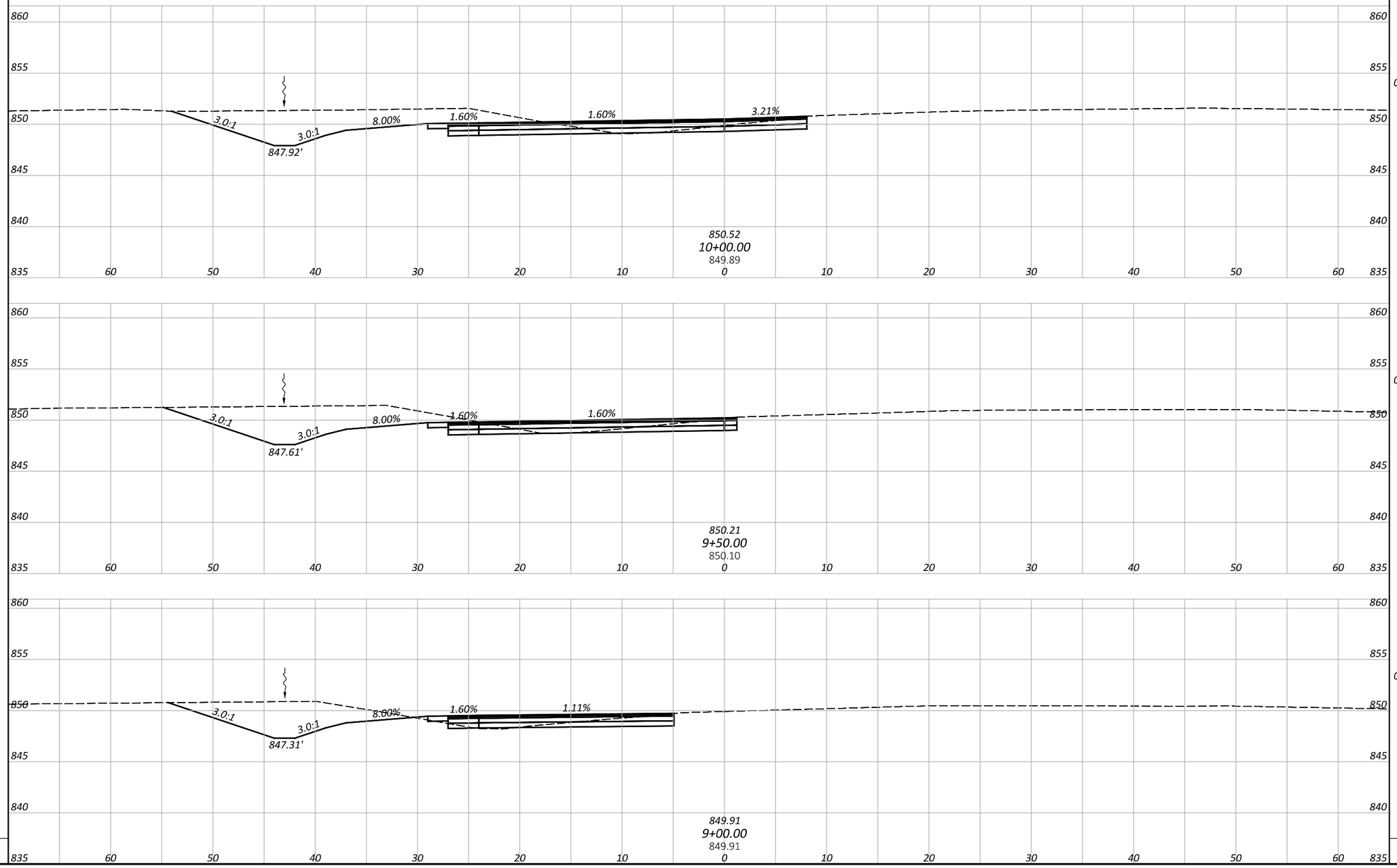
BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.082 TOTAL: 194

MODEL: CLX_1 - 7+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:53 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cveltd.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\MOT\Sheets\117275_XM303.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 9+00.00 TO STA. 10+00.00

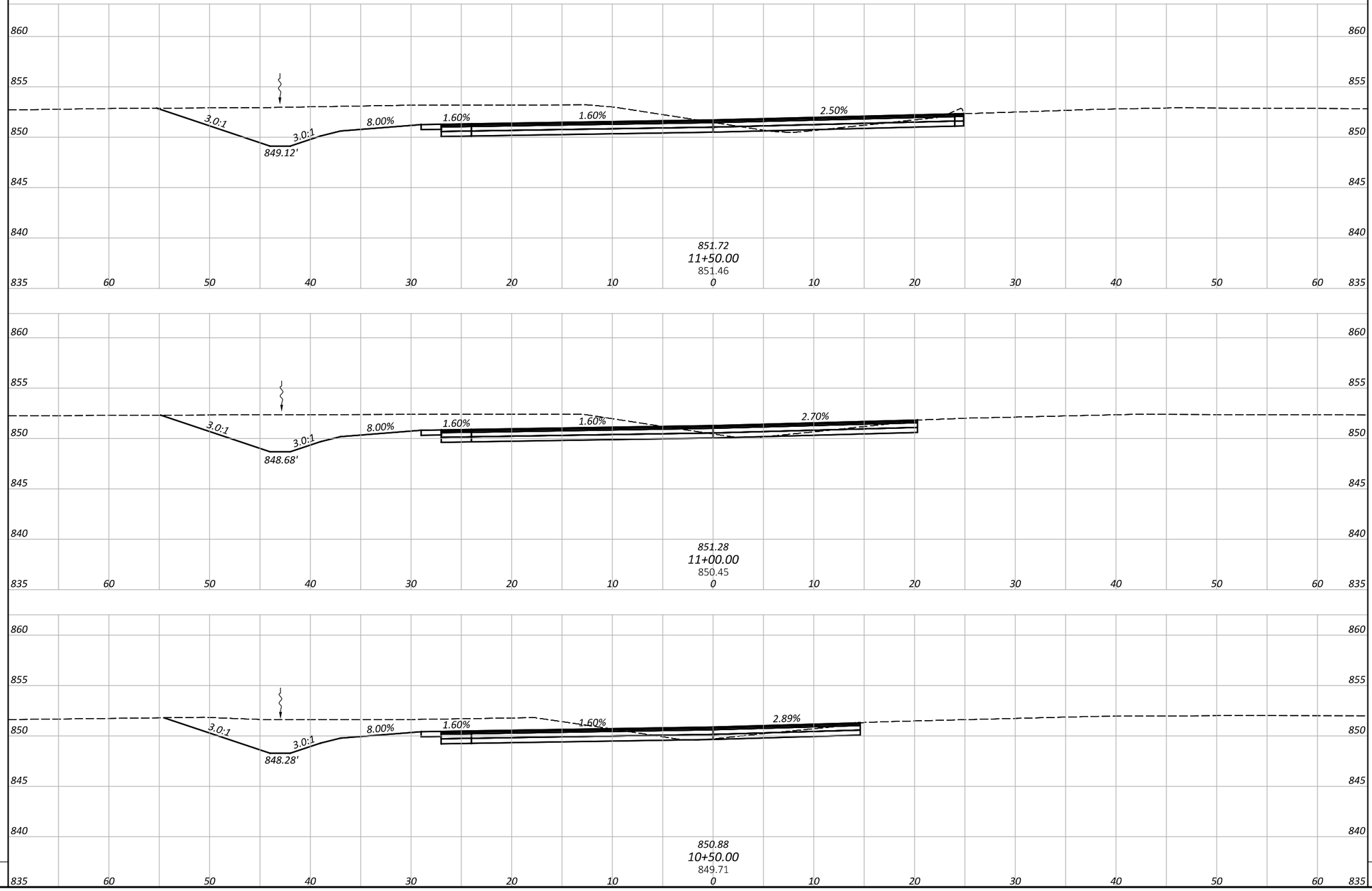
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.083
TOTAL	194

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 9+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:32:59 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 10+50.00 TO STA. 11+50.00

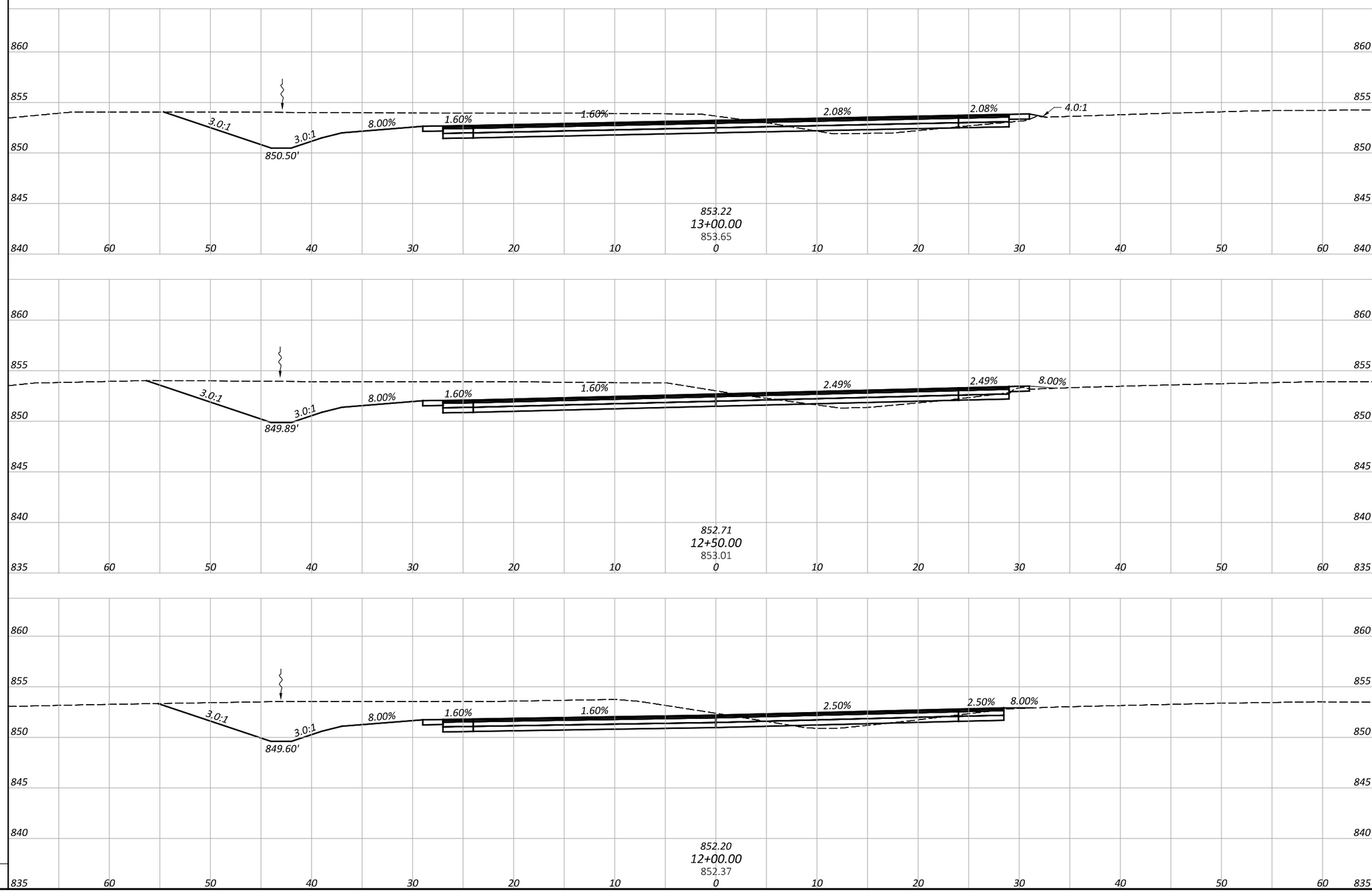
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 10+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:04 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\MOT\Sheets\117275_XM303.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.084 TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH) STA. 12+00.00 TO STA. 13+00.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 12+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:11 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\MOT\Sheets\117275_XM303.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

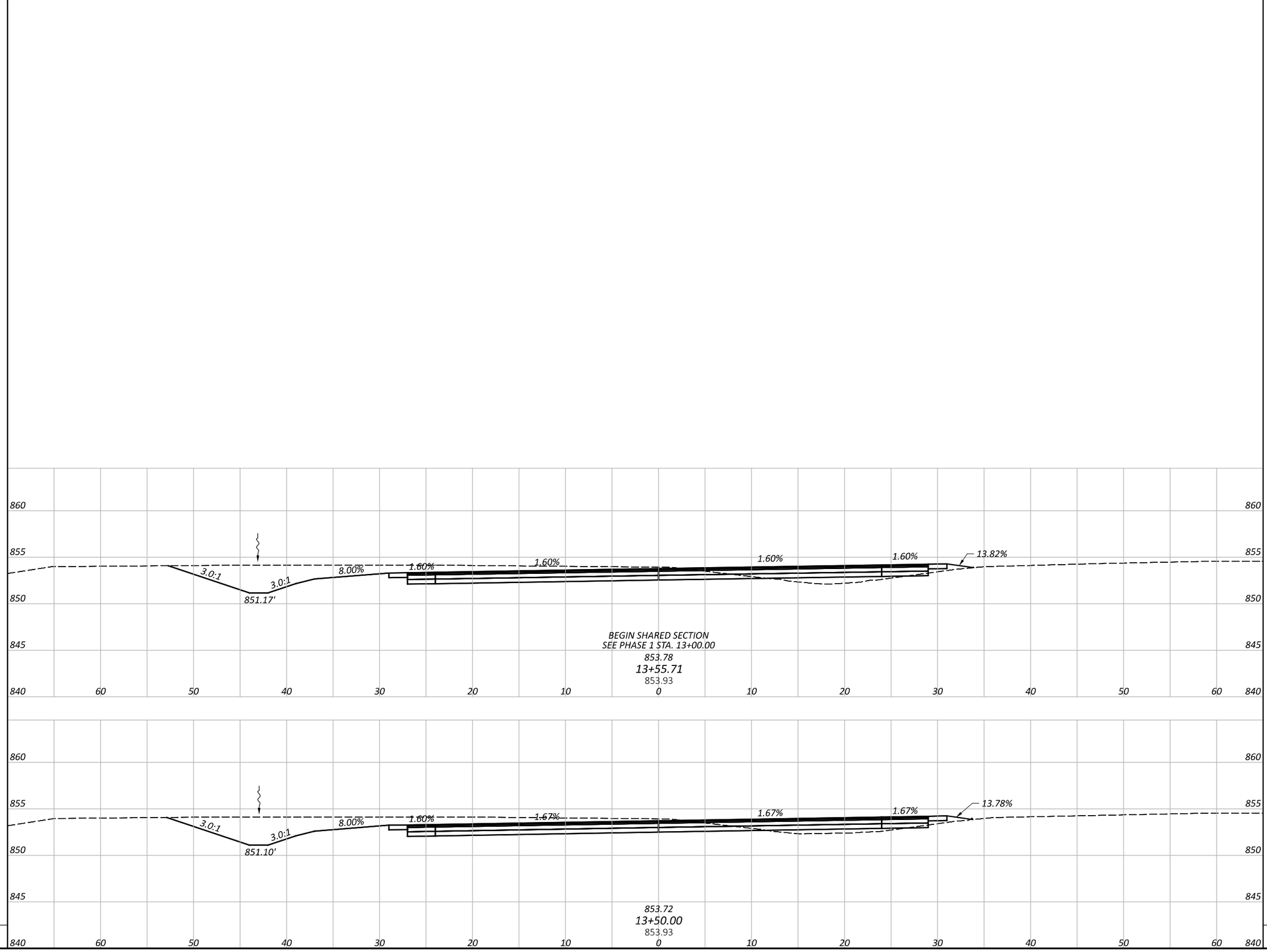
REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.085 TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			



CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 13+50.00 TO STA. 13+55.71

BUT IR 75/VAR 5.22/VAR

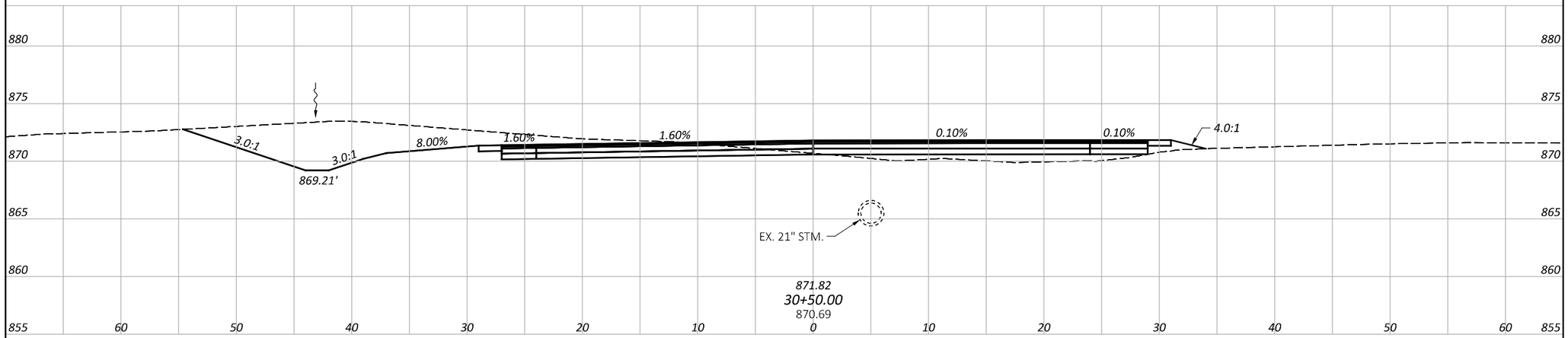
MODEL: CLX_1 - 13+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:20 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

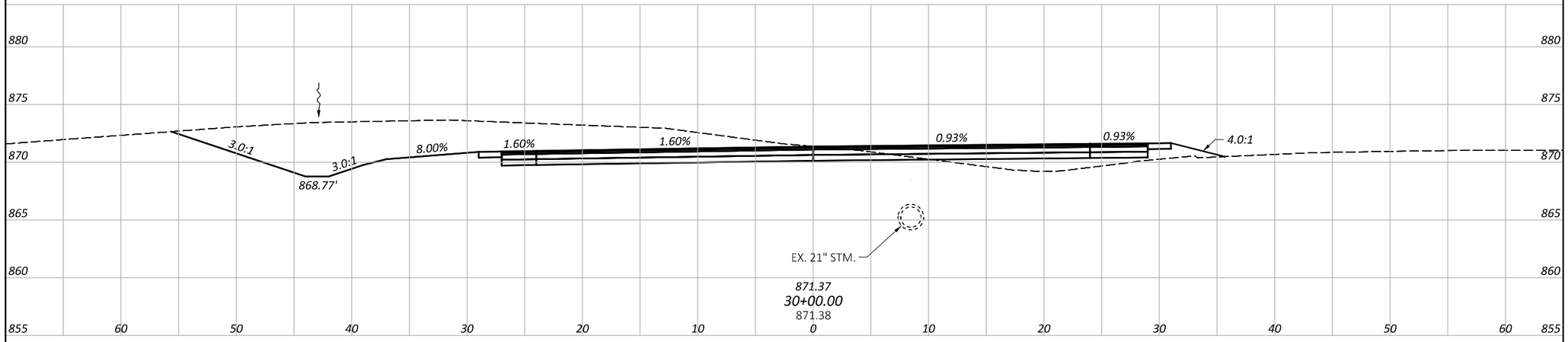
SHEET TOTAL

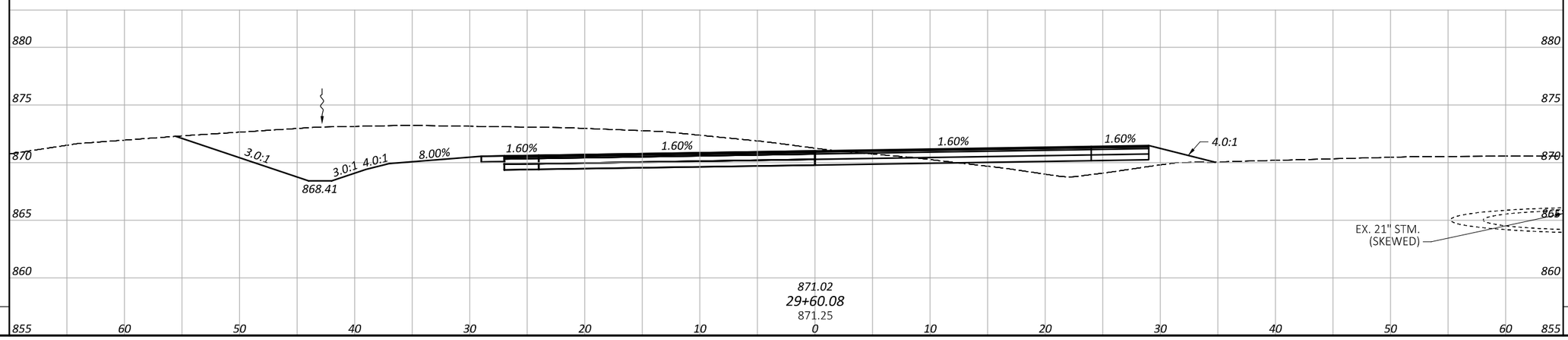
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.086
TOTAL	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			







CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 29+60.08 TO STA. 30+50.00

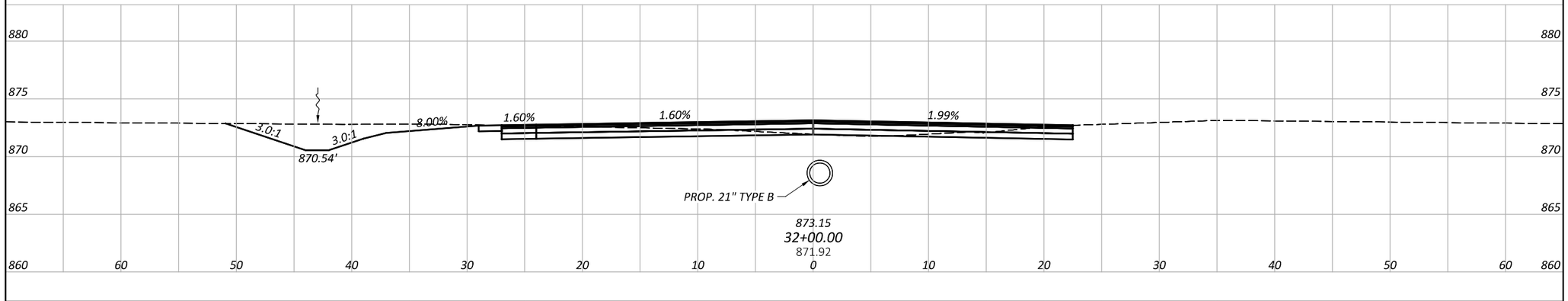
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_2 - 29+60.08 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:25 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

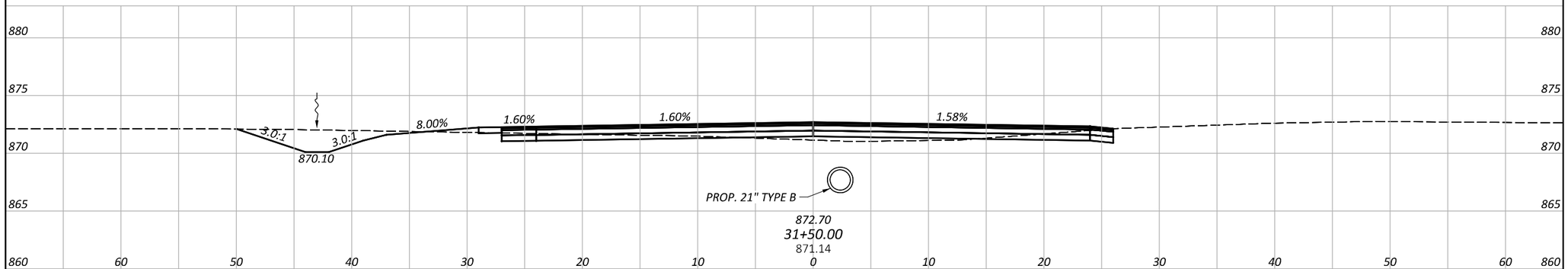
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SHT
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.087 TOTAL: 194

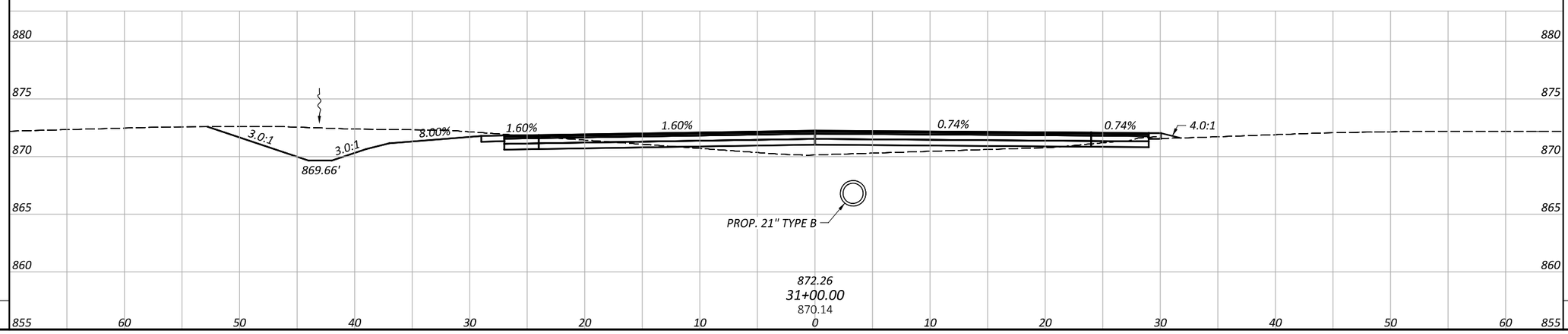
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0		



		0	0	0	0



		0	0	0	0

SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 31+00.00 TO STA. 32+00.00

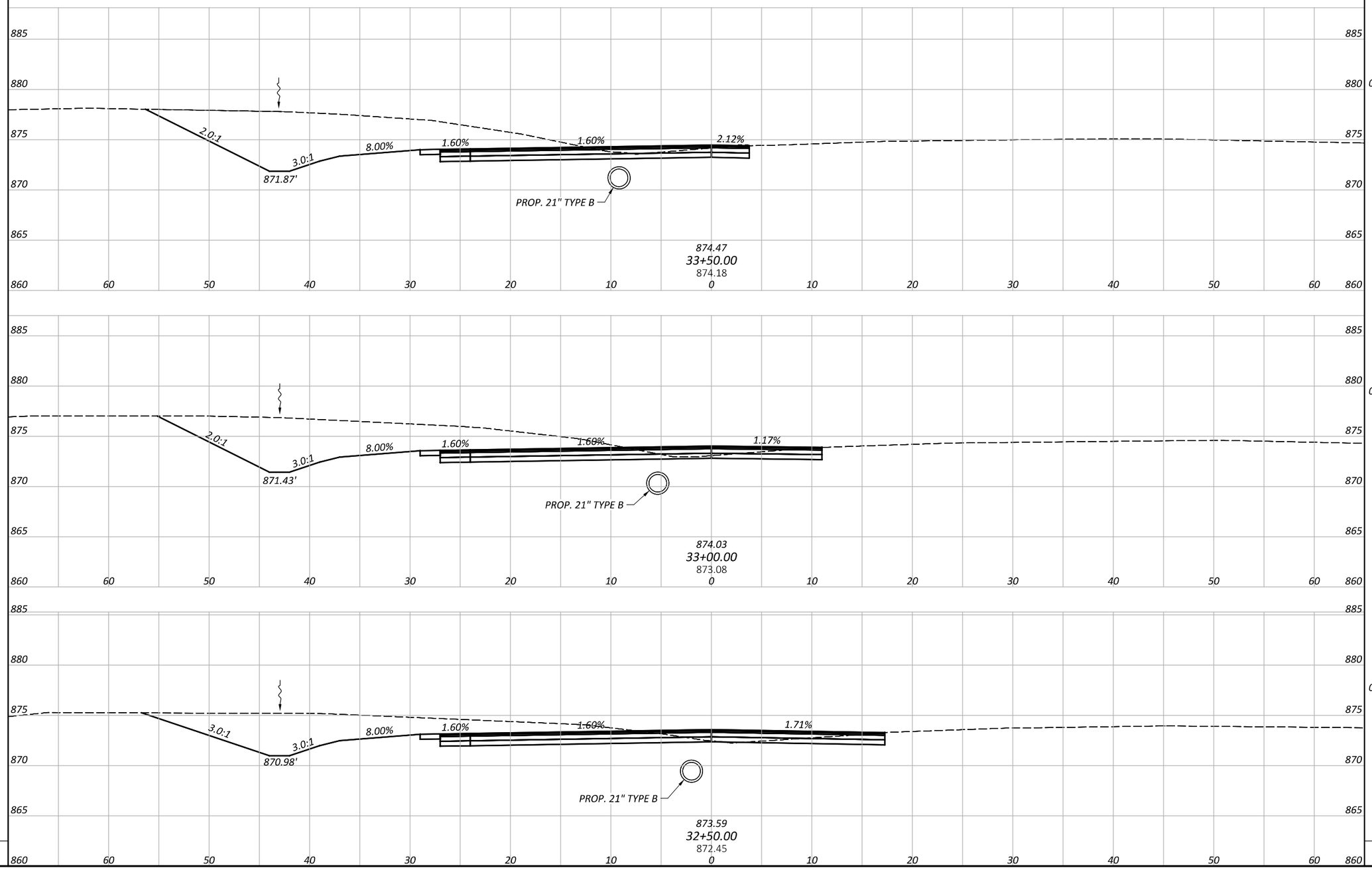
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_2 - 31+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:33 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\2365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.088
TOTAL	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 32+50.00 TO STA. 33+50.00

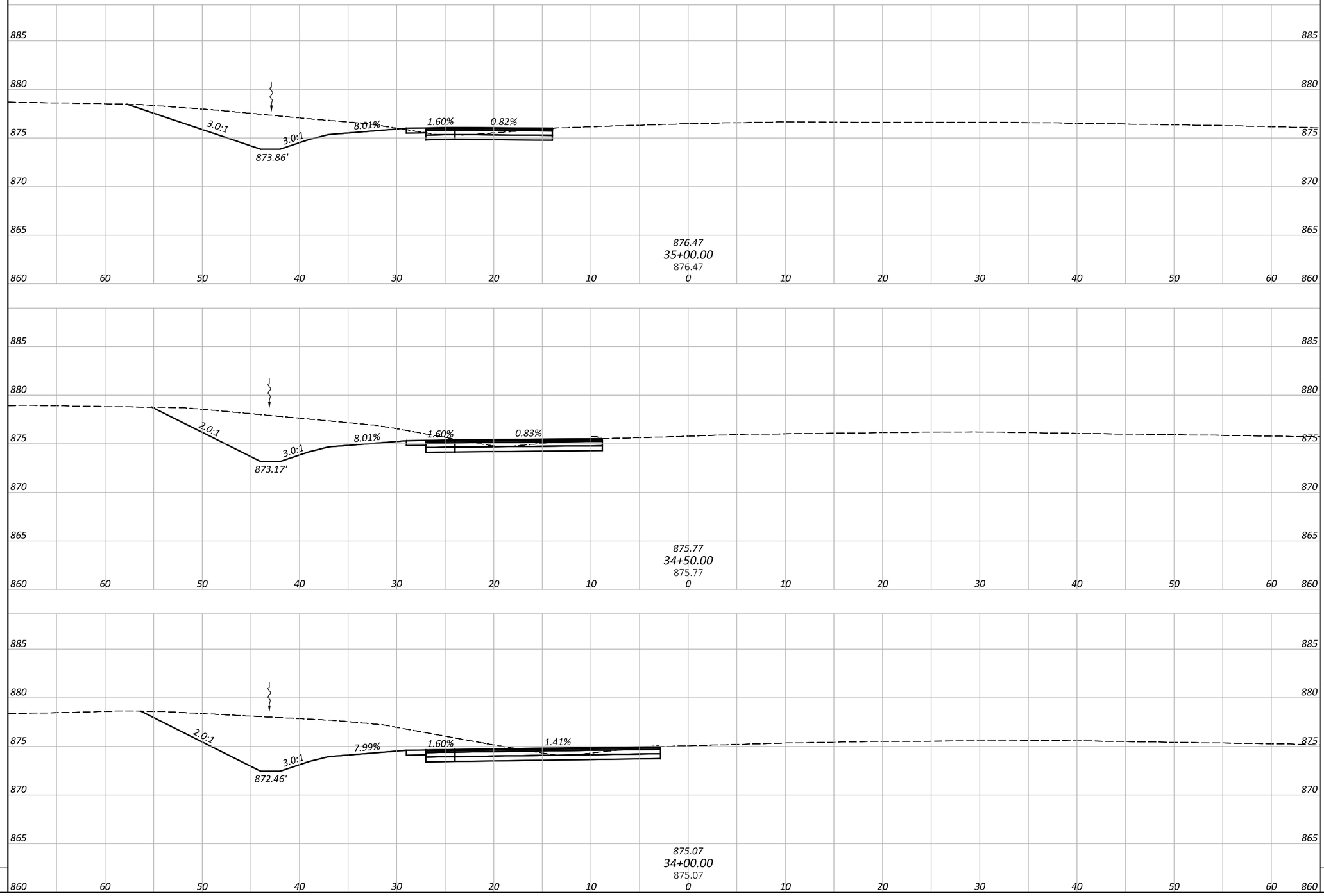
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_2 - 32+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:42 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
SHT	CWP 08/29/25	117275	P.089	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 34+00.00 TO STA. 35+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SHT

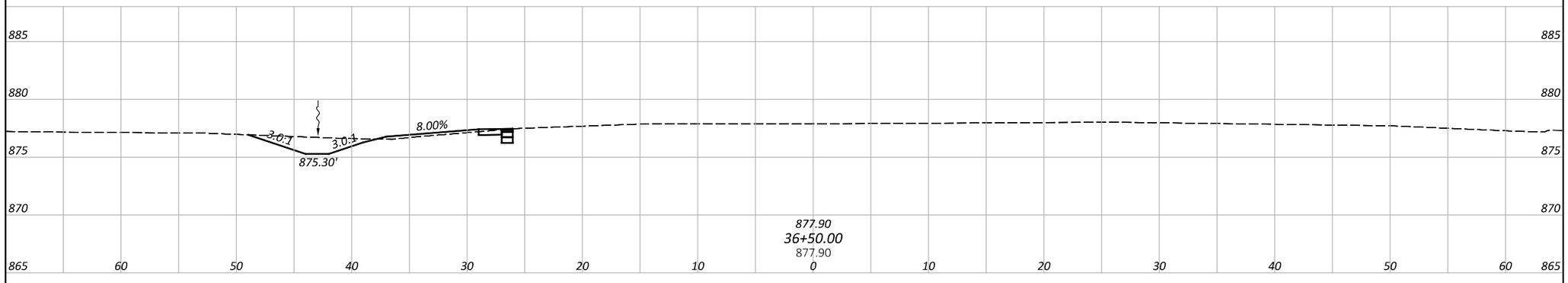
REVIEWER
CWP 08/29/25

PROJECT ID
117275

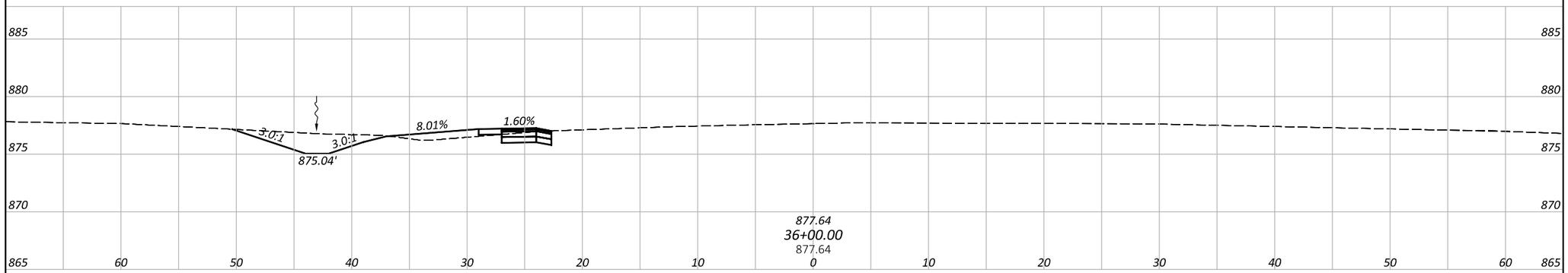
SHEET P.090 TOTAL 194

MODEL: CLX_2 - 34+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:50 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

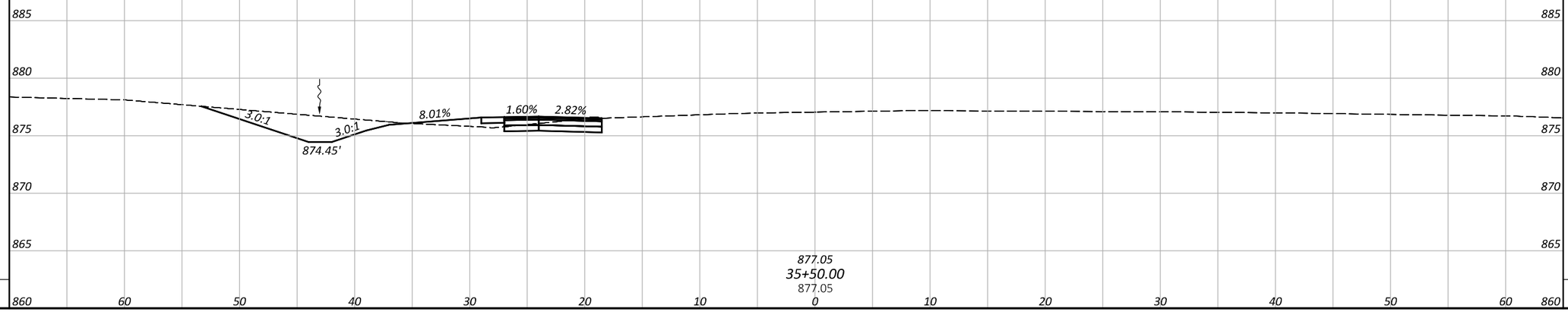
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0 0 0 0



0 0 0 0



0 0 0 0

SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 35+50.00 TO STA. 36+50.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

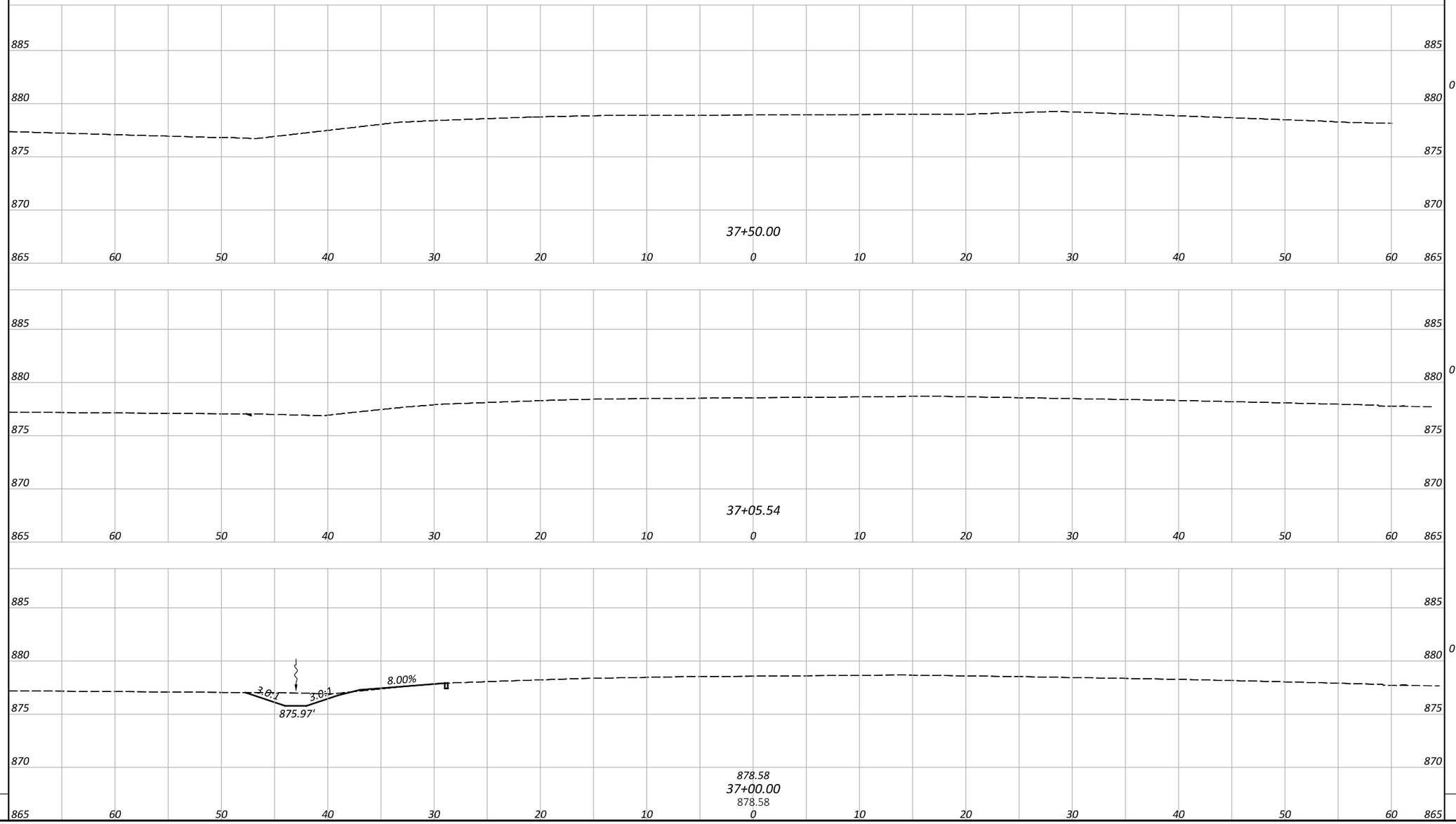
REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.091 TOTAL 194

MODEL: CLX_2 - 35+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:54 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - PHASE 2 CROSSOVER (NORTH)
STA. 37+00.00 TO STA. 37+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CIX_2 - 37+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:33:58 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_XM303.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.092 TOTAL 194

LEFT SIDE					I.R. 75 PHASE 1 CROSSOVER		RIGHT SIDE				
	PAVEMENT				CENTERLINE CONTROL		PAVEMENT				
LEFT REMARKS	LEFT EDGE OF LANES ELEV (FEET)	CROSS SLOPE TRANSITION VALUES	PROPOSED CROSS-SLOPE	CROSSOVER WIDTH (FEET)	CENTERLINE STATION	PROFILE GRADE	CROSSOVER WIDTH (FEET)	PROPOSED CROSS-SLOPE	CROSS SLOPE TRANSITION VALUES	RIGHT EDGE OF LANES ELEV (FEET)	RIGHT REMARKS
	-		-	-	2+55.88	EX.	0.00	-1.60%		848.47*	BEGIN RIGHT EOP
	-		-	-	2+75.00	EX.	2.04	-1.60%		848.28*	
	-		-	-	3+00.00	EX.	4.84	-1.60%		848.01*	
	-		-	-	3+25.00	EX.	7.92	-1.60%		847.76*	
	-		-	-	3+50.00	EX.	11.35	-1.60%		847.55*	
	-		-	-	3+75.00	EX.	14.99	-1.60%		847.34*	
	-		-	-	4+00.00	EX.	18.84	-1.60%		847.15*	
	-		-	-	4+25.00	EX.	23.00	-1.60%		846.96*	
BEGIN PROPOSED PROFILE & LEFT EOP	847.30**		0.00%	0.00	4+30.70	847.30	24.00	-1.60%		846.92	BEGIN PROPOSED PROFILE & FULL WIDTH RIGHT EOP
	847.22**		2.05%	3.47	4+50.00	847.15	24.00	-1.60%		846.76	
	847.16**		2.56%	8.24	4+75.00	846.95	24.00	-1.60%		846.57	
	847.13**		2.86%	13.30	5+00.00	846.75	24.00	-1.60%		846.37	
	847.13**		3.07%	18.20	5+25.00	846.57	24.00	-1.60%		846.19	
	847.15**		3.12%	22.70	5+50.00	846.44	24.00	-1.60%		846.06	
BEGIN LEFT FULL WIDTH EOP	847.15**		3.08%	24.00	5+57.47	846.41	24.00	-1.60%		846.03	
	847.10		3.08%	24.00	5+75.00	846.36	24.00	-1.60%		845.97	
BEGIN LEFT SUPERELEVATION ROTATION	847.08	<-- G = -267, L = 300 w = 12, n1 = 2.0, ed = 0.0308, bw = 1.00 -->	3.08%	24.00	5+83.74	846.34	24.00	-1.60%		845.96	
	847.00		2.83%	24.00	6+00.00	846.32	24.00	-1.60%		845.94	
	846.92		2.44%	24.00	6+25.00	846.33	24.00	-1.60%		845.95	
	846.88		2.05%	24.00	6+50.00	846.39	24.00	-1.60%		846.00	
	846.89		1.66%	24.00	6+75.00	846.49	24.00	-1.60%		846.11	
	846.89		1.60%	24.00	6+78.61	846.51	24.00	-1.60%	<-- G = 267, L = 205.13 w = 12, n1 = 2.0, ed = 0.0308, bw = 1.00 -->	846.13	BEGIN RIGHT SUPERELEVATION ROTATION
	846.95		1.27%	24.00	7+00.00	846.64	24.00	-1.27%		846.34	
	847.05		0.88%	24.00	7+25.00	846.84	24.00	-0.88%		846.63	
	847.20		0.49%	24.00	7+50.00	847.08	24.00	-0.49%		846.96	
	847.39		0.10%	24.00	7+75.00	847.37	24.00	-0.10%		847.35	
	847.64		-0.29%	24.00	8+00.00	847.71	24.00	0.29%		847.78	
	847.90		-0.68%	24.00	8+25.00	848.06	24.00	0.68%		848.23	
	848.17		-1.07%	24.00	8+50.00	848.42	24.00	1.07%		848.68	
	848.43		-1.46%	24.00	8+75.00	848.78	24.00	1.46%		849.13	
END SUPERELEVATION ROTATION	848.52		-1.60%	24.00	8+83.74	848.91	24.00	1.60%		849.29	END SUPERELEVATION ROTATION
BEGIN SUPERELEVATION ROTATION	875.24	<-- G = 293, L = 165.23 w = 12, n1 = 2.0, ed = 0.0074, bw = 1.00 -->	-1.60%	24.00	35+00.59	875.62	24.00	1.60%	<-- G = -293, L = 225 w = 12, n1 = 2.0, ed = 0.0074, bw = 1.00 -->	876.01	BEGIN SUPERELEVATION ROTATION
	875.56		-1.25%	24.00	35+25.00	875.86	24.00	1.25%		876.16	
	875.90		-0.90%	24.00	35+50.00	876.11	24.00	0.90%		876.33	
	876.23		-0.54%	24.00	35+75.00	876.36	24.00	0.54%		876.49	
	876.58		-0.19%	24.00	36+00.00	876.62	24.00	0.19%		876.67	
	876.92		0.17%	24.00	36+25.00	876.88	24.00	-0.17%		876.84	
	877.26		0.52%	24.00	36+50.00	877.14	24.00	-0.52%		877.01	
END LEFT SUPERELEVATION ROTATION	877.48		0.75%	24.00	36+65.82	877.30	24.00	-0.75%		877.12	
	877.57		0.75%	24.00	36+75.00	877.39	24.00	-0.88%		877.18	
	877.83		0.75%	24.00	37+00.00	877.65	24.00	-1.24%		877.36	
	878.09		0.75%	24.00	37+25.00	877.91	24.00	-1.59%		877.53	
	878.10		0.75%	24.00	37+25.59	877.92	24.00	-1.60%		877.53	END RIGHT SUPERELEVATION ROTATION
	878.35		0.75%	24.00	37+50.00	878.17	24.00	-1.60%		877.79	
END FULL WIDTH LEFT EOP	878.37**		0.75%	24.00	37+52.44	878.19	24.00	-1.60%		877.81	
	878.56**		0.68%	19.62	37+75.00	878.43	24.00	-1.60%		878.04	
	878.78**		0.65%	14.59	38+00.00	878.68	24.00	-1.60%		878.30	
	879.02**		0.81%	9.53	38+25.00	878.94	24.00	-1.60%		878.56	
	879.26**		1.29%	4.64	38+50.00	879.20	24.00	-1.60%		878.82	
	879.46**		2.66%	0.08	38+75.00	879.46	24.00	-1.60%		879.07	
END PROPOSED PROFILE & LEFT EOP	879.46**		0.00%	0.00	38+75.43	879.46	24.00	-1.60%		879.08	END PROPOSED PROFILE & END FULL WIDTH RIGHT EOP
	-		-	-	39+00.00	EX.	19.09	-1.60%		879.33*	
	-		-	-	39+25.00	EX.	15.36	-1.60%		879.59*	
	-		-	-	39+50.00	EX.	11.82	-1.60%		879.85*	
	-		-	-	39+75.00	EX.	8.41	-1.60%		880.06*	
	-		-	-	40+00.00	EX.	5.18	-1.60%		880.27*	
	-		-	-	40+25.00	EX.	2.06	-1.60%		880.46*	
	-		-	-	40+42.53	EX.	0.00	-1.60%		880.60*	END RIGHT EOP

NOTES

** EDGE OF PAVEMENT ELEVATION IS A CONTINUATION OF EXISTING EDGE OF SHOULDER AT 1.60%.*

***EDGE OF PAVEMENT ELEVATION IS THE EXISTING EDGE OF SHOULDER ELEVATION AND CROSS SLOPE VARIES BETWEEN THAT POINT AND PROPOSED PROFILE ELEVATION.*

MAINTENANCE OF TRAFFIC
PHASE 1 CROSSOVER SUPERELEVATION TABLE

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SDK
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.093 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:02 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_MS001.dgn

LEFT SIDE					I.R. 75 PHASE 2 CROSSOVER		RIGHT SIDE				
	PAVEMENT				CENTERLINE CONTROL		PAVEMENT				
LEFT REMARKS	LEFT EDGE OF LANES ELEV (FEET)	CROSS SLOPE TRANSITION VALUES	PROPOSED CROSS-SLOPE	CROSSOVER WIDTH (FEET)	CENTERLINE STATION	PROFILE GRADE	CROSSOVER WIDTH (FEET)	PROPOSED CROSS-SLOPE	CROSS SLOPE TRANSITION VALUES	RIGHT EDGE OF LANES ELEV (FEET)	RIGHT REMARKS
BEGIN LEFT EOP	847.94*		-1.60%	0.00	7+04.86	EX.	-	-		-	
	848.07*		-1.60%	1.60	7+25.00	EX.	-	-		-	
	848.23*		-1.60%	3.65	7+50.00	EX.	-	-		-	
	848.41*		-1.60%	5.87	7+75.00	EX.	-	-		-	
	848.58*		-1.60%	8.18	8+00.00	EX.	-	-		-	
	848.77*		-1.60%	10.70	8+25.00	EX.	-	-		-	
	849.01*		-1.60%	13.42	8+50.00	EX.	-	-		-	
	849.23*		-1.60%	16.30	8+75.00	EX.	-	-		-	
	849.43*		-1.60%	19.07	9+00.00	EX.	-	-		-	
BEGIN PROPOSED PROFILE	849.61*		-1.60%	21.71	9+22.27	850.05	-	-		-	BEGIN PROPOSED PROFILE
	849.71		-1.60%	22.05	9+25.00	850.07	-	-		-	
BEGIN FULL WIDTH LEFT EOP	849.77		-1.60%	24.00	9+40.57	850.16	0.00	-		850.15**	BEGIN RIGHT EOP
	849.83		-1.60%	24.00	9+50.00	850.21	1.22	-		850.25**	
	849.98		-1.60%	24.00	9+75.00	850.36	4.58	-		850.51**	
	850.14		-1.60%	24.00	10+00.00	850.52	8.06	-		850.78**	
	850.31		-1.60%	24.00	10+25.00	850.70	11.45	-		851.05**	
	850.50		-1.60%	24.00	10+50.00	850.88	14.61	-		851.30**	
	850.69		-1.60%	24.00	10+75.00	851.07	17.55	-		851.56**	
	850.89		-1.60%	24.00	11+00.00	851.28	20.29	-		851.83**	
	851.11		-1.60%	24.00	11+25.00	851.49	22.77	-		852.09**	
	851.24		-1.60%	24.00	11+39.31	851.62	24.00	-		852.22**	BEGIN FULL WIDTH RIGHT EOP
	851.34		-1.60%	24.00	11+50.00	851.72	24.00	2.50%		852.32	
	851.57		-1.60%	24.00	11+75.00	851.96	24.00	2.50%		852.56	
	851.82		-1.60%	24.00	12+00.00	852.20	24.00	2.50%		852.80	
	852.07		-1.60%	24.00	12+25.00	852.46	24.00	2.50%		853.06	
	852.32		-1.60%	24.00	12+48.87	852.70	24.00	2.50%	<-- G = -509, L = 110 w = 12, n1 = 2.0, ed = 0.0250, bw = 1.00 -->	853.30	BEGIN RIGHT SUPERELEVATION ROTATION
	852.33		-1.60%	24.00	12+50.00	852.71	24.00	2.49%		853.31	
	852.58		-1.60%	24.00	12+75.00	852.96	24.00	2.29%		853.51	
	852.83		-1.60%	24.00	13+00.00	853.22	24.00	2.08%		853.72	
	853.09		-1.60%	24.00	13+25.00	853.47	24.00	1.88%		853.92	
	853.34		-1.60%	24.00	13+50.00	853.72	24.00	1.67%		854.12	
	853.42		-1.60%	24.00	13+58.87	853.81	24.00	1.60%		854.19	END RIGHT SUPERELEVATION ROTATION
	870.64		-1.60%	24.00	29+60.08	871.02	24.00	1.60%		871.40	BEGIN SUPERELEVATION ROTATION
	870.77		-1.60%	24.00	29+75.00	871.15	24.00	1.35%		871.48	
	870.99		-1.60%	24.00	30+00.00	871.37	24.00	0.93%		871.60	
	871.21		-1.60%	24.00	30+25.00	871.60	24.00	0.51%		871.72	
	871.43		-1.60%	24.00	30+50.00	871.82	24.00	0.10%		871.84	
	871.65		-1.60%	24.00	30+75.00	872.04	24.00	-0.32%		871.96	
	871.88		-1.60%	24.00	31+00.00	872.26	24.00	-0.74%		872.08	
	872.10		-1.60%	24.00	31+25.00	872.48	24.00	-1.16%		872.20	
	872.32		-1.60%	24.00	31+50.00	872.70	24.00	-1.58%		872.32	
	872.54		-1.60%	24.00	31+75.00	872.92	24.00	-2.00%		872.45	
	872.59		-1.60%	24.00	31+80.07	872.97	24.00	-2.08%	<-- G = -249, L = 219.99 w = 12, n1 = 2.0, ed = 0.0208, bw = 1.00 -->	872.47**	END SUPERELEVATION ROTATION & FULL WIDTH RIGHT EOP
	872.76		-1.60%	24.00	32+00.00	873.15	22.49	-1.99%		872.70**	
	872.98		-1.60%	24.00	32+25.00	873.37	19.98	-		873.00**	
	873.20		-1.60%	24.00	32+50.00	873.59	17.26	-		873.29**	
	873.43		-1.60%	24.00	32+75.00	873.81	14.24	-		873.60**	
	873.65		-1.60%	24.00	33+00.00	874.03	11.00	-		873.90**	
	873.87		-1.60%	24.00	33+25.00	874.25	7.35	-		874.15**	
	874.09		-1.60%	24.00	33+50.00	874.47	3.76	-		874.39**	
	874.31		-1.60%	24.00	33+75.00	874.70	0.36	-		874.69**	
END PROPOSED PROFILE & FULL WITDH LEFT EOP	874.34		-1.60%	24.00	33+77.74	874.72	0.00	-		874.72**	END RIGHT EOP AND PROPOSED PROFILE
	874.64*		-1.60%	21.14	34+00.00	EX.	-	-		-	
	874.96*		-1.60%	18.04	34+25.00	EX.	-	-		-	
	875.28*		-1.60%	15.15	34+50.00	EX.	-	-		-	
	875.56*		-1.60%	12.50	34+75.00	EX.	-	-		-	
	875.84*		-1.60%	10.02	35+00.00	EX.	-	-		-	
	876.14*		-1.60%	7.67	35+25.00	EX.	-	-		-	
	876.42*		-1.60%	5.47	35+50.00	EX.	-	-		-	
	876.72*		-1.60%	3.29	35+75.00	EX.	-	-		-	
	877.00*		-1.60%	1.31	36+00.00	EX.	-	-		-	
END LEFT EOP	877.18*		-1.60%	0.00	36+18.16	EX.	-	-		-	

NOTES

** EDGE OF PAVEMENT ELEVATION IS A CONTINUATION OF EXISTING EDGE OF SHOULDER AT 1.60%.*

***EDGE OF PAVEMENT ELEVATION IS THE EXISTING EDGE OF SHOULDER ELEVATION AND CROSS SLOPE VARIES BETWEEN THAT POINT AND PROPOSED PROFILE ELEVATION.*

MAINTENANCE OF TRAFFIC
PHASE 2 CROSSOVER SUPERELEVATION TABLE

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SDK

REVIEWER CWP 08/29/25

PROJECT ID 117275

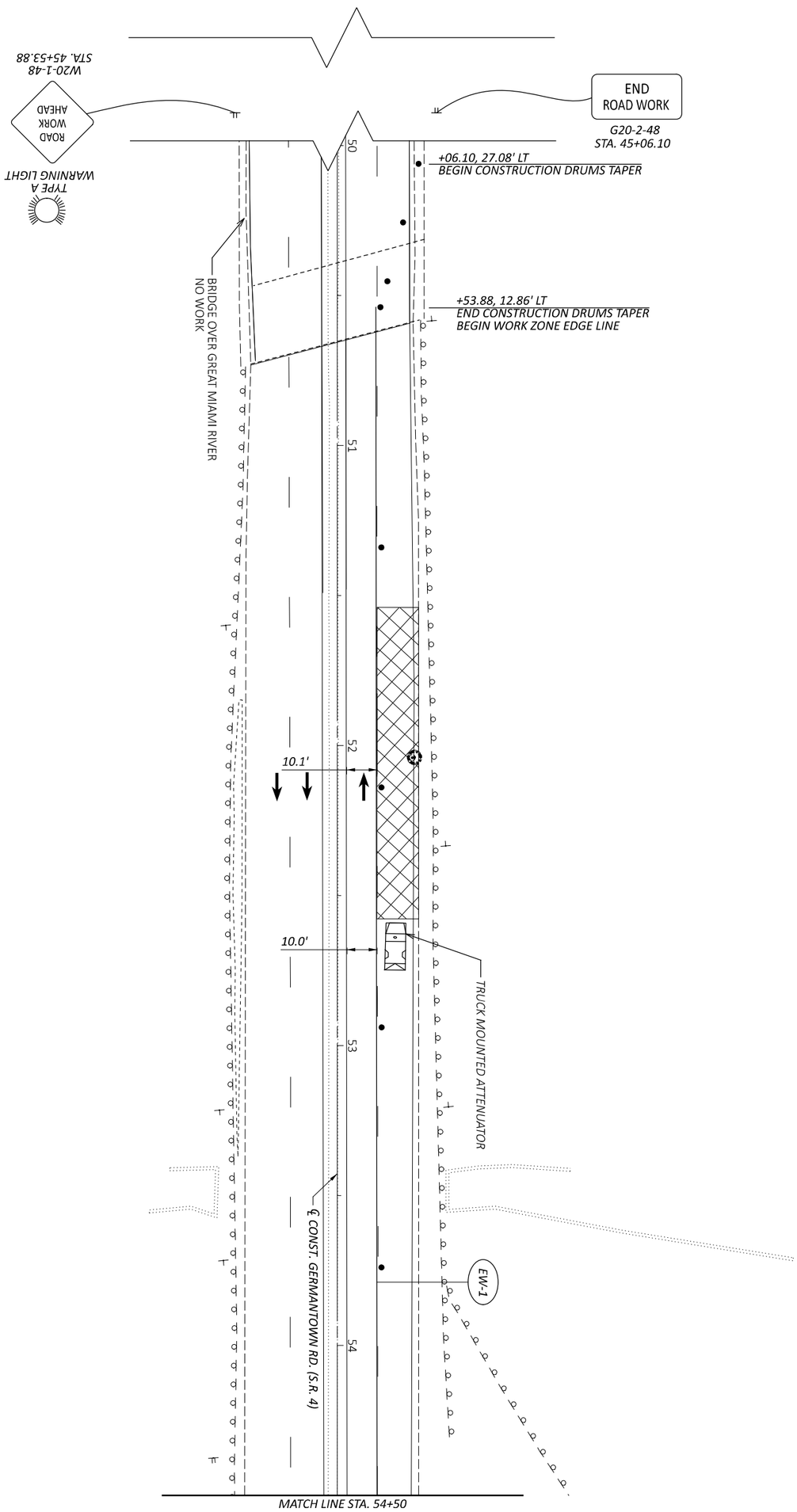
SHEET P.094 TOTAL 194

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MODEL: CLX_SR-4 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:06 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_MP201.dgn

LEGEND

- CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)
- WORK ZONE
- XXXX PAVEMENT MARKING REMOVED
- DIRECTION OF TRAFFIC
- (EW) WORK ZONE EDGE LINE, 6" (WHITE)
- (DW) WORK ZONE DOTTED LINE, 6" (WHITE)



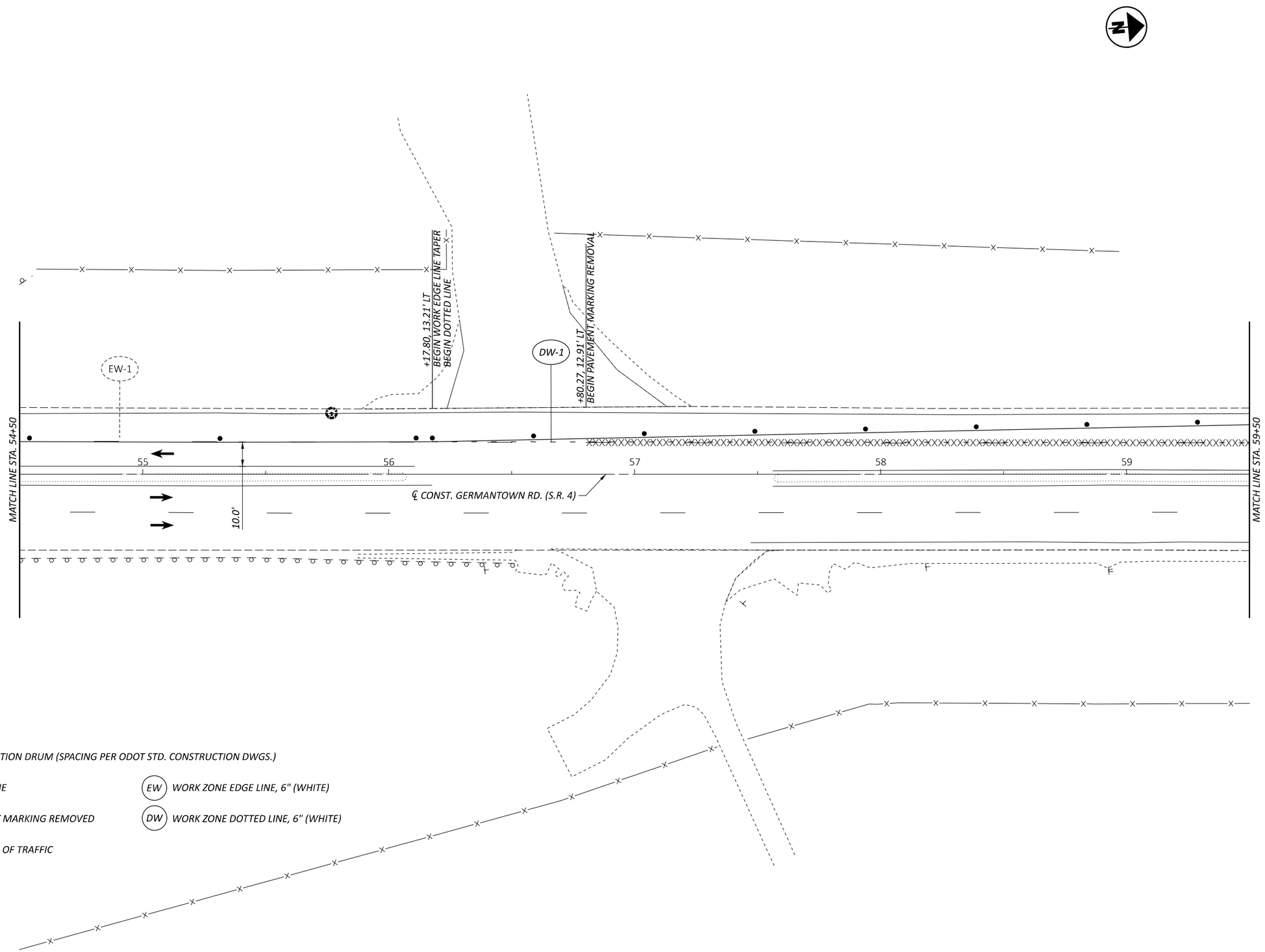
SHEET P.095 | TOTAL 194	PROJECT ID 117275	DESIGNER JRS	REVIEWER SAF 08/29/25	CHAGRIN VALLEY ENGINEERING, LTD.	DESIGN AGENCY

MAINTENANCE OF TRAFFIC - STAGE 2
S.R. 4 - BEGIN TO STA. 54+50

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: CLX_SR-4 - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:07 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_MP201.dgn

BUT IR 75/VAR 5.22/VAR



LEGEND

- *CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)*
- *WORK ZONE*
- *EW WORK ZONE EDGE LINE, 6" (WHITE)*
- XXXX *PAVEMENT MARKING REMOVED*
- *DW WORK ZONE DOTTED LINE, 6" (WHITE)*
- *DIRECTION OF TRAFFIC*

HORIZONTAL SCALE IN FEET
0 10 20 40

MAINTENANCE OF TRAFFIC - STAGE 2
S.R. 4 - STA. 54+50 TO STA. 59+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	JRS
REVIEWER	SAF 08/29/25
PROJECT ID	117275
SHEET	P.096
TOTAL	194

MODEL: CLX_SR-4 - Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:08 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\MOT\Sheets\117275_MP201.dgn

LEGEND

- CONSTRUCTION DRUM (SPACING PER ODOT STD. CONSTRUCTION DWGS.)
- WORK ZONE
- XXXX PAVEMENT MARKING REMOVED
- DIRECTION OF TRAFFIC
- EW — WORK ZONE EDGE LINE, 6" (WHITE)
- DW — WORK ZONE DOTTED LINE, 6" (WHITE)

MATCH LINE STA. 59+50

TYPE B ARROW BOARD

EW-1

℄ CONST. GERMANTOWN RD. (S.R. 4)

DW-1

PC STA. 61+23.74

+57.56, 24.35' LT
END WORK ZONE EDGE LINE TAPER
END WORK ZONE EDGE LINE
END WORK ZONE DOTTED LINE
END PAVEMENT MARKING REMOVAL
BEGIN CONSTRUCTION DRUMS SHOULDER TAPER

+17.82, 27.26' LT
END CONSTRUCTION DRUMS SHOULDER TAPER
END CONSTRUCTION DRUMS

11.2' 12.3'

60 61 62 63

END ROAD WORK
G20-2-48
STA. 66+57.56

TYPE A WARNING LIGHT

W4-2R-48
STA. 66+57.56

RIGHT LANE CLOSED AHEAD
W20-5-48

45 MPH
W13-1P-24
STA. 71+57.56

TYPE A WARNING LIGHT

ROAD WORK AHEAD
W20-1-48

0.3 MILES
W16-3aP-30
STA. 76+57.56

MAINTENANCE OF TRAFFIC - STAGE 2
S.R. 4 - STA. 59+50 TO END

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
P.097	194

PROJECT ID: 117275
REVIEWER: SAF 08/29/25
DESIGNER: JRS
DESIGN AGENCY: CHAGRIN VALLEY ENGINEERING, LTD.

CURVE DATA
P.I. = STA. 288+41.28
Δ = 62°34'07" LT
Dc = 00°28'00"
R = 12,278.89'
T = 7,461.08'
L = 13,408.90'
E = 2,089.09'
emax = 0.018

Provide utility coordination log to lucas.braun@dot.ohio.gov

GR-4:
STA. 282+40.90, 72.84' LT. — *BEGIN MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1*
STA. 282+67.96, 72.46' LT. — *END MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1*
BEGIN GUARDRAIL, TYPE MGS
STA. 283+94.29, 70.65' LT. — *END GUARDRAIL, TYPE MGS*
BEGIN ANCHOR ASSMEBLY, MGS TYPE E
STA. 284+47.71, 69.89' LT. — *END ANCHOR ASSEMBLY, MGS TYPE E*

GR-3:
STA. 282+08.83, 138.50' LT. — *BEGIN MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1*
STA. 282+36.04, 138.50' LT — *END MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1*
BEGIN GUARDRAIL, TYPE MGS
STA. 287+68.18, 138.50' LT. — *END GUARDRAIL, TYPE MGS*
BEGIN ANCHOR ASSEMBLY, MGS TYPE E
STA. 288+21.91, 138.50; LT. — *END ANCHOR ASSEMBLY, MGS TYPE E*

BEGIN PROJECT
STA. 275+01.04 (SB)
S.L.M = 5.21
E 230(529)

3" LIGHTING
℄ TYLERSVILLE RD.
N76°01'29"W
STRUCTURE NO.
BUT-75-05.35
SFN 0901733
NO WORK
EX. 48" CMP
6" TYPE F
EX. 24" STM
EX. 21" STM
I.R. 75 SB ENTRANCE RAMP FROM TYLERSVILLE RD.
I.P.S.
PROP. CONST. LIMITS
I.R 75 (SOUTHBOUND)
+05 BEGIN UNDERDRAIN
+10.00, 66.50' LT BEGIN SHOULDER TAPER
+00, 72.7' LT END UNDERDRAIN
+10.00, 74.50' LT END SHOULDER TAPER
+30.00, 74.50' LT BEGIN SHOULDER TAPER
GR-3
EX. BARRIER (DND)
EX. 18" STM
EX. 30" STM
PROP. 6" UNDERDRAIN
VEGETATED BIO FILTER
STA. 283+15.00 TO
STA. 285+00.00
185' L x 8' W
GR-4
61" CPP
DUCTS
VEGETATED BIO FILTER
STA. 275+13.00 TO STA. 277+00.00
187' L x 9' W
MATCH LINE STA. 284+50
CURVE #1
℄ CONST. I.R. 75
P-1 D-1 P-2 P-3 D-2
24" TYPE C
21" TYPE C
VEGETATED BIO FILTER
STA. 275+13.00 TO STA. 277+00.00
187' L x 17' W
GR-1
VEGETATED BIO FILTER
STA. 283+60.00 TO
STA. 289+00.00
540' L x 14.5' W
I.R 75 (NORTHBOUND)
PROP. CONST. LIMITS
GR-2
+10 BEGIN UNDERDRAIN
+10.00, 66.50' RT BEGIN SHOULDER TAPER
I.R 75 NORTHBOUND EXIT RAMP TO TYLERSVILLE ROAD
+00, 72.5' RT END UNDERDRAIN
+80.00, 74.50' RT END SHOULDER TAPER
+80.00, 74.50' RT BEGIN SHOULDER TAPER
+80.00, 66.5' RT END SHOULDER TAPER

Label the existing ITS assets within the project limits.

Mark as DND.
(Do Not Disturb)

Is aerial electric in conflict with construction equipment?

GR-2:
STA. 280+09.37, 139.50' RT. — *BEGIN ANCHOR ASSMEBLY, MGS TYPE E*
STA. 280+61.90, 139.50' RT. — *END ANCHOR ASSEMBLY, MGS TYPE E*
BEGIN GUARDRAIL, TYPE MGS
STA. 281+73.77, 139.50' RT. — *END GUARDARIL, TYPE MGS*
BEGIN MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
STA. 282+00.33, 139.50' RT. — *END MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1*

GR-1:
STA. 279+61.00, 71.01' RT. — *BEGIN ANCHOR ASSEMBLY, MGS TYPE E*
STA. 280+13.82, 71.77' RT. — *END ANCHOR ASSEMBLY, MGS TYPE E*
BEGIN GUARDRAIL, TYPE MGS
STA. 281+38.67, 73.55' RT. — *END GUARDRAIL, TYPE MGS*
BEGIN MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1
STA. 281+65.40, 73.93' RT. — *END MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1*

BEGIN PROJECT
STA. 275+05.27 (NB)
S.L.M = 5.21
E 230(529)

HORIZONTAL SCALE IN FEET
0 25 50 100

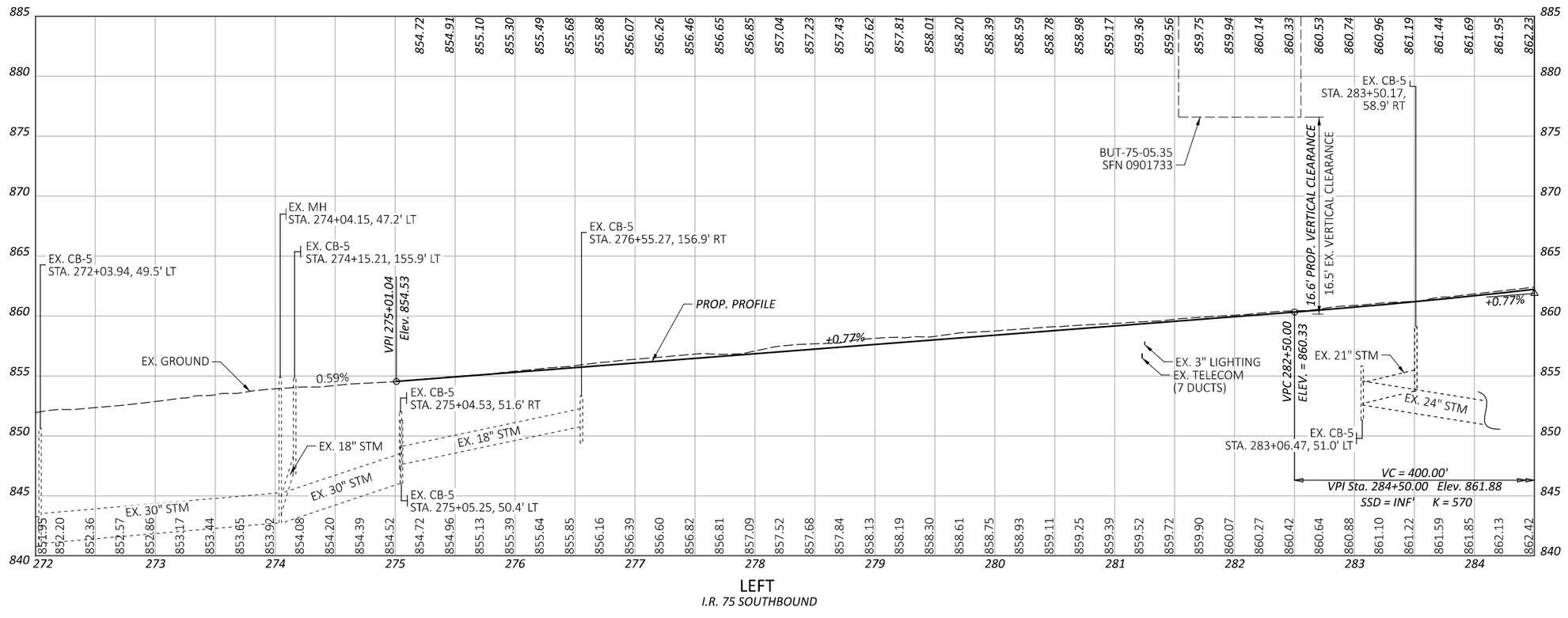
PLAN - I.R. 75 BEGIN TO STA. 284+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	SDK 08/29/25
PROJECT ID	117275
SHEET	P.098
TOTAL	194

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:10 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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PROFILE - I.R. 75
BEGIN TO STA. 284+50

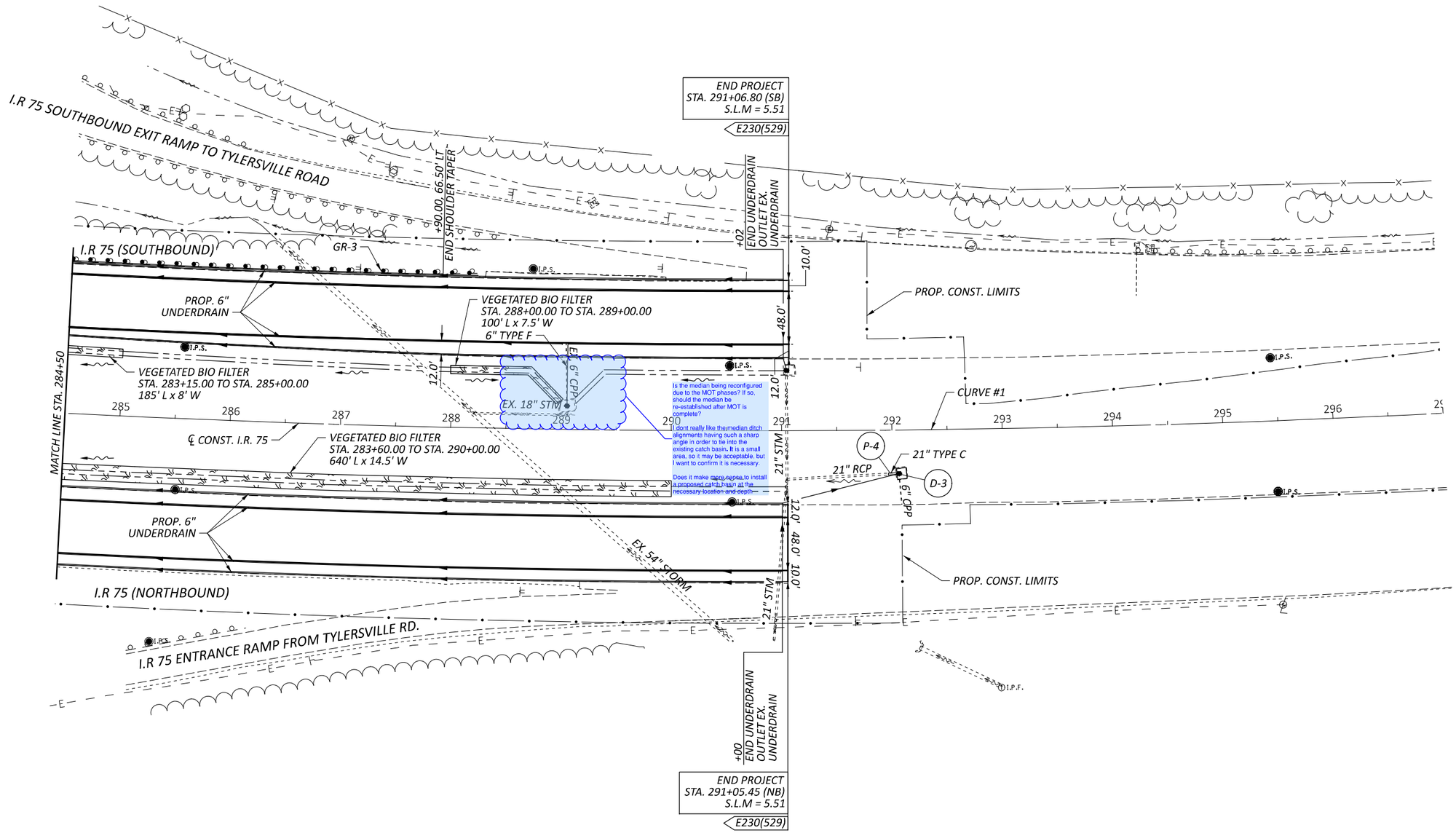
BUT IR 75/VAR 5.22/VAR

MODEL: Plan--8 - Profile 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:14 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GF301.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	SDK 08/29/25
PROJECT ID	117275
SHEET	P.099
TOTAL	194

MODEL: CLX_1 - Plan 6 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:16 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75.22\117275\400-Engineering\Roadway\Sheets\117275_GP301.dgn

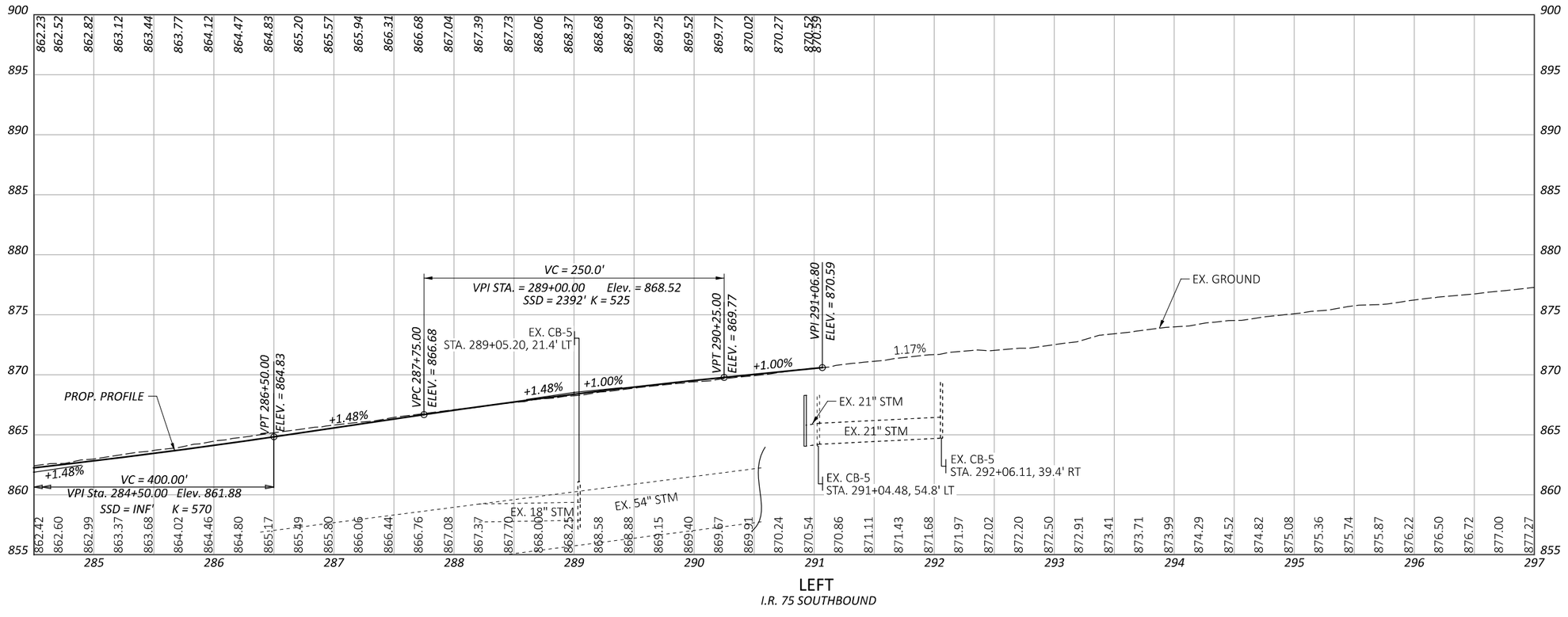


HORIZONTAL SCALE IN FEET
0 25 50 100

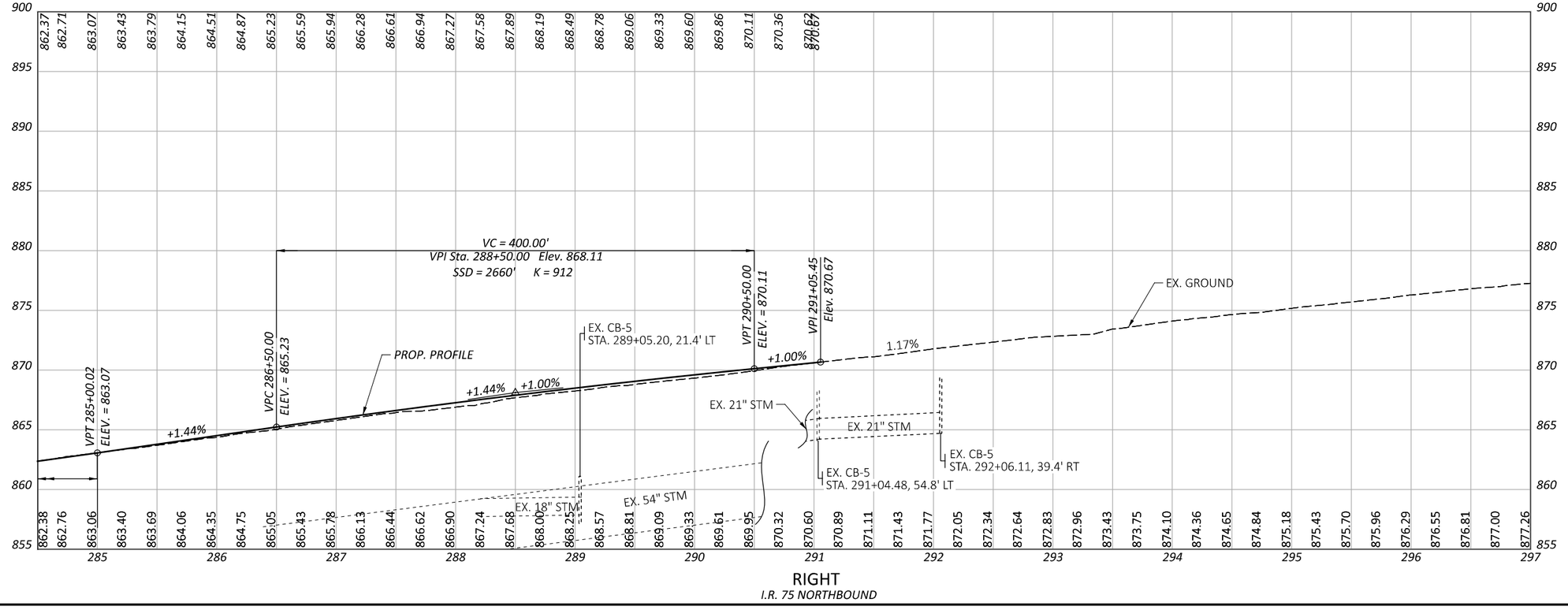
PLAN - I.R. 75
STA. 284+50 TO END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	CJD
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.100
TOTAL	194



LEFT
I.R. 75 SOUTHBOUND



RIGHT
I.R. 75 NORTHBOUND

PROFILE - I.R. 75
STA. 284+50 TO END

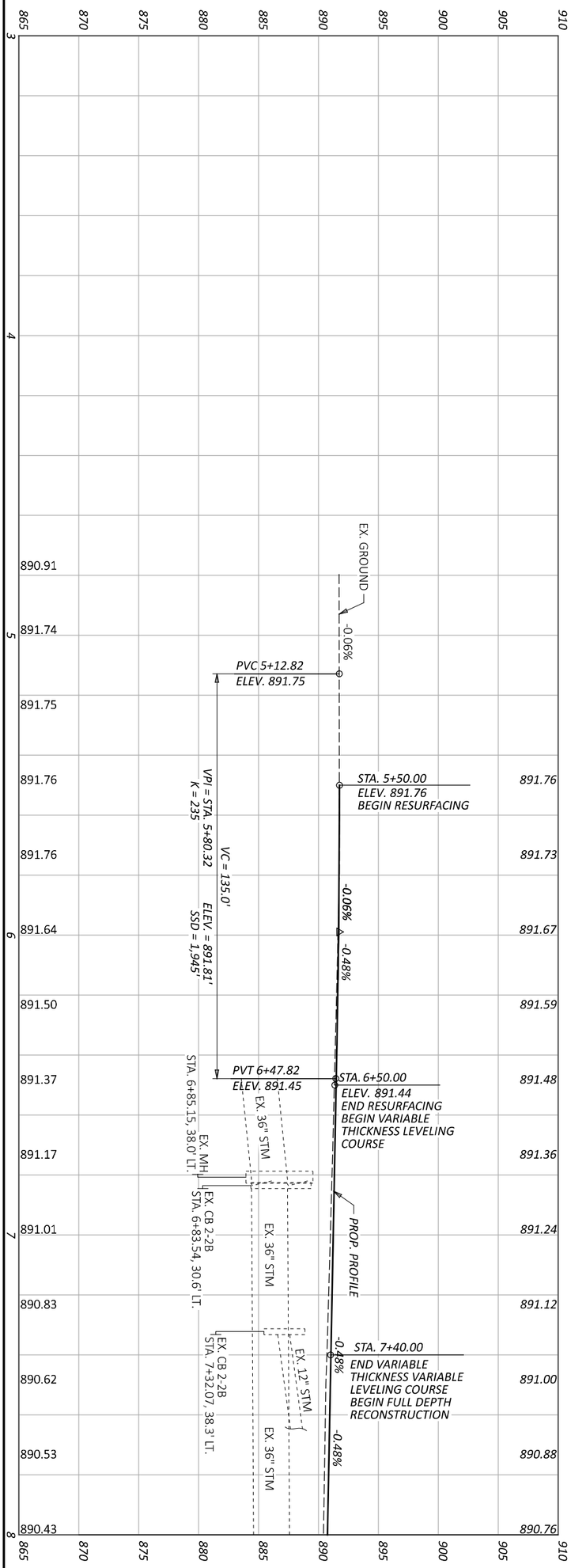
BUT IR 75/VAR 5.22/VAR

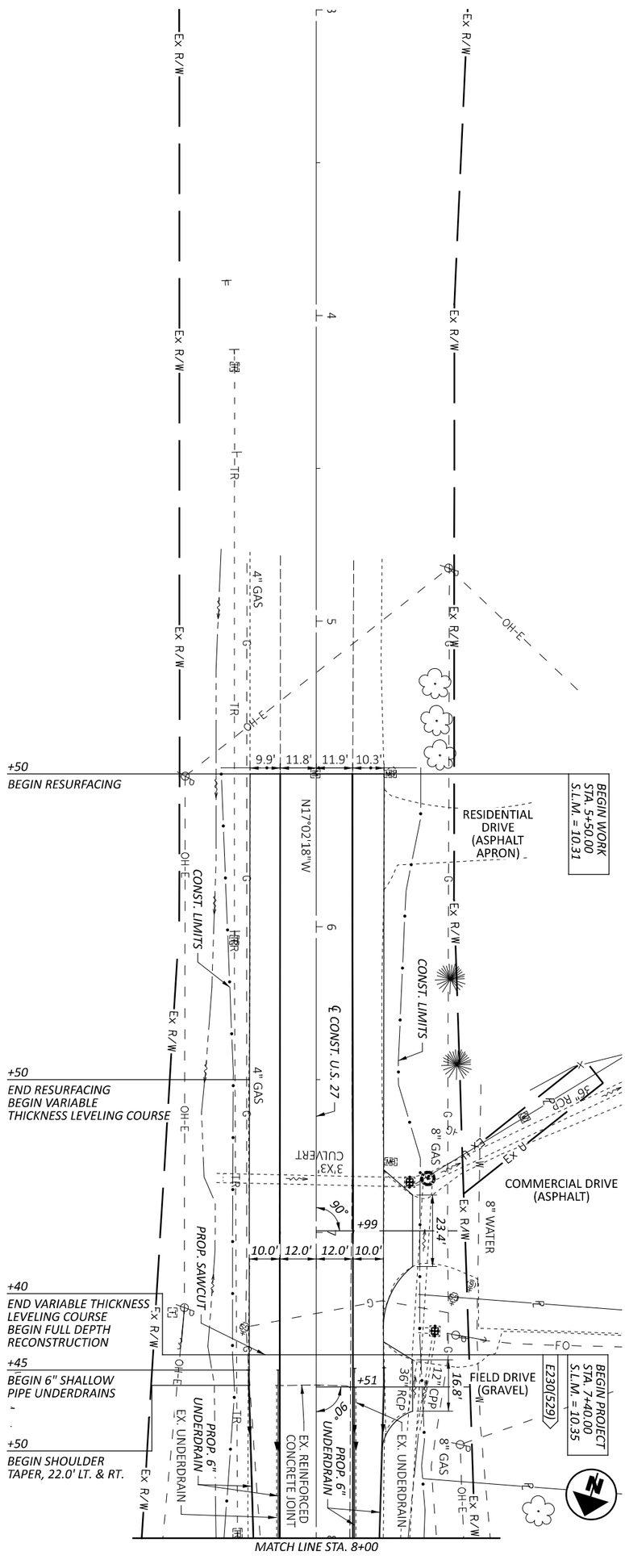
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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GF301.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER CJD
REVIEWER SDK 08/29/25
PROJECT ID 117275
SHEET P.101 TOTAL 194

MODEL: CLX_3 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:24 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GP101.dgn





SHEET P.102 | TOTAL 194	PROJECT ID 117275	REVIEWER CWP 08/29/25	DESIGNER SHT	CHAGRIN VALLEY ENGINEERING, LTD.	DESIGN AGENCY

PLAN AND PROFILE - U.S. 27
BEGIN TO STA. 8+00

HORIZONTAL SCALE IN FEET
0 20
10 40

DITCH TRANSITION TABLE	
STA.	OFFSET
9+20.74	20.15', LT.
9+40.00	24.24', LT.
9+60.00	22.00', LT.
9+71.85	18.67', LT.

GR-2:
+09.59, 37.3' LT.
BEGIN ANCHOR ASSEMBLY, MGS TYPE T
+14.66, 26.0' LT.
END ANCHOR ASSEMBLY, MGS TYPE T
BEGIN GUARDRAIL, TYPE MGS
+73.85, 16.0' LT.
END GUARDRAIL, TYPE MGS
BEGIN BTA, TYPE 2
+75.75, 16.0' LT.
END BTA, TYPE 2

Type T is OK here.

Type E

Type E

Never a Type T on the approach end of tangent GR run. Only on trailing end and trailing end must be outside of the oncoming traffic clear zone. Label Type E LON stations on plans.

Is the catch basin at the low point of the paved gutter?

show flow direction arrows in paved gutters

label CSX railroad

Type E AA - CZ of 19'x1.5=28.5' (in a curve with a high accident history)

BUT-27-1044
SFN 0900729

CURVE #1
P.I. = STA. 201+48.48
Δ = 43°28'47" RT
Dc = 38°12'10"
R = 149.98'
T = 59.8'
L = 113.81'
E = 11.48'

GR-1:
+15.59, 20.1' RT.
BEGIN ANCHOR ASSEMBLY, MGS TYPE T
+28.09, 19.7' RT.
END ANCHOR ASSEMBLY, MGS TYPE T
BEGIN GUARDRAIL, TYPE MGS
+03.09, 17.5' RT.
END GUARDRAIL, TYPE MGS
BEGIN BTA, TYPE 1
+29.99, 16.7' RT.
END BTA, TYPE 1

GR-2:
+37.62, 17.2' LT.
BEGIN BTA, TYPE 1
+64.52, 17.9' LT.
END BTA, TYPE 1
BEGIN GUARDRAIL, TYPE MGS
+52.02, 19.2' LT.
END GUARDRAIL, TYPE MGS
BEGIN ANCHOR ASSEMBLY, MGS TYPE T
+64.52, 19.4' LT.
END ANCHOR ASSEMBLY, MGS TYPE T

GR-3:
+96.15, 16.0' RT.
BEGIN BTA, TYPE 2
+98.05, 16.0' RT.
END BTA, TYPE 2
BEGIN GUARDRAIL, TYPE MGS
+60.55, 17.7' RT.
END GUARDRAIL, TYPE MGS
BEGIN ANCHOR ASSEMBLY, MGS TYPE T
+73.05, 18.2' RT.
END ANCHOR ASSEMBLY, MGS TYPE T

GR-4:
+59, 17.8' LT.
BEGIN SHOULDER TAPER
+97.50
BEGIN PAVEMENT TAPER, 12.0' LT. & RT.
+26.14, 16.8' LT.
END CONCRETE BARRIER, TYPE D
BEGIN CONCRETE BARRIER END SECTION
+40.14, 17.3' LT.
END CONCRETE BARRIER END SECTION
END PAVED GUTTER
BEGIN 6" CURB
+52.50
END SHOULDER TAPER, 16.0' LT. & RT.
+71.85, 16.0' LT.
BEGIN CONCRETE BARRIER END SECTION
BEGIN PAVED GUTTER
+85.85, 16.0' LT.
END CONCRETE BARRIER END SECTION
BEGIN CONCRETE BARRIER, TYPE D
+00
END PAVEMENT TAPER, 18.00' LT. & RT.
END SHOULDER TAPER, 20.00' LT

+16
BEGIN 6" CURB, 20.1' RT.
+27.51, 16.7' RT.
END 6" CURB
BEGIN CONCRETE BARRIER END SECTION
BEGIN PAVED GUTTER
+41.51, 16.3' RT.
END CONCRETE BARRIER END SECTION
+86.15
END CONCRETE BARRIER, TYPE D
BEGIN CONCRETE BARRIER END SECTION
+00.15, 16.74' RT.
END CONCRETE BARRIER END SECTION
END PAVED GUTTER
BEGIN 6" CURB
+09
END 6" CURB, 27.1' RT.

PROP. 6" UNDERDRAIN
RESIDENTIAL DRIVE (ASPHALT APRON, GRAVEL DRIVE)
MATCH LINE STA. 8+00
MATCH LINE STA. 13+00
Ex R/W
Ex RR
Ex SH
8" WATER
8" GAS
4" GAS
36" RCP
30" RCP
24" RCP
8" CPP
12" CPP
24" TYPE C
36" TYPE C
6" TYPE F
12" TYPE B
24" TYPE B
CONST. U.S. 27
CONST. LIMITS
EX. UNDERDRAIN
PROP. 4" SIGNAL
PROP. 6" UNDERDRAIN
U.S. 27 PROP. EOP
CURVE #1
GRAVEL DRIVE
℄ OLD OXFORD ROAD (S.R. 130)
P.O.S.T.A. 300+00.00
N8°51'20"E
55.0' R
29.5'
90°
+90
12.0'
4.0'
18.0'
2.0'
D-1 D-2 D-3 D-4 D-5 D-6 D-7
P-1 P-2 P-3 P-4 P-5 P-6 P-7 P-8 P-9 P-10
GR-1

915
910
905
900
895
890
885
880
875
870
8 9 10 11 12 13

890.76 890.64 890.54 890.52 890.57 890.70 890.91 891.20 891.56 892.01 892.53 893.13 893.81 894.57 895.40 896.31 897.30 898.34 899.38 900.41 901.45
890.43 890.45 890.48 890.62 890.82 891.03 891.28 891.73 892.18 892.78 893.40 894.14 894.91 895.74 896.63 897.61 898.66 899.69 900.71 901.72 902.74

BUT-27-1044
SFN 0900729
VC = 370.0'
VPI = STA. 10+17.09
K = 80
ELEV. = 889.72'
SSD = 367'
VPC 8+32.09
ELEV. = 890.58
VPT 12+02.09
ELEV. = 897.39
15.0' PROP. CLEARANCE
14.0' - EX. CLEARANCE
PROP. PROFILE
EX. GROUND
-0.48%
+4.15%
EX. MH
STA. 9+55.94, 17.6' LT.
EX. CB 2-2B
STA. 9+18.82, 32.4' LT.
EX. CB 2-2B
STA. 11+43.73, 49.2' LT.
EX. CB 2-2B
STA. 11+99.78, 40.1' RT.
EX. 12" STM.
EX. 24" STM.
EX. 36" STM.
MASONRY COLLAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.
DESIGNER SHT
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.103 TOTAL 194

HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE - U.S. 27
STA. 8+00 TO STA. 13+00

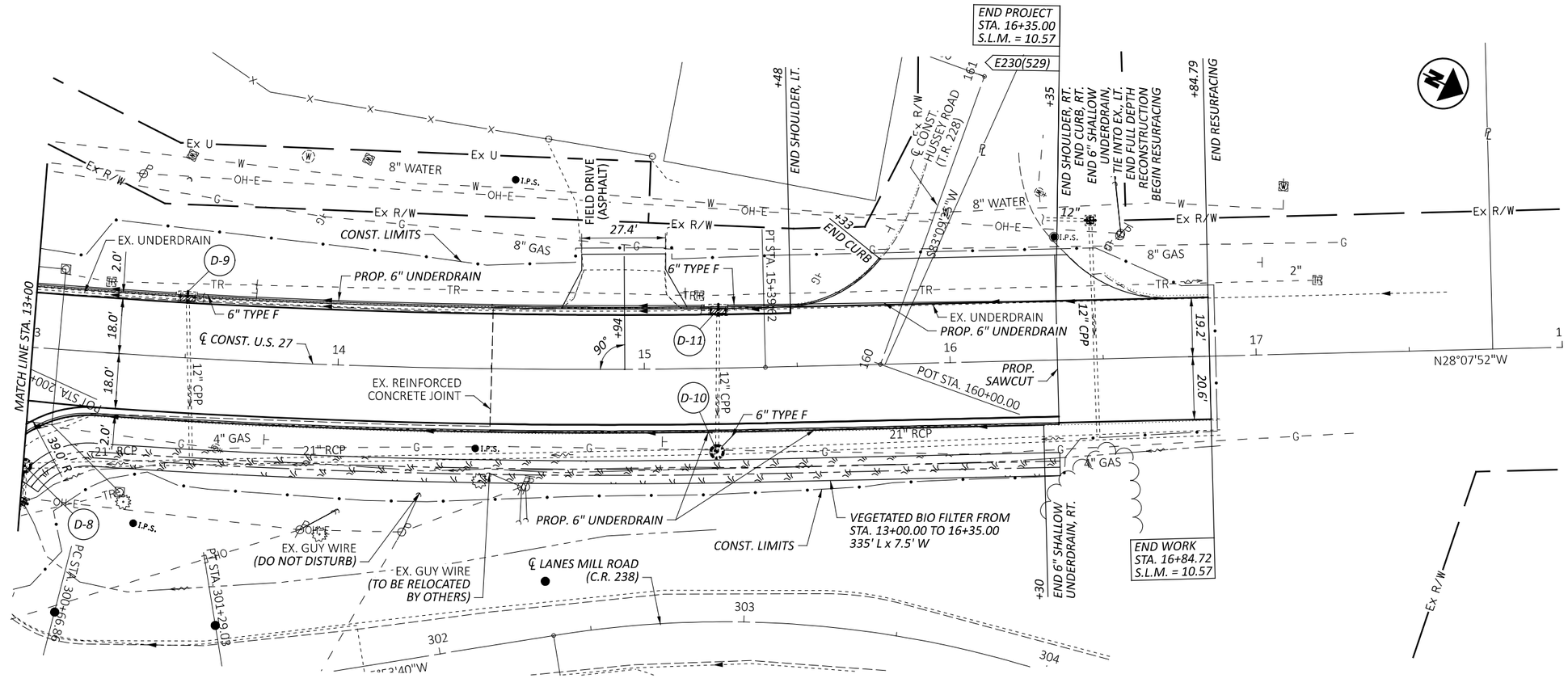
BUT IR 75/VAR 5.22/VAR

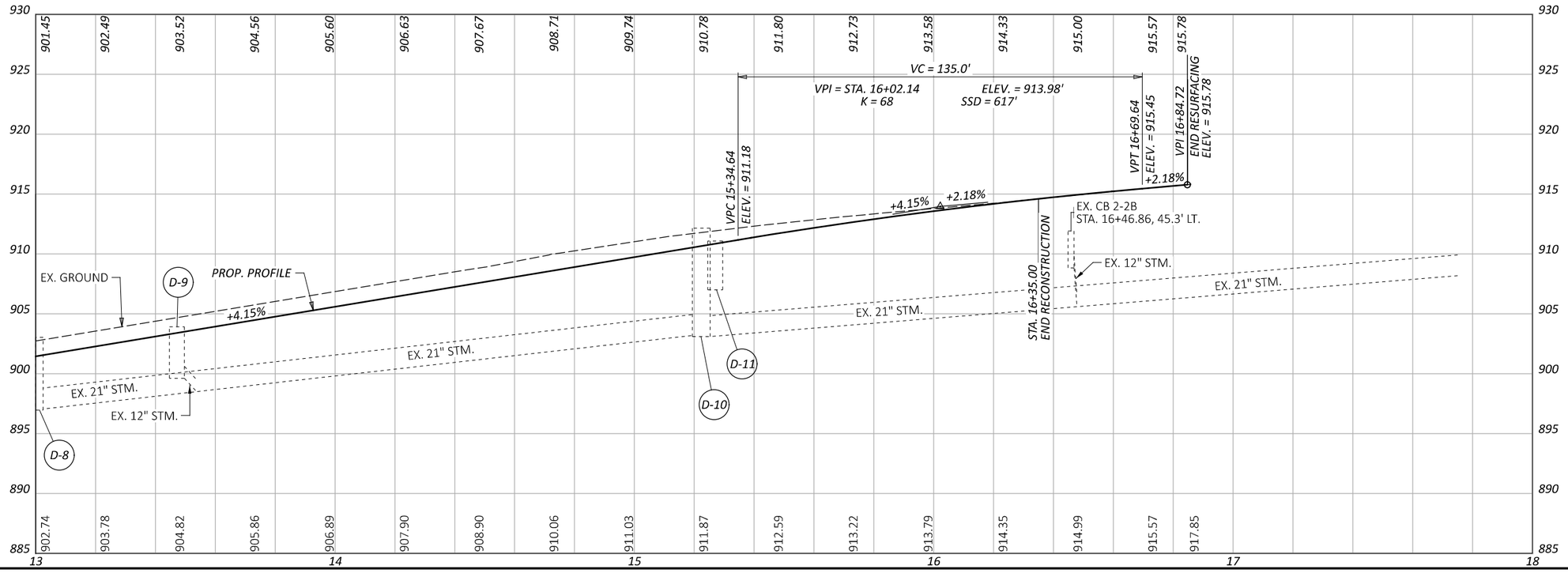
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CVE USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205

MODEL: CLX_3 - Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:28 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvellimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GP101.dgn

BUT IR 75/VAR 5.22/VAR

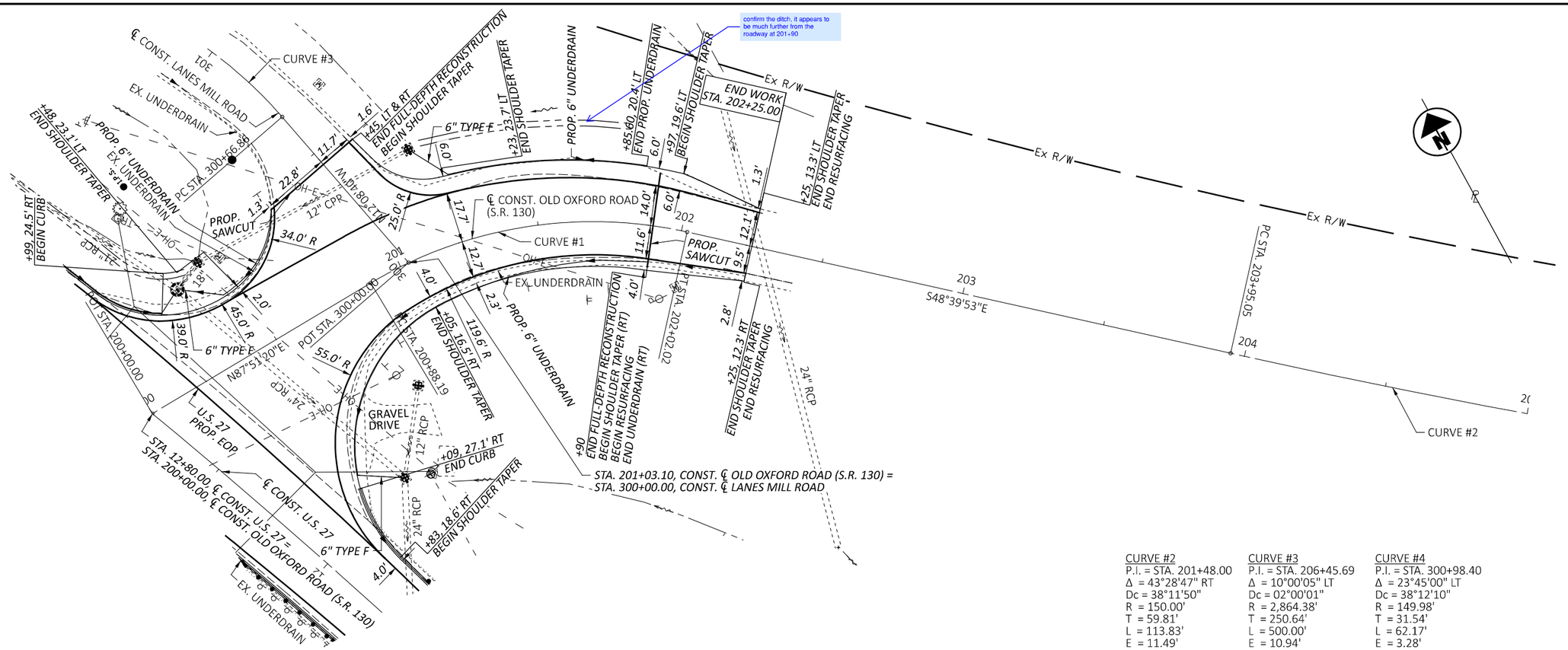




PLAN AND PROFILE - U.S. 27
STA. 13+00 TO END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

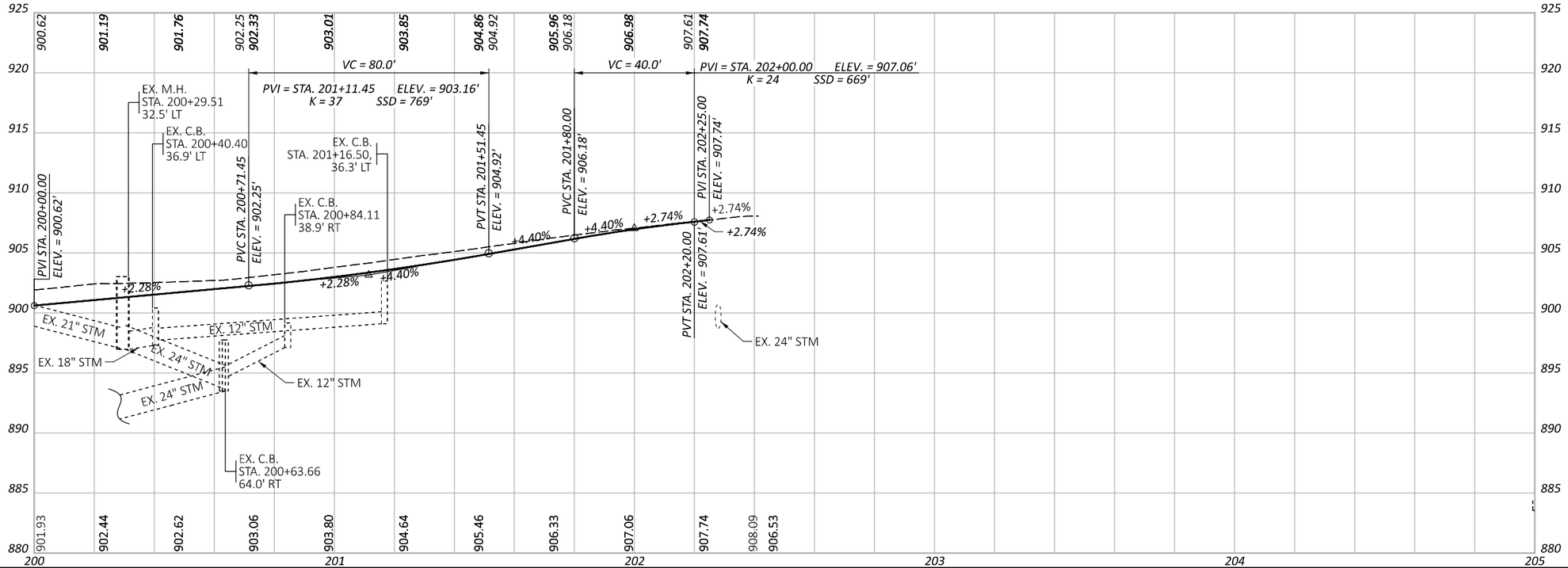
DESIGNER	SHT
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.104
TOTAL	194



CURVE #2
P.I. = STA. 201+48.00
Δ = 43°28'47" RT
Dc = 38°11'50"
R = 150.00'
T = 59.81'
L = 113.83'
E = 11.49'
emax = 0.04

CURVE #3
P.I. = STA. 206+45.69
Δ = 10°00'05" LT
Dc = 02°00'01"
R = 2,864.38'
T = 250.64'
L = 500.00'
E = 10.94'
emax = 0.032

CURVE #4
P.I. = STA. 300+98.40
Δ = 23°45'00" LT
Dc = 38°12'10"
R = 149.98'
T = 31.54'
L = 62.17'
E = 3.28'
emax = 0.08



BUT IR 75/VAR 5.22/VAR

PLAN AND PROFILE - S.R. 130
STA. 200+00.00 TO END

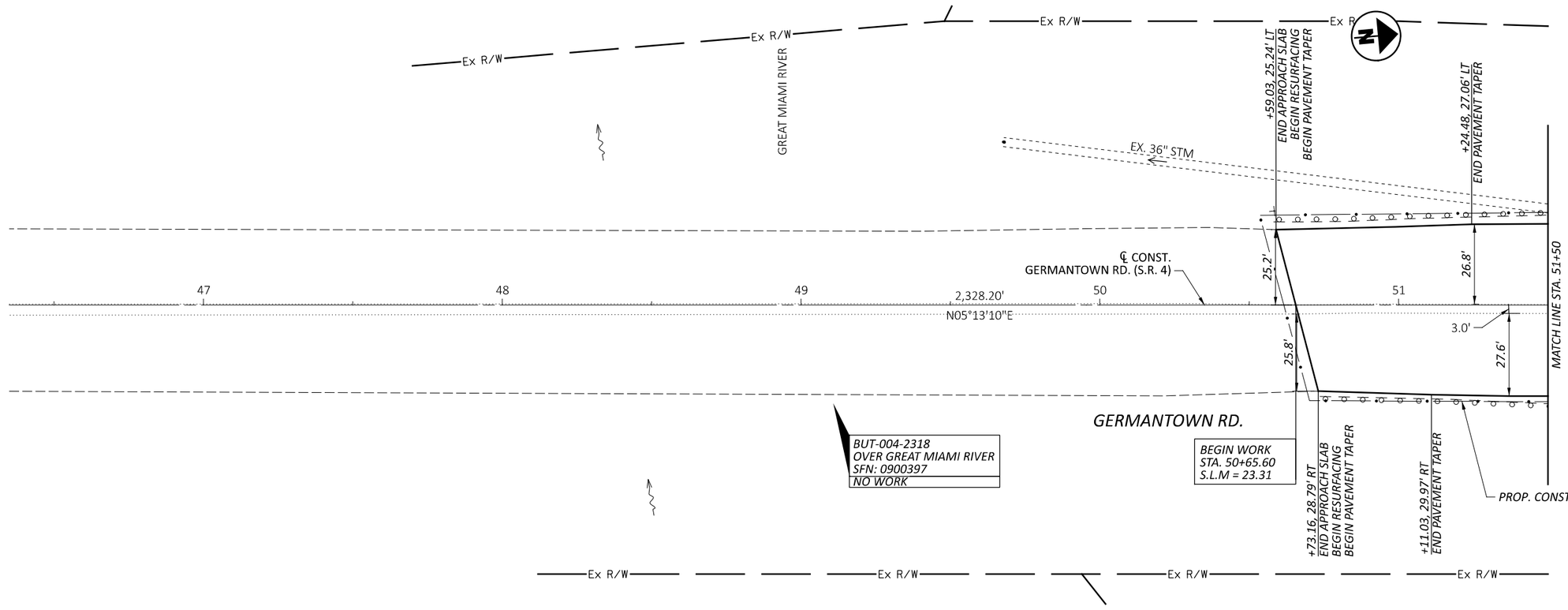
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS
REVIEWER SHT 08/29/25
PROJECT ID 117275
SHEET P.105 TOTAL 194

MODEL: CLX_16 - Plan 1-1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:30 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffls@cvelimited.com WORKSPACE: OHDOTCEx02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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MODEL: Sheet 1 - CLX_SR-4 - Resurfacing [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:35 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCfv02 WORKSET: 117275 PRODUCT: OpenRoads Designer 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_GP201.dgn

BUT IR 75/VAR 5.22/VAR



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - S.R. 4
STA. 46+50.00 TO STA. 51+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SAF
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.106 TOTAL: 194



Identify stream crossing

Ex R/W

Ex R/W

Ex R/W

Ex R/W

Ex R/W

EX. MH WITH FLAP GATE TO BE REMOVED.
SEE FLAP GATE DETAIL SHEET

PROP. CONSTRUCTION LIMITS

EX. 36" STM

EX. 36" STM

EX. 36" STM

MATCH LINE STA. 51+50

52

53

54

3.0

55

56

+07

MATCH LINE STA. 56+50

27.2'

27.8'

℄ CONST.
GERMANTOWN RD. (S.R. 4)

BUT-004-2336
OVER PRIVATE ROAD
SFN: 0900427
NO WORK

PROP. CONSTRUCTION LIMITS

GERMANTOWN RD.

Ex R/W

Ex R/W

Ex R/W

Ex R/W

Ex R/W

Show the side road if there is a road

HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN - S.R. 4
STA. 51+50.00 TO STA. 56+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SAF

REVIEWER
CWP 08/29/25

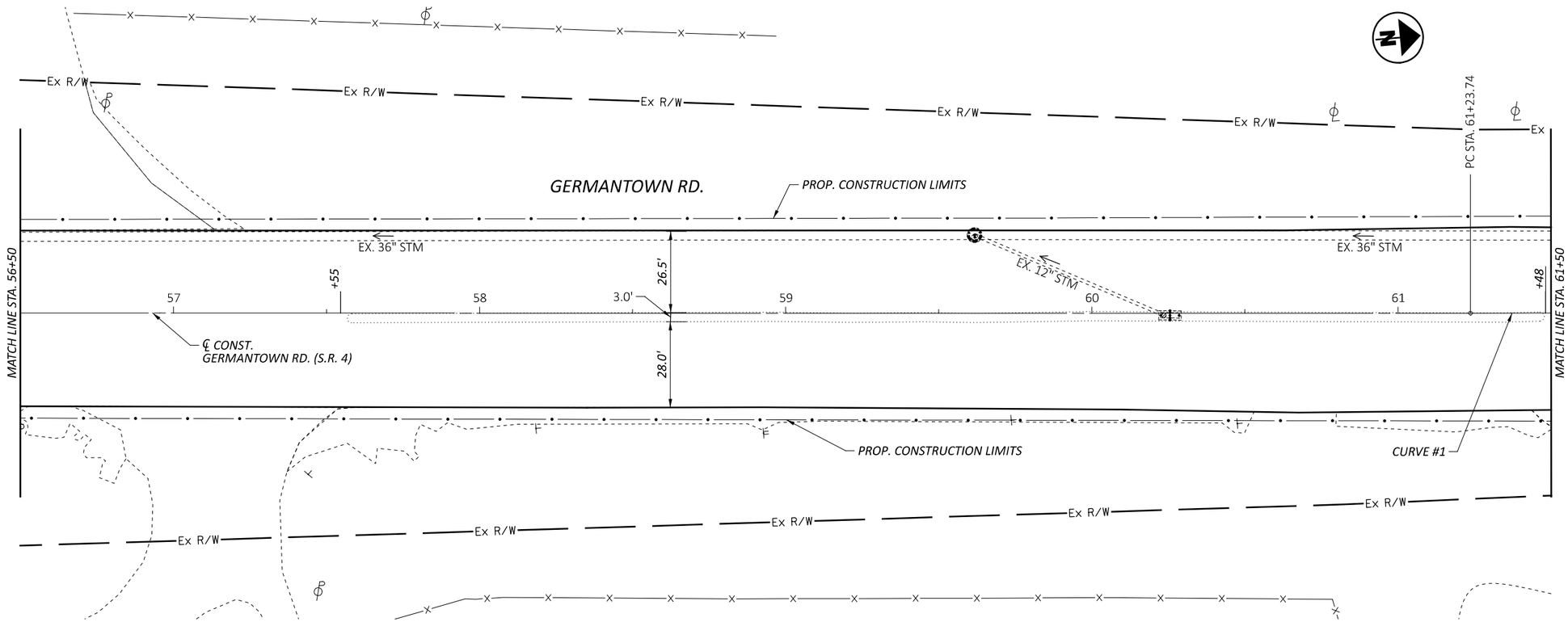
PROJECT ID
117275

SHEET P.107 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: Sheet 2 - CLX_SR-4 - Resurfacing-1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:37 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GP201.dgn

Are there 6 sheets of plan and profile without any work on SR 4? Consider adding a large For Information Only and dont show construction limits



HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN - S.R. 4
STA. 56+50.00 TO STA. 61+50.00

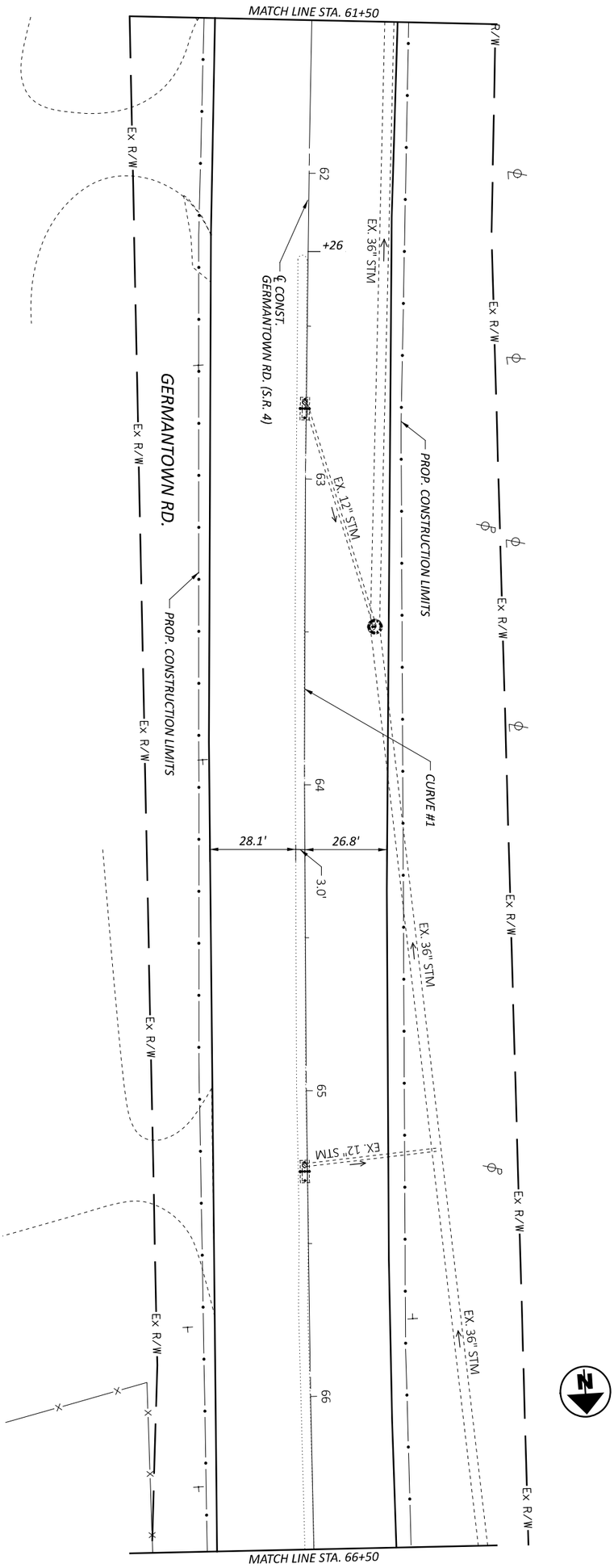
BUT IR 75/VAR 5.22/VAR

MODEL: Sheet 3 - CLX_SR-4 - Resurfacing-2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:37 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SAF
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.108
TOTAL	194

MODEL: Sheet 4 - CLX_SR-4 - Resurfacing-3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:38 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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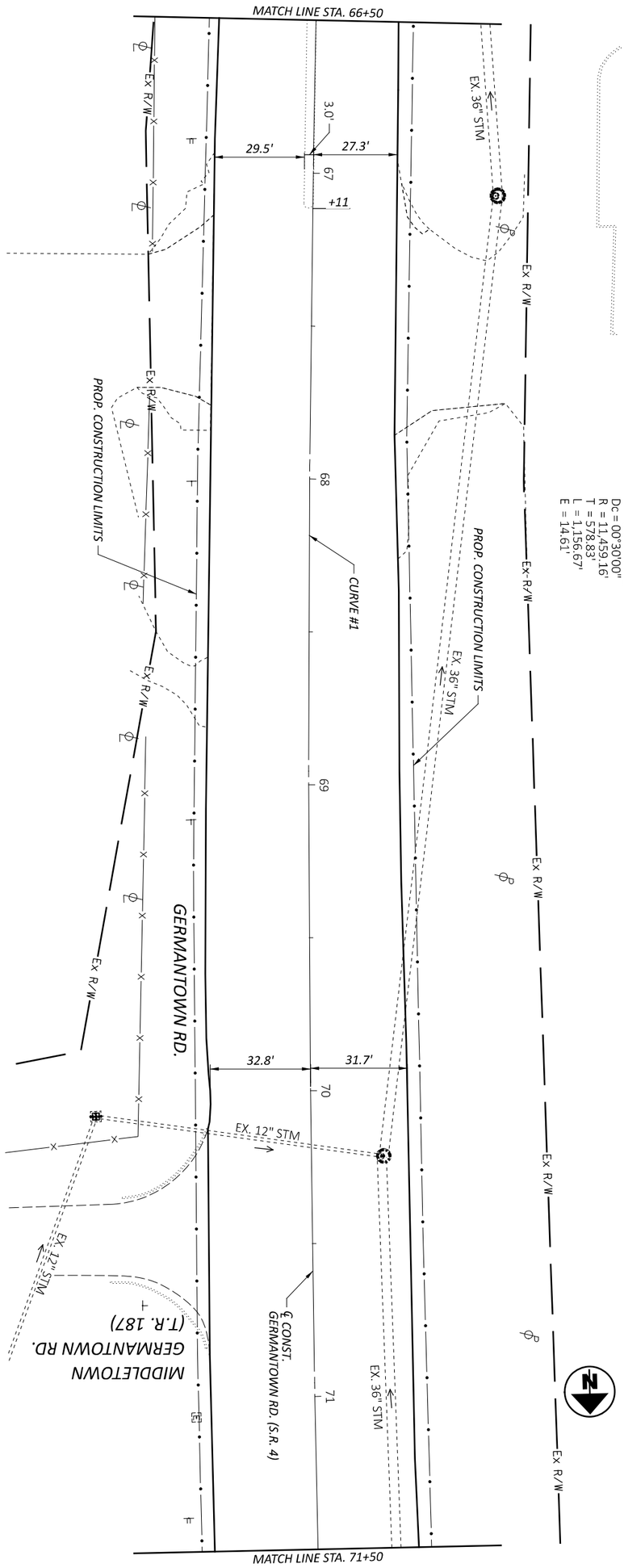
PLAN - S.R. 4
STA. 61+50.00 TO STA. 66+50.00

HORIZONTAL SCALE IN FEET
0 20
10 40

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SAF
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.109 TOTAL 194

MODEL: Sheet 5 - CLX_SR-4 - Resurfacing-4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:38 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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PLAN - S.R. 4
STA. 66+50.00 TO STA. 71+50.00

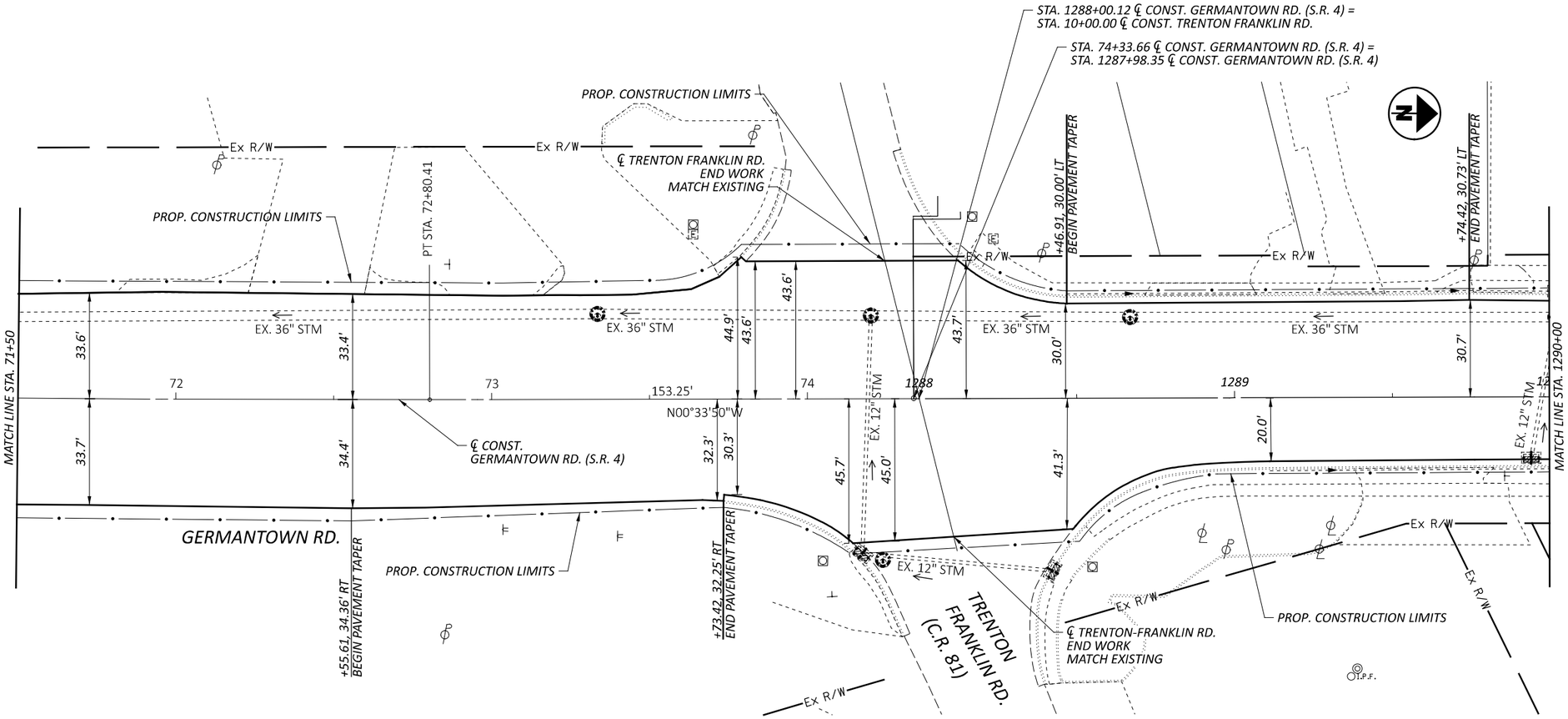
HORIZONTAL SCALE IN FEET
0 20
10 40

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SAF
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.110 TOTAL 194

MODEL: Sheet 6 - CLX_SR-4 - Resurfacing-5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:39 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_GP201.dgn

BUT IR 75/VAR 5.22/VAR



HORIZONTAL
SCALE IN FEET
0 10 20 40

PLAN - S.R. 4
STA. 71+50.00 TO STA. 1290+00.00

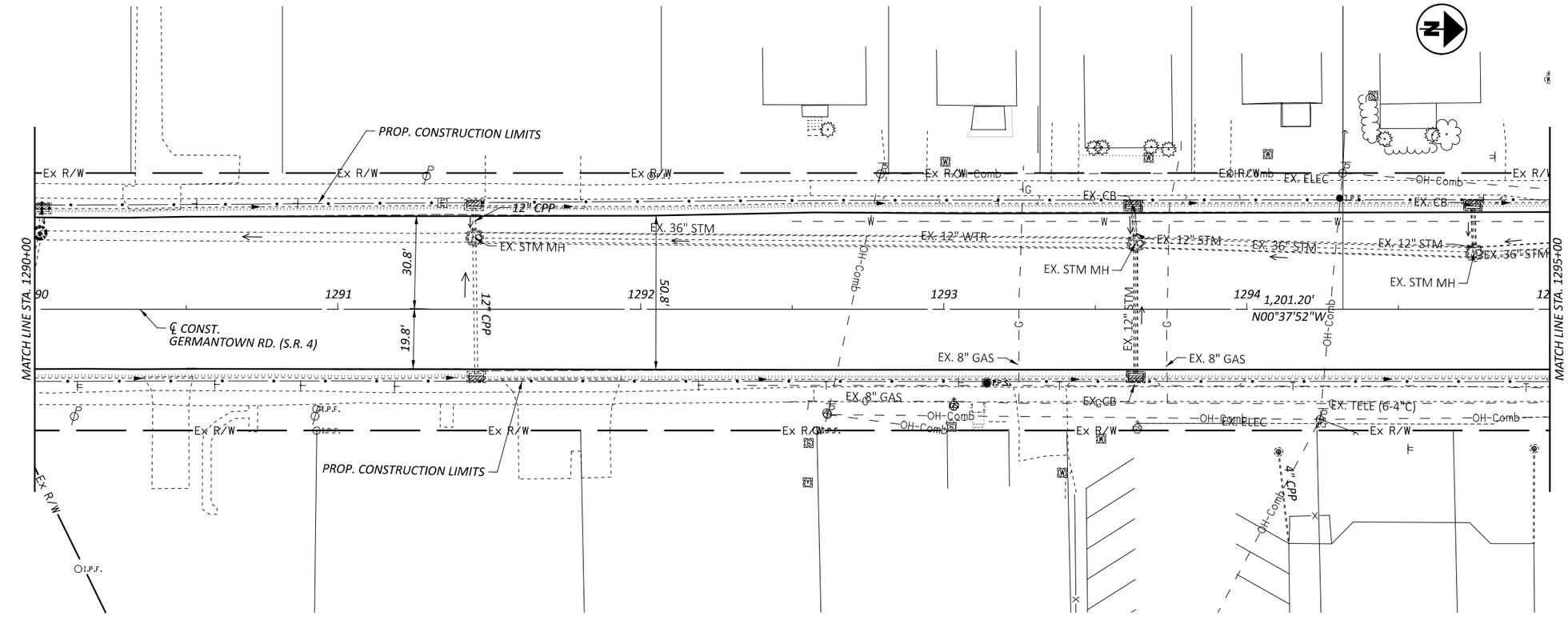
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

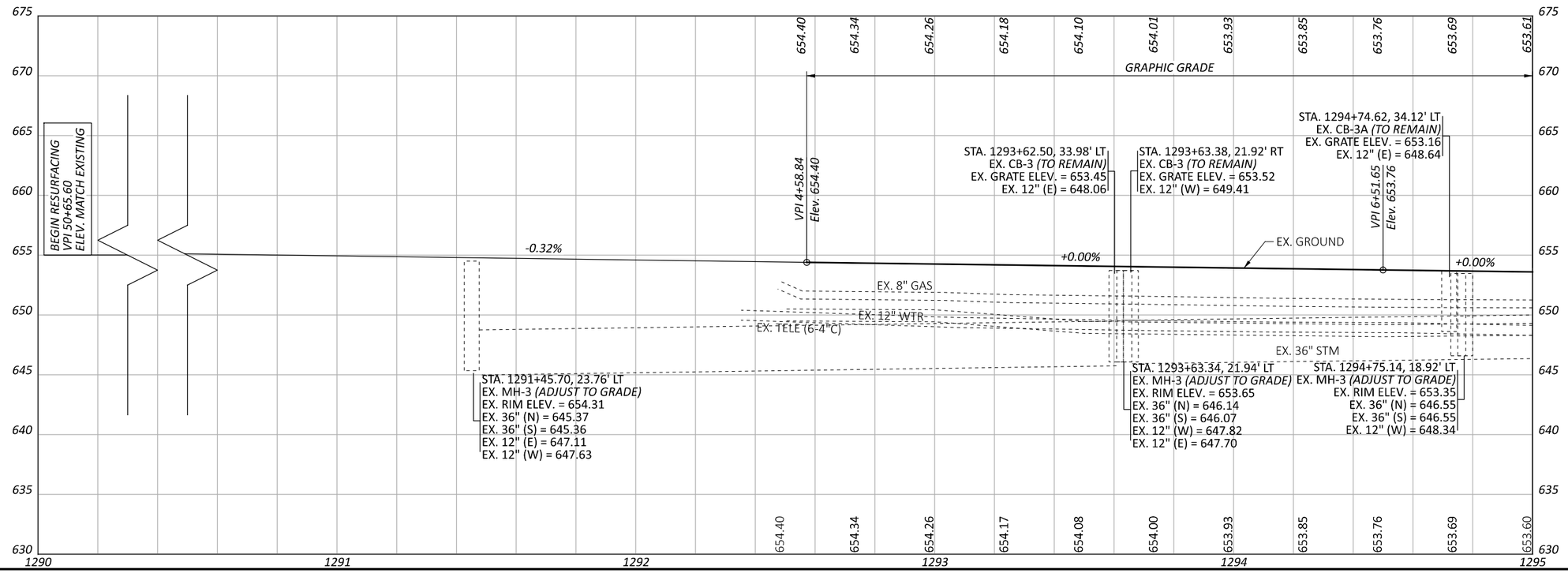
DESIGNER
SAF

REVIEWER
CWP 08/29/25

PROJECT ID
117275

SHEET P.111 TOTAL 194





HORIZONTAL SCALE IN FEET
0 10 20 40

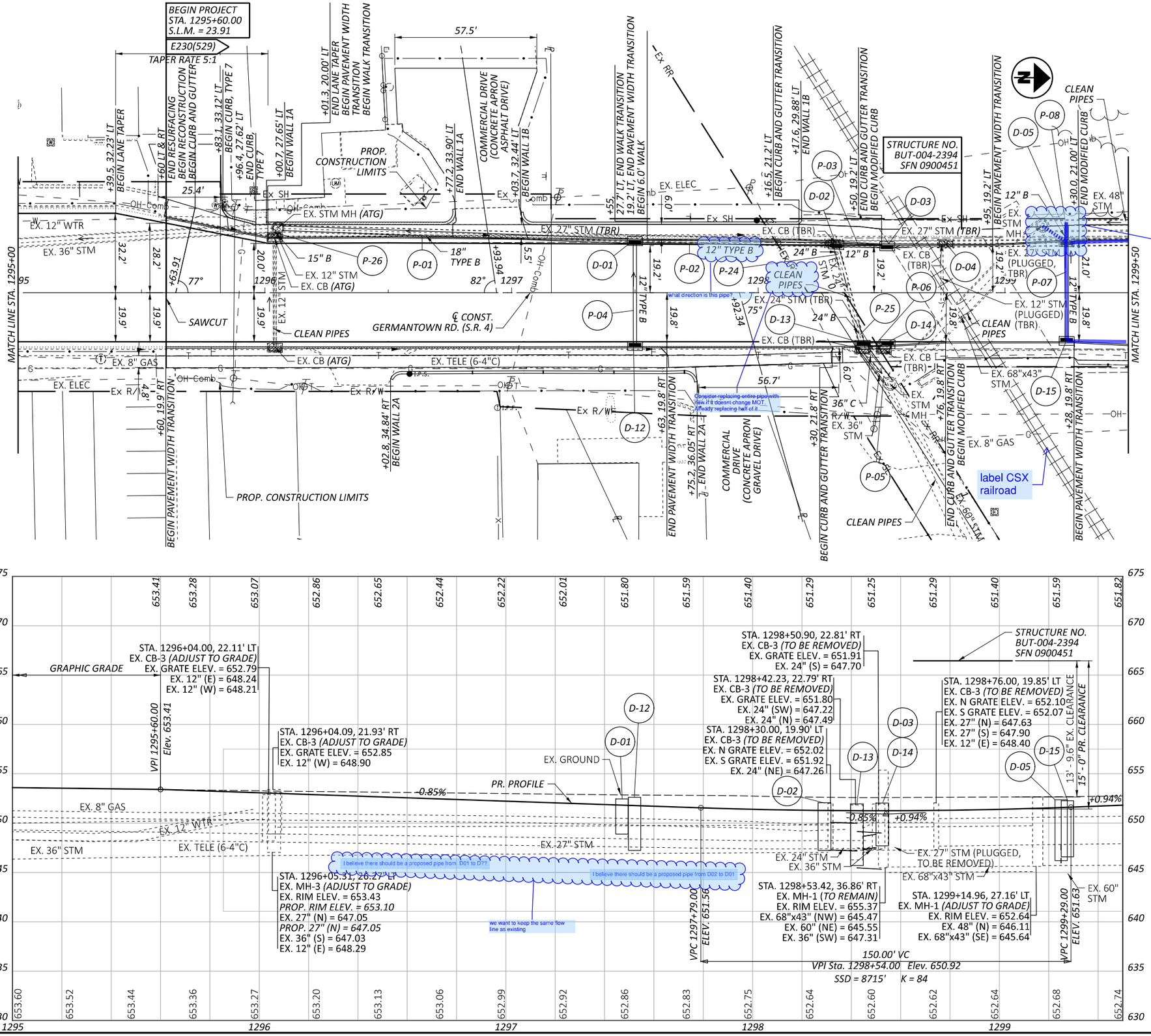
PLAN AND PROFILE - S.R. 4
STA. 1290+00.00 TO 1295+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SAF
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.112
TOTAL	194

BUT IR 75/VAR 5.22/VAR

MODEL: Sheet 7 - CL_SR-04 - Sheet 1 15.0' Clear PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:40 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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BUT IR 75/VAR 5.22/VAR

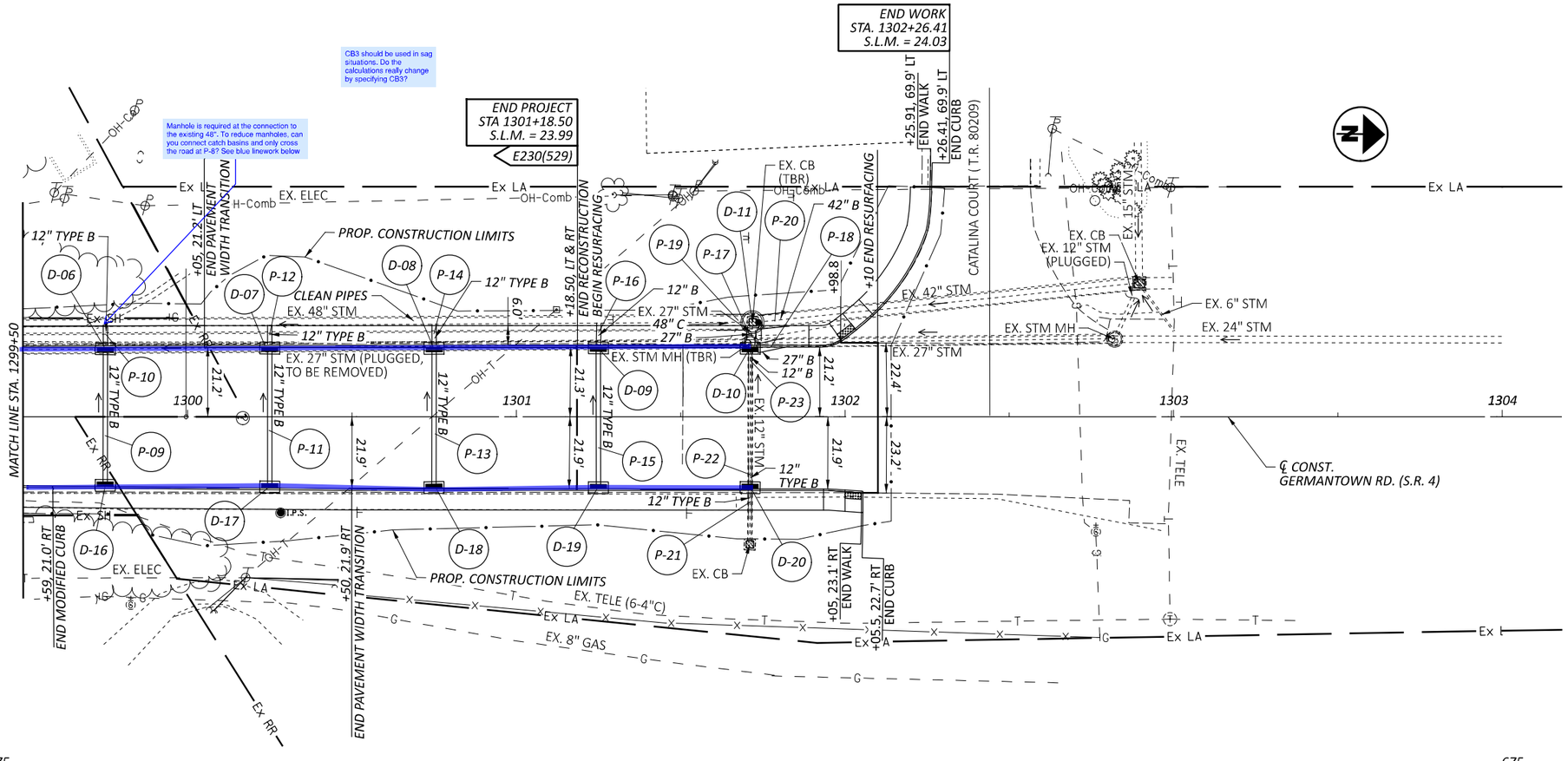
MODEL: Sheet 8 - CL_SR-04 - Sheet 2 15.0' Clear PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 7:07:02 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205

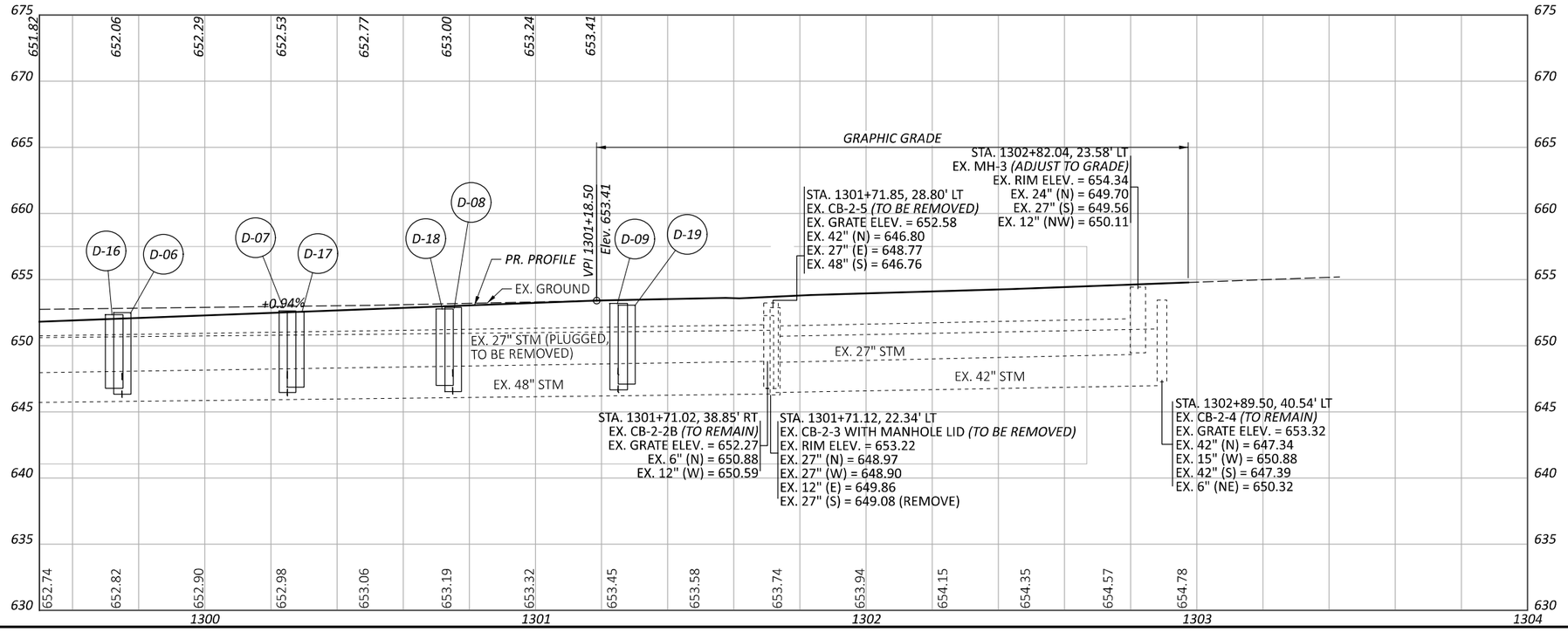
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GP201.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SAF
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.113 TOTAL 194

MODEL: Sheet 9 - CL_SR-04 - Sheet 3 15.0' Clear PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:46 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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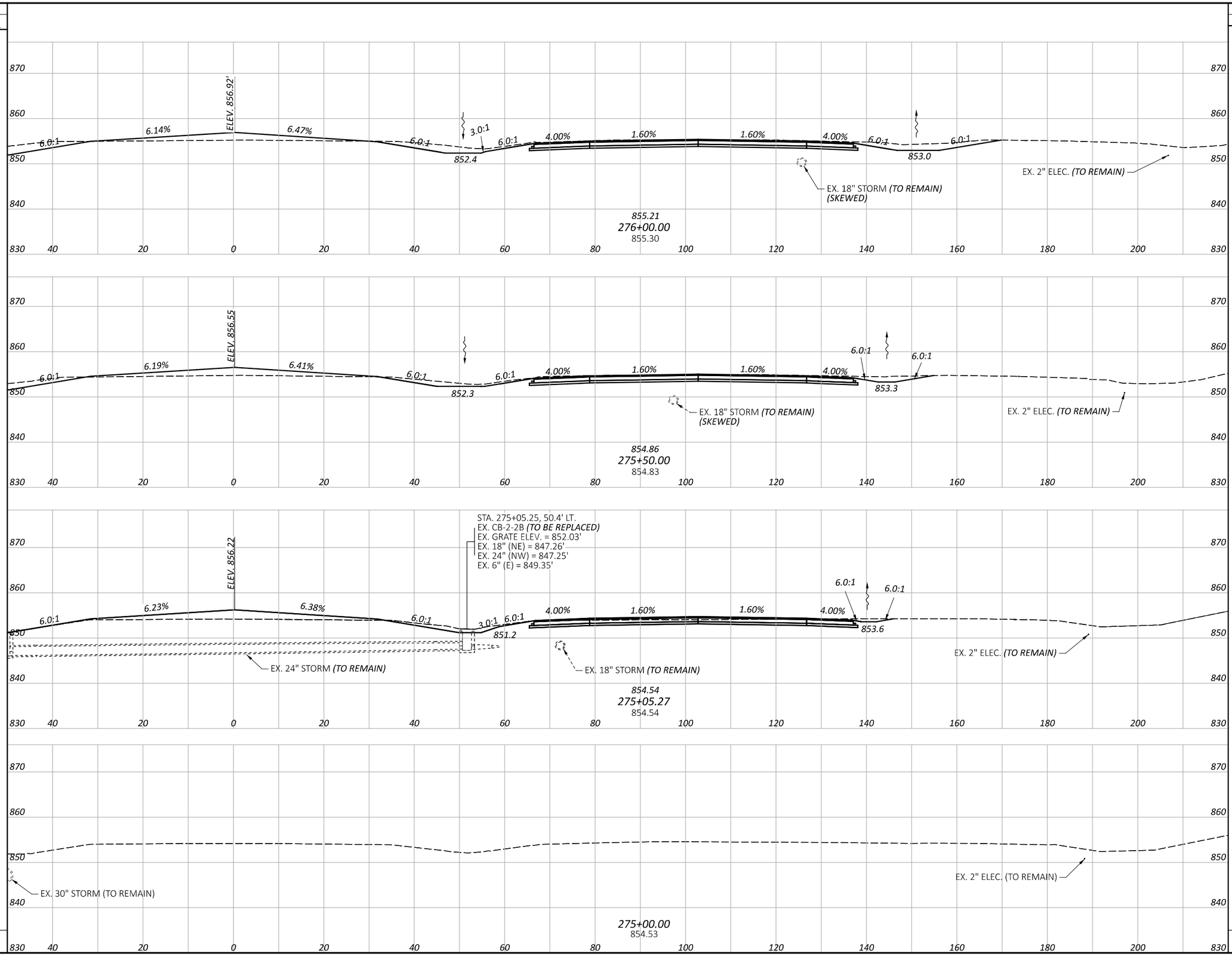


PLAN AND PROFILE - S.R. 4
STA. 1299+50.00 TO END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	SAF
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.114
TOTAL	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 275+00.00 TO STA. 276+00.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 274+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:49 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS301.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

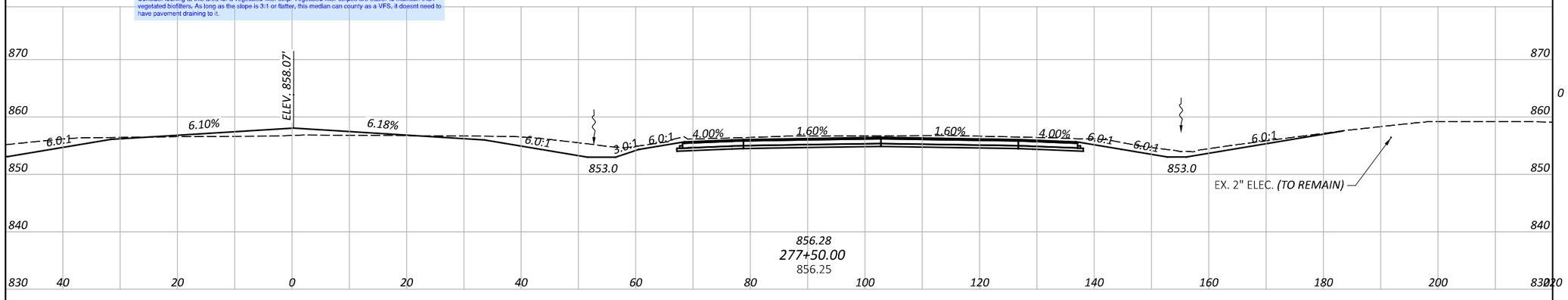
REVIEWER CWP 08/29/25

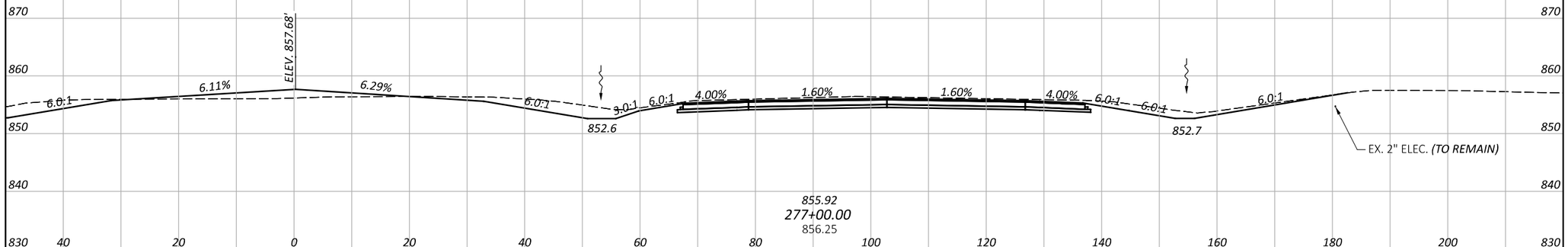
PROJECT ID 117275

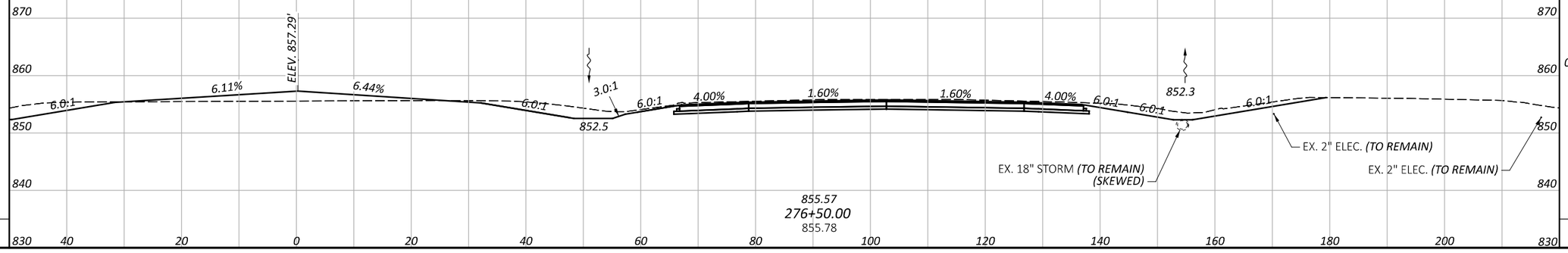
SHEET P.115 TOTAL 194

dimension and label the BMP on the cross sections

Consider looking at this area for a vegetated filter strip. Vegetated filter stripes are easier to maintain than vegetated biofilters. As long as the slope is 3:1 or flatter, this median can county as a VFS, it doesnt need to have pavement draining to it.







SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	0		
		0	0		
		0	0	0	0
		0	0		
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - I.R. 75 NORTHBOUND STA. 276+50.00 TO STA. 277+50.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

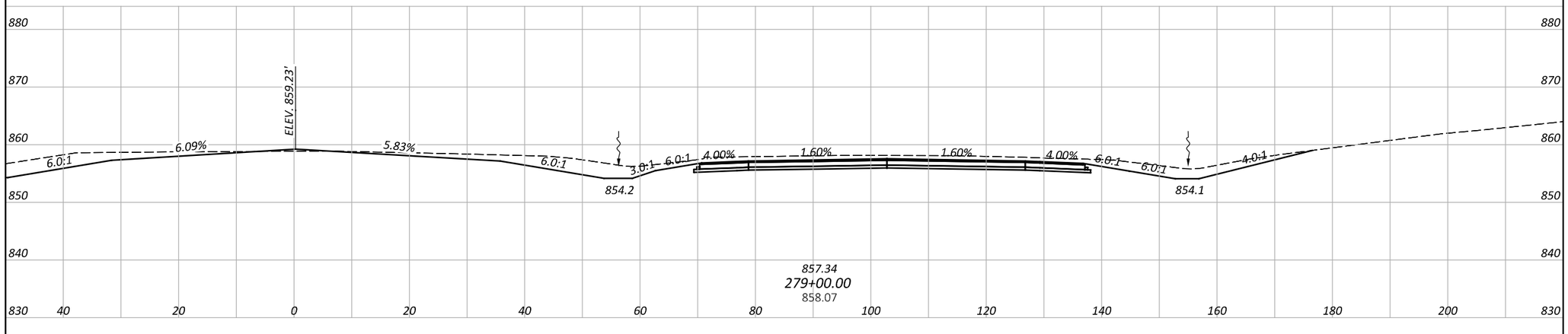
REVIEWER CWP 08/29/25

PROJECT ID 117275

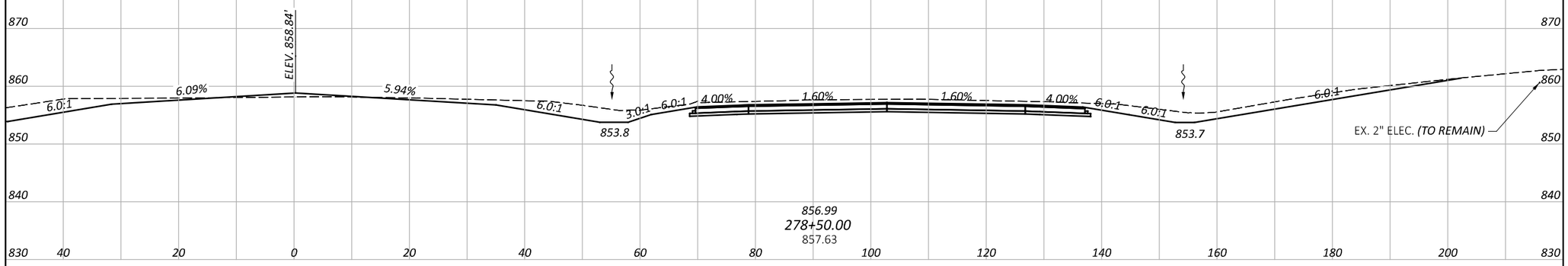
SHEET P.116 TOTAL 194

MODEL: CLX_1 - 276+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:34:57 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS301.dgn

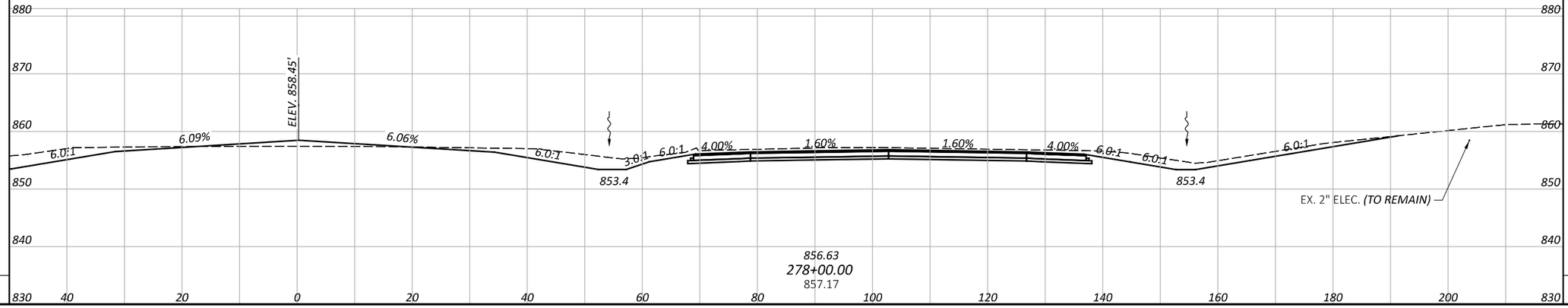
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0 0 0 0



0 0 0 0



0 0 0 0

SHEET TOTAL				SHEET TOTALS			

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 278+00.00 TO STA. 279+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.117 TOTAL 194

MODEL: CLX_1 - 278+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:01 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS301.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL

SHEET TOTAL		0	0	0	0
SHEET TOTALS		0	0	0	0

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - I.R. 75 NORTHBOUND STA. 279+50.00 TO STA. 280+50.00

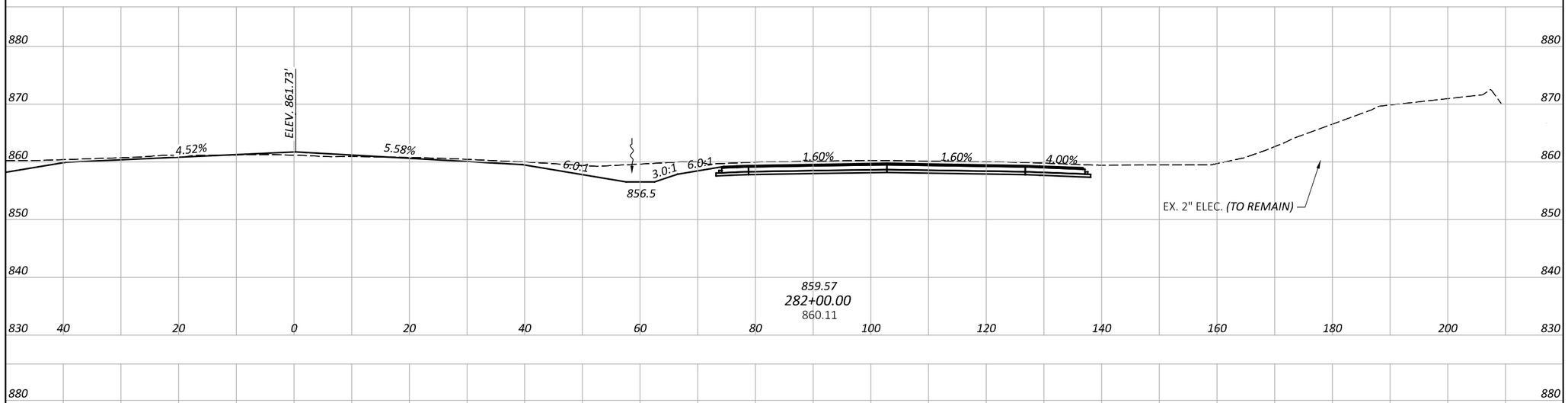
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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS301.dgn

DESIGN AGENCY

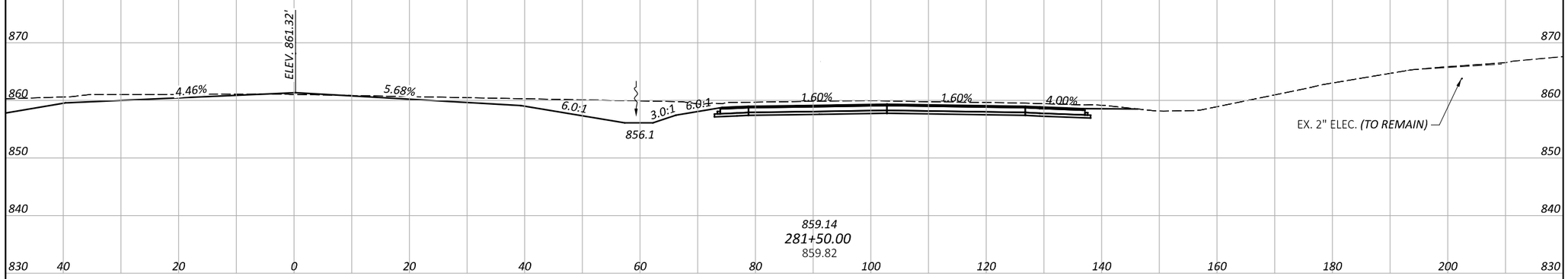
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
JRS	CWP 08/29/25	117275	P.118	194

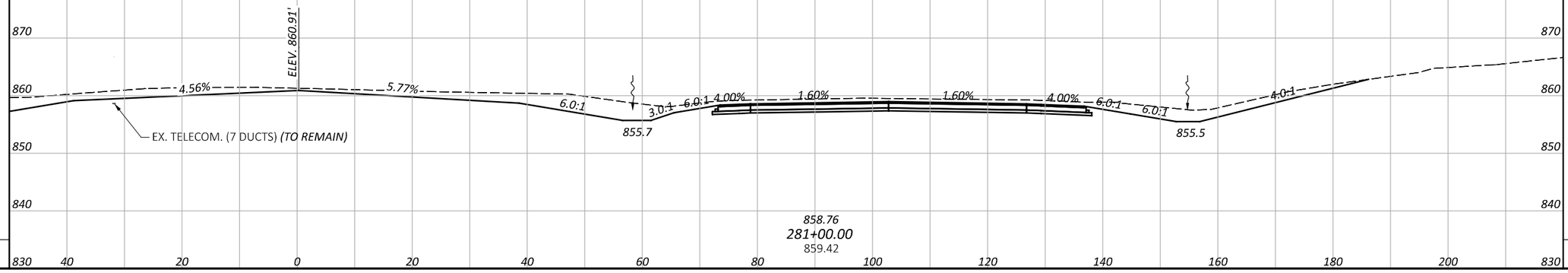
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0		



		0	0	0	0



		0	0	0	0

SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 281+00.00 TO STA. 282+00.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

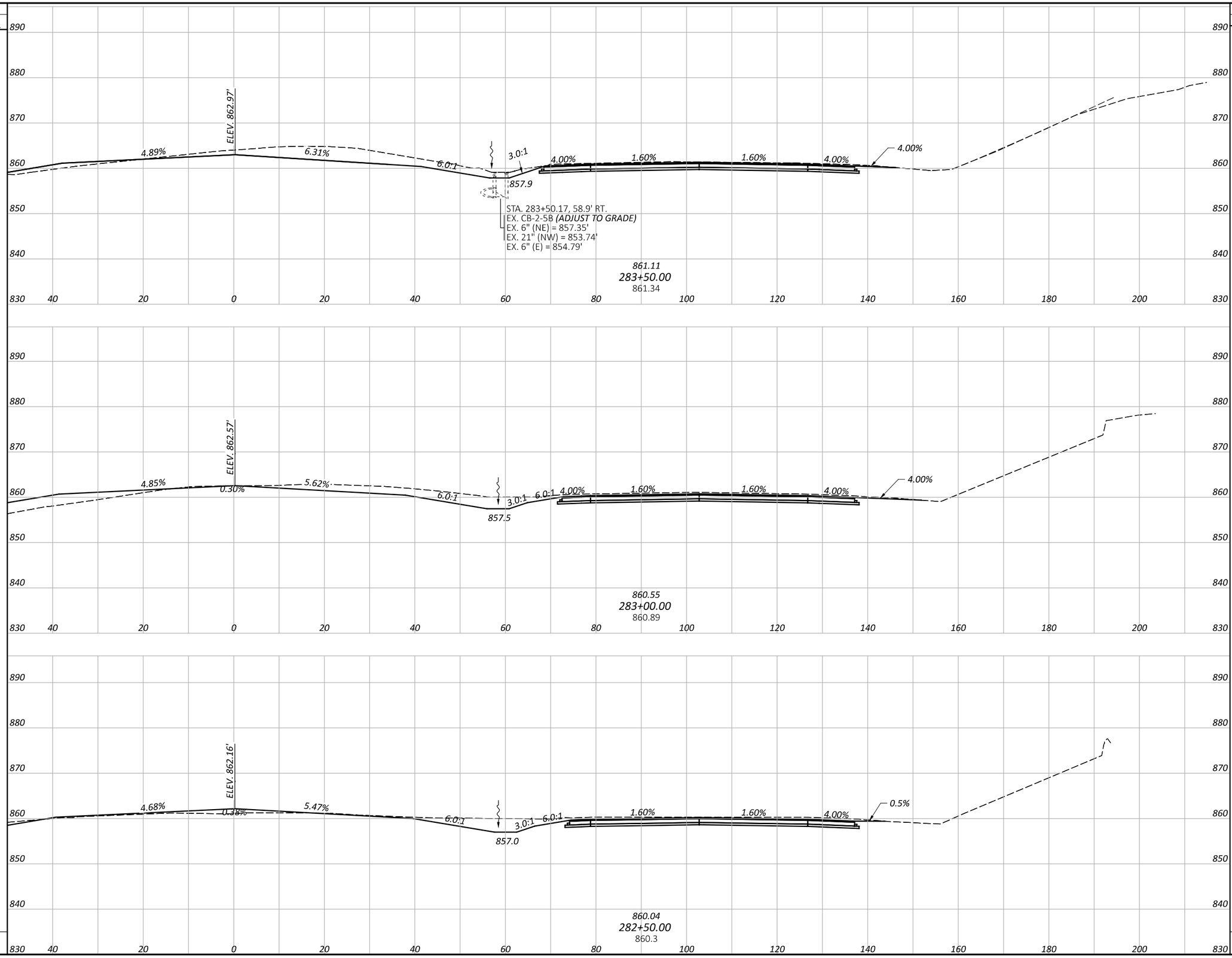
REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.119 | TOTAL 194

MODEL: CLX_1 - 281+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:09 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS301.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 282+50.00 TO STA. 283+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 282+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:13 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS301.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

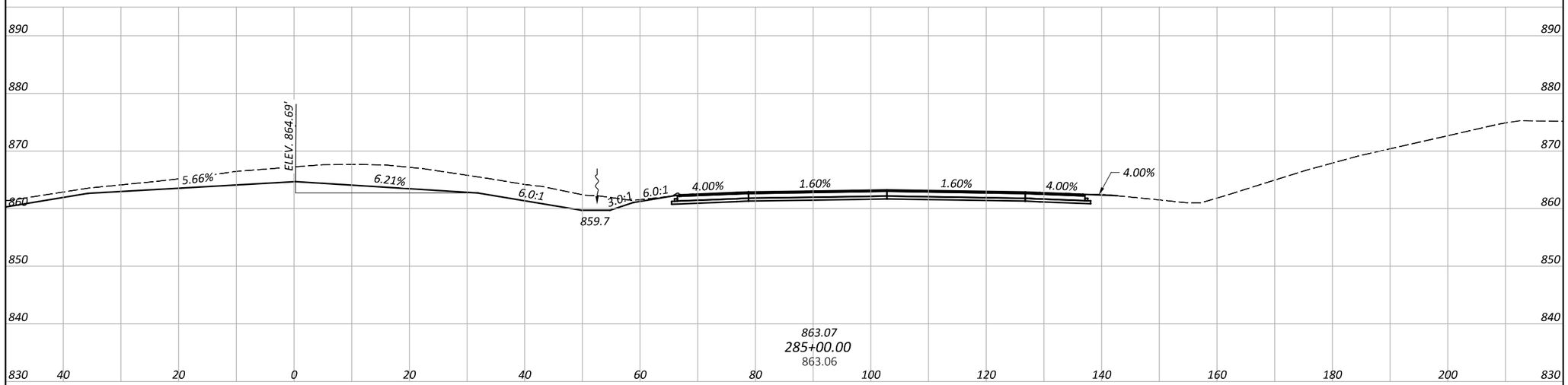
DESIGNER JRS

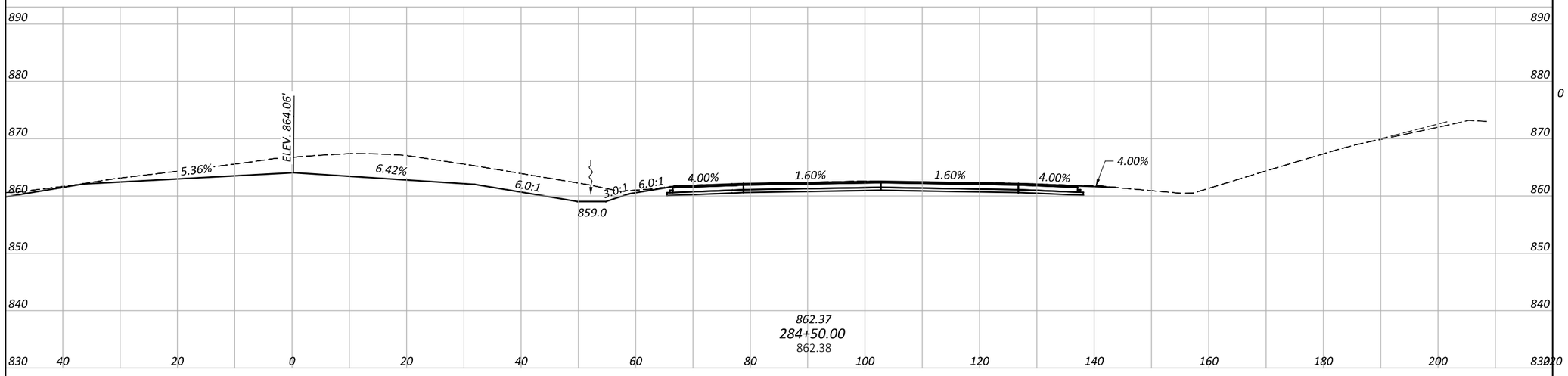
REVIEWER CWP 08/29/25

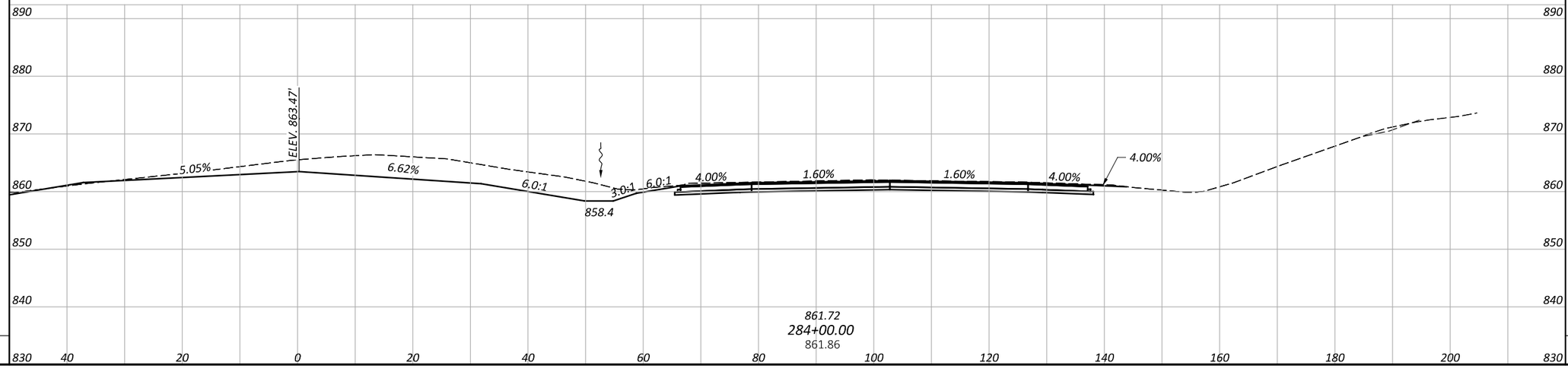
PROJECT ID 117275

SHEET P.120 | TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			







CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 284+00.00 TO STA. 285+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: JRS
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.121 TOTAL: 194

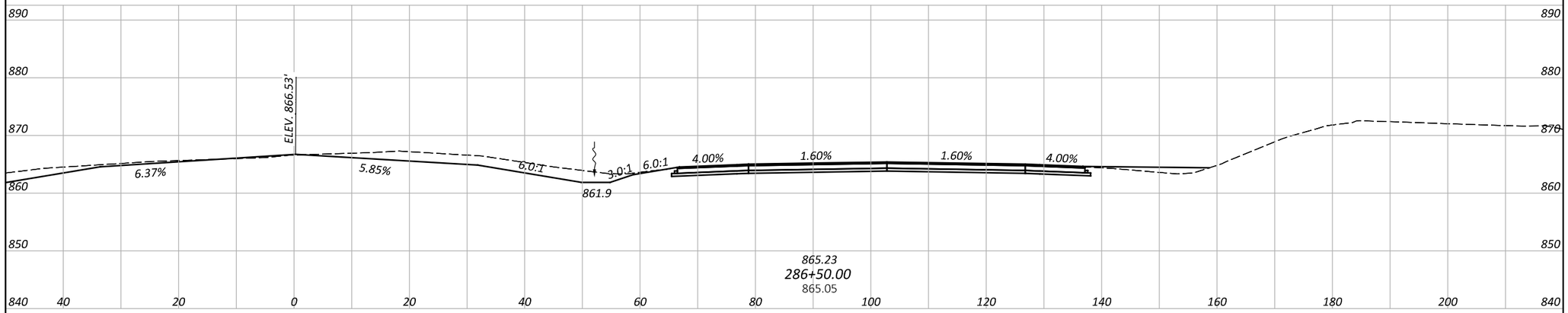
BUT IR 75/VAR 5.22/VAR

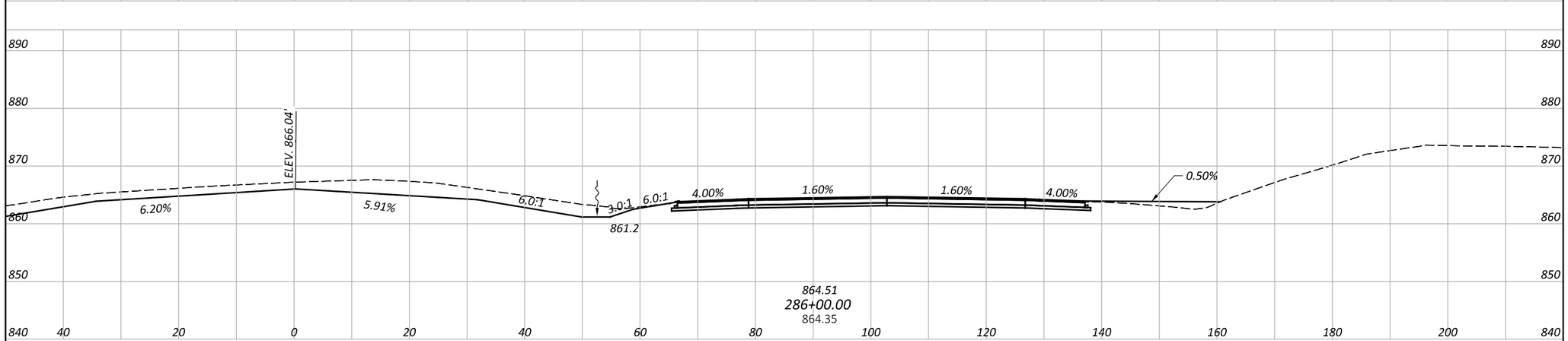
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P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS301.dgn

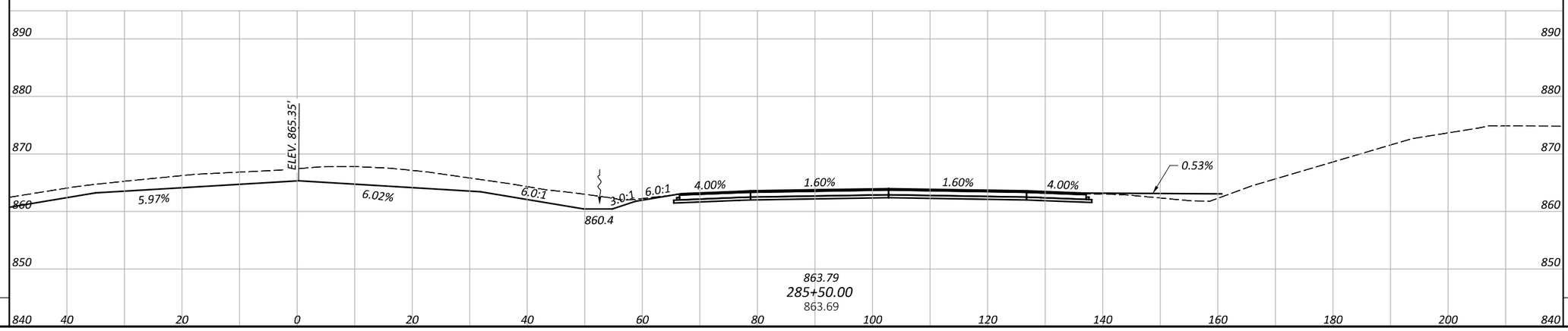
MODEL: CLX_1 - 285+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:21 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\000-Engineering\Roadway\Sheets\117275_XS301.dgn

BUT IR 75/VAR 5.22/VAR

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			





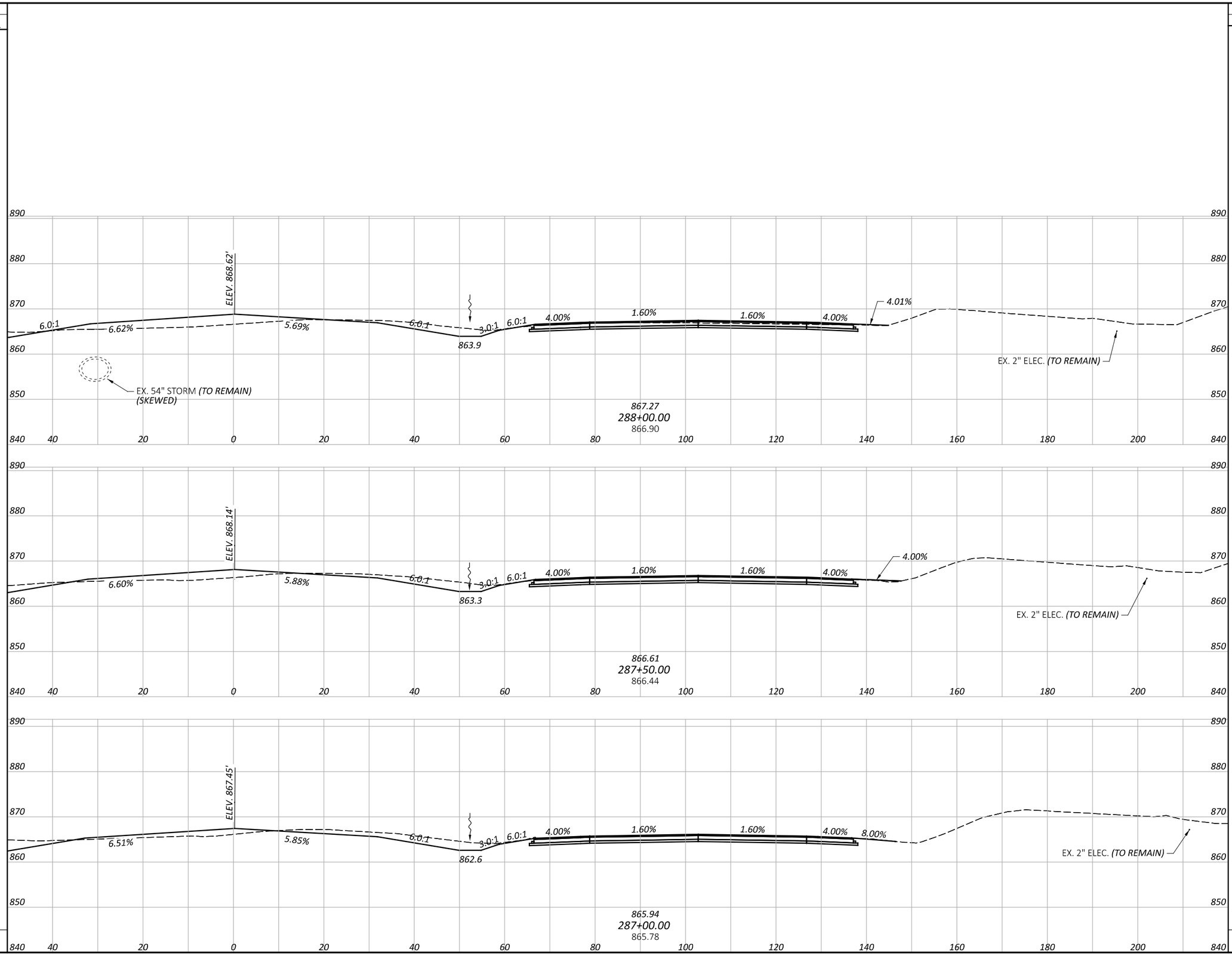


CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 285+50.00 TO STA. 286+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.122 | TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 287+00.00 TO STA. 288+00.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

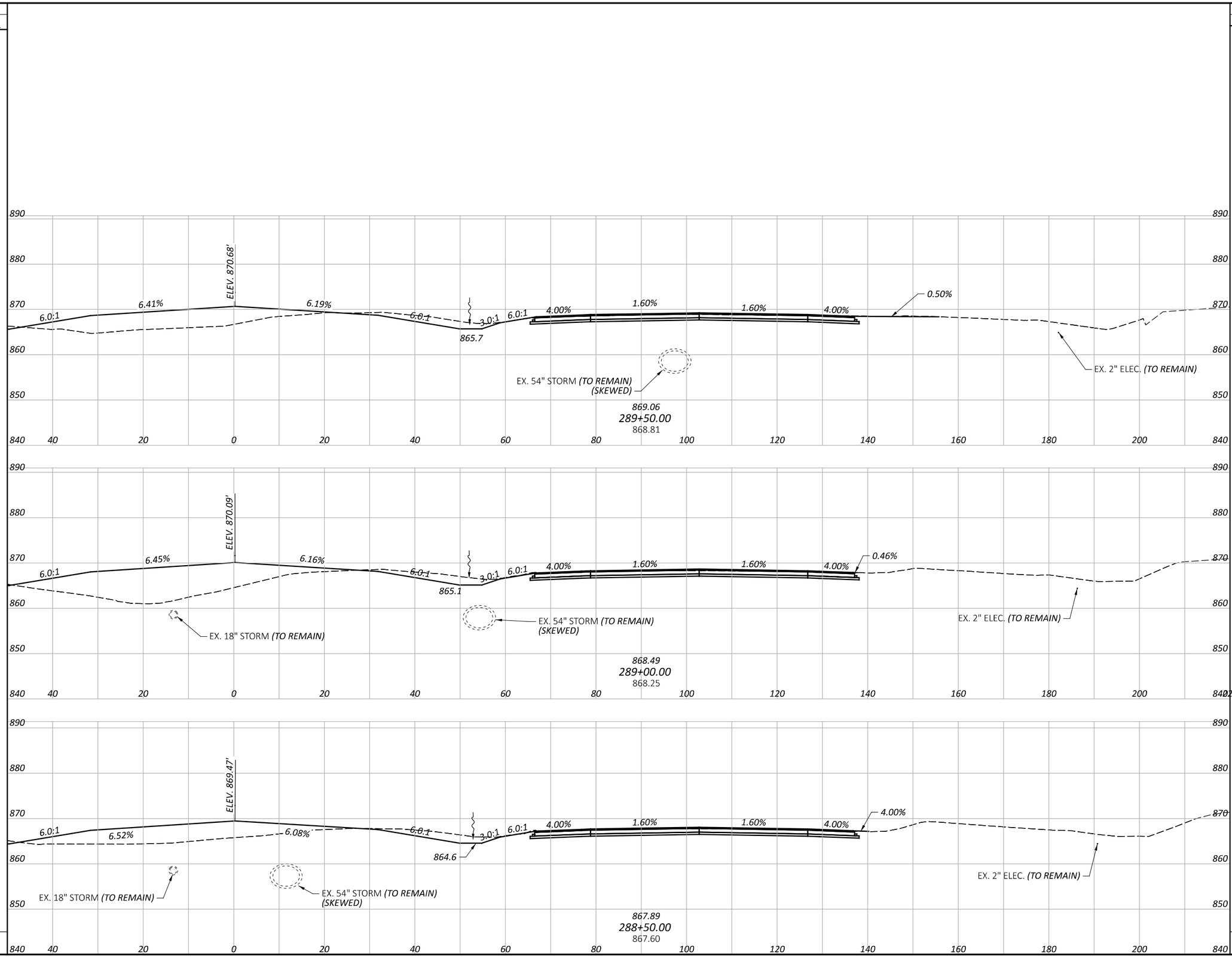
REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.123 TOTAL 194

MODEL: CLX_1 - 287+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:25 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS301.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 288+50.00 TO STA. 289+50.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

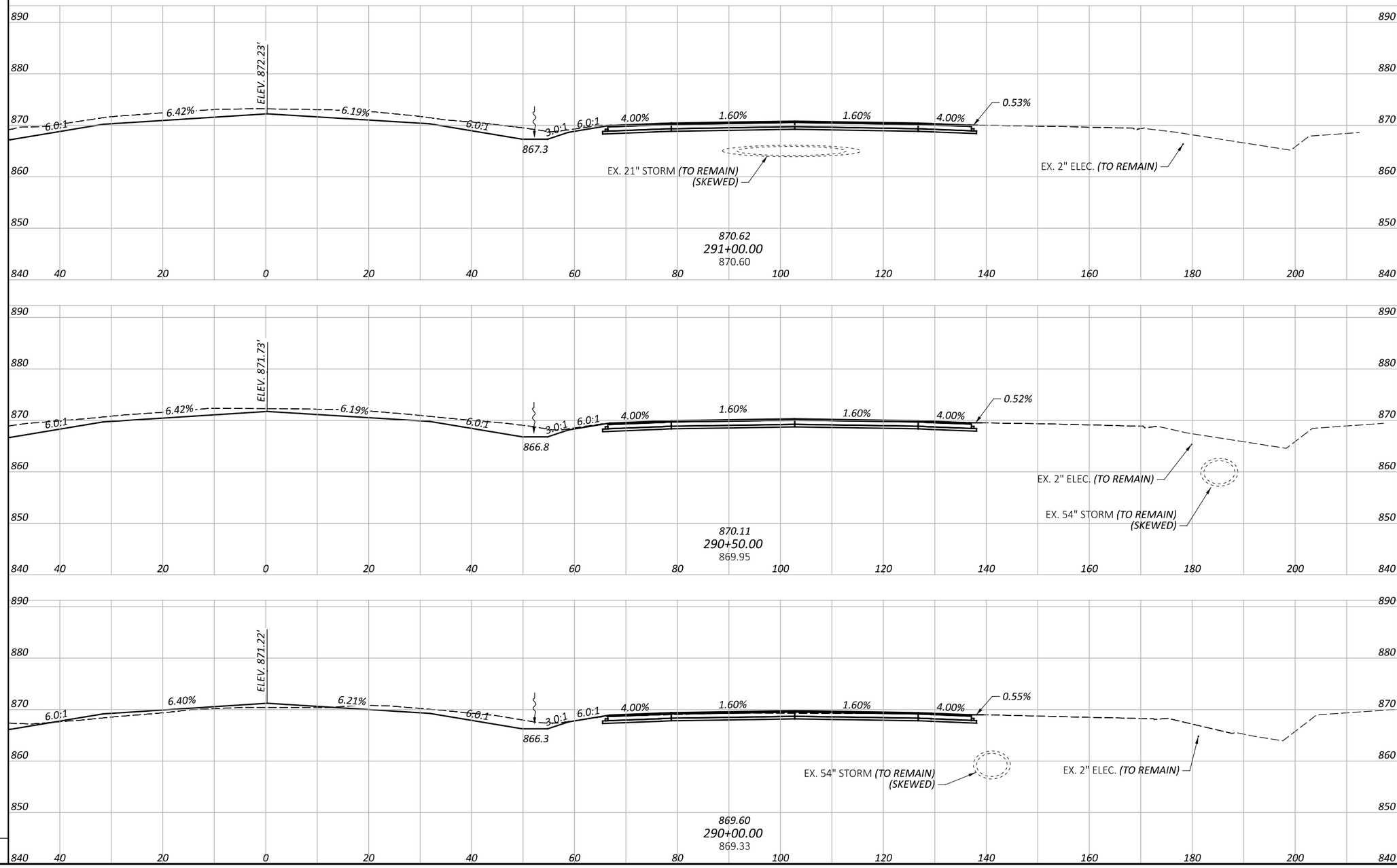
REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.124 | TOTAL 194

MODEL: CLX_1 - 288+50.00 |Sheet| PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:29 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS301.dgn

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - I.R. 75 NORTHBOUND
STA. 290+00.00 TO STA. 291+00.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 290+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:33 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS301.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: JRS

REVIEWER: CWP 08/29/25

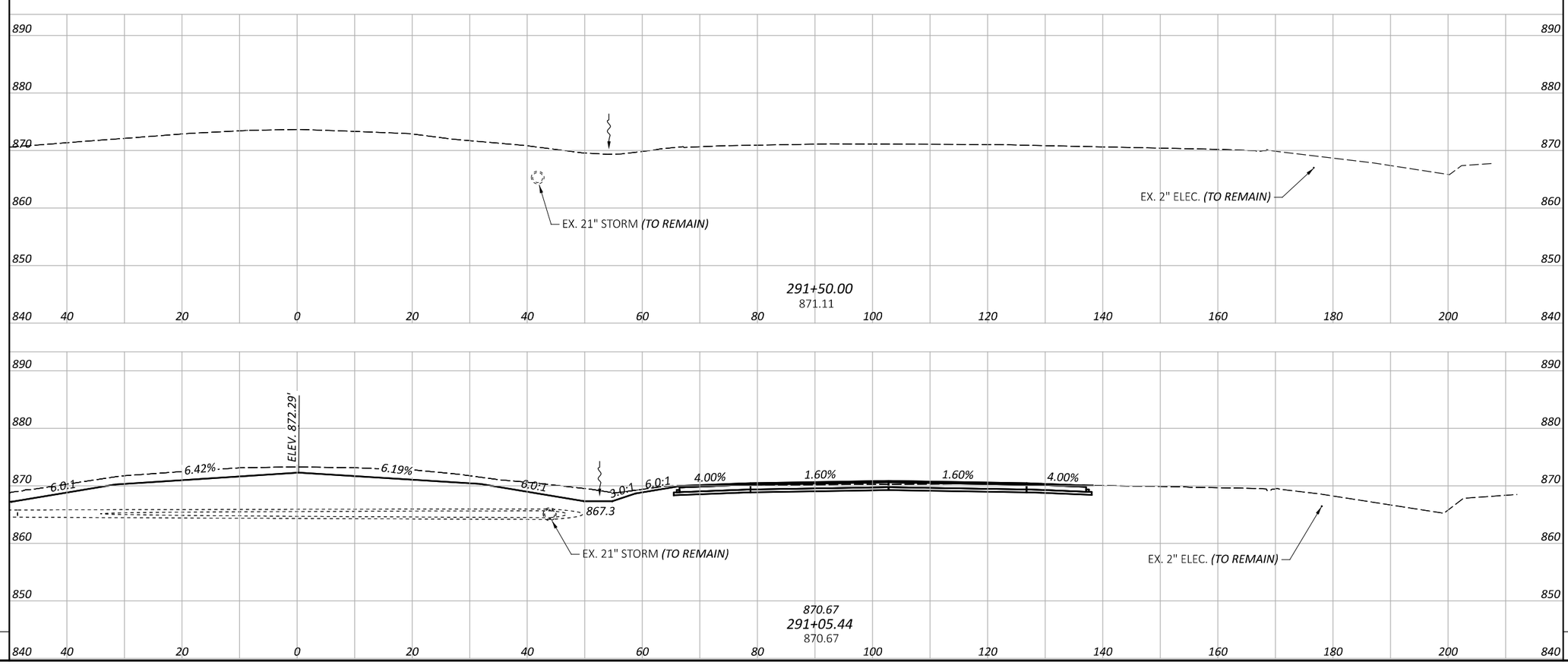
PROJECT ID: 117275

SHEET: P.125 | TOTAL: 194

SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL
0	0
0	0
0	0

VOLUME	
CUT	FILL
0	0
0	0



CROSS SECTIONS - I.R. 75 NORTHBOUND STA. 291+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_1 - 291+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:37 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS301.dgn

SHEET TOTAL

SHEET TOTALS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

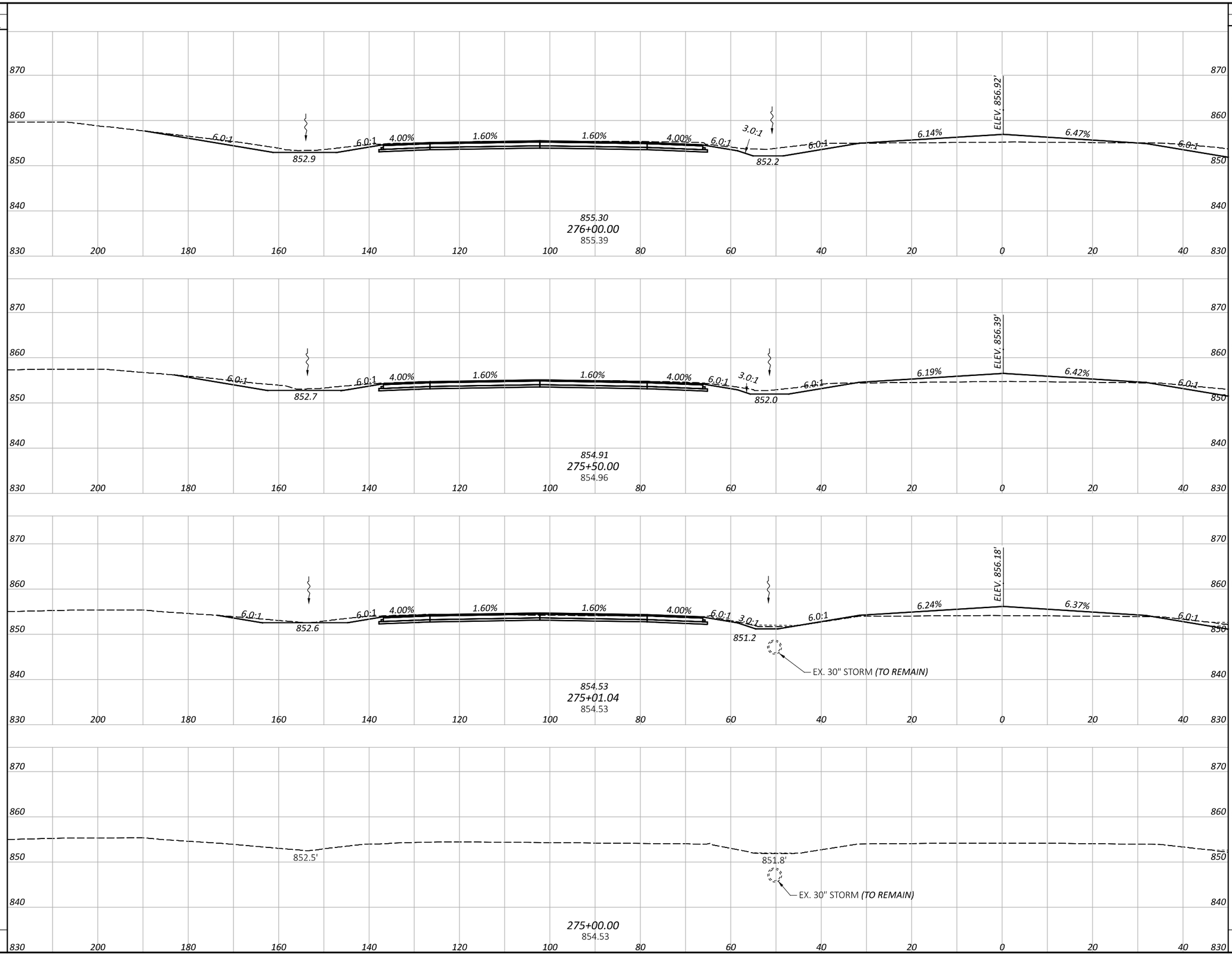
DESIGNER JRS

REVIEWER CWP 08/29/25

PROJECT ID 117275

SHEET P.126 | TOTAL 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 275+00.00 TO STA. 276+00.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

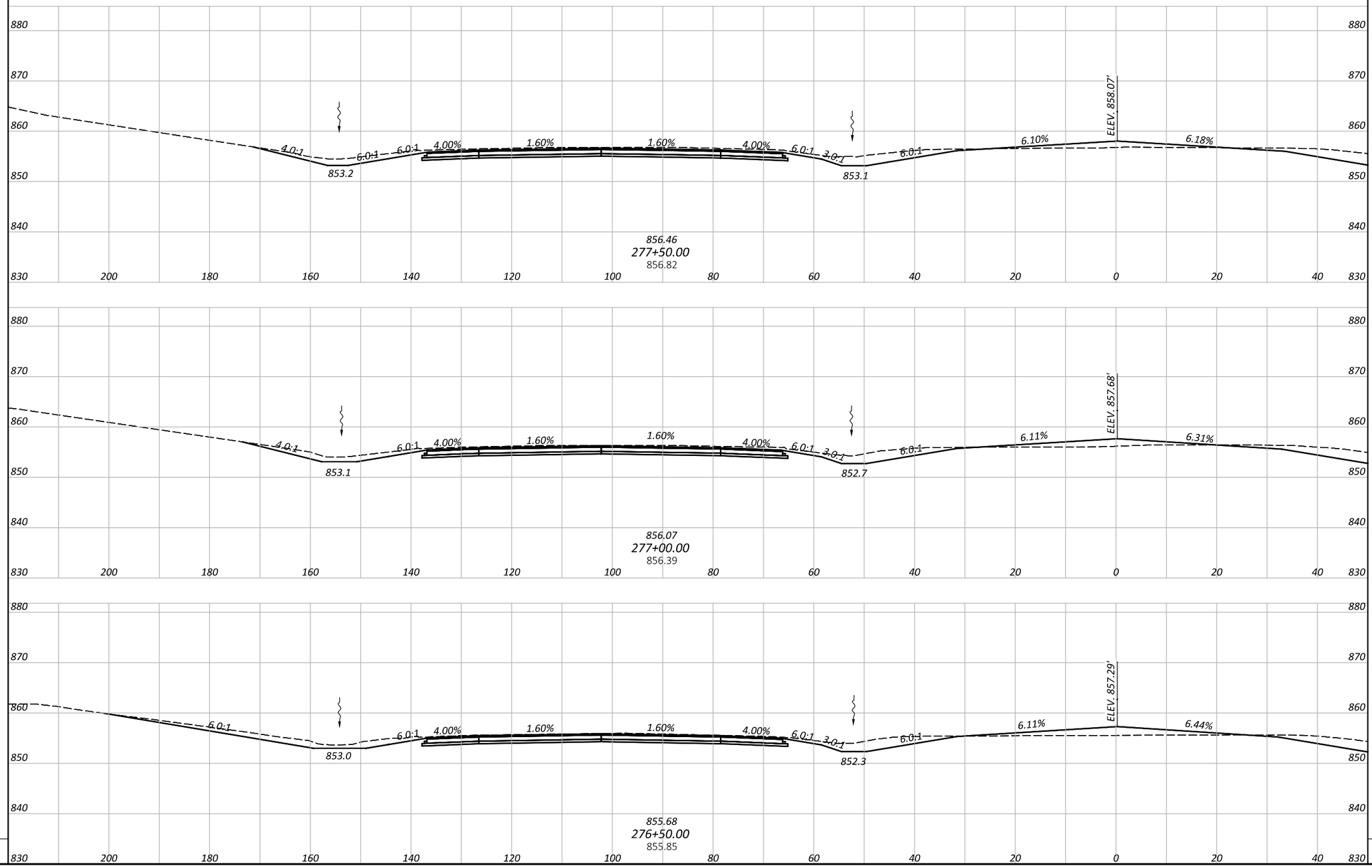
DESIGNER: JRS
REVIEWER: SDK 08/29/25
PROJECT ID: 117275
SHEET: P.127 TOTAL: 194

MODEL: I.R. 75 SOUTHBOUND - 275+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:41 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\000-Engineering\Roadway\Sheets\117275_XS302.dgn

MODEL: I.R. 75 SOUTHBOUND - 276+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:44 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

BUT IR 75/VAR 5.22/VAR

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 276+50.00 TO STA. 277+50.00

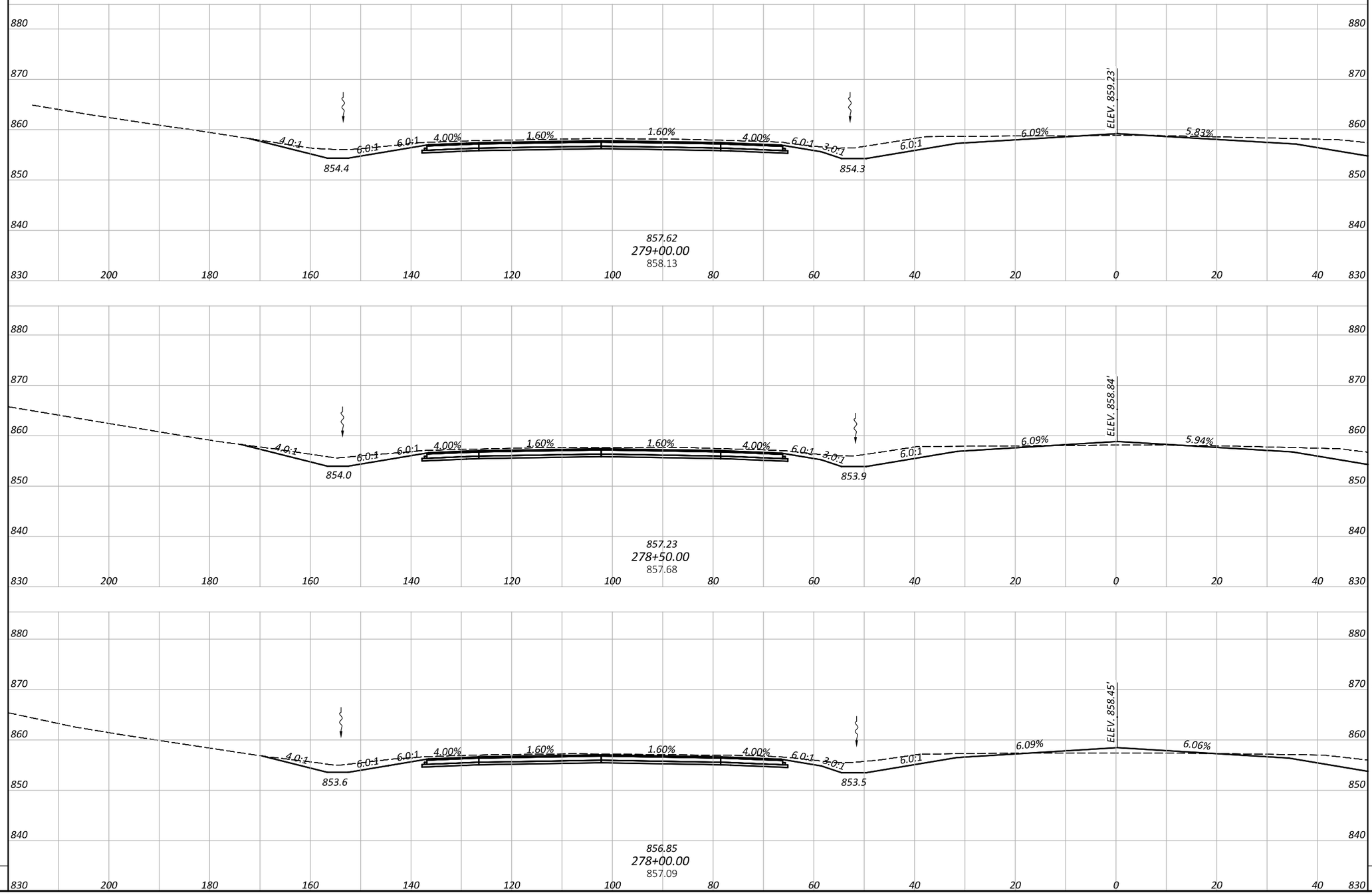
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: JRS
REVIEWER: SDK 08/29/25
PROJECT ID: 117275
SHEET: P.128 | TOTAL: 194

MODEL: I.R. 75 SOUTHBOUND - 278+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:45 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

BUT IR 75/VAR 5.22/VAR

SEEDING END WIDTH	SEEDING SQ. YDS.	END AREA CUT	END AREA FILL	VOLUME CUT	VOLUME FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			

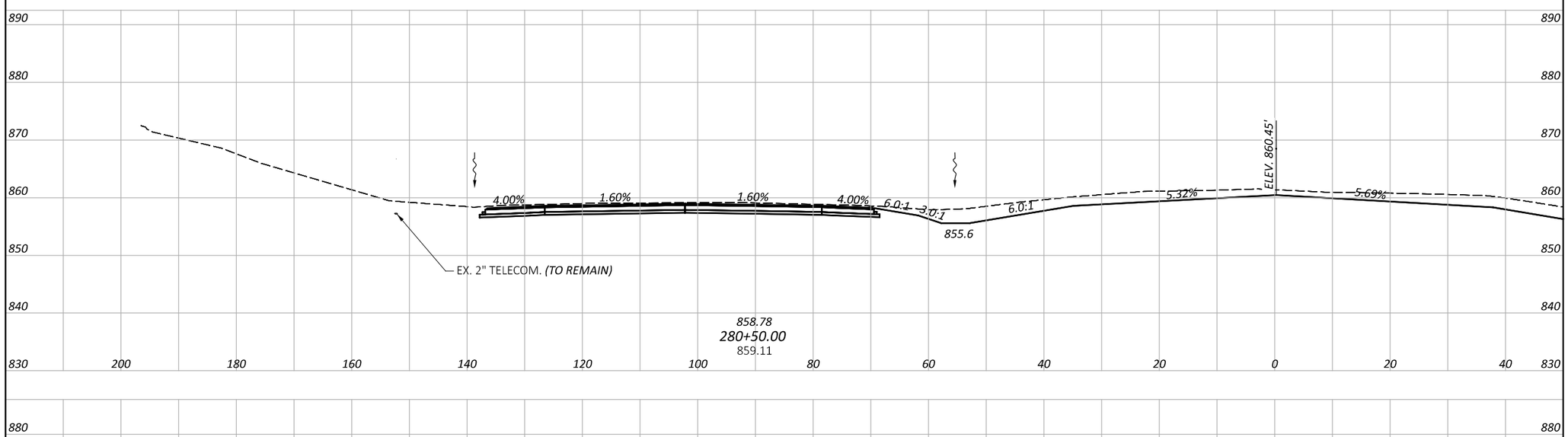


CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 278+00.00 TO STA. 279+00.00

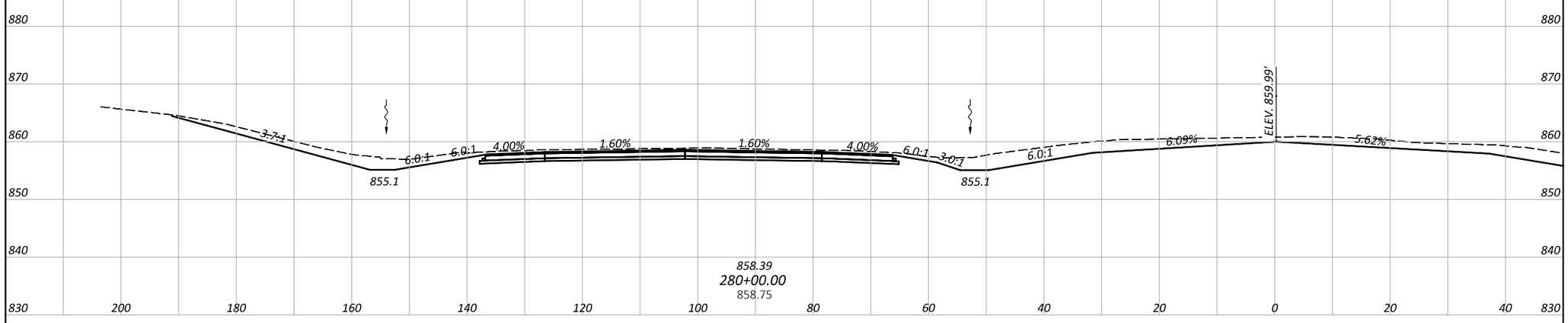
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	JRS
REVIEWER	SDK 08/29/25
PROJECT ID	117275
SHEET	P.129
TOTAL	194

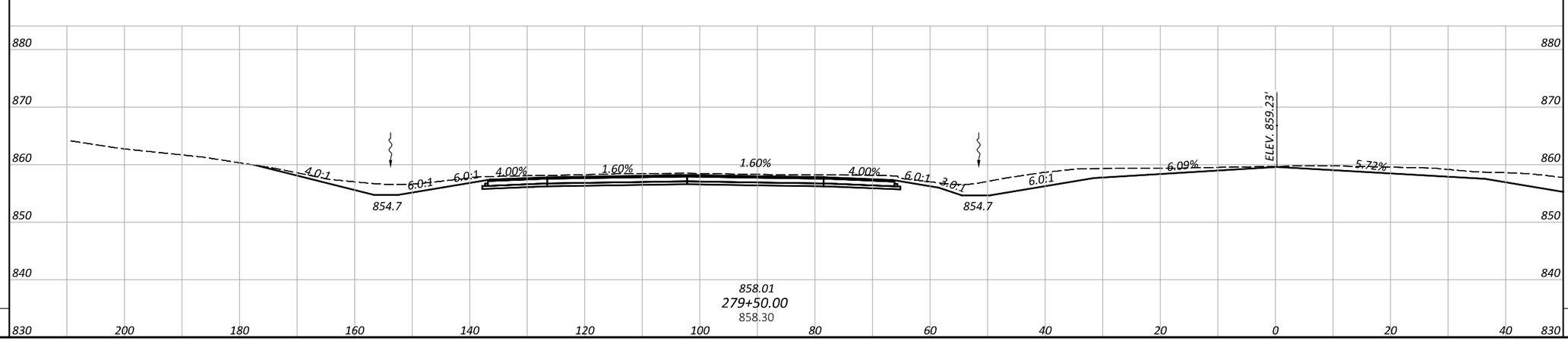
SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL



0	0	0	0



0	0	0	0



0	0	0	0

SHEET TOTAL		SHEET TOTALS			

CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 279+50.00 TO STA. 280+50.00

BUT IR 75/VAR 5.22/VAR

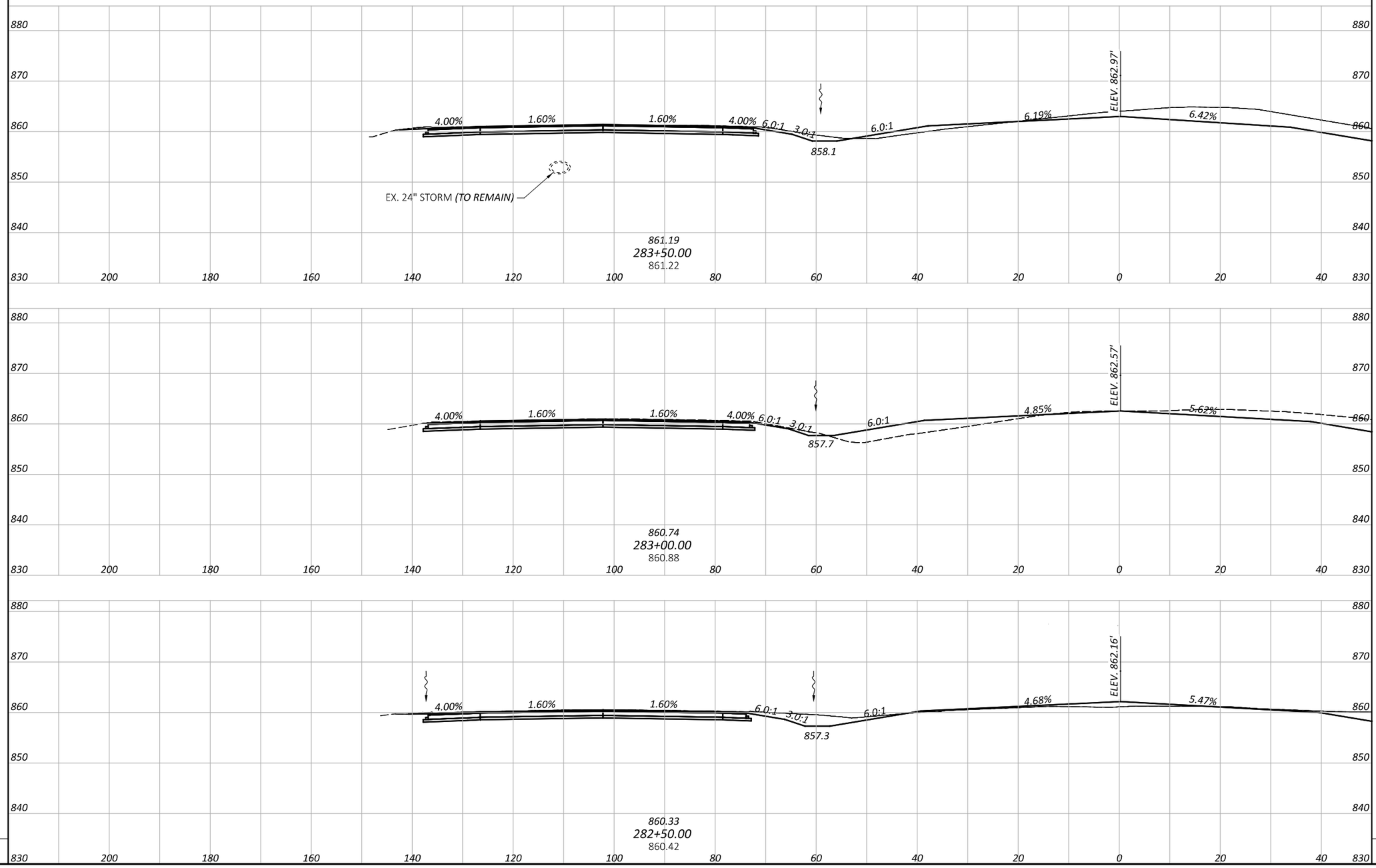
MODEL: I.R. 75 SOUTHBOUND - 279+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:47 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
JRS	SDK 08/29/25	117275	P.130	194

SEEDING	
END WIDTH	SQ. YDS.

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



BUT IR 75/VAR 5.22/VAR

MODEL: I.R. 75 SOUTHBOUND - 282+50.00 |Sheet| PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:51 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\000-Engineering\Roadway\Sheets\117275_XS302.dgn

CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 282+50.00 TO STA. 283+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

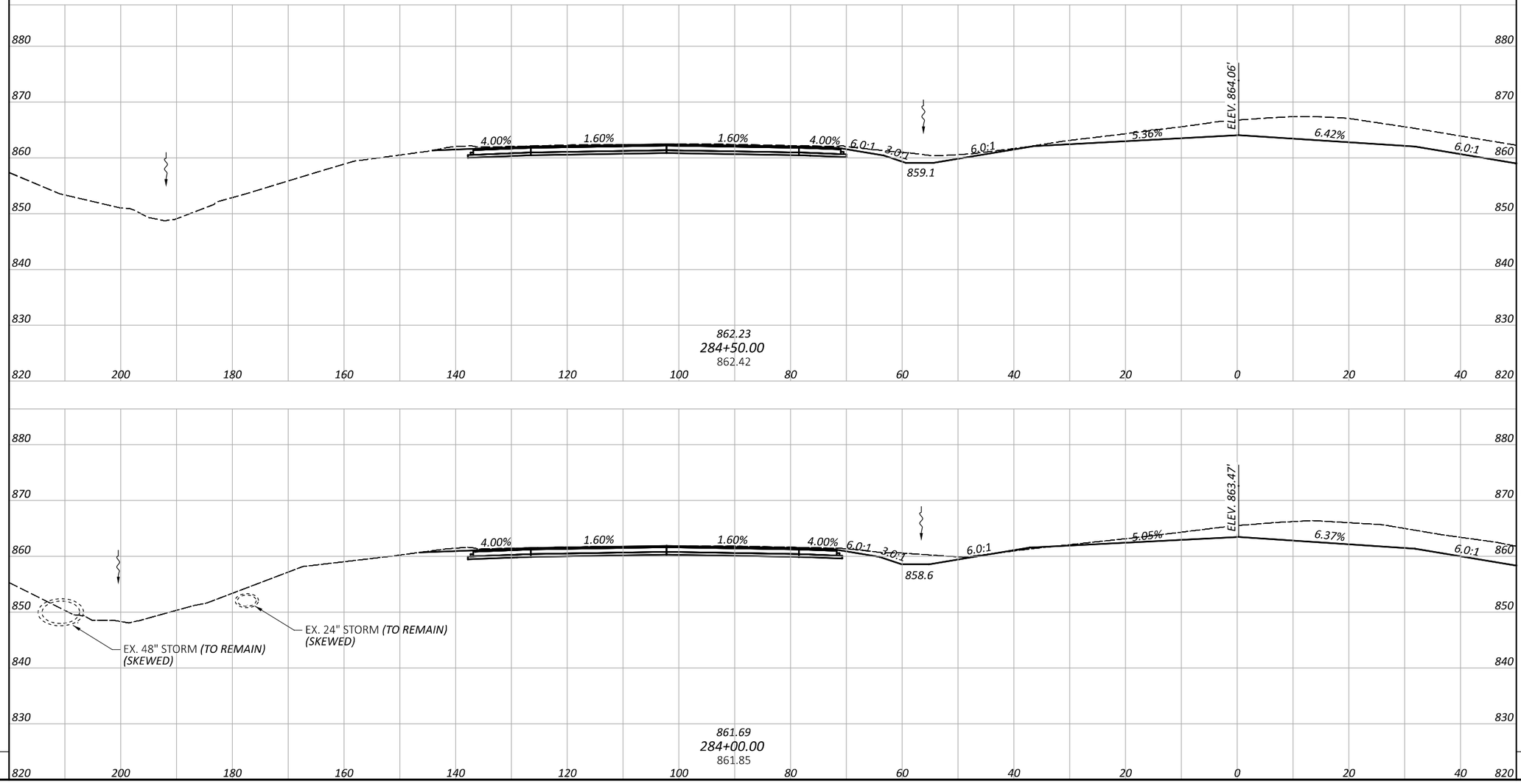
DESIGNER
JRS

REVIEWER
SDK 08/29/25

PROJECT ID
117275

SHEET P.132 | TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			

CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 284+00.00 TO STA. 284+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: JRS
REVIEWER: SDK 08/29/25
PROJECT ID: 117275
SHEET: P.133 TOTAL: 194

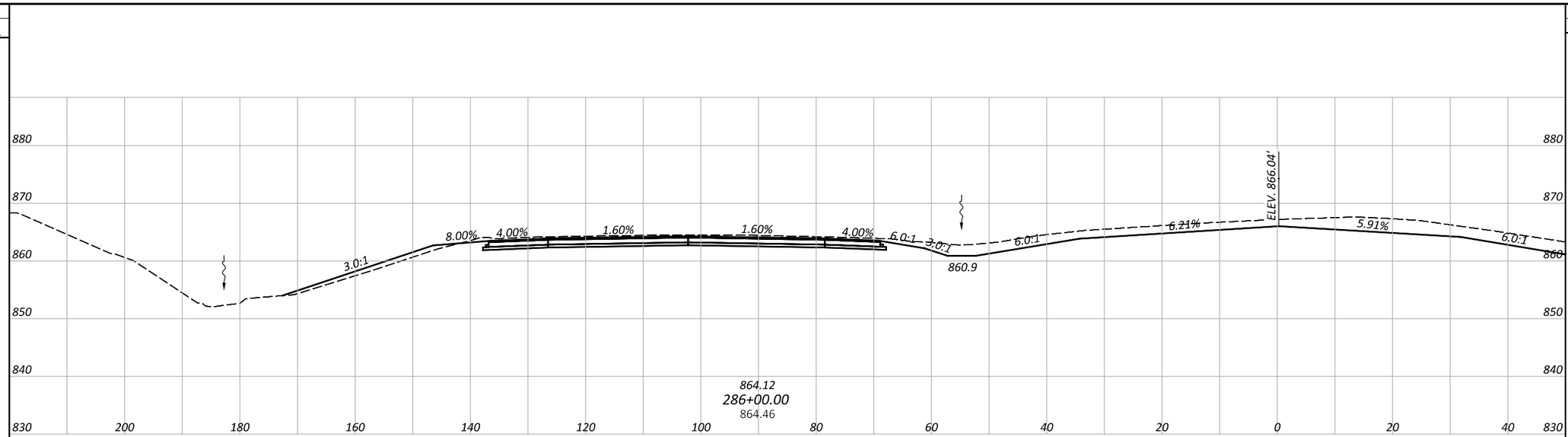
BUT IR 75/VAR 5.22/VAR

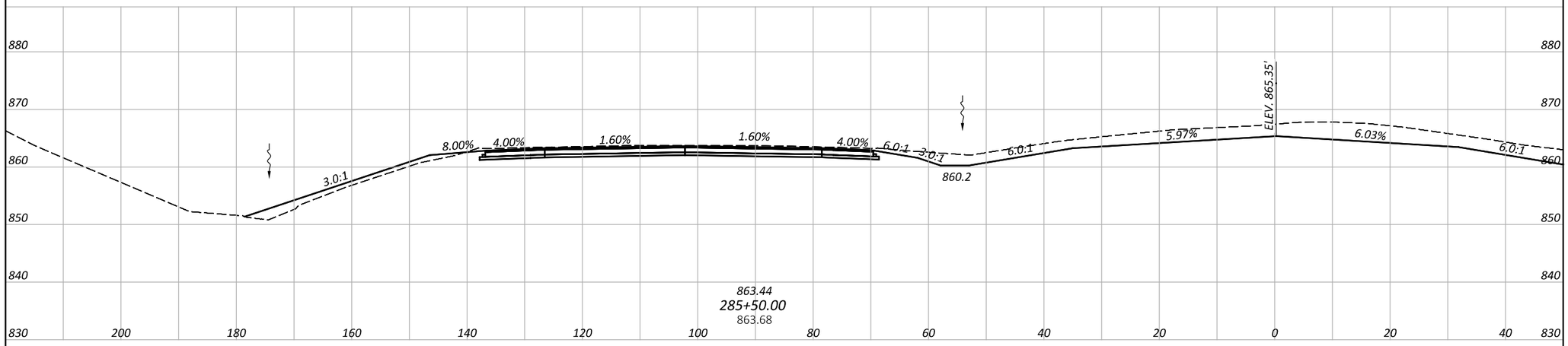
MODEL: I.R. 75 SOUTHBOUND - 284+00.00 |Sheet| PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:53 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

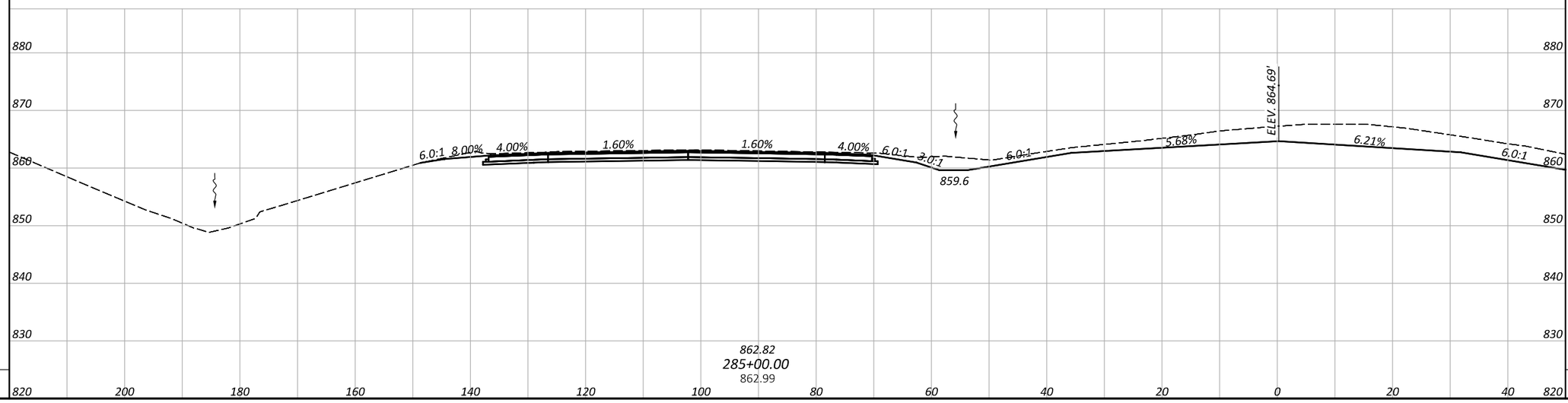
MODEL: I.R. 75 SOUTHBOUND - 285+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:54 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

BUT IR 75/VAR 5.22/VAR

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			







CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 285+00.00 TO STA. 286+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	JRS
REVIEWER	SDK 08/29/25
PROJECT ID	117275
SHEET	P.134
TOTAL	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL

0	0				
				0	0
0	0				
				0	0
0	0				
				0	0
SHEET TOTALS					

CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 286+50.00 TO STA. 287+50.00

BUT IR 75/VAR 5.22/VAR

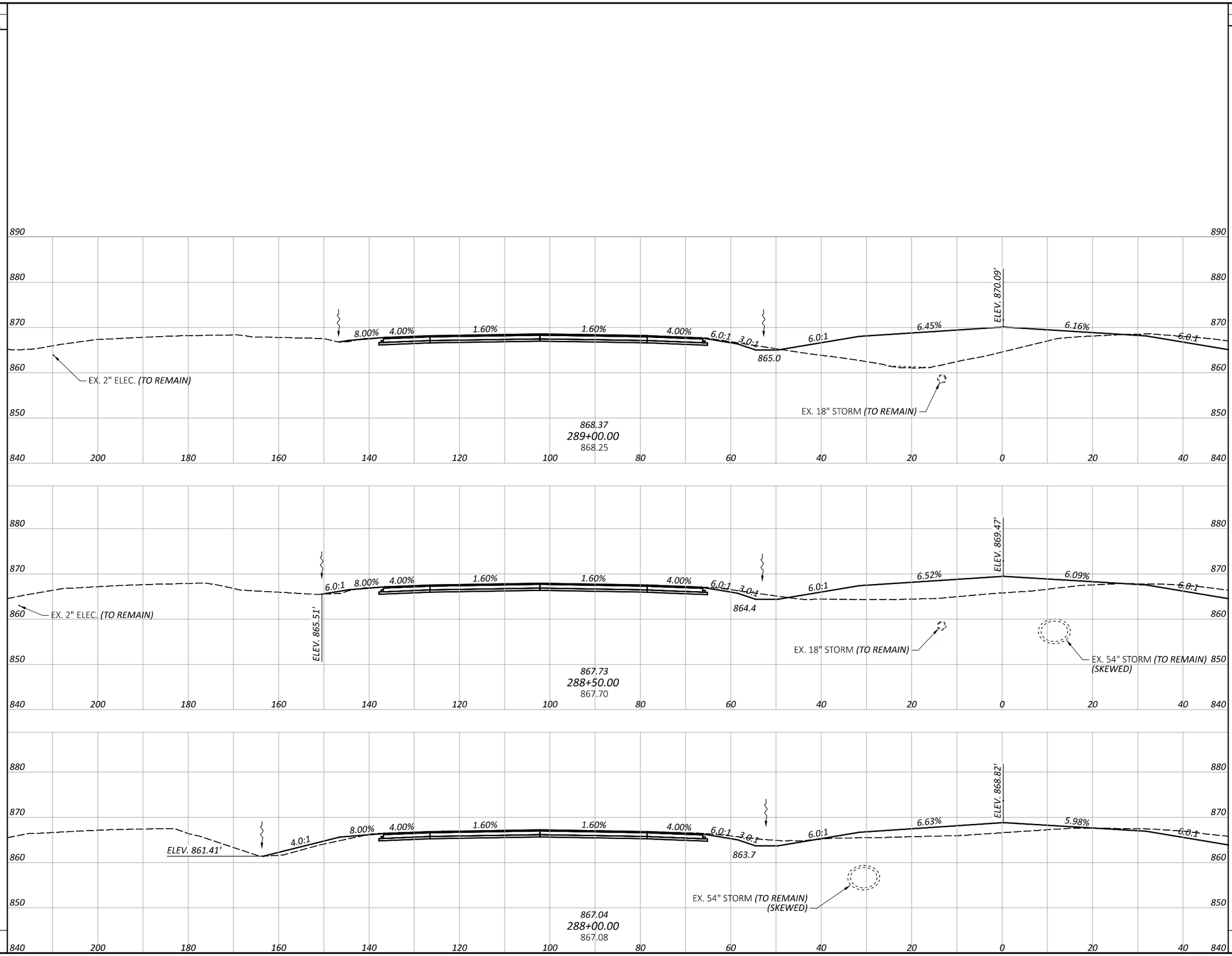
MODEL: I.R. 75 SOUTHBOUND - 286+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:56 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

SHEET TOTAL

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
JRS	SDK 08/29/25	117275	P.135	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 288+00.00 TO STA. 289+00.00

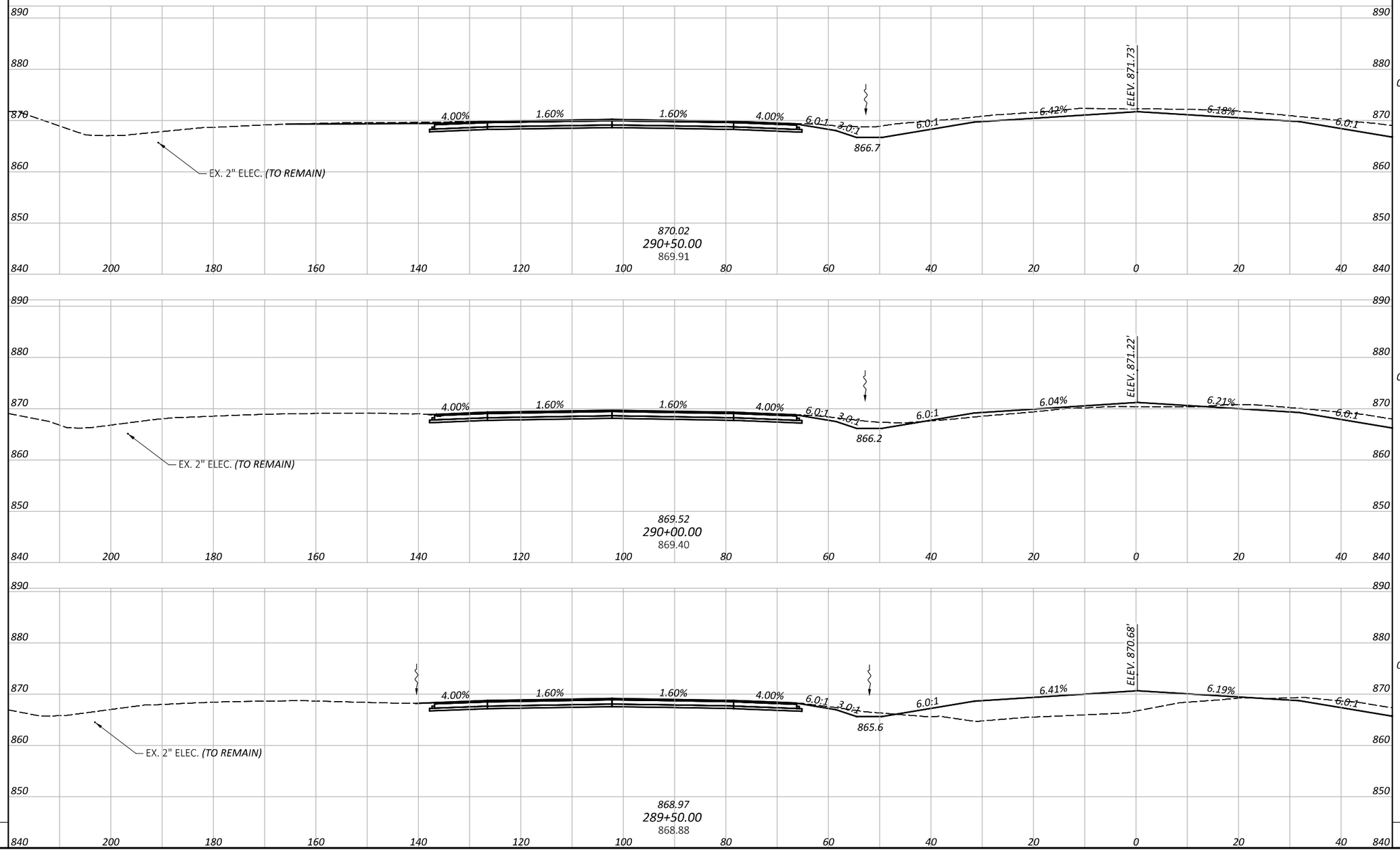
BUT IR 75/VAR 5.22/VAR

MODEL: I.R. 75 SOUTHBOUND - 288+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:35:58 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\000-Engineering\Roadway\Sheets\117275_XS302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
JRS	SDK 08/29/25	117275	P.136	194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 289+50.00 TO STA. 290+50.00

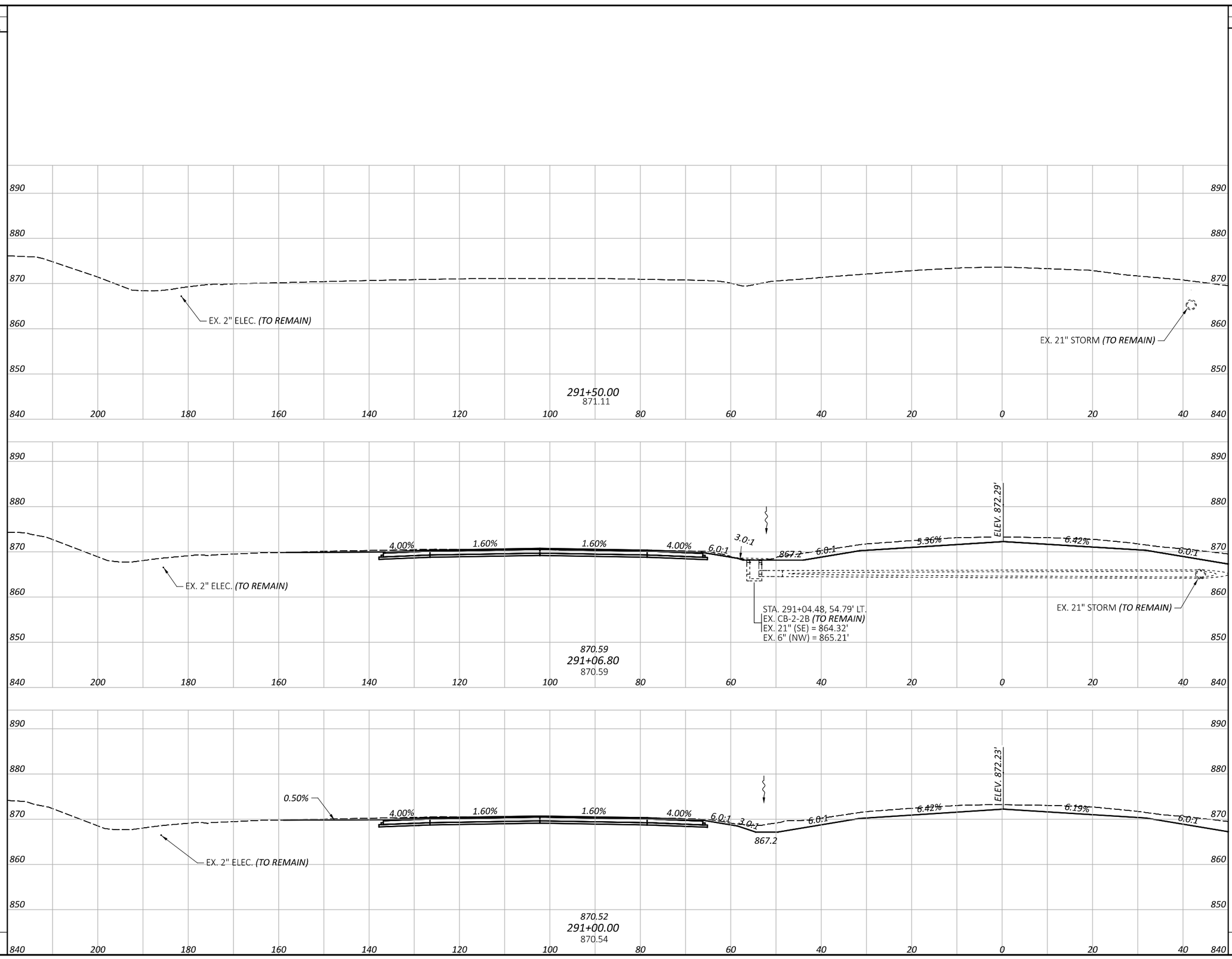
BUT IR 75/VAR 5.22/VAR

MODEL: I.R. 75 SOUTHBOUND - 289+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:00 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: JRS
REVIEWER: SDK 08/29/25
PROJECT ID: 117275
SHEET: P.137 TOTAL: 194

SEEDING		END AREA		VOLUME	
END WIDTH	SQ. YDS.	CUT	FILL	CUT	FILL
		0	0	0	0
		0	0	0	0
		0	0	0	0
		0	0	0	0
SHEET TOTAL		SHEET TOTALS			



CROSS SECTIONS - I.R. 75 SOUTHBOUND
STA. 291+00.00 TO STA. 291+50.00

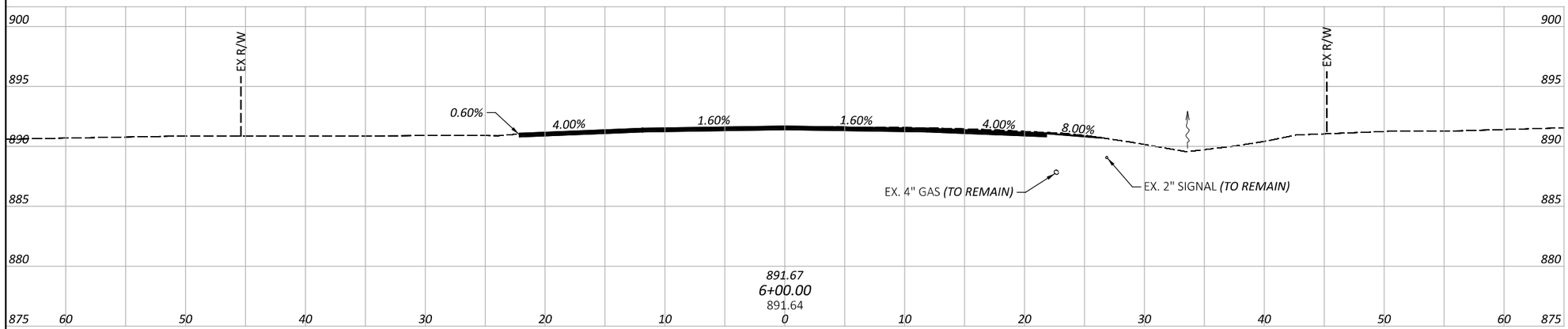
BUT IR 75/VAR 5.22/VAR

MODEL: I.R. 75 SOUTHBOUND - 291+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:02 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS302.dgn

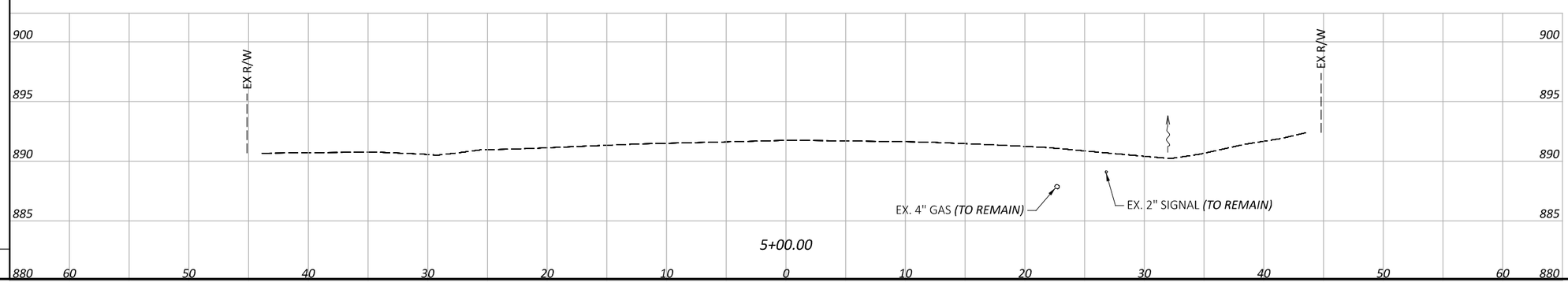
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	REVIEWER	PROJECT ID	SHEET	TOTAL
JRS	SDK 08/29/25	117275	P.138	194

SEEDING	
END WIDTH	SQ. YDS.







END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
0	0	0	0
0	0	0	0
SHEET TOTALS			

CROSS SECTIONS - U.S. 27
STA. 5+00.00 TO STA. 6+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

REVIEWER SHT 08/29/25

PROJECT ID 117275

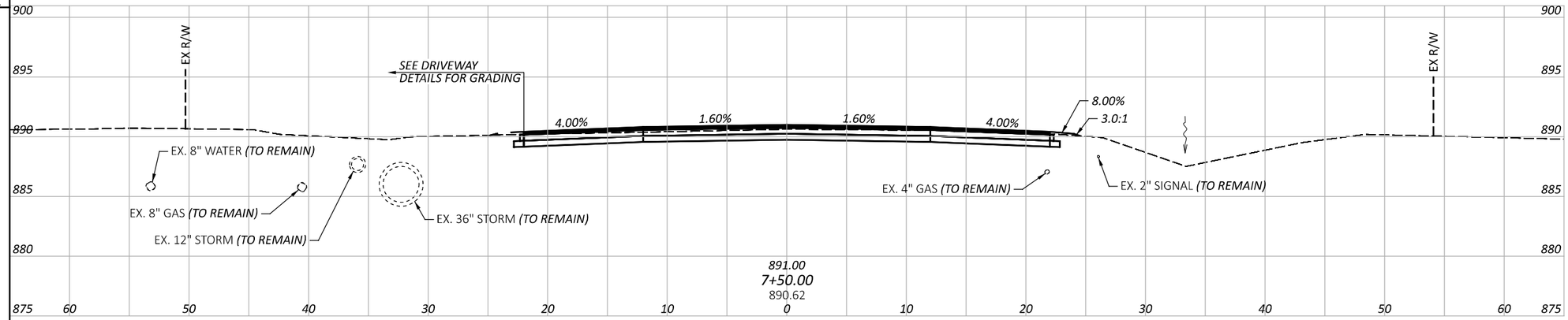
SHEET P.139 | TOTAL 194

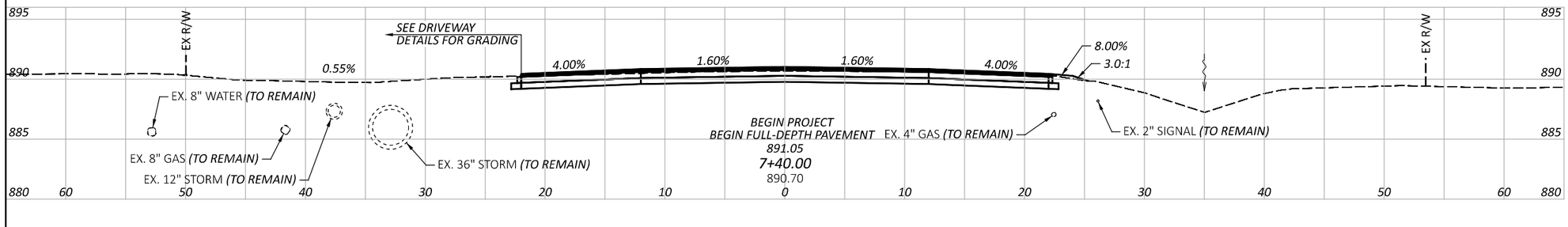
BUT IR 75/VAR 5.22/VAR

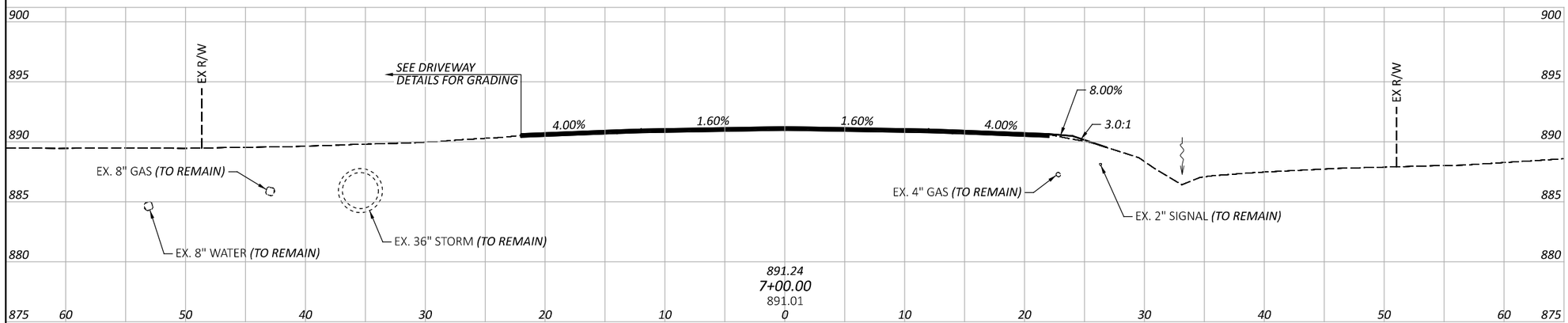
SHEET TOTAL

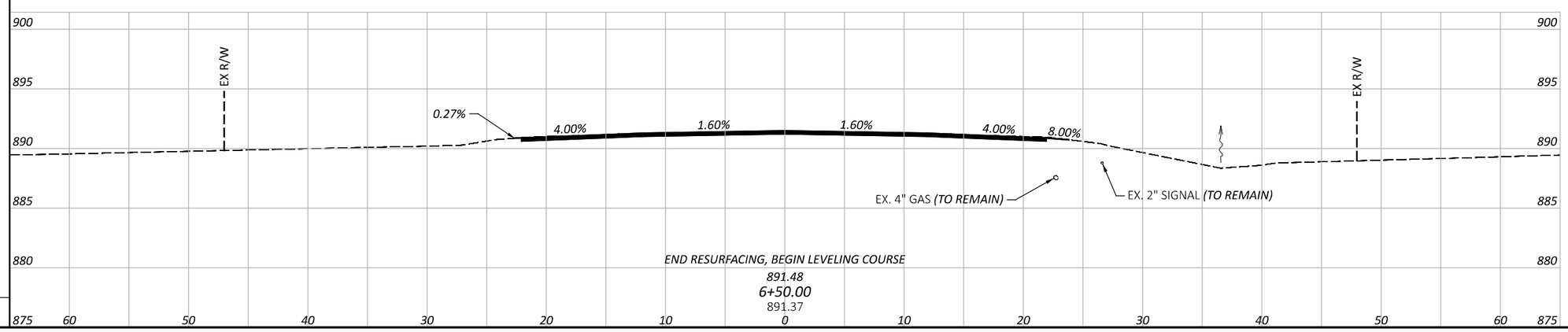
MODEL: CLX_3 - 5+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:06 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cveltmited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn

SEEDING	
END WIDTH	SQ. YDS.









END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			

CROSS SECTIONS - U.S. 27
STA. 6+50.00 TO STA. 7+50.00

BUT IR 75/VAR 5.22/VAR

SHEET TOTAL

MODEL: CLX_3 - 6+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:09 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

REVIEWER SHT 08/29/25

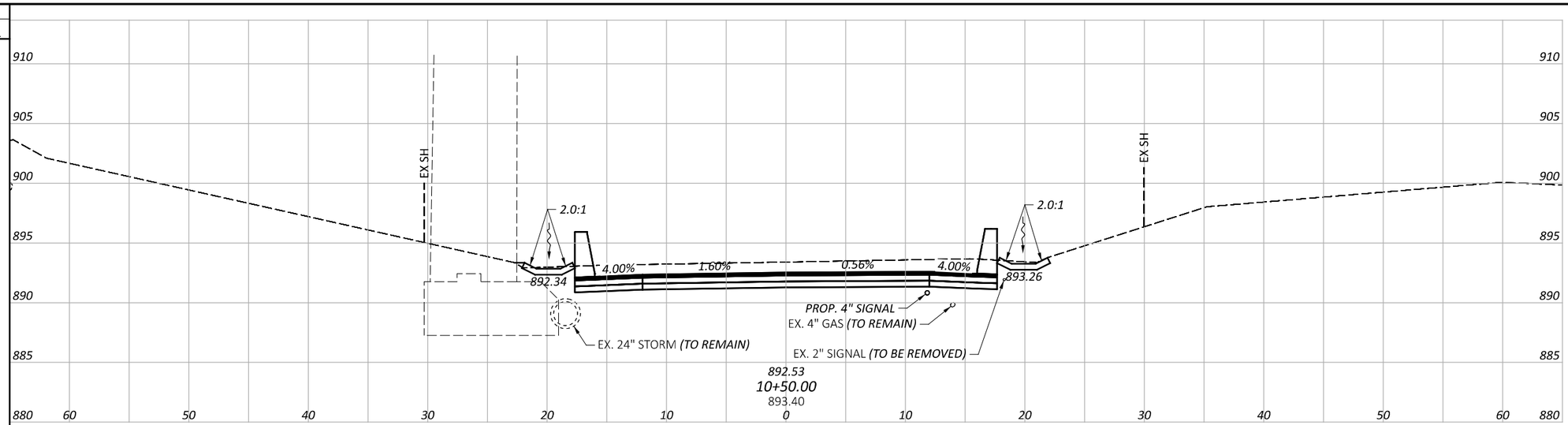
PROJECT ID 117275

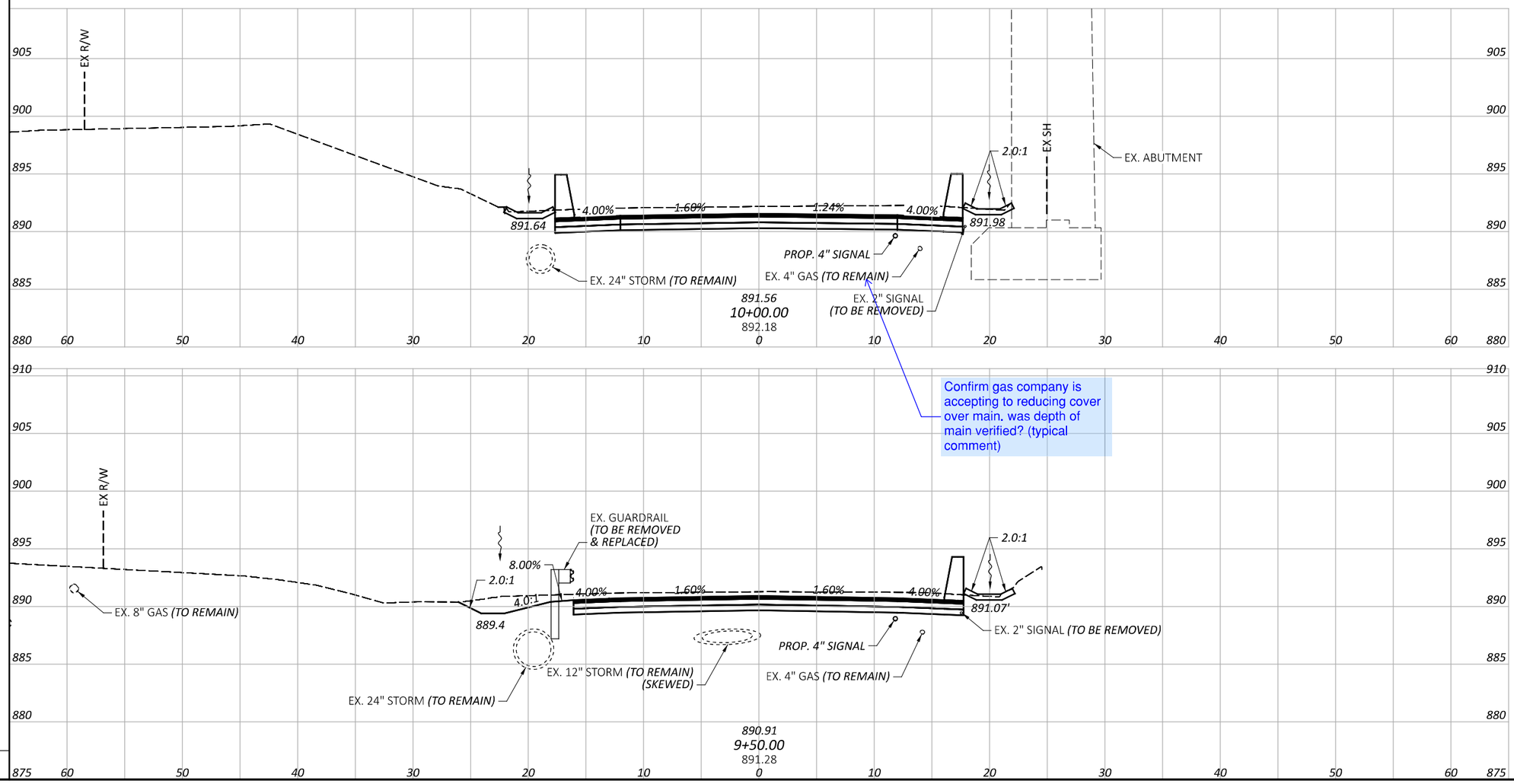
SHEET P.140 TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			





CROSS SECTIONS - U.S. 27
STA. 9+50.00 TO STA. 10+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

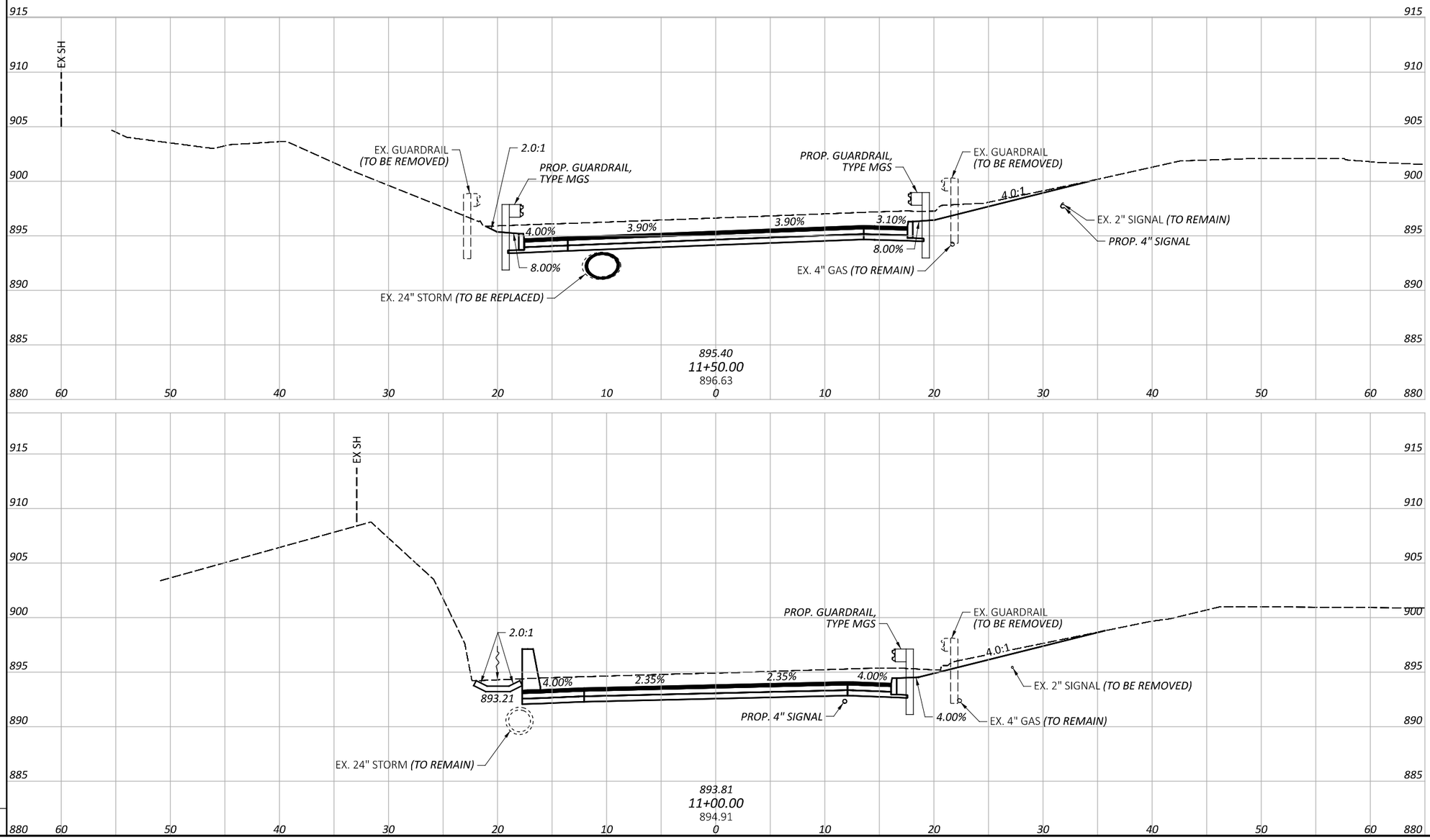
DESIGNER: JRS
REVIEWER: SHT 08/29/25
PROJECT ID: 117275
SHEET: P.142 | TOTAL: 194

BUT IR 75/VAR 5.22/VAR

SHEET TOTAL

MODEL: CLX_3 - 9+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:13 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn

SEEDING	
END WIDTH	SQ. YDS.



END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0	0	0
0	0	0	0
SHEET TOTALS			

CROSS SECTIONS - U.S. 27
STA. 11+00.00 TO STA. 11+50.00

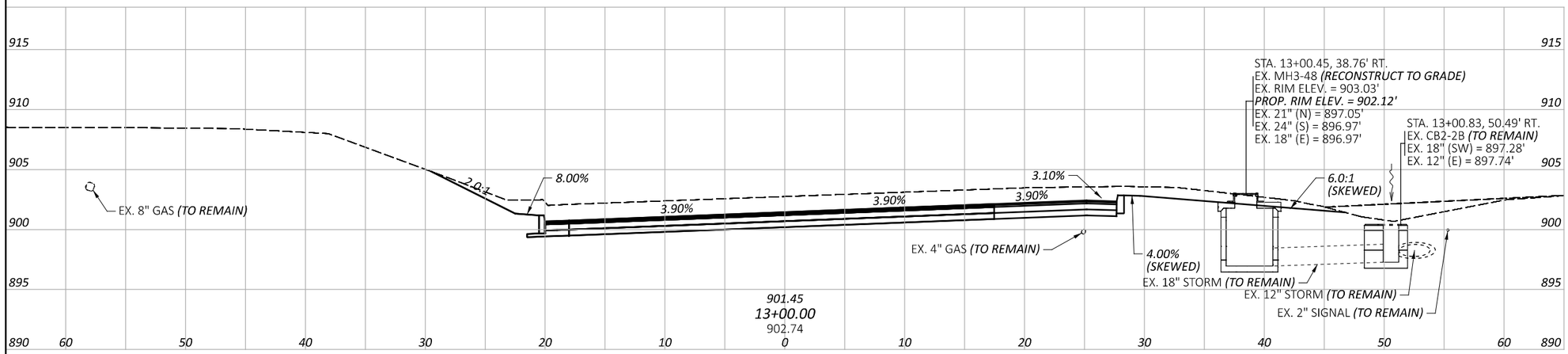
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

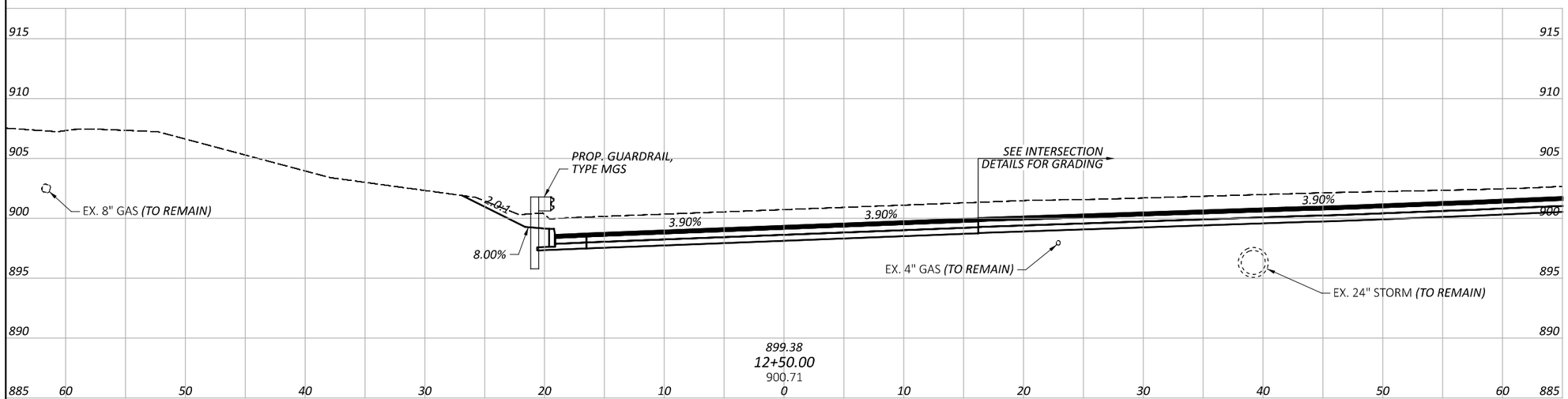
DESIGNER: JRS
REVIEWER: SHT 08/29/25
PROJECT ID: 117275
SHEET P.143 TOTAL 194

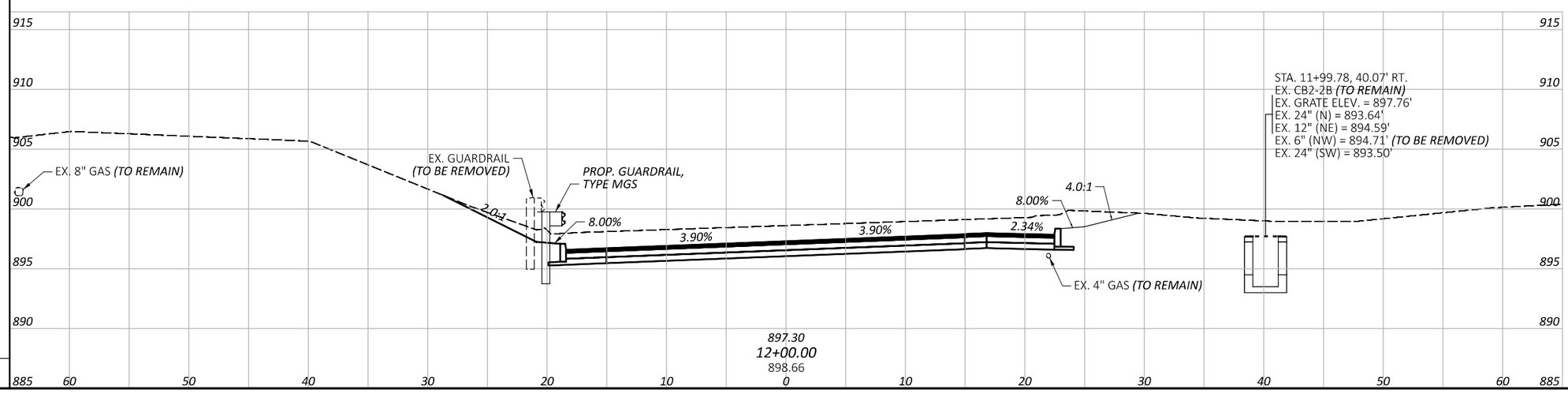
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_3 - 11+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:15 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn

SEEDING	
END WIDTH	SQ. YDS.







END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			

CROSS SECTIONS - U.S. 27
STA. 12+00.00 TO STA. 13+00.00

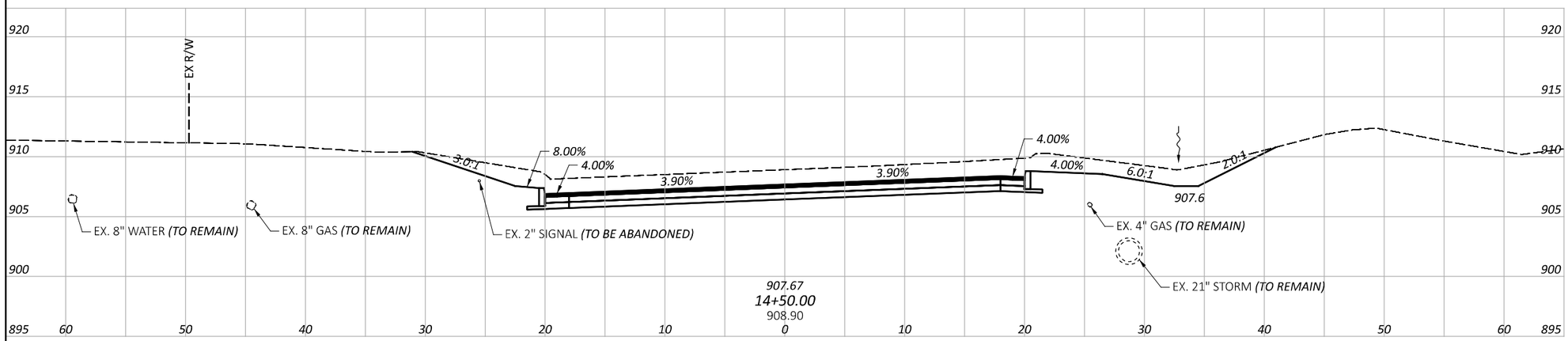
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

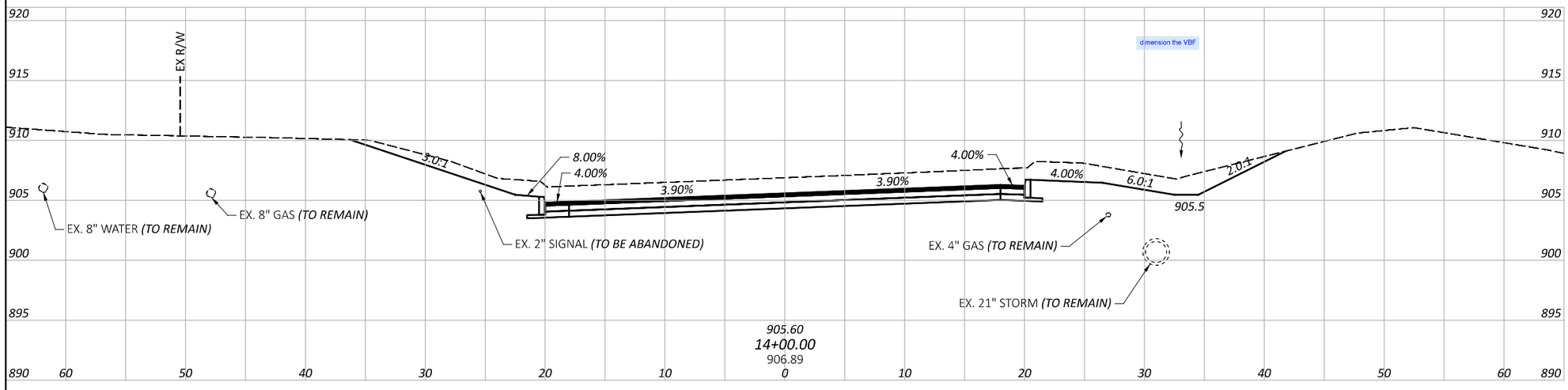
DESIGNER JRS
REVIEWER SHT 08/29/25
PROJECT ID 117275
SHEET P.144 TOTAL 194

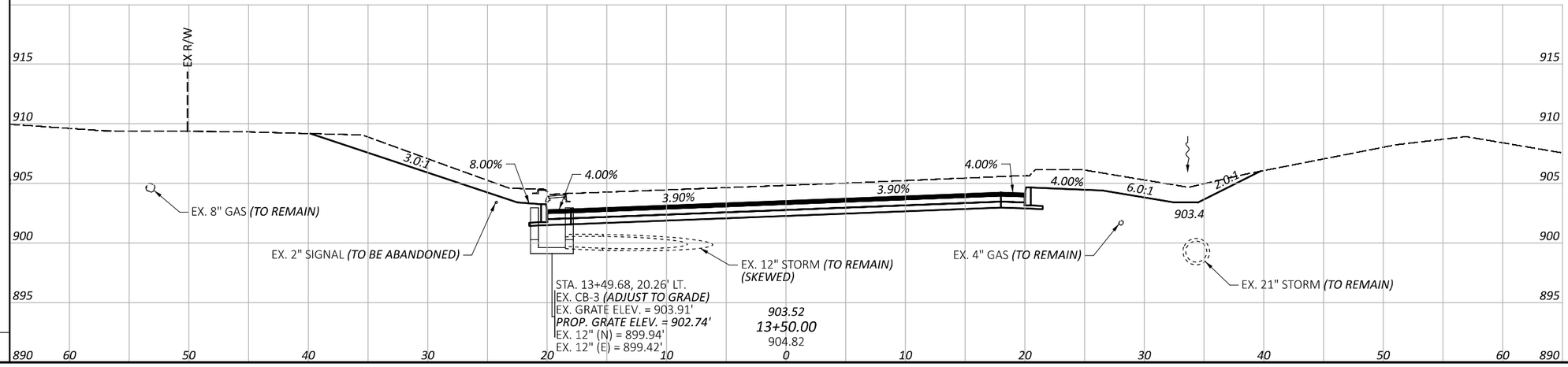
BUT IR 75/VAR 5.22/VAR
SHEET TOTAL

MODEL: CLX_3 - 12+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:17 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn

SEEDING	
END WIDTH	SQ. YDS.







END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			

CROSS SECTIONS - U.S. 27
STA. 13+50.00 TO STA. 14+50.00

BUT IR 75/VAR 5.22/VAR

SHEET TOTAL

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

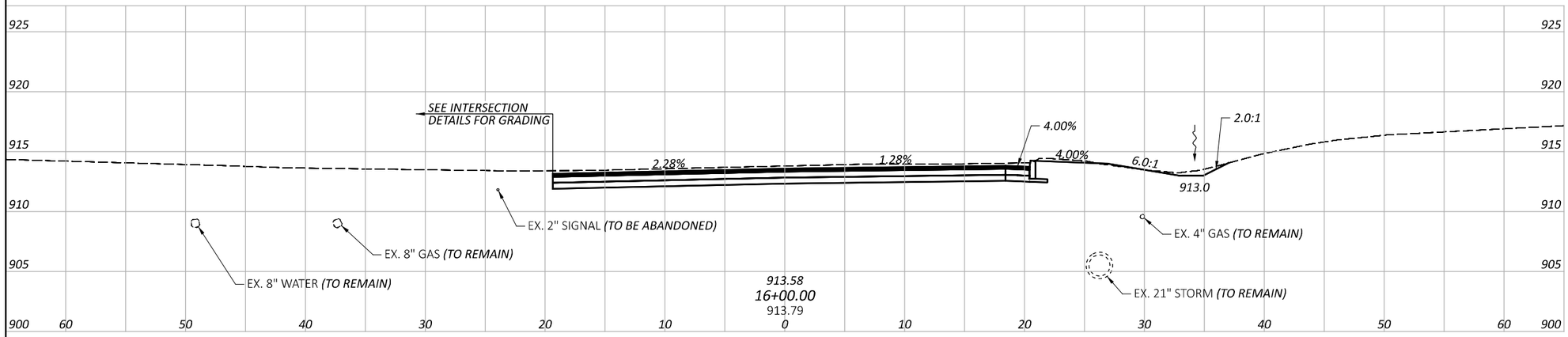
REVIEWER SHT 08/29/25

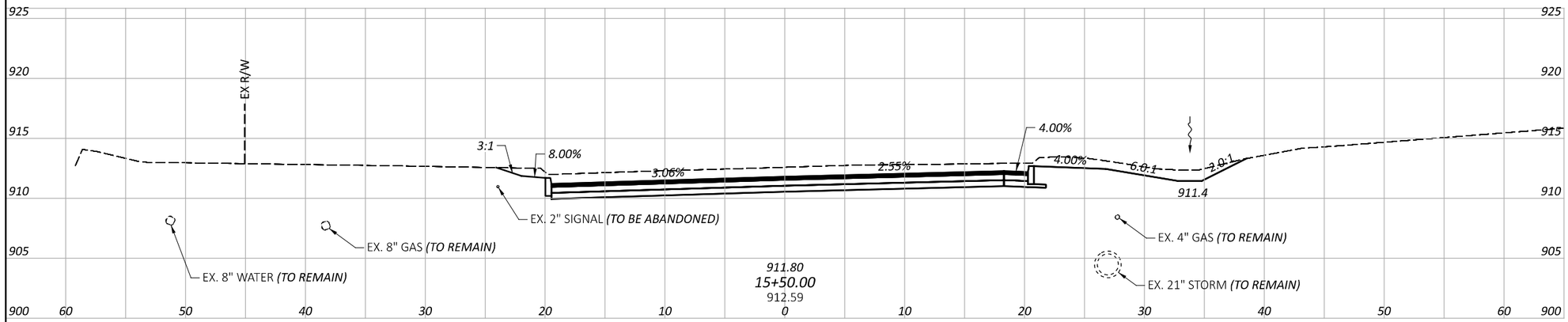
PROJECT ID 117275

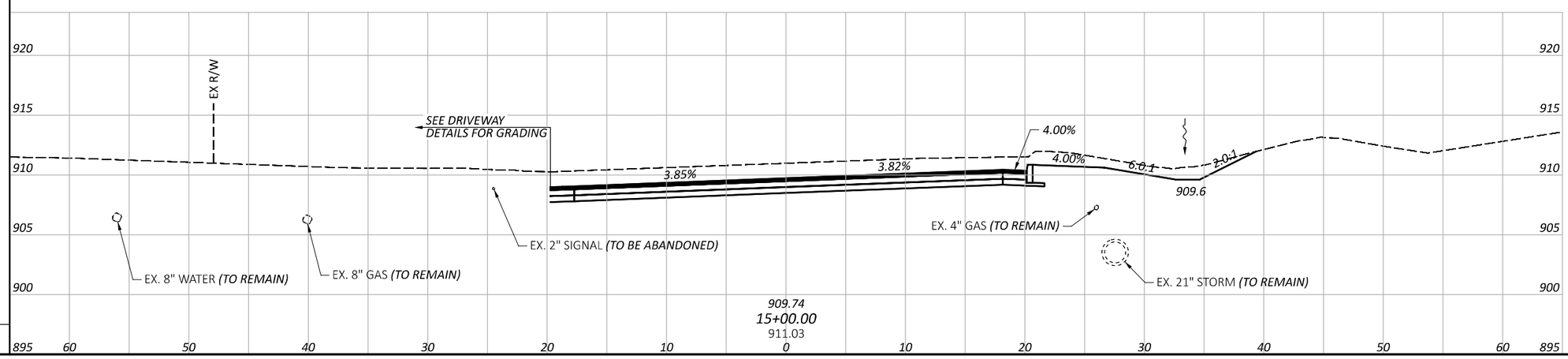
SHEET P.145 TOTAL 194

MODEL: CLX_3 - 13+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:19 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn
WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205

SEEDING	
END WIDTH	SQ. YDS.







END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			

CROSS SECTIONS - U.S. 27
STA. 15+00.00 TO STA. 16+00.00

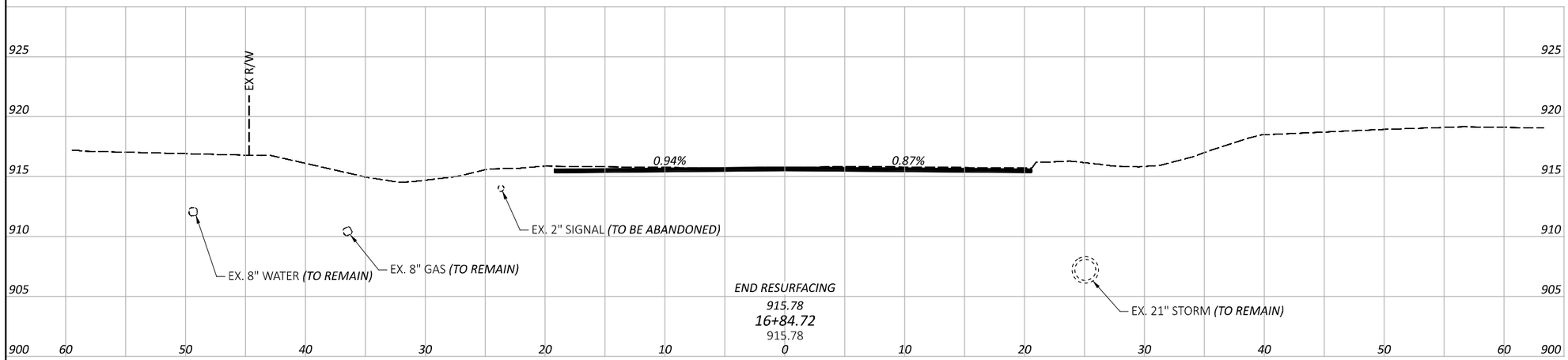
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

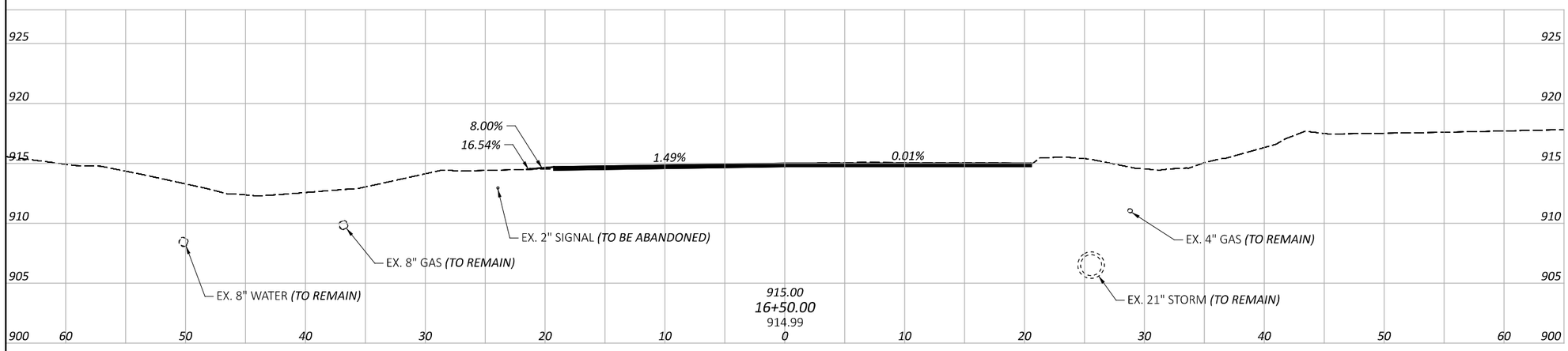
DESIGNER: JRS
REVIEWER: SHT 08/29/25
PROJECT ID: 117275
SHEET: P.146 | TOTAL: 194

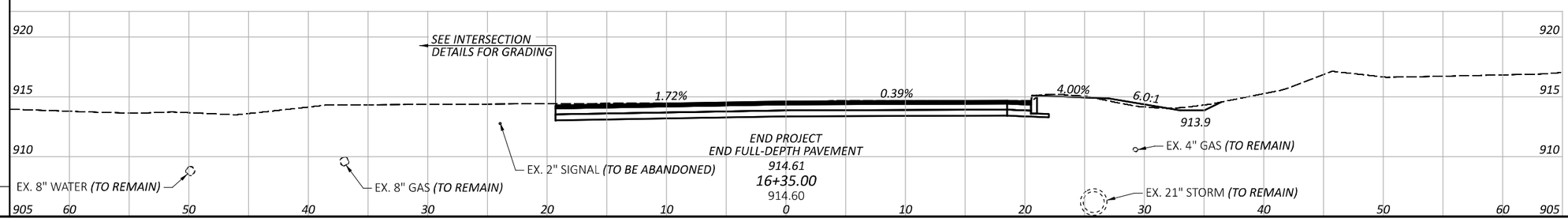
BUT IR 75/VAR 5.22/VAR

MODEL: CLX_3 - 15+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:21 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCivil02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn

SEEDING	
END WIDTH	SQ. YDS.







END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			

CROSS SECTIONS - U.S. 27
STA. 16+35.00 TO STA. 16+84.72

DESIGN AGENCY

CHAGRIN VALLEY ENGINEERING, LTD.

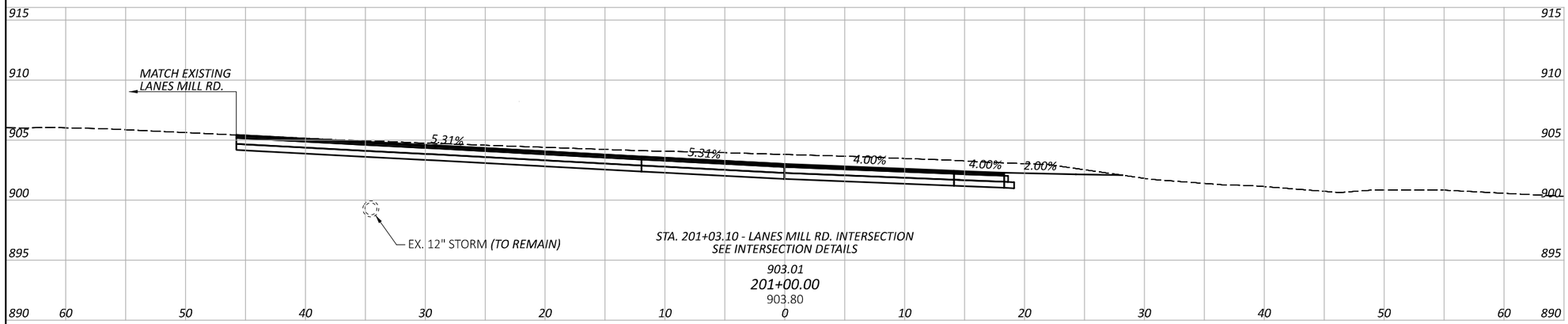
DESIGNER	JRS
REVIEWER	SHT 08/29/25
PROJECT ID	117275
SHEET	P.147
TOTAL	194

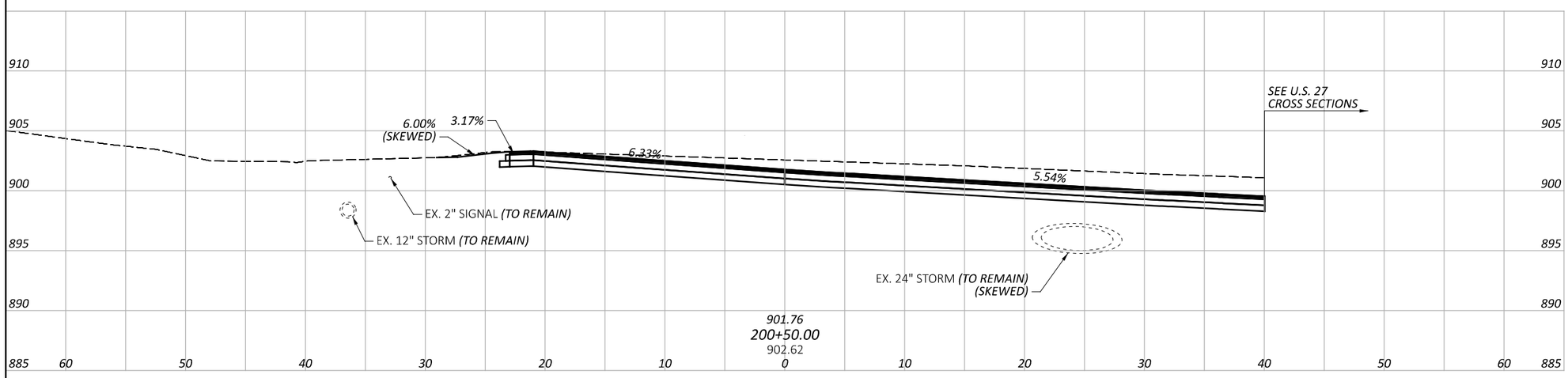
BUT IR 75/VAR 5.22/VAR

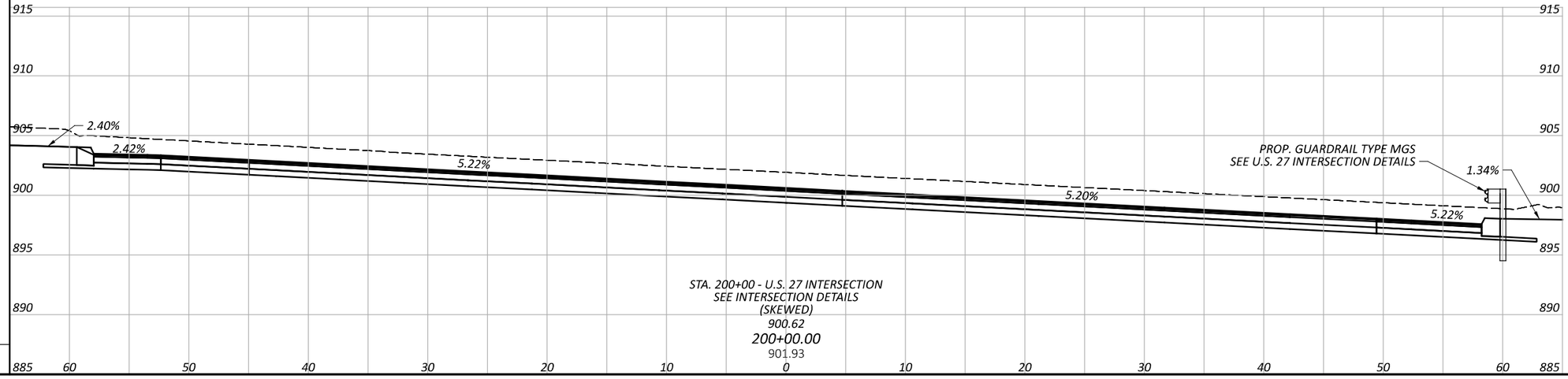
SHEET TOTAL

MODEL: CIX_3 - 16+35.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:23 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEx02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS101.dgn

SEEDING	
END WIDTH	SQ. YDS.







END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
0	0		
		0	0
0	0		
		0	0
0	0		
		0	0
SHEET TOTALS			

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - S.R. 130
STA. 200+00.00 TO STA. 201+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER JRS

REVIEWER SHT 08/29/25

PROJECT ID 117275

SHEET P.148 TOTAL 194

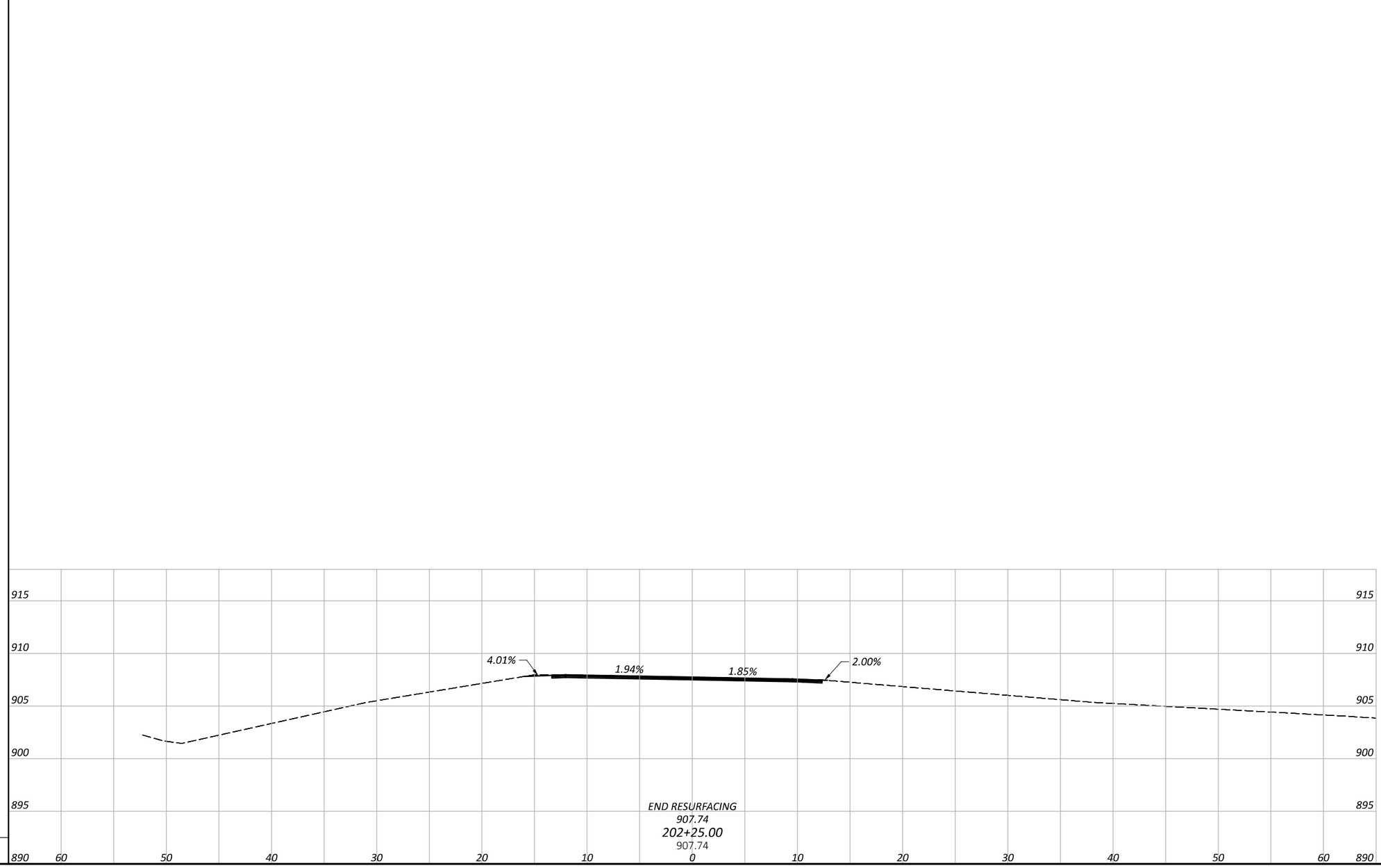
SHEET TOTAL

MODEL: S.R. 130 - 200+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:25 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCivil02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS102.dgn

SEEDING	
END WIDTH	SQ. YDS.

SEEDING	
END WIDTH	SQ. YDS.
SHEET TOTAL	

END AREA		VOLUME	
CUT	FILL	CUT	FILL
0	0		
		0	0
SHEET TOTALS			



CROSS SECTIONS - S.R. 130
STA. 202+25.00

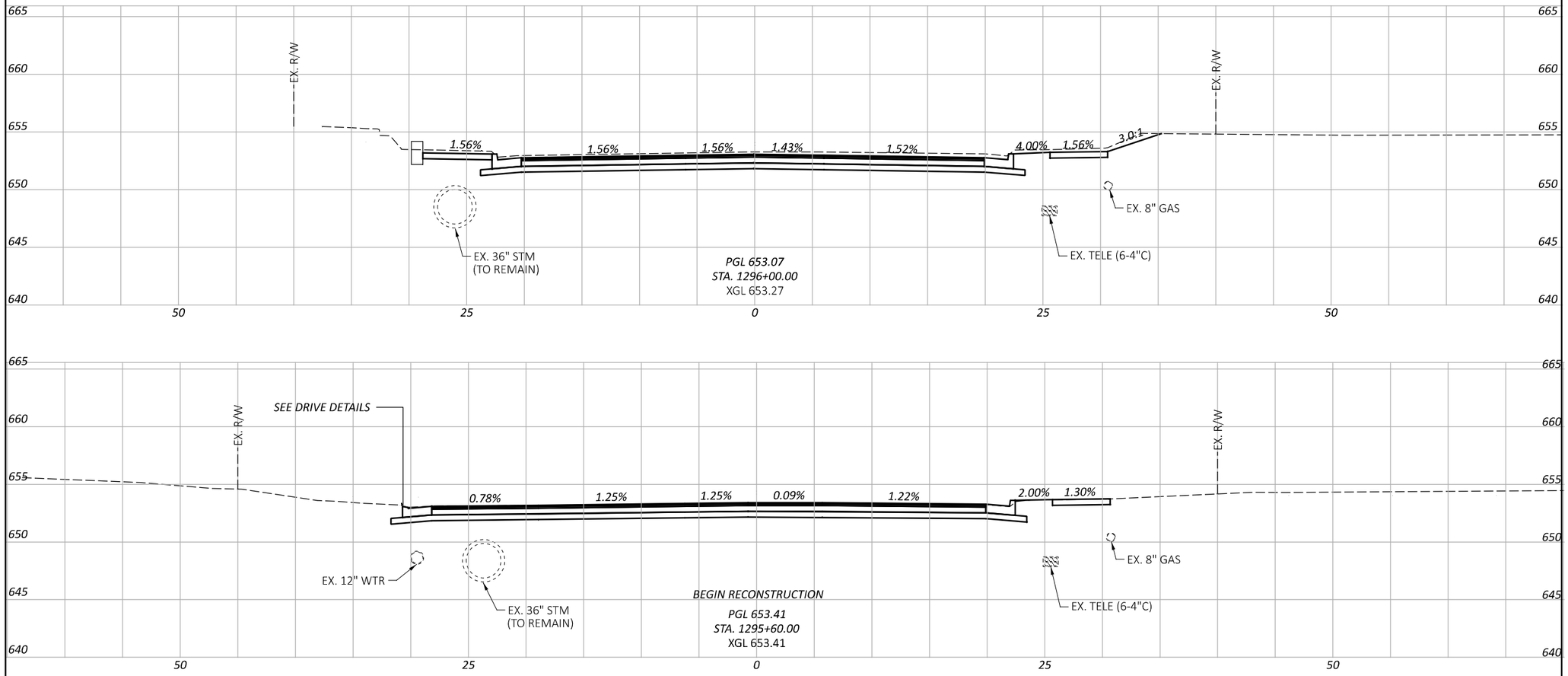
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

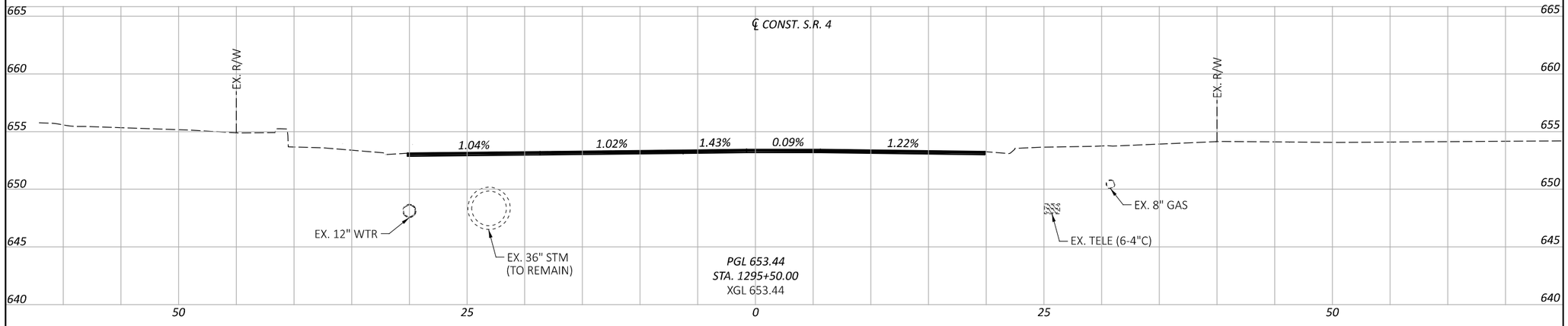
DESIGNER: JRS
REVIEWER: SHT 08/29/25
PROJECT ID: 117275
SHEET P.150 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_16 - 202+25.00 PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:34 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS102.dgn

SEEDING	
END WIDTH	SQ. YDS.





END AREA		VOLUME	
CUT	FILL	CUT	FILL

BUT IR 75/VAR 5.22/VAR

CROSS SECTIONS - S.R. 4
STA. 1295+50.00 TO STA. 1296+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.
DESIGNER: SAF
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.151 TOTAL: 194

SHEET TOTAL

SHEET TOTALS

MODEL: CLP_SR4 15 FT - 1295+60.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:38 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS201.dgn

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL

CROSS SECTIONS - S.R. 4
STA. 1296+50.00 TO STA. 1297+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLP_SR4 15 FT - 1297+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:43 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS201.dgn

SHEET TOTAL

SHEET TOTALS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

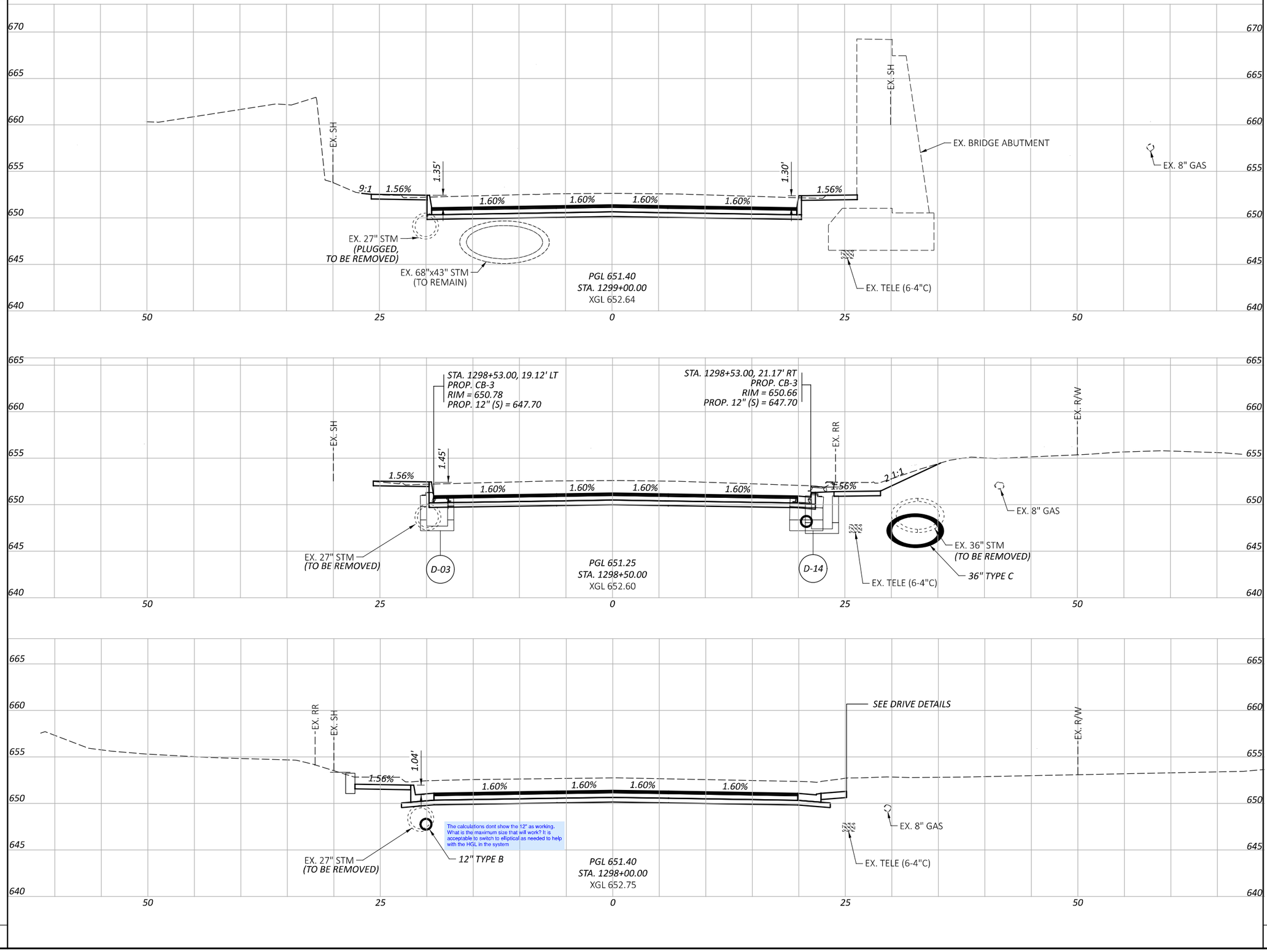
DESIGNER
SAF

REVIEWER
CWP 08/29/25

PROJECT ID
117275

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



CROSS SECTIONS - S.R. 4
STA. 1298+00.00 TO STA. 1299+00.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLP_SR4 15 FT - 1298+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:47 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS201.dgn

SHEET TOTAL

SHEET TOTALS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SAF

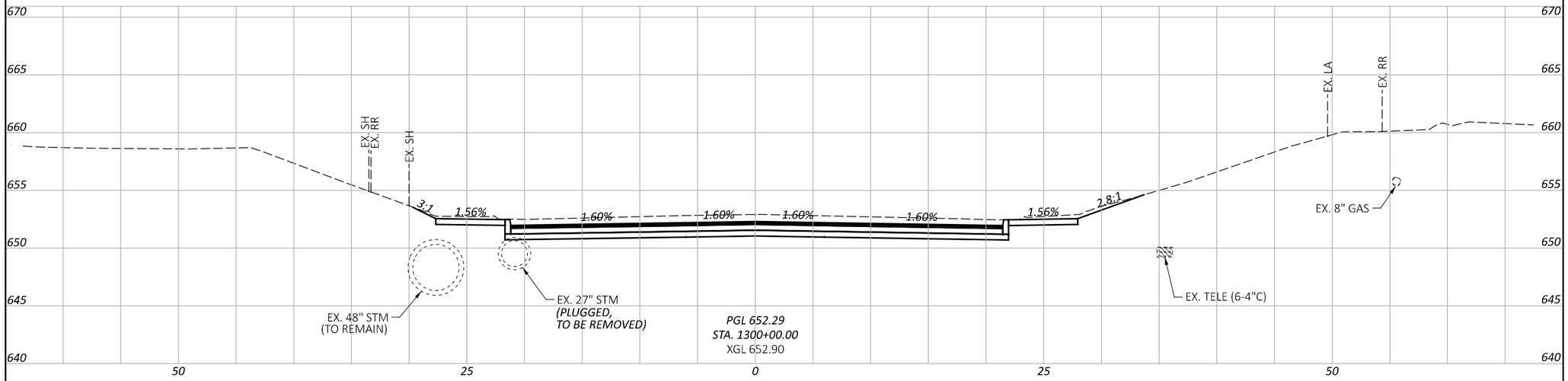
REVIEWER
CWP 08/29/25

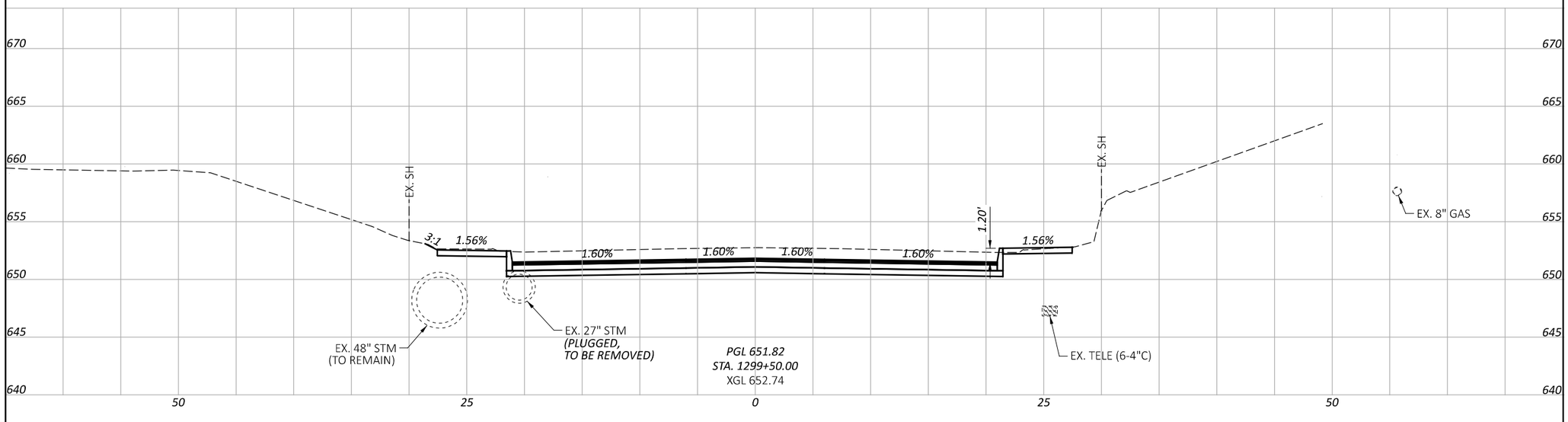
PROJECT ID
117275

SHEET P.153 | TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL





BUT IR 75/VAR 5.22/VAR

MODEL: CLP_SR4 15 FT - 1299+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:51 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS201.dgn

SHEET TOTAL

SHEET TOTALS

CROSS SECTIONS - S.R. 4
STA. 1299+50.00 TO STA. 1300+00.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SAF

REVIEWER
CWP 08/29/25

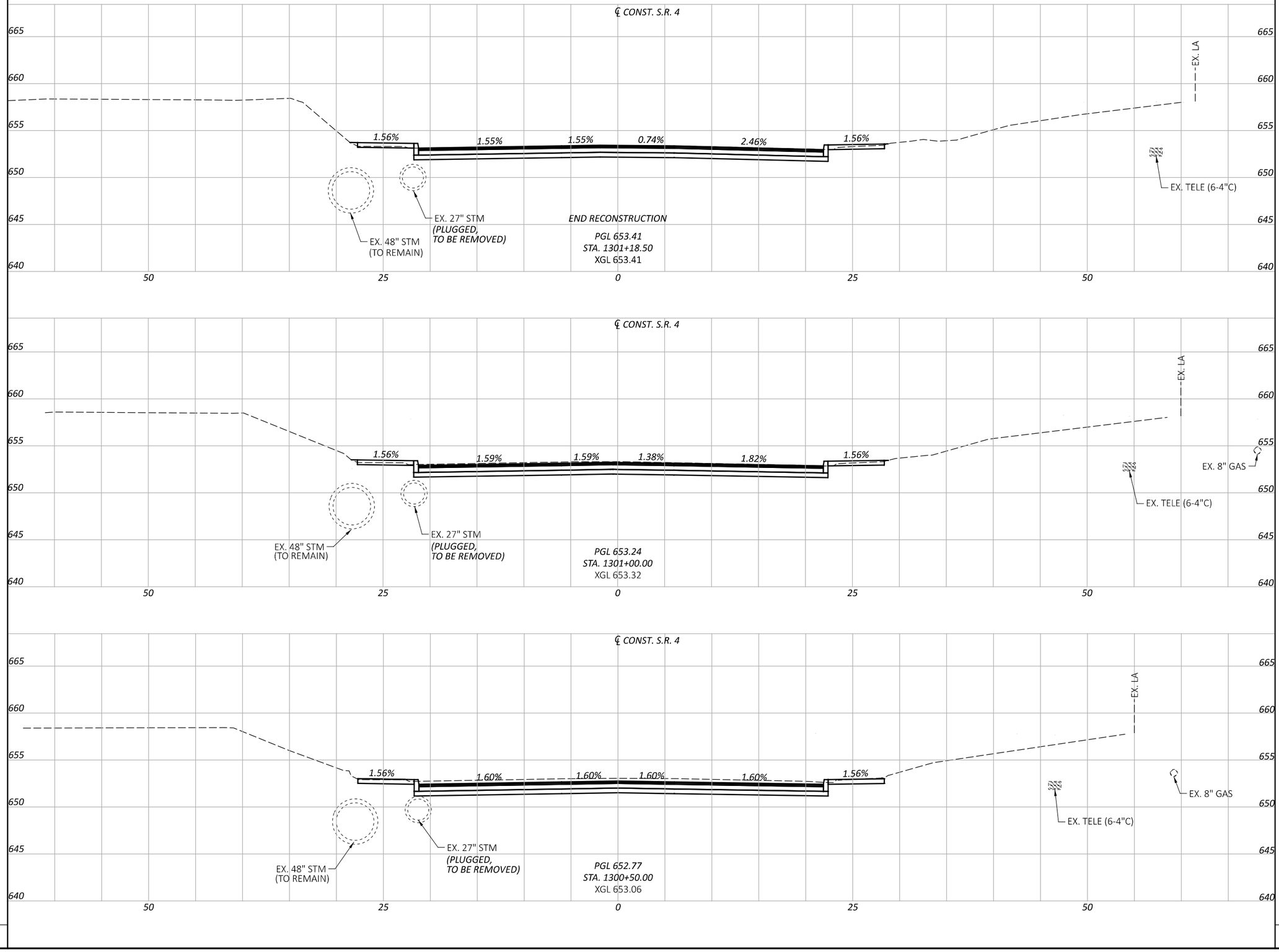
PROJECT ID
117275

SHEET P.154 | TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL



CROSS SECTIONS - S.R. 4
STA. 1300+50.00 TO STA. 1301+18.50

BUT IR 75/VAR 5.22/VAR

SHEET TOTAL

SHEET TOTALS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SAF

REVIEWER
CWP 08/29/25

PROJECT ID
117275

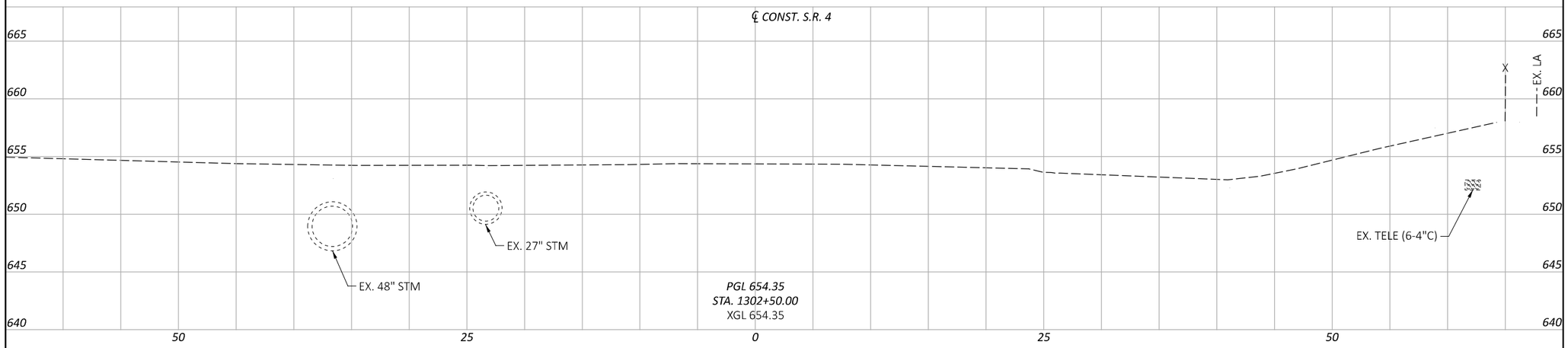
SHEET P.155 | TOTAL 194

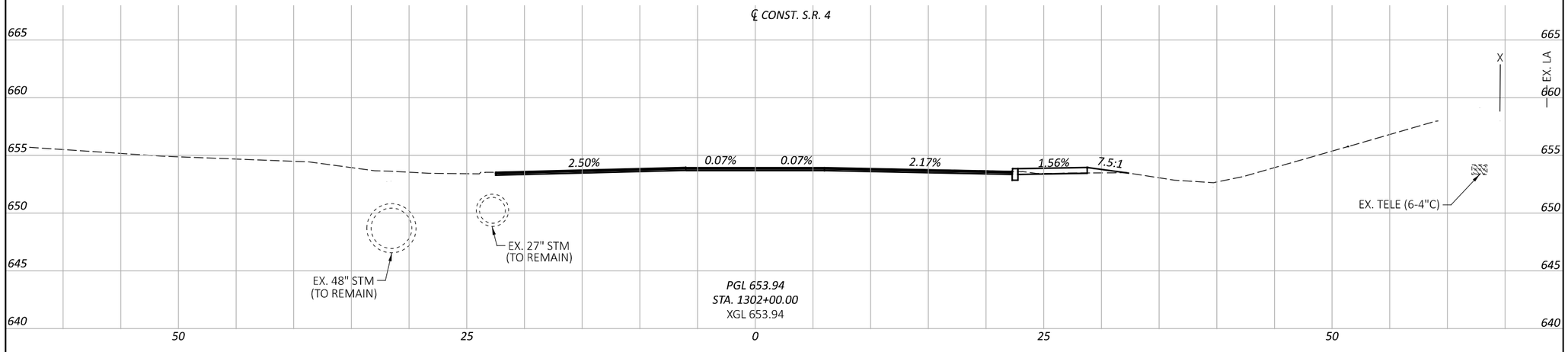
MODEL: CLP_SR4 15 FT - 1300+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:54 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\V00-Engineering\Roadway\Sheets\117275_XS201.dgn

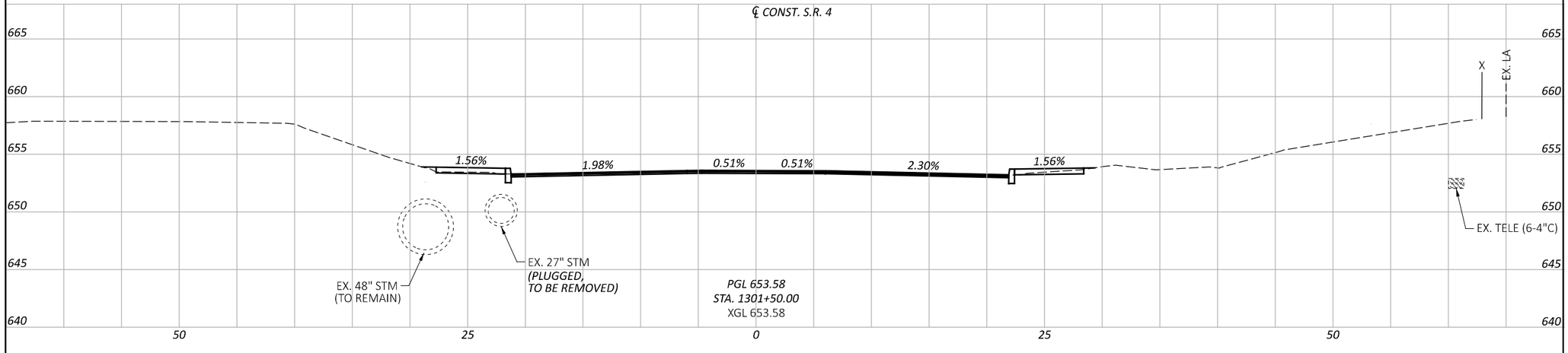
SEEDING	
END WIDTH	SQ. YDS.

END AREA	
CUT	FILL

VOLUME	
CUT	FILL







CROSS SECTIONS - S.R. 4
STA. 1301+50.00 TO STA. 1302+50.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLP_SR4 15 FT - 1302+00.00 |Sheet| PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:36:56 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_XS201.dgn

SHEET TOTAL

SHEET TOTALS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	
SAF	
REVIEWER	
CWP 08/29/25	
PROJECT ID	
117275	
SHEET	TOTAL
P.156	194

LEFT SIDE								U.S. 27			RIGHT SIDE							
	PAVEMENT							PROFILE GRADE			PAVEMENT							
LEFT REMARKS	PROPOSED EOP ELEVATION	PROPOSED CROSS-SLOPE (%)	LANE WIDTH (FEET)	PROPOSED EDGE OF LANE ELEVATION	CROSS SLOPE TRANSITION VALUES	PROPOSED CROSS-SLOPE (%)	TURN LANE/TRANSVERSE WIDTH (FEET)	CENTERLINE STATION	PROFILE GRADE	LONGITUDINAL SLOPE	TURN LANE/TRANSVERSE WIDTH (FEET)	PROPOSED CROSS-SLOPE (%)	CROSS SLOPE TRANSITION VALUES	PROPOSED EDGE OF LANE ELEVATION	LANE WIDTH (FEET)	PROPOSED CROSS-SLOPE (%)	PROPOSED EOP ELEVATION	RIGHT REMARKS
	891.56	-1.60%	12.00	891.76		-1.60%	0.00	05+50.00	891.76	-0.12%	0.00	-1.60%		891.76	12.00	-1.60%	891.56	
	891.53	-1.60%	12.00	891.73		-1.60%	0.00	05+75.00	891.73	-0.22%	0.00	-1.60%		891.73	12.00	-1.60%	891.53	
	891.48	-1.60%	12.00	891.67		-1.60%	0.00	06+00.00	891.67	-0.33%	0.00	-1.60%		891.67	12.00	-1.60%	891.48	
	891.40	-1.60%	12.00	891.59		-1.60%	0.00	06+25.00	891.59	-0.44%	0.00	-1.60%		891.59	12.00	-1.60%	891.40	
	891.29	-1.60%	12.00	891.48		-1.60%	0.00	06+50.00	891.48	-0.48%	0.00	-1.60%		891.48	12.00	-1.60%	891.29	
	891.17	-1.60%	12.00	891.36		-1.60%	0.00	06+75.00	891.36	-0.48%	0.00	-1.60%		891.36	12.00	-1.60%	891.17	
	891.05	-1.60%	12.00	891.24		-1.60%	0.00	07+00.00	891.24	-0.48%	0.00	-1.60%		891.24	12.00	-1.60%	891.05	
	890.93	-1.60%	12.00	891.12		-1.60%	0.00	07+25.00	891.12	-0.48%	0.00	-1.60%		891.12	12.00	-1.60%	890.93	
	890.81	-1.60%	12.00	891.00		-1.60%	0.00	07+50.00	891.00	-0.48%	0.00	-1.60%		891.00	12.00	-1.60%	890.81	
	890.69	-1.60%	12.00	890.88		-1.60%	0.00	07+75.00	890.88	-0.48%	0.00	-1.60%		890.88	12.00	-1.60%	890.69	
	890.57	-1.60%	12.00	890.76		-1.60%	0.00	08+00.00	890.76	-0.48%	0.00	-1.60%		890.76	12.00	-1.60%	890.57	
	890.45	-1.60%	12.00	890.64		-1.60%	0.00	08+25.00	890.64	-0.40%	0.00	-1.60%		890.64	12.00	-1.60%	890.45	
	890.35	-1.60%	12.00	890.54		-1.60%	0.00	08+50.00	890.54	-0.10%	0.00	-1.60%		890.54	12.00	-1.60%	890.35	
	890.32	-1.60%	12.00	890.52		-1.60%	0.00	08+75.00	890.52	0.21%	0.00	-1.60%		890.52	12.00	-1.60%	890.32	
	890.38	-1.60%	12.00	890.57		-1.60%	0.00	09+00.00	890.57	0.53%	0.00	-1.60%		890.57	12.00	-1.60%	890.38	
	890.51	-1.60%	12.00	890.70		-1.60%	0.00	09+25.00	890.70	0.84%	0.00	-1.60%		890.70	12.00	-1.60%	890.51	
	890.72	-1.60%	12.00	890.91		-1.60%	0.00	09+50.00	890.91	1.15%	0.00	-1.60%		890.91	12.00	-1.60%	890.72	
	891.01	-1.60%	12.00	891.20		-1.60%	0.00	09+75.00	891.20	1.46%	0.00	-1.60%		891.20	12.00	-1.60%	891.01	
	891.22	-1.60%	12.00	891.41		-1.60%	0.00	09+90.00	891.41	1.58%	0.00	-1.60%	<-- G = 186, L = 153 w = 12, n1 = 1.5, ed = 0.039, bw = 0.83 -->	891.41	12.00	-1.60%	891.22	END NORMAL CROWN
	891.37	-1.60%	12.00	891.56		-1.60%	0.00	10+00.00	891.56	1.78%	0.00	-1.24%		891.56	12.00	-1.24%	891.42	
	891.82	-1.60%	12.00	892.01		-1.60%	0.00	10+25.00	892.01	2.09%	0.00	-0.34%		892.01	12.00	-0.34%	891.97	
	892.34	-1.60%	12.00	892.53		-1.60%	0.00	10+50.00	892.53	2.40%	0.00	0.56%		892.53	12.00	0.56%	892.60	
	892.94	-1.60%	12.00	893.13		-1.60%	0.00	10+75.00	893.13	2.71%	0.00	1.46%		893.13	12.00	1.46%	893.31	
REMOVE CROWN (RC)	893.04	-1.60%	12.00	893.23	<-- G = -186, L = 64 w = 12, n1 = 1.5, ed = 0.039, bw = 0.83 -->	-1.60%	0.00	10+79.00	893.23	2.89%	0.00	1.60%		893.23	12.00	1.60%	893.43	REMOVE CROWN (RC)
PC STATION	893.40	-2.17%	12.00	893.66		-2.17%	0.00	10+94.86	893.66	3.11%	0.00	2.17%		893.66	12.00	2.17%	893.92	PC STATION
	893.47	-2.26%	12.00	893.74		-2.26%	0.00	10+97.50	893.74	3.12%	0.00	2.26%		893.74	12.00	2.26%	894.01	
	893.52	-2.35%	12.00	893.81		-2.35%	0.07	11+00.00	893.81	3.03%	0.07	2.35%		893.81	12.00	2.35%	894.24	
	894.15	-3.25%	12.00	894.54		-3.25%	0.81	11+25.00	894.57	3.34%	0.81	3.25%		894.59	12.00	3.25%	895.19	
BEGIN FULL SUPER	894.64	-3.90%	12.00	895.11		-3.90%	1.35	11+43.00	895.16	3.61%	1.35	3.90%		895.21	12.00	3.90%	895.94	BEGIN FULL SUPER
	894.87	-3.90%	12.00	895.34		-3.90%	1.56	11+50.00	895.40	3.65%	1.56	3.90%		895.46	12.00	3.90%	896.07	
	895.76	-3.90%	12.00	896.22		-3.90%	2.30	11+75.00	896.31	3.96%	2.30	3.90%		896.40	12.00	3.90%	897.00	
	896.72	-3.90%	12.00	897.19		-3.90%	3.04	12+00.00	897.30	4.15%	3.04	3.90%		897.42	12.00	3.90%	898.01	INTERSECTION
	897.73	-3.90%	12.00	898.19		-3.90%	3.78	12+25.00	898.34	4.15%	3.78	3.90%		898.49	12.00	3.90%	899.04	INTERSECTION
	898.73	-3.90%	12.00	899.20		-3.90%	4.52	12+50.00	899.38	4.15%	4.52	3.90%		899.55	12.00	3.90%	900.08	INTERSECTION
	899,74	-3.90%	12,00	900,21		-3.90%	5,26	12+75,00	900,41	4,15%	5,26	3,90%		900,62	12,00	3,90%	901,12	INTERSECTION
	900.75	-3.90%	12.00	901.22		-3.90%	6.00	13+00.00	901.45	4.15%	6.00	3.90%		901.68	12.00	3.90%	902.15	INTERSECTION
	901.78	-3.90%	12.00	902.25		-3.90%	6.00	13+25.00	902.49	4.15%	6.00	3.90%		902.72	12.00	3.90%	903.19	
	902.82	-3.90%	12.00	903.29		-3.90%	6.00	13+50.00	903.52	4.15%	6.00	3.90%		903.76	12.00	3.90%	904.23	
	903.86	-3.90%	12.00	904.33		-3.90%	6.00	13+75.00	904.56	4.15%	6.00	3.90%		904.79	12.00	3.90%	905.26	
	904.89	-3.90%	12.00	905.36		-3.90%	6.00	14+00.00	905.60	4.15%	6.00	3.90%		905.83	12.00	3.90%	906.30	
	905.93	-3.90%	12.00	906.40		-3.90%	6.00	14+25.00	906.63	4.15%	6.00	3.90%		906.87	12.00	3.90%	907.34	
	906.97	-3.90%	12.00	907.44		-3.90%	6.00	14+50.00	907.67	4.15%	6.00	3.90%		907.90	12.00	3.90%	908.37	
	908.00	-3.90%	12.00	908.47		-3.90%	6.00	14+75.00	908.71	4.15%	6.00	3.90%		908.94	12.00	3.90%	909.41	
END FULL SUPER	908.92	-3.90%	12.00	909.38		-3.90%	6.00	14+97.00	909.62	4.15%	6.00	3.90%		909.85	12.00	3.90%	910.32	END FULL SUPER
	909.05	-3.85%	12.00	909.51		-3.85%	6.00	15+00.00	909.74	4.15%	6.00	3.82%		909.97	12.00	3.82%	910.43	
	910.16	-3.46%	12.00	910.57		-3.46%	6.00	15+25.00	910.78	4.08%	6.00	3.19%		910.97	12.00	3.19%	911.35	
PT STATION	910.80	-3.23%	12.00	911.19		-3.23%	6.00	15+39.62	911.38	3.82%	6.00	2.82%		911.55	12.00	2.82%	911.89	PT STATION
	911.19	-3.06%	14.00	911.62		-3.06%	6.00	15+50.00	911.80	3.74%	6.00	2.55%		911.95	12.00	2.55%	912.26	
	912.20	-2.67%	14.00	912.57		-2.67%	6.00	15+75.00	912.73	3.38%	6.00	1.92%		912.85	12.00	1.92%	913.08	
	913.12	-2.28%	14.00	913.44		-2.28%	6.00	16+00.00	913.58	3.02%	6.00	1.28%		913.66	12.00	1.28%	913.81	
	913.96	-1.88%	14.00	914.22		-1.88%	6.00	16+25.00	914.33	2.65%	6.00	0.65%		914.37	12.00	0.65%	914.45	
	914.70	-1.49%	14.00	914.91		-1.49%	6.00	16+50.00	915.00	2.30%	6.00	0.01%		915.00	14.00	0.01%	915.00	
	915.35	-1.09%	14.00	915.50		-1.09%	6.00	16+75.00	915.57	2.24%	6.00	-0.62%		915.53	14.00	-0.62%	915.45	
MATCH EXISTING CROSS SLOPE	915.59	-0.94%	14.00	915.73	<-- G = -261, Lr = 187.72 w = 12, n1 = 1.5, ed = 0.039, bw = 0.83 -->	-0.94%	6.00	16+84.72	915.78	2.22%	6.00	-0.87%	<-- G = -263, Lr = 187.72 w = 12, n1 = 1.5, ed = 0.039, bw = 0.83 -->	915.73	14.00	-0.87%	915.61	MATCH EXISTING CROSS SLOPE

SUPERELEVATION TABLE
U.S. 27

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT

REVIEWER SDK 08/29/25

PROJECT ID 117275

SHEET P.157 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: Sheet_SurvRt PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:00 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\00-Engineering\Roadway\Sheets\117275_GE101.dgn

S.R. 130												
	PAVEMENT				PROFILE GRADE			PAVEMENT				
LEFT REMARKS	PROPOSED EOP ELEVATION	CROSS SLOPE TRANSITION VALUES	PROPOSED CROSS-SLOPE (%)	LANE WIDTH (FEET)	CENTERLINE STATION	PROFILE GRADE	LONGITUDINAL SLOPE	LANE WIDTH (FEET)	CROSS SLOPE TRANSITION VALUES	PROPOSED CROSS-SLOPE (%)	PROPOSED EOP ELEVATION	RIGHT REMARKS
					200+00.00	900.62	2.28%					
					200+18.27	901.04	2.28%					
					200+25.00	901.19	2.28%					
	SEE INTERSECTION DETAILS				200+50.00	901.76	2.28%	SEE INTERSECTION DETAILS				
					200+75.00	902.33	2.71%					
					201+00.00	903.01	3.37%					
					201+18.00	903.60	3.94%	13.00		-4.00%	903.08	
	904.55		4.00%	17.51	201+25.00	903.85	4.03%	12.66		-4.00%	903.34	
	905.50		4.00%	16.12	201+50.00	904.86	4.40%	11.77		-4.00%	904.39	
BEGIN TRANSITION	906.22	<-- G = 160, Lr = 138.80 w = 12, n1 = 1.5, ed = 0.04, bw = 0.83 -->	4.00%	15.20	201+67.02	905.61	4.15%	11.57	<-- G = 362, Lr = 314.02 w = 12, n1 = 1.5, ed = 0.04, bw = 0.83 -->	-4.00%	905.14	BEGIN TRANSITION
	906.51		3.72%	14.76	201+75.00	905.96	4.07%	11.47		-3.84%	905.52	
	907.36		2.83%	13.39	202+00.00	906.98	3.07%	11.34		-3.35%	906.60	
MATCH EXISTING CROSS SLOPE	907.98		1.95%	12.03	202+25.00	907.74	2.74%	9.52		-2.85%	907.47	MATCH EXISTING CROSS SLOPE

BUT IR 75/VAR 5.22/VAR

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:01 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Roadway\Sheets\117275_GE102.dgn

SUPERELEVATION TABLE
S.R. 130

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SHT

REVIEWER
SDK 08/29/25

PROJECT ID
117275

SHEET P.158 | TOTAL 194

D-9 EX. MH3-48 *(RECONSTRUCT TO GRADE)*
STA. 13+00.45, 38.8' RT.
EX. RIM ELEV. = 903.03
PROP. RIM ELEV. = 902.12

D-8 EX. *CB-3 (RECONSTRUCT TO GRADE)*
STA. 13+49.68, 20.3' LT.
EX. GRATE ELEV. = 903.91
PROP. GRATE ELEV. = 902.74

HORIZONTAL SCALE IN FEET
0 5 10 20

EX. CB 2-2B
STA. 13+00.83, 50.49' RT.
GRATE ELEV. = 903.43

EX. CB 2-2B
STA. 201+16.50, 36.3' LT.
GRATE ELEV. = 902.66

EX. CB 2-2B
STA. 200+84.11, 39.0' RT.
GRATE ELEV. = 899.16

EX. CB 2-2B
STA. 11+99.78, 40.1' RT.
GRATE ELEV. = 897.76

STA. 12+80.00, ℄ CONST. U.S. 27 =
STA. 200+00.00, ℄ CONST.
OLD OXFORD ROAD (S.R. 130)

STA. 201+03.10, ℄ CONST.
OLD OXFORD ROAD (S.R. 130) =
STA. 300+00.00, ℄ CONST. LANES MILL ROAD

℄ CONST. LANES MILL ROAD

℄ CONST. U.S. 27

℄ CONST. OLD OXFORD ROAD (S.R. 130)

EX. 12" STM.
EX. 21" STM.
EX. 18" STM.
EX. 24" STM.
EX. 12" STM.
EX. 24" STM.

N87°51'20"E
N12°08'40"W
S48°39'53"E

C1 C2 C3 C4 C5 C6

CURVE DATA
Δ = 43°42'06"
R = 39.00'
L = 29.75'
U.S. 27 ℄ CONST. STA. 13+22.10, 57.0' RT. =
S.R. 130 ℄ CONST. STA. 200+38.96, 59.6' LT.

CURVE DATA
Δ = 28°14'35"
R = 45.00'
L = 22.18'
U.S. 27 ℄ CONST. STA. 13+26.14, 61.3' RT. =
S.R. 130 ℄ CONST. STA. 200+41.57, 65.0' LT.

CURVE DATA
Δ = 103°33'10"
R = 55.00'
L = 99.40'
U.S. 27 ℄ CONST. STA. 11+85.12, 69.6' RT. =
S.R. 130 ℄ CONST. STA. 201+03.33, 69.2' RT.

CURVE DATA
Δ = 62°47'09"
R = 34.00'
L = 37.26'
U.S. 27 ℄ CONST. STA. 13+15.94, 57.9' RT. =
S.R. 130 ℄ CONST. STA. 200+42.04, 54.0' LT.

CURVE DATA
Δ = 58°55'56"
R = 25.00'
L = 25.71'
S.R. 130 ℄ CONST. STA. 201+24.62, 42.6' LT. =
LANES MILL ROAD ℄ CONST. STA. 300+31.54, 37.5' RT.

CURVE DATA
Δ = 41°44'33"
R = 119.59'
L = 87.13'
U.S. 27 ℄ CONST. STA. 11+24.21, 53.5' RT. =
S.R. 130 ℄ CONST. STA. 201+74.61, 131.1' RT.

INTERSECTION DETAIL U.S. 27 AND S.R. 130

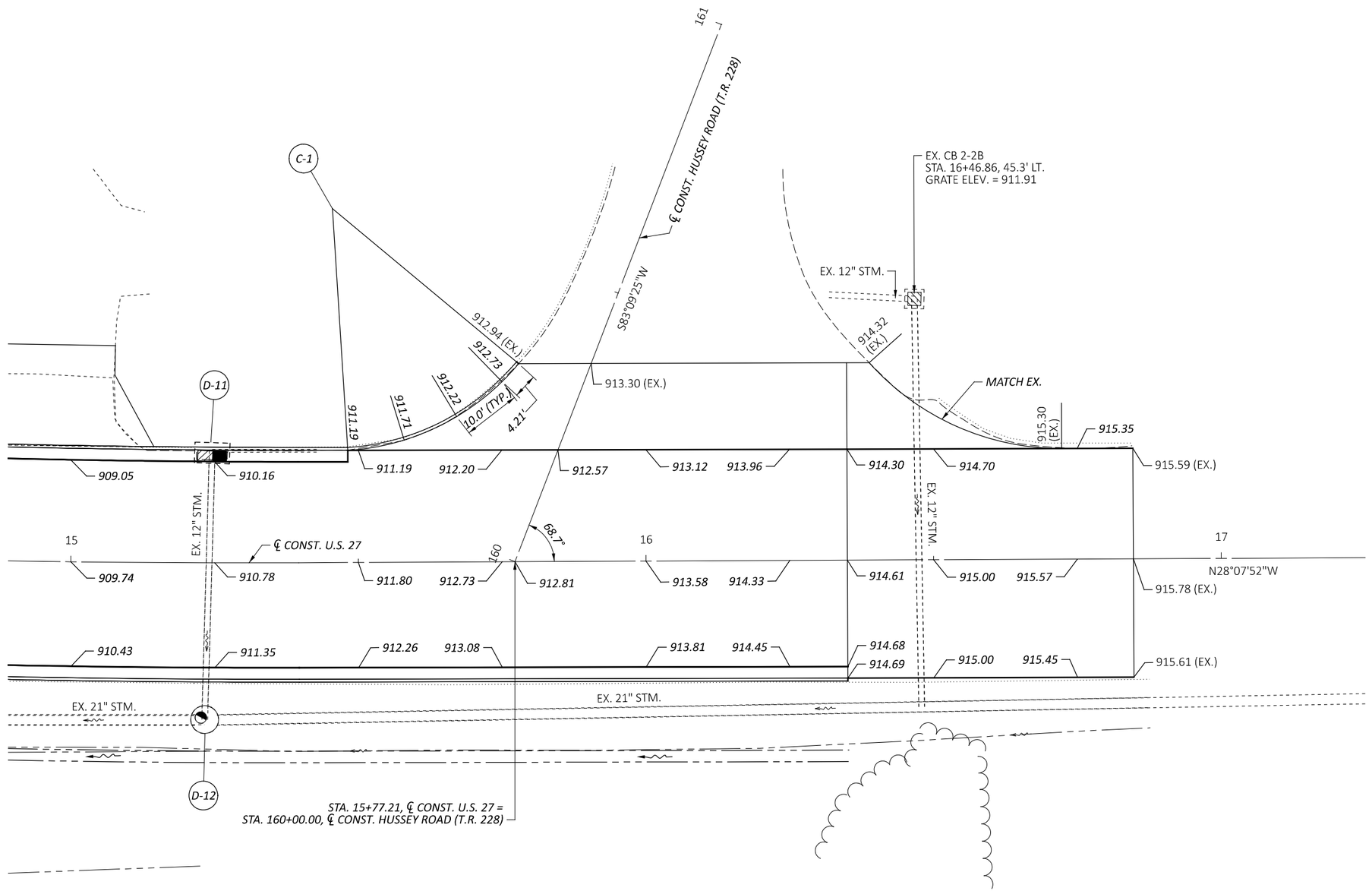
BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER SHT
REVIEWER SDK 08/29/25
PROJECT ID 117275
SHEET P.159 TOTAL 194

MODEL: Sheet_SurvFt PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:03 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com
P:\23365 - ODOT - BUT-75-5.22\117275\00-Engineering\Roadway\Sheets\117275_GI101.dgn

C-1 *CURVE DATA*
Δ = 46°36'21"
R = 42.10'
L = 34.24'
U.S. 27 ℄ CONST. STA. 15+45.78, 61.5' LT, =
HUSSEY ROAD ℄ CONST. STA. 160+45.90, 51.6' LT.



D-11 EX. CB-3 *(RECONSTRUCT TO GRADE)*
STA. 15+24.55, 19.4' LT.
EX. GRATE ELEV. = 911.08'
PROP. GRATE ELEV. = 909.88'

D-12 EX. MH 3-48 *(RECONSTRUCT TO GRADE)*
STA. 15+23.33, 27.2' RT.
EX. GRATE ELEV. = 912.15'
PROP. GRATE ELEV. = 911.47'

NOTE: ALL ELEVATIONS ALONG THE CURB ARE BOTTOM OF CURB ELEVATIONS. ADD 6" IN AREAS OF FULL HEIGHT CURB TO OPTAIN TOP OF CURB ELEVATIONS.

HORIZONTAL SCALE IN FEET
0 5 10 20

INTERSECTION DETAIL U.S. 27 AND HUSSEY ROAD

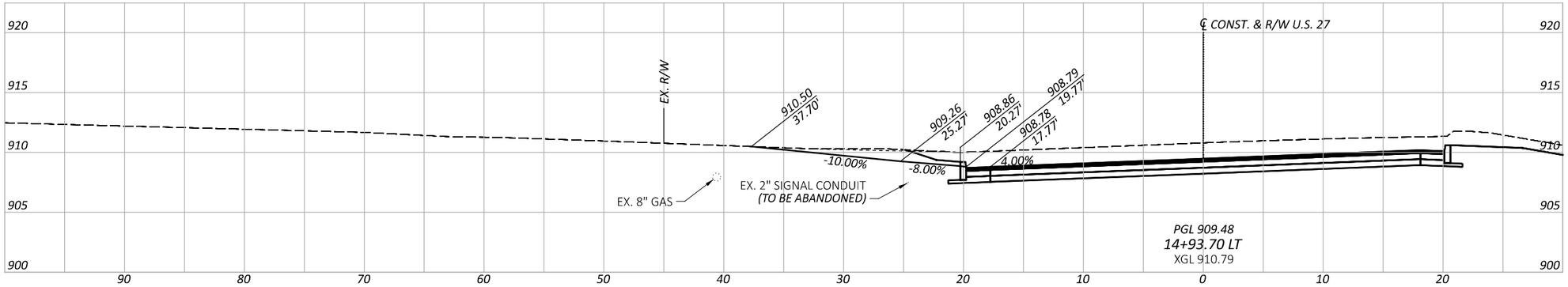
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

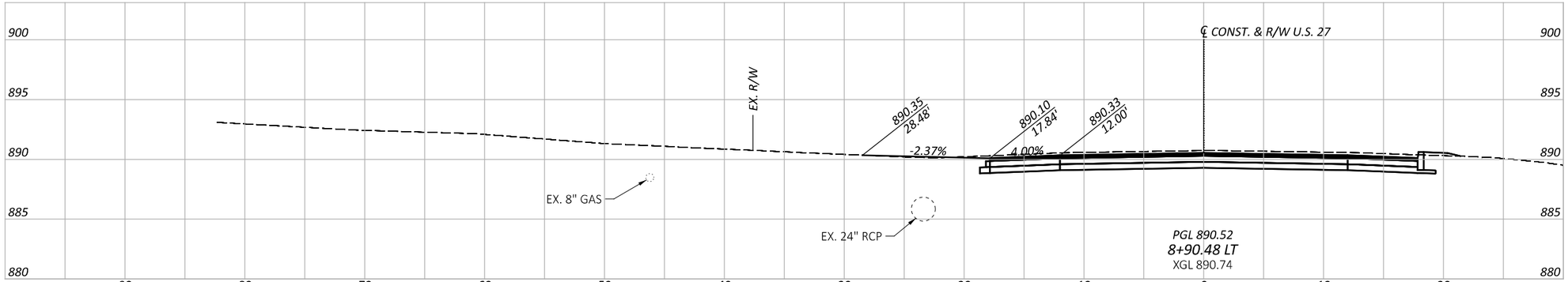
DESIGNER SHT
REVIEWER SDK 08/29/25
PROJECT ID 117275
SHEET P.160 TOTAL 194

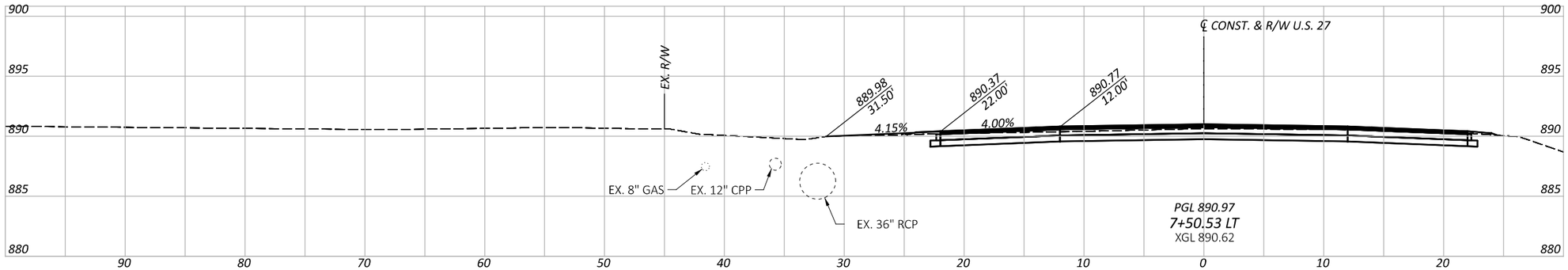
BUT IR 75/VAR 5.22/VAR

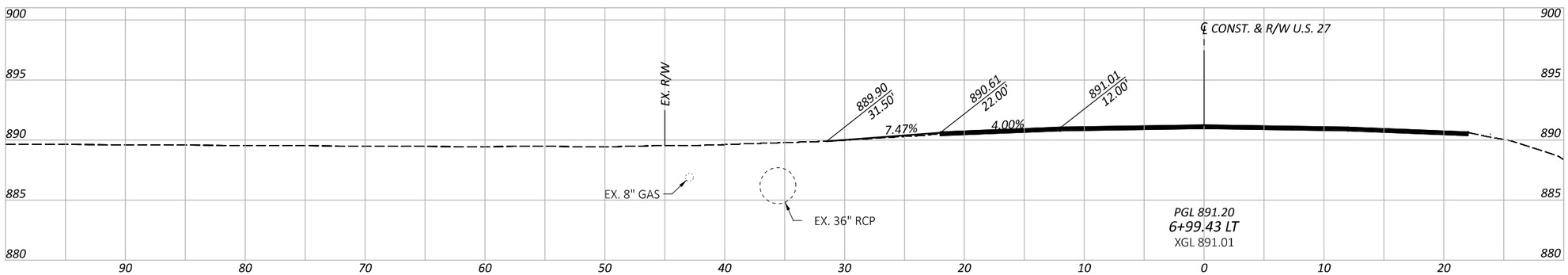
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SEEDING	
END WIDTH	SQ. YDS.









END AREA		VOLUME	
CUT	FILL	CUT	FILL

DRIVE PROFILES
U.S. 27

BUT IR 75/VAR 5.22/VAR

MODEL: DRIVE PROFILES - U.S. 27 PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:10 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.205
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SHEET TOTAL	

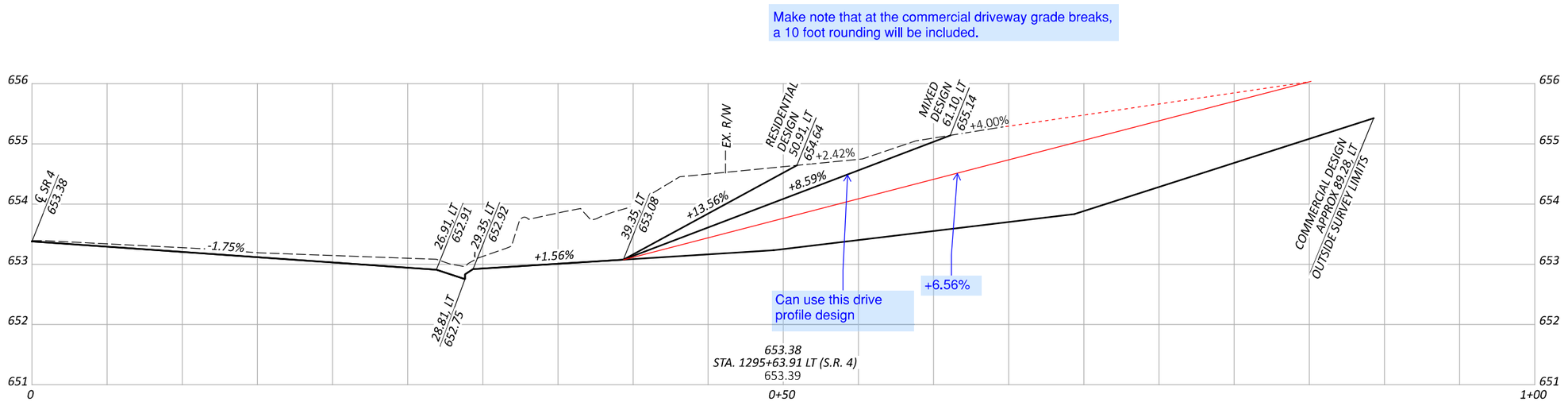
SHEET TOTALS			

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
RHB
REVIEWER
SHT 08/29/25
PROJECT ID
117275
SHEET P.161 | TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL



DRIVE PROFILES
S.R. 4

BUT IR 75/VAR 5.22/VAR

MODEL: 15 [Sheet 2] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 7:05:26 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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SHEET TOTAL

SHEET TOTALS

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SAF

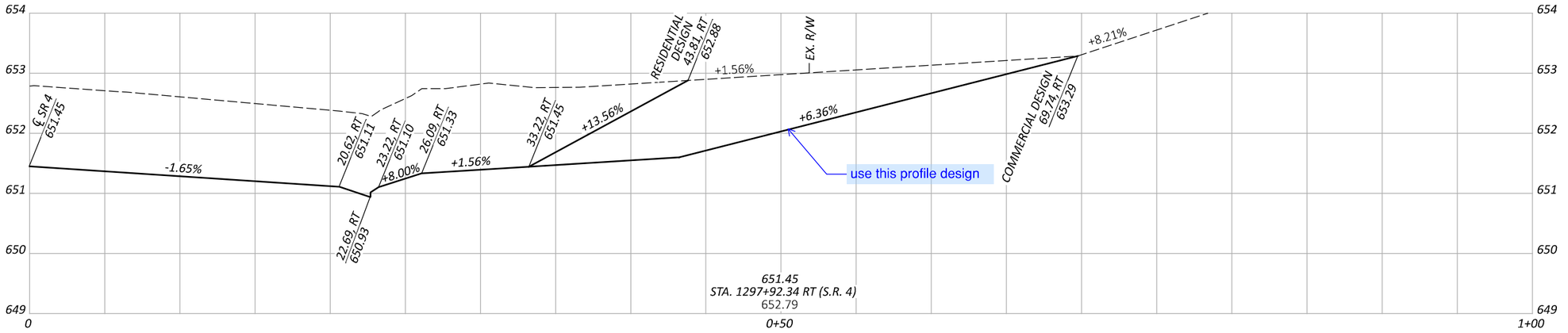
REVIEWER
CWP 08/29/25

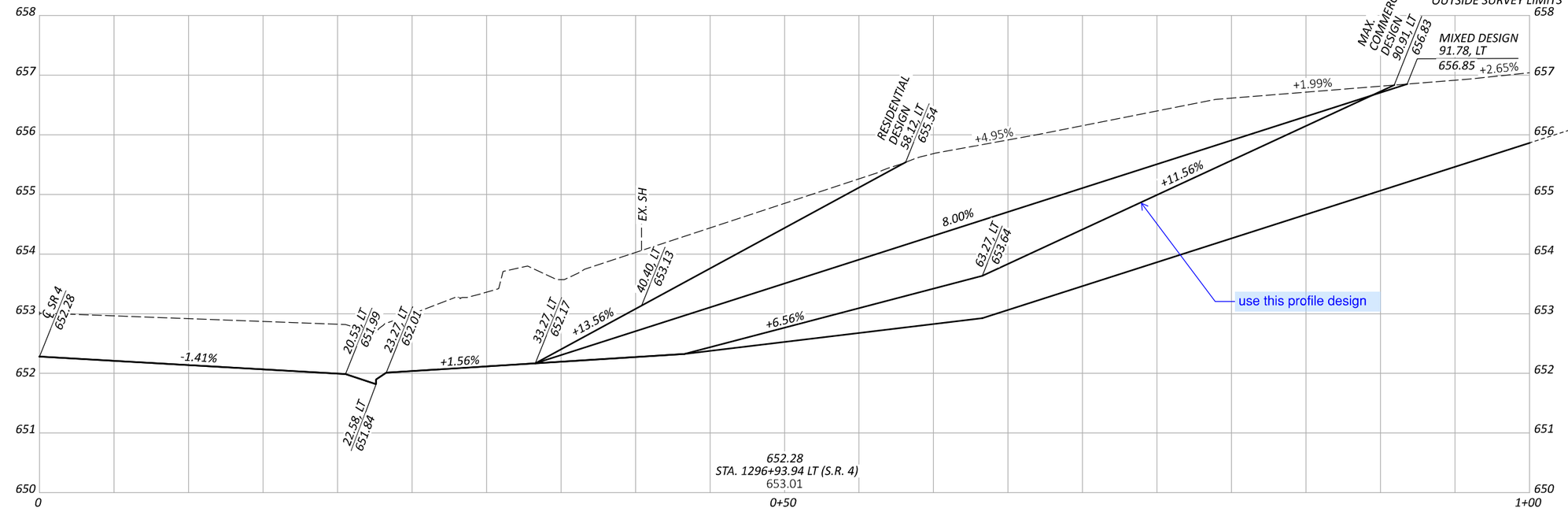
PROJECT ID
117275

SHEET P.162 TOTAL 194

SEEDING	
END WIDTH	SQ. YDS.

END AREA		VOLUME	
CUT	FILL	CUT	FILL





DRIVE PROFILES
S.R. 4

BUT IR 75/VAR 5.22/VAR

MODEL: 15 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 7:05:27 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cveilimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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SHEET TOTAL

SHEET TOTALS

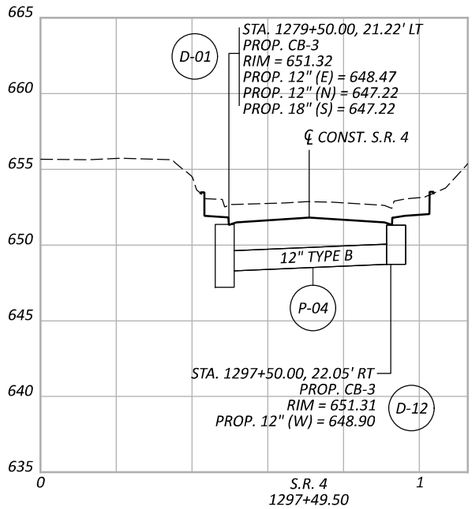
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

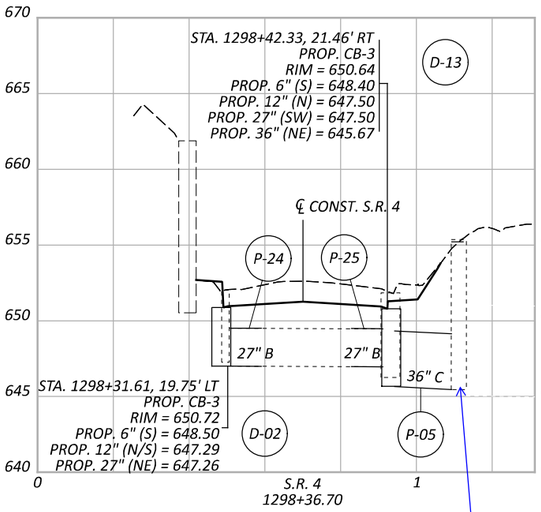
DESIGNER
SAF

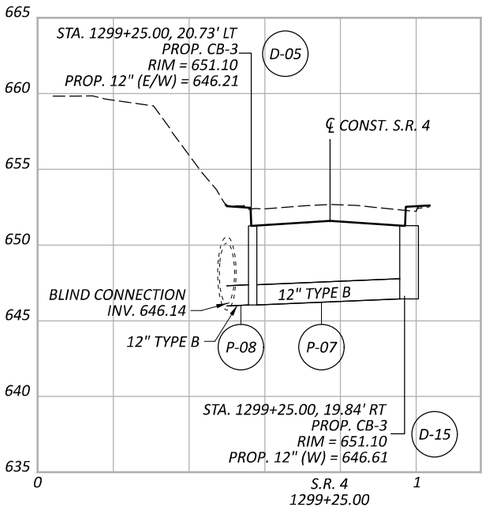
REVIEWER
CWP 08/29/25

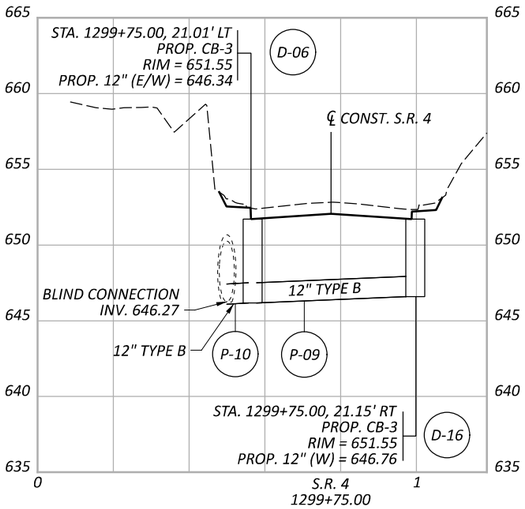
PROJECT ID
117275

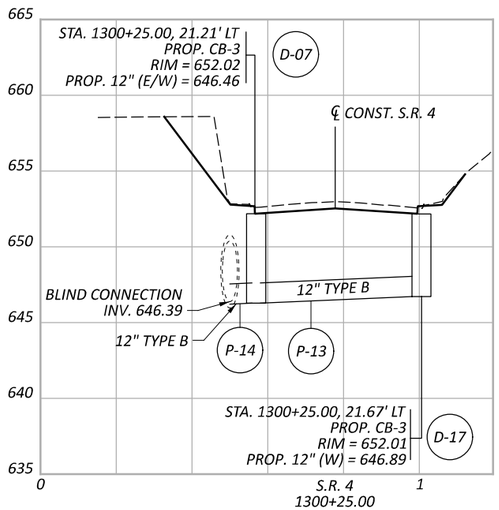
SHEET P.163 | TOTAL 194

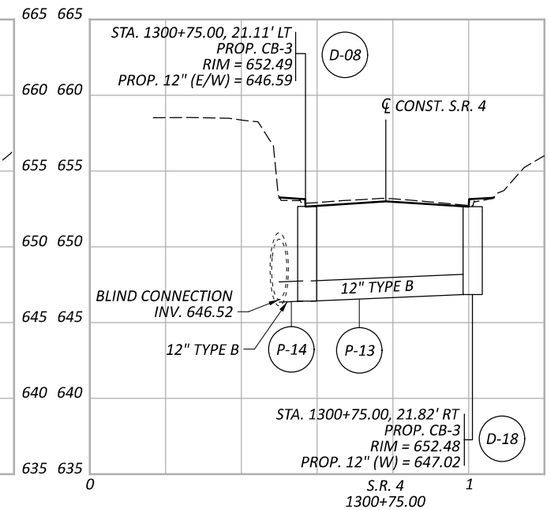


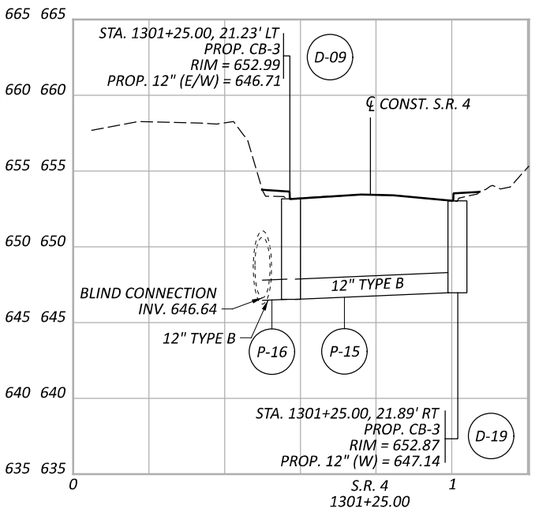


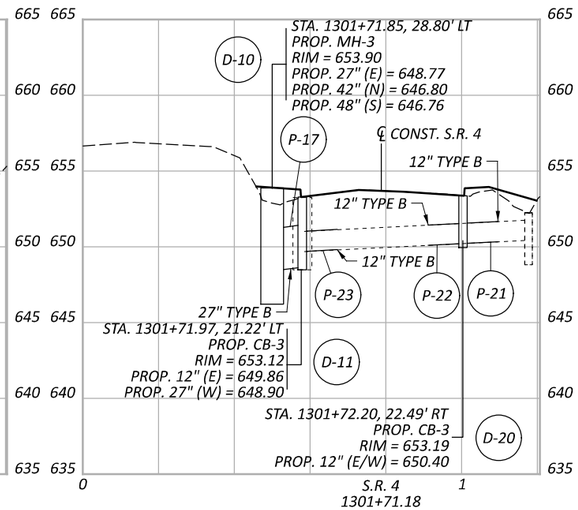












STORM SEWER PROFILES
S.R. 4

BUT IR 75/VAR 5.22/VAR

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

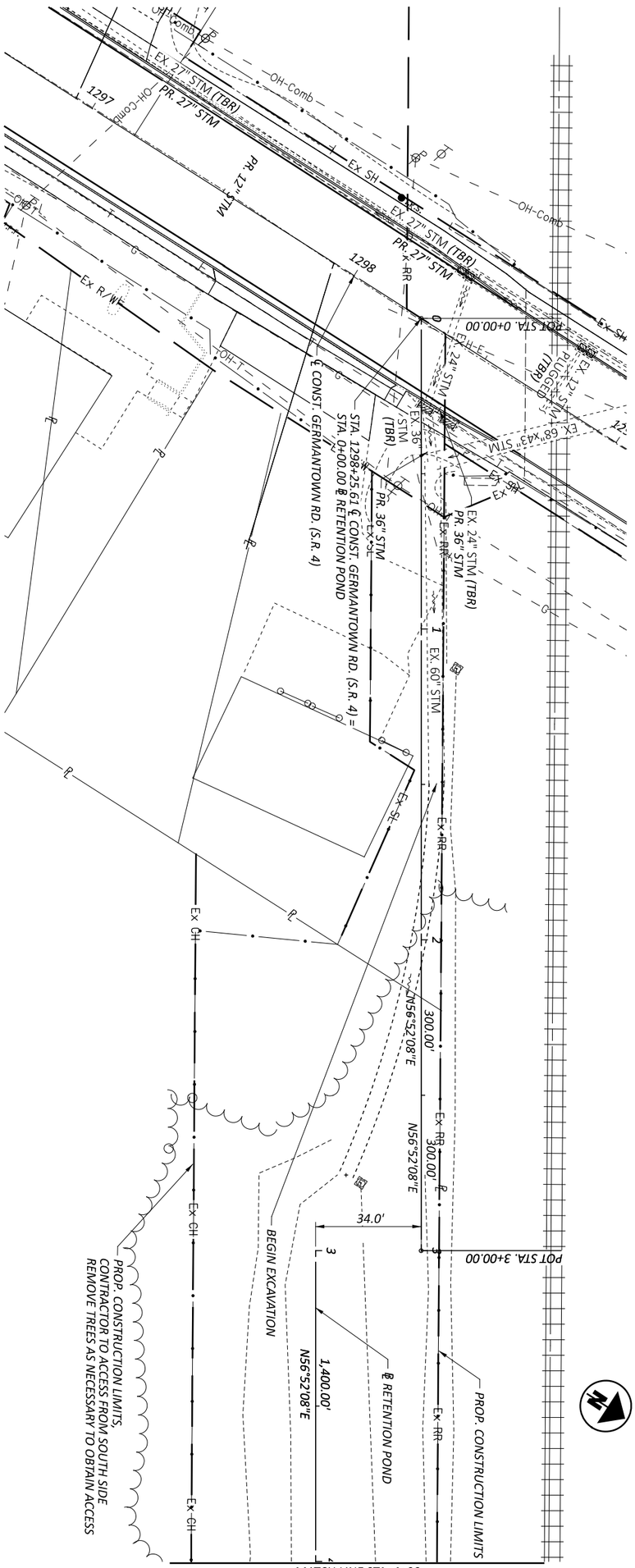
DESIGNER
SAF

REVIEWER
CWP 08/29/25

PROJECT ID
117275

SHEET P.164 TOTAL 194

MODEL: CLP_Ret Pond 1 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:21 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGNER SAF
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.165 TOTAL 194

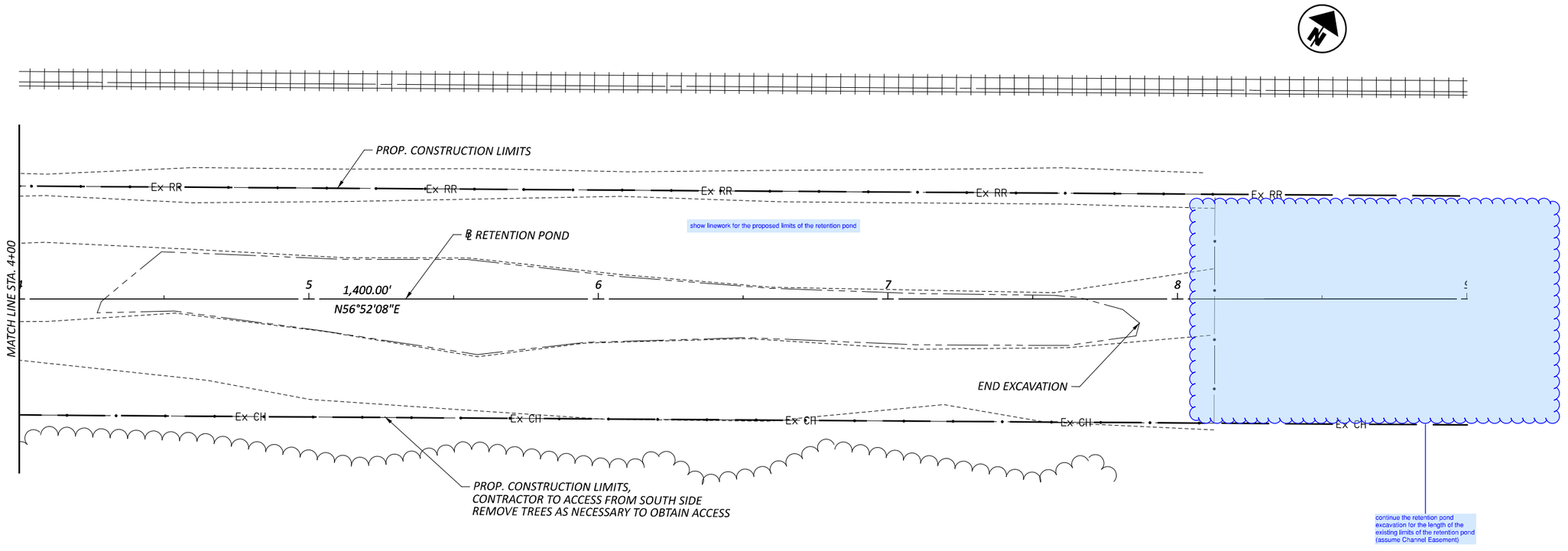
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

CHANNEL PLAN - S.R. 4 RETENTION POND
STA. 0+00.00 TO STA. 4+00.00

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: CLP_Ret Pond 1 - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:23 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: ffis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Drainage\Sheets\117275_DC201.dgn

BUT IR 75/VAR 5.22/VAR



HORIZONTAL SCALE IN FEET
0 10 20 40

CHANNEL PLAN - S.R. 4 RETENTION POND
STA. 4+00.00 TO STA. 9+00.00

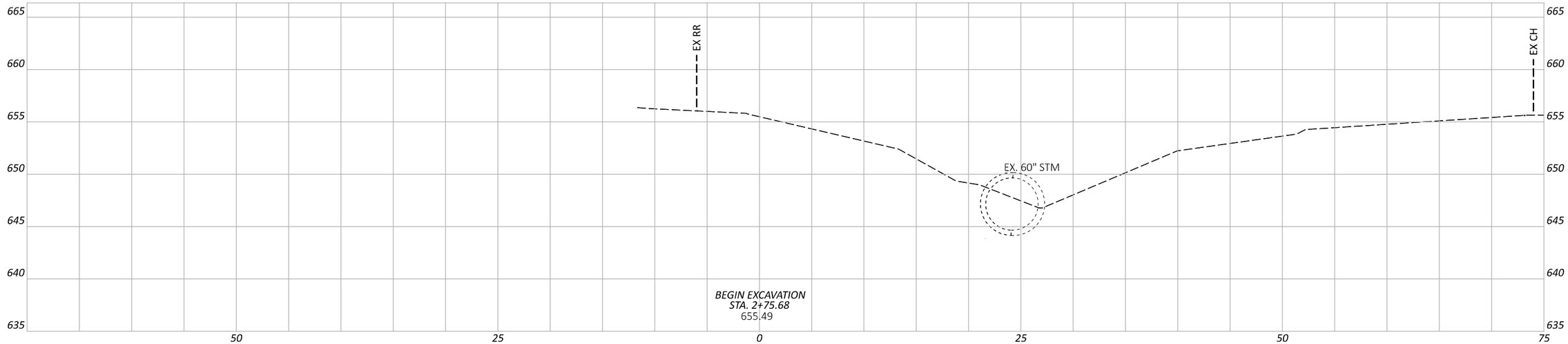
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

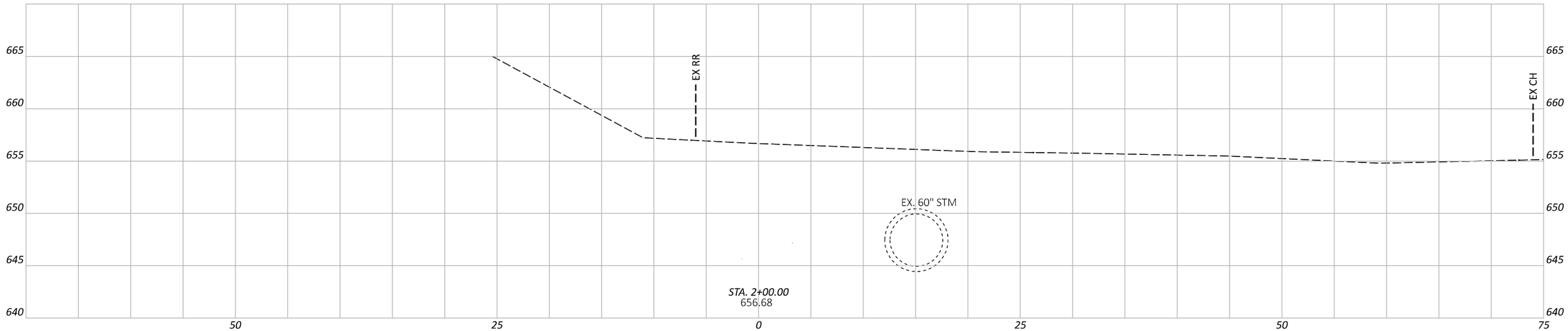
DESIGNER
SAF

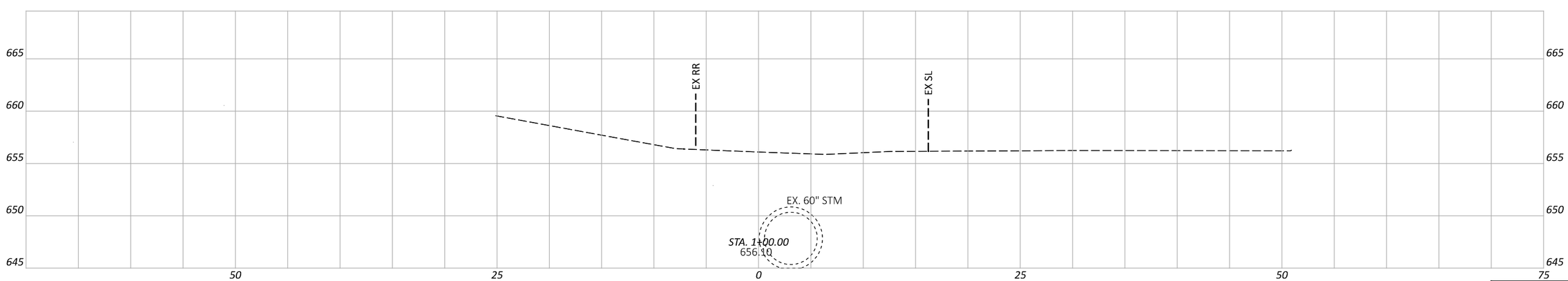
REVIEWER
CWP 08/29/25

PROJECT ID
117275

SHEET P.166 | TOTAL 194







CHANNEL CROSS SECTIONS - S.R. 4 RETENTION POND
STA. 1+00.00 TO STA. 2+75.68

BUT IR 75/VAR 5.22/VAR

MODEL: CLP_Ret Pond 1 - 1+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:25 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER
SAF

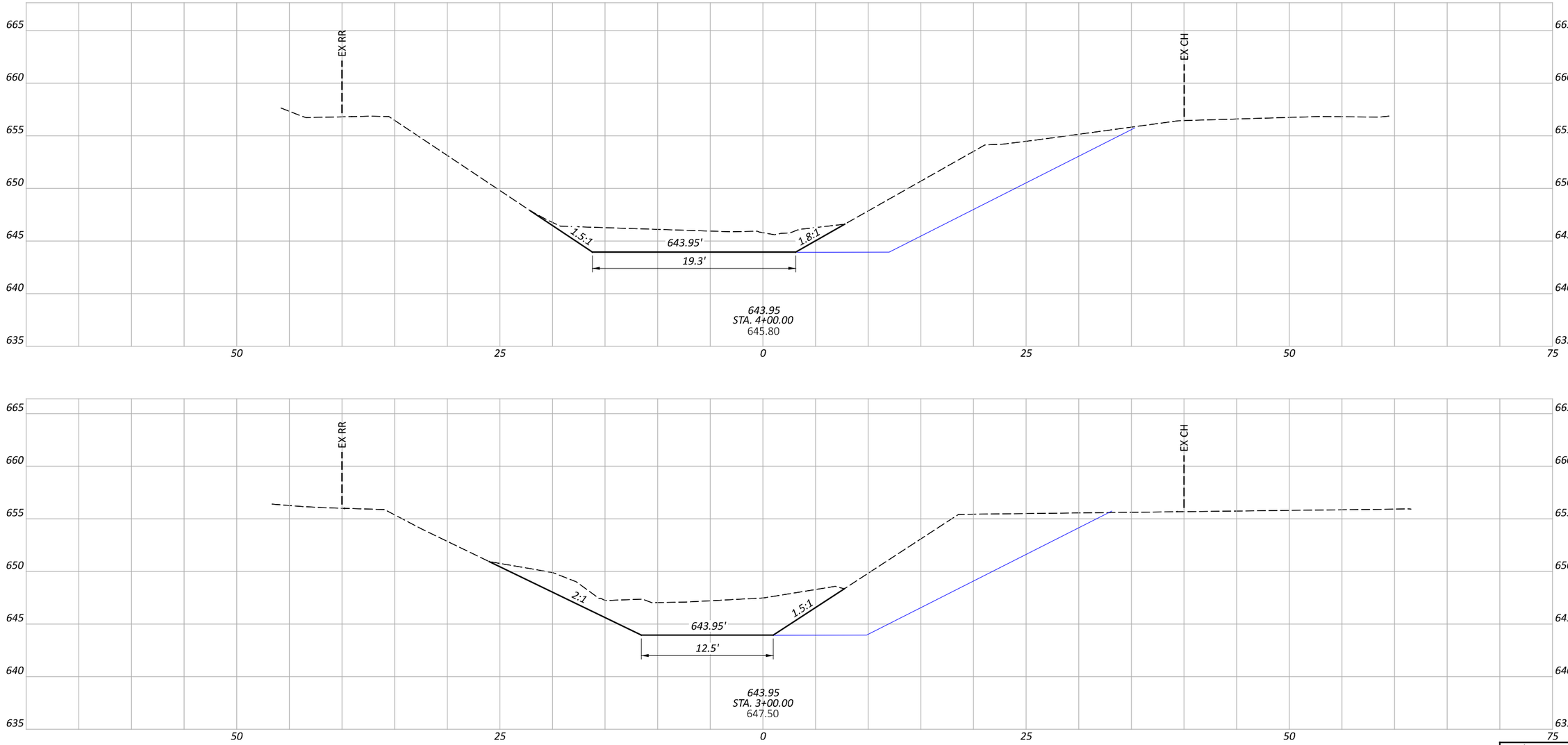
REVIEWER
CWP 08/29/25

PROJECT ID
117275

SHEET P.167 TOTAL 194

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BUT IR 75/VAR 5.22/VAR



CHANNEL CROSS SECTIONS - S.R. 4 RETENTION POND
STA. 3+00.00 TO STA. 4+00.00

Sheet Totals		
Seeding	Cut	Fill

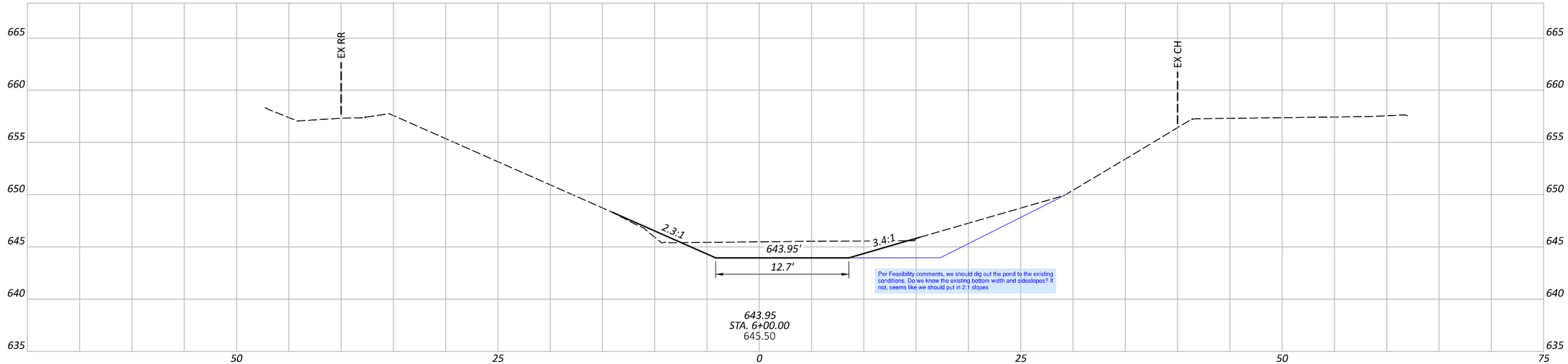
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

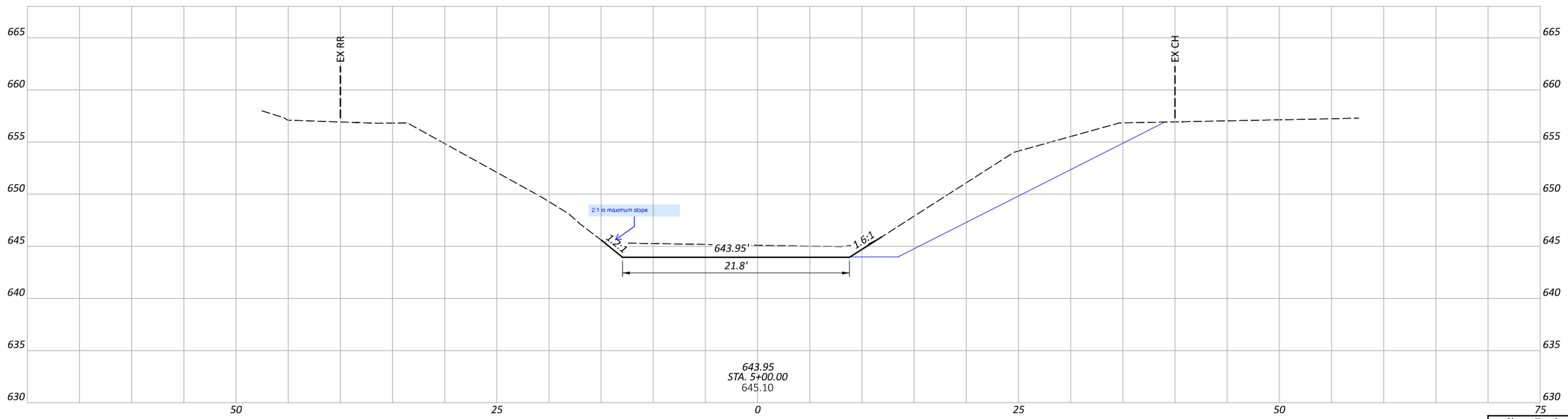
DESIGNER: SAF

REVIEWER: CWP 08/29/25

PROJECT ID: 117275

SHEET: P.168 | TOTAL: 194





CHANNEL CROSS SECTIONS - S.R. 4 RETENTION POND
STA. 5+00.00 TO STA. 6+00.00

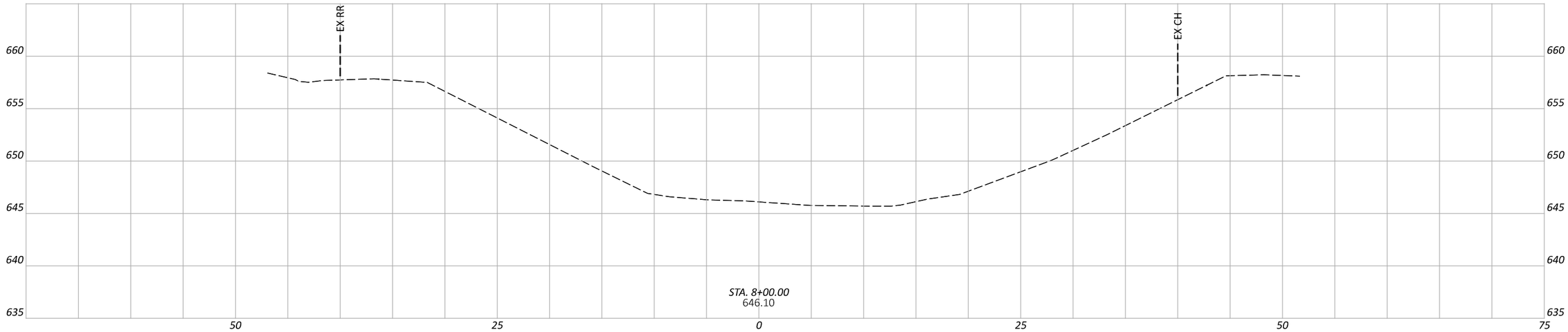
Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

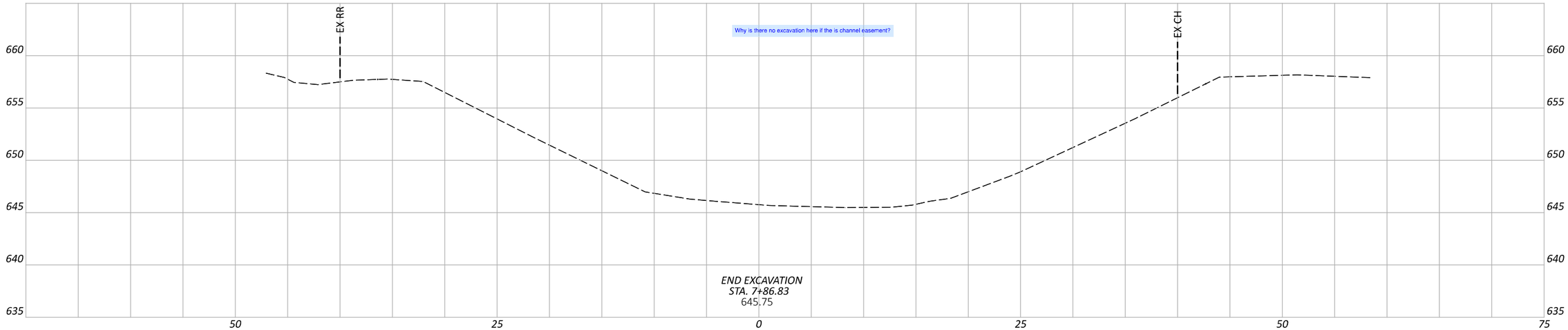
DESIGNER	SAF
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.169
TOTAL	194

BUT IR 75/VAR 5.22/VAR

MODEL: CLP_Ret Pond 2 - 5+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:28 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: flis@cvellimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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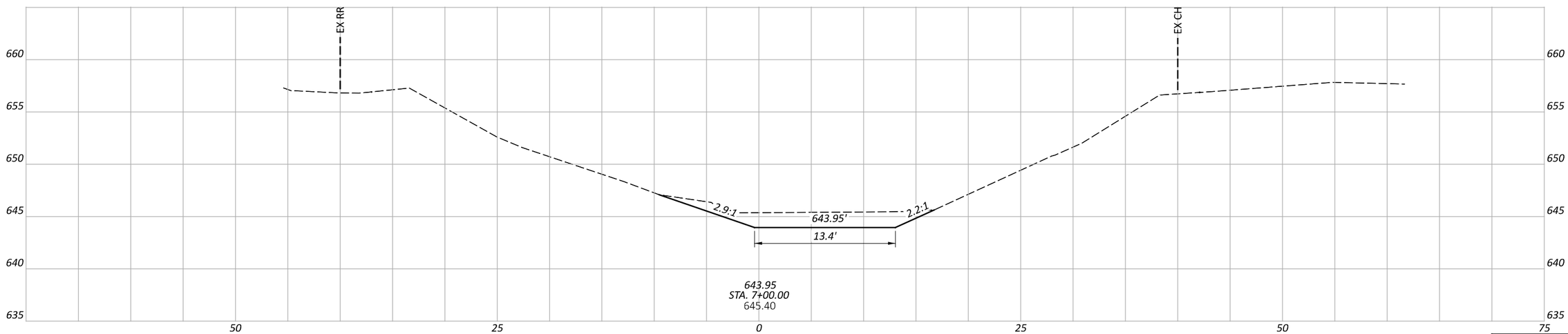


STA. 8+00.00
646.10



Why is there no excavation here if the is channel easement?

END EXCAVATION
STA. 7+86.83
645.75



643.95
STA. 7+00.00
645.40

CHANNEL CROSS SECTIONS - S.R. 4 RETENTION POND
STA. 7+00.00 TO STA. 8+00.00

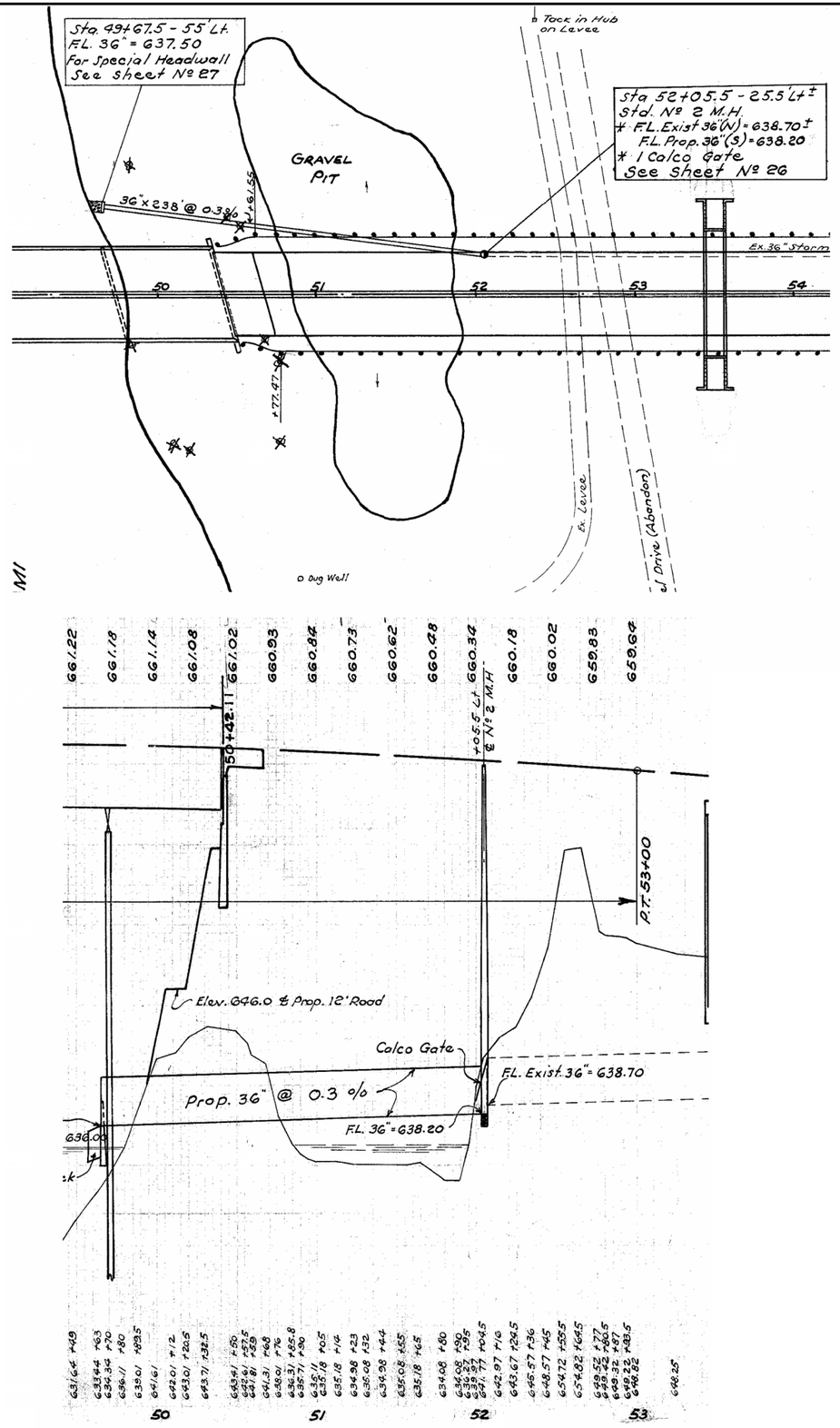
BUT IR 75/VAR 5.22/VAR

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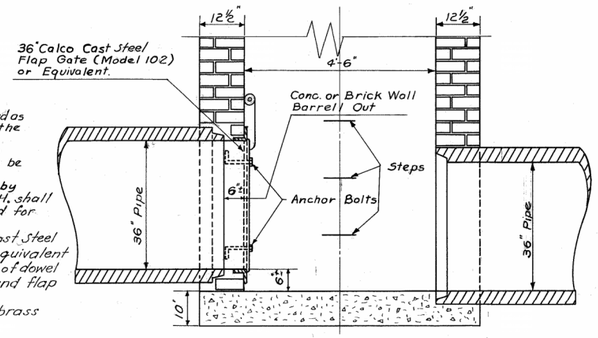
Sheet Totals		
Seeding	Cut	Fill

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER: SAF
REVIEWER: CWP 08/29/25
PROJECT ID: 117275
SHEET: P.170 TOTAL: 194



NOTE: End of 36" Pipe may be placed as shown in M.H. to accommodate the placing of Anchor Bolts.
Anchor Bolts necessary to attach Gate to wall of M.H. to be furnished with the Gate.
Additional Cost incurred by altering the wall in the Nº 2 M.H. shall be included in the unit price bid for Item I-8.
Payment for proposed 36" Cast Steel Flap Gates, Calco, Model 102 or equivalent includes furnishing and placing of dowel holes, expansion anchor bolts and flap gates, complete in place.
Gates shall be fitted with brass bushings, studs and nuts.



TYPICAL SECTION on ℄ of 36" PIPE SHOWING ALTERATION of WALL in No. 2 M.H.
Scale: ¾" = 1'-0"
STA. 43+91 ℄ STA. 52+05.5

ITEM 611 - DRAINAGE STRUCTURE, MISC.: FLAP GATE REMOVAL

THIS ITEM SHALL CONSIST OF REMOVAL AND DISPOSAL OF THE EXISTING FLAP GATE AT THE MANHOLE AT STA. 52+05.50, LT.

ANCHOR BOLTS MAY BE CUT FLUSH WITH THE MANHOLE WALL AND LEFT IN PLACE.

DAMAGED BRICK SHALL BE REMOVED AND REPLACED, WITH NEW BRICK AND MORTAR TO MATCH. The new brick shall be per CMS 704. The mortar shall be per CMS 602.

ALL MATERIALS, LABOR, EQUIPMENT, TOOLS, AND INCIDENTALS NEEDED TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 611- DRAINAGE STRUCTURE, MISC.: FLAP GATE REMOVAL.

S.R. 4 - FLAP GATE DETAIL

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER ALG
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.171 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: Sheet_SurFt PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:37:31 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: lfis@cvelimited.com WORKSPACE: OHDOTCE-v02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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GENERAL NOTES:

DESIGN SPECIFICATION:

THE STRUCTURE CONFORMS TO "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 9TH EDTION, 2020 AND THE ODOT BRIDGE DESIGN MANUAL, 2020

DESIGN DATA:

THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION, (Øbf) = 30°
TOTAL UNIT WEIGHT OF BACKFILL SOIL = 120 PCF
INTERNAL ANGLE OF FRICTION (DRAINED), FOUNDATION SOIL, Øf = 28°
UNDRAINED SHEAR STRENGTH (COHESIVE), FOUNDATION SOIL, Suf = 1500 PSF
UNIT WEIGHT OF CONCRETE = 150 PCF
SLOPE OF BACKFILL = 2:1 (TYPE A & B HEADWALLS)
HEIGHT OF LIVE LOAD SURCHARGE = 2 FT (TYPE C HEADWALLS)

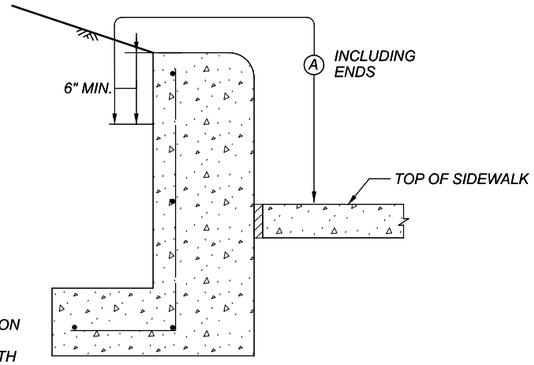
CONCRETE CLASS QC1 - REQUIRED COMPRESSIVE STRENGTH 4000 PSI
(FOOTING AND WINGWALL)

REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 MINIMUM YIELD STRENGTH
60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

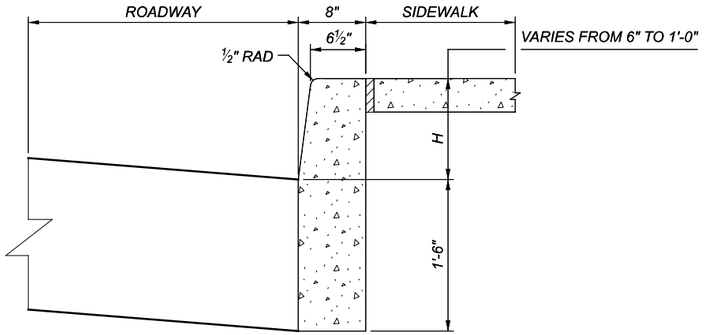
BASED ON THE ASSUMED DESIGN DATA, THE WINGWALLS ACHIEVE FACTORED BEARING RESISTANCES THAT ARE GREATER THAN THEIR RESPECTIVE BEARING PRESSURES. IF A BACKFILL MATERIAL WITH A HIGHER INTERNAL ANGLE OF FRICTION OR A LIGHTER TOTAL WEIGHT IS USED; OF IF A FOUNDATION SOIL WITH A HIGHER DRAINED INTERNAL ANGLE OF FRICTION OR A HIGHER UNDRAINED SHEAR STRENTH IS ENCOUNTERED, THEN THE STABILITY OF THE WINGWALLS IS SATISFACTORY.

SEALING OF RETAINING WALL:

ALL EXPOSED RETAINING WALL CONCRETE SHALL BE SEALED WITH EPOXY-URETHANE SEALER. THE LIMITS SHALL BE AS SHOWN IN THE DIAGRAMS BELOW. PAYMENT FOR THE EPOXY-URETHANE SEALER SHALL BE PER ITEM 512 - SEALING OF CONCRETE SURFACES, (EPOXY-URETHANE).

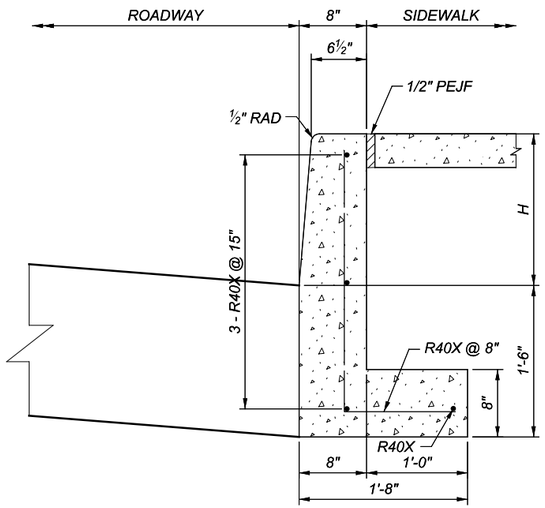


(A) - SEAL ENTIRE CONCRETE SURFACE AREA



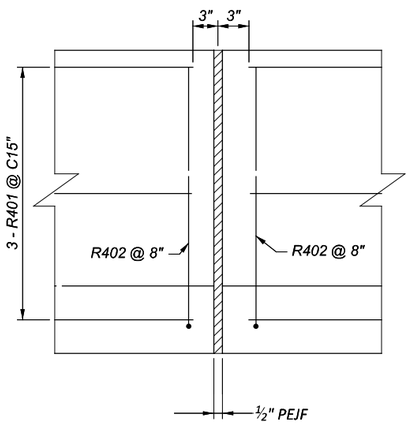
TYPICAL CURB SECTION

(FOR CURB HEIGHT "H" IS 1'-0" OR LESS THAN 1'-0")

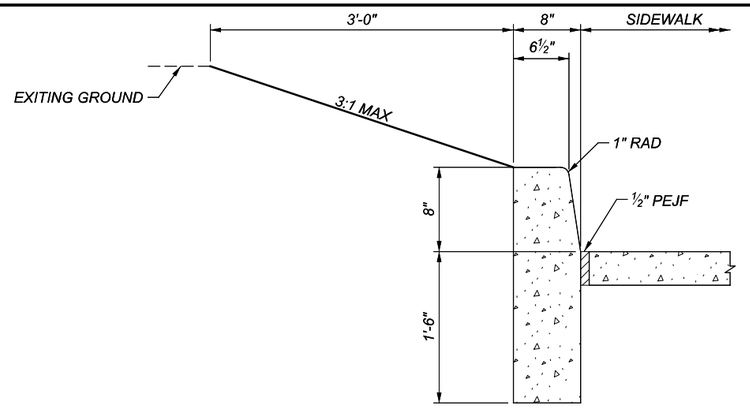


TYPICAL CURB SECTION

(FOR CURB HEIGHT "H" MORE THAN 1'-0" AND LESS THAN 2'-0")

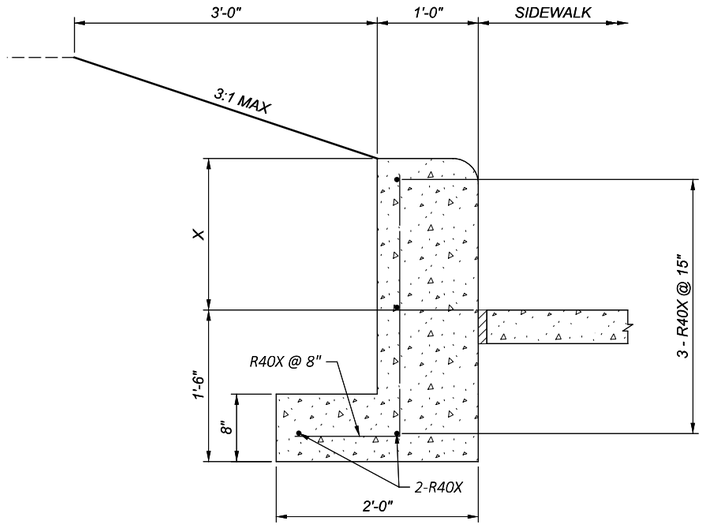


TYPICAL EXPANSION JOINT DETAIL



TYPICAL SECTION

℄ WALL 1A STA. 1+11.18 TO STA. 1+26.13



TYPICAL WALL SECTION

FOR HEIGHT "X "SEE SHEETP.172,P.173 ANDP.174

ESTIMATED QUANTITIES			DESIGNED:	LA	CHECKED:	RG
			DATE:	8/25/2025	DATE:	8/25/2025
ITEM	TOTAL	UNIT	DESCRIPTION			
503		CY	UNCLASSIFIED EXCAVATION			
509		LB	EPOXY COATED REINFORCING STEEL			
511		CY	CLASS QC1 CONCRETE, RETAINING/WINGWALL NOT INCLUDING FOOTING			
511		CY	CLASS QC1 CONCRETE, FOOTING			
512		SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)			
516		SF	½" PREFORMED EXPANSION JOINT FILLER			
609		FT	CURB, TYPE 7			

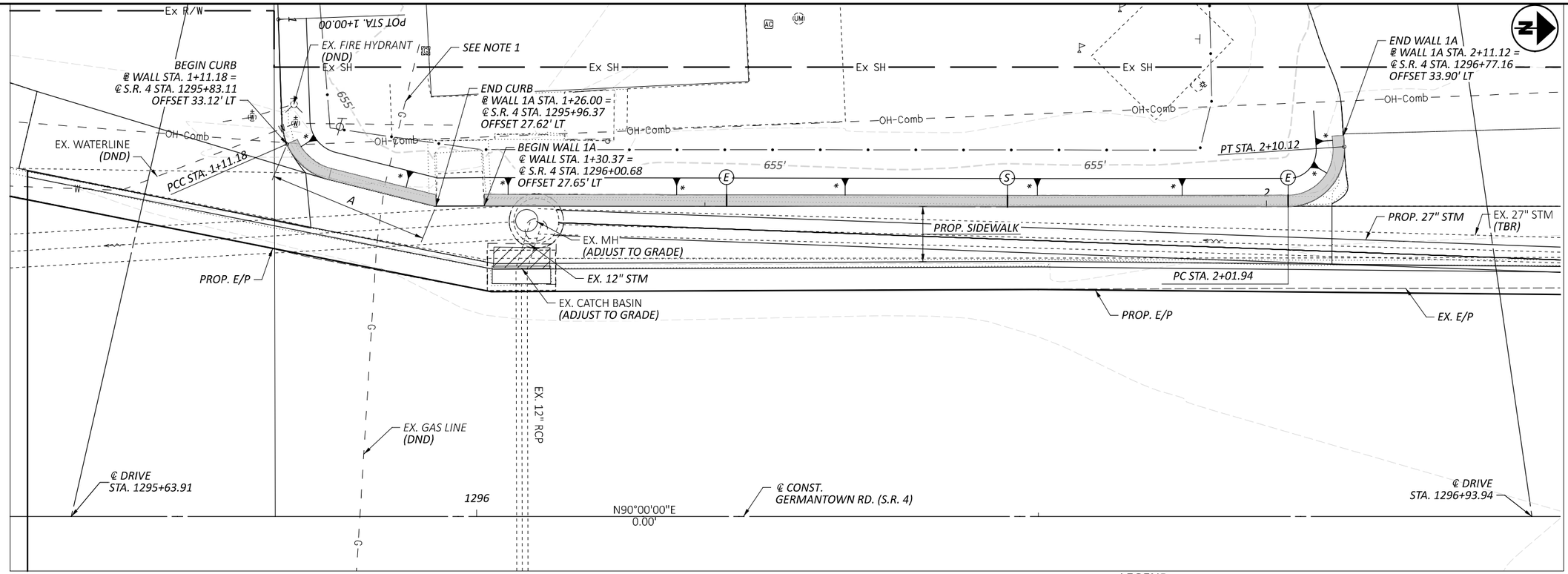
BUT IR 75/VAR/5.22/VAR

MODEL: Sheet_SurvPt PAPERSIZE: 34x22 (in.) DATE: 8/28/2025 TIME: 12:16:19 PM USER: latluru
P:\Transportation\Workset-2\117275_BUT-75_VAR 0522_VAR\400-Engineering\Structures\Wall\Sheets\117275_Wall_WN001.dgn

GENERAL NOTES & WALL SECTIONS
RETAINING WALL ALONG S.R. 4

DESIGN AGENCY
BG
www.bgeenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER LA
REVIEWER RG 08-28-25
PROJECT ID 117275
SHEET P.172 TOTAL 194



WALL HEIGHT	
℄WALL 1A STATION	X (HT. OF WALL)
1+30.37 TO 2+01.00	1'-6"
2+01.94 TO 2+11.12	VARIES FROM 1'-6" TO 1'-0"

NOTES:

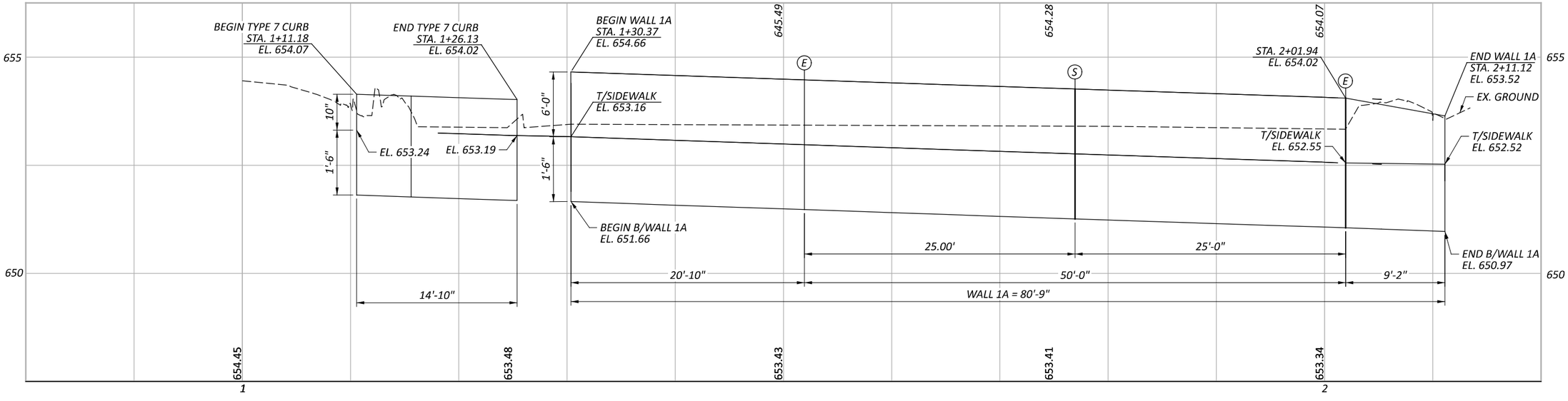
1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING GAS LINE (TO REMAIN) AND WATERLINE PRIOR TO BEGINNING RETAINING WALL WORK.
2. SEE SHEET GENERAL NOTES & WALL SECTIONS FOR TYPICAL WALL SECTION ON SHEET P.171 OF 194

Depths are needed from utility company to determine if conflict or not

LEGEND:

- PROPOSED WALL
- * - VARIES 3:1 MAX, 4:1 PREFERRED
- (E) - EXPANSION JOINT
- (S) - SAWCUT
- (A) - PROP. TYPE 7 CURB (SEE SHEET P.171 OF 194)

CURVE DATA WALL - 1A	
CURVE 1 DATA	CURVE 2 DATA
P.I. = STA. 1+13.89	P.I. = STA. 2+07.27
Δ = 52°26'06" LT	Δ = 93°44'00" LT
Dc = 321°44'29"	Dc = 65°54'56"
R = 5.50'	R = 5.00'
T = 2.71'	T = 5.34'
L = 5.03'	L = 8.18'
E = 0.63'	E = 2.31'



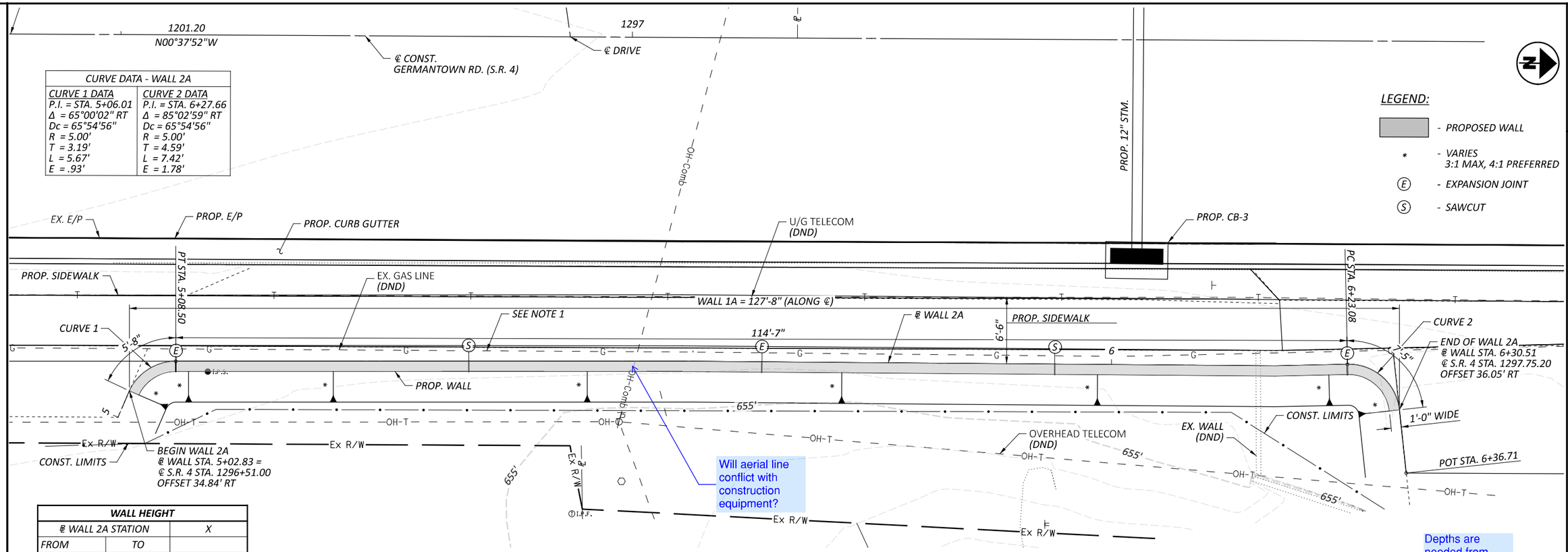
BUT IR 75/VAR/5.22/VAR

MODEL: CLP_Wall_01 - Plan 1-5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/28/2025 TIME: 12:16:29 PM USER: latluru
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RETAINING WALL PLAN AND PROFILE
RETAINING WALL 1A

DESIGN AGENCY
BG
www.bgeng group.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER: LA
REVIEWER: RG 08-28-25
PROJECT ID: 117275
SHEET: P.173 TOTAL: 194



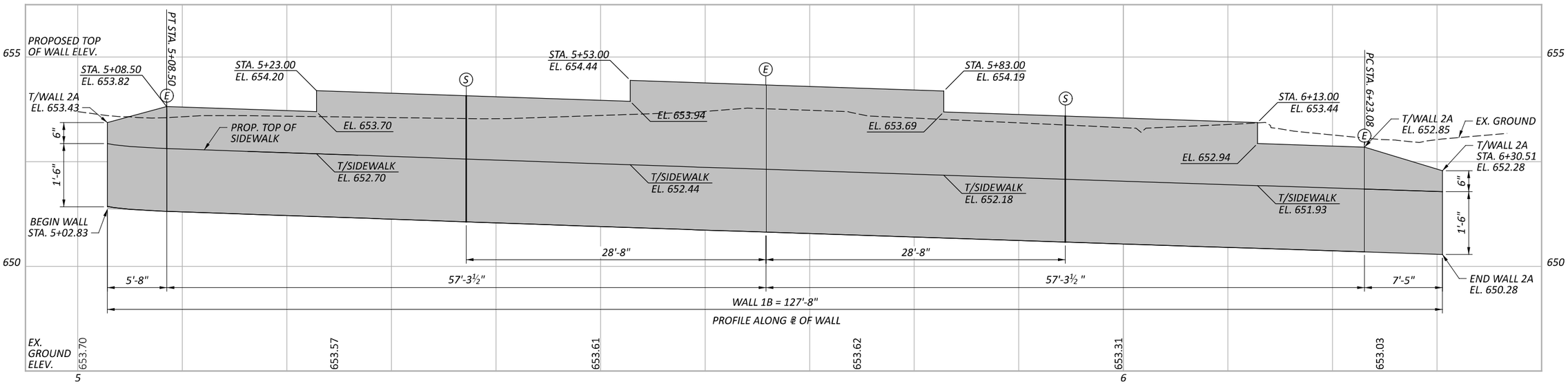
CURVE DATA - WALL 2A	
CURVE 1 DATA	CURVE 2 DATA
P.I. = STA. 5+06.01	P.I. = STA. 6+27.66
Δ = 65°00'02" RT	Δ = 85°02'59" RT
Dc = 65°54'56"	Dc = 65°54'56"
R = 5.00'	R = 5.00'
T = 3.19'	T = 4.59'
L = 5.67'	L = 7.42'
E = .93'	E = 1.78'

WALL HEIGHT		
℄ WALL 2A STATION		X
FROM	TO	
STA. 5+02.83	STA. 5+08.50	VARIES FROM 6" TO 1'-0"
STA. 5+08.50	STA. 5+23.00	1'-0"
STA. 5+23.00	STA. 5+53.00	1'-6"
STA. 5+53.00	STA. 5+83.00	2'-0"
STA. 5+83.00	STA. 6+13.00	1'-6"
STA. 6+13.00	STA. 6+23.08	1'-0"
STA. 6+23.08	STA. 6+30.51	VARIES FROM 1'-0" TO 6"

X - HEIGHT OF WALL ABOVE PROP. T/SIDEWALK

NOTES:

1. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING GAS LINE (TO REMAIN) AND WATERLINE PRIOR TO BEGINNING RETAINING WALL WORK.
2. SEE SHEET GENERAL NOTES & WALL SECTIONS FOR TYPICAL WALL SECTION ON SHEET P.171 OF 194



RETAINING WALL PLAN AND PROFILE
RETAINING WALL - 2A

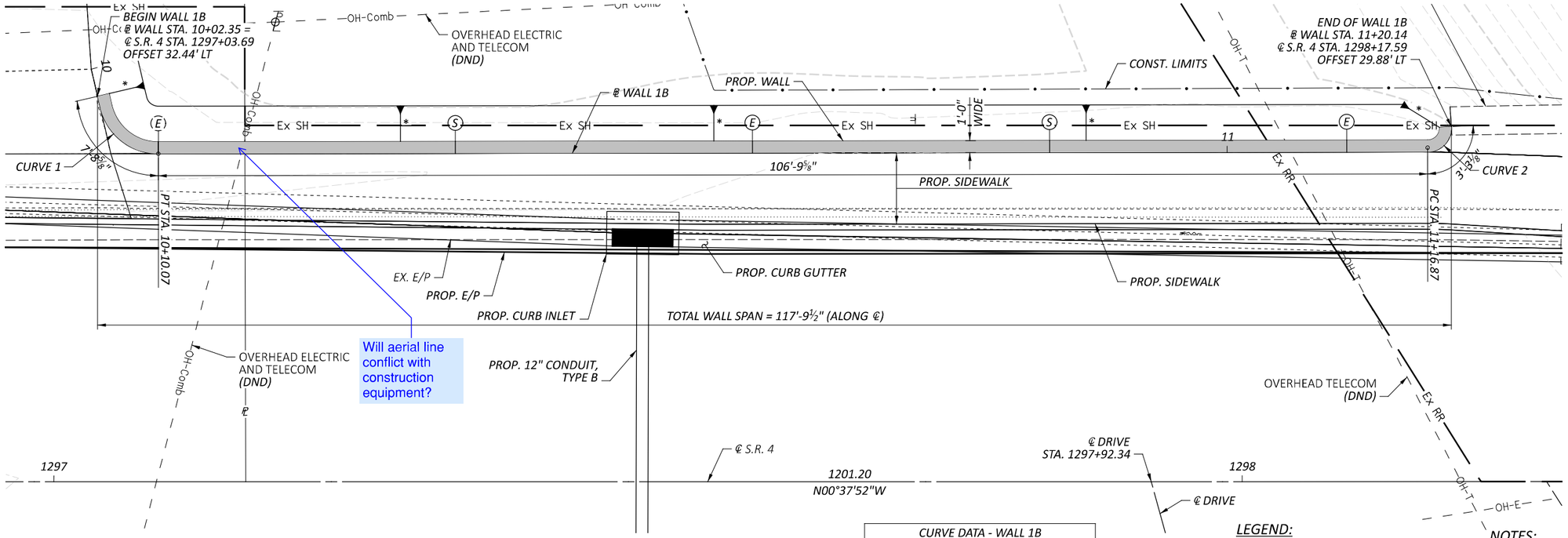
HORIZONTAL SCALE IN FEET
0 2.5 5 10

BUT IR 75/VAR/5.22/VAR

MODEL: CLP_Wall_02 - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/28/2025 TIME: 12:16:39 PM USER: laturu
P:\Transportation\Workset-2\117275_BUT-75_VAR 0522_VAR\400-Engineering\Structures\Wall\Sheets\117275_Wall_WP002.dgn

DESIGN AGENCY
BG
www.bgeng group.com
5980 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER	LA
REVIEWER	RG 08-28-25
PROJECT ID	117275
SHEET	P.174
TOTAL	194



℄ WALL 1B STATION		X
FROM	TO	
STA. 10+02.35	STA. 10+10.07	VARIES FROM 6" TO 1'-0"
STA. 10+10.07	STA. 10+18.35	1'-0"
STA. 10+18.35	STA. 10+88.77	1'-6"
STA. 10+88.77	STA. 11+20.14	VARIES FROM 1'-6" TO 6"

X - HEIGHT OF WALL ABOVE PROP. T/SIDEWALK

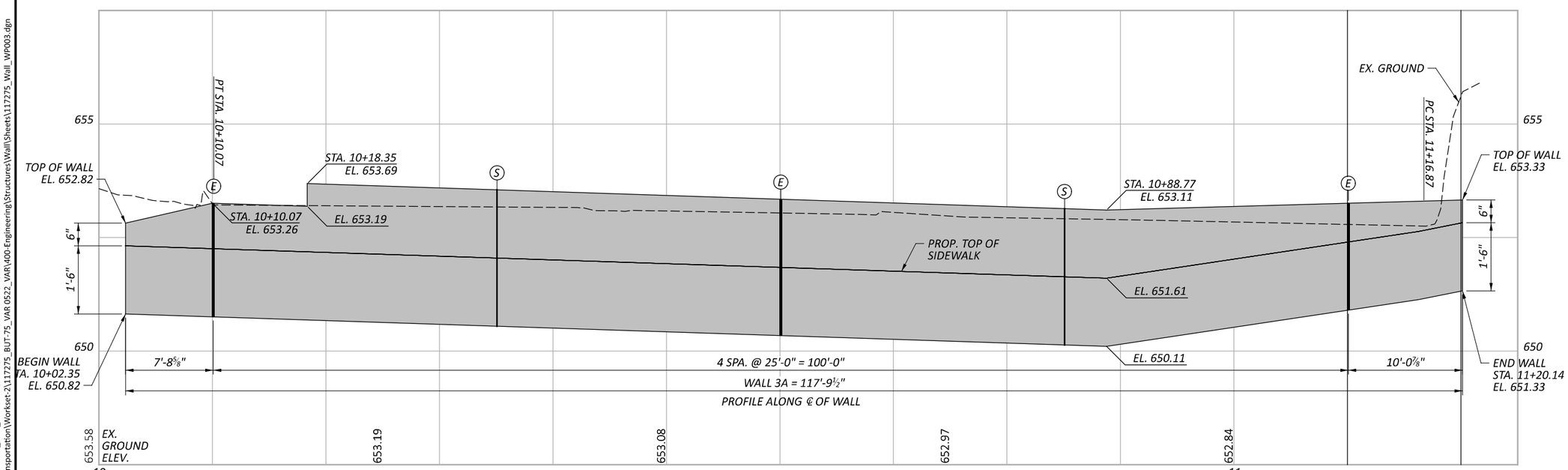
CURVE DATA - WALL 1B	
CURVE 1 DATA	CURVE 2 DATA
P.I. = STA. 10+07.33	P.I. = STA. 11+19.00
Δ = 76°55'57" LT.	Δ = 93°35'28" LT.
Dc = 65°54'56"	Dc = 344°47'20"
R = 5.00'	R = 2.00'
T = 3.97'	T = 2.13'
L = 6.71'	L = 3.27'
E = 1.39'	E = 0.92'

LEGEND:

- PROPOSED WALL
- * - VARIES 3:1 MAX, 4:1 PREFERRED
- (E) - EXPANSION JOINT
- (S) - SAWCUT

NOTES:

1. SEE SHEET GENERAL NOTES & WALL SECTIONS FOR TYPICAL WALL SECTION ON SHEET P.175 OF 194



BUT IR 75/VAR/5.22/VAR

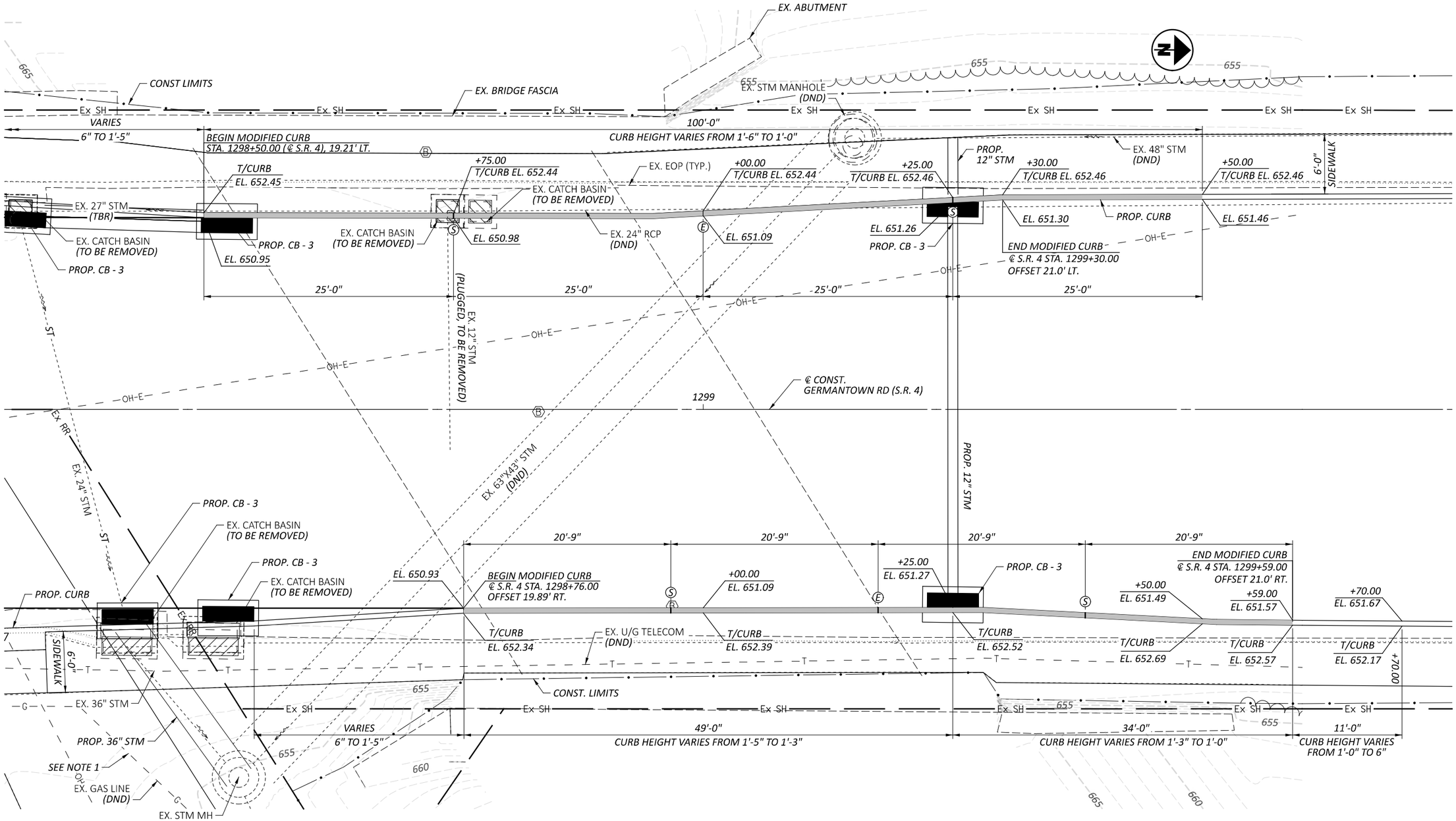
MODEL: CLP_Wall_5 - Plan 3 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/28/2025 TIME: 12:16:42 PM USER: iaturu
P:\Transportation\Workset-2\117275_BUT-75_VAR 0522_VAR\400-Engineering\Structures\Wall\Sheets\117275_Wall_WP003.dgn

HORIZONTAL SCALE IN FEET
0 2.5 5 10

RETAINING WALL PLAN AND PROFILE
RETAINING WALL 1B

DESIGN AGENCY
BG
www.bgeng group.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER LA
REVIEWER RG 08-28-25
PROJECT ID 117275
SHEET P.175 TOTAL 194



NOTES:

1. *CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF THE EXISTING UTILITIES PRIOR TO BEGINNING OF WORK.*

HORIZONTAL SCALE IN FEET
0 2.5 5 10

MODIFIED CURB PLAN ALONG S.R. 4

BUT IR 75/VAR/5.22/VAR

MODEL: CLP_SR4 15 FT-1 - Curb Plan 4 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/28/2025 TIME: 12:16:44 PM USER: latluru
P:\Transportation\Workset-2\117275_BUT-75_VAR 0522_VAR\400-Engineering\Structures\Wall\Sheets\117275_Wall_WP004.dgn

DESIGN AGENCY
BG
www.bgenggroup.com
5960 WILCOX PLACE, SUITE C
DUBLIN, OHIO 43016

DESIGNER CAW

REVIEWER RG 08-28-25

PROJECT ID 117275

SHEET P.176 TOTAL 194

SIGNS

630 SIGNING MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY

THIS WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY. THE FLASHING UNIT SHALL BE SOLAR POWERED, PEDESTRIAN ACTIVATED, AND 2-SIDED WITH TWO LED ARRAY BASED YELLOW INDICATIONS ON EACH SIDE. MULTIPLE UNITS SHALL BE WIRELESSLY CONTROLLED AND SYNCHRONIZED. THE UNIT SHALL BE COMPLIANT WITH THE MOST CURRENT OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (OMUTCD)

GENERAL REQUIREMENTS -

EACH RRFB SHALL CONSIST OF TWO RAPIDLY FLASHED RECTANGULAR-SHAPED YELLOW INDICATIONS HAVING LED ARRAY BASED LIGHT SOURCE.

EACH RRFB SHALL BE A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.).

EACH RRFB SHALL CONTAIN A PEDESTRIAN INDICATION LIGHT VISIBLE TO THE PEDESTRIAN IN THE DIRECTION OF TRAVEL.

FUNCTIONAL REQUIREMENTS -

EACH RRFB SHALL UTILIZE SOLAR POWER.

EACH RRFB SHALL BE ACTIVATED BY ADA COMPLIANT ACCESSIBLE PEDESTRIAN PUSHBUTTONS.

THE RRFB SHALL BE NORMALLY DARK, SHALL INITIATE OPERATION ONLY UPON PEDESTRIAN ACTUATION, AND SHALL CEASE OPERATION AFTER A PREDETERMINED TIME LIMIT (BASED ON OMUTCD PROCEDURES).

EACH REMOTE RRFB SHALL BE WIRELESSLY ACTIVATED.

ALL RRFB LIGHT INDICATIONS SHALL BE WIRELESSLY SYNCHRONIZED (ALL LIGHTS WILL TURN ON WITHIN 120 MSEC AND REMAIN SYNCHRONIZED THROUGHOUT THE DURATION OF THE FLASHING CYCLE).

THE UNIT SHALL BE CAPABLE OF RUNNING 14 DAYS WITHOUT SUNLIGHT.

MATERIALS -

FURNISH A COMPLETE ASSEMBLY, CONSISTING OF BUT NOT LIMITED TO, SIGNAGE, SIGN MOUNTING HARDWARE, INDICATIONS, AND ELECTRICAL COMPONENTS (WIRING, SOLID-STATE CIRCUIT BOARDS, ETC.). THE RRFB ASSEMBLY INCLUDES THE FOLLOWING ITEMS:

630 SIGNING MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY (CONTINUED)

1. RRFB INDICATIONS
   - A. EACH RRFB INDICATION LENS SHALL BE A MINIMUM SIZE OF APPROXIMATELY 5" WIDE x 2" HIGH.
   - B. THE RRFB INDICATIONS SHALL BE ALIGNED HORIZONTAL WITH THE LONGER DIMENSION OF THE INDICATION HORIZONTAL. THERE SHALL BE TWO INDICATIONS ON THE FRONT AND TWO INDICATIONS ON THE BACK.
   - C. EACH RRFB SHALL BE SUPPLIED WITH ALL REQUIRED HARDWARE TO INSTALL ASSEMBLY. ALL EXPOSED HARDWARE SHALL BE ANTI-VANDAL.
   - D. EACH RRFB SHALL BE LOCATED BETWEEN THE BOTTOM OF THE CROSSING WARNING SIGN AND THE TOP OF THE SUPPLEMENTAL DOWNWARD DIAGONAL ARROW PLAQUE.
   - E. THE LIGHT INTENSITY OF THE YELLOW INDICATIONS SHALL MEET THE MINIMUM CLASS 1 SPECIFICATIONS OF SOCIETY OF AUTOMOTIVE ENGINEERS (SAE) STANDARD J595 (DIRECTIONAL FLASHING OPTICAL WARNING DEVICES FOR AUTHORIZED EMERGENCY, MAINTENANCE, AND SERVICE VEHICLES) DATED JANUARY, 2005.
   - F. TO MINIMIZE EXCESSIVE GLARE DURING DURING NIGHTTIME CONDITIONS, AN AUTOMATIC SIGNAL DIMMING DEVICE SHALL BE USED TO REDUCE THE BRILLIANCE OF THE RRFB INDICATIONS.
   - G. AN LED PEDESTRIAN CONFIRMATION LIGHT DIRECTED AT AND VISIBLE TO PEDESTRIANS IN THE CROSSWALK SHALL BE SHALL BE INSTALLED INTEGRAL TO THE RRFB OR PUSHBUTTON TO GIVE CONFIRMATION THAT THE RRFB IS IN OPERATION.
   - H. THE PEDESTRIAN CONFIRMATION LIGHT SHALL HAVE A MINIMUM AREA OF 0.5 SQUARE INCHES AND BE CONSPICUOUS TO PEDESTRIANS AT ALL DISTANCES FROM THE BEGINNING OF THE CONTROLLED CROSSWALK TO A POINT 10 FEET FROM THE END OF THE CONTROLLED CROSSWALK DURING BOTH DAY AND NIGHT.
2. SIGNS
   - A. ALL SIGN ASSEMBLIES SHALL USE ANTI-VANDAL FASTENERS TO MOUNT COMPONENTS TO SIGN AND SIGN TO FIXUTRE.
   - B. ACCESSIBLE PEDESTRIAN PUSHBUTTONS SIGNS SHALL BE PROVIDED AND INCLUDE THE LEGEND "PUSH BUTTON FOR WARNING LIGHTS/WAIT FOR GAP IN TRAFFC". SIGNS SHOULD BE MOUNTED ADJACENT TO OR INTEGRAL WITH EACH PEDESTRIAN PUSHBUTTON.
   - C. TWO SETS OF SIGNS SHALL BE REQUIRED PER UNIT FOR VIEW FROM EACH APPROACH.
   - D. ENSURE THE SIGN MEETS THE REQUIREMENTS OF C&MS 630.
3. CONTROL CIRCUIT
   - A. THE CONTROL CIRCUIT SHALL HAVE THE CAPABILITY OF INDEPENDENTLY FLASHING UP TO TWO INDEPENDENT OUTPUTS. THE LED LIGHT OUTPUTS AND FLASH PATTERN SHALL BE COMPLETELY PROGRAMMABLE.
   - B. THE CONTROL CIRCUIT SHALL BE SEALED WATERTIGHT TO ELIMINATE DIRT CONTAMINATION AND ALLOW FOR SAFE HANDLING IN ALL WEATHER CONDITIONS.
   - C. THE LEDS SHALL BE SEALED AGAINST DUST AND MOISTURE INTRUSION AS PER THE REQUIREMENTS OF NEMA STANDARD 250-1991 FOR TYPE 4 ENCLOSURE AND TO PROTECT ALL INTERNAL LED AND ELECTRICAL COMPONENTS.

630 SIGNING MISC.: SOLAR-POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY (CONTINUED)

4. BATTERY AND SOLAR PANELS
   - A. BATTERY UNIT SHALL BE A 12VDC, 35 AHR MINIMUM, SEALED GEL OR AGM LEAD ACID BATTERY. BATTERIES SHALL HAVE A WRITTEN TWO-YEAR FULL REPLACEMENT WARRANTY.
   - B. THE SOLAR PANEL SHALL PROVIDE A MINIMUM OF 40 WATTS PEAK TOTAL OUTPUT.
   - C. THE SOLAR PANEL SHALL BE MOUNTED TO AN ALUMINUM PLATE AND BRACKET AT AN ANGLE OF 45 DEGREES - 60 DEGREES TO PROVIDE MAXIMUM OUTPUT.
   - D. ALL FASTENERS USED SHALL BE ANTI-VANDAL.
5. WIRELESS RADIO
   - A. RADIO CONTROL SHALL OPERATE ON A 900 MHZ FREQUENCY HOPPING SPREAD SPECTRUM NETWORK, WI-FI OR APPROVED EQUAL.
   - B. RADIO SHALL INTEGRATE COMMUNICATION OF RRFB CONTROL CIRCUIT TO ACTIVATE SIGN FROM PUSHBUTTON INPUT.
   - C. THE RADIO SHALL BE SYNCHRONIZED SO ALL OF THE REMOTE RRFB LIGHT INDICATIONS WILL TURN ON WITHIN 120 MSEC OF EACH OTHER AND REMAIN SYNCHRONIZED THROUGH-OUT THE DURATION OF THE FLASHING CYCLE.
6. ACCESSIBLE PEDESTRIAN PUSHBUTTON
   - A. THE PUSHBUTTON SHALL BE CAPABLE OF CONTINUOUS OPERATION OVER A TEMPERATURE RANGE OF -30 DEGREES F TO +165 DEGREES F.
   - B. PUSHBUTTON SHALL BE ADA COMPLIANT.
7. PEDESTAL SHAFT AND BASE - MOUNT ON A STANDARD 4.5-INCH OD ALUMINUM PEDESTAL POLE WITH BREAKAWAY BASE. A 14 FOOT POLE SHALL BE PROVIDED AND FIELD ADJUSTED AND CAPPED TO MAINTAIN THE PROPER SIGN MOUNTING HEIGHTS, UNLESS SPECIFIED OTHERWISE IN THE PLANS. POLE AND BASE MANUFACTURER SHALL BE LISTED ON ODOT'S QUALIFIED PRODUCTS LIST.

CONSTRUCTION -

THE RRFB SHALL BE ASSEMBLED AND CONSTRUCTED BY THE CONTRACTOR AS SHOWN AND SPECIFIED ON THE PLANS.

WARRANTY -

WARRANTY SHALL BE TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE.

MEASUREMENT -

THE DEPARTMENT WILL MEASURE THE ITEM COMPLETE IN PLACE, INCLUDING ALL MATERIALS, TESTING, LABOR AND SOFTWARE FOR A FULLY FUNCTIONAL UNIT.

PAYMENT -

PAYMENT WILL BE AT THE CONTRACT UNIT PRICE PER EACH FOR ITEM 630 "SIGNING MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY".

SIGNALS

POWER SUPPLY FOR TRAFFIC SIGNALS

ELECTRIC POWER SHALL BE OBTAINED FROM DUKE ENERGY AT THE U.S.-27/S.R. 130 INTERSECTION INDICATED ON THE PLANS. POWER SUPPLIED SHALL BE 120 VOLTS.

no new power service. Note not needed

WORK INSPECTION

THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER AND DISTRICT TRAFFIC ENGINEER WITH 72-HOUR NOTICE OF ANY SIGNAL WORK TO BE PERFORMED AT THE INSPECTION SITE(S) SO THAT INSPECTION SERVICES CAN BE SUPPLIED.

GURANTEE

THE CONTRACTOR SHALL GUARANTEE THAT THE TRAFFIC CONTROL SYSTEM INSTALLED AS PART OF THIS CONTRACT SHALL OPERATE SATISFACTORILY FOR A PERIOD OF 90 DAYS FOLLOWING COMPLETION OF THE 10-DAY PERFORMANCE TEST. IN THE EVENT OF UNSATISFACTORY OPERATION, THE CONTRACTOR SHALL CORRECT FAULTY INSTALLATIONS, MAKE REPAIRS AND REPLACE DEFECTIVE PARTS WITH NEW PARTS OF EQUAL OR BETTER QUALITY.

EQUIPMENT, MATERIAL AND LABOR COSTS INCURRED IN CORRECTING AN UNSATISFACTORY OPERATION SHALL BE BORNE BY THE CONTRACTOR.

should be limited to radars for this project

THE GUARANTEE SHALL COVER THE FOLLOWING ITEMS OF THE TRAFFIC CONTROL SYSTEM: CONTROLLER, CABINET, UNINTERRUPTIBLE POWER SUPPLY, VEHICLE DETECTION EQUIPMENT, LED LAMP UNITS, NETWORK AND COMMUNICATION/INTERCONNECT EQUIPMENT.

CUSTOMARY MANUFACTURER'S GUARANTEES FOR THE FOREGOING ITEMS SHALL BE TURNED OVER TO THE STATE OR THE MAINTAINING AGENCY FOLLOWING ACCEPTANCE OF THE EQUIPMENT.

THE COST OF GUARANTEEING THE TRAFFIC CONTROL SYSTEM WILL BE INCIDENTAL TO AND INCLUDED IN THE CONTRACT UNIT PRICE OF THE VARIOUS ITEMS MAKING UP THE SYSTEM.

Add detection maintenance note

TRAFFIC CONTROL GENERAL NOTES

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.177 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: TN001 PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:38:30 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fils@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
P:\23365 - ODOT - BUT-75-5.22\117275\400-Engineering\Traffic\Sheets\117275_TN001.dgn

SIGNALS (CONTINUED)

GROUNDING AND BONDING

THE REQUIREMENTS OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS) AND THE TC SERIES OF STANDARD CONSTRUCTION DRAWINGS ARE MODIFIED AS FOLLOWS:

A. ALL METALLIC PARTS CONTAINING ELECTRICAL CONDUCTORS SHALL BE PERMANENTLY JOINED TO FORM AN EFFECTIVE GROUND FAULT CURRENT PATH BACK TO THE GROUNDED CONDUCTOR IN THE POWER SERVICE DISCONNECT SWITCH. PROVIDE AN EQUIPMENT GROUNDING CONDUCTOR IN METALLIC CONDUITS (725.04) IN ADDITION TO THE CONDUCTORS SPECIFIED AND BOND THE CONDUIT TO THIS GROUNDING CONDUCTOR.

B. WHEN AN EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED IN PLASTIC CONDUIT (725.05), THE INSTALLATION SHALL INCLUDE A SEPARATE EQUIPMENT GROUNDING CONDUCTOR IN ADDITION TO THE CONDUCTORS SPECIFIED.

C. METALLIC CONDUIT CARRYING THE LOOP WIRES FROM IN THE PAVEMENT TO THE PULL BOX SPLICE LOCATION WILL ONLY BE BONDED AT THE PULL BOX END, AND WILL NOT CONTAIN AN EQUIPMENT GROUNDING CONDUCTOR.

D. IF MULTIPLE CONDUIT RUNS BEGIN AND END AT THE SAME POINTS, ONLY ONE EQUIPMENT GROUNDING CONDUCTOR IS REQUIRED.

E. IF AN EQUIPMENT GROUNDING CONDUCTOR IS NEEDED IN CONDUIT BETWEEN SIGNALIZED INTERSECTIONS FOR UNDERGROUND INTERCONNECT CABLE, THE GROUNDING SYSTEM FOR EACH SIGNALIZED INTERSECTION WILL BE SEPARATED ABOUT MIDWAY BETWEEN THE INTERSECTIONS.

F. THE MESSENGER WIRE AT SIGNALIZED INTERSECTIONS WILL BE USED AS THE CONDUCTIVE PATH FROM CORNER TO CORNER IF CONDUIT IS NOT PROVIDED UNDER THE ROADWAY. WHEN CONDUIT CONNECTS THE CORNERS OF AN INTERSECTION, AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE USED IN THE CONDUIT.

2. CONDUITS.

A. THE 725.04 CONDUIT SHALL HAVE GROUNDING BUSHINGS INSTALLED AT ALL TERMINATION POINTS. THE BUSHING MATERIAL SHALL BE COMPATIBLE WITH GALVANIZED STEEL CONDUIT AND THE GROUNDING LUG MATERIAL SHALL BE COMPATIBLE FOR USE WITH COPPER WIRE. THREADED OR COMPRESSION TYPE BUSHINGS MAY BE USED.

B. THE 725.05 CONDUIT SHALL HAVE THE INSIDE AND OUTSIDE DIAMETERS OF THE CONDUIT DEBURRED AT ALL TERMINATION POINTS.

C. BOTH ENDS OF METALLIC CONDUIT SHALL BE BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

D. METALLIC CONDUIT MAY BE BONDED TO METALLIC BOXES THROUGH THE USE OF CONDUIT FITTINGS UL APPROVED FOR THIS TYPE OF CONNECTION, WITH THE BOX BONDED TO THE EQUIPMENT GROUNDING CONDUCTOR.

GROUNDING AND BONDING (CONTINUED)

3.WIRE FOR GROUNDING AND BONDING.

A. USE INSULATED, COPPER WIRE FOR THE EQUIPMENT GROUNDING CONDUCTOR. BONDING JUMPERS IN BOXES AND ENCLOSURES MAY BE BARE OR INSULATED COPPER WIRE. WIRE SIZE SHALL BE AS FOLLOWS:

I. USE 4 AWG BETWEEN THE POWER SERVICE AND SUPPORTS, POLES, PEDESTALS, CONTROLLER OR FLASHER CABINETS.

II. USE A MINIMUM 8 AWG BETWEEN LOOP DETECTOR PULL BOXES AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

III. USE A MINIMUM 8 AWG BETWEEN THE "PREPARE TO STOP WHEN FLASHING"INSTALLATION (INCLUDING SUPPORT) AND THE FIRST CONDUIT THAT REQUIRES A LARGER SIZE AS SPECIFIED IN 3.A.I ABOVE.

IV. THE INSULATION SHALL BE GREEN OR GREEN WITH YELLOW STRIPE(S). FOR 4 AWG OR LARGER, INSULATION MAY ALSO BE BLACK WITH GREEN TAPE/LABELS INSTALLED AT ALL ACCESS POINTS.

B. IN A HIGHWAY LIGHTING SYSTEM, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE THE SAME WIRE SIZE AS THE DUCT CABLE OR DISTRIBUTION CABLE CIRCUIT CONDUCTORS, WITH THE MINIMUM CONDUCTOR SIZE OF 4 AWG. BONDING JUMPERS WILL BE MINIMUM SIZE 4 AWG.

4. GROUND ROD.

A. A 3/4-INCH SCHEDULE 40 PVC CONDUIT WILL BE USED IN FOUNDATIONS AND CONCRETE WALLS FOR THE GROUNDING CONDUCTOR (GROUND WIRE) RACEWAY TO THE GROUND ROD. SHOULD METALLIC CONDUIT BE USED, BOTH ENDS OF THE CONDUIT SHALL BE BONDED TO THE GROUNDING CONDUCTOR.

B. THE TYPICAL GROUNDING CONDUCTOR (GROUND WIRE) SHALL BE 4 AWG INSULATED, COPPER.

5. THE GREEN CONDUCTOR IN SIGNAL CABLES (CONDUCTOR #4) SHALL NOT BE USED TO SUPPLY POWER TO A SIGNAL INDICATION. IT WILL BE CONNECTED TO THE SIGNAL BODY AS AN EQUIPMENT GROUND IN ALUMINUM HEADS AND IT WILL BE UNUSED IN PLASTIC HEADS. UNUSED CONDUCTORS SHALL BE GROUNDED IN THE CABINET. TYPICAL USE OF CONDUCTORS IS AS FOLLOWS:

COND. NO.	COLOR	VEHICLE SIGNAL	PEDESTRIAN SIGNAL
1	BLACK	GREEN BALL	#1 WALK
2	WHITE	AC NEUTRAL	AC NEUTRAL
3	RED	RED BALL	#1 DW/FDW
4	GREEN	EQUIPMENT GROUND	EQUIPMENT GROUND
5	ORANGE	YELLOW BALL	#2 DW/FDW
6	BLUE	GREEN ARROW	#2 WALK
7	WHITE/ BLACK STRIPE	YELLOW ARROW	NOT USED

Are stop line radars also proposed? I realize that this note got a lot shorter in the newest TEM version. I recommend using the old versions for this project.

GROUNDING AND BONDING (CONTINUED)

6. POWER SERVICE AND DISCONNECT SWITCH.

A. AT THE POWER SERVICE LOCATION, THE GROUNDING CONDUCTOR (GROUND WIRE) FROM THE DISCONNECT SWITCH NEUTRAL (AC-) BAR TO THE GROUND ROD SHALL BE A CONTINUOUS, UNSPLICED CONDUCTOR. IF SPLICED, IT SHALL BE AN EXOTHERMIC WELD BUTT SPLICE.

B. THE SERVICE NEUTRAL (AC-) SHALL ONLY BE CONNECTED TO GROUND AT THE PRIMARY POWER SERVICE DISCONNECT SWITCH.

I. NEMA CONTROLLER CABINETS: IF A POWER SERVICE DISCONNECT SWITCH IS LOCATED BEFORE THE CONTROLLER CABINET, THE NEUTRAL (AC-) AND THE GROUNDING BARS IN THE CONTROLLER CABINET SHALL NOT BE CONNECTED TOGETHER AS SHOWN IN NEMA TS-2, FIGURE 5-4.

II. IF SECONDARY DISCONNECT SWITCHES ARE CONNECTED AFTER THE PRIMARY DISCONNECT SWITCH, THE NEUTRAL (AC-) SHALL ONLY BE GROUNDED AT THE PRIMARY SWITCH. EQUIPMENT GROUNDING CONDUCTORS SHALL BE BROUGHT TO THE PRIMARY SWITCH, BUT SHALL BE GROUNDED AT BOTH SECONDARY AND PRIMARY SWITCHES.

7. PAYMENT - ALL MATERIALS AND WORK REQUIRED TO COMPLETE THE EFFECTIVE GROUND FAULT CURRENT PATH SYSTEM ARE INCIDENTAL TO THE CONDUCTORS INSTALLED BY CONTRACT.

809 ADVANCE RADAR DETECTION, AS PER PLAN

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A WAVETRONIX SMARTSENSOR ADVANCE DETECTION UNIT (MODEL SS-200E).

This note should not be needed for a standard RRFB

GENERAL ELECTRICAL REQUIREMENTS FOR SOLAR-POWERED DEVICES

RUN REQUIREMENTS OF THIS DEVICE ARE 24 HOURS PER DAY, 7 DAYS PER WEEK.

UTILIZE ENVIRONMENTALLY-SEALED, HIGH-EFFICIENCY LED LIGHT SOURCES FOR THIS SOLAR-POWERED APPLICATION.

HOUSE THE SOLAR POWER SUPPLY CONTROLLER AND BATTERY IN ONE OR TWO STAINLESS STEEL OR ALUMINUM ENCLOSURES WITH A MINIMUM NEMA 3 OR 3X RATING.

IF THE EXTERIOR SIZE OF THE ENCLOSURE NECESSARY TO MEET THE REQUIREMENTS BELOW IS LESS THAN 1000 CUBIC INCHES, A SINGLE POLYMER ENCLOSURE RATED NEMA 4 AND LISTED AS SUNLIGHT-RESISTANT MAY BE INSTALLED, WITH APPROVAL OF THE ENGINEER.

SEAL ENCLOSURE CONDUIT ENTRIES TO PREVENT INSECT AND/OR RODENT ENTRY. PROVIDE METAL ENCLOSURES WITH AN EXTERIOR OF BARE OR POWDER-COATED ALUMINUM, OR STAINLESS STEEL.

PROVIDE A LOCKING ENCLOSURE USING EITHER AN INTEGRATED LOCKING MECHANISM OR A PADLOCK PER C&MS 631.06.

SMALL ENCLOSURES OF 300 CUBIC INCHES OR LESS (EXTERIOR) MAY BE PROVIDED WITH SECURITY FASTENERS IN LIEU OF A LOCKING MECHANISM OR PADLOCK.

SEPARATE THE CONTROL ELECTRONICS AND BATTERY, IF CONTAINED WITHIN A SINGLE ENCLOSURE, TO PREVENT DAMAGE TO THE CONTROL ELECTRONICS IF THE BATTERY ENVELOPE IS COMPROMISED.

GENERAL ELECTRICAL REQUIREMENTS FOR SOLAR-POWERED DEVICES (CONTINUED)

PROVIDE SEALED GEL-CELL OR AGM (ABSORBED GLASS MAT) LEAD-ACID BATTERIES FOR ALL INSTALLATIONS WITH INSTANTANEOUS LOAD REQUIREMENTS OF 4 WATTS OR ABOVE, REGARDLESS OF DUTY CYCLE.

FOR INSTALLATIONS WITH INSTANTANEOUS LOAD REQUIREMENTS OF LESS THAN 4 WATTS, RECHARGEABLE NICD, LI-ION, OR NIMH BATTERIES MAY BE USED INSTEAD OF AGM OR GEL-CELL, IF APPROVED BY THE ENGINEER.

PROVIDE SIGNED COPIES FROM THE SOLAR PANEL AND/OR CONTROLLER MANUFACTURER OF ALL CALCULATIONS USED TO SIZE THE SOLAR PANEL AND BATTERIES.

INCLUDE IN THESE CALCULATIONS THE INSOLATION VALUE USED AND ITS REFERENCE SOURCE, THE SOLAR PANEL EFFICIENCY, CHARGER/CONTROLLER EFFICIENCY, INVERTER EFFICIENCY, PROPOSED LED LAMP AND/OR EQUIPMENT LOAD, AND A FIGURE REPRESENTING ANTICIPATED MISCELLANEOUS LOSSES.

SHOW CALCULATIONS DOCUMENTING A RESERVE CAPACITY OF TWO WEEKS OPERATION UNDER CONTINUOUS WORST-CASE (MINIMUM) INSOLATION FIGURES (USUALLY DECEMBER) FOR THE PROPOSED GEOGRAPHIC LOCATION, USING A PANEL ELEVATION ANGLE APPROPRIATE TO THE SITE, AT A SUSTAINED TEMPERATURE OF 25 DEGREES FAHRENHEIT (-4 DEGREES CELSIUS).

DELIVER A COPY OF THE CALCULATIONS TO THE ENGINEER AND ANOTHER COPY TO THE OFFICE OF ROADWAY ENGINEERING FOR APPROVAL.

PROVIDE DOCUMENTATION SHOWING THAT THE SOLAR PANEL MANUFACTURER TESTED THE PANEL ACCORDING TO IEC61215 OR EQUIVALENT APPROVED STANDARD.

PROVIDE DOCUMENTATION SHOWING THAT SOLAR PANEL MOUNTING IS RATED FOR 90 MPH DESIGN WIND AND DESIGNED TO RESIST VANDALISM.

ENSURE NEC GROUNDING AND BONDING REQUIREMENTS ARE MET IF VOLTAGES OVER 50V AC OR DC ARE PRESENT.

PROVIDE A TIMER (IF REQUIRED) THAT SATISFIES THE REQUIREMENTS OF C&MS 731.10 AND IS LISTED ON THE ODOT QUALIFIED PRODUCTS LIST.

PROVIDE COMPLETE PHOTO-CONTROLLER SPECIFICATIONS, INCLUDING ON/OFF PHOTOMETRIC SWITCH POINTS (TYPICALLY GIVEN IN FOOT-CANDLES), IF A PHOTO-CONTROLLER IS UTILIZED.

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.178 TOTAL 194

SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- EY — EDGE LINE (YELLOW), 6"
- EW — EDGE LINE (WHITE), 6"
- LL — LANE LINE (WHITE), 6"
- RPM — RAISED PAVEMENT MARKER
- RS — RUMBLE STRIPS

New pavement markings on I-75 are to be Recessed/Wet Reflective to match existing markings in the area. Use 807 thermo on asphalt

W4-1R
STA. 274+32.66
146.78' LT

+01.04
BEGIN PAVEMENT MARKINGS

I.R. 75 SB ENTRANCE RAMP FROM TYLERSVILLE RD

I.R. 75 SB

EW-2 LL-4 LL-5 LL-6 EY-2
RS-4 RPM RPM RPM RS-3

12.0' 12.0' 12.0' 12.0'

No need to call out RPMs. These are placed per TC-65.10 and TC-65.11

RS-1 RPM RPM RPM RS-2
EW-1 LL-3 LL-2 LL-1 EY-1

Rumble strips are usually included with the pavement items and not shown on traffic control plans

℄ CONST. I.R. 75

I.R. 75 NB

I.R. 75 NB EXIT RAMP TO TYLERSVILLE RD

+05.27
BEGIN PAVEMENT MARKINGS

D10-5
NORTH (75) MILE 22 6
S-1
D10-5-18
STA. 270+12

E1-H5P
STA. 272+46.19
162.98' RT
Tylersville Rd
Mason
EXIT 22

D10-5-18
STA. 281+19.26
67.43' RT
NORTH (75) MILE 22 8
S-2

SPECIAL
STA. 281+64.19
152.71' RT
MILES REST AREA MILES
SPACES OPEN

EXIT 21
Cin - Day Rd
1 1/2 MILES

E1-H5p
STA. 282+37.95
144.79' LT

N76°01'29"W 5,894.40'

℄ TYLERSVILLE RD

MATCH LINE STA. 284+50

HORIZONTAL SCALE IN FEET
0 25 50 100

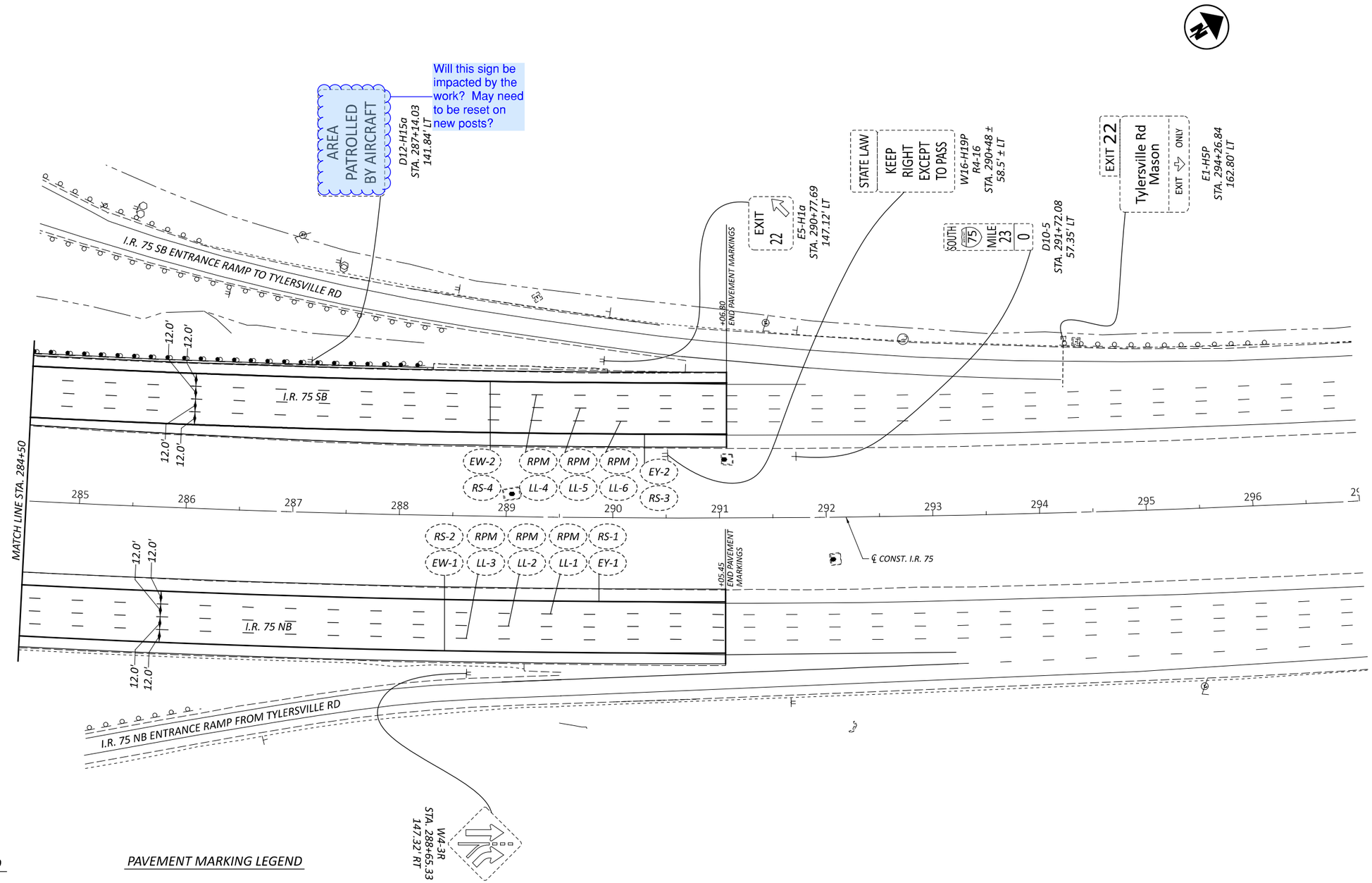
SIGNING AND PAVEMENT MARKING PLAN
I.R. 75 - BEGIN TO STA.284+50.00

BUT IR 75/VAR 5.22/VAR

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.179
TOTAL	194



SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"
EW	EDGE LINE (WHITE), 6"
LL	LANE LINE (WHITE), 6"
RPM	RAISED PAVEMENT MARKER
RS	RUMBLE STRIPS

HORIZONTAL SCALE IN FEET
0 25 50 100

SIGNING AND PAVEMENT MARKING PLAN
I.R. 75 - STA. 284+50.00 TO END

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.180
TOTAL	194

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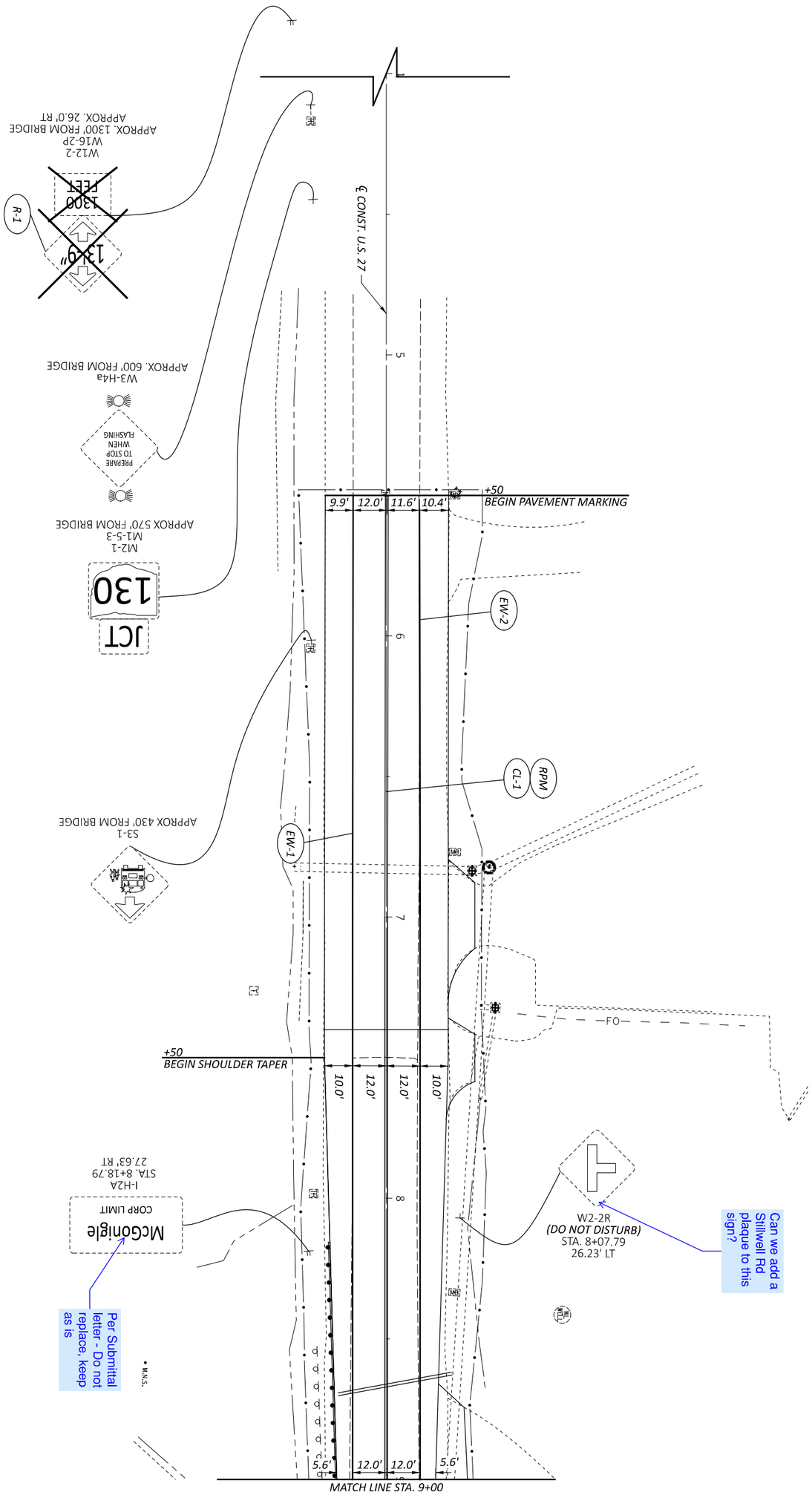
SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

- CL — CENTER LINE: SOLID, DOUBLE
- EW — EDGE LINE (WHITE), 6"
- CH — CHANNELIZING LINE, 8"
- SL — STOP LINE
- LA — LANE ARROW
- TY — TRANSVERSE / DIAGONAL LINE (YELLOW), 12"
- IY — ISLAND MARKING (YELLOW)
- RPM — RAISED PAVEMENT MARKER

Use 12"



SHEET P.181 TOTAL 194	PROJECT ID 117275	REVIEWER CWP 08/29/25	DESIGNER MJP	CHAGRIN VALLEY ENGINEERING, LTD. DESIGN AGENCY

SIGNING AND PAVEMENT MARKING PLAN
U.S. 27 - BEGIN TO STA. 9+00.00

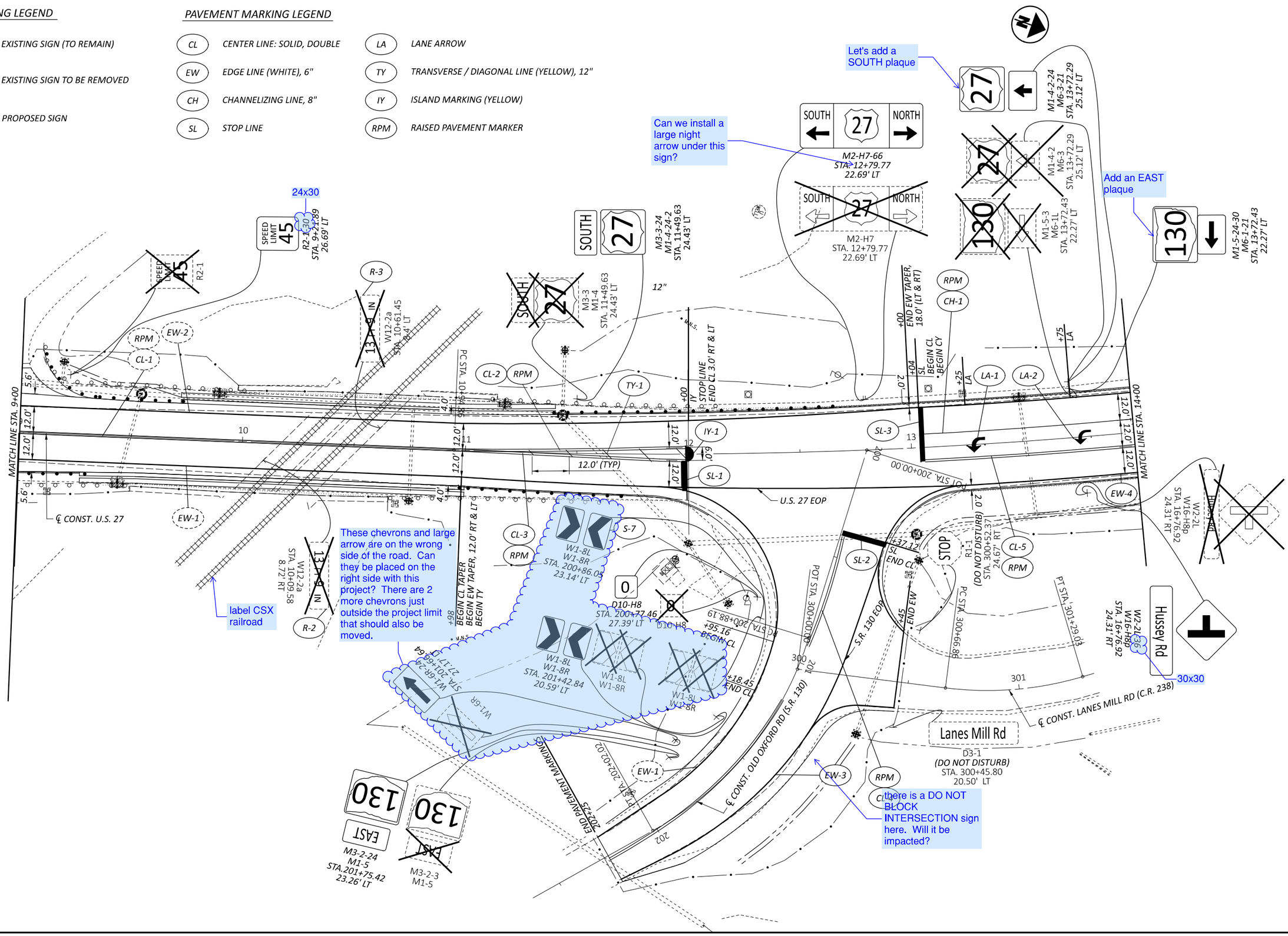
HORIZONTAL SCALE IN FEET
0 20
10 40

SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

CL	CENTER LINE: SOLID, DOUBLE
EW	EDGE LINE (WHITE), 6"
CH	CHANNELIZING LINE, 8"
SL	STOP LINE
LA	LANE ARROW
TY	TRANSVERSE / DIAGONAL LINE (YELLOW), 12"
IY	ISLAND MARKING (YELLOW)
RPM	RAISED PAVEMENT MARKER



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
U.S. 27 - STA. 9+00 TO 14+00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.182
TOTAL	194

BUT IR 75/VAR 5.22/VAR

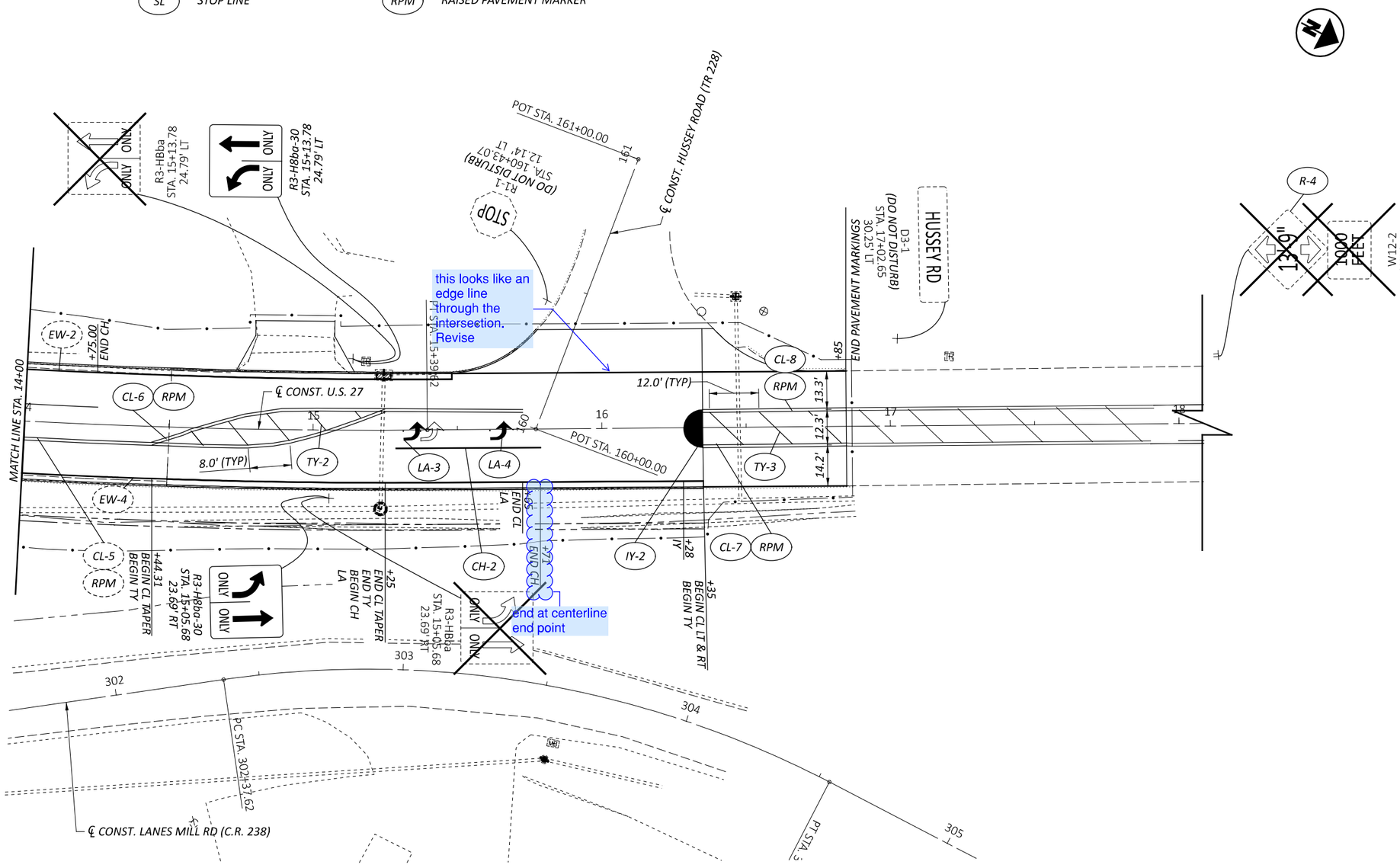
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SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

CL	CENTER LINE: SOLID, DOUBLE	LA	LANE ARROW
EW	EDGE LINE (WHITE), 6"	TY	TRANSVERSE / DIAGONAL LINE (YELLOW), 12"
CH	CHANNELIZING LINE, 8"	IY	ISLAND MARKING (YELLOW)
SL	STOP LINE	RPM	RAISED PAVEMENT MARKER



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
U.S. 27 - STA. 14+00 TO END

BUT IR 75/VAR 5.22/VAR

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.183
TOTAL	194

SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

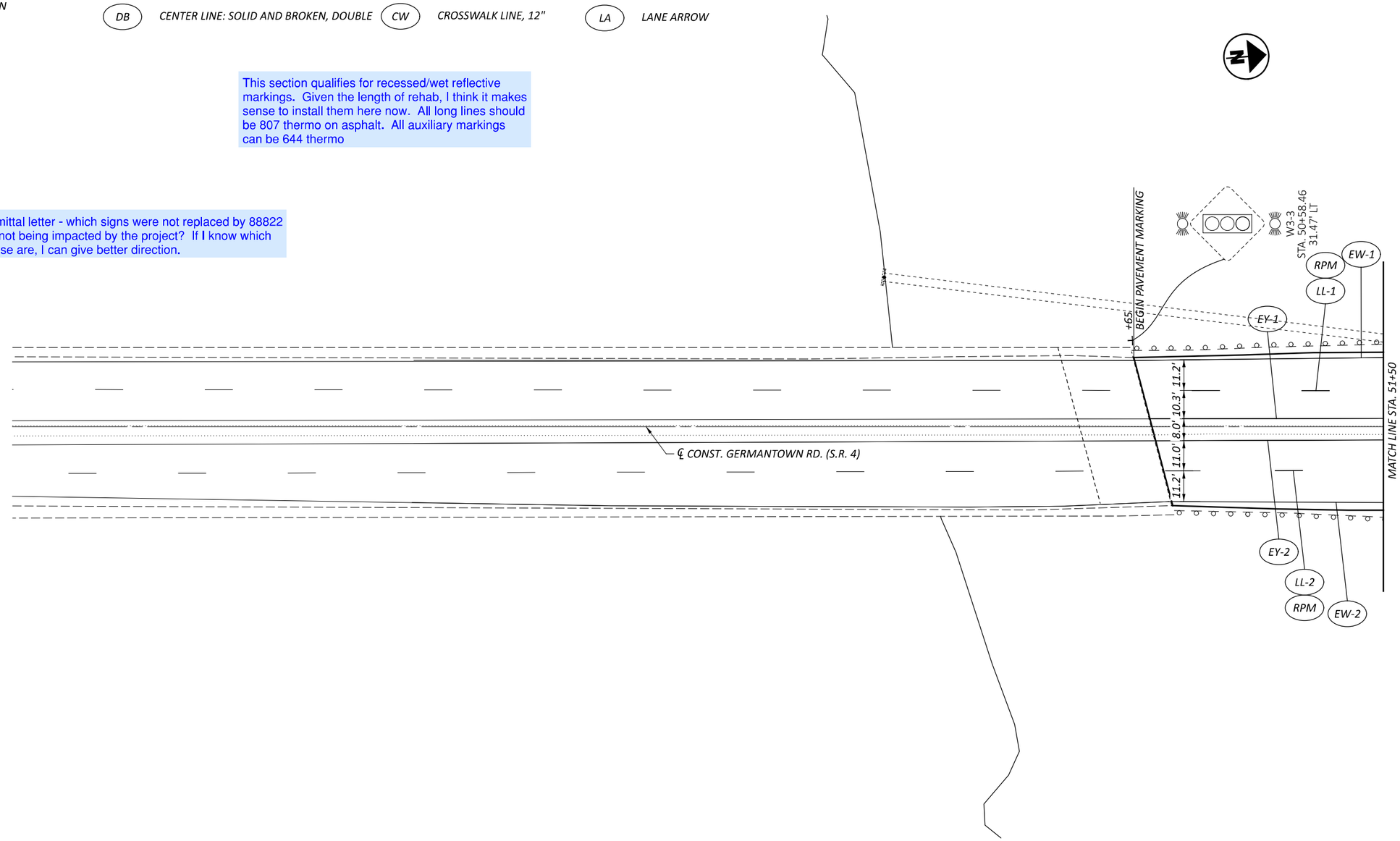
PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"	LL	LANE LINE (WHITE), 6"	CW2	CROSSWALK LINE, 24"	RPM	RAISED PAVEMENT MARKER
EW	EDGE LINE (WHITE), 6"	CH	CHANNELIZING LINE, 8"	TY	TRANSVERSE / DIAGONAL LINE (YELLOW)		
DS	CENTER LINE: SOLID, DOUBLE	SL	STOP LINE	IY	ISLAND MARKING (YELLOW)		
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE	CW	CROSSWALK LINE, 12"	LA	LANE ARROW		

12"

This section qualifies for recessed/wet reflective markings. Given the length of rehab, I think it makes sense to install them here now. All long lines should be 807 thermo on asphalt. All auxiliary markings can be 644 thermo

Per submittal letter - which signs were not replaced by 88822 and are not being impacted by the project? If I know which ones those are, I can give better direction.



HORIZONTAL SCALE IN FEET
0 10 20 40

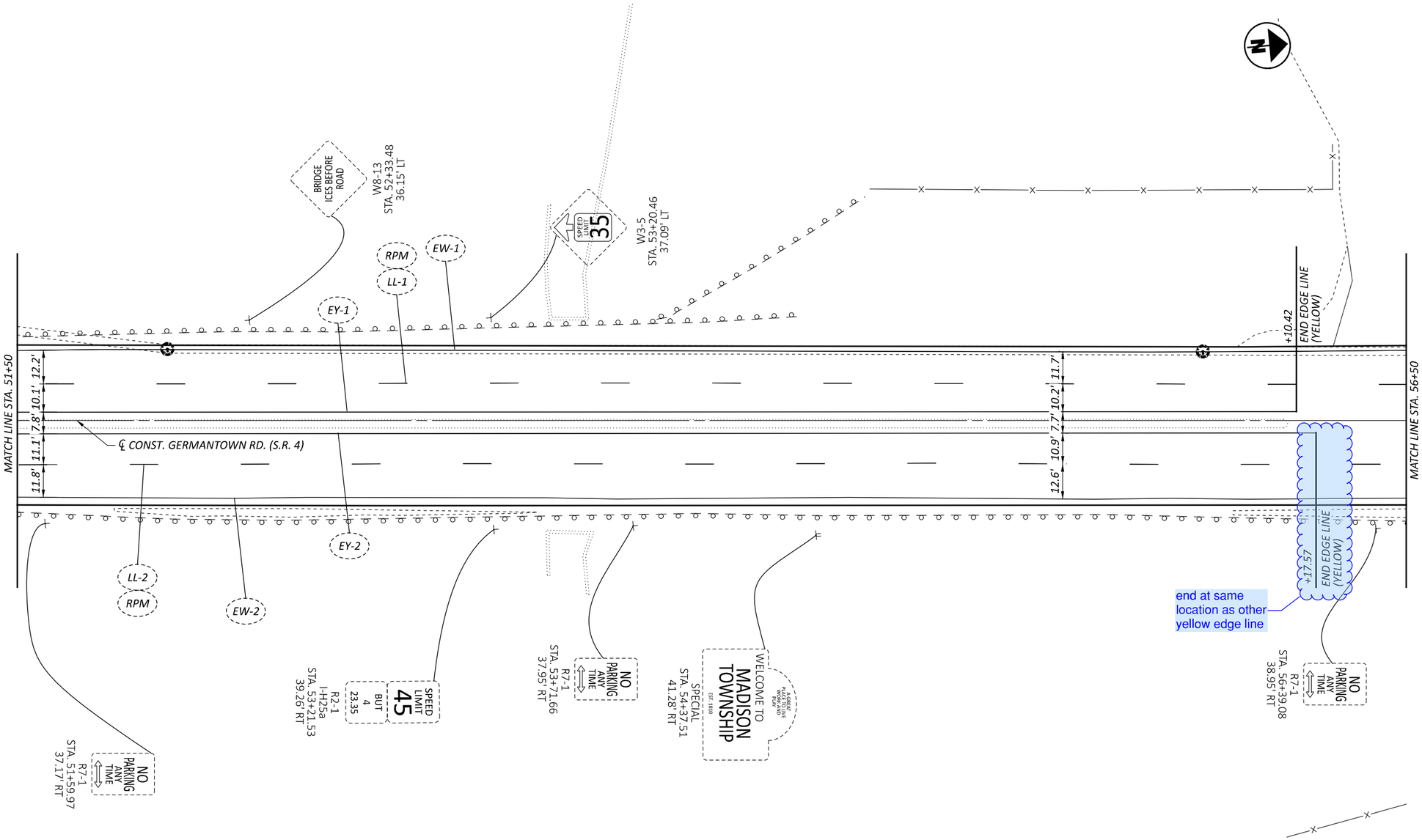
SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - BEGIN TO STA. 51+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.184 TOTAL 194

BUT IR 75/VAR 5.22/VAR

MODEL: CLP_SR4 15 FT-1 - Plan 10 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:38:45 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"
EW	EDGE LINE (WHITE), 6"
DS	CENTER LINE: SOLID, DOUBLE
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE
LL	LANE LINE (WHITE), 6"
CH	CHANNELIZING LINE, 8"
SL	STOP LINE
CW	CROSSWALK LINE, 12"
CW2	CROSSWALK LINE, 24"
TY	TRANSVERSE / DIAGONAL LINE (YELLOW)
IY	ISLAND MARKING (YELLOW)
LA	LANE ARROW
RPM	RAISED PAVEMENT MARKER

HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - STA. 51+50 TO STA 56+50

BUT IR 75/VAR 5.22/VAR

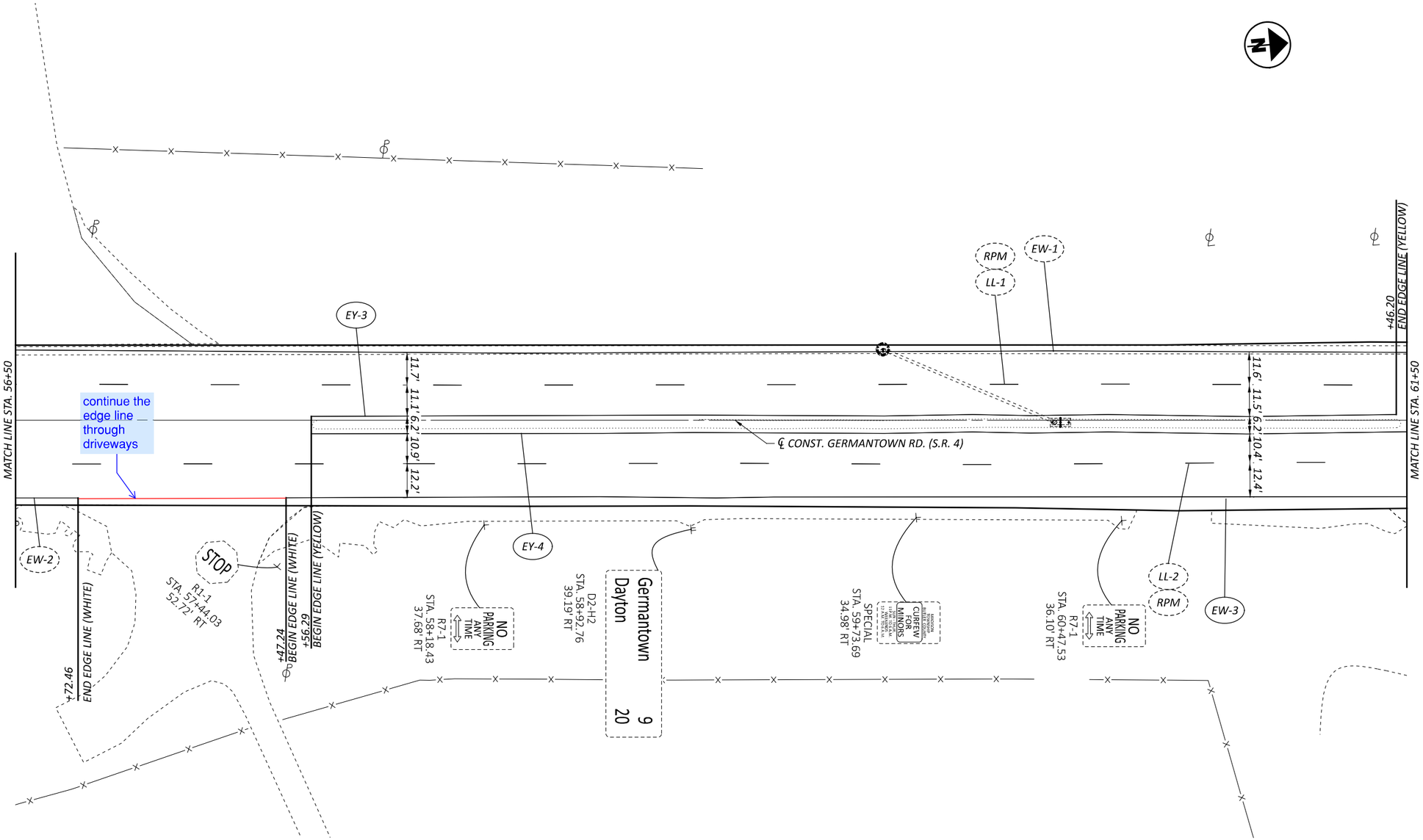
DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.185 TOTAL 194

MODEL: CLX_SR-5 - Plan 1 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:38:46 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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BUT IR 75/VAR 5.22/VAR



SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"	LL	LANE LINE (WHITE), 6"	CW2	CROSSWALK LINE, 24"	RPM	RAISED PAVEMENT MARKER
EW	EDGE LINE (WHITE), 6"	CH	CHANNELIZING LINE, 8"	TY	TRANSVERSE / DIAGONAL LINE (YELLOW)		
DS	CENTER LINE: SOLID, DOUBLE	SL	STOP LINE	IY	ISLAND MARKING (YELLOW)		
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE	CW	CROSSWALK LINE, 12"	LA	LANE ARROW		

HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - 56+50.00 TO STA. 61+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

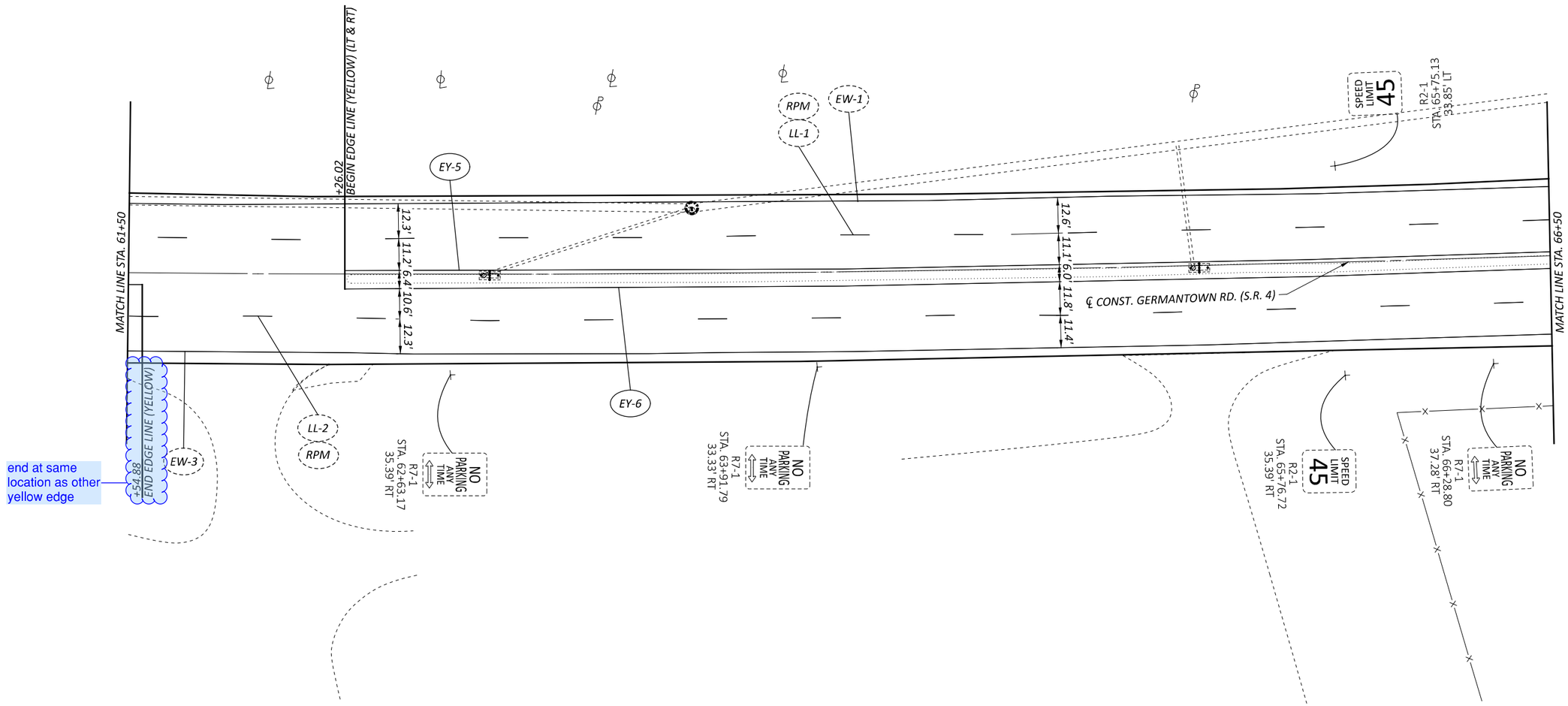
DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.186
TOTAL	194

SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"
EW	EDGE LINE (WHITE), 6"
DS	CENTER LINE: SOLID, DOUBLE
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE
LL	LANE LINE (WHITE), 6"
CH	CHANNELIZING LINE, 8"
SL	STOP LINE
CW	CROSSWALK LINE, 12"
CW2	CROSSWALK LINE, 24"
TY	TRANSVERSE / DIAGONAL LINE (YELLOW)
IY	ISLAND MARKING (YELLOW)
LA	LANE ARROW
RPM	RAISED PAVEMENT MARKER



end at same location as other yellow edge

HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - 61+50 TO STA. 66+50

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER MJP
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.187 TOTAL 194

BUT IR 75/VAR 5.22/VAR

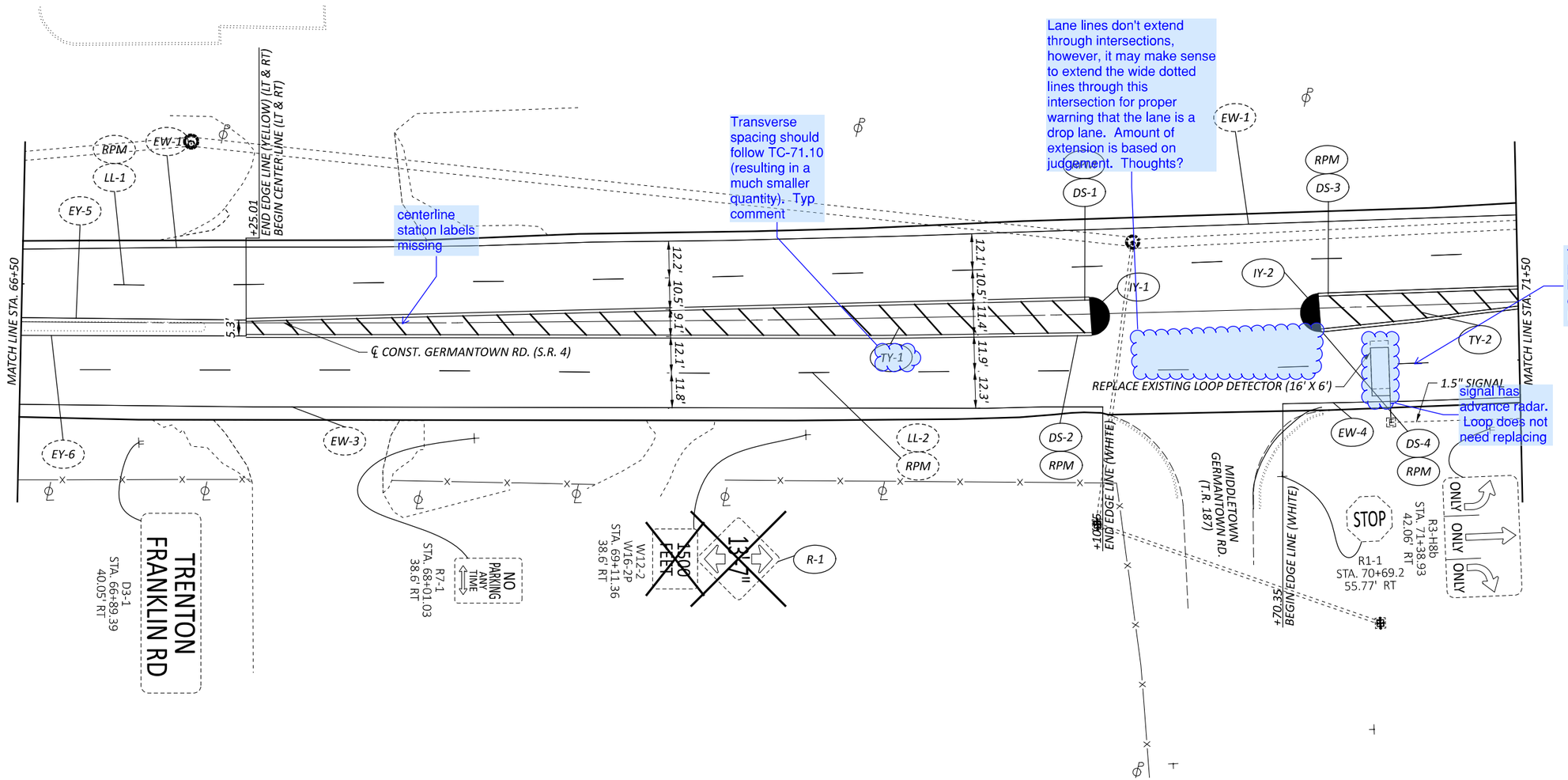
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SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"	LL	LANE LINE (WHITE), 6"	CW2	CROSSWALK LINE, 24"	RPM	RAISED PAVEMENT MARKER
EW	EDGE LINE (WHITE), 6"	CH	CHANNELIZING LINE, 8"	TY	TRANSVERSE / DIAGONAL LINE (YELLOW)		
DS	CENTER LINE: SOLID, DOUBLE	SL	STOP LINE	IY	ISLAND MARKING (YELLOW)		
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE	CW	CROSSWALK LINE, 12"	LA	LANE ARROW		



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - 66+50.00 TO STA. 71+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.188
TOTAL	194

BUT IR 75/VAR 5.22/VAR

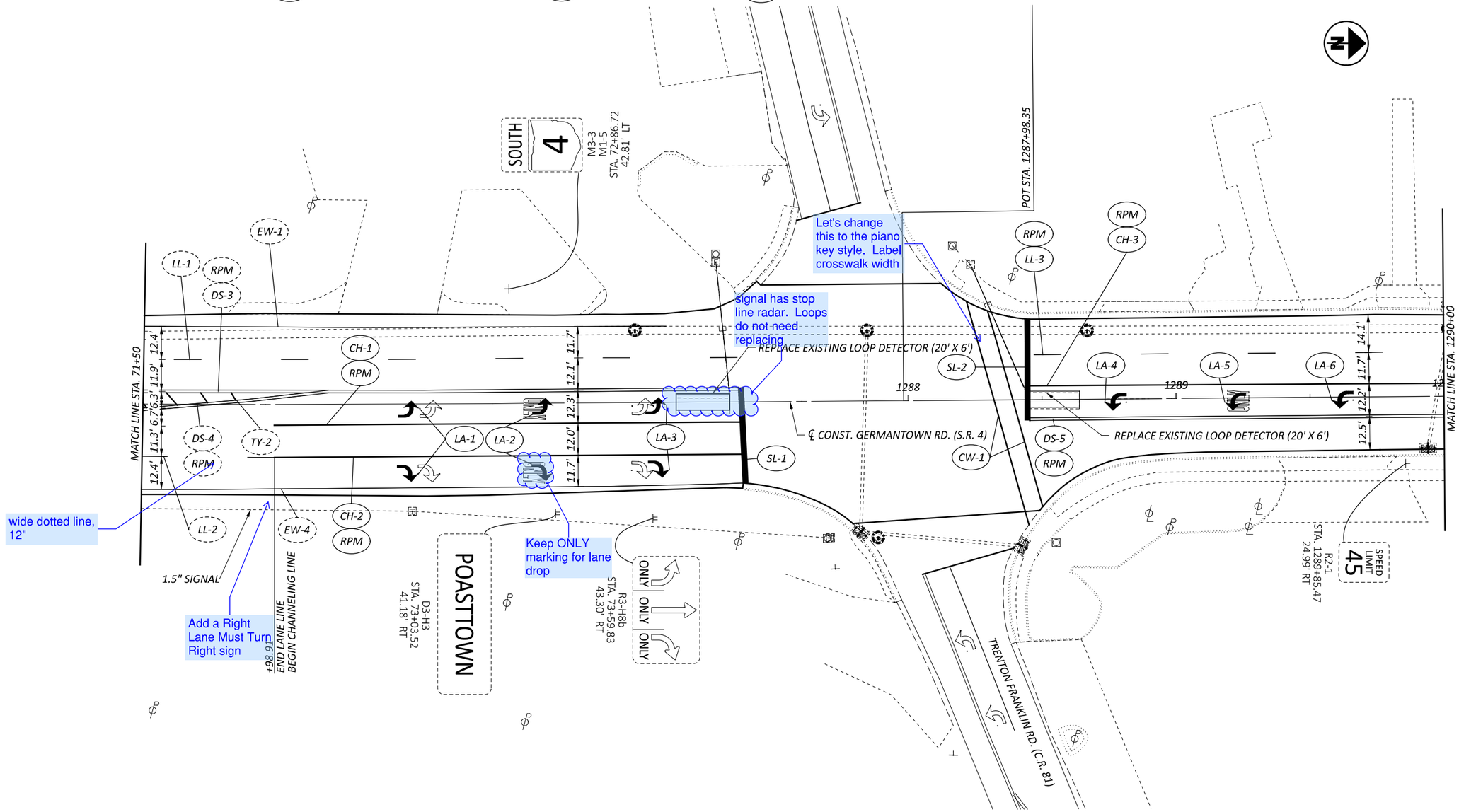
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SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"	LL	LANE LINE (WHITE), 6"	CW2	CROSSWALK LINE, 24"	RPM	RAISED PAVEMENT MARKER
EW	EDGE LINE (WHITE), 6"	CH	CHANNELIZING LINE, 8"	TY	TRANSVERSE / DIAGONAL LINE (YELLOW)		
DS	CENTER LINE: SOLID, DOUBLE	SL	STOP LINE	IY	ISLAND MARKING (YELLOW)		
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE	CW	CROSSWALK LINE, 12"	LA	LANE ARROW		



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - 71+50.00 TO STA. 1290+00.00

BUT IR 75/VAR 5.22/VAR

MODEL: CLX_SR-5 - Plan 5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 8/29/2025 TIME: 6:38:49 PM PLTDRV: OHDOT_PDF.pltcfg PENTBL: OHDOT_Pen.tbl USER: fls@cvelimited.com WORKSPACE: OHDOTCEv02 WORKSET: 117275 PRODUCT: OpenRoadsDesigner 24.00.00.205
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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

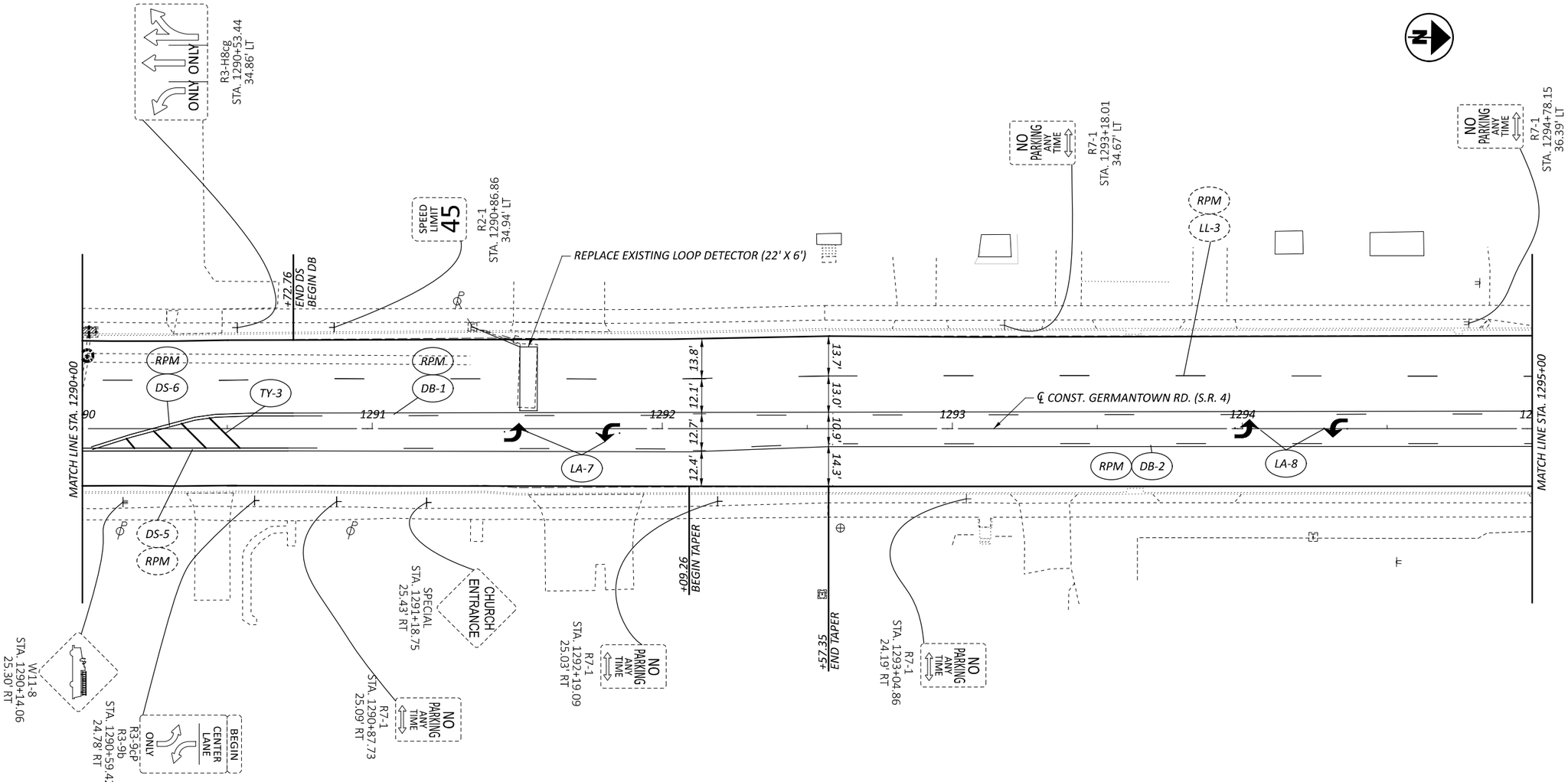
DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.189
TOTAL	194

SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"
EW	EDGE LINE (WHITE), 6"
DS	CENTER LINE: SOLID, DOUBLE
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE
LL	LANE LINE (WHITE), 6"
CH	CHANNELIZING LINE, 8"
SL	STOP LINE
CW	CROSSWALK LINE, 12"
CW2	CROSSWALK LINE, 24"
TY	TRANSVERSE / DIAGONAL LINE (YELLOW)
IY	ISLAND MARKING (YELLOW)
LA	LANE ARROW
RPM	RAISED PAVEMENT MARKER



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - STA. 1290+00.00 TO STA. 1295+00.00

BUT IR 75/VAR 5.22/VAR

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.190
TOTAL	194

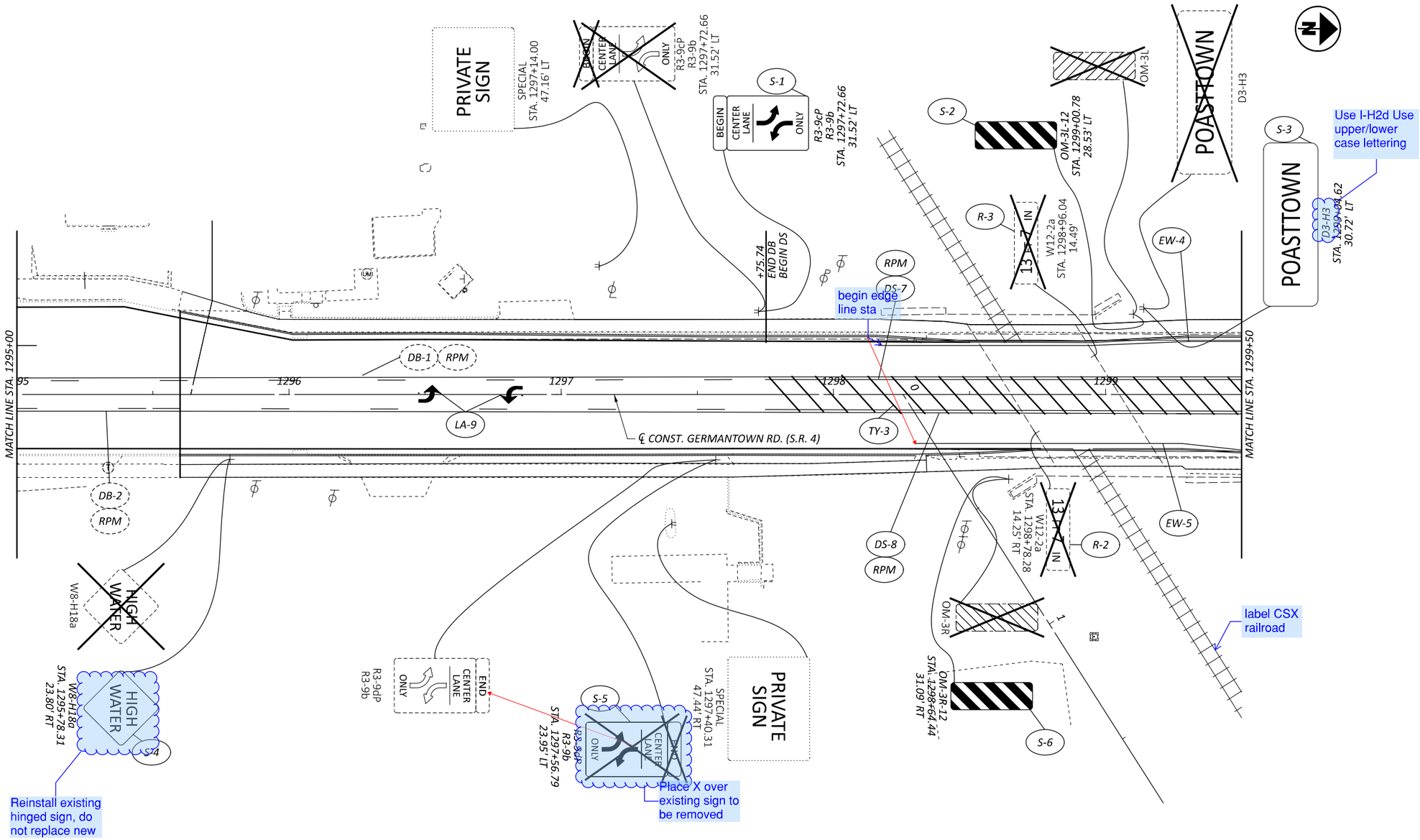
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SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"	LL	LANE LINE (WHITE), 6"	CW2	CROSSWALK LINE, 24"	RPM	RAISED PAVEMENT MARKER
EW	EDGE LINE (WHITE), 6"	CH	CHANNELIZING LINE, 8"	TY	TRANSVERSE / DIAGONAL LINE (YELLOW)		
DS	CENTER LINE: SOLID, DOUBLE	SL	STOP LINE	IY	ISLAND MARKING (YELLOW)		
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE	CW	CROSSWALK LINE, 12"	LA	LANE ARROW		



NOTE: FOLDED HIGH WATER SIGN PRESENT TO INFORM DRIVERS OF POTENTIAL WATER IN THE ROAD DURING A STORM SURGE. ODOT TO UNFOLD SIGN WHEN THESE CONDITIONS OCCUR.

HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - STA.1295+00.00 TO STA. 1299+50.00

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.191
TOTAL	194

BUT IR 75/VAR 5.22/VAR

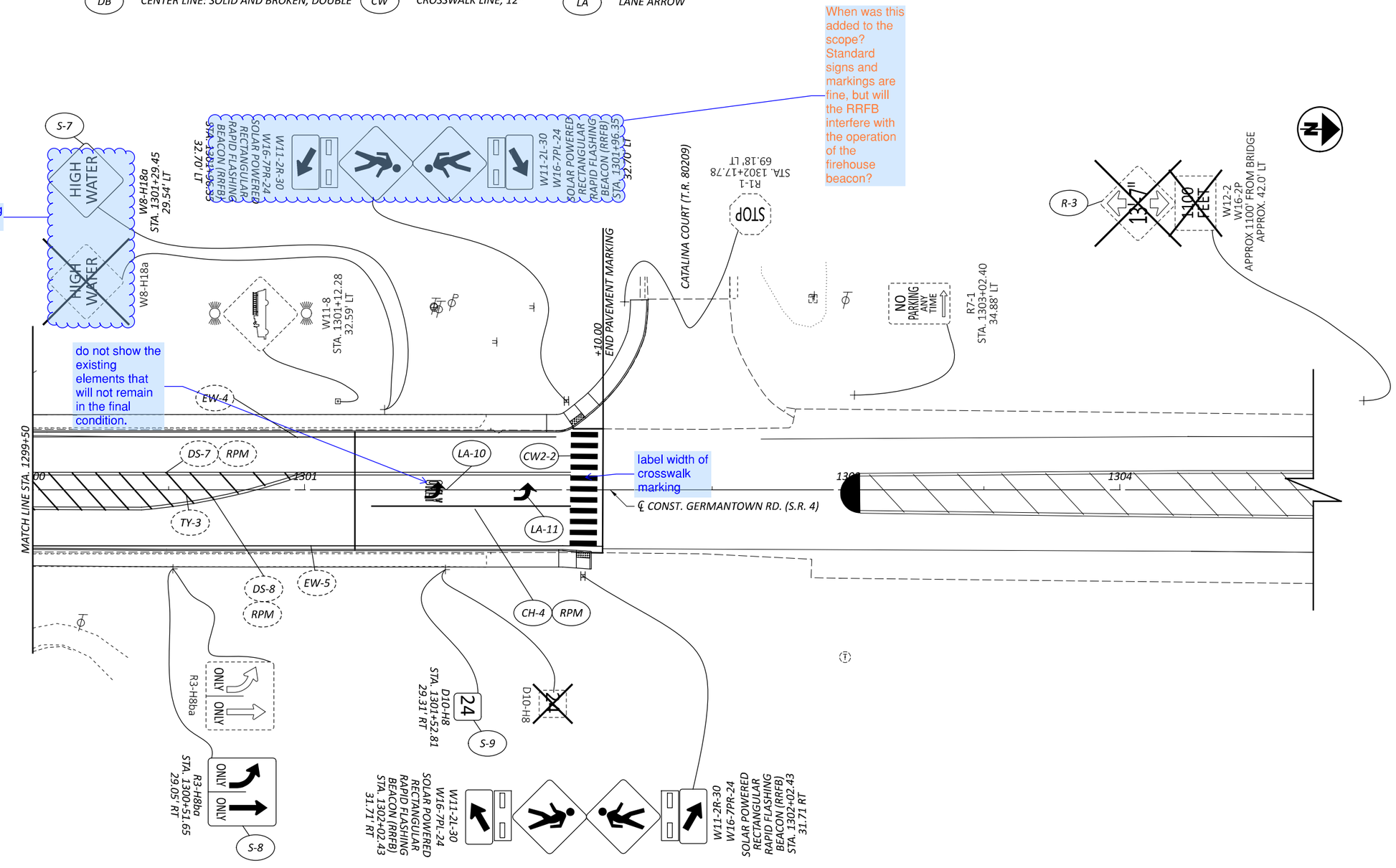
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SIGNING LEGEND

- EXISTING SIGN (TO REMAIN)
- EXISTING SIGN TO BE REMOVED
- PROPOSED SIGN

PAVEMENT MARKING LEGEND

EY	EDGE LINE (YELLOW), 6"	LL	LANE LINE (WHITE), 6"	CW2	CROSSWALK LINE, 24"	RPM	RAISED PAVEMENT MARKER
EW	EDGE LINE (WHITE), 6"	CH	CHANNELIZING LINE, 8"	TY	TRANSVERSE / DIAGONAL LINE (YELLOW)		
DS	CENTER LINE: SOLID, DOUBLE	SL	STOP LINE	IY	ISLAND MARKING (YELLOW)		
DB	CENTER LINE: SOLID AND BROKEN, DOUBLE	CW	CROSSWALK LINE, 12"	LA	LANE ARROW		



NOTE: FOLDED HIGH WATER SIGN PRESENT TO INFORM DRIVERS OF POTENTIAL WATER IN THE ROAD DURING A STORM SURGE. ODOT TO UNFOLD SIGN WHEN THESE CONDITIONS OCCUR.

HORIZONTAL SCALE IN FEET
0 10 20 40

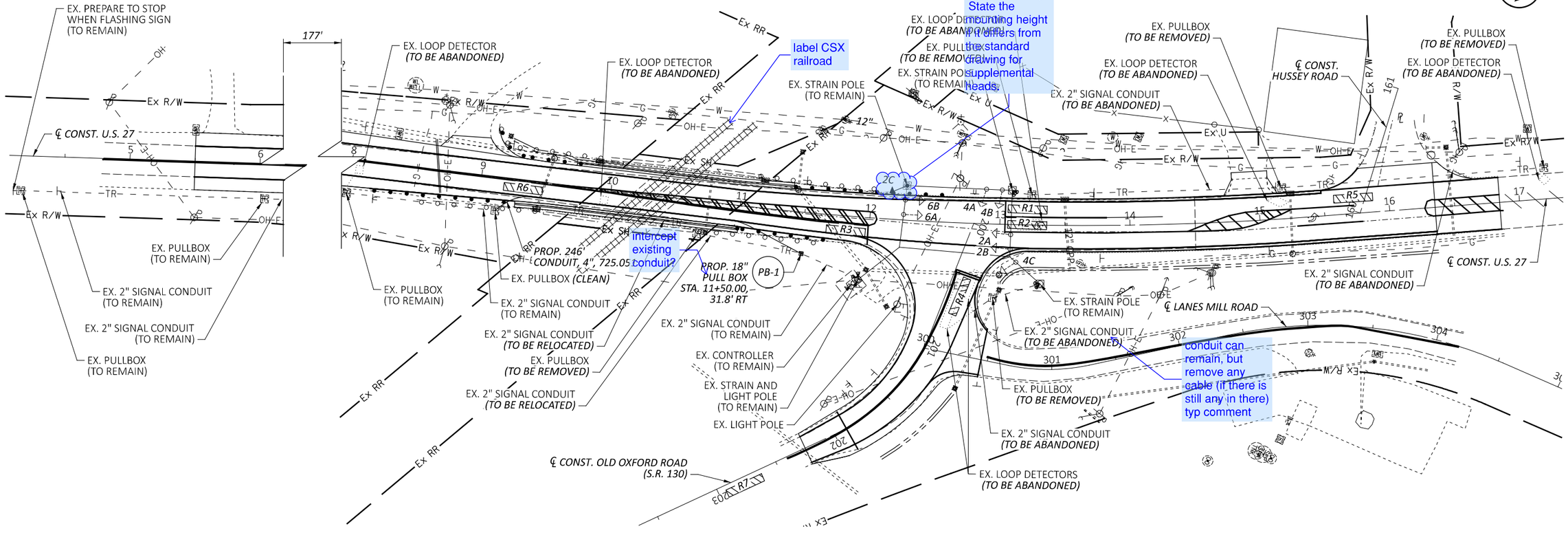
SIGNING AND PAVEMENT MARKING PLAN
S.R. 4 - STA. 1299+50.00 TO END

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER	MJP
REVIEWER	CWP 08/29/25
PROJECT ID	117275
SHEET	P.192
TOTAL	194

BUT IR 75/VAR 5.22/VAR

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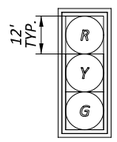
LEGEND

	PROP.	EX.
TRAFFIC SIGNAL, 3 UNIT, 12"	●⟶	○⇢
SIGNAL SUPPORT POLE	■	□
332 CONTROLLER AND WORK PAD	▭	▭
TRAFFIC PULL BOX	TR	TR
DILEMMA ZONE RADAR DETECTION UNIT	D	D
STOP LINE RADAR DETECTION UNIT	S	S
DETECTION ZONE	▨	

PULL BOX TABLE

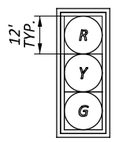
PULL BOX #	STATION	SIDE	OFFSET	SIZE (IN.)
PB-1	11+50.00	RT	31.8'	18"

EXISTING SIGNAL HEADS



2A, 2B, 4A, 4B, 4C, 6A, 6B,

PROPOSED SIGNAL HEADS



2C

HORIZONTAL SCALE IN FEET
0 20 40 80

TRAFFIC SIGNAL PLAN
U.S. 27 & S.R. 130

DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

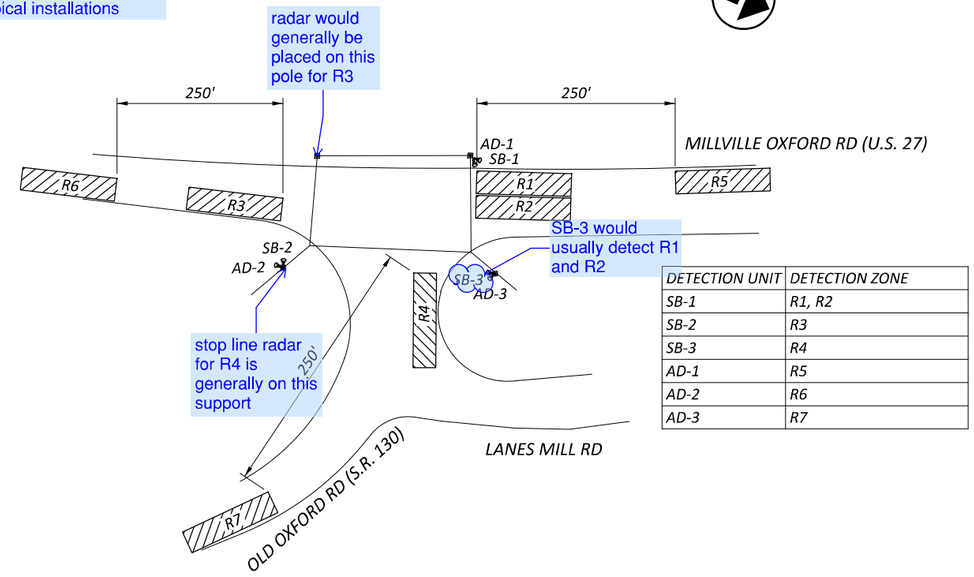
DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.193 TOTAL 194

BUT IR 75/VAR 5.22/VAR

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confirm radar placement with manufacturer. My comments are based on typical installations

DETECTION DESIGNATION DETAIL



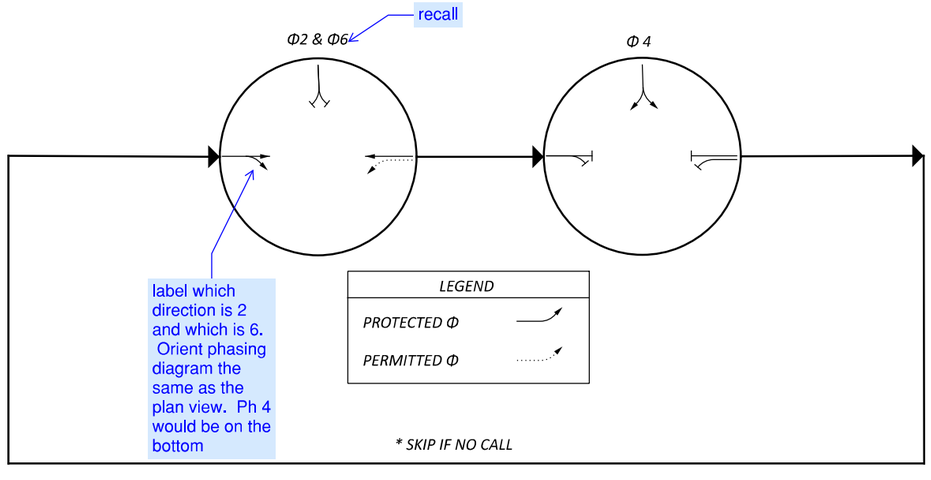
DETECTION UNIT	DETECTION ZONE
SB-1	R1, R2
SB-2	R3
SB-3	R4
AD-1	R5
AD-2	R6
AD-3	R7

RADAR DETECTION CHART

DETECTION ZONE	MOVEMENT	PULSE OR PRESENCE	ASSOCIATED PHASE	DELAY PROGRAMMED IN CONTROLLER (SEC.)	EXTENSION PROGRAMMED IN CONTROLLER (SEC.)	DETECTOR NO.	PURPOSE	DETECTION ZONE LENGTH (FT)
R1	SB	PRESENCE	2	-	-	SB-1	STOP-LINE	30
R2	SB LT	PRESENCE	2	3	-	SB-1	STOP-LINE	30
R3	WB RT/LT	PRESENCE	4	10	-	SB-2	STOP-LINE	30
R4	NB TR/RT	PRESENCE	6	-	-	SB-3	STOP-LINE	30
R5	SB	PULSE	2	-	5	AD-1	ADVANCE DETECTION	20
R6	WB	PULSE	4	-	4	AD-2	ADVANCE DETECTION	20
R7	NB	PULSE	6	-	5	AD-3	ADVANCE DETECTION	20

should not need delay with radar

PHASING DIAGRAM



NOTES:

EXISTING SIGNAL TIMING TO REMAIN.

TRAFFIC SIGNAL DETAILS
U.S. 27 & S.R. 130

BUT IR 75/VAR 5.22/VAR

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DESIGN AGENCY
CHAGRIN VALLEY ENGINEERING, LTD.

DESIGNER RHB
REVIEWER CWP 08/29/25
PROJECT ID 117275
SHEET P.194 TOTAL 194