

END PROJECT
STA 73+21.33

BEGIN PROJECT
STA 49+85.00

LOCATION MAP

LATITUDE: 39°22'21" LONGITUDE: -84°21'37"

SCALE IN MILES
0 ⅛ ¼ ½

N

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

VETERANS BLVD

BUTLER COUNTY
LIBERTY TOWNSHIP, OHIO

PROJECT DESCRIPTION

CONSTRUCTION OF VETERANS BLVD IN BUTLER COUNTY, OHIO. THIS PROJECT IS 0.4 MILES OF FOUR-LANE BOULEVARD WHICH INCLUDES TWO TWO-LANE ROUNDABOUTS CONNECTING LIBERTY WAY TO COX ROAD. DESIGN INCLUDES TRAFFIC CONTROL, STORM SEWER SYSTEM, LIGHTING, LANDSCAPING, SIDEWALK, PATH AND COMMERCIAL DRIVEWAYS.

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	6.79 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.18 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	6.97 ACRES

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2019 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.

DESIGN DESIGNATION

CURRENT ADT (2021)	0
DESIGN YEAR ADT (2041)	18,850
DESIGN HOURLY VOLUME (2041)	1,900
DIRECTIONAL DISTRIBUTION	55/45
TRUCKS (24 HOUR B&C)	1.5%
DESIGN SPEED	35 MPH
LEGAL SPEED	35 MPH

DESIGN FUNCTIONAL CLASSIFICATION: MAJOR COLLECTOR

NHS PROJECT ---------- NO

DESIGN EXCEPTIONS

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:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040
TEC Engineering, Inc.

ENGINEERS SEAL:

STATE OF OHIO
KELLIE L. LINVILLE
80232
PROFESSIONAL ENGINEER

SIGNED: Kellie Linville
DATE: 2/15/22

STANDARD CONSTRUCTION DRAWINGS

								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS
BP-2.1	7/17/15	HL-10.12	7/16/21	MT-99.20	4/19/19	TC-52.10	10/18/13			
BP-2.2	1/15/21	HL-20.11	1/15/21	MT-101.60	1/17/20	TC-52.20	1/15/21	800	7/16/21	
BP-3.1	1/17/20	HL-30.11	1/15/21	MT-101.90	7/17/20	TC-65.10	7/21/17	813	10/19/18	
BP-4.1	7/19/13	HL-30.22	1/15/21	MT-105.10	1/17/20	TC-65.11	7/21/17	832	10/19/18	
BP-5.1	7/16/21	HL-40.10	7/17/20	MT-110.10	7/19/13	TC-71.10	7/16/21	878	4/18/21	
BP-7.1	7/17/20	HL-40.20	7/17/20			TC-74.10	7/16/21	895	4/18/14	
		HL-50.11	1/16/16	TC-16.22	7/16/21					
CB-3	7/16/21	HL-60.11	7/21/17	TC-21.11	7/16/21	ITS-11.11	1/15/21			
		HL-60.12	1/15/21	TC-21.21	7/16/21	ITS-15.11	1/15/21			
MH-3	7/16/21			TC-22.20	1/17/14					
		DM-1.1	7/17/20	TC-41.20	10/18/13	LA-1.2	1/16/09			
RM-1.1	1/15/21	DM-1.2	1/18/13	TC-41.30	10/18/13					
RM-3.1	7/20/18	DM-4.3	1/15/16	TC-41.40	10/18/13					
RM-5.2	1/18/19	DM-4.4	1/15/16	TC-41.41	7/19/19					
				TC-41.50	10/18/13					
HW-1.1	7/20/18	MT-95.50	7/21/17	TC-42.20	10/18/13					

APPROVED Gregory F Williams
DATE 2/17/22 BUTLER COUNTY ENGINEER

APPROVED
Steve Miles - 2/25/2022, 4:18:59 PM

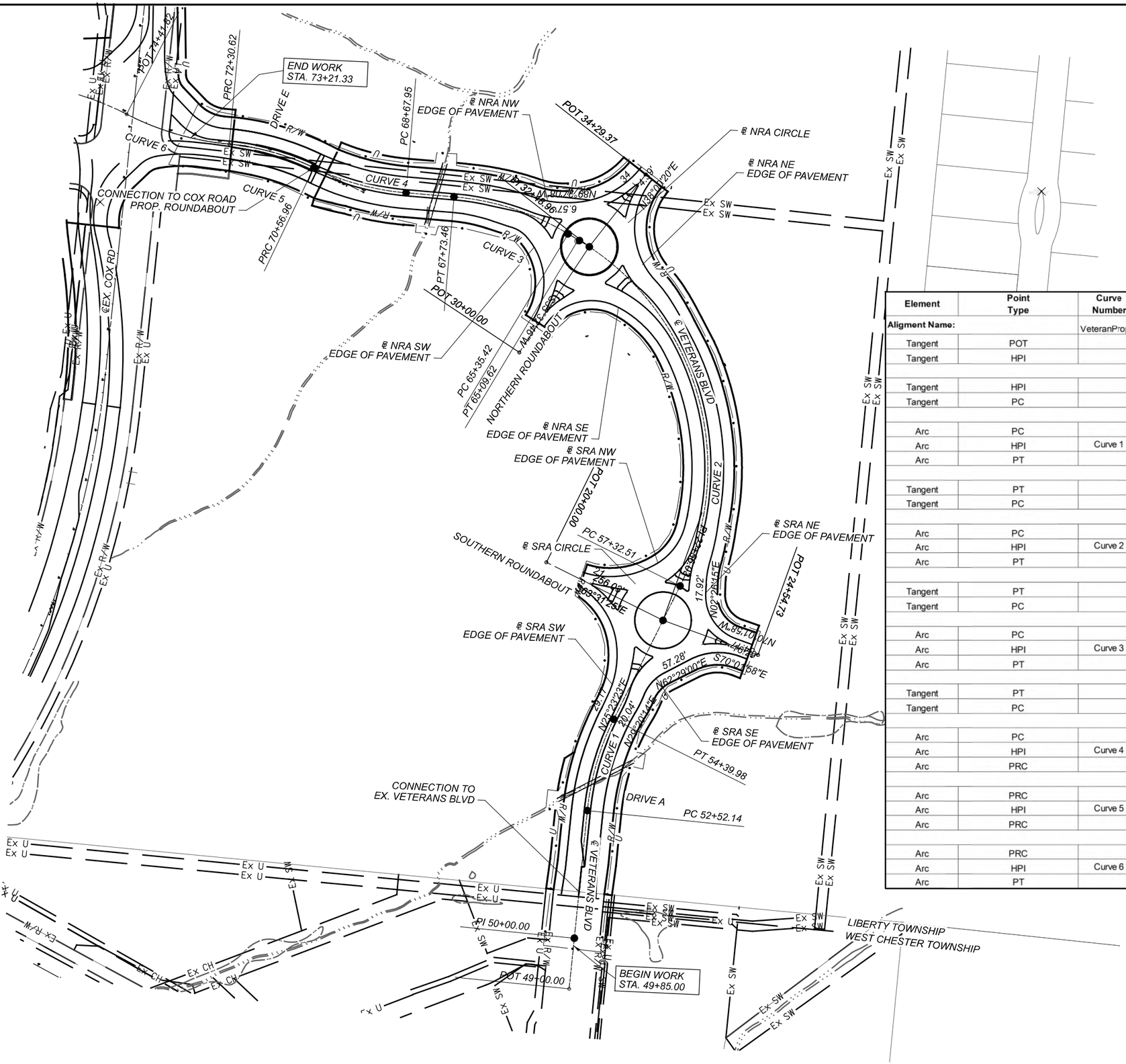
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BUT-VETERANS BLVD-0.00

VETERANS BLVD

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.1 TOTAL 147



LEGEND:

● - CENTERLINE MONUMENT, TYPE A

Element	Point Type	Curve Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:		VeteranPropALGN							
Tangent	POT		49+00.00	503711.155	1443584.709				
Tangent	HPI		50+00.00	503810.639	1443594.849				
Tangent	HPI		50+00.00	503810.639	1443594.849				
Tangent	PC		52+52.14	504061.481	1443620.415				
Arc	PC		52+52.14	504061.481	1443620.415				
Arc	HPI	Curve 1	53+47.09	504155.941	1443630.042	521	187.837	20°39'25"	Right
Arc	PT		54+39.98	504240.932	1443672.373				
Tangent	PT		54+39.98	504240.932	1443672.373				
Tangent	PC		57+32.51	504502.779	1443802.792				
Arc	PC		57+32.51	504502.779	1443802.792				
Arc	HPI	Curve 2	62+13.79	504933.584	1444017.362	521	777.115	85°27'41"	Left
Arc	PT		65+09.62	505181.571	1443604.888				
Tangent	PT		65+09.62	505181.571	1443604.888				
Tangent	PC		65+35.42	505194.861	1443582.782				
Arc	PC		65+35.42	505194.861	1443582.782				
Arc	HPI	Curve 3	66+56.55	505257.278	1443478.965	521	238.043	26°10'42"	Left
Arc	PT		67+73.46	505267.492	1443358.26				
Tangent	PT		67+73.46	505267.492	1443358.26				
Tangent	PC		68+67.95	505275.46	1443264.104				
Arc	PC		68+67.95	505275.46	1443264.104				
Arc	HPI	Curve 4	69+63.51	505283.517	1443168.89	521	189.008	20°47'09"	Right
Arc	PRC		70+56.96	505324.838	1443082.732				
Arc	PRC		70+56.96	505324.838	1443082.732				
Arc	HPI	Curve 5	71+44.70	505362.782	1443003.616	492	173.664	20°13'34"	Left
Arc	PRC		72+30.62	505371.034	1442916.26				
Arc	PRC		72+30.62	505371.034	1442916.26				
Arc	HPI	Curve 6	73+37.51	505381.087	1442809.844	556	211.202	21°45'59"	Right
Arc	PT		74+41.82	505429.884	1442714.743				

HORIZONTAL SCALE IN FEET
0 50 100 200

SCHEMATIC PLAN
VETERANS BLVD

BUT-VETERANS BLVD-0.00

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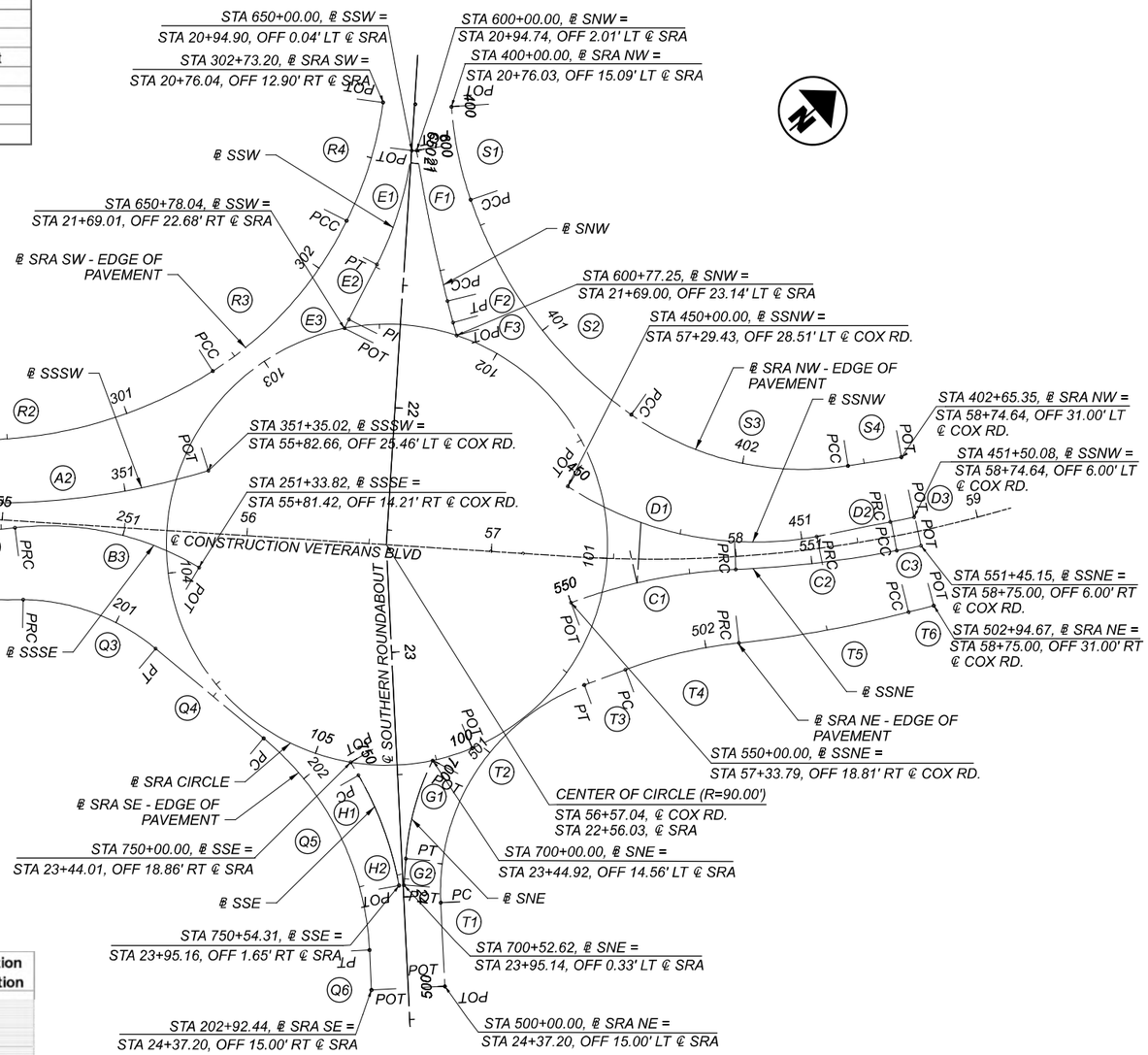
DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7348 Central Parke Blvd.
Mason, OH 45040

DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.2 TOTAL: 147

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SSW				
Arc	PC	E1	650+00.00 R1	504507.1	1443624.931				
Arc	HPI	E1	650+24.69 R1	504494.841	1443646.36	140	48.873	20°00'05"	Right
Arc	PT	E1	650+48.87 R1	504475.992	1443662.303				
Tangent	PT	E2	650+48.87 R1	504475.992	1443662.303				
Tangent	HPI	E2	650+74.04 R1	504456.774	1443678.558				
Tangent	HPI	E3	650+74.04 R1	504456.774	1443678.558				
Tangent	POT	E3	650+78.04 R1	504453.725	1443681.138				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SNW				
Arc	PC	F1	600+00.00 R1	504508.94	1443625.665				
Arc	HPI	F1	600+31.40 R1	504501.5	1443656.175	723	62.769	04°58'19"	Left
Arc	PCC	F1	600+62.77 R1	504496.732	1443687.215				
Arc	PCC	F2	600+62.77 R1	504496.732	1443687.215				
Arc	HPI	F2	600+67.30 R1	504496.044	1443691.693	500	9.06	01°02'18"	Left
Arc	PT	F2	600+71.83 R1	504495.438	1443696.182				
Tangent	PT	F3	600+71.83 R1	504495.438	1443696.182				
Tangent	POT	F3	600+77.25 R1	504494.748	1443701.558				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SNE				
Arc	PC	G1	700+00.00 R1	504418.56	1443857.66				
Arc	HPI	G1	700+21.18 R1	504402.494	1443871.457	106	41.804	22°35'12"	Left
Arc	PT	G1	700+41.80 R1	504392.959	1443890.366				
Tangent	PT	G2	700+41.80 R1	504392.959	1443890.366				
Tangent	POT	G2	700+52.62 R1	504388.041	1443900				



Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SSE				
Tangent	POT	H1	750+00.00 R1	504387.456	1443845.39				
Tangent	PC	H1	750+06.15 R1	504388.303	1443851.486				
Arc	PC	H2	750+06.15 R1	504388.303	1443851.486				
Arc	HPI	H2	750+30.48 R1	504391.446	1443875.605	138	48.153	19°57'14"	Right
Arc	PT	H2	750+54.31 R1	504386.17	1443899.349				

HORIZONTAL SCALE IN FEET
0 15 30 60

BASELINE SCHEMATIC PLAN
SOUTHERN ROUNDABOUT

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Engle Road, Suite 400
Middleburg Heights, Ohio 44130

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.3 TOTAL 147

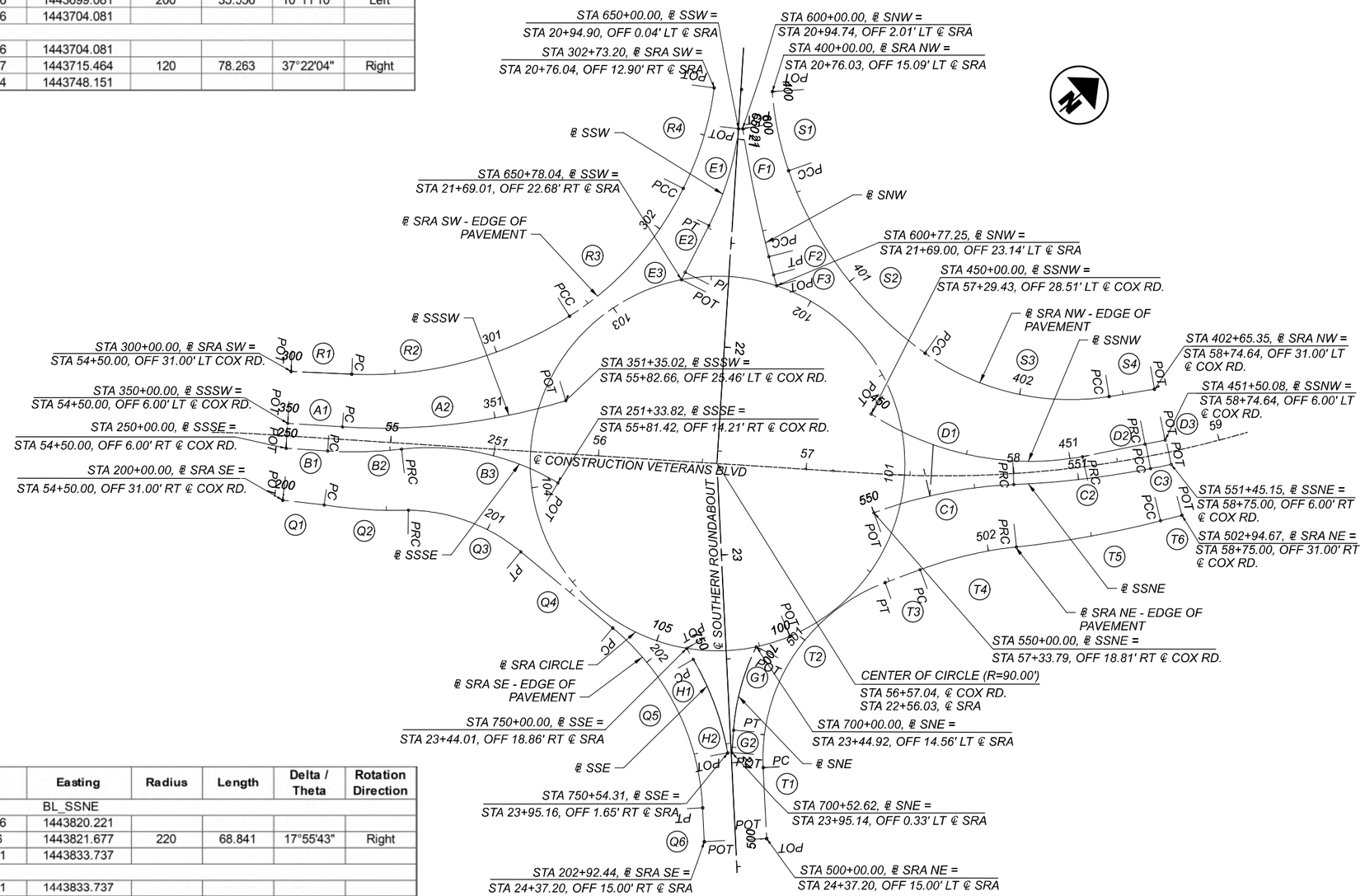
BUT-VETERANS BLVD-0.00

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Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SSSW				
Tangent	POT	A1	350+00.00 R1	504252.577	1443671.47				
Tangent	PC	A1	350+26.36 R1	504276.17	1443683.221				
Arc	PC	A2	350+26.36 R1	504276.17	1443683.221				
Arc	HPI	A2	350+81.29 R1	504325.341	1443707.712	300	108.66	20°45'09"	Left
Arc	PT	A2	351+35.02 R1	504379.999	1443713.19				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SSSE				
Tangent	POT	B1	250+00.00 R1	504247.227	1443682.212				
Tangent	PC	B1	250+20.00 R1	504265.141	1443691.134				
Arc	PC	B2	250+20.00 R1	504265.141	1443691.134				
Arc	HPI	B2	250+37.83 R1	504281.096	1443699.081	200	35.556	10°11'10"	Left
Arc	PRC	B2	250+55.56 R1	504298.206	1443704.081				
Arc	PRC	B3	250+55.56 R1	504298.206	1443704.081				
Arc	HPI	B3	250+96.14 R1	504337.157	1443715.464	120	78.263	37°22'04"	Right
Arc	PT	B3	251+33.82 R1	504361.204	1443748.151				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SSNW				
Arc	PC	D1	450+00.00 R1	504512.73	1443775.902				
Arc	HPI	D1	450+57.77 R1	504545.098	1443823.753	140	109.581	44°50'48"	Left
Arc	PRC	D1	451+09.58 R1	504601.792	1443834.852				
Arc	PRC	D2	451+09.58 R1	504601.792	1443834.852				
Arc	HPI	D2	451+24.89 R1	504613.486	1443837.115	1795.426	30.611	00°58'37"	Right
Arc	PRC	D2	451+40.19 R1	504628.461	1443840.283				
Arc	PRC	D3	451+40.19 R1	504628.461	1443840.283				
Arc	HPI	D3	451+45.13 R1	504633.297	1443841.307	515	9.885	01°05'59"	Left
Arc	PT	D3	451+50.08 R1	504638.151	1443842.237				



Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_SSNE				
Arc	PC	C1	550+00.00 R1	504495.586	1443820.221				
Arc	HPI	C1	550+34.70 R1	504530.26	1443821.677	220	68.841	17°55'43"	Right
Arc	PRC	C1	550+68.84 R1	504562.801	1443833.737				
Arc	PRC	C2	550+68.84 R1	504562.801	1443833.737				
Arc	HPI	C2	551+02.00 R1	504593.891	1443845.258	450	66.193	08°25'41"	Left
Arc	PCC	C2	551+35.03 R1	504626.334	1443852.099				
Arc	PCC	C3	551+35.03 R1	504626.334	1443852.099				
Arc	HPI	C3	551+40.09 R1	504631.283	1443853.142	527	10.115	01°05'59"	Left
Arc	PT	C3	551+45.15 R1	504636.251	1443854.09				

HORIZONTAL SCALE IN FEET
0 15 30 60

BASELINE SCHEMATIC PLAN SOUTHERN ROUNDABOUT

BUT-VETERANS BLVD-0.00

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DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Snider Station Blvd.
Mason, OH 45040

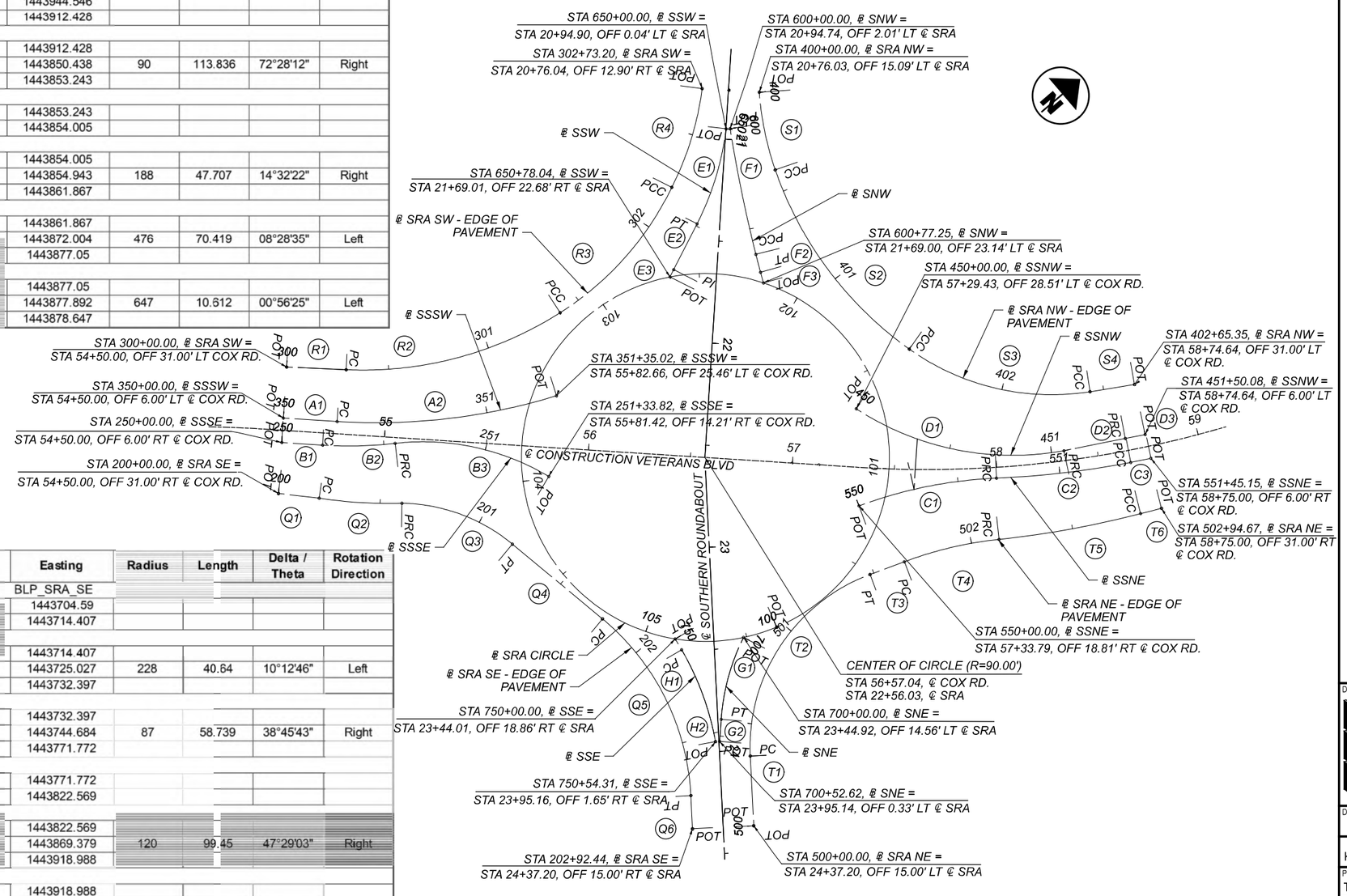
DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.4 TOTAL 147

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_SRA_SW				
Tangent	POT	R1	300+00.00 R1	504263.723	1443649.093				
Tangent	PC	R1	300+29.17 R1	504290.076	1443661.6				
Arc	PC	R2	300+29.17 R1	504290.076	1443661.6				
Arc	HPI	R2	300+85.97 R1	504341.39	1443685.955	180	110.04	35°01'37"	Left
Arc	PCC	R2	301+39.21 R1	504397.389	1443676.446				
Arc	PCC	R3	301+39.21 R1	504397.389	1443676.446				
Arc	HPI	R3	301+81.91 R1	504439.489	1443669.297	150	83.204	31°46'54"	Left
Arc	PCC	R3	302+22.42 R1	504471.511	1443641.046				
Arc	PCC	R4	302+22.42 R1	504471.511	1443641.046				
Arc	HPI	R4	302+48.05 R1	504491.036	1443624.433	150	50.782	19°23'50"	Left
Arc	PT	R4	302+73.20 R1	504503.935	1443602.278				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_SRA_NE				
Tangent	POT	T1	500+00.00 R1	504387.461	1443944.546				
Tangent	PC	T1	500+34.17 R1	504399.13	1443912.428				
Arc	PC	T2	500+34.17 R1	504399.13	1443912.428				
Arc	HPI	T2	501+00.13 R1	504421.653	1443850.438	90	113.836	72°28'12"	Right
Arc	PT	T2	501+48.01 R1	504487.548	1443853.243				
Tangent	PT	T3	501+48.01 R1	504487.548	1443853.243				
Tangent	PC	T3	501+65.93 R1	504505.452	1443854.005				
Arc	PC	T4	501+65.93 R1	504505.452	1443854.005				
Arc	HPI	T4	501+89.91 R1	504529.415	1443854.943	188	47.707	14°32'22"	Right
Arc	PRC	T4	502+13.64 R1	504552.376	1443861.867				
Arc	PRC	T5	502+13.64 R1	504552.376	1443861.867				
Arc	HPI	T5	502+48.91 R1	504586.162	1443872.004	476	70.419	08°28'35"	Left
Arc	PCC	T5	502+84.05 R1	504621.073	1443877.05				
Arc	PCC	T6	502+84.05 R1	504621.073	1443877.05				
Arc	HPI	T6	502+89.36 R1	504626.312	1443877.892	647	10.612	00°56'25"	Left
Arc	PT	T6	502+94.67 R1	504631.564	1443878.647				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_SRA_NW				
Arc	PC	S1	400+00.00 R1	504528.986	1443614.753				
Arc	HPI	S1	400+19.54 R1	504522.766	1443633.277	150	38.861	14°50'38"	Left
Arc	PCC	S1	400+38.86 R1	504521.5	1443652.776				
Arc	PCC	S2	400+38.86 R1	504521.5	1443652.776				
Arc	HPI	S2	400+96.34 R1	504517.775	1443710.129	180	111.264	35°25'00"	Left
Arc	PCC	S2	401+50.13 R1	504547.976	1443759.029				
Arc	PCC	S3	401+50.13 R1	504547.976	1443759.029				
Arc	HPI	S3	401+99.20 R1	504573.76	1443800.778	120	93.16	44°28'51"	Left
Arc	PCC	S3	402+43.29 R1	504621.41	1443812.498				
Arc	PCC	S4	402+43.29 R1	504621.41	1443812.498				
Arc	HPI	S4	402+54.32 R1	504632.113	1443815.17	1500	22.063	00°50'34"	Left
Arc	PT	S4	402+65.35 R1	504642.855	1443817.683				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_SRA_SE				
Tangent	POT	Q1	200+00.00 R1	504236.081	1443704.59				
Tangent	PC	Q1	200+20.04 R1	504253.549	1443714.407				
Arc	PC	Q2	200+20.04 R1	504253.549	1443714.407				
Arc	HPI	Q2	200+40.41 R1	504270.936	1443725.027	228	40.64	10°12'46"	Left
Arc	PRC	Q2	200+60.68 R1	504289.931	1443732.397				
Arc	PRC	Q3	200+60.68 R1	504289.931	1443732.397				
Arc	HPI	Q3	200+91.22 R1	504317.894	1443744.684	87	58.739	38°45'43"	Right
Arc	PT	Q3	201+19.42 R1	504332.005	1443771.772				
Tangent	PT	Q4	201+19.42 R1	504332.005	1443771.772				
Tangent	PC	Q4	201+76.69 R1	504358.467	1443822.569				
Arc	PC	Q5	201+76.69 R1	504358.467	1443822.569				
Arc	HPI	Q5	202+29.47 R1	504382.852	1443869.379	120	99.45	47°29'03"	Right
Arc	PT	Q5	202+76.14 R1	504364.828	1443918.988				
Tangent	PT	Q6	202+76.14 R1	504364.828	1443918.988				
Tangent	POT	Q6	202+92.44 R1	504359.264	1443934.302				



HORIZONTAL SCALE IN FEET
0 15 30 60

BASELINE SCHEMATIC PLAN NORTHERN ROUNDABOUT

BUT-VETERANS BLVD-0.00

MODEL: VeteransPropALGN - SRA Outer EOP PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:35:25 PM USER: kellie
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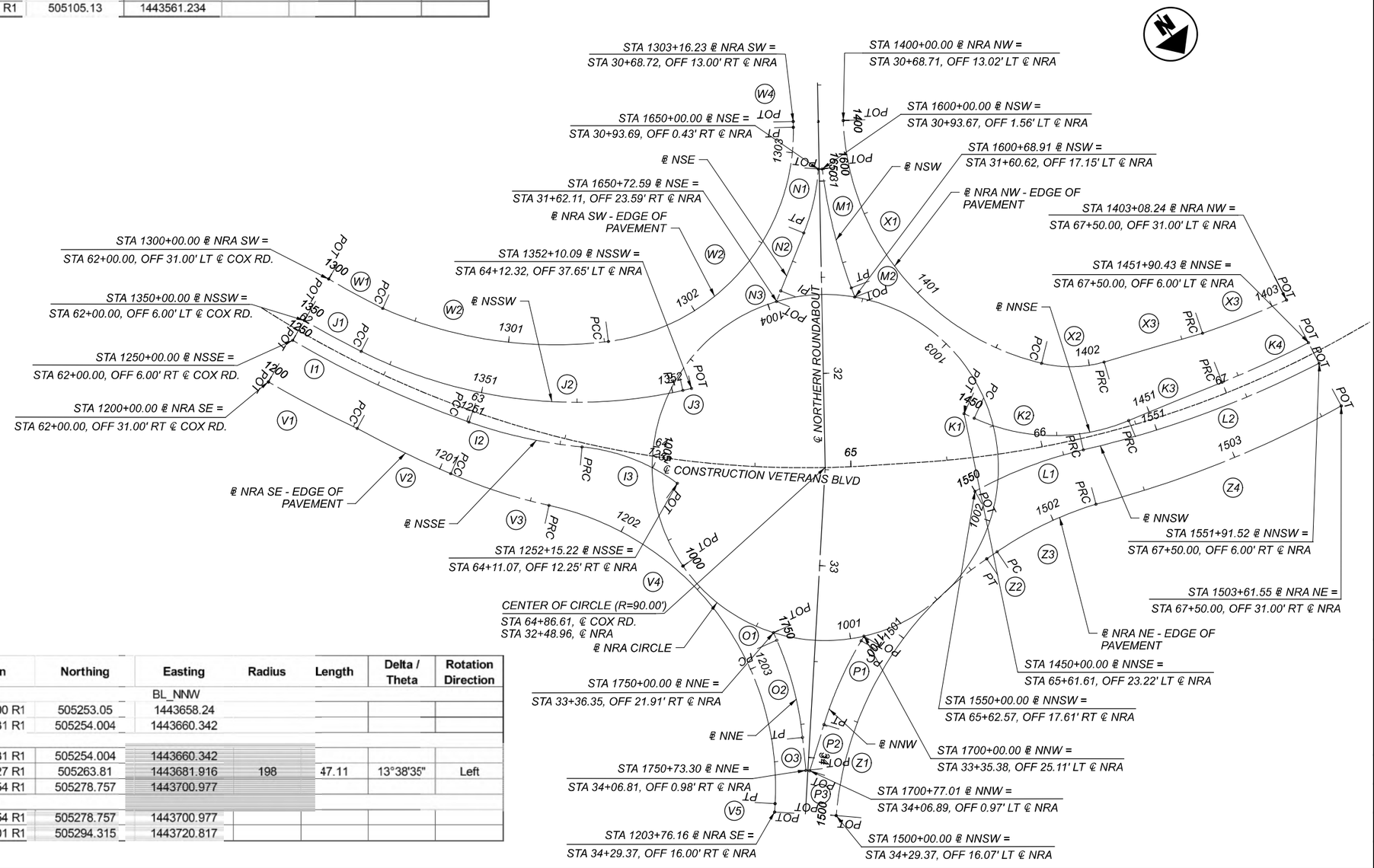
DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.5 TOTAL 147

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NSE				
Arc	PC	N1	1650+00.00 R1	505039.634	1443538.896				
Arc	HPI	N1	1650+17.25 R1	505053.117	1443549.662	110	34.229	17°49'44"	Right
Arc	PT	N1	1650+34.23 R1	505062.657	1443564.039				
Tangent	PT	N2	1650+34.23 R1	505062.657	1443564.039				
Tangent	HPI	N2	1650+66.67 R1	505080.592	1443591.067				
Tangent	HPI	N3	1650+66.67 R1	505080.592	1443591.067				
Tangent	POT	N3	1650+72.59 R1	505083.859	1443596.005				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NNE				
Tangent	POT	O1	1750+00.00 R1	505224.526	1443695.389				
Tangent	PC	O1	1750+04.30 R1	505228.745	1443696.202				
Arc	PC	O2	1750+04.30 R1	505228.745	1443696.202				
Arc	HPI	O2	1750+30.38 R1	505254.362	1443701.133	167	51.753	17°48'13"	Right
Arc	PT	O2	1750+56.05 R1	505277.917	1443714.027				
Tangent	PT	O3	1750+56.05 R1	505277.917	1443714.027				
Tangent	POT	O3	1750+73.30 R1	505293.048	1443722.311				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NSW				
Arc	PC	M1	1600+00.00 R1	505040.719	1443537.228				
Arc	HPI	M1	1600+32.06 R1	505069.156	1443552.025	280	63.834	13°03'44"	Left
Arc	PT	M1	1600+63.83 R1	505100.201	1443560.013				
Tangent	PT	M2	1600+63.83 R1	505100.201	1443560.013				
Tangent	POT	M2	1600+68.91 R1	505105.13	1443561.234				



Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NNW				
Tangent	POT	P1	1700+00.00 R1	505253.05	1443658.24				
Tangent	PC	P1	1700+02.31 R1	505254.004	1443660.342				
Arc	PC	P2	1700+02.31 R1	505254.004	1443660.342				
Arc	HPI	P2	1700+28.27 R1	505263.81	1443681.916	198	47.11	13°38'35"	Left
Arc	PT	P2	1700+49.54 R1	505278.757	1443700.977				
Tangent	PT	P3	1700+49.54 R1	505278.757	1443700.977				
Tangent	POT	P3	1700+77.01 R1	505294.315	1443720.817				

HORIZONTAL SCALE IN FEET
0 15 30 60

BASELINE SCHEMATIC PLAN NORTHERN ROUNDABOUT

BUT-VETERANS BLVD-0.00

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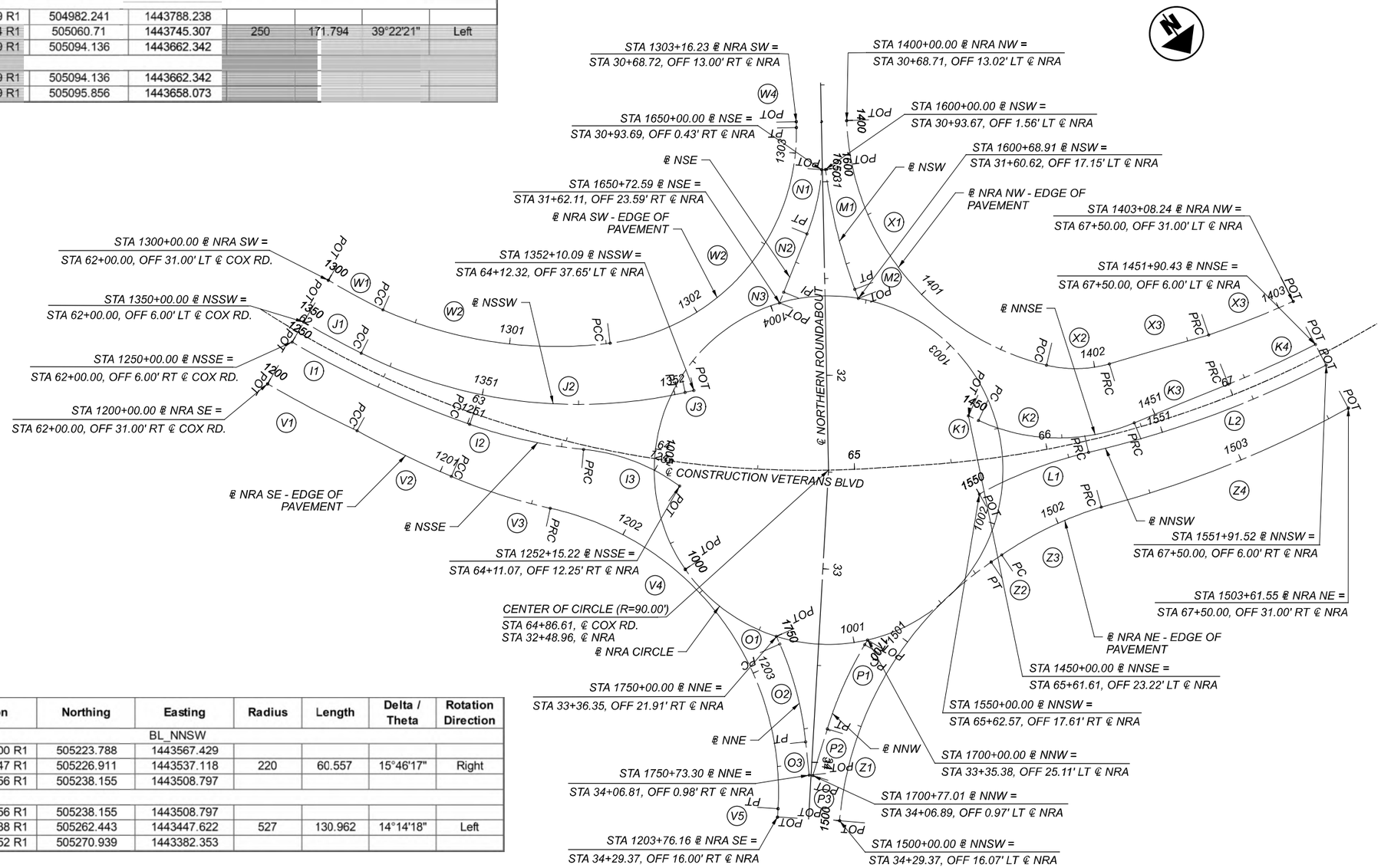
DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Central Parke Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.6 TOTAL 147

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NSSE				
Arc	PC	I1	1250+00.00 R1	504957.234	1443814.313				
Arc	HPI	I1	1250+50.73 R1	505003.237	1443792.925	527	101.152	10°59'50"	Left
Arc	PCC	I1	1251+01.15 R1	505044.315	1443763.154				
Arc	PCC	I2	1251+01.15 R1	505044.315	1443763.154				
Arc	HPI	I2	1251+31.48 R1	505068.876	1443745.354	250	60.37	13°50'08"	Left
Arc	PRC	I2	1251+61.52 R1	505088.467	1443722.197				
Arc	PRC	I3	1251+61.52 R1	505088.467	1443722.197				
Arc	HPI	I3	1251+89.03 R1	505106.237	1443701.193	100	53.696	30°45'56"	Right
Arc	PT	I3	1252+15.22 R1	505132.25	1443692.235				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NSSW				
Arc	PC	J1	1350+00.00 R1	504952.175	1443803.431				
Arc	HPI	J1	1350+16.85 R1	504967.457	1443796.326	515	33.693	03°44'54"	Left
Arc	PCC	J1	1350+33.69 R1	504982.241	1443788.238				
Arc	PCC	J2	1350+33.69 R1	504982.241	1443788.238				
Arc	HPI	J2	1351+23.14 R1	505060.71	1443745.307	250	171.794	39°22'21"	Left
Arc	PT	J2	1352+05.49 R1	505094.136	1443662.342				
Tangent	PT	J3	1352+05.49 R1	505094.136	1443662.342				
Tangent	POT	J3	1352+10.09 R1	505095.856	1443658.073				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NNSE				
Tangent	POT	K1	1450+00.00 R1	505187.31	1443549.051				
Tangent	PC	K1	1450+05.79 R1	505192.289	1443546.091				
Arc	PC	K2	1450+05.79 R1	505192.289	1443546.091				
Arc	HPI	K2	1450+49.65 R1	505229.986	1443523.674	100	82.666	47°21'50"	Left
Arc	PRC	K2	1450+88.46 R1	505239.029	1443480.757				
Arc	PRC	K3	1450+88.46 R1	505239.029	1443480.757				
Arc	HPI	K3	1451+14.73 R1	505244.446	1443455.047	2961	52.547	01°01'01"	Right
Arc	PRC	K3	1451+41.00 R1	505250.319	1443429.438				
Arc	PRC	K4	1451+41.00 R1	505250.319	1443429.438				
Arc	HPI	K4	1451+65.74 R1	505255.847	1443405.33	515	49.428	05°29'57"	Left
Arc	PT	K4	1451+90.43 R1	505259.04	1443380.804				



Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BL_NNSW				
Arc	PC	L1	1550+00.00 R1	505223.788	1443567.429				
Arc	HPI	L1	1550+30.47 R1	505226.911	1443537.118	220	60.557	15°46'17"	Right
Arc	PRC	L1	1550+60.56 R1	505238.155	1443508.797				
Arc	PRC	L2	1550+60.56 R1	505238.155	1443508.797				
Arc	HPI	L2	1551+26.38 R1	505262.443	1443447.622	527	130.962	14°14'18"	Left
Arc	PT	L2	1551+91.52 R1	505270.939	1443382.353				

HORIZONTAL SCALE IN FEET
0 15 30 60

BASELINE SCHEMATIC PLAN
SOUTHERN ROUNDABOUT

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Central Parke Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.7 TOTAL 147

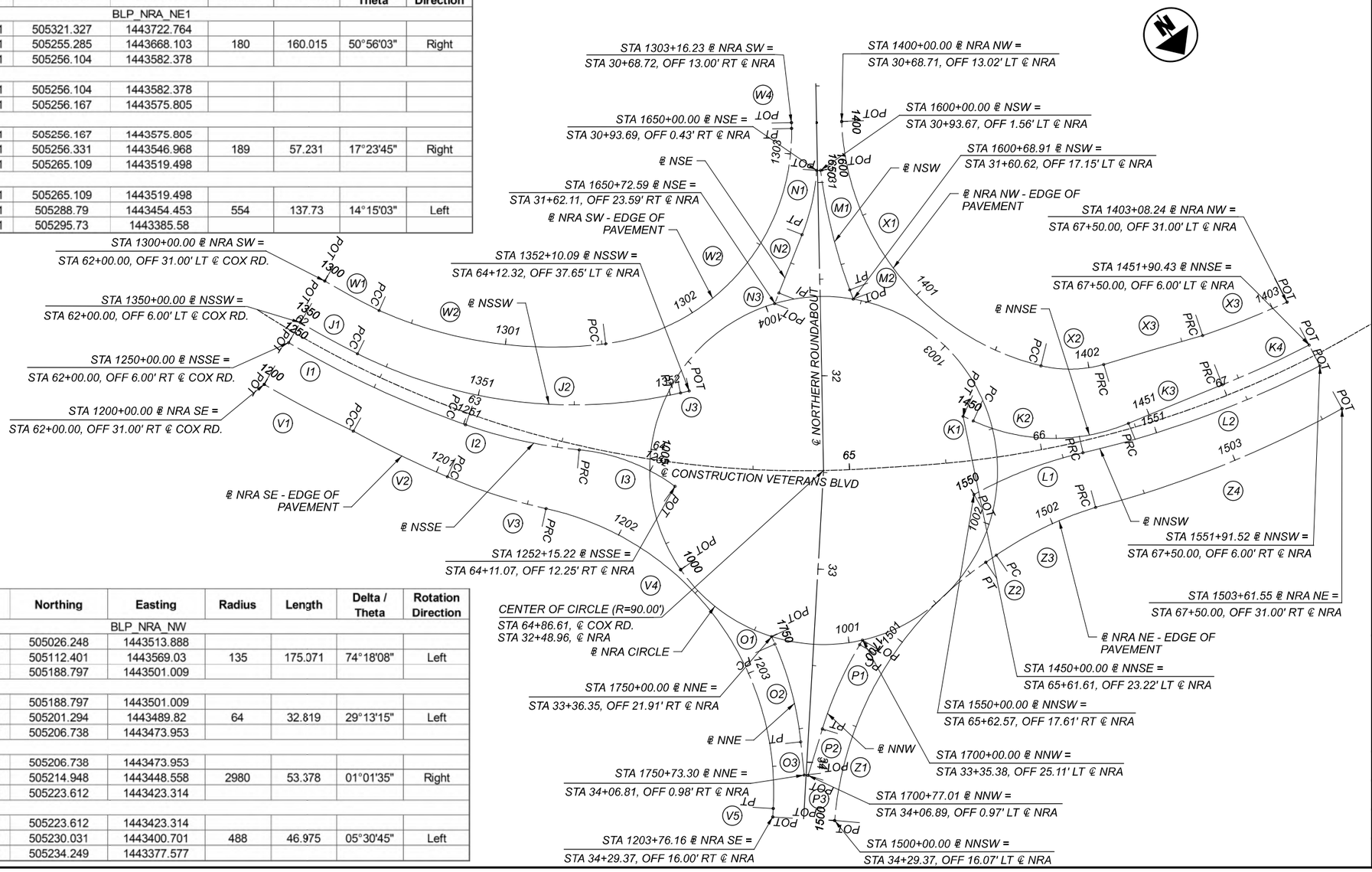
BUT-VETERANS BLVD-0.00

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Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_NRA_SE				
Arc	PC	V1	1200+00.00 R1	504967.774	1443836.982				
Arc	HPI	V1	1200+26.09 R1	504991.432	1443825.983	552	52.142	05°24'44"	Left
Arc	PCC	V1	1200+52.14 R1	505013.948	1443812.801				
Arc	PCC	V2	1200+52.14 R1	505013.948	1443812.801				
Arc	HPI	V2	1200+79.21 R1	505038.145	1443800.67	553	54.092	05°36'34"	Left
Arc	PCC	V2	1201+06.23 R1	505061.04	1443786.231				
Arc	PCC	V3	1201+06.23 R1	505061.04	1443786.231				
Arc	HPI	V3	1201+33.19 R1	505083.921	1443771.987	280	53.739	11°00'23"	Left
Arc	PRC	V3	1201+59.97 R1	505103.663	1443753.637				
Arc	PRC	V4	1201+59.97 R1	505103.663	1443753.637				
Arc	HPI	V4	1202+87.86 R1	505197.354	1443666.587	150	211.8	80°54'05"	Right
Arc	PT	V4	1203+71.77 R1	505298.124	1443745.334				
Tangent	PT	V5	1203+71.77 R1	505298.124	1443745.334				
Tangent	POT	V5	1203+76.16 R1	505301.58	1443748.034				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_NRA_NE1				
Arc	PC	Z1	1500+00.00 R1	505321.327	1443722.764				
Arc	HPI	Z1	1500+85.73 R1	505255.285	1443668.103	180	160.015	50°56'03"	Right
Arc	PT	Z1	1501+60.01 R1	505256.104	1443582.378				
Tangent	PT	Z2	1501+60.01 R1	505256.104	1443582.378				
Tangent	PC	Z2	1501+66.59 R1	505256.167	1443575.805				
Arc	PC	Z3	1501+66.59 R1	505256.167	1443575.805				
Arc	HPI	Z3	1501+95.43 R1	505256.331	1443546.968	189	57.231	17°23'45"	Right
Arc	PRC	Z3	1502+23.82 R1	505265.109	1443519.498				
Arc	PRC	Z4	1502+23.82 R1	505265.109	1443519.498				
Arc	HPI	Z4	1502+93.04 R1	505288.79	1443454.453	554	137.73	14°15'03"	Left
Arc	PT	Z4	1503+61.55 R1	505295.73	1443385.58				

Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_NRA_SW				
Arc	PC	W1	1300+00.00 R1	504941.636	1443780.761				
Arc	HPI	W1	1300+16.03 R1	504956.175	1443774.002	490	32.057	03°44'54"	Left
Arc	PCC	W1	1300+32.06 R1	504970.242	1443766.306				
Arc	PCC	W2	1300+32.06 R1	504970.242	1443766.306				
Arc	HPI	W2	1300+93.58 R1	505022.734	1443734.216	222	120.028	31°00'46"	Left
Arc	PCC	W2	1301+52.08 R1	505051.188	1443679.668				
Arc	PCC	W3	1301+52.08 R1	505051.188	1443679.668				
Arc	HPI	W3	1302+51.01 R1	505096.829	1443591.903	110	161.134	83°55'48"	Left
Arc	PT	W3	1303+13.22 R1	505014.383	1443537.238				
Tangent	PT	W4	1303+13.22 R1	505014.383	1443537.238				
Tangent	POT	W4	1303+16.23 R1	505011.871	1443535.572				



Element	Point Type	Point Number	Station	Northing	Easting	Radius	Length	Delta / Theta	Rotation Direction
Aligment Name:					BLP_NRA_NW				
Arc	PC	X1	1400+00.00 R1	505026.248	1443513.888				
Arc	HPI	X1	1401+02.29 R1	505112.401	1443569.03	135	175.071	74°18'08"	Left
Arc	PCC	X1	1401+75.07 R1	505188.797	1443501.009				
Arc	PCC	X2	1401+75.07 R1	505188.797	1443501.009				
Arc	HPI	X2	1401+91.85 R1	505201.294	1443489.82	64	32.819	29°13'15"	Left
Arc	PRC	X2	1402+07.89 R1	505206.738	1443473.953				
Arc	PRC	X3	1402+07.89 R1	505206.738	1443473.953				
Arc	HPI	X3	1402+34.58 R1	505214.948	1443448.558	2980	53.378	01°01'35"	Right
Arc	PRC	X3	1402+61.27 R1	505223.612	1443423.314				
Arc	PRC	X4	1402+61.27 R1	505223.612	1443423.314				
Arc	HPI	X4	1402+84.77 R1	505230.031	1443400.701	488	46.975	05°30'45"	Left
Arc	PT	X4	1403+08.24 R1	505234.249	1443377.577				

HORIZONTAL SCALE IN FEET
0 15 30 60

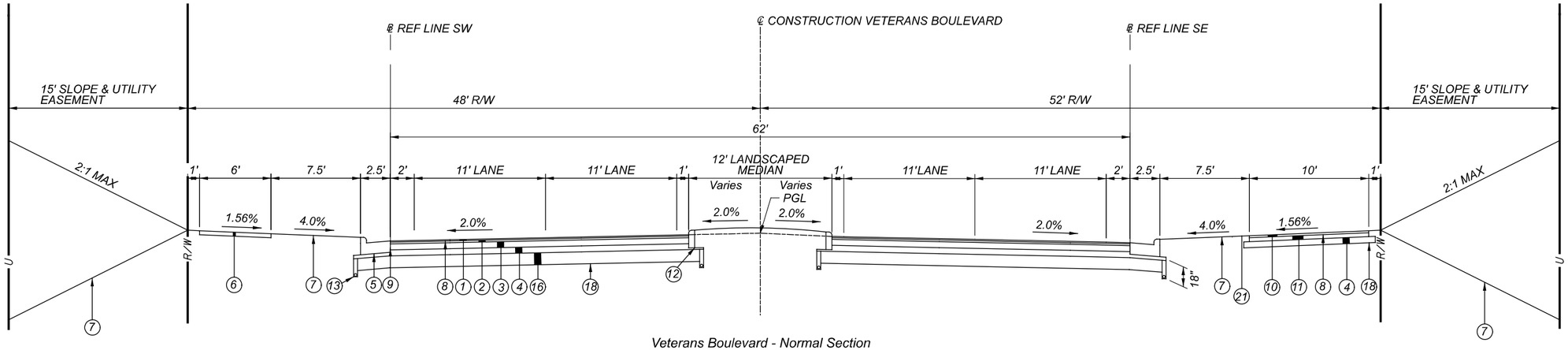
BASELINE SCHEMATIC PLAN
NORTHERN ROUNDABOUT

BUT-VETERANS BLVD-0.00

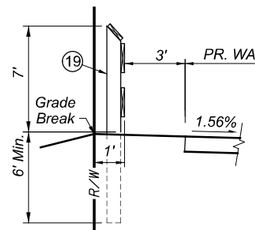
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DESIGN AGENCY
TEC Engineering, Inc.
TEAM PREPARED BY:
TEC Engineering, Inc.
7246 Central Parke Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.8 TOTAL 147

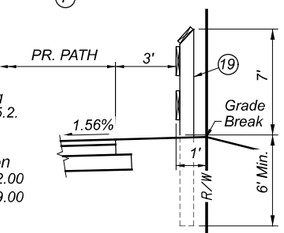


Veterans Boulevard - Normal Section
Sta. 51+92.00 to Sta. 54+50.00
Sta. 58+74.80 to Sta. 62+50.00
Sta. 67+49.80 to Sta. 70+56.00
(Width Varies Sta. 51+42.00 to Sta. 51+92.00)
(Width Varies Sta. 54+50.00 to Sta. 55+83.33)
(Width Varies Sta. 57+31.30 to Sta. 58+74.80)
(Width Varies Sta. 62+50.00 to Sta. 64+12.55)
(Width Varies Sta. 65+60.62 to Sta. 67+49.80)



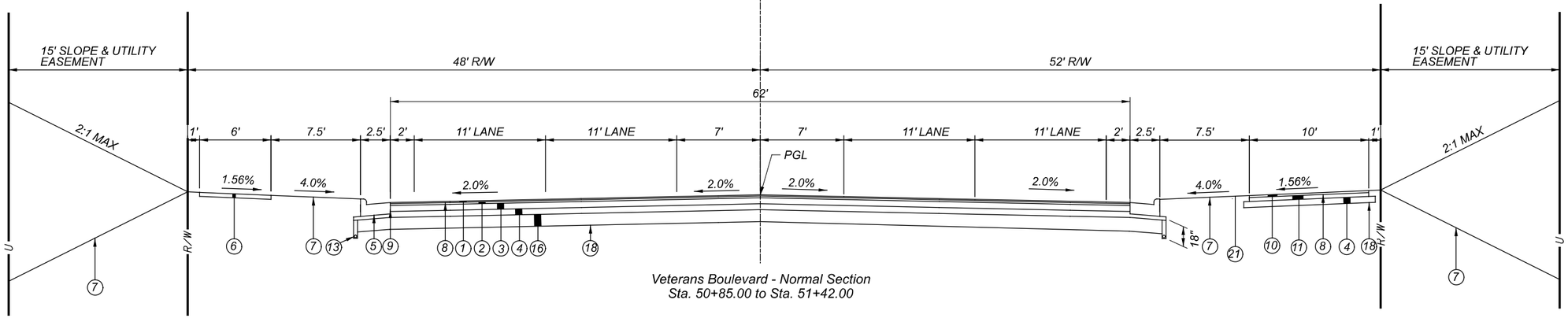
For Further Bikeway Railing Information, see SCD RM-5.2.

Veterans Boulevard - Bikeway Railing Section
Sta. 52+42.00 to Sta. 53+02.00
Sta. 67+88.00 to Sta. 68+48.00



For Further Bikeway Railing Information, see SCD RM-5.2.

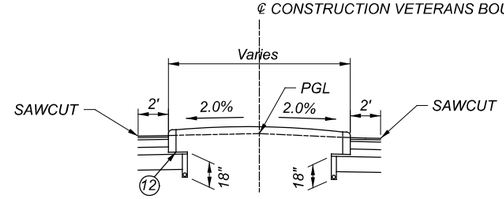
Veterans Boulevard - Bikeway Railing Section
Sta. 53+22.00 to Sta. 53+82.00
Sta. 67+69.00 to Sta. 68+29.00



Veterans Boulevard - Normal Section
Sta. 50+85.00 to Sta. 51+42.00

LEGEND

1. ITEM 442: 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (448)
2. ITEM 442: 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (448)
3. ITEM 301: 9" BASE COURSE, BITUMINOUS AGGREGATE BASE, PG64-22
4. ITEM 304: 6" BASE COURSE, AGGREGATE BASE.
5. ITEM 609: ODOT TYPE 2,COMBINATION CURB & GUTTER
6. ITEM 608: 5" THICK CONCRETE, CLASS QC MISC.
7. ITEM 659: SEEDING AND MULCHING, AS PER PLAN
8. ITEM 407: NON-TRACKING TACK COAT, TO BE APPLIED AT A RATE OF 0.05 GAL. PER SQ. YARD
9. ITEM 407: NON-TRACKING TACK COAT SHALL BE APPLIED TO FRONT FACE OF CURB PRIOR TO THE INSTALLATION OF 301 BITUMINOUS AGGREGATE BASE. ALSO TO BE APPLIED TO CURB JOINT AFTER THE INSTALLATION OF 448 INTERMEDIATE
10. ITEM 441: 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
11. ITEM 441: 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
12. ITEM 609: ODOT TYPE 6 CURB.
13. ITEM 605: 6" BASE PIPE UNDERDRAIN
14. ITEM 609: ODOT TYPE 9 CURB.
15. ITEM 451: 9" REINFORCED CONCRETE PAVEMENT, MISC.: TRUCK APRON PAVEMENT
16. ITEM 206: LIME STABILIZED SUBGRADE, 12" DEEP
17. ITEM 609: 9" CONCRETE TRAFFIC ISLAND
18. ITEM 204: SUBGRADE COMPACTION
19. ITEM 607: FENCE, MISC.: WOODEN FENCE
20. LANDSCAPED ISLAND
21. ITEM 691: HERBICIDE FOR WEED CONTROL (SHALL BE APPLIED AS DIRECTED BY ENGINEER)



Veterans Boulevard - Median
Sta. 70+56.00 to Sta. 71+85.00

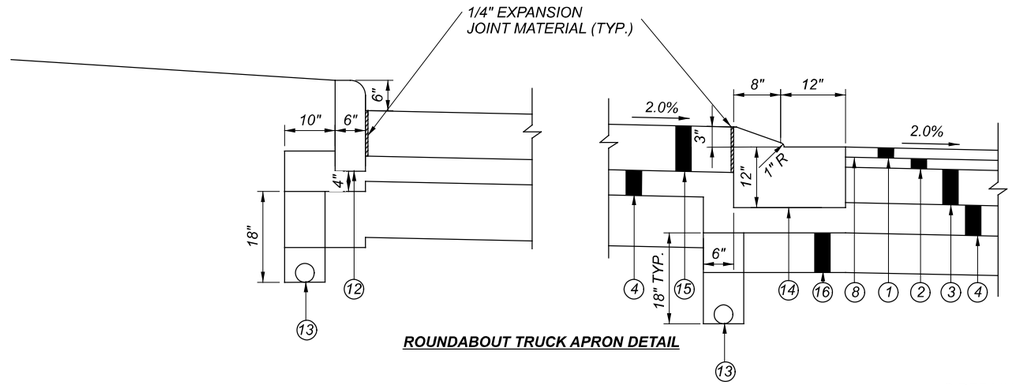
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BUT-VETERANS BLVD-0.00

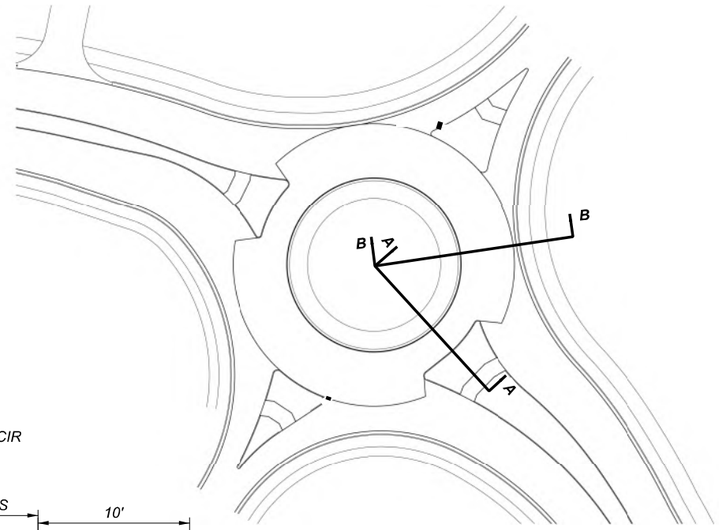
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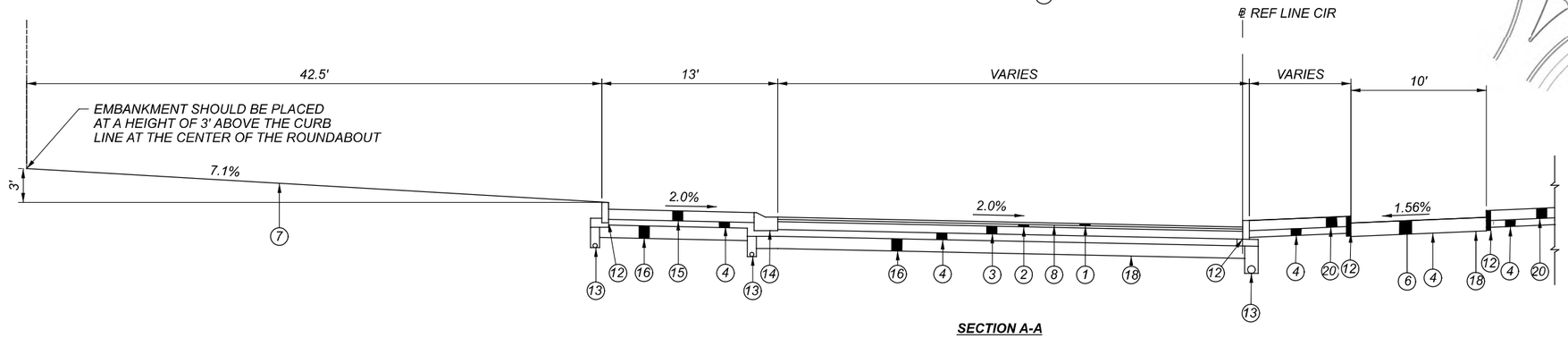
DESIGN AGENCY
TEC Engineering, Inc.
TEC ENGINEERING, INC.
TEC Central Parke Blvd.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.9 TOTAL 147

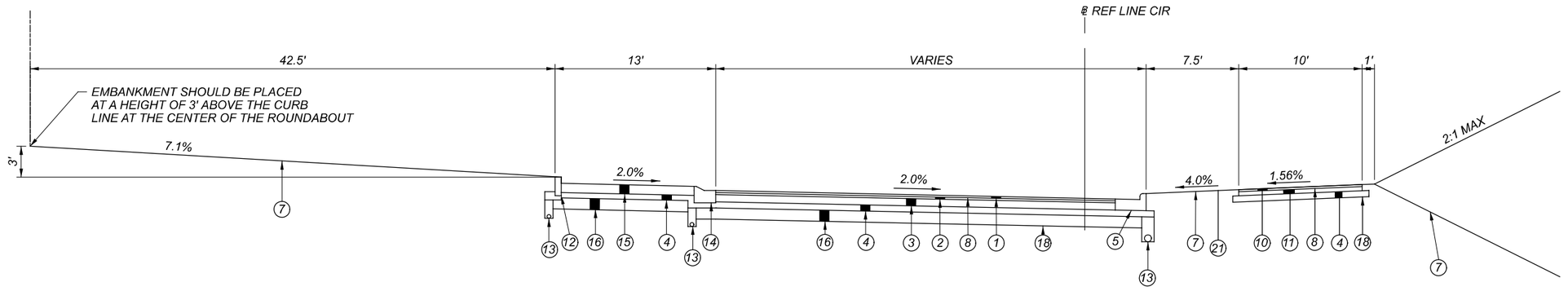


ROUNDABOUT TRUCK APRON DETAIL





SECTION A-A



SECTION B-B

LEGEND

(1) ITEM 442: 1 1/2" ASPHALT CONCRETE SURFACE COURSE, 12.5MM, TYPE A, (448)
(2) ITEM 442: 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, 19MM, TYPE A, (448)
(3) ITEM 301: 9" BASE COURSE, BITUMINOUS AGGREGATE BASE, PG64-22
(4) ITEM 304: 6" BASE COURSE, AGGREGATE BASE.
(5) ITEM 609: ODOT TYPE 2,COMBINATION CURB & GUTTER
(6) ITEM 608: 5" THICK CONCRETE, CLASS QC MISC.
(7) ITEM 659: SEEDING AND MULCHING, AS PER PLAN
(8) ITEM 407: NON-TRACKING TACK COAT, TO BE APPLIED AT A RATE OF 0.05 GAL. PER SQ. YARD
(9) ITEM 407: NON-TRACKING TACK COAT SHALL BE APPLIED TO FRONT FACE OF CURB PRIOR TO THE INSTALLATION OF 301 BITUMINOUS AGGREGATE BASE. ALSO TO BE APPLIED TO CURB JOINT AFTER THE INSTALLATION OF 448 INTERMEDIATE
(10) ITEM 441: 1 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22
(11) ITEM 441: 1 3/4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)
(12) ITEM 609: ODOT TYPE 6 CURB.
(13) ITEM 605: 6" BASE PIPE UNDERDRAIN
(14) ITEM 609: ODOT TYPE 9 CURB.
(15) ITEM 451: 9" REINFORCED CONCRETE PAVEMENT, MISC.: TRUCK APRON PAVEMENT
(16) ITEM 206: LIME STABILIZED SUBGRADE, 12" DEEP
(17) ITEM 609: 9" CONCRETE TRAFFIC ISLAND
(18) ITEM 204: SUBGRADE COMPACTION
(19) ITEM 607: FENCE, MISC.: WOODEN FENCE
(20) LANDSCAPED MEDIAN
(21) ITEM 691: HERBICIDE FOR WEED CONTROL (SHALL BE APPLIED AS DIRECTED BY ENGINEER)

BUT-VETERANS BLVD-0.00

MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:23 PM USER: kelle
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TYPICAL SECTIONS - ROUNDABOUT - VETERANS BLVD.

DESIGN AGENCY
TEC Engineering, Inc.
THE PROJECT BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGNER
ACS

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.10 | TOTAL 147

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIAL SPECIFICATIONS, DATED JANUARY 19, 2019 AND THE NOTED STANDARD CONSTRUCTION DRAWINGS, AND/OR THE BUTLER COUNTY STANDARDS AND SPECIFICATIONS SHALL GOVERN THIS IMPROVEMENT.

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:

BUTLER COUNTY ENGINEER'S OFFICE

1921 FAIRGROVE AVENUE
HAMILTON, OHIO 45011
PHONE (513) 785-2569
HOMANM@BCEO.ORG
PHONE (513) 785-4119
RICEA@BCEO.ORG

WATER AND SEWER

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET, 5TH FLOOR
HAMILTON, OHIO 45011
PHONE (513) 887-5699
SHELBYMA@BUTLERCOUNTYOHIO.ORG
GIS OR AS BUILDS
(513) 785-5172
JAMES.GROVE@BCOHIO.US

ELECTRIC

DUKE ENERGY - ELECTRIC DISTRIBUTION
2010 DANA AVENUE
CINCINNATI, OHIO 45207
PHONE (513) 458-3847
CRAIG.HUTCHISON@DUKE-ENERGY.COM

DUKE ENERGY - ELECTRIC TRANSMISSION
139 EAST 4TH STREET, ROOM 552A
CINCINNATI, OHIO 45202
PHONE (513) 287-1266
TIM.MEYER@DUKE-ENERGY.COM

GAS

DUKE ENERGY
139 EAST FORTH STREET, ROOM 460A
CINCINNATI, OHIO 45202
PHONE (513) 287-2517
MARK.BRANSCUM@DUKE-ENERGY.COM

TELEPHONE

CINCINNATI BELL - UNDERGROUND
221 E 4TH STREET, BUILDING 121-900
CINCINNATI, OHIO 45202
PHONE (513) 565-7187
BRECK.COWAN@CINBELL.COM

CINCINNATI BELL TELEPHONE - AERIAL
209 WEST 7TH STREET, BUILDING 121-900
CINCINNATI, OHIO 45202
PHONE (513) 565-6041

CHARTER COMMUNICATIONS/SPECTRUM
10920 KENWOOD ROAD
BLUE ASH, OHIO 45242
PHONE (513) 386-5499
KENT.RIEGER@CHARTER.COM

UTILITIES (CONT.)

CENTURYLINK
(FKA LEVEL (3) COMMUNICATIONS, LLC)
1025 ELDORADO BLVD. SUITE 43C-420
BROOMFIELD, COLORADO 80021
PHONE (919) 710-8891
MIKE.WEAVER@CENTURYLINK.COM

CROWN CASTLE FIBER (FKA LIGHTOWER FIBER NETWORKS)
10188 INTERNATIONAL BLVD.
CINCINNATI, OHIO 45246
PHONE (585) 455-5825
CRAIG.WHEELER@CROWNCASTLE.COM

ODOT ITS LAB (NON OUPS MEMBER)
EMAIL FOR LOCATES
PHONE (614) 387-4113
Cen. ITS.LAB@DOT.OHIO.GOV

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.

DUKE LIGHTING:
ITEM 625 SPECIAL - LIGHTING MISC., AS PER PLAN
THIS ITEM IS FOR ANY COST(S) NOT COVERED BY A CONTRACT ITEM FOR THE PROPOSED DUKE LIGHTING, THIS INCLUDES BUT IS NOT LIMITED TO OFFICE OVERHEAD OR OTHER INCIDENTAL COSTS ASSOCIATED WITH THE PROPOSED DUKE LIGHTING. THIS ITEM WILL BE PAID WHEN THE PROPOSED DUKE LIGHTING IS COMPLETE AND IN OPERATION.

DUKE CONDUIT:
ITEM 625 - 2" CONDUIT, 725.052, AS PER PLAN
CONTRACTOR IS TO PROVIDE ALL MATERIAL AND LABOR TO INSTALL THE PROPOSED 2" CONDUIT FOR LIGHTING. THE ENDS THE CONDUIT WILL BE TURNED UP AT THE LIGHT POLE LOCATIONS AS SHOWN ON THE PLANS OR WHERE DIRECTED BY THE BUTLER COUNTY ENGINEER'S OFFICE. CONTRACTOR WILL INSTALL CONDUIT WITH PULL STRINGS FOR INSTALLATION OF WIRING BY OTHERS. CONTRACTOR WILL ALSO "CAP" THE CONDUIT IN A MANNER TO BE REMOVABLE AND KEEP DEBRIS AND/OR WATER FROM ENTERING THE CONDUIT. THESE ITEMS WILL BE INCIDENTAL AND WILL BE INCLUDED IN UNIT PRICE FOR THE INSTALLATION OF THE CONDUIT.

ITEM 625 - TEMPORARY LIGHTING, AS PER PLAN
THIS ITEM SHALL CONSIST OF ALL LABOR AND MATERIAL TO PROVIDE AND INSTALL A CLASS III WOOD POLE - MINIMUM 40', WITH 2-15' LOW MAST BRACKET ARMS, 2-250 HPS COBRA HEAD STYLE LIGHT FIXTURES, AND ALL WIRING AND HARDWARE. ONE TEMPORARY LIGHT POLE IS TO BE LOCATED IN THE CENTER OF EACH ROUNDABOUT. THE TEMPORARY LIGHTING SHALL REMAIN AS NECESSARY UNTIL THE PERMANENT LIGHTING IS IN OPERATION AND MAY BE NON-PERFORMED BY THE ENGINEER. THE CONTRACTOR SHALL UTILIZE THE PERMANENT LIGHT SERVICE FOR THE POWER SOURCE OF THE TEMPORARY LIGHT. THIS ITEM ALSO INCLUDES THE REMOVE OF ALL COMPONENTS ONCE THE PERMANENT LIGHTS ARE IN PLACE AND FUNCTIONAL. THE CONTRACTOR IS RESPONSIBLE FOR ANY INSPECTIONS NEEDED TO PERFORM THIS WORK.

LIGHTING MISC.: DUKE ENERGY CONTRACT COST
THE CONTRACTOR SHALL ENTER INTO AN AGREEMENT WITH DUKE ENERGY FOR DUKE ENERGY TO SUPPLY AND INSTALL THE POWER SOURCE, LIGHT POLE FOUNDATIONS, POLES, LIGHTS INCLUDING ANY LABOR, EQUIPMENT, OR OTHER MATERIALS NECESSARY TO COMPLETE THE PROPOSED LIGHTING. THE CONTRACTOR SHALL MAKE ANY REQUIRED PAYMENTS TO DUKE ENERGY TO PERFORM THIS WORK PRIOR TO RECEIVING PAYMENT FOR THIS ITEM. THIS ITEM WILL BE PAID WHEN THE PROPOSED DUKE LIGHTING IS COMPLETE AND IN OPERATION.

REVIEW OF DRAINAGE FACILITIES
BEFORE ANY WORK IS STARTED ON THE PROJECT AND AGAIN BEFORE FINAL ACCEPTANCE BY THE COUNTY, REPRESENTATIVES OF THE COUNTY AND THE CONTRACTOR, ALONG WITH LOCAL REPRESENTATIVES, SHALL MAKE AN INSPECTION OF ALL EXISTING SEWERS WHICH ARE TO REMAIN IN SERVICE AND WHICH MAY BE AFFECTED BY THE WORK. THE CONDITION OF THE EXISTING CONDUITS AND THEIR APPURTENANCE SHALL BE DETERMINED FROM FIELD OBSERVATIONS. RECORDS OF THE INSPECTION SHALL BE KEPT IN WRITING BY THE COUNTY.

ALL NEW CONDUITS, INLETS, CATCH BASINS, AND MANHOLES CONSTRUCTED AS A PART OF THE PROJECT SHALL BE FREE OF ALL FOREIGN MATTER AND IN A CLEAN CONDITION BEFORE THE PROJECT WILL BE ACCEPTED BY THE COUNTY.

ALL EXISTING SEWERS INSPECTED INITIALLY BY THE ABOVE MENTIONED PARTIES SHALL BE MAINTAINED AND LEFT IN A CONDITION REASONABLY COMPARABLE TO THAT DETERMINED BY THE ORIGINAL INSPECTION. ANY CHANGE IN THE CONDITION RESULTING FROM THE CONTRACTOR'S OPERATIONS SHALL BE CORRECTED BY THE CONTRACTOR TO THE SATISFACTION OF THE ENGINEER.

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

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS
THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PRIVATE-USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT, AT MAXIMUM OPERATING HEIGHT, SHALL EXCEED A HEIGHT OF 100 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THIS HEIGHT, COORDINATION WITH THE AIRPORT OWNER AND THE ODOT OFFICE OF AVIATION WILL BE NEVESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON THE PROJECT. FOR PRIVATE USE AIRPORTS OR HELIPORTS, COORDINATE WITH THE AIRPORT OWNER AND THE ODOT OFFICE OF AVIATION. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSIBLE HEIGHT, UNTIL COORDINATION IS MET AND DOCUMENTATION HAS BEEN FURNISHED TO THE PROJECT ENGINEER. IF COORDINATION IS NOT OBTAINED, THEN THE PROJECT ENGINEER WILL HAVE THE AUTHORITY TO PROVIDE RESTRICTIONS AS REQUIRED.

THE CHRIST HOSPITAL MEDICAL CENTER - LIBERTY TOWNSHIP
6939 COX RD
LIBERTY TOWNSHIP, OH 45069
(513) 648-7800

CINCINNATI CHILDREN'S HOSPITAL
7777 YANKEE RD
LIBERTY TOWNSHIP, OH 45044
(513) 803-9600

UC HEALTH WEST CHESTER HOSPITAL
7749 DUDLEY DR
WEST CHESTER TOWNSHIP, OH 45069
(513) 298-3000

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 7PM AND 7AM. IN ADDITION, DO NOT OPERATE AT ANY TIME ANY DEVICE IN SUCH A MANNER THAT THE NOISE CREATED SUBSTANTIALLY EXCEEDS THE NOISE CUSTOMARILY AND NECESSARILY ATTENDANT TO THE REASONABLE AND EFFICIENT PERFORMANCE OF SUCH EQUIPMENT.

ITEM 204 - PROOF ROLLING AND SUBGRADE COMPACTION, APP
THE FOLLOWING QUANTITY IS PROVIDED IN THE GENERAL SUMMARY TO ADDRESS LOCATIONS REQUIRING PROOF ROLLING.

ITEM 204 - PROOF ROLLING __8___ HOUR.

CONSTRUCT THE SUBGRADE AS FOLLOWS IN THIS SEQUENCE:
1. SHAPE THE SUBGRADE TO WITHIN 0.2 FEET OF THE PLAN SUBGRADE ELEVATION.
2. EXCAVATE AND REPLACE UNSUITABLE SUBGRADE BEFORE PROOF ROLLING. THE EXCAVATION LIMITS ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSUITABLE SUBGRADE. UNSUITABLE SUBGRADE INCLUDES UNSUITABLE SOIL (A-4B, A-2-5, A-5, A-7-5, AND SOIL WITH A LIQUID LIMIT GREATER THAN 65) AND ANY COAL, SHALE, OR ROCK WHICH NEEDS TO BE REMOVED ACCORDING TO 204.05. IF THERE IS UNSUITABLE SUBGRADE IN A SHALLOW FILL LOCATION, EXCAVATE AND REPLACE THE UNSUITABLE SUBGRADE BEFORE CONSTRUCTING THE SHALLOW FILL AND SHAPING THE SUBGRADE.
3. COMPACT THE SUBGRADE ACCORDING TO 204.03.
4. APPROXIMATE LIMITS FOR EXCAVATION OF UNSTABLE SUBGRADE ARE SHOWN AND LABELED ON THE CROSS SECTIONS AS UNSTABLE SUBGRADE. THE ENGINEER WILL IDENTIFY THE ACTUAL LIMITS OF EXCAVATION FOR UNSTABLE SUBGRADE BASED ON THE PROOF ROLLING RESULTS AND VISUAL OBSERVATIONS. PROOF ROLL THE COMPACTED SUBGRADE ACCORDING TO 204.06.
5. EXCAVATE UNSTABLE SUBGRADE AS DIRECTED BY THE ENGINEER AND STABILIZE BY REPLACING WITH THE SPECIFIED MATERIALS ACCORDING TO 20.07. EXCAVATIONS WILL EXTEND 18 INCHES BEYOND THE EDGE OF THE SURFACE OF THE PAVEMENT, PAVED SHOULDER, OR PAVED MEDIANS.
6. PROOF ROLL THE STABILIZED AREAS ACCORDING TO 204.06 TO VERIFY STABILITY.
7. FINE GRADE THE SUBGRADE TO THE SPECIFIED GRADE

THE QUANTITIES FOR EXCAVATING THE UNSUITABLE SUBGRADE AND UNSTABLE SUBGRADE ARE BOTH PAID UNDER ITEM 204 EXCAVATION OF SUBGRADE.

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.

EXISTING UTILITIES
THE INFORMATION SHOWN CONCERNING EXISTING UTILITIES IS NOT REPRESENTED, WARRANTED OR GUARANTEED TO BE COMPLETE OR ACCURATE. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PHYSICALLY LOCATE AND VERIFY IN THE FIELD, ALL UTILITY LOCATIONS AND ELEVATIONS, WHETHER SHOWN ON THE PLANS OR NOT, PRIOR TO THE BEGINNING OF CONSTRUCTION OPERATIONS. THE CONTRACTOR SHALL SUPPORT, PROTECT, AND RESTORE ALL EXISTING UTILITIES AND ASSOCIATED ITEMS TO THE SATISFACTION OF THE UTILITY OWNER.

THE CONTRACTOR SHALL NOTIFY ALL UTILITY OWNERS, IN ACCORDANCE WITH SECTION 153.64 OF THE OHIO REVISED CODE, AT LEAST FORTY-EIGHT (48) HOURS PRIOR TO THE BEGINNING OF ANY WORK, TO REQUEST UTILITY LOCATIONS, TO COORDINATE THE WORK, AND TO KEEP THE UTILITY OWNERS APPRAISED OF THE CONSTRUCTION SCHEDULE AND REQUIREMENTS UNTIL ALL WORK IS COMPLETED. THE CONTRACTOR SHALL PROVIDE THE COUNTY SANITARY ENGINEER WITH EVIDENCE OF HAVING NOTIFIED THE UTILITY OWNERS OF THE CONSTRUCTION WORK AND SCHEDULE PRIOR TO BEGINNING ANY WORK.

NOTICE SHALL BE GIVEN TO THE OHIO UTILITIES PROTECTION SERVICE (800-362-2764) FOR THE MEMBER UTILITIES. THE BUTLER COUNTY ENGINEER (513-867-5744) AND LOCAL GOVERNMENTAL ENTITY RESPONSIBLE FOR STORM SEWERS ARE NOT MEMBERS OF A REGISTERED UNDERGROUND PROTECTION SERVICE AND MUST BE CONTACTED DIRECTLY.

GENERAL NOTES

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Harper Road, Suite 104
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.11 | TOTAL 147

BUT-VETERANS BLVD-0.00

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PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN

CENTERLINE MONUMENTATION AS SHOWN ON PLAN SHEET 02 SHALL BE TYPE A, UNLESS OTHERWISE NOTED, PLACED AT THE NOTED COORDINATES OR STATION/OFFSET. THE MONUMENTS SHALL BE PLACED IN THE ASPHALT CONCRETE BASE, PRIOR TO THE INSTALLATION OF THE ASPHALT CONCRETE INTERMEDIATE COURSE. MONUMENTS ARE TO BE SET UNDER THE SUPERVISION OF A PROFESSIONAL SURVEYOR REGISTERED IN THE STATE OF OHIO. COST SHALL INCLUDE ALL LABOR AND MATERIAL NEEDED TO PLACE MONUMENTATION.

THE FOLLOWING ESTIMATED QUANTITY FOR THE ABOVE NOTED WORK HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR USE AS DIRECTED BY THE ENGINEER:

ITEM 623, PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN -11 EACH

SEEDING AND MULCHING

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

ITEM 659 - SOIL ANALYSIS TEST	1	EACH
ITEM 659 - TOPSOIL	449	CY
ITEM 659 - SEEDING AND MULCHING,APP	4041	SY
ITEM 659 - REPAIR SEEDING AND MULCHING	202	SY
ITEM 659 - INTER-SEEDING	202	SY
ITEM 659 - COMMERCIAL FERTILIZER	0.5	TON
ITEM 659 - LIME	0.8	ACRE
ITEM 659 - WATER	11	MGAL
ITEM 659 - MOWING	36	MSF
ITEM 691 - SPECIAL - HERBICIDE IN SEEDED AREA	4041	SY

TOPSOIL PER ITEM 659 IS TO BE 4". PLACED WITHIN TREE LAWN AND AREAS NOT BEING MULCHED IN THE LANDSCAPING PLAN. THE QUANTITY FOR TOPSOIL IN THE LANDSCAPED MEDIAN AND CENTER OF ROUNDABOUT IS INCLUDED IN THE LANDSCAPING SUMMARY. THE QUANTITY ABOVE IS FOR GRASSED AREAS ALONG THE PATH AND WALK. HERBICIDE APPLICATION SHALL BE USED TO KILL BROAD LEAF WEEDS ON ALL SEEDED AREA.

SEEDING AND MULCHING SHALL BE APPLIED 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.

ITEM 659, SEEDING AND MULCHING, AS PER PLAN

ALL RESTORATION AREAS ON THIS PROJECT ARE DESIGNATED TO BE FREE OF STONES 1 INCH OR GREATER. ALL AREAS SHALL BE SEEDED WITH "SPORTS BLEND" AT GREEN VELVET OR APPROVED EQUAL. THIS MIX SHALL BE COMPOSED OF 10% PERENNIAL RYE, 80% FESCUE (TALL TURF TYPE AND/OR TITAN TYPE) AND 10% KENTUCKY BLUEGRASS. THE CONTRACTOR SHALL USE AN AUTOMATED PROCESSOR MACHINE TO PREPARE THE SEED BED (ROCK HOUND) OR EQUIVALENT. ALL OTHER SPECIFICATIONS FOR ITEM 659 TO APPLY.

THE FOLLOWING QUANTITIES ARE PROVIDED FOR THE PERMANENT SEEDED AREAS WITHIN THE CENTER ROUNDABOUT ISLAND AND ARE CARRIED TO THE GENERAL SUMMARY:

ITEM 659 - SEEDING AND MULCHING, AS PER PLAN 4041 SY

ITEM 691 - SPECIAL - HERBICIDE FOR WEED CONTROL

THE HERBICIDE FOR WEED CONTROL SHALL BE APPLIED UNDER THE ASPHALT PATH OR AS DIRECTED BY THE PROJECT ENGINEER. APPLICATION PER MANUFACTURER SPECIFICATIONS. THIS ITEM INCLUDE A ONE TIME APPLICATION OF A KILL-ALL WEED CONTROL.

ITEM 691 - SPECIAL - HERBICIDE FOR WEED CONTROL 2,300 SY

ITEM 451, 9" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P (STAMPED), AS PER PLAN

THIS ITEM INCLUDES MATERIAL AND LABOR TO PLACE THE REQUIRED CONCRETE FOR THE ROUNDABOUT TRUCK APRON. THIS ITEM IS TO BE AN INTEGRAL COLORED CONCRETE, SIMILAR TO "DARKGREY" AS MANUFACTURED BY BRICKFORM AND TO HAVE A STAMPED SURFACE IN A "COBBLESTONE" STYLE PATTERN. THIS ITEM SHALL ALSO INCLUDE ALL LABOR AND MATERIAL TO FURNISH AN ONSITE SAMPLE OF 5'x5' FOR APPROVAL AND QUALITY CONTROL. THIS SAMPLE MAY BE NON-PERFORMED BY THE ENGINEER'S OFFICE.

ITEM 609, 4" CONCRETE MEDIAN, AS PER PLAN (DECORATIVE)

THIS ITEM INCLUDES MATERIAL AND LABOR TO PLACE THE REQUIRED CONCRETE FOR THE LANDSCAPED MEDIAN. THIS ITEM IS TO BE AN INTEGRAL COLORED CONCRETE, MATCHING THE EXISTING MEDIAN COLOR AND PATTERN AS THE MEDIAN TO THE SOUTH. THIS ITEM SHALL ALSO INCLUDE ALL LABOR AND MATERIAL TO FURNISH AN ONSITE SAMPLE OF 5'x5' FOR APPROVAL AND QUALITY CONTROL. THIS SAMPLE MAY BE NON-PERFORMED BY THE ENGINEER'S OFFICE.

ITEM 607 - FENCE, MISC.: WOODEN FENCE

IN ADDITION TO THE REQUIREMENTS OF ITEM 607 - FENCE, THE FOLLOWING SHALL ALSO APPLY;

THE CONTRACTOR SHALL CONSTRUCT A FENCE, REFERRED TO AS "BIKEWAY RAILING" IN THE PLANS, AS PER SCD RM-5.2 AT THE LOCATIONS AND LIMITS SHOWN IN THE PLANS.

THE LENGTH OF FENCE SHOWN IN THE PLANS ARE HORIZONTAL DIMENSIONS. MEASUREMENTS OF THE FINAL QUANTITIES WILL BE IN ACCORDANCE WITH ITEM 607.

PAYMENT FOR ALL OF THE ABOVE WORK SHALL INCLUDE LABOR, MATERIALS, EQUIPMENT AND ANY OTHER PERTINENT ITEMS REQUIRED TO CONSTRUCT THE FENCE AT THE CONTRACT UNIT PRICE BID FOR ITEM 607 - FENCE, MISC.: WOODEN FENCE.

BOX CULVERT DESIGN SPECIFICATIONS:

THIS STANDARD DRAWING CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2002 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN DATA: THE FOLLOWING DESIGN DATA IS ASSUMED:

INTERNAL ANGLE OF FRICTION ( ) = 30 DEGREES
COEFFICIENT OF FRICTION ( ) = 0.30
UNIT WEIGHT OF SOIL = 120 PCF
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)
MAXIMUM FOUNDATION BEARING PRESSURE = 2000 P.S.F.

CONCRETE - COMPRESSIVE STRENGTH 4000 PSI
(FOOTING, WINGWALL AND FORESLOPE WALL)

REINFORCING STEEL - ASTM A615, A616, OR A617
GRADE 60 MINIMUM YIELD STRENGTH
60,000 PSI (ALL REINFORCING SHALL BE EPOXY COATED)

BOX CULVERTS ARE TO BE SUPPLIED BY OTHERS.

BACKFILL LIMITATION:

WHEN THE DESIGN HEIGHT IS GREATER THAN 10 FT, THE BACKFILL BEHIND THE WINGWALLS SHALL NOT BE PLACED HIGHER THAN THE ELEVATION OF THE SOIL ABOVE THE TOE. WHEN THE SOIL ABOVE THE TOE IS AT ITS FINISHED ELEVATION, THE REMAINDER OF THE BACKFILL MAY BE PLACED.

POROUS BACKFILL WITH FILTER FABRIC:

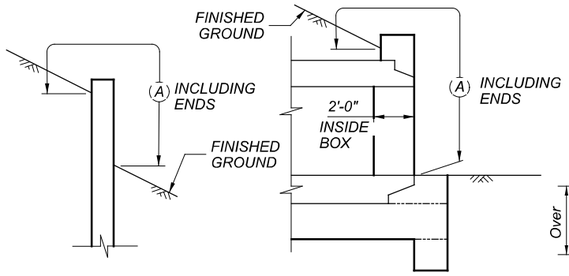
1'-6" THICK SHALL BE PLACED BEHIND THE WINGWALLS ONLY AND SHALL EXTEND TO 12" BELOW THE EMBANKMENT SURFACE. GEOTEXTILE FABRIC SHALL BE PLACED BETWEEN THE POROUS BACKFILL AND REPLACED EXCAVATION ADJACENT TO THE STRUCTURE. IT SHALL TURN UNDER THE BOTTOM OF THE POROUS BACKFILL AND RETURN 6" ABOVE THE TOP ELEVATION OF THE WEEPHOLE. WEEPHOLES SHALL BE PLACED 6" TO 12" ABOVE THE NORMAL WATER ELEVATION OR GROUND LINE AND SHALL HAVE A MAXIMUM SPACING OF 10'-0". A MINIMUM OF ONE WEEPHOLE SHALL BE PROVIDED PER WINGWALL.

PREFORMED EXPANSION JOINT FILLER:

PREFORMED EXPANSION JOINT FILLER (PEJF) CONFORMING TO CMS 705.03, 1 INCH THICK, SHALL BE PLACED ABOVE THE FOOTING BETWEEN THE SIDES OF THE BOX CULVERT AND THE ENDS OF THE WINGWALLS. PAYMENT FOR MATERIALS AND INSTALLATION SHALL BE INCLUDED WITH ITEM 516 - 1" PREFORMED EXPANSION JOINT FILLER.

SEALING OF FORESLOPE WALL AND WINGWALLS:

ALL EXPOSED FORESLOPE WALL AND WINGWALL 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.



WINGWALL

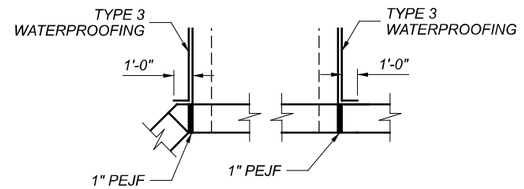
FORESLOPE WALL AND PRECAST BOX (CULVERT OUTLET BEVEL SHOWN)

LIMITS OF ITEM 512-SEALING CONCRETE SURFACES

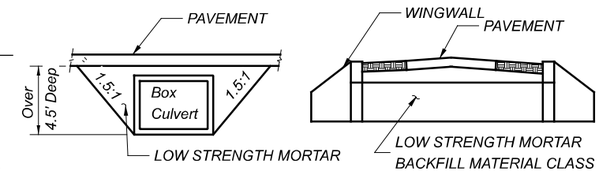
(A)- SEAL ENTIRE CONCRETE SURFACE AREA

WATERPROOFING:

TYPE 3 WATERPROOFING, PER CMS 512.09 AND 711.29, SHALL BE APPLIED TO THE ENTIRE TOP SURFACE OF THE PRECAST CULVERT SECTIONS AND SHALL EXTEND VERTICALLY DOWN THE SIDES FOR ALL PORTIONS OF THE CULVERT WHICH SHALL BE IN CONTACT WITH THE BACKFILL. THIS ITEM SHALL INCLUDE ALL MATERIAL AND LABOR FOR SURFACE PREPARATION AND APPLICATION OF A PRIMER COAT CONFORMING TO 705.04. PAYMENT FOR THE MEMBRANE WATERPROOFING SHALL BE AT THE CONTRACT PRICE BID PER SQUARE YARD FOR ITEM 512 - TYPE 3 WATERPROOFING.



WATERPROOFING DETAILS



NOTE: LOW STRENGTH MORTAR BACKFILL IS NOT A PAY ITEM AND ALL LABOR AND MATERIAL SHALL BE INCLUDED WITH THE UNIT COST FOR THE INSTALLATION OF ITEM 611, 8'x5' CONDUIT, TYPE A, 706.05 AND ITEM 611, 5'x5' CONDUIT TYPE A, 706.05.

BOX CULVERT BACKFILL DETAIL (N.T.S.)

BASIS OF PAYMENT: ALL LABOR, EQUIPMENT, AND INCIDENTALS REQUIRED TO CONSTRUCT THE FOOTING, CUTOFF WALL, WINGWALLS AND FORESLOPE WALL SHALL BE INCLUDED WITH ITEM 511 - CLASS C CONCRETE (RET-WALL/WINGWALL- INCLUDING FOOTING). PAYMENT FOR REINFORCING STEEL SHALL BE INCLUDED WITH ITEM 509 - EPOXY COATED REINFORCING STEEL.

ESTIMATED QUANTITIES FOR BOX CULVERTS

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING
503	21100	LUMP		UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)
509	10000	7456	LB.	EPOXY COATED REINFORCING STEEL
511	46510	48.5	CU. YD.	CLASS QC1 CONCRETE, FOOTING
511	46610	16.1	CU. YD.	CLASS QC1 CONCRETE, HEADWALLS
512	33010	550	SQ. YD.	TYPE 3 WATERPROOFING
516	13600	60	SQ. FT.	1" PREFORMED EXPANSION JOINT FILLER
518	21230	LUMP		POROUS BACKFILL WITH GEOTEXTILE FABRIC
601	11000	86	SQ. YD.	RIPRAP, TYPE D
611	94900	126	LIN. FT.	8'X 5' CONDUIT, TYPE A, 706.05, SUPPLIED BY OTHERS
611	97400	165	LIN. FT.	CONDUIT, MISC.: 5' X 5' CONDUIT, TYPE A, 706.05, SUPPLIED BY OTHERS
512	10100	70	SQ. YD.	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

NOTE: TOTALS CARRIED TO GENERAL SUMMARY SHEET

GENERAL NOTES

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Snider Station Blvd.
Mason, OH 45040
DESIGNER KAM
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.12 TOTAL 147

BUT-VETERANS BLVD-0.00
MODEL: Sheet PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:30 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GN002.dgn

SPECIAL: ROADWAY LSM 50 BACKFILL REQUIREMENTS

ANY OBJECT, CONDUIT, PIPE OR STRUCTURE REMOVED OR INSTALLED WITHIN THE EXISTING OR PROPOSED ROADWAY LIMITS AND ANY EXISTING OR PROPOSED DRIVEWAY LIMITS WILL REQUIRE LSM 50 AS BACKFILL. LIMITS OF LSM-50 SHALL EXTEND TWO FEET PAST THE EDGE OF BERM OR THE EDGE OF DRIVEWAY AND TO THE TOP OF THE SUBGRADE.

FOR REMOVALS: BACKFILL THE ENTIRE VOID LEFT BY THE REMOVAL WITH LSM-50.

FOR CONDUITS AND WATER MAIN: BACKFILL THE CONDUIT OR WATER MAIN WITH GRANULAR MATERIAL UP TO NO MORE THAN ONE FOOT ABOVE THE TOP OF THE CONDUIT OR WATER MAIN AND COMPACT THE GRANULAR MATERIAL AS PER THE ODOT CMS. BACKFILL THE REMAINDER OF THE VOID WITH HIGH SLUMP LSM-50.

FOR ANY OTHER OBJECT OR STRUCTURE BACKFILL THE ENTIRE VOID WITH LSM-50.

ALL COST(S) ASSOCIATED WITH THE LSM-50 BACKFILL REQUIREMENT ARE INCIDENTAL TO THE PERTINENT BID ITEM.

ITEM 811 - CATCH BASIN, MISC.: CB-3 MODIFIED

THIS STRUCTURE SHALL CONFORM TO BUTLER COUNTY ENGINEER'S OFFICE STANDARD DRAWING "CATCH BASIN NO. 3 MODIFIED"

ITEM 811 - CATCH BASIN, MISC.: CB-3A MODIFIED

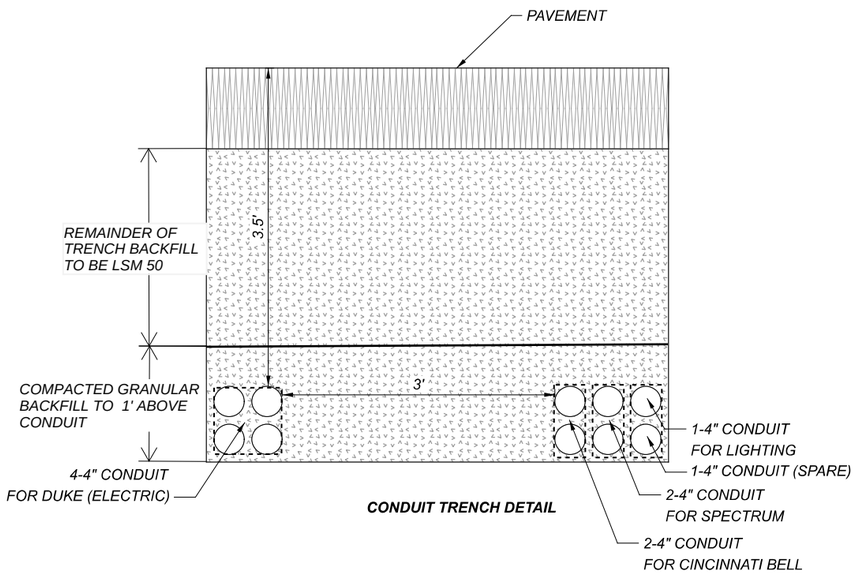
THIS STRUCTURE SHALL CONFORM TO BUTLER COUNTY ENGINEER'S OFFICE STANDARD DRAWING "CATCH BASIN NO. 3A MODIFIED"

ITEM 625 - 4" CONDUIT, 725.052, AS PER PLAN

CONTRACTOR IS TO PROVIDE ALL MATERIAL AND LABOR TO INSTALL THE PROPOSED 4" CONDUIT FOR FUTURE UTILITIES. THE LOCATION OF THE CONDUIT IS CALLED OUT IN THE PLANS. CONDUIT IS TO BE INSTALLED PERPENDICULAR TO THE CENTERLINE AND EXTEND 2' BEYOND THE PATH OR WALK.THE ENDS THE CONDUIT WILL BE CAPPED AND STAKED IN A MANNER TO BE REMOVABLE AND KEEP DEBRIS AND OR WATER FROM ENTERING THE CONDUIT. EACH CROSSING WILL INCLUDE TEN (10) RUNS OF 4" CONDUIT FOR FUTURE USE BY ELECTRIC, CABLE, ETC.

CONDUITS MUST BE SEPARATED BY A MINIMUM OF 1" IN ANY DIRECTION. CONDUITS SPECIFIED FOR ELECTRIC MUST BE A MINIMUM OF 3' FROM ANY OTHER CONDUIT. CONDUITS SHALL BE SEPARATED FROM ANY WATER LINE AT A MINIMUM OF 5' HORIZONTALLY AND 1.5' VERTICALLY. WHERE CONDUITS MUST CROSS A WATER LINE, THE MUST CROSS PERPENDICULARLY.

SEE DETAIL FOR MORE INFORMATION.



CONDUIT TRENCH DETAIL

GENERAL NOTES

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Central Park Blvd.
Mason, OH 45040

DESIGNER: KAM

REVIEWER: KLL 02/09/22

PROJECT ID: TEC PN: 21334

SHEET: P.13 TOTAL: 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet2 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:31 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GN002.dgn

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
12	17	18	19	20	21	24	25	26	27			1	2/LIBERTY TWNP						
																		ROADWAY	
												LS		201	11000	LS		CLEARING AND GRUBBING	
	113				72							185		202	23000	185	SY	PAVEMENT REMOVED	
	113				72							185		202	23500	185	SY	WEARING COURSE REMOVED	
	193											193		202	30000	193	SF	WALK REMOVED	
					5							5		202	30600	5	SY	CONCRETE MEDIAN REMOVED	
					85							85		202	32500	85	FT	CURB AND GUTTER REMOVED	
												3,932		203	10000	3,932	CY	EXCAVATION	
												1,722		203	20000	1,722	CY	EMBANKMENT	
	1,934	5,471	3,163	5,923	1,838							18,329		204	10001	18,329	SY	SUBGRADE COMPACTION, AS PER PLAN	11
												8		204	45000	8	HOUR	PROOF ROLLING	11
	1,792	4,850	3,135	5,594	1,502							16,873		206	10010	16,873	SY	LIME STABILIZED SUBGRADE, 12 INCHES DEEP	
	46	125	81	145	39							436		206	10300	436	TON	LIME	
	1,792	4,850	3,135	5,594	1,502							16,873		206	11000	16,873	SY	CURING COAT	
												LS		206	30000	LS		MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOILS	
		13		13								26		516	13000	26	SF	¼" PREFORMED EXPANSION JOINT FILLER	
	93	32		120								245		607	98000	245	FT	FENCE, MISC.:WOOD FENCE	12
	1,712	3,540	2,750	3,806	2,875							14,683		608	12000	14,683	SF	5" CONCRETE WALK	
	252	1,935		1,935	350							4,472		608	52000	4,472	SF	CURB RAMP	
	530	1,264	1,002	1,199	1,192							5,187		609	12000	5,187	FT	COMBINATION CURB AND GUTTER, TYPE 2	
		348		348								696		609	31000	696	FT	COMBINATION CURB AND GUTTER, TYPE 9	
	413	1,381	1,001	1,414								4,209		609	26000	4,209	FT	CURB, TYPE 6	
	2	2		3	4							11		623	40550	11	EACH	PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN	12
		1,020		2,360	1,100	1,550						6,030		625	25607	6,030	FT	CONDUIT, 4", 725.052, AS PER PLAN	13
												LS		878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
												2,300		SPECIAL	69100500	2,300	SY	HERBICIDE FOR WEED CONTROL, UNDER ASPHALT PATH	12
																		EROSION CONTROL	
1												1		659	00100	1	EACH	SOIL ANALYSIS TEST	12
449												449		659	00300	449	CY	TOPSOIL	
4,041												4,041		659	10001	4,041	SY	SEEDING AND MULCHING, AS PER PLAN	12
202												202		659	14000	202	SY	REPAIR SEEDING AND MULCHING	
202												202		659	15000	202	SY	INTER-SEEDING	
0.5												0.5		659	20000	0.5	TON	COMMERCIAL FERTILIZER	12
0.8												0.8		659	31000	0.8	ACRE	LIME	12
11												11		659	35000	11	MGAL	WATER	12
36												36		659	40000	36	MSF	MOWING	12
4,041												4,041		SPECIAL	69100500	4,041	SY	HERBICIDE FOR WEED CONTROL, IN SEEDED AREAS	
												LS		832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
												LS		832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
												LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
																		DRAINAGE	
									31			31		202	35100	31	FT	PIPE REMOVED, 24" AND UNDER	
LS												LS		503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	12
LS												LS		503	21300	LS		UNCLASSIFIED EXCAVATION (WINGWALL FOOTING)	12
7,456												7,456		509	10000	7,456	LB	EPOXY COATED REINFORCING STEEL	12
48.5												48.5		511	46510	48.5	CY	CLASS QC1 CONCRETE, FOOTING	12
16						1	1	1				19		511	46610	19	CY	CLASS QC1 CONCRETE, HEADWALL	12
70												70		512	10100	70	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	12
550												550		512	33010	550	SY	TYPE 3 WATERPROOFING	12

GENERAL SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: GEN SUM 1 PAPERSIZE: 34x22 (in.) DATE: 2/10/2022 TIME: 3:02:45 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Corners Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
11	12	22	23	24	25	26	27	35	98			1	2/LIBERTY TWNP						
																		DRAINAGE (CONT.)	
	60											60		516	13600	60	SF	1" PREFORMED EXPANSION JOINT FILLER	12
	LS											LS		518	21230	LS		POROUS BACKFILL WITH GEOTEXTILE FABRIC	12
	86											86		811	11000	86	SY	RIPRAP, TYPE D	12
				3,504	2,007	2,812	97					8,420		811	14000	8,420	FT	6" BASE PIPE UNDERDRAINS	
				166	218	298						682		811	01500	682	FT	6" CONDUIT, TYPE F	
				258	326	404						988		611	05900	988	FT	15" CONDUIT, TYPE B	
				162	189	200						551		811	06100	551	FT	15" CONDUIT, TYPE C	
					206							206		811	07400	206	FT	18" CONDUIT, TYPE B	
						76						76		811	07600	76	FT	18" CONDUIT, TYPE C	
					34							34		811	10600	34	FT	24" CONDUIT, TYPE C	
	126											126		811	94900	126	FT	8' X 5' CONDUIT, TYPE A, 706.05 , SUPPLIED BY OTHERS	12
	165											165		811	97400	165	FT	CONDUIT, MISC.:5' X 5' CONDUIT, TYPE A, 706.05, SUPPLIED BY OTHERS	12
				6	1	4						11		811	98150	11	EACH	CATCH BASIN, NO. 3	
				2	2	2	2					8		811	98180	8	EACH	CATCH BASIN, NO. 3A	
					4	1	2					7		811	98690	7	EACH	CATCH BASIN, MISC.: CB-3 MODIFIED	13
				1	2							3		811	98690	3	EACH	CATCH BASIN, MISC.: CB-3A MODIFIED	13
				1	2	1						4		811	99574	4	EACH	MANHOLE, NO. 3	
						2						2		811	99654	2	EACH	MANHOLE ADJUSTED TO GRADE	
																		PAVEMENT	
		68	130									198		255	20000	198	FT	FULL DEPTH PAVEMENT SAWING	
		3,875	18									3,893		301	46000	3,893	CY	ASPHALT CONCRETE BASE, PG64-22	
		2,958	101									3,059		304	20000	3,059	CY	AGGREGATE BASE	
		888	31									919		407	20000	919	GAL	NON-TRACKING TACK COAT	
		96	29									125		441	50000	125	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
		115	30									145		441	50300	145	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	
		642										642		442	20000	642	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	
		750										750		442	20200	750	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	
		732										732		451	14010	732	SY	9" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P, (STAMPED), AS PER PLAN	
																1	EACH	STAMPED/COLOR CONCRETE SAMPLE, 5'x5', AS PER PLAN	
									3,135			3,135		638		3,135	FT	**WATER WORK** 12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, RESTRAINED JOINTS AND FITTINGS (BCWS 2130)	
									7			7		638	10200	7	EACH	6" FIRE HYDRANT (BCWS 2240)	
									1			1		638	11296	1	EACH	¾" AIR RELEASE VALVE (BCWS 5290)	
									8			8		638	08100	8	EACH	12" GATE VALVE AND VALVE BOX (BCWS 2225)	98
									1			1		638	09908	1	EACH	16" X 12" TAPPING SLEEVE, VALVE AND VALVE BOX	
									2			2		638	98000	2	EACH	WATER WORK, MISC.: CONNECT TO EXISTING WATER MAIN, AS PER PLAN	98
									2			2		638	98000	2	EACH	WATER WORK, MISC.: EXPLORATION POTHOLES	98
														638		1	EACH	PURITY STATION	
														811				**SANITARY SEWER**	
									2			2		811	99690	2	EACH	MANHOLE, MISC.:, SANITARY MANHOLE (BCWS 6200)	98
									2			2		811	99690	2	EACH	MANHOLE, MISC.:MANHOLE ADJUSTED TO GRADE W/ SOLID LID	98
									2			2		811	97200	2	EACH	CONDUIT, MISC.: CORE DRILL EXISTING MANHOLE	98
									189			189		611	03100	189	FT	10" CONDUIT, TYPE B (ASTM SDR 26)	
									62			62		611	03100	62	FT	10" CONDUIT, TYPE B (ASTM SDR 35)	
																		LIGHTING	
								3,819				3,819		625	25411	3,819	FT	CONDUIT, 2", 725.052, AS PER PLAN DUKE LIGHTING	11
								3,819				3,819		625	29000	3,819	FT	TRENCH	
								3,819				3,819		625	36010	3,819	FT	UNDERGROUND WARNING/MARKING TAPE	
2												2		625	39000	2	EACH	TEMPORARY LIGHTING, AS PER PLAN	11
												LS		625	98200	LS		LIGHTING, MISC.: DUKE LIGHTING, AS PER PLAN	11
												LS		625	98200	LS		LIGHTING, MISC.: DUKE ENERGY CONTRACT COST	11

GENERAL SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: GEN SUM 2 PAPERSIZE: 34x22 (in.) DATE: 2/10/2022 TIME: 3:02:45 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Snider Road, Suite 201
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.15 TOTAL 147

SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
28	29	30	31	32	33	34	115	131	138			1	2/LIBERTY TWNP						
																		TRAFFIC CONTROL	
24	61	33	65	29								212		621	00100	212	EACH	RPM	
							5					5		625	32000	5	EACH	GROUND ROD	
							1					1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	115
					457	291						748		630	03100	748	FT	GROUND MOUNTED SUPPORT, NO. 3 POST	
							5					5		630	72520	5	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 7, AS PER PLAN	115
					9	6						15		630	79200	15	EACH	SIGN ATTACHMENT ASSEMBLY, MAST ARM	
					246	163						409		630	80100	409	SF	SIGN, FLAT SHEET	
							5					5		630	84511	5	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION, AS PER PLAN	115
					10	6						16		630	97700	16	EACH	SIGNING, MISC.:SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON	116
0.21	0.41	0.38	0.42	0.28								1.7		644	00100	1.7	MILE	EDGE LINE, 4"	
0.14	0.03	0.11	0.04	0.13								0.45		644	00200	0.45	MILE	LANE LINE, 4"	
0.03	0.02		0.02									0.07		644	00300	0.07	MILE	CENTER LINE	
150	827	471	857	358								2,663		644	00400	2,663	FT	CHANNELIZING LINE, 8"	
	340		340									680		644	00600	680	FT	CROSSWALK LINE	
	143	47	146	36								372		644	00700	372	FT	TRANSVERSE/DIAGONAL LINE	
3	12	6	8	6								35		644	01300	35	EACH	LANE ARROW	
	298		380									678		644	01514	678	FT	DOTTED LINE, 8"	
	95		92									187		644	20800	187	FT	YIELD LINE	
85												85		644	30000	85	FT	REMOVAL OF PAVEMENT MARKING	
	450	27	513									990		644	50300	990	FT	PAVEMENT MARKING, MISC.: STRONG SKIP LINE	
							1					1		809	60001	1	EACH	CCTV IP-CAMERA SYSTEM, DOME-TYPE, AS PER PLAN	115
							2					2		809	64500	2	EACH	HIGH-SPEED ETHERNET RADIO	115
							1					1		809	65011	1	EACH	ITS CABINET - POLE MOUNTED, AS PER PLAN	115
							1					1		809	65990	1	EACH	ITS DEVICE, MISC.:NETWORK SWITCH	115
																		LANDSCAPING	
								140				140		SPECIAL	53050020	140	FT	RETAINING WALL, BRICK WALL	
								646	280			646	280	609	70001	926	SY	4" CONCRETE MEDIAN, AS PER PLAN (DECORATIVE)	
												1				1	EACH	STAMPED/COLOR CONCRETE SAMPLE, 5'x5', AS PER PLAN	
								1,343				1,343		625	29000	1,343	FT	TRENCH (FOR FUTURE IRRIGATION)	
								3,927				3,927		625	25604	3,927	FT	CONDUIT, 4", 725.051 (FOR FUTURE IRRIGATION)	
								190				190		659	00300	190	CY	TOPSOIL	
								1,278				1,278		660	20000	1,278	SY	SODDING REINFORCED	
								95	66			95	66	661	00500	161	CY	MULCH	
								136	89			136	89	661	14000	225	EACH	PERENNIALS, BLANKET FLOWER	
								317	212			317	212	661	14000	529	EACH	PERENNIALS, RUSSIAN SAGE	
								524	269			524	269	661	14000	793	EACH	PERENNIALS, STONECROP	
								129	91			129	91	661	20020	220	EACH	DECIDUOUS SHRUB, 18" HEIGHT, RED DRIFT GROUNDCOVER ROSE	
								36	9			36	9	661	30040	45	EACH	EVERGREEN SHRUB, 18" HEIGHT, EVERFLOW YEW	
								132	80			132	80	661	99900	212	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, FEATHER REED GRASS	
								54				54		661	99900	54	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, LITTLE BUNNY FOUNTAIN GRASS	
								328	188			328	188	661	99900	516	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, THE BLUES LITTLE BLUESTEM	
								27	3			27	3	661	99900	30	EACH	PLANTING, MISC.:ORNAMENTAL TREE, ROYAL RAINDROPS CRABAPPLE	
								6	6			6	6	661	99900	12	EACH	PLANTING, MISC.:SHADE TREE, KINDRED SPIRIT OAK	
								7,449	3,977			7,449	3,977	662	31000	11,426	GAL	LANDSCAPE WATERING	
																		INCIDENTALS	
												LS		614	11000	LS		MAINTAINING TRAFFIC	
												9		619	16010	9	MNTH	FIELD OFFICE, TYPE B	
												LS		623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
												LS		624	10000	LS		MOBILIZATION	
												LS		802	00001	LS		ROADWAY, MISC.: ITEM 802E00001 PREMIUM ON INDUSTRIAL INSURANCE	
												LS		802	00002	LS		ROADWAY, MISC.: ITEM 802E00002 PREMIUM BID BOND	
												LS		802	00003	LS		ROADWAY, MISC.: ITEM 802E00003 CONTINGENCIES	

GENERAL SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: GEN SUM 3 PAPERSIZE: 34x22 (in.) DATE: 2/10/2022 TIME: 3:02:46 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Main Centre Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.16 TOTAL 147

ROADWAY SUB-SUMMARY

REF NO.	SHEET NO.	STATION TO STATION	202 PAVEMENT REMOVED SY	202 WEARING COURSE REMOVED SY	202 WALK REMOVED SF	202 CONCRETE MEDIAN REMOVED SY	202 CURB AND GUTTER REMOVED FT	203 EXCAVATION CY	203 EMBANKMENT CY	204 SUBGRADE COMPACTION, AS PER PLAN SY	204 PROOF ROLLING HOUR	206 LIME STABILIZED SUBGRADE, 12 INCHES DEEP SY	206 LIME TON	206 CURING COAT SY	516 ¼" PREFORMED EXPANSION JOINT FILLER SF	607 FENCE, MISC.:WOOD FENCE FT	608 5" CONCRETE WALK SF	608 CURB RAMP SF	609 COMBINATION CURB AND GUTTER, TYPE 2 FT	609 CURB, TYPE 6 FT	609 CURB, MISC.:COMBINATION CURB & GUTTER, TYPE 9 FT	623 PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN EACH	625 CONDUIT, 4", 725.052, AS PER PLAN FT
R1	36	50+70.00 TO 50+85.00	113	113																			
R2	36	50+85.00 TO 50+85.00			193																		
	36	50+85.00 TO 53+50.00								1934													
	36	50+85.00 TO 53+50.00										1792	46	1792									
	36	50+85.00 TO 53+50.00																					
F1	36	53+19.00 RT TO 53+50.00 RT														28							
F2	36	52+42.00 LT TO 53+02.00 LT														65							
W1	36	50+73.00 LT TO 53+50.00 LT															1712						
CR1	36	52+35.00 RT TO 52+61.00 RT																161					
CR2	36	52+98.00 RT TO 53+15.00 RT																91					
C1	36	50+85.00 RT TO 53+50.00 RT																	195				
C2	36	51+42.00 RT TO 53+50.00 RT																		205			
C3	36	51+42.00 LT TO 53+50.00 LT																		208			
C4	36	50+85.00 LT TO 53+50.00 LT																	272				
C5	36	52+98.00 RT TO 53+50.00 RT																	63				
PI	36	50+00.00																				1	
PC	36	52+52.00																				1	
	36	51+00.00																					1020
TOTALS CARRIED TO GENERAL SUMMARY			113	113	193					1934		1792	46	1792		93	1712	252	530	413		2	1020

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 1 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:33 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER KAM

REVIEWER KLL 02/09/22

PROJECT ID TEC PN: 21334

SHEET P.17 TOTAL 147

REF NO.	SHEET NO.	STATION TO STATION					202 PAVEMENT REMOVED SY	202 WEARING COURSE REMOVED SY	202 WALK REMOVED SF	202 CONCRETE MEDIAN REMOVED SY	202 CURB AND GUTTER REMOVED FT	203 EXCAVATION CY	203 EMBANKMENT CY	204 SUBGRADE COMPACTION, AS PER PLAN SY	204 PROOF ROLLING HOUR	206 LIME STABILIZED SUBGRADE, 12 INCHES DEEP SY	206 LIME TON	206 CURING COAT SY	516 ¼" PREFORMED EXPANSION JOINT FILLER SF	607 FENCE, MISC.:WOOD FENCE FT	608 5" CONCRETE WALK SF	608 CURB RAMP SF	609 COMBINATION CURB AND GUTTER, TYPE 2 FT	609 CURB, TYPE 6 FT	609 CURB, MISC.:COMBINATION CURB & GUTTER, TYPE 9 FT	623 PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN EACH	625 CONDUIT, 4", 725.052, AS PER PLAN FT
	37	53+50.00		TO	58+50.00									5471													
	37	53+50.00		TO	58+50.00											4850	125	4850									
F3	37	53+50.00		TO	53+86.00															32							
W2	37	53+50.00	LT	TO	55+45.00	LT															1096						
W3	37	55+45.00	LT	TO	56+20.00	LT															527						
W4	37	56+82.00	LT	TO	57+72.00	LT															745						
W5	37	57+72.00	LT	TO	58+50.00	LT															308						
W6	37	55+44.00		TO	55+57.00																183						
W7	37	57+46.00		TO	57+60.00																321						
W8	37	56+40.00	LT	TO	56+75.00	LT															271						
W9	37	56+56.00	RT	TO	56+77.00	RT															89						
CR6	37	55+25.00	RT	TO	55+49.00	RT																325					
CR36	37	56+26.00	RT	TO	56+50.00	RT																325					
CR34	37	56+90.00	RT	TO	57+12.00	RT																325					
CR10	37	57+57.00	RT	TO	57+82.00	RT																325					
CR3	37	55+24.00	LT	TO	55+46.00	LT																170					
CR32	37	56+09.00	LT	TO	56+28.00	LT																170					
CR29	37	56+91.00	LT	TO	57+11.00	LT																125					
CR10	37	57+71.00	LT	TO	57+96.00	LT																170					
C6	37	53+50.00	RT	TO	56+63.00	RT																	385				
C7	37	53+50.00	RT	TO	55+82.00	RT																		235			
C8	37	53+50.00	LT	TO	55+83.00	LT																		236			
C9	37	53+50.00	LT	TO	56+42.00	LT																	375				
C10	37	55+82.00		TO	55+86.00																			42			
C11	37	56+04.00		TO	57+11.00																				348		
C12	37	56+15.00		TO	57+00.00																			267			
C13	37	56+52.00	RT	TO	56+80.00	RT																		120			
C14	37	56+36.00	LT	TO	56+78.00	LT																		185			
C15	37	56+94.00	RT	TO	58+50.00	RT																	264				
C16	37	57+34.00	RT	TO	58+50.00	RT																		122			
C17	37	57+26.00	LT	TO	58+50.00	LT																		124			
C18	37	56+74.00	LT	TO	58+50.00	LT																	240				
C19	37	57+26.00		TO	57+30.00																			50			
	37	56+01.00		TO	57+13.00																						
PT	37	54+40.00																									1
PC	37	57+33.00																									1
E1	37	56+04.00		TO	57+11.00														7.3								
E2	37	56+15.00		TO	57+00.00														5.6								
TOTALS CARRIED TO GENERAL SUMMARY														5471		4850	125	4850	13	32	3540	1935	1264	1381	348	2	

ROADWAY SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 2 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:34 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Central Park Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.18 TOTAL 147

REF NO.	SHEET NO.	STATION TO STATION					202 PAVEMENT REMOVED SY	202 WEARING COURSE REMOVED SY	202 WALK REMOVED SF	202 CONCRETE MEDIAN REMOVED SY	202 CURB AND GUTTER REMOVED FT	203 EXCAVATION CY	203 EMBANKMENT CY	204 SUBGRADE COMPACTION, AS PER PLAN SY	204 PROOF ROLLING HOUR	206 LIME STABILIZED SUBGRADE, 12 INCHES DEEP SY	206 LIME TON	206 CURING COAT SY	516 ¼" PREFORMED EXPANSION JOINT FILLER SF	607 FENCE, MISC.:WOOD FENCE FT	608 5" CONCRETE WALK SF	608 CURB RAMP SF	609 COMBINATION CURB AND GUTTER, TYPE 2 FT	609 CURB, TYPE 6 FT	609 CURB, MISC.:COMBINATION CURB & GUTTER, TYPE 9 FT	623 PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN EACH	625 CONDUIT, 4", 725.052, AS PER PLAN FT
	38	58+50.00	RT	TO	63+50.00	RT								1657													
	38	58+50.00	LT	TO	63+50.00	LT								1506													
	38	58+50.00	RT	TO	63+50.00	RT										1630	42	1630									
	38	58+50.00	LT	TO	63+50.00	LT										1505	39	1505									
W10	38	58+50.00	LT	TO	63+50.00	LT															2750						
C20	38	58+50.00	RT	TO	63+50.00	RT																	532				
C21	38	58+50.00	RT	TO	63+50.00	RT																		506			
C22	38	58+50.00	LT	TO	63+50.00	LT																		495			
C23	38	58+50.00	LT	TO	63+50.00	LT																	470				
	38	59+25.00																									1040
	38	63+50.00																									1320
TOTALS CARRIED TO GENERAL SUMMARY														3163		3135	81	3135			2750		1002	1001			2360

ROADWAY SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 3 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:34 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Central Park Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.19 TOTAL 147

ROADWAY SUB-SUMMARY

REF NO.	SHEET NO.	STATION TO STATION					202 PAVEMENT REMOVED SY	202 WEARING COURSE REMOVED SY	202 WALK REMOVED SF	202 CONCRETE MEDIAN REMOVED SY	202 CURB AND GUTTER REMOVED FT	203 EXCAVATION CY	203 EMBANKMENT CY	204 SUBGRADE COMPACTION, AS PER PLAN SY	204 PROOF ROLLING HOUR	206 LIME STABILIZED SUBGRADE, 12 INCHES DEEP SY	206 LIME TON	206 CURING COAT SY	516 ¼" PREFORMED EXPANSION JOINT FILLER SF	607 FENCE, MISC.:WOOD FENCE FT	608 5" CONCRETE WALK SF	608 CURB RAMP SF	609 COMBINATION CURB AND GUTTER, TYPE 2 FT	609 CURB, TYPE 6 FT	609 CURB, MISC.:COMBINATION CURB & GUTTER, TYPE 9 FT	623 PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN EACH	625 CONDUIT, 4", 725.052, AS PER PLAN FT
	39	63+50.00		TO	68+50.00									5923													
	39	63+50.00		TO	68+50.00											5594	145	5594									
F4	39	67+70.00	RT	TO	68+29.00	RT														60							
F5	39	67+88.00	LT	TO	68+48.00	LT														60							
W11	39	63+50.00	LT	TO	63+67.00	LT															89						
W12	39	63+67.00	LT	TO	64+52.00	LT															663						
W13	39	65+26.00	LT	TO	66+12.00	LT															308						
W14	39	66+12.00	LT	TO	68+50.00	LT															212						
W15	39	65+26.00	LT	TO	66+10.00	LT															623						
W16	39	66+10.00	LT	TO	68+50.00	LT															1545						
W17	39			TO																	193						
W18	39			TO																	173						
CR28	39	63+58.00	RT	TO	63+82.00	RT																325					
CR14	39	64+43.00	RT	TO	64+55.00	RT																325					
CR25	39	65+01.00	RT	TO	65+20.00	RT																325					
CR18	39	65+88.00	RT	TO	66+12.00	RT																325					
CR11	39	63+50.00	LT	TO	63+75.00	LT																170					
CR24	39	64+27.00	LT	TO	64+45.00	LT																170					
CR21	39	65+26.00	LT	TO	65+38.00	LT																125					
CR15	39	66+02.00	LT	TO	66+26.00	LT																170					
C24	39	63+50.00	RT	TO	64+65.00	RT																	215				
C25	39	63+50.00	RT	TO	64+11.00	RT																		63			
C26	39	63+50.00	LT	TO	64+12.00	LT																		63			
C27	39	63+50.00	LT	TO	64+64.00	LT																	172				
C28	39	64+12.00		TO	64+15.00																			52			
C29	39	64+33.00		TO	65+40.00																				348		
C30	39	64+44.00		TO	65+30.00																			267			
C31	39	64+60.00	LT	TO	65+06.00	LT																		162			
C32	39	64+64.00	RT	TO	65+00.00	RT																		180			
C33	39	64+90.00	RT	TO	68+50.00	RT																	462				
C34	39	65+63.00	RT	TO	68+50.00	RT																		292			
C35	39	65+61.00	RT	TO	68+50.00	RT																		292			
C36	39	65+19.00	LT	TO	68+50.00	LT																	350				
C37	39	65+58.00		TO	65+62.00																			43			
		64+31.00		TO	65+43.00																						
PT	39	65+10.00																								1	
PC	39	65+35.00																								1	
PT	39	67+73.00																								1	
E3	39	64+33.00		TO	65+40.00														7.3								
E4	39	64+44.00		TO	65+30.00														5.6								
	38	66+50.00																									1100
TOTALS CARRIED TO GENERAL SUMMARY														5923		5594	145	5594	13	120	3806	1935	1199	1414	348	3	1100

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Central Park Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.20 | TOTAL 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 4 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:34 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

REF NO.	SHEET NO.	STATION TO STATION					202 PAVEMENT REMOVED SY	202 WEARING COURSE REMOVED SY	202 WALK REMOVED SF	202 CONCRETE MEDIAN REMOVED SY	202 CURB AND GUTTER REMOVED FT	203 EXCAVATION CY	203 EMBANKMENT CY	204 SUBGRADE COMPACTION, AS PER PLAN SY	204 PROOF ROLLING HOUR	206 LIME STABILIZED SUBGRADE, 12 INCHES DEEP SY	206 LIME TON	206 CURING COAT SY	516 ¼" PREFORMED EXPANSION JOINT FILLER SF	607 FENCE, MISC.:WOOD FENCE FT	608 5" CONCRETE WALK SF	608 CURB RAMP SF	609 COMBINATION CURB AND GUTTER, TYPE 2 FT	609 CURB, TYPE 6 FT	609 CURB, MISC.:COMBINATION CURB & GUTTER, TYPE 9 FT	623 PROJECT CONTROL REFERENCE MONUMENT, AS PER PLAN EACH	625 CONDUIT, 4", 725.052, AS PER PLAN FT
R3	40	70+65.00		TO	70+71.00		72																				
R3	40	70+65.00		TO	70+71.00			72																			
R4	40	71+10.00	RT	TO	71+90.00	RT					85																
	40	68+50.00	RT	TO	73+07.00	RT								955													
	40	68+50.00	RT	TO	70+56.00	RT										619	16	619									
R5	40	71+71.00	LT/RT	TO	71+85.00	LT/RT				5																	
	40	68+50.00	LT	TO	70+56.00	LT								661													
	40	68+50.00	LT	TO	70+56.00	LT										661	17	661									
	40	71+11.00	RT	TO	71+91.00	RT								222													
	40	71+11.00	RT	TO	71+91.00	RT										222	6	222									
W19	40	68+50.00	LT	TO	73+20.00	LT															2875						
CR19	40	71+15.00	RT	TO	71+33.00	RT																165					
CR20	40	71+69.00	RT	TO	71+88.00	RT																185					
C38	40	68+50.00	RT	TO	70+56.00	RT																	194				
C39	40	68+50.00	RT	TO	71+85.00	RT																	348				
C40	40	68+50.00	LT	TO	71+85.00	LT																	348				
C41	40	68+50.00	LT	TO	70+56.00	LT																	218				
C42	40	71+11.00	RT	TO	71+36.00	RT																	42				
C43	40	71+66.00	RT	TO	71+91.00	RT																	42				
PC	40	68+68.00																								1	
PRC	40	70+57.00																								1	
PRC	40	72+31.00																								1	
POT	40	74+42.00																								1	
	40	72+00.00																									1020
	43	20+87.00																									530
TOTALS CARRIED TO GENERAL SUMMARY							72	72		5	85			1838		1502	39	1502			2875	350	1192			4	1550

ROADWAY SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 5 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:35 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GS001.dgn

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Central Park Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.21 TOTAL 147

PAVEMENT SUB-SUMMARY

STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	255 FULL DEPTH PAVEMENT SAWING	301 ASPHALT CONCRETE BASE, PG64-22	304 AGGREGATE BASE	407 NON-TRACKING TACK COATTO BE APPLIED AT A RATE OF 0.05 GAL. PER SQ. YARD	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	451 9" REINFORCED CONCRETE PAVEMENT, CLASS QC1									
					FT	FT	SQ YD	SQ YD	FT	CY	CY	GAL	CY	CY	CY	CY	SY										
50+85.00		50+85.00		C	0.00		0.00		68.00																	
50+85.00	TO	53+50.00		C	265.00		0.00			427.00																
50+85.00	TO	53+50.00		C	265.00		0.00				284.00															
50+85.00	TO	53+50.00		C	265.00		0.00					85.30														
50+85.00	TO	53+50.00		C	265.00		0.00								71.00											
50+85.00	TO	53+50.00		C	265.00		0.00									83.00										
50+85.00	TO	53+50.00		RT	265.00		0.00				37.00															
50+85.00	TO	53+50.00		RT	265.00		0.00					11.00														
50+85.00	TO	53+50.00		RT	265.00		0.00						9.30													
50+85.00	TO	53+50.00		RT	265.00		0.00							11.10												
52+35.00	TO	53+26.00		RT						18.50	18.50	5.60	4.60	5.60												
53+50.00	TO	58+50.00		C	500.00		0.00			1199.00																
53+50.00	TO	58+50.00		C	500.00		0.00				799.00															
53+50.00	TO	58+50.00		C	500.00		0.00					239.75														
53+50.00	TO	58+50.00		C	500.00		0.00								200.00											
53+50.00	TO	58+50.00		C	500.00		0.00									233.00										
53+50.00	TO	58+50.00		RT	500.00		0.00				113.00															
53+50.00	TO	58+50.00		RT	500.00		0.00					33.80														
53+50.00	TO	58+50.00		RT	500.00		0.00						28.00													
53+50.00	TO	58+50.00		RT	500.00		0.00							34.00												
56+02.00	TO	57+13.00		C	111.00		0.00										366.00									
58+50.00	TO	63+50.00		C	500.00		0.00			715.00																
58+50.00	TO	63+50.00		C	500.00		0.00				476.00															
58+50.00	TO	63+50.00		C	500.00		0.00					142.90														
58+50.00	TO	63+50.00		C	500.00		0.00								119.00											
58+50.00	TO	63+50.00		C	500.00		0.00									139.00										
58+50.00	TO	63+50.00		RT	500.00		0.00				101.00															
58+50.00	TO	63+50.00		RT	500.00		0.00					30.30														
58+50.00	TO	63+50.00		RT	500.00		0.00						24.00													
58+50.00	TO	63+50.00		RT	500.00		0.00							29.00												
63+50.00	TO	68+50.00		C	500.00		0.00			1190.00																
63+50.00	TO	68+50.00		C	500.00		0.00				793.00															
63+50.00	TO	68+50.00		C	500.00		0.00					238.00														
63+50.00	TO	68+50.00		C	500.00		0.00								198.00											
63+50.00	TO	68+50.00		C	500.00		0.00									232.00										
63+50.00	TO	68+50.00		RT	500.00		0.00				119.00															
63+50.00	TO	68+50.00		RT	500.00		0.00					36.00														
63+50.00	TO	68+50.00		RT	500.00		0.00						30.00													
63+50.00	TO	68+50.00		RT	500.00		0.00							35.00												
64+33.00	TO	65+40.00		C	107.00		0.00										366.00									
68+50.00	TO	71+85.00		C	335.00		0.00			325.00																
68+50.00	TO	71+85.00		C	335.00		0.00				217.00															
68+50.00	TO	71+85.00		C	335.00		0.00					65.00														
68+50.00	TO	71+85.00		C	335.00		0.00								54.00											
68+50.00	TO	71+85.00		C	335.00		0.00									63.00										
								SUBTOTALS	68.00	3874.50	2957.50	887.65	95.90	114.70	642.00	750.00	732.00	0.00									
								TOTALS CARRIED TO GENERAL SUMMARY	68	3875	2958	888	96	115	642	750	732									

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 1 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:35 PM USER: kellie
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DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.22 | TOTAL 147

STATION RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	255 FULL DEPTH PAVEMENT SAWING	301 ASPHALT CONCRETE BASE, PG64-22	304 AGGREGATE BASE	407 NON-TRACKING TACK COATTO BE APPLIED AT A RATE OF 0.05 GAL. PER SQ. YARD	441 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448)	442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448)	442 ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (448)	451 9" REINFORCED CONCRETE PAVEMENT, CLASS QC1									
					FT	FT	SQ YD	SQ YD	FT	CY	CY	GAL	CY	CY	CY	CY	SY										
68+50.00	TO	73+07.00		RT	457.00		0.00				83.00															
68+50.00	TO	73+07.00		RT	457.00		0.00					25.00														
68+50.00	TO	73+07.00		RT	457.00		0.00						24.00													
68+50.00	TO	73+07.00		RT	457.00		0.00							24.00												
70+57.00	TO	71+85.00		C	128.00		0.00		130.00																	
71+11.00	TO	71+87.00		RT	76.00		0.00			17.60	17.60	5.30	4.40	5.30												
SUBTOTALS									130.00	17.60	100.60	30.30	28.40	29.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS CARRIED TO GENERAL SUMMARY									130	18	101	31	29	30	0	0	0									

PAVEMENT SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 2 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:35 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GS002.dgn

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.23 TOTAL 147

STATION RANGE			REFERENCE	SIDE					202	511	605	811	811	811	811	811	811	811	811	811	811			
									PIPE REMOVED, 24" AND UNDER	CLASS QC1 CONCRETE, HEADWALL	6" BASE PIPE UNDERDRAINS	6" CONDUIT, TYPE F	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDUIT, TYPE B	18" CONDUIT, TYPE C	24" CONDUIT, TYPE C	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, MISC.: CB-3 MODIFIED	CATCH BASIN, MISC.: CB-3A MODIFIED	MANHOLE, NO. 3	MANHOLE ADJUSTED TO GRADE			
									FT	CY	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH			
50+69.00	TO	53+11.00	UD7	RT							237.00													
50+70.00	TO	52+76.00	UD1	LT							207.00													
51+56.00	TO	52+98.00	UD3	LT							145.00	30.00												
51+56.00	TO	53+03.00	UD5	RT							147.00													
52+70.00	TO	53+50.00		LT																				
52+99.00	TO	53+50.00	UD2	LT							54.00													
53+08.00			D38																			1.00		
53+10.00	TO	53+50.00	UD4	LT							40.00													
53+17.00	TO	53+50.00	UD6	RT							32.00													
53+50.00	TO	53+65.00		RT																				
53+50.00	TO	55+21.00	UD14	RT							165.00													
53+50.00	TO	55+27.00	UD10	LT							168.00													
53+50.00	TO	55+62.00	UD12	LT							214.00													
53+50.00	TO	55+82.00	UD13	RT							234.00													
55+05.00	TO	55+27.00		LT									23.00											
55+05.00			D29	LT															1.00					
55+21.00	TO	55+21.00		RT										36.00										
55+21.00	TO	55+27.00		C									75.00											
55+21.00			D17	RT														1.00						
55+26.00	TO	56+60.00	UD16	RT							117.00													
55+27.00	TO	56+19.00	UD11	LT							114.00													
55+27.00			D21	LT														1.00						
55+29.00			HHW1	RT						0.27														
55+50.00	TO	55+27.00		LT									25.00											
55+50.00	TO	55+84.00	UD28	LT							22.00	34.00												
55+50.00			D2	LT															1.00					
55+60.00	TO	55+83.00	UD15	RT							40.00	42.00												
56+04.00	TO	57+10.00	UD18	C							332.00													
56+15.00	TO	56+60.00		RT										39.00										
56+16.00	TO	56+99.00	UD17	C							261.00													
56+21.00			HHW5	RT						0.27														
56+27.00	TO	56+49.00	UD19	RT								60.00												
56+27.00	TO	56+60.00		RT										87.00										
56+27.00			D25	RT														1.00						
56+30.00	TO	56+60.00	UD27	RT							80.00													
56+60.00	TO	56+94.00		RT									33.00											
56+60.00			D3	RT														1.00						
56+84.00	TO	57+99.00	UD20	LT							152.00													
56+94.00	TO	57+19.00	UD24	RT							110.00													
56+94.00			D46	RT														1.00						
57+23.00	TO	58+50.00	UD25	RT							91.00													
57+60.00	TO	58+50.00	UD23	RT							91.00													
57+71.00	TO	58+50.00	UD22	LT							89.00													
57+99.00			D24	LT														1.00						
58+03.00	TO	58+70.00		RT									102.00											
58+03.00			D26	RT																	1.00			
58+06.00	TO	58+50.00	UD21	LT							40.00													
58+07.00	TO	58+50.00	UD26	RT							46.00													
58+50.00	TO	59+89.00	UD44	RT							146.00													
58+50.00	TO	59+91.00	UD30	LT							130.00													
								SUBTOTALS	0.00	0.54	3504.00	166.00	258.00	162.00	0.00	0.00	0.00	6.00	2.00	0.00	1.00	1.00	0.00			
								TOTALS CARRIED TO GENERAL SUMMARY	0	1	3504	166	258	162	0	0	0	6	2	0	1	1	0			

DRAINAGE SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet - I PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:36 PM USER: kalle
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Drainage\Sheets\21334_Veterans_DS001.dgn

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.24 TOTAL 147

STATION RANGE			REFERENCE	SIDE					202	511	65	811	811	811	811	811	811	811	811	811	811			
									PIPE REMOVED, 24" AND UNDER	CLASS QC1 CONCRETE, HEADWALL	6" BASE PIPE UNDERDRAINS	6" CONDUIT, TYPE F	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDTUIT, TYPE B	18" CONDUIT, TYPE C	24" CONDUIT, TYPE C	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, MISC.: CB-3 MODIFIED	CATCH BASIN, MISC.: CB-3A MODIFIED	MANHOLE, NO. 3	MANHOLE ADJUSTED TO GRADE			
									FT	CY	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH			
58+50.00	TO	61+75.00	UD39	RT							328.00															
58+50.00	TO	61+80.00	UD36	LT							322.00	27.00														
59+00.00	TO	59+71.00		RT									97.00													
59+00.00			D35	RT																			1			
59+77.00	TO	59+91.00	UD37	LT								30.00														
59+78.00	TO	59+89.00	UD40	RT								32.00														
59+89.00	TO	59+91.00		C										66.00												
59+89.00			D17	RT																1.00						
59+91.00	TO	60+71.00		RT											89.00											
59+91.00	TO	61+54.00	UD31	LT							147.00															
59+91.00			D32	LT														1.00								
59+97.00	TO	61+52.00	UD45	RT							167.00															
60+71.00	TO	61+53.00		RT											87.00											
60+72.00			D37	RT																			1			
61+53.00	TO	61+81.00	UD46	RT							25.00															
61+53.00	TO	61+81.00		RT											30.00											
61+53.00			D16	RT																		1.00				
61+54.00	TO	61+80.00	UD32	LT							23.00															
61+54.00			D5	LT															1.00							
61+56.00			HHW2	RT						0.46																
61+57.00	TO	61+80.00		LT									25.00													
61+75.00	TO	61+81.00	UD41	RT								28.00														
61+80.00	TO	61+81.00		C									73.00													
61+80.00	TO	61+87.00	UD33	LT								28.00														
61+80.00	TO	62+72.00	UD34	LT							80.00															
61+53.00	TO	61+56.00		RT													34.00									
61+81.00	TO	61+87.00	UD42	RT								30.00														
61+81.00	TO	62+04.00	UD47	RT							24.00															
61+81.00	TO	62+04.00		RT									25.00													
61+81.00			D19	RT																1.00						
61+81.00			D34	LT																1.00						
61+87.00	TO	63+50.00	UD38	LT							161.00															
61+87.00	TO	63+50.00	UD43	RT							164.00															
62+04.00	TO	63+01.00		RT									106.00													
62+04.00	TO	63+02.00	UD48	RT							101.00															
62+05.00			D27	RT																		1.00				
62+59.00			HHW3	LT						0.27																
62+59.00	TO	62+72.00		LT										59.00												
62+73.00	TO	63+50.00	UD35	LT							72.00															
62+73.00			D22	LT															1.00							
63+02.00	TO	63+50.00	UD49	RT							50.00															
63+03.00			D46	RT																1.00						
63+50.00	TO	63+57.00	UD55	RT							8.00															
63+50.00	TO	63+88.00	UD50	LT							37.00															
63+50.00	TO	63+99.00	UD53	RT							63.00															
63+50.00	TO	64+11.00	UD52	LT							62.00															
63+58.00			HHW6	LT						0.27																
63+58.00	TO	64+31.00		LT										64.00												
63+66.00	TO	64+63.00	UD56	RT							156.00															
63+95.00	TO	64+01.00	UD54	RT							17.00	43.00														
								SUBTOTALS	0.00	1.00	2007.00	218.00	326.00	189.00	206.00	0.00	34.00	1.00	2.00	4.00	2.00	2.00	0.00	0.00			
								TOTALS CARRIED TO GENERAL SUMMARY	0	1	2007	218	326	189	206	0	34	1	2	4	2	2	0				

DRAINAGE SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet -2 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:36 PM USER: kalle
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DESIGN AGENCY
TEC Engineering Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Central Park Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.25 TOTAL 147

STATION RANGE			REFERENCE	SIDE					202	511	605	811	811	811	811	811	811	811	811	811	811			
									PIPE REMOVED, 24" AND UNDER	CLASS QC1 CONCRETE, HEADWALL	6" BASE PIPE UNDERDRAINS	6" CONDUIT, TYPE F	15" CONDUIT, TYPE B	15" CONDUIT, TYPE C	18" CONDTUIT, TYPE B	18" CONDUIT, TYPE C	24" CONDUIT, TYPE C	CATCH BASIN, NO. 3	CATCH BASIN, NO. 3A	CATCH BASIN, MISC.: CB-3 MODIFIED	CATCH BASIN, MISC.: CB-3A MODIFIED	MANHOLE, NO. 3	MANHOLE ADJUSTED TO GRADE			
									FT	CY	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH			
63+96.00	TO	64+30.00	UD51	LT							38.00															
64+30.00	TO	64+61.00	UD72	LT							83.00															
64+30.00	TO	64+63.00		RT										41.00												
64+30.00			D6	LT																1.00						
64+31.00	TO	65+28.00		LT									84.00													
64+34.00	TO	65+39.00	UD58	C							332.00															
64+35.00			HHW7	RT						0.27																
64+45.00	TO	65+28.00	UD57	C							261.00															
64+63.00	TO	64+90.00		RT									36.00													
64+63.00	TO	65+69.00	UD69	RT							154.00															
64+63.00			D8	RT														1.00								
64+90.00	TO	65+74.00		RT										159.00												
64+90.00			D9	RT														1.00								
65+10.00				RT																				1.00		
65+11.00	TO	67+40.00	UD61	LT							217.00															
65+27.00	TO	65+74.00	UD59	RT								72.00														
65+28.00			D7	LT														1.00								
65+60.00	TO	65+62.00	UD60	C							41.00															
65+60.00	TO	67+46.00	UD63	LT							188.00															
65+62.00	TO	67+46.00	UD66	RT							72.00															
65+74.00	TO	67+47.00	UD70	RT							188.00															
65+74.00			D28	RT														1.00								
67+50.00	TO	68+50.00	UD62	LT							57.00															
67+50.00				RT																				1.00		
67+54.00	TO	68+03.00	UD64	LT							48.00															
67+55.00	TO	68+14.00	UD67	RT/C							47.00	113.00														
67+98.00	TO	68+22.00		RT																						
68+08.00	TO	68+50.00	UD71	RT							42.00															
68+10.00			D39	RT					31.00														1.00			
68+17.00	TO	68+50.00	UD68	RT							33.00															
68+18.00	TO	68+50.00	UD65	LT							31.00															
68+25.00	TO	68+50.00	UD73	LT							25.00															
68+50.00	TO	68+98.00	UD86	RT							46.00															
68+50.00	TO	69+25.00	UD80	LT							79.00															
68+50.00	TO	69+25.00	UD82	LT							71.00	28.00														
68+50.00	TO	69+25.00	UD84	RT							71.00	28.00														
68+62.00	TO	68+98.00		RT													76.00									
68+61.00			HHW4	RT						0.33																
68+98.00	TO	69+25.00	UD87	RT							21.00															
69+00.00	TO	69+25.00		RT									25.00													
69+00.00	TO	69+25.00		LT									28.00													
69+00.00			D23	RT															1.00							
69+00.00			D11	LT															1.00							
69+25.00	TO	69+25.00		C									73.00													
69+25.00	TO	69+25.00		RT									26.00													
69+25.00	TO	69+52.00	UD88	RT							23.00															
69+25.00	TO	70+48.00		LT									132.00													
69+25.00	TO	70+49.00	UD81	LT							132.00															
69+25.00	TO	71+85.00	UD83	LT							256.00	28.00														
69+25.00	TO	71+85.00	UD85	RT							256.00	29.00														
								SUBTOTALS	31.00	0.60	2812.00	298.00	404.00	200.00	0.00	76.00	0.00	4.00	2.00	1.00	0.00	1.00	2.00	0.00		
								TOTALS CARRIED TO GENERAL SUMMARY	31	1	2812	298	404	200	0	76	0	4	2	1	0	1	2			

DRAINAGE SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet -3 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:37 PM USER: kalle
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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.26 TOTAL 147

STATION RANGE			REFERENCE	SIDE				CADD GENERATED AREA	202 PIPE REMOVED, 24" AND UNDER	511 CLASS QC1 CONCRETE, HEADWALL	605 6" BASE PIPE UNDERDRAINS	811 6" CONDUIT, TYPE F	811 15" CONDUIT, TYPE B	811 15" CONDUIT, TYPE C	811 18" CONDTUIT, TYPE B	811 18" CONDUIT, TYPE C	811 24" CONDUIT, TYPE C	811 CATCH BASIN, NO. 3	811 CATCH BASIN, NO. 3A	811 CATCH BASIN, MISC.: CB-3 MODIFIED	811 CATCH BASIN, MISC.: CB-3A MODIFIED	811 MANHOLE, NO. 3	811 MANHOLE ADJUSTED TO GRADE			
								SQ YD	FT	CY	FT	FT	FT	FT	FT	FT	FT	EACH	EACH	EACH	EACH	EACH	EACH			
69+25.00			D10	RT																1.00						
69+25.00			D13	LT																1.00						
69+50.00			D20	RT															1.00							
69+52.00	TO	70+56.00	UD89	RT							97.00															
70+48.00			D30	LT															1.00							
SUBTOTALS									0.00	0.00	97.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.00	0.00	0.00	0.00			
TOTALS CARRIED TO GENERAL SUMMARY									0	0	97	0	0	0	0	0	0	0	2	2	0	0	0			

DRAINAGE SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet -4 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:37 PM USER: kalle
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DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Center Point Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.27 TOTAL 147

GENERAL SPEC: 640
MATERIAL TYPE: 644

EDGE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
		49+85		53+50	365.00						
		49+85		53+50	365.00						
		51+53		53+50				394.00			6 RPMs
TOTAL					730.00			394.00			

LANE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE DASHED	4" LANE LINE SOLID	COMMENTS
		49+85		53+50	0.07	365.00		6 RPMs
		49+85		53+50	0.07	365.00		6 RPMs
TOTAL					0.14	730.00		

CENTER LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
		49+85		51+53	0.03		3 RPMs
TOTAL					0.03		

AUXILIARY

ROUTE	TRUE LOG	FROM	TO	CHANNEL LINE	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	YIELD LINES	SYMBOL MARKINGS RxR	SYMBOL MARKINGS STRONG SKIP 6' LONG W/ 3' GAP	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	PVMT MARKING REMOVED	COMMENTS
				FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	
		49+85	51+35	150															5 RPMs (40' spacing)
		50+00										1							
		50+65										1							
		51+30										1							
		49+85	50+70															85	
TOTAL				150								3						85	

PAVEMENT MARKING SUB-SUMMARY

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.28 | TOTAL 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 1 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:37 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Traffic\Sheets\21334_Veterans_TS001.dgn

GENERAL SPEC: 640
MATERIAL TYPE: 644

EDGE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
VETERANS BLVD		53+50		56+55	365.00						
VETERANS BLVD		56+91		58+50	247.00						
VETERANS BLVD		53+50		56+46	384.00						
VETERANS BLVD		56+70		58+50	223.00						
VETERANS BLVD		53+50		55+87				219.00			4 RPMs
VETERANS BLVD		53+50		55+91				236.00			4 RPMs
VETERANS BLVD		57+25		58+50				119.00			2 RPMs
VETERANS BLVD		57+22		58+50				106.00			2 RPMs
VETERANS BLVD		56+43		56+74				58.00			2 RPMs
VETERANS BLVD		56+74		56+84				54.00			2 RPMs
VETERANS BLVD		56+32		56+58				81.00			2 RPMs
VETERANS BLVD		56+58		56+85				81.00			2 RPMs
TOTAL					1219.00			954.00			

LANE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE DASHED	4" LANE LINE SOLID	COMMENTS
VETERANS BLVD		53+50		54+57		110.00		2 RPMs
VETERANS BLVD		58+25		58+50		25.00		1 RPM
VETERANS BLVD		53+50		53+75		22.00		1 RPM
TOTAL						157.00		

CENTER LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
SOUTHERN RA		24+05		24+37	0.01		
SOUTHERN RA		20+76		20+84	0.01		
TOTAL					0.02		

AUXILIARY

ROUTE	TRUE LOG	FROM	TO	CHANNEL LINE	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	YIELD LINES	SYMBOL MARKINGS RxR	SYMBOL MARKINGS STRONG SKIP 6' LONG W/ 3' GAP	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	DOTTED LINES	COMMENTS
				FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	
VETERANS BLVD		53+75	56+24	367															6 RPMs
VETERANS BLVD		54+50	55+94				93												
VETERANS BLVD		57+18	58+50	250															4 RPMs
VETERANS BLVD		57+30	58+38				50												
VETERANS BLVD		55+35	55+56			100													
VETERANS BLVD		56+48	56+88			60													
VETERANS BLVD		56+27	56+93			70													
VETERANS BLVD		57+52	57+79			110													
VETERANS BLVD		55+90													1				
VETERANS BLVD		56+66												1	1				
VETERANS BLVD		57+21													1				
VETERANS BLVD		56+37												1	1				
VETERANS BLVD	RA	55+60	57+22															298	ENTIRE CIRCLE INCLUDED
VETERANS BLVD		53+75													2				
VETERANS BLVD		55+20													2				
VETERANS BLVD		57+83													2				
VETERANS BLVD		54+57	57+25								450								27 RPMs, ENTIRE CIRCLE INCLUDED
VETERANS BLVD		55+83	57+33						95										ENTIRE CIRCLE INCLUDED
VETERANS BLVD	RA	55+85	57+30	210															
TOTAL				827		340	143		95		450			2	10			298	

PAVEMENT MARKING SUB-SUMMARY

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.29 TOTAL 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 2 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:38 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Traffic\Sheets\21334_Veterans_TS001.dgn

GENERAL SPEC: 640
MATERIAL TYPE: 644

EDGE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
VETERANS BLVD		58+50		63+50	528.00						
VETERANS BLVD		58+50		63+50	473.00						
VETERANS BLVD		58+50		63+50				506.00			7 RPMs
VETERANS BLVD		58+50		63+50				493.00			7 RPMs
TOTAL					1001.00			999.00			

LANE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE DASHED	4" LANE LINE SOLID	COMMENTS
VETERANS BLVD		58+50		61+35	0.05	285.00		5 RPMs
VETERANS BLVD		60+00		63+21	0.06	321.00		5 RPMs
TOTAL					0.11	606.00		

CENTER LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
TOTAL							

AUXILIARY

ROUTE	TRUE LOG	FROM	TO	CHANNEL LINE	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	YIELD LINES	SYMBOL MARKINGS RxR	SYMBOL MARKINGS STRONG SKIP 6' LONG W/ 3' GAP	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	DOTTED LINES	COMMENTS
				FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	
VETERANS BLVD		58+50	60+00	150															2 RPMs
VETERANS BLVD		61+35	63+50	321															5 RPMs
VETERANS BLVD		63+21	63+50								27								2 RPMs
VETERANS BLVD		60+14													2				
VETERANS BLVD		61+33													2				
VETERANS BLVD		62+49	63+50				47												
VETERANS BLVD		63+50													2				
TOTAL				471			47				27				6				

PAVEMENT MARKING SUB-SUMMARY

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.30 | TOTAL 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 3 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:38 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Traffic\Sheets\21334_Veterans_TS001.dgn

GENERAL SPEC: 640
MATERIAL TYPE: 644

EDGE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
VETERANS BLVD		63+50		64+66	198.00						
VETERANS BLVD		64+87		68+50	443.00						
VETERANS BLVD		63+50		65+00	155.00						
VETERANS BLVD		65+04		68+50	391.00						
VETERANS BLVD		63+50		64+17				60.00			1 RPM
VETERANS BLVD		64+58		64+77				78.00			2 RPMs
VETERANS BLVD		64+77		65+05				79.00			2 RPMs
VETERANS BLVD		65+54		68+50				296.00			5 RPMs
VETERANS BLVD		63+50		64+20				59.00			2 RPMs
VETERANS BLVD		64+55		64+87				74.00			2 RPMs
VETERANS BLVD		64+87		65+12				73.00			2 RPMs
VETERANS BLVD		65+54		68+50				288.00			5 RPMs
TOTAL					1187.00			1007.00			

LANE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE DASHED	4" LANE LINE SOLID	COMMENTS
VETERANS BLVD		66+57		68+50	0.04	193.00		3 RPMs
TOTAL					0.04	193.00		

CENTER LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
NORTH RA		34+17		34+29	0.01		
NORTH RA		30+69		30+82	0.01		
TOTAL					0.02		

AUXILIARY

ROUTE	TRUE LOG	FROM	TO	CHANNEL LINE	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	YIELD LINES	SYMBOL MARKINGS RxR	SYMBOL MARKINGS STRONG SKIP 6' LONG W/ 3' GAP	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	DOTTED LINES	COMMENTS
				FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	
VETERANS BLVD		63+50	64+21	136															3 RPMs
VETERANS BLVD		65+49	68+50	496															7 RPMs
VETERANS BLVD		63+65	63+89			110													
VETERANS BLVD		64+60	64+99			60													
VETERANS BLVD		64+51	65+19			60													
VETERANS BLVD		65+83	66+11			110													
VETERANS BLVD		64+21													1				
VETERANS BLVD		65+03												1	1				
VETERANS BLVD		64+72												1	1				
VETERANS BLVD		65+51													1				
VETERANS BLVD		66+21													2				
VETERANS BLVD	RA	64+78	65+64															380	INCLUDES ENTIRE CIRCLE
VETERANS BLVD		63+50	64+21				66												
VETERANS BLVD		65+49	67+50				80												
VETERANS BLVD		63+50	66+20								366								22 RPMs, INCLUDES ENTIRE CIRCLE
VETERANS BLVD		64+53	66+57								147								9 RPMs
VETERANS BLVD		64+07	65+66						92										INCLUDES ENTIRE CIRCLE
VETERANS BLVD	RA	64+34	64+54	225															
TOTAL				857		340	146		92		513			2	6			380	

PAVEMENT MARKING SUB-SUMMARY

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineer Mgr, PE
7266 Snider Road, Ste. 1
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.31 TOTAL 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 4 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:38 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Traffic\Sheets\21334_Veterans_TS001.dgn

GENERAL SPEC: 640
MATERIAL TYPE: 644

EDGE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	WHITE EDGE LINE TOTAL	WHITE EDGE LINE HIGHWAY	WHITE EDGE LINE RAMP	YELLOW EDGE LINE TOTAL	YELLOW EDGE LINE HIGHWAY	YELLOW EDGE LINE RAMP	COMMENTS
VETERANS BLVD		68+50		71+11	261.00						
VETERANS BLVD		68+50		71+11	261.00						
VETERANS BLVD		68+50		73+25				475.00			7 RPMs
VETERANS BLVD		68+50		73+30				500.00			7 RPMs
TOTAL					522.00			975.00			

LANE LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	4" LANE LINE DASHED	4" LANE LINE SOLID	COMMENTS
VETERANS BLVD		68+50		70+50	0.04	200.00		3 RPMs
VETERANS BLVD		68+50		73+28	0.09	478.00		7 RPMs
TOTAL					0.13	678.00		

CENTER LINE

ROUTE	TRUE LOG	FROM	TRUE LOG	TO	TOTAL MILES	EQUIVALENT SOLID LINE	COMMENTS
TOTAL							

AUXILIARY

ROUTE	TRUE LOG	FROM	TO	CHANNEL LINE	STOP LINE	CROSS WALK LINES	TRANSVERSE DIAGONAL LINES WHITE	TRANSVERSE DIAGONAL LINES YELLOW	YIELD LINES	SYMBOL MARKINGS RxR	SYMBOL MARKINGS STRONG SKIP 6' LONG W/ 3' GAP	LANE ARROWS TURN LEFT	LANE ARROWS TURN RIGHT	LANE ARROWS THRU	LANE ARROWS COMB.	WORD ON PVMT ONLY 72"	WORD ON PVMT ONLY 96"	DOTTED LINES	COMMENTS
				FT	FT	FT	FT	FT	FT	EACH	FT	EACH	EACH	EACH	EACH	EACH	EACH	FT	
VETERANS BLVD		70+50	73+21	358															5 RPMs
VETERANS BLVD		68+53													2				
VETERANS BLVD		70+43													2				
VETERANS BLVD		73+10													2				
VETERANS BLVD		72+46	73+21				36												
TOTAL				358			36								6				

PAVEMENT MARKING SUB-SUMMARY

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.32 | TOTAL 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 5 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:39 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Traffic\Sheets\21334_Veterans_TS001.dgn

REF NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 SIGN, FLAT SHEET	630 SIGNING, MISC.:SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON	630 SIGN ATTACHMENT ASSEMBLY, MAST ARM
							FT	SF	EACH	EACH
	116		50+98	RT	R2-1	24	13	5		
	116		52+00	LT	R3-H8cg	48	26	8		
	116		52+80	RT	R6-1R	54	24	6.75		
	117		53+82	RT	R3-6R	30	-	7.5		1
	117		53+82	RT	W2-6	36	-	9		1
	117		53+82	RT	R3-6L-MOD	36	-	7.5		1
	117		55+48	RT					1	
	117		55+78	RT	R1-2	36	14	4.5		
	117		55+79	RT	R1-2	36	14	4.5		
	117		56+22	RT	R6-4a	48	25	8		
	117		56+39	RT	W11-2	36	14.5	9		
	117		56+39	RT	W16-7PL	24	-	2		
	117		56+59	RT	D3-1 MOD	48	20	6		
	117		56+71	RT	R4-7	24	11	5		
	117		56+95	RT	W11-2	36	14.5	9		
	117		56+95	RT	W16-7PL	24	-	2		
	117		57+03	RT	R1-2	36	13.5	4.5		
	117		56+74	RT	R6-4a	48	25	8		
	117		57+40	RT	D3-1 MOD	48	20	6		
	117		57+75	RT					1	
	117		57+46	RT					1	
	117		55+58	LT					1	
	117		55+37	LT					1	
	117		55+45	LT					1	
	117		55+76	LT	D3-1 MOD	48	20	6		
	117		56+44	LT	R6-4a	48	25	8		
	117		56+11	LT	R1-2	36	13.5	4.5		
	117		56+25	LT	W11-2	36	14.5	9		
	117		56+25	LT	W16-7PL	24	-	2		
	117		56+59	LT	R4-7	24	11	5		
	117		56+72	LT	D3-1 MOD	48	20	6		
	117		57+02	LT	W11-2	36	14.5	9		
	117		57+02	LT	W16-7PL	24	-	2		
	117		56+89	LT	R6-4a	48	25	8		
	117		57+33	LT	R1-2	36	13.5	4.5		
	117		57+33	LT	R1-2	36	13.5	4.5		
	117		57+74	LT					1	
	117		57+62	LT					1	
	118		61+35	RT	R3-6R	36	-	7.5		1
	118		61+35	RT	W2-6	36	-	9		1
	118		61+35	RT	R3-6L-MOD	36	-	7.5		1
	118		60+00	LT	R3-6L-MOD	36	-	7.5		1
	118		60+00	LT	W2-6	36	-	9		1
	118		60+00	LT	R3-6R	36	-	7.5		1
	119		63+78	LT					1	
	119		63+76	RT					1	
	119		64+07	RT	R1-2	36	13.5	4.5		
	119		64+08	RT	R1-2	36	13.5	4.5		
	119		64+67	RT	R6-4a	48	25	8		
TOTALS CARRIED TO GENERAL SUMMARY							457	246	10	9

SIGNING SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 1 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:39 PM USER: kelle
\\10.1.1.4\projects\WorkSets\21334_Veterans400-Engineering\Traffic\Sheets\21334_Veterans_TS002.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Engle Road, Suite 400,
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.33 TOTAL 147

REF NO.	SHEET NO.	LOCATION	STATION	SIDE	CODE	SIZE (INCHES)	630 GROUND MOUNTED SUPPORT, NO. 3 POST	630 SIGN, FLAT SHEET	630 SIGNING, MISC.:SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON	630 SIGN ATTACHMENT ASSEMBLY, MAST ARM														
							FT	SF	EACH	EACH														
	119		64+52	RT	W11-2	36	14.5	9																
	119		64+52	RT	W16-7PL	24	-	2																
	119		64+70	RT	D3-1 MOD	48	20	6																
	119		64+78	RT	R4-7	24	10.5	5																
	119		65+00	RT	W11-2	36	14.5	9																
	119		65+00	RT	W16-7PL	24	-	2																
	119		65+19	RT	R1-2	36	13.5	4.5																
	119		65+08	RT	R6-4a	48	25	8																
	119		66+02	RT					1															
	119		65+70	RT	D3-1	48	20	6																
	119		65+80	RT					1															
	119		63+93	LT					1															
	119		63+60	LT					1															
	119		64+05	LT	D3-1 MOD	48	20	6																
	119		64+61	LT	R6-4a	48	25	8																
	119		64+25	LT	R1-2	36	13.5	4.5																
	119		64+47	LT	W11-2	36	14.5	9																
	119		64+47	LT	W16-7PL	24	-	2																
	119		64+87	LT	R4-7	24	11	5																
	119		64+98	LT	D3-1 MOD	48	20	6																
	119		65+28	LT	W11-2	36	14.5	9																
	119		65+28	LT	W16-7PL	24	-	2																
	119		65+07	LT	R6-4a	48	25	8																
	119		65+65	LT	R1-2	36	13.5	4.5																
	119		65+74	LT	R1-2	36	13.5	4.5																
	119		66+05	LT					1															
	119		65+95	LT					1															
	119		68+48	LT	R3-6L	36	-	7.5		1														
	119		68+48	LT	W12-6	36	-	9		1														
	119		68+48	LT	R3-6R	36	-	7.5		1														
	120		70+50	RT	R3-6L	36	-	7.5		1														
	120		70+50	RT	W2-6	36	-	9		1														
	120		70+50	RT	R3-6R	36	-	7.5		1														
	120		71+51	RT	R6-1R	54	24	6.75																
	120		70+53	LT	R2-1	24	13	5																
TOTALS CARRIED TO GENERAL SUMMARY							291	163	6	6														

SIGNING SUB-SUMMARY

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 2 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:39 PM USER: kelle
\\10.1.1.4\projects\WorkSets\21334_Veterans400-Engineering\Traffic\Sheets\21334_Veterans_TS002.dgn

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cochran Road, Unit L
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.34 TOTAL 147

REF NO.	SHEET NO.	STATION TO STATION						625 CONDUIT, 2", 725.052, AS PER PLAN FT		625 TRENCH FT		625 PLASTIC CAUTION TAPE FT												
	123	50+34.00	LT	TO	53+50.00	LT		323		323		323												
	123	51+45.00	RT	TO	53+50.00	RT		198		198		198												
	124	53+50.00	LT	TO	56+37.00	LT		356		356		356												
	124	57+16.00	LT	TO	58+50.00	LT		140		140		140												
	124	53+50.00	RT	TO	55+99.00	RT		255		255		255												
	124	56+96.00	RT	TO	58+50.00	RT		239		239		239												
	125	58+50.00	LT	TO	63+50.00	LT		465		465		465												
	125	58+50.00	RT	TO	63+50.00	RT		539		539		539												
	126	63+50.00	LT	TO	64+57.00	LT		142		142		142												
	126	65+69.00	LT	TO	68+50.00	LT		272		272		272												
	126	63+50.00	RT	TO	64+29.00	RT		96		96		96												
	126	64+96.00	RT	TO	68+50.00	RT		368		368		368												
	127	68+50.00	LT	TO	71+20.00	LT		295		295		295												
	127	68+50.00	RT	TO	69+90.00	RT		131		131		131												
TOTALS CARRIED TO GENERAL SUMMARY								3819		3819		3819												

LIGHTING SUB-SUMMARY

DESIGN AGENCY
TEC Engineering Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Central Park Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

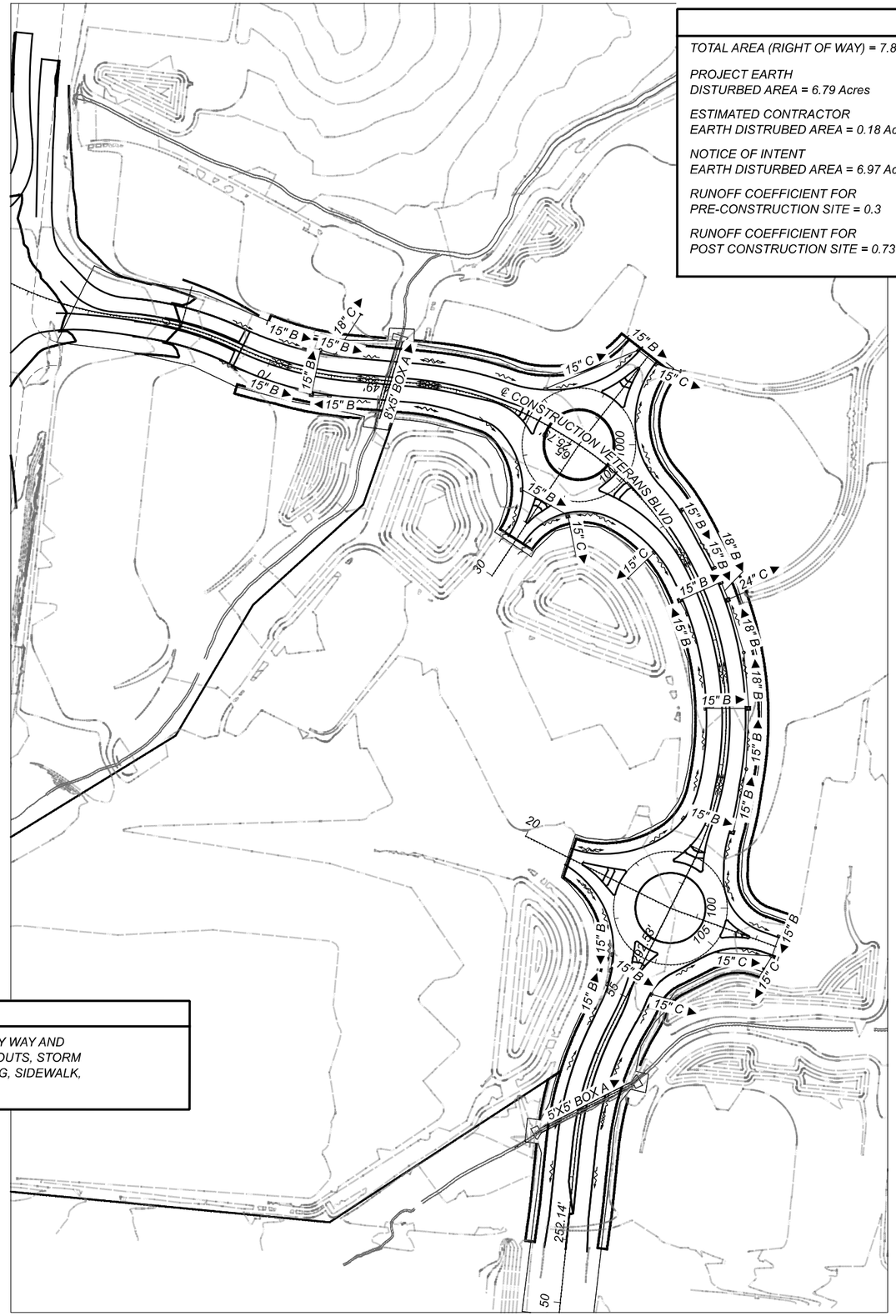
PROJECT ID
TEC PN: 21334

SHEET P.35 TOTAL 147

BUT-VETERANS BLVD-0.00

MODEL: Sheet - 1 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:40 PM USER: kellie
\\10.1.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Lighting\Sheets\21334_Veterans_LS001.dgn

PROJECT DATA	
TOTAL AREA (RIGHT OF WAY) = 7.89 Acres	ESTIMATE IMPERVIOUS AREA PRE-CONSTRUCTION = 0.55 Acres
PROJECT EARTH DISTURBED AREA = 6.79 Acres	ESTIMATE IMPERVIOUS AREA POST-CONSTRUCTION = 5.24 Acres
ESTIMATED CONTRACTOR EARTH DISTRUBED AREA = 0.18 Acres	IMMEDIATE RECEIVING WATERS = Unnamed Stream
NOTICE OF INTENT EARTH DISTURBED AREA = 6.97 Acres	SUBSEQUENT RECEIVING WATERS = Unnamed tributary
RUNOFF COEFFICIENT FOR PRE-CONSTRUCTION SITE = 0.3	POST CONSTURCTION BMP'S = Storm water will be contained in detention basins located outside of the project limits. These basins are to be designed by others and are not included in this plan set.
RUNOFF COEFFICIENT FOR POST CONSTRUCTION SITE = 0.73	



PROJECT DESCRIPTION
THIS PROJECT INCLUDES THE CONNECTION OF VETERANS BLVD BETWEEN LIBERTY WAY AND COX ROAD. THIS INCLUDES A 4-LANE BOULEVARD WITH TWO TWO-LANE ROUNDABOUTS, STORM SEWER SYSTEM DESIGN, DECORATIVE LIGHTING, TRAFFIC CONTROL, LANDSCAPING, SIDEWALK, PATH AND COMMERCIAL DRIVEWAYS.

USGS Quadrant No.: USGSX24K27947 (Mason, OH)

LATITUDE: 39.371246
LONGITUDE: -84.356903

* Lattitude and longitude to approximate center of project.

HORIZONTAL SCALE IN FEET
0 100 200

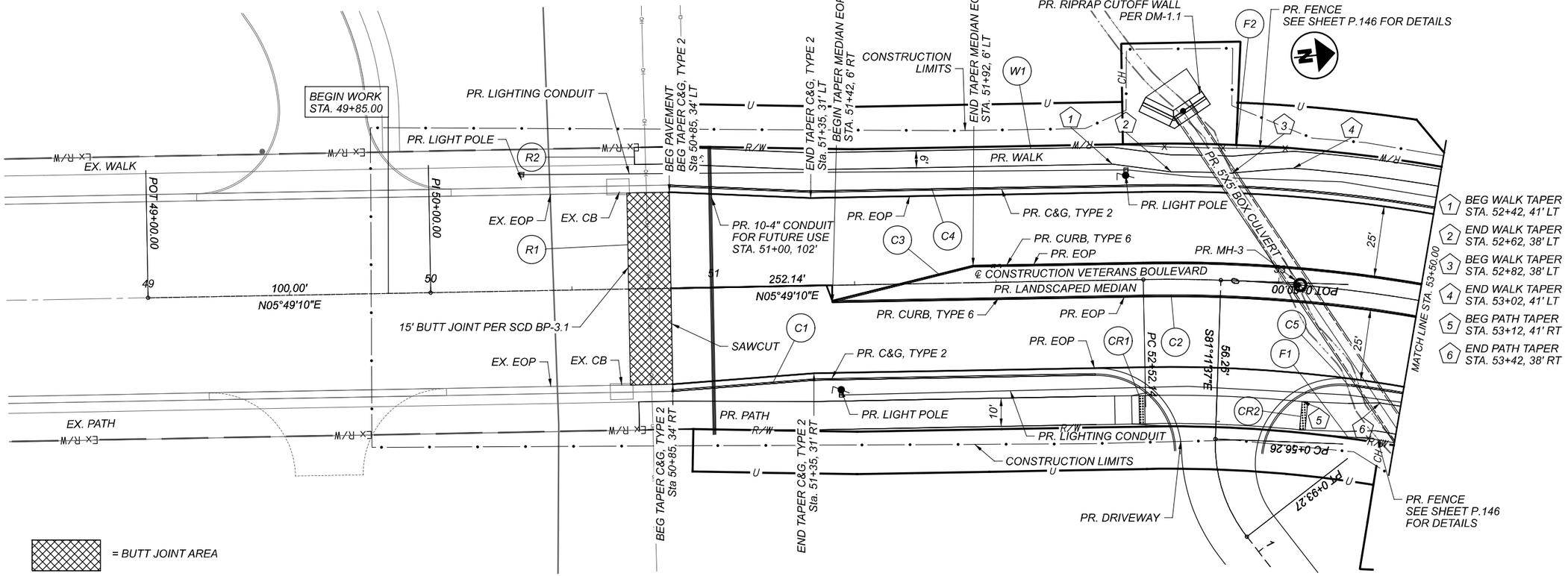
PROJECT SITE PLAN
VETERANS BLVD.

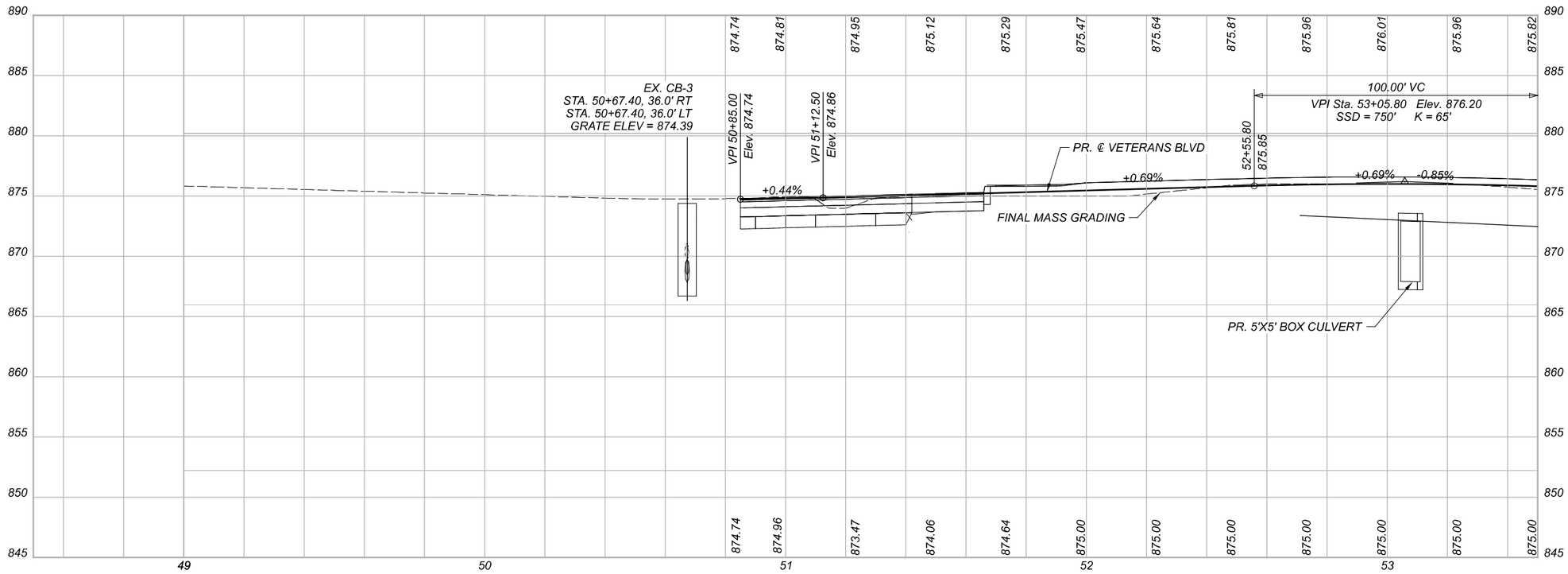
BUT-VETERANS BLVD-0.00

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\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Drainage\Sheets\21334_Veterans_DE001.dgn

DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Central Parke Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.36 TOTAL 147





HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE
STA 48+50 TO STA 53+50

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - Veterans BLVD-5 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:53 PM USER: kellie
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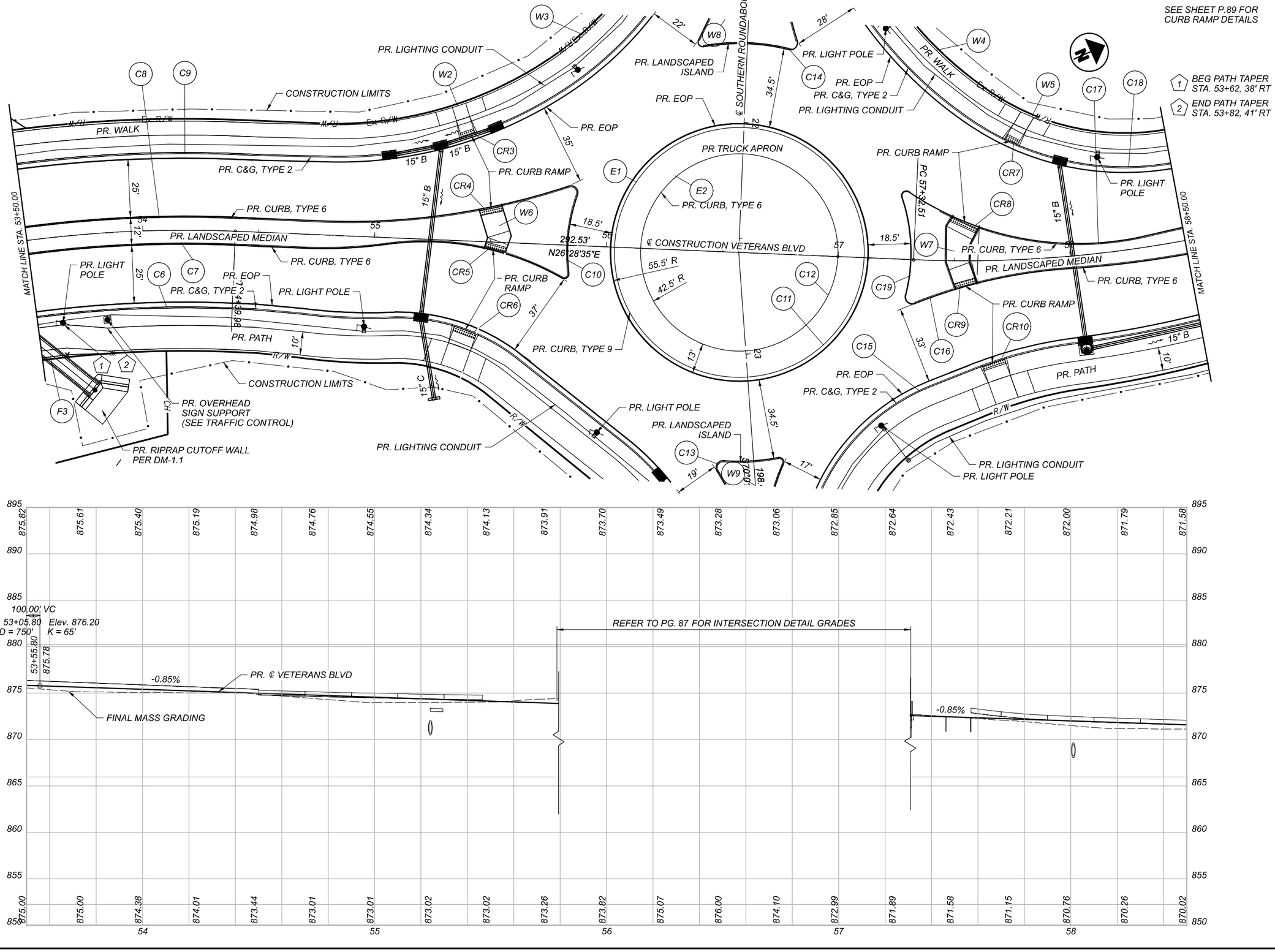
DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.37 TOTAL 147

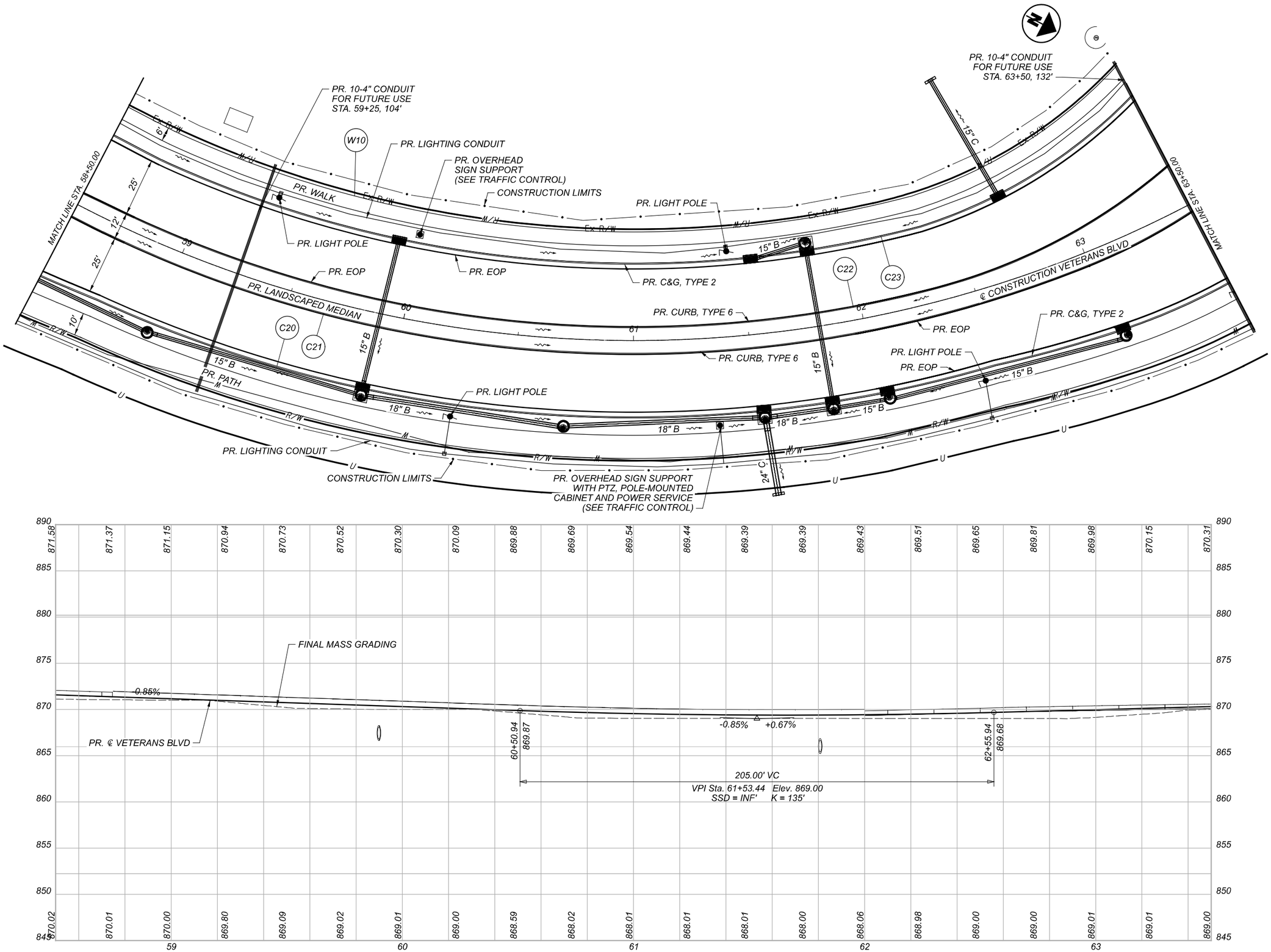


PLAN AND PROFILE
STA 53+50 TO STA 58+50

DESIGN AGENCY	TEC Engineering,Inc. PLAN PREPARED BY: TEC Engineering, Inc. 7238 Engle Road, Blvd. Mason, OH 45040
DESIGNER	VMG
REVIEWER	KLL 02/09/22
PROJECT ID	TEC PN: 21334
SHEET / TOTAL	P.38 / 147

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - Veterans BLVD-H-[Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:33:56 PM USER: kelle
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HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE
STA 58+50 TO STA 63+50

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - Veterans BLVD-2-1[Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:33:58 PM USER: kellie
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DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7286 Bush Lake Road
Middeon, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.39 TOTAL 147

SEE SHEET P.91 FOR CURB RAMP DETAILS

PR. C&G, TYPE 2
PR. CURB RAMP
PR. LIGHT POLE
PR. LIGHTING CONDUIT
PR. LANDSCAPED MEDIAN
PR. CURB, TYPE 6
MATCH LINE STA. 63+50.00
PR. TRUCK APRON
PR. CURB, TYPE 6
℄ CONSTRUCTION VETERANS BLVD
PT 65+09.62
PC 65+35.42
PI 32+49.96
N58°59'06"W
25.79'
55.5' R
43.5' R
℄ NORTHERN ROUNDABOUT
PR. C&G, TYPE 9
PR. PATH
PR. LANDSCAPED ISLAND
N39°00'54"E
18.44'
CONSTRUCTION LIMITS
PR. 10-4" CONDUIT FOR FUTURE USE STA. 66+50, 110'
PR. LIGHT POLE
PR. LIGHTING CONDUIT
PR. WALK
PR. C&G, TYPE 2
PR. EOP
PR. CURB RAMP
PR. CURB, TYPE 6
PR. LANDSCAPED MEDIAN
PR. EOP
PR. CURB, TYPE 6
PR. CURB RAMP
PR. C&G, TYPE 2
PR. EOP
PR. PATH
PR. LIGHT POLE
EX. MANHOLE, ADJUST TO GRADE
RIM ELEV. = 872.28
FIELD VERIFY RIM LOCATION
TO AVOID CONFLICT WITH PR. CURB.
IF CONFLICT OCCURS, UTILIZE ECCENTRIC
CONE TOP PER BCEO SCD MH-3
PR. LIGHTING CONDUIT
PR. OVERHEAD SIGN SUPPORT (SEE TRAFFIC CONTROL)
PR. RIPRAP CUTOFF WALL PER DM-1.1
PR. FENCE SEE SHEET P.147 FOR DETAILS
PT 67+73.47
PR. MH-3
94.49'
S35°09'48"W
EX. STORM TO BE REMOVED
PR. 8'X5' CULVERT
PR. FENCE SEE SHEET P.147 FOR DETAILS
PR. RIPRAP CUTOFF WALL PER DM-1.1
MATCH LINE STA. 68+50.00

1 BEG PATH TAPER STA. 67+69, 41' RT
2 END PATH TAPER STA. 67+89, 38' RT
3 BEG PATH TAPER STA. 68+09, 38' RT
4 END TAPER TAPER STA. 68+29, 41' RT
5 BEG WALK TAPER STA. 67+88, 41' LT
6 END WALK TAPER STA. 68+08, 38' LT
7 BEG WALK TAPER STA. 68+28, 38' LT
8 BEG WALK TAPER STA. 68+48, 41' LT

HORIZONTAL SCALE IN FEET
0 10 20 40

REFER TO PG. 88 FOR INTERSECTION DETAIL GRADES
PR. ℄ VETERANS BLVD
200.00' VC
VPI Sta. 67+52.00 Elev. 873.00
SSD = 606' K = 94'
66+52.00
872.33
+0.67%
-1.46%
FINAL MASS GRADING
PR. 8'X5' BOX CULVERT
EX. STORM TO BE REMOVED

870.31	870.48	870.65	870.81	870.98	871.15	871.32	871.48	871.65	871.82	871.98	872.15	872.32	872.46	872.53	872.54	872.47	872.35	872.15	871.89	871.56
869.00	869.01	869.33	869.81	871.09	872.00	872.62	871.77	870.71	870.07	870.02	870.02	870.69	871.00	871.00	871.00	871.00	871.00	871.00	870.81	870.24

64 65 66 67 68

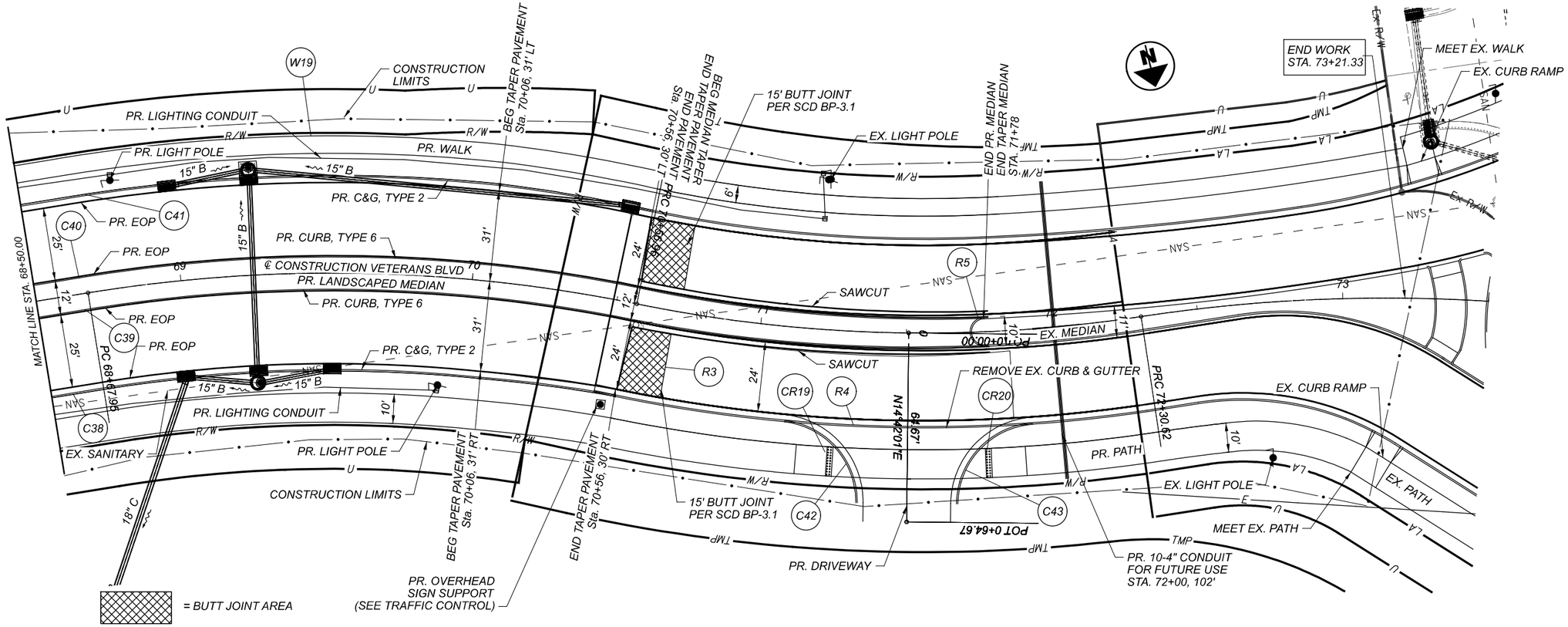
PLAN AND PROFILE
STA 63+50 TO STA 68+50

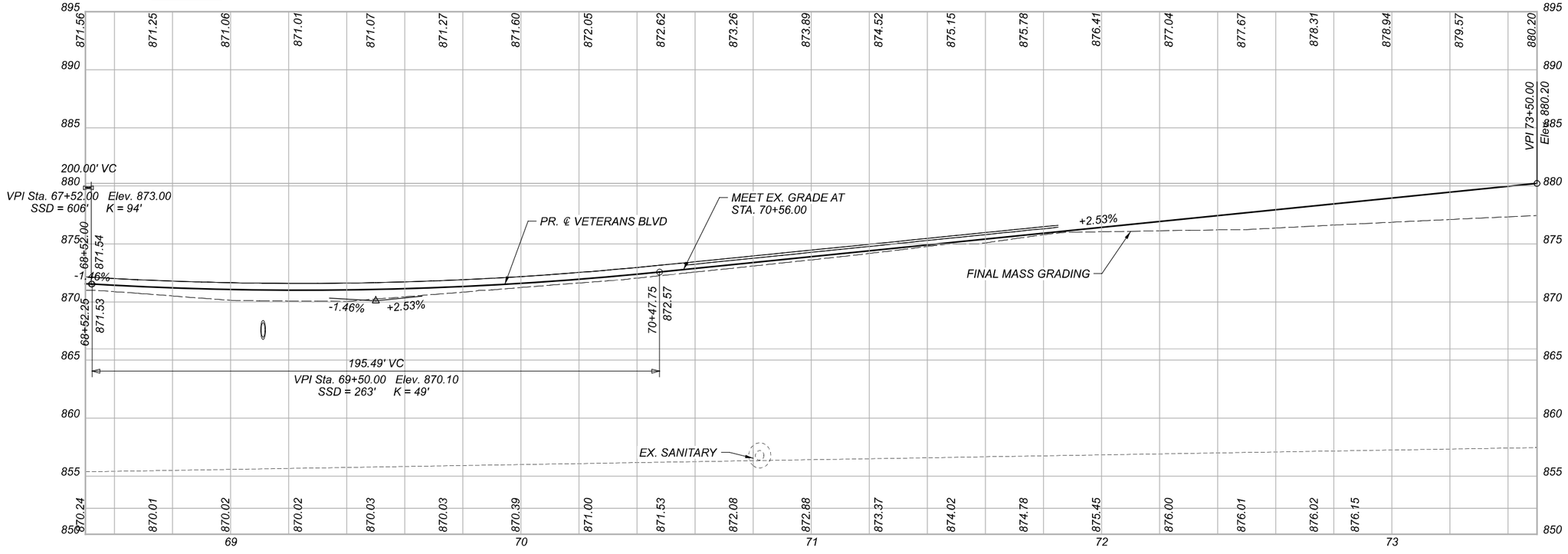
DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Corporate Center Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.40 TOTAL 147

BUT-VETERANS BLVD-0.00

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HORIZONTAL SCALE IN FEET
0 10 20 40

PLAN AND PROFILE
STA 68+50 TO STA 73+50

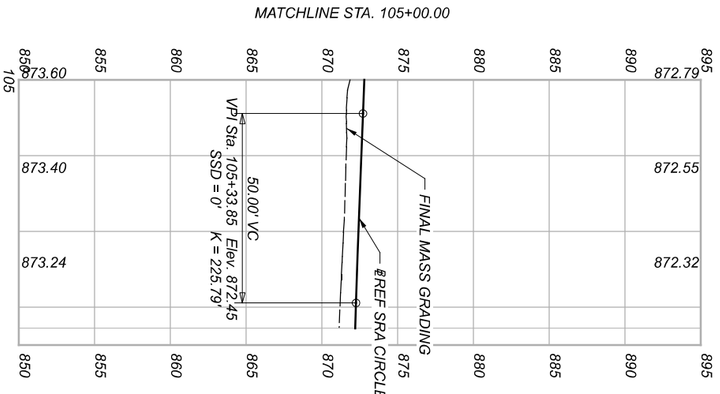
BUT-VETERANS BLVD-0.00

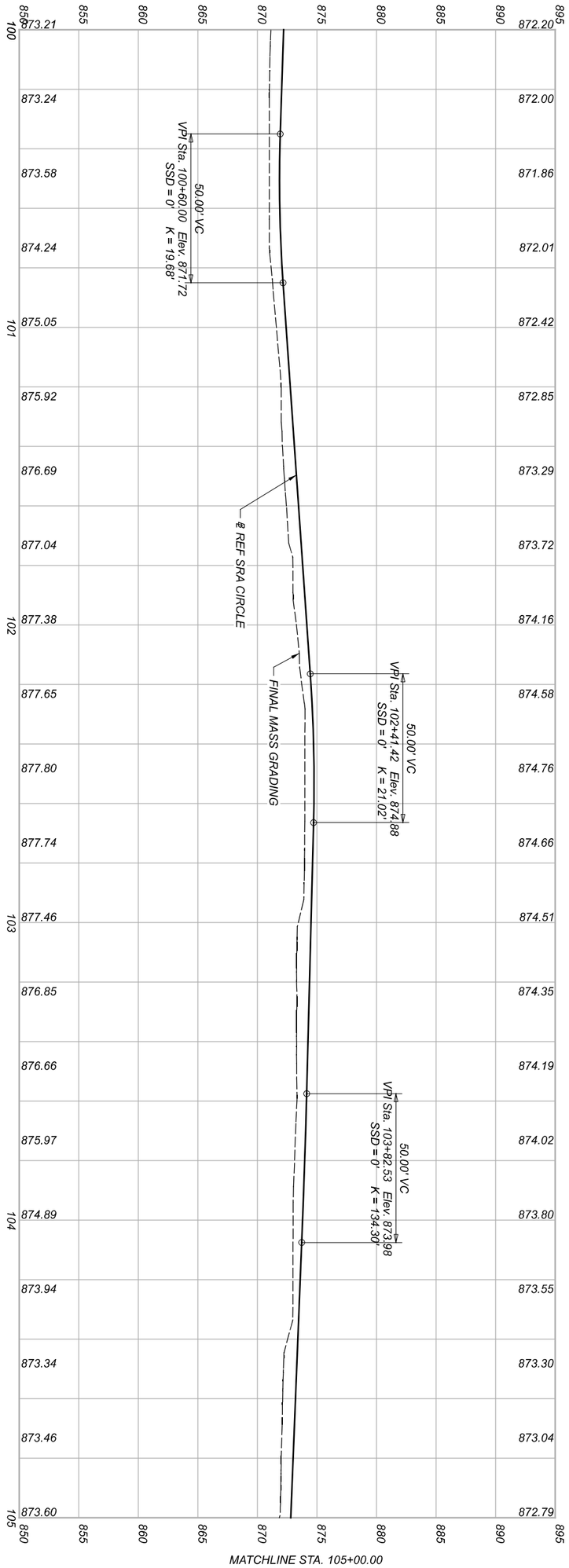
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DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Corporate Center Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.41 TOTAL 147

MODEL: PGL - Profile SouthRA [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:34:11 PM USER: kellle
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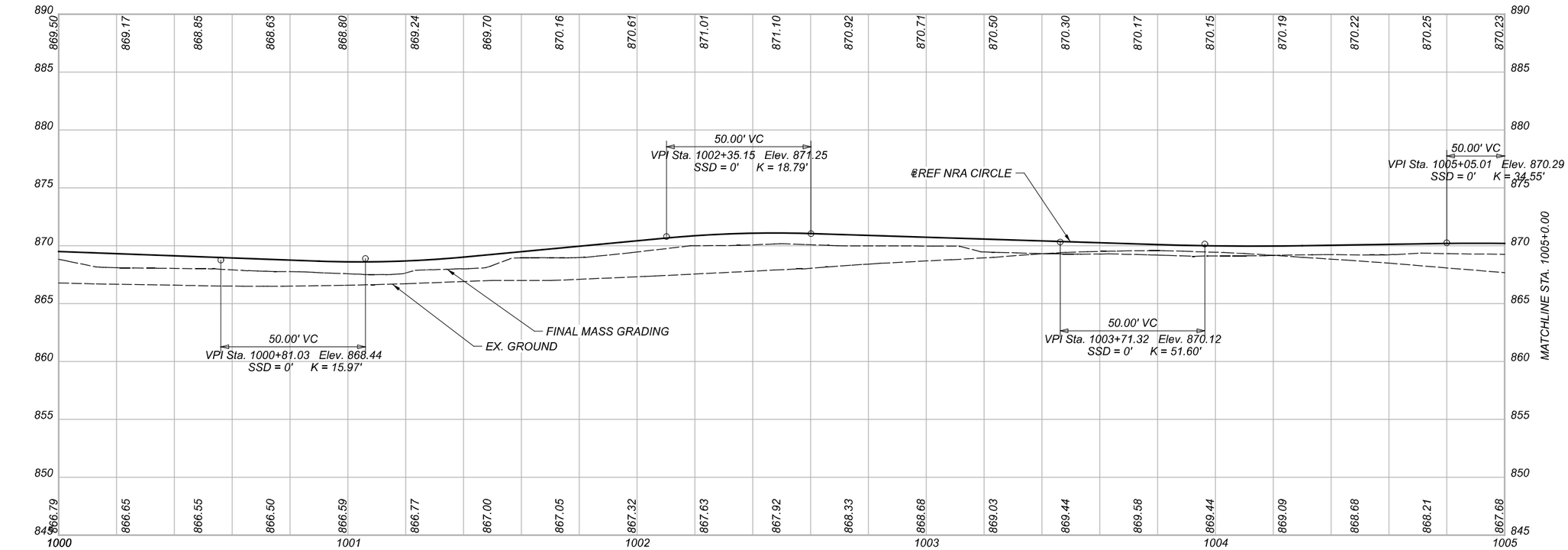


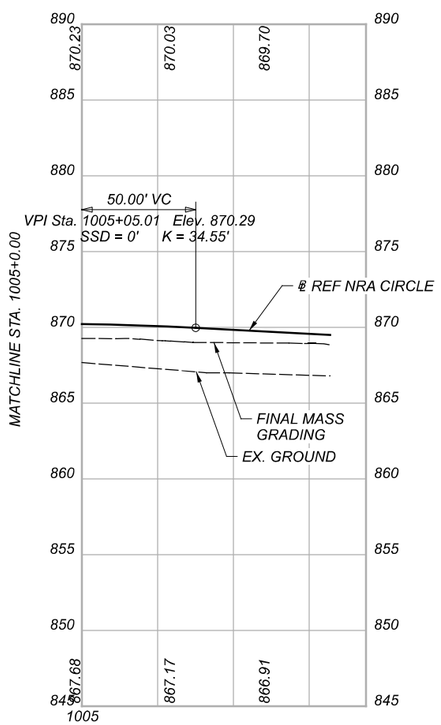
SHEET P 42 / TOTAL 147	PROJECT ID TEC PN: 21334	REVIEWER KLL 02/09/22	DESIGNER VGM

TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGN AGENCY

ROUNDABOUT PROFILE - SOUTHERN ROUNDABOUT-CENTER ISLAND
STA 100+00 TO STA 105+70





ROUNDABOUT PROFILE - NORTHERN ROUNDABOUT-CENTER ISLAND
STA 1000+00 TO STA 1005+70

BUT-VETERANS BLVD-0.00

MODEL: PGL_INS_N - Profile NorthRA [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:34:13 PM USER: kellle
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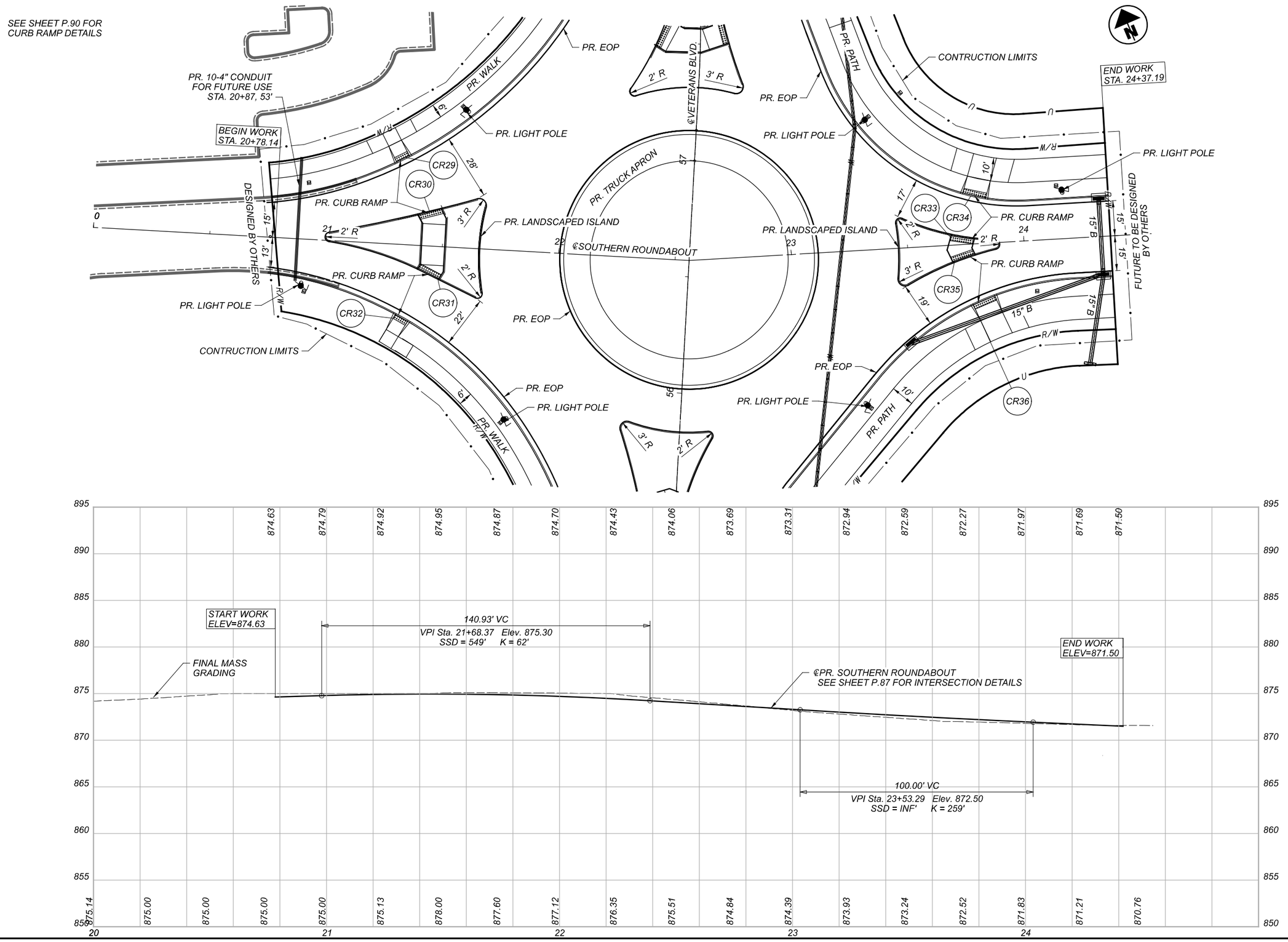
DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.43 | TOTAL 147



HORIZONTAL SCALE IN FEET
0 10 20 40

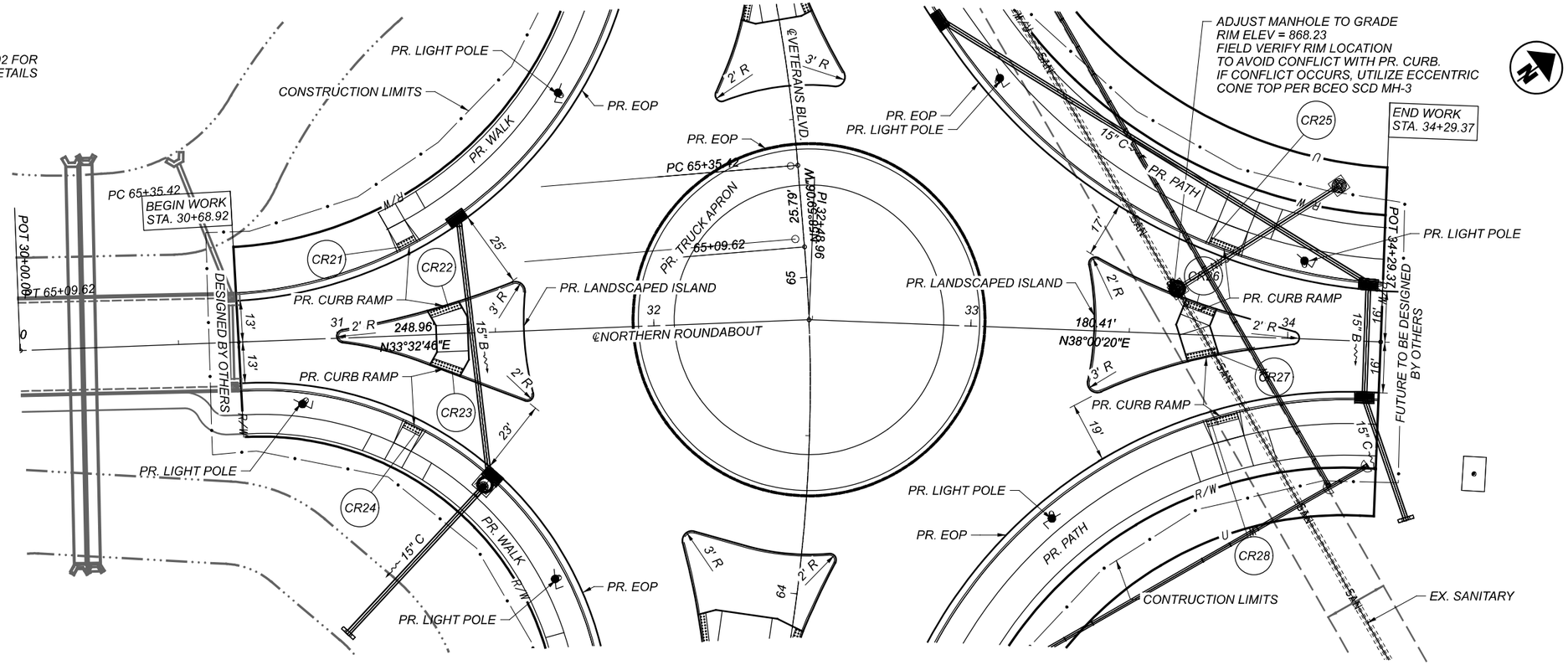
PLAN AND PROFILE -SOUTHERN ROUNDABOUT STA 20+00 TO STA 24+54

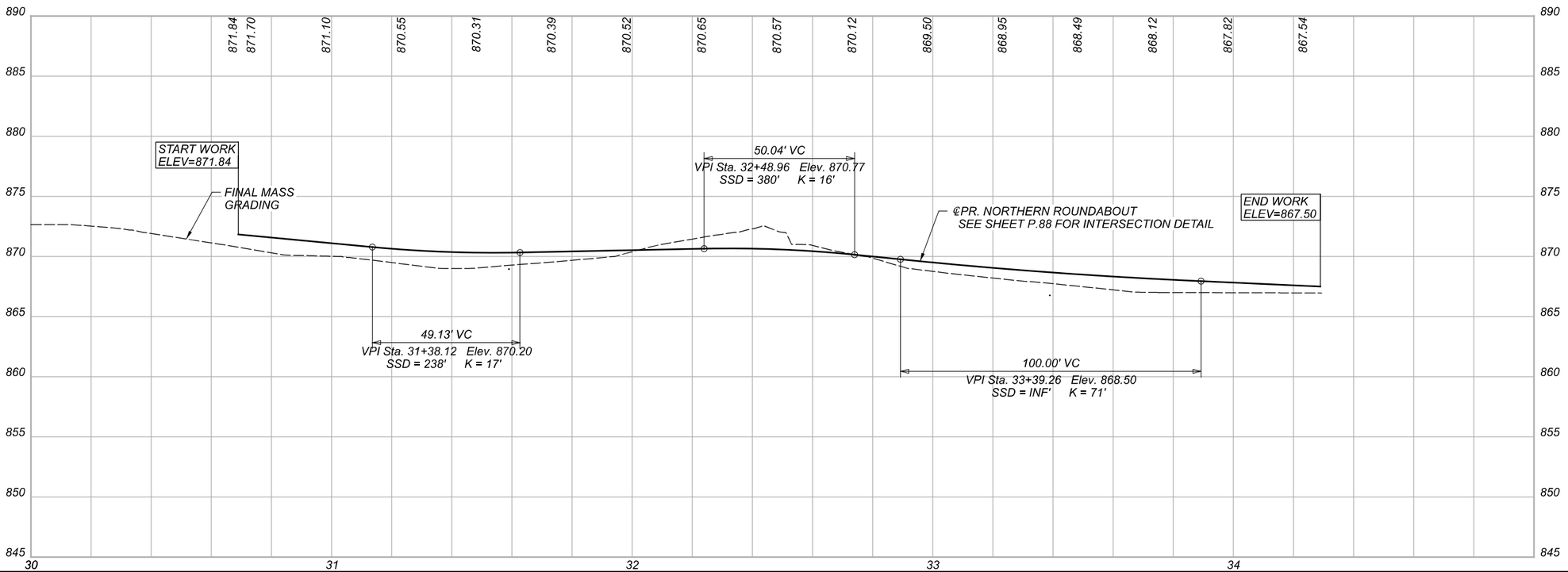
BUT-VETERANS BLVD-0.00

MODEL: SouthRoundabout - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:34:15 PM USER: kelle
\\10.14.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GP002.dgn

DESIGN AGENCY
TEC Engineering Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Center Point Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.44 TOTAL 147





HORIZONTAL SCALE IN FEET
0 10 20 40

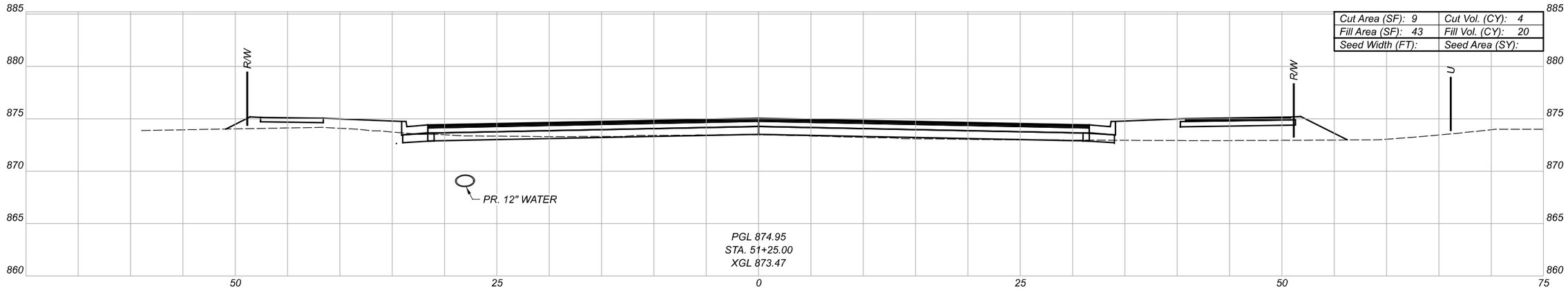
PLAN AND PROFILE - NORTHERN ROUNDABOUT STA 30+00 TO STA 34+29

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

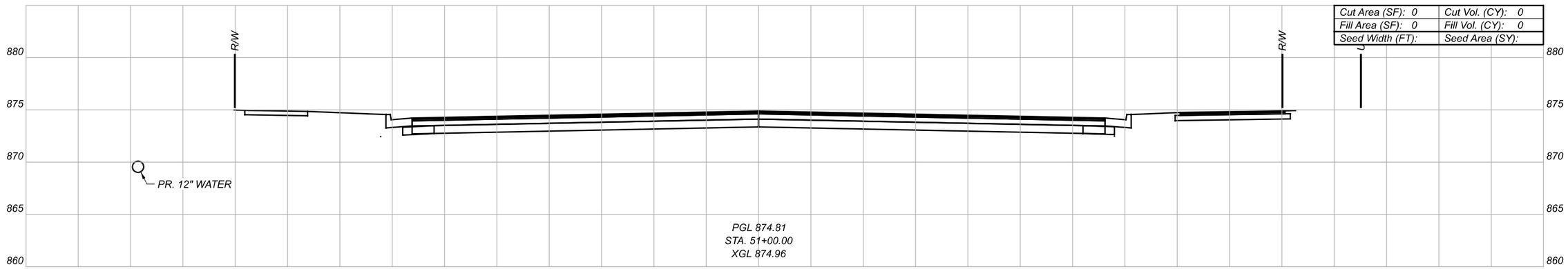
DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.45 TOTAL 147

BUT-VETERANS BLVD-0.00

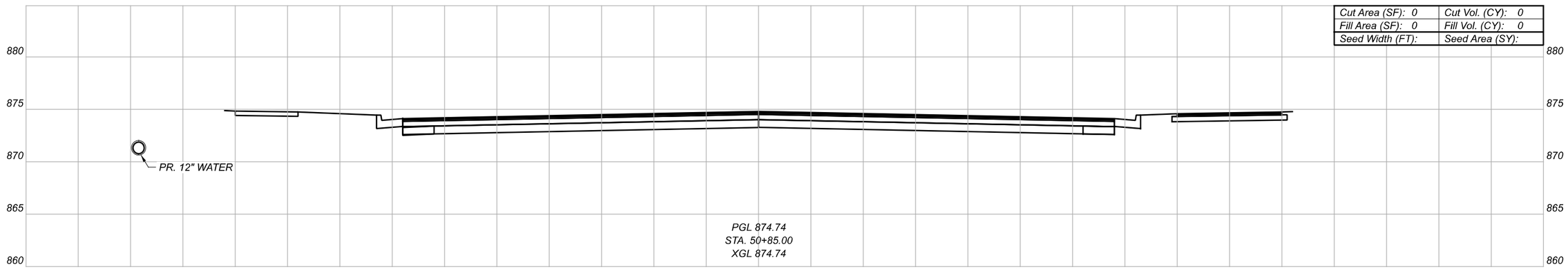
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Cut Area (SF): 9	Cut Vol. (CY): 4
Fill Area (SF): 43	Fill Vol. (CY): 20
Seed Width (FT):	Seed Area (SY):



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



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

CROSS SECTIONS - VETERANS BLVD
STA. 50+85 TO STA. 51+25

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 50+85.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:34:23 PM USER: kellle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00.dgn

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Road, Suite 414
Mason, OH 45040

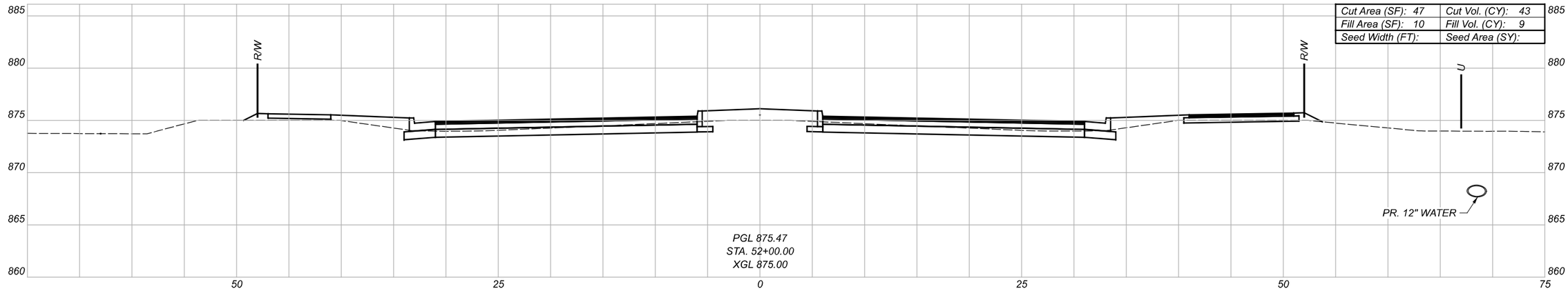
DESIGNER
VMG

REVIEWER
KLL 02/09/22

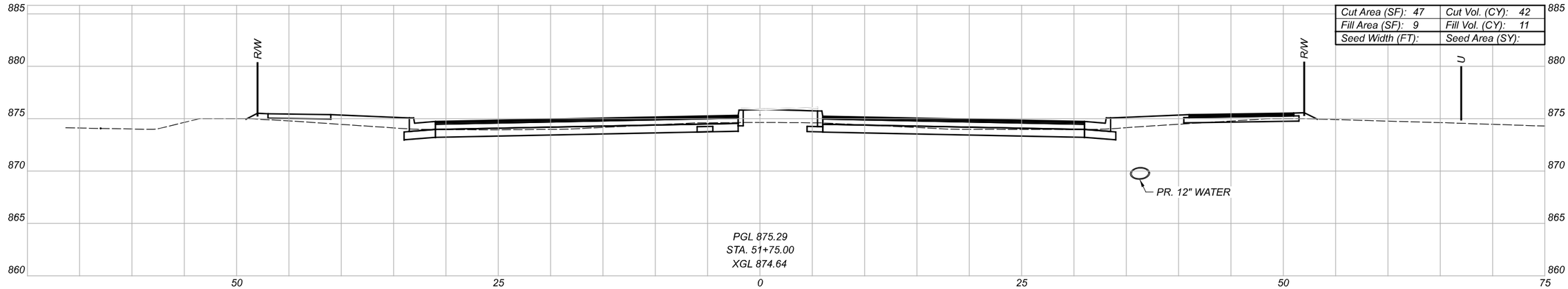
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	4	20

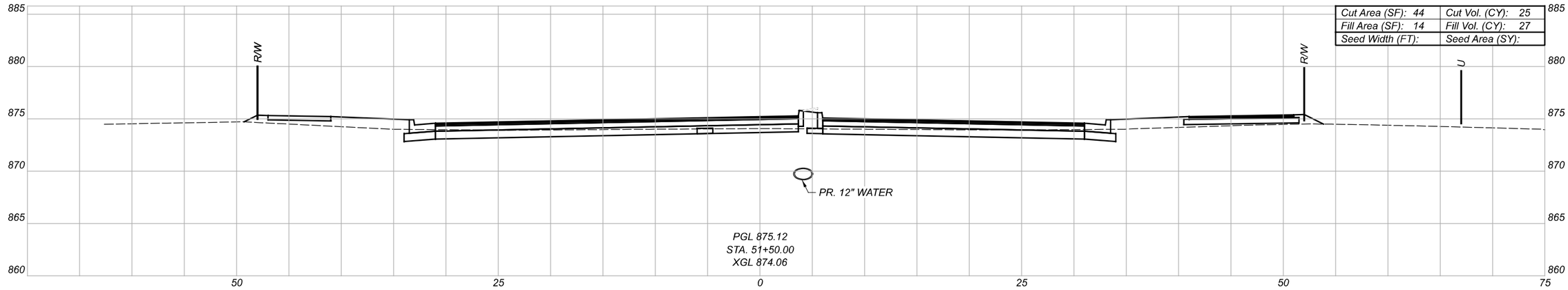
SHEET P.46 TOTAL 147



Cut Area (SF): 47	Cut Vol. (CY): 43
Fill Area (SF): 10	Fill Vol. (CY): 9
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 47	Cut Vol. (CY): 42
Fill Area (SF): 9	Fill Vol. (CY): 11
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 44	Cut Vol. (CY): 25
Fill Area (SF): 14	Fill Vol. (CY): 27
Seed Width (FT):	Seed Area (SY):

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 51+50.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:34:29 PM USER: kellie
\\Olui4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00.dgn

CROSS SECTIONS - VETERANS BLVD
STA. 51+50 TO STA. 52+00

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

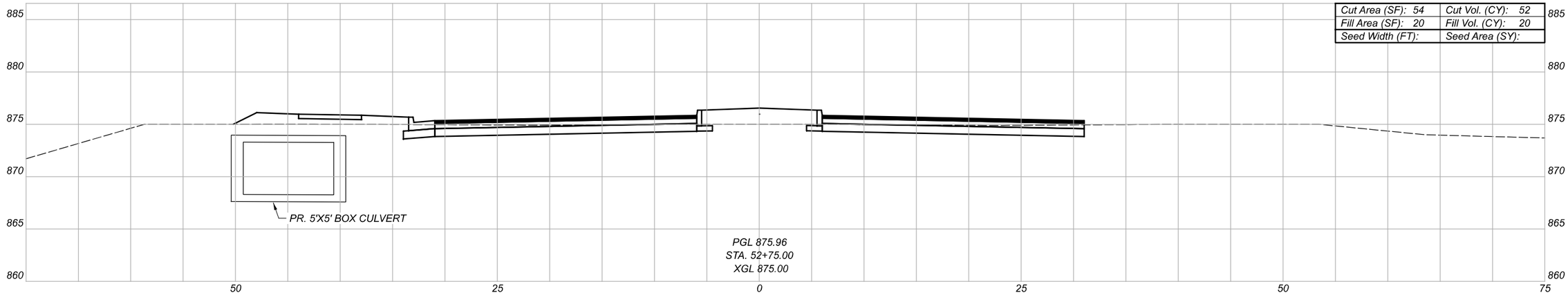
DESIGNER
VMG

REVIEWER
KLL 02/09/22

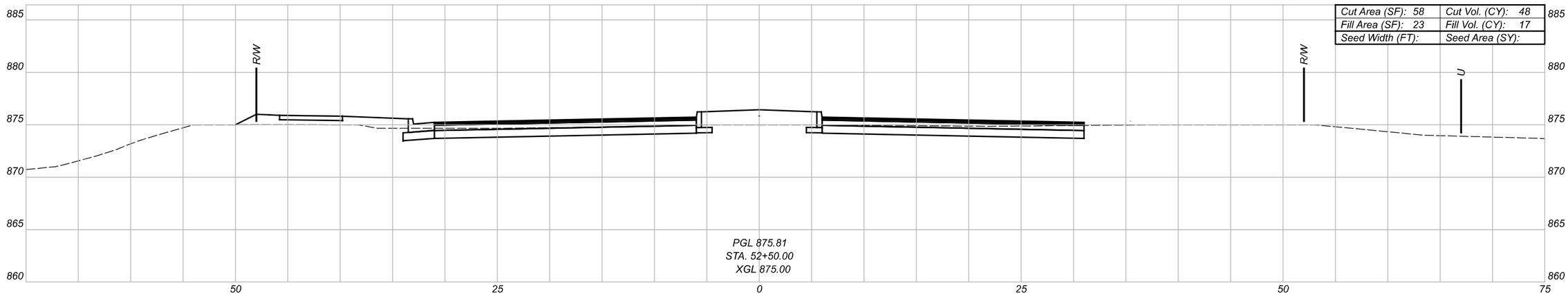
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
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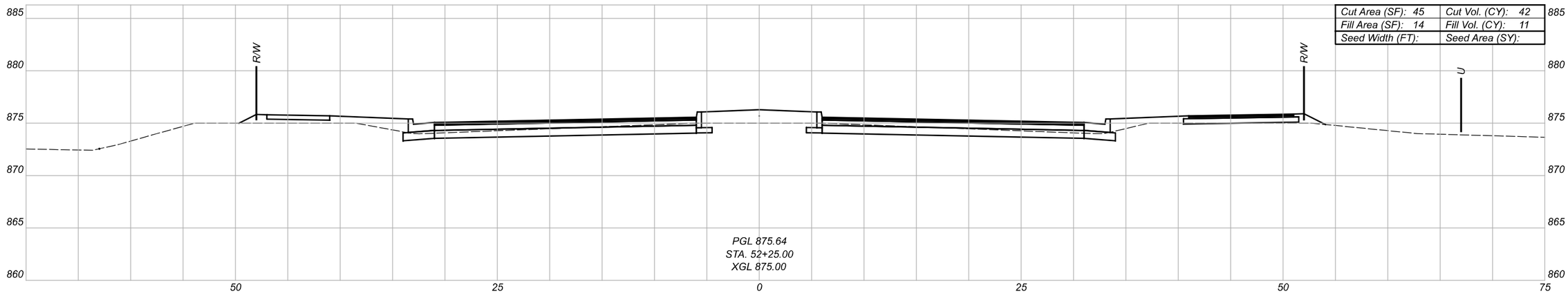
SHEET P.47 TOTAL 147



Cut Area (SF): 54	Cut Vol. (CY): 52
Fill Area (SF): 20	Fill Vol. (CY): 20
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 58	Cut Vol. (CY): 48
Fill Area (SF): 23	Fill Vol. (CY): 17
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 45	Cut Vol. (CY): 42
Fill Area (SF): 14	Fill Vol. (CY): 11
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 52+25 TO STA. 52+75

BUT-VETERANS BLVD-0.00

MODEL: VeteransPropALGN - 52+25.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:34:36 PM USER: kellle
\\Olui4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS001.dgn

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7280 Corporate Center Blvd.
Mason, OH 45040

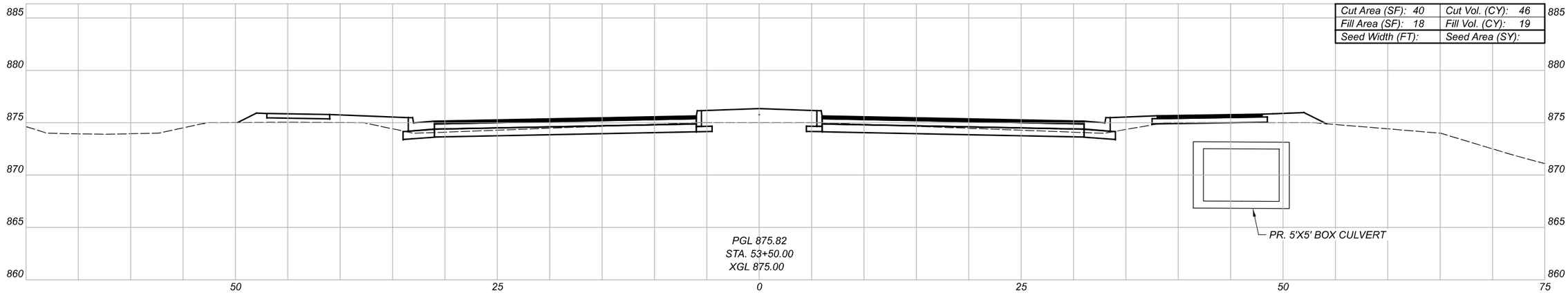
DESIGNER
VMG

REVIEWER
KLL 02/09/22

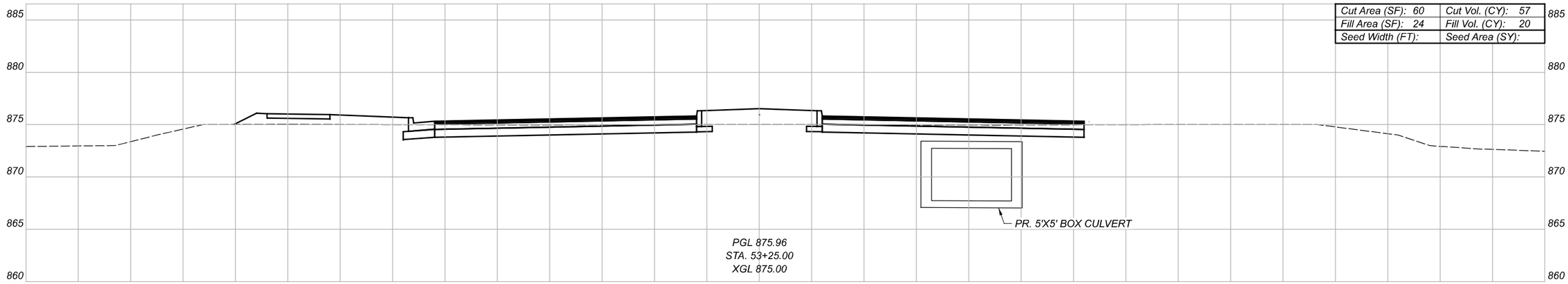
PROJECT ID
TEC PN: 21334

SHEET P.48 TOTAL 147

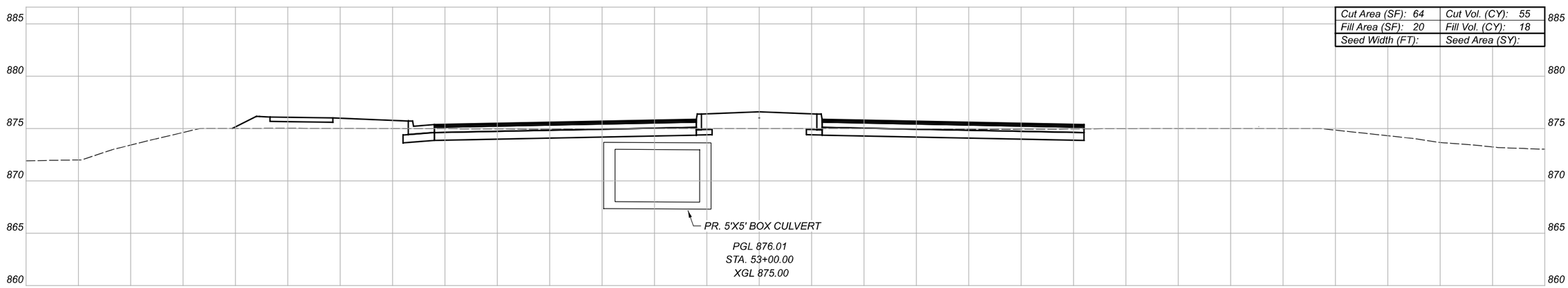
Sheet Totals		
Seeding	Cut	Fill
-	142	48



Cut Area (SF): 40	Cut Vol. (CY): 46
Fill Area (SF): 18	Fill Vol. (CY): 19
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 60	Cut Vol. (CY): 57
Fill Area (SF): 24	Fill Vol. (CY): 20
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 64	Cut Vol. (CY): 55
Fill Area (SF): 20	Fill Vol. (CY): 18
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 53+00 TO STA. 53+50

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Portage Road, Suite A
Mason, OH 45040

DESIGNER: VMG

REVIEWER: KLL 02/09/22

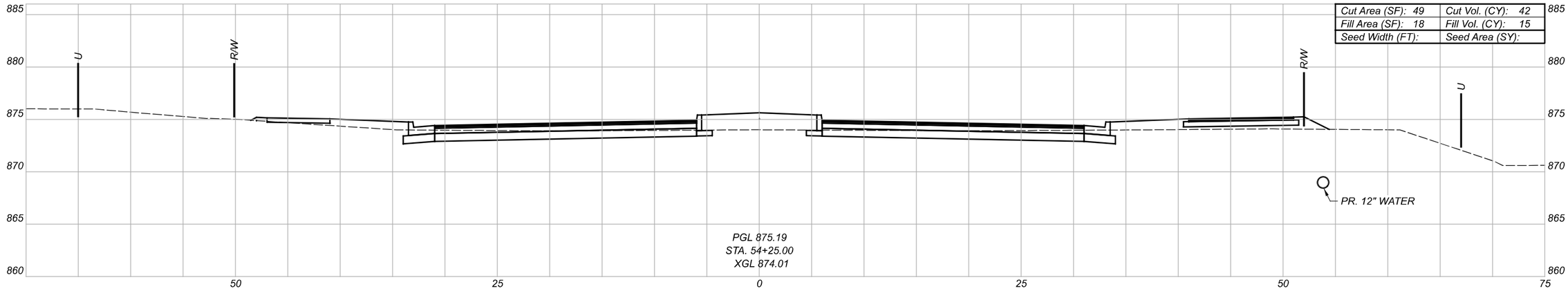
PROJECT ID: TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	158	57

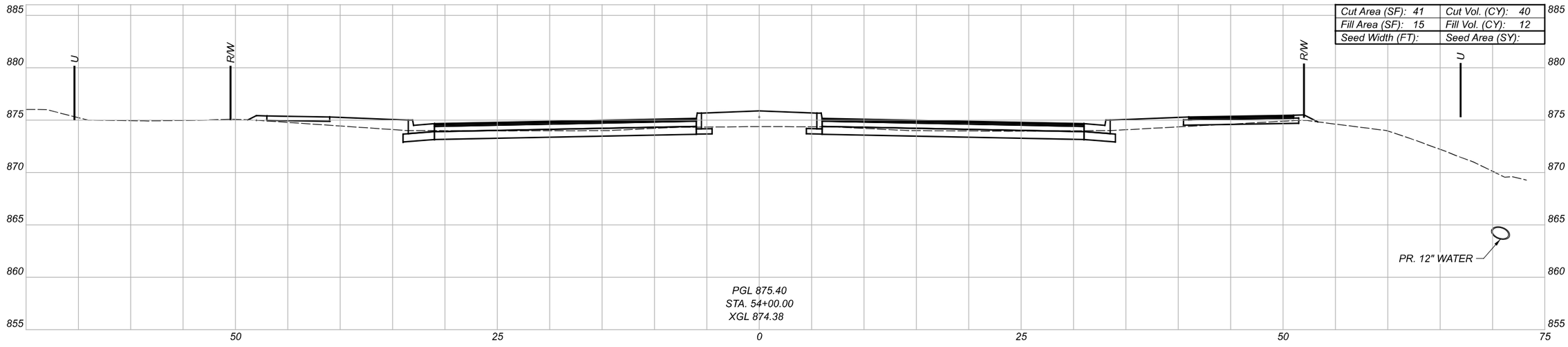
SHEET P.49 TOTAL 147

BUT-VETERANS BLVD-0.00

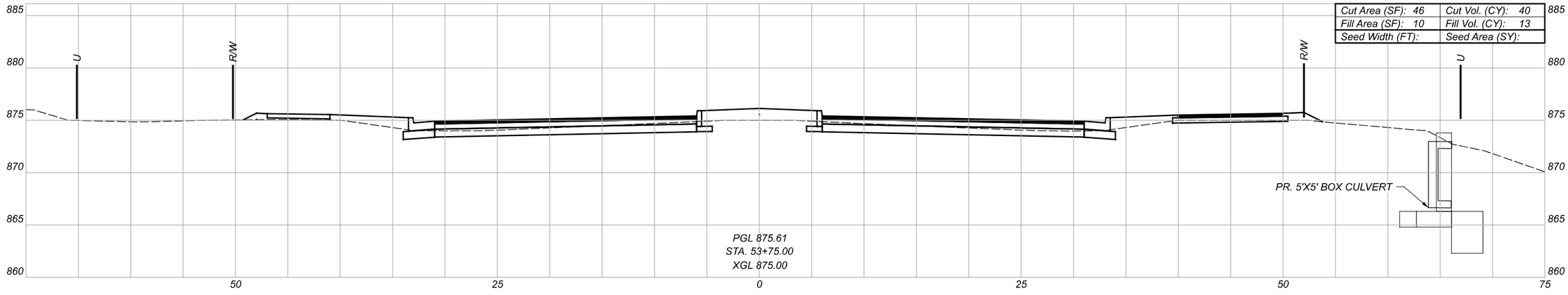
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\\10.11.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00L.dgn



Cut Area (SF): 49	Cut Vol. (CY): 42
Fill Area (SF): 18	Fill Vol. (CY): 15
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 41	Cut Vol. (CY): 40
Fill Area (SF): 15	Fill Vol. (CY): 12
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 46	Cut Vol. (CY): 40
Fill Area (SF): 10	Fill Vol. (CY): 13
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 53+75 TO STA. 54+25

Sheet Totals		
Seeding	Cut	Fill
-	122	40

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7280 Bush Lake Road
Mason, OH 45040

DESIGNER
VMG

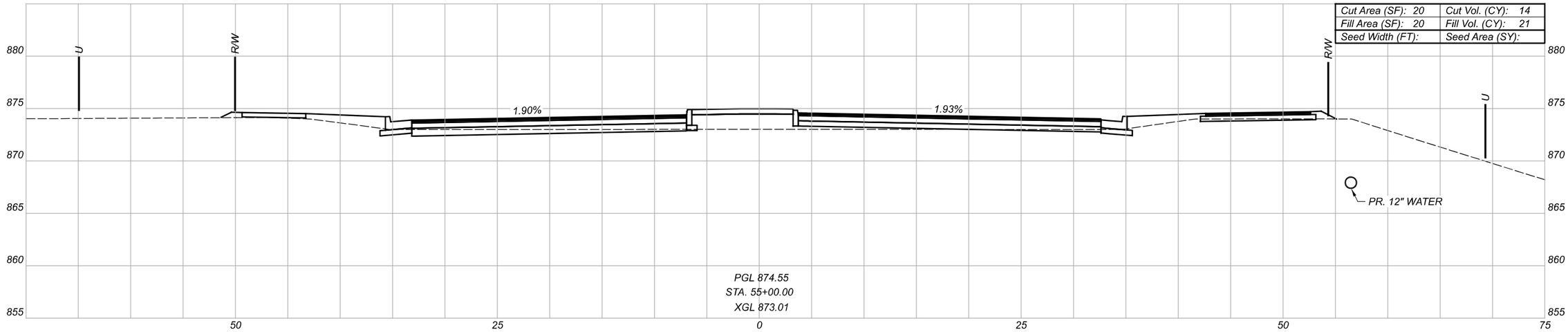
REVIEWER
KLL 02/09/22

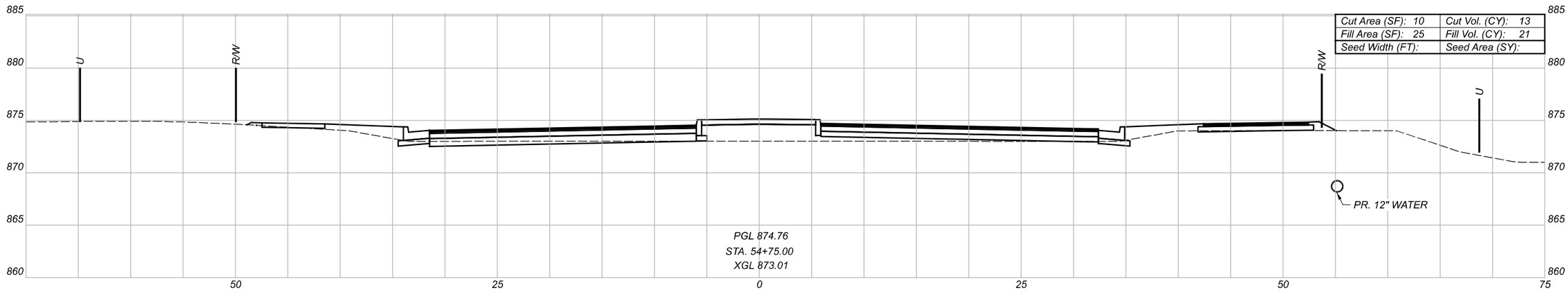
PROJECT ID
TEC PN: 21334

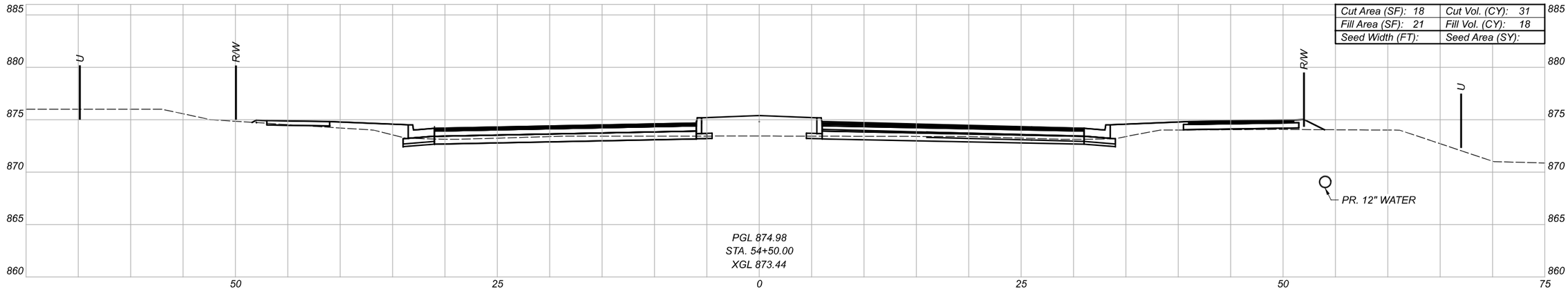
SHEET P.50 TOTAL 147

BUT-VETERANS BLVD-0.00

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BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 54+50.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 2/9/2022 TIME: 3:34:53 PM USER: keille
\\10.14.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS001.dgn

CROSS SECTIONS - VETERANS BLVD
STA. 54+50 TO STA. 55+00

Sheet Totals		
Seeding	Cut	Fill
-	58	60

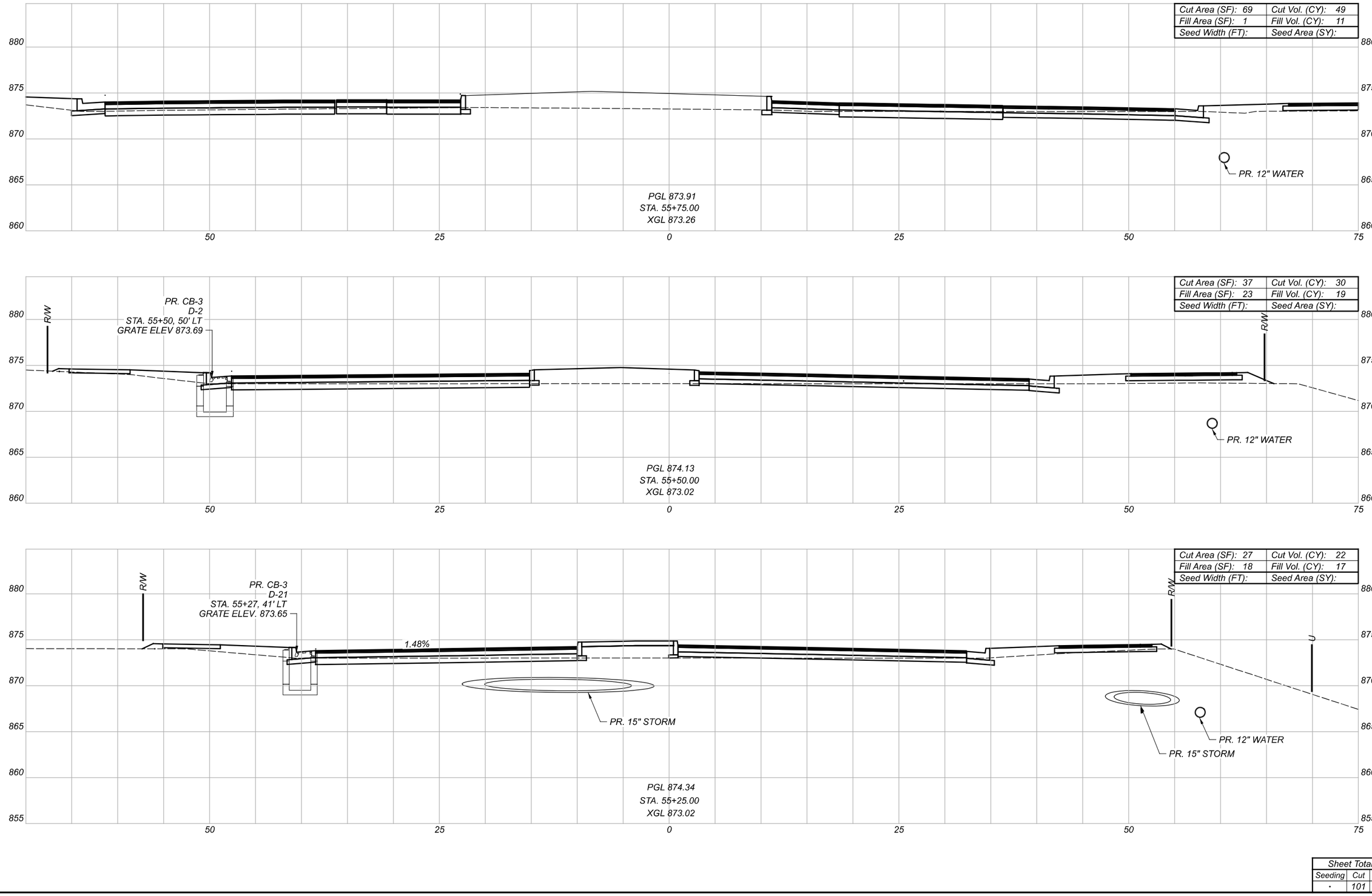
DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Snider Fort Rd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.51 TOTAL 147



CROSS SECTIONS - VETERANS BLVD
STA. 55+25 TO STA. 55+75

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 55+25.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 2/9/2022 TIME: 3:34:59 PM USER: kelle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 North Clippard Blvd.
Mason, OH 45040

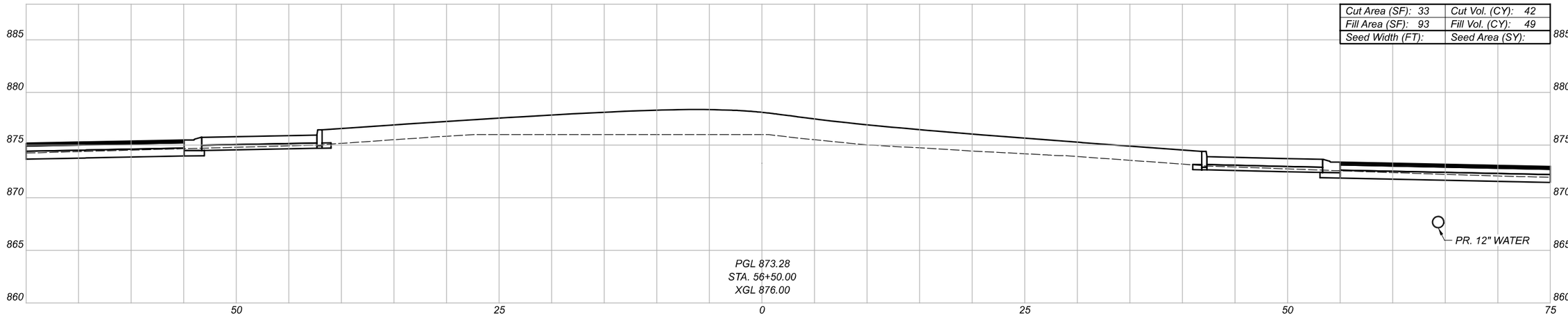
DESIGNER
VMG

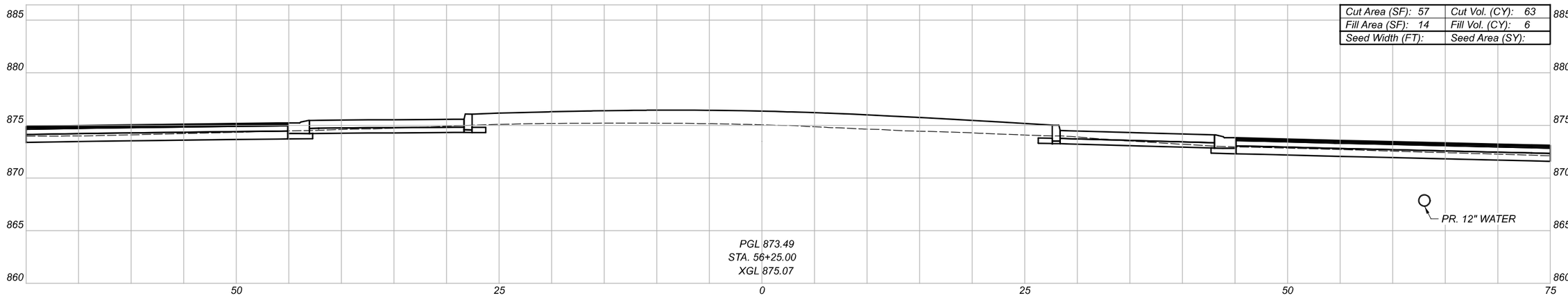
REVIEWER
KLL 02/09/22

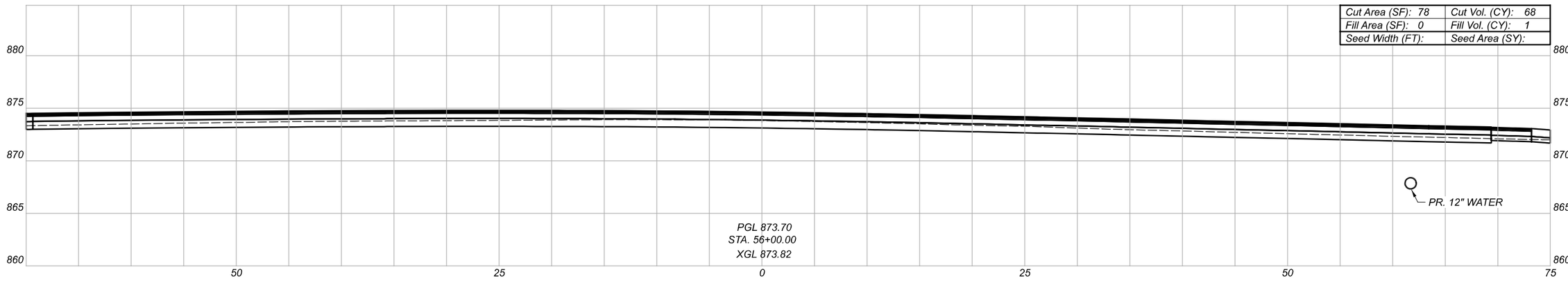
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	101	47

SHEET P.52 TOTAL 147







CROSS SECTIONS - VETERANS BLVD
STA. 56+00 TO STA. 56+50

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 56+00.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 2/9/2022 TIME: 3:35:04 PM USER: kelle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00.dgn

DESIGN AGENCY
TEC Engineering Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Muirfield Drive, Ste. 101
Mason, OH 45040

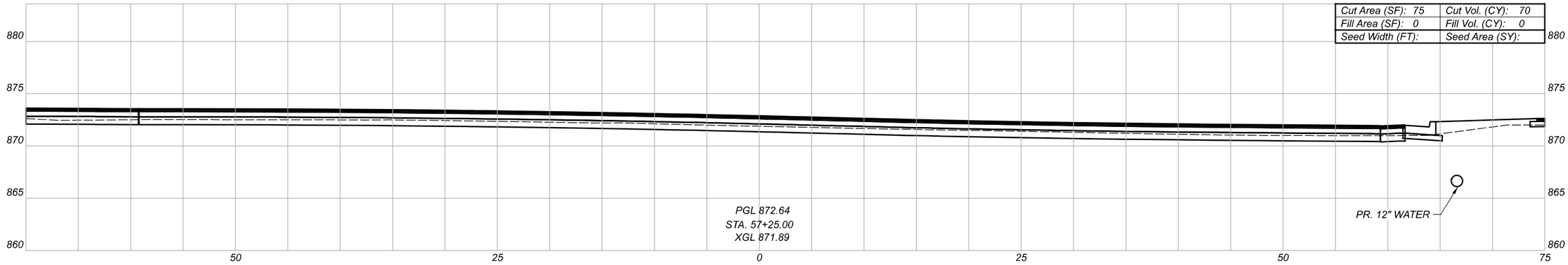
DESIGNER
VMG

REVIEWER
KLL 02/09/22

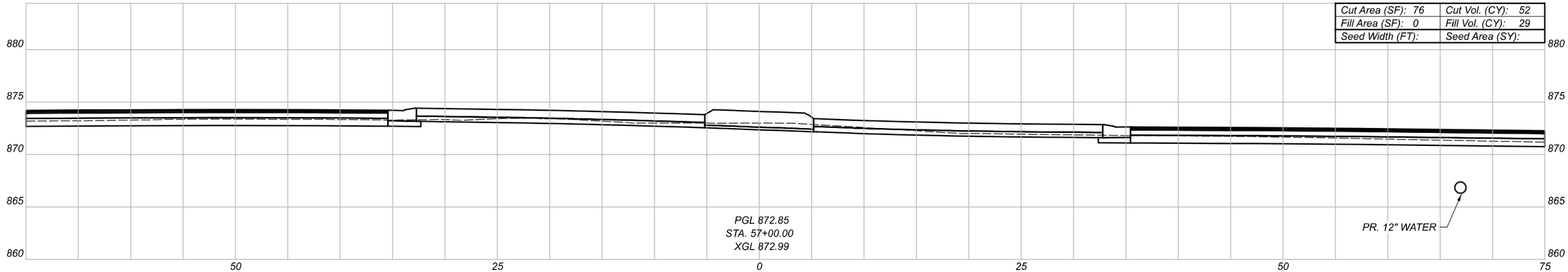
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	173	56

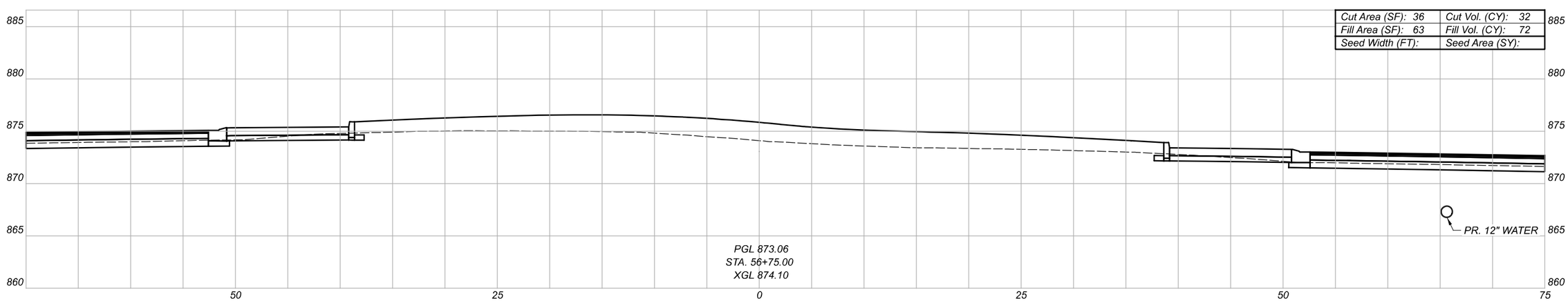
SHEET	TOTAL
P.53	147



Cut Area (SF): 75	Cut Vol. (CY): 70
Fill Area (SF): 0	Fill Vol. (CY): 0
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 76	Cut Vol. (CY): 52
Fill Area (SF): 0	Fill Vol. (CY): 29
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 36	Cut Vol. (CY): 32
Fill Area (SF): 63	Fill Vol. (CY): 72
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 56+75 TO STA. 57+25

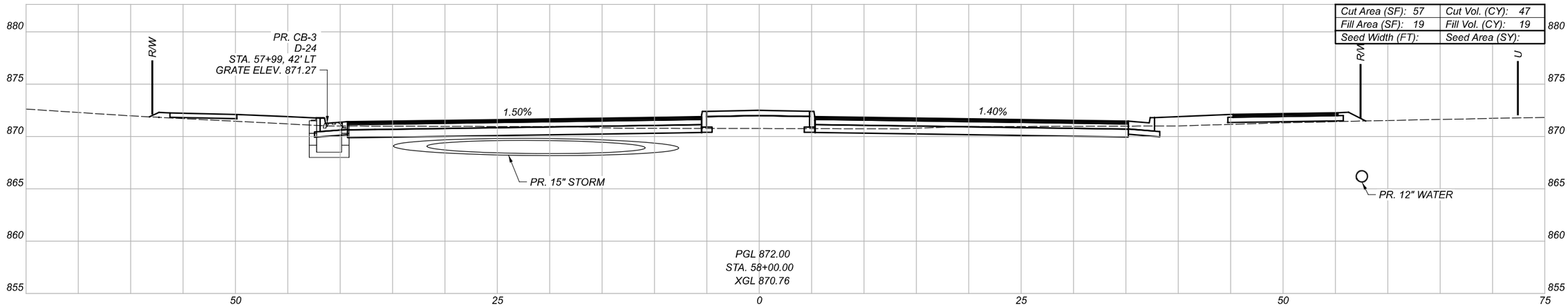
BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 56+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:35:09 PM USER: kellie
\\10.11.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00L.dgn

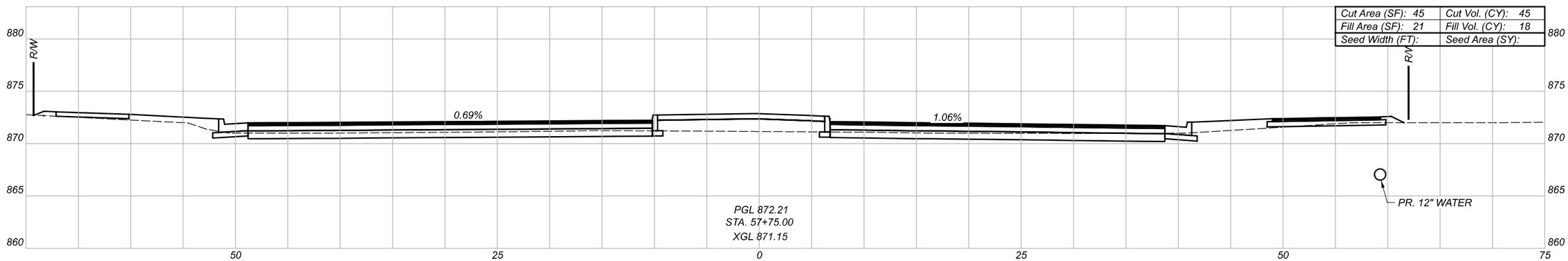
Sheet Totals		
Seeding	Cut	Fill
-	154	101

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7584 Central Park Blvd.
Mason, OH 45040

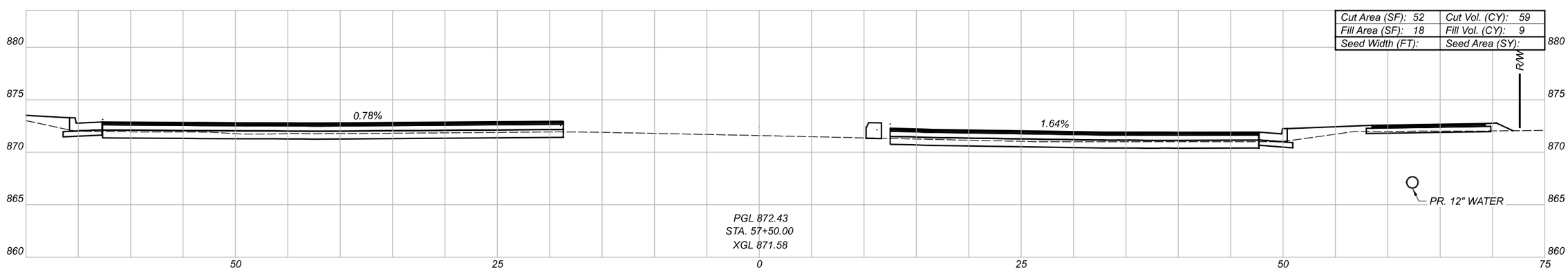
DESIGNER	VMG
REVIEWER	KLL 02/09/22
PROJECT ID	TEC PN: 21334
SHEET	P.54
TOTAL	147



Cut Area (SF): 57	Cut Vol. (CY): 47
Fill Area (SF): 19	Fill Vol. (CY): 19
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 45	Cut Vol. (CY): 45
Fill Area (SF): 21	Fill Vol. (CY): 18
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 52	Cut Vol. (CY): 59
Fill Area (SF): 18	Fill Vol. (CY): 9
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 57+50 TO STA. 58+00

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 57+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:35:15 PM USER: kelle
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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7965 Kenwood Road, Suite #140
Mason, OH 45040

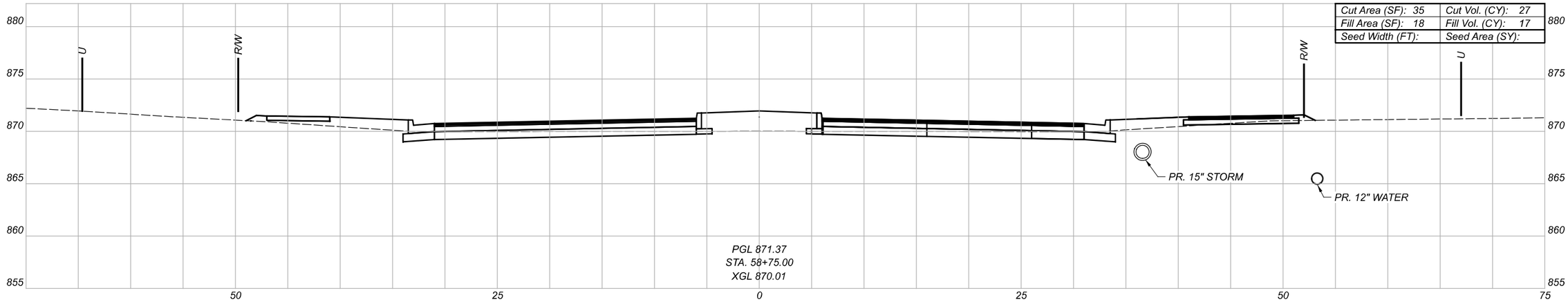
DESIGNER
VMG

REVIEWER
KLL 02/09/22

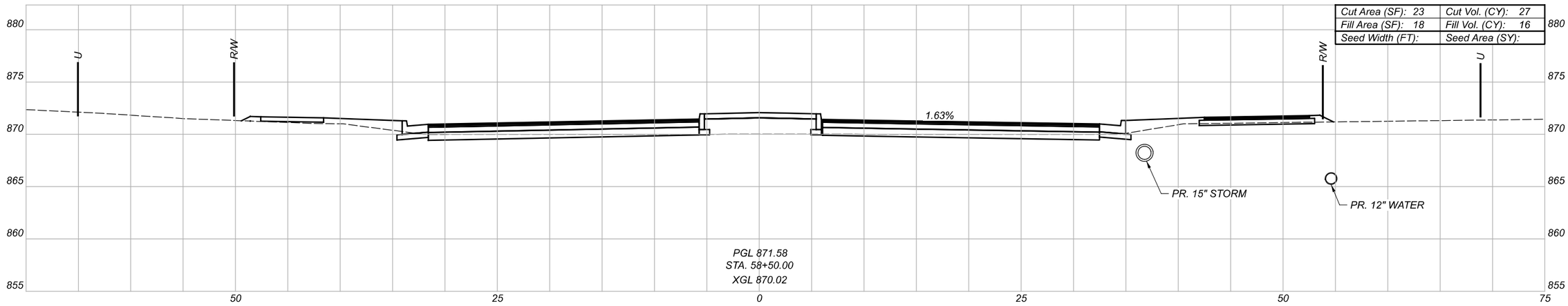
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	151	46

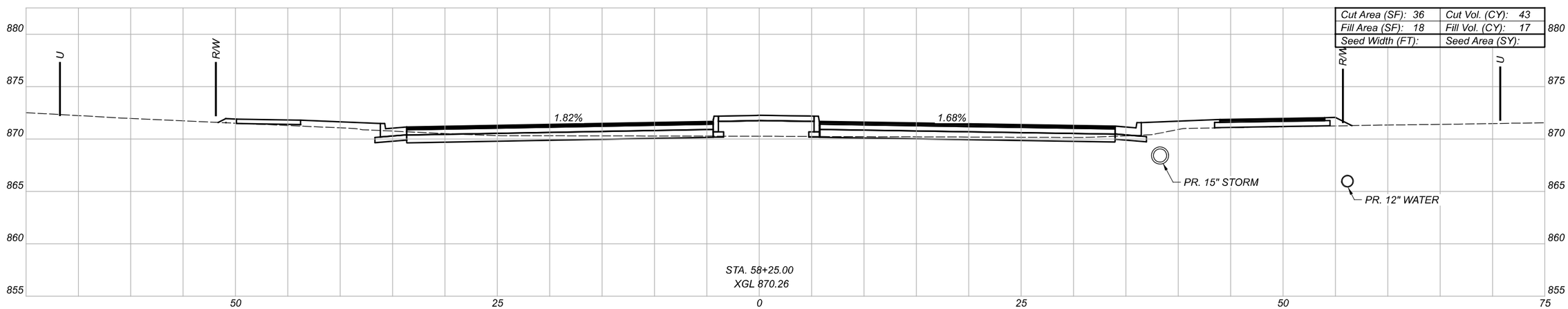
SHEET	TOTAL
P.55	147



Cut Area (SF): 35	Cut Vol. (CY): 27
Fill Area (SF): 18	Fill Vol. (CY): 17
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 23	Cut Vol. (CY): 27
Fill Area (SF): 18	Fill Vol. (CY): 16
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 36	Cut Vol. (CY): 43
Fill Area (SF): 18	Fill Vol. (CY): 17
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 58+25 TO STA. 58+75

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 58+25.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:35:20 PM USER: kellie
\\10.1.4\projects\WorkSets\21334_Veterans\400-Englneering\Roadway\Sheets\21334_Veterans_XS00i.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

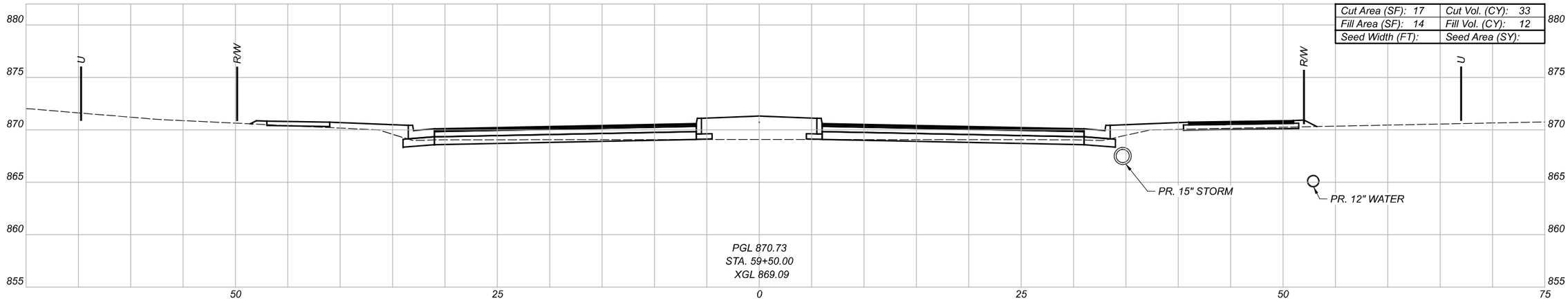
DESIGNER
VMG

REVIEWER
KLL 02/09/22

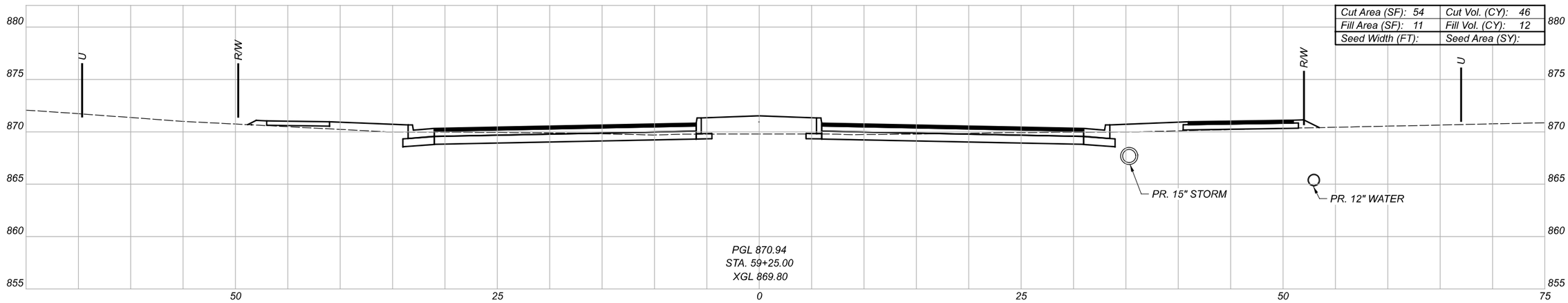
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	97	50

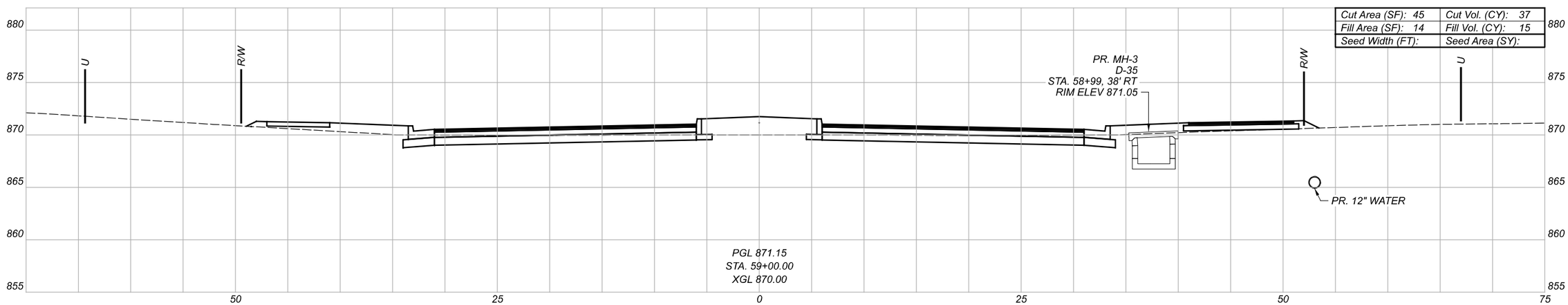
SHEET P.56 TOTAL 147



Cut Area (SF): 17	Cut Vol. (CY): 33
Fill Area (SF): 14	Fill Vol. (CY): 12
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 54	Cut Vol. (CY): 46
Fill Area (SF): 11	Fill Vol. (CY): 12
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 45	Cut Vol. (CY): 37
Fill Area (SF): 14	Fill Vol. (CY): 15
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
-	116	39

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 59+00.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:35:26 PM USER: kelle
\\Olui4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS001.dgn

CROSS SECTIONS - VETERANS BLVD
STA. 59+00 TO STA. 59+50

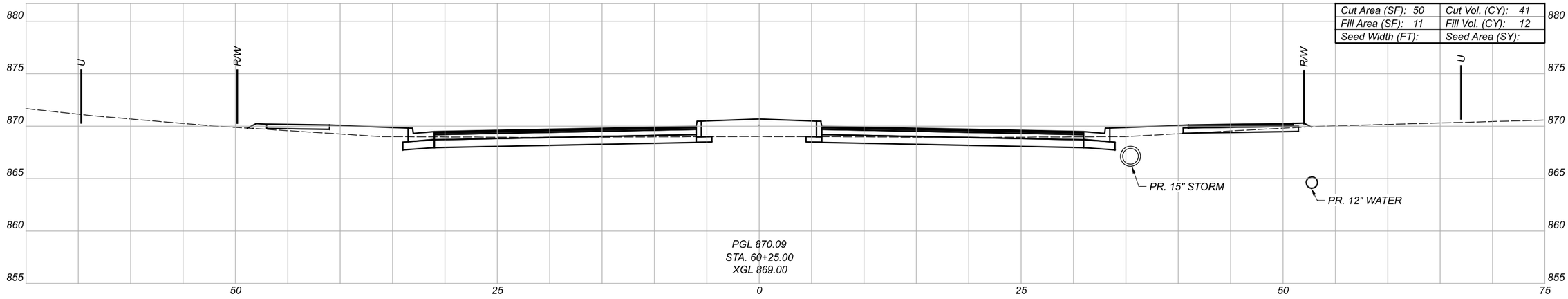
DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

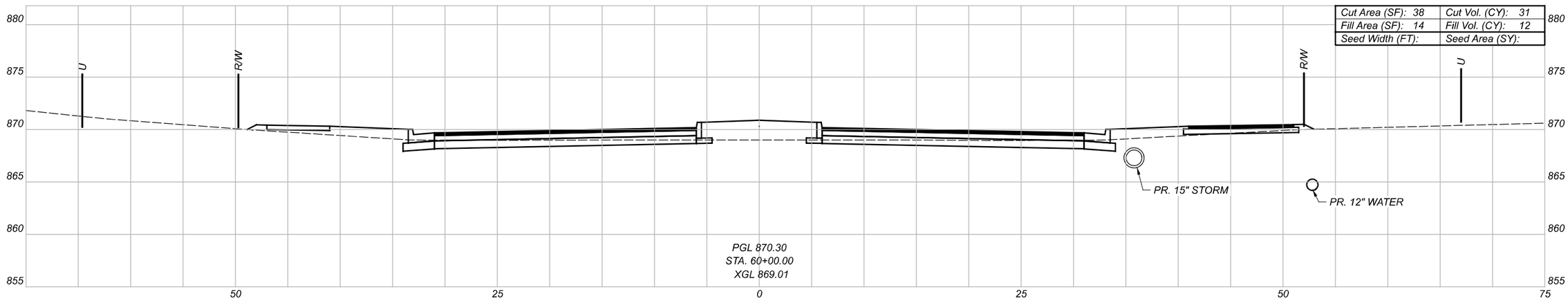
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

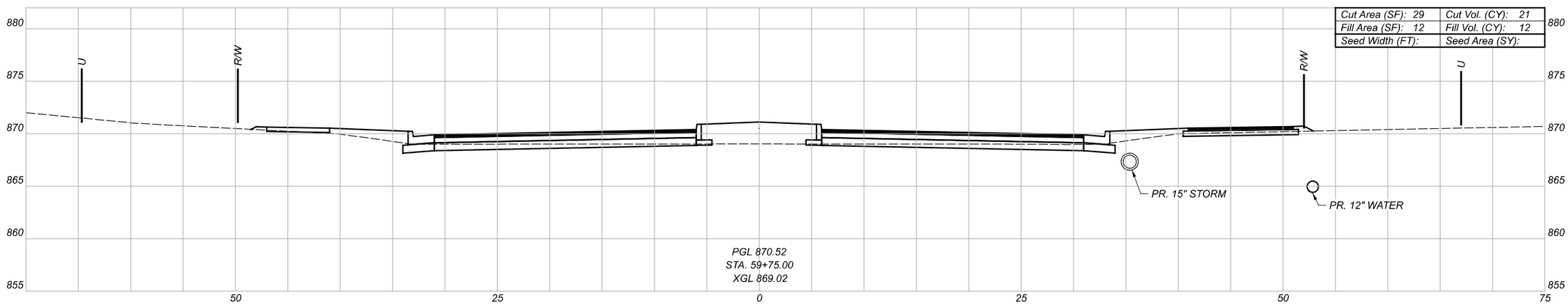
SHEET P.57 TOTAL 147



Cut Area (SF): 50	Cut Vol. (CY): 41
Fill Area (SF): 11	Fill Vol. (CY): 12
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 38	Cut Vol. (CY): 31
Fill Area (SF): 14	Fill Vol. (CY): 12
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 29	Cut Vol. (CY): 21
Fill Area (SF): 12	Fill Vol. (CY): 12
Seed Width (FT):	Seed Area (SY):

Sheet Totals		
Seeding	Cut	Fill
-	93	36

CROSS SECTIONS - VETERANS BLVD
STA. 59+75 TO STA. 60+25

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 59+75.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:35:32 PM USER: kelle
\\10.14.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS01.dgn

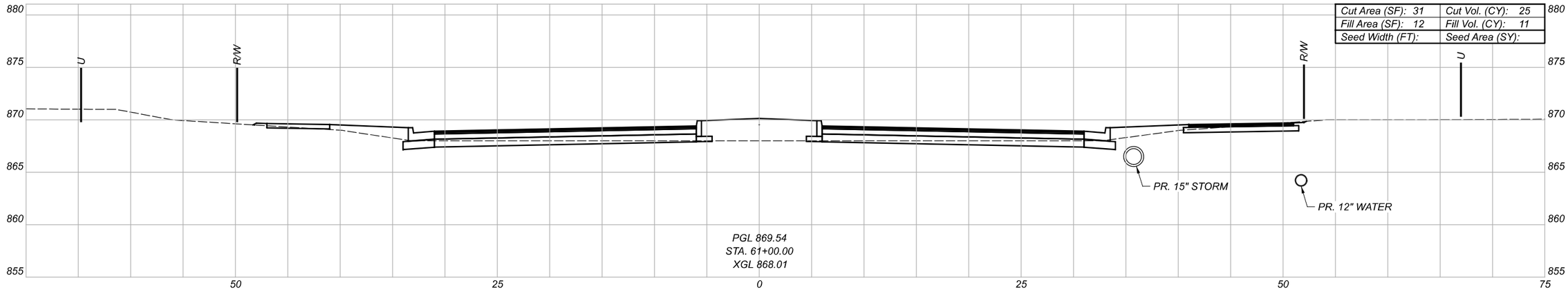
DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Corner Blvd.
Mason, OH 45040

DESIGNER
VMG

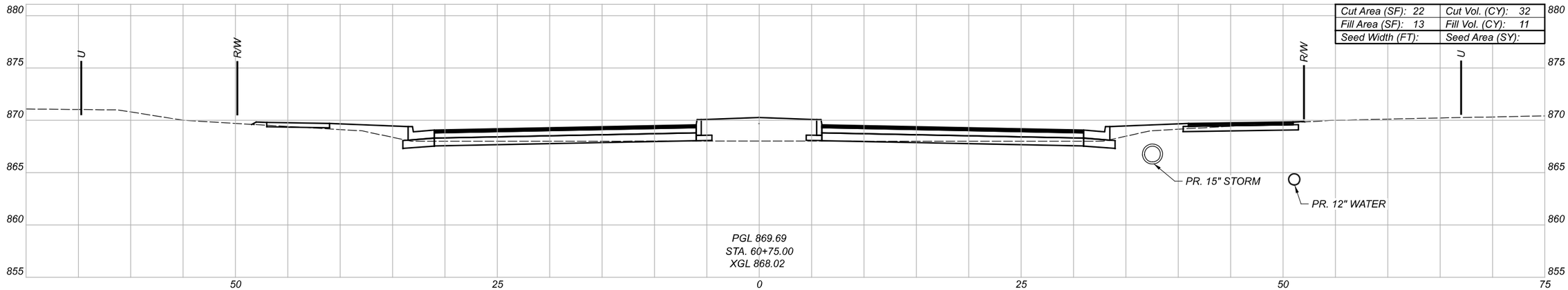
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

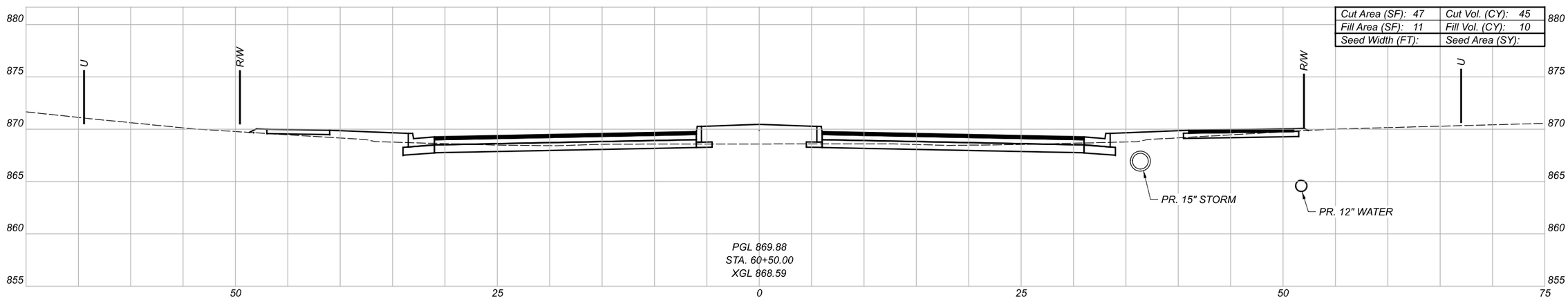
SHEET P.58 TOTAL 147



Cut Area (SF): 31	Cut Vol. (CY): 25
Fill Area (SF): 12	Fill Vol. (CY): 11
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 22	Cut Vol. (CY): 32
Fill Area (SF): 13	Fill Vol. (CY): 11
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 47	Cut Vol. (CY): 45
Fill Area (SF): 11	Fill Vol. (CY): 10
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 60+50 TO STA. 61+00

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 60+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:35:37 PM USER: kellie
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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Park Blvd.
Mason, OH 45040

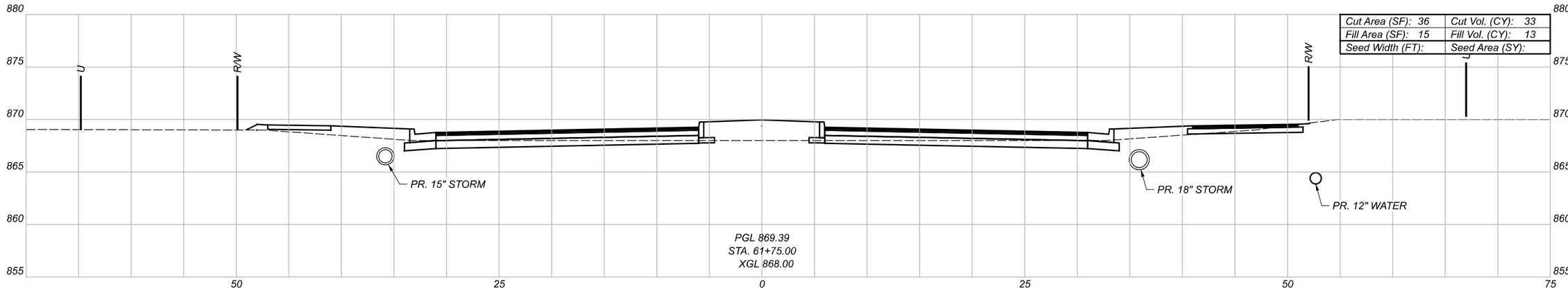
DESIGNER
VMG

REVIEWER
KLL 02/09/22

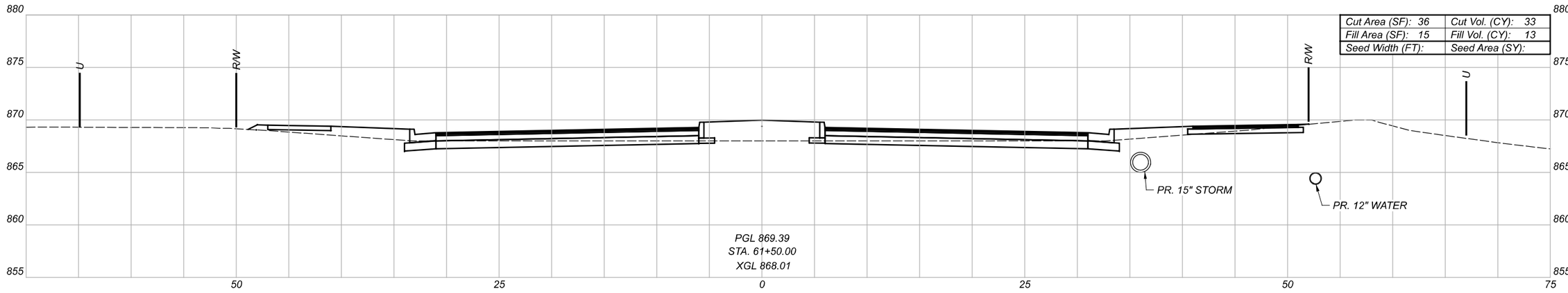
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	102	32

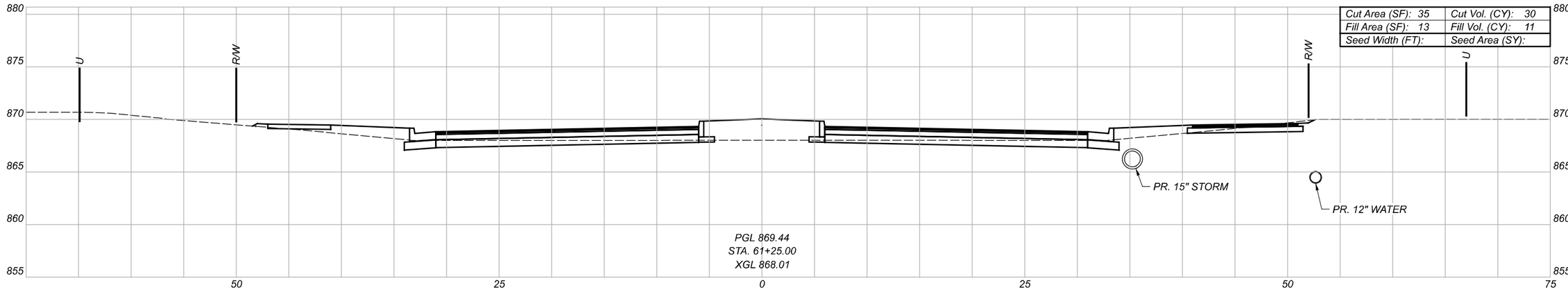
SHEET P.59 TOTAL 147



Cut Area (SF): 36	Cut Vol. (CY): 33
Fill Area (SF): 15	Fill Vol. (CY): 13
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 36	Cut Vol. (CY): 33
Fill Area (SF): 15	Fill Vol. (CY): 13
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 35	Cut Vol. (CY): 30
Fill Area (SF): 13	Fill Vol. (CY): 11
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 61+25 TO STA. 61+75

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 61+25.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 2/9/2022 TIME: 3:35:42 PM USER: kelle
\\OLL4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS001.dgn

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

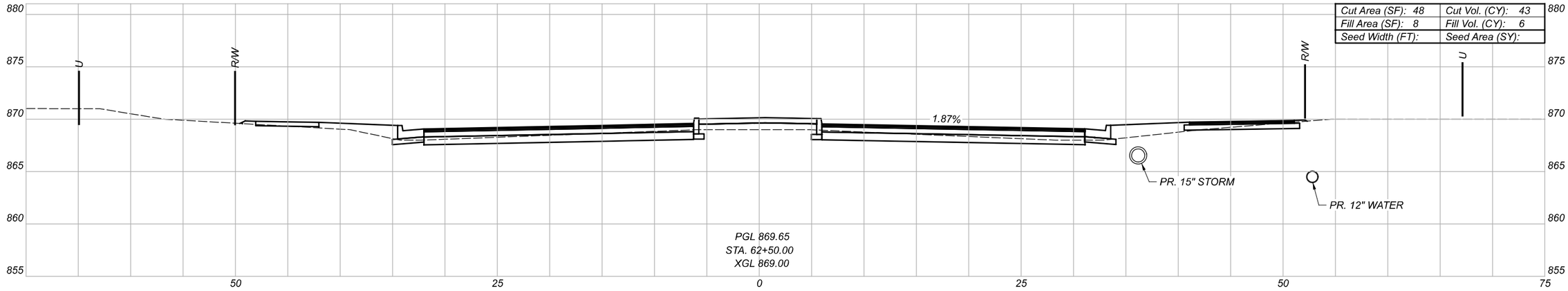
DESIGNER
VMG

REVIEWER
KLL 02/09/22

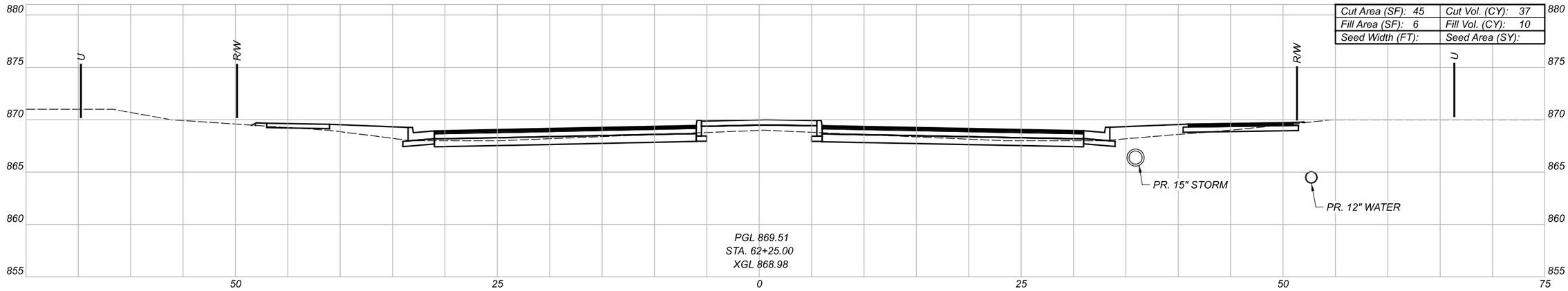
PROJECT ID
TEC PN: 21334

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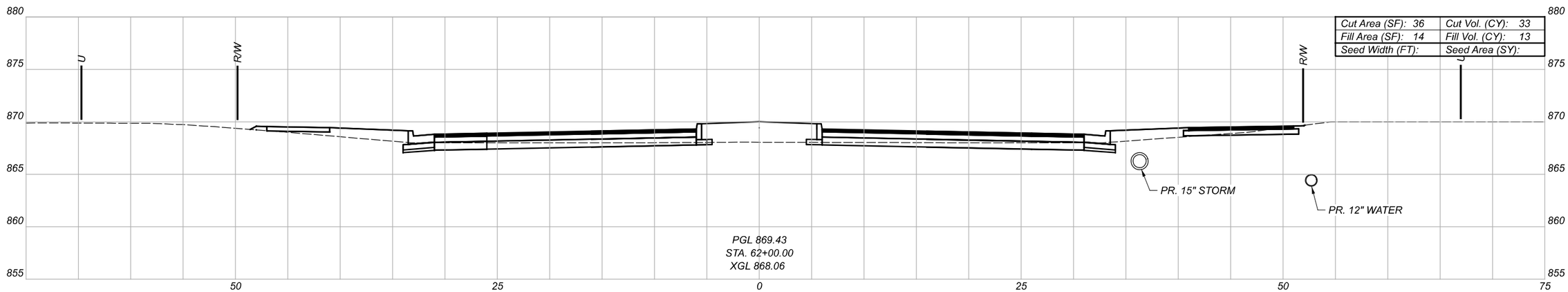
SHEET	TOTAL
P.60	147



Cut Area (SF): 48	Cut Vol. (CY): 43
Fill Area (SF): 8	Fill Vol. (CY): 6
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 45	Cut Vol. (CY): 37
Fill Area (SF): 6	Fill Vol. (CY): 10
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 36	Cut Vol. (CY): 33
Fill Area (SF): 14	Fill Vol. (CY): 13
Seed Width (FT):	Seed Area (SY):

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 62+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:35:48 PM USER: kelle
\\Olui4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00.dgn

CROSS SECTIONS - VETERANS BLVD
STA. 62+00 TO STA. 62+50

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Way Blvd.
Mason, OH 45040

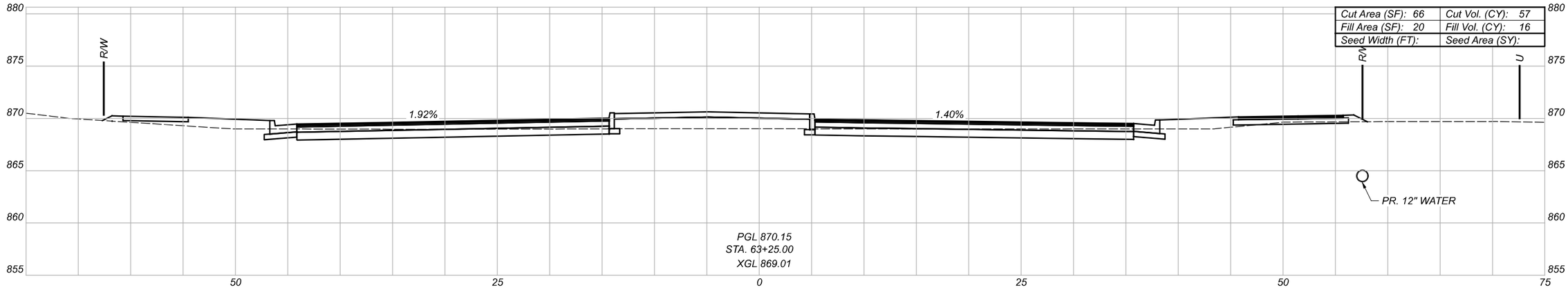
DESIGNER
VMG

REVIEWER
KLL 02/09/22

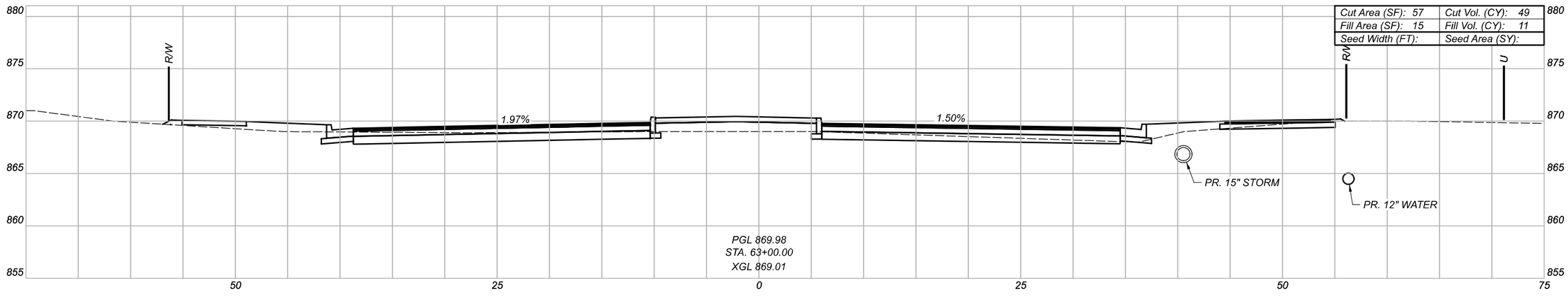
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	113	29

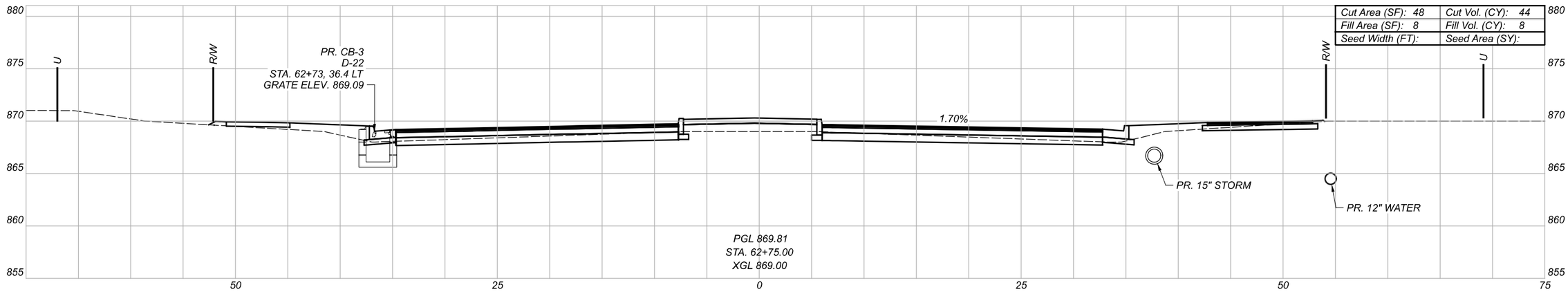
SHEET P.61 TOTAL 147



Cut Area (SF): 66	Cut Vol. (CY): 57
Fill Area (SF): 20	Fill Vol. (CY): 16
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 57	Cut Vol. (CY): 49
Fill Area (SF): 15	Fill Vol. (CY): 11
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 48	Cut Vol. (CY): 44
Fill Area (SF): 8	Fill Vol. (CY): 8
Seed Width (FT):	Seed Area (SY):

BUT-VETERANS BLVD-0.00

CROSS SECTIONS - VETERANS BLVD
STA. 62+75 TO STA. 63+25

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 South Tylersville Blvd.
Mason, OH 45040

DESIGNER
VMG

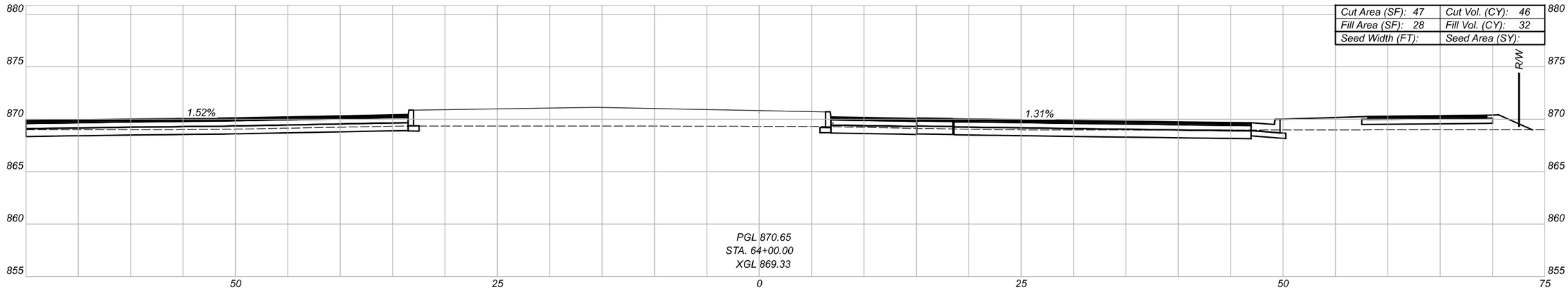
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

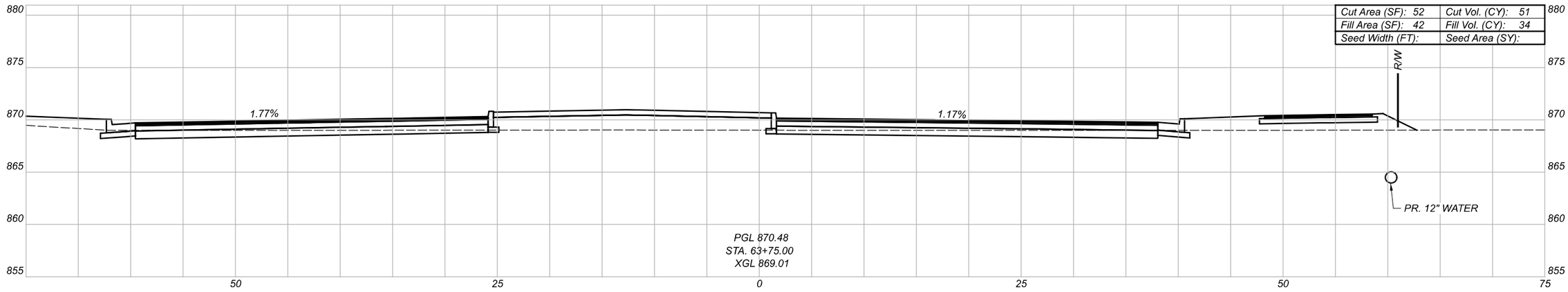
Sheet Totals		
Seeding	Cut	Fill
-	150	35

SHEET P.62 TOTAL 147

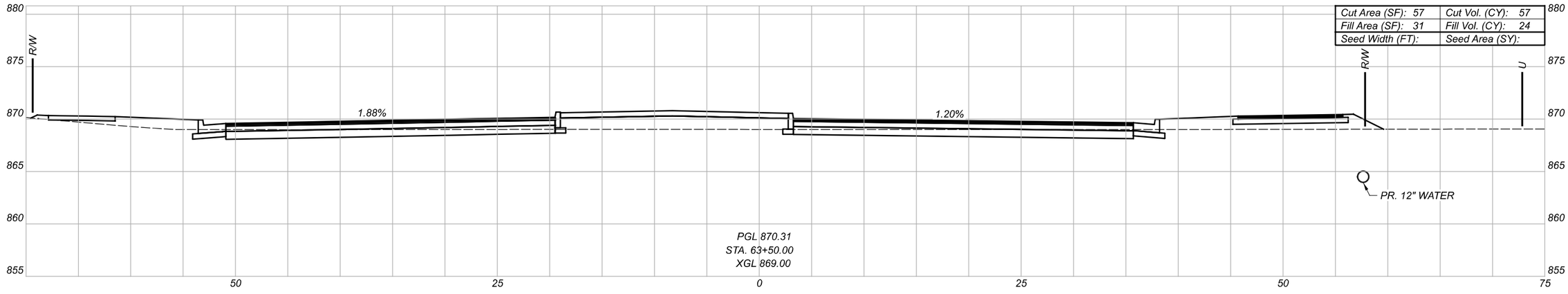
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\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00L.dgn



Cut Area (SF): 47	Cut Vol. (CY): 46
Fill Area (SF): 28	Fill Vol. (CY): 32
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 52	Cut Vol. (CY): 51
Fill Area (SF): 42	Fill Vol. (CY): 34
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 57	Cut Vol. (CY): 57
Fill Area (SF): 31	Fill Vol. (CY): 24
Seed Width (FT):	Seed Area (SY):

BUT-VETERANS BLVD-0.00

CROSS SECTIONS - VETERANS BLVD
STA. 63+50 TO STA. 64+00

Sheet Totals		
Seeding	Cut	Fill
-	154	90

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

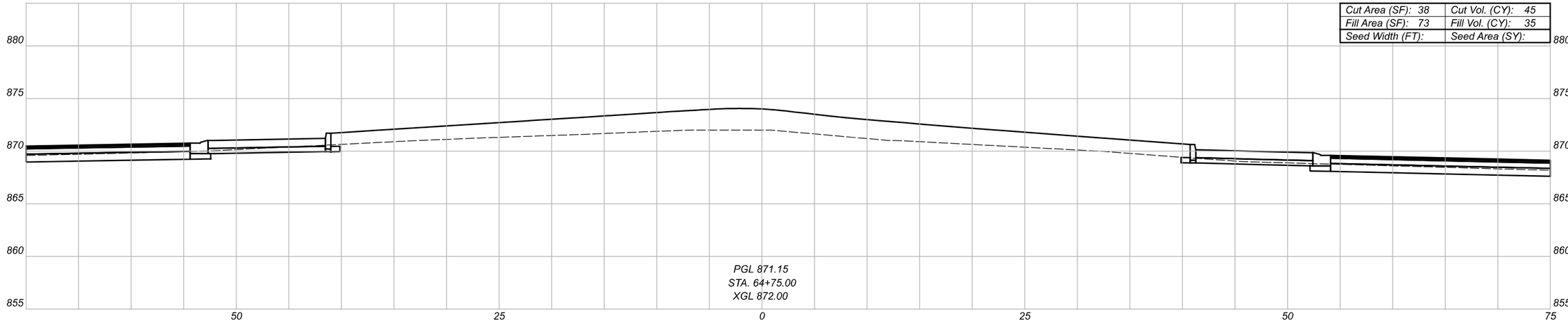
DESIGNER: VMG

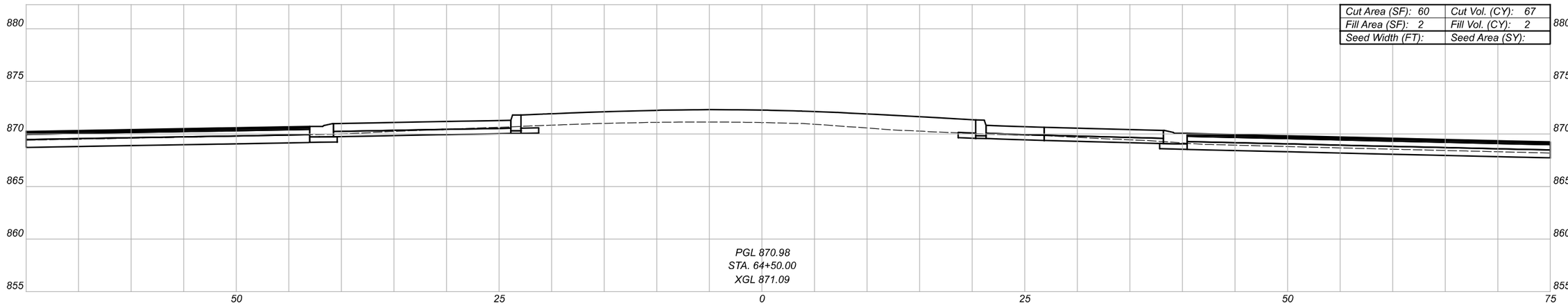
REVIEWER: KLL 02/09/22

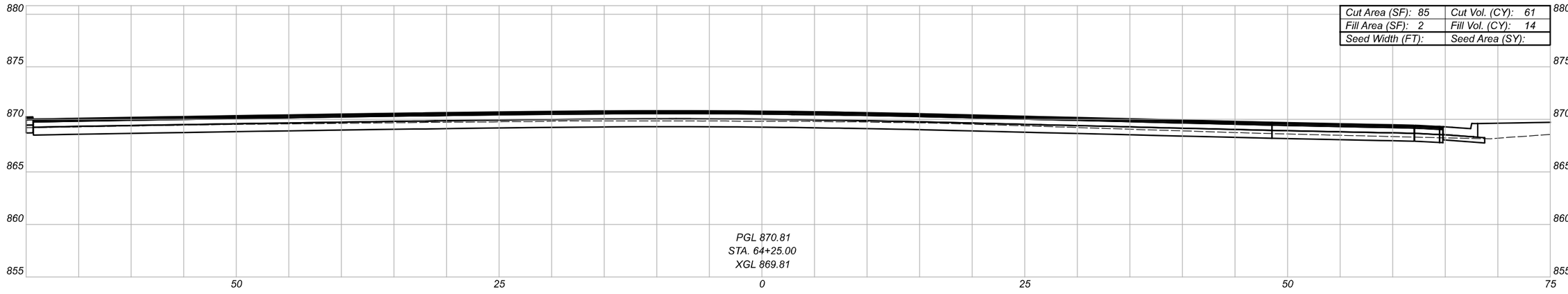
PROJECT ID: TEC PN: 21334

SHEET: P.63 | TOTAL: 147

MODEL: VeteranPropALGN - 63+50.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:36:00 PM USER: kellle
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CROSS SECTIONS - VETERANS BLVD
STA. 64+25 TO STA. 64+75

Sheet Totals		
Seeding	Cut	Fill
-	173	51

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

DESIGNER
VMG

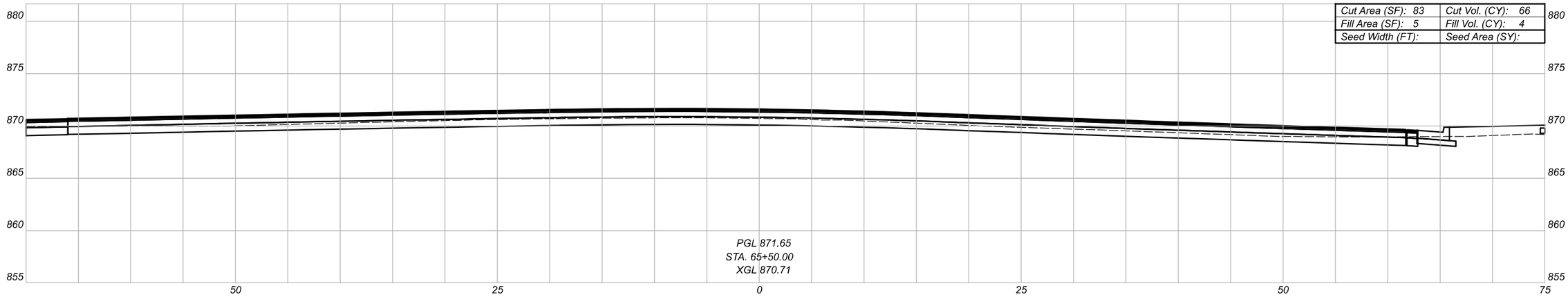
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

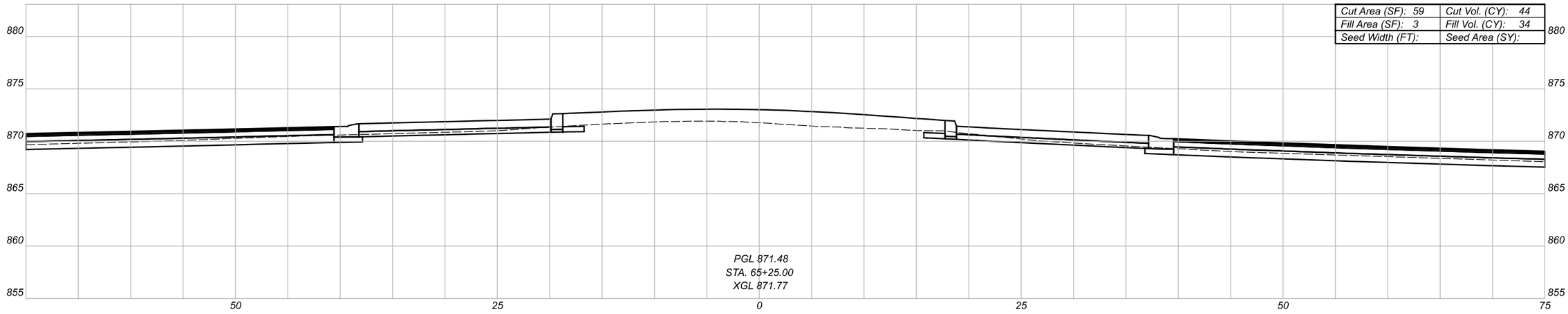
SHEET P.64 TOTAL 147

BUT-VETERANS BLVD-0.00

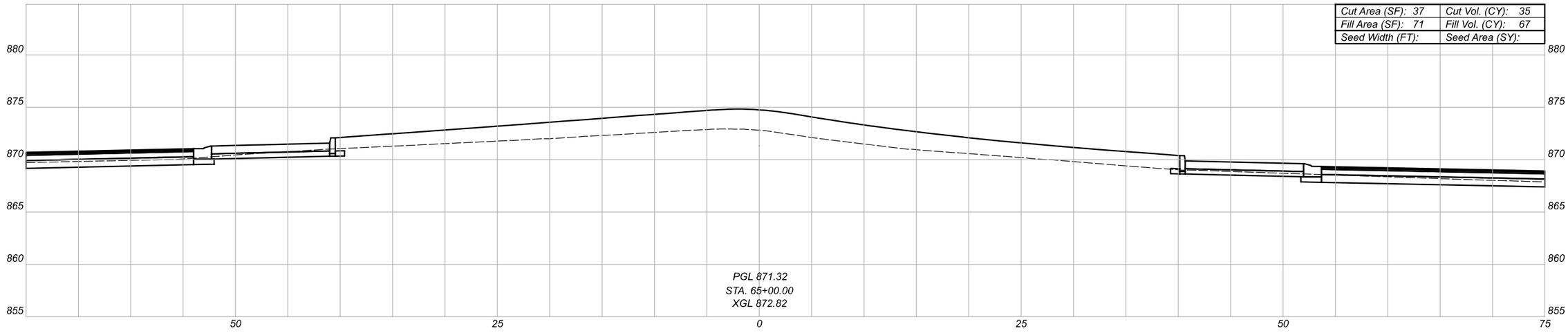
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\\OJJL4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS001.dgn



Cut Area (SF): 83	Cut Vol. (CY): 66
Fill Area (SF): 5	Fill Vol. (CY): 4
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 59	Cut Vol. (CY): 44
Fill Area (SF): 3	Fill Vol. (CY): 34
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 37	Cut Vol. (CY): 35
Fill Area (SF): 71	Fill Vol. (CY): 67
Seed Width (FT):	Seed Area (SY):

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 65+00.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:36:12 PM USER: kellle
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CROSS SECTIONS - VETERANS BLVD
STA. 65+00 TO STA. 65+50

Sheet Totals		
Seeding	Cut	Fill
-	145	95

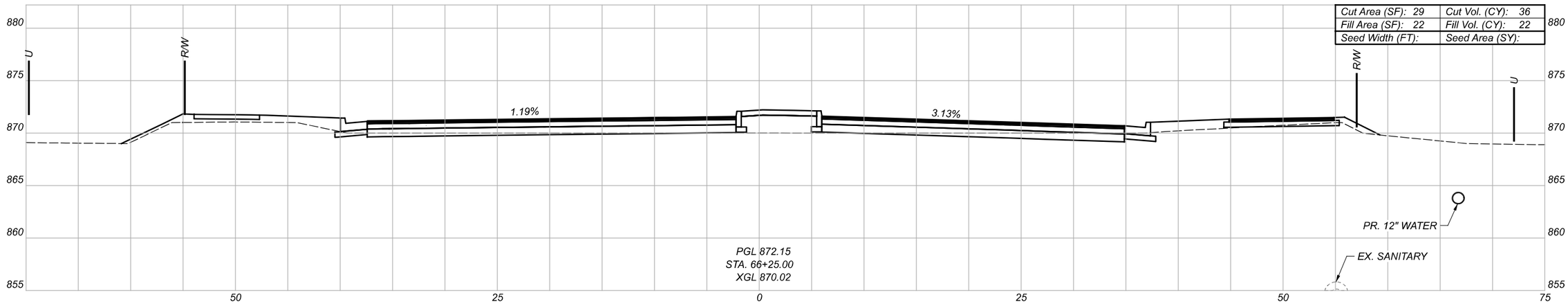
DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Engel Road, Ste. 140
Mason, OH 45040

DESIGNER
VMG

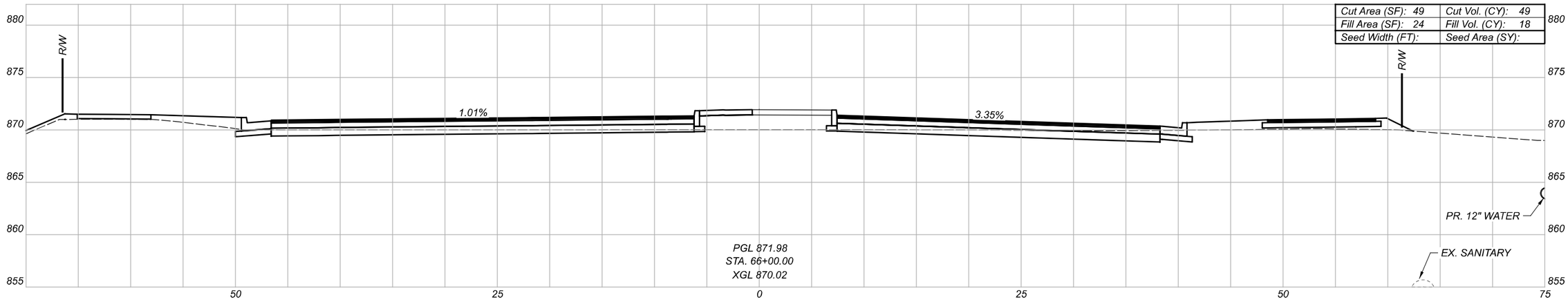
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

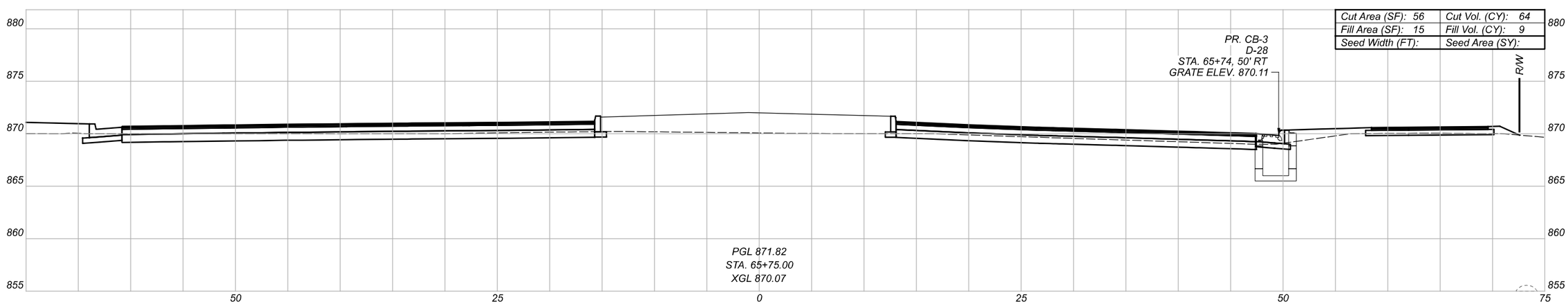
SHEET P.65 TOTAL 147



Cut Area (SF): 29	Cut Vol. (CY): 36
Fill Area (SF): 22	Fill Vol. (CY): 22
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 49	Cut Vol. (CY): 49
Fill Area (SF): 24	Fill Vol. (CY): 18
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 56	Cut Vol. (CY): 64
Fill Area (SF): 15	Fill Vol. (CY): 9
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 65+75 TO STA. 66+25

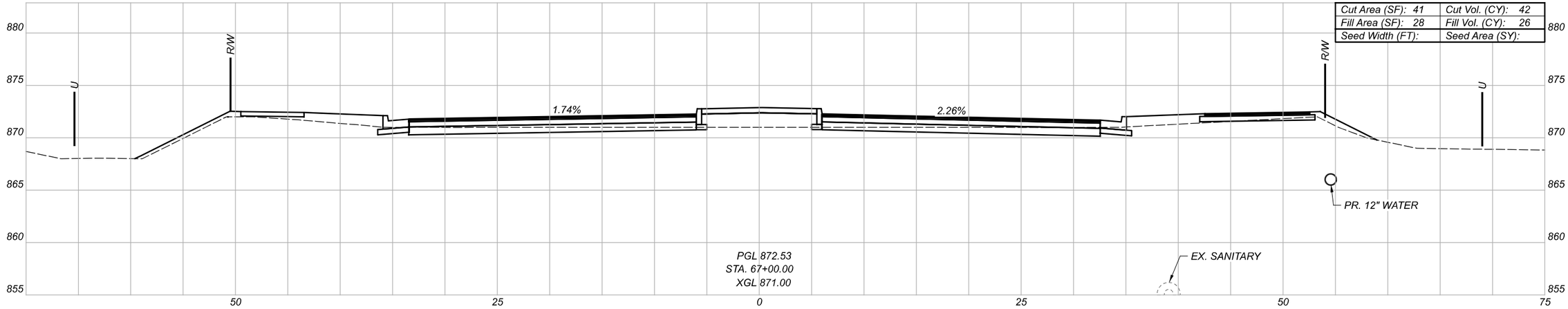
Sheet Totals		
Seeding	Cut	Fill
-	149	49

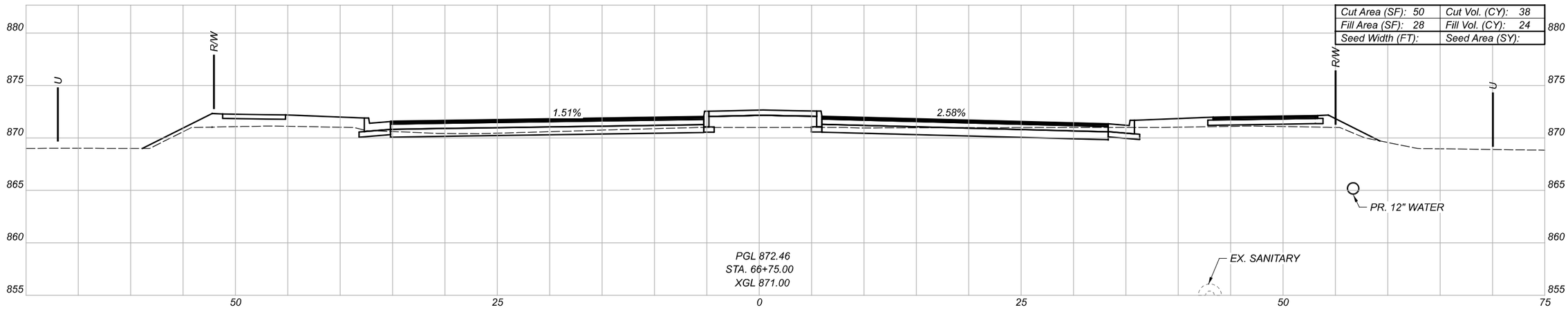
DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 South Park Blvd.
Mason, OH 45040

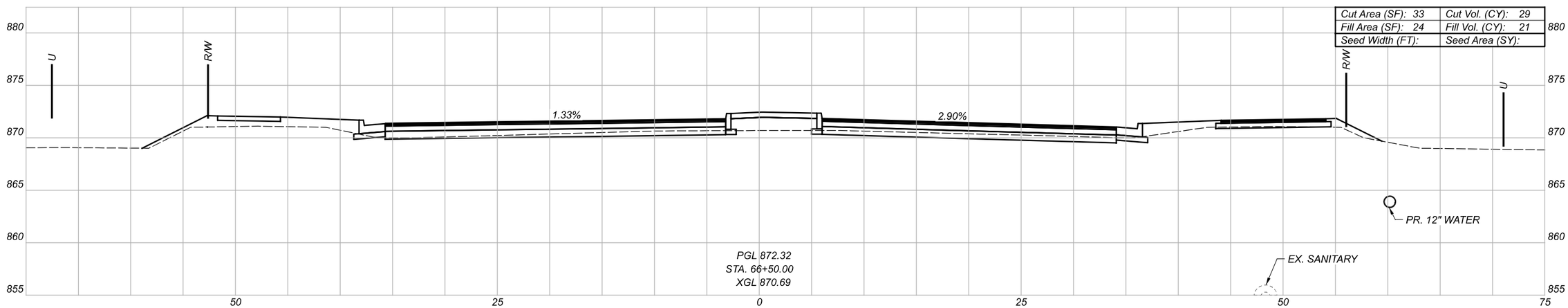
DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.66 TOTAL: 147

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 65+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:36:18 PM USER: kellle
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BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 66+50.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:36:23 PM USER: kellle
\\OLL4\projects\WorkSets\21334_Veterans\400-Englneering\Roadway\Sheets\21334_Veterans_XS001.dgn

CROSS SECTIONS - VETERANS BLVD
STA. 66+50 TO STA. 67+00

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

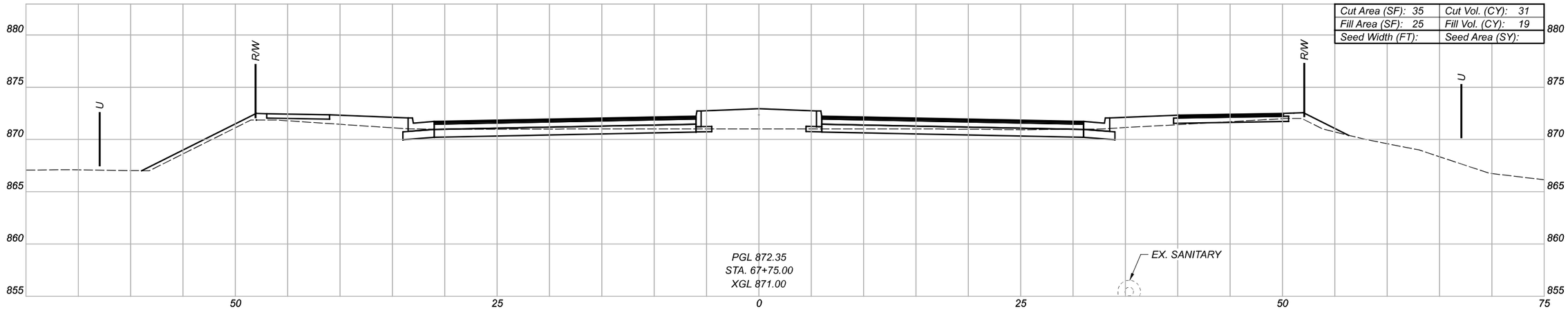
DESIGNER
VMG

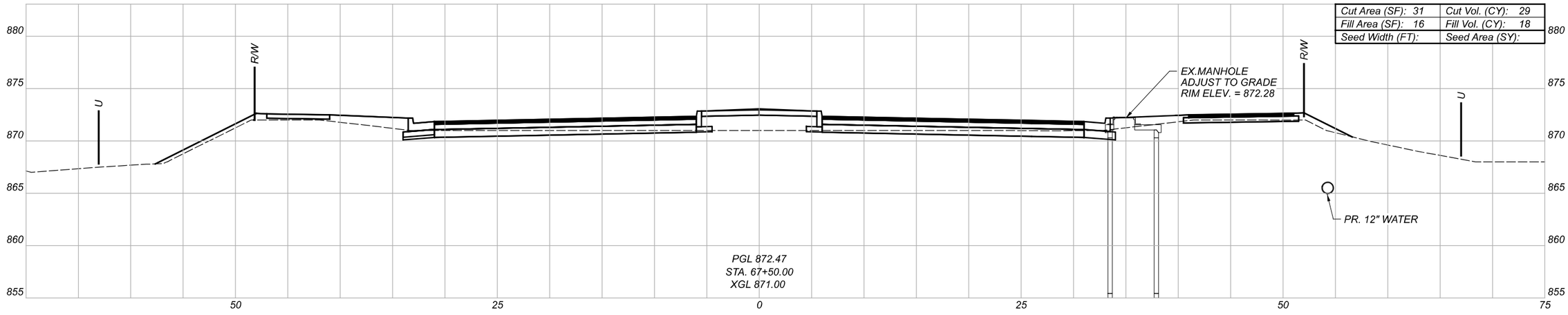
REVIEWER
KLL 02/09/22

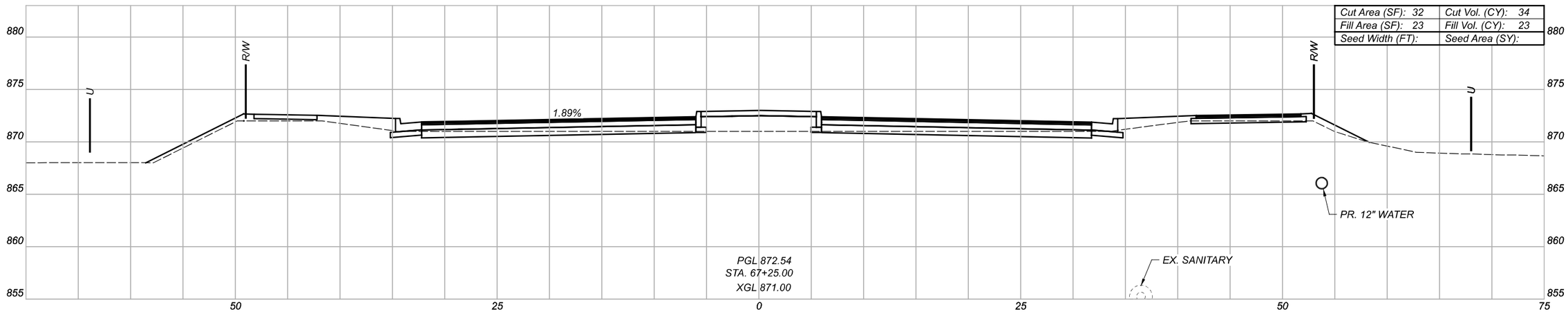
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	109	71

SHEET	TOTAL
P.67	147







BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 67+25.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:36:29 PM USER: kellle
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CROSS SECTIONS - VETERANS BLVD
STA. 67+25 TO STA. 67+75

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 South Tylers Place Blvd.
Mason, OH 45040

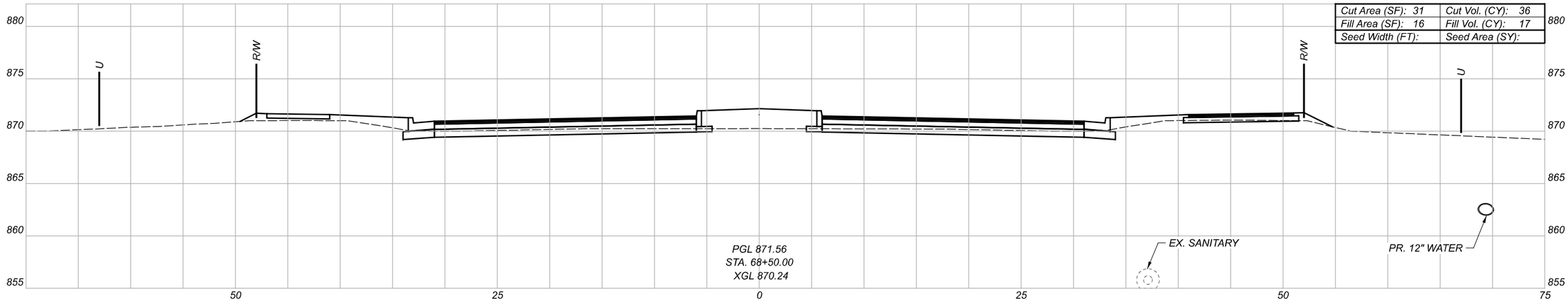
DESIGNER
VMG

REVIEWER
KLL 02/09/22

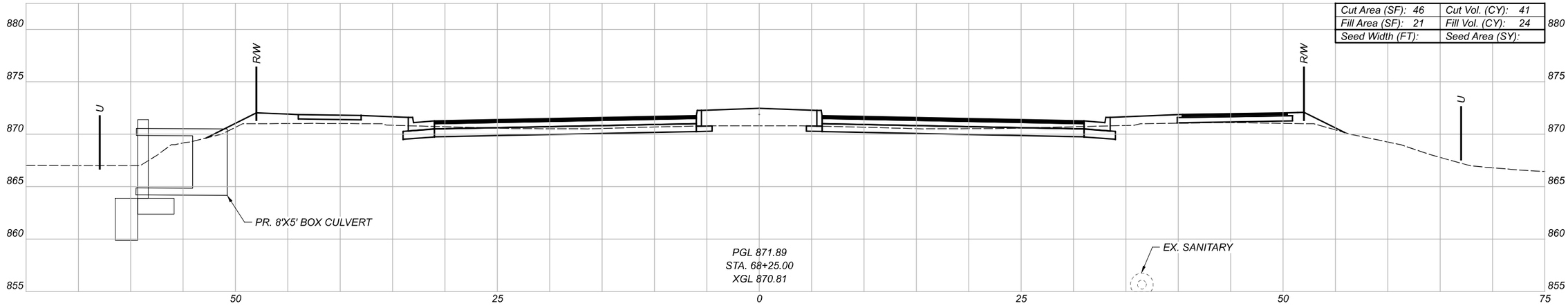
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	94	60

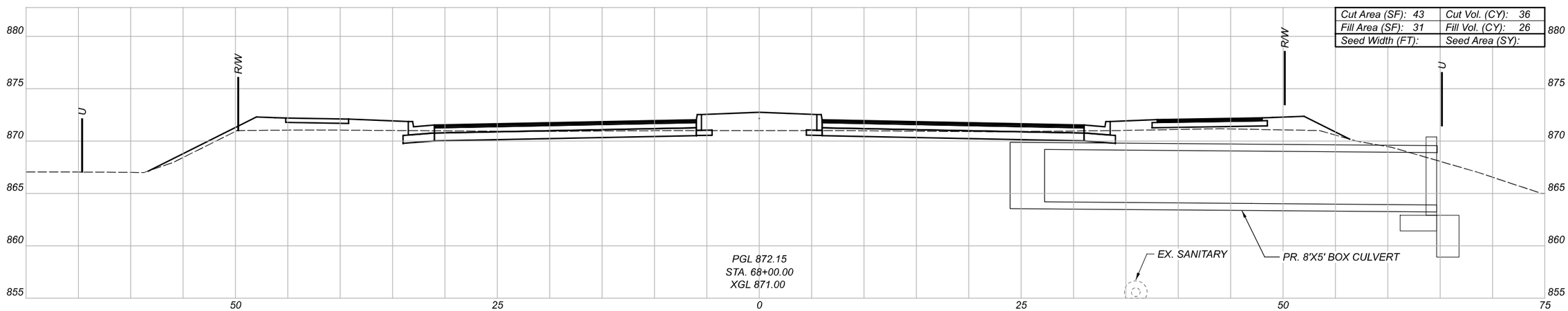
SHEET P.68 TOTAL 147



Cut Area (SF): 31	Cut Vol. (CY): 36
Fill Area (SF): 16	Fill Vol. (CY): 17
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 46	Cut Vol. (CY): 41
Fill Area (SF): 21	Fill Vol. (CY): 24
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 43	Cut Vol. (CY): 36
Fill Area (SF): 31	Fill Vol. (CY): 26
Seed Width (FT):	Seed Area (SY):

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 68+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:36:36 PM USER: kellie
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CROSS SECTIONS - VETERANS BLVD
STA. 68+00 TO STA. 68+50

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Road, Suite 4
Mason, OH 45040

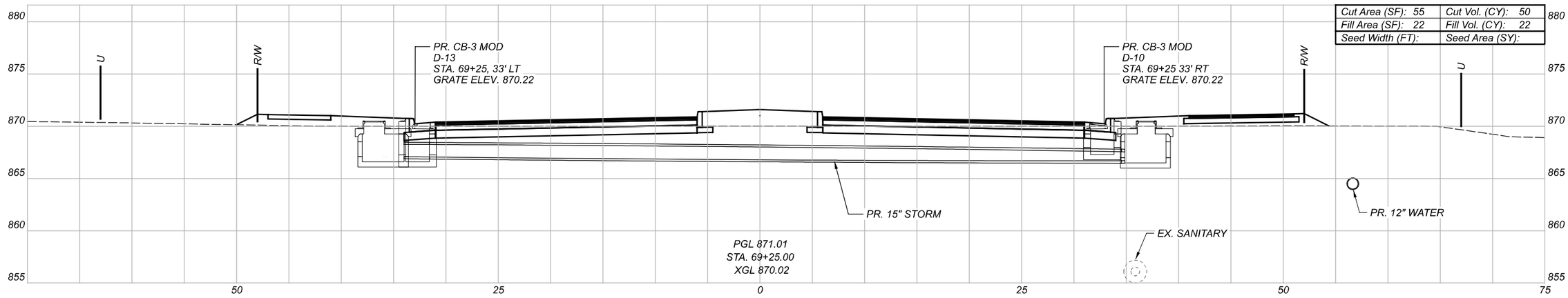
DESIGNER
VMG

REVIEWER
KLL 02/09/22

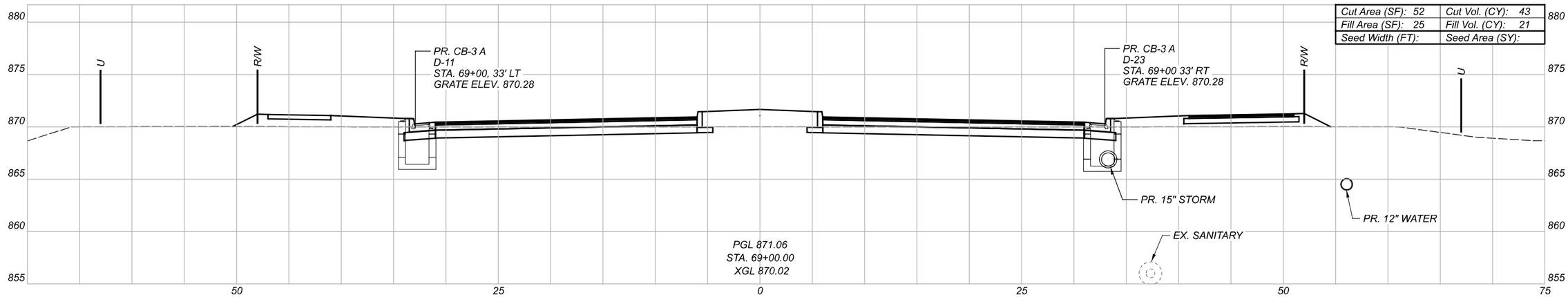
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	113	67

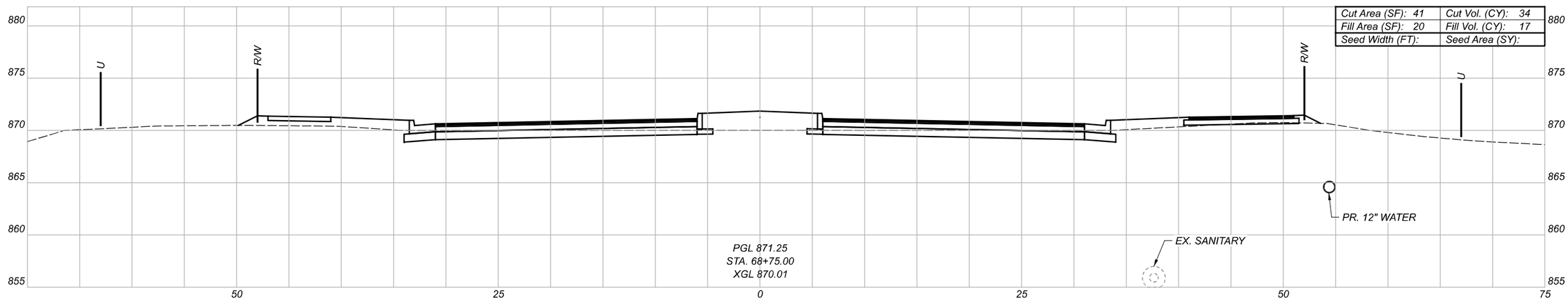
SHEET	TOTAL
P.69	147



Cut Area (SF): 55	Cut Vol. (CY): 50
Fill Area (SF): 22	Fill Vol. (CY): 22
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 52	Cut Vol. (CY): 43
Fill Area (SF): 25	Fill Vol. (CY): 21
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 41	Cut Vol. (CY): 34
Fill Area (SF): 20	Fill Vol. (CY): 17
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 68+75 TO STA. 69+25

Sheet Totals		
Seeding	Cut	Fill
-	127	60

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Road, Suite 100
Mason, OH 45040

DESIGNER: VMG

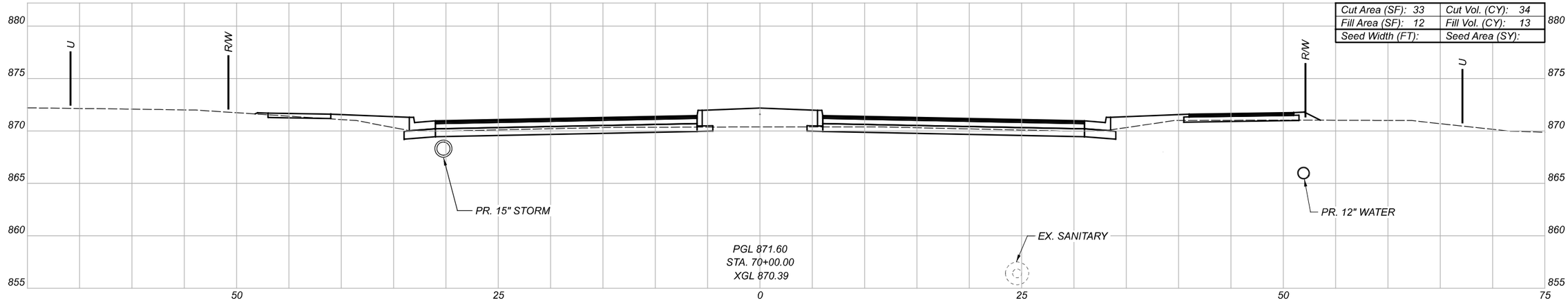
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PROJECT ID: TEC PN: 21334

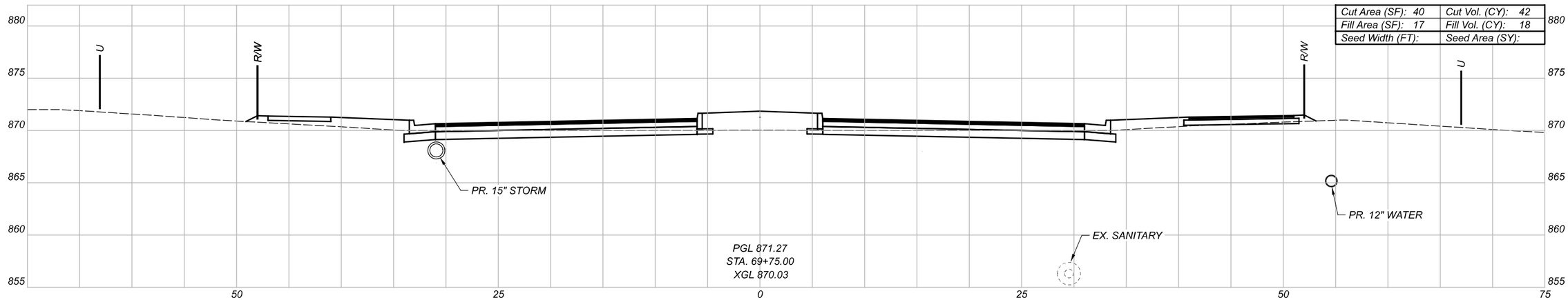
SHEET: P.70 TOTAL: 147

BUT-VETERANS BLVD-0.00

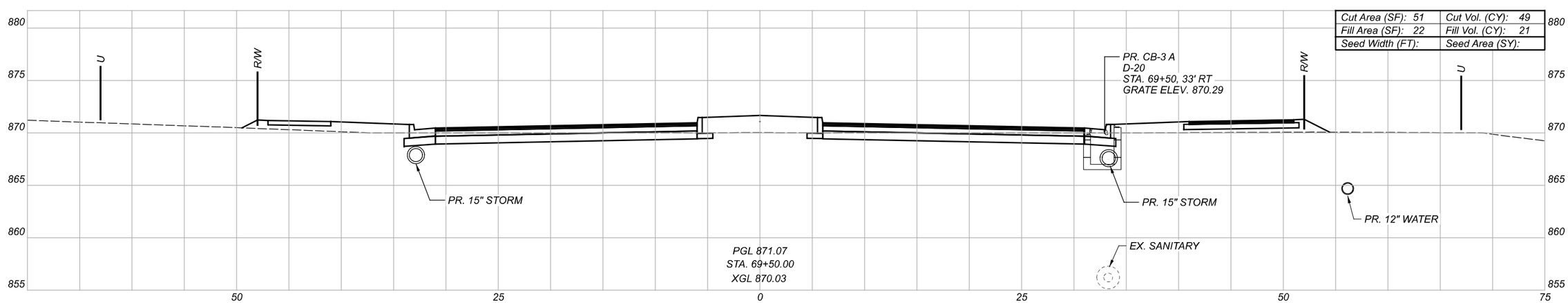
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\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00.dgn



Cut Area (SF): 33	Cut Vol. (CY): 34
Fill Area (SF): 12	Fill Vol. (CY): 13
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 40	Cut Vol. (CY): 42
Fill Area (SF): 17	Fill Vol. (CY): 18
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 51	Cut Vol. (CY): 49
Fill Area (SF): 22	Fill Vol. (CY): 21
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 69+50 TO STA. 70+00

Sheet Totals		
Seeding	Cut	Fill
-	125	52

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Snider Road, Suite 204C
Mason, OH 45040

DESIGNER
VMG

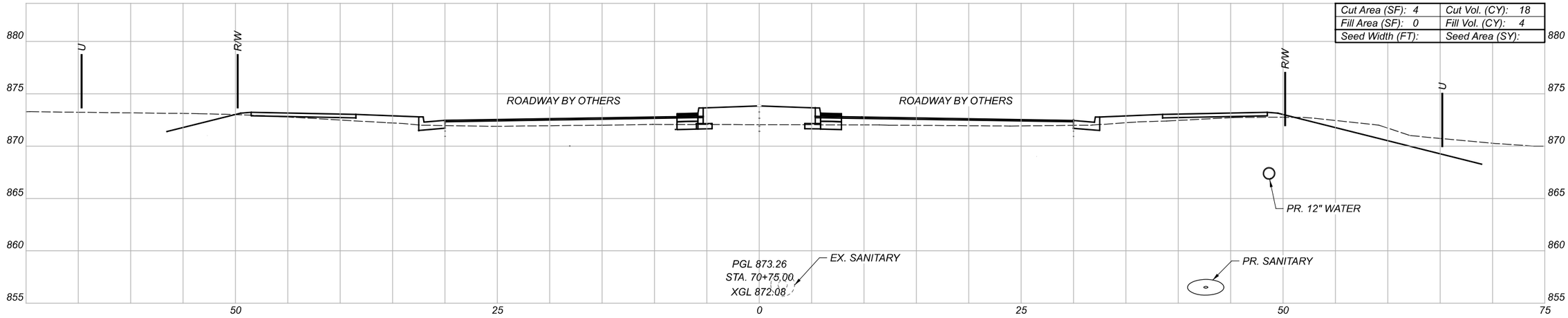
REVIEWER
KLL 02/09/22

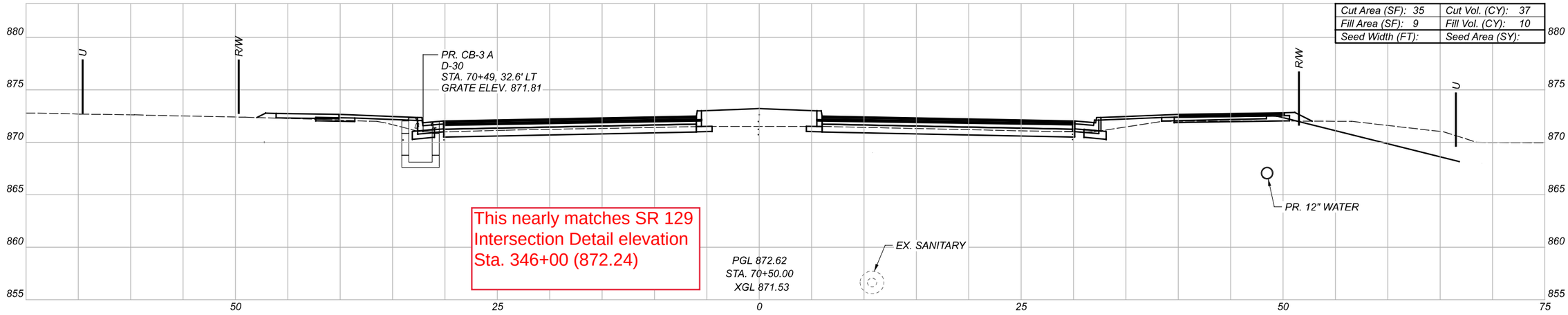
PROJECT ID
TEC PN: 21334

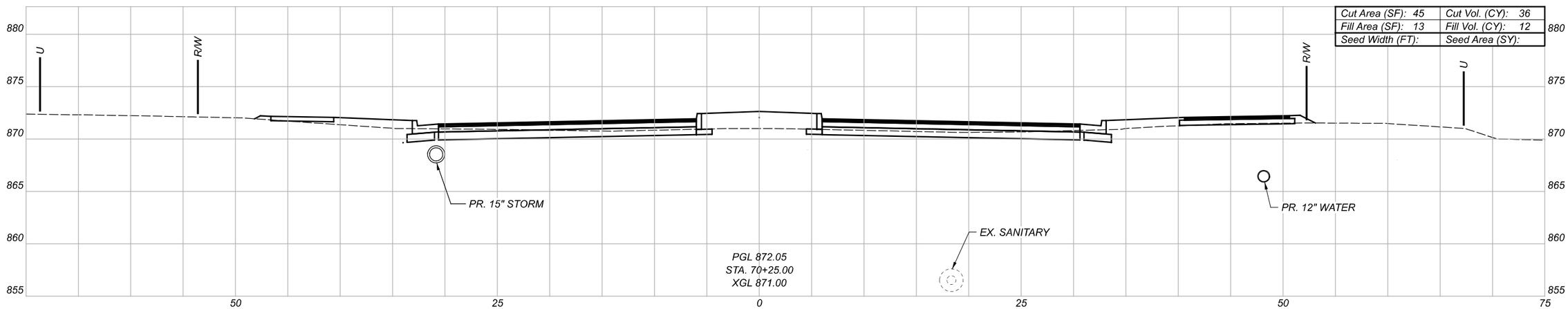
SHEET P.71 TOTAL 147

BUT-VETERANS BLVD-0.00

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BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 70+25.00 [Sheet] PAPERSIZE: 34x22 (in) DATE: 2/9/2022 TIME: 3:36:54 PM USER: kellle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS00i.dgn

CROSS SECTIONS - VETERANS BLVD
STA. 70+25 TO STA. 70+75

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

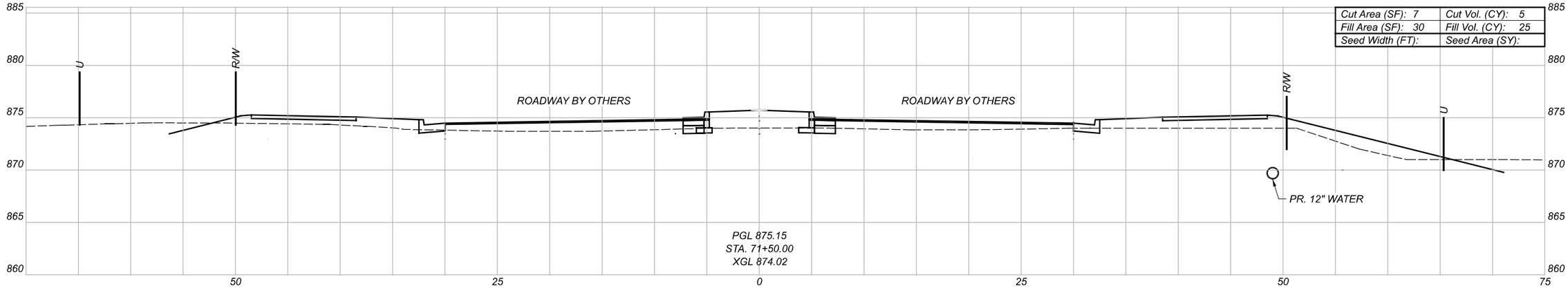
DESIGNER
VMG

REVIEWER
KLL 02/09/22

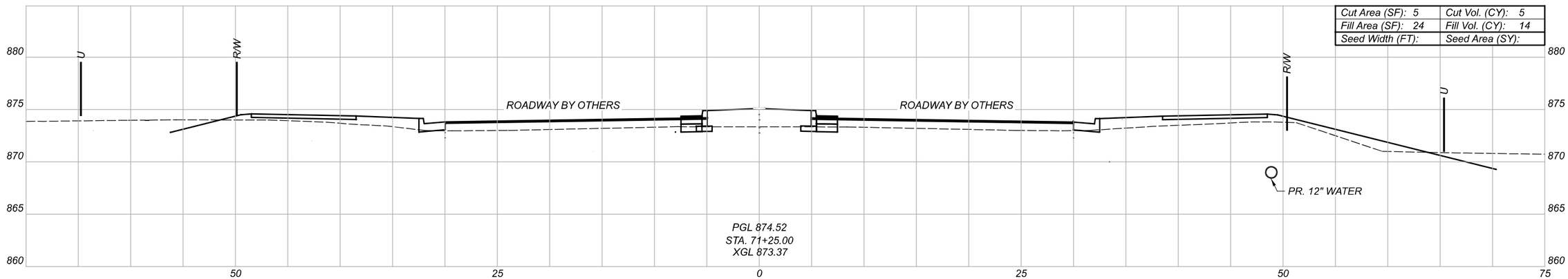
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	91	26

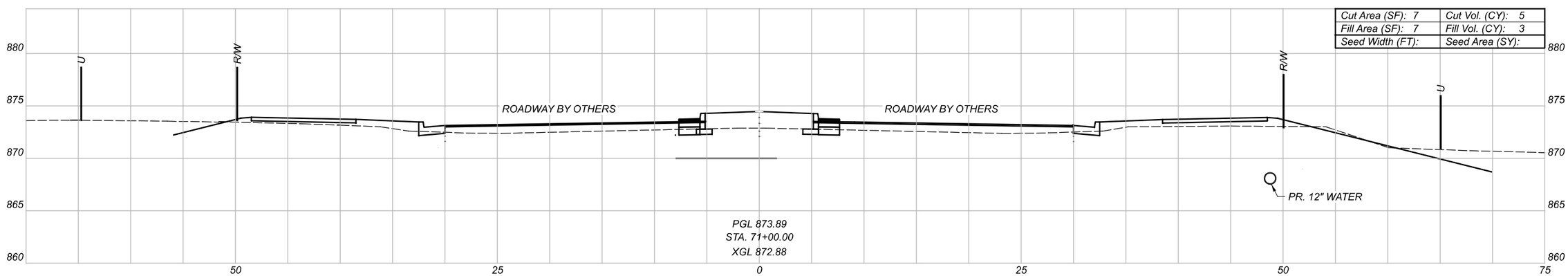
SHEET	TOTAL
P.72	147



Cut Area (SF): 7	Cut Vol. (CY): 5
Fill Area (SF): 30	Fill Vol. (CY): 25
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 5	Cut Vol. (CY): 5
Fill Area (SF): 24	Fill Vol. (CY): 14
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 7	Cut Vol. (CY): 5
Fill Area (SF): 7	Fill Vol. (CY): 3
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 71+00 TO STA. 71+50

BUT-VETERANS BLVD-0.00

MODEL: VeteranPropALGN - 71+00.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:37:01 PM USER: kellie
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS001.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

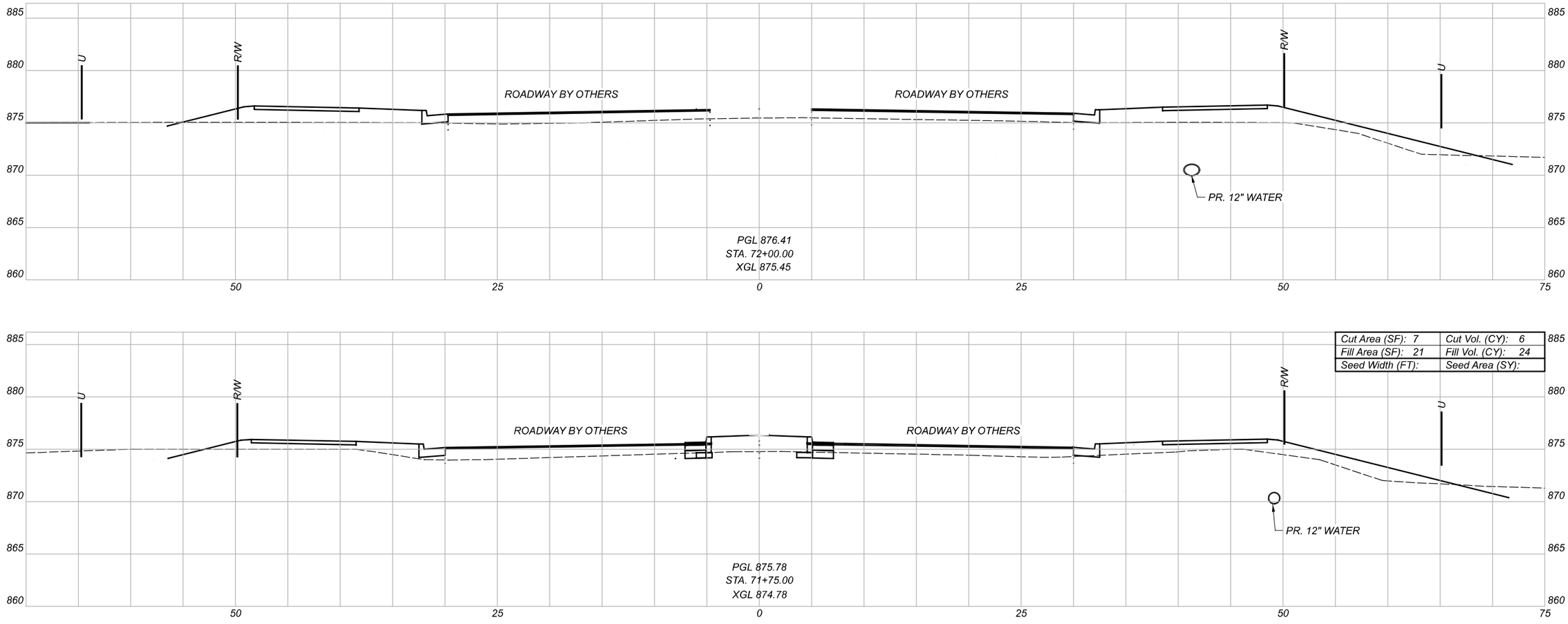
DESIGNER: VMG

REVIEWER: KLL 02/09/22

PROJECT ID: TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	15	42

SHEET: P.73 TOTAL: 147



Cut Area (SF): 7	Cut Vol. (CY): 6
Fill Area (SF): 21	Fill Vol. (CY): 24
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - VETERANS BLVD
STA. 71+75 TO STA. 72+00

DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Road, Ste. 100
Mason, OH 45040

DESIGNER: VMG

REVIEWER: KLL 02/09/22

PROJECT ID: TEC PN: 21334

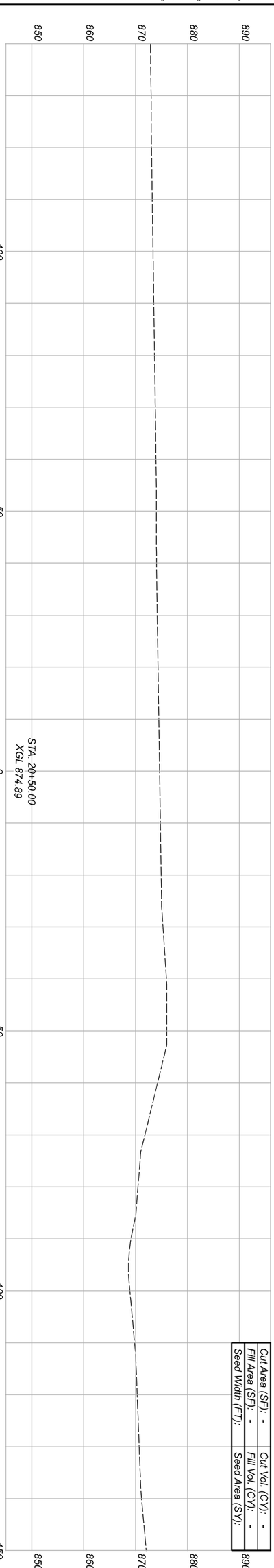
Sheet Totals		
Seeding	Cut	Fill
-	6	24

SHEET: P.74 TOTAL: 147

BUT-VETERANS BLVD-0.00

MODEL: VeteranProp ALGN - 71+75.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:37:06 PM USER: kelle
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MODEL: SouthRoundabout - 20+50.00 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:37:12 PM USER: kellle
\\10.11.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS003.dgn



Cut Area (SF):	38
Fill Area (SF):	28
Cut Vol. (CY):	18
Fill Vol. (CY):	23
Seed Width (FT):	
Seed Area (SY):	

Cut Area (SF):	0
Fill Area (SF):	7
Cut Vol. (CY):	0
Fill Vol. (CY):	2
Seed Width (FT):	
Seed Area (SY):	

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

Sheet Totals		
Seeding	Cut	Fill
-	18	25

SHEET	P 75
TOTAL	147

PROJECT ID: TEC PN: 21334

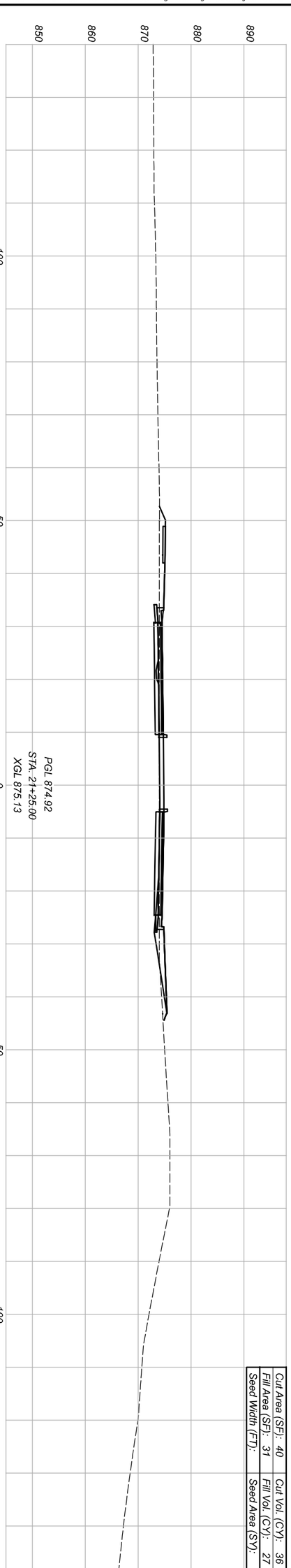
REVIEWER: KLL 02/09/22

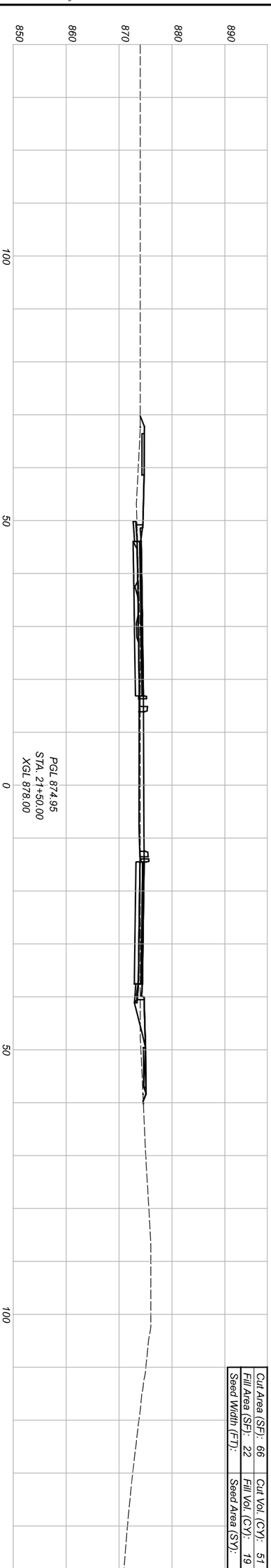
DESIGNER: VMG

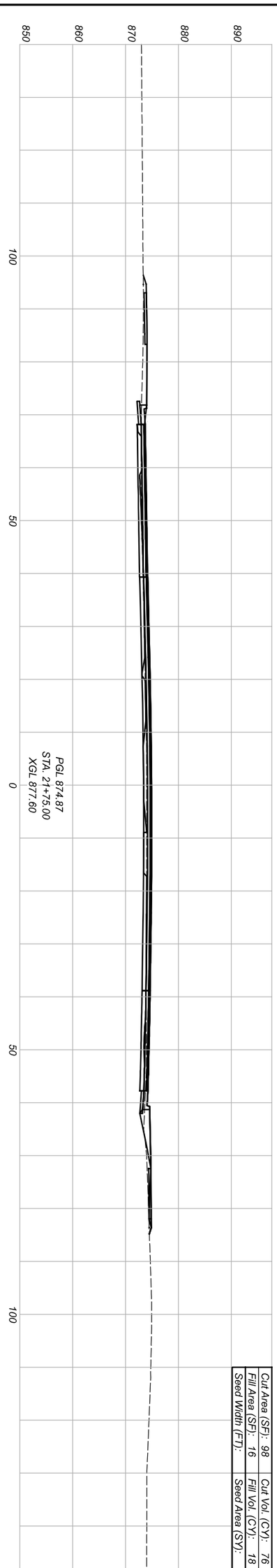
DESIGN AGENCY:
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

CROSS SECTIONS - SOUTHERN ROUNDABOUT
CROSS STREET - STA. 20+50 TO STA. 21+00

MODEL: SouthRoundabout - 21+25.00 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:37:16 PM USER: kellle
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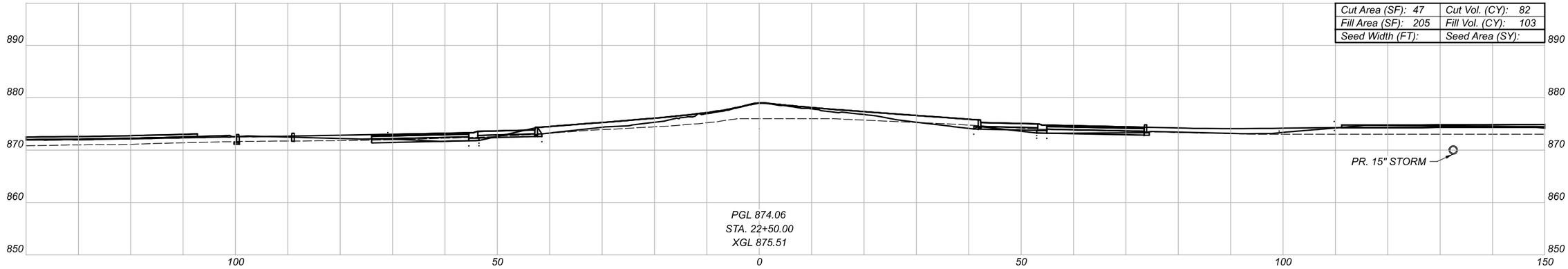


Sheet Totals		
Seeding	Cut	Fill
-	163	64

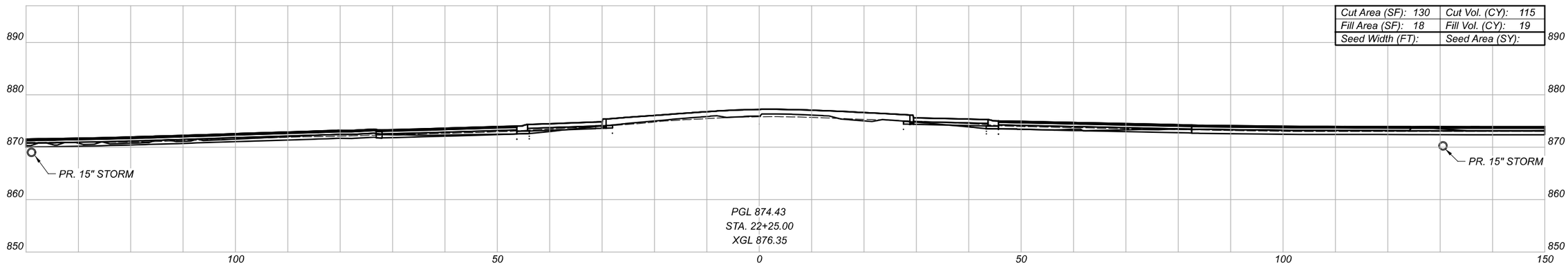
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGN AGENCY
DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P 76
TOTAL 147

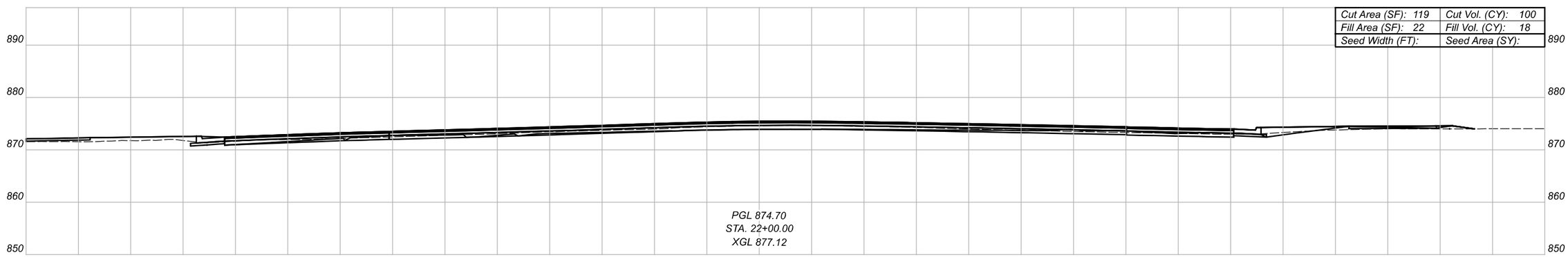
CROSS SECTIONS - SOUTHERN ROUNDABOUT
CROSS STREET - STA. 21+25 TO STA. 21+75



Cut Area (SF): 47	Cut Vol. (CY): 82
Fill Area (SF): 205	Fill Vol. (CY): 103
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 130	Cut Vol. (CY): 115
Fill Area (SF): 18	Fill Vol. (CY): 19
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 119	Cut Vol. (CY): 100
Fill Area (SF): 22	Fill Vol. (CY): 18
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - SOUTHERN ROUNDABOUT
CROSS STREET - STA. 22+00 TO STA. 22+50

BUT-VETERANS BLVD-0.00

MODEL: SouthRoundabout - 22+00.00 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:37:21 PM USER: kellle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS003.dgn

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

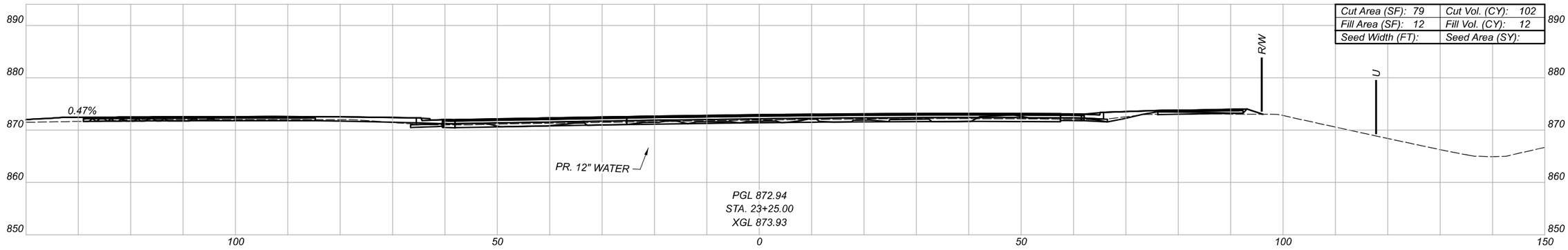
DESIGNER
VMG

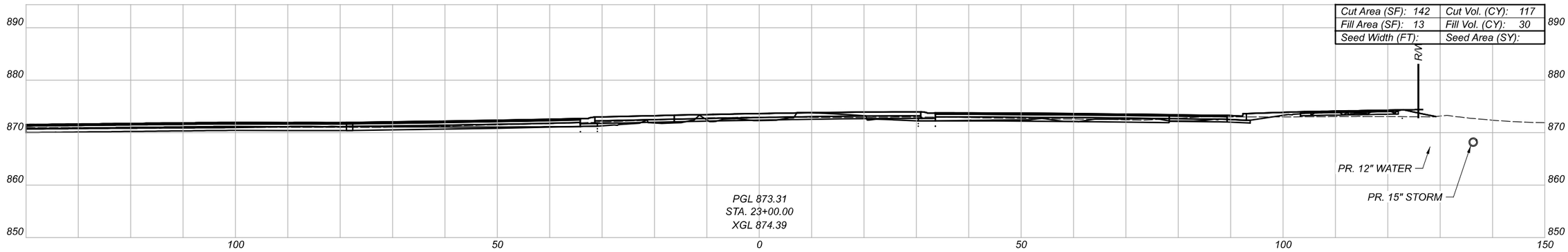
REVIEWER
KLL 02/09/22

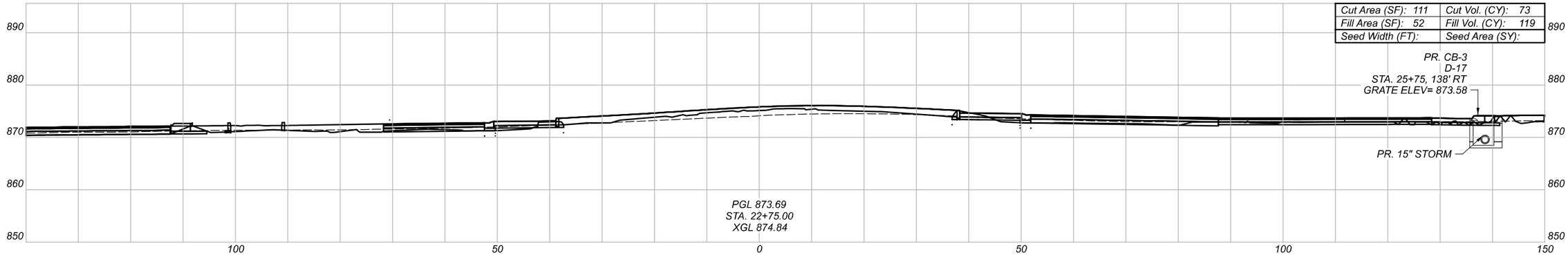
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	297	140

SHEET	TOTAL
P.77	147







BUT-VETERANS BLVD-0.00

MODEL: SouthRoundabout - 22+75.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:37:26 PM USER: kellle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS003.dgn

CROSS SECTIONS - SOUTHERN ROUNDABOUT
CROSS STREET - STA. 22+75 TO STA. 23+25

Sheet Totals		
Seeding	Cut	Fill
-	292	161

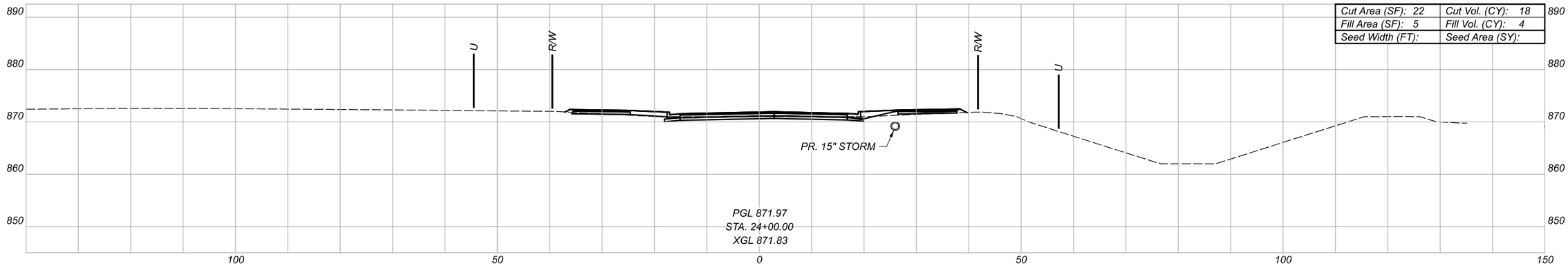
DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 South Tylers Blvd.
Mason, OH 45040

DESIGNER
VMG

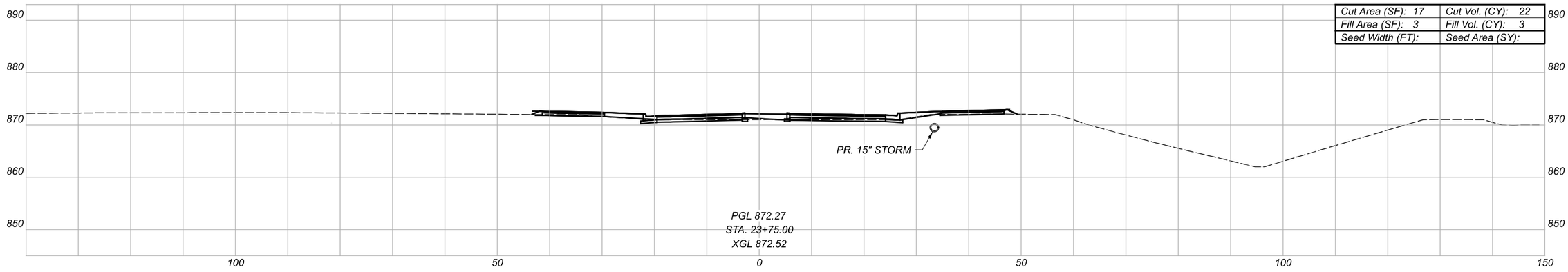
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

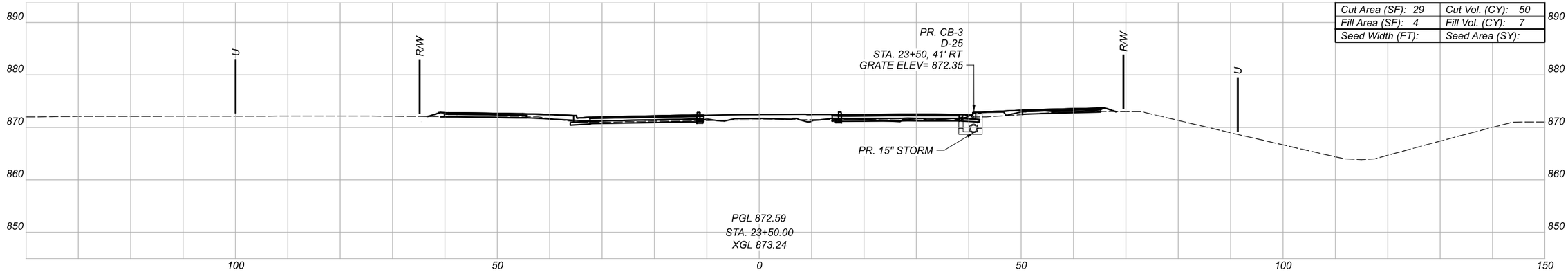
SHEET P.78 TOTAL 147



Cut Area (SF): 22	Cut Vol. (CY): 18
Fill Area (SF): 5	Fill Vol. (CY): 4
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 17	Cut Vol. (CY): 22
Fill Area (SF): 3	Fill Vol. (CY): 3
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 29	Cut Vol. (CY): 50
Fill Area (SF): 4	Fill Vol. (CY): 7
Seed Width (FT):	Seed Area (SY):

BUT-VETERANS BLVD-0.00

MODEL: SouthRoundabout - 23+50.00 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:37:31 PM USER: kelle
\\Olui4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS003.dgn

CROSS SECTIONS - SOUTHERN ROUNDABOUT
CROSS STREET - STA. 23+50 TO STA. 24+00

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

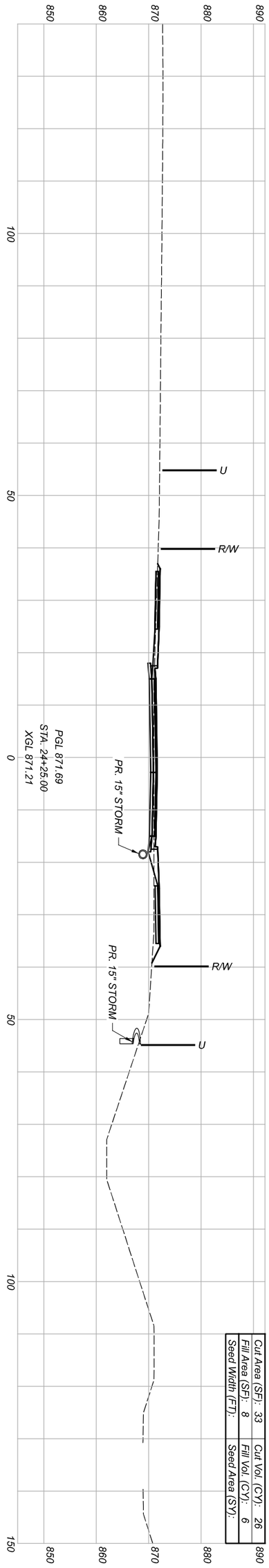
DESIGNER
VMG

REVIEWER
KLL 02/09/22

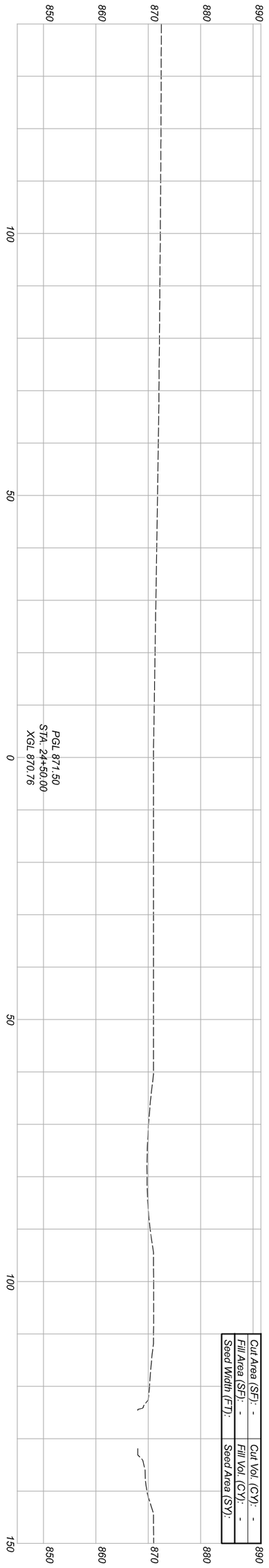
PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	90	14

SHEET P.79 TOTAL 147



Cut Area (SF):	33
Fill Area (SF):	8
Seed Width (FT):	
Cut Vol. (CY):	26
Fill Vol. (CY):	6
Seed Area (SY):	



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

Sheet Totals		
Seeding	Cut	Fill
-	26	6

SHEET	P 80
TOTAL	147

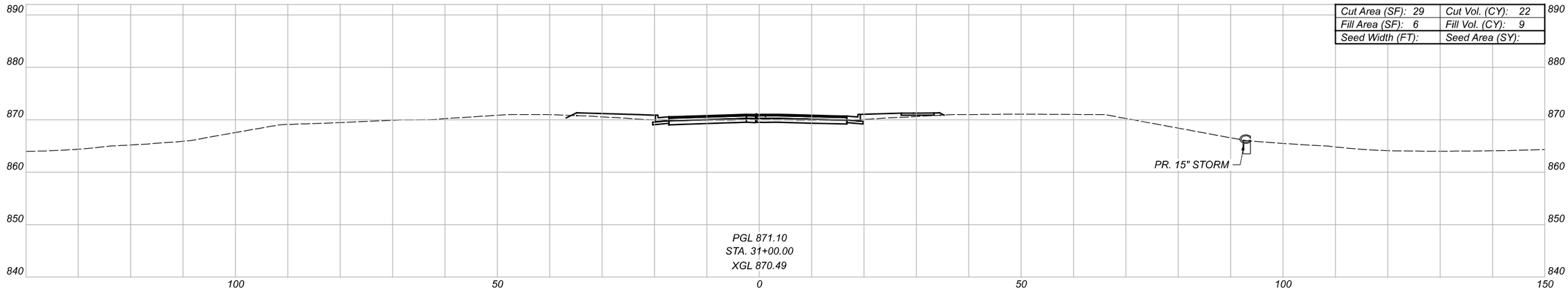
PROJECT ID
TEC PN: 21334

REVIEWER
KLL 02/09/22

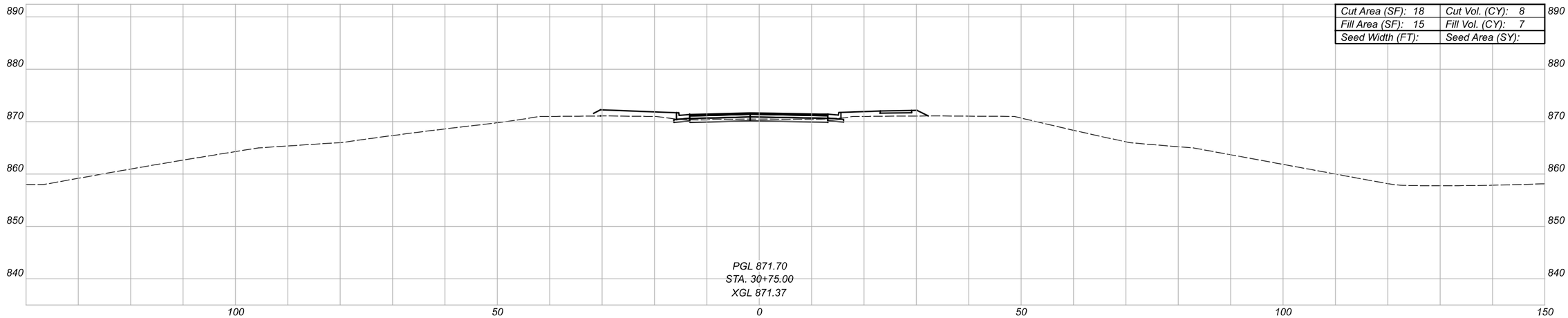
DESIGNER
VMG

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

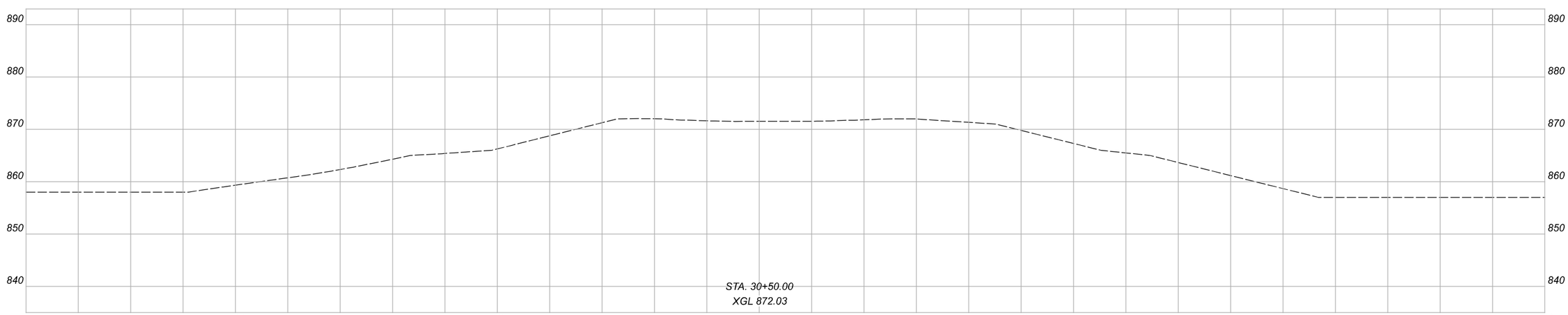
CROSS SECTIONS - SOUTHERN ROUNDABOUT
CROSS STREET - STA. 24+25 TO END



Cut Area (SF): 29	Cut Vol. (CY): 22
Fill Area (SF): 6	Fill Vol. (CY): 9
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 18	Cut Vol. (CY): 8
Fill Area (SF): 15	Fill Vol. (CY): 7
Seed Width (FT):	Seed Area (SY):



CROSS SECTIONS - NORTHERN ROUNDABOUT
CROSS STREET - STA. 30+50 TO STA. 31+00

BUT-VETERANS BLVD-0.00

MODEL: CLP_Drivel - 30+50.00 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:37:42 PM USER: kellle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS002.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

DESIGNER
VMG

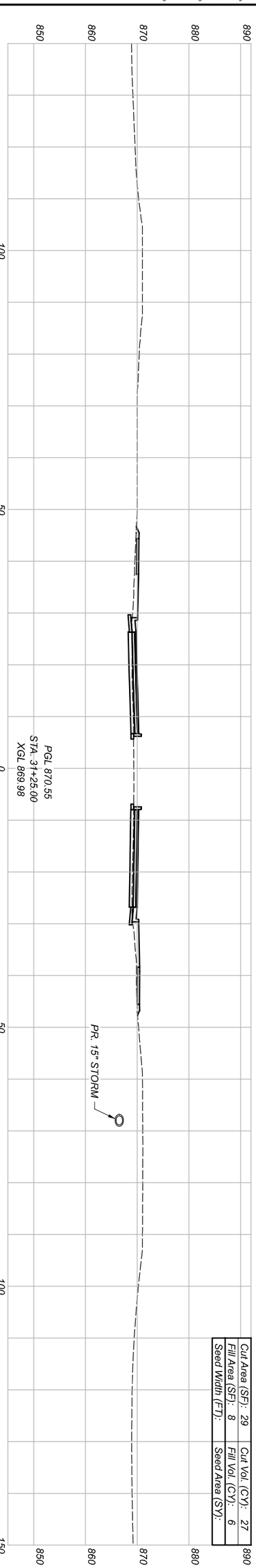
REVIEWER
KLL 02/09/22

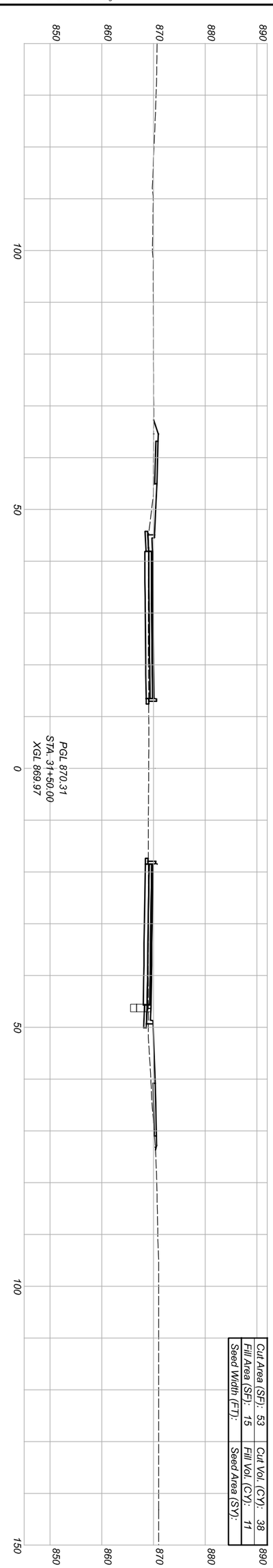
PROJECT ID
TEC PN: 21334

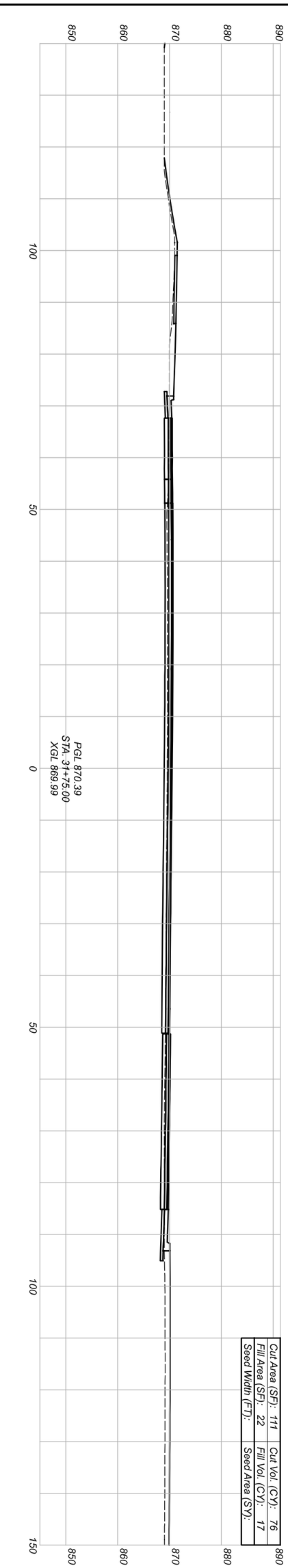
Sheet Totals		
Seeding	Cut	Fill
-	30	16

SHEET P.81 TOTAL 147

MODEL: CLP_Drivel - 31+25.00 [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:37:46 PM USER: kellle
\\10.11.4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_XS002.dgn







Sheet Totals		
Seeding	Cut	Fill
-	141	34

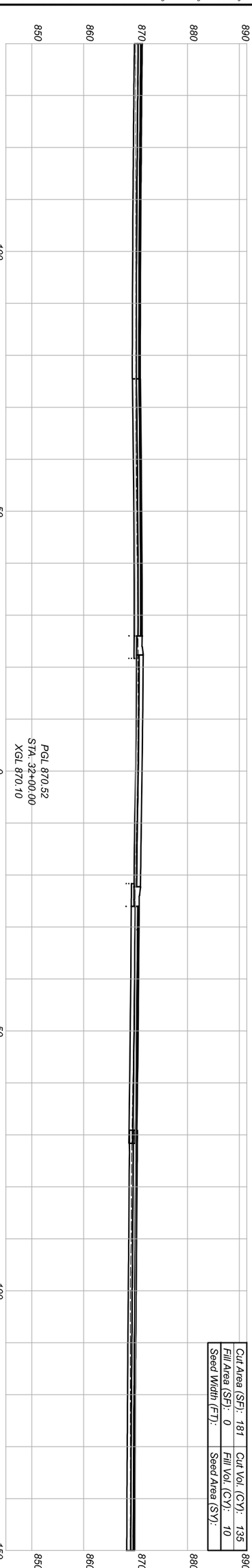
SHEET	P 82
TOTAL	147

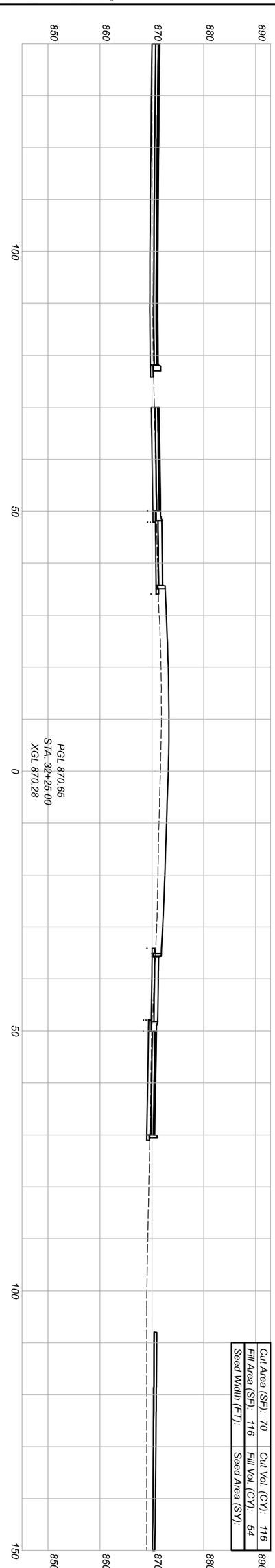
PROJECT ID	TEC PN: 21334
REVIEWER	KLL 02/09/22
DESIGNER	VMG

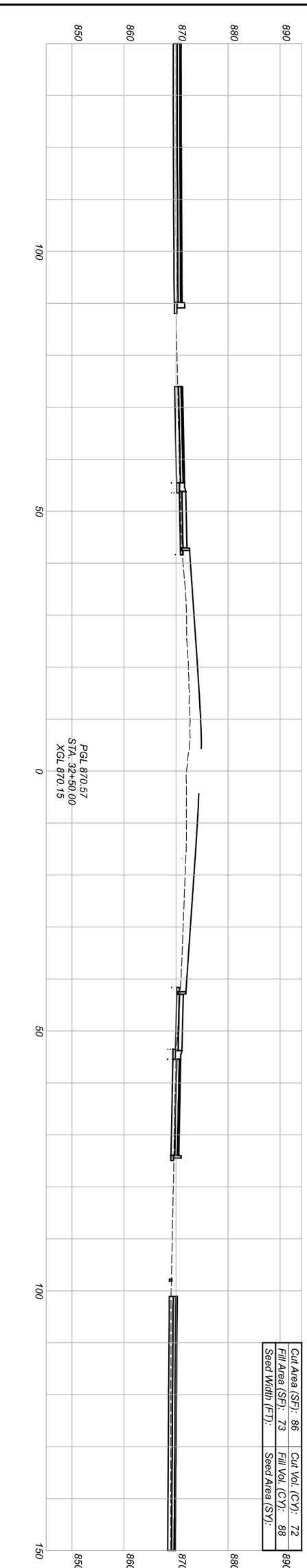
DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

CROSS SECTIONS - NORTHERN ROUNDABOUT
CROSS STREET - STA. 31+25 TO STA. 31+75

MODEL: CLP_Drivel - 32+00.00 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:37:51PM USER: kellle
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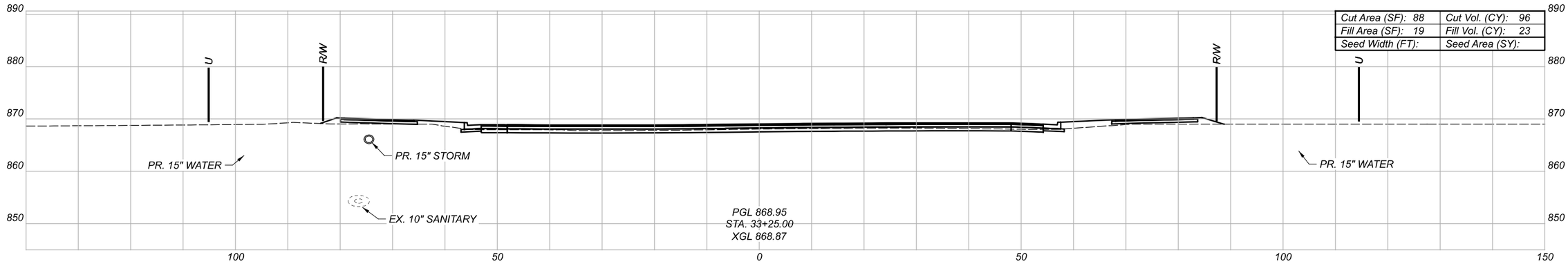
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SHEET	P 83
TOTAL	147
PROJECT ID	TEC PN: 21334
REVIEWER	KLL 02/09/22
DESIGNER	VMG

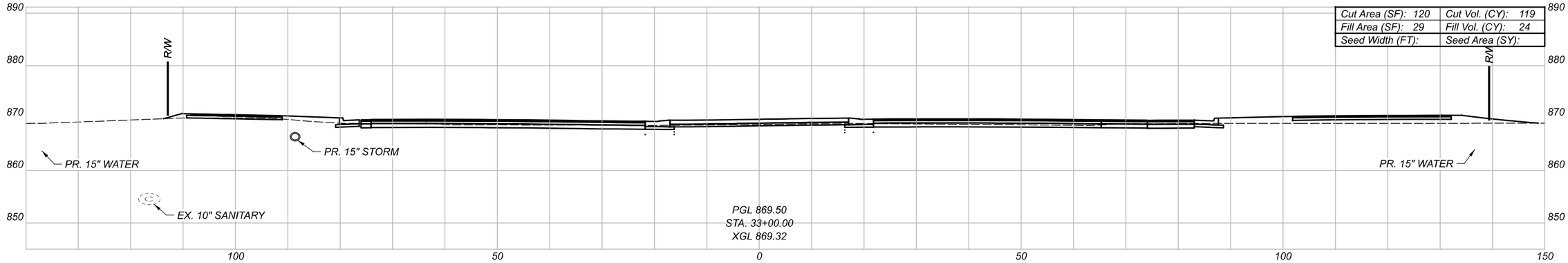
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGN AGENCY

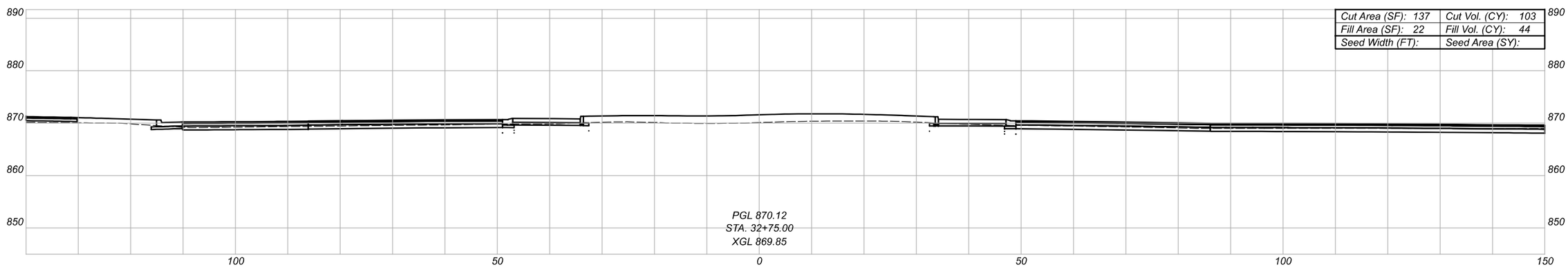
CROSS SECTIONS - NORTHERN ROUNDABOUT
CROSS STREET - STA. 32+00 TO STA. 32+50



Cut Area (SF): 88	Cut Vol. (CY): 96
Fill Area (SF): 19	Fill Vol. (CY): 23
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 120	Cut Vol. (CY): 119
Fill Area (SF): 29	Fill Vol. (CY): 24
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 137	Cut Vol. (CY): 103
Fill Area (SF): 22	Fill Vol. (CY): 44
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - NORTHERN ROUNDABOUT
CROSS STREET - STA. 32+75 TO STA. 33+25

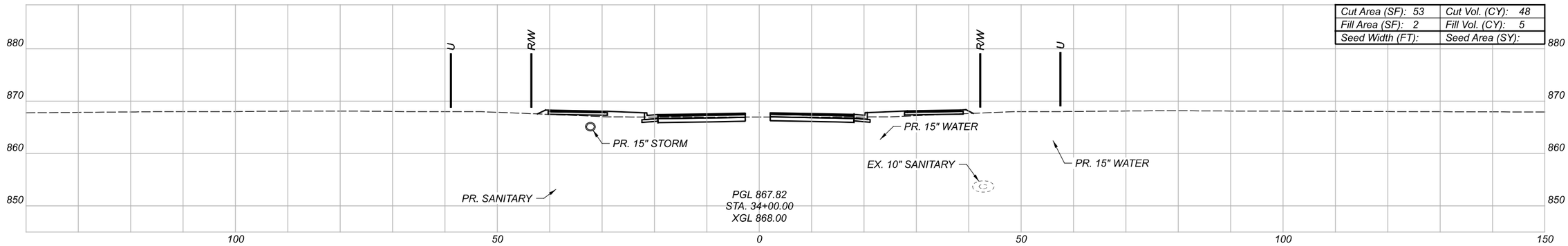
Sheet Totals		
Seeding	Cut	Fill
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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Engle Road, Fifth Floor
Middleburg Heights, OH 44130

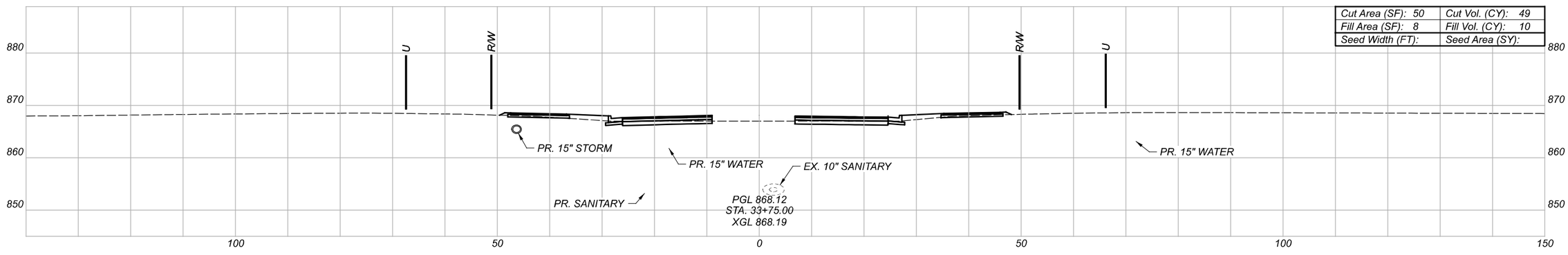
DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.84 TOTAL: 147

BUT-VETERANS BLVD-0.00

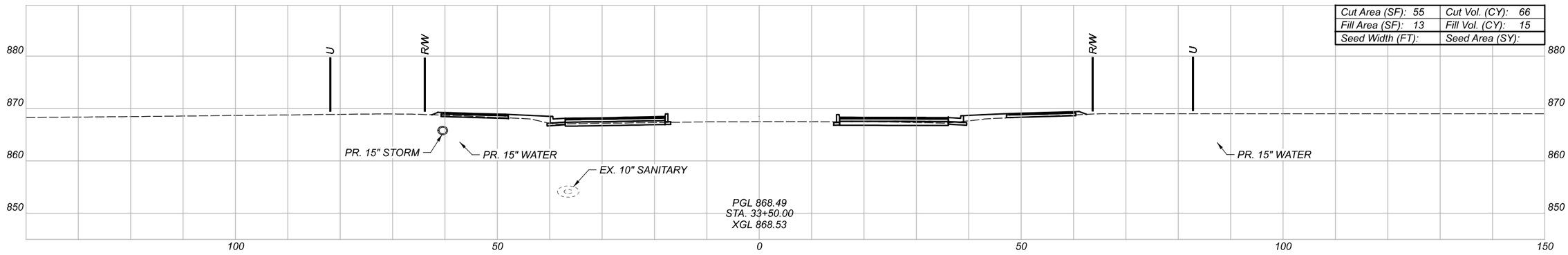
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Cut Area (SF): 53	Cut Vol. (CY): 48
Fill Area (SF): 2	Fill Vol. (CY): 5
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 50	Cut Vol. (CY): 49
Fill Area (SF): 8	Fill Vol. (CY): 10
Seed Width (FT):	Seed Area (SY):



Cut Area (SF): 55	Cut Vol. (CY): 66
Fill Area (SF): 13	Fill Vol. (CY): 15
Seed Width (FT):	Seed Area (SY):

CROSS SECTIONS - NORTHERN ROUNDABOUT
CROSS STREET - STA. 33+50 TO STA. 34+00

BUT-VETERANS BLVD-0.00

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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Road, Suite 400
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

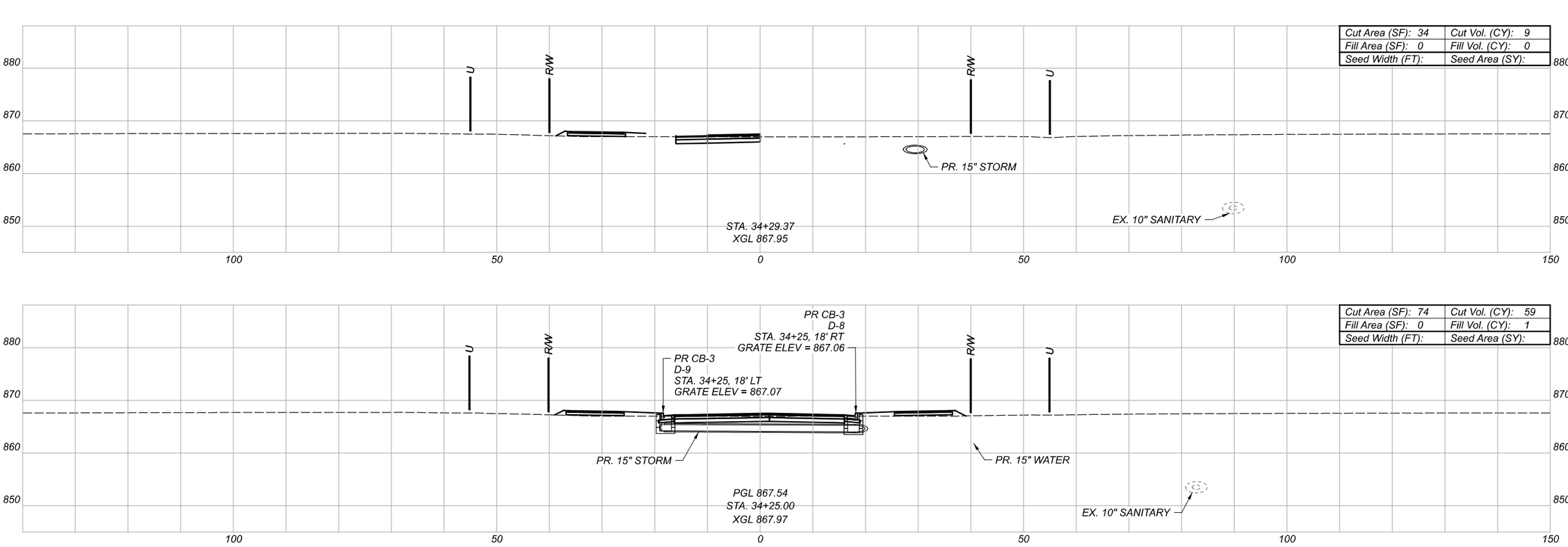
PROJECT ID
TEC PN: 21334

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SHEET P.85 TOTAL 147

BUT-VETERANS BLVD-0.00

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CROSS SECTIONS - NORTHERN ROUNDABOUT
CROSS STREET - STA. 34+25 TO END

DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 North Clare Blvd.
Mason, OH 45040

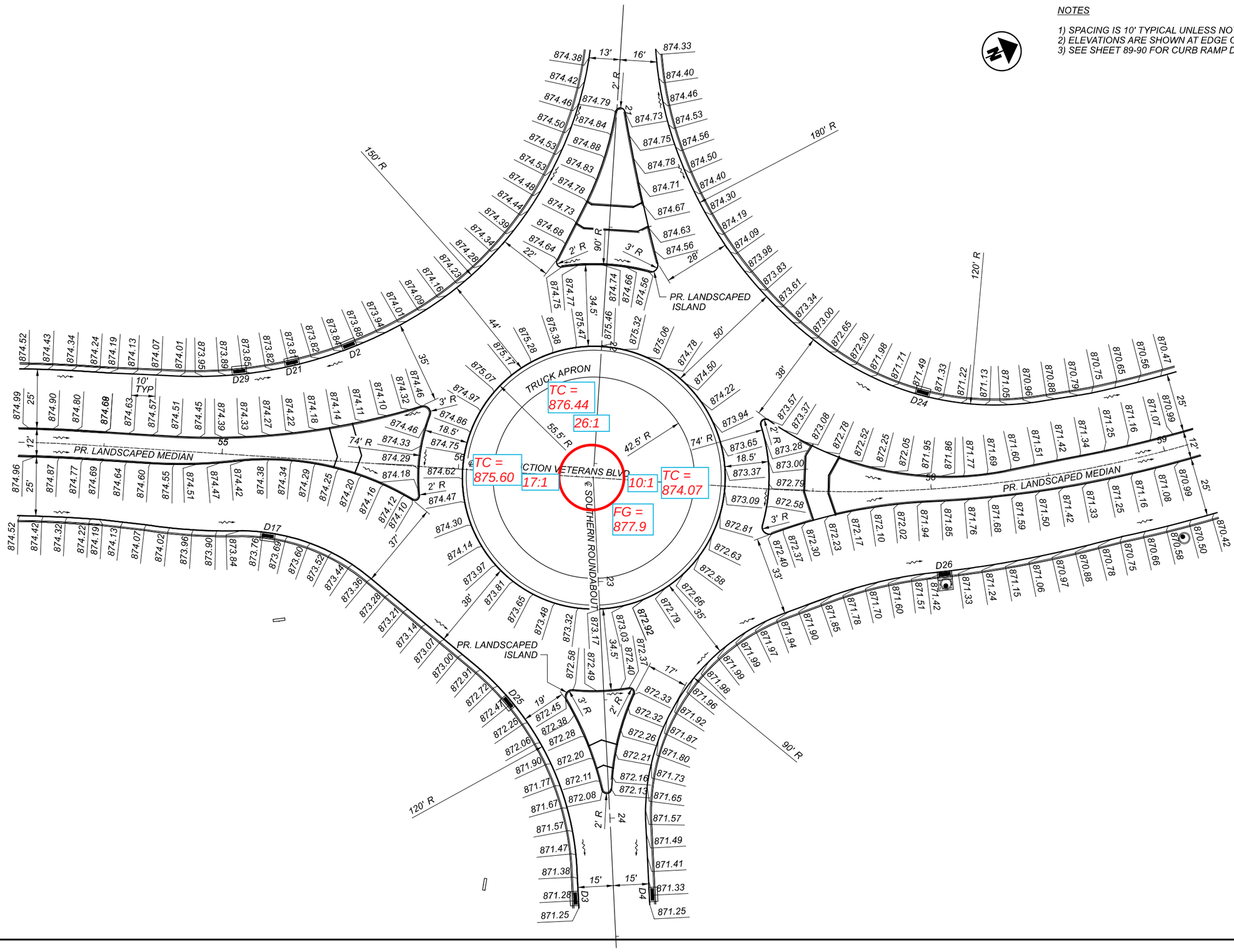
DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

Sheet Totals		
Seeding	Cut	Fill
-	68	1

SHEET	TOTAL
P.86	147



INTERSECTION DETAILS
SOUTHERN ROUNDABOUT

BUT-VETERANS BLVD-0.00

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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Snider Road, Suite 200
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.87 | TOTAL 147

NOTES

1) SPACING IS 10' TYPICAL UNLESS NOTED
2) ELEVATIONS ARE SHOWN AT EDGE OF PAVEMENT
3) SEE SHEET 91-92 FOR CURB RAMP DETAILS

HORIZONTAL SCALE IN FEET
0 10 20 40

INTERSECTION DETAILS
NORTHERN ROUNDABOUT

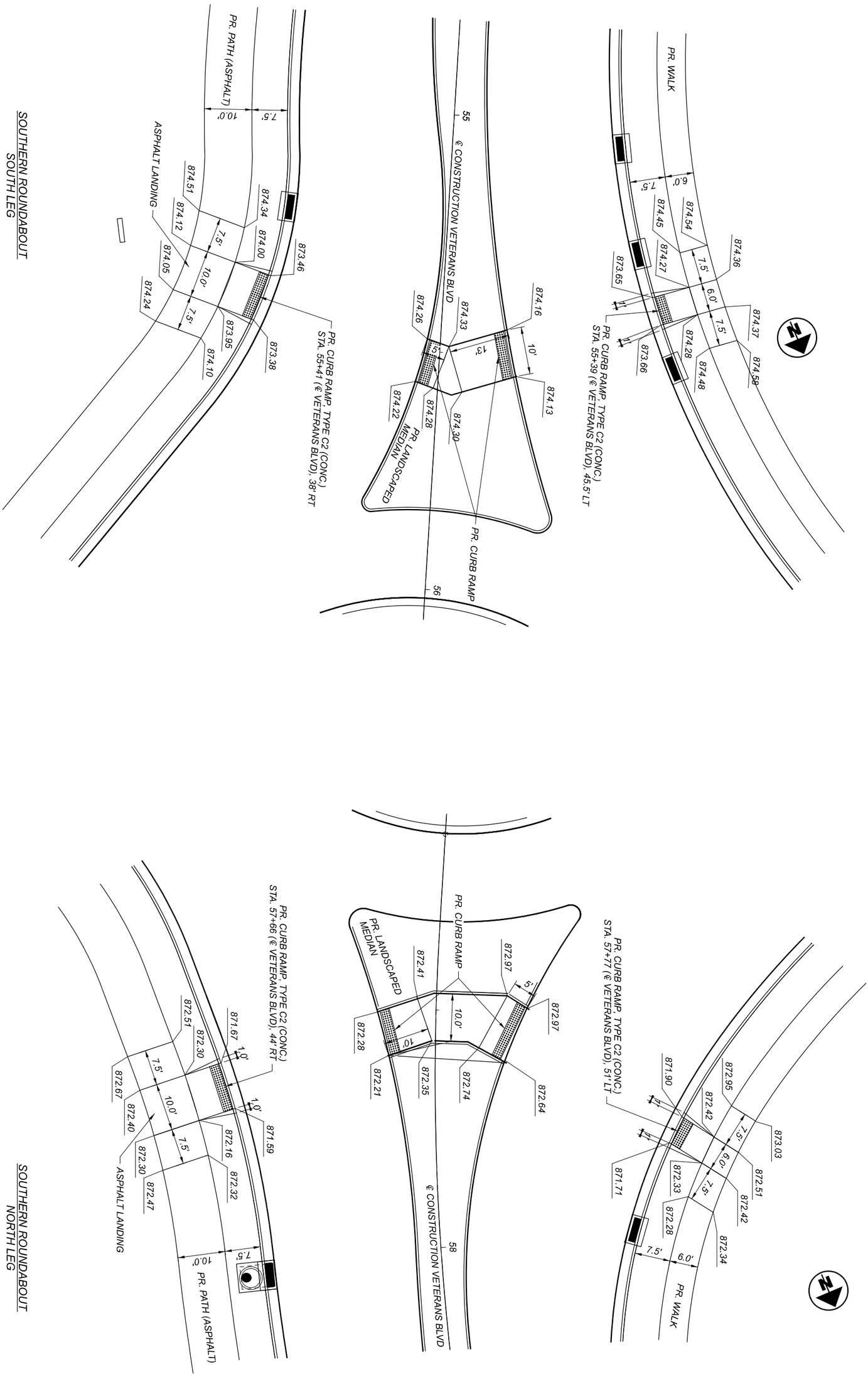
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DESIGN AGENCY
TEC Engineering.inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.88 TOTAL 147

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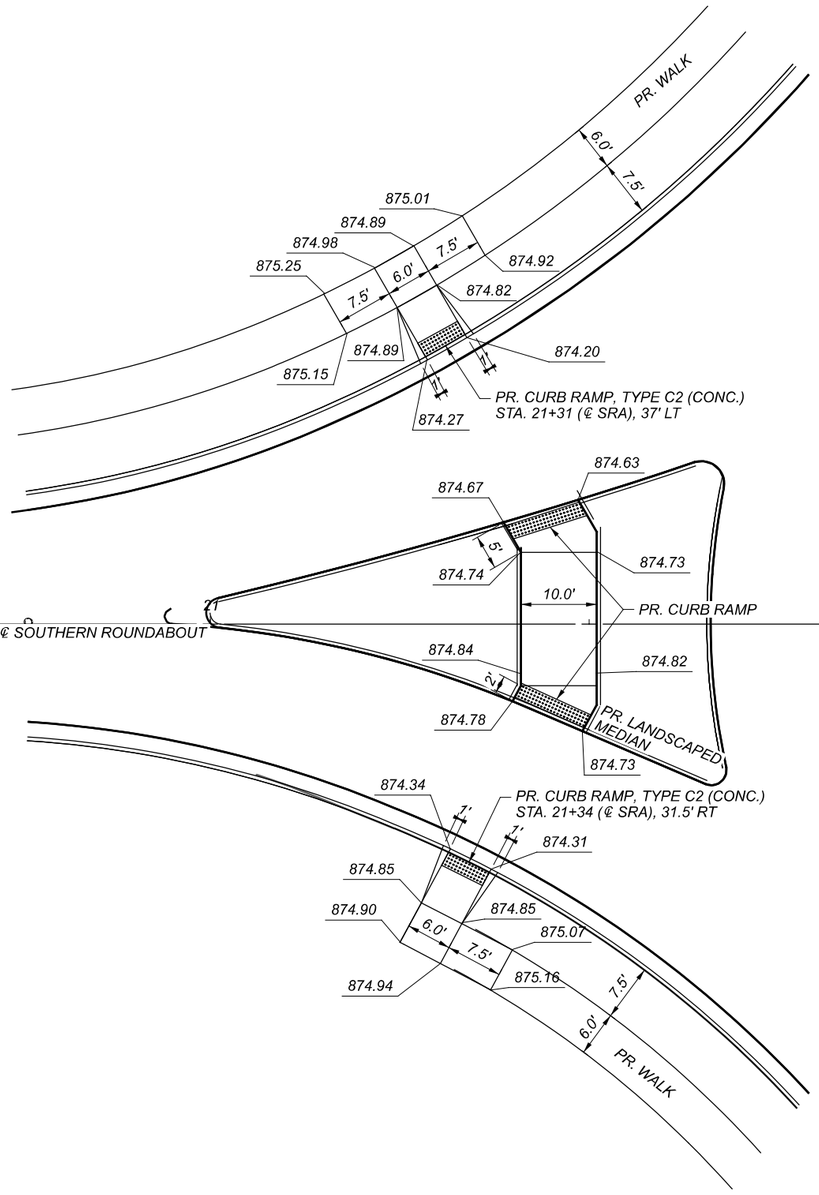
DESIGNER KAM	REVIEWER KLL 02/09/22	PROJECT ID TEC PN: 21334	SHEET P 89	TOTAL 147

TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

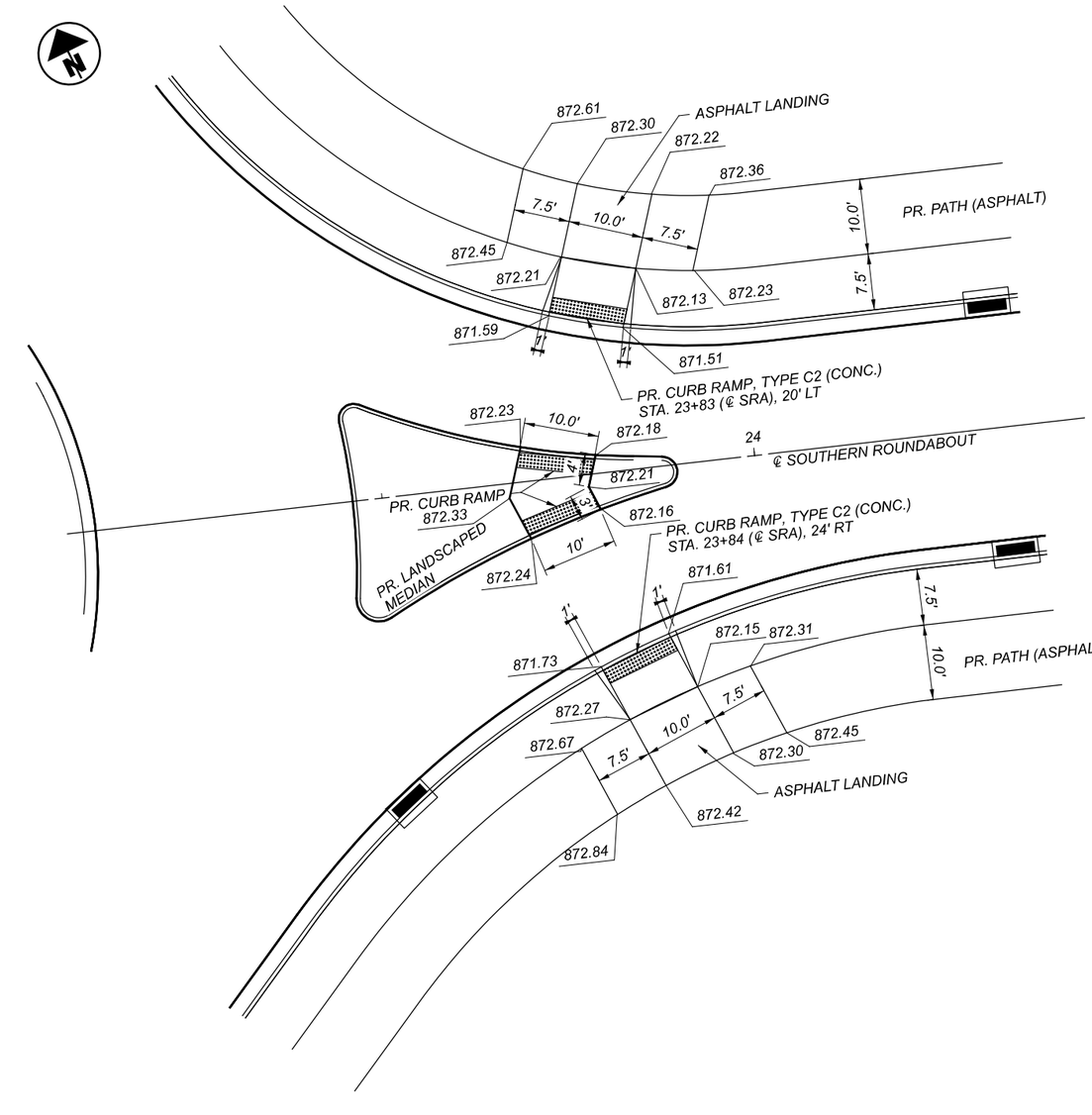
DESIGN AGENCY

CURB RAMP DETAILS
SOUTHERN ROUNDABOUT SOUTH/NORTH LEGS

HORIZONTAL SCALE IN FEET
0 10
5 20



SOUTHERN ROUNDABOUT
WEST LEG



SOUTHERN ROUNDABOUT
EAST LEG

HORIZONTAL SCALE IN FEET
0 5 10 20

CURB RAMP DETAILS
SOUTHERN ROUNDABOUT WEST/EAST LEGS

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Engle Road, Fifth Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

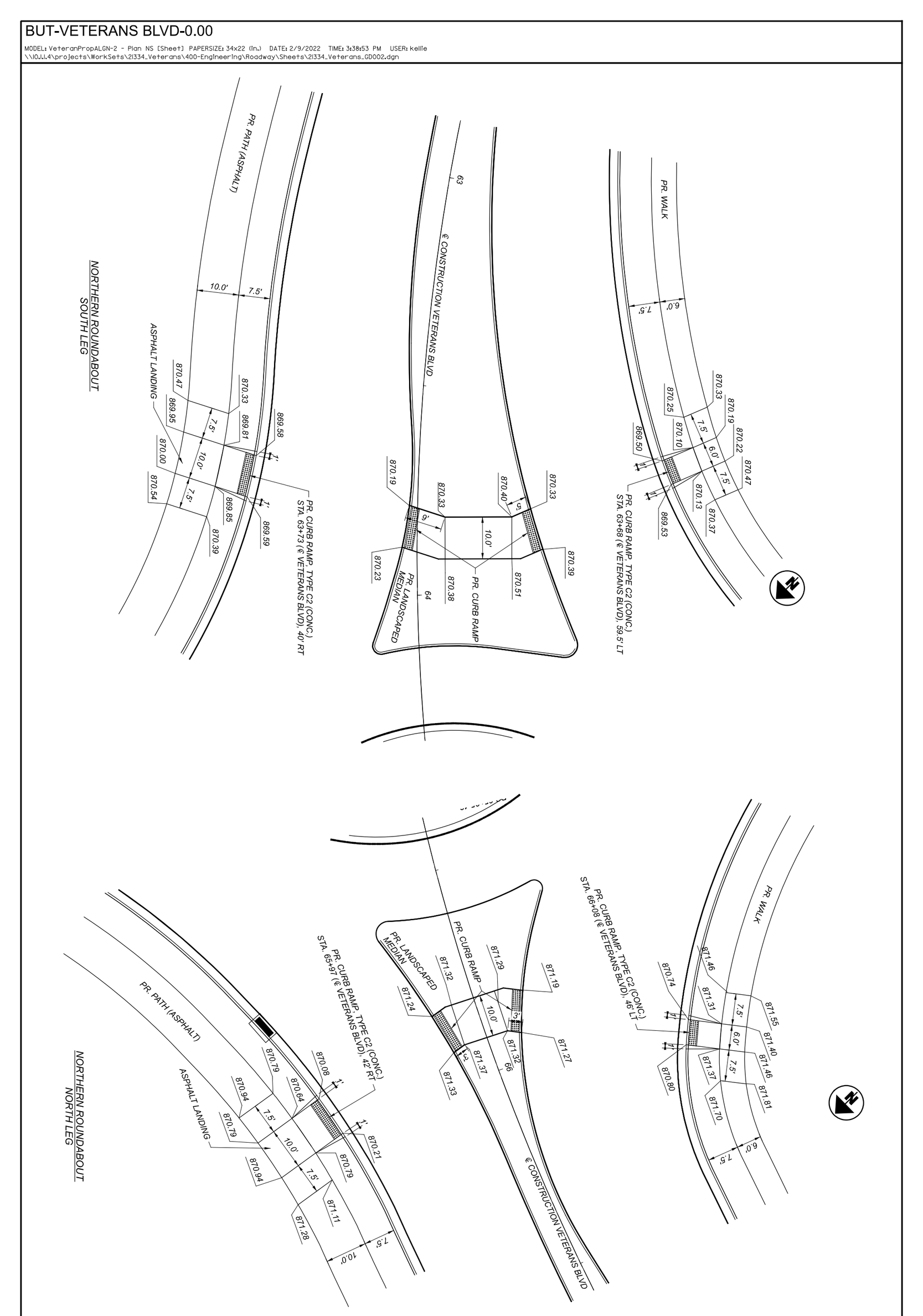
PROJECT ID
TEC PN: 21334

SHEET P.90 TOTAL 147

BUT-VETERANS BLVD-0.00

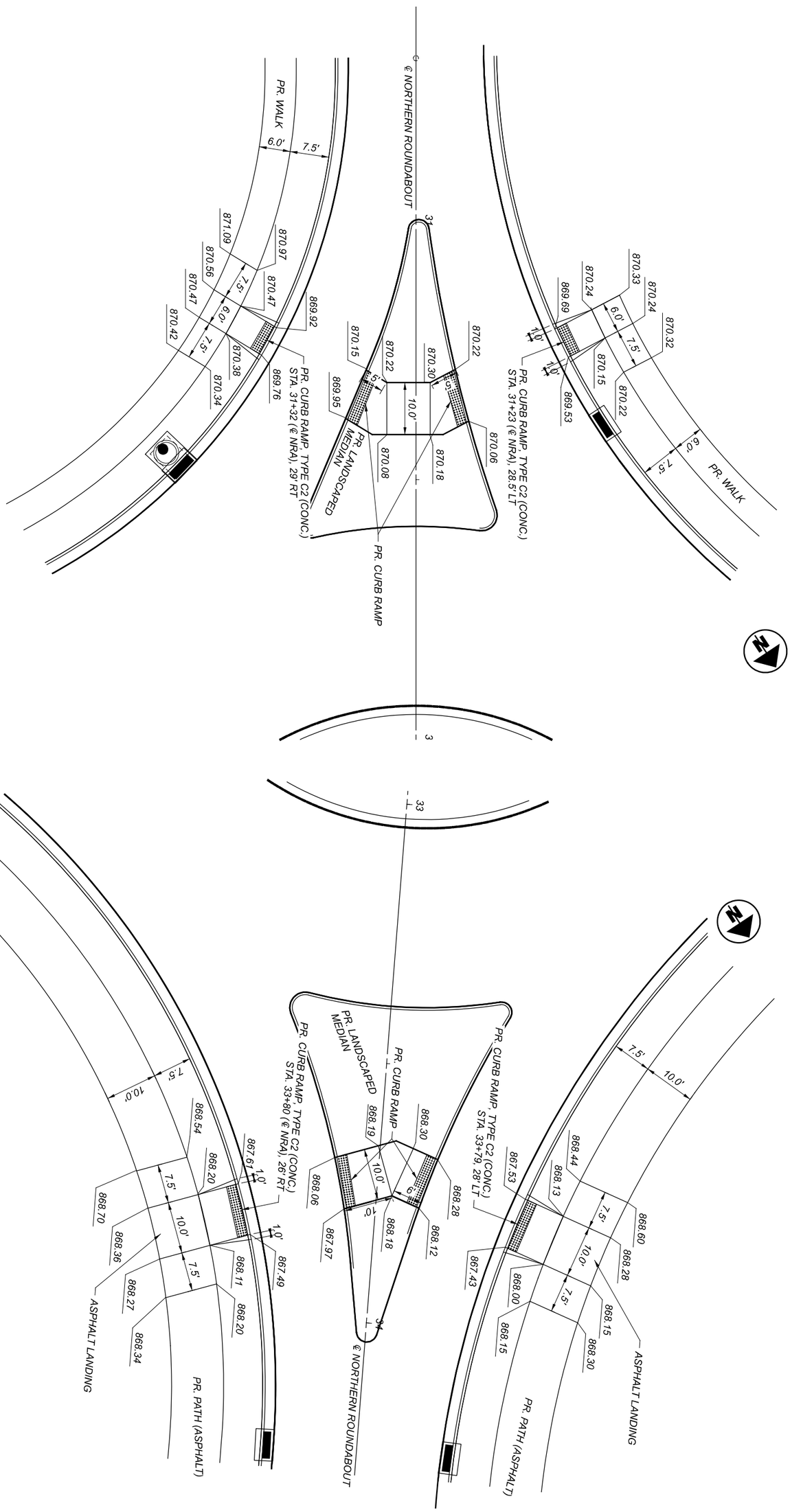
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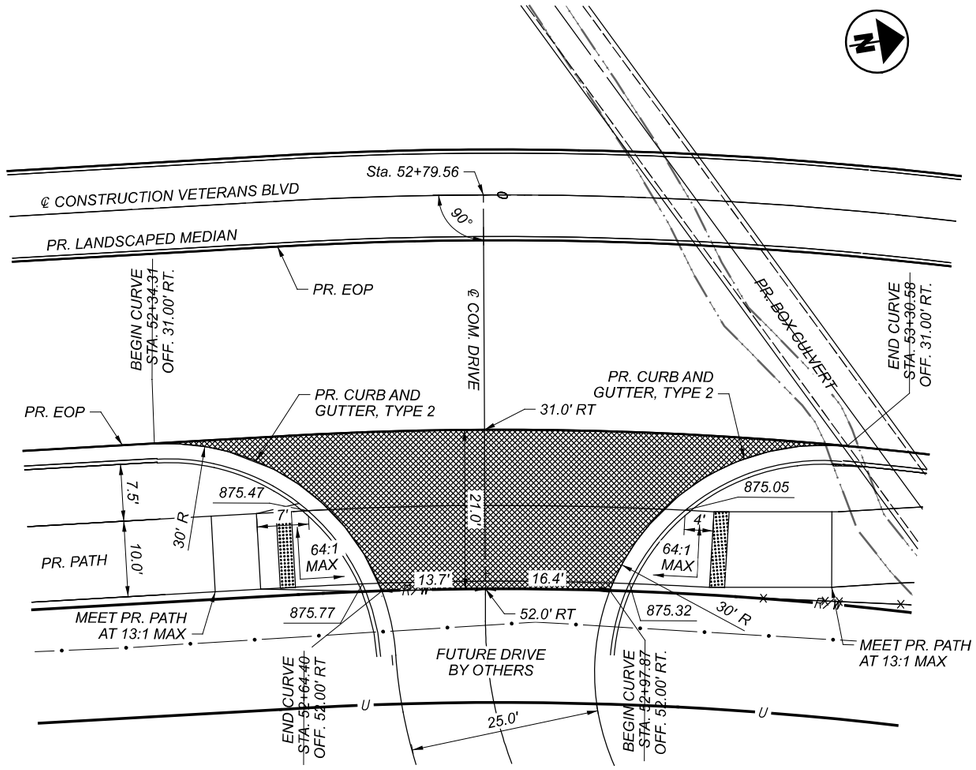


SHEET P 91 / TOTAL 147	DESIGNER KAM	TEC Engineering, Inc.	DESIGN AGENCY	CURB RAMP DETAILS NORTHERN ROUNDABOUT SOUTH/NORTH LEGS
PROJECT ID TEC PN: 21334	REVIEWER KLL 02/09/22	PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040		HORIZONTAL SCALE IN FEET 0 10 5 20

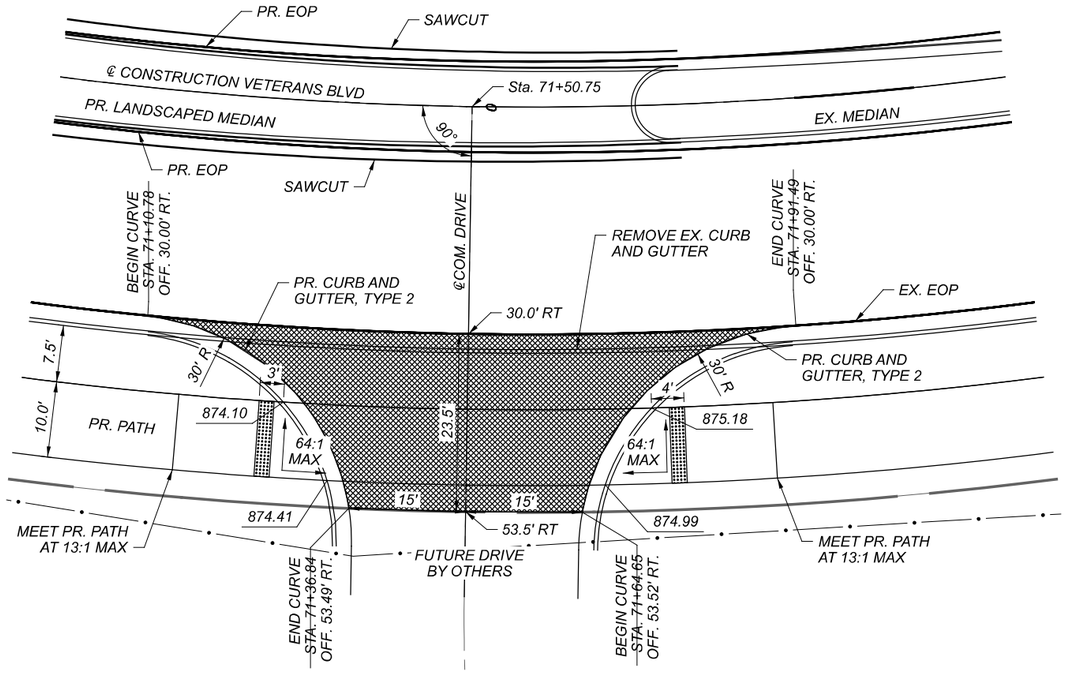
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DESIGNER: KAM	TEC Engineering, Inc.	DESIGN AGENCY	CURB RAMP DETAILS NORTHERN ROUNDABOUT WEST/EAST LEGS
REVIEWER: KLL 02/09/22	PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040		HORIZONTAL SCALE IN FEET 0 10 5 20
PROJECT ID: TEC PN: 21334			
SHEET: P.92 | TOTAL: 147			



COMMERCIAL DRIVE
52+79.56 RT



COMMERCIAL DRIVE
71+50.75 RT

ASPHALT DRIVEWAY

Item 441: 1 ¼" Asphalt Concrete Surface Course, Type 1 (448), PG64-22
Item 441: 1 ¾" Asphalt Concrete Intermediate Course, Type 2 (448), PG64-22
Item 301: 6" Asphalt Concrete Base
Item 304: 6" Aggregate Base

HORIZONTAL
SCALE IN FEET
0 5 10 20

DRIVE DETAILS
VETERANS BLVD

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Central Park Blvd.
Mason, OH 45040

DESIGNER
VMG

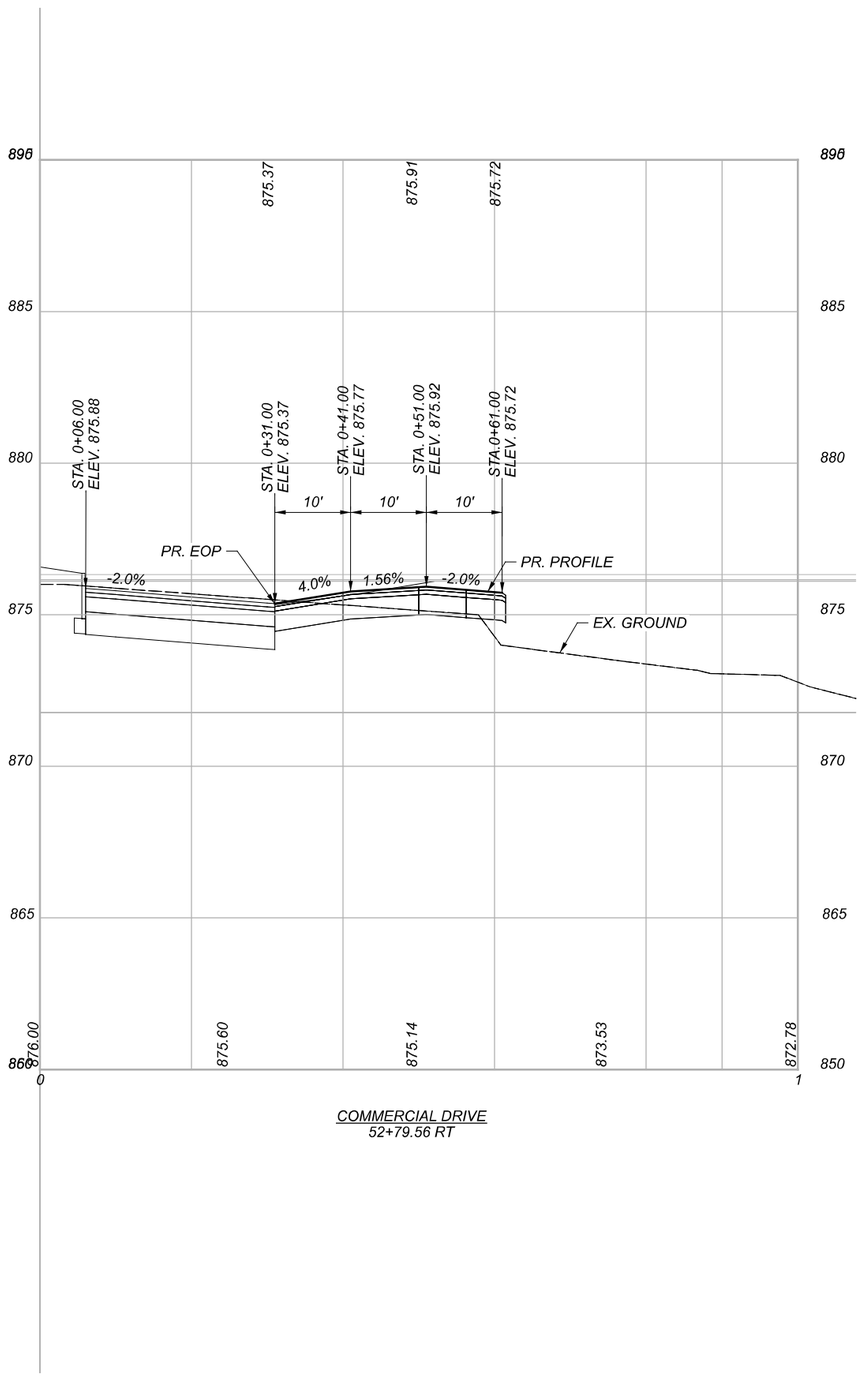
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

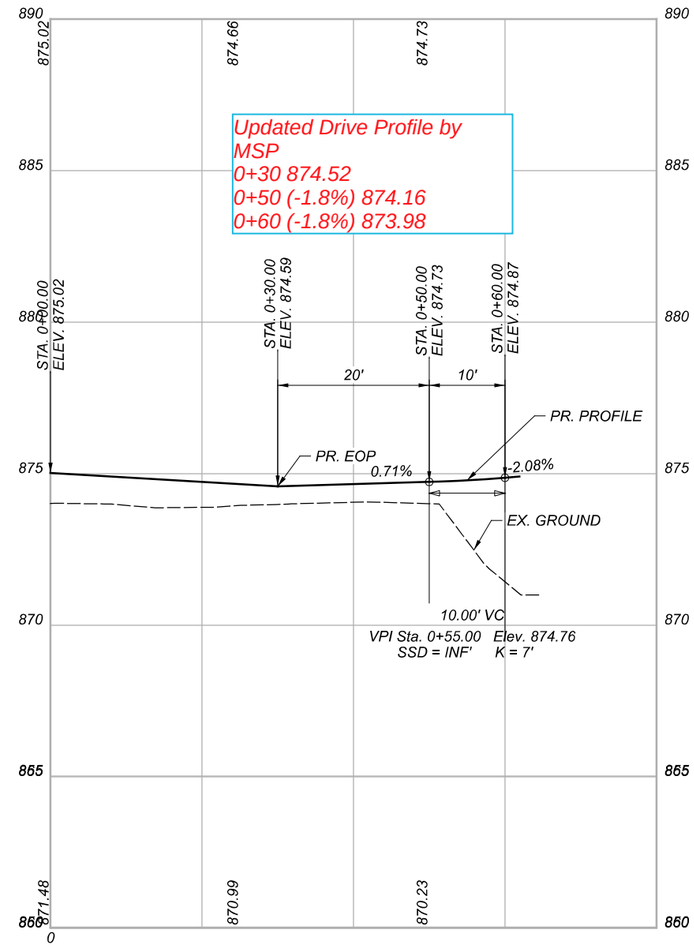
SHEET P.93 TOTAL 147

BUT-VETERANS BLVD-0.00

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COMMERCIAL DRIVE
52+79.56 RT



COMMERCIAL DRIVE
71+50.75 RT

DRIVEWAY PROFILES

BUT-VETERANS BLVD-0.00

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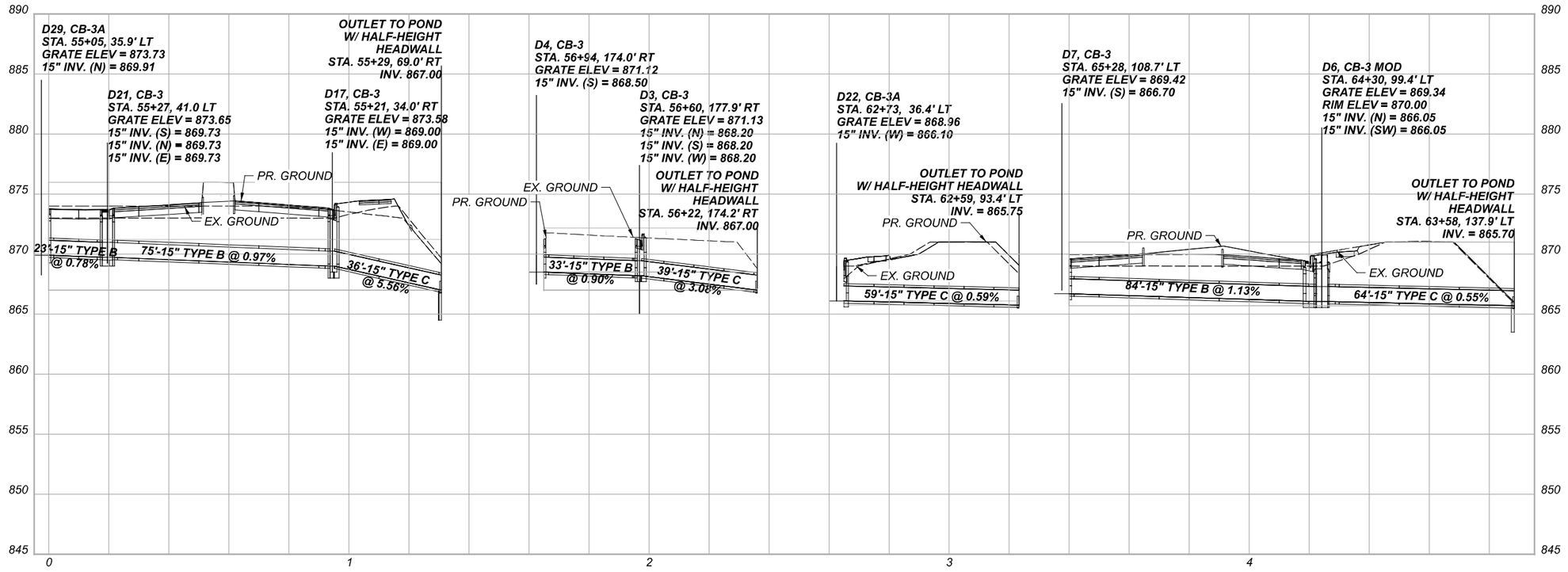
DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Central Parke Blvd.
Mason, OH 45040

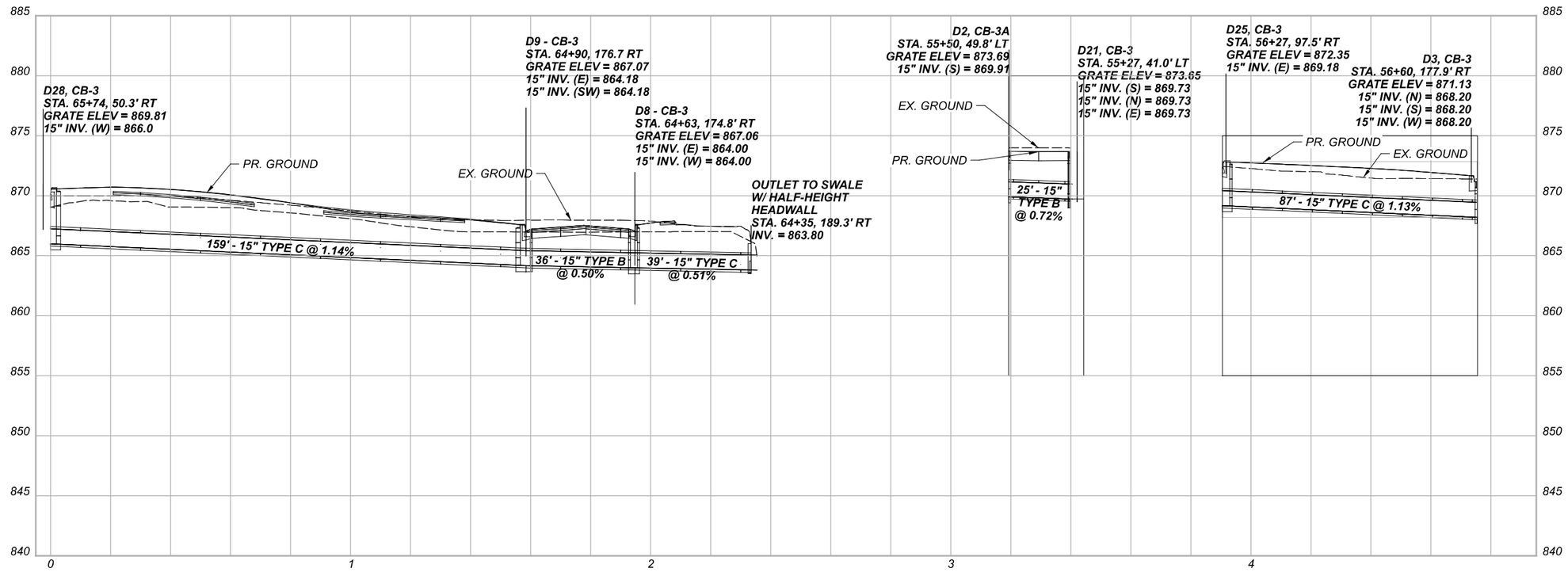
DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.94 TOTAL 147





STORM SEWER
PROFILES

BUT-VETERANS BLVD-0.00

MODEL: SSIA SSIB SS6 SS6 PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:39:22 PM USER: kelle
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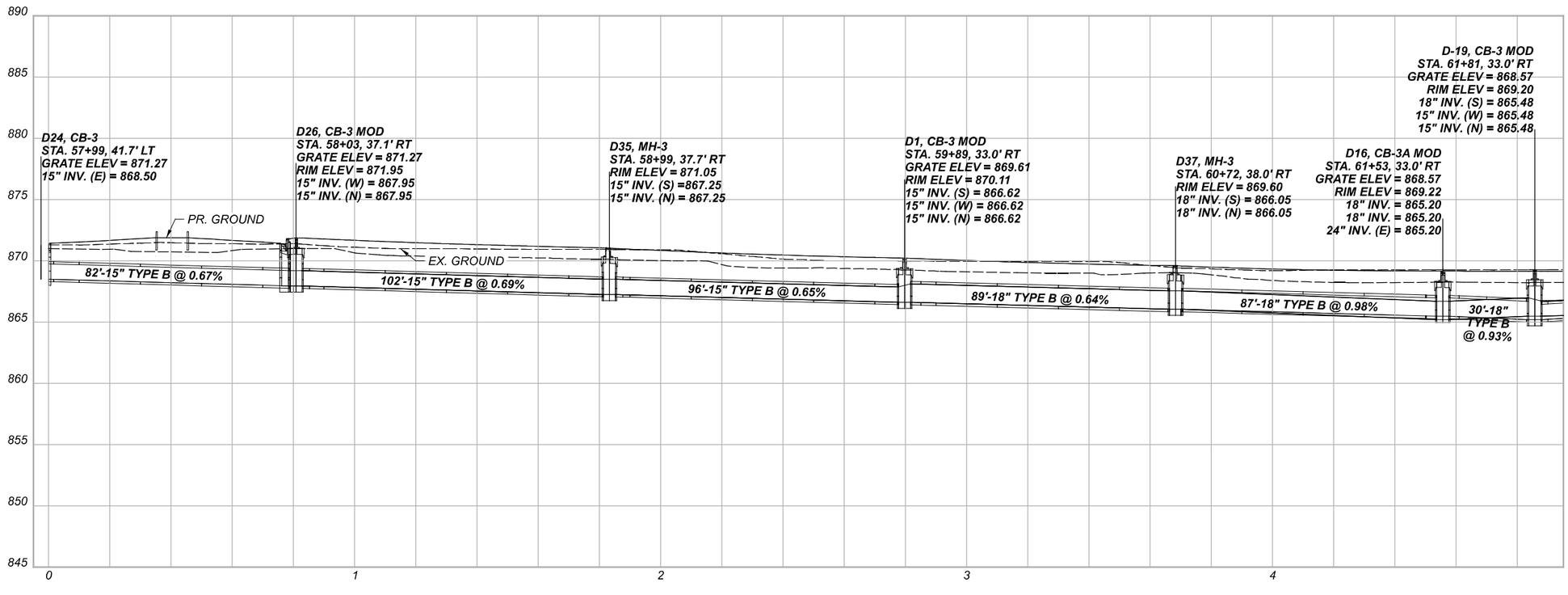
DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Engineer Way, Blvd.
Mason, OH 45040

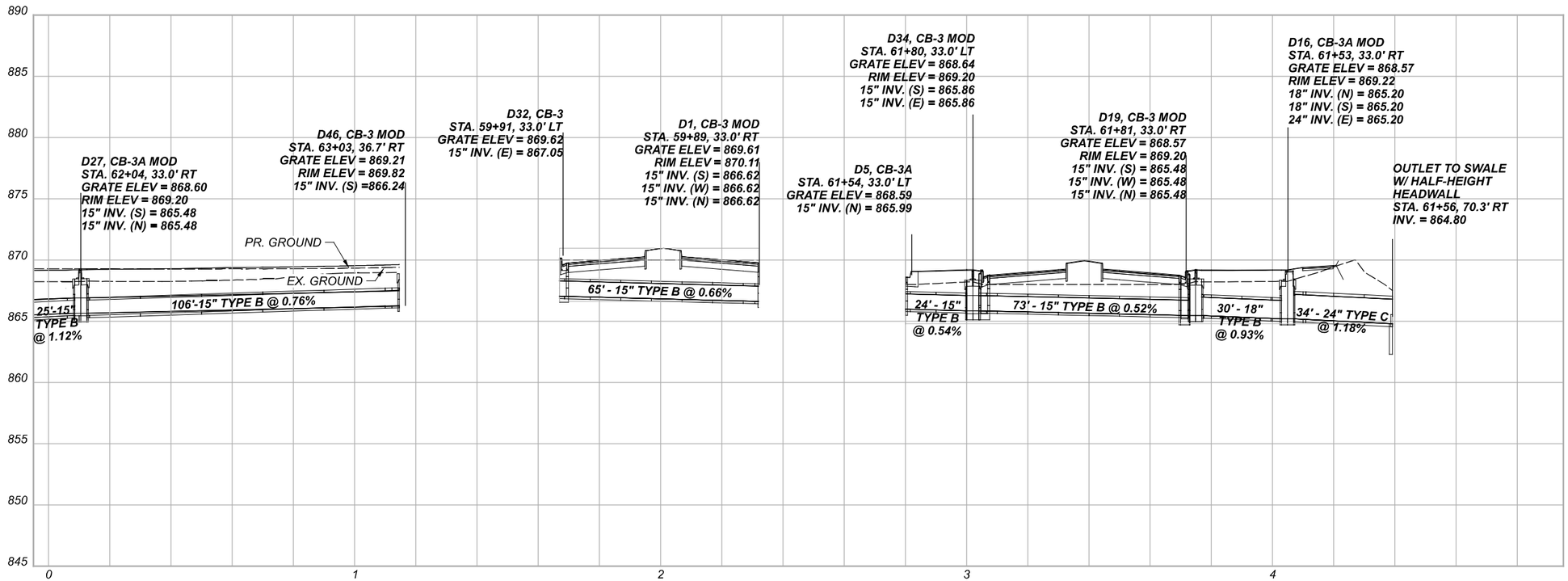
DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.95 TOTAL 147





STORM SEWER PROFILES

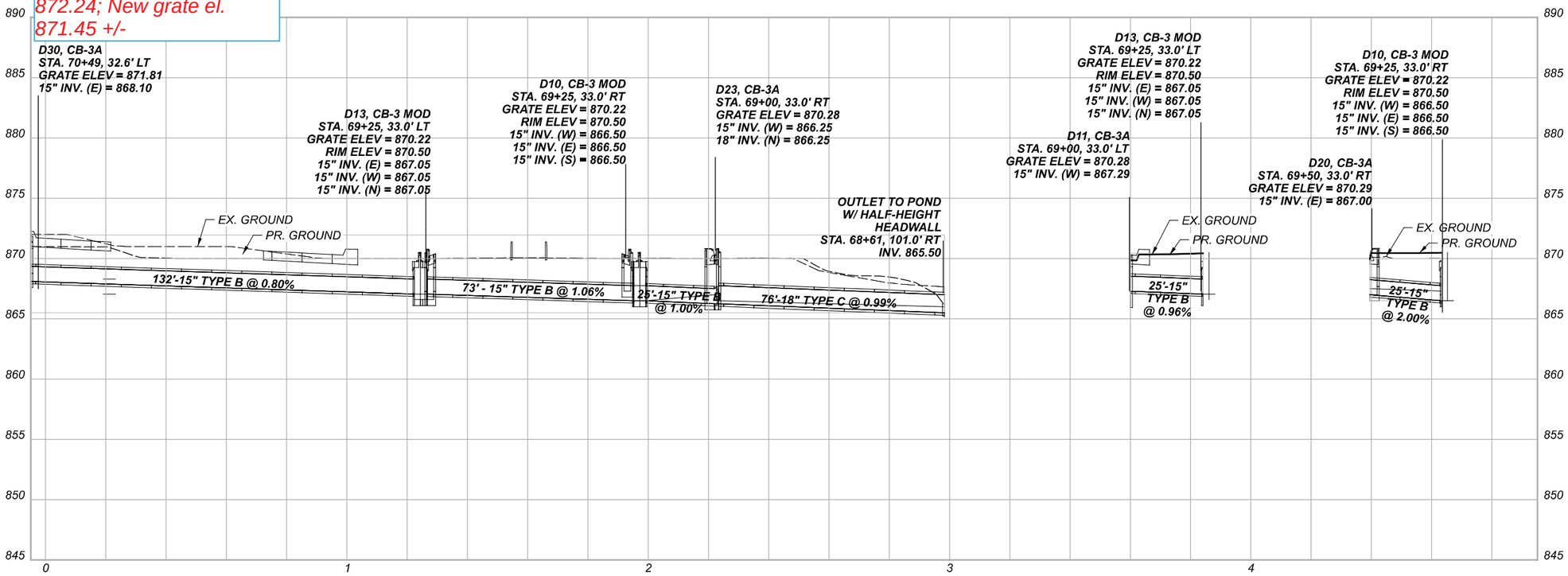
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DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Corporate Park Blvd.
Mason, OH 45040

DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.96 TOTAL: 147

If Profile adjusted to 872.24; New grade el. 871.45 +/-



STORM SEWER PROFILES

BUT-VETERANS BLVD-0.00

MODEL: SS3 PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:39:29 PM USER: kelle
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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Engle Road, Suite 400
Mason, OH 45040

DESIGNER
VMG

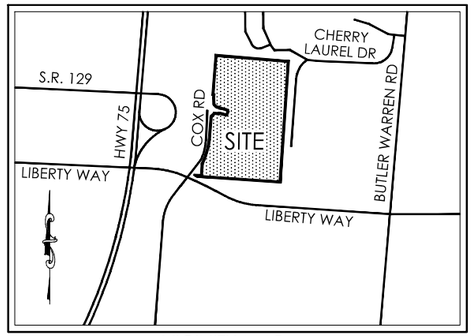
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.97 TOTAL 147

VETERANS BOULEVARD
WATER MAIN AND SANITARY SEWER IMPROVEMENTS

SECTION 7, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, OH



VICINITY MAP
N.T.S.

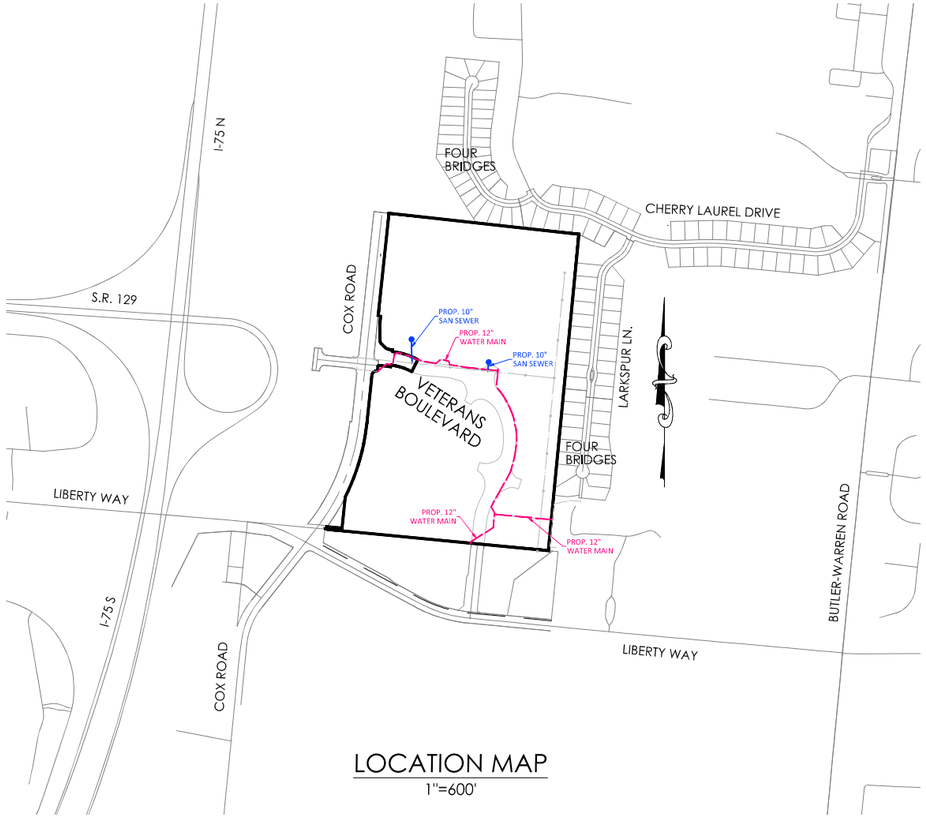
OWNER/APPLICANT
HEN-JUR, LLC
11148 WOODWARD LANE
CINCINNATI, OHIO 45241
CONTACT: DOUG JAMES
PHONE: 513-326-6780

INDEX

SHEET	DESCRIPTION
1	COVER SHEET
2-3	WATER MAIN & SANITARY SEWER IMPROVEMENT PLAN & PROFILES
4	BUTLER COUNTY WATER & SEWER DETAILS

NOTES

1. ITEM NUMBERS REFER TO THE OHIO DEPARTMENT OF HIGHWAYS CONSTRUCTION AND MATERIAL SPECIFICATIONS, AND ALL CONSTRUCTION WORK SHALL BE DONE ACCORDING TO SAID SPECIFICATIONS OR BUTLER COUNTY REQUIREMENTS AND STANDARDS FOR SUBDIVISIONS. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.
2. ITEMS THAT PERTAIN TO UNDERGROUND UTILITIES SUCH AS WATERMAIN PIPE, SANITARY SEWER PIPE, WATER VALVES AND MANHOLE FRAMES AND COVERS, ETC, WILL REMAIN UNDER SPECIFICATIONS OF THE UTILITY SERVING THE AREA. STORM SEWERS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF THE BUTLER COUNTY ENGINEER.
3. THE SANITARY SEWER SHALL BE PLACED IN SUCH A MANNER THAT THE SANITARY MANHOLE COVER DOES NOT CONFLICT WITH THE SIDEWALK.



LOCATION MAP
1"=600'

NO DRIVEWAY MAY BE PLACED OVER WATER SERVICE.
NO DRIVEWAY MAY BE PLACED OVER SANITARY SEWER MANHOLE.

R.J.P. = RESTRAINED JOINT PIPE

LENGTH OF PIPE TO BE RESTRAINED IN EACH DIRECTION FROM CENTERLINE OF BEND, EXCEPT AS NOTED BELOW		
DESCRIPTION	8"	12"
11 1/4° UP BEND	6'	8'
11 1/4° DOWN BEND	11'	18'
22 1/2° UP BEND	12'	17'
22 1/2° DOWN BEND	22'	35'
45° UP BEND	24'	34'
45° DOWN BEND	45'	73'

LENGTH OF PIPE TO BE RESTRAINED IN EACH DIRECTION FROM CENTERLINE OF BEND, EXCEPT AS NOTED BELOW		
DESCRIPTION	8"	12"
90° BEND	59'	83'
45° BEND	24'	35'
22 1/2° BEND	12'	17'
11 1/4° BEND	6'	9'
12" x 8" TEE	57' BRANCH	

VERTICAL **HORIZONTAL**
PIPE RESTRAINTS SCHEDULE FOR JOINTS

WATER WORK

ITEM	EXTENSTION	QTY	UNIT	DESCRIPTION
638	02404	3135	FT	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, RESTRAINED (BCWS 2130)
638	10200	7	EACH	6" FIRE HYDRANT (BCWS 2240)
638	11296	1	EACH	3/4" AIR RELEASE VALVE (BCWS 5290)
638	08100	8	EACH	12" GATE VALVE AND VALVE BOX
638	09908	1	EACH	16" X 12" TAPPING SLEEVE, VALVE AND VALVE BOX
638	98000	2	EACH	WATER WORK, MISC.:, CONNECT TO EXISTING WATER MAIN, AS PER PLAN
638	98000	2	EACH	WATER WORK, MISC.:, EXPLORATION POTHOLES

SANITARY SEWER

611	99690	2	EACH	MANHOLE, MISC.:, SANITARY MANHOLE (BCWS 6200)
611	99690	2	EACH	MANHOLE, MISC.:, MANHOLE ADJUSTED TO GRADE W/SOLID LID
611	97200	2	EACH	CONDUIT, MISC.:, CORE DRILL EXISTING MANHOLE
611	03100	189	FT	10" CONDUIT, TYPE B (ASTM SDR 26)
611	03100	62	FT	10" CONDUIT, TYPE B (ASTM SDR 35)

GENERAL NOTES

SEE TEC PLANS FOR VETERANS BOULEVARD ROADWAY IMPROVEMENTS

ALL WORK SHALL BE DONE UNDER THE SUPERVISION OF THE BUTLER COUNTY ENGINEER AND THE AUTHORITY HAVING RESPONSIBILITY FOR UTILITIES IN THE AREA AND IN ACCORDANCE WITH THE RULES AND REGULATIONS FOR SUBDIVISION.

CONSTRUCTION WORK SHALL BE IN ACCORDANCE WITH THE OHIO DEPARTMENT OF TRANSPORTATION "CONSTRUCTION AND MATERIAL SPECIFICATIONS" ODOT 2019 STANDARDS OR BUTLER COUNTY REQUIREMENTS AND STANDARDS FOR SUBDIVISIONS. WHEN IN CONFLICT, THE COUNTY REQUIREMENTS SHALL PREVAIL.

A PRE-CONSTRUCTION MEETING IS REQUIRED WITH THE BUTLER COUNTY ENGINEER'S OFFICE PRIOR TO THE START OF CONSTRUCTION.

SANITARY SEWER MATERIALS AND INSTALLATION AS PER BUTLER COUNTY WATER & SEWER SPECIFICATIONS USING SECTION 3110 FOR PVC, SDR-35 & 26 PIPE; SECTION 3140 FOR ABS PVC COMPOSITE PIPE. SECTION 3410 FOR MANHOLES.
SANITARY LATERALS SHALL BE EXTENDED TO AT LEAST TEN (10) FEET BEYOND THE PROPERTY/ RIGHT-OF-WAY LINE OR TO THE EDGE OF THE EASEMENT, WHICHEVER IS GREATER.

WATER MAIN SHALL HAVE 4' MINIMUM DEPTH TO TOP OF PIPE.
ALL WATER MAINS TO BE DUCTILE IRON PIPE, CL. 53 AWWA C-151.
WATER MAIN MATERIALS, VALVES, FIRE HYDRANTS, FITTINGS, APPURTENANCES, AND INSTALLATION TO BE AS BUTLER COUNTY SPECIFICATIONS, AND SHALL HAVE RESTRAINED JOINTS. ALL WATER MAIN VALVES TO HAVE A MINIMUM DEPTH OF 2.5 AND A MAXIMUM OF 4.0' FROM PROPOSED GRADE TO THE TOP OF THE VALVE OPERATING NUT.

WATER MAIN SHALL HAVE 10' HORIZONTAL, & 18" VERTICAL SEPARATION (OUTSIDE EDGE TO EDGE) WITH ALL OTHER PIPE.

ALL ELECTRICAL TRANSFORMERS SHALL BE LOCATED SO THAT THEY DO NOT INTERFERE WITH EXISTING MANHOLES OR WATER MAIN APPURTENANCES.
BUTLER COUNTY WATER & SEWER DOES NOT ACCEPT ANY RESPONSIBILITY FOR THE RELOCATION, REPAIR OR REPLACEMENT OF ANY OTHER UTILITY INSTALLED WITHIN FIVE (5) FEET OF THE CENTERLINE OF ANY SANITARY MAIN SEWER OR WATER MAIN.

PRIVATE DRIVEWAYS, PARKING LOTS AND OTHER PAVED AREAS, EARTHEN BERMS OR STRUCTURES SHOULD NOT BE CONSTRUCTED OVER PRIVATE WATER OR SEWER SERVICE LINES WITHIN THE PUBLIC ROAD RIGHT OF WAY OR WITHIN EASEMENT AREAS FOR THE PUBLIC UTILITIES. SHOULD THIS OCCUR, THE PROPERTY OWNER WILL BE HELD RESPONSIBLE FOR THE PROTECTION AND REPAIR OF AND FOR PROVIDING ACCESS TO ANY CURB STOPS, METER PITS, MANHOLES, CLEANOUTS, ETC. INSTALLED IN CONJUNCTION WITH THESE PRIVATE SERVICE LINES AND FOR ANY DAMAGE OR RESTORATION OF THE PAVED SURFACES OR STRUCTURES THAT MAY RESULT FROM THE FUTURE OPERATION, MAINTENANCE, REPAIR OR REPLACEMENT OF SAID SERVICE LINES AND APPURTENANCES.

LOCATION OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY GROUND CONDITIONS AND EXISTING UTILITIES PRIOR TO START OF CONSTRUCTION.

THE EXISTING UTILITIES SHOWN ARE FOR CONTRACTOR'S CONVENIENCE ONLY. THERE MAY BE OTHER UTILITIES NOT SHOWN ON THESE PLANS. THE OWNER ASSUMES NO RESPONSIBILITY FOR THE LOCATION OF ALL UTILITIES WITHIN THE LIMITS OF THE WORK. ALL DAMAGE MADE TO EXISTING UTILITIES BY THE CONTRACTOR SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

BUTLER COUNTY ASSUMES NO MAINTENANCE RESPONSIBILITY FOR PRIVATE DRIVES.

BUTLER COUNTY WILL NOT BE RESPONSIBLE FOR ANY PAVEMENT OR STORM SEWER REPAIRS RESULTING FROM WATER MAIN REPAIRS. BUTLER COUNTY ALSO WILL NOT BE RESPONSIBLE FOR ADJUSTING VALVES, FIRE HYDRANTS, METER PITS, ETC. AS A RESULT OF GRADE CHANGES. THE GRANTOR SHALL BE RESPONSIBLE FOR THE PROPER ADJUSTMENT OF VALVES, FIRE HYDRANTS, METER PITS, ETC., TO THE SATISFACTION OF BUTLER COUNTY, DUE TO GRADE CHANGES, PAVING, REPAVING, ETC., INITIATED BY THE GRANTOR.

ROOF DRAINS, FOUNDATION DRAINS, AND OTHER CLEAN WATER CONNECTIONS TO THE SANITARY SEWER SYSTEM ARE PROHIBITED.

ALL BUILDINGS TO BE SERVED BY THE PUBLIC SEWER SYSTEM SHALL BE CONSTRUCTED SO AS TO PROVIDE A MINIMUM OF FOUR FEET (4') OF VERTICAL SEPARATION BETWEEN THE PUBLIC SANITARY SEWER, AT THE POINT OF CONNECTION, AND THE LOWEST BUILDING LEVEL SERVED BY A GRAVITY SEWER CONNECTION. IN ADDITION, SAID BUILDING LEVEL SHALL BE AT LEAST ONE FOOT (1') ABOVE THE LOWEST POINT OF FREE-OVERFLOW (NON-SEALED MANHOLE COVER) UPSTREAM OF ANY TREATMENT FACILITY OR WASTEWATER PUMPING FACILITY THAT RECEIVES THE DISCHARGE FROM SAID BUILDING. SAID MINIMUM SERVICE LEVELS SHALL BE RECORDED ON THE "AS BUILT" PLANS FOR THE DEVELOPMENT WHICH WILL BE KEPT ON FILE IN THE OFFICE OF THE BUTLER COUNTY WATER AND SEWER DEPARTMENT.

SANITARY SEWER LATERALS, WHICH SHALL INCLUDE ALL PIPE AND APPURTENANCES FROM THE BUILDING TO THE PUBLIC SEWER MAIN, AND CONNECTION TO THE PUBLIC SEWER MAIN SHALL BE CONSIDERED PRIVATE AND THE RESPONSIBILITY OF THE PROPERTY OWNER TO MAINTAIN. THE CONNECTION TO THE SEWER WOULD BE ANY PIPING THAT EXTENDS OUT FROM THE MAIN BARREL OF THE SEWER MAIN.

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

HORIZONTAL SCALE IN FEET
0 25 50 100

MSP DESIGN
McGill Smith Punshon

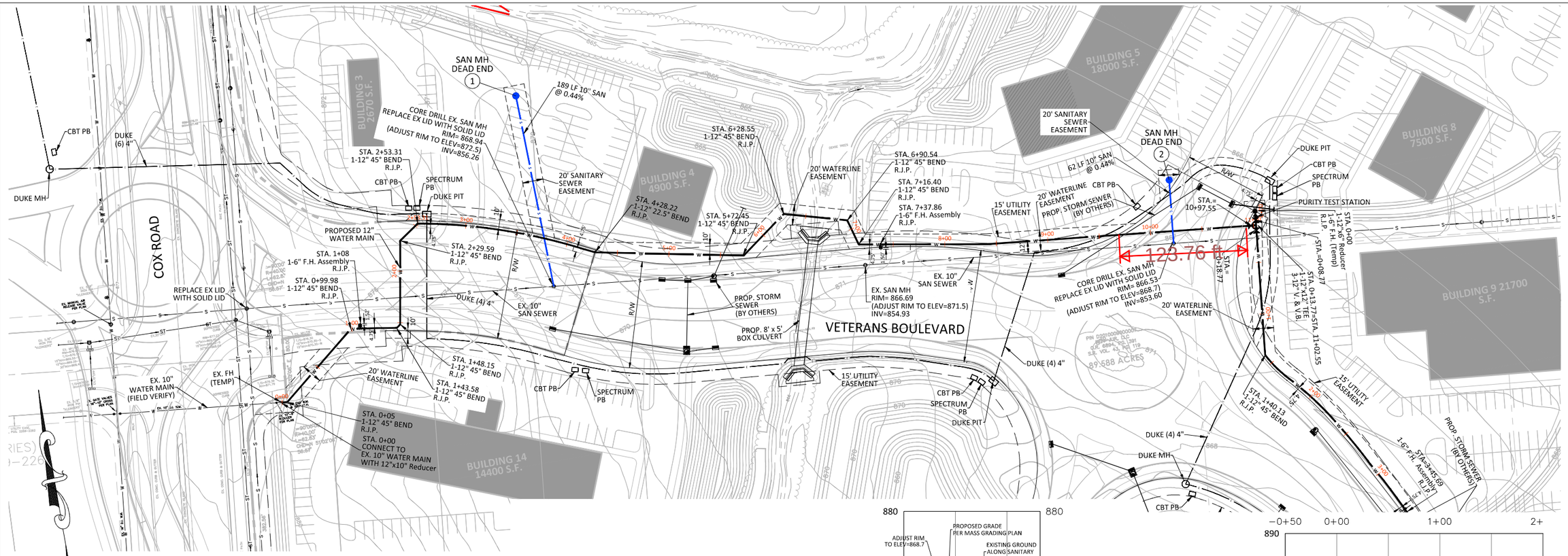
VETERANS BOULEVARD
WATER MAIN AND SANITARY SEWER IMPROVEMENTS
SECTION 7, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, OH

DESIGN AGENCY

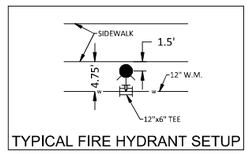
DESIGNER AJD
REVIEWER RA
PROJECT ID 15352.31
SHEET 98 TOTAL 147

CTY-RTE-SECTION

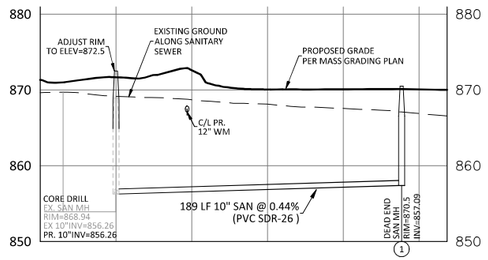
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NOTE:
CONTRACTOR TO COORDINATE
LOCATION OF PURITY TEST
STATIONS WITH BCWS INSPECTOR

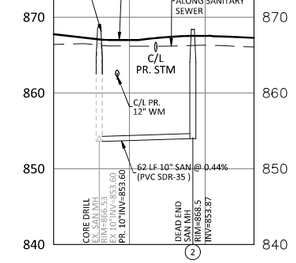


TYPICAL FIRE HYDRANT SETUP



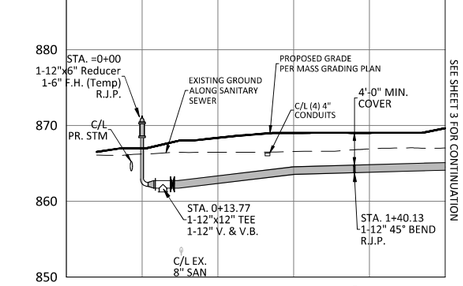
4-Prop San Sewer MH 1

1"=50' HOR. / 1"=10' VERT.



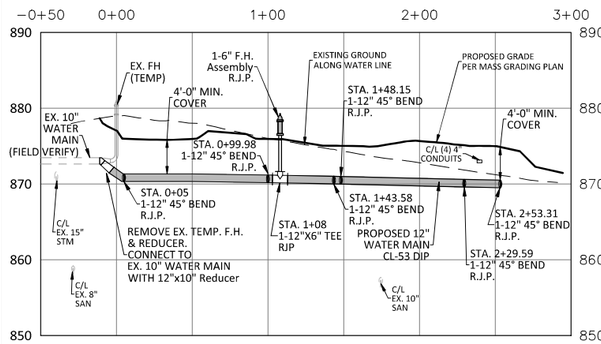
5-Prop San Sewer MH 2

1"=50' HOR. / 1"=10' VERT.



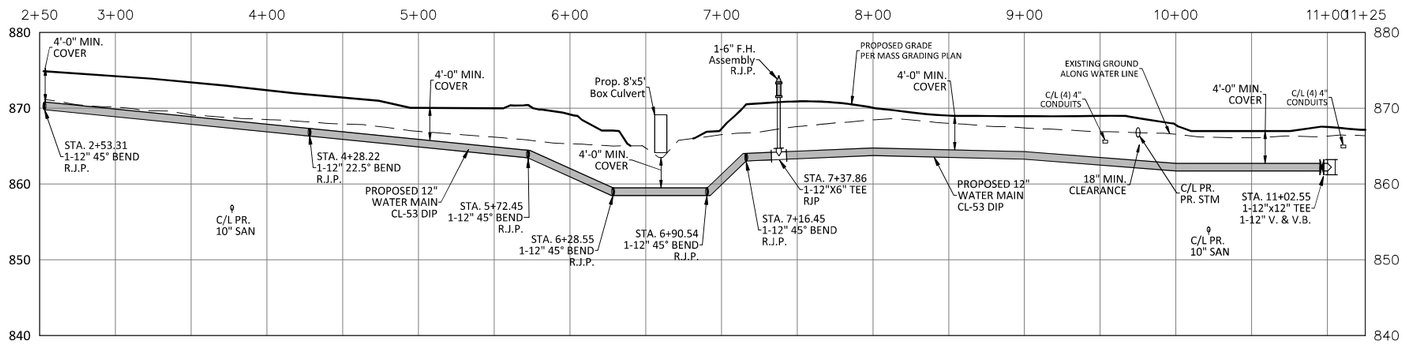
3-Prop 12 Inch WM VETERANS BOULEVARD

1"=50' HOR. / 1"=10' VERT.



1-Prop 12 Inch WM

1"=50' HOR. / 1"=10' VERT.



2-Prop 12 Inch WM - VETERANS BOULEVARD

1"=50' HOR. / 1"=10' VERT.

OHIO Utilities Protection SERVICE
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1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

HORIZONTAL SCALE IN FEET
0 25 50 100

MSP DESIGN
McGill Smith Punshon

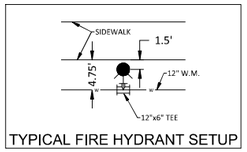
VETERANS BOULEVARD
WATER MAIN AND SANITARY SEWER
IMPROVEMENTS
SECTION 7, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, OH

DESIGN AGENCY

DESIGNER AJD
REVIEWER RA
PROJECT ID 15352.31
SHEET 99 TOTAL 147

CTY-RTE-SECTION

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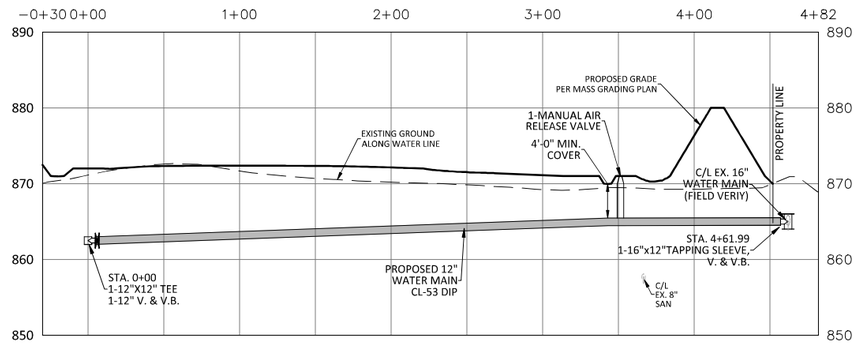


TYPICAL FIRE HYDRANT SETUP

NOTE:
CONTRACTOR TO COORDINATE
LOCATION OF PURITY TEST
STATIONS WITH BCWS INSPECTOR

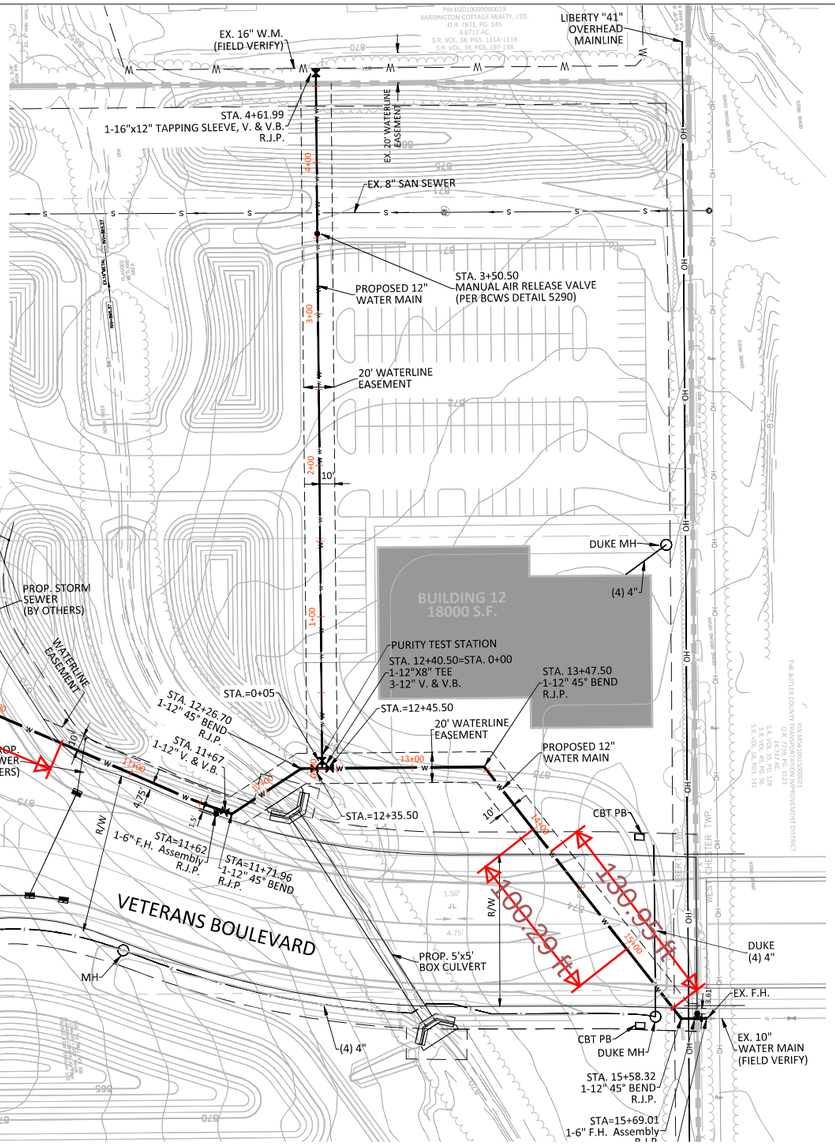
OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

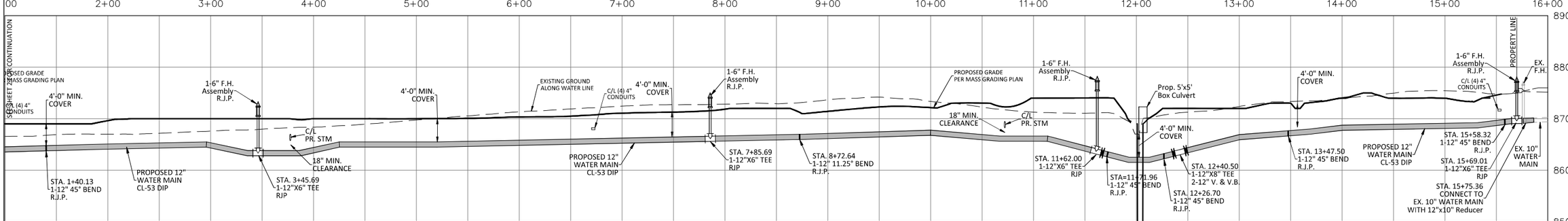
SCALE IN FEET
0 25 50 100 150



4-Prop 12 Inch WM

1"=50' HOR. / 1"=10' VERT.





3-Prop 12 Inch WM - VETERANS BOULEVARD

1"=50' HOR. / 1"=10' VERT.

HORIZONTAL
SCALE IN FEET
0 25 50 100

MSP DESIGN
McGill Smith Punshon

VETERANS BOULEVARD
WATER MAIN AND SANITARY SEWER
IMPROVEMENTS
SECTION 7, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, OH

DESIGN AGENCY

DESIGNER
AJD

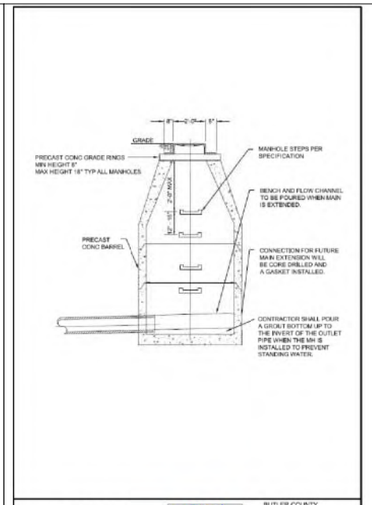
REVIEWER
RA

PROJECT ID
15352.31

SHEET 100 | TOTAL 147

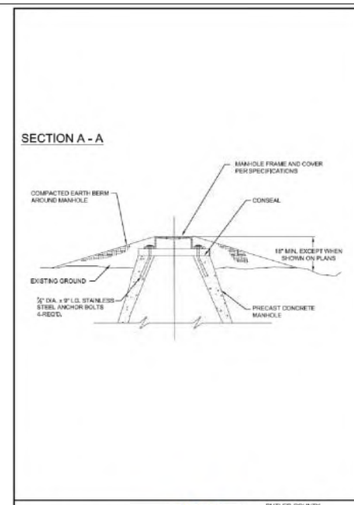
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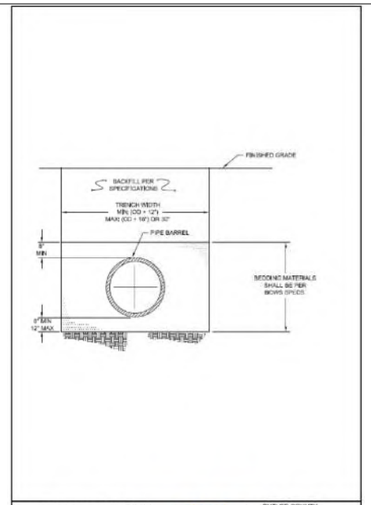
DEAD END MANHOLE DETAIL

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
6190



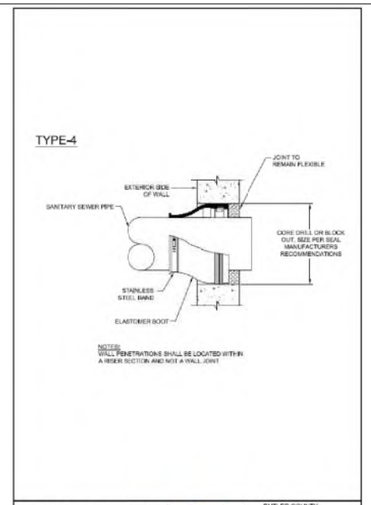
ELEVATED MANHOLE DETAIL

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
6170



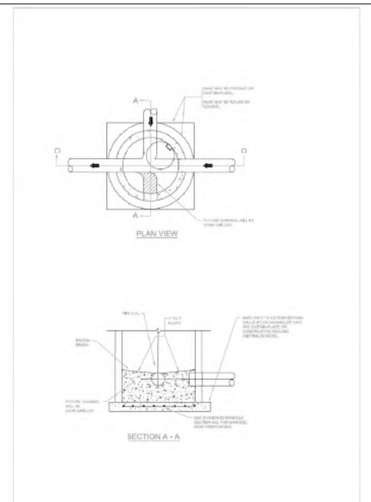
TYPICAL TRENCH DETAIL SEWER INSTALLATION

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
6270



CONNECTION TO EXISTING MANHOLE

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
6150



STANDARD CAST IN-PLACE MANHOLE

OHIO Utilities Protection SERVICE
Call Before You Dig
1-800-362-2764
CALL TWO WORKING DAYS BEFORE YOU DIG
(NON MEMBERS MUST BE CALLED DIRECTLY)

HORIZONTAL SCALE IN FEET
0 25 50 100

MSP DESIGN
McGill Smith Punshon

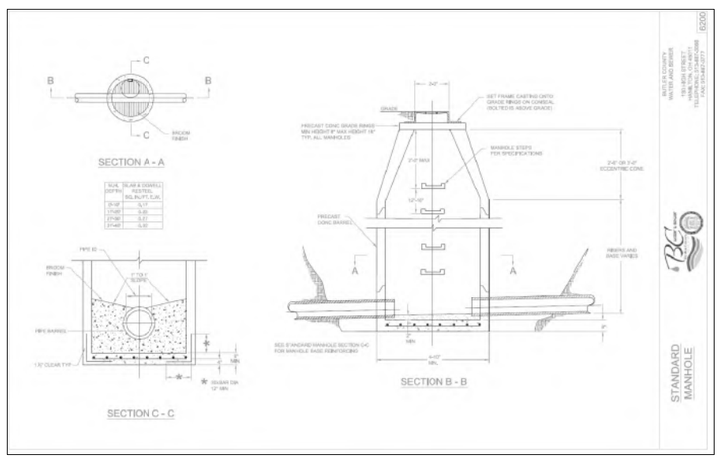
VETERANS BOULEVARD WATER MAIN AND SANITARY SEWER IMPROVEMENTS

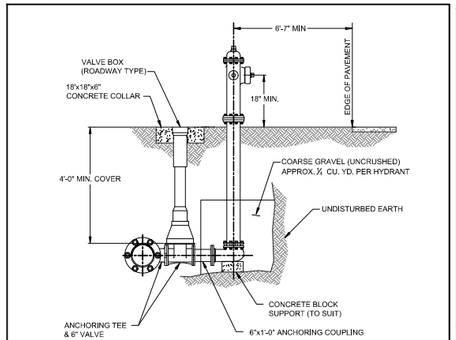
SECTION 7, TOWN 3, RANGE 3
LIBERTY TOWNSHIP, OH

DESIGN AGENCY

DESIGNER AJD
REVIEWER RA
PROJECT ID 15352.31
SHEET 101 TOTAL 147

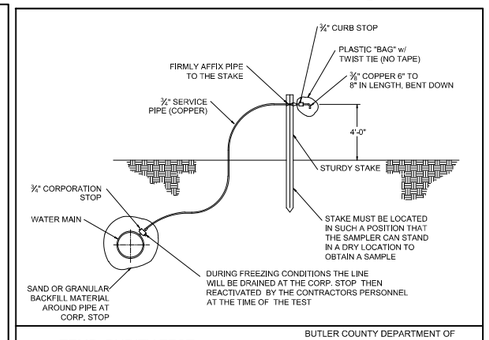
CTY-RTE-SECTION





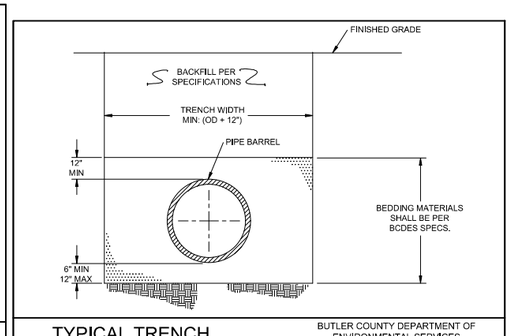
TYPICAL FIRE HYDRANT INSTALLATION

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513 887 3777
5110



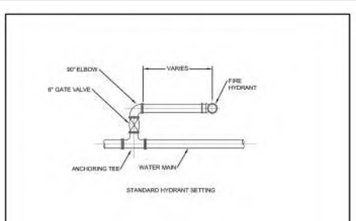
TEMP. PURITY TEST STATION

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
5260



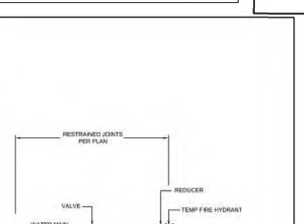
TYPICAL TRENCH DETAIL WATER MAIN INSTALLATION

BUTLER COUNTY DEPARTMENT OF ENVIRONMENTAL SERVICES
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
5280



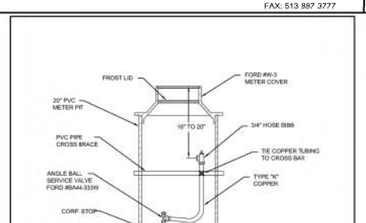
SETTINGS FOR HYDRANT ADJACENT TO MAIN

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
5120



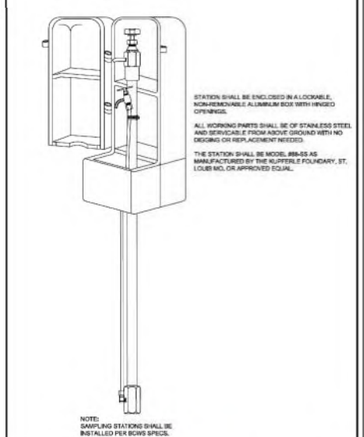
DEAD END DETAIL W/ TEMP F.H.

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
5140



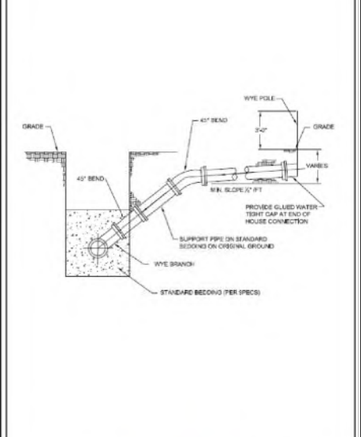
MANUAL AIR RELEASE VALVE DETAIL

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
5290



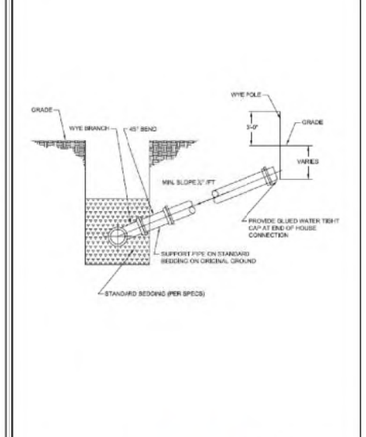
PERMANENT LAB SAMPLING STATION

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
5270



HOUSE CONNECTION FOR DEEP SEWER

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
6280



HOUSE CONNECTION FOR SHALLOW SEWER

BUTLER COUNTY WATER AND SEWER
130 HIGH STREET
HAMILTON, OH 45011
TELEPHONE: 513-887-3066
FAX: 513-887-3777
6290

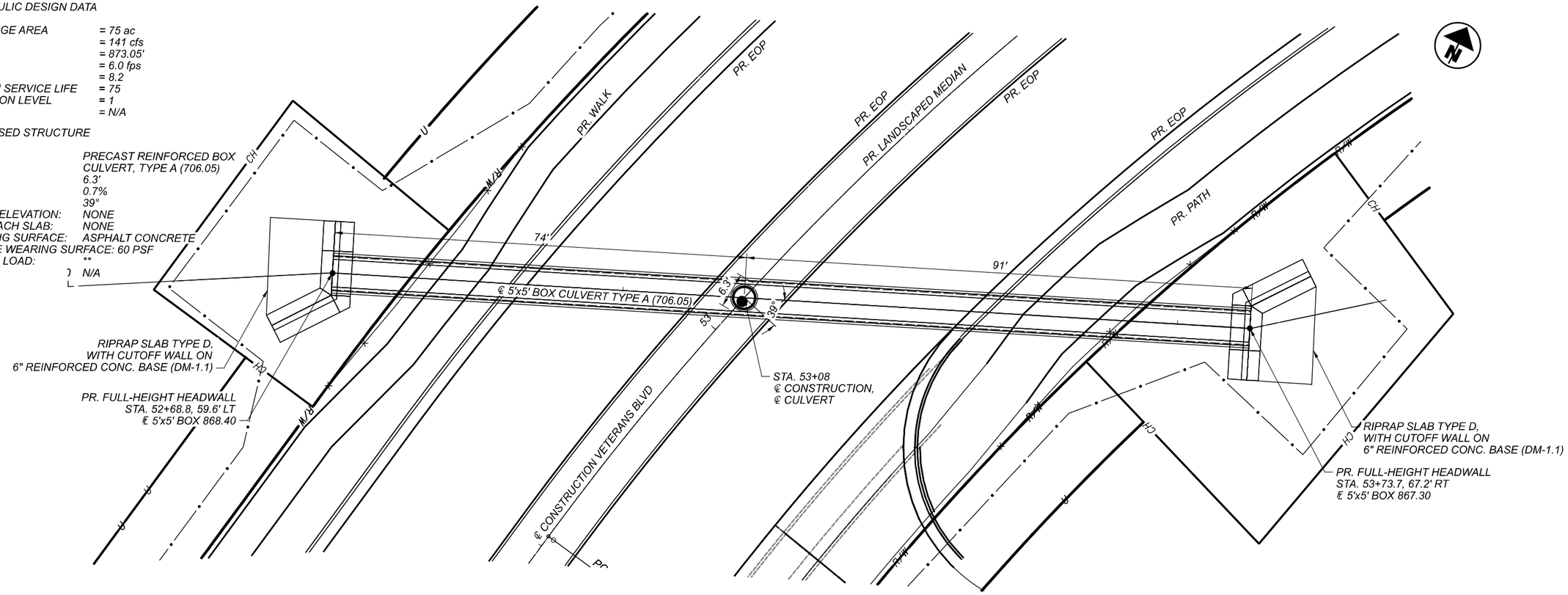
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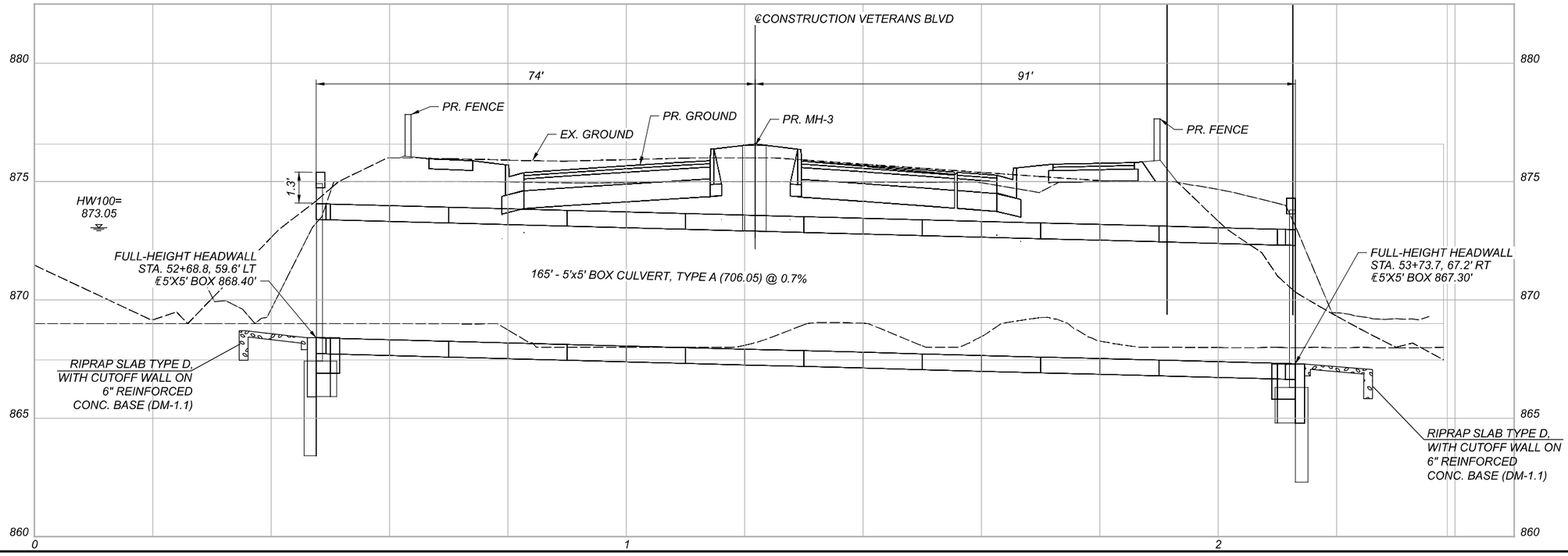
HYDRAULIC DESIGN DATA

DRAINAGE AREA	= 75 ac
Q100	= 141 cfs
HW100	= 873.05'
V100	= 6.0 fps
pH	= 8.2
DESIGN SERVICE LIFE	= 75
ABRASION LEVEL	= 1
SFN	= N/A

PROPOSED STRUCTURE

TYPE:	PRECAST REINFORCED BOX CULVERT, TYPE A (706.05)
SPAN:	6.3'
SLOPE:	0.7%
SKEW:	39°
SUPER ELEVATION:	NONE
APPROACH SLAB:	NONE
WEARING SURFACE:	ASPHALT CONCRETE
FUTURE WEARING SURFACE:	60 PSF
DESIGN LOAD:	**
SFN:	N/A





HORIZONTAL SCALE IN FEET
0 5 10 20

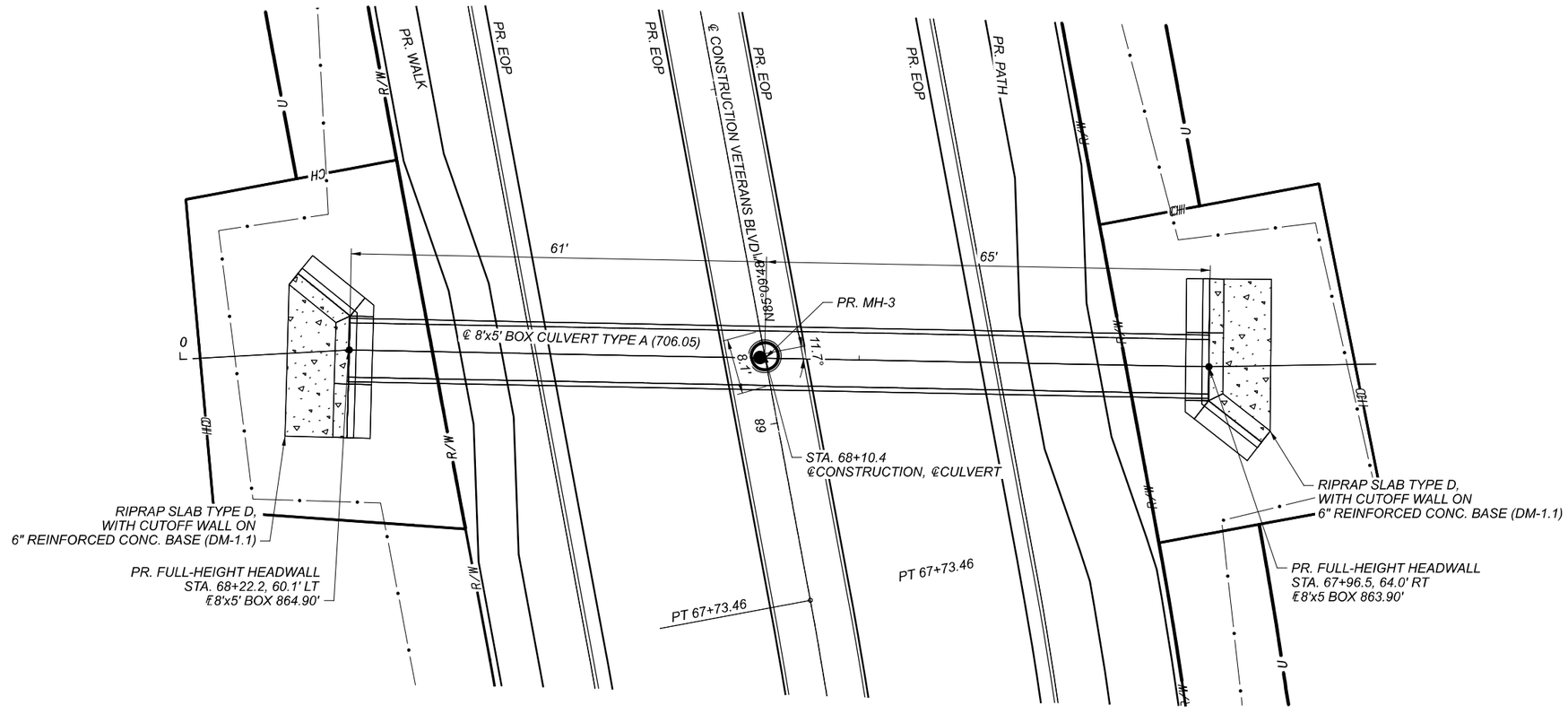
CULVERT DETAILS
SOUTHERN CHANNEL CROSSING AT STA. 53+08

BUT-VETERANS BLVD-0.00

MODEL: SOUTH CULVERT DETAILS PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:39:47 PM USER: kelle
\\10.1.4\projects\WorkSets\21334_Veterans\400-Engineering\Drainage\Sheets\21334_Veterans_DC00i.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Engle Road, Fifth Floor
Middleburg Heights, OH 44130
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.102 TOTAL 147

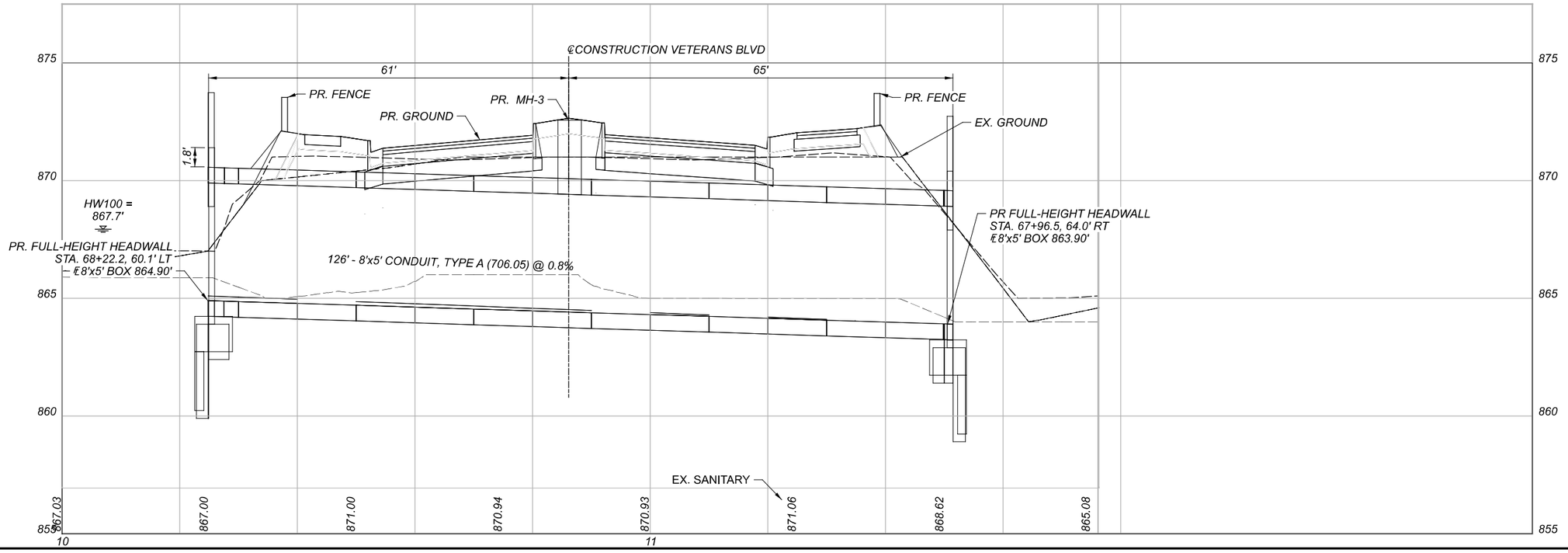


HYDRAULIC DESIGN DATA

DRAINAGE AREA	*= 59.0 ac*
Q100	*= 105 cfs*
HW100	*= 867.7'*
V100	*= 4.8 fps*
pH	*= 8.2*
DESIGN SERVICE LIFE	*= 75*
ABRASION LEVEL	*= 1*
SFN	*= N/A*

PROPOSED STRUCTURE

TYPE:	*PRECAST REINFORCED BOX CULVERT, TYPE A (706.05)*
SPAN:	*8.1'*
SLOPE:	*0.8%*
SKEW:	*11.7°*
SUPER ELEVATION:	*NONE*
APPROACH SLAB:	*NONE*
WEARING SURFACE:	*ASPHALT CONCRETE*
FUTURE WEARING SURFACE: 60PSF	
DESIGN LOAD:	****
SFN:	*N/A*



HORIZONTAL SCALE IN FEET
0 5 10 20

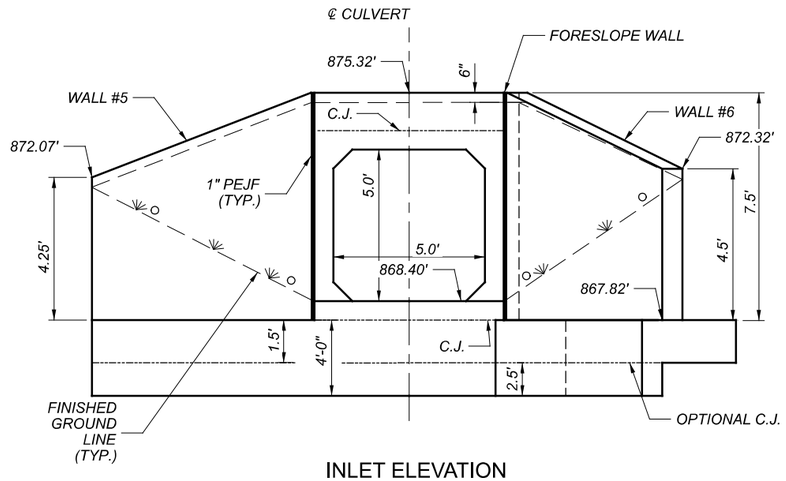
CULVERT DETAILS
NORTHERN CHANNEL CROSSING AT STA. 68+10

BUT-VETERANS BLVD-0.00

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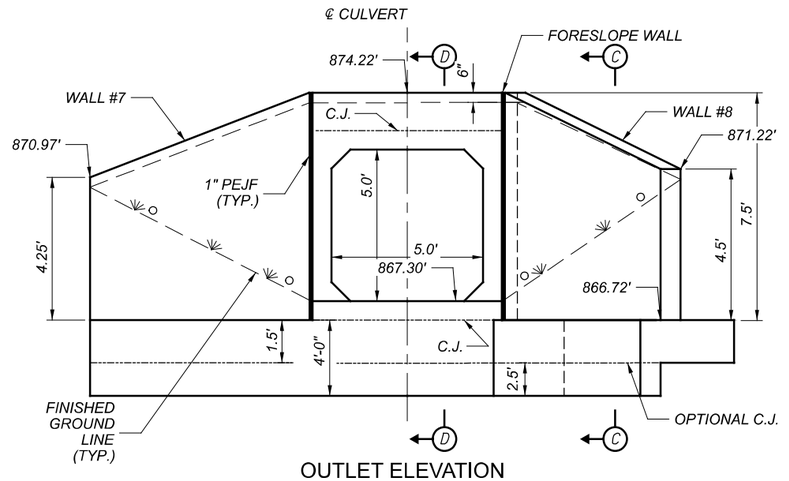
DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Cornell Road, Suite 204
Mason, OH 45040

DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.103 TOTAL: 147



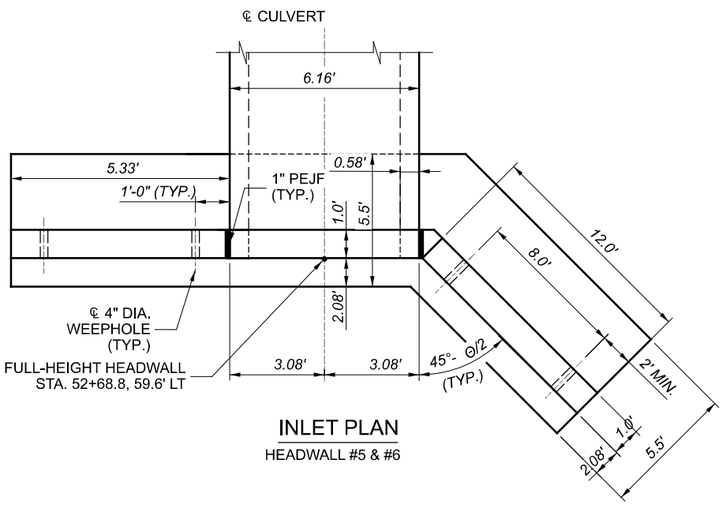
INLET ELEVATION

HEADWALL #5 & #6
STA 52+68.8



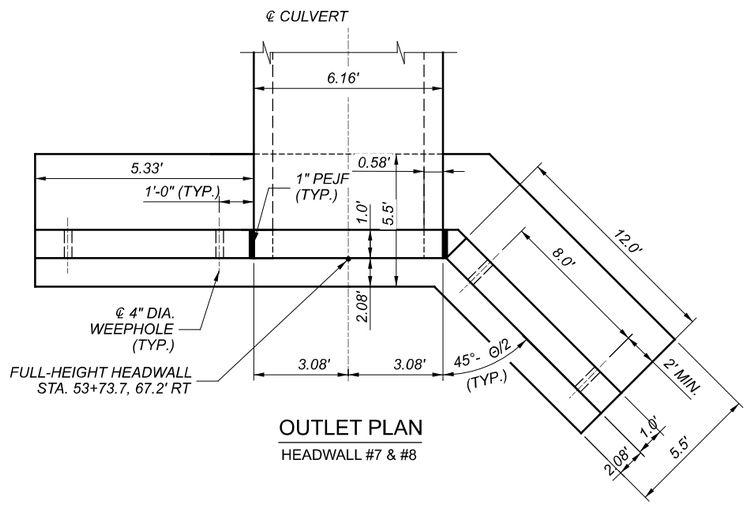
OUTLET ELEVATION

HEADWALL #7 & #8
STA 53+73.7



INLET PLAN

HEADWALL #5 & #6



OUTLET PLAN

HEADWALL #7 & #8

HORIZONTAL
SCALE IN FEET

0 1

CULVERT DETAILS
SOUTHERN CHANNEL CROSSING AT STA. 53+08

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.104 | TOTAL 147

BUT-VETERANS BLVD-0.00

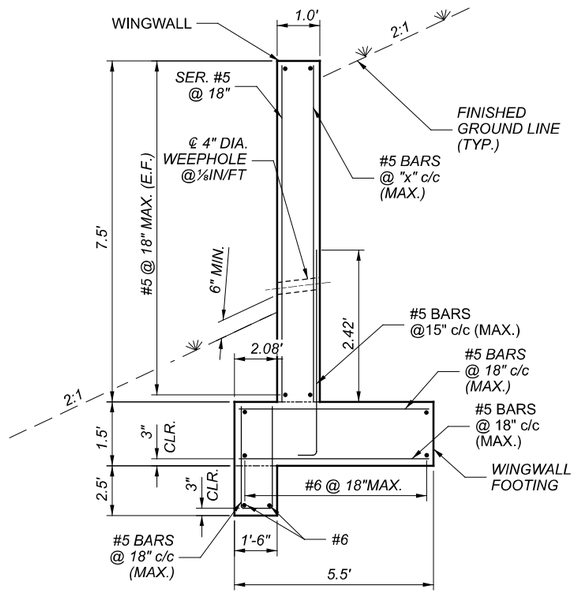
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TYPE B HEADWALL REINFORCING SCHEDULE

BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS A	B	C	D	INC.
					WINGWALLS				
	1	4'- 4"							
X501	SERIES	TO	67	STR.					0'- 3 5/8"
	of 11	7'- 4"							
X502	2	7'- 4"	16	STR.					
	1	4'- 1"							
X503	SERIES	TO	30	STR.					0'- 9 3/4"
	of 5	7'- 4"							
Y601	18	4'- 6"	122	1	1'- 0"	3'- 8"			
	1	4'- 4"							
WW501	SERIES	TO	55	STR.					0'- 4 1/2"
	of 9	7'- 4"							
WW502	6	11'- 8"	74	STR.					
	2	5'- 10"							
WW503	SERIES	TO	37	STR.					5'- 10 "
	of 2	11'- 8"							
WW504	5	3'- 10"	20	2	0'- 7"	0'- 4 "	2'- 7 1/4"	3'- 0 "	
WW505	2	14'- 5"	31	3	2'- 5"	2'- 10"	11'- 8"		
WW506	1	1'- 5"	2	8	0'- 7"	0'- 4 "			
	1	4'- 1"							
WW507	SERIES	TO	30	STR.					0'- 9 3/4"
	of 5	7'- 4"							
WW508	6	4'- 12"	32	STR.					
	2	1'- 8"							
WW509	SERIES	TO	21	STR.					1'- 8 "
	of 3	4'- 12"							
WW510	2	8'- 4"	18	3	2'- 5"	3'- 1"	4'- 12"		
					FOOTING & CUTOFF WALL				
V501	17	5'- 2"	92	STR.					
W501	17	5'- 2"	92	STR.					
Z501	19	8'- 2"	162	5	3'- 7"	1'- 2"			
F501	6	4'- 8"	30	STR.					
F502	8	3'- 8"	31	STR.					
F503	5	3'- 9"	20	1	2'- 1"	1'- 9"			
F504	2	5'- 10"	13	STR.					
	2	13'- 2"			10'- 2 3/4"				
F601	SERIES	TO	221	3	TO	1'- 5 1/2"	2'- 6 1/2"		0'- 9 "
	of 5	16'- 2"			13'- 2 1/2"				
	2	10'- 8"							
F602	SERIES	TO	183	STR.					0'- 9 "
	of 5	13'- 8"							
	1	13'- 2"			10'- 2 3/4"				
F603	SERIES	TO	41	3	TO	1'- 5 1/2"	2'- 6 1/2"		0'- 8 1/8"
	2	13'- 10"			10'- 11 "				
	1	10'- 8"							
F604	SERIES	TO	34	STR.					0'- 8 1/8"
	2	11'- 4"							
					FORESLOPE WALL				
FS501	4	5'- 10"	25	STR.					
FS502	7	2'- 3"	17	5	1'- (1)	0'- 8"			
FS503	7	2'- 10"	21	7	1'- (1)	0'- 8"	1'- 6"		
		TOTAL	1,537						

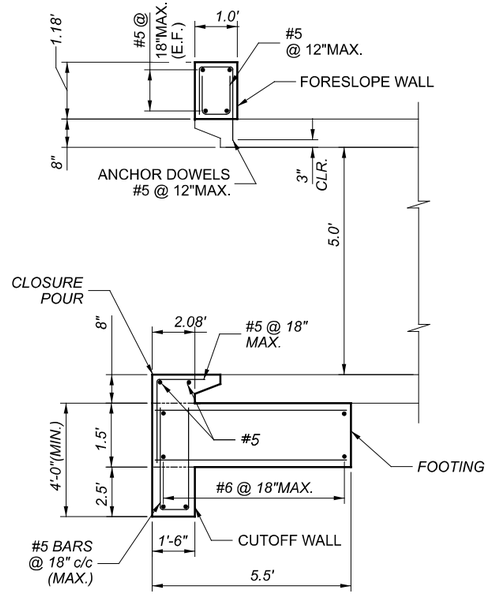
NOTES

1. FOR THE LOCATIONS OF SECTIONS C-C AND D-D, SEE SHEETS 104.
2. 2:1 BACKSLOPE, NORMAL TO CULVERT.
3. ALL REINFORCING STEEL TO BE EPOXY COATED.
4. UNLESS OTHERWISE SPECIFIED, THE FOLLOWING LAP LENGTHS SHALL APPLY: #5 BARS: 2'-5"



SECTION C-C

(POROUS BACKFILL NOT SHOWN FOR CLARITY)



SECTION D-D

LEGEND

* - ALL REINFORCING SHOWN IS FOR REFERENCE ONLY. TOTAL COST FOR REINFORCING STEEL TO BE INCLUDED WITHIN ITEM 602, CONCRETE MASONRY, FOR PAYMENT.

HORIZONTAL SCALE IN FEET

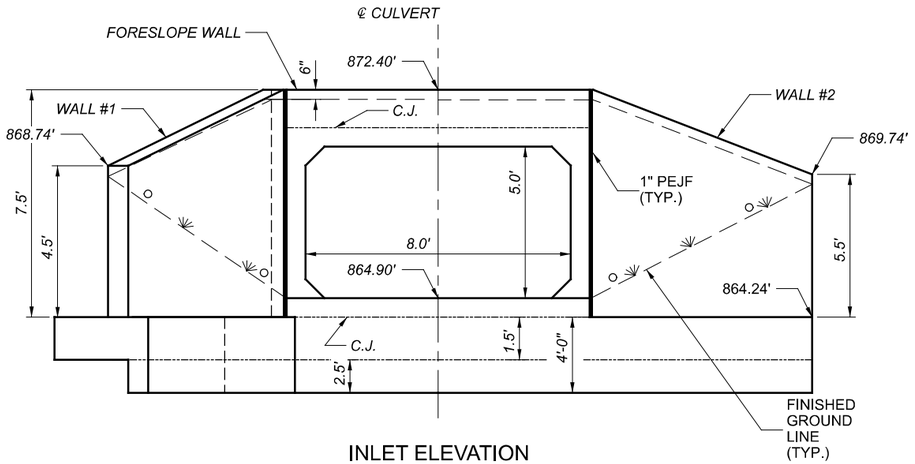
CULVERT DETAILS
SOUTHERN CHANNEL CROSSING AT STA. 53+08

DESIGN AGENCY
TEC Engineering Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7580 Central Park Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.105 TOTAL 147

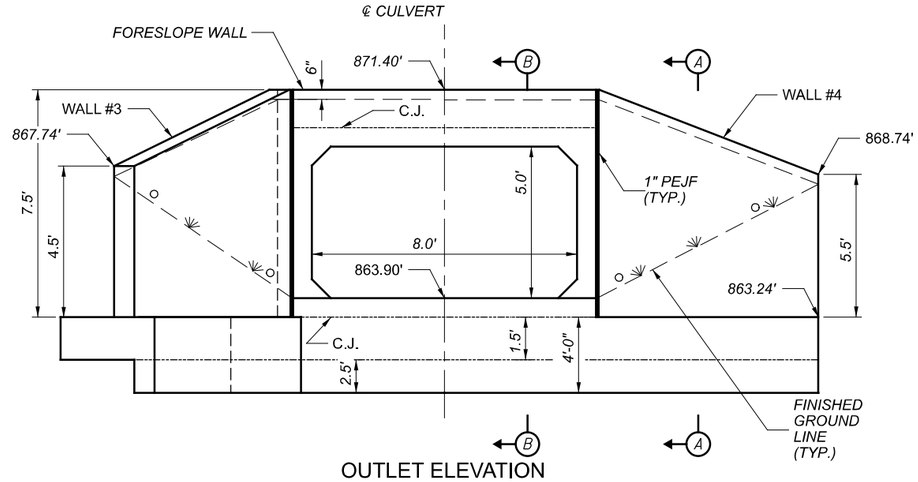
BUT-VETERANS BLVD-0.00

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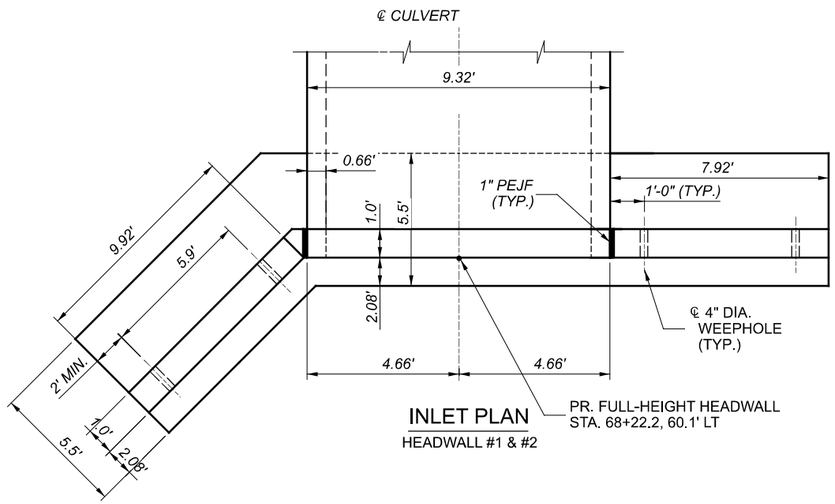
INLET ELEVATION

HEADWALL #1 & #2
STA 68+22.2



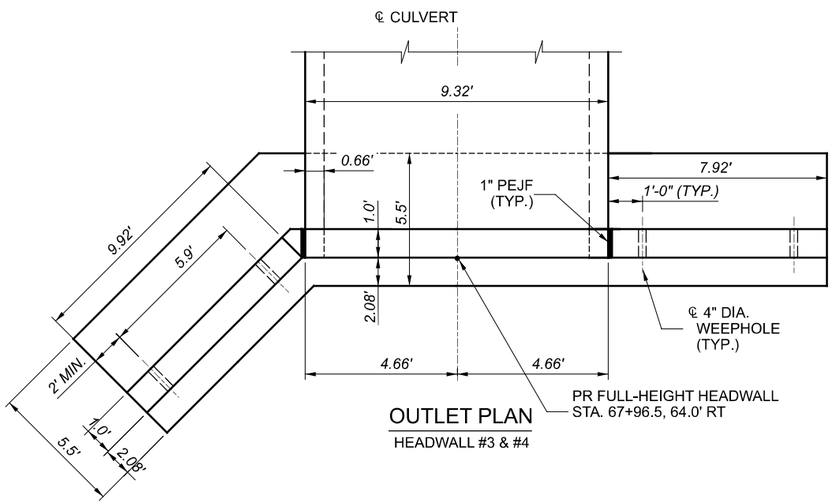
OUTLET ELEVATION

HEADWALL #3 & #4
STA 67+96.5



INLET PLAN

HEADWALL #1 & #2



OUTLET PLAN

HEADWALL #3 & #4

HORIZONTAL
SCALE IN FEET

0 1 2

CULVERT DETAILS
NORTHERN CHANNEL CROSSING AT STA. 68+10

BUT-VETERANS BLVD-0.00

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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

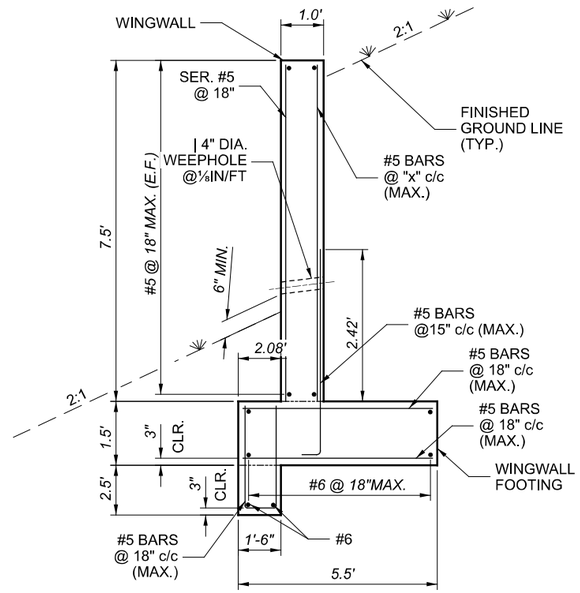
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.106 TOTAL 147

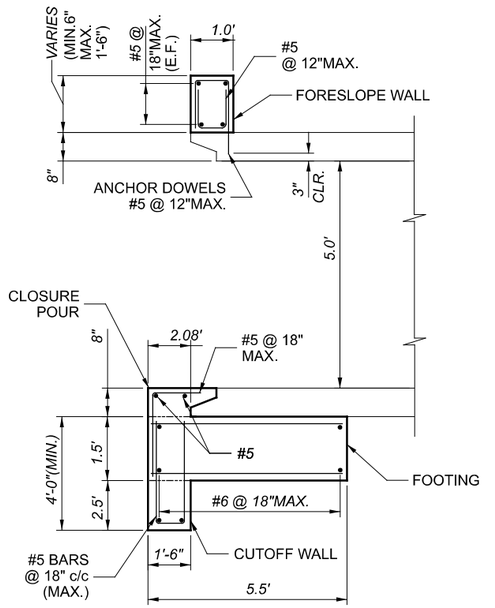
TYPE B HEADWALL REINFORCING SCHEDULE

BAR MARK	NUMBER	LENGTH	WEIGHT (LBS.)	TYPE	BAR TYPE DIMENSIONS A	B	C	D	INC.
WINGWALLS									
	1	5'- 4"							
X501	SERIES	TO	60	STR.					0'- 3 "
	of 9	7'- 4"							
X502	2	7'- 4"	16	STR.					
	1	4'- 4"							
X503	SERIES	TO	49	STR.					0'- 5 1/4"
	of 8	7'- 4"							
Y601	19	4'- 6"	128	1	1'- 0"	3'- 8"			
	1	5'- 4"							
WW501	SERIES	TO	53	STR.					0'- 3 1/2"
	of 8	7'- 4"							
WW502	8	9'- 7"	80	STR.					
	2	4'- 10"							
WW503	SERIES	TO	31	STR.					4'- 9 1/8"
	of 2	9'- 7"							
WW504	6	3'- 8"	23	2	0'- 7"	0'- 3 "	2'- 4 "	2'- 11 "	
WW505	2	12'- 2"	26	3	2'- 5"	1'- 10"	9'- 7"		
WW506	1	1'- 3"	2	8	0'- 7"	0'- 3 "			
	1	4'- 4"							
WW507	SERIES	TO	43	STR.					0'- 6 "
	of 7	7'- 4"							
WW508	6	7'- 7"	48	STR.					
	2	3'- 10"							
WW509	SERIES	TO	24	STR.					3'- 9 1/8"
	of 2	7'- 7"							
WW510	2	10'- 6"	22	3	2'- 5"	2'- 10"	7'- 7"		
FOOTING & CUTOFF WALL									
V501	19	5'- 2"	103	STR.					
W501	19	5'- 2"	103	STR.					
Z501	21	8'- 2"	179	5	3'- 7"	1'- 2"			
F501	6	4'- 8"	30	STR.					
F502	8	3'- 8"	31	STR.					
F503	7	3'- 10"	28	1	2'- 1"	1'- 10"			
F504	2	9'- 0"	19	STR.					
	2	19'- 1"			16'- 1 3/4"				
F601	SERIES	TO	307	3	TO	1'- 9 1/2"	2'- 4 "		0'- 7 3/4"
	of 5	21'- 8"			18'- 8 1/2"				
	2	8'- 9"							
F602	SERIES	TO	151	STR.					0'- 7 3/4"
	of 5	11'- 4"							
	1	19'- 1"			16'- 1 3/4"				
F603	SERIES	TO	59	3	TO	1'- 9 1/2"	2'- 4 "		0'- 7 1/8"
	2	19'- 8"			16'- 8 3/4"				
	1	8'- 9"							
F604	SERIES	TO	28	STR.					0'- 7 1/8"
	2	9'- 4"							
FORESLOPE WALL									
FS501	4	9'- 0"	38	STR.					
FS502	10	2'- 1"	22	5	0'- 10"	0'- 8"			
FS503	10	2'- 8"	28	7	0'- 10"	0'- 8"	1'- 5"		
		TOTAL	1,731						



SECTION A-A

(POROUS BACKFILL NOT SHOWN FOR CLARITY)



SECTION B-B

NOTES

1. FOR THE LOCATIONS OF SECTIONS A-A AND B-B, SEE SHEETS 106.
2. 2:1 BACKSLOPE, NORMAL TO CULVERT.
3. ALL REINFORCING STEEL TO BE EPOXY COATED.
4. UNLESS OTHERWISE SPECIFIED, THE FOLLOWING LAP LENGTHS SHALL APPLY: #5 BARS: 2'-5"

LEGEND

** - ALL REINFORCING SHOWN IS FOR REFERENCE ONLY. TOTAL COST FOR REINFORCING STEEL TO BE INCLUDED WITHIN ITEM 602, CONCRETE MASONRY, FOR PAYMENT.*

HORIZONTAL SCALE IN FEET
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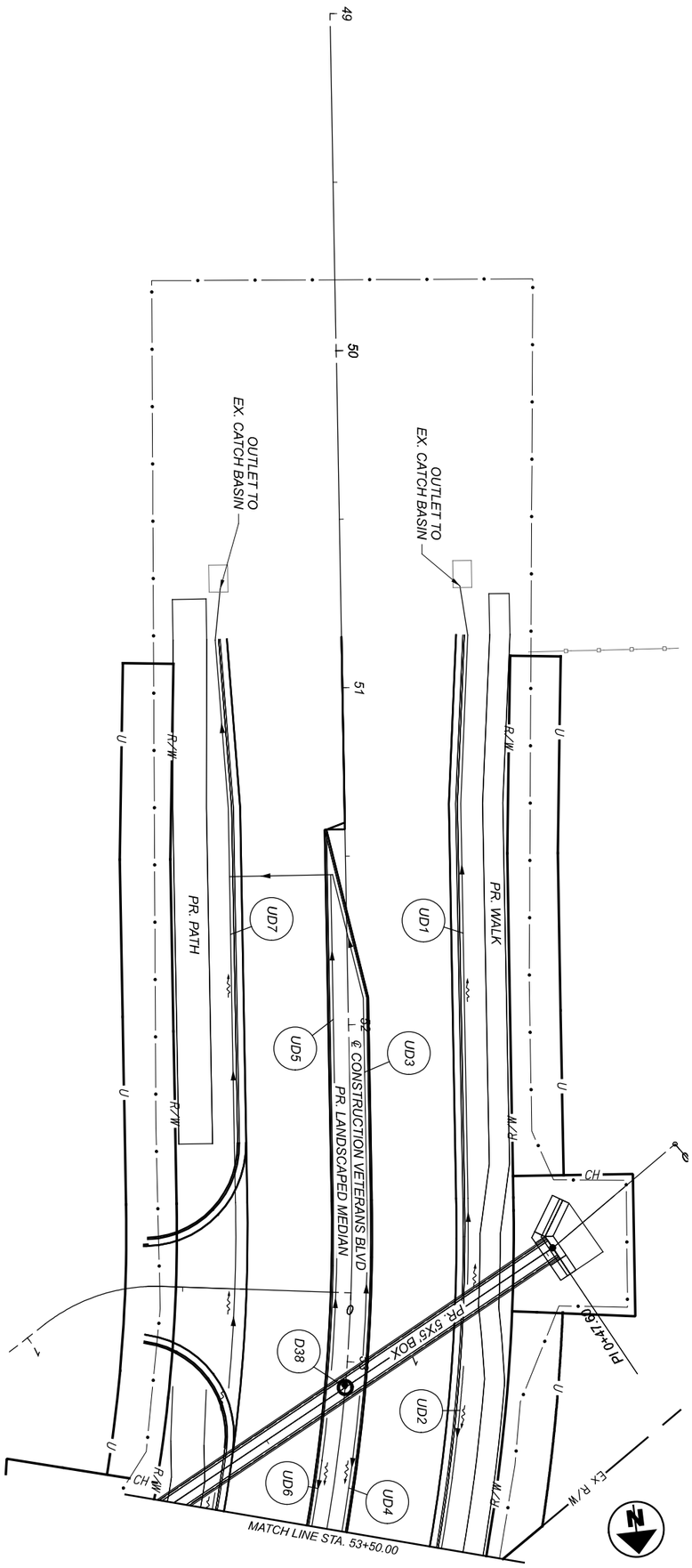
CULVERT DETAILS
NORTHERN CHANNEL CROSSING AT STA. 68+10

DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.107 TOTAL 147

BUT-VETERANS BLVD-0.00

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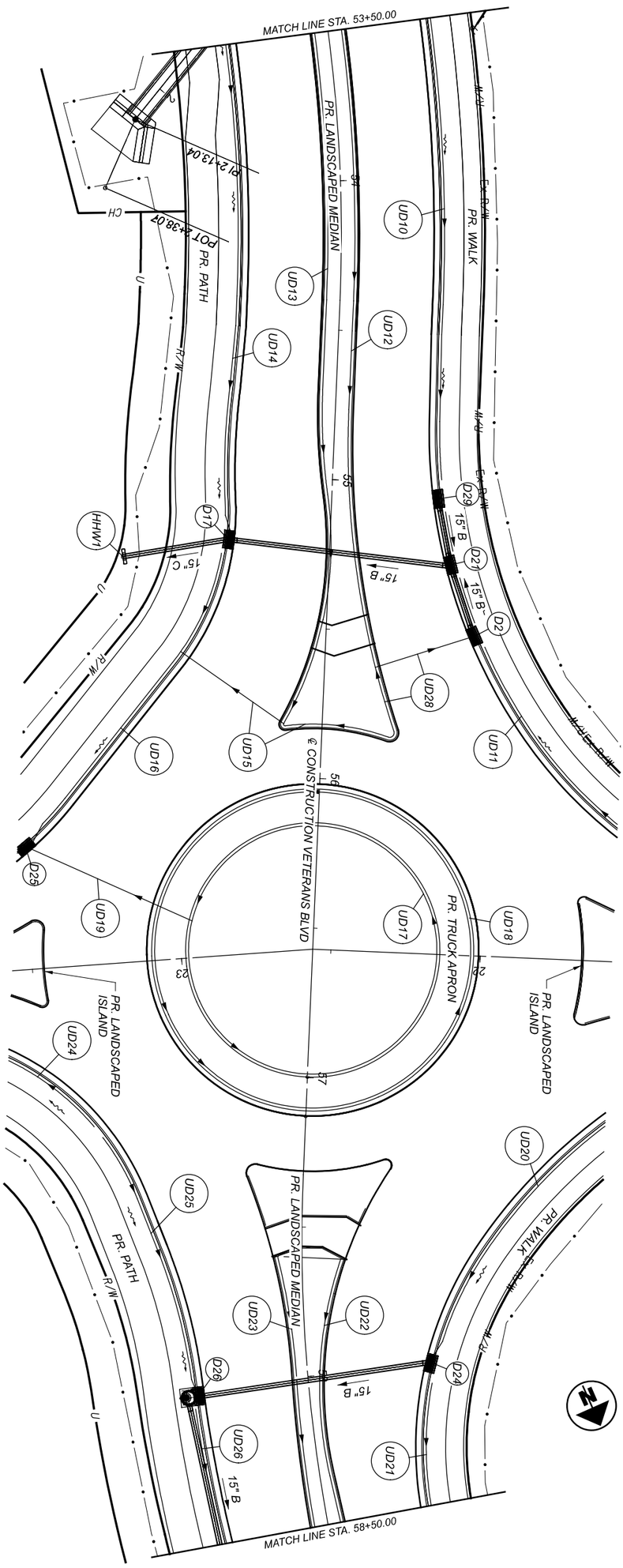


DRAINAGE PLAN - VETERANS BLVD
STA 48+50 TO STA 53+50

TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P. 108
TOTAL: 147

HORIZONTAL SCALE IN FEET
0 20
10 40



DRAINAGE PLAN - VETERANS BLVD
STA 53+50 TO STA 58+50

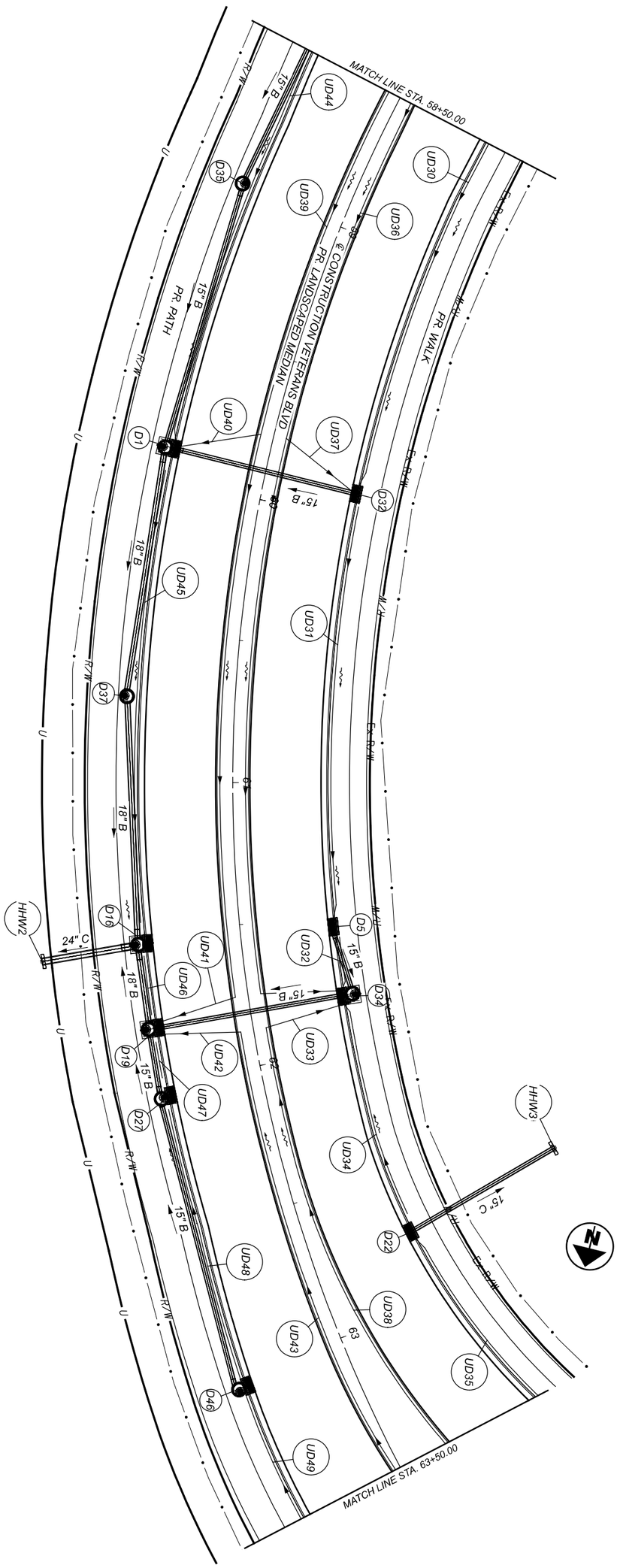
HORIZONTAL SCALE IN FEET
0 20
10 40

DESIGNER	VMG
REVIEWER	KLL 02/09/22
PROJECT ID	TEC PN: 21334
SHEET	P-109
TOTAL	147

TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DESIGN AGENCY

MODEL: Plan Veterans - Plan Veterans-2 (Sheet) PAPERSIZE: 34x22 (In.) DATE: 2/10/2022 TIME: 3:05:07 PM USER: kellie
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DRAINAGE PLAN - VETERANS BLVD
STA 58+50 TO STA 63+50

HORIZONTAL SCALE IN FEET
0 20
10 40

SHEET	TOTAL
P. 110	147

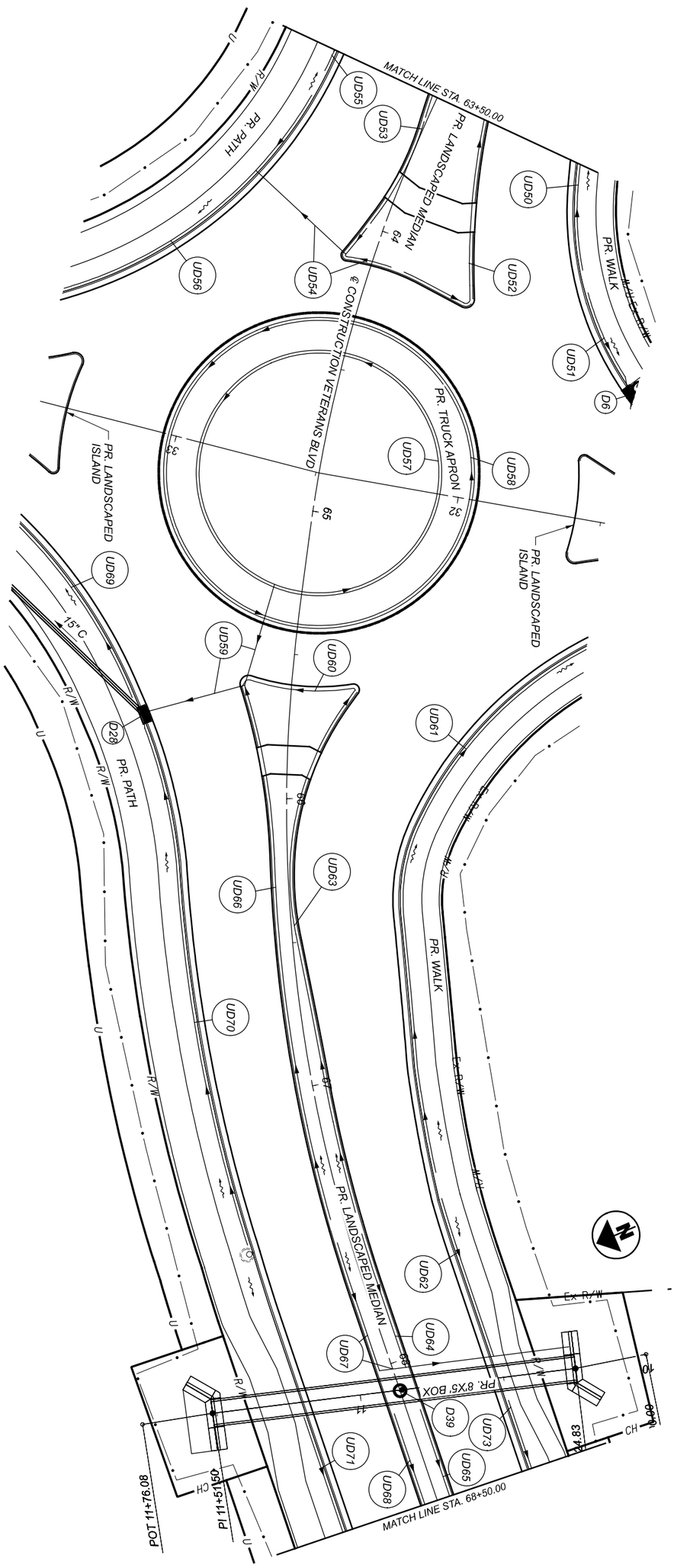
PROJECT ID
TEC PN: 21334

REVIEWER
KLL 02/09/22

DESIGNER
VMG

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

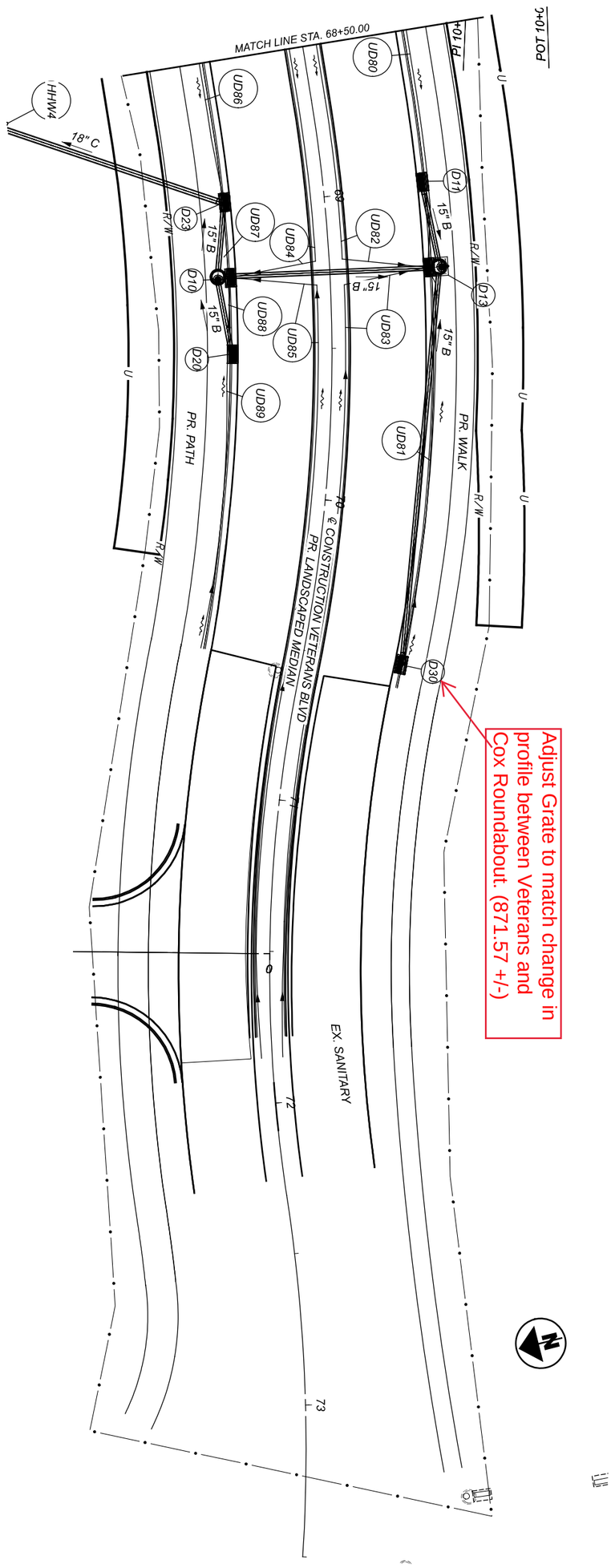
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SHEET P. 111	TOTAL 147	PROJECT ID TEC PN: 21334	REVIEWER KLL 02/09/22	DESIGNER VMG	DESIGN AGENCY TEC Engineering, Inc. PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040

DRAINAGE PLAN - VETERANS BLVD
STA 63+50 TO STA 68+50

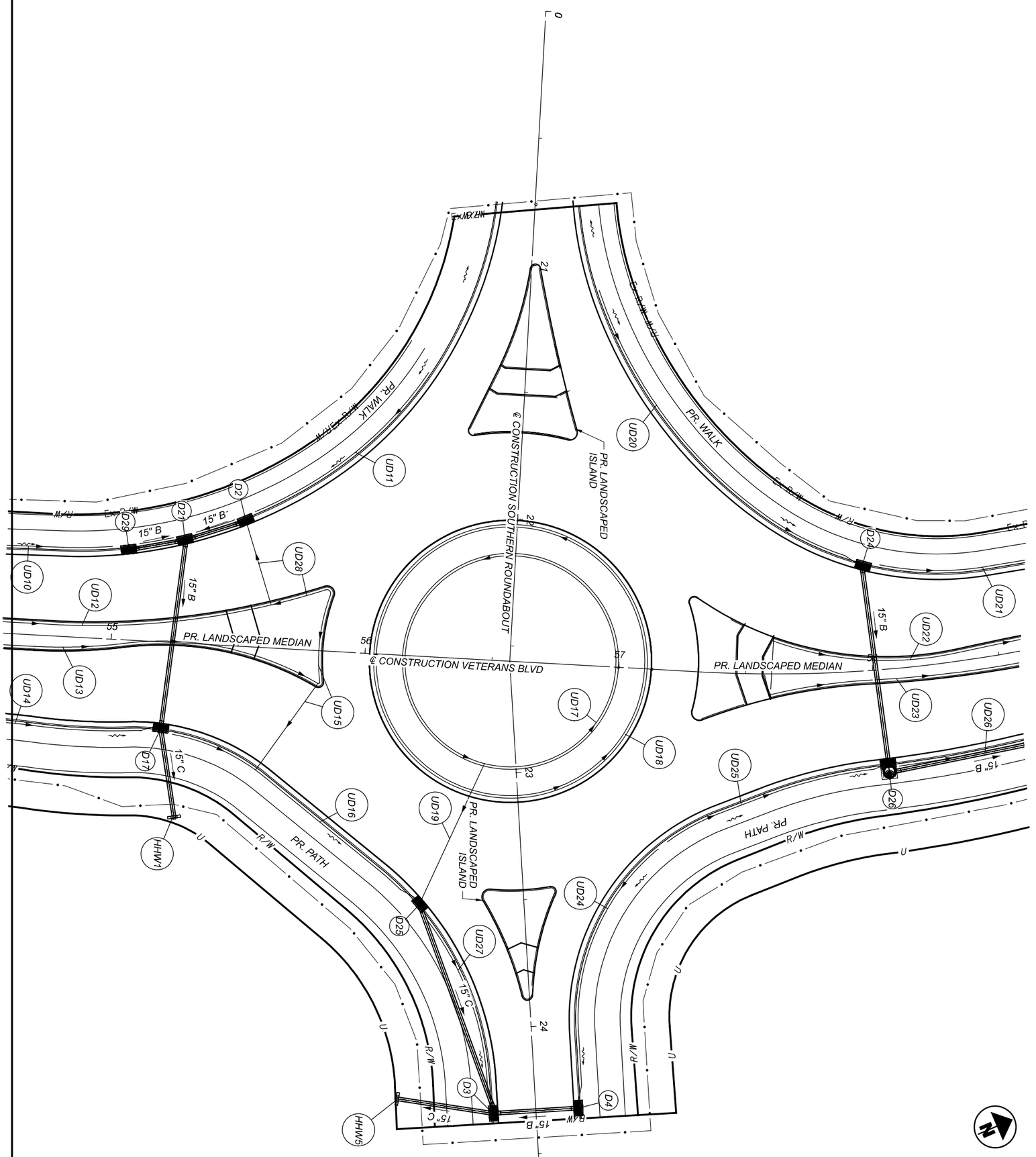
HORIZONTAL SCALE IN FEET
0 20
10 40



TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040
DESIGN AGENCY

DRAINAGE PLAN - VETERANS BLVD
STA 68+50 TO STA 73+50

HORIZONTAL SCALE IN FEET
0 20
10 40



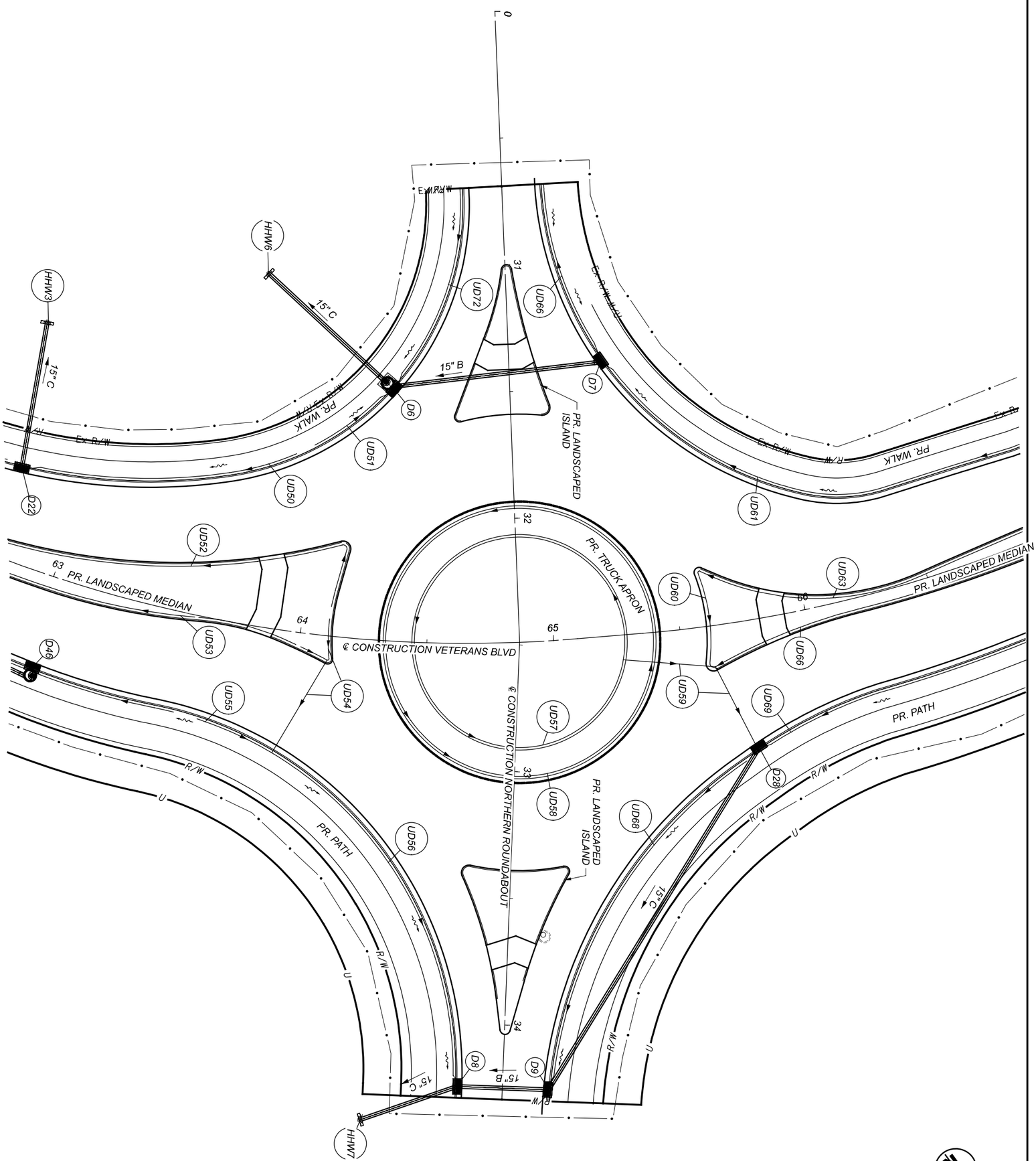
SHEET P.113 TOTAL 147	PROJECT ID TEC PN: 21334	REVIEWER KLL 02/09/22	DESIGNER VMG	TEC Engineering, Inc. PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040	DESIGN AGENCY

DRAINAGE PLAN - VETERANS BLVD SOUTHERN ROUNDABOUT

HORIZONTAL SCALE IN FEET

0 20 10 40

MODEL: CLP_Drivel - Plan Veterans-NRA [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/10/2022 TIME: 3:05:13 PM USER: kellle
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SHEET	TOTAL	PROJECT ID	REVIEWER	DESIGNER	DESIGN AGENCY
P. 114	147	TEC PN: 21334	KLL 02/09/22	VMG	TEC Engineering, Inc.

PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

DRAINAGE PLAN - VETERANS BLVD
NORTHERN ROUNDABOUT

HORIZONTAL SCALE IN FEET
0 20
10 40

ITEM 630, OVERHEAD SIGN SUPPORT, TYPE TC16.22, DESIGN 7, AS PER PLAN

POLES AND ARM, INCLUDING BASE AND FLANGE PLATES, BOLT COVERS, AND HANDHOLES SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION IN ACCORDANCE WITH 711.02. ALL VISIBLE ELEMENTS OF THE SUPPORT, AND ANY OTHER PARTS REQUIRED TO BE COATED, SHALL BE GALVANIZED AND THEN POWDER-COATED. ALL PAINTING SHALL BE PERFORMED UNDER CONTROLLED ENVIRONMENTAL CONDITIONS, AND IN ACCORDANCE WITH THE PAINT MANUFACTURER'S RECOMMENDATIONS PERTAINING TO SURFACE PREPARATION, MATERIAL HANDLING, AND APPLICATION. THE TOP FINISH COAT OF PAINT SHALL BE SIMILAR TO FEDERAL SPECIFICATION 595-B COLOR #27040, BLACK. PAINT SAMPLES SHALL BE SUBMITTED WITH THE SIGN SUPPORT SHOP DRAWINGS FOR REVIEW.

THE INSIDE OF EACH SUPPORT POLE ASSEMBLY, EACH MAST ARM ASSEMBLY, AND OTHER SUPPORT ACCESSORIES SHALL BE COATED WITH GALVANIZING MATERIAL. THE INSIDE ARE FORMED BY THE GUSSETS, POLE, AND POLE FLANGE PLATE SHALL BE COATED TO PROTECT THE AREA FROM CORROSION. IT IS TO BE NOTED THAT SOME TYPE OF OPENING SHALL BE REQUIRED TO COAT THE GUSSET AREA. THIS OPENING SHALL NOT HAMPER THE STRUCTURAL INTEGRITY OF THE FLANGE ASSEMBLY.

ALL EXTERIOR SURFACES OF THE SUPPORT POLE SHAFT ASSEMBLY, MAST ARM ASSEMBLY, ALL BOLT COVERS, ALL CLAMPS, CLEVIS-TO-CLEVIS UNIVERSAL, ALL HANDHOLE COVERS, POLE AND ARM CAPS SHALL HAVE A COATING PROPERLY APPLIED TO THEM. EXTERIOR SURFACES OF ALL FASTENER BOLTS/SCREWS, WASHERS, NUTS, AND OTHER ATTACHMENT HARDWARE SHALL HAVE A COATING APPLIED TO THEM. FASTENER THREADS SHALL NOT BE CLOGGED WITH COATING MATERIAL.

ALL COATED ITEMS SHALL BE SHIPPED IN A MANNER TO MINIMIZE DAMAGE IN TRANSIT. SURFACES SHOULD BE PROTECTED BY FOAM PADDING BY WRAPPING IN CARDBOARD, BY SPIRAL WRAPPING WITH WAX PAPER, BY CRATING, BY A COMBINATION OF METHODS, OR BY ANY OTHER METHOD SELECTED BY THE MANUFACTURER WHICH WILL INSURE DELIVERY OF UNDAMAGED MATERIALS. MATERIALS DAMAGED IN TRANSIT CAUSED BY IMPROPER PACKAGING OR IMPROPER TRANSIT HANDLING SHALL BE REJECTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING MATCHING PAINT COATING MATERIAL FOR TOUCH-UP WORK IDENTICAL TO THE ORIGINAL COATING PLACED ON THE STRUCTURE.

EACH COATING LAYER SHALL BE PROPERLY CURED BEFORE THE APPLICATION OF THE NEXT COAT. THE APPLICATION PROCEDURE SHALL BE SUCH TO GUARANTEE A FINISH THAT WILL NOT SCALE, FLAKE OR PEEL, AND WILL RETAIN ITS COLOR BRIGHTNESS AND FRESH, ATTRACTIVE APPEARANCE FOR 5 YEARS WITHOUT DULLING OR FADING.

THIS ITEM OF WORK SHALL BE MEASURED AS EACH COMPLETE SUPPORT, IN PLACE IN ESSENTIALLY A VERTICAL POSITION UNDER FULL PLAN LOADING. ALL LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PICKUP, TRANSPORT, STORE, ERECT, ADJUST, AND REPAIR THE SUPPORT AND ANCHOR BOLTS SHALL BE INCLUDED FOR PAYMENT IN THE BID ITEM.

ITEM 630, RIGID OVERHEAD SIGN SUPPORT FOUNDATION, AS PER PLAN

THIS PAY ITEM SHALL MEET ALL SPECIFICATIONS OF ITEM 630e84510 EXCEPT THAT THIS FOUNDATION SHALL INCLUDE 2-2" CONDUIT ELLS (ONE FOR POWER AND ONE FOR COMMS) AND AN ADDITIONAL CONDUIT ELL FOR GROUNDING.

ITEM 625, POWER SERVICE, AS PER PLAN

THIS ITEM SHALL INCLUDE ALL TIME AND MATERIAL TO INSTALL A POLE MOUNTED POWER SERVICE AS INDICATED IN THE PLANS. IT SHALL BE IN ACCORDANCE WITH ITEM 625 AND THE NATIONAL ELECTRIC CODE AND SHALL FOLLOW ODOT SCD ITS-15.11. THE CONTRACTOR SHALL COORDINATE WITH DUKE ENERGY ELECTRIC PRIOR TO INSTALLATION TO DETERMINE THE LOCATION OF THE POWER SUPPLY.

SERVICE SHALL BE COMPLETE 120/240V GROUNDED 3 WIRE SYSTEM, IF AVAILABLE. THE POWER SERVICE SHALL BE A 60 AMP SERVICE FUSED AT 30 AMPS. ALL MATERIALS INCLUDED WITH THE POWER SERVICE SHALL HAVE A BLACK FINISH.

ITEM 809, CCTV IP-CAMERA SYSTEM, DOME-TYPE, AS PER PLAN

THE CAMERA PROVIDED AND INSTALLED AS PART OF THIS PAY ITEM SHALL BE A BOSCH AUTODOME IP STARLIGHT 7000i OR APPROVED EQUAL.

ITEM 809, ITS CABINET - POLE MOUNTED, AS PER PLAN

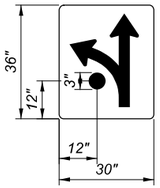
THIS ITEM SHALL CONFORM TO ALL SPECIFICATIONS OF STANDARD POLE MOUNTED ITS CABINET, EXCEPT THAT IT SHALL HAVE A BLACK POWDER COAT FINISH.

ITEM 809, HIGH SPEED ETHERNET RADIO

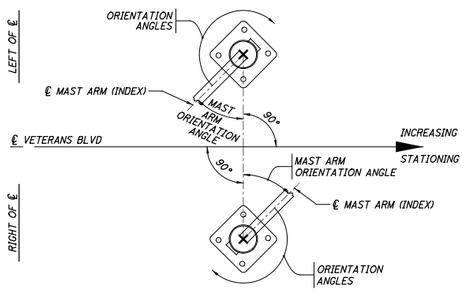
THIS PAY ITEM SHALL MEET ALL REQUIREMENTS OF ODOT SPEC 809 AND 909. ONE RADIO SHALL BE INSTALLED AT THE PTZ CAMERA LOCATION. A SECOND RADIO SHALL BE INSTALLED AT THE TRAFFIC SIGNAL AT VETERANS BLVD AND LIBERTY WAY. THIS PAY ITEM WILL BE PAID FOR EACH RADIO AND ASSOCIATED EQUIPMENT INSTALLED, TESTED, AND COMMUNICATING.

ITEM 809, ITS DEVICE MISC.: NETWORK SWITCH

THIS PAY ITEM SHALL INCLUDE ALL TIME AND MATERIAL TO PROVIDE AND INSTALL A HARDENED EIGHT PORT ETHERNET SWITCH, WITH ETHERNET CAT-5 CABLES, MOUNTED IN THE POLE MOUNTED ITS CABINET TO CONNECT ALL ETHERNET DEVICES IN THE CABINET (RADIO, CAMERA, ETC.). INCLUDED IN THIS ITEM.



R3-6L-MOD
LANE CONTROL SIGN DETAILS



POLE ORIENTATION

LINE SPECIFICATIONS

ITEM 644	
ELY	EDGE LINE, YELLOW, 4", W/ RPMS
ELW	EDGE LINE, WHITE, 4"
LL	LANE LINE, WHITE, 4", W/ RPMS
CH	CHANNELIZING LINE, WHITE, 8", W/ RPMS
CW	CROSSWALK LINE, WHITE, PER TC-74.10
TLW	TRANSVERSE LINE, WHITE, 12"
CL	CENTER LINE, DOUBLE SOLID YELLOW, 4", W/ RPMS
AR	LANE ARROW, WHITE
DL	DOTTED LINE, WHITE, 8", 1' LONG WITH 3' GAP
YL	YIELD LINE, 24" BASE
SS	STRONG SKIP LINE, WHITE, 8", 6' LONG W/ 3' GAP w/ RPMs
XX	EXISTING MARKING

ESTIMATED QUANTITIES FOR PTZ INSTALLATION

ITEM	ITEM EXT	TOTAL	UNIT	DESCRIPTION
625	32000	5	EACH	GROUND ROD
625	34001	1	EACH	POWER SERVICE, AS PER PLAN
630	72520	5	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-16.22, DESIGN 7, AS PER PLAN
630	84511	5	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION, AS PER PLAN
809	60001	1	EACH	CCTV IP-CAMERA SYSTEM, DOME-TYPE, AS PER PLAN
809	64500	2	EACH	HIGH SPEED ETHERNET RADIO
809	65011	1	EACH	ITS CABINET - POLE MOUTED, AS PER PLAN
809	65990	1	EACH	ITS DEVICE, MISC.: NETWORK SWTICH

NOTE: TOTALS CARRIED TO GENERAL SUMMARY SHEET

MAST ARM TABLE

SUPPORT NO.	STATION	OFFSET	ELEVATION		SIGN SUPPORT DETAILS											ORIENTATION ANGLES FROM MAST ARM A								
			A (PAVEMENT ELEVATION)	B (TOP OF FOUNDATION)	DESIGN TYPE	DESIGN NO.	POLE HEIGHT	ARM HEIGHT	L1	L2	L3	L4	L5	L6	MAST ARM LENGTH	MAST ARM A ANGLE	MAST ARM B ANGLE	PEDESTRIAN SIGNAL	PTZ CAMERA	POWER SERVICE	POLE MOUNTED CABINET	BRACKET ARM	HANDHOLE	DISCONNECT
							FT	FT	FT	FT	FT	FT	FT	FT	FT	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG	DEG
OS 1	53+82	37' RT	874.85	875.93	TC16-22	7	20	18.5	13.5	19	24.5	-	-	-	30	0	-	-	-	-	-	-	-	-
OS 2	60+00	37' LT	869.68	870.77	TC16-22	7	20	18.5	13.5	19	24.5	-	-	-	30	0	-	-	-	-	-	-	-	-
OS 3	61+35	38' RT	868.80	869.89	TC16-22	7	25	18.5	14.5	20	25.5	-	-	-	30	0	-	-	0	90	270	-	180	-
OS 4	66+48	37' LT	870.01	872.01	TC16-22	7	20	18.5	13.5	19	24.5	-	-	-	30	0	-	-	-	-	-	-	-	-
OS 5	70+50	36' RT	872.04	873.13	TC16-22	7	20	18.5	13.5	19	24.5	-	-	-	30	0	-	-	-	-	-	-	-	-

TRAFFIC CONTROL NOTES

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Corporate Center Blvd.
Mason, OH 45040
DESIGNER KAM
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334

BUT-VETERANS BLVD-0.00

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ITEM 630, SIGNING MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY

THIS ITEM OF WORK SHALL CONSIST OF FURNISHING AND INSTALLING A SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY. THE RRFB SHALL BE MODEL R920E RRFB, MANUFACTURED BY CARMANAH. LIGHT BARS SHALL BE DUAL DIRECTIONAL.

ALL RRFB LIGHT INDICATIONS ON A CROSSING PAIR SHALL BE WIRELESSLY SYNCHRONIZED. ALL LIGHTS WILL TURN ON WITHIN 120 MSEC AND REMAIN SYNCHRONIZED THROUGHOUT THE DURATION OF THE FLASHING CYCLE.

RRFB EQUIPMENT SHALL BE MOUNTED ON A 4" DIAMETER PEDESTAL SHAFT WITH A HEIGHT OF 14'. PEDESTAL SHAFT AND TRANSFORMER BASE ARE INCLUDED IN THE ITEM. PEDESTAL AND TRANSFORMER BASE SHALL BE COLOR #27040, BLACK.

WARRANTY -

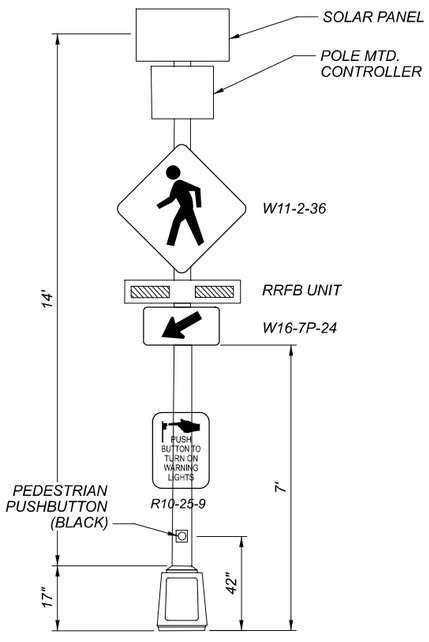
WARRANTY SHALL BE TWO YEARS FROM THE DATE OF FINAL ACCEPTANCE.

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".



ITEM 630, SIGNING, MISC.: SOLAR POWERED RECTANGULAR RAPID FLASHING BEACON (RRFB) SIGN ASSEMBLY (TYP.)
NOT TO SCALE

TRAFFIC CONTROL NOTES

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Engel Road, Unit A
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.116 TOTAL 147

BUT-VETERANS BLVD-0.00

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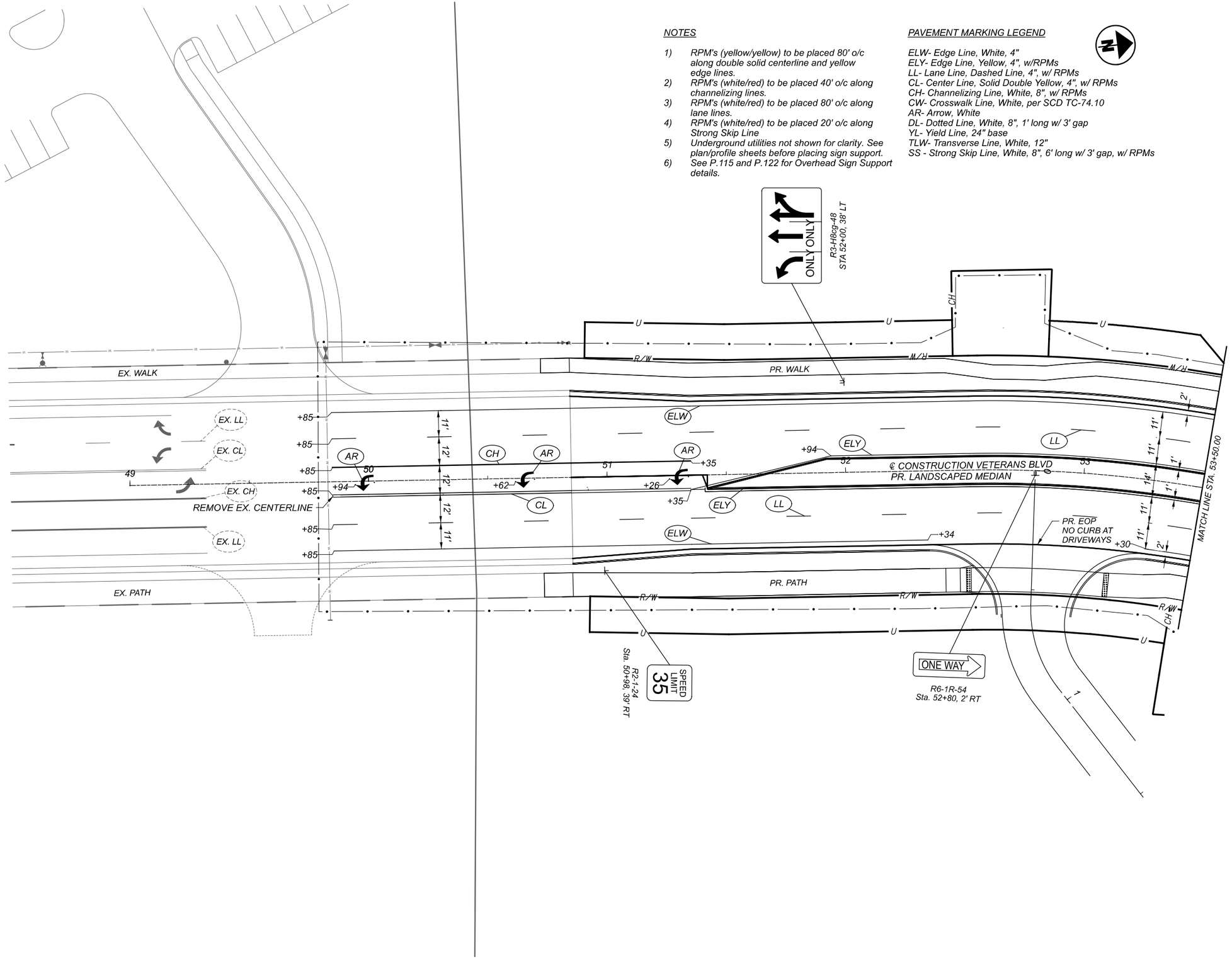
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NOTES

1) RPM's (yellow/yellow) to be placed 80' o/c along double solid centerline and yellow edge lines.
2) RPM's (white/red) to be placed 40' o/c along channelizing lines.
3) RPM's (white/red) to be placed 80' o/c along lane lines.
4) RPM's (white/red) to be placed 20' o/c along Strong Skip Line
5) Underground utilities not shown for clarity. See plan/profile sheets before placing sign support.
6) See P.115 and P.122 for Overhead Sign Support details.

PAVEMENT MARKING LEGEND

ELW- Edge Line, White, 4"
ELY- Edge Line, Yellow, 4", w/RPMs
LL- Lane Line, Dashed Line, 4", w/ RPMs
CL- Center Line, Solid Double Yellow, 4", w/ RPMs
CH- Channelizing Line, White, 8", w/ RPMs
CW- Crosswalk Line, White, per SCD TC-74.10
AR- Arrow, White
DL- Dotted Line, White, 8", 1' long w/ 3' gap
YL- Yield Line, 24" base
TLW- Transverse Line, White, 12"
SS - Strong Skip Line, White, 8", 6' long w/ 3' gap, w/ RPMs



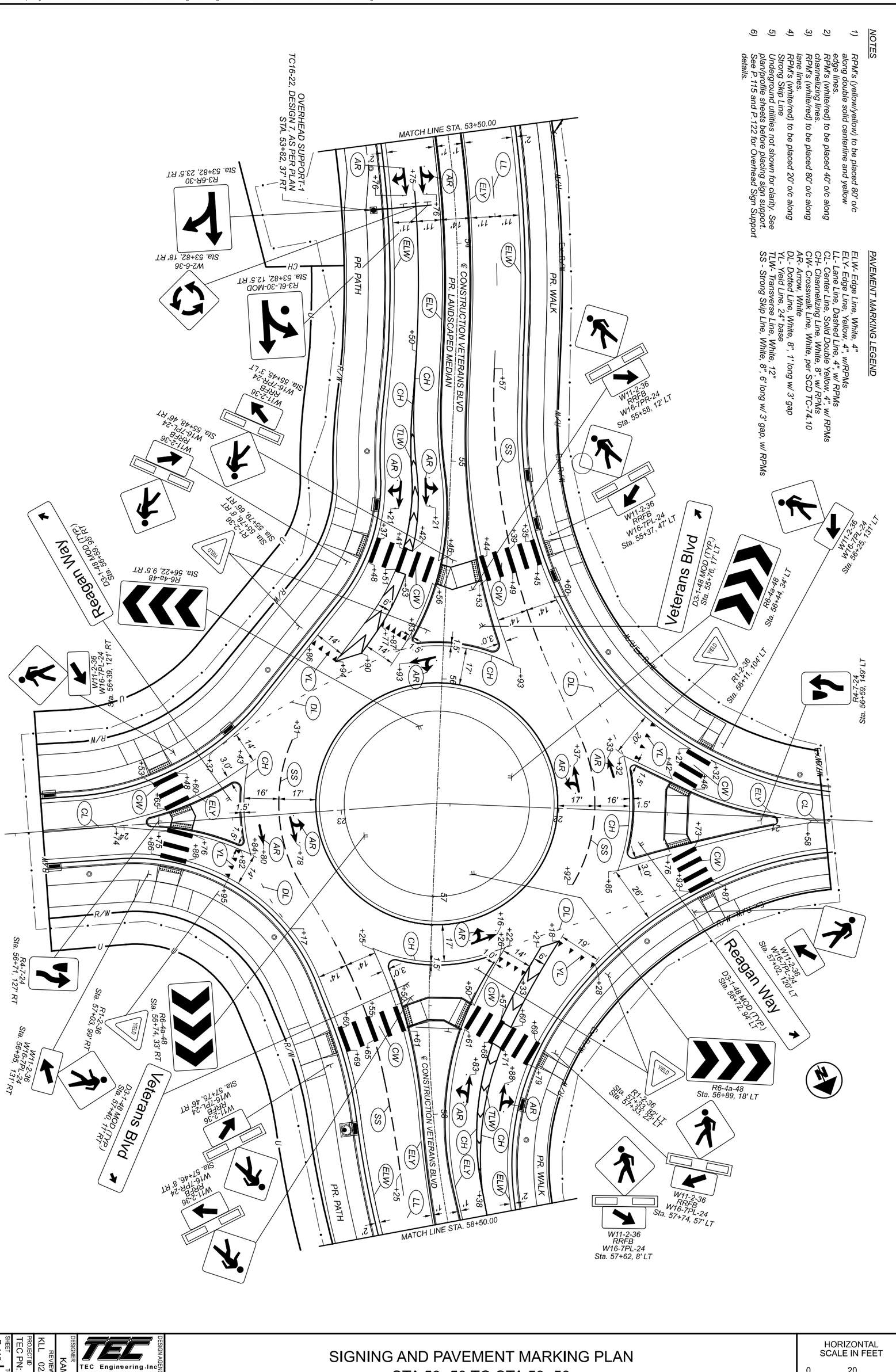
HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
STA 49+00 TO STA 53+50

DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER: KAM
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.117 TOTAL: 147

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SHEET P. 118	TOTAL 147	DESIGNER KAM	DESIGN AGENCY TEC Engineering, Inc. PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040
PROJECT ID TEC PN: 21334		REVIEWER KLL 02/09/22	

SIGNING AND PAVEMENT MARKING PLAN
STA 53+50 TO STA 58+50

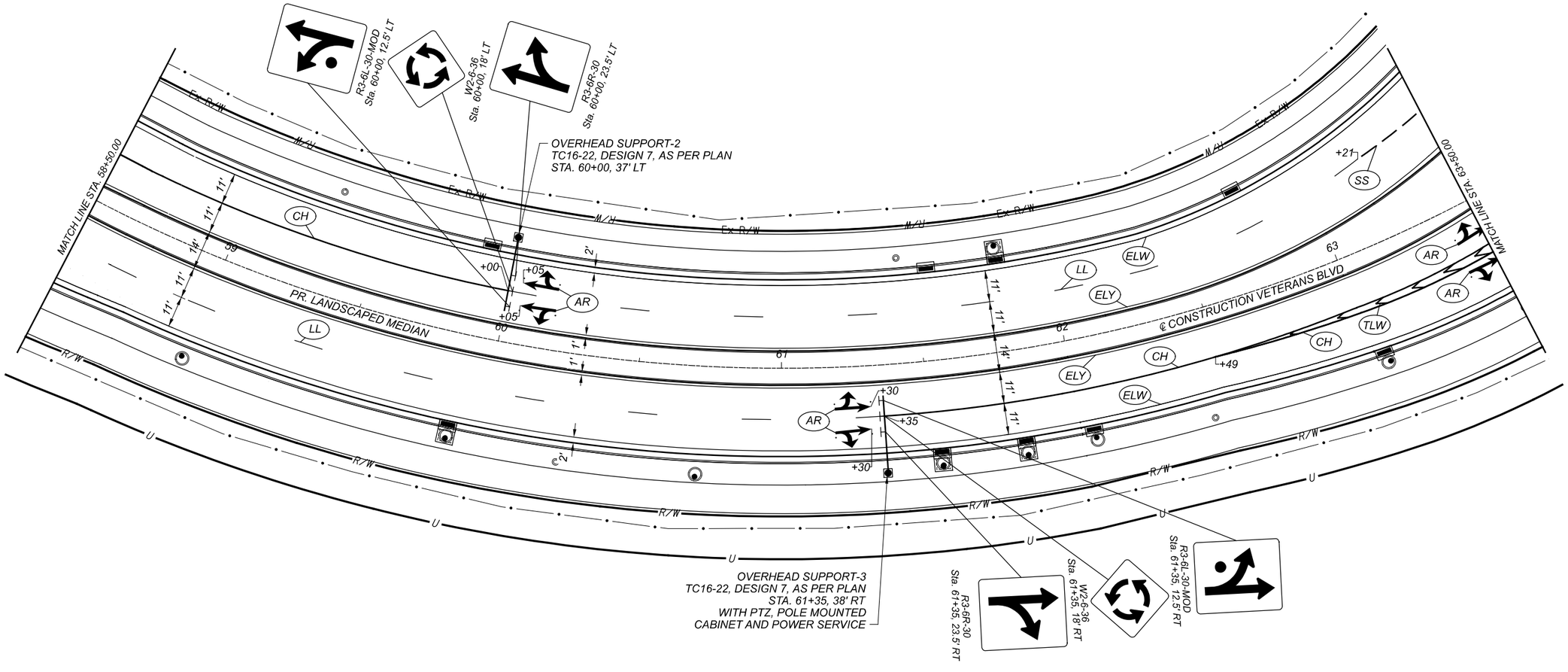
HORIZONTAL SCALE IN FEET
0 20
10 40

NOTES

1) RPM's (yellow/yellow) to be placed 80' o/c along double solid centerline and yellow edge lines.
2) RPM's (white/red) to be placed 40' o/c along channelizing lines.
3) RPM's (white/red) to be placed 80' o/c along lane lines.
4) RPM's (white/red) to be placed 20' o/c along Strong Skip Line
5) Underground utilities not shown for clarity. See plan/profile sheets before placing sign support.
6) See P.115 and P.122 for Overhead Sign Support details.

PAVEMENT MARKING LEGEND

ELW- Edge Line, White, 4"
ELY- Edge Line, Yellow, 4", w/RPMs
LL- Lane Line, Dashed Line, 4", w/ RPMs
CL- Center Line, Solid Double Yellow, 4", w/ RPMs
CH- Channelizing Line, White, 8", w/ RPMs
CW- Crosswalk Line, White, per SCD TC-74.10
AR- Arrow, White
DL- Dotted Line, White, 8", 1' long w/ 3' gap
YL- Yield Line, 24" base
TLW- Transverse Line, White, 12"
SS - Strong Skip Line, White, 8", 6' long w/ 3' gap, w/ RPMs



HORIZONTAL SCALE IN FEET
0 10 20 40

SIGNING AND PAVEMENT MARKING PLAN
STA 58+50 TO STA 63+50

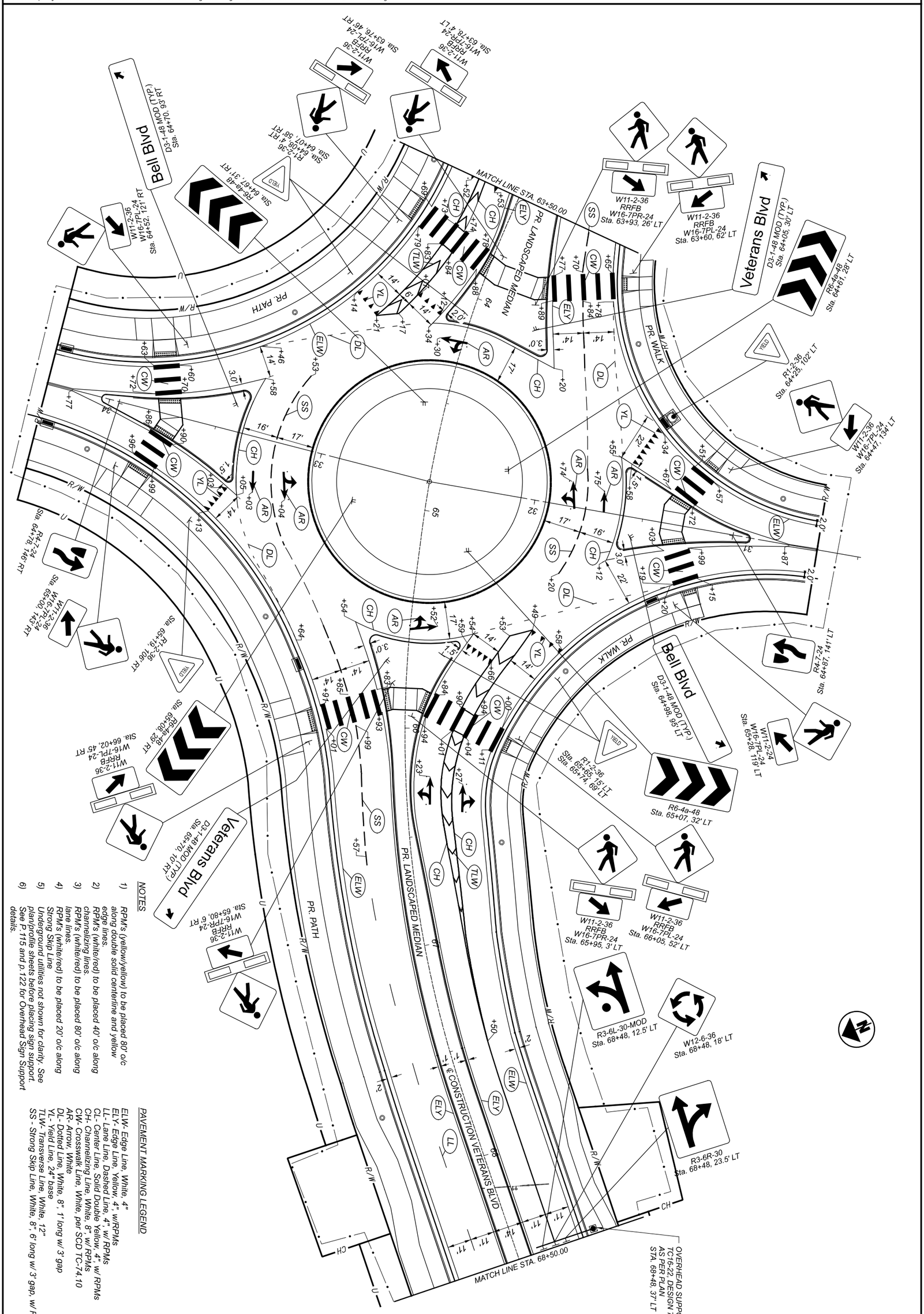
DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Snider Road, Suite 100
Mason, OH 45040

DESIGNER: KAM
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.119 TOTAL: 147

BUT-VETERANS BLVD-0.00

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NOTES

1) *RPM's (yellow/yellow) to be placed 80' o/c along double solid centerline and yellow edge lines.*
2) *RPM's (white/red) to be placed 40' o/c along channelizing lines.*
3) *RPM's (white/red) to be placed 80' o/c along lane lines.*
4) *RPM's (white/red) to be placed 20' o/c along Strong Skip Line*
5) *Underground utilities not shown for clarity. See plan/profile sheets before placing sign support.*
6) *See P. 115 and p. 122 for Overhead Sign Support details.*

PAVEMENT MARKING LEGEND

ELW- Edge Line, White, 4"
ELY- Edge Line, Yellow, 4" w/RPMs
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CL- Center Line, Solid Double Yellow, 4" w/ RPMs
CH- Channelizing Line, White, 8" w/ RPMs
CW- Crosswalk Line, White, per SCD TC-74.10
AR- Arrow, White
DL- Dotted Line, White, 8", 1' long w/ 3' gap
YL- Yield Line, 24" base
TLW- Transverse Line, White, 12"
SS - Strong Skip Line, White, 8", 6' long w/ 3' gap. w/ RPMs

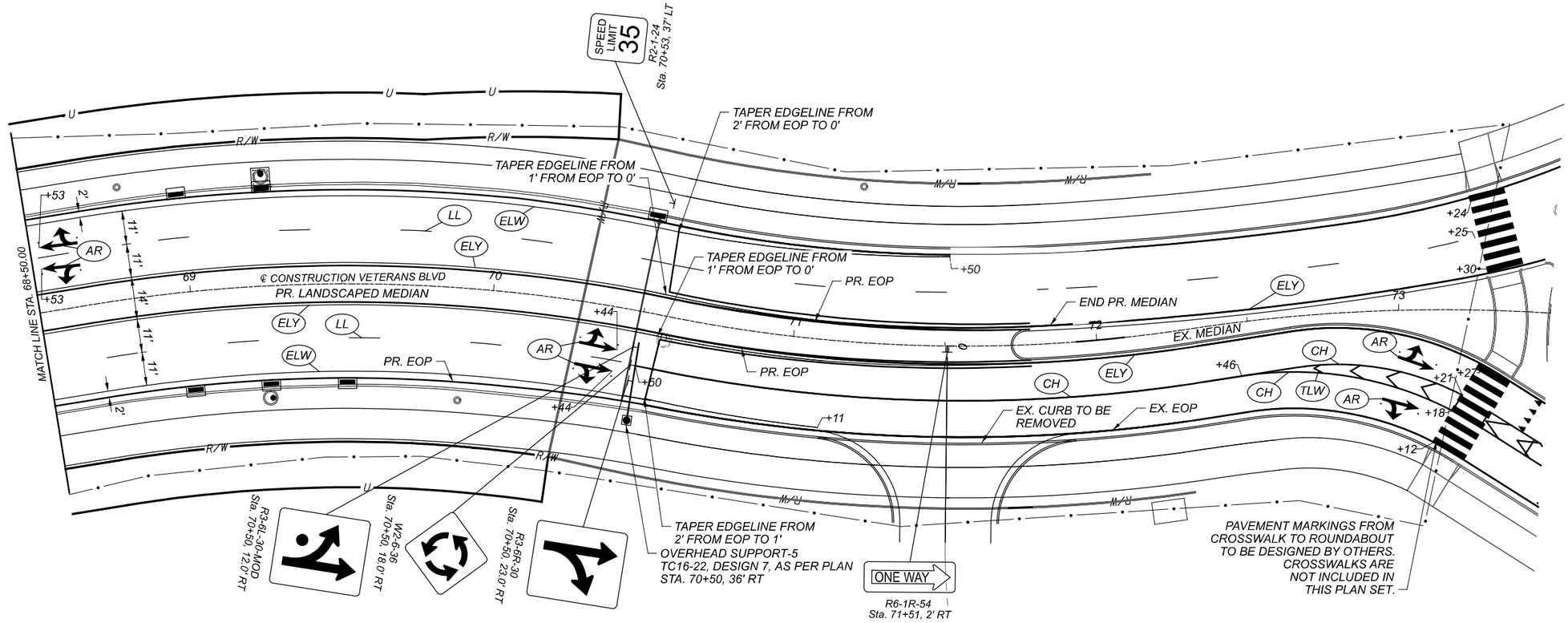
SHEET P. 120	TOTAL 147	DESIGNER KAM	TEC Engineering, Inc. PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040	DESIGN AGENCY	SIGNING AND PAVEMENT MARKING PLAN STA 63+50 TO STA 68+50
PROJECT ID TEC PN: 21334		REVIEWER KLL 02/09/22			HORIZONTAL SCALE IN FEET 0 20 10 40

NOTES

1) RPM's (yellow/yellow) to be placed 80' o/c along double solid centerline and yellow edge lines.
2) RPM's (white/red) to be placed 40' o/c along channelizing lines.
3) RPM's (white/red) to be placed 80' o/c along lane lines.
4) RPM's (white/red) to be placed 20' o/c along Strong Skip Line
5) Underground utilities not shown for clarity. See plan/profile sheets before placing sign support.
6) See P.115 and p.123 for Overhead Sign Support details.

PAVEMENT MARKING LEGEND

ELW- Edge Line, White, 4"
ELY- Edge Line, Yellow, 4", w/RPMs
LL- Lane Line, Dashed Line, 4", w/ RPMs
CL- Center Line, Solid Double Yellow, 4", w/ RPMs
CH- Channelizing Line, White, 8", w/ RPMs
CW- Crosswalk Line, White, per SCD TC-74.10
AR- Arrow, White
DL- Dotted Line, White, 8", 1' long w/ 3' gap
YL- Yield Line, 24" base
TLW- Transverse Line, White, 12"
SS - Strong Skip Line, White, 8", 6' long w/ 3' gap, w/ RPMs



HORIZONTAL SCALE IN FEET
0 10 20 40

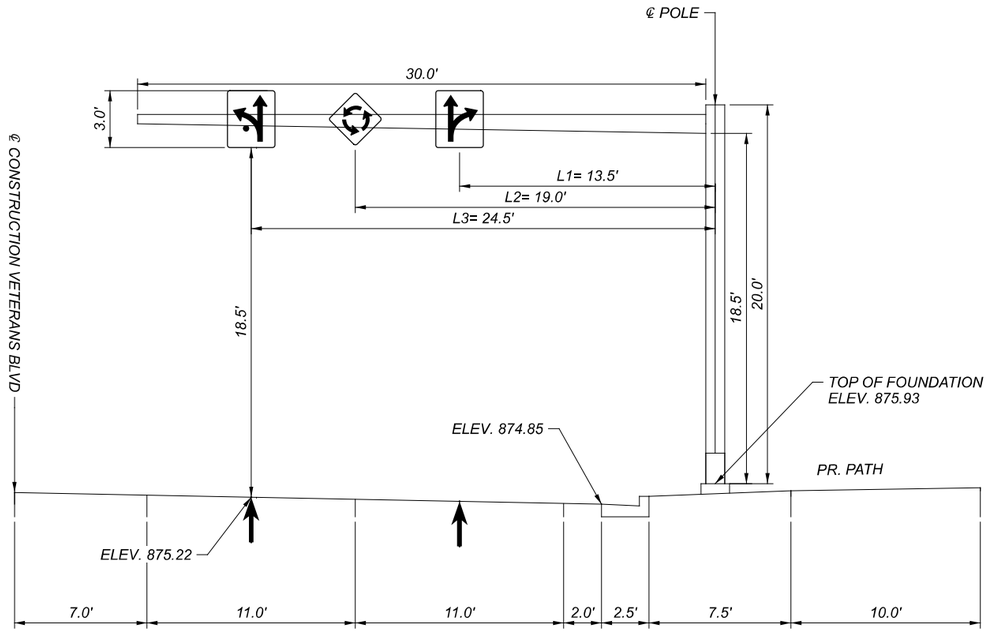
SIGNING AND PAVEMENT MARKING PLAN STA 68+50 TO STA 73+50

DESIGN AGENCY
TEC Engineering,Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

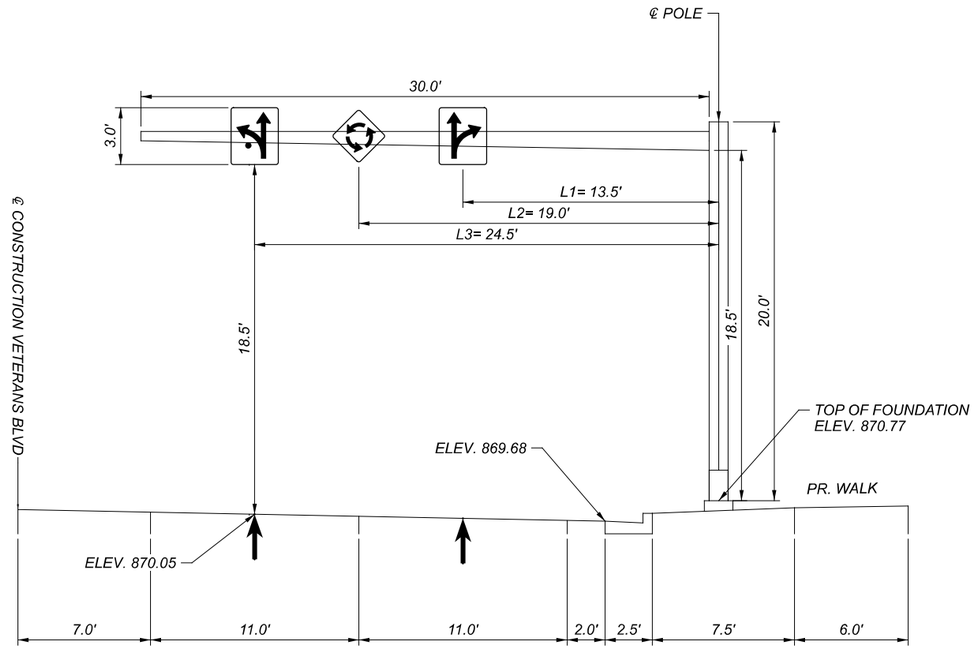
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REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P.121 TOTAL 147

BUT-VETERANS BLVD-0.00

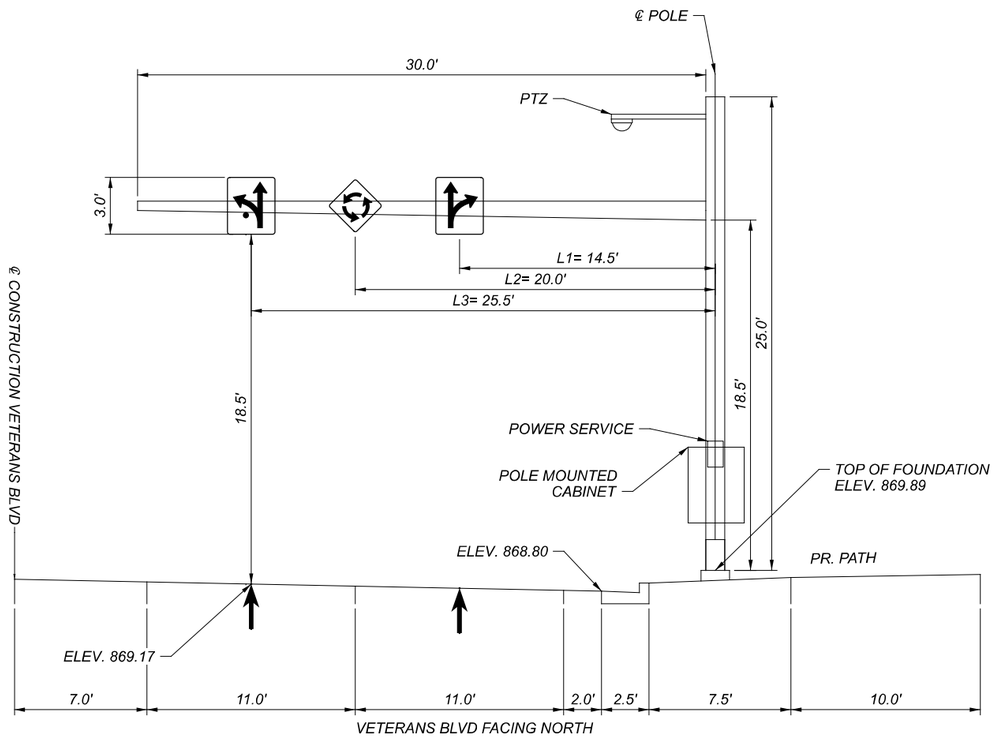
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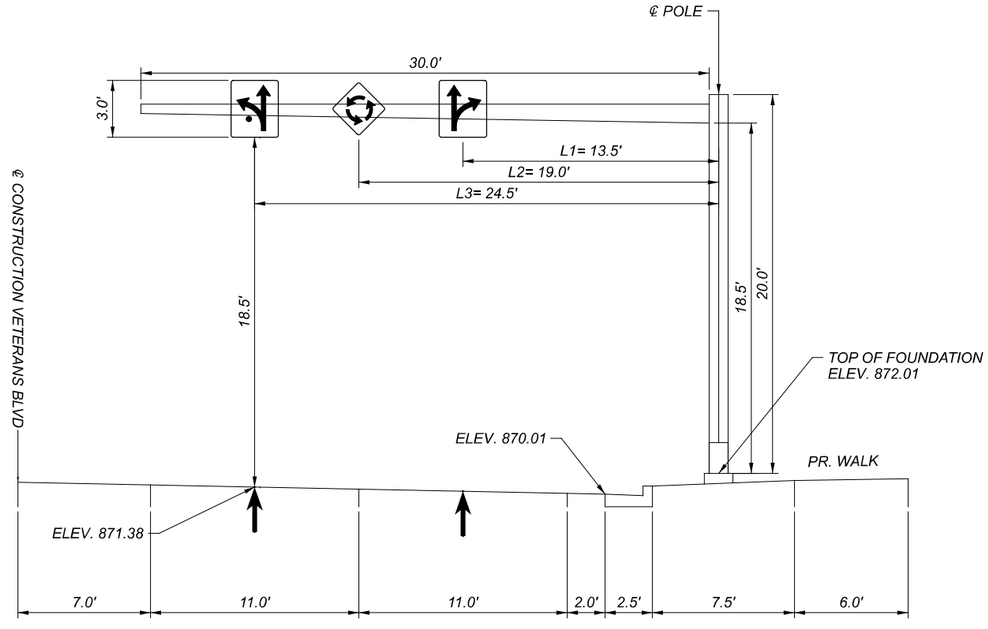
VETERANS BLVD FACING NORTH
OVERHEAD SUPPORT- 1
TC16-22, DESIGN 7, AS PER PLAN
STA. 53+82, 37' RT



VETERANS BLVD FACING SOUTH
OVERHEAD SUPPORT- 2
TC16-22, DESIGN 7, AS PER PLAN
STA. 60+00, 37' LT



VETERANS BLVD FACING NORTH
OVERHEAD SUPPORT- 3
TC16-22, AS PER PLAN
STA. 61+35, 38' RT



VETERANS BLVD FACING SOUTH
OVERHEAD SUPPORT- 4
TC16-22, DESIGN 7, AS PER PLAN
STA. 68+48, 37' LT

SIGN SUPPORT ELEVATION VIEWS

BUT-VETERANS BLVD-0.00

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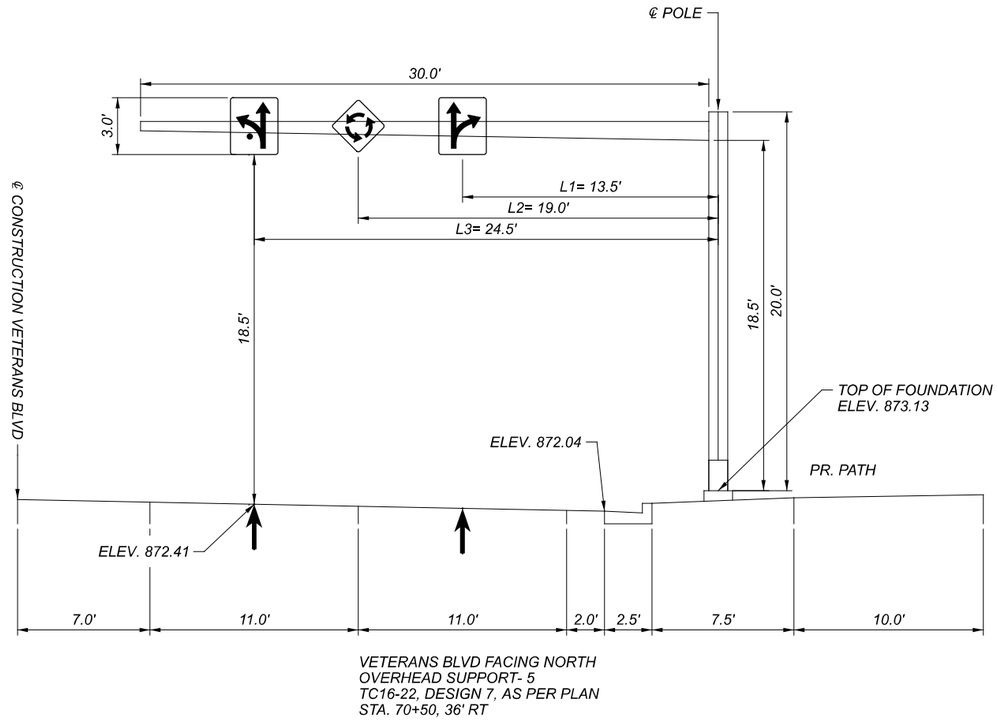
DESIGN AGENCY
TEC Engineering,Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.122 | TOTAL 147



VETERANS BLVD FACING NORTH
OVERHEAD SUPPORT- 5
TC16-22, DESIGN 7, AS PER PLAN
STA. 70+50, 36' RT

SIGN SUPPORT ELEVATION VIEWS

BUT-VETERANS BLVD-0.00

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\\Oui.4\Projects\WorkSets\21334_Veterans\400-Engineering\Traffic\Sheets\21334_Veterans_TE001.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7261 Engle Road, Suite 400
Mason, OH 45040

DESIGNER
KAM

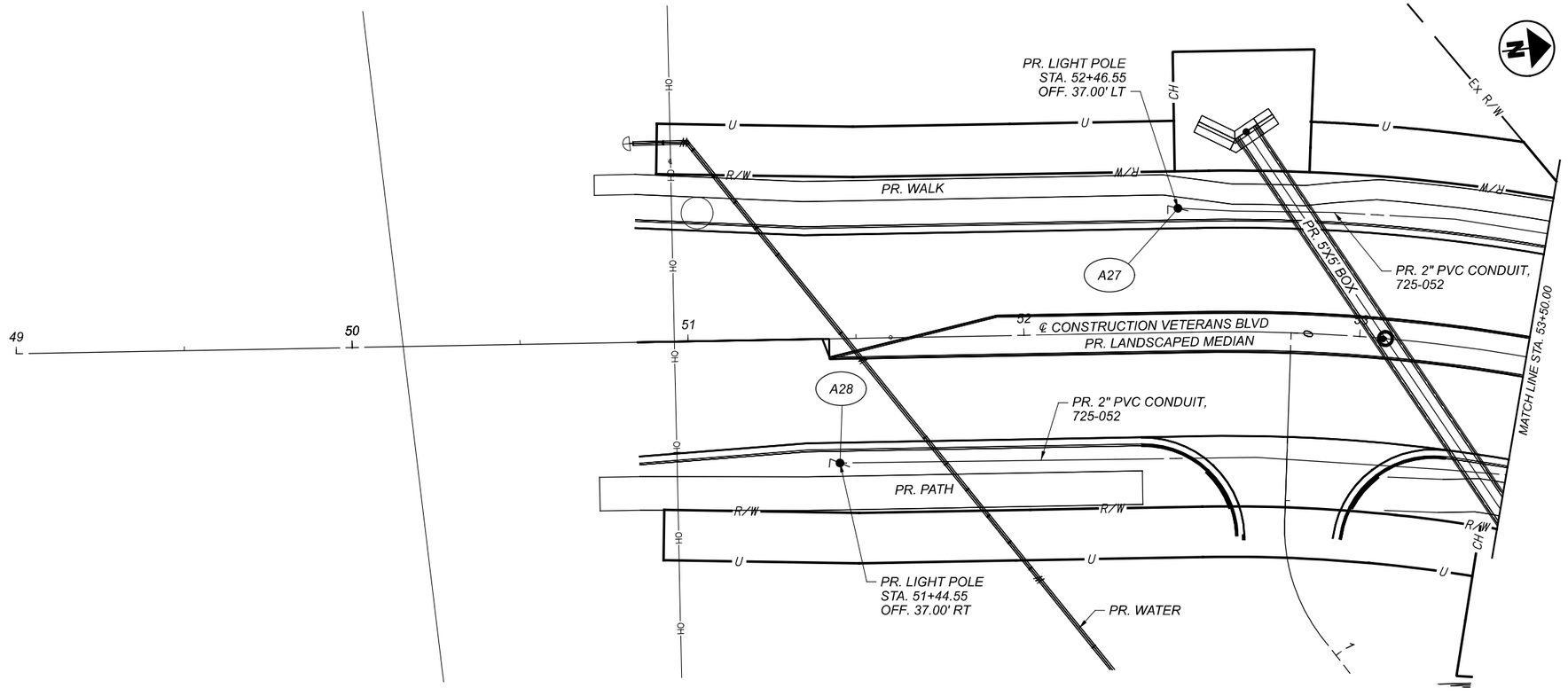
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.123 | TOTAL 147

NOTE: DUKE ENERGY IS TO RUN WIRING
AND INSTALL LIGHT POLES.

LEGEND
A## - 150W LED SANIBEL TYPE III 4000K - 6' HARBOR BRACKET
B## - 150W LED ROADWAY TYPE IV 4000K - 6' TENON MAST ARM



HORIZONTAL
SCALE IN FEET
0 10 20 40

LIGHTING PLAN - VETERANS BLVD
STA 48+50 TO STA 53+50

DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

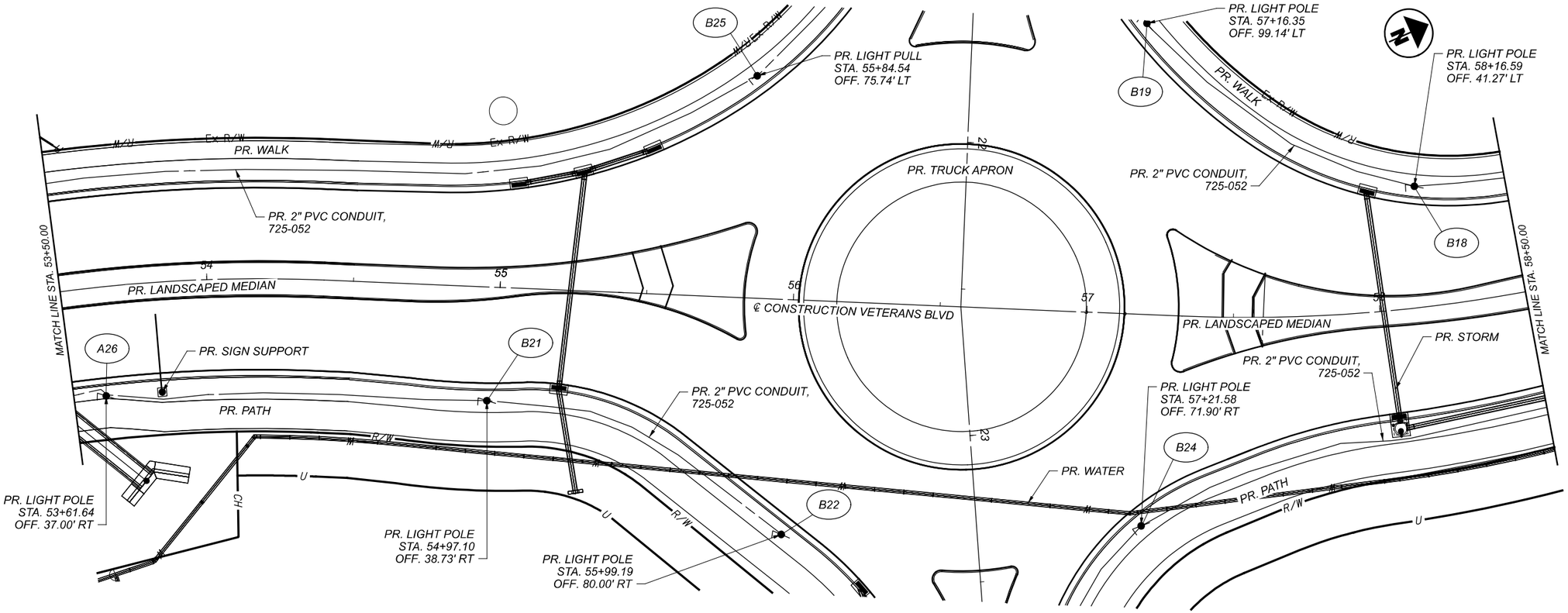
SHEET P.124 TOTAL 143

BUT-VETERANS BLVD-0.00

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NOTE: DUKE ENERGY IS TO RUN WIRING
AND INSTALL LIGHT POLES.

LEGEND
A## - 150W LED SANIBEL TYPE III 4000K - 6' HARBOR BRACKET
B## - 150W LED ROADWAY TYPE IV 4000K - 6' TENON MAST ARM



HORIZONTAL
SCALE IN FEET
0 10 20 40

LIGHTING PLAN - VETERANS BLVD
STA 53+50 TO STA 58+50

DESIGN AGENCY
TEC Engineering, Inc
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Central Parke Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

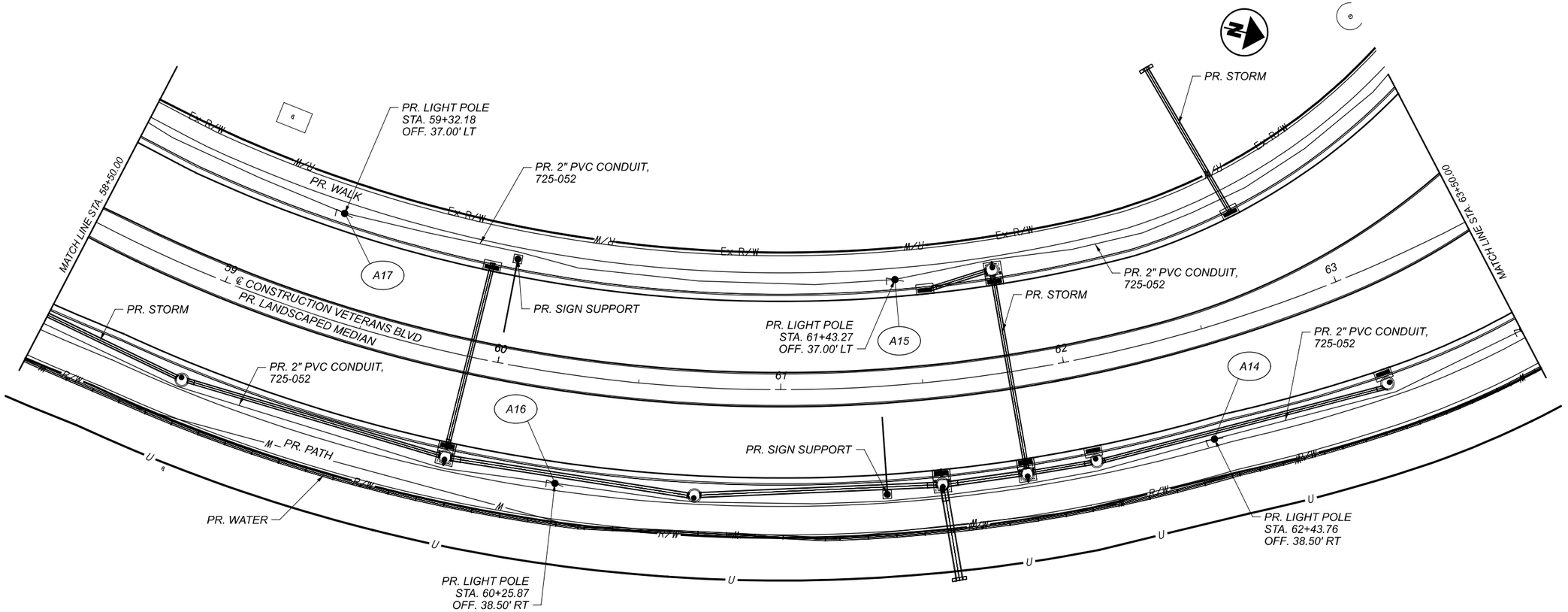
SHEET P.125 TOTAL 143

BUT-VETERANS BLVD-0.00

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NOTE: DUKE ENERGY IS TO RUN WIRING
AND INSTALL LIGHT POLES.

LEGEND
A## - 150W LED SANIBEL TYPE III 4000K - 6' HARBOR BRACKET
B## - 150W LED ROADWAY TYPE IV 4000K - 6' TENON MAST ARM



HORIZONTAL
SCALE IN FEET
0 10 20 40

LIGHTING PLAN - VETERANS BLVD
STA 58+50 TO STA 63+50

BUT-VETERANS BLVD-0.00

MODEL: Plan Veterans - Plan Veterans-2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:42:19 PM USER: kellle
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DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7246 Central Parke Blvd.
Mason, OH 45040

DESIGNER
VMG

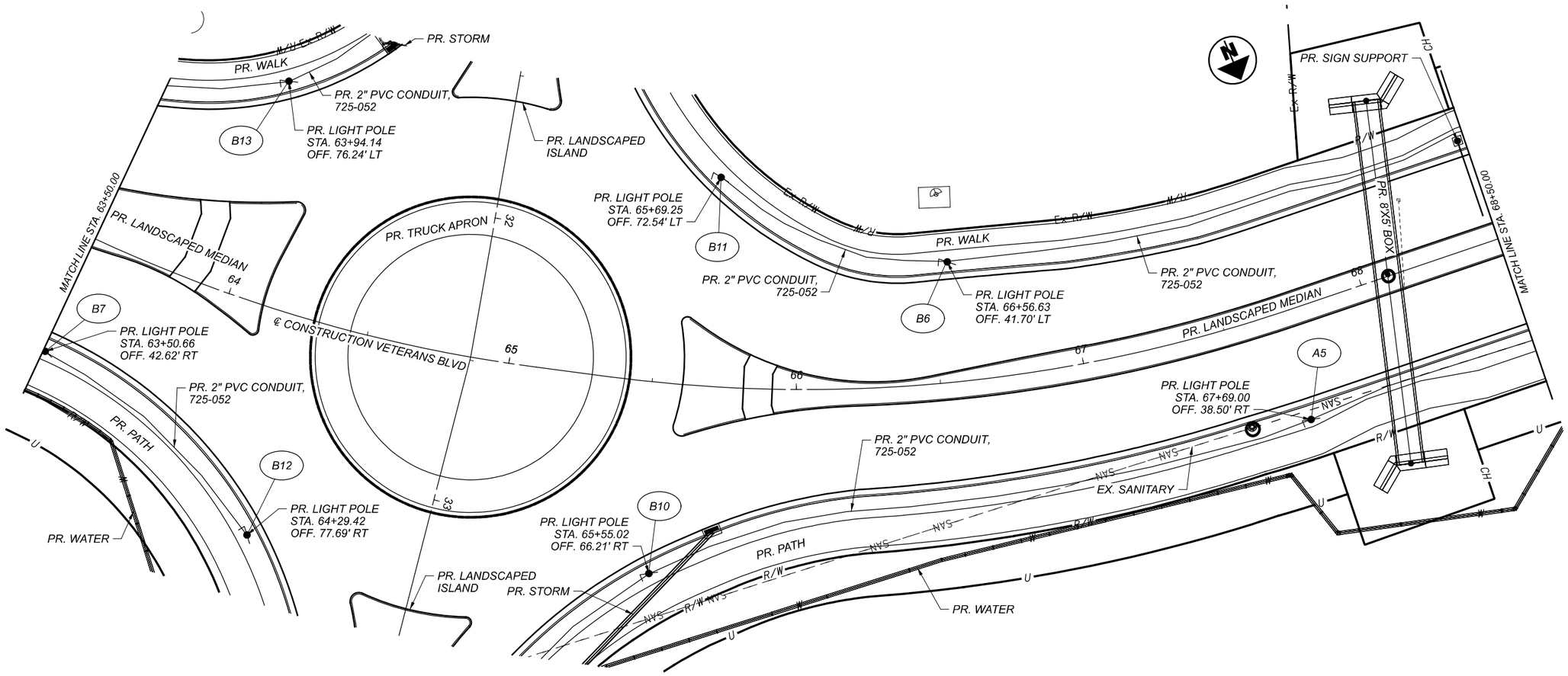
REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.126 | TOTAL 143

NOTE: DUKE ENERGY IS TO RUN WIRING
AND INSTALL LIGHT POLES.

LEGEND
A## - 150W LED SANIBEL TYPE III 4000K - 6' HARBOR BRACKET
B## - 150W LED ROADWAY TYPE IV 4000K - 6' TENON MAST ARM



HORIZONTAL SCALE IN FEET
0 10 20 40

LIGHTING PLAN - VETERANS BLVD
STA 63+50 TO STA 68+50

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

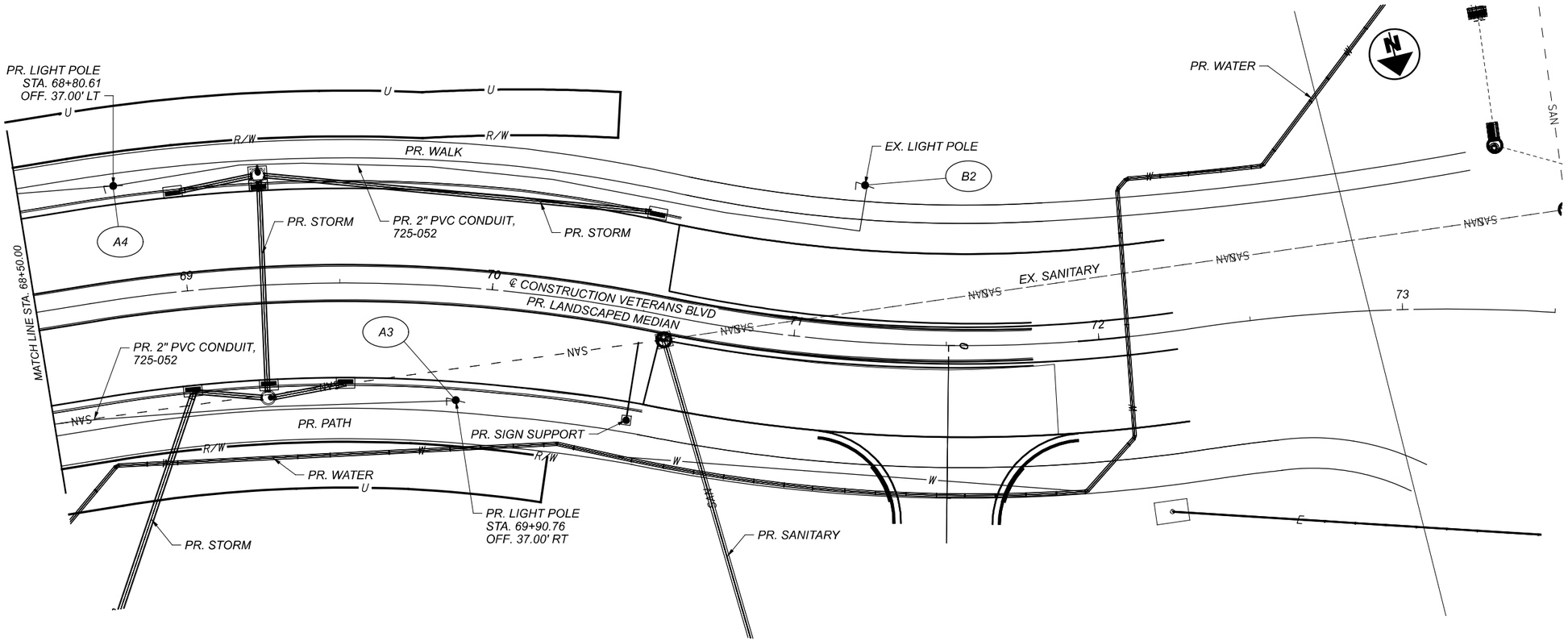
SHEET P.127 TOTAL 143

BUT-VETERANS BLVD-0.00

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NOTE: DUKE ENERGY IS TO RUN WIRING
AND INSTALL LIGHT POLES.

LEGEND
A## - 150W LED SANIBEL TYPE III 4000K - 6' HARBOR BRACKET
B## - 150W LED ROADWAY TYPE IV 4000K - 6' TENON MAST ARM



HORIZONTAL
SCALE IN FEET
0 10 20 40

LIGHTING PLAN - VETERANS BLVD
STA 68+50 TO STA 73+50

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Commerce Blvd.
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

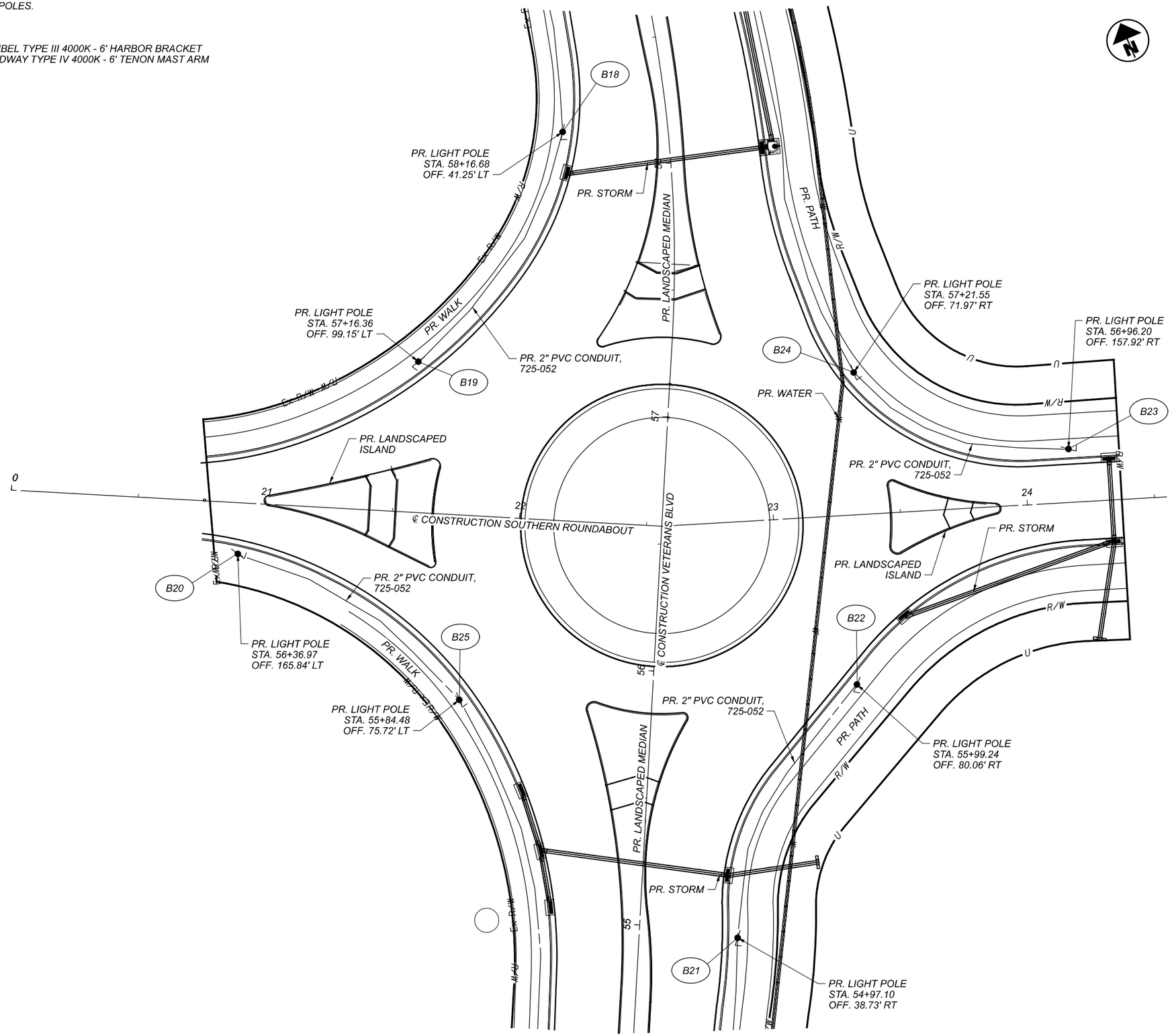
SHEET P.128 | TOTAL 143

BUT-VETERANS BLVD-0.00

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NOTE: DUKE ENERGY IS TO RUN WIRING
AND INSTALL LIGHT POLES.

LEGEND
A## - 150W LED SANIBEL TYPE III 4000K - 6' HARBOR BRACKET
B## - 150W LED ROADWAY TYPE IV 4000K - 6' TENON MAST ARM



HORIZONTAL
SCALE IN FEET
0 10 20 40

LIGHTING PLAN - VETERANS BLVD
SOUTHERN ROUNDABOUT

BUT-VETERANS BLVD-0.00

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Engle Road, Suite 400
Mason, OH 45040

DESIGNER
VMG

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

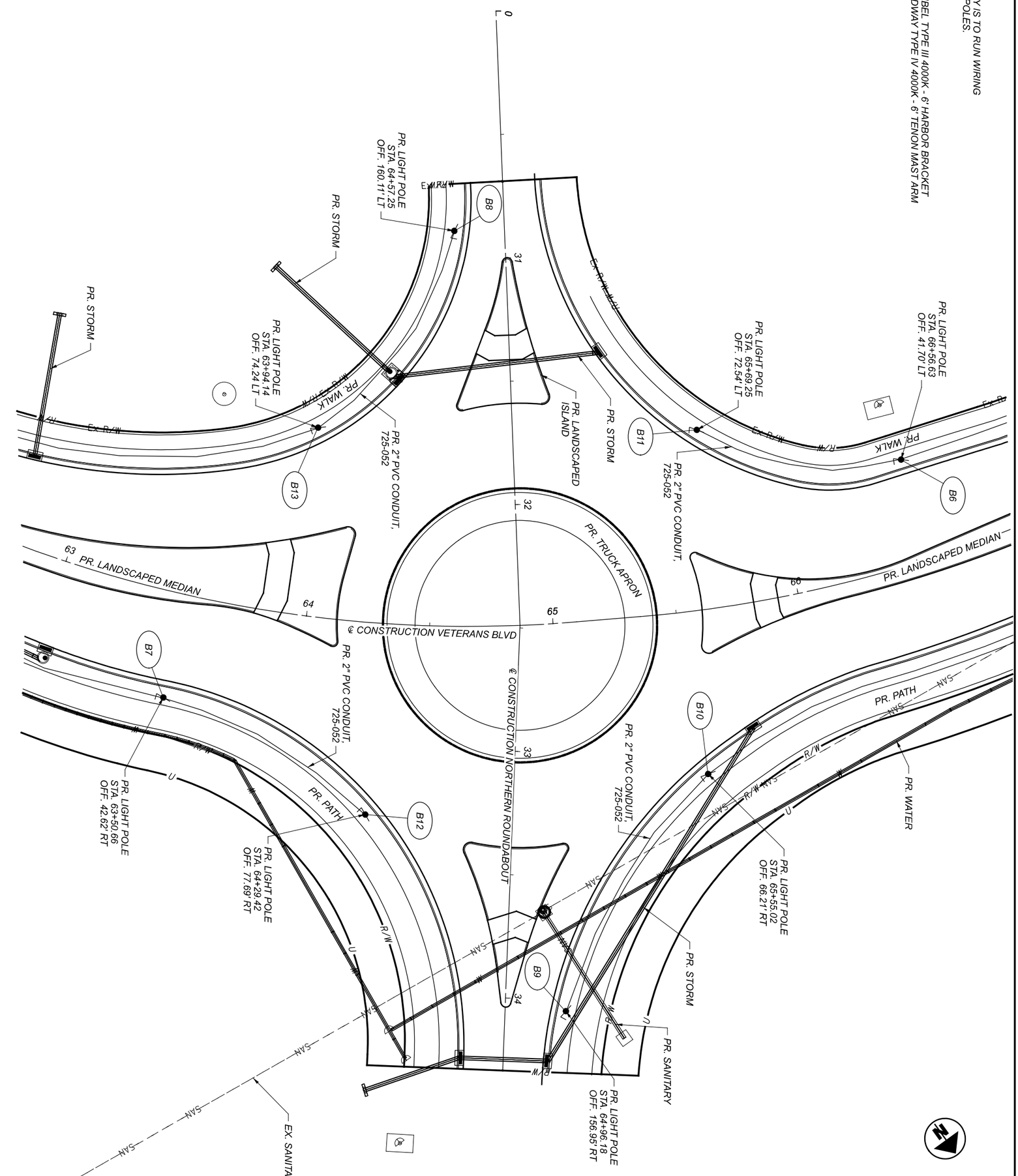
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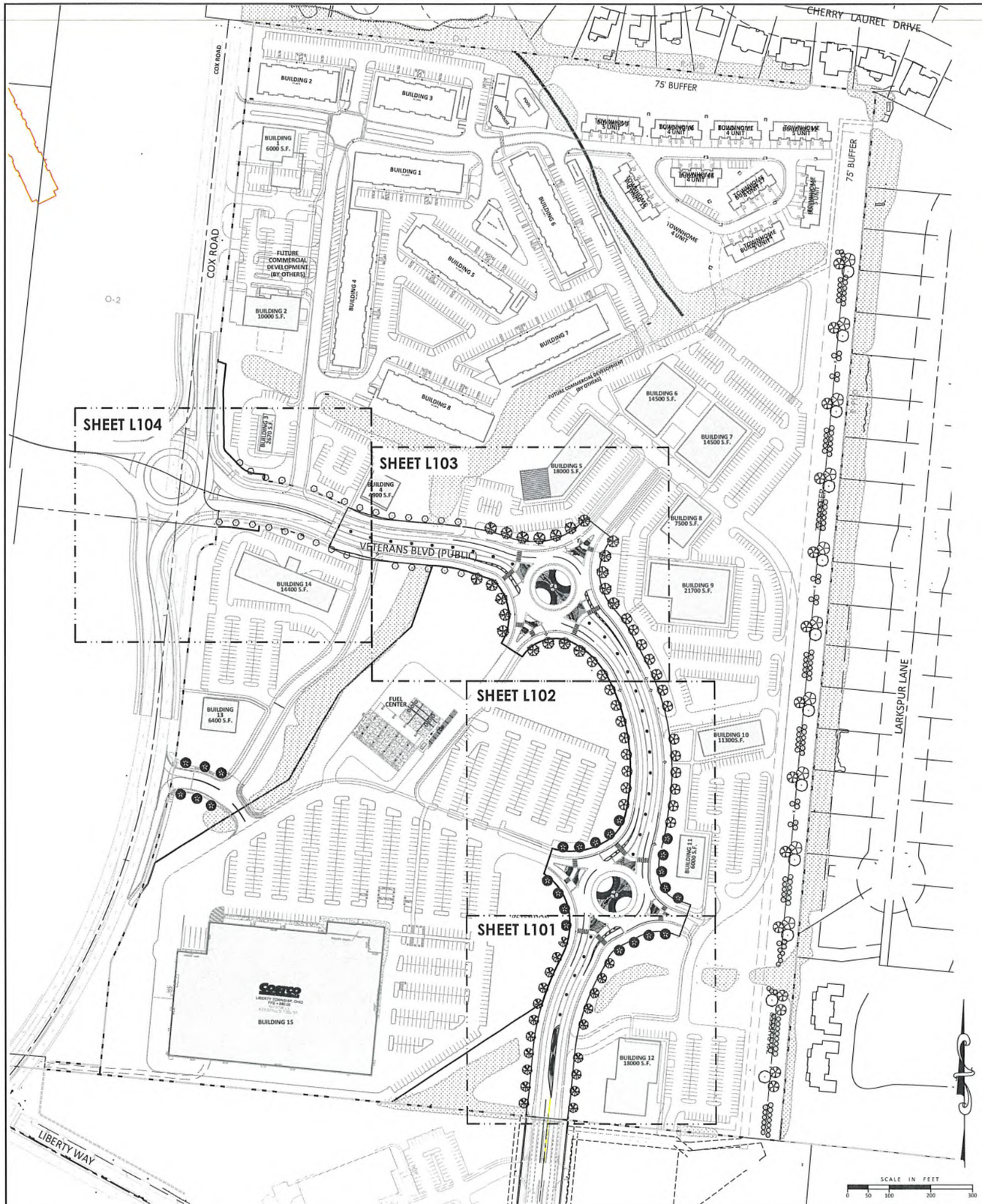
NOTE: DUKE ENERGY IS TO RUN WIRING AND INSTALL LIGHT POLES.

LEGEND
A## - 150W LED SANIBEL TYPE III 4000K - 6' HARBOR BRACKET
B## - 150W LED ROADWAY TYPE IV 4000K - 6' TENON MAST ARM



LIGHTING PLAN - VETERANS BLVD NORTHERN ROUNDABOUT

SHEET P. 130 | TOTAL 143	DESIGNER VMG	TEC Engineering, Inc.	HORIZONTAL SCALE IN FEET 0 20 10 40
PROJECT ID TEC PN: 21334	REVIEWER KLL 02/09/22	PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040	
		DESIGN AGENCY	



GENERAL NOTES

1. STREET TREES ALONG VETERANS BLVD LOCATED OUTSIDE THE RIGHT-OF-WAY TO BE PLANTED AT THE TIME OF DEVELOPMENT FOR EACH PARCEL, NOT WITH THE ROADWAY DEVELOPMENT.
2. SITE AMENITIES AND POCKET PARKS APPROVED DURING PRELIMINARY DEVELOPMENT PLAN TO BE SUBMITTED DURING FINAL DEVELOPMENT PLAN STAGES AS FUTURE DEVELOPMENT OCCURS, WITH THE EXCEPTION OF THE SIDEWALKS AND BIKE PATHS WITHIN THE RIGHT-OF-WAY ALONG VETERANS BLVD.
3. OVERALL SITE SIGNAGE/WAYFINDING TO BE SUBMITTED WITH FUTURE FINAL DEVELOPMENT PLAN.
4. ALL PLANTINGS ARE PER ODOT CMS ITEM 661 UNLESS NOTED OTHERWISE.
5. PLANTING MIX TO BE INCLUDED IN THE UNIT COST OF PLANTINGS.
6. ALL PLANTS TO BE SOURCED FROM A NORTHERN NURSERY SUPPLIER.

LANDSCAPING

ITEM	EXTENSTION	QTY	UNIT	DESCRIPTION
SPECIAL	S3050020	140	FT	RETAINING WALL, BRICK WALL
609	70001	646	SY	4" CONCRETE MEDIAN, AS PER PLAN (DECORATIVE)
659	00300	190	CY	TOPSOIL
660	20000	1,278	SY	SODDING REINFORCED
661	00500	95	CY	MULCH
661	14000	136	EACH	PERENNIALS, BLANKET FLOWER
661	14000	317	EACH	PERENNIALS, RUSSIAN SAGE
661	14000	524	EACH	PERENNIALS, STONECROP
661	20020	129	EACH	DECIDUOUS SHRUB, 18" HEIGHT, RED DRIFT GROUNDCOVER ROSE
661	30040	36	EACH	EVERGREEN SHRUB, 18" HEIGHT, EVERFLOW YEW
661	99900	132	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, FEATHER REED GRASS
661	99900	54	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, LITTLE BUNNY FOUNTAIN GRASS
661	99900	328	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, THE BLUES LITTLE BLUESTEM
661	99900	27	EACH	PLANTING, MISC.:SHADE TREE, KINDRED SPIRIT OAK
661	99900	6	EACH	PLANTING, MISC.:ORNAMENTAL TREE, ROYAL RAINDROPS CRABAPPLE
662	31000	7449	GAL	LANDSCAPE WATERING

** LANDSCAPE QUANTITY CHART CARRIED TO GENERAL SUMMARY

MSP DESIGN
McGill Smith Punshon
● Architecture ● Engineering ● Landscape Architecture ● Planning ● Surveying
3700 Park 42 Drive Suite 1900 Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager	JJC
Drawn By	BMG
DWG	15352276-PLA-VETERANS
X-Ref(s)	15352274-IMP

Issue/Revision	No.	Date
FDP SUBMITTAL		10/08/21
LIBERTY TWSP AND BCEO COMMENTS		11/12/21
BCEO COMMENTS		01/12/22

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FREEDOM POINTE
FINAL DEVELOPMENT PLAN

COX ROAD AND LIBERTY WAY
LIBERTY TOWNSHIP, OHIO

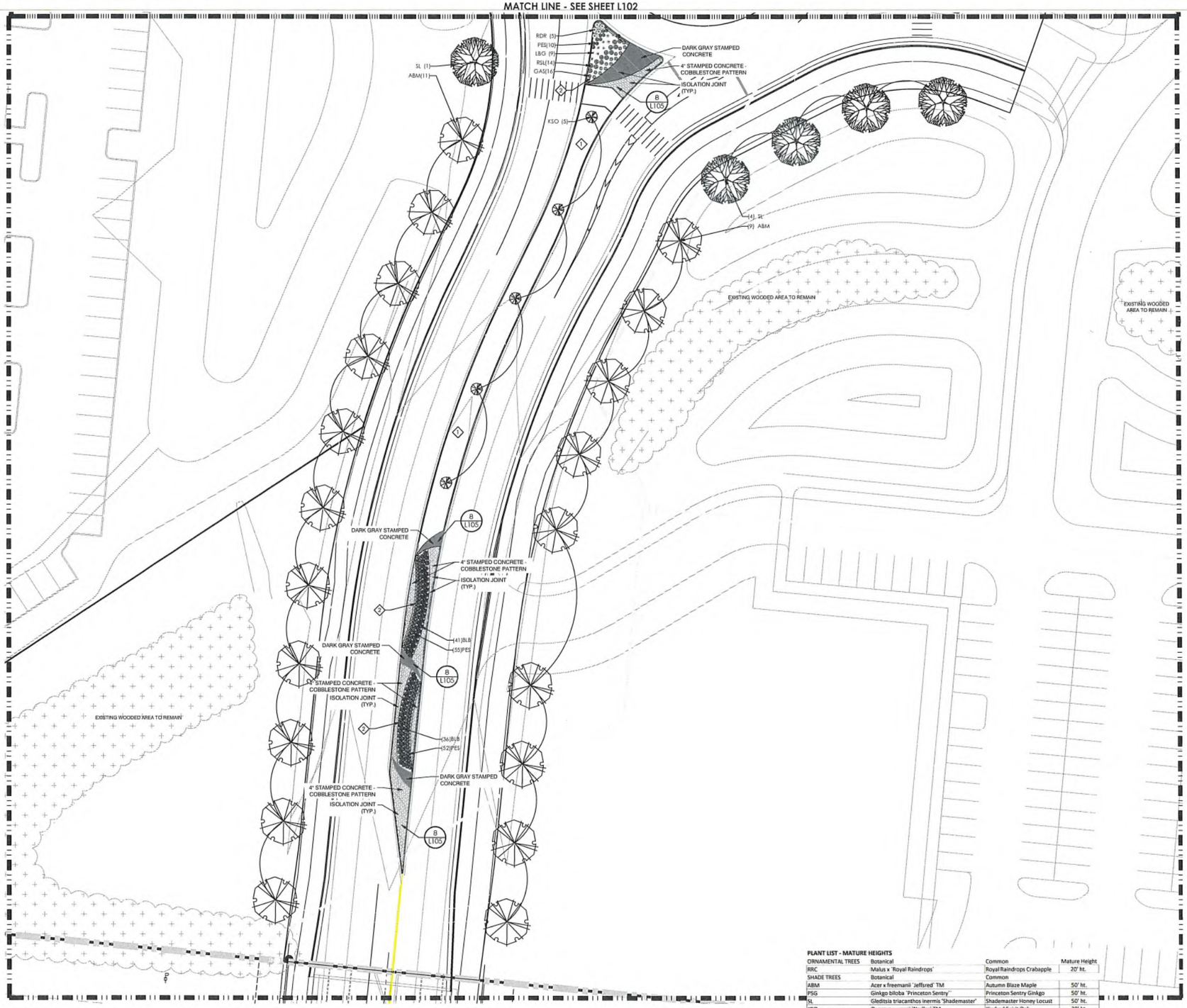
Sheet Title
OVERALL LANDSCAPE PLAN AND SHEET CALLOUT

Project Number	15352.30
Drawing Scale	AS SHOWN
Sheet	L100
SHEET	TOTAL
131	147

OHIO Utilities Protection SERVICE Call Before You Dig
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CALL TWO WORKING DAYS BEFORE YOU DIG (NON-MEMBERS MUST BE CALLED DIRECTLY)

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MATCH LINE - SEE SHEET L102





LANDSCAPE ISLAND DESIGN INTENT

PLANT SCHEDULE L101

SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
KSO	5	Quercus x warei 'Nadler' TM	Kindred Spirit Oak	2 1/2" - 3" CAL. B&B
DECIDUOUS SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
RDR	5	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	#3 CONT.
ORNAMENTAL GRASSES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
LBG	9	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	#2 CONT.
BLB	77	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	#2 CONT.
PERENNIALS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
GAS	16	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	#1 CONT.
RSL	14	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	#1 CONT.
PES	117	Sedum x 'Purple Emperor'	Stonecrop	#1 CONT.

DRAWING NOTES

1. LAWN
2. MULCHED LANDSCAPE BED

PLANT SCHEDULE L101 STREET TREES

SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ABM	20	Acer x freemanii 'Jeffsred' TM	Autumn Blaze Maple	2 1/2" - 3" CAL. B&B
SL	5	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	2 1/2" - 3" CAL. B&B

PLANT LIST - MATURE HEIGHTS

ORNAMENTAL TREES	Botanical	Common	Mature Height
RRC	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple	20' ht.
SHADE TREES	**Botanical**	**Common**	
ABM	Acer x freemanii 'Jeffsred' TM	Autumn Blaze Maple	50' ht.
PSG	Ginkgo biloba 'Princeton Sentry'	Princeton Sentry Ginkgo	50' ht.
SL	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	50' ht.
KSO	Quercus x warei 'Nadler' TM	Kindred Spirit Oak	30' ht.
SSL	Tilia tomentosa 'Sterling'	Sterling Silver Linden	50' ht.
UPE	Ulmus x 'Patriot'	Patriot Elm	50' ht.
DECIDUOUS SHRUBS	**Botanical**	**Common**	
RDR	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	18" ht.
EVERGREEN SHRUBS	**Botanical**	**Common**	
EY	Taxus media 'Everlow'	Everlow Yew	12"-18"
ORNAMENTAL GRASSES	**Botanical**	**Common**	
KFG	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	48" ht.
LBG	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	10-14" ht.
BLB	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	24" ht.
PERENNIALS	**Botanical**	**Common**	
GAS	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	12" ht.
RSL	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	18" ht.
PES	Sedum x 'Purple Emperor'	Stonecrop	12-18" ht.

SCALE IN FEET
0 10 20 40 60

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MSP DESIGN
McGill Smith Punshon
● Architecture ● Engineering ● Landscape Architecture ● Planning ● Surveying
3700 Park 42 Drive
Suite 190B
Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager	JJC
Drawn By	BMG
DWG	15352276-PLA-VETERANS
X-Ref(s)	15352274-IMP

Issue/Revision	No.	Date
FDP SUBMITTAL		10/08/21
LIBERTY TWSP AND BCEO COMMENTS		11/12/21
BCEO COMMENTS		01/12/22

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FREEDOM POINTE
FINAL DEVELOPMENT PLAN

COX ROAD AND LIBERTY WAY
LIBERTY TOWNSHIP, OHIO

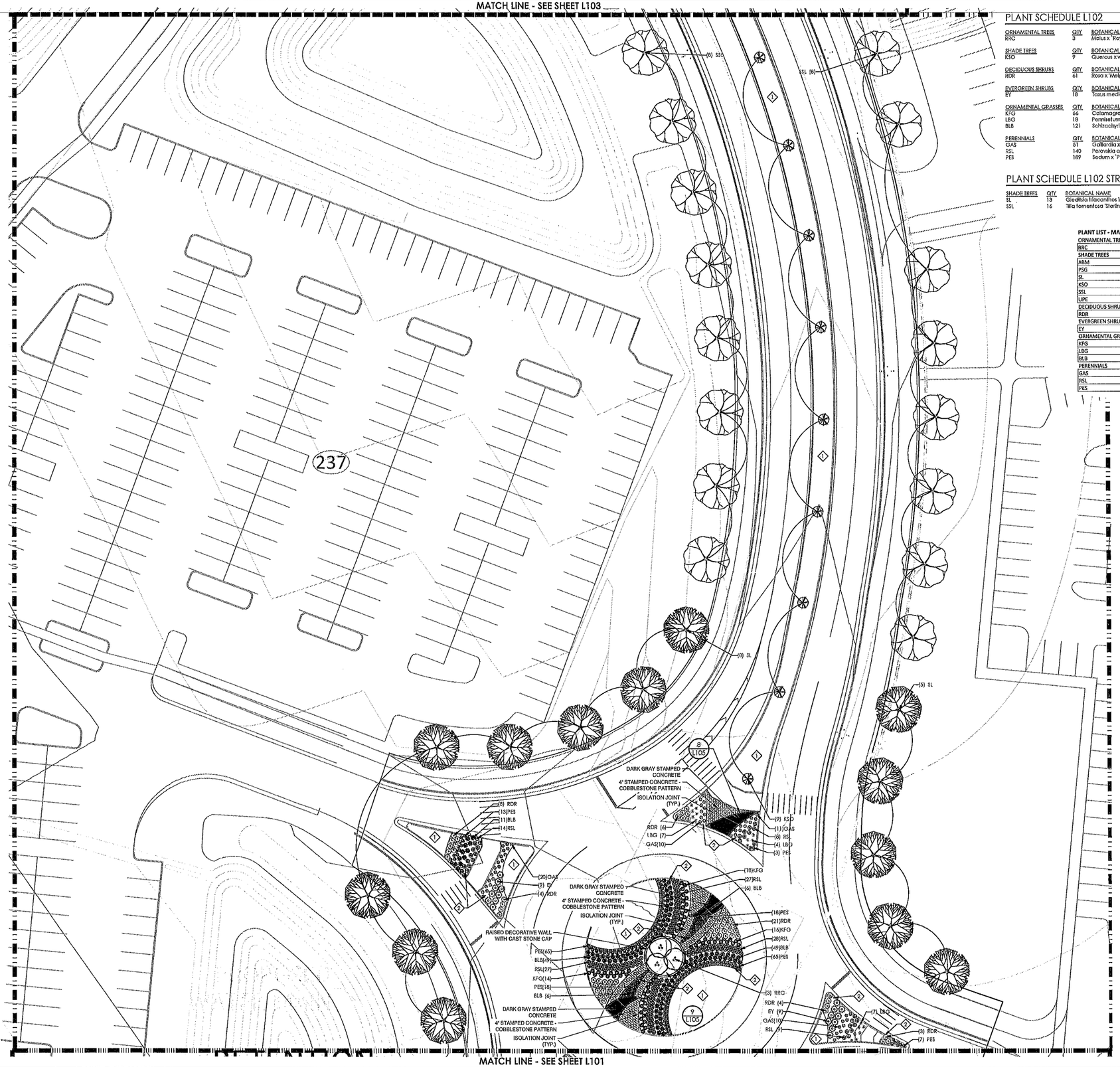
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LANDSCAPE PLAN

Project Number	15352.30
Drawing Scale	1" = 20'
Sheet	L101
SHEET	TOTAL
132	147

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MATCH LINE - SEE SHEET L103



MATCH LINE - SEE SHEET L101

PLANT SCHEDULE L102

	QTY	BOTANICAL NAME	COMMON NAME	SIZE
ORNAMENTAL TREES				
RRC	3	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple	6'-7' B&B
SHADE TREES				
KSO	9	Quercus x warei 'Nadler' TM	Kindred Spirit Oak	2 1/2" - 3" CAL. B&B
DECIDUOUS SHRUBS				
RDR	61	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	#3 CONT.
EVERGREEN SHRUBS				
EY	18	Taxus media 'Everlow'	Everlow Yew	15"-18" B&B
ORNAMENTAL GRASSES				
KFG	66	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	#2 CONT.
LBG	18	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	#2 CONT.
BLB	121	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	#2 CONT.
PERENNIALS				
GAS	51	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	#1 CONT.
RSL	140	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	#1 CONT.
PES	189	Sedum x 'Purple Emperor'	Stonecrop	#1 CONT.

PLANT SCHEDULE L102 STREET TREES

SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
SL	13	Gleditsia triacanthos 'Inermis 'Shademaster'	Shademaster Honey Locust	2 1/2" - 3" CAL. B&B
SSL	16	Tilia tomentosa 'Sterling'	Sterling Silver Linden	2 1/2" - 3" CAL. B&B

PLANT LIST - MATURE HEIGHTS

ORNAMENTAL TREES	Botanical	Common	Mature Height
RRC	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple	20' ht.
SHADE TREES	Botanical	Common	
ABM	Acer x freemanii 'Jeffsred' TM	Autumn Blaze Maple	50' ht.
PSG	Ginkgo biloba 'Princeton Sentry''	Princeton Sentry Ginkgo	50' ht.
SL	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	50' ht.
KSO	Quercus x warei 'Nadler' TM	Kindred Spirit Oak	30' ht.
SSL	Tilia tomentosa 'Sterling'	Sterling Silver Linden	50' ht.
UPE	Ulmus x 'Patriot'	Patriot Elm	50' ht.
DECIDUOUS SHRUBS	Botanical	Common	
RDR	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	18" ht.
EVERGREEN SHRUBS	Botanical	Common	
EY	Taxus media 'Everlow'	Everlow Yew	12"-18"
ORNAMENTAL GRASSES	Botanical	Common	
KFG	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	48" ht.
LBG	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	10-14" ht.
BLB	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	24" ht.
PERENNIALS	Botanical	Common	
GAS	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	12" ht.
RSL	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	18" ht.
PES	Sedum x 'Purple Emperor'	Stonecrop	12-18" ht.

DRAWING NOTES

1. LAWN
2. MULCHED LANDSCAPE BED

SCALE IN FEET
0 10 20 40 60

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Suite 190B
Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager	JJC
Drawn By	BMG
DWG	15352276-PLA-VETERANS
X-Ref(s)	15352276-IMP

Issue/Revision	No.	Date
FDP SUBMITTAL		10/08/21
LIBERTY TWSP AND BCEO COMMENTS		11/12/21
BCEO COMMENTS		01/12/22

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FREEDOM POINTE
FINAL DEVELOPMENT PLAN

COX ROAD AND LIBERTY WAY
LIBERTY TOWNSHIP, OHIO

Sheet Title

LANDSCAPE PLAN

Project Number	15352.30
Drawing Scale	1" = 20'
Sheet	L102
SHEET	TOTAL
133	147

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Ohio Utilities Protection Service
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MATCH LINE - SEE SHEET L104

TERANS BLVD (PUBLIC)

4' TYP.

EXISTING WOODED AREA TO REMAIN

PSG (5)

(6) PSG

(11)UPE

UPE (1)

(7) KSO
(13)GAS
(10)RSL
(6) LBG
(8) PES

B L105

DARK GRAY STAMPED CONCRETE
ISOLATION JOINT (TYP.)
4" STAMPED CONCRETE - COBBLESTONE PATTERN

ISOLATION JOINT (TYP.)

9 L105

(3) RRC
(65)PES
(49)BLB
27)RSL
(18)KFG
(6) BLB
(18)PES

KFG(18)
RSL(27)
BLB(49)
PES(65)

RAISED DECORATIVE WALL WITH CAST STONE CAP

RSL(28)
KFG(16)
RDR(21)

B L105

LBG (8)
PES (8)
RDR (3)

(2) BLB
(5) BLB
(10) GAS

DARK GRAY STAMPED CONCRETE
4" STAMPED CONCRETE - COBBLESTONE PATTERN
ISOLATION JOINT (TYP.)

RSL(11)
GAS(14)
KSO (4)

SSL (5)

(7) RDR
(9) EY
(16)GAS

PES (9)
RDR (5)

(9) RSL
(9) BLB

(9) UPE
(2) SSL

EY (7)
PES(19)
LBG(13)

(3) RDR
(5) PES
(7) EY

RSL(17)
RDR (7)
EY (9)
GAS(14)

EXISTING WOODED AREA TO REMAIN

MATCH LINE - SEE SHEET L102

PLANT LIST - MATURE HEIGHTS

ORNAMENTAL TREES	Botanical	Common	Mature Height
RRC	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple	20' ht.
SHADE TREES	**Botanical**	**Common**	
ABM	Acer x freemanii 'Jeffsred' TM	Autumn Blaze Maple	50' ht.
PSG	Ginkgo biloba 'Princeton Sentry''	Princeton Sentry Ginkgo	50' ht.
SL	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	50' ht.
KSO	Quercus x warei 'Nadler' TM	Kindred Spirit Oak	50' ht.
SSL	Tilia tomentosa 'Sterling'	Sterling Silver Linden	50' ht.
UPE	Ulmus x 'Patriot'	Patriot Elm	50' ht.
DECIDUOUS SHRUBS	**Botanical**	**Common**	
RDR	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	18" ht.
EVERGREEN SHRUBS	**Botanical**	**Common**	
EY	Taxus media 'Everlow'	Everlow Yew	12"-18"
ORNAMENTAL GRASSES	**Botanical**	**Common**	
KFG	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	48" ht.
LBG	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	10-14" ht.
BLB	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	24" ht.
PERENNIALS	**Botanical**	**Common**	
GAS	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	12" ht.
RSL	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	18" ht.
PES	Sedum x 'Purple Emperor'	Stonecrop	12-18" ht.

PLANT SCHEDULE L103

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
RRC	3	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple	6'-7' B&B
SHADE TREES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
KSO	11	Quercus x warei 'Nadler' TM	Kindred Spirit Oak	2 1/2" - 3" CAL. B&B
DECIDUOUS SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
RDR	63	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	#3 CONT.
EVERGREEN SHRUBS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
EY	18	Taxus media 'Everlow'	Everlow Yew	15"-18" B&B
ORNAMENTAL GRASSES	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
KFG	66	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	#2 CONT.
LBG	27	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	#2 CONT.
BLB	130	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	#2 CONT.
PERENNIALS	**QTY**	**BOTANICAL NAME**	**COMMON NAME**	**SIZE**
GAS	69	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	#1 CONT.
RSL	163	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	#1 CONT.
PES	218	Sedum x 'Purple Emperor'	Stonecrop	#1 CONT.

PLANT SCHEDULE L103 STREET TREES

SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PSG	11	Ginkgo biloba 'Princeton Sentry''	Princeton Sentry Ginkgo	2 1/2" - 3" CAL. B&B
SSL	7	Tilia tomentosa 'Sterling'	Sterling Silver Linden	2 1/2" - 3" CAL. B&B
UPE	21	Ulmus x 'Patriot'	Patriot Elm	2 1/2" - 3" CAL. B&B

DRAWING NOTES

1. LAWN
2. MULCHED LANDSCAPE BED

SCALE IN FEET
0 10 20 40 60

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Project Manager JJC
Drawn By BMG
DWG 15352276-PLA-VETERANS
X-Ref(s) 15352274-IMP

Issue/Revision	No.	Date
FDP SUBMITTAL		10/08/21
LIBERTY TWSP AND BCEO COMMENTS		11/12/21
BCEO COMMENTS		01/12/22

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FREEDOM POINTE
FINAL DEVELOPMENT PLAN

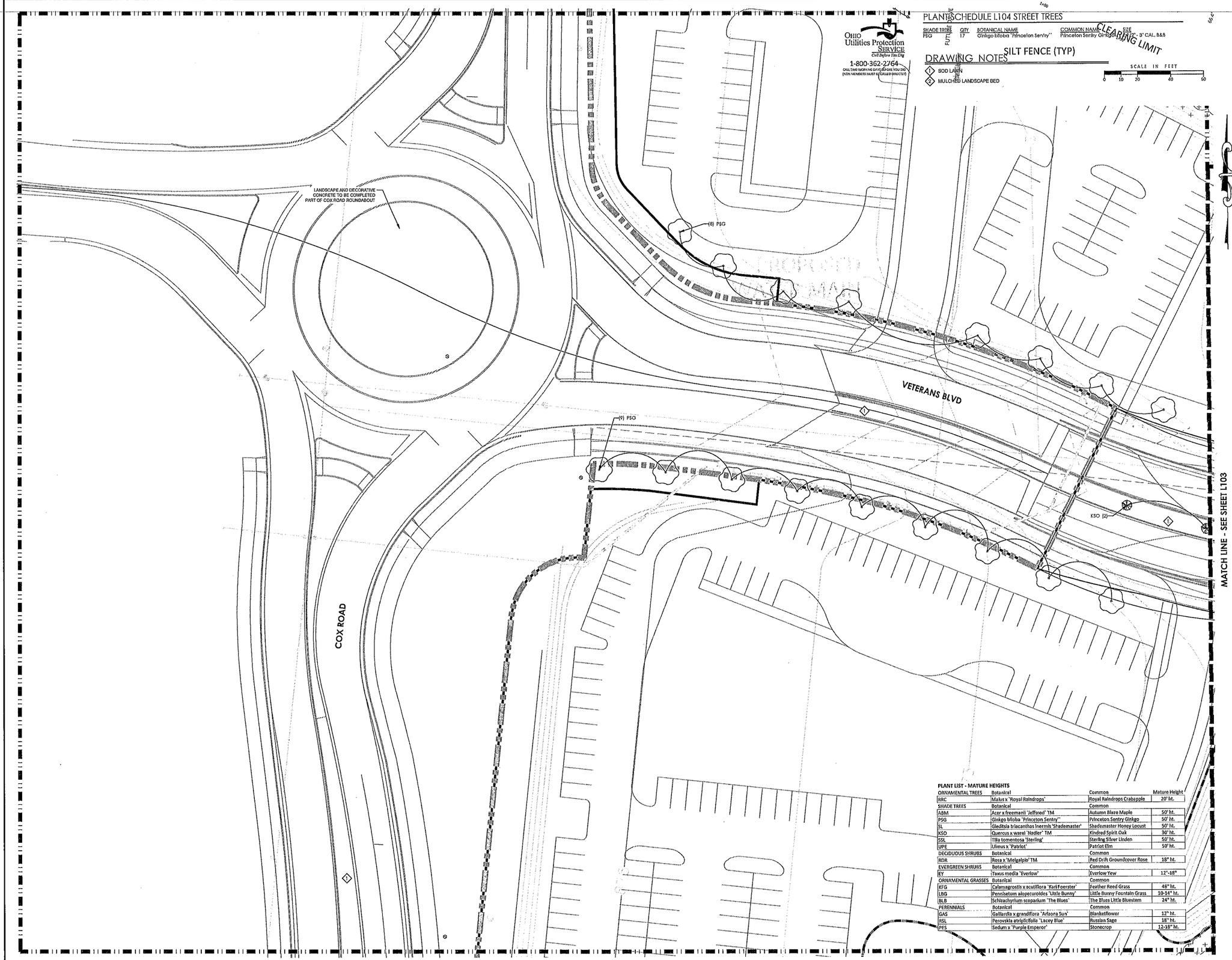
COX ROAD AND LIBERTY WAY
LIBERTY TOWNSHIP, OHIO

Sheet Title

LANDSCAPE PLAN

Project Number 15352.30
Drawing Scale 1" = 20'
Sheet L103
SHEET 134 | TOTAL 147

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PLANT SCHEDULE L104 STREET TREES

SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
PSG	17	Ginkgo biloba 'Princeton Sentry''	Princeton Sentry Ginkgo	2.5" - 3" CAL. B&B

DRAWING NOTES

1. SOD LAWN
2. MULCHED LANDSCAPE BED

PLANT LIST - MATURE HEIGHTS

ORNAMENTAL TREES	Botanical	Common	Mature Height
RRC	Malus x 'Royal Raindrops'	Royal Raindrops Crabapple	20' ht.
SHADE TREES	Botanical	Common	
ABM	Acer x freemanii 'Jeffsred' TM	Autumn Blaze Maple	50' ht.
PSG	Ginkgo biloba 'Princeton Sentry''	Princeton Sentry Ginkgo	50' ht.
SL	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	50' ht.
KSO	Quercus x warei 'Nadler' TM	Kindred Spirit Oak	30' ht.
SSL	Tilia tomentosa 'Sterling'	Sterling Silver Linden	50' ht.
UPE	Ulmus x 'Patriot'	Patriot Elm	50' ht.
DECIDUOUS SHRUBS	Botanical	Common	
RDR	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	18" ht.
EVERGREEN SHRUBS	Botanical	Common	
EY	Taxus media 'Everlow'	Everlow Yew	12"-18"
ORNAMENTAL GRASSES	Botanical	Common	
KFG	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	48" ht.
LBG	Pennisetum alopecuroides 'Little Bunny'	Little Bunny Fountain Grass	10-14" ht.
BLB	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	24" ht.
PERENNIALS	Botanical	Common	
GAS	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	12" ht.
RSL	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	18" ht.
PES	Sedum x 'Purple Emperor'	Stonecrop	12-18" ht.

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FINAL DEVELOPMENT PLAN

COX ROAD AND LIBERTY WAY
LIBERTY TOWNSHIP, OHIO

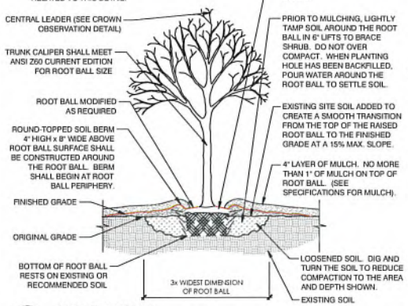
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LANDSCAPE PLAN

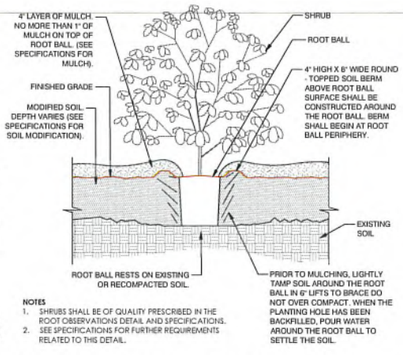
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Drawing Scale	1" = 20'
Sheet	L104
SHEET	135
TOTAL	147

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NOTES
1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

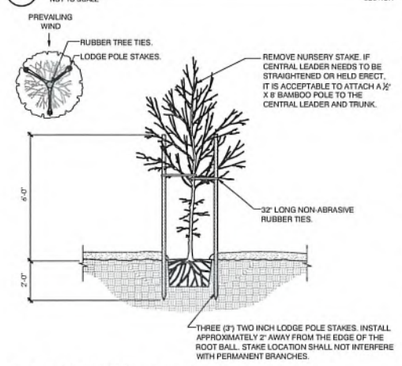


1 TREE PLANTING
NOT TO SCALE — 329303-05 SECTION

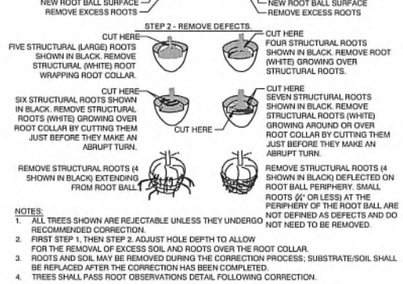


NOTES
1. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

2 SHRUB PLANTING IN MODIFIED SOIL
NOT TO SCALE — 329302-03 SECTION

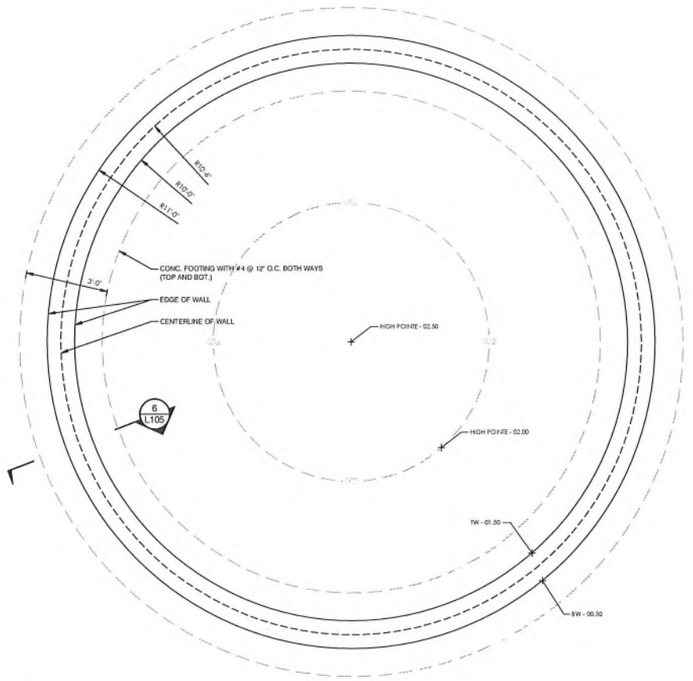


3 TREE STAKING - POLES
NOT TO SCALE — 329303-09 SECTION-PLAN



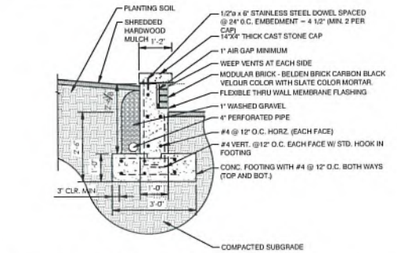
NOTES:
1. ALL TREES SHOWN ARE REJECTABLE UNLESS THEY UNDERGO RECOMMENDED CORRECTION.
2. FIRST STEP 1, THEN STEP 2. ADJUST HOLE DEPTH TO ALLOW FOR THE REMOVAL OF EXCESS SOIL AND ROOTS OVER THE ROOT COLLAR.
3. ROOTS AND SOIL MAY BE REMOVED DURING THE CORRECTION PROCESS; SUBSTRATE/SOIL SHALL BE REPLACED AFTER THE CORRECTION HAS BEEN COMPLETED.
4. TREES SHALL PASS ROOT OBSERVATIONS DETAIL FOLLOWING CORRECTION.

4 ROOT CORRECTION - BALL AND BURLAPPED
NOT TO SCALE — 329304-05 SECTION-ELEVATION

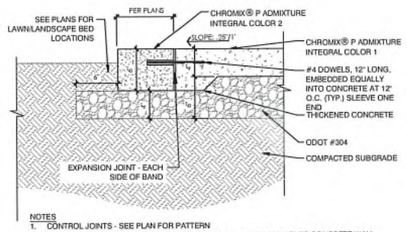


5 WALL LAYOUT AND GRADING
1/2" = 1'-0" — P-FR-03 PLAN

GENERAL NOTE:
1. BRICK TO BE BELDEN BRICK MODULAR BRICK, COLOR TO BE BLACK VELOUR.
2. MORTAR COLOR TO BE SLATE.
3. CONTRACTOR TO PROVIDE SAMPLE OF BRICK AND MORTAR COLOR.



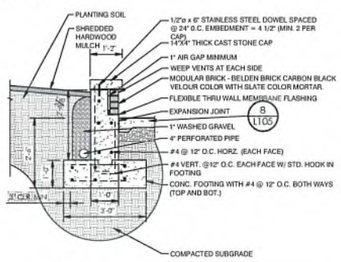
6 TYPICAL WALL SECTION
1/2" = 1'-0" — P-FR-01 SECTION



NOTES
1. CONTROL JOINTS - SEE PLAN FOR PATTERN
2. EXPANSION JOINTS 25' O.C. MAX AND WHERE CONCRETE WALK ABUTS CONCRETE WALK OR CURB. (SEE PLANS FOR ANY VARIATIONS)
3. CONCRETE SHALL BE 4000 PSI 6% AIR ENTRAINED
4. STAMPED CONCRETE TO BE INTEGRAL COLORING.
5. CONCRETE TEXTURE/COLOR FOR "DARK GRAY" LABELLED AREAS TO BE DARK GRAY CC330/4 COLOR, CHISELED SLATE TEXTURE.
5. CONCRETE TEXTURE/COLOR FOR "COBBLESTONE" LABELLED AREAS TO BE SOMBRA CC805/3 COLOR, MAYAN COBBLESTONE TEXTURE.
6. CONTRACTOR TO PROVIDE COLOR AND PATTERN SAMPLE SECTION OF EACH COLOR/TEXTURE CONCRETE AREA.

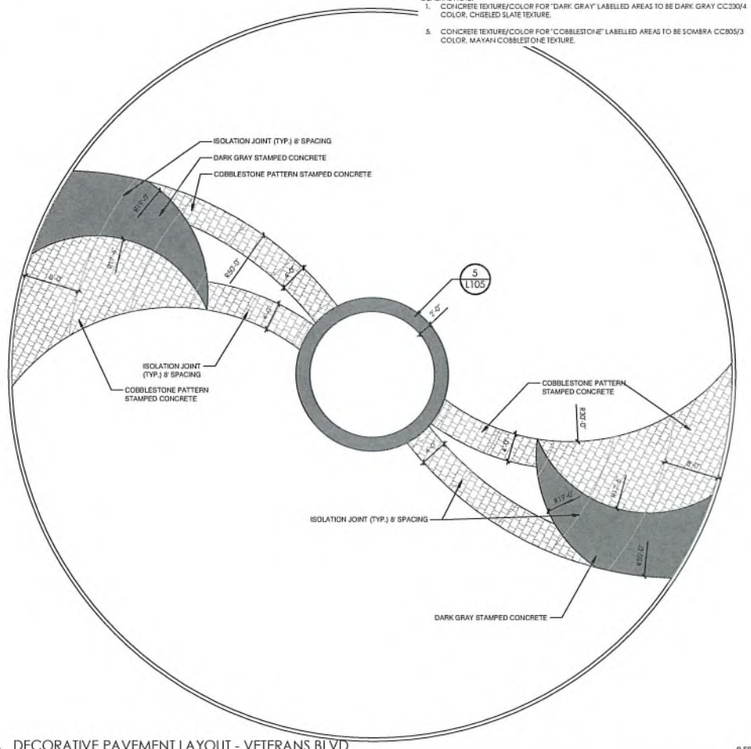
8 DECORATIVE CONCRETE
1 1/2" = 1'-0" — P-FR-02 SECTION

GENERAL NOTE:
1. BRICK TO BE BELDEN BRICK MODULAR BRICK, COLOR TO BE BLACK VELOUR.
2. MORTAR COLOR TO BE SLATE.
3. CONTRACTOR TO PROVIDE SAMPLE OF BRICK AND MORTAR COLOR.



7 WALL TO DECORATIVE CONCRETE
1/2" = 1'-0" — P-FR-04 SECTION

GENERAL NOTE:
1. CONCRETE TEXTURE/COLOR FOR "DARK GRAY" LABELLED AREAS TO BE DARK GRAY CC330/4 COLOR, CHISELED SLATE TEXTURE.
5. CONCRETE TEXTURE/COLOR FOR "COBBLESTONE" LABELLED AREAS TO BE SOMBRA CC805/3 COLOR, MAYAN COBBLESTONE TEXTURE.



9 DECORATIVE PAVEMENT LAYOUT - VETERANS BLVD
1/8" = 1'-0" — P-FR-16 SECTION-PLAN-ELEVATION

GENERAL NOTES - PLANTING

1. LANDSCAPE CONTRACTOR IS TO VERIFY LOCATIONS OF ALL UTILITIES WITH THE OWNER, OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR DESIGN BUILDER AND UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IN THE FIELD ACTUAL LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES, WHETHER INDICATED ON PLANS OR NOT. LANDSCAPE CONTRACTOR MUST CALL THE UTILITIES PROTECTION SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. LANDSCAPE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR DAMAGE OF UTILITY LINES, WHICH IS CAUSED BY THEIR ACTIONS OR THE ACTIONS OF THEIR CONSULTANTS.
2. LANDSCAPE CONTRACTOR TO EXAMINE FINISH SURFACE, GRADE ACCURACY AND TOPSOIL FOR DEPTH AND QUALITY. REFER TO SPECIFICATIONS (IF APPLICABLE). IF CONDITIONS ARE UNSATISFACTORY, NOTIFY OWNER, OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR DESIGN BUILDER AND DO NOT BEGIN WORK UNTIL CONDITIONS HAVE BEEN CORRECTED.
3. AFTER INSTALLATION, REPAIR ALL DAMAGES MADE TO EXISTING CONDITIONS TO OWNER'S REPRESENTATIVES SATISFACTION.
4. PLANT MATERIALS SHALL CONFORM TO THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AND SHALL HAVE PASSED INSPECTION REQUIRED UNDER STATE REGULATIONS. CALL (202)-789-2900 TO OBTAIN A COPY OF THE AMERICAN STANDARD FOR NURSERY STOCK BOOKLET.
5. ALL PLANTS TO BE SOURCED FROM A NORTHERN NURSERY SUITABLE FOR OUR HARDINESS ZONE.
6. NURSERY STOCK IDENTIFICATION TAGS SHALL NOT BE REMOVED FROM ANY PLANTING PRIOR TO INSPECTION AND APPROVAL OF INSTALLATION BY THE OWNER'S REPRESENTATIVE.
7. ALL PLANTINGS TO BE CONTAINED WITHIN BARK MULCHED BED. ALL TREES LOCATED WITHIN LAWN AREAS TO BE CONTAINED WITH A 3' MULCH RING.
8. BARK MULCH SHALL BE FINELY SHREDDED HARDWOOD, DARK BROWN IN COLOR. MULCH TO BE SOURCED FROM REPUTABLE SUPPLIER. CONTRACTOR TO PROVIDE SAMPLE TO BE APPROVED BY OWNER/LANDSCAPE ARCHITECT.
9. SEED ALL DISTURBED LAWN AREAS THAT ARE NOT LANDSCAPED.
10. LANDSCAPE CONTRACTOR, GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR DESIGN BUILDER IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE IN LAWN AREAS. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PLANT'S LIVABILITY. REFER TO FRONT END SPECIFICATIONS IF APPLICABLE.
11. ANY LANDSCAPE CONTRACTOR RECOMMENDED SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT. UNAPPROVED SUBSTITUTIONS SHALL BE REMOVED AND REPLACED WITH APPROPRIATE PLANTS.
12. A COMPLETE LIST OF PLANTS, INCLUDING A SCHEDULE OF SIZES, QUANTITIES, AND OTHER COMMENTS IS SHOWN ON THE DRAWINGS (IF REQUIRED). IN THE EVENT THAT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANT SCHEDULE, THE PLANTING PLANS SHALL GOVERN.
13. GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER OR LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL ORDINANCES AND SHALL MAKE CONSULTANTS AWARE OF THESE ORDINANCES.
14. GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER OR LANDSCAPE CONTRACTOR TO COORDINATE CONSTRUCTION STAGING AND MATERIAL STOCKPILING WITH THE OWNER OR OWNER'S REPRESENTATIVE.
15. DURING ALL PHASES OF CONSTRUCTION ACTIVITY, IF THE LANDSCAPE CONTRACTOR OR THEIR SUBS ENCOUNTER ANY "SOLID WASTE MATERIAL" (EXCLUDING CLEAN HARD FILL) THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER, OWNER OR OWNER'S REPRESENTATIVE SHALL BE CONTACTED IMMEDIATELY FOR FURTHER DIRECTION.
16. LANDSCAPE CONTRACTOR SHALL CLEAN STREETS OF MUD AND DEBRIS GENERATED BY THEIR CONSTRUCTION ACTIVITIES OR THEIR SUB'S CONSTRUCTION ACTIVITIES, PURSUANT WITH LOCAL CODE REQUIREMENTS.
17. LANDSCAPE CONTRACTOR TO COORDINATE WITH THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER, OWNER OR OWNER'S REPRESENTATIVE TO PROVIDE FOR APPROPRIATE CARE OF EXISTING PLANT MATERIAL AND NEWLY LANDSCAPED AREAS DURING CONSTRUCTION.
18. STREET TREE LOCATIONS TO BE COORDINATED WITH DRIVEWAY, FIRE HYDRANT, STREET LIGHT LOCATIONS AND OTHER UTILITIES AS REQUIRED.

GENERAL NOTES - PLANT MIX

TOPSOIL: FERTILE, FRIABLE NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, OBTAINED FROM A WELL-DRAINED ARABLE SITE, REASONABLY FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS, WITH ACIDITY RANGE BETWEEN pH 6.0 AND 6.8.

A. IDENTIFY SOURCE LOCATION OF TOPSOIL PROPOSED FOR USE ON THE PROJECT.
B. PROVIDE TOPSOIL FREE OF SUBSTANCES HARMFUL TO THE PLANTS, WHICH WILL BE GROWN IN THE SOIL.

PEAT MOSS: SHREDDED, LOOSE, SPHAGNUM MOSS; FREE OF LUMPS, ROOTS, INORGANIC MATERIAL OR ACIDIC MATERIALS; MINIMUM OF (95) NINETY-FIVE PERCENT ORGANIC MATERIAL MEASURED BY OVEN DRY WEIGHT. A PH RANGE OF (4 TO 5) FOUR TO FIVE, AND A MOISTURE CONTENT OF (30) THIRTY PERCENT.

MANURE: STERILIZED COW OR DEHYDRATED HORSE MANURE, SHREDDED, WEED AND SEED FREE. FURNISH IN BAGS OR BULK.

BONE MEAL: RAW, FINELY GROUND, COMMERCIAL GRADE, MINIMUM 3% NITROGEN, 20% PHOSPHOROUS.

FERTILIZER: COMMERCIALLY APPROVED 12-12-12 (12% NITROGEN, 12% PHOSPHORIC ACID, AND 12% POTASH BY WEIGHT). 1/4 OF NITROGEN IN THE FORM OF NITRATES; 1/4 IN THE FORM OF AMMONIA SALT, AND 1/2 IN THE FORM OF ORGANIC NITROGEN.

PROVIDE PRE-MIXED PLANTING MIXTURE FOR USE AROUND THE ROOT BALL/ROOTS OF THE PLANTS CONSISTING OF 5 PARTS TOPSOIL, 1 PART PEAT MOSS, 1 PART MANURE, 10 LBS. FERTILIZER (PER CUBIC YARD) AND 2 1/3 LBS. OF BONE MEAL (PER CUBIC YARD).

SCALE IN FEET
0 25 50 100 150

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FREEDOM POINTE
FINAL DEVELOPMENT PLAN
COX ROAD AND LIBERTY WAY
LIBERTY TOWNSHIP, OHIO

Sheet Title
LANDSCAPE NOTES AND DETAILS

Project Number	15352.30
Drawing Scale	AS SHOWN
Sheet	L105
SHEET	136
TOTAL	147

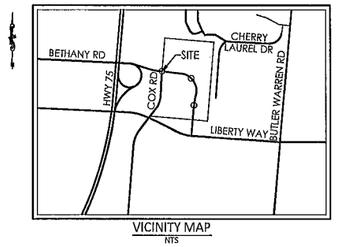
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COX ROAD ROUNDABOUT

ISLAND LANDSCAPE PLAN

COX RD AND S.R. 129

JANUARY 27, 2022



VICINITY MAP
NTS



OVERALL PROJECT MAP
1"=200'

INDEX

SHEET	DESCRIPTION
G200	COVER SHEET
L201	LANDSCAPE PLAN
L202	LANDSCAPE NOTES AND DETAILS

SCALE IN FEET
0 50 100 200 300

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DWG	15352276-PLA-COX
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COX ROAD ROUNDABOUT
ISLAND LANDSCAPE PLAN
COX ROAD AND S.R. 129
LIBERTY TOWNSHIP, OHIO

Sheet Title
OVERALL LANDSCAPE PLAN AND SHEET CALLOUT

Project Number	15352.30
Drawing Scale	AS SHOWN
Sheet Number	G200
Page Number	137/147

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PLANT SCHEDULE COX ROAD

ORNAMENTAL TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
RRC	3	Malus x `Royal Raindrops`	Royal Raindrops Crabapple	6`-7` B&B
SHADE TREES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
KSO	6	Quercus x warei `Nadler` TM	Kindred Spirit Oak	2 1/2` - 3` CAL. B&B
PERENNIALS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
GAS	88	Gaillardia x grandiflora `Arizona Sun`	Blanketflower	#1 CONT.
RSL	204	Perovskia atriplicifolia `Lacey Blue`	Russian Sage	#1 CONT.
PES	264	Sedum x `Purple Emperor`	Stonecrop	#1 CONT.
DECIDUOUS SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
RDR	91	Rosa x `Meigalpio` TM	Red Drift Groundcover Rose	#3 CONT.
EVERGREEN SHRUBS	QTY	BOTANICAL NAME	COMMON NAME	SIZE
EY	9	Taxus media `Everlow`	Everlow Yew	15`-18` B&B
ORNAMENTAL GRASSES	QTY	BOTANICAL NAME	COMMON NAME	SIZE
KFG	80	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass	#2 CONT.
BLB	184	Schizachyrium scoparium `The Blues`	The Blues Little Bluestem	#2 CONT.

DRAWING NOTES

1. SOD LAWN
2. MULCHED LANDSCAPE BED
3. EXISTING CONCRETE ISLAND TO REMAIN

SCALE IN FEET
0 10 20 40 60

PES(18) BLB(14) RSL(18) GAS(20)
4" STAMPED CONCRETE - COBBLESTONE PATTERN
PES(76) BLB(57)
RSL(32) KFG(18) RDR(36)
PES(18) BLB (6)
(3) RRC
PES(23) BLB(18) RSL(24) GAS(26) EY (9) RDR(19)
DARK GRAY STAMPED CONCRETE
ISOLATION JOINT (TYP.)
KFG(22) RSL(31)
(31)RSL (22)KFG (6) BLB (18)PES
(12)BLB (16)PES (6) KSO
GAS(23) RSL(21)
(36)RDR (18)KFG (32)RSL
GAS(19) RSL(15)
BLB(14) PES(19)
THIS AREA IS TO REMAIN A CONCRETE TRAFFIC MEDIAN IN LIEU OF LANDSCAPE. (3) KSO TREES ARE DELETED.
VETERANS BLVD
COX ROAD
MATCH LINE - SEE SHEET L103



LANDSCAPE ISLAND DESIGN INTENT

LANDSCAPING

ITEM	EXTENSTION	QTY	UNIT	DESCRIPTION
609	70001	331	SY	4" CONCRETE MEDIAN, AS PER PLAN (DECORATIVE)
661	00500	66	CY	MULCH
661	14000	88	EACH	PERENNIALS, BLANKET FLOWER
661	14000	204	EACH	PERENNIALS, RUSSIAN SAGE
661	14000	264	EACH	PERENNIALS, STONECROP
661	20020	91	EACH	DECIDUOUS SHRUB, 18" HEIGHT, RED DRIFT GROUNDCOVER ROSE
661	30040	9	EACH	EVERGREEN SHRUB, 18" HEIGHT, EVERFLOW YEW
661	99900	80	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, FEATHER REED GRASS
661	99900	184	EACH	PLANTING, MISC.:, ORNAMENTAL GRASS, THE BLUES LITTLE BLUESTEM
661	99900	6	EACH	PLANTING, MISC.:SHADE TREE, KINDRED SPIRIT OAK
661	99900	3	EACH	PLANTING, MISC.:ORNAMENTAL TREE, ROYAL RAINDROPS CRABAPPLE
662	31000	3905	GAL	LANDSCAPE WATERING

PLANT LIST - MATURE HEIGHTS

ORNAMENTAL TREES	Botanical	Common	Mature Height
RRC	Malus x `Royal Raindrops`	Royal Raindrops Crabapple	20` ht.
SHADE TREES	Botanical	Common	
ABM	Acer x freemanii `Jeffsred` TM	Autumn Blaze Maple	50` ht.
PSG	Ginkgo biloba `Princeton Sentry``	Princeton Sentry Ginkgo	50` ht.
SL	Gleditsia triacanthos inermis 'Shademaster'	Shademaster Honey Locust	50` ht.
KSO	Quercus x warei `Nadler` TM	Kindred Spirit Oak	30` ht.
SSL	Tilia tomentosa 'Sterling'	Sterling Silver Linden	50` ht.
UPE	Ulmus x `Patriot`	Patriot Elm	50` ht.
DECIDUOUS SHRUBS	Botanical	Common	
RDR	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	18" ht.
EVERGREEN SHRUBS	Botanical	Common	
EY	Taxus media `Everlow`	Everlow Yew	12"-18"
ORNAMENTAL GRASSES	Botanical	Common	
KFG	Calamagrostis x acutiflora `Karl Foerster`	Feather Reed Grass	48" ht.
LBG	Pennisetum alopecuroides `Little Bunny`	Little Bunny Fountain Grass	10-14" ht.
BLB	Schizachyrium scoparium `The Blues`	The Blues Little Bluestem	24" ht.
PERENNIALS	Botanical	Common	
GAS	Gaillardia x grandiflora `Arizona Sun`	Blanketflower	12" ht.
RSL	Perovskia atriplicifolia `Lacey Blue`	Russian Sage	18" ht.
PES	Sedum x `Purple Emperor`	Stonecrop	12-18" ht.

COX ROAD ROUNDABOUT
ISLAND LANDSCAPE PLAN

COX ROAD AND S.R. 129
LIBERTY TOWNSHIP, OHIO

MSP DESIGN
McGill Smith Punshon
Architecture
Engineering
Landscape Architecture
Planning
Surveying
3700 Park 42 Drive
Suite 190B
Cincinnati OH 45241
Phone 513.759.0004
www.mspdesign.com

Project Manager	JJC
Drawn By	BMG
DWG	15352276-PLA-COX
X-Ref(s)	15352274-IMP

Issue/Revision	No.	Date
FDP SUBMITTAL		10/08/21
BCEO REVISIONS	1	03/11/22

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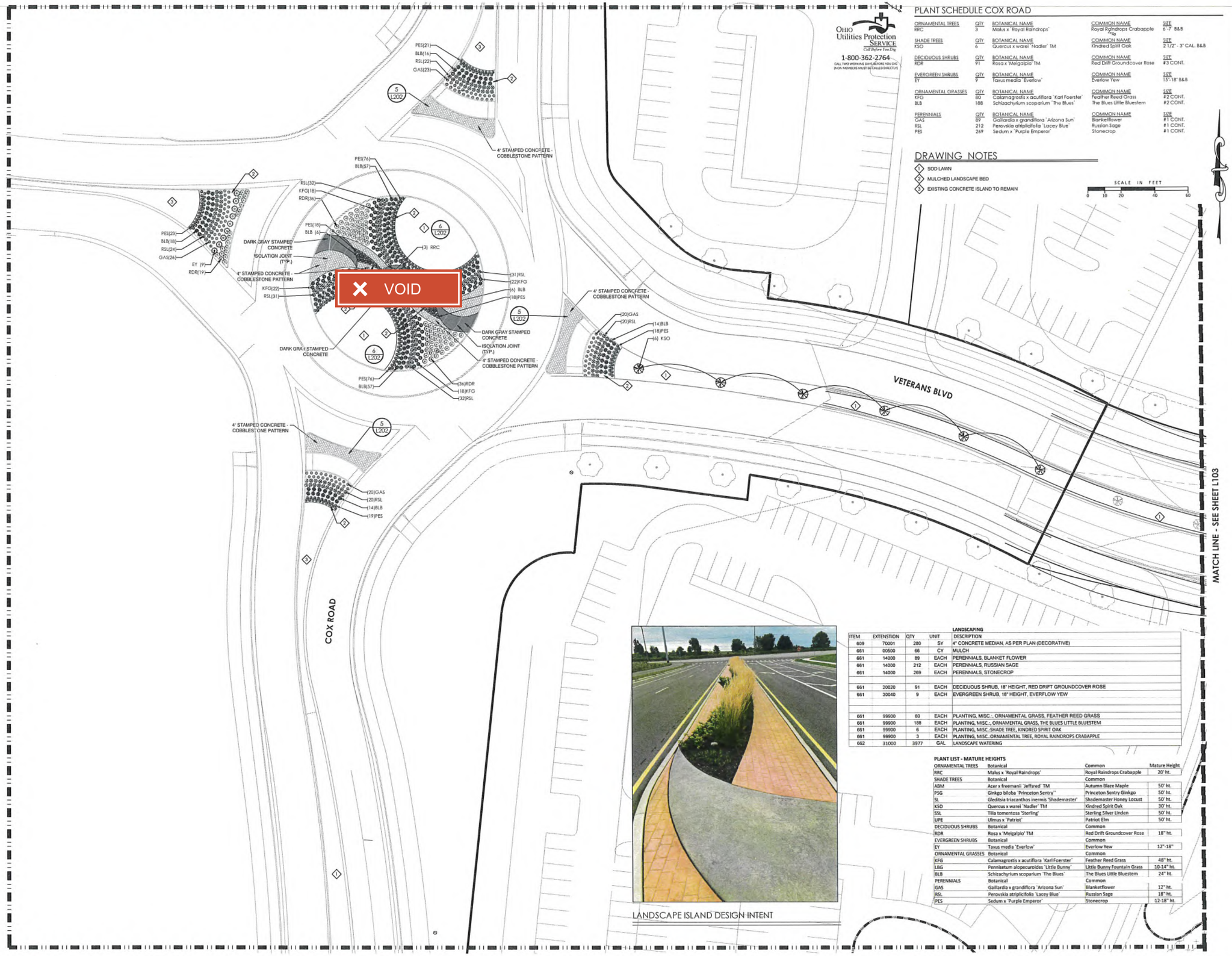
Sheet Title

LANDSCAPE PLAN

Project Number	15352.30
Drawing Scale	1" = 20'
Sheet Number	L201

SHEET 138 | TOTAL 149

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PLANT SCHEDULE COX ROAD

	QTY	BOTANICAL NAME	COMMON NAME	SIZE
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SHADE TREES				
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DECIDUOUS SHRUBS				
RDR	91	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	#3 CONT.
EVERGREEN SHRUBS				
EY	9	Taxus media 'Everlow'	Everlow Yew	15"-18" B&B
ORNAMENTAL GRASSES				
KFG	80	Calamagrostis x acutiflora 'Karl Foerster'	Feather Reed Grass	#2 CONT.
BLB	188	Schizachyrium scoparium 'The Blues'	The Blues Little Bluestem	#2 CONT.
PERENNIALS				
GAS	89	Gaillardia x grandiflora 'Arizona Sun'	Blanketflower	#1 CONT.
RSL	212	Perovskia atriplicifolia 'Lacey Blue'	Russian Sage	#1 CONT.
PES	269	Sedum x 'Purple Emperor'	Stonecrop	#1 CONT.

DRAWING NOTES

1. SOD LAWN
2. MULCHED LANDSCAPE BED
3. EXISTING CONCRETE ISLAND TO REMAIN

SCALE IN FEET
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LANDSCAPE ISLAND DESIGN INTENT

LANDSCAPING

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661	30040	9	EACH	EVERGREEN SHRUB, 18" HEIGHT, EVERFLOW YEW
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661	99900	3	EACH	PLANTING, MISC.,ORNAMENTAL TREE, ROYAL RAINDROPS CRABAPPLE
652	31000	3977	GAL	LANDSCAPE WATERING

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RDR	Rosa x 'Meigalpio' TM	Red Drift Groundcover Rose	18" ht.
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ORNAMENTAL GRASSES	Botanical	Common	
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COX ROAD ROUNDABOUT
ISLAND LANDSCAPE PLAN

COX ROAD AND S.R. 129
LIBERTY TOWNSHIP, OHIO

Sheet Title

LANDSCAPE PLAN

Project Number	15352.30
Drawing Scale	1" = 20'
Sheet Number	L201
SHEET	138
TOTAL	147

MSP DESIGN
McGill Smith Punshon
■ Architecture ■ Engineering ■ Landscape Architecture ■ Planning ■ Surveying
3700 Park 42 Drive Suite 190B Cincinnati OH 45241 Phone 513.759.0004 www.mspdesign.com

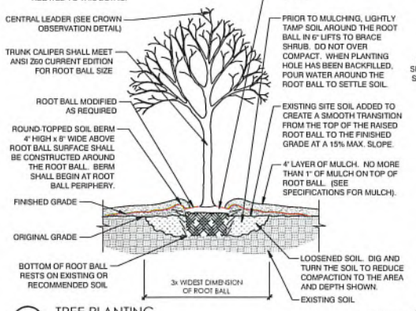
Project Manager	JJC
Drawn By	BMG
DWG	15352276-PLA-COX
X-Ref(s)	15352274-IMP

Issue/Revision	No.	Date
FDP SUBMITTAL		10/08/21

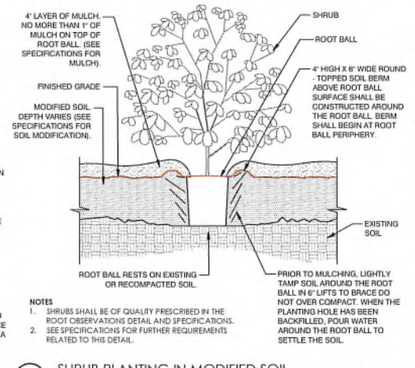
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NOTES
1. TREES SHALL BE OF QUALITY PRESCRIBED IN CROWN OBSERVATIONS AND ROOT OBSERVATIONS DETAILS AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

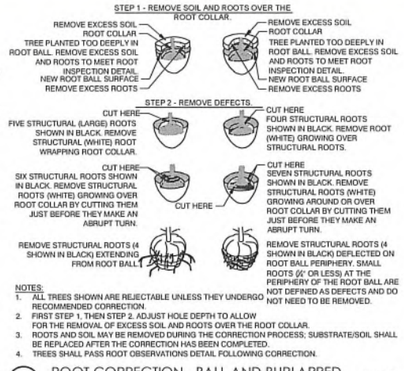


1 TREE PLANTING — 329303-05
NOT TO SCALE — SECTION



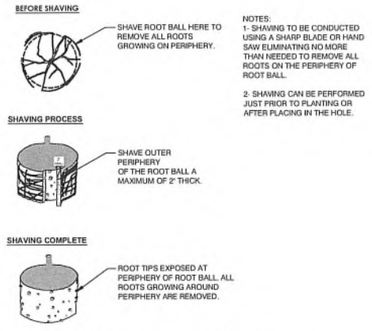
NOTES
1. SHRUBS SHALL BE OF QUALITY PRESCRIBED IN THE ROOT OBSERVATIONS DETAIL AND SPECIFICATIONS.
2. SEE SPECIFICATIONS FOR FURTHER REQUIREMENTS RELATED TO THIS DETAIL.

2 SHRUB PLANTING IN MODIFIED SOIL — 329302-03
NOT TO SCALE — SECTION



NOTES:
1. ALL TREES SHOWN ARE REJECTABLE UNLESS THEY UNDERGO RECOMMENDED CORRECTION.
2. FIRST STEP 1, THEN STEP 2. ADJUST HOLE DEPTH TO ALLOW FOR THE REMOVAL OF EXCESS SOIL AND ROOTS OVER THE ROOT COLLAR.
3. ROOTS AND SOIL MAY BE REMOVED DURING THE CORRECTION PROCESS; SUBSTRATE/SOIL SHALL BE REPLACED AFTER THE CORRECTION HAS BEEN COMPLETED.
4. TREES SHALL PASS ROOT OBSERVATIONS DETAIL FOLLOWING CORRECTION.

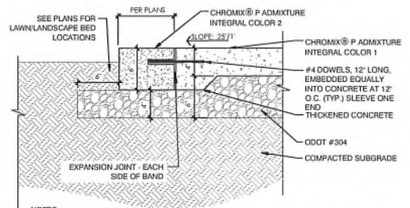
3 ROOT CORRECTION - BALL AND BURLAPPED — 329304-05
NOT TO SCALE — SECTION-ELEVATION



NOTES:
1- SHAVING TO BE CONDUCTED USING A SHARP BLADE OR HAND SAW ELIMINATING NO MORE THAN NEEDED TO REMOVE ALL ROOTS ON THE PERIPHERY OF ROOT BALL.

2- SHAVING CAN BE PERFORMED JUST PRIOR TO PLANTING OR AFTER PLACING IN THE HOLE.

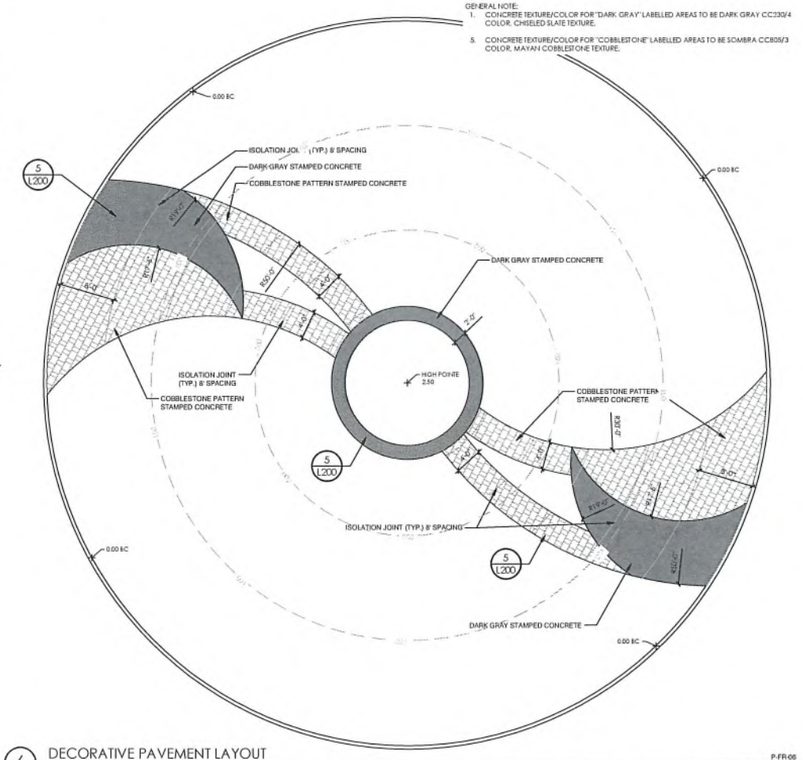
4 ROOT BALL SHAVING - CONTAINER — 329304-06
1 1/2" = 1'-0" — SECTION-ELEVATION



NOTES
1. CONTROL JOINTS - SEE PLAN FOR PATTERN
2. EXPANSION JOINTS 25' O.C. MAX AND WHERE CONCRETE WALK ABUTS CONCRETE WALL OR CURB. (SEE PLANS FOR ANY VARIATIONS)
3. CONCRETE SHALL BE 4000 PSI 6% AIR ENTRAINED
4. STAMPED CONCRETE TO BE INTEGRAL COLORING.
5. CONCRETE TEXTURE/COLOR FOR "DARK GRAY" LABELLED AREAS TO BE DARK GRAY CC230/4 COLOR, CHISELED SLATE TEXTURE.
6. CONCRETE TEXTURE/COLOR FOR "COBBLESTONE" LABELLED AREAS TO BE SOMBRA CC805/3 COLOR, MAYAN COBBLESTONE TEXTURE.
7. CONTRACTOR TO PROVIDE COLOR AND PATTERN SAMPLE SECTION OF EACH COLOR/TEXTURE CONCRETE AREA.

5 DECORATIVE CONCRETE - COX RD — P-FR-05
1 1/2" = 1'-0" — SECTION

GENERAL NOTE:
1. CONCRETE TEXTURE/COLOR FOR "DARK GRAY" LABELLED AREAS TO BE DARK GRAY CC230/4 COLOR, CHISELED SLATE TEXTURE.
5. CONCRETE TEXTURE/COLOR FOR "COBBLESTONE" LABELLED AREAS TO BE SOMBRA CC805/3 COLOR, MAYAN COBBLESTONE TEXTURE.



6 DECORATIVE PAVEMENT LAYOUT — P-FR-06
1/8" = 1'-0" — SECTION-PLAN-ELEVATION

GENERAL NOTES - PLANTING

1. LANDSCAPE CONTRACTOR IS TO VERIFY LOCATIONS OF ALL UTILITIES WITH THE OWNER, OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR DESIGN BUILDER AND UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR DETERMINING IN THE FIELD ACTUAL LOCATIONS AND ELEVATIONS OF EXISTING UTILITIES, WHETHER INDICATED ON PLANS OR NOT. LANDSCAPE CONTRACTOR MUST CALL THE UTILITIES PROTECTION SERVICE A MINIMUM OF 48 HOURS PRIOR TO CONSTRUCTION. LANDSCAPE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR DAMAGE OF UTILITY LINES, WHICH IS CAUSED BY THEIR ACTIONS OR THE ACTIONS OF THEIR CONSULTANTS.
2. LANDSCAPE CONTRACTOR TO EXAMINE FINISH SURFACE, GRADE ACCURACY AND TOPSOIL FOR DEPTH AND QUALITY. REFER TO SPECIFICATIONS (IF APPLICABLE). IF CONDITIONS ARE UNSATISFACTORY, NOTIFY OWNER, OWNER'S REPRESENTATIVE, GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR DESIGN BUILDER AND DO NOT BEGIN WORK UNTIL CONDITIONS HAVE BEEN CORRECTED.
3. AFTER INSTALLATION, REPAIR ALL DAMAGES MADE TO EXISTING CONDITIONS TO OWNER'S REPRESENTATIVE'S SATISFACTION.
4. PLANT MATERIALS SHALL CONFORM TO THE STANDARDS OF THE AMERICAN NURSERY AND LANDSCAPE ASSOCIATION AND SHALL HAVE PASSED INSPECTION REQUIRED UNDER STATE REGULATIONS. CALL (203)-789-2900 TO OBTAIN A COPY OF THE AMERICAN STANDARD FOR NURSERY STOCK BOOKLET.
5. NURSERY STOCK IDENTIFICATION TAGS SHALL NOT BE REMOVED FROM ANY PLANTING PRIOR TO INSPECTION AND APPROVAL OF INSTALLATION BY THE OWNER'S REPRESENTATIVE.
6. ALL PLANTINGS TO BE CONTAINED WITHIN BARK MULCHED BED. ALL TREES LOCATED WITHIN LAWN AREAS TO BE CONTAINED WITH A 5' MULCH RING. BARK MULCH SHALL BE FINELY SHREDDED HARDWOOD, DARK IN COLOR.
7. SEED ALL DISTURBED LAWN AREAS THAT ARE NOT LANDSCAPED.
8. LANDSCAPE CONTRACTOR, GENERAL CONTRACTOR, CONSTRUCTION MANAGER OR DESIGN BUILDER IS RESPONSIBLE FOR MAINTAINING POSITIVE DRAINAGE IN LAWN AREAS. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR PLANTS LIVABILITY. REFER TO FRONT END SPECIFICATIONS IF APPLICABLE.
9. ANY LANDSCAPE CONTRACTOR RECOMMENDED SUBSTITUTIONS MUST BE APPROVED BY THE LANDSCAPE ARCHITECT. UNAPPROVED SUBSTITUTIONS SHALL BE REMOVED AND REPLACED WITH APPROPRIATE PLANTS.
10. A COMPLETE LIST OF PLANTS, INCLUDING A SCHEDULE OF SIZES, QUANTITIES, AND OTHER COMMENTS IS SHOWN ON THE DRAWINGS (IF REQUIRED). IN THE EVENT THAT QUANTITY DISCREPANCIES OR MATERIAL OMISSIONS OCCUR IN THE PLANT SCHEDULE, THE PLANTING PLANS SHALL GOVERN.
11. GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER OR LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR COMPLIANCE WITH ALL FEDERAL, STATE AND LOCAL ORDINANCES AND SHALL MAKE CONSULTANTS AWARE OF THESE ORDINANCES.
12. GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER OR LANDSCAPE CONTRACTOR TO COORDINATE CONSTRUCTION STAGING AND MATERIAL STOCKPILING WITH THE OWNER OR OWNER'S REPRESENTATIVE.
13. DURING ALL PHASES OF CONSTRUCTION ACTIVITY, IF THE LANDSCAPE CONTRACTOR OR THEIR SUBS ENCOUNTER ANY "SOLID WASTE MATERIAL" (EXCLUDING CLEAN HARD FILL) THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER, OWNER OR OWNER'S REPRESENTATIVE SHALL BE CONTACTED IMMEDIATELY FOR FURTHER DIRECTION.
14. LANDSCAPE CONTRACTOR SHALL CLEAN STREETS OF MUD AND DEBRIS GENERATED BY THEIR CONSTRUCTION ACTIVITIES OR THEIR SUB'S CONSTRUCTION ACTIVITIES, PURSUANT WITH LOCAL CODE REQUIREMENTS.
15. LANDSCAPE CONTRACTOR TO COORDINATE WITH THE GENERAL CONTRACTOR, CONSTRUCTION MANAGER, DESIGN BUILDER, OWNER OR OWNER'S REPRESENTATIVE TO PROVIDE FOR APPROPRIATE CARE OF EXISTING PLANT MATERIAL AND NEWLY LANDSCAPED AREAS DURING CONSTRUCTION.
16. STREET TREE LOCATIONS TO BE COORDINATED WITH DRIVEWAY, FIRE HYDRANT, STREET LIGHT LOCATIONS AND OTHER UTILITIES AS REQUIRED.

GENERAL NOTES - PLANT MIX

TOPSOIL: FERTILE, FRIABLE NATURAL TOPSOIL OF LOAMY CHARACTER, WITHOUT ADMIXTURE OF SUBSOIL MATERIAL, OBTAINED FROM A WELL-DRAINED ARABLE SITE, REASONABLY FREE FROM CLAY, LUMPS, COARSE SANDS, STONES, PLANTS, ROOTS, STICKS, AND OTHER FOREIGN MATERIALS, WITH ACIDITY RANGE BETWEEN pH 6.0 AND 6.8.

A. IDENTIFY SOURCE LOCATION OF TOPSOIL PROPOSED FOR USE ON THE PROJECT.
B. PROVIDE TOPSOIL FREE OF SUBSTANCES HARMFUL TO THE PLANTS, WHICH WILL BE GROWN IN THE SOIL.

PEAT MOSS: SHREDDED, LOOSE, SPHAGNUM MOSS; FREE OF LUMPS, ROOTS, INORGANIC MATERIAL OR ACIDIC MATERIALS; MINIMUM OF (95) NINETY-FIVE PERCENT ORGANIC MATERIAL MEASURED BY OVEN DRY WEIGHT, A PH RANGE OF (4 TO 5) FOUR TO FIVE; AND A MOISTURE CONTENT OF (30) THIRTY PERCENT.

MANURE: STERILIZED COW OR DEHYDRATED HORSE MANURE, SHREDDED, WEED AND SEED FREE. FURNISH IN BAGS OF BULK.

BONE MEAL: RAW, FINELY GROUND, COMMERCIAL GRADE, MINIMUM 3% NITROGEN, 20% PHOSPHOROUS.

FERTILIZER: COMMERCIALLY APPROVED 12-12-12 (12% NITROGEN, 12% PHOSPHORIC ACID, AND 12% POTASH BY WEIGHT). 1/4 OF NITROGEN IN THE FORM OF NITRATES; 1/4 IN THE FORM OF AMMONIA SALT, AND 1/2 IN THE FORM OF ORGANIC NITROGEN.

PROVIDE PRE-MIXED PLANTING MIXTURE FOR USE AROUND THE ROOT BALL/ROOTS OF THE PLANTS CONSISTING OF 5 PARTS TOPSOIL, 1 PART PEAT MOSS, 1 PART MANURE, 10 LBS. FERTILIZER (PER CUBIC YARD) AND 2 1/3 LBS. OF BONE MEAL (PER CUBIC YARD).

SCALE IN FEET
0 25 50 100 150

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X-Ref(s)	15352274-IMP

Issue/Revision	No.	Date
FDP SUBMITTAL		10/08/21

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COX ROAD ROUNDABOUT
ISLAND LANDSCAPE PLAN
COX ROAD AND S.R. 129
LIBERTY TOWNSHIP, OHIO

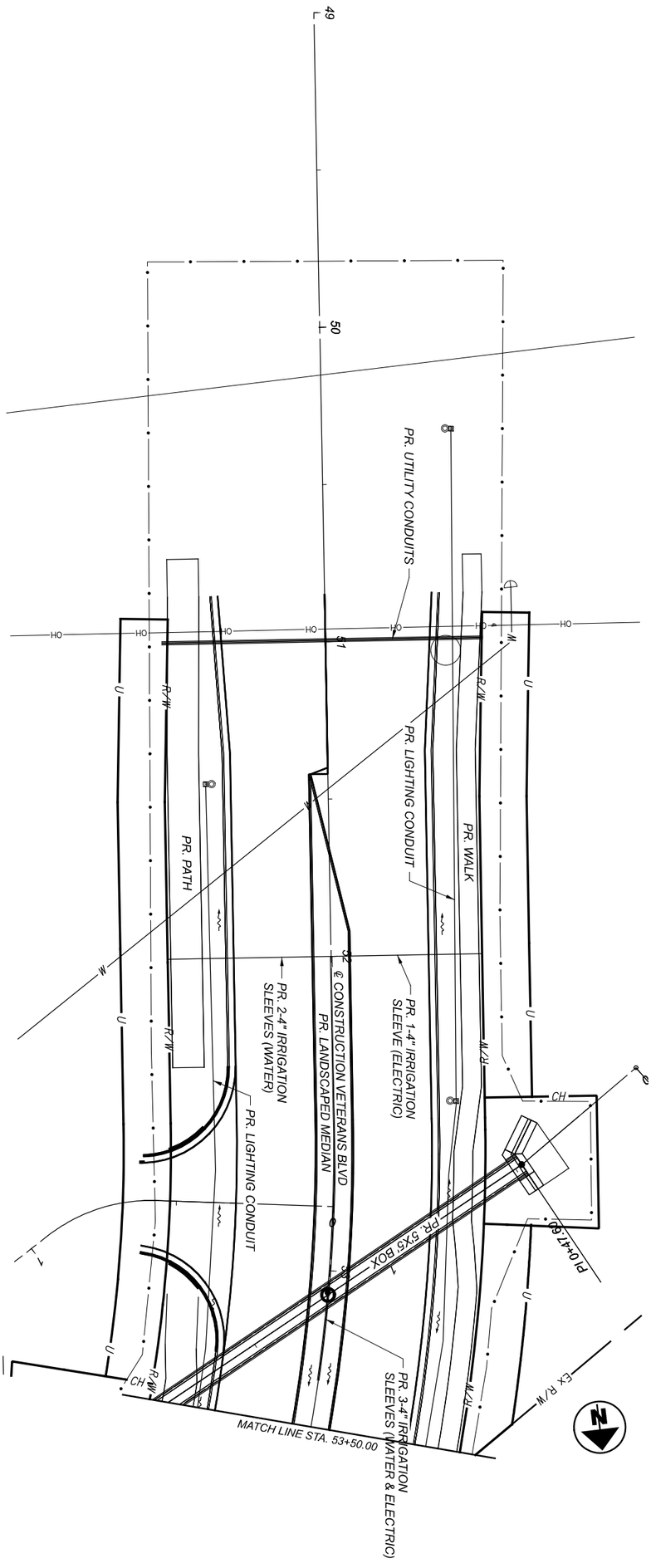
Sheet Title
LANDSCAPE NOTES AND DETAILS

Project Number	15352.30
Drawing Scale	AS SHOWN
Sheet Number	L202
SHEET	139
TOTAL	147

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MODEL: Plan Veterans - Plan Veterans [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:42:41 PM USER: kellie
\\10.11.4\projects\WorkSets\21334_Veterans\400-Engineering\Landscaping\Sheets\21334_Veterans_PP001.dgn

NOTE: IRRIGATION SLEEVES TO BE PLACED A MINIMUM OF 24" BELOW PAVEMENT AND EXTEND A MINIMUM OF 24" BEYOND THE EDGE OF PAVEMENT. WHERE UTILITY CONFLICTS EXIST, IRRIGATION SLEEVES SHALL BE LOWERED. SLEEVES ARE TO BE CAPPED AND TURNED UP USING A 90° ELBOW AND PLACED AT 6" ABOVE FINAL GRADE TO PREVENT WATER AND DEBRIS FROM ENTERING.



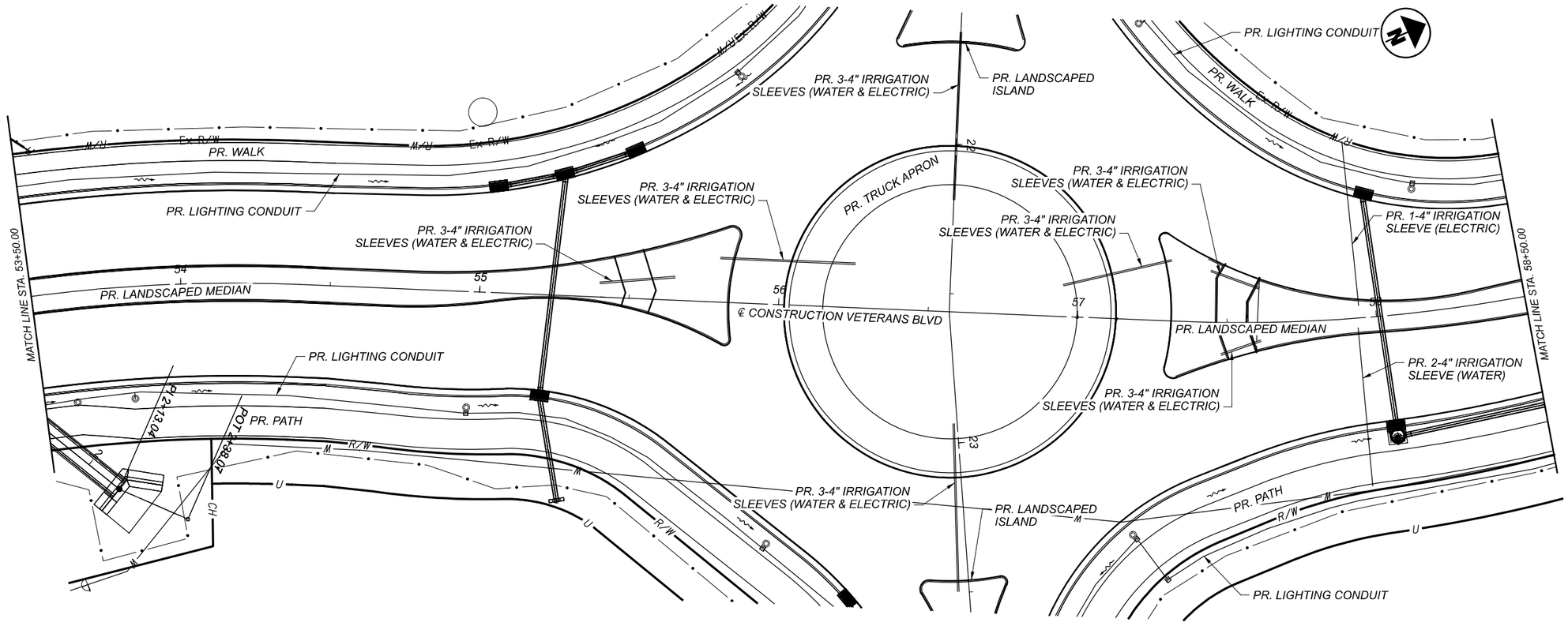
LANDSCAPING IRRIGATION PLAN - VETERANS BLVD
STA 48+50 TO STA 53+50

HORIZONTAL SCALE IN FEET
0 20
10 40

DESIGNER VMG
REVIEWER KLL 02/09/22
PROJECT ID TEC PN: 21334
SHEET P. 140 TOTAL 147

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040

NOTE: IRRIGATION SLEEVES TO BE PLACED A MINIMUM OF 24" BELOW PAVEMENT AND EXTEND A MINIMUM OF 24" BEYOND THE EDGE OF PAVEMENT. WHERE UTILITY CONFLICTS EXIST, IRRIGATION SLEEVES SHALL BE LOWERED. SLEEVES ARE TO BE CAPPED AND TURNED UP USING A 90° ELBOW AND PLACED AT 6" ABOVE FINAL GRADE TO PREVENT WATER AND DEBRIS FROM ENTERING.



HORIZONTAL SCALE IN FEET
0 10 20 40

LANDSCAPING IRRIGATION PLAN - VETERANS BLVD
STA 53+50 TO STA 58+50

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7285 Central Park Blvd.
Mason, OH 45040

DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.141 TOTAL: 147

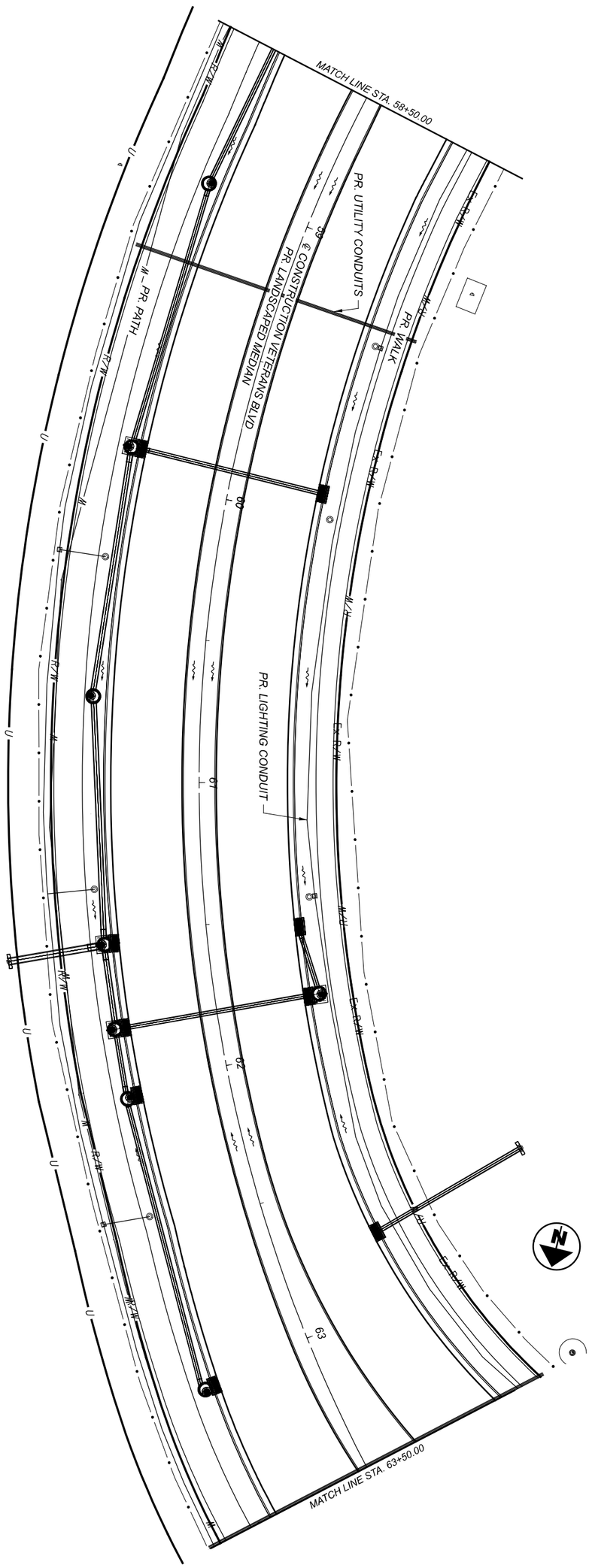
BUT-VETERANS BLVD-0.00

MODEL: Plan Veterans - Plan Veterans-1[Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:42:45 PM USER: kellie
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NOTE: IRRIGATION SLEEVES TO BE PLACED A MINIMUM OF 24" BELOW PAVEMENT AND EXTEND A MINIMUM OF 24" BEYOND THE EDGE OF PAVEMENT. WHERE UTILITY CONFLICTS EXIST, IRRIGATION SLEEVES SHALL BE LOWERED. SLEEVES ARE TO BE CAPPED AND TURNED UP USING A 90° ELBOW AND PLACED AT 6" ABOVE FINAL GRADE TO PREVENT WATER AND DEBRIS FROM ENTERING.

IRRIGATION IS NOT PRESENT ON THIS PLAN SHEET. THIS SHEET IS INCLUDED FOR SEQUENTIAL REFERENCE ONLY.

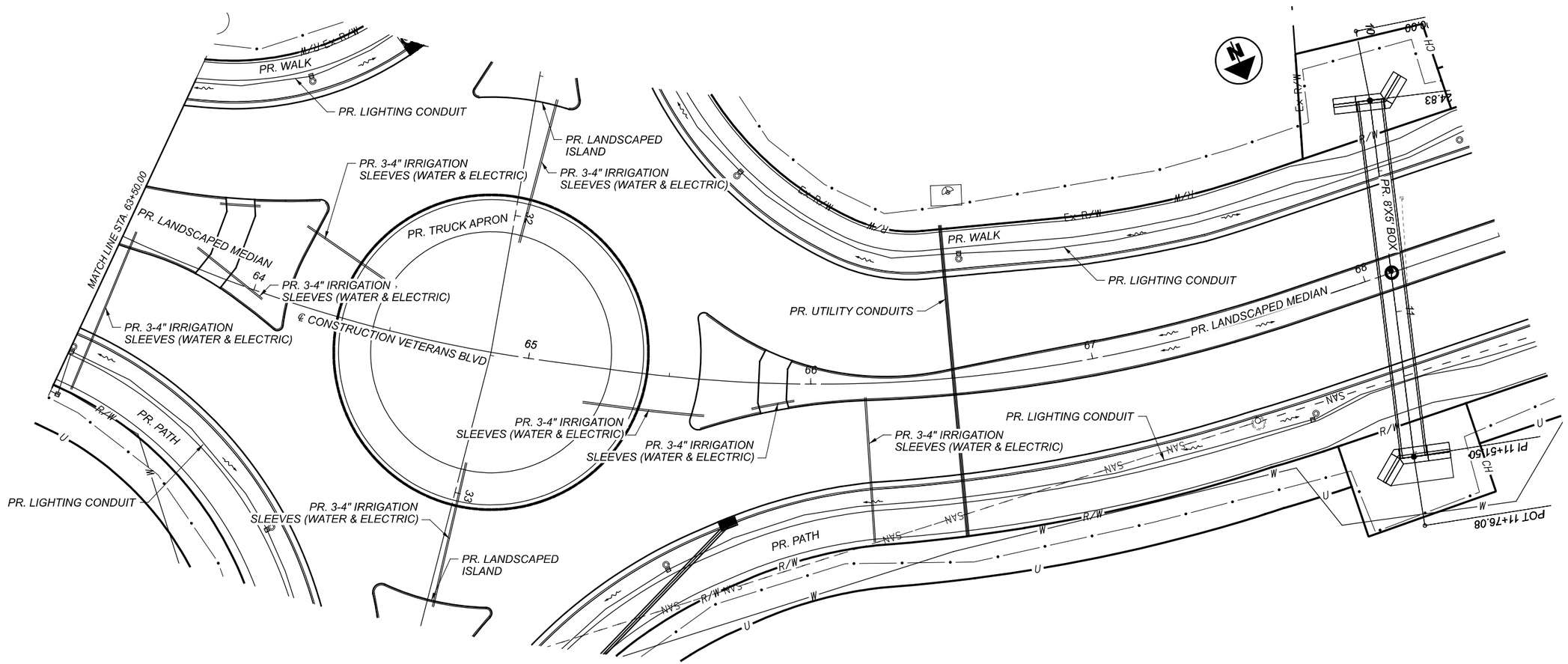


SHEET P. 142 | TOTAL 147	PROJECT ID TEC PN: 21334	REVIEWER KLL 02/09/22	DESIGNER VMG	DESIGN AGENCY TEC Engineering, Inc. PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040

LANDSCAPING IRRIGATION PLAN - VETERANS BLVD
STA 58+50 TO STA 63+50

HORIZONTAL SCALE IN FEET
0 20
10 40

NOTE: IRRIGATION SLEEVES TO BE PLACED A MINIMUM OF 24" BELOW PAVEMENT AND EXTEND A MINIMUM OF 24" BEYOND THE EDGE OF PAVEMENT. WHERE UTILITY CONFLICTS EXIST, IRRIGATION SLEEVES SHALL BE LOWERED. SLEEVES ARE TO BE CAPPED AND TURNED UP USING A 90° ELBOW AND PLACED AT 6" ABOVE FINAL GRADE TO PREVENT WATER AND DEBRIS FROM ENTERING.



HORIZONTAL SCALE IN FEET
0 10 20 40

LANDSCAPING IRRIGATION PLAN - VETERANS BLVD
STA 63+50 TO STA 68+50

DESIGN AGENCY
TEC Engineering Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7339 Corporate Blvd.
Mason, OH 45040

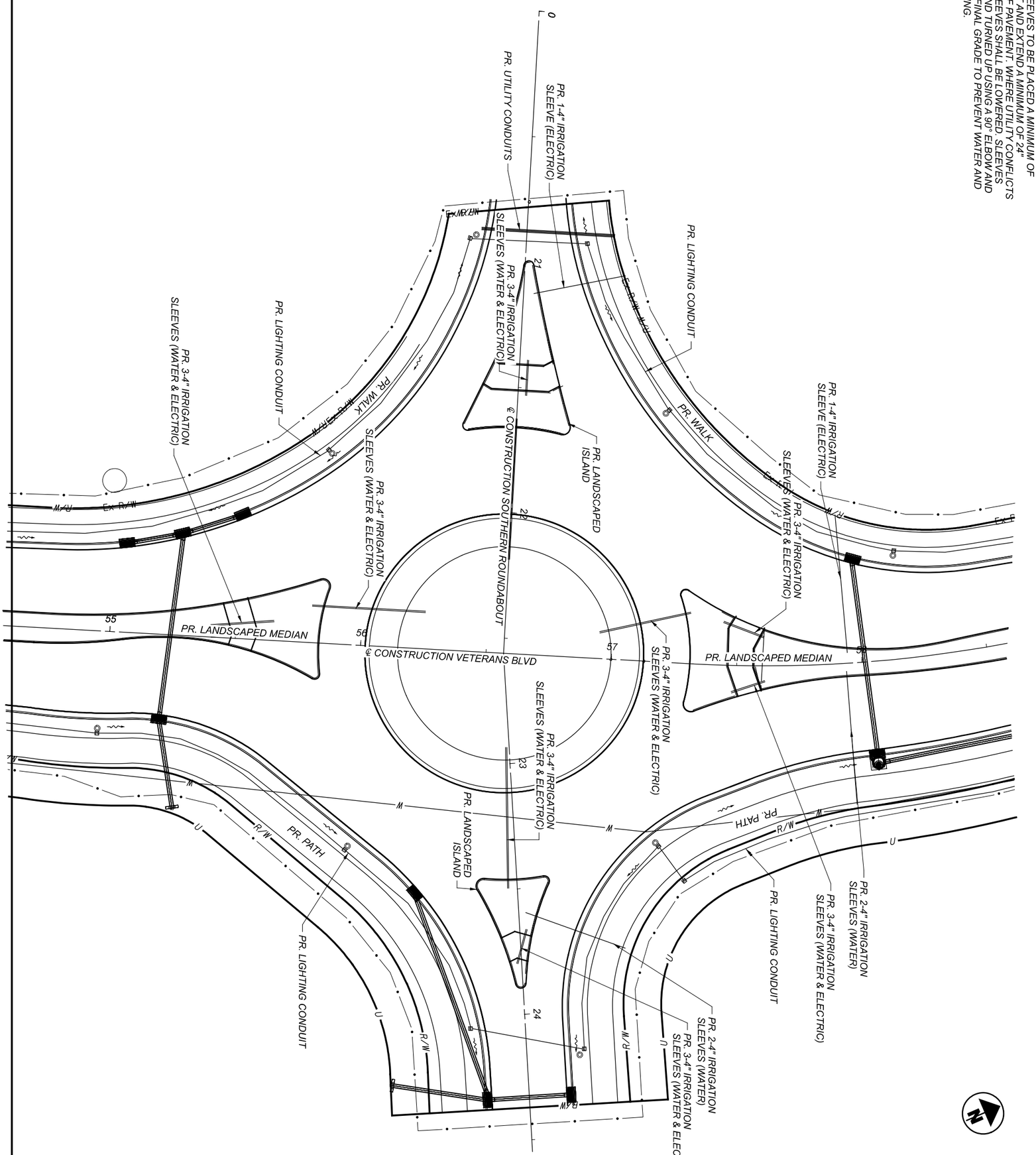
DESIGNER: VMG
REVIEWER: KLL 02/09/22
PROJECT ID: TEC PN: 21334
SHEET: P.143 TOTAL: 147

BUT-VETERANS BLVD-0.00

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MODEL: SouthRoundabout - Plan Veterans-SRA (Sheet) PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:42:55 PM USER: kellie
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TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7288 Central Parke Blvd.
Mason, OH 45040
DESIGN AGENCY

LANDSCAPING IRRIGATION PLAN -SOUTHERN ROUNDABOUT
SOUTHERN ROUNDABOUT

HORIZONTAL SCALE IN FEET
0 20
10 40

MODEL: CLP_Drivel - Plan Veterans-NRA [Sheet] PAPERSIZE: 34x22 (In.) DATE: 2/9/2022 TIME: 3:42:58 PM USER: kellle
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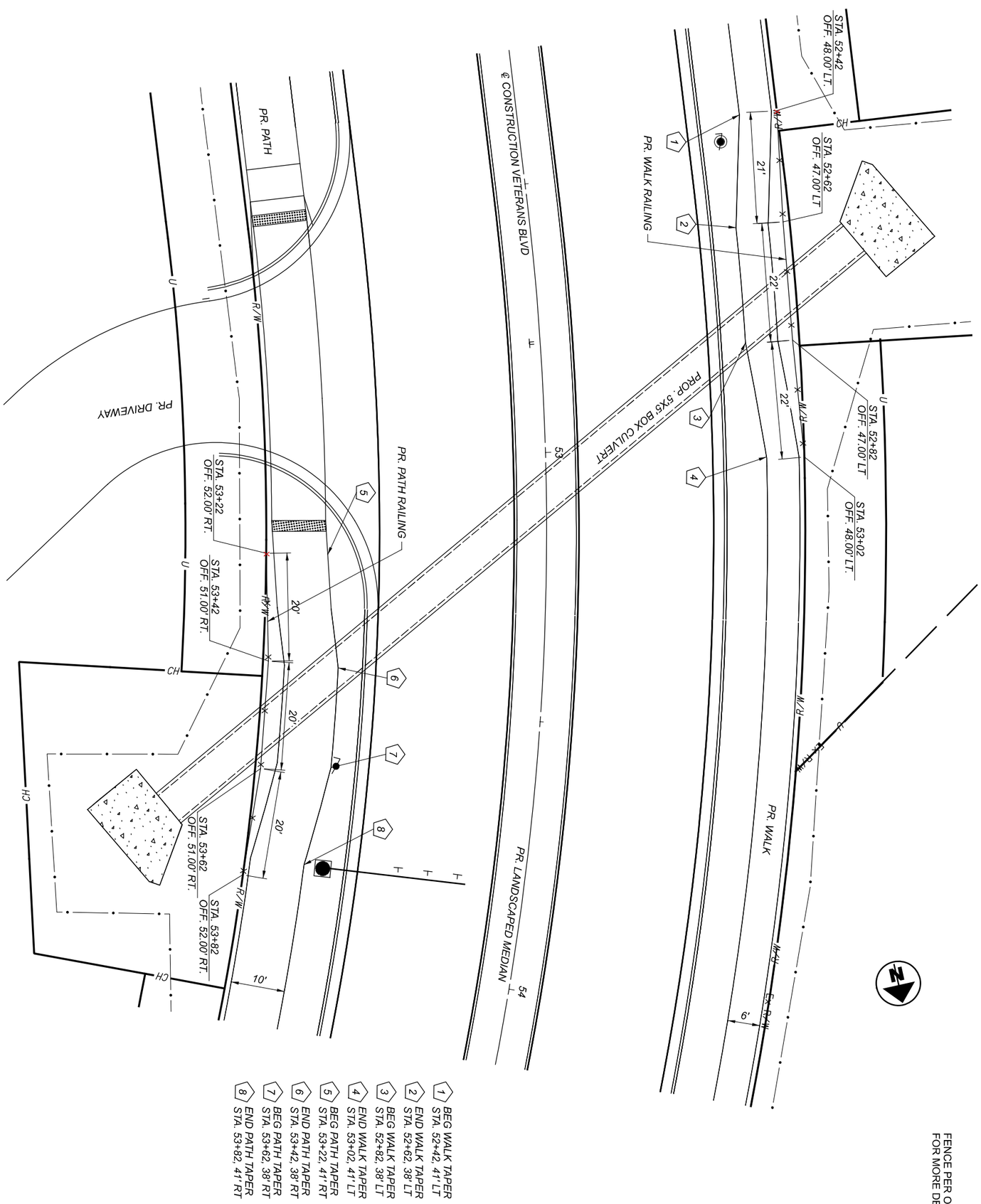
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PR. 3-4" IRRIGATION SLEEVES (WATER & ELECTRIC)
PR. LIGHTING CONDUIT
PR. UTILITY CONDUITS
PR. LANDSCAPED ISLAND
PR. TRUCK APRON
PR. LANDSCAPED MEDIAN
PR. PATH
℄ CONSTRUCTION VETERANS BLVD
℄ CONSTRUCTION NORTHERN ROUNDABOUT
Ex. R/W
PR. WALK
SAN
W
U
R/W

LANDSCAPING IRRIGATION PLAN - NORTHERN ROUNDABOUT
NORTHERN ROUNDABOUT

HORIZONTAL SCALE IN FEET
0 20
10 40

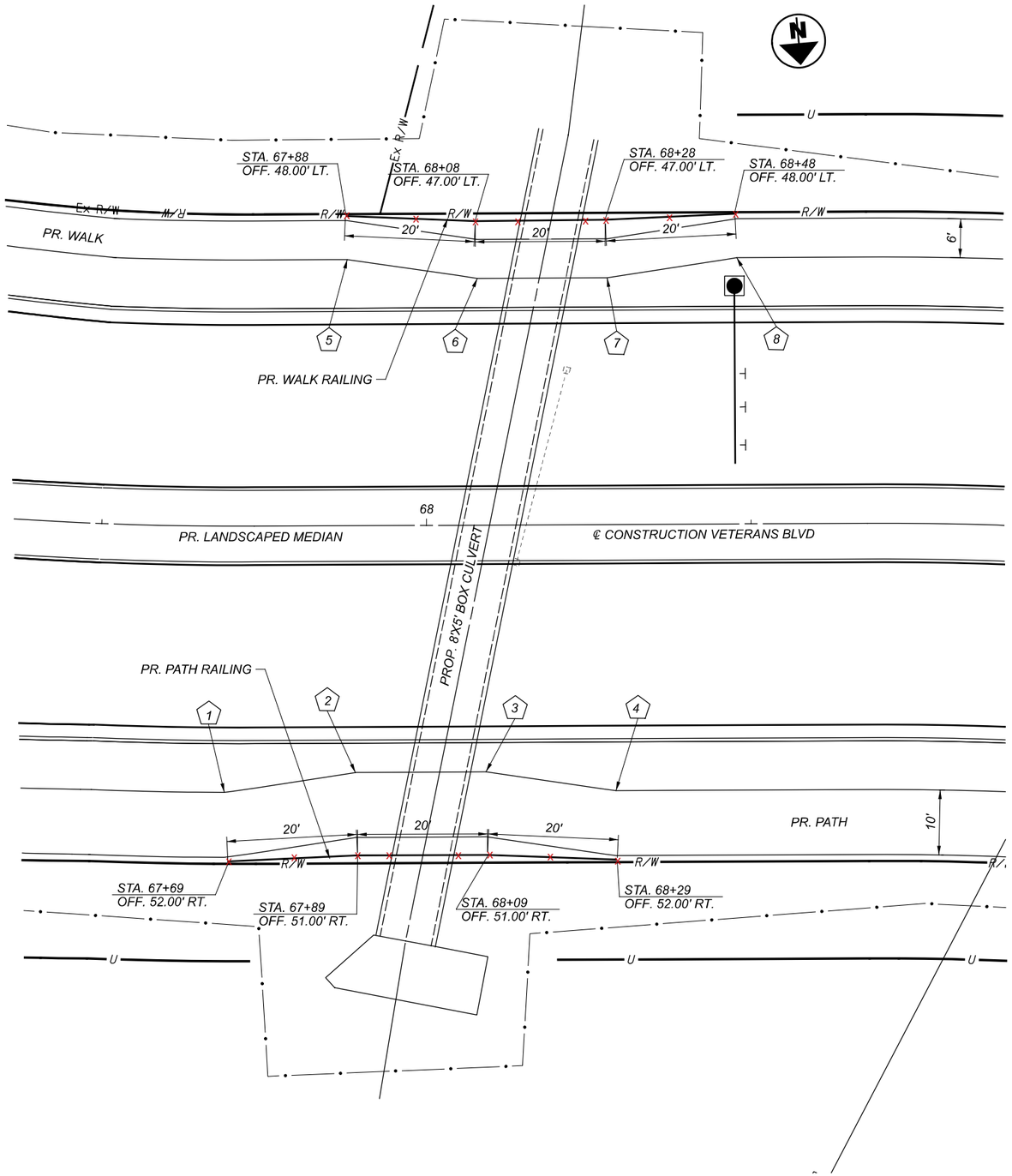
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FENCE PER ODOT SCD RM-5.2
FOR MORE DETAILS SEE SHEET 9

DESIGNER KAM	TEC Engineering, Inc. PLAN PREPARED BY: TEC Engineering, Inc. 7288 Central Parke Blvd. Mason, OH 45040	DESIGN AGENCY	FENCE DETAIL SOUTHERN CULVERT
REVIEWER KLL 02/09/22			HORIZONTAL SCALE IN FEET 0 10 5 20
PROJECT ID TEC PN: 21334			
SHEET P. 146 TOTAL 147			

FENCE PER ODOT SCD RM-5.2
FOR MORE DETAILS SEE SHEET 9



1. BEG PATH TAPER
   STA. 67+69, 41' RT
2. END PATH TAPER
   STA. 67+89, 38' RT
3. BEG PATH TAPER
   STA. 68+09, 38' RT
4. END TAPER TAPER
   STA. 68+29, 41' RT
5. BEG WALK TAPER
   STA. 67+88, 41' LT
6. END WALK TAPER
   STA. 68+08, 38' LT
7. BEG WALK TAPER
   STA. 68+28, 38' LT
8. END WALK TAPER
   STA. 68+48, 41' LT

HORIZONTAL
SCALE IN FEET
0 5 10 20

FENCE DETAIL
NORTHERN CULVERT

BUT-VETERANS BLVD-0.00

MODEL: VeteransPropALGN - Plan 2 [Sheet] PAPERSIZE: 34x22 (in.) DATE: 2/9/2022 TIME: 3:43:11PM USER: kellie
\\OUI4\projects\WorkSets\21334_Veterans\400-Engineering\Roadway\Sheets\21334_Veterans_GX001.dgn

DESIGN AGENCY
TEC Engineering, Inc.
PLAN PREPARED BY:
TEC Engineering, Inc.
7266 Corporate Center Blvd.
Mason, OH 45040

DESIGNER
KAM

REVIEWER
KLL 02/09/22

PROJECT ID
TEC PN: 21334

SHEET P.147 | TOTAL 147