

G:\Project\T0H00T10\PE01\Drawing\99731\Design\Roadway\Sheets\99731\CC003.dgn Sheet 2/4/2022 11:28:32 AM mlove

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
32	40	44	50	516	517	OFFICE CALC	01/IMS /PV	EXT	TOTAL							
DRAINAGE (CONT.)																
							21	611	98180	21	EACH	CATCH BASIN, NO. 3A				
							3	611	98370	3	EACH	CATCH BASIN, NO. 6				
							3	611	98470	3	EACH	CATCH BASIN, NO. 2-2B				
							10	611	98800	10	EACH	INLET, NO. 3B				
							13	611	98810	13	EACH	INLET, NO. 3C				
							15	611	99574	15	EACH	MANHOLE, NO. 3				
							1	611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE				
							1	611	99660	1	EACH	MANHOLE RECONSTRUCTED TO GRADE				
4							43	611	99710	43	EACH	PRECAST REINFORCED CONCRETE OUTLET				
							2	611	99854	2	EACH	WATER QUALITY BASIN, DETENTION				
WATER WORK																
							1	611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE				
100							100	638	02404	100	FT	12" WATER MAIN DUCTILE IRON PIPE ANSI CLASS 53, PUSH-ON JOINTS AND FITTINGS				
							1	638	07800	1	EACH	6" GATE VALVE AND VALVE BOX				
							2	638	10200	2	EACH	6" FIRE HYDRANT				
							2	638	10480	2	EACH	FIRE HYDRANT REMOVED				
							3	638	10800	3	EACH	VALVE BOX ADJUSTED TO GRADE				
PAVEMENT																
							7,291	7,291	254	01000	7,291	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1.5"			
							9,820	9,820	254	01000	9,820	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"			
							27,553	27,553	302	56001	27,553	CY	ASPHALT CONCRETE BASE, (449), AS PER PLAN		32	
							22,673	22,673	304	20000	22,673	CY	AGGREGATE BASE			
							18,676	18,676	407	20000	18,676	GAL	NON-TRACKING TACK COAT			
							173	173	441	50000	173	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22			
							15	15	441	70500	15	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), (DRIVEWAYS)			
							18	18	441	70700	18	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449), (DRIVEWAYS)			
							5,206	5,206	442	10300	5,206	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)			
							7,588	7,588	442	10100	7,588	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)			
							28	28	452	12010	28	SY	8" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P			
							17,170	17,170	452	16020	17,170	SY	13" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P WITH QC/QA			
							2,128	2,128	609	14000	2,128	FT	CURB, TYPE 2-A			
							2,268	2,268	609	24510	2,268	FT	CURB, TYPE 4-C			
							6,116	6,116	609	26000	6,116	FT	CURB, TYPE 6			
		253						253	609	71000	253	SF	CONCRETE MEDIAN			
							31,846	31,846	618	40100	31,846	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)			
							893	893	875	10000	893	LB	LONGITUDINAL JOINT ADHESIVE			
LIGHTING																
							1	202	75800	1	EACH	DISCONNECT EXISTING CIRCUIT				
							262	625	00450	262	EACH	CONNECTION, FUSED PULL APART				
							90	625	00480	90	EACH	CONNECTION, UNFUSED PERMANENT				
							2	625	10490	2	EACH	LIGHT POLE, CONVENTIONAL, AT12B50				
							60	625	10490	60	EACH	LIGHT POLE, CONVENTIONAL, AT18B50				
							7	625	10491	7	EACH	LIGHT POLE, CONVENTIONAL, AS PER PLAN, AT08B40			499	
							61	625	10494	61	EACH	LIGHT POLE, LOW MAST, ALM50				
							2	625	10494	2	EACH	LIGHT POLE, LOW MAST, ATLM50				
							4	625	11200	4	EACH	LIGHT TOWER, BB100				
							1	625	11300	1	EACH	LIGHT TOWER, BB110				
							1	625	11400	1	EACH	LIGHT TOWER, BB120				
							2	625	12200	2	EACH	LIGHT TOWER, BBB100				
							3	625	12300	3	EACH	LIGHT TOWER, BBB110				

GENERAL SUMMARY

LUC - 475 - 01.85

ESTIMATED QUANTITIES (02/IMS/BR)

QUANTITIES BY: SAM 12-4-18
CHECKED BY: NBL 2-6-19

ITEM	EXTENSION				UNIT	DESCRIPTION	LUC-20A-1048 (LEFT)				LUC-20A-1048 (RIGHT)				REFERENCE SHEET(S)
			LEFT TOTAL	RIGHT TOTAL			ABUT.	PIERS	SUPER.	GEN.	ABUT.	PIERS	SUPER.	GEN.	
202	11002			LUMP		STRUCTURE REMOVED OVER 20 FOOT SPAN								LUMP	
202	22900			184	SY	APPROACH SLAB REMOVED								184	
503	11101		LUMP	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN								LUMP	10/46 11/46
503	21100		705	589	CY	UNCLASSIFIED EXCAVATION	436	269			387	202			
505	11100		LUMP	LUMP		PILE DRIVING EQUIPMENT MOBILIZATION								LUMP	
507	00100		10340	8155	FT	STEEL PILES HP10X42, FURNISHED	3200	7140			2800	5355			
507	00150		9760	7700	FT	STEEL PILES HP10X42, DRIVEN	3040	6720			2660	5040			
507	93300		116	91	EACH	STEEL POINTS OR SHOES	32	84			28	63			
509	10001		238559	184086	LB	EPOXY COATED REINFORCING STEEL, AS PER PLAN	13158	57619	168815		11669	41787	130630		3/46
511	33500		2	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2				2				
511	34446		587	457	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			587			457			
511	34451		160	101	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			142	18		93	8		4/46 39/46
511	41012		156	118	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTING		156				118			
511	43512		203	169	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	203				169				
511	46512		108	81	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING		108				81			
512	10100		2232	1805	SY	SEALING OF CONCRETE SURFACES (EPOXY URETHANE)	121	418	1693		121	318	1366		
512	10300		272	236	SY	SEALING CONCRETE BRIDGE DECKS WITH HMWM RESIN			272				236		
512	33300		23	18	SY	TYPE A WATERPROOFING			23				18		
515	15080		10	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF42-49 (72'-7" BEAM)			10				8		
515	15080		10	8	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF42-49 (78'-2 1/2" BEAM)			10				8		
515	20000		16	12	EACH	INTERMEDIATE DIAPHRAGMS			16				12		
516	10010		98	74	FT	ARMORLESS PREFORMED JOINT SEAL	98				74				
516	13600		26	17	SF	1" PREFORMED EXPANSION JOINT FILLER	26				17				
516	13900		100	100	SF	2" PREFORMED EXPANSION JOINT FILLER	100				100				
516	14020		133	110	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	133				110				
516	44101		10	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (11.5" x 18" x 2.26"), LOAD PLATE (14.5" x 19" x 2"), AS PER PLAN	10				8				20/46
516	44100		30	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE) (11.5" x 18" x 2.26"), LOAD PLATE (14.5" x 19" x 2")		30				24			
518	21200		68	56	CY	POROUS BACKFILL WITH FILTER FABRIC	68				56				
518	40000		112	89	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	112				89				
518	40010		50	50	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	50				50				
526	25011		276	212	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN					276			212	41/46 42/46
526	90030		100	76	FT	TYPE C INSTALLATION					100			76	
601	20000		496	404	SY	CRUSHED AGGREGATE SLOPE PROTECTION					496			404	
607	39930		327	-	FT	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC			327						
SPECIAL	60740000		300	600	FT	VANDAL PROTECTION FENCE			300			600			3/46

DESIGN AGENCY
DGL Consulting Engineers, LLC
3455 Bricker Field Blvd., Suite E
Maumee, Ohio 43537 (419) 535-1015

DATE
3-9-18
REVIEWED
LLA
STRUCTURE FILE NUMBER
4801025L/4801026R

DRAWN
SAM
REVISED

DESIGNED
KWL
CHECKED
NBL

ESTIMATED QUANTITIES
BRIDGE NO. LUC-20A-1048 (L & R)
US 20A OVER I-475/US 23

LUC-475-01.85
PID No. 99731

UTILITIES

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

FIBER OPTICS
AT&T OHIO
130 N. ERIE ST
TOLEDO, OH 43604
419-245-7304

SEWER
LUCAS COUNTY ENGINEER
1049 S. MCCORD ROAD
HOLLAND, OH 43528
419-213-2860

CENTURYLINK
175 ASHLAND RD
MANSFIELD, OH 44902
740-263-2812

LUCAS COUNTY SANITARY ENG.
1111 SOUTH MCCORD ROAD
HOLLAND, OH 43528
419-213-2926

GAS
TRANSCANADA/ANR PIPELINE
6357 SR 66 NORTH
DEFIANCE, OH 43512
419-783-3135

CITY OF MAUMEE
400 CONANT STREET
MAUMEE, OH 43537
419-897-7150

COLUMBIA GAS OF OHIO
3222 CENTRAL AVE
TOLEDO, OH 43606
419-539-6209

WATER
CITY OF TOLEDO
420 MADISON AVENUE
TOLEDO, OH 43604
419-936-2020

COLUMBIA GAS TRANSMISSION
301 MAPLE STREET
SUGAR GROVE, OH 43155
419-539-6066

CITY OF MAUMEE
400 CONANT STREET
MAUMEE, OH 43537
419-897-7150

DOMINION EAST OHIO
TRANSMISSION
7015 FREEDOM AVENUE N.W
NORTH CANTON, OH 44720
216-736-6755

ELECTRIC
TOLEDO EDISON
6099 ANGOLA ROAD
HOLLAND, OH 43528
419-249-5218

CABLE
BUCKEYE CABLE SYSTEM
4818 ANGOLA ROAD
TOLEDO, OH 43615
419-724-9820

FIRST ENERGY TRANSMISSION
76 S. MAIN ST.
AKRON, OH 44870
330-384-5180

ODOT DISTRICT 2 TRAFFIC
317 EAST POE ROAD
BOWLING GREEN, OH 43402
419-353-8131

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.

ROUNDING

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

EXISTING PLANS

EXISTING PLANS ENTITLED LUC-475-0.09, LUC-475-0.81 AND LUC-475-3.11 MAY BE INSPECTED IN THE ODOT DISTRICT 2 OFFICE IN BOWLING GREEN.

ITEM 623 - CONSTRUCTION LAYOUT STAKES, AS PER PLAN

AFTER COMPLETION OF ALL WORK, AND PRIOR TO FINAL ACCEPTANCE OF THE PROJECT, A PROFESSIONAL SURVEYOR LICENSED IN THE STATE OF OHIO SHALL DETERMINE THE MINIMUM VERTICAL CLEARANCES OF ALL EXISTING AND NEW BRIDGES WITHIN THE PROJECT LIMITS. AT A MINIMUM, MEASUREMENTS SHALL BE TAKEN ALONG EACH FASCIA BEAM AT THE EDGE OF SHOULDERS, EDGE LINES, LANE LINES, AND CROWN OF THE ROADWAY BELOW. THE ODOT DISTRICT 2 VERTICAL CLEARANCE SURVEY FORM SHALL BE USED, WHERE APPLICABLE, TO DOCUMENT THE MEASUREMENTS. WHERE THE ODOT DISTRICT 2 VERTICAL CLEARANCE SURVEY FORM IS NOT APPLICABLE, THE MEASUREMENTS SHALL BE DOCUMENTED ON A CONTRACTOR-DEVELOPED FORM THAT CLOSELY RESEMBLES THE ODOT DISTRICT 2 VERTICAL CLEARANCE SURVEY FORM AND ACCURATELY DEPICTS THE BRIDGE AND THE LANE AND SHOULDER CONFIGURATION BELOW. THE COMPLETED FORM SHALL BEAR THE STAMP OR SEAL OF THE OHIO PROFESSIONAL SURVEYOR WHO HAS TAKEN THE MEASUREMENTS AND SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO FINAL ACCEPTANCE OF THE PROJECT.

THE ODOT DISTRICT 2 VERTICAL CLEARANCE SURVEY FORM CAN BE DOWNLOADED FROM THE FOLLOWING WEBSITE:

<http://www.dot.state.oh.us/districts/D02/Pages/Permits.aspx>

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.

PROTECTION OF RIGHT-OF-WAY LANDSCAPING

PRIOR TO BEGINNING WORK, THE CONTRACTOR, THE PROJECT ENGINEER, AND A REPRESENTATIVE OF THE MAINTAINING AGENCY WILL REVIEW AND RECORD ALL LANDSCAPING ITEMS WITHIN THE RIGHT-OF-WAY (BOTH WITHIN AND OUTSIDE THE CONSTRUCTION LIMITS). A RECORD OF THIS REVIEW WILL BE KEPT IN THE PROJECT ENGINEER'S FILES. PRIOR TO FINAL ACCEPTANCE, A FINAL REVIEW OF LANDSCAPING ITEMS WILL BE MADE.

CONSTRUCT ALL ACTIVITIES, EQUIPMENT STORAGE, AND STAGING TO WITHIN THE CONSTRUCTION LIMITS. UNLESS OTHERWISE IDENTIFIED IN THE PLANS OR PROPOSAL, THE CONSTRUCTION LIMITS ARE IDENTIFIED AS 30 FEET FROM THE EDGE OF PAVEMENT.

SUBMIT A WRITTEN REQUEST TO THE PROJECT ENGINEER TO USE ANY AREA OUTSIDE THESE LIMITS. THE DOCUMENT SUBMITTED MUST CLEARLY IDENTIFY THE AREA AND EXPLAIN THE PROPOSED USE AND RESTORATION OF THE AREA. EXCEPT AS INDICATED ON

USE AND RESTORATION OF THE AREA. USE OF THESE AREAS FOR DISPOSAL OF WASTE MATERIAL AND CONSTRUCTION DEBRIS, EXCAVATION OF BORROW MATERIAL AND PLACEMENT OF PORTABLE PLANTS IS PROHIBITED. THE REQUEST MUST BE APPROVED, IN WRITING, BEFORE THE CONTRACTOR HAS PERMISSION TO USE THE AREA. ABUTMENT CONCRETE ABUTMENT CONCRETE: DO NOT PLACE THE ABUTMENT CONCRETE ABOVE THE BRIDGE SEAT CONSTRUCTION JOINT UNTIL THE PRESTRESSED CONCRETE BOX BEAMS HAVE BEEN ERECTED.

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

SURVEYING PARAMETERS

PRIMARY PROJECT CONTROL MONUMENTS GOVERN ALL POSITIONING ON ODOT PROJECTS. SEE BELOW TABLE AND CENTERLINE PLAT FOR A TABLE CONTAINING PROJECT CONTROL INFORMATION.

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

PROJECT CONTROL

POSITIONING METHOD: STATIC GNSS
MONUMENT TYPE: TYPE A

VERTICAL POSITIONING

ORTHOMETRIC HEIGHT DATUM: NAVD88
GEOID: GEOID12A

HORIZONTAL POSITIONING

REFERENCE FRAME: NAD83(2011)
ELLIPSOID: GRS80
MAP PROJECTION: LAMBERT CONFORMAL CONIC
COORDINATE SYSTEM: OHIO STATE PLAN NORTH ZONE
COMBINED SCALE FACTOR: 1.000043402
ORIGIN OF COORDINATE SYSTEM: 0,0

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

UNITS ARE IN U.S. SURVEY FEET.

CLEARING AND GRUBBING

ALTHOUGH THERE ARE NO TREES OR STUMPS SPECIFICALLY MARKED FOR REMOVAL WITHIN THE LIMITS OF THE PROJECT, A LUMP SUM QUANTITY IS INCLUDED IN THE GENERAL SUMMARY FOR ITEM 201, CLEARING AND GRUBBING. ALL PROVISIONS AS SET FORTH IN THE SPECIFICATIONS UNDER THIS ITEM ARE INCLUDED IN THE LUMP SUM PRICE BID FOR ITEM 201, CLEARING AND GRUBBING.

ITEM 206 MIXTURE DESIGN FOR CHEMICALLY STABILIZED SOIL

AS SHOWN IN THE TYPICAL SECTIONS, CEMENT STABILIZATION WILL BE USED THROUGHOUT THE PROJECT. THE MIXTURE DESIGN SHALL INCORPORATE THE EXISTING AGGREGATE BASE THAT HAS BEEN LEFT IN PLACE THROUGHOUT THE PROJECT.

PRIMARY PROJECT CONTROL TABLE

Point	Point Description	Monument Type	Positioning Method	Grid Northing(m)	Grid Easting(m)	Ground Northing(ft)	Ground Easting(ft)	Scale Factor Grid to Ground	Scale Factor Location	Orthometric Height (ft)
CP1	Azimuth	Type A	Static GNSS	209984.132	501251.423	688952.839	1644593.751	1.000043402	CP5	631.034
CP2	Control	Type A	Static GNSS	210234.572	501343.877	689774.528	1644897.092	1.000043402	CP5	633.728
CP3	Control	Type A	Static GNSS	211347.253	500718.202	693425.206	1642844.266	1.000043402	CP5	636.797
CP4	Control	Type A	Static GNSS	213098.291	500567.800	699170.321	1642350.803	1.000043402	CP5	634.025
CP5	Control	Type A	Static GNSS	214585.772	500633.154	704050.708	1642565.228	1.000043402	CP5	628.603
CP6	Control	Type A	Static GNSS	216294.246	500746.483	709656.170	1642937.055	1.000043402	CP5	625.593
CP7	Control	Type A	Static GNSS	219035.951	500468.394	718651.640	1642024.654	1.000043402	CP5	632.596
CP8	Azimuth	Type A	Static GNSS	219398.027	500439.910	719839.600	1641931.199	1.000043402	CP5	633.004

BENCHING OF FOUNDATION SLOPES

ALTHOUGH CROSS-SECTIONS INDICATE SPECIFIC DIMENSIONS FOR PROPOSED BENCHING OF THE EMBANKMENT FOUNDATIONS IN CERTAIN AREAS, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. BENCH ALL OTHER SLOPED EMBANKMENT AREAS AS SET FORTH IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS (C&MS). NO ADDITIONAL PAYMENT WILL BE MADE FOR BENCHING REQUIRED UNDER THE PROVISIONS OF SECTION 203.05.

CONTRACTION AND/OR EXPANSION JOINTS

ALTHOUGH SPECIFIC LOCATIONS OF CERTAIN CONTRACTION AND EXPANSION JOINTS HAVE BEEN DETAILED ON THIS PLAN, NO WAIVER OF THE SPECIFICATIONS IS INTENDED. IN ALL CASES, THE PROVISION OF EXPANSION JOINTS AT ALL MAJOR STRUCTURES INCLUDING THE MAXIMUM SPACING BETWEEN CONTRACTION JOINTS IS IN ACCORDANCE WITH STANDARD CONSTRUCTION DRAWING BP-2.2 AND THE SPECIFICATIONS.

PART-WIDTH CONSTRUCTION

BECAUSE OF THE NECESSITY TO BUILD THIS PROJECT UNDER TRAFFIC AND TO CONSTRUCT THE FULL PAVEMENT WIDTH IN STAGES, EXERCISE CARE TO PREVENT THE CONSTRUCTION OF A BUTT JOINT IN THE BASE COURSES. LAP LONGITUDINAL JOINTS AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1.

MONUMENT ASSEMBLIES

CONSTRUCT MONUMENT ASSEMBLIES IN ACCORDANCE WITH THE DETAILS SHOWN ON THE STANDARD CONSTRUCTION DRAWINGS AND AT THE LOCATIONS SHOWN IN THE CENTERLINE PLAT.

STA 0+00 TO STA 280+00
IR 475 @ MONUMENTS
MONUMENT ASSEMBLY REMOVED 18 EA
MONUMENT ASSEMBLY 55 EA

ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"

WHEN PLANING THE EXISTING PAVEMENT AS SHOWN IN THE TYPICAL SECTIONS, PLANE THE PAVEMENT TO THE PROPOSED PROFILE AND CROSS SLOPES SHOWN WITHIN THESE PLANS. AN AVERAGE DEPTH OF 3.75" HAS BEEN USED IN THE PAVEMENT CALCULATIONS.

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CALCULATED
JRB
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GENERAL NOTES

LUC-475-0.09

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ITEM 625 SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN. ANY NEW ROADWAYS THAT ARE TO BE LIGHTED SHALL BE LIT WITH NEW OR TEMPORARY LIGHTING PRIOR TO BEING OPENED TO TRAFFIC.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED, AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A PER UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS. THE STATE SHALL GIVE THE CONTRACTOR ONE COPY OF THE EXISTING LIGHTING CIRCUITRY LAYOUT.

WHEN THE CONTRACTOR HAS TAKEN OVER THE MAINTENANCE OF THE EXISTING SYSTEM, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED LAYOUT AND LOCATING OF EXISTING LIGHTING CIRCUITS WITHIN THE PROJECT.

PRIOR TO INSTALLING TEMPORARY LIGHTING THE CONTRACTOR SHALL SUBMIT A TEMPORARY LIGHTING PLAN TO THE ENGINEER.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. A SEPARATE POWER SERVICE WILL BE PROVIDED BY THE CONTRACTOR FOR THE TEMPORARY LIGHTING SYSTEM. THE TEMPORARY LIGHTING SHALL NOT BE SPLICED INTO EXISTING LIGHTING CIRCUITS. THE CONTRACTOR SHALL PAY ALL HOOK-UP FEES AND ELECTRICAL COSTS FOR THE TEMPORARY SYSTEM. THESE COSTS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM SPECIAL MAINTAIN EXISTING LIGHTING. WHEN NO LONGER NEEDED THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE LUMP SUM BID FOR "ITEM SPECIAL - MAINTAIN EXISTING LIGHTING," SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, INCIDENTALS, AND TEMPORARY POWER SERVICES NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

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MAINTENANCE OF TRAFFIC GENERAL NOTES

LUC-475-01.85

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SHEET NUM.														PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	CALCULATED JRB	CHECKED XXX
29	31	33	35	38	39	214	216	217	225	235	240	601	709	03/IMS/PV	04/IMS/BR								
	42													42		654	11000	42	TON	COMMERCIAL FERTILIZER			
									52					52		601	21050	52	SY	EROSION CONTROL			
	23						695							718		601	21060	718	SY	TIED CONCRETE BLOCK MAT WITH TYPE 1 UNDERLAYMENT			
							34							34		601	32210	34	CY	TIED CONCRETE BLOCK MAT WITH TYPE 2 UNDERLAYMENT			
		5	50											55		616	10000	55	MGAL	ROCK CHANNEL PROTECTION, TYPE C WITH AGGREGATE FILTER			
	2													2		659	00100	2	EACH	WATER			
	20,782													20,782		659	00300	20,782	CY	SOIL ANALYSIS TEST			
	187,229					185,226								372,455		659	10000	372,455	SY	TOPSOIL			
	9,361													9,361		659	14000	9,361	SY	SEEDING AND MULCHING			
	9,361													9,361		659	15000	9,361	SY	REPAIR SEEDING AND MULCHING			
	38.6													38.6		659	31000	38.6	ACRE	INTER-SEEDING			
	1,517													1,517		659	35000	1,517	MGAL	LIME			
	421													421		659	40000	421	MSF	WATER			
											136,100			136,100		670	00500	136,100	SY	MOWING			
													10,193	10,193		671	15040	10,193	SY	SLOPE EROSION PROTECTION			
														LS		832	15000	LS		EROSION CONTROL MAT, TYPE E			
														LS		832	15002	LS		STORM WATER POLLUTION PREVENTION PLAN			
														LS		832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS			
														850,000		832	30000	850,000	EACH	STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE			
																				EROSION CONTROL			
																				DRAINAGE			
									70,646					70,646		605	1110	70,646	FT	6" SHALLOW PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC			
							4,756		892					5,648		605	13410	5,648	FT	6" UNCLASSIFIED PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC			
									101,557					101,557		605	14020	101,557	FT	6" BASE PIPE UNDERDRAINS WITH GEOTEXTILE FABRIC			
														3,721		611	00510	3,721	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS			
	100						303		3,418					100		611	01500	100	FT	6" CONDUIT, TYPE F			
														26		611	04600	26	FT	12" CONDUIT, TYPE C			
														1,207		611	05900	1,207	FT	15" CONDUIT, TYPE B			
														801		611	06100	801	FT	15" CONDUIT, TYPE C			
														514		611	06700	514	FT	15" CONDUIT, TYPE F			
														352		611	07600	352	FT	18" CONDUIT, TYPE C			
														100		611	10200	100	FT	24" CONDUIT, TYPE A			
														159		611	10400	159	FT	24" CONDUIT, TYPE B			
														10		611	10600	10	FT	24" CONDUIT, TYPE C			
														117		611	11200	117	FT	24" CONDUIT, TYPE F			
														142		611	13200	142	FT	30" CONDUIT, TYPE A			
								165						165		611	19600	165	FT	42" CONDUIT, TYPE C			
														72		611	21100	72	FT	48" CONDUIT, TYPE C			
														371		611	24000	371	FT	60" CONDUIT, TYPE C			
														22		611	98230	22	EACH	CATCH BASIN, NO. 4			
														5		611	98270	5	EACH	CATCH BASIN, NO. 4A			
														2		611	98410	2	EACH	CATCH BASIN, NO. 8			
														1		611	98450	1	EACH	CATCH BASIN, NO. 2-2A			
								2						2		611	98470	2	EACH	CATCH BASIN, NO. 2-2B			
														10		611	99094	10	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE B			
														9		611	99114	9	EACH	INLET, NO. 3 FOR SINGLE SLOPE BARRIER, TYPE D			
								6						6		611	99574	6	EACH	MANHOLE, NO. 3, WITH 72" BASE I.D.			
									28					40		611	99710	40	EACH	PRECAST REINFORCED CONCRETE OUTLET			
																				PAVEMENT			
			42,000			6,667								48,667		254	01000	48,667	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 1 1/2"			
														39,483		254	01000	39,483	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 3.75"		29	
														69,843		302	56001	69,843	CY	ASPHALT CONCRETE BASE, (449), AS PER PLAN		31	
			310											57,057		304	20000	57,057	CY	AGGREGATE BASE			
			14,280											14,280		407	10000	14,280	GAL	TACK COAT			
				502	2,267									65,951		407	20000	65,951	GAL	NON-TRACKING TACK COAT			
				175										175		441	50000	175	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22			

GENERAL SUMMARY 2 OF 5

LUC-475-0.09

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SHEET NUM.												PART.		ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
35	38	39	210	211	216	228	231	235	571	582	583	03/IMS/PV	04/IMS/BR						
								23,187				23,187		442	10100	23,187	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (446)	
3,500								15,458				18,958		442	10300	18,958	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	
					842							842		609	24000	842	FT	CURB, TYPE 4-A	
								1,465				1,465		617	10100	1,465	CY	COMPACTED AGGREGATE	
																		LIGHTING	
										184		184		625	00450	184	EACH	CONNECTION, FUSED PULL APART	
										114		114		625	00480	114	EACH	CONNECTION, UNFUSED PERMANENT	
										20		20		625	10490	20	EACH	LIGHT POLE, CONVENTIONAL, A12B38	
										53		53		625	10490	53	EACH	LIGHT POLE, CONVENTIONAL, AT21B42	
										17		17		625	10494	17	EACH	LIGHT POLE, LOW MAST, ALM50	
										2		2		625	10494	2	EACH	LIGHT POLE, LOW MAST, ATLM50	
										53		53		625	14101	53	EACH	LIGHT POLE FOUNDATION, 24" X 8' DEEP, AS PER PLAN	571
										34		34		625	14307	34	EACH	MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN	571
											2	2		625	14600	2	EACH	LIGHT POLE FOUNDATION, MISC.: 24" X 12' DEEP	571
										3		3		625	15201	3	EACH	LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN	571
										941		941		625	22900	941	FT	NO. 1/0 AWG 2400 VOLT DISTRIBUTION CABLE	
										3,366		3,366		625	23200	3,366	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
										2,382		2,382		625	23302	2,382	FT	NO. 6 AWG 2400 VOLT DISTRIBUTION CABLE	
										2,356		2,356		625	23306	2,356	FT	NO. 10 AWG 600 VOLT DISTRIBUTION CABLE	
										15,867		15,867		625	23400	15,867	FT	NO. 10 AWG POLE AND BRACKET CABLE	
										10,796		10,796		625	23900	10,796	FT	1-1/2" DUCT CABLE WITH TWO NO. 6 AWG 2400 VOLT CABLES	
										917		917		625	24314	917	FT	1-1/2" DUCT CABLE WITH THREE NO. 1/0 AWG 2400 VOLT CABLES	
										4,188		4,188		625	24320	4,188	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
										858		858		625	25500	858	FT	CONDUIT, 3", 725.04	
											605	605		625	25902	605	FT	CONDUIT, JACKED OR DRILLED, 725.04, 3"	
										73		73		625	26253	73	EACH	LUMINAIRE, CONVENTIONAL, SOLID STATE (LED), AS PER PLAN, TYPE III, 17,200-19,100 LUMENS	571
										103		103		625	26263	103	EACH	LUMINAIRE, HIGH MAST, SOLID STATE (LED), AS PER PLAN, TYPE V, 61,100-62,200 LUMENS	571
										2		2		625	26273	2	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, TYPE III, 37,600-42,100 LUMENS	571
										17		17		625	26273	17	EACH	LUMINAIRE, LOW MAST, SOLID STATE (LED), AS PER PLAN, TYPE V, 37,600-42,836 LUMENS	571
											15,223	15,223		625	29002	15,223	FT	TRENCH, 24" DEEP	
										31		31		625	30706	31	EACH	PULL BOX, 725.08, 24"	
										2		2		625	31510	2	EACH	PULL BOX REMOVED	
							11		6	97		114		625	32000	114	EACH	GROUND ROD	
											7	7		625	34001	7	EACH	POWER SERVICE, AS PER PLAN	571
											3	3		625	35020	3	EACH	RE-ERECT EXISTING LIGHT TOWER	
											15,223	15,223		625	36010	15,223	FT	UNDERGROUND WARNING/MARKING TAPE	
									LS			LS		SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	41 571
									5			5		SPECIAL	62540010	5	EACH	REPLACEMENT OF EXISTING LIGHTING UNIT	571
											39	39		625	75351	39	EACH	LIGHT TOWER REMOVED, AS PER PLAN	571
											15	15		625	75400	15	EACH	LIGHT POLE REMOVED	
											144	144		625	75506	144	EACH	LUMINAIRE REMOVED	
											7	7		625	75510	7	EACH	POWER SERVICE REMOVED	
											39	39		625	75540	39	EACH	LIGHT TOWER FOUNDATION REMOVED	
																		TRAFFIC CONTROL	
							43					43		620	00500	43	EACH	DELINEATOR, POST GROUND MOUNTED	
	160											160		620	60001	160	EACH	DELINEATOR, POST SURFACE MOUNTED, AS PER PLAN	38
								1,163				1,163		621	00100	1,163	EACH	RPM	
								996				996		621	54000	996	EACH	RAISED PAVEMENT MARKER REMOVED	
			82	45								127		626	00102	127	EACH	BARRIER REFLECTOR, TYPE 1, (BI-DIRECTIONAL)	
			60	45								105		626	00102	105	EACH	BARRIER REFLECTOR, TYPE 1, (ONE-WAY)	
			85	114								199		626	00116	199	EACH	BARRIER REFLECTOR, TYPE 5, (BI-DIRECTIONAL)	
			15	15								30		626	00116	30	EACH	BARRIER REFLECTOR, TYPE 5, (ONE-WAY)	
			200	32								232		626	00118	232	EACH	BARRIER REFLECTOR, TYPE 6	
										809		809		630	03101	809	FT	GROUND MOUNTED SUPPORT, NO. 3 POST, AS PER PLAN	588
										87.8		87.8		630	07500	87.8	FT	GROUND MOUNTED STRUCTURAL BEAM SUPPORT, W10X22	
										37.2		37.2		630	08302	37.2	FT	GROUND MOUNTED WOODEN BOX BEAM SUPPORT, TYPE M BEAM	
										2		2		630	72320	2	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 6	
										1		1		630	72330	1	EACH	OVERHEAD SIGN SUPPORT, TYPE TC-12.31, DESIGN 10	
										1		1		630	79610	1	EACH	SIGN SUPPORT ASSEMBLY, BARRIER MOUNTED	
								490.25				490.25		630	80100	490.25	SF	SIGN, FLAT SHEET	
								962				962		630	80200	962	SF	SIGN, GROUND MOUNTED EXTRUSHEET	
								187.5				187.5		630	80224	187.5	SF	SIGN, OVERHEAD EXTRUSHEET	
		21										21		630	80300	21	SF	SIGN, TEMPORARY OVERLAY	
								490.25				490.25		630	81100	490.25	SF	SIGN ERECTED, FLAT SHEET	

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ITEM 625 POWER SERVICE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF THE SPECIFICATIONS, THE FOLLOWING IS ADDED:

THE POWER SUPPLYING AGENCY FOR THIS PROJECT IS:

TOLEDO EDISON
6099 ANGOLA ROAD, HOLLAND, OH 43528
419-249-5274
JULIAN ORTIZ

THE ENGINEER SHALL ENSURE THAT EACH POWER SERVICE ELECTRICAL ENERGY ACCOUNT IS IN THE NAME OF AND THAT THE BILLING ADDRESS IS TO THE MAINTAINING AGENCY NOTED IN THE PLANS. THIS SHALL BE DONE NOT ONLY FOR EACH NEW POWER SERVICE ESTABLISHED BY THIS PROJECT BUT ALSO FOR EACH EXISTING POWER SERVICE, SINCE THERE MAY BE A REASSIGNMENT OF THE RESPONSIBILITY FOR AN EXISTING SERVICE AS A RESULT OF THE WORK PERFORMED BY THIS PROJECT. PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH C&MS ITEM 625, "POWER SERVICE, AS PER PLAN" WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

PADLOCKS AND KEYS

PADLOCKS FURNISHED SHALL BE EITHER BRASS OR BRONZE, EQUAL TO MASTER NO. 4BKA OR WILSON BOHANNAN 660A, AND SHALL BE KEYED IN ACCORDANCE WITH C&MS 631.06. PAYMENT SHALL BE INCLUDED IN THE BID FOR THE ITEM(S) BEING LOCKED.

**625 LIGHT POLE FOUNDATION, 24" X 8' DEEP, AS PER PLAN
625 MEDIAN LIGHT POLE FOUNDATION, 10' DEEP, AS PER PLAN
625 LIGHT TOWER FOUNDATION, 36" X 25' DEEP, AS PER PLAN
625 LIGHT POLE FOUNDATION, MISC.: 24" X 12' DEEP**

THE SUBSURFACE INVESTIGATION IDENTIFIED POTENTIAL POOR SOILS IN THE PROJECT LIMITS. UTILIZE TEMPORARY CASINGS AS REQUIRED FOR CONSTRUCTION OF LIGHT POLE/TOWER FOUNDATIONS IN ACCORDANCE WITH CMS 625.10.

625 LIGHT POLE FOUNDATION, MISC.: 24" X 12' DEEP

FOLLOW THE SPECIFICATIONS SET FORTH FOR ITEM 625 - LIGHT POLE FOUNDATION, 24" X 10' DEEP EXCEPT THAT THE DEPTH OF FOUNDATION SHALL BE INCREASED TO 12' DEEP.

ITEM 625 GROUND ROD

PROVIDE A GROUND ROD AS PER SCD HL-50.11 FOR THE RIGHT-OF-WAY FENCE WHERE OVERHEAD ELECTRIC POWER LINE IS USED TO CONNECT TO THE POWER SERVICE.

625 GROUND ROD 6 EA

ITEM 625 LUMINAIRE, HIGH MAST, SOLID-STATE (LED), AS PER PLAN, IES-DISTRIBUTION, LUMENS

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS 813, 913 AND 1114, THE LUMINAIRES FOR HIGH MAST LIGHTING UNITS SHALL BE LED INSTEAD OF HIGH-PRESSURE SODIUM. IN ADDITION, GLARE RATINGS OF G5 FOR HIGH MAST SYMMETRIC LUMINAIRES WILL BE ACCEPTABLE. THE CONTRACTOR SHALL CHOOSE ONE OF THE FOLLOWING LUMINAIRES LISTED BELOW, OR AN APPROVED EQUAL:

IES TYPE V DISTRIBUTION, 61,100-62,200 LUMENS (ODOT I-475)
BRAND CATALOG NO.
EATON STREETWORKS CST-8-6-D-8-T5-7030-X-AP
HOLOPHANE HMLD3-PK3-30K-HVOLT-G-AW-DM
GE LIGHTING SOLUTIONS ERHM-02-5-60-VW-7-30-D-I-4B-GRAY-R-XXX

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH LUMINAIRE:

ITEM 625 LUMINAIRE, HIGH MAST, SOLID-STATE (LED), AS PER PLAN, IES-DISTRIBUTION, LUMENS

WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 LUMINAIRE, LOW MAST, SOLID-STATE (LED), AS PER PLAN, IES-DISTRIBUTION, LUMENS

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS 813, 913 AND 1114, THE LUMINAIRES FOR LOW MAST LIGHTING UNITS SHALL BE LED INSTEAD OF HIGH-PRESSURE SODIUM. THE CONTRACTOR SHALL CHOOSE ONE OF THE FOLLOWING LUMINAIRES LISTED BELOW, OR AN APPROVED EQUAL:

IES TYPE III DISTRIBUTION, 37,600-42,100 LUMENS (ODOT I-475)
BRAND CATALOG NO.
EATON STREETWORKS CST-8-4-D-8-T3-7030-10K-IP66-AP
HOLOPHANE HMLD3-PK2-30K-HVOLT-G-M-DM
GE LIGHTING SOLUTIONS ERHM-02-5-40-C3-7-30-D-I-4B-GRAY-R-XXX

IES TYPE V DISTRIBUTION, 37,600-42,836 LUMENS (ODOT I-475)
BRAND CATALOG NO.
EATON STREETWORKS CST-8-4-D-8-T5-7030-10K-IP66-AP
HOLOPHANE HMLD3-PK2-30K-HVOLT-G-AW-DM
GE LIGHTING SOLUTIONS ERHM-02-5-40-VW-7-30-D-I-4B-GRAY-R-XXX

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH LUMINAIRE:

ITEM 625 LUMINAIRE, LOW MAST, SOLID-STATE (LED), AS PER PLAN, IES-DISTRIBUTION, LUMENS

WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 SPECIAL - MAINTAIN EXISTING LIGHTING

EXISTING ROADWAYS WHICH ARE TO REMAIN OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT AND ARE LIGHTED SHALL HAVE THE LIGHTING MAINTAINED AS DESCRIBED HEREIN. ANY NEW ROADWAYS THAT ARE TO BE LIGHTED SHALL BE LIT WITH NEW OR TEMPORARY LIGHTING PRIOR TO BEING OPENED TO TRAFFIC.

BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF ANY EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION A WRITTEN RECORD OF THE CONDITION OF THE EXISTING LIGHTING SHALL BE MADE BY THE STATE'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF THE STATE, THE MAINTAINING AGENCY, AND THE CONTRACTOR.

IF, AS A RESULT OF THIS INSPECTION, IT IS DETERMINED THAT THE CONDITION OF THE EXISTING SYSTEM IS BELOW THAT REQUIRED FOR THE SAFETY OF THE TRAVELING PUBLIC, THEN THE MAINTAINING AGENCY SHALL MAKE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED, AND A REPORT MADE AND SIGNED AS OUTLINED HEREIN.

WHEN THE EXISTING SYSTEM IS IN AN ACCEPTABLE CONDITION, IT SHALL BE TURNED OVER TO THE CONTRACTOR WHO SHALL THEN BE REQUIRED TO MAINTAIN THE EXISTING LIGHTING TO THE CONDITION OUTLINED IN THIS REPORT WITH THE EXCEPTION OF KNOCKDOWNS DUE TO TRAFFIC ACCIDENTS.

REPLACEMENT OF KNOCKED DOWN UNITS SHALL BE DONE ONLY WHEN THE ENGINEER HAS DETERMINED THAT THE REPLACEMENT OF THE KNOCKED DOWN UNIT IS NECESSARY AND SHALL BE PAID SEPARATELY ON A PER UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENTS. THE STATE SHALL GIVE THE CONTRACTOR ONE COPY OF THE EXISTING LIGHTING CIRCUITRY LAYOUT.

WHEN THE CONTRACTOR HAS TAKEN OVER THE MAINTENANCE OF THE EXISTING SYSTEM, THE CONTRACTOR SHALL PROVIDE ALL REQUIRED LAYOUT AND LOCATING OF EXISTING LIGHTING CIRCUITS WITHIN THE PROJECT.

PRIOR TO INSTALLING TEMPORARY LIGHTING THE CONTRACTOR SHALL SUBMIT A TEMPORARY LIGHTING PLAN TO THE ENGINEER.

THIS PLAN SHALL SHOW LOCATIONS OF POLES, LENGTHS OF BRACKET ARMS, STYLES OF LUMINAIRES, MOUNTING HEIGHTS, WIRING METHODS AND OTHER PERTINENT INFORMATION. THE TEMPORARY LIGHTING SHALL PROVIDE AN AVERAGE INITIAL INTENSITY OF 1.2 FOOTCANDLES WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET, AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET. TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "B" FOR STRENGTH REQUIREMENTS AS DEFINED BY THE NATIONAL ELECTRIC SAFETY CODE. WOOD POLES WITH OVERHEAD WIRING MAY BE USED. HOWEVER, TEMPORARY LIGHTING SHALL MEET FEDERAL AND STATE SAFETY CRITERIA. IF BREAKAWAY POLES ARE USED TO MEET THESE CRITERIA, THEN UNDERGROUND WIRING SHALL BE USED. RECONDITIONED OR USED MATERIALS MAY BE FURNISHED FOR TEMPORARY LIGHTING.

ALL MATERIALS NECESSARY TO COMPLETE THE TEMPORARY LIGHTING SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR. A SEPARATE POWER SERVICE WILL BE PROVIDED BY THE CONTRACTOR FOR THE TEMPORARY LIGHTING SYSTEM. THE TEMPORARY LIGHTING SHALL NOT BE SPLICED INTO EXISTING LIGHTING CIRCUITS. THE CONTRACTOR SHALL PAY ALL HOOK-UP FEES AND ELECTRICAL COSTS FOR THE TEMPORARY SYSTEM. THESE COSTS SHALL BE PAID FOR UNDER THE LUMP SUM ITEM SPECIAL MAINTAIN EXISTING LIGHTING. WHEN NO LONGER NEEDED THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE LUMP SUM BID FOR "ITEM SPECIAL - MAINTAIN EXISTING LIGHTING," SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIALS, INCIDENTALS, AND TEMPORARY POWER SERVICES NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

THE UNIT BID PRICE FOR EACH "ITEM SPECIAL - REPLACEMENT OF EXISTING LIGHTING UNIT" SHALL BE FULL PAYMENT FOR THE REPLACEMENT OF AN EXISTING UNIT WHICH HAS BEEN KNOCKED DOWN AFTER THE AFOREMENTIONED INSPECTION AND SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS, AND INCIDENTALS NECESSARY TO PROVIDE A REPLACEMENT FOR SUCH UNIT. THE FOLLOWING QUANTITIES ARE FOR USE AS DIRECTED BY THE DEPARTMENT'S ENGINEER.

ITEM SPECIAL- REPLACEMENT OF EX LIGHTING UNIT - 5 EA

625 LIGHT TOWER REMOVED, AS PER PLAN

LIGHT TOWER SHALL BE REMOVED IN ACCORDANCE WITH CMS 625 EXCEPT THAT THE CONTRACTOR SHALL STORE THE REMOVED ITEMS ON THE PROJECT FOR SALVAGE BY ODOT DISTRICT 2 IN ACCORDANCE WITH THE LISTING GIVEN HEREIN.

ITEMS TO BE STORED:

- LUMINAIRE RINGS
- LOWERING MECHANISMS
- GLARE SHIELDS

IN THE EVENT THE ITEMS STORED ON THE PROJECT FOR SALVAGE BY ODOT ARE NOT REMOVED, THE CONTRACTOR SHALL, WHEN DIRECTED BY THE ENGINEER IN WRITING, REMOVE AND DISPOSE OF THE ITEMS AT NO ADDITIONAL COST TO THE PROJECT.

ITEM 625 - LUMINAIRE, CONVENTIONAL, SOLID-STATE (LED), AS PER PLAN, IES-DISTRIBUTION, LUMENS

IN ADDITION TO THE REQUIREMENTS OF ODOT'S CONSTRUCTION AND MATERIAL SPECIFICATIONS AND SUPPLEMENTAL SPECIFICATIONS 813, 913 AND 1114, THE LUMINAIRES FOR CONVENTIONAL LIGHTING UNITS SHALL BE LED INSTEAD OF HIGH-PRESSURE SODIUM. THE CONTRACTOR SHALL CHOOSE ONE OF THE FOLLOWING LUMINAIRES LISTED BELOW, OR AN APPROVED EQUAL:

IES TYPE III DISTRIBUTION, 17,200-19,100 LUMENS (ODOT I-475)
BRAND CATALOG NO.
AMERICAN ELEC. LIGHTING ATBL-C-480-R3-4B-3K-AO
PHILIPS LUMEC RFM-160W48LED-3K-G2-R3M-HVU-FAWS-GY3
GE LIGHTING SOLUTIONS ERL2-5-18-C3-30-X-GRAY-L-R-XXX

PAYMENT WILL BE MADE AT THE UNIT BID PRICE FOR EACH LUMINAIRE:

ITEM 625 LUMINAIRE, CONVENTIONAL, SOLID-STATE (LED), AS PER PLAN, IES-DISTRIBUTION, LUMENS

WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

I:\ProjectData\LUC-475-0.09\Design\Lighting\Sheets\95875_LN002.dgn_Sheet 2/25/2022 8:39:17 AM jbidinge

I:\ProjectData\LUC\95875_LUC-475-0.09\Design\Lighting\Sheets\95875_LS002.dgn 95875 Subsum 12 2/15/2022 8:55:53 AM jbidinge

SHEET NO.	LOCATION	STATION TO STATION		SIDE	CIRCUIT NODES	625	625	625	625	625	625	625	625	625	625	625													
		FT	FT			FT	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH											
		TO	TO																										
591	IR475	238+00.00		RT	LP-SEA-A-6																								
591	IR475	238+00.00	240+00.00	RT	LP-SEA-A-6	200	200																						
591	IR475	240+00.00		RT	LP-SEA-A-7																								
591	IR475	240+00.00	241+43.98	RT	LP-SEA-A-7	144	144																						
591	IR475	241+43.98		RT	PB-SEA-2			1																					
591	IR475	247+50.02		RT	LP-SEA-A-8																								
591	IR475	247+50.02	245+75.43	RT	LP-SEA-A-8	176	176																						
591	IR475	245+75.43		RT	LP-SEA-A-9																								
591	IR475	245+75.43	244+59.71	RT	LP-SEA-A-9	136	136																						
591	IR475	244+59.71		RT	LP-SEA-A-10																								
591	IR475	244+59.71	244+35.26	RT	LP-SEA-A-10																								
591	IR475	244+35.26		LT	PB-SEA-3																								
591	IR475	244+35.26	244+00.00	RT	PB-SEA-3	85	85																						
591	IR475	244+00.00		RT	LP-SEA-A-11																								
591	IR475	244+00.00	241+43.98	RT	LP-SEA-A-11	256	256																						
591	IR475	241+43.98		RT	PB-SEA-2																								
591	IR475	241+43.98	241+50.54	RT	PB-SEA-2	105	105																						
591	IR475	241+50.54		RT	HM-SEA-A-1																								
591	IR475	241+50.54	241+37.62	RT	HM-SEA-A-1	48	48																						
591	IR475	241+37.62		RT	PB-SEA-4																								
591	IR475	241+37.62	0+00.00	RT	PB-SEA-4																								
591	IR475	0+00.00		RT	PB-SEA-1																								
591	IR475	248+75.55		RT	HM-SEA-A-2																								
591	IR475	245+31.52		RT	HM-SEA-A-3																								
591	IR475	245+45.59		RT	PS-SEA																								
PART 1 519-527	IR475	51+00.00	162+50.00	CL																									
TOTALS FROM THIS SHEET						1150	1150	74	3	24						24													
TOTALS FROM LIGHTING SUBSUMMARY - 2						690	690	81	6	2	2					2													
TOTALS FROM LIGHTING SUBSUMMARY - 4						2528	2528	326	10	5		3				5													
TOTALS FROM LIGHTING SUBSUMMARY - 6						3922	3922		6	6						6													
TOTALS FROM LIGHTING SUBSUMMARY - 8						3366	3366		3	2						11													
TOTALS FROM LIGHTING SUBSUMMARY - 10						3567	3567	124	3							4													
TOTALS CARRIED TO GENERAL SUMMARY						15223	15223	605	31	39	2	3	15	39	2	144	7	7											

LUC-475-0.09	CALCULATED JRB
	CHECKED XXX
	LIGHTING SUBSUMMARY - 12

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ESTIMATED QUANTITIES (04/IMS/BR)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11003	LS	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2/29
202	22900	266	SY	APPROACH SLAB REMOVED				266	
202	23500	266	SY	WEARING COURSE REMOVED				266	
503	11101	LS	LS	COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN					329
503	21300	LS	LS	UNCLASSIFIED EXCAVATION					
505	11100	LS	LS	PILE DRIVING EQUIPMENT MOBILIZATION					
507	00200	3315	FT	STEEL PILES HP12X53, FURNISHED	3315				
507	00250	3145	FT	STEEL PILES HP12X53, DRIVEN	3145				
509	10000	112791	LB	EPOXY COATED REINFORCING STEEL	20796	57402	34593		
509	30020	7239	FT	NO. 4 GFRP DEFORMED BARS			7239		
509	40000	174284	LB	REINFORCING STEEL, MISC.: LOW CARBON CHROMIUM ALLOY REINFORCING STEEL (ASTM A1035 CS GRADE 100)			174284		2/29
511	33418	245	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE			245		
511	34446	899	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			899		
511	34450	71	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			71		
511	41012	227	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		227			
511	43512	206	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	206				
512	10050	1903	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	224	557	1122		
512	33000	10	SY	TYPE 2 WATERPROOFING	10				
515	14110	24	EACH	STRAIGHT STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 2, TYPE WF60-49 (L=60'-7")			24		
515	15110	12	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF60-49 (L=113'-6")			12		
515	20000	55	EACH	INTERMEDIATE DIAPHRAGMS			55		
516	13200	170	SF	1/2" PREFORMED EXPANSION JOINT FILLER	170				
516	13600	170	SF	1" PREFORMED EXPANSION JOINT FILLER	170				
516	13900	104	SF	2" PREFORMED EXPANSION JOINT FILLER	104				
516	14014	236	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	236				
516	44101	24	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (2.111" X 14" X 11" WITH 1 1/2" X 15" X 12" LOAD PLATE)	24				
516	44301	48	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (4.323" X 24" X 13" WITH 1 1/2" X 40" X 14" LOAD PLATE)		48			
518	21200	199	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	199				
518	40000	263	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	263				
518	40010	24	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	24				
524	95434	12	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK WITH QC/QA		12			
524	95443	828	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK WITH QC/QA, AS PER PLAN		828			2/29
526	25010	542	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				542	
526	90010	195	FT	TYPE A INSTALLATION				195	
601	20000	1725	SY	CRUSHED AGGREGATE SLOPE PROTECTION				1725	
601	21060	86	SY	TIED CONCRETE BLOCK MAT, TYPE 2				86	
894	10000	2	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST		2			

DESIGN AGENCY
TETRA TECH
 480 N. MICHIGAN AVENUE, SUITE 800
 TOLEDO, OH 43604



REVIEWED DATE
 DTC 1/13/2022
 STRUCTURE FILE NUMBER
 4607082

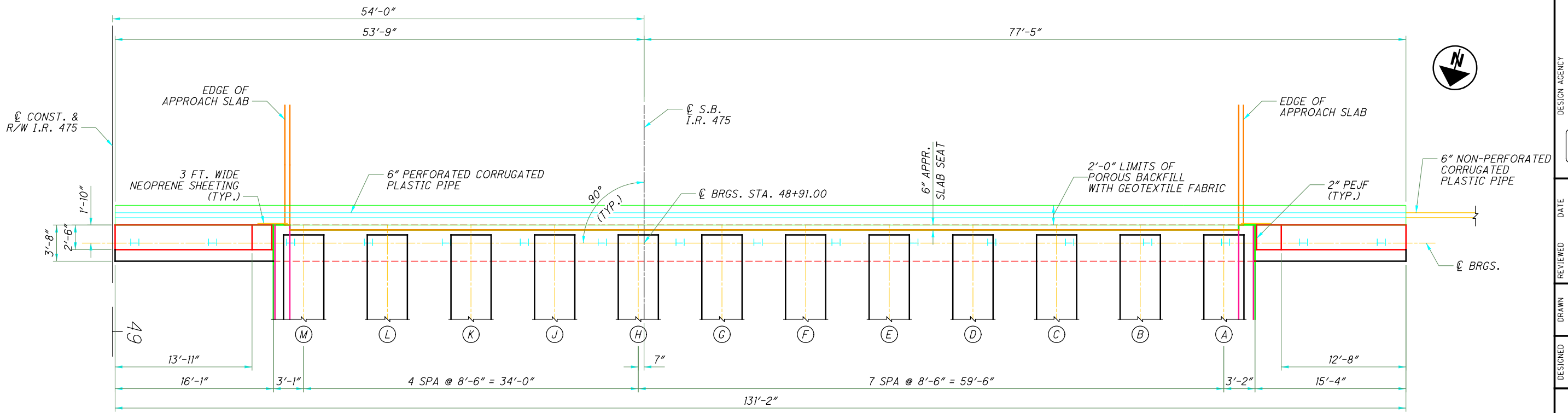
DRAWN
 TSR
 REVISED

DESIGNED
 AJF
 CHECKED
 TLR

BRIDGE ESTIMATED QUANTITIES
 LUC-475-0093L
 I-475 OVER MONCLOVA ROAD AND NSRR

LUC-475-0.09
PID No. 99731

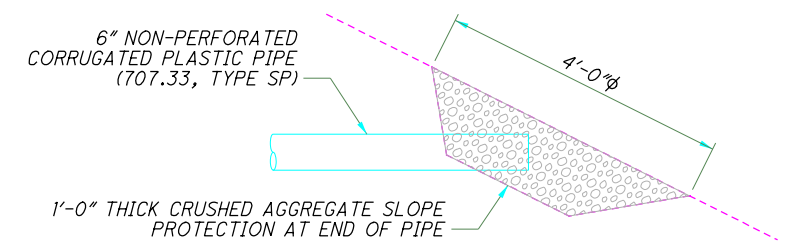
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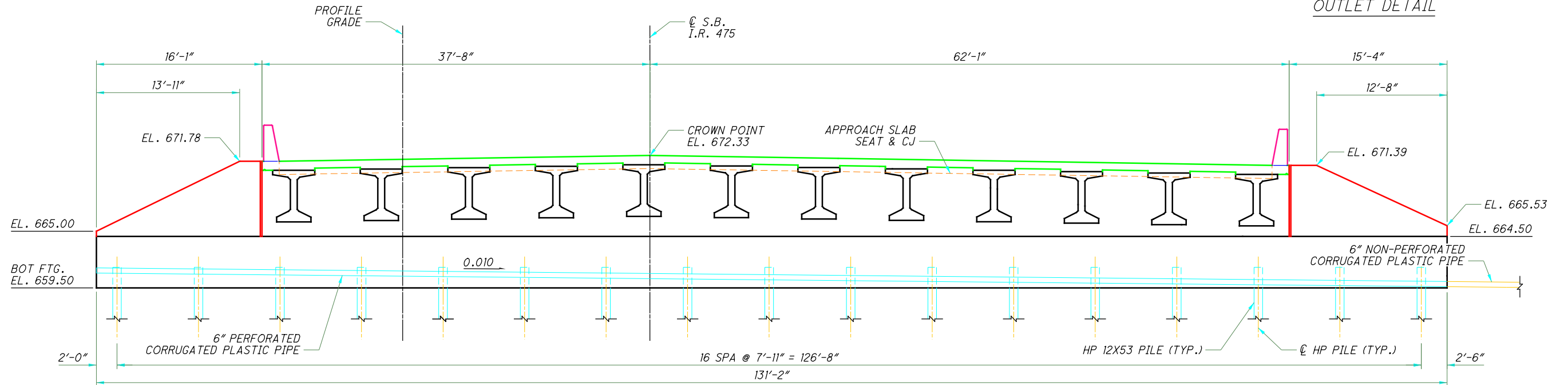
PLAN

NOTES:

2. SEE SHEET 7/29 FOR REINFORCING DETAILS.
3. SEE SHEET 10/29 FOR WINGWALL DETAILS.
4. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSID-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.



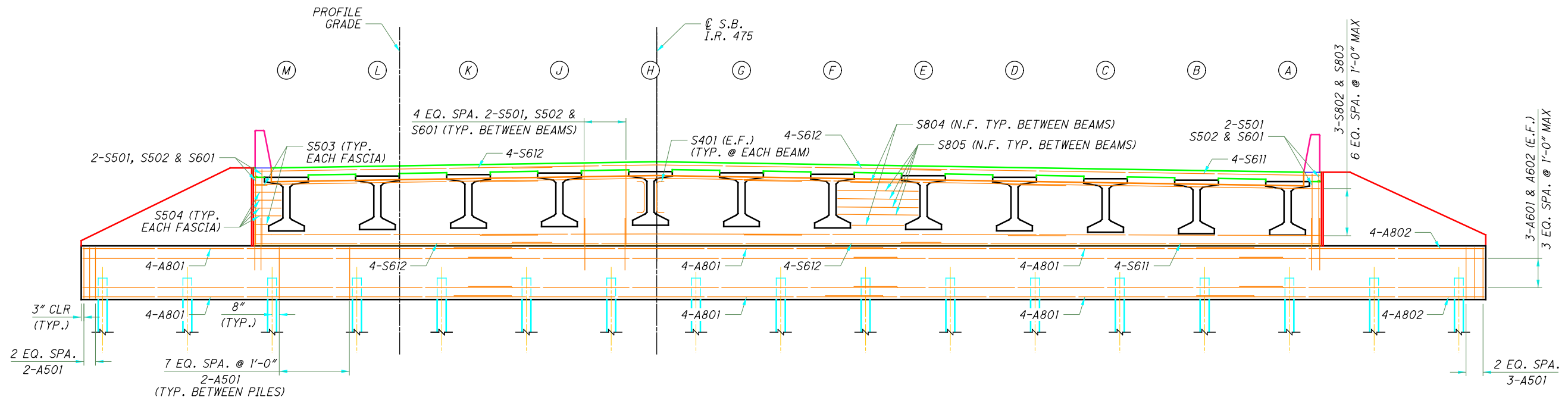
OUTLET DETAIL



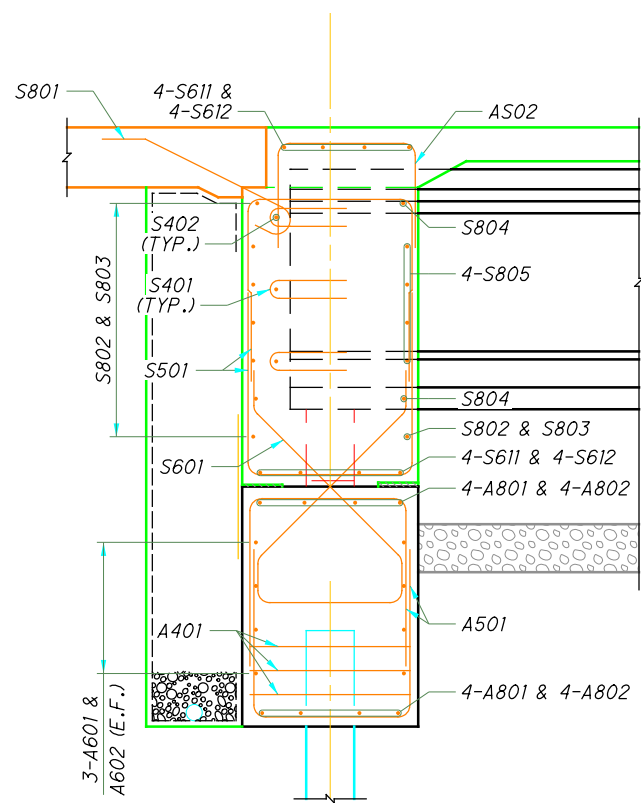
ELEVATION

DESIGN AGENCY TETRA TECH 400 N. MISSION AVENUE, SUITE 900 TOLEDO, OH 43604					
DESIGNED A J F	CHECKED TLR	DRAWN TSR	REVIEWED DTC	DATE 1/13/2022	STRUCTURE FILE NUMBER 4807082
REAR ABUTMENT DETAILS - PLAN AND ELEVATION LUC-475-0093L I-475 OVER MONCLOVA ROAD AND NSRR					
LUC-475-0.09 PID No. 99731					
6 / 29					
683 855					

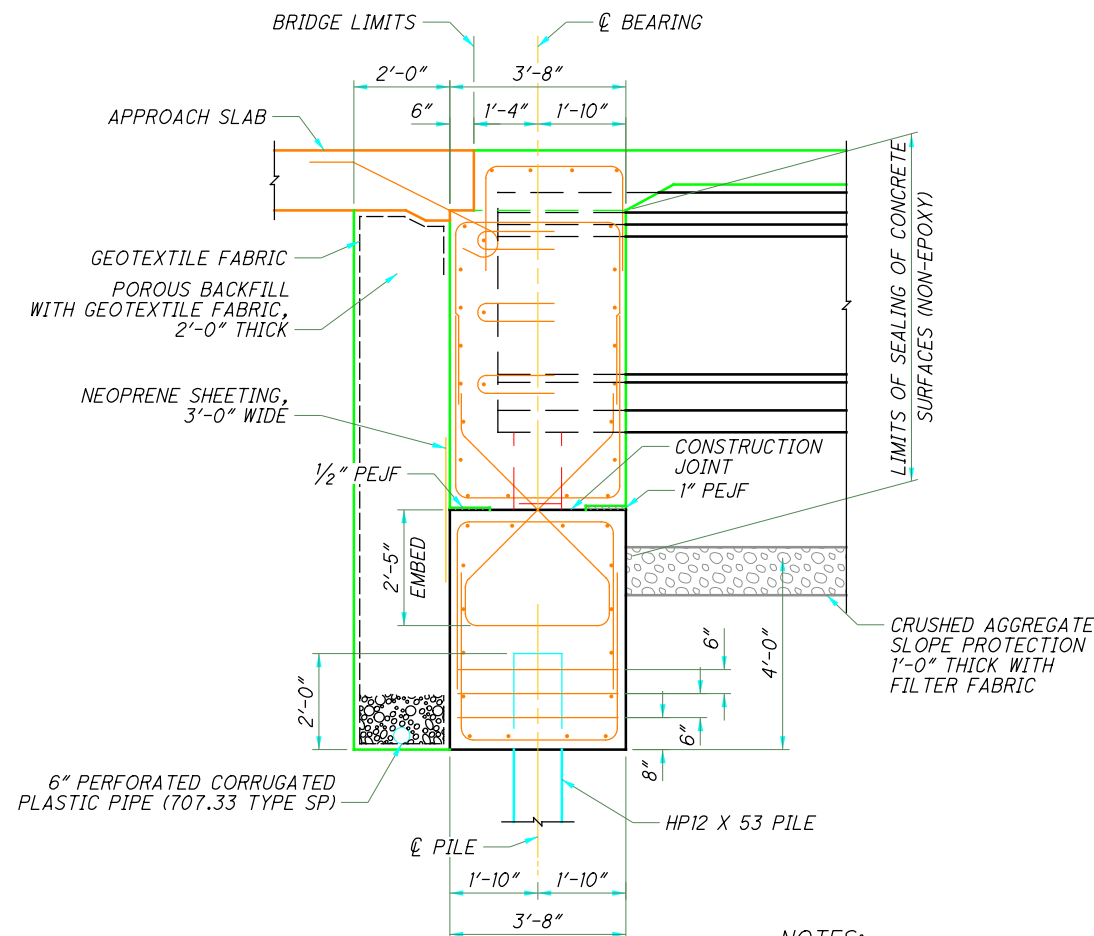
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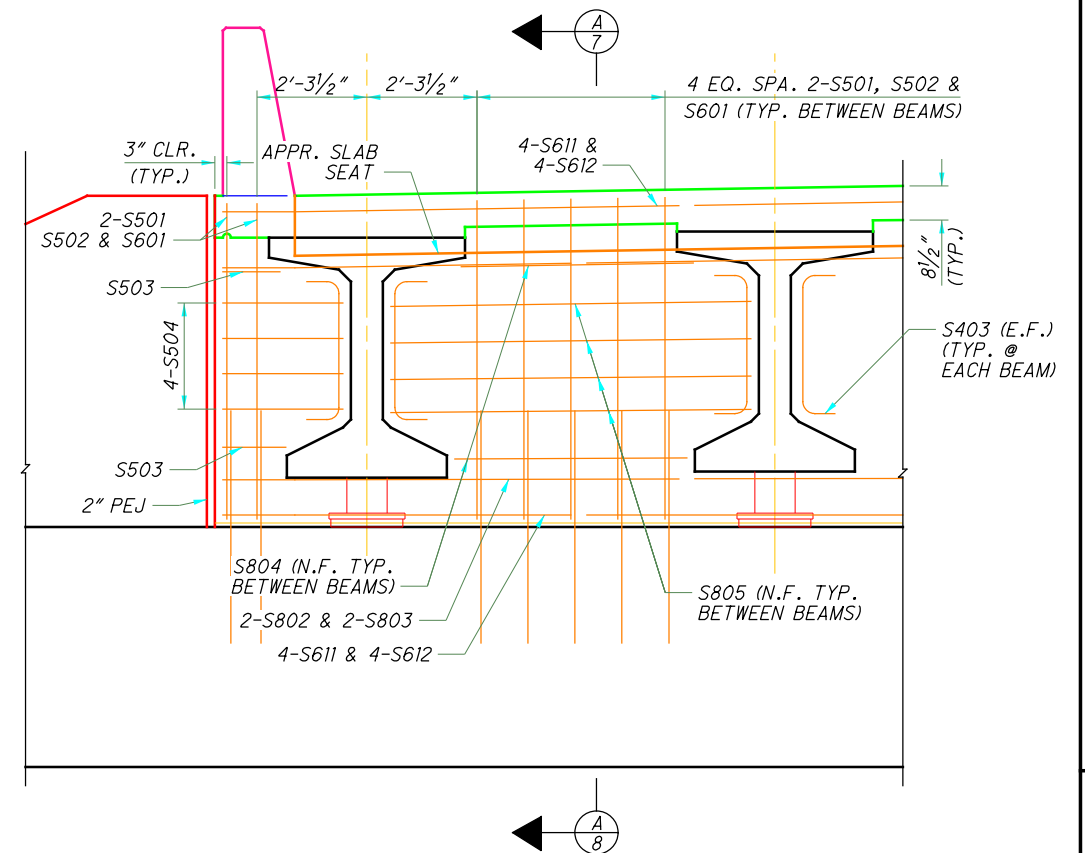
ELEVATION



SECTION A-A
(REINFORCEMENT)



SECTION A-A
(DIMENSIONS)



TYPICAL ABUTMENT DIAPHRAGM ELEVATION

NOTES:

1. SEE SHEET 10/29 FOR WINGWALL DETAILS.
2. LAP LENGTHS
#5 - 22"
#6 - 48"
#8 - 64"

3. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSD-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

REAR ABUTMENT DETAILS - PLAN AND ELEVATION

LUC-475-0.09
PID No. 99731

7/29

684
855

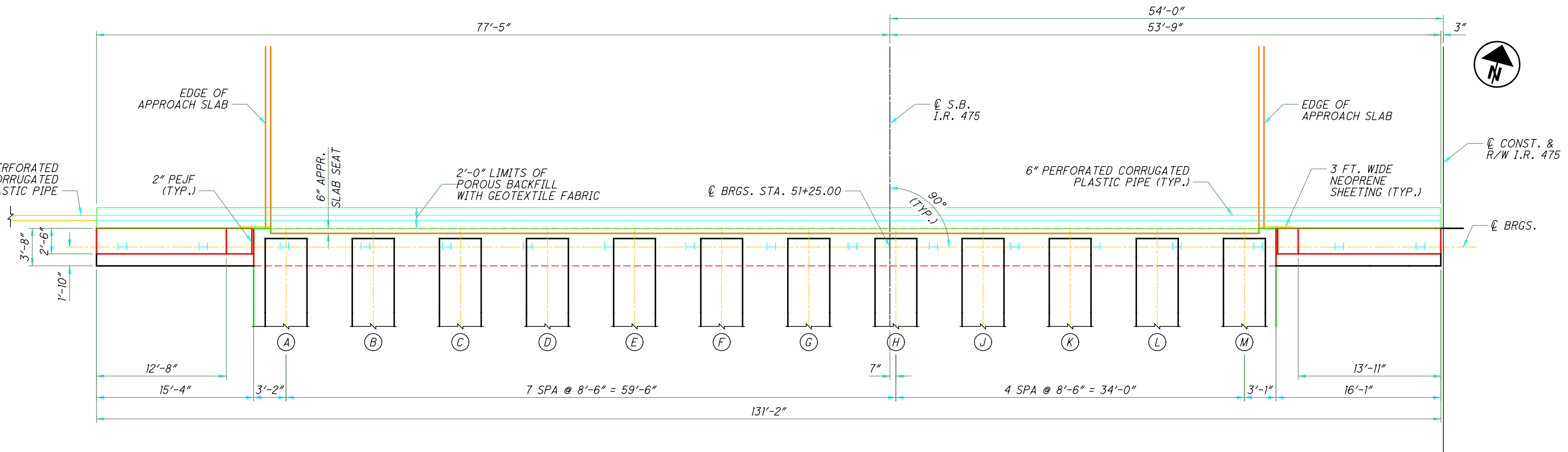
DESIGN AGENCY
TETRA TECH
440 MADISON AVENUE, SUITE 800
TOLEDO, OH 43604



DATE 1/13/2022
REVIEWED DTC
STRUCTURE FILE NUMBER 4607082

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CHECKED AUF
DESIGNED TLR

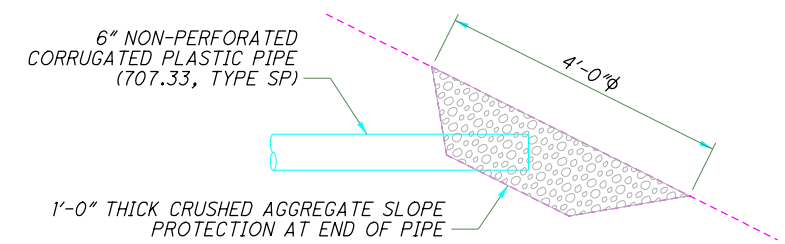
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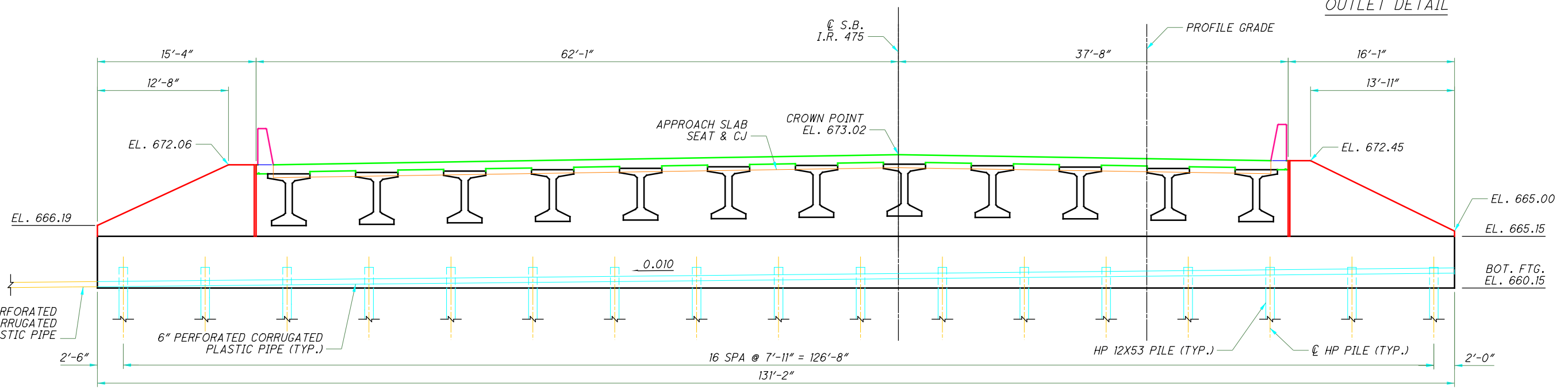
PLAN

NOTES:

- SEE SHEET **9/29** FOR REINFORCING DETAILS.
- SEE SHEET **10/29** FOR WINGWALL DETAILS.
- ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSID-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.



OUTLET DETAIL



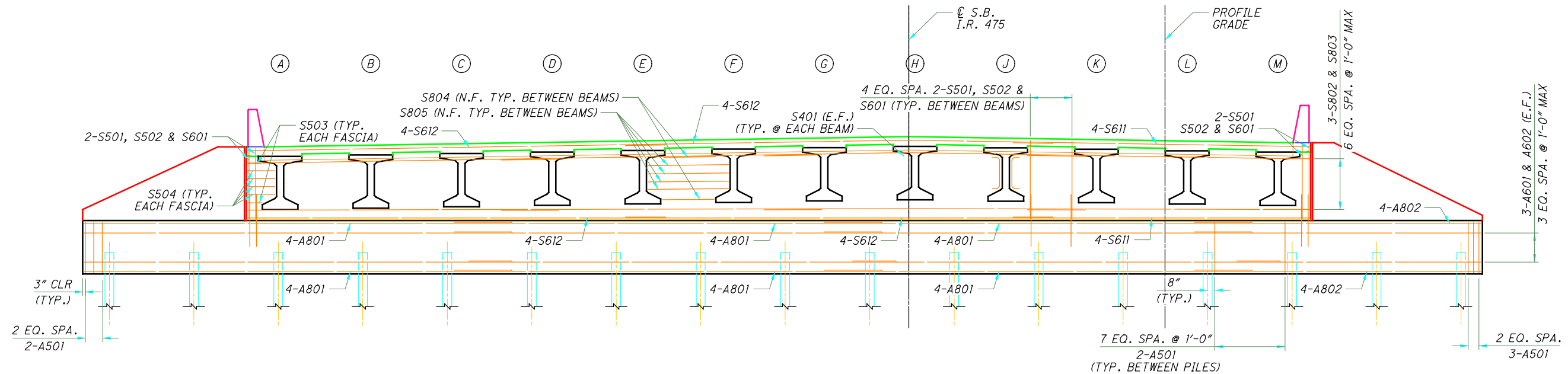
ELEVATION

 TETRA TECH 480 N. WILSON AVENUE, SUITE 800 TOLEDO, OH 43604
DESIGN AGENCY TETRA TECH 480 N. WILSON AVENUE, SUITE 800 TOLEDO, OH 43604
DATE 1/13/2022
REVIEWED DTC
DRAWN TSR
DESIGNED AJF
CHECKED TLR
STRUCTURE FILE NUMBER 4607082
REVISIONS REVISED
FILE NUMBER 4607082

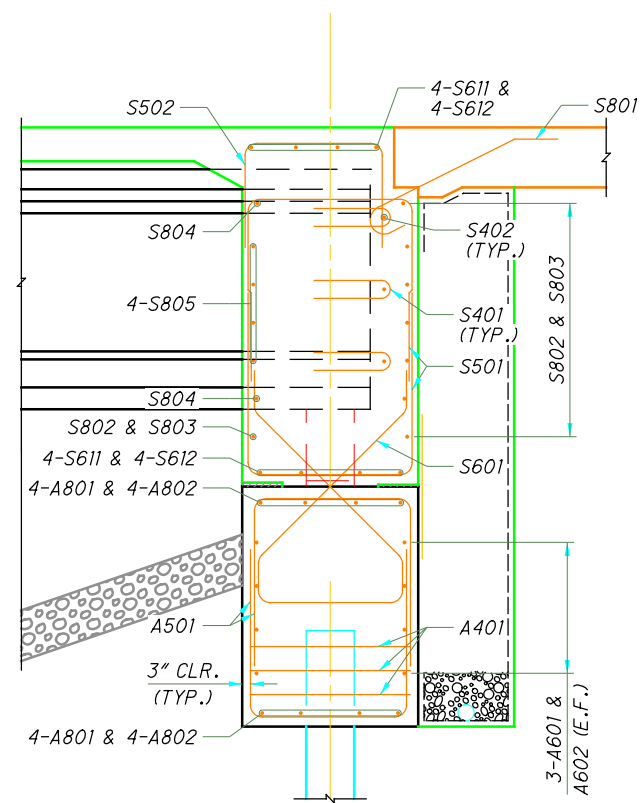
FWD ABUTMENT DETAILS - PLAN AND ELEVATION
 LUC-475-0093L
 I-475 OVER MONCLOVA ROAD AND NSRR

LUC-475-0.09 PID No. 99731
8 / 29

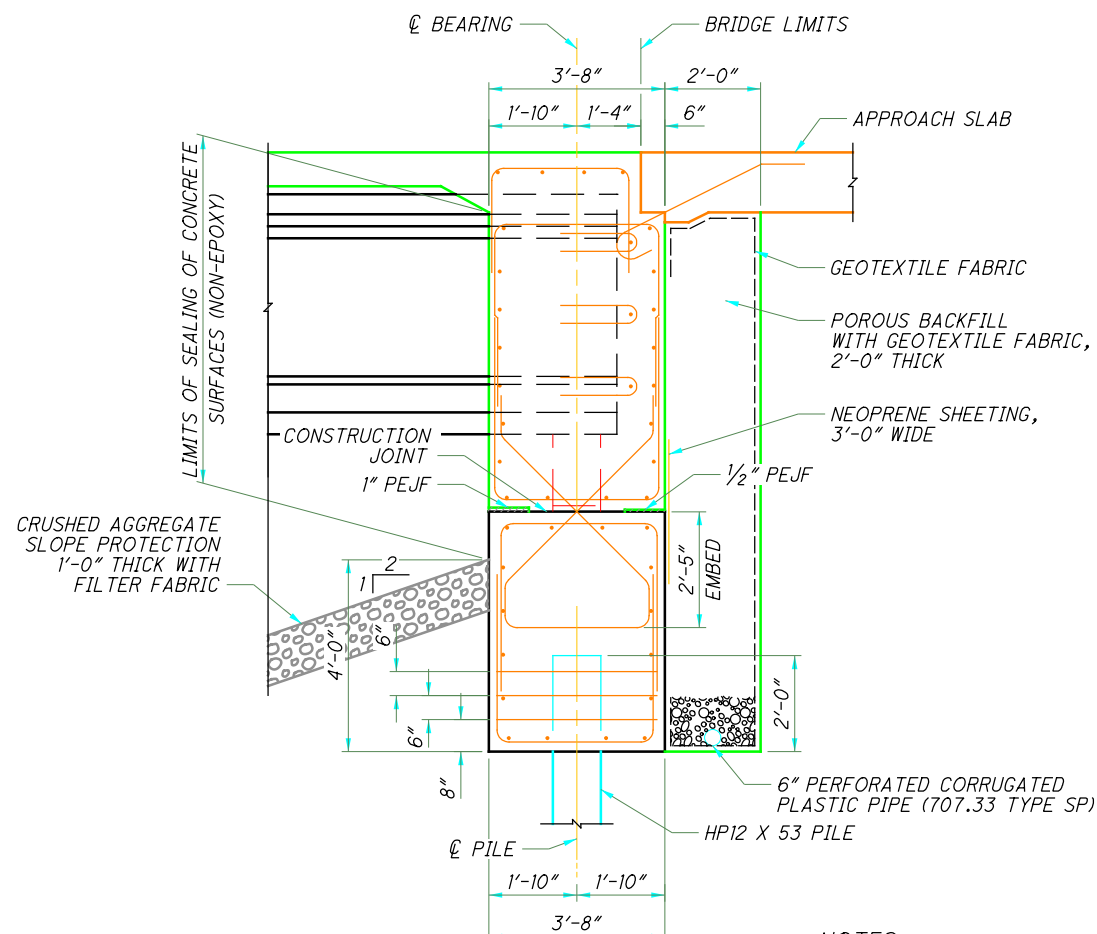
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ELEVATION



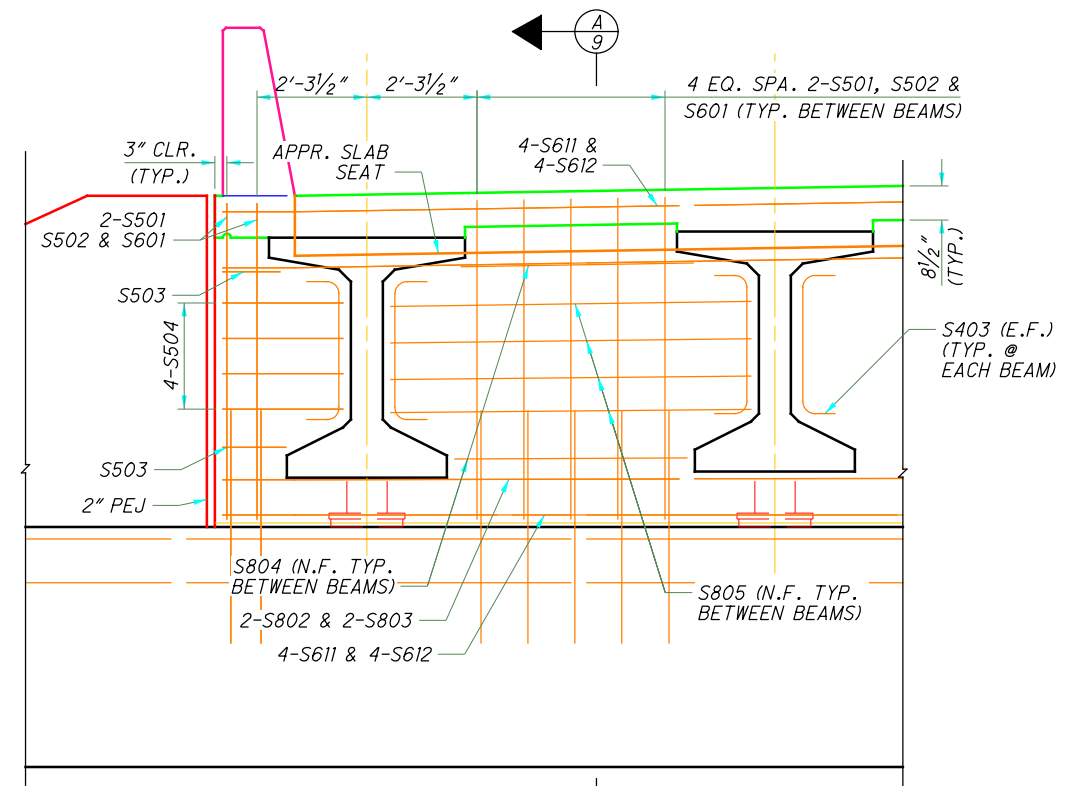
SECTION A-A
(REINFORCEMENT)



SECTION A-A
(DIMENSIONS)

NOTES:

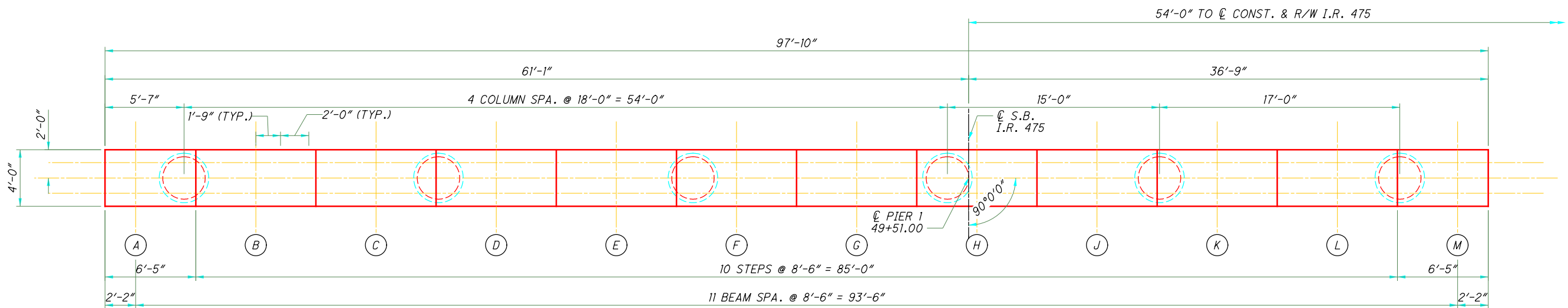
1. SEE SHEET 10/29 FOR WINGWALL DETAILS.
2. LAP LENGTHS
 - #5 - 22"
 - #6 - 48"
 - #8 - 64"



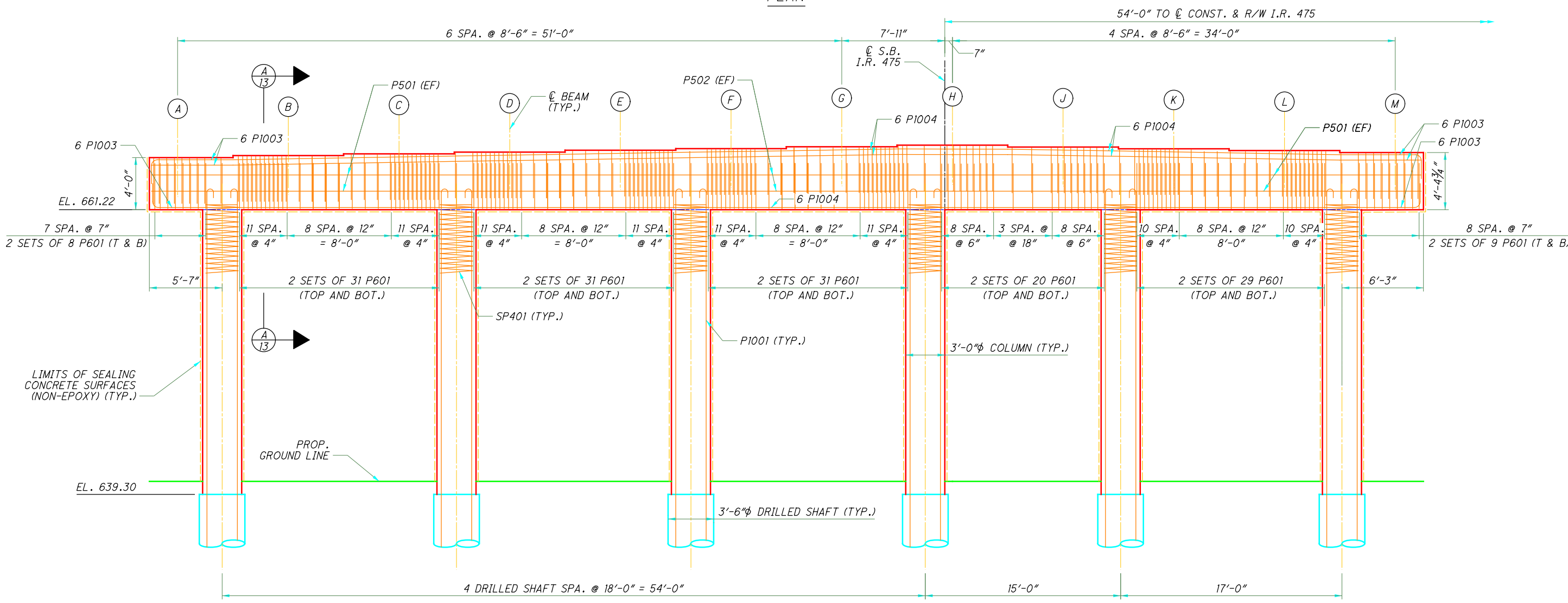
TYPICAL ABUTMENT DIAPHRAGM ELEVATION

4. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSD-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

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PLAN



ELEVATION

NOTES:

1. TOP OF COLUMN SPIRAL REINFORCEMENT SHALL BE EMBEDDED A MINIMUM OF 1/2 TURNS INTO THE PIER CAP CONCRETE
2. LAP LENGTHS:
 #6 - 23"
 #10 - 98"

PIER CAP ELEVATION TABLE													
LOCATION	STATION	BEAM A	BEAM B	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	BEAM H	BEAM J	BEAM K	BEAM L	BEAM M
PIER 1	49+51.00	665.22	665.35	665.49	665.63	665.77	665.91	666.05	666.17	666.03	665.89	665.75	665.62

DESIGN AGENCY
TETRA TECH
 400 MADISON AVENUE, SUITE 800
 TOLEDO, OH 43604

DATE
 1/13/2022
 STRUCTURE FILE NUMBER
 4607082

DESIGNED
 A J F

DRAWN
 T S R

REVIEWED
 D T C

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 T L R

REVISIONS
 FILE NUMBER
 4607082

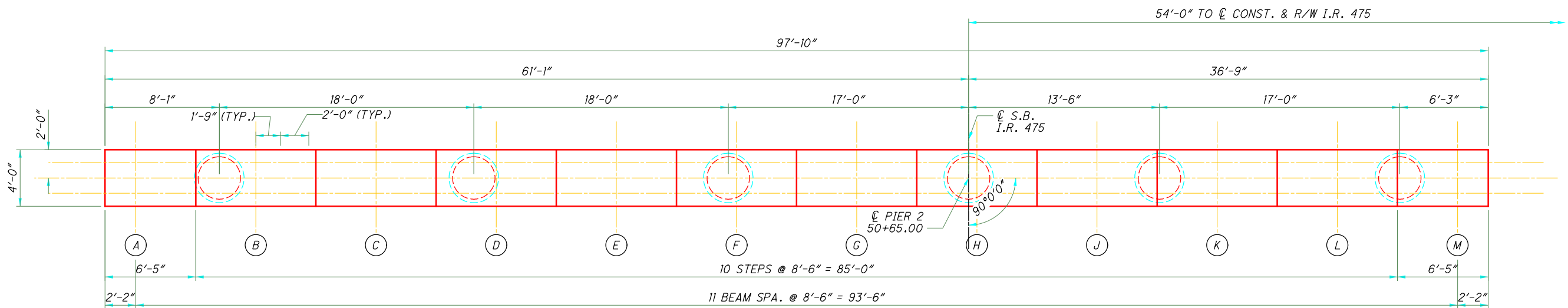
LUC-475-0.09
 PID No. 99731

PIER 1 DETAILS - PLAN AND ELEVATION
 LUC-475-0093L
 I-475 OVER MONCLOVA ROAD AND NSRR

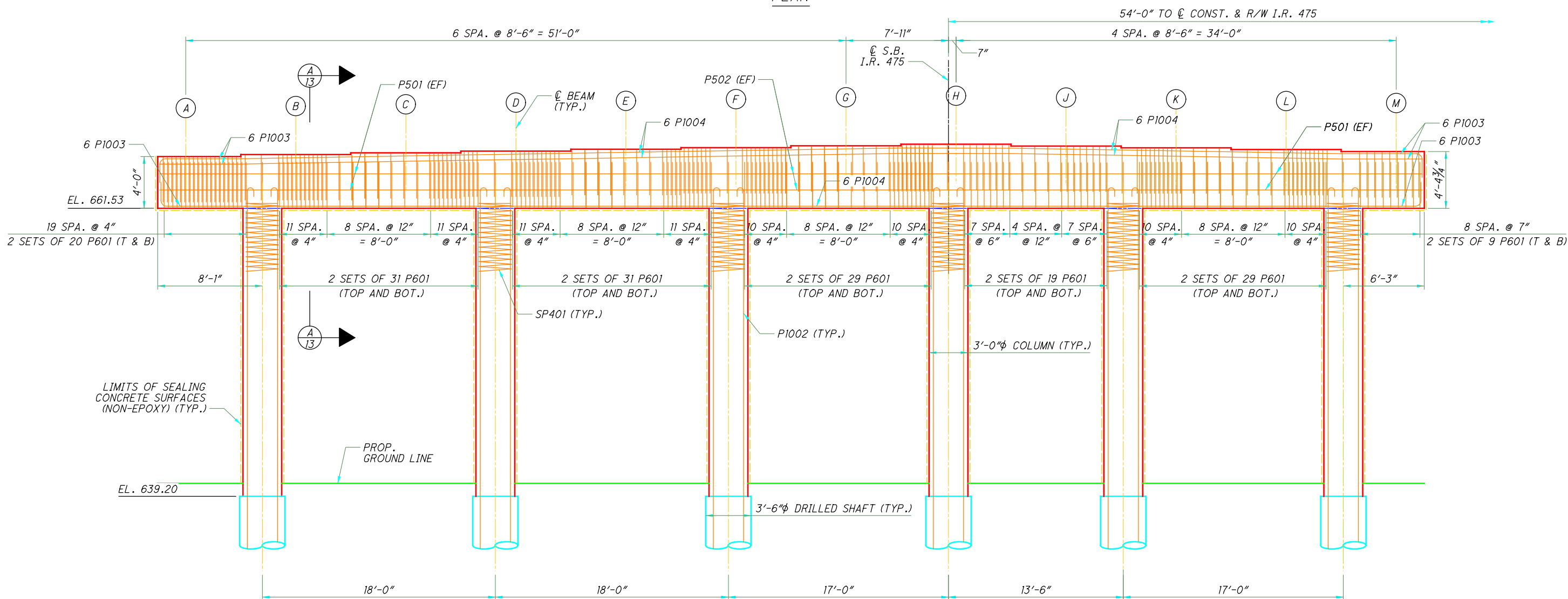
11 / 29

688
 855

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PLAN



ELEVATION

- NOTES:**
- TOP OF COLUMN SPIRAL REINFORCEMENT SHALL BE EMBEDDED A MINIMUM OF 1/2 TURNS INTO THE PIER CAP CONCRETE
 - LAP LENGTHS:
 #6 - 23"
 #10 - 98"

LOCATION	STATION	BEAM A	BEAM B	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	BEAM H	BEAM J	BEAM K	BEAM L	BEAM M
PIER 2	50+65.00	665.53	665.66	665.80	665.94	666.08	666.22	666.36	666.48	666.34	666.20	666.06	665.93

DESIGN AGENCY
TETRA TECH
 480 MADISON AVENUE, SUITE 800
 TOLEDO, OH 43604

DESIGNED
 AUF

DRAWN
 TSR

REVIEWED
 DTC

DATE
 1/13/2022

CHECKED
 TLR

REVISED

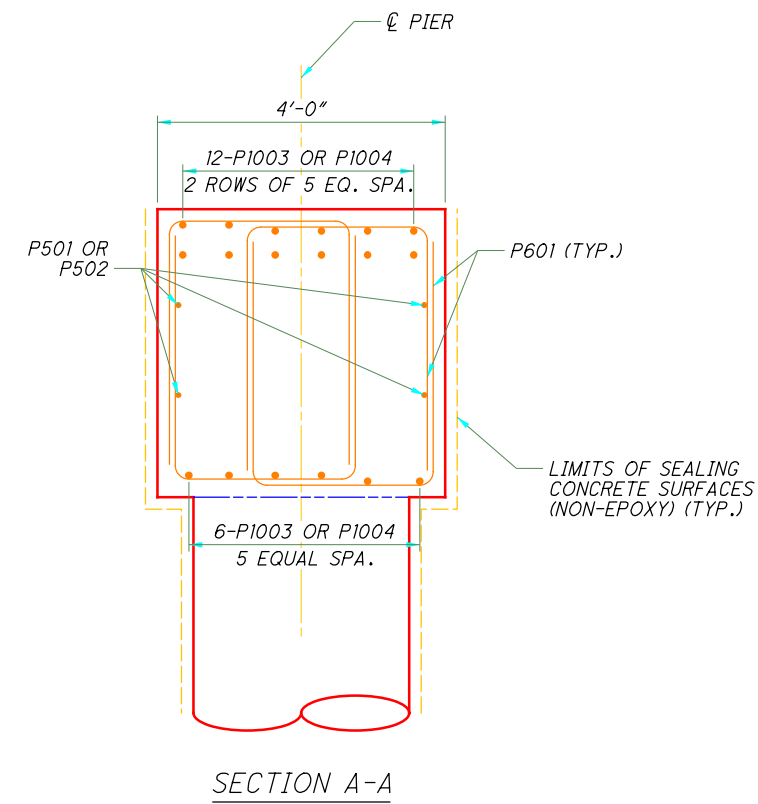
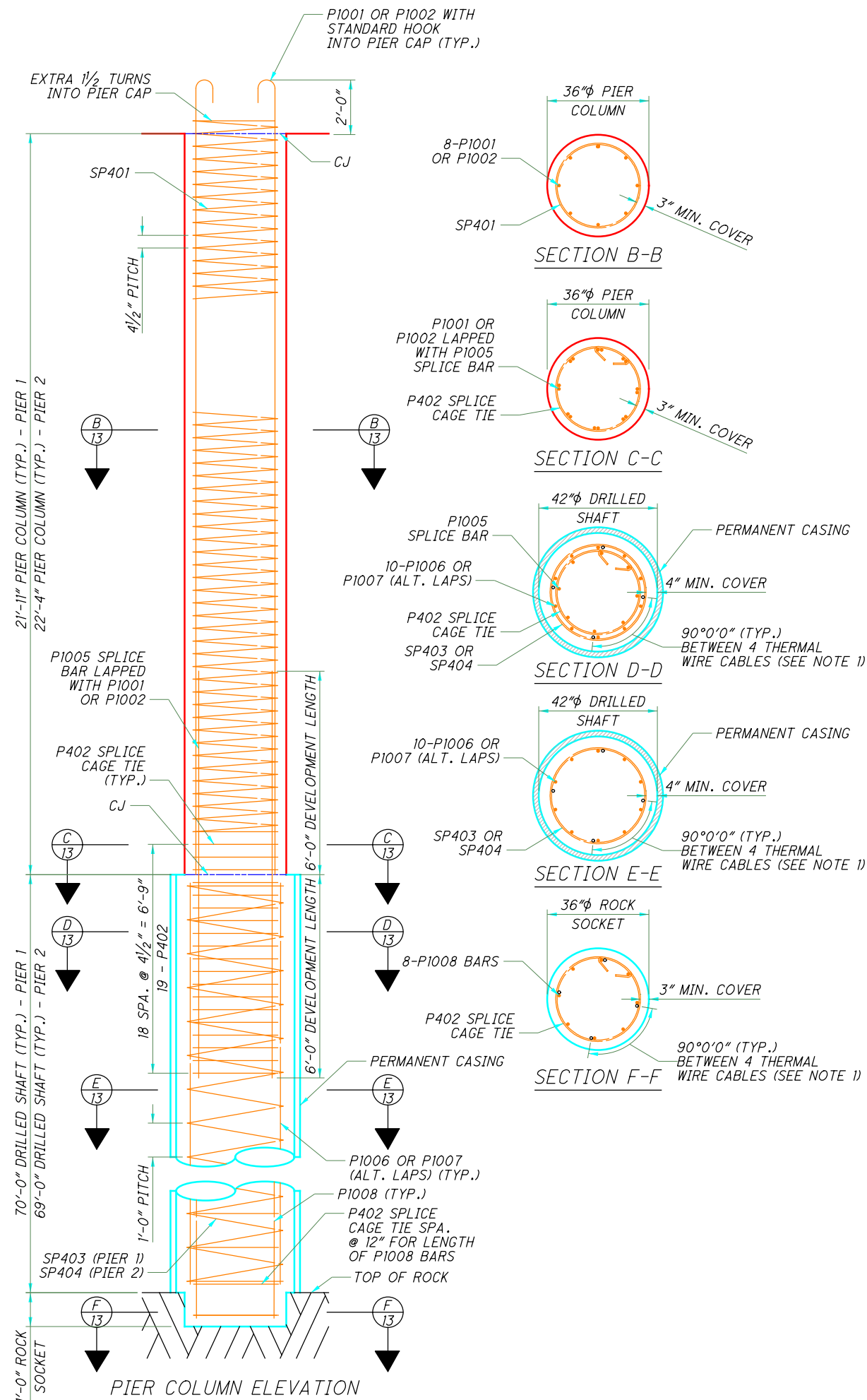
STRUCTURE FILE NUMBER
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LUC-475-0.09
 PID No. 99731

PIER 2 DETAILS - PLAN AND ELEVATION
 LUC-475-0093L
 I-475 OVER MONCLOVA ROAD AND NSRR

12 / 29

689
 855



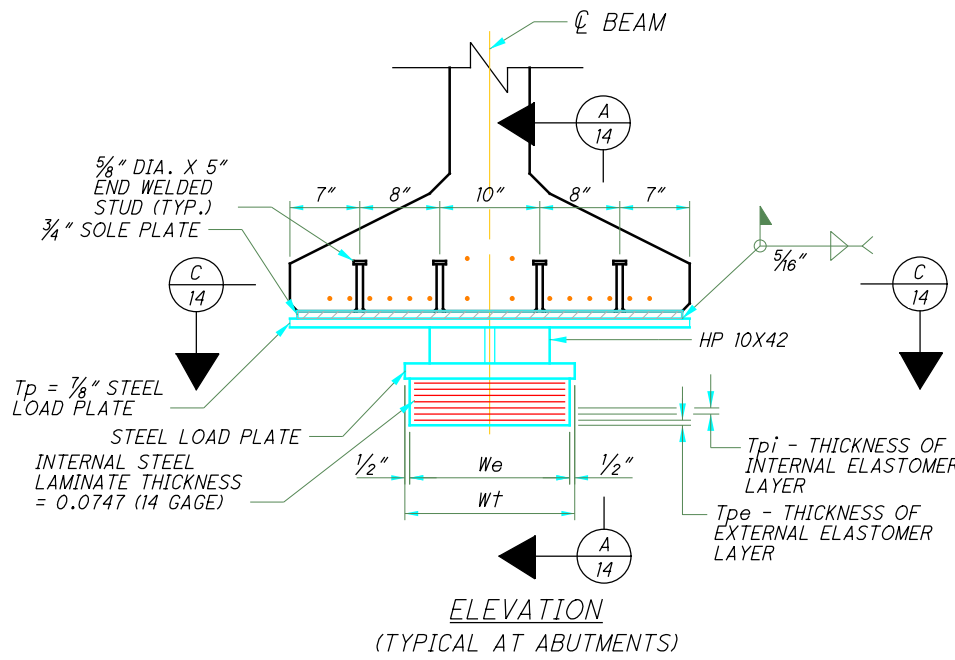
NOTE:

- 1) PROVIDE THERMAL WIRE CABLES ONLY AT LOCATIONS SPECIFIED FOR ITEM 894 - THERMAL INTEGRITY PROFILER (T.I.P.) TESTING.
- 2) LAP LENGTH:
#10 BARS - 2'-5" (COMPRESSION)

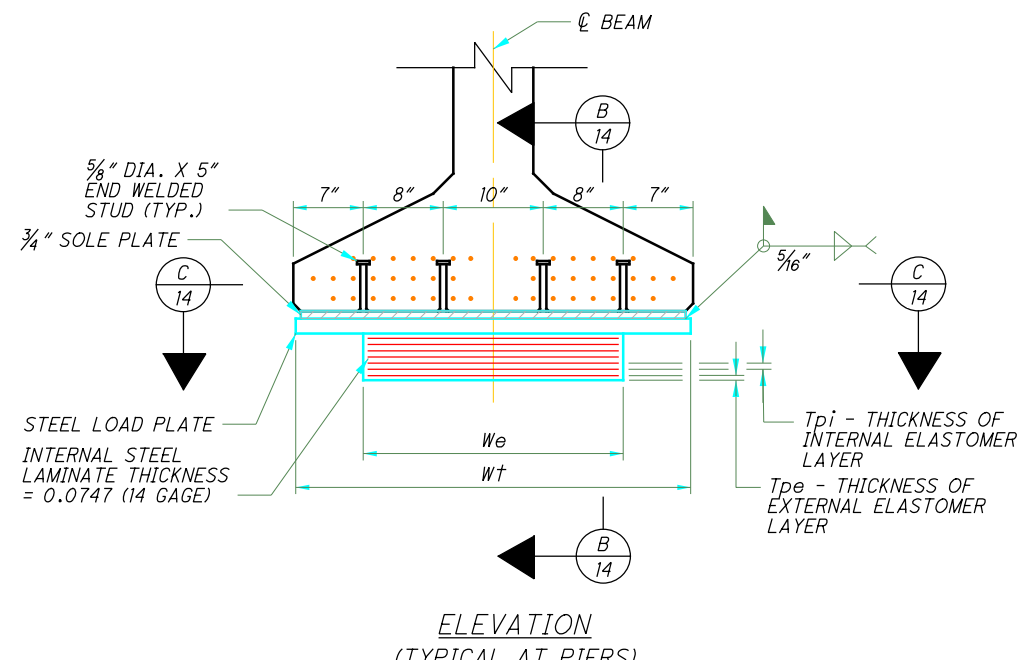
PIER DETAILS - PLAN AND ELEVATION

LUC-475-0093L
I-475 OVER MONCLOVA ROAD AND NSRR

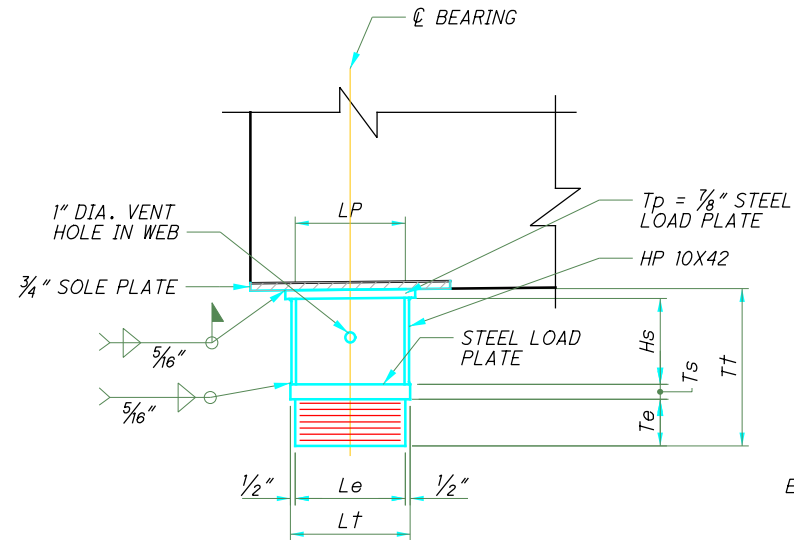
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PID No. 99731



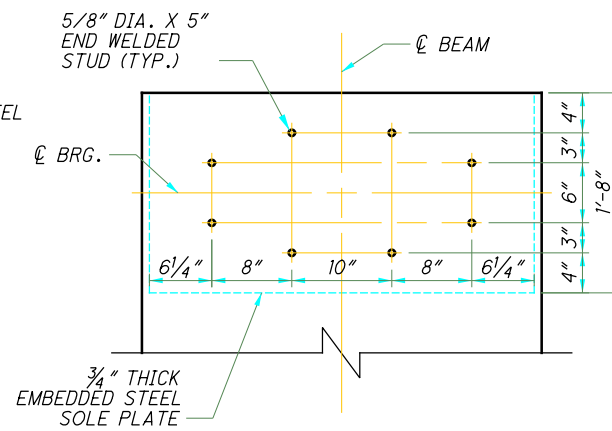
ELEVATION
(TYPICAL AT ABUTMENTS)



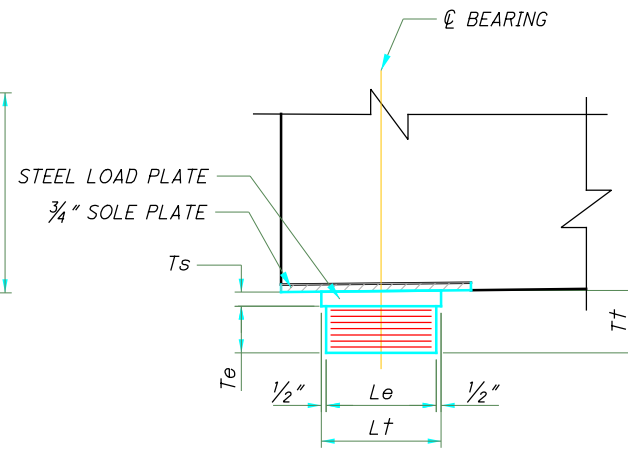
ELEVATION
(TYPICAL AT PIERS)



SECTION A-A
**LAMINATED ELASTOMERIC
FIXED BEARING**
(TYPICAL AT ABUTMENTS)



SECTION C-C



SECTION B-B
**LAMINATED ELASTOMERIC
EXPANSION BEARING**
(TYPICAL AT PIERS)

NOTES:

- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- THE STEEL LOAD PLATES SHALL BE GRADE 50 STEEL. STEEL LOAD PLATES SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
- BASIS OF PAYMENT: PAYMENT FOR ALL MATERIALS (INCLUDING STEEL PLATES AND BEARINGS), LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH & INSTALL THE ELASTOMERIC BEARINGS FOR THE BEAMS WILL BE INCLUDED IN THE UNIT BID PRICE EACH FOR ITEM 516, ELASTOMERIC BEARING WITH INTERNAL LAMINATES & LOAD PLATE (NEOPRENE).
- SEE STD DWG. PSID-1-13 FOR ADDITIONAL NOTES AND DETAILS.

BEAM	STEEL PEDESTAL DIMENSIONS				
	UPPER STEEL LOAD PLATE	REAR ABUTMENT		FWD ABUTMENT	
	Tp	Hs	Tt	Hs	Tt
A	7/8"	7.625"	12.125"	7.625"	12.125"
B	7/8"	9.250"	13.750"	9.250"	13.750"
C	7/8"	10.875"	15.375"	10.875"	15.375"
D	7/8"	12.500"	17.000"	12.500"	17.000"
E	7/8"	14.125"	18.625"	14.125"	18.625"
F	7/8"	15.750"	20.250"	15.750"	20.250"
G	7/8"	17.375"	21.875"	17.375"	21.875"
H	7/8"	18.750"	23.250"	18.750"	23.375"
J	7/8"	17.125"	21.625"	17.125"	21.750"
K	7/8"	15.500"	20.000"	15.500"	20.125"
L	7/8"	13.875"	18.375"	13.875"	18.500"
M	7/8"	12.250"	16.750"	12.250"	16.875"

BEARING LOCATION	NO. REQ'D	LOADS			BEARING DIMENSIONS						LOWER STEEL LOAD PLATE				UPPER STEEL LOAD PLATE			Tt (AT C.L. BRG.)	
		DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	Le	We	Tpi	NO. OF Tpi	Tpe (2 EA.)	NO. OF STEEL LAMINATES (14 GAGE)	Te	Lt	Wt	Ts *		Lp	Wp		Tp
														BACK	FWD				
REAR ABUTMENT	12	84	68	152	11"	14"	0.41"	3	0.288"	4	2.111"	12"	15"	1 1/2"	1 1/2"	11"	40"	7/8"	**
PIER 1, SPAN 1 BEARINGS	12	84	68	152	13"	24"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
PIER 1, SPAN 2 BEARINGS	12	162	85	247	13"	24"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
PIER 2, SPAN 2 BEARINGS	12	162	85	247	13"	24"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
PIER 2, SPAN 3 BEARINGS	12	84	68	152	13"	24"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
FWD. ABUTMENT	12	84	68	152	11"	14"	0.41"	3	0.288"	4	2.111"	12"	15"	1 1/2"	1 1/2"	11"	40"	7/8"	**

* "BACK" DENOTES DOWN-STATION SIDE OF BEARING.
 "FWD" DENOTES UP-STATION SIDE OF BEARING.
 ** REFER TO STEEL PEDESTAL DIMENSIONS TABLE

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ESTIMATED QUANTITIES (04/IMS/BR)

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11003	LS	LS	STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2/26
202	22900	242	SY	APPROACH SLAB REMOVED				242	
202	23500	242	SY	WEARING COURSE REMOVED				242	
503	11100	LS	LS	COFFERDAMS AND EXCAVATION BRACING					
503	21300	LS	LS	UNCLASSIFIED EXCAVATION					
505	11100	LS	LS	PILE DRIVING EQUIPMENT MOBILIZATION					
507	00200	3510	FT	STEEL PILES HPI2X53, FURNISHED	3510				
507	00250	3330	FT	STEEL PILES HPI2X53, DRIVEN	3330				
509	10000	119375	LB	EPOXY COATED REINFORCING STEEL	18258	61882	39235		
509	30020	7449	FT	NO. 4 GFRP DEFORMED BARS			7449		
509	40000	197649	LB	REINFORCING STEEL, MISC.: LOW CARBON CHROMIUM ALLOY REINFORCING STEEL (ASTM A1035 CS GRADE 100)			197649		2/26
511	33418	275	CY	CLASS QC2 CONCRETE WITH QC/QA, SUPERSTRUCTURE			275		
511	34446	1058	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			1058		
511	34450	73	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			73		
511	41012	258	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		258			
511	43512	209	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	209				
512	10050	2015	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	236	623	1156		
512	33000	10	SY	TYPE 2 WATERPROOFING	10				
515	14110	26	EACH	STRAIGHT STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 2, TYPE WF60-49 (L=60'-7")			26		
515	15110	13	EACH	DRAPED STRAND PRESTRESSED CONCRETE BRIDGE I-BEAM MEMBERS, LEVEL 3, TYPE WF60-49 (L=120'-6")			13		
515	20000	60	EACH	INTERMEDIATE DIAPHRAGMS			60		
516	13200	188	SF	1/2" PREFORMED EXPANSION JOINT FILLER	188				
516	13600	188	SF	1" PREFORMED EXPANSION JOINT FILLER	188				
516	13900	106	SF	2" PREFORMED EXPANSION JOINT FILLER	106				
516	14014	259	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	259				
516	44101	26	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (2.111" X 15" X 11" WITH 1 1/2" X 16" X 12" LOAD PLATE)	26				
516	44301	52	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (4.323" X 25" X 13" WITH 1 1/2" X 40" X 14" LOAD PLATE)		52			
518	21200	214	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	214				
518	40000	277	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	277				
518	40010	24	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	24				
524	95434	14	FT	DRILLED SHAFTS, 36" DIAMETER, INTO BEDROCK WITH QC/QA		14			
524	95443	966	FT	DRILLED SHAFTS, 42" DIAMETER, ABOVE BEDROCK WITH QC/QA, AS PER PLAN		966			2/26
526	25010	600	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				600	
526	90010	216	FT	TYPE A INSTALLATION				216	
601	20000	1847	SY	CRUSHED AGGREGATE SLOPE PROTECTION				1847	
601	21060	64	SY	TIED CONCRETE BLOCK MAT, TYPE 2				64	
894	10000	2	EACH	THERMAL INTEGRITY PROFILING (TIP) TEST		2			

DESIGN AGENCY
TETRA TECH
480 N. MASON AVENUE, SUITE 800
TOLEDO, OH 43604



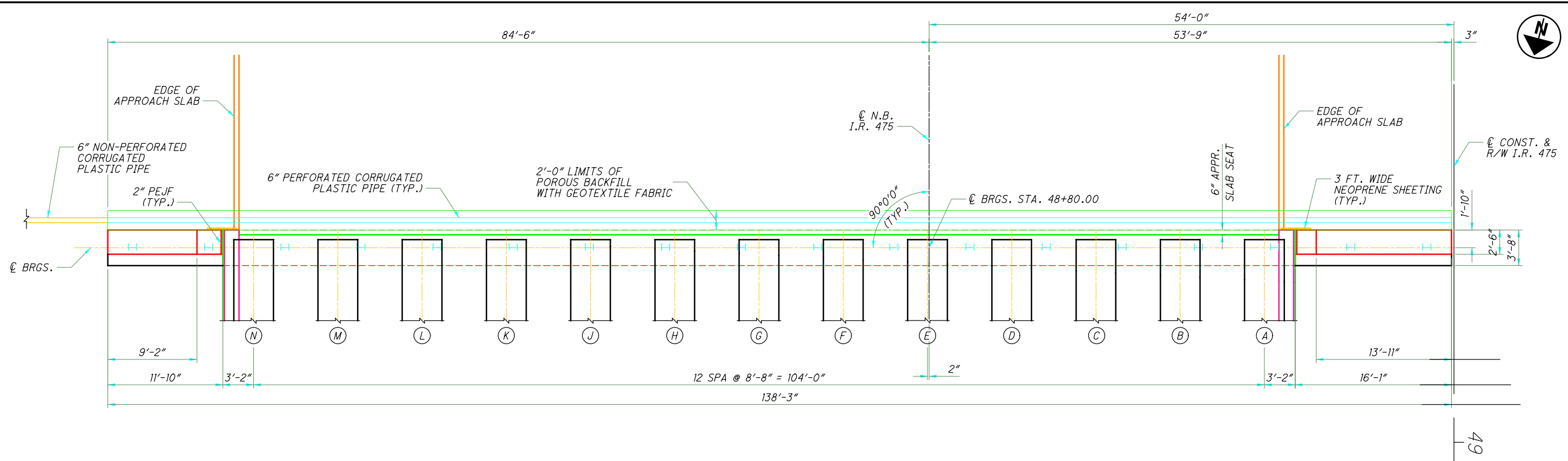
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DTC 1/13/2022
STRUCTURE FILE NUMBER
4807112

DRAWN
TSR
REVISED
DESIGNED
AJF
CHECKED
TLR

BRIDGE ESTIMATED QUANTITIES
LUC-475-0093R
I-475 OVER MONCLOVA ROAD AND NSRR

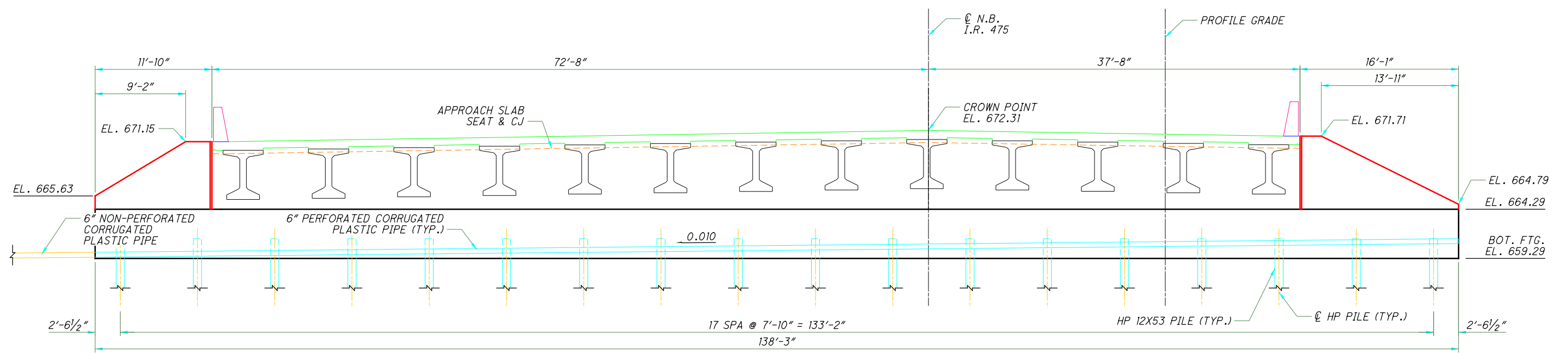
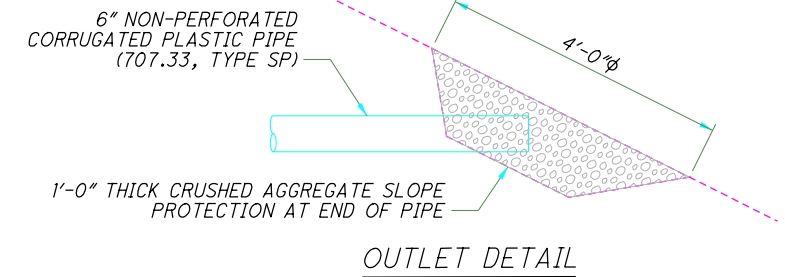
LUC-475-0.09
PID No. 99731

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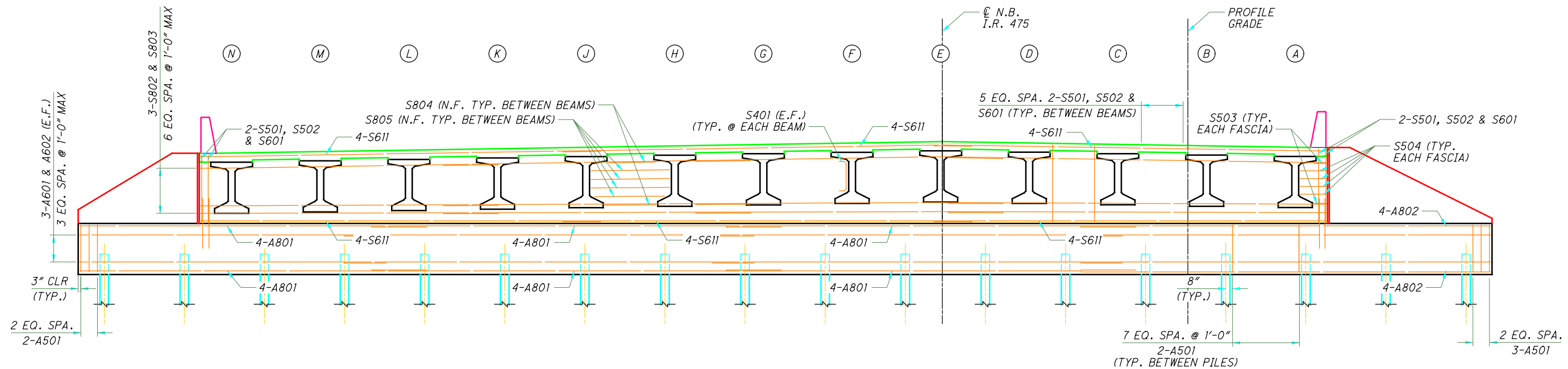
NOTES:

- SEE SHEET **7/26** FOR REINFORCING DETAILS.
- SEE SHEET **10/26** FOR WINGWALL DETAILS.
- ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSID-I-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

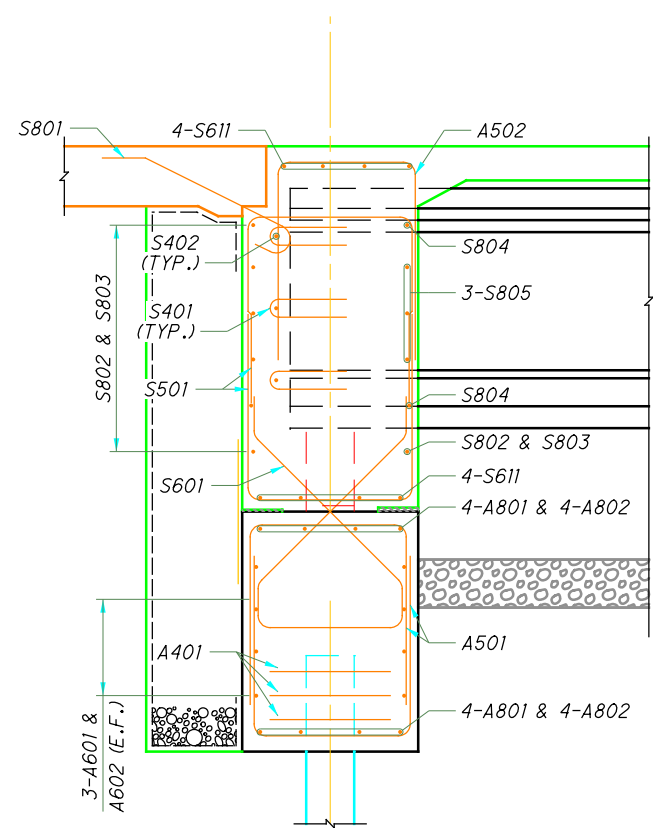


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<p>DESIGN AGENCY</p>
<p>DATE: 1/13/2022</p>
<p>REVIEWED: DTC</p>
<p>DRAWN: TSR</p>
<p>DESIGNED: AJF</p>
<p>CHECKED: TLR</p>
<p>STRUCTURE FILE NUMBER: 4807112</p>
<p>REAR ABUTMENT DETAILS - PLAN AND ELEVATION</p>
<p>LUC-475-0093R I-475 OVER MONCLOVA ROAD AND NSRR</p>
<p>LUC-475-0.09 PID No. 99731</p>
<p>6 / 26</p>
<p>712 855</p>

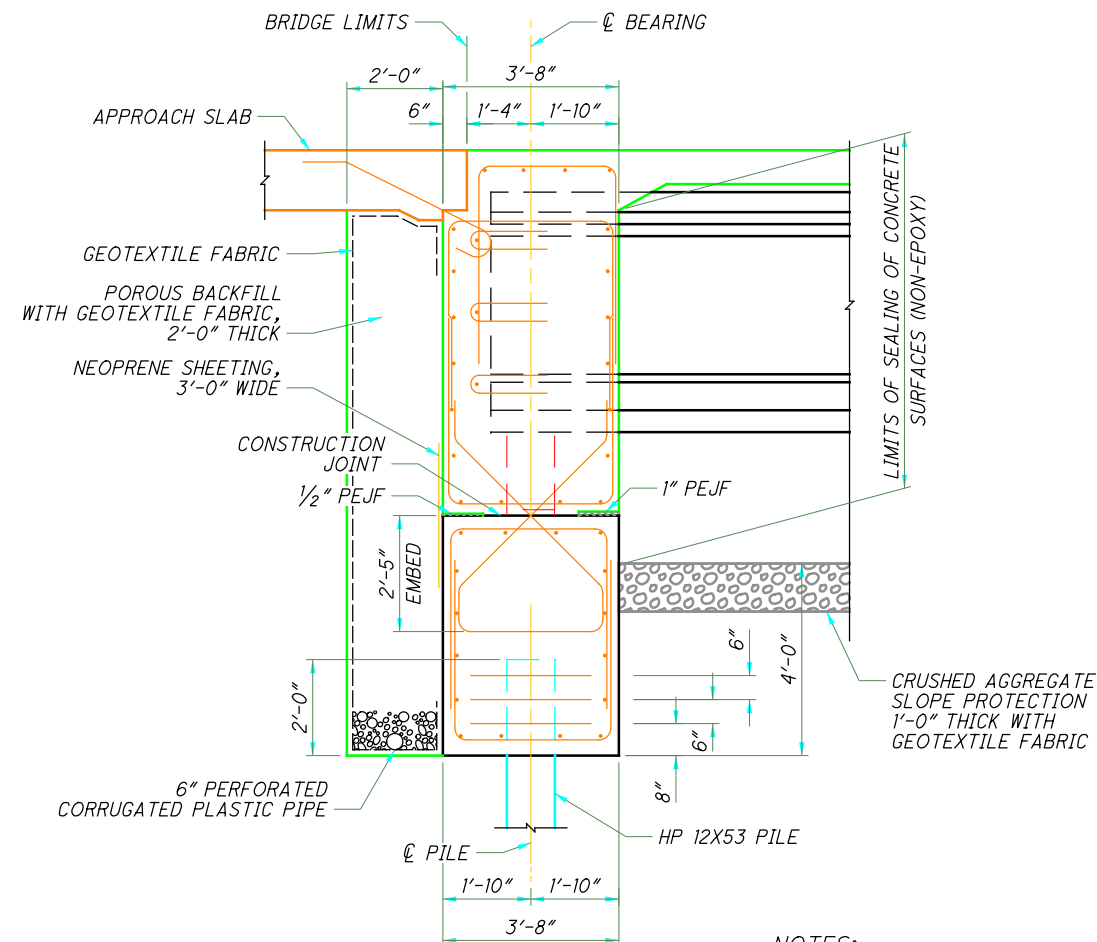
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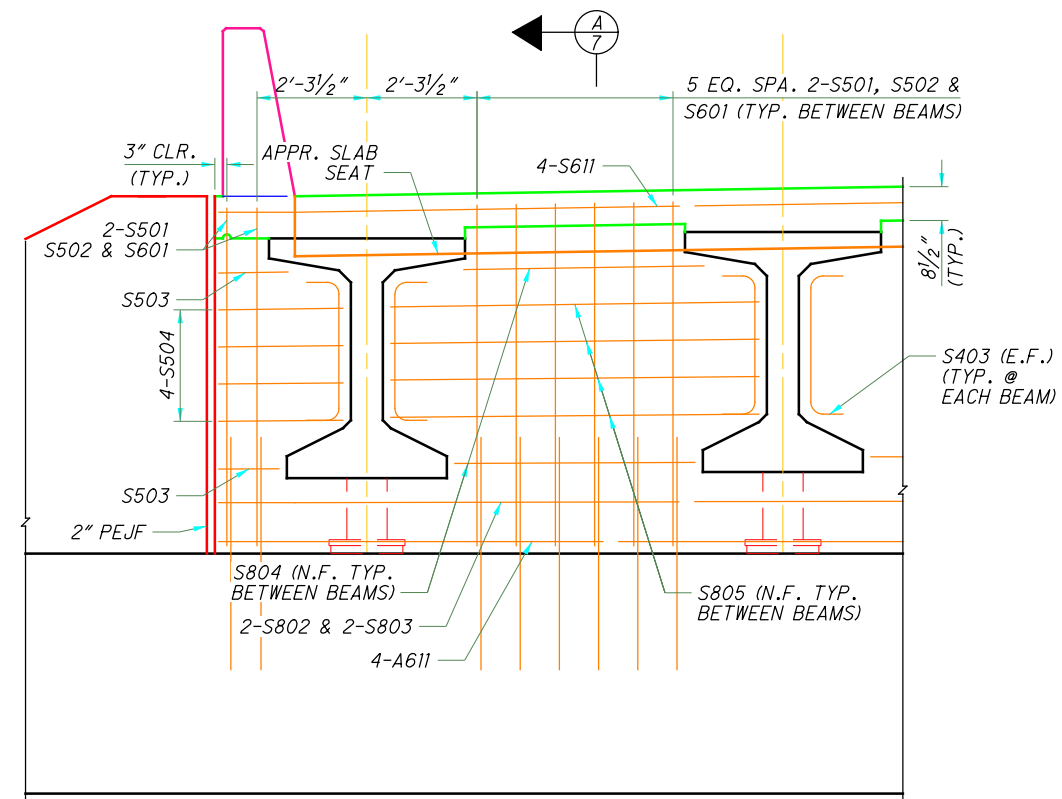
ELEVATION



SECTION A-A
(REINFORCEMENT)



SECTION A-A
(DIMENSIONS)



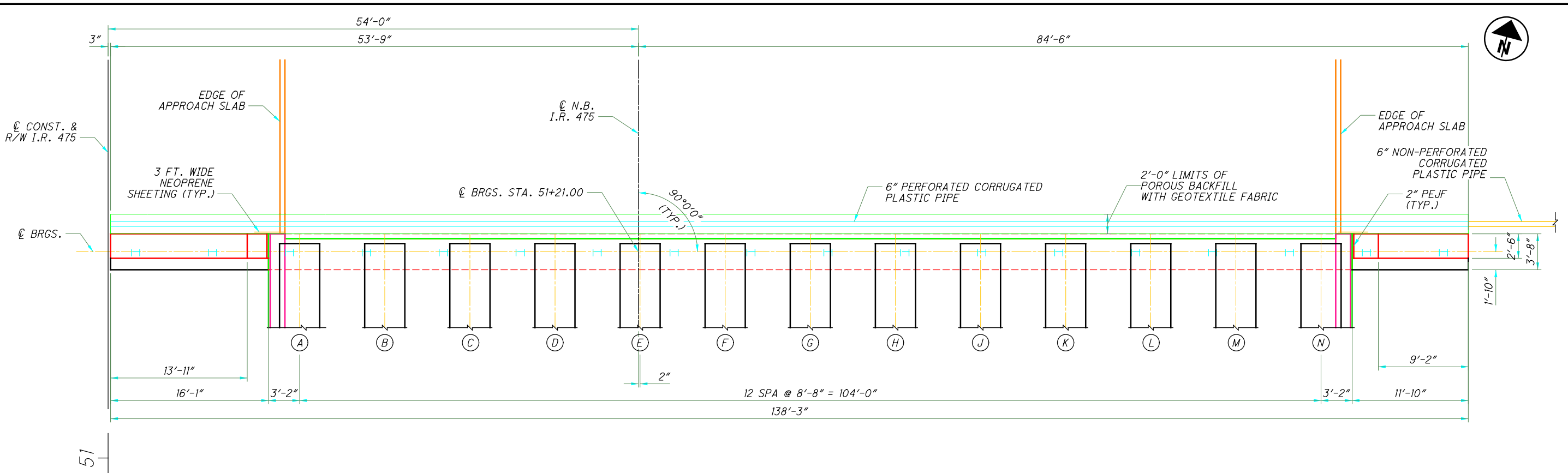
TYPICAL ABUTMENT DIAPHRAGM ELEVATION

NOTES:

1. SEE SHEET 10/26 FOR WINGWALL DETAILS.
2. LAP LENGTHS
#5 - 37"
#6 - 48"
#8 - 64"
3. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSID-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

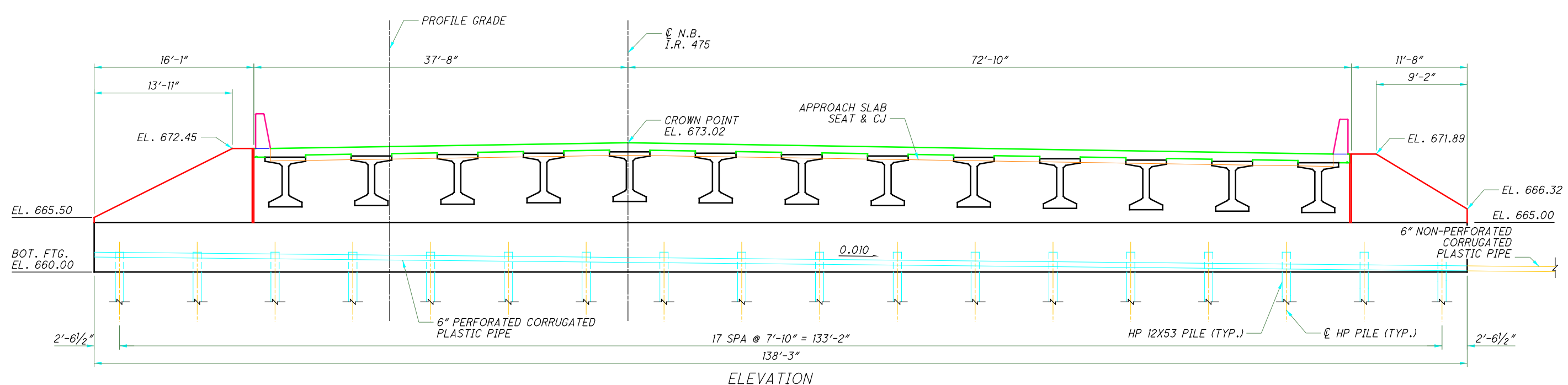
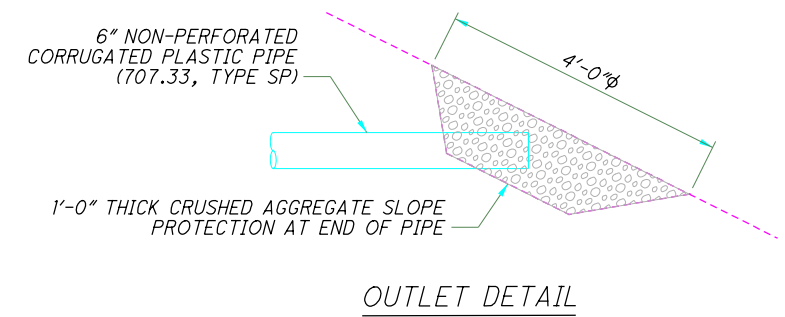
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DATE 1/13/2022
REVIEWED DTC
DRAWN TSR
DESIGNED AJF
CHECKED TLR
STRUCTURE FILE NUMBER 4807112
REAR ABUTMENT DETAILS - PLAN AND ELEVATION LUC-475-0093R I-475 OVER MONCLOVA ROAD AND NSRR
LUC-475-0.09 PID No. 99731
7/26
713 855

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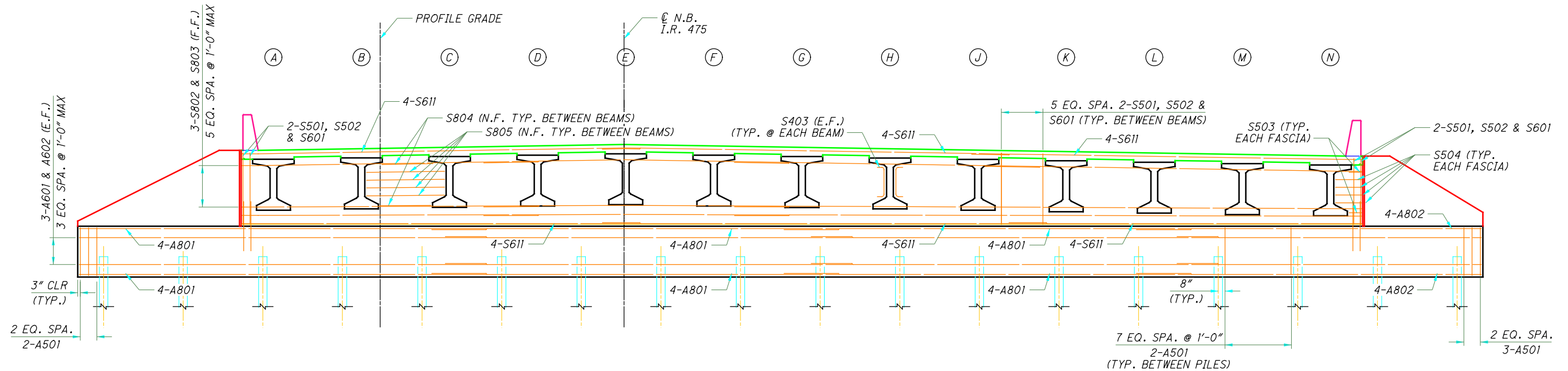


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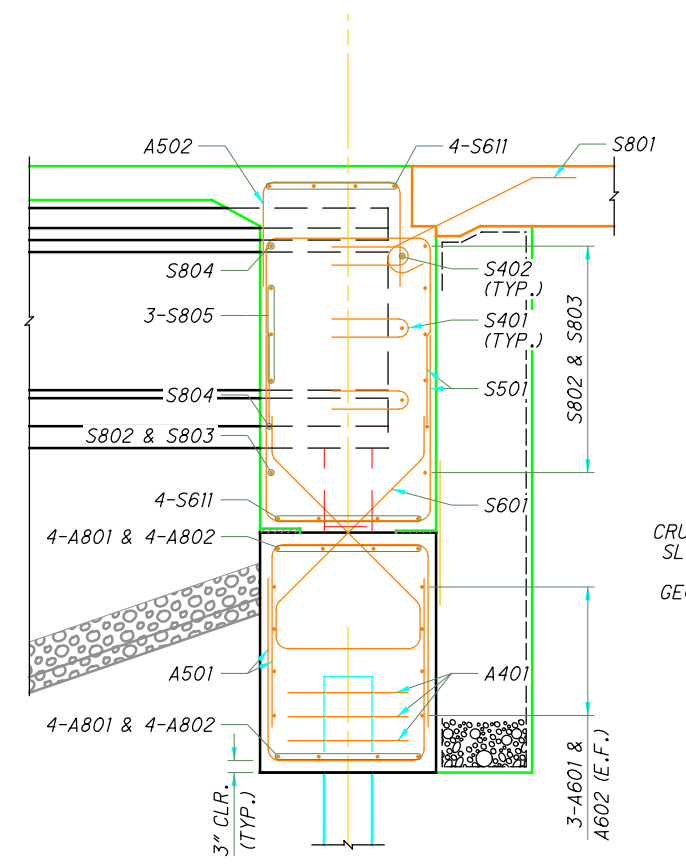
- SEE SHEET **9/26** FOR REINFORCING DETAILS.
- SEE SHEET **10/26** FOR WINGWALL DETAILS.
- ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSID-1-13, SHEET 7 OF 10 PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.



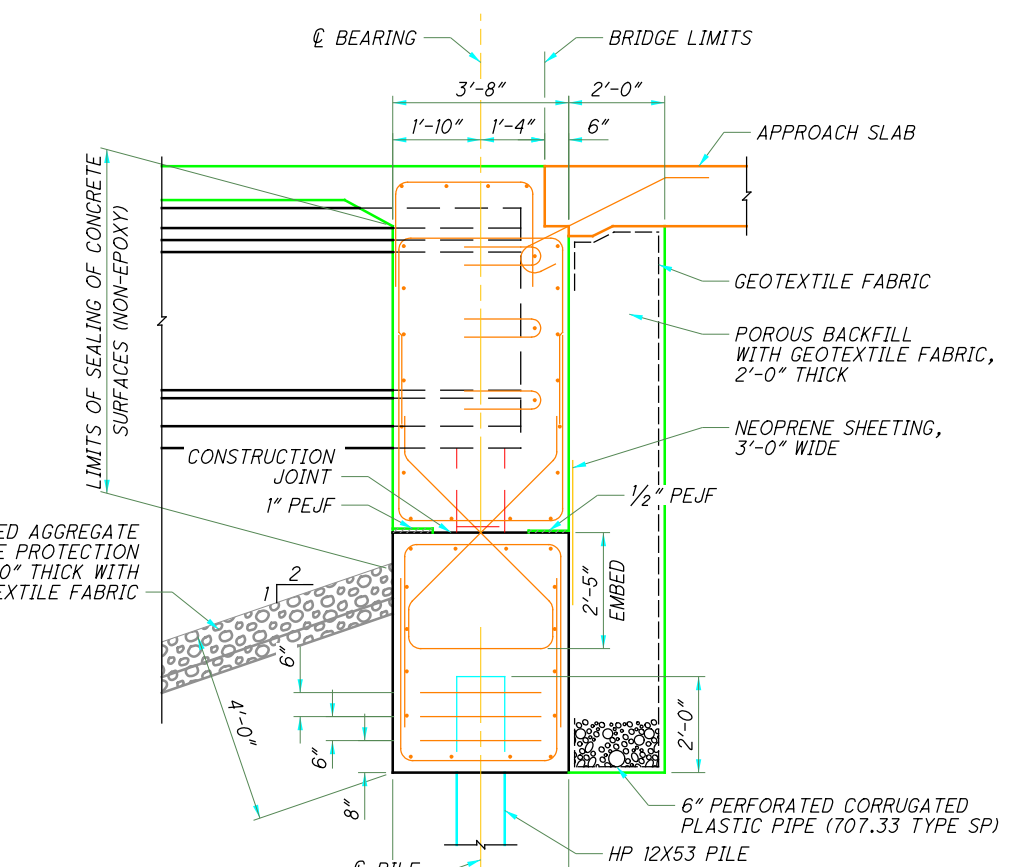
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 480 N. WILSON AVENUE, SUITE 1001
 TOLEDO, OH 43604
 DATE: 1/13/2022
 REVIEWED: DTC
 DRAWN: TSR
 DESIGNED: AJF
 CHECKED: TLR
 STRUCTURE FILE NUMBER: 4807112
FWD ABUTMENT DETAILS - PLAN AND ELEVATION
 LUC-475-0093R
 I-475 OVER MONCLOVA ROAD AND NSRR
LUC-475-0.09
 PID No. 99731
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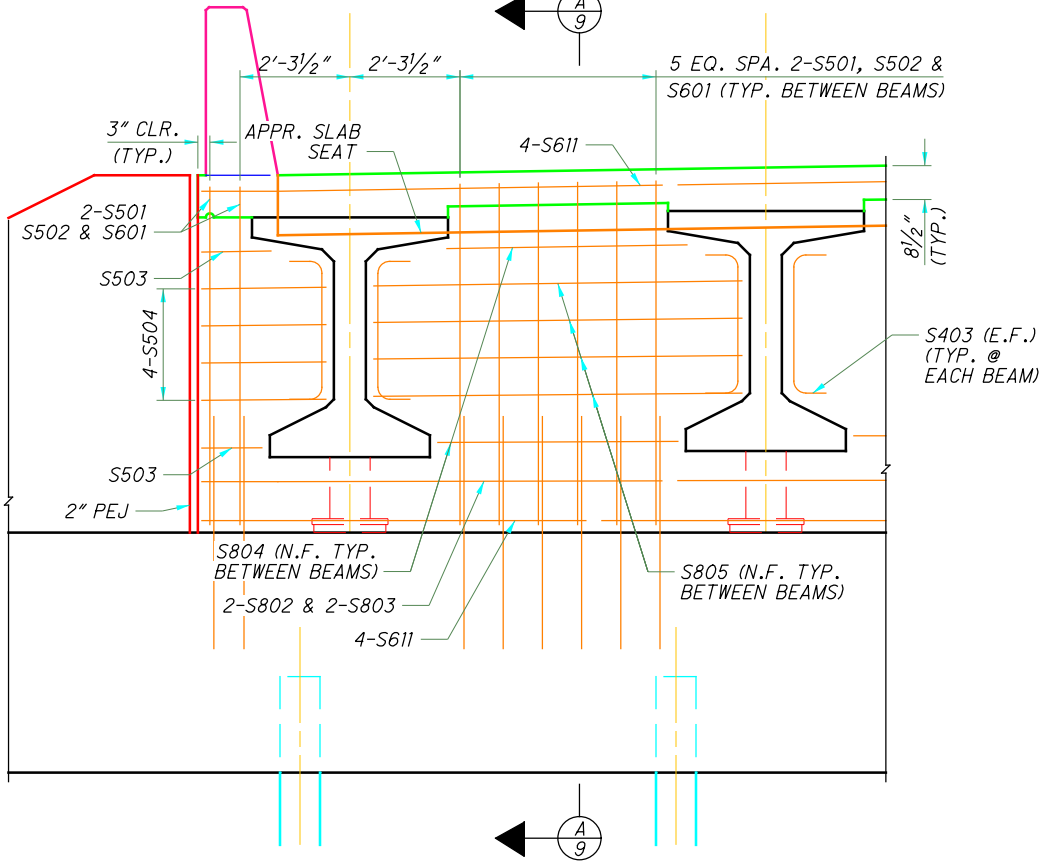
ELEVATION



SECTION A-A
(REINFORCEMENT)



SECTION A-A
(DIMENSIONS)



TYPICAL ABUTMENT DIAPHRAGM ELEVATION

- NOTES:
1. SEE SHEET 10/26 FOR WINGWALL DETAILS.
 2. LAP LENGTHS
 #5 - 37"
 #6 - 48"
 #8 - 64"
 3. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBER ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON PSD-1-13, SHEET 7 OF 10 AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

DESIGN AGENCY: **TETRA TECH**
 480 N. MASON AVENUE, SUITE 800
 TOLEDO, OH 43604

DATE: 1/13/2022
 STRUCTURE FILE NUMBER: 4807112

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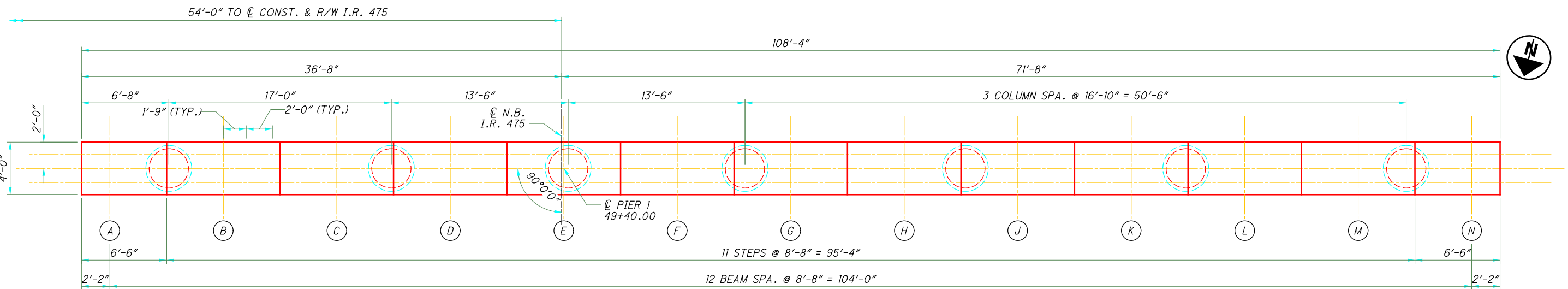
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FWD ABUTMENT DETAILS - PLAN AND ELEVATION
 LUC-475-0093R
 I-475 OVER MONCLOVA ROAD AND NSRR

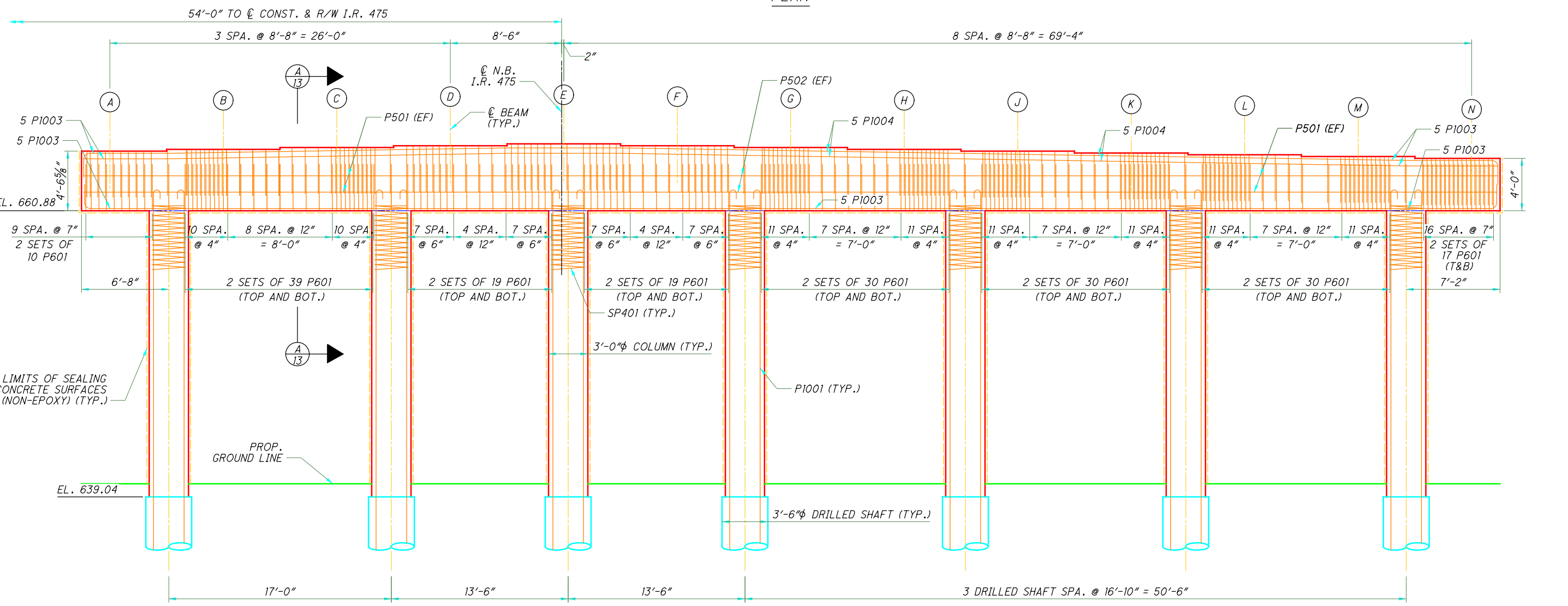
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 PID No. 99731

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PLAN



ELEVATION

NOTES:

1. TOP OF COLUMN SPIRAL REINFORCEMENT SHALL BE EMBEDDED A MINIMUM OF 1/2 TURNS INTO THE PIER CAP CONCRETE
2. LAP LENGTHS:
 #6 - 23"
 #10 - 98"

LOCATION	STATION	BEAM A	BEAM B	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	BEAM H	BEAM J	BEAM K	BEAM L	BEAM M	BEAM N
PIER 1	49+40.00	665.43	665.56	665.70	665.84	665.97	665.84	665.70	665.56	665.42	665.28	665.15	665.01	664.88

DESIGN AGENCY
TETRA TECH
 480 N. MASON AVENUE, SUITE 800
 TOLEDO, OH 43604

DATE
 1/13/2022
 STRUCTURE FILE NUMBER
 4807112

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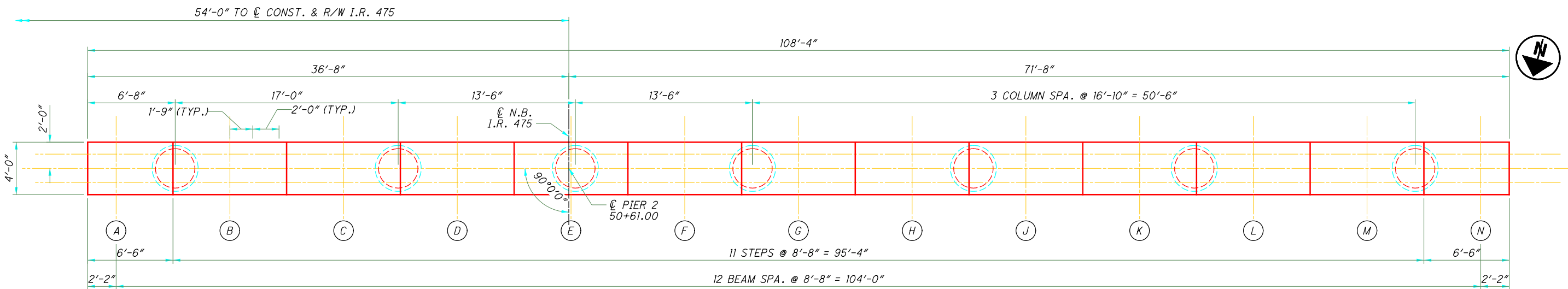
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LUC-475-0.09
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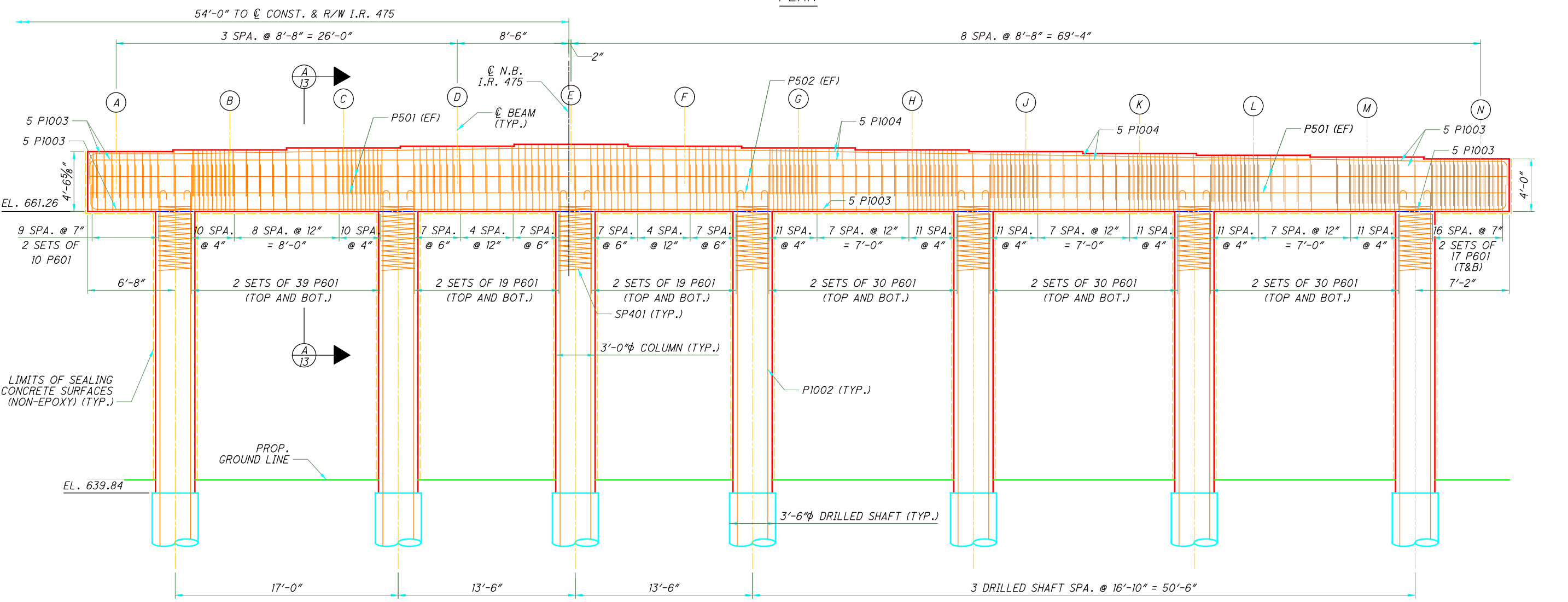
PIER 1 DETAILS - PLAN AND ELEVATION
 LUC-475-0093R
 I-475 OVER MONCLOVA ROAD AND NSRR

11 / 26
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PLAN



ELEVATION

NOTES:

1. TOP OF COLUMN SPIRAL REINFORCEMENT SHALL BE EMBEDDED A MINIMUM OF 1/2 TURNS INTO THE PIER CAP CONCRETE
2. LAP LENGTHS:
 #6 - 23"
 #10 - 98"

PIER CAP ELEVATION TABLE														
LOCATION	STATION	BEAM A	BEAM B	BEAM C	BEAM D	BEAM E	BEAM F	BEAM G	BEAM H	BEAM J	BEAM K	BEAM L	BEAM M	BEAM N
PIER 2	50+61.00	665.81	665.94	666.08	666.22	666.35	666.22	666.08	665.94	665.80	665.66	665.53	665.39	665.26

DESIGN AGENCY
TETRA TECH
 480 MADISON AVENUE, SUITE 800
 TOLEDO, OH 43604

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REVIEWED
 D T C

DATE
 1/13/2022

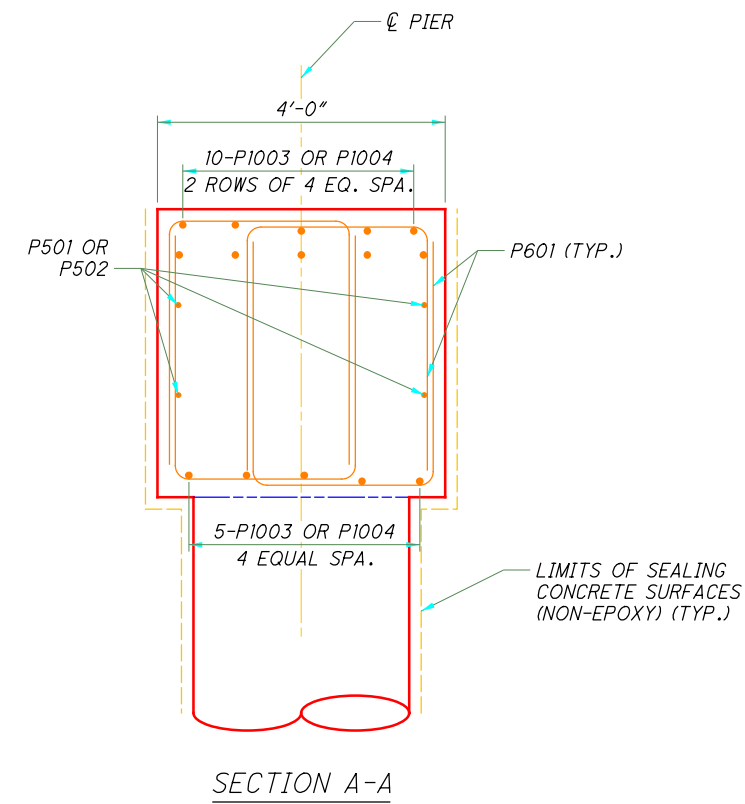
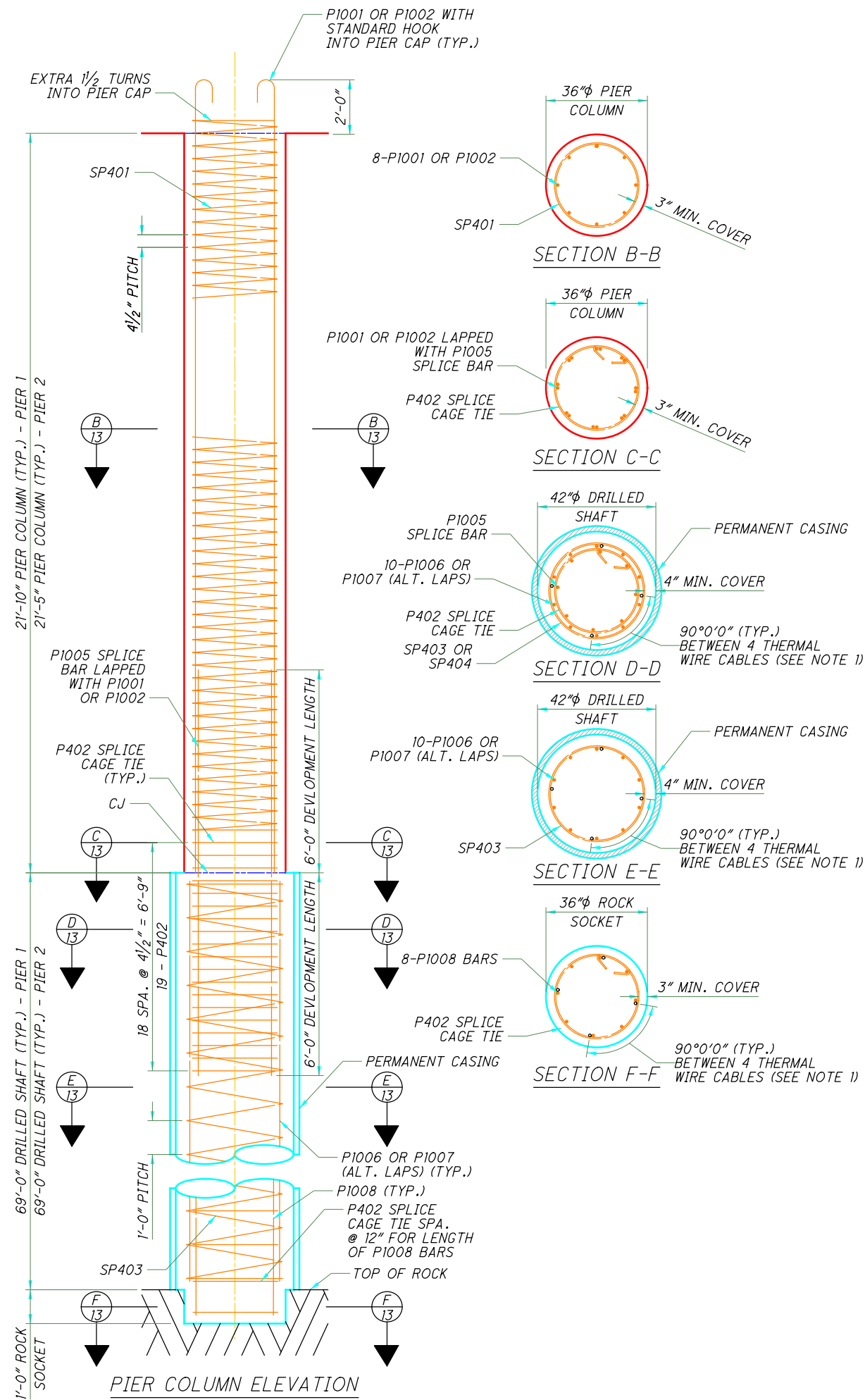
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LUC-475-0.09
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PIER 2 DETAILS - PLAN AND ELEVATION
 LUC-475-0093R
 I-475 OVER MONCLOVA ROAD AND NSRR

12 / 26

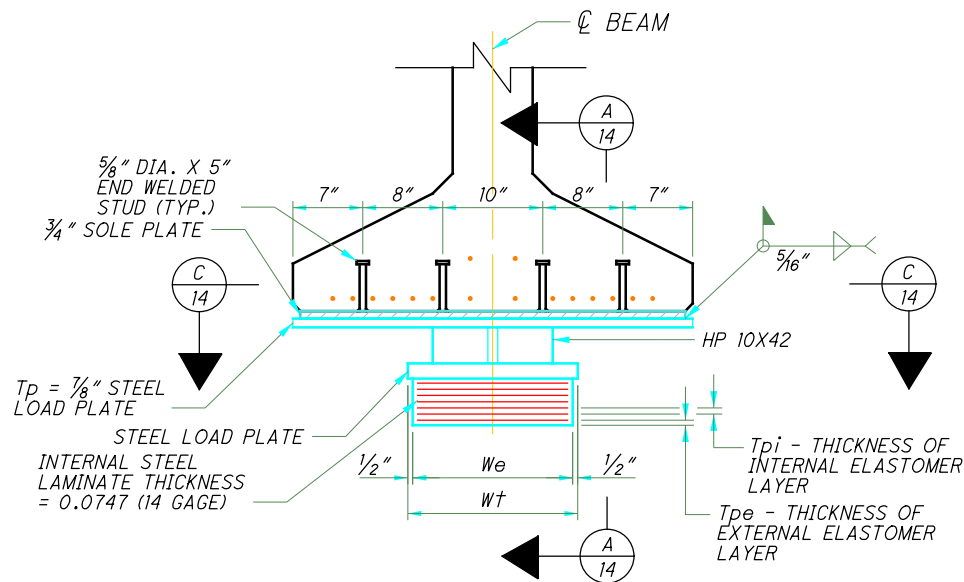
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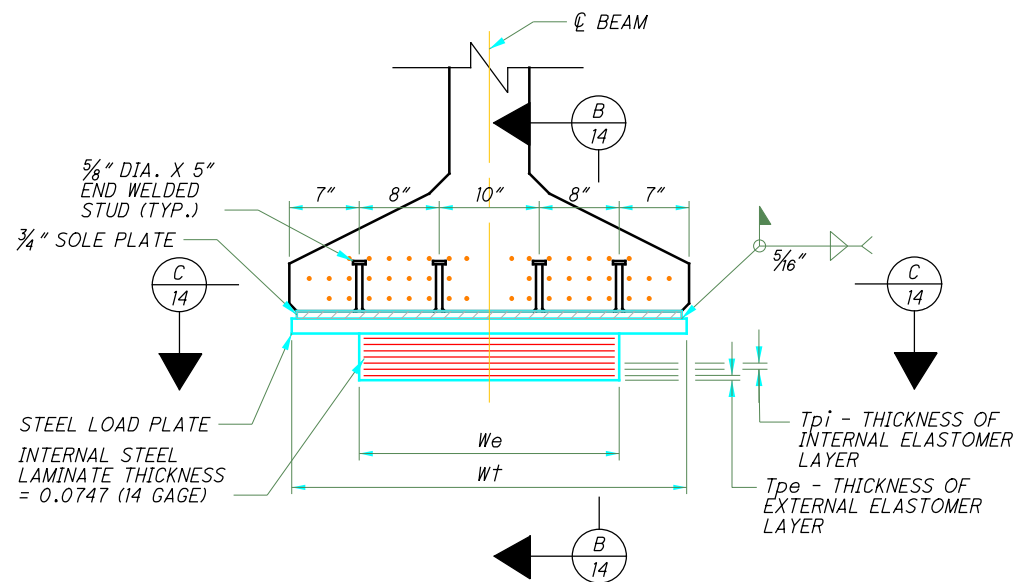
- NOTE:**
- 1) PROVIDE THERMAL WIRE CABLES ONLY AT LOCATIONS SPECIFIED FOR ITEM 894 - THERMAL INTEGRITY PROFILER (T.I.P.) TESTING.
 - 2) LAP LENGTH:
#10 BARS - 2'-5" (COMPRESSION)

DESIGN AGENCY TETRA TECH 480 WILSON AVENUE, SUITE 1001 TOLEDO, OH 43604	
DESIGNED AUF	DATE 1/13/2022
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CHECKED TLR	STRUCTURE FILE NUMBER 4807112
PIER DETAILS - PLAN AND ELEVATION LUC-475-0093R I-475 OVER MONCLOVA ROAD AND NSRR	
LUC-475-0.09 PID No. 99731	
13 / 26	
719 855	

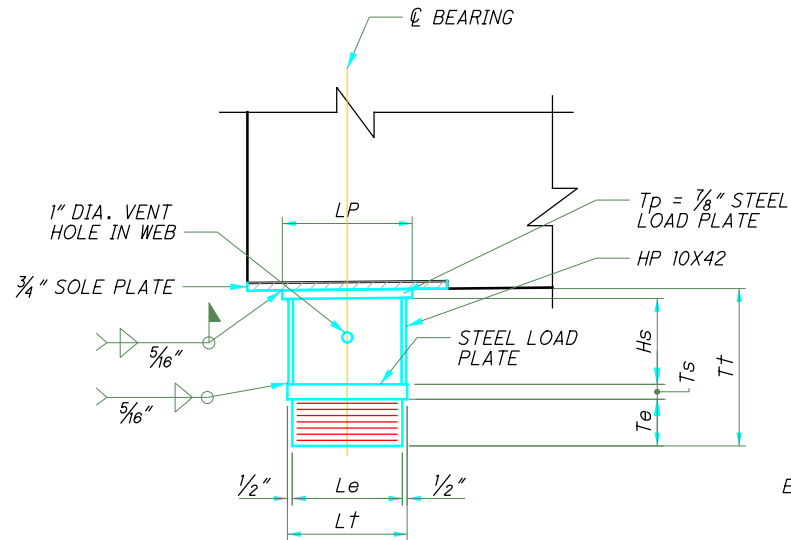
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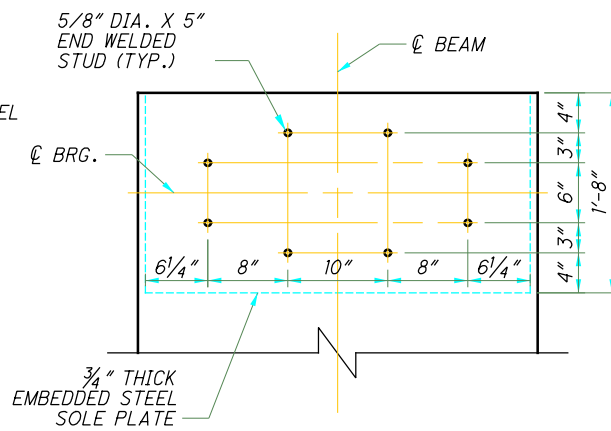
ELEVATION
(TYPICAL AT ABUTMENTS)



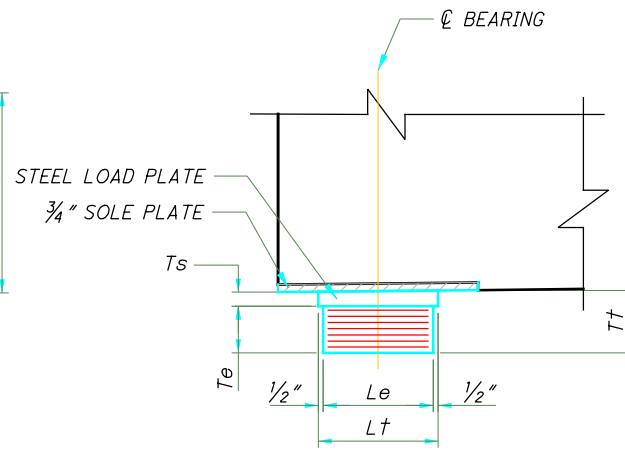
ELEVATION
(TYPICAL AT PIERS)



SECTION A-A
**LAMINATED ELASTOMERIC
FIXED BEARING**
(TYPICAL AT ABUTMENTS)



SECTION C-C



SECTION B-B
**LAMINATED ELASTOMERIC
EXPANSION BEARING**
(TYPICAL AT PIERS)

NOTES:

- ELASTOMERIC BEARINGS: THE ELASTOMER SHALL HAVE A HARDNESS OF 50 DUROMETER. THE BEARINGS WERE DESIGNED IN ACCORDANCE WITH SECTION 14.7.6 (METHOD A) OF THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS. THE LONG TERM COMPRESSION PROOF LOAD TEST (AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES, DIVISION II, SECTION 18.7.2.6) IS NOT REQUIRED.
- THE STEEL LOAD PLATES SHALL BE GRADE 50 STEEL. STEEL LOAD PLATES SHALL BE BONDED BY VULCANIZATION TO THE ELASTOMER DURING THE MOLDING PROCESS.
- BASIS OF PAYMENT: PAYMENT FOR ALL MATERIALS (INCLUDING STEEL PLATES AND BEARINGS), LABOR, TESTING AND INCIDENTALS NECESSARY TO FURNISH & INSTALL THE ELASTOMERIC BEARINGS FOR THE BEAMS WILL BE INCLUDED IN THE UNIT BID PRICE EACH FOR ITEM 516, ELASTOMERIC BEARING WITH INTERNAL LAMINATES & LOAD PLATE (NEOPRENE).
- SEE STD DWG. PSID-1-13 FOR ADDITIONAL NOTES AND DETAILS.

BEAM	STEEL PEDESTAL DIMENSIONS				
	UPPER STEEL LOAD PLATE	REAR ABUTMENT		FWD ABUTMENT	
	T_p	H_s	T_t	H_s	T_t
A	7/8"	14.000"	18.500"	14.125"	18.625"
B	7/8"	15.625"	20.125"	15.750"	20.250"
C	7/8"	17.250"	21.750"	17.375"	21.875"
D	7/8"	18.875"	23.375"	19.000"	23.500"
E	7/8"	20.500"	25.000"	20.625"	25.125"
F	7/8"	18.875"	23.375"	19.000"	23.500"
G	7/8"	17.250"	21.750"	17.375"	21.875"
H	7/8"	15.625"	20.125"	15.750"	20.250"
J	7/8"	14.000"	18.500"	14.125"	18.625"
K	7/8"	12.375"	16.875"	12.500"	17.000"
L	7/8"	10.750"	15.250"	10.875"	15.375"
M	7/8"	9.125"	13.625"	9.250"	13.750"
N	7/8"	7.500"	12.000"	7.625"	12.125"

BEARING LOCATION	NO. REQ'D	LOADS			BEARING DIMENSIONS						LOWER STEEL LOAD PLATE				UPPER STEEL LOAD PLATE			Tt (AT C.L. BRG.)	
		DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	TOTAL LOAD (KIPS)	Le	We	Tpi	NO. OF Tpi	Tpe (2 EA.)	NO. OF STEEL LAMINATES (14 GAGE)	Te	Lt	Wt	Ts *		Lp	Wp		Tp
														BACK	FWD				
REAR ABUTMENT	13	88	69	157	11"	15"	0.41"	3	0.288"	4	2.111"	12"	16"	1 1/2"	1 1/2"	11"	40"	7/8"	**
PIER 1, SPAN 1 BEARINGS	13	88	69	157	13"	25"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
PIER 1, SPAN 2 BEARINGS	13	178	89	267	13"	25"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
PIER 2, SPAN 2 BEARINGS	13	178	89	267	13"	25"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
PIER 2, SPAN 3 BEARINGS	13	88	69	157	13"	25"	0.68"	5	0.250"	6	4.323"	14"	40"	1 1/2"	1 1/2"	-	-	-	5.823"
FWD. ABUTMENT	13	88	69	157	11"	15"	0.41"	3	0.288"	4	2.111"	12"	16"	1 1/2"	1 1/2"	11"	40"	7/8"	**

* "BACK" DENOTES DOWN-STATION SIDE OF BEARING.
 "FWD" DENOTES UP-STATION SIDE OF BEARING.
 ** REFER TO STEEL PEDESTAL DIMENSIONS TABLE

DESIGN AGENCY: TETRA TECH
 480 N. MASON AVENUE, SUITE 1001
 TOLEDO, OH 43604
 DATE: 1/13/2022
 STRUCTURE FILE NUMBER: 4807112
 DRAWN: AUF
 CHECKED: TLR
 DESIGNED: AUF
 REVISIONS: TLR
 BEARING DETAILS
 LUC-475-0093R
 I-475 OVER MONCLOVA ROAD AND NSRR
 LUC-475-0.09
 PID No. 99731
 14/26
 720
 855