

MODEL: Sheet_PAPER/SHEET: 17411 (p. 1) DATE: 7/27/2022 TIME: 12:28:37 PM USER: fshpam
 F:\Jobs\112-Mile_Road_Improvement\104983\400-Eng\Sheeting\Roadway\Sheeting\4983_GG01.dgn

SHEET NUM.										PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
17-18	19	21	102	137	229	253	342	377	382, 383	OFFICE CALCS	01/IMS/PV	02/NFP/BR							07/IMS/BR
ROADWAY																			
LS			7								LS			201	11000	LS	CLEARING AND GRUBBING		
											7			202	20010	7	EACH	HEADWALL REMOVED	
										14,398	14,398			202	23000	14,398	SY	PAVEMENT REMOVED	
			675							17,349	18,024			202	30000	18,024	SF	WALK REMOVED	
			60								60			202	30700	60	FT	CONCRETE BARRIER REMOVED	
										34	34			202	30800	34	SY	TRAFFIC ISLAND REMOVED	
										4,165	4,165			202	32000	4,165	FT	CURB REMOVED	
			1,425		219	310					1,954			202	35100	1,954	FT	PIPE REMOVED, 24" AND UNDER	
						1,374					625	749		202	35101	1,374	FT	PIPE REMOVED, 24" AND UNDER, AS PER PLAN	252
			965								965			202	35200	965	FT	PIPE REMOVED, OVER 24"	
			6,348								6,348			202	38000	6,348	FT	GUARDRAIL REMOVED	
			4,913								4,913			202	48000	4,913	FT	CABLE BARRIER REMOVED	
			1								1			202	53100	1	EACH	MAILBOX REMOVED	
			9		2						11			202	58000	11	EACH	MANHOLE REMOVED	
			23								23			202	58100	23	EACH	CATCH BASIN REMOVED	
					2						2			202	58700	2	EACH	MANHOLE ABANDONED	
	50	50			529						629			SPECIAL	20270000	629	FT	FILL AND PLUG EXISTING CONDUIT	21 & 227
		732							2,752		3,484			202	75000	3,484	FT	FENCE REMOVED	
						2					2			202	75610	2	EACH	VALVE BOX REMOVED	
			1								1			202	98100	1	EACH	REMOVAL MISC.: CONCRETE SLAB REMOVAL	17
				19,653							19,653			203	10000	19,653	CY	EXCAVATION	
				1,971							1,971			203	10001	1,971	CY	EXCAVATION, AS PER PLAN	19
				49,793							49,793			203	20000	49,793	CY	EMBANKMENT	
6											6			SPECIAL	20365000	6	EACH	SETTLEMENT PLATFORM	18
										26,751	26,751			204	10000	26,751	SY	SUBGRADE COMPACTION	
				5,145							5,145			204	13000	5,145	CY	EXCAVATION OF SUBGRADE	20
				5,145							5,145			204	30010	5,145	CY	GRANULAR MATERIAL, TYPE B	20
	12										12			204	45000	12	HOUR	PROOF ROLLING	
											14,954	14,954		204	50000	14,954	SY	GEOTEXTILE FABRIC	20
										42	42			209	15001	42	STA	RESHAPING UNDER GUARDRAIL, AS PER PLAN	19
	152										152			209	60201	152	STA	LINEAR GRADING, AS PER PLAN	19
			12,218								12,218			606	15050	12,218	FT	GUARDRAIL, TYPE MGS	
			3,412								3,412			606	15550	3,412	FT	GUARDRAIL, BARRIER DESIGN, TYPE MGS	
			4								4			606	26050	4	EACH	ANCHOR ASSEMBLY, MGS TYPE B	
			8								8			606	26150	8	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
			8								8			606	26550	8	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			6								6			606	35002	6	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
			1								1			SPECIAL	60655150	1	EACH	CABLE BARRIER, ANCHOR ASSEMBLY	19
			1								1			606	60028	1	EACH	IMPACT ATTENUATOR, TYPE 2 (BIDIRECTIONAL) 65MPH DESIGN SPEED, 24" WIDTH	
								2,688			2,688			607	23000	2,688	FT	FENCE, TYPE CLT	
							584						584	607	39900	584	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC	
							864						864	607	39994	864	FT	TEMPORARY VANDAL FENCE, TYPE B	
							LS					LS		607	98200	LS		FENCE, MISC.:ALUMINUM LETTERING	371
										15,957	15,957			608	10001	15,957	SF	4" CONCRETE WALK, AS PER PLAN	20
			2,126								2,126			608	52000	2,126	SF	CURB RAMP	
			63								63			622	10160	63	FT	CONCRETE BARRIER, SINGLE SLOPE, TYPE D	
			2								2			622	25000	2	EACH	CONCRETE BARRIER END SECTION, TYPE D	
			1								1			622	25050	1	EACH	CONCRETE BARRIER, END ANCHORAGE, REINFORCED, TYPE D	
									2		2			623	38500	2	EACH	MONUMENT ASSEMBLY	
									17		17			623	40500	17	EACH	REFERENCE MONUMENT	
								4			4			625	32000	4	EACH	GROUND ROD	
			1								1			SPECIAL	69050350	1	EACH	MAILBOX REMOVED AND RESET	

GENERAL SUMMARY

DESIGN AGENCY
EUTHENICS
 625 Walnut Dr., Concord, OH 44022

DESIGNER
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REVIEWER
 ANC 05/26/22

PROJECT ID
 104983

SHEET TOTAL
 P.94 P.445

SHEET NUM.											PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
20	21	102	103	104	105	137	342	01/IMS/PV	02/NFP/BR	07/IMS/BR									
	20		10.65										601	21050	30.65	SY	EROSION CONTROL TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT		
							270	30.65		270			601	21100	270	SY	SLOPE PROTECTION, MISC.:GROUT FILLED FABRIC MATS	340	
		60						60					601	32010	60	CY	ROCK CHANNEL PROTECTION, TYPE A WITH AGGREGATE FILTER		
		16						16					601	32110	16	CY	ROCK CHANNEL PROTECTION, TYPE B WITH AGGREGATE FILTER		
5		6						11					601	32210	11	CY	ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER		
2								2					659	00100	2	EACH	SOIL ANALYSIS TEST		
	3.539						639	4,178					659	00300	4,178	CY	TOPSOIL		
							31,886	31,886					659	10000	31,886	SY	SEEDING AND MULCHING		
	1.594							1,594					659	14000	1,594	SY	REPAIR SEEDING AND MULCHING		
	1.594							1,594					659	15000	1,594	SY	INTER-SEEDING		
	4							4					659	20000	4	TON	COMMERCIAL FERTILIZER		
	7							7					659	31000	7	ACRE	LIME		
	176							176					659	35000	176	MGAL	WATER		
	72							72					659	40000	72	MSF	MOWING		
							5,741	5,741					670	00700	5,741	SY	DITCH EROSION PROTECTION		
				410				410					670	00720	410	SY	DITCH EROSION PROTECTION MAT, TYPE B		
					LS			LS					832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN		
					LS			LS					832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS		
					LS			LS					832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE		
					76,428			76,428					832	30000	76,428	EACH	EROSION CONTROL		
				735				735					836	10000	735	SY	SEEDING AND EROSION CONTROL WITH TURF REINFORCING MAT, TYPE 1		
																	DRAINAGE		
		52.6						52.6					602	20000	52.6	CY	CONCRETE MASONRY		
			2,454					2,454					605	11110	2,454	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		
	400		501					901					605	13410	901	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		
								7,797					605	14020	7,797	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC		
		200						200					605	31100	200	FT	AGGREGATE DRAINS		
	200							200					611	00900	200	FT	6" CONDUIT, TYPE B		
	50							50					611	01400	50	FT	6" CONDUIT, TYPE E		
	100	100		464				664					611	01500	664	FT	6" CONDUIT, TYPE F		
								41					611	04600	41	FT	12" CONDUIT, TYPE C		
								244					611	05900	244	FT	15" CONDUIT, TYPE B		
								196					611	06100	196	FT	15" CONDUIT, TYPE C		
								593					611	07600	593	FT	18" CONDUIT, TYPE C		
								15					611	16200	15	FT	36" CONDUIT, TYPE A, 706.02		
								119					611	16200	119	FT	36" CONDUIT, TYPE A, 706.02, 707.01 (0.064) ALUMINIZED OR 707.35		
							120	120					611	20700	120	FT	48" CONDUIT, TYPE A, 706.02, 60" 707.01 (0.064) ALUMINIZED OR 707.35		
							31	31					611	26000	31	FT	72" CONDUIT, TYPE A, 706.02		
							2	2					611	97200	2	EACH	CONDUIT, MISC.: BENTONITE CLAY DAM	227	
							4	4					611	98300	4	EACH	CATCH BASIN, NO. 5		
							27	27					611	98690	27	EACH	CATCH BASIN, MISC.:CUYAHOGA COUNTY NO. 3C	21	
							2	2					611	98690	2	EACH	CATCH BASIN, MISC.:CUYAHOGA COUNTY TWIN 3C	21	
							5	5					611	99574	5	EACH	MANHOLE, NO. 3		
							18	18					611	99575	18	EACH	MANHOLE, NO. 3, AS PER PLAN 3	21	
							1	1					611	99575	1	EACH	MANHOLE, NO. 3, AS PER PLAN 4	21	
							1	1					611	99575	1	EACH	MANHOLE, NO. 3, AS PER PLAN 5	21	
							1	1					611	99584	1	EACH	MANHOLE, NO. 3 WITH 96" BASE I.D. AND 9" WEIR, AS PER PLAN 3	21	
							1	1					611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE		
	5						6	11					611	99710	11	EACH	PRECAST REINFORCED CONCRETE OUTLET		
	2,000							2,000					SPECIAL	61199820	2,000	LB	MISCELLANEOUS METAL	21	
							1	1					895	10030	1	EACH	MANUFACTURED WATER QUALITY STRUCTURE, TYPE 3		

MODEL: Sheet PAPER SIZE: 17x11 (in.) DATE: 7/21/2022 TIME: 11:48:16 AM USER: fslidham
 F:\Jobs\1162-Miller_Road_Exchange\104983\400-Engineering\Roadway\Sheets\104983_GG003.dgn

SHEET NUM.											PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	21	22	28	32	102	103	104	290	OFFICE CALCS	01/IMS/PV	02/NFP/BR	07/IMS/BR							
						1,330				1,330			611	04400	1,330	FT	DRAINAGE ALTERNATES		
						132				132			611	04600	132	FT	12" CONDUIT, TYPE C (ALTERNATE 1)		
						348				348			611	05900	348	FT	15" CONDUIT, TYPE B (ALTERNATE 1)		
						14				14			611	06100	14	FT	15" CONDUIT, TYPE C (ALTERNATE 1)		
						159				159			611	07400	159	FT	18" CONDUIT, TYPE B (ALTERNATE 1)		
						24				24			611	07600	24	FT	18" CONDUIT, TYPE C (ALTERNATE 1)		
						8				8			611	09100	8	FT	21" CONDUIT, TYPE C (ALTERNATE 1)		
						50				50			611	09400	50	FT	21" CONDUIT, TYPE D (ALTERNATE 1)		
						326				326			611	10400	326	FT	24" CONDUIT, TYPE B (ALTERNATE 1)		
						5				5			611	10600	5	FT	24" CONDUIT, TYPE C (ALTERNATE 1)		
						10				10			611	11900	10	FT	27" CONDUIT, TYPE B (ALTERNATE 1)		
						176				176			611	13400	176	FT	30" CONDUIT, TYPE B (ALTERNATE 1)		
							96			96			611	16400	96	FT	36" CONDUIT, TYPE B (ALTERNATE 1)		
							247			247			611	19600	247	FT	42" CONDUIT, TYPE C (ALTERNATE 1)		
							421			421			611	21100	421	FT	48" CONDUIT, TYPE C (ALTERNATE 1)		
		1,330								1,330			611	04401	1,330	FT	12" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		132								132			611	04601	132	FT	12" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		348								348			611	05901	348	FT	15" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		14								14			611	06101	14	FT	15" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		159								159			611	07401	159	FT	18" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		24								24			611	07601	24	FT	18" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		8								8			611	09101	8	FT	21" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		50								50			611	09401	50	FT	21" CONDUIT, TYPE D, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		326								326			611	10401	326	FT	24" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		5								5			611	10601	5	FT	24" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		10								10			611	11901	10	FT	27" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		176								176			611	13401	176	FT	30" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		96								96			611	16401	96	FT	36" CONDUIT, TYPE B, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		247								247			611	19601	247	FT	42" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
		421								421			611	21101	421	FT	48" CONDUIT, TYPE C, AS PER PLAN, 706.02 (ALTERNATE 2)	22	
										737	737		254	01000	737	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T = 3.25")		
										4,173	4,173		254	01000	4,173	SY	PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE THICKNESS)		
			23								23		254	01000	23	SY	PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)	28	
										980	980		302	56001	980	CY	ASPHALT CONCRETE BASE, (449), AS PER PLAN (PG64-22)	22	
										4,695	4,695		304	20000	4,695	CY	AGGREGATE BASE		
										1,249	1,249		407	20000	1,249	GAL	NON-TRACKING TACK COAT		
			8							8			411	10000	8	CY	STABILIZED CRUSHED AGGREGATE		
										130	130		441	70801	130	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (449), (UNDER GUARDRAIL), AS PER PLAN	22	
										603	603		442	00100	603	CY	ANTI-SEGREGATION EQUIPMENT		
			4							418	422		442	10001	422	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (446), AS PER PLAN (PG76-22M)	22	
										392	392		442	10100	392	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446) (T= 1.75")		
										126	126		442	10100	126	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446) (VARIABLE THICKNESS)		
										13,171	13,171		451	15070	13,171	SY	11" REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA		
					133					133			SPECIAL	45130000	133	FT	PRESSURE RELIEF JOINT, TYPE A	22	
										8,972	8,972		452	15020	8,972	SY	12" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA		
										3,789	3,789		609	14000	3,789	FT	CURB, TYPE 2-A		
						392				108	500		609	26000	500	FT	CURB, TYPE 6		
										288	288		609	72000	288	SY	CONCRETE MEDIAN		
									0.59	0.59			618	40601	0.59	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	22	

GENERAL SUMMARY

DESIGN AGENCY	EUTHENICS
DESIGNER	COM
REVIEWER	ANC 05/26/22
PROJECT ID	104983
SHEET TOTAL	P.96 P.445

SHEET NUM.											PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	102	104	229	242	250	253	289	290	307	01/IMS/ PV	02/NFP/ R	07/IMS/ BR							
						5,000							SPECIAL	61199820	5,000	LB	WATER WORK MISCELLANEOUS METAL	248	
						2							638	98000	2	EACH	WATER WORK, MISC.: 12" CUT-IN VALVE ASSEMBLY AND VALVE BOX, COMPLETE	246	
						4							638	98000	4	EACH	WATER WORK, MISC.: FURNISHING AND SETTING 6" HYDRANT, COMPLETE (KENNEDY VALVE K81A STYLE)	249	
						3							638	98000	3	EACH	WATER WORK, MISC.: FIRE HYDRANT REMOVED AND DISPOSED OF	252	
						1							638	98000	1	EACH	WATER WORK, MISC.: 2" AIR RELIEF VALVE WITH VALVE BOX, COMPLETE	251	
						1					1		638	98000	1	EACH	WATER WORK, MISC.: 12" GATE VALVE WITH VALVE BOX, COMPLETE	246	
												3	638	98000	3	EACH	WATER WORK, MISC.: 6" WATERMAIN UNDERPASS	250	
						3							638	98000	3	EACH	WATER WORK, MISC.: 12" WATERMAIN UNDERPASS	250	
				LS									638	98100	LS		WATER WORK, MISC.: CITY OF CLEVELAND, DIVISION OF WATER LABOR CHARGES	242	
						200							638	98600	200	FT	WATER WORK, MISC.: 20" STEEL PIPE ENCASEMENT, BORED OR JACKED	250	
						1,552							638	98600	1,552	FT	WATER WORK, MISC.: 12" DUCTILE IRON, CLASS 52, CEMENT LINED PUSH-ON JOINT PIPE WITH RETAINED MECHANICAL JOINT FITTINGS	244	
						593							638	98600	593	FT	WATER WORK, MISC.: 12" DUCTILE IRON, CLASS 53, CEMENT LINED BOLTLESS RESTRAINED PUSH-ON JOINTS, TYPE 1, WITH RETAINED MECHANICAL JOINT FITTINGS	244	
						601							638	98600	601	FT	WATER WORK, MISC.: CUT, FILL AND PLUG EXISTING 12" WATER MAIN	250	
																	SANITARY SEWER		
													611	00900	50	FT	6" CONDUIT, TYPE B FOR SANITARY, AS PER PLAN	227	
													611	01100	50	FT	6" CONDUIT, TYPE C FOR SANITARY, AS PER PLAN	227	
													611	04601	8	FT	12" CONDUIT, TYPE C, AS PER PLAN, 706.02 CLASS V WITH ASTM TYPE 1 BEDDING	227	
													611	07401	187	FT	18" CONDUIT, TYPE B, AS PER PLAN, 706.02 CLASS V WITH ASTM TYPE 1 BEDDING	227	
													611	07601	495	FT	18" CONDUIT, TYPE C, AS PER PLAN, 706.02 CLASS V WITH ASTM TYPE 1 BEDDING	227	
													611	97200	4	EACH	CONDUIT, MISC.: BENTONITE CLAY DAM	227	
													611	99575	5	EACH	MANHOLE, NO. 3, AS PER PLAN 1	227	
													611	99575	1	EACH	MANHOLE, NO. 3, AS PER PLAN 2	227	
													611	99655	2	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN	227	
													611	99661	3	EACH	MANHOLE RECONSTRUCTED TO GRADE, AS PER PLAN	227	
																	TRAFFIC CONTROL		
													620	00500	8	EACH	DELINEATOR, POST GROUND MOUNTED		
													620	31200	4	EACH	REMOVAL OF DELINEATOR		
													621	00100	239	EACH	RPM		
													621	54000	170	EACH	RAISED PAVEMENT MARKER REMOVED		
													625	32000	9	EACH	GROUND ROD		
													626	00102	1	EACH	BARRIER REFLECTOR, TYPE 1 (ONE-WAY)		
													626	00102	4	EACH	BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)		
													626	00112	95	EACH	BARRIER REFLECTOR, TYPE 3 (ONE-WAY)		
													626	00112	90	EACH	BARRIER REFLECTOR, TYPE 3 (BI-DIRECTIONAL)		
													630	02100	225.1	FT	GROUND MOUNTED SUPPORT, NO. 2 POST		
													630	03100	525.8	FT	GROUND MOUNTED SUPPORT, NO. 3 POST		
													630	06500	38.7	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W6X9		
													630	07600	83.1	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X12		
													630	08600	16	EACH	SIGN POST REFLECTOR		
													630	09000	6	EACH	BREAKAWAY STRUCTURAL BEAM CONNECTION		
													630	72340	7	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 12		
													630	72420	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-15.116, DESIGN 2		
													630	75000	3	EACH	SIGN ATTACHMENT ASSEMBLY		
													630	79100	9	EACH	SIGN HANGER ASSEMBLY, MAST ARM		
													630	80100	517.3	SF	SIGN, FLAT SHEET		
													630	80200	190	SF	SIGN, GROUND MOUNTED EXTRUSHEET		
													630	80224	1,883	SF	SIGN, OVERHEAD EXTRUSHEET		
													630	84500	6	EACH	GROUND MOUNTED STRUCTURAL BEAM SUPPORT FOUNDATION		
													630	84510	11	EACH	RIGID OVERHEAD SIGN SUPPORT FOUNDATION		
													630	84900	81	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL		
													630	85100	7	EACH	REMOVAL OF GROUND MOUNTED SIGN AND REERECTION		
													630	86002	51	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL		

GENERAL SUMMARY

DESIGN AGENCY
EUTHENICS
 6225 Mahoning Dr., Cleveland, OH 44130

DESIGNER
 COM

REVIEWER
 ANC 05/26/22

PROJECT ID
 104983

SHEET TOTAL
 P.97 P.445

SHEET NUM.					PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
289	290	325	340	01/IMS/PV	02/NFP/BR	07/IMS/BR							
TRAFFIC CONTROL (CONT.)													
	2				2		630	86102	2	EACH	REMOVAL OF GROUND MOUNTED STRUCTURAL BEAM SUPPORT AND DISPOSAL		
	2				2		630	87101	2	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND REERECTION, AS PER PLAN	22	
	9				9		630	87400	9	EACH	REMOVAL OF OVERHEAD MOUNTED SIGN AND DISPOSAL		
	13				13		630	87500	13	EACH	REMOVAL OF POLE MOUNTED SIGN AND DISPOSAL		
	3				3		630	89702	3	EACH	REMOVAL OF OVERHEAD SIGN SUPPORT AND DISPOSAL		
				2	2		630	97700	2	EACH	SIGNING, MISC.:OVERPASS NAME INSTALLATION	340	
		4.34			4.34		646	10010	4.34	MILE	EDGE LINE, 6"		
		3.17			3.17		646	10110	3.17	MILE	LANE LINE, 6"		
		3,495			3,495		646	10310	3,495	FT	CHANNELIZING LINE, 12"		
		420			420		646	10400	420	FT	STOP LINE		
		1,308			1,308		646	10510	1,308	FT	CROSSWALK LINE, 12"		
		246			246		646	10600	246	FT	TRANSVERSE/DIAGONAL LINE		
		130			130		646	10620	130	FT	CHEVRON MARKING		
		74			74		646	20300	74	EACH	LANE ARROW		
		3			3		646	20320	3	EACH	WRONG WAY ARROW		
		2			2		646	20350	2	EACH	LANE REDUCTION ARROW		
		1,977			1,977		646	20504	1,977	FT	DOTTED LINE, 6" (WHITE / YELLOW)		
		1,315			1,315		646	20510	1,315	FT	DOTTED LINE, 12" (WHITE)		
		337			337		646	50100	337	FT	REMOVAL OF PAVEMENT MARKING		
		0.74			0.74		807	12110	0.74	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, LANE LINE, 6"		
		0.53			0.53		807	12200	0.53	MILE	WET REFLECTIVE EPOXY PAVEMENT MARKING, CENTER LINE		
		3,574			3,574		807	12310	3,574	FT	WET REFLECTIVE EPOXY PAVEMENT MARKING, CHANNELIZING LINE, 12"		
		1.06			1.06		850	20000	1.06	MILE	GROOVING FOR 4" RECESSED PAVEMENT MARKING, (CONCRETE)		
		0.74			0.74		850	20010	0.74	MILE	GROOVING FOR 6" RECESSED PAVEMENT MARKING, (CONCRETE)		
		3,574			3,574		850	20130	3,574	FT	GROOVING FOR 12" RECESSED PAVEMENT MARKING, (CONCRETE)		
LIGHTING													
				9	9		625	13200	9	EACH	LIGHT TOWER, BBBB100		
				9	9		625	15100	9	EACH	LIGHT TOWER FOUNDATION, 36" X 20' DEEP		
				600	600		625	23200	600	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE		
				6,110	6,110		625	24320	6,110	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES		
				159	159		625	25500	159	FT	CONDUIT, 3", 725.04		
				208	208		625	25902	208	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"		
				36	36		625	26263	36	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN, SYMMETRIC, 480V	324	
				5,870	5,870		625	29000	5,870	FT	TRENCH		
				7	7		625	30706	7	EACH	PULL BOX, 725.08, 24"		
				19	19		625	32000	19	EACH	GROUND ROD		
						1	625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM		
				1	1		625	34001	1	EACH	POWER SERVICE, AS PER PLAN	324	
				6,110	6,110		625	36010	6,110	FT	UNDERGROUND WARNING/MARKING TAPE		
				10	10		625	36200	10	FT	POWER CABLE FOR LIGHT TOWER		
				414	414		632	69900	414	FT	SERVICE CABLE, 3 CONDUCTOR, NO. 4 AWG		

GENERAL SUMMARY

DESIGN AGENCY
EUTHENICS
 6225 Mahoning Dr., Cleveland, OH 44130

DESIGNER
 COM

REVIEWER
 ANC 05/26/22

PROJECT ID
 104983

SHEET TOTAL
 P.98 P.445

SHEET NUM.								PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
						307	308	01/IMS/ PV	02/NFP/ R	07/IMS/ BR						
						159		159			625	25400	159	FT	CONDUIT, 2", 725.04	
						98		98			625	25500	98	FT	CONDUIT, 3", 725.04	
						953		953			625	25600	953	FT	CONDUIT, 4", 725.04	
						1,027		1,027			625	29002	1,027	FT	TRENCH, 24" DEEP	
						6		6			625	30700	6	EACH	PULL BOX, 725.08, 18"	
						9		9			625	30706	9	EACH	PULL BOX, 725.08, 24"	
						31		31			625	32000	31	EACH	GROUND ROD	
						1,027		1,027			625	36010	1,027	FT	UNDERGROUND WARNING/MARKING TAPE	
						17		17			632	05006	17	EACH	VEHICULAR SIGNAL HEAD, (LED), 3-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
						5		5			632	05064	5	EACH	VEHICULAR SIGNAL HEAD, (LED), 4-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
						4		4			632	05086	4	EACH	VEHICULAR SIGNAL HEAD, (LED), 5-SECTION, 12" LENS, 1-WAY, POLYCARBONATE	
						18		18			632	20731	18	EACH	PEDESTRIAN SIGNAL HEAD (LED), TYPE D2, COUNTDOWN, AS PER PLAN	304
						26		26			632	25000	26	EACH	COVERING OF VEHICULAR SIGNAL HEAD	
						18		18			632	26000	18	EACH	PEDESTRIAN PUSHBUTTON	
						3,222		3,222			632	40200	3,222	FT	SIGNAL CABLE, 2 CONDUCTOR, NO. 14 AWG	
						3,294		3,294			632	40500	3,294	FT	SIGNAL CABLE, 5 CONDUCTOR, NO. 14 AWG	
						3,769		3,769			632	40700	3,769	FT	SIGNAL CABLE, 7 CONDUCTOR, NO. 14 AWG	
						8		8			632	64010	8	EACH	SIGNAL SUPPORT FOUNDATION	
						11		11			632	64020	11	EACH	PEDESTAL FOUNDATION	
						45		45			632	68200	45	FT	POWER CABLE, 2 CONDUCTOR, NO. 6 AWG	
						197		197			632	68300	197	FT	POWER CABLE, 3 CONDUCTOR, NO. 6 AWG	
						3		3			632	70000	3	EACH	POWER SERVICE	
						3		3			632	70400	3	EACH	CONDUIT RISER, 2" DIAMETER	
						1		1			632	71224	1	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 6 POLE, WITH MAST ARMS TC-81.22 DESIGN 4 AND DESIGN 4	
						1		1			632	71244	1	EACH	SIGNAL SUPPORT, TYPE TC-12.31 DESIGN 6 POLE, WITH MAST ARMS TC-81.22 DESIGN 12 AND DESIGN 4	
						1		1			632	72110	1	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 4	
						2		2			632	72130	2	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 12	
						3		3			632	72140	3	EACH	SIGNAL SUPPORT, TYPE TC-81.22, DESIGN 13	
						11		11			632	89900	11	EACH	PEDESTAL, 8', TRANSFORMER BASE	
						2		2			632	90100	2	EACH	REMOVAL OF TRAFFIC SIGNAL INSTALLATION	
						8		8			632	90400	8	EACH	SIGNALIZATION, MISC.: TEST HOLE PERFORMED	306
						3		3			633	67100	3	EACH	CABINET FOUNDATION	
						3		3			633	67200	3	EACH	CONTROLLER WORK PAD	
						3		3			633	75001	3	EACH	UNINTERRUPTIBLE POWER SUPPLY (UPS), 1000 WATT, AS PER PLAN	306
						3		3			633	99000	3	EACH	CONTROLLER ITEM, MISC.: CONTROLLER UNIT, TYPE TS2/A2, WITH CABINET, TYPE TS2	306
						4		4			805	00101	4	EACH	GLOBAL POSITIONING SYSTEM CLOCK ASSEMBLY, AS PER PLAN	306
							8	8			809	69100	8	EACH	STOP LINE RADAR DETECTION	
							1	1			809	69200	1	EACH	EMERGENCY VEHICLE PREEMPTION	
							10	10			809	69210	10	EACH	PREEMPT RECEIVING UNIT	
							2,245	2,245			809	69220	2,245	FT	PREEMPT DETECTOR CABLE	
							3	3			809	69230	3	EACH	PREEMPT PHASE SELECTOR	
							10	10			809	69240	10	EACH	PREEMPT CONFIRMATION LIGHT	
						LS		LS			824	00010	LS		SYSTEM ANALYSIS	

GENERAL SUMMARY

DESIGN AGENCY
EUTHENICS
 6225 Mahoning Dr., Cleveland, OH 44130

DESIGNER
 COM

REVIEWER
 ANC 05/26/22

PROJECT ID
 104983

SHEET TOTAL
 P.99 P.445

SHEET NUM.										PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
										01/IMS/PV	02/NFP/BR	07/IMS/BR						
									342									
									LS			LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	338
									178			178	202	22900	178	SY	APPROACH SLAB REMOVED	
									LS			LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN	338
									255			255	503	21100	255	CY	UNCLASSIFIED EXCAVATION	
									LS			LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
									3,200			3,200	507	00100	3,200	FT	STEEL PILES HP10X42, FURNISHED	
									2,940			2,940	507	00150	2,940	FT	STEEL PILES HP10X42, DRIVEN	
									147,706			147,706	509	10001	147,706	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	339
									400			400	509	20001	400	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	339
									194			194	510	10001	194	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	339
									2			2	511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
									497			497	511	34446	497	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
									58			58	511	34450	58	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
									76			76	511	41012	76	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
									82			82	511	43512	82	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
									77			77	511	46512	77	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
									529			529	512	10050	529	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
									1,383			1,383	512	10100	1,383	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
									8			8	512	33000	8	SY	TYPE 2 WATERPROOFING	
									261,000			261,000	513	10240	261,000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2	
									20,280			20,280	514	00050	20,280	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL	
									20,280			20,280	514	00056	20,280	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT	
									32,330			32,330	514	00060	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
									32,330			32,330	514	00066	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
									34			34	514	00504	34	MNHR	GRINDING FINES, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL	
									16			16	514	10000	16	EACH	FINAL INSPECTION REPAIR	
									163			163	516	10010	163	FT	ARMORLESS PREFORMED JOINT SEAL	
									81			81	516	13400	81	SF	3/4" PREFORMED EXPANSION JOINT FILLER	
									59			59	516	13900	59	SF	2" PREFORMED EXPANSION JOINT FILLER	
									68			68	516	14020	68	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
									8			8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (LOAD PLATE 13" x 17" x 1.50", NEOPRENE 12" x 16" x 3.55")	358
									8			8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (LOAD PLATE 16" x 19" x 1.50", NEOPRENE 15" x 18" x 3.25")	359
									4			4	516	44201	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (LOAD PLATE 16" x 27" x 1.50", NEOPRENE 15" x 18" x 3.25")	359
									46			46	518	21200	46	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
									88			88	518	40000	88	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
									24			24	518	40010	24	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
									17			17	519	11101	17	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	339
									352			352	526	15001	352	SY	REINFORCED CONCRETE APPROACH SLABS (T=13"), AS PER PLAN	339
									163			163	526	90030	163	FT	TYPE C INSTALLATION	
									LS			LS	SPECIAL	53014000	LS		STRUCTURAL SURVEY AND MONITORING OF VIBRATION	339
									931			931	847	10000	931	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY (1 .5" THICK)	
									4			4	847	20000	4	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY	
									LS			LS	847	30000	LS		TEST SLAB	
									2			2	847	30200	2	CY	FULL DEPTH REPAIR	
									56			56	847	50000	56	SY	HAND CHIPPING	

GENERAL SUMMARY

DESIGN AGENCY
EUTHENICS
 6225 Mahoning Dr., Cleveland, OH 44130

DESIGNER
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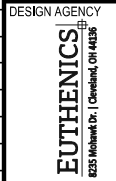
REVIEWER
 ANC 05/26/22

PROJECT ID
 104983

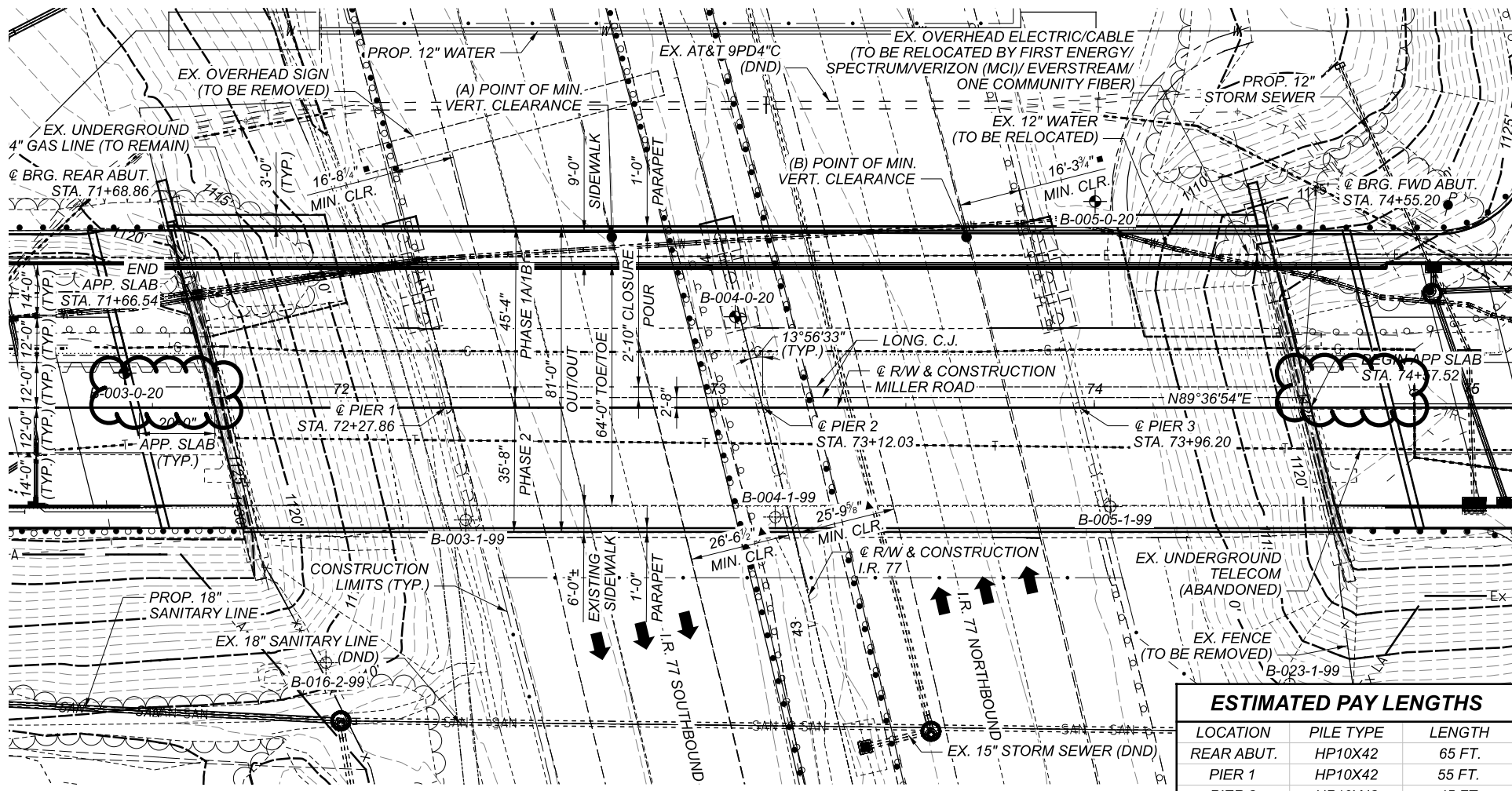
SHEET TOTAL
 P.100 P.445

SHEET NUM.											PART			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
18	22	24	25	26	27	28	29	32	01/IMS/ PV	02/NFP/ R	07/IMS/ BR								
						1,282							254	01000	1,282	SY	MAINTENANCE OF TRAFFIC PAVEMENT PLANING, ASPHALT CONCRETE (1.5" DEPTH)		
						115							407	20000	115	GAL	NON-TRACKING TACK COAT		
						53							442	20001	53	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (448), AS PER PLAN, PG70-22M, 1-1/2"	22	
						500							614	11110	500	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE		
								5					SPECIAL	61411300	5	EACH	WORK ZONE TRAFFIC SIGNAL	26	
								1,206					614	11630	1,206	FT	INCREASED BARRIER DELINEATION		
								1,087.5					SPECIAL	61412200	1,087.5	FT	WORK ZONE GUARDRAIL	28	
								7					614	12380	7	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (UNIDIRECTIONAL) (ONE-WAY)		
								9					614	12384	9	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)		
			LS										614	12420	LS		DETOUR SIGNING		
			4										614	12460	4	EACH	WORK ZONE MARKING SIGN		
							2						614	12484	2	EACH	WORK ZONE INCREASED PENALTIES SIGN		
								735					614	12801	735	EACH	WORK ZONE RAISED PAVEMENT MARKER, AS PER PLAN	28	
													614	13310	243	EACH	BARRIER REFLECTOR, TYPE 1 (1WAY)		
							43						614	13312	43	EACH	BARRIER REFLECTOR, TYPE 2 (1WAY)		
							41						614	13350	227	EACH	OBJECT MARKER, ONE WAY		
								57					614	13360	57	EACH	OBJECT MARKER, TWO WAY		
									54				614	18601	54	SNMT	PORTABLE CHANGEABLE MESSAGE SIGN, AS PER PLAN	26	
													614	20110	1.01	MILE	WORK ZONE LANE LINE, CLASS I, 6", 642 PAINT		
													614	21100	0.76	MILE	WORK ZONE CENTER LINE, CLASS I, 642 PAINT		
													614	22100	2.24	MILE	WORK ZONE EDGE LINE, CLASS I, 4", 642 PAINT		
													614	22110	3.02	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 642 PAINT		
													614	23210	9,343	FT	WORK ZONE CHANNELIZING LINE, CLASS I, 12", 642 PAINT		
													614	24200	765	FT	WORK ZONE DOTTED LINE, CLASS I, 4", 642 PAINT		
													614	24202	473	FT	WORK ZONE DOTTED LINE, CLASS I, 6", 642 PAINT		
													614	25200	95	FT	WORK ZONE TRANSVERSE/DIAGONAL LINE, CLASS I, 642 PAINT		
													614	26200	170	FT	WORK ZONE STOP LINE, CLASS I, 642 PAINT		
													614	30200	6	EACH	WORK ZONE ARROW, CLASS I, 642 PAINT		
													614	40051	1	EACH	BUSINESS ENTRANCE SIGN, AS PER PLAN	25	
							LS						615	10000	LS		ROADS FOR MAINTAINING TRAFFIC		
													615	20000	1,860	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A		
													615	20001	1,268	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A, AS PER PLAN	28	
													616	10000	325	MGAL	WATER		
													616	20000	5	TON	CALCIUM CHLORIDE		
													618	40601	0.87	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE), AS PER PLAN	28	
													622	41100	12,150	FT	PORTABLE BARRIER, UNANCHORED		
													808	18700	48	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY		
																	INCIDENTALS		
													614	11000	LS		MAINTAINING TRAFFIC		
													619	16021	12	MNTH	FIELD OFFICE, TYPE C, AS PER PLAN	22	
													623	10001	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	22	
													624	10000	LS		MOBILIZATION		
													SPECIAL	69098400	LS		MISC.: RECORD DRAWINGS	18	

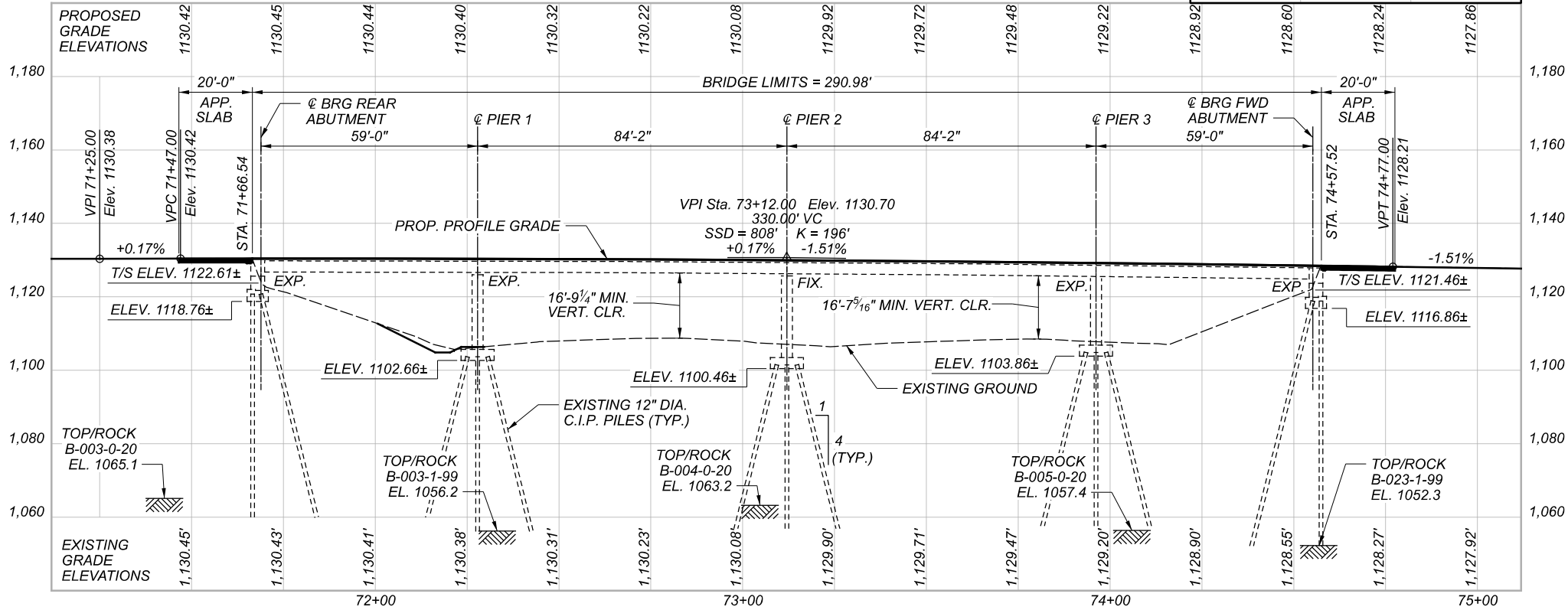
GENERAL SUMMARY



DESIGNER	COM
REVIEWER	ANC 05/26/22
PROJECT ID	104983
SHEET	TOTAL
P.101	P.445



PLAN



PROFILE ALONG @ R/W & CONSTRUCTION MILLER ROAD

ESTIMATED PAY LENGTHS		
LOCATION	PILE TYPE	LENGTH
REAR ABUT.	HP10X42	65 FT.
PIER 1	HP10X42	55 FT.
PIER 2	HP10X42	45 FT.
PIER 3	HP10X42	55 FT.
FWD. ABUT.	HP10X42	70 FT.

BENCHMARK DATA

BM #1 STA. 90+11.75 ELEV. 1116.09 OFFSET 40.89 RT, CONC. MON.
 BM #2 STA. 99+09.72 ELEV. 1130.58 OFFSET 43.69 RT, CONC. MON.

FOR ADDITIONAL BENCHMARK INFORMATION, SEE SCHEMATIC PLAN SHEET P.2 OF P.445.

NOTES

EARTHWORK LIMITS SHOWN ARE APPROXIMATE. ACTUAL SLOPES SHALL CONFORM TO PLAN CROSS SECTIONS.

DESIGN TRAFFIC

2020 ADT = 11,050 2020 ADTT = 553
 2040 ADT = 11,050 2040 ADTT = 553
 DIRECTIONAL DISTRIBUTION = 65%

LEGEND

⊕ BORING LOCATION ⊕ HISTORIC BORING LOCATION

VERTICAL CLEARANCES

POINT	EXISTING	PROPOSED	REQUIRED
A	17'-0 1/2"	16'-9 1/4"	16'-6"
B	16'-8"	16'-7 5/16"	16'-6"

HORIZONTAL CLEARANCES

- 11'-8" REQUIRED MINIMUM HORIZONTAL CLEARANCE
- ▲ 16'-3 3/4" ACTUAL MINIMUM HORIZONTAL CLEARANCE
- ▲ 9'-0" REQUIRED MINIMUM HORIZONTAL CLEARANCE
- ▲ 25'-9 5/8" ACTUAL MINIMUM HORIZONTAL CLEARANCE

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK, SEMI-INTEGRAL ABUTMENTS, AND CAP AND COLUMN PIERS
 SPANS: 59'-0"±, 84'-2"±, 84'-2"±, 59'-0"± C/C BEARINGS
 ROADWAY: 40'-0"± TOE/TOE CURBS WITH TWO 6'-0"± SIDEWALKS
 LOADING: HS20 (CASE II) AND ALTERNATE MILITARY LOADING
 SKEW: 13°56'33"± RIGHT FORWARD
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: 20'-0"± LONG (AS-1-81)
 ALIGNMENT: TANGENT
 CROWN: 0.0156± FT/FT
 STRUCTURAL FILE NUMBER: 1805673
 DATE BUILT: 1968 MAJOR REHAB: 2005
 DISPOSITION: REHABILITATE AND WIDEN EXISTING STRUCTURE

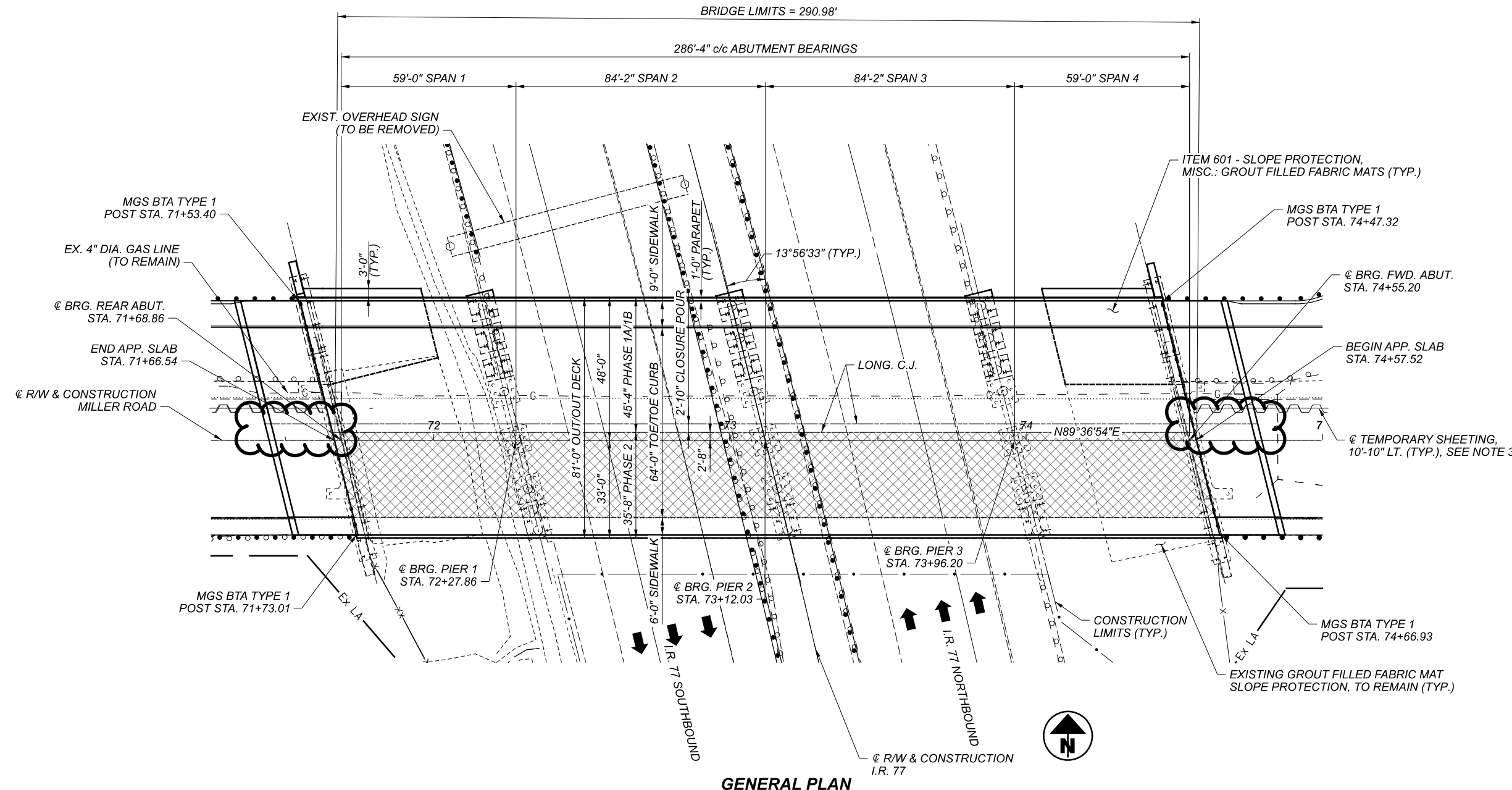
PROPOSED STRUCTURE

PROPOSED WORK: SEE GENERAL NOTES
 TYPE: CONTINUOUS STEEL BEAMS WITH REINFORCED CONCRETE DECK, SEMI-INTEGRAL ABUTMENTS, AND CAP AND COLUMN PIERS
 SPANS: 59'-0", 84'-2", 84'-2", 59'-0" C/C BEARINGS
 ROADWAY: 64'-0" TOE/TOE CURBS WITH 9'-0" LEFT SIDEWALK AND 6'-0"± RIGHT SIDEWALK
 LOADING: SEE GENERAL NOTES
 SKEW: 13°56'33" RIGHT FORWARD
 WEARING SURFACE: 1" MONOLITHIC CONCRETE
 APPROACH SLABS: 20'-0" LONG MODIFIED (AS-1-15, AS-2-15)
 ALIGNMENT: TANGENT
 CROWN: 0.0156 FT/FT
 DECK AREA: 23,569 SF
 COORDINATES: LATITUDE N41°17'21.81"
 LONGITUDE W81°38'14.44"

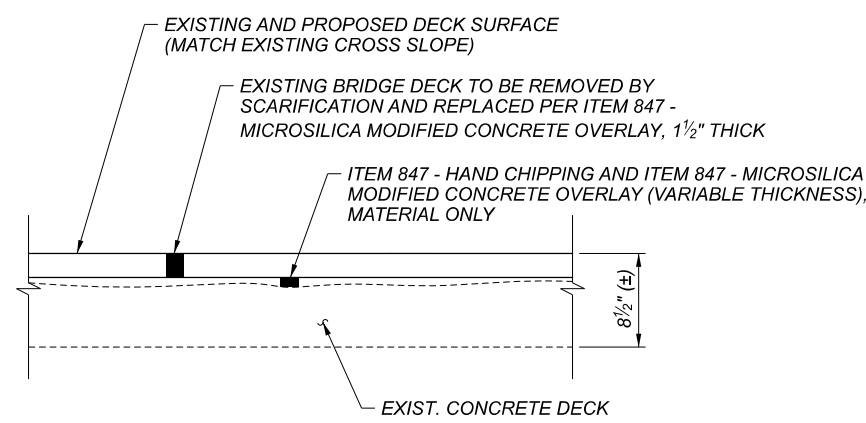


SITE PLAN
 BRIDGE NO. CUY-CR187-00.977
 MILLER ROAD OVER I.R. 77

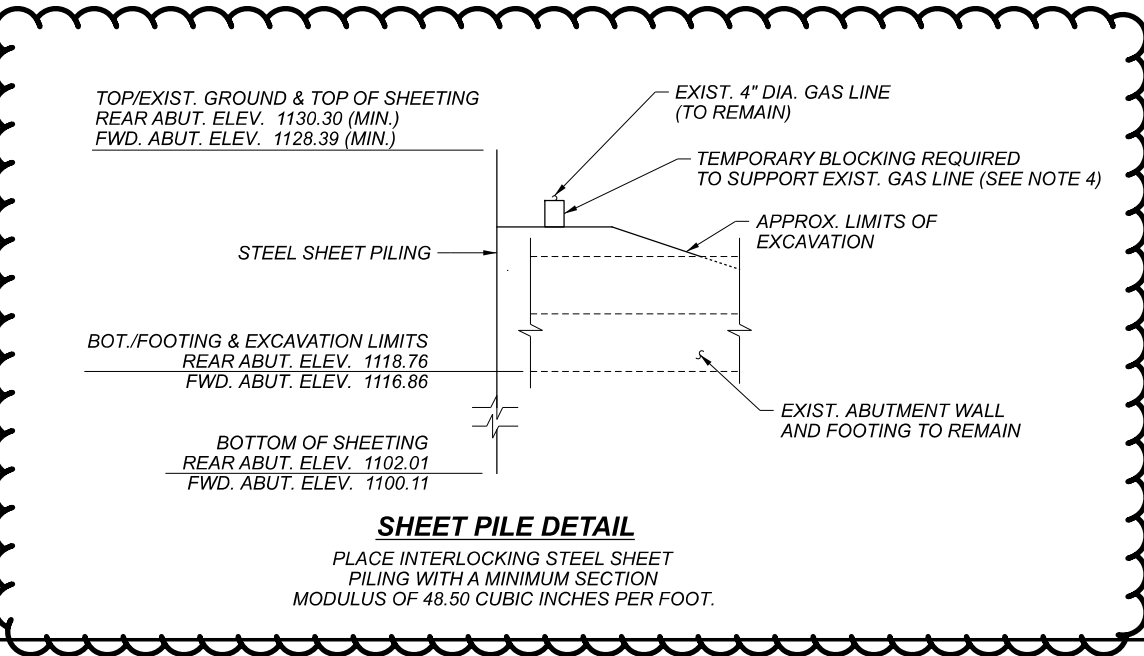
SFN	1805673
DESIGN AGENCY	EUTHENICS 8255 Mulford Dr. Cleveland, OH 44133
DESIGNER	SRW
CHECKER	BPS
REVIEWER	
LAB	02/24/22
PROJECT ID	104983
SUBSET	1
TOTAL	42
SHEET	P.335
TOTAL	P.445



GENERAL PLAN



BRIDGE DECK WEARING SURFACE REPLACEMENT DETAIL



SHEET PILE DETAIL
 PLACE INTERLOCKING STEEL SHEET PILING WITH A MINIMUM SECTION MODULUS OF 48.50 CUBIC INCHES PER FOOT.

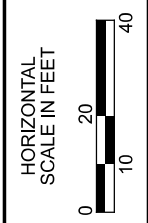
LEGEND

BTA = BRIDGE TERMINAL ASSEMBLY

AREAS OF THE BRIDGE DECK TO HAVE WEARING SURFACE REMOVED AND REPLACED, PER SUPPLEMENTAL SPECIFICATION 847.

NOTES

1. FINISHED TOP OF DECK ELEVATIONS SHALL MATCH EXISTING TOP OF DECK ELEVATIONS.
2. FOR ADDITIONAL DETAILS NOT SHOWN, SEE ODOT SUPPLEMENTAL SPECIFICATION 847.
3. THE CONTRACTOR SHALL PHYSICALLY LOCATE THE EXISTING GAS LINE BEFORE INSTALLING TEMPORARY SHEETING.
4. TEMPORARY BLOCKING FOR GAS LINE IS INCLUDED FOR PAYMENT WITH ITEM 503 - COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN



GENERAL PLAN
 BRIDGE NO. CUY-CR187-00.977
 MILLER ROAD OVER I.R. 77

SFN	1805673
DESIGN AGENCY	EUTHENICS 8255 Mahoning Dr., Cleveland, OH 44135
DESIGNER/CHECKER	OOS / BPS
REVIEWER	LAB 02/24/22
PROJECT ID	104983
SUBSET	2 / 42
SHEET	P.336 / P.445

MODEL: S001 PAPER SIZE: 17x11 (in.) DATE: 7/21/2022 TIME: 10:44:46 AM USER: nsdham
 FILE: \\116-Miller-Road-Interchange\104983\400-Eng\104983\Sheet_18_5673_Sheet_104983.dgn

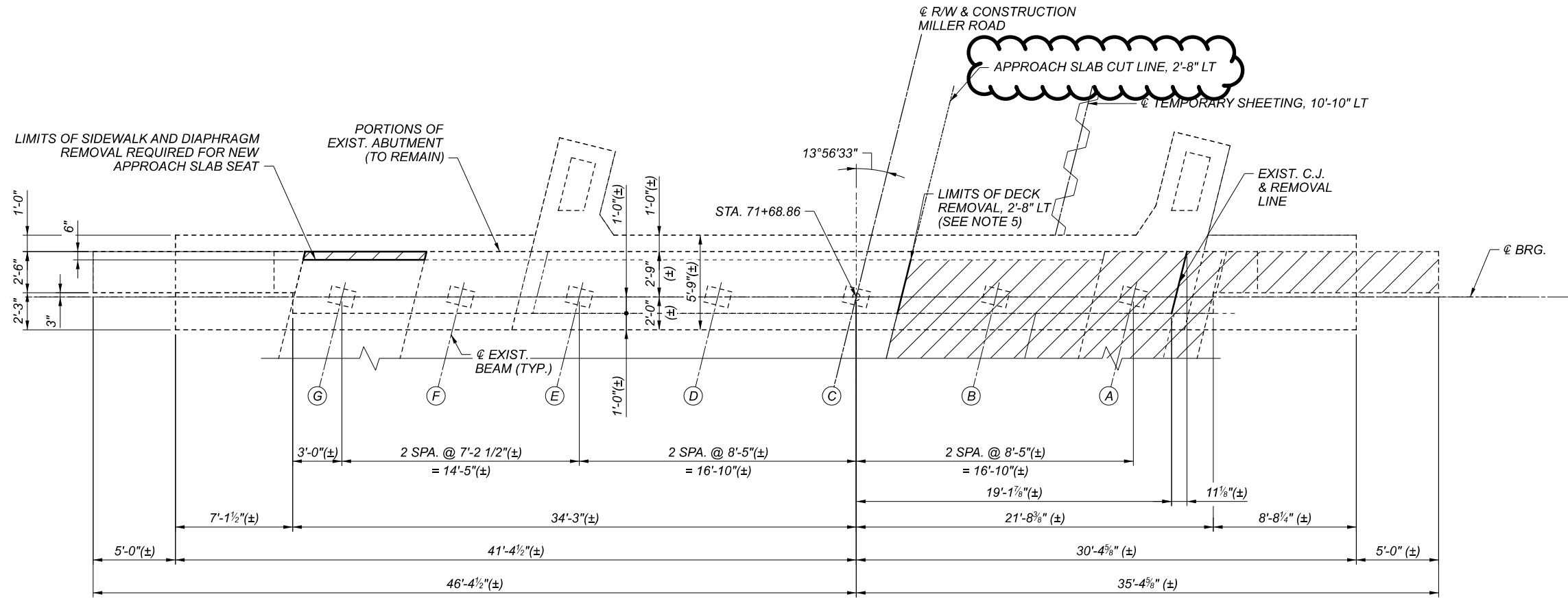
FUNDING		ESTIMATED QUANTITIES					CALC. BY: SRW CHKD. BY: BPS				DATE: 02/21/22 DATE: 02/28/22	
02/NFP/BR	07/IMS/BR	ITEM	ITEM EXTENSION	TOTAL	UNIT	DESCRIPTION	REAR ABUTMENT	FOWARD ABUTMENT	PIERS	SUPER-STRUCTURE	GENERAL	REF. SHEET NUMBER
	LS	202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					LS	4
	178	202	22900	178	SY	APPROACH SLAB REMOVED					178	
	LS	503	11101	LS		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					LS	4
	255	503	21100	255	CY	UNCLASSIFIED EXCAVATION	53	53	149			
	LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION					LS	
	3200	507	00100	3200	FT	STEEL PILES HP10X42, FURNISHED	560	600	2040			
	2940	507	00150	2940	FT	STEEL PILES HP10X42, DRIVEN	520	560	1860			
	147,706	509	10001	147,706	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	2845	2692	23,180	118,989		5 & 16
	400	509	20001	400 *	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN					400	5
	194	510	10001	194	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	29	27		138		5
	2	511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	1	1				
	497	511	34446	497	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK				497		
	58	511	34450	58	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)				58		
	76	511	41012	76	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS			76			
	82	511	43512	82	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	41	41				
	77	511	46512	77	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING			77			
	529	512	10050	529	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)				529		
	1383	512	10100	1383	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	40	40	638	665		
	8	512	33000	8	SY	TYPE 2 WATERPROOFING	4	4				
	261,000	513	10240	261,000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2				261,000		
	20,280	514	00050	20,280	SF	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL				20,280		
	20,280	514	00056	20,280	SF	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT				20,280		
	32,330	514	00060	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT				32,330		
	32,330	514	00066	32,330	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT				32,330		
	34	514	00504	34	MNHR	GRINDING FINIS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL				34		
	16	514	10000	16	EACH	FINAL INSPECTION REPAIR				16		
	163	516	10010	163	FT	ARMORLESS PREFORMED JOINT SEAL					163	
	81	516	13400	81	SF	3/4" PREFORMED EXPANSION JOINT FILLER			81			
	59	516	13900	59	SF	2" PREFORMED EXPANSION JOINT FILLER				59		
	68	516	14020	68	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	34	34				
	8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (LOAD PLATE 13" x 17" x 1.50", NEOPRENE 12" x 16" x 3.55")	4	4				24
	8	516	44201	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (LOAD PLATE 16" x 19" x 1.50", NEOPRENE 15" x 18" x 3.00")			8			25
	4	516	44201	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (LOAD PLATE 16" x 27" x 1.50", NEOPRENE 15" x 18" x 3.00")			4			25
	46	518	21200	46	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	23	23				
	88	518	40000	88	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	44	44				
	24	518	40010	24	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	12	12				
	17	519	11101	17 *	SF	PATCHING CONCRETE STRUCTURE, AS PER PLAN	4	3	10			5
	352	526	15001	352	SY	REINFORCED CONCRETE APPROACH SLABS (T=13"), AS PER PLAN					352	5
	163	526	90030	163	FT	TYPE C INSTALLATION					163	
	LS	SPECIAL	53014000	LS		STRUCTURAL SURVEY AND MONITORING OF VIBRATION					LS	5
	270	601	21100	270	SY	SLOPE PROTECTION, MISC.: GROUT FILLED FABRIC MATS	135	135				6
	584	607	39900	584	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC				584		
	864	607	39994	864	FT	TEMPORARY VANDAL FENCE, TYPE B				664	200	
	LS	607	98200	LS		FENCE, MISC.: ALUMINUM LETTERING					LS	37
	931	847	10000	931	SY	MICRO SILICA MODIFIED CONCRETE OVERLAY				931		
	4	847	20000	4	CY	MICRO SILICA MODIFIED CONCRETE OVERLAY (VARIABLE THICKNESS), MATERIAL ONLY				4		
	LS	847	30000	LS		TEST SLAB				LS		
	2	847	30200	2	CY	FULL DEPTH REPAIR				2		
	56	847	50000	56	SY	HAND CHIPPING				56		

* DENOTES QUANTITY TO BE USED "AS DIRECTED BY THE ENGINEER"

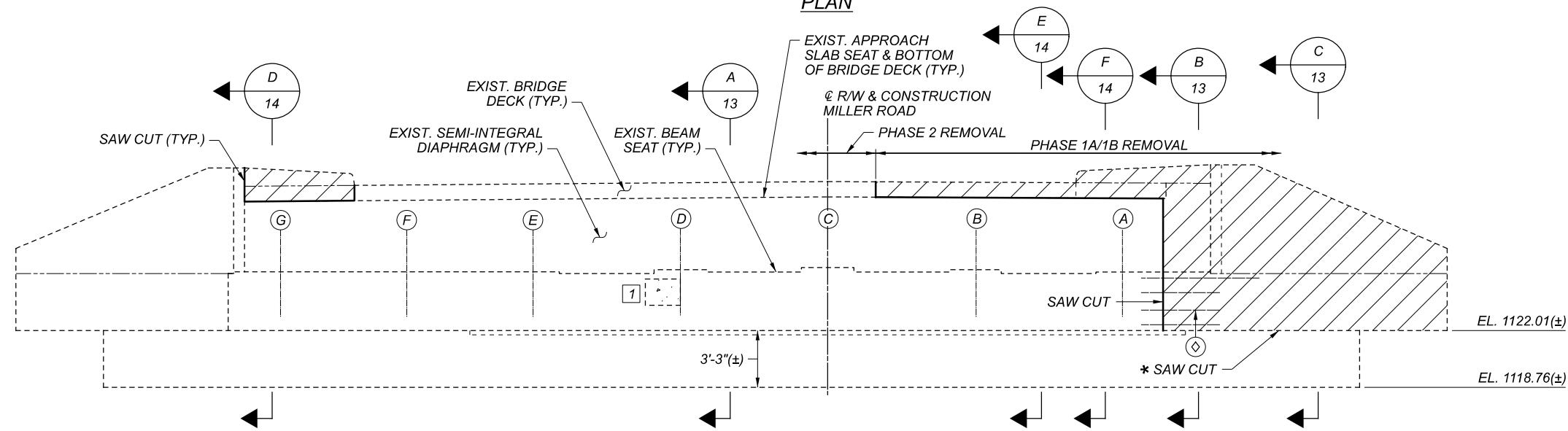
ESTIMATED QUANTITIES
 BRIDGE NO. CUY-CR187-00.977
 MILLER ROAD OVER I.R. 77

SFN	1805673
DESIGNER	SRW
CHECKER	BPS
REVIEWER	LAB
PROJECT ID	104983
SUBSET	8
TOTAL	42
SHEET	P.342
TOTAL	P.445

EUTHENICS
 6033 Mohawk Dr. | Cleveland, OH 44130



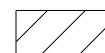



PLAN



ELEVATION

PILES NOT SHOWN FOR CLARITY

LEGEND

-  PORTIONS OF EXISTING STRUCTURE TO BE REMOVED PER ITEM 202
-  AREA OF DELAMINATION TO BE REPAIRED PER ITEM 519 - PATCHING CONCRETE STRUCTURE
-  EXIST. #5 OR #8 BAR TO BE PRESERVED (SEE NOTES 1 & 2)
-  SAW CUT AND REMOVE BEAM SEAT TO EXISTING TOP OF FOOTING

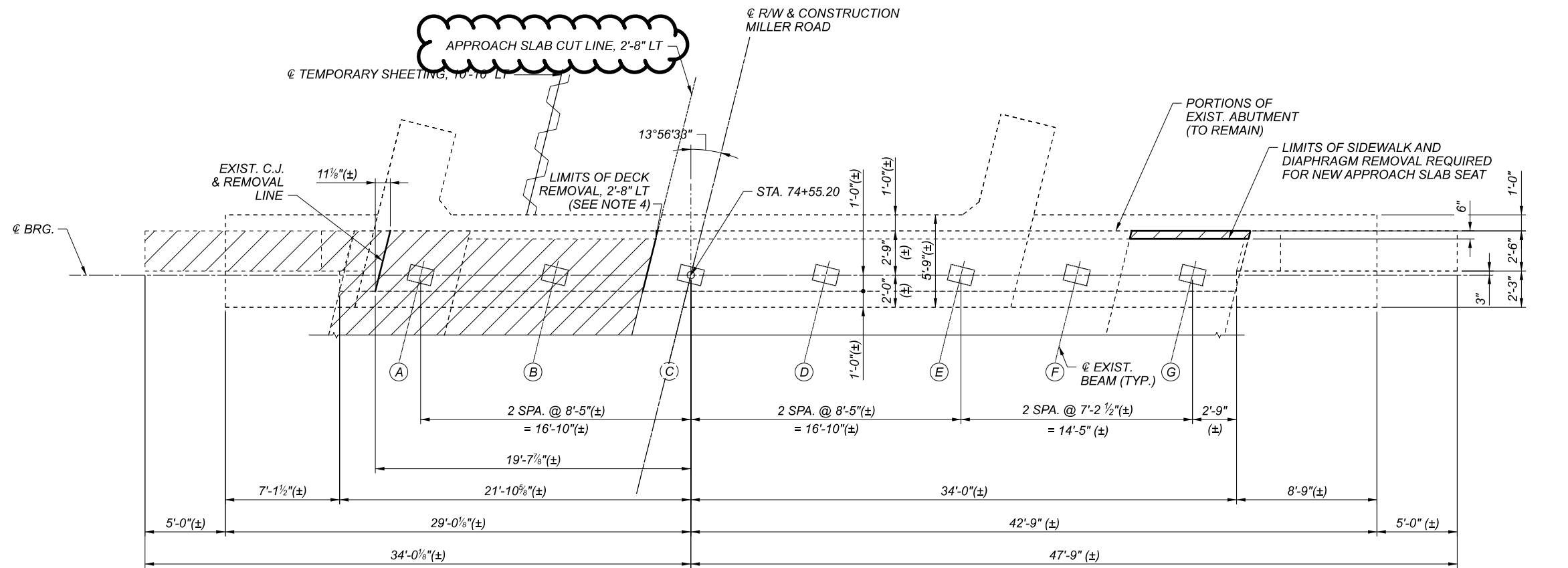
ESTIMATED PATCHING QUANTITIES		
LOCATION	WIDTH X HEIGHT	AREA (SF)
1	2'-0" x 1'-6"	3.00
TOTAL AREA MEASURED		3.00
TOTAL AREA ESTIMATED		4.00**

** SEE NOTE 4

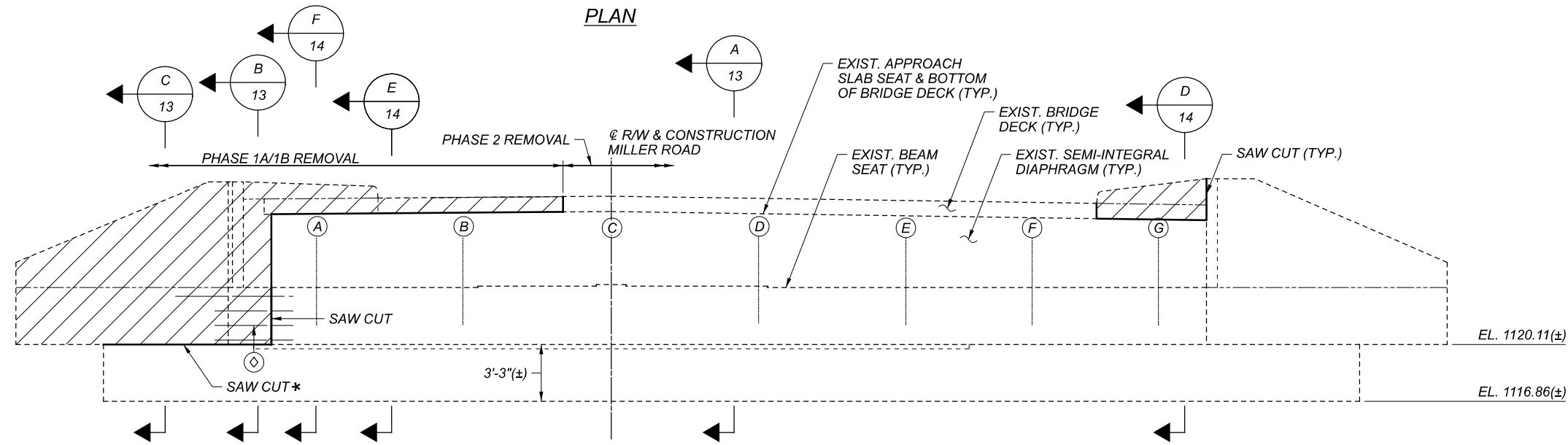
NOTES

1. EXERCISE CARE IN REMOVING CONCRETE TO NOT DAMAGE EXISTING REINFORCING STEEL THAT IS TO BE PRESERVED.
2. PRESERVE AND CLEAN A PROJECTION OF 3'-3" OF EXISTING #5 BARS AND A PROJECTION OF 5'-6" OF EXISTING #8 BARS.
3. PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN JUNE 2021. THE EXACT DIMENSIONS AND LOCATIONS OF PATCHES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD FOR FINAL PAY QUANTITY.
4. ESTIMATED PATCHING QUANTITIES HAVE BEEN INCREASED BY 35% OVER MEASURED QUANTITIES TO ALLOW FOR ADDITIONAL DETERIORATION.
5. FOR ADDITIONAL DECK REMOVAL DETAILS, SEE PHASED CONSTRUCTION DETAILS, SHEETS 9/42 AND 10/42.





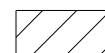

PLAN



ELEVATION

PILES NOT SHOWN FOR CLARITY

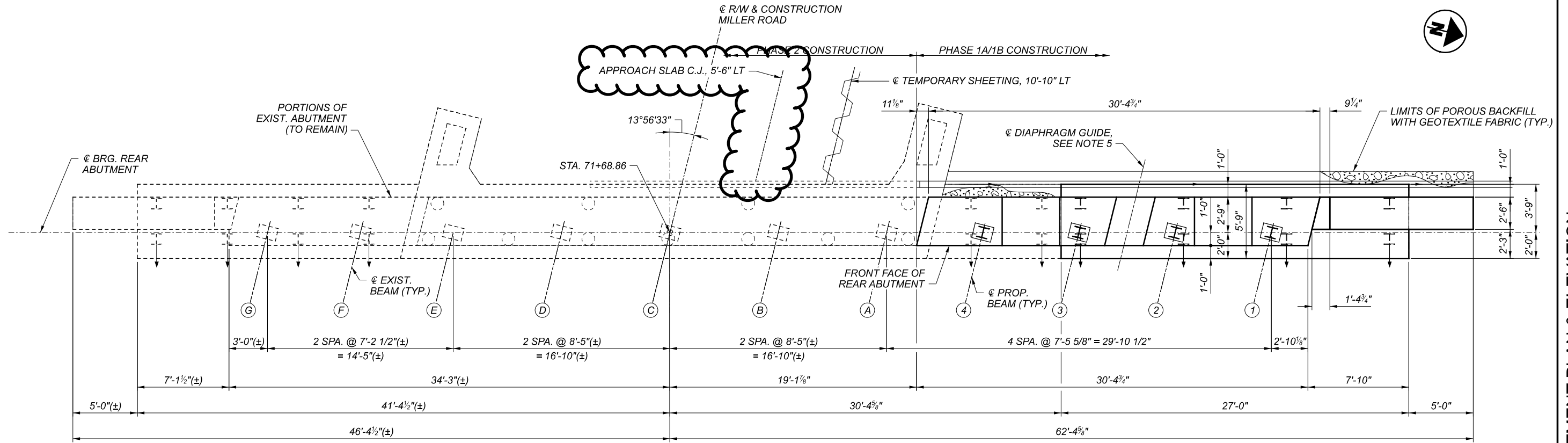
LEGEND

-  PORTIONS OF EXISTING STRUCTURE TO BE REMOVED PER ITEM 202
-  EXIST. #5 OR #8 BAR TO BE PRESERVED (SEE NOTES 1 & 2)
- *** SAW CUT AND REMOVE BEAM SEAT TO EXISTING TOP OF FOOTING

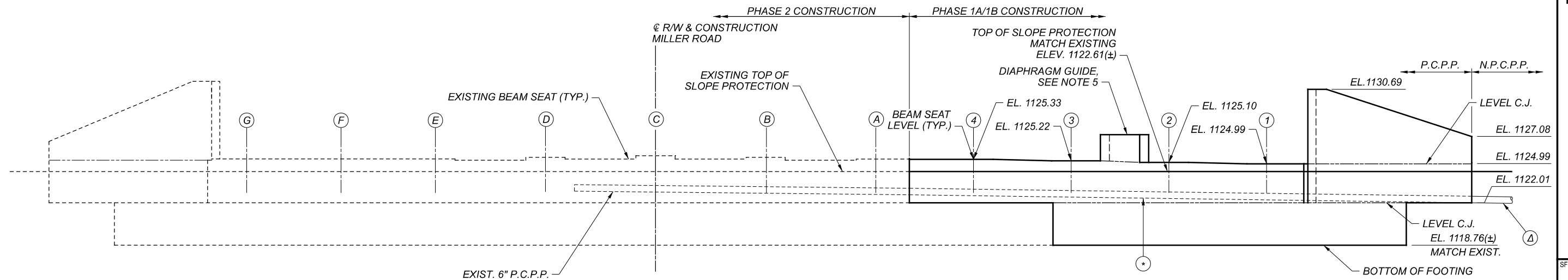
NOTES

1. EXERCISE CARE IN REMOVING CONCRETE TO NOT DAMAGE EXISTING REINFORCING STEEL THAT IS TO BE PRESERVED.
2. PRESERVE AND CLEAN A PROJECTION OF 3'-3" OF EXISTING #5 BARS AND A PROJECTION OF 5'-6" OF EXISTING #8 BARS.
3. PHYSICAL INVENTORY OF MEASURED QUANTITIES OF DETERIORATION WAS PERFORMED IN JUNE 2021 AND FOUND NO AREAS OF DELAMINATION. A QUANTITY OF 3 SF HAS BEEN INCLUDED IN THE ESTIMATED QUANTITIES TO ACCOUNT FOR PATCHING, TO BE USED AS DIRECTED BY THE ENGINEER.
4. FOR ADDITIONAL DECK REMOVAL DETAILS, SEE PHASED CONSTRUCTION DETAILS, SHEETS 9/42 AND 10/42.

SFN	1805673
DESIGN AGENCY	EUTHENICS 8235 Mahoning Dr. Cleveland, OH 44135
DESIGNER	OOS
CHECKER	BPS
REVIEWER	LAB
DATE	02/24/22
PROJECT ID	104983
SUBSET	TOTAL
12	42
SHEET	TOTAL
P.346	P.445



PLAN



ELEVATION
 PILES NOT SHOWN FOR CLARITY

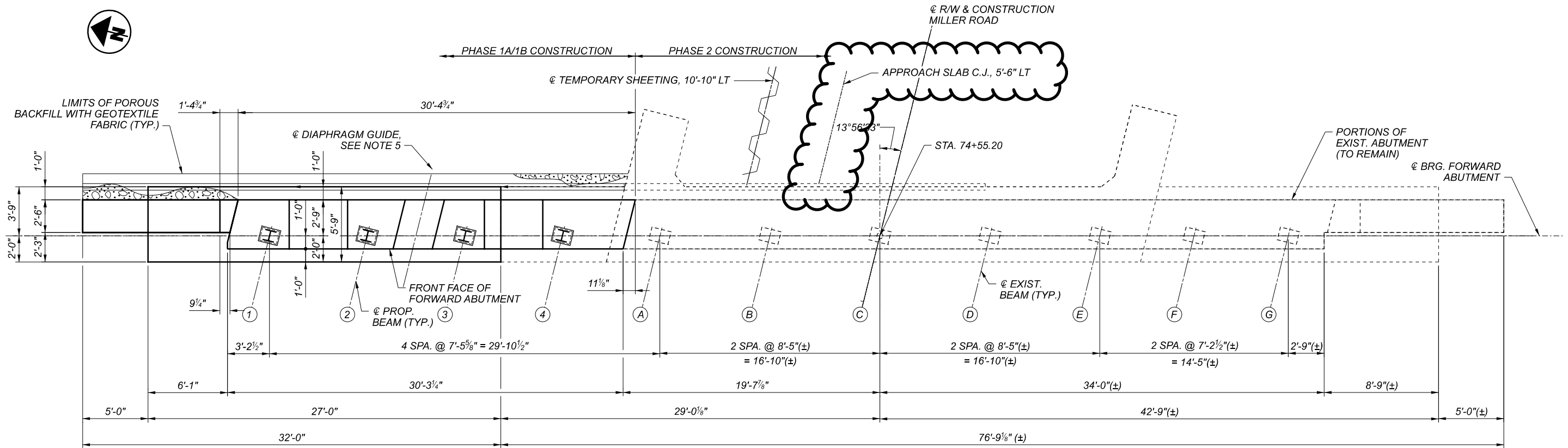
LEGEND

- ⊙ 6" P.C.P.P. TO CONNECT TO EXISTING 6" P.C.P.P. AT START OF PROPOSED BEAM SEAT
- Ⓐ 6" N.C.P.P. TIED TO 6" P.C.P.P. WITH NEW 6" P.C.P.P. AND SLOPED AS SHOWN (SEE NOTE 2)

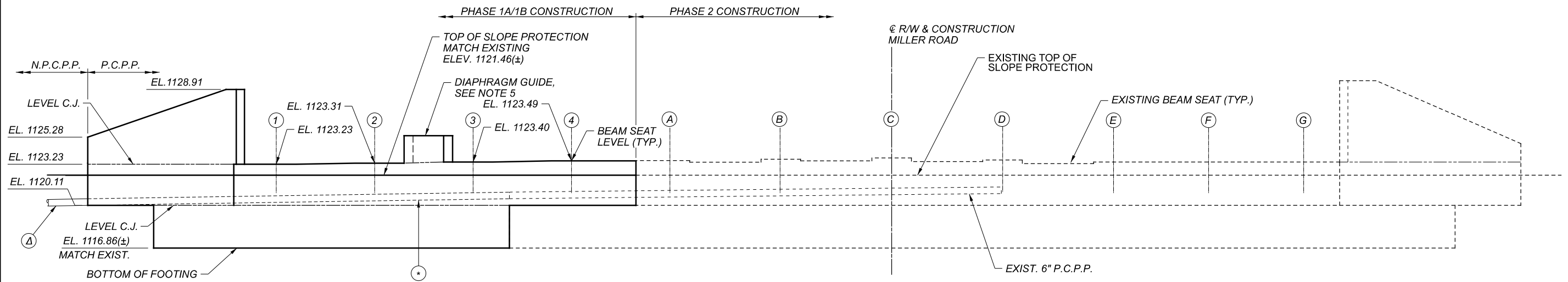
NOTES

1. POROUS BACKFILL WITH GEOTEXTILE FABRIC, 2'-0" WIDE THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE TO 1'-0" BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE LIMITS SHOWN.
2. 6" N.P.C.P.P. SHALL EXTEND TO THE SURFACE OF THE EMBANKMENT AND SHALL DRAIN INTO A PRECAST CONCRETE OUTLET WITH TYPE 1 TIED CONCRETE BLOCK MAT AS SHOWN IN DM-1.1.
3. FOR REAR ABUTMENT FOOTING PLAN, SEE SHEET 16/42.
4. FOR ADDITIONAL BEAM SEAT DETAILS AND ABUTMENT REINFORCING, SEE SHEET 18/42.
5. FOR DIAPHRAGM GUIDE DETAILS, SEE SHEET 21/42.
6. FOR REAR ABUTMENT DIAPHRAGM DETAILS, SEE SHEET 32/42.
7. INSTALL STRUCTURE GROUNDING SYSTEM IN ACCORDANCE WITH ITEM 625 - STRUCTURE GROUNDING SYSTEM. SEE GENERAL NOTE ON SHEET 6 FOR DETAILS.

SFN	1805673
DESIGN AGENCY	EUTHENICS 8231 Millard Dr. Cleveland, OH 44130
DESIGNER	SRW
CHECKER	BPS
REVIEWER	LAB
DATE	02/24/22
PROJECT ID	104983
SUBSET	17
TOTAL	42
SHEET	P.351
TOTAL	P.445



PLAN



ELEVATION

PILES NOT SHOWN FOR CLARITY

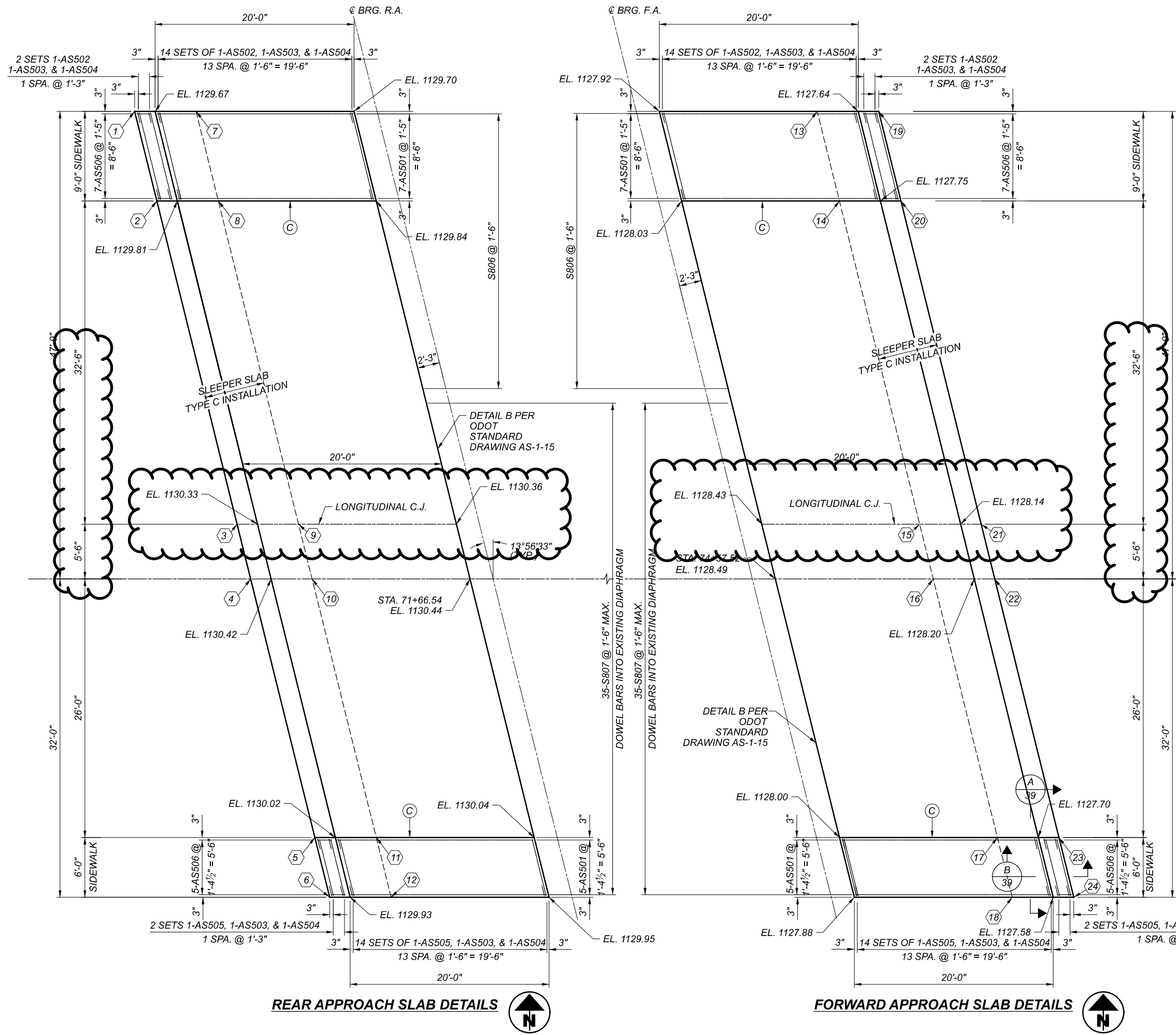
LEGEND

- ⊛ 6" P.C.P.P. TO CONNECT TO EXISTING 6" P.C.P.P. AT START OF PROPOSED BEAM SEAT
- Ⓐ 6" N.C.P.P. TIED TO 6" P.C.P.P. WITH NEW 6" P.C.P.P. AND SLOPED AS SHOWN (SEE NOTE 2)

NOTES

1. POROUS BACKFILL WITH GEOTEXTILE FABRIC, 2'-0" WIDE THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE TO 1'-0" BELOW THE EMBANKMENT SURFACE, AND Laterally TO THE LIMITS SHOWN.
2. 6" N.P.C.P.P. SHALL EXTEND TO THE SURFACE OF THE EMBANKMENT AND SHALL DRAIN INTO A PRECAST CONCRETE OUTLET WITH TYPE 1 TIED CONCRETE BLOCK MAT AS SHOWN IN DM-1.1.
3. FOR FORWARD ABUTMENT FOOTING PLAN, SEE SHEET 16/42.
4. FOR ADDITIONAL BEAM SEAT DETAILS AND ABUTMENT REINFORCING, SEE SHEET 20/42.
5. FOR DIAPHRAGM GUIDE DETAILS, SEE SHEET 21/42.
6. FOR FORWARD ABUTMENT DIAPHRAGM DETAILS, SEE SHEET 33/42.
7. INSTALL STRUCTURE GROUNDING SYSTEM IN ACCORDANCE WITH ITEM 625 - STRUCTURE GROUNDING SYSTEM. SEE GENERAL NOTE ON SHEET 6 FOR DETAILS.

SFN	1805673
DESIGN AGENCY	EUTHENICS 8231 Millbrook Dr. Cleveland, OH 44130
DESIGNER	SRW
CHECKER	BPS
REVIEWER	LAB
DATE	02/24/22
PROJECT ID	104983
SUBSET	19
TOTAL	42
SHEET	P.353
TOTAL	P.445



REAR APPROACH SLAB DETAILS

FORWARD APPROACH SLAB DETAILS

SLEEPER SLAB ELEVATIONS *			
REAR ABUTMENT			
POINT	STATION	OFFSET	ELEVATION
1	71+32.81	47.0' LT.	1128.58
2	71+35.05	38.0' LT.	1128.72
3	71+43.11	5.50' LT.	1129.24
4	71+44.48	0.0'	1129.33
5	71+50.93	26.0' RT.	1128.94
6	71+52.42	32.0' RT.	1128.85
7	71+38.99	47.0' LT.	1128.59
8	71+41.23	38.0' LT.	1128.74
9	71+49.30	5.50' LT.	1129.25
10	71+50.66	0.0'	1129.34
11	71+57.12	26.0' RT.	1128.95
12	71+58.61	32.0' RT.	1128.85
FORWARD ABUTMENT			
POINT	STATION	OFFSET	ELEVATION
13	74+61.73	47.0' LT.	1126.62
14	74+63.97	38.0' LT.	1126.74
15	74+72.03	5.50' LT.	1127.11
16	74+73.40	0.0'	1127.16
17	74+79.85	26.0' RT.	1126.68
18	74+81.34	32.0' RT.	1126.56
19	74+67.91	47.0' LT.	1126.53
20	74+70.15	38.0' LT.	1126.63
21	74+78.22	5.50' LT.	1127.02
22	74+79.58	0.0'	1127.09
23	74+86.04	26.0' RT.	1126.58
24	74+87.53	32.0' RT.	1126.47

* ELEVATIONS LISTED FOR THESE POINTS ARE LOCATED AT THE TOP SURFACE OF THE SLEEPER SLAB BELOW THE APPROACH SLAB.

LEGEND

(C) TRANSITION CURB HEIGHT FROM 8" (AT BRIDGE) TO 6" OVER THE LENGTH OF THE APPROACH SLAB

NOTES

- THIS DRAWING PROVIDES DETAILS TO SUPPLEMENT THE STANDARD DRAWING. FOR APPROACH SLAB REINFORCING STEEL AND DETAILS NOT SHOWN, SEE ODOT STANDARD DRAWINGS AS-1-15 AND AS-2-15.
- FOR ADDITIONAL APPROACH SLAB DETAILS, SEE SHEET 39/42.

APPROACH SLAB DETAILS
 BRIDGE NO. CUY-CR187-00.977
 MILLER ROAD OVER I.R. 77

SFN	1805673
DESIGN AGENCY	EUTHENICS 8255 Mahoning Dr. Cleveland, OH 44135
DESIGNER/CHECKER	SRW / BPS
REVIEWER	LAB 02/24/22
PROJECT ID	104983
SUBSET	TOTAL
38	42
SHEET	TOTAL
P.372	P.445