

ITEM 614, MAINTAINING TRAFFIC

A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES ON S.R. 835. EXCEPT FOR A PERIOD NOT TO EXCEED 200 CONSECUTIVE CALENDAR DAYS, WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET P.9. A DISINCENTIVE SHALL BE ASSESSED USING THE WINDOW CONTRACT TABLE BELOW AND AS REFEREED TO IN THE PROPOSAL NOTE 129:

DESCRIPTION OF CRITICAL WORK	CALENDAR DAYS TO COMPLETE	DISINCENTIVE \$ PER DAY	WORK WINDOW	
			START	END
SR-835 DETOUR	200 DAYS	\$5,000	1/1/27	10/15/27

ALL BRIDGE, ROADWAY, AND PATH WORK SHOWN IN THE PLANS SHALL BE COMPLETED WHILE THE DETOUR IS ERECTED.

DRIVE ACCESS SHALL BE MAINTAINED AT ALL TIMES. MAINTAIN RIGHT-OUT LANE ONTO S.R. 835 FROM REYNOLDS & REYNOLDS.

IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

NOTICE OF CLOSURE SIGNS (W20-H14) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. SIGNS SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE.

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

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE.

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

DUST CONTROL

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

ITEM 616, WATER 2 M. GAL.

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

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

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

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

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

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

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

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

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

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

ITEM 614, LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE 40 HOURS

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

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

NOTIFICATION OF TRAFFIC RESTRICTIONS

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

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

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

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

SEQUENCE OF CONSTRUCTION

- ERECT THE TEMPORARY TRAFFIC CONTROL DEVICES AND DETOUR SIGNING REQUIRED FOR THE CLOSURE OF S.R. 835.
- CONSTRUCT ALL WORK WITHIN THE PROJECT AREA INCLUDING BUT NOT LIMITED TO THE PROPOSED BRIDGE, ROADWAY, LIGHTING, AND PATH ITEMS.
- WHEN STEPS 1 & 2 ARE COMPLETE, OPEN S.R. 835 TO TWO-LANE, TWO-WAY TRAFFIC.
- PLACE PERMANENT PAVEMENT MARKINGS USING ONE-LANE OPERATIONS AS DETAILED IN SCD MT-95.30.
- COMPLETE ALL REMAINING ITEMS.

SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
				OFFICE CALCS	P.6	P.7	P.13	P.14	P.23	01/S>2						
										LS	201	11000	LS		ROADWAY	
				1,127						1,127	202	23000	1,127	SY	CLEARING AND GRUBBING	
							274			274	202	32000	274	FT	PAVEMENT REMOVED	
							24			24	202	35100	24	FT	CURB REMOVED	
							88			88	202	38000	88	FT	PIPE REMOVED, 24" DIAMETER AND UNDER	
															GUARDRAIL REMOVED	
							2			2	202	42010	2	EACH		
							2			2	202	47000	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
							1			1	202	98100	1	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	P.6
							67			67	202	98400	67	SF	REMOVAL MISC.: PRECAST REINFORCED CONCRETE OUTLET	P.6
									255	255	203	10000	255	CY	REMOVAL MISC.: CONCRETE PAD REMOVED	
															EXCAVATION	
				1,055					237	237	203	20000	237	CY	EMBANKMENT	
					35					1,055	204	10000	1,055	SY	SUBGRADE COMPACTION	
					35					35	204	13000	35	CY	EXCAVATION OF SUBGRADE	
					1					35	204	30020	35	CY	GRANULAR MATERIAL, TYPE C	
										1	204	45000	1	hour	PROOF ROLLING	
					130					130	204	50000	130	SY		
							87.5			87.5	606	15050	87.5	FT	GEOTEXTILE FABRIC	
							2			2	606	26150	2	EACH	GUARDRAIL, TYPE MGS	
							2			2	606	35000	2	EACH	ANCHOR ASSEMBLY, MGS TYPE E (MASH 2016)	
							154			154	607	98000	154	FT	BRIDGE TERMINAL ASSEMBLY, TYPE 1	P.6
															FENCE, MISC.: WOOD FENCE	
				1,849						1,849	608	13001	1,849	SF		P.7
							34			34	609	24510	34	FT	6" CONCRETE WALK, AS PER PLAN	
							274			274	609	26000	274	FT	CURB, TYPE 4-C	
							52			52	622	24000	52	FT	CURB, TYPE 6	
							1			1	622	25000	1	EACH	CONCRETE BARRIER, TYPE D	
															CONCRETE BARRIER END SECTION, TYPE D	
								311		311	601	32204	311	CY	EROSION CONTROL	
										311	601	32204	311	CY	ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	
						234				234	659	00300	234	CY	TOPSOIL	
						2,106				2,106	659	10001	2,106	SY	SEEDING AND MULCHING, AS PER PLAN	P.7
							105			105	659	14000	105	SY	REPAIR SEEDING AND MULCHING	
							105			105	659	15000	105	SY	INTER-SEEDING	
						0.29				0.29	659	20000	0.29	TON	COMMERCIAL FERTILIZER	
						0.44				0.44	659	31000	0.44	ACRE	LIME	
						12				12	659	35000	12	MGAL	WATER	
								430		430	670	00720	430	SY	DITCH EROSION PROTECTION MAT, TYPE B	
										LS	832	15000	LS		STORM WATER POLLUTION PREVENTION PLAN	
										LS	832	15002	LS		STORM WATER POLLUTION PREVENTION INSPECTIONS	
										LS	832	15010	LS		STORM WATER POLLUTION PREVENTION INSPECTION SOFTWARE	
										10,600	832	30000	10,600	EACH	EROSION CONTROL	
								0.2		0.2	602	20000	0.2	CY	DRAINAGE	
							17			17	605	13300	17	FT	CONCRETE MASONRY	
							116			116	605	14000	116	FT	6" UNCLASSIFIED PIPE UNDERDRAINS	
				28						28	605	31100	28	FT	6" BASE PIPE UNDERDRAINS	
										27	611	00510	27	FT	AGGREGATE DRAINS	
								27		27	611	00510	27	FT	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	
							40			40	611	04600	40	FT	6" CONDUIT, TYPE C	
							1			1	611	98180	1	EACH	CATCH BASIN, NO. 3A	
							3			3	611	99710	3	EACH	PRECAST REINFORCED CONCRETE OUTLET	
				235						235	301	56000	235	CY	PAVEMENT	
				217						217	304	20000	217	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
				113						113	407	20000	113	GAL	AGGREGATE BASE	
				86						86	441	70000	86	CY	NON-TRACKING TACK COAT	
															ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449), PG64-22	
															SANITARY SEWER	
						100				100	611	97400	100	FT	CONDUIT, MISC.: REVIEW OF SANITARY SEWER FACILITIES	P.7

GENERAL SUMMARY

DESIGN AGENCY

**KORDA**

**KORDA / NEMETH
ENGINEERING, INC**

1650 Watermark Drive,
Suite 200,
Columbus, OH 43215

DESIGNER

AWA

REVIEWER

ATD 03/13/26

PROJECT ID

116922

SHEET

P.10

TOTAL

72

SHEET NUM.										PART.	ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
							P.24	P.27	P.34	01/S>2						
								5		5	625	00450	5	EACH	LIGHTING	
								5		5	625	00460	5	EACH	CONNECTION, FUSED PULL APART	
								2		2	625	00480	2	EACH	CONNECTION, UNFUSED PULL APART	
								2		2	625	10491	2	EACH	CONNECTION, UNFUSED PERMANENT	P.26
								8		8	625	10614	8	EACH	LIGHT POLE, CONVENTIONAL, AS PER PLAN, DAVIT STYLE	
															LIGHT POLE ANCHOR BOLTS ON STRUCTURE	
								1,554		1,554	625	23200	1,554	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
								288		288	625	23400	288	FT	NO. 10 AWG POLE AND BRACKET CABLE	
								173		173	625	25400	173	FT	CONDUIT, 2", 725.04	
								468		468	625	25402	468	FT	CONDUIT, 2", 725.05	
								36		36	625	25802	36	FT	CONDUIT, CONCRETE ENCASED, 725.04, 2"	
								291		291	625	25920	291	FT	CONDUIT, MISC.: CONDUIT REMOVED	P.26
								209		209	625	29000	209	FT	TRENCH	
								2		2	625	29910	2	EACH	TRANSITION JUNCTION BOX	
								2		2	625	29920	2	EACH	STRUCTURE JUNCTION BOX	
								2		2	625	29940	2	EACH	BARRIER JUNCTION BOX	
								2		2	625	30700	2	EACH	PULL BOX, 725.08, 18"	
								2		2	625	31510	2	EACH	PULL BOX REMOVED	
								1		1	625	33001	1	EACH	STRUCTURE GROUNDING SYSTEM, AS PER PLAN	P.26
								2		2	625	35100	2	EACH	REERECT EXISTING LUMINAIRE	
								209		209	625	36010	209	FT	UNDERGROUND WARNING MARKING TAPE	
								2		2	625	75400	2	EACH	LIGHT POLE REMOVED	
								2		2	625	75508	2	EACH	LUMINAIRE REMOVED FOR REUSE	
								1,362		1,362	625	75550	1,362	FT	DISTRIBUTION CABLE REMOVED	
								4		4	625	75800	4	EACH	DISCONNECT CIRCUIT	
															TRAFFIC CONTROL	
							4			4	621	00100	4	EACH	RPM	
							13			13	626	00102	13	EACH	BARRIER REFLECTOR, TYPE 1 (1-WAY)	
							5			5	626	00112	5	EACH	BARRIER REFLECTOR, TYPE 3 (1-WAY)	
							3			3	630	79500	3	EACH	SIGN SUPPORT ASSEMBLY, POLE MOUNTED	
							9.0			9.0	630	80100	9.0	SF	SIGN, FLAT SHEET	
							1			1	630	86002	1	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT	
							1			1	630	87500	1	EACH	REMOVAL OF POLE MOUNTED SIGN	
							2			2	630	87501	2	EACH	REMOVAL OF POLE MOUNTED SIGN, AS PER PLAN (REERECT)	P.7
							0.18			0.18	646	10010	0.18	MILE	EDGE LINE, 6"	
							0.16			0.16	646	10110	0.16	MILE	LANE LINE, 6"	
															STRUCTURE OVER 20 FOOT SPAN (MOT-00835-02.570)	
									LS	LS	202	11002	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN	
									380	380	202	22900	380	SY	APPROACH SLAB REMOVED	
									2,215	2,215	202	23500	2,215	SY	WEARING COURSE REMOVED	
									LS	LS	503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
									LS	LS	503	21300	LS		UNCLASSIFIED EXCAVATION	
									LS	LS	505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION	
									6,440	6,440	507	00600	6,440	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	
									6,920	6,920	507	00650	6,920	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	
									96	96	507	93300	96	EACH	STEEL POINTS OR SHOES	
									117,470	117,470	509	10000	117,470	LB	EPOXY COATED STEEL REINFORCEMENT	
									110,385	110,385	509	26000	110,385	LB	GALVANIZED STEEL REINFORCEMENT	
									6,439	6,439	509	30020	6,439	FT	NO. 4 DEFORMED GFRP REINFORCEMENT	
									674	674	511	34446	674	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
									68	68	511	34450	68	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)	
									123	123	511	41012	123	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS	
									182	182	511	43512	182	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	
									157	157	511	46512	157	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING	
									698	698	512	10050	698	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)	
									72	72	515	12090	72	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB33-48 (67'-0" LONG)	
									8	8	516	13600	8	SF	1" PREFORMED EXPANSION JOINT FILLER	

GENERAL SUMMARY

DESIGN AGENCY

**KORDA**

**KORDA / NEMETH
ENGINEERING, INC**

1650 Watermark Drive,
Suite 200,
Columbus, OH 43215

DESIGNER

AWA

REVIEWER

ATD 03/13/26

PROJECT ID

116922

SHEET

P.11

TOTAL

72

MOT-835-2.57

MODEL: Sheet_SurvFI PAPER SIZE: 34x22 (in.) DATE: 9/24/2026 TIME: 4:07:43 PM USER: cboehm
H:\Projects\2023\2023-0420_00 MOT-835-2.57 116922\116922\401-Engineering_Korda\Roadway\Sheets\116922_GG003.dgn

[illegible]

GENERAL SUMMARY

DESIGN AGENCY	
KORDA	
KORDA / NEMETH ENGINEERING, INC	
1650 Watermark Drive, Suite 200, Columbus, OH 43215	
DESIGNER	
AWA	
REVIEWER	
ATD 03/13/26	
PROJECT ID	
116922	
SHEET	TOTAL
P.12	72

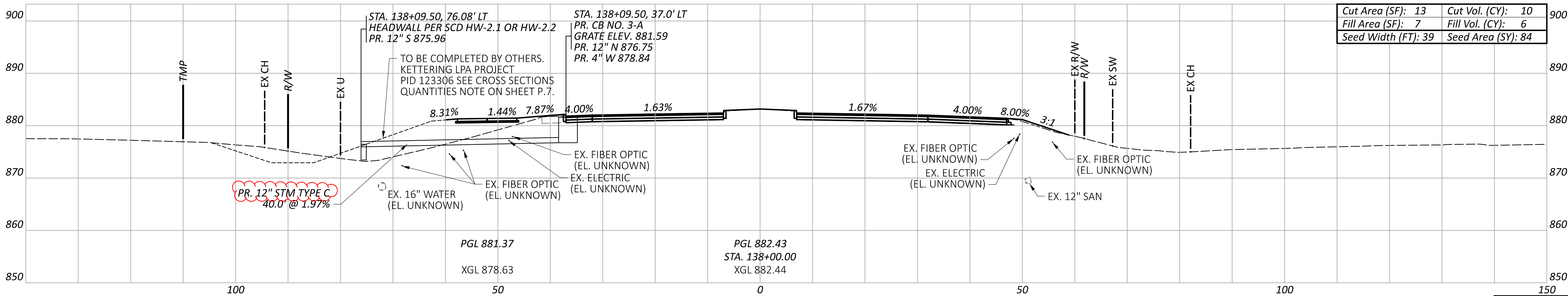
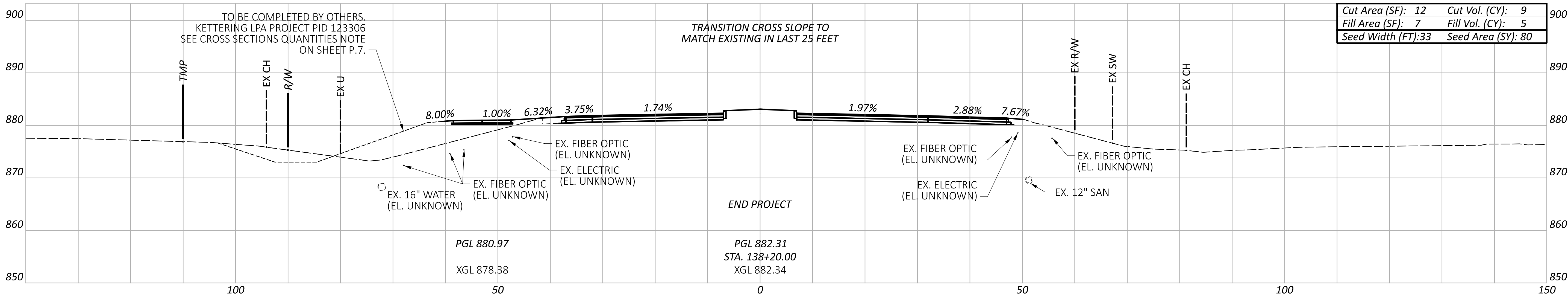
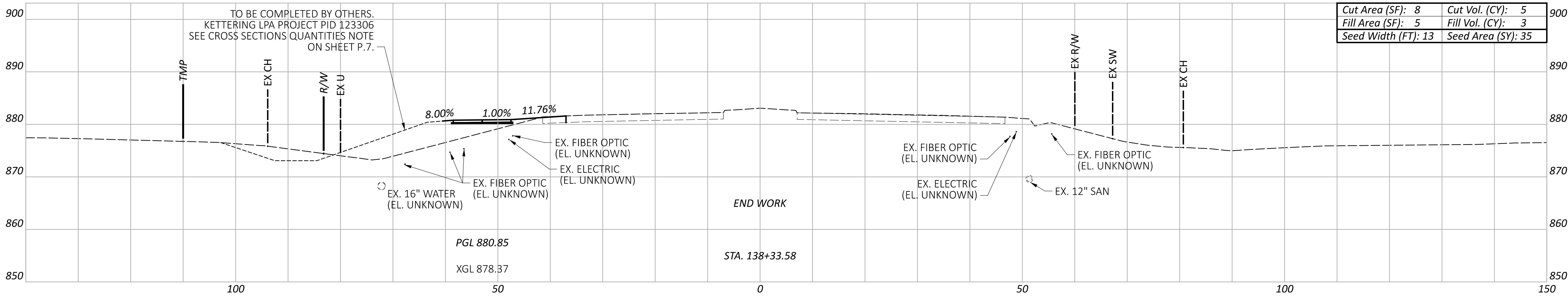
MOT-835-2.57

MODEL: Sheet_SurvFI PAPER SIZE: 34x22 (in.) DATE: 9/22/2026 TIME: 11:40:05 AM USER: cboehm
H:\Projects\2023\2023-04-20_00 MOT-835-2.57 116922\116922\401-Engineering_Korda\Roadway\Sheets\116922_GQ002.dgn

REF NO.	SHEET NO.	STATION TO STATION			601	602	605	605	611	611	611	611	670								
					ROCK CHANNEL PROTECTION, TYPE C WITH GEOTEXTILE FABRIC	CONCRETE MASONRY	6" UNCLASSIFIED PIPE UNDERDRAINS	6" BASE PIPE UNDERDRAINS	6" CONDUIT, TYPE F FOR UNDERDRAIN OUTLETS	12" CONDUIT, TYPE C	CATCH BASIN, NO. 3A	PRECAST REINFORCED CONCRETE OUTLET	DITCH EROSION PROTECTION MAT, TYPE B								
					CY	CY	FT	FT	FT	FT	EACH	EACH	SY								
P1	P.16	138+09.50	LT			0.2				40											
D1	P.16	138+09.50	LT								1										
UD1	P.16	134+40	LT	TO	135+06	LT		65													
UD2	P.16	134+84	RT	TO	134+84	RT			9			1									
UD3	P.16	135+10	LT	TO	135+10	LT			9			1									
UD4	P.16	137+38	RT	TO	137+38	RT			9			1									
UD5	P.16	137+59	LT	TO	137+63	LT		17													
UD6	P.16	137+59	LT	TO	138+10	LT			51												
E1	P.16	134+25	LT	TO	135+49	LT							201								
E2	P.16	135+09	RT/LT	TO	135+59	RT/LT	171														
E3	P.16	136+92	RT/LT	TO	137+39	RT/LT	140														
E4	P.16	137+40	LT	TO	138+33.58	LT							229								

ESTIMATED QUANTITIES

DESIGN AGENCY	
KORDA	
KORDA / NEMETH ENGINEERING, INC	
1650 Watermark Drive, Suite 200, Columbus, OH 43215	
DESIGNER	
AWA	
REVIEWER	
ATD 03/13/26	
PROJECT ID	
116922	
SHEET	TOTAL
P.14	72



CROSS SECTIONS
STA. 138+00.00 TO STA. 138+33.58

DESIGN AGENCY
KORDA
KORDA / NEMETH
ENGINEERING, INC
1650 Watermark Drive,
Suite 200,
Columbus, OH 43215

DESIGNER
ATD

REVIEWER
CLP 03/13/26

PROJECT ID
116922

Sheet Totals			SHEET P.22	TOTAL 72
Seeding 199	Cut 24	Fill 14		

MOT-835-2.57

MODEL: Sheet_SurVft PAPERSIZE: 34x22 (in.) DATE: 9/22/2026 TIME: 11:43:35 AM USER: cboehm
H:\Projects\2023\2023-0420_00 MOT-835-2.57 116922\116922\401-Engineering_Korda\Traffic\Sheets\116922_TQ001.dgn

[illegible]

PAVEMENT MARKING AND SIGNING ESTIMATED QUANTITIES

DESIGN AGENCY	
KORDA	
KORDA / NEMETH ENGINEERING, INC	
1650 Watermark Drive, Suite 200, Columbus, OH 43215	
DESIGNER	
IMJ	
REVIEWER	
ATD 03/13/26	
PROJECT ID	
116922	
SHEET	TOTAL
P.24	72

STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWINGS:

AS-1-15	(REVISED)	1-20-23
AS-2-15	(REVISED)	7-21-23
DS-1-92	(REVISED)	7-15-22
PSBD-2-07	(REVISED)	7-20-18
SBR-1-20	(REVISED)	7-19-24
TST-1-99	(REVISED)	1-15-21

DESIGN SPECIFICATIONS

THIS STRUCTURE CONFORMS TO THE 9th EDITION OF THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 2020, AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

OPERATIONAL IMPORTANCE

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL.

DESIGN LOADING

DESIGN LOADING INCLUDES:
VEHICULAR LIVE LOAD: HL-93
FUTURE WEARING SURFACE (FWS) OF 0.06 KIPS/SQ.FT

DESIGN DATA

CONCRETE CLASS QC2:
COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE CLASS QC1:
COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE REINFORCEMENT:

SUBSTRUCTURE AND APPROACH SLAB:
EPOXY COATED STEEL REINFORCEMENT -
MINIMUM YIELD STRENGTH 60-KSI

PARAPET LONGITUDINAL REBARS:
GFRP REINFORCEMENT

DECK, DIAPHRAGM, AND PARAPET VERTICAL REBARS:
GALVANIZED STEEL REINFORCEMENT -
MINIMUM YIELD STRENGTH 60-KSI

STEEL CIP PILES ASTM A252 GRADE 3 -
YIELD STRENGTH 45 KSI

CONCRETE FOR PRESTRESSED BEAMS:
COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI

PRESTRESSING STRAND:
AREA = 0.167 SQ.IN.
ULTIMATE STRENGTH = 270 KSI
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

MONOLITHIC WEARING SURFACE

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

SCOUR ELEVATIONS

THE DESIGN FLOOD AND CHECK FLOOD SCOUR ELEVATIONS ARE PROVIDED BELOW:

	REAR ABUTMENT	PIER 1	PIER 2	FORWARD ABUTMENT
DESIGN FLOOD	NO SCOUR	865.92	865.75	NO SCOUR
CHECK FLOOD	NO SCOUR	865.18	864.99	NO SCOUR

PILE DESIGN LOADS (ULTIMATE BEARING VALUE)

THE ULTIMATE BEARING VALUES (UBV) IS 266 KIPS PER PILE FOR THE ABUTMENT PILES. THE UBV IS 289 KIPS PER PILE FOR THE PIER PILES. THE UBV FOR THE PIER 1 PILES INCLUDES AN ADDITIONAL 7.08 KIPS PER PILE DUE TO THE POSSIBILITY OF LOSING 0.88 FEET OF FRICTION RESISTANCE DUE TO SCOUR, AND THE UBV FOR THE PIER 2 PILES INCLUDES AN ADDITIONAL 1.85 KIPS PER PILE DUE TO THE POSSIBILITY OF LOSING 0.45 FEET OF FRICTION RESISTANCE DUE TO SCOUR. DRIVE THE PIER 1 PILES TO THE UBV OR A TIP ELEVATION OF 793.55, WHICHEVER IS DEEPER. DRIVE THE PIER 2 PILES TO THE UBV OR A TIP ELEVATION OF 810.28, WHICHEVER IS DEEPER.

REAR ABUTMENT PILES:
14" DIA. CONCRETE PILES 65 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM
1 RESTRIKE ITEM

PIER 1 PILES:
14" DIA. CONCRETE PILES 85 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM
1 RESTRIKE ITEM

PIER 2 PILES:
14" DIA. CONCRETE PILES 65 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM
1 RESTRIKE ITEM

FORWARD ABUTMENT PILES:
14" DIA. CONCRETE PILES 75 FEET LONG, ORDER LENGTH
1 DYNAMIC LOAD TESTING ITEM
1 RESTRIKE ITEM

PROVIDE PLAIN CYLINDRICAL CASINGS WITH A MINIMUM PILE WALL THICKNESS OF 0.50 INCH FOR THE CAST-IN-PLACE REINFORCED CONCRETE PILES AT ALL SUBSTRUCTURES.

USE CONICAL STEEL PILE POINTS TO PROTECT THE TIP OF THE PROPOSED STEEL CIP REINFORCED CONCRETE PIPE PILES AT ALL SUBSTRUCTURES.

PILES DRIVEN TO FULL ESTIMATED LENGTH WITH PILE/SOIL SETUP:

THE ULTIMATE BEARING VALUE (UBV) FOR THE 14" C.I.P. REINFORCED CONCRETE PILES IS 266 KIPS PER PILE AT THE ABUTMENTS AND 289 KIPS PER PILE AT THE PIERS. PART OF THE UBV WILL BE ACHIEVED THROUGH PILE/SOIL SETUP, WHICH IS A TIME DEPENDENT INCREASE IN RESISTANCE THAT OCCURS IN SOME SOILS. NOTIFY THE ENGINEER AT LEAST 5 DAYS BEFORE DRIVING PILES SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING.

DRIVE THE FIRST TWO PILES AT THE REAR ABUTMENT, PIER 1, PIER 2, AND FORWARD ABUTMENT TO THE FULL ESTIMATED LENGTHS OF 60, 80, 60, AND 70 FEET, RESPECTIVELY. PERFORM DYNAMIC LOAD TESTING ON BOTH PILES WHILE DRIVING. IF THE DYNAMIC LOAD TESTING DURING THE INITIAL DRIVING (BEFORE THE WAITING PERIOD) INDICATES A PILE HAS ACHIEVED THE REQUIRED UBV PRIOR TO DRIVING THE FULL ESTIMATED LENGTH, STOP DRIVING AND NOTIFY THE ENGINEER. AFTER DRIVING AND TESTING THE FIRST TWO PILES, DRIVE THE REMAINING PILES IN THE SUBSTRUCTURES TO THE SAME DEPTH AS THE FIRST TWO PILES.

AFTER DRIVING ALL PILES TO THE ESTIMATED LENGTH, CEASE ALL DRIVING OPERATIONS AT THE SUBSTRUCTURE FOR A PERIOD OF 7 DAYS. INCLUDE THE WAITING PERIOD AS A SEPARATE ACTIVITY IN THE PROGRESS SCHEDULE. AFTER THE WAITING PERIOD, PERFORM PILE RESTRIKES ON BOTH OF THE FIRST TWO PILES (ONE RESTRIKE ITEM). SUBMIT ALL TEST RESULTS TO THE ENGINEER. IF THE RESTRIKE TEST RESULTS INDICATE THAT BOTH PILES ACHIEVED THE REQUIRED UBV, ALL PILES IN THE SUBSTRUCTURE MAY BE ACCEPTED BY THE ENGINEER.

IF THE RESTRIKE TEST RESULTS INDICATE THAT EITHER OF THE TWO PILES DID NOT ACHIEVE THE REQUIRED UBV, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE ENGINEER CAN NOTIFY THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING. THE ENGINEER WILL REVIEW THE TEST RESULTS AND ESTABLISH ADDITIONAL RESTRIKE TESTING OR DRIVING CRITERIA FOR THE PILING IN THE SUBSTRUCTURES WITH THE ASSISTANCE OF THE DISTRICT GEOTECHNICAL ENGINEER, THE OFFICE OF CONSTRUCTION ADMINISTRATION, AND THE OFFICE OF GEOTECHNICAL ENGINEERING.

IF DIRECTED BY THE ENGINEER, PERFORM ADDITIONAL RESTRIKE TESTING OR DRIVE ALL PILES IN THE SUBSTRUCTURE TO THE ESTABLISHED DRIVING CRITERIA. THE DEPARTMENT WILL PAY FOR SPLICING OF THE PILES BEYOND THE ESTIMATED LENGTH PROVIDED IN THE PLANS UNDER C&MS 109.05 WITH A NEGOTIATED PRICE PER SPLICE.

THIS PLAN NOTE INCLUDES A QUANTITY OF ONE ITEM 523 DYNAMIC LOAD TESTING, AS PER PLAN, AND A QUANTITY OF ONE ITEM 523 RESTRIKE, AS PER PLAN FOR EACH SUBSTRUCTURE UNIT.

BEARING PAD SHIMS

PLACE ¾" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA 6½ INCHES BY 12 INCHES, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING. FURNISH TWO SHIMS PER BEAM. THE DEPARTMENT WILL MEASURE THIS ITEM BY THE TOTAL NUMBER SUPPLIED. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - ¾" PREFORMED BEARING PADS. ANY UNUSED SHIMS BECOME THE PROPERTY OF THE STATE.

ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET):

THIS ITEM INCLUDES THE CONCRETE FOR THE BARRIERS ON THE BRIDGE DECK, THE LEFT BARRIER THAT EXTENDS ON THE APPROACH SLABS, THE LIGHT POLE PILASTERS, MEDIAN ON DECK, AND MEDIAN ON APPROACH SLABS.

THE BASIS OF PAYMENT INCLUDES ALL EQUIPMENT, MATERIALS, AND LABOR NECESSARY TO COMPLETE THE WORK.

ITEM 517 - RAILING, MISC.: MODIFIED TWIN STEEL TUBE BRIDGE RAILING:

PROVIDE THREE STEEL TUBES ON THE RAILING POST AS SHOWN ON THE PLANS.

USE TYPE B AND TYPE C ANCHORS IN LIEU OF POST ANCHOR DEVICES TO CONNECT THE BRIDGE RAILING TO THE DECK.

ITEM 526 - REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN:

THIS ITEM INCLUDES ONLY THE CONCRETE FOR THE STANDARD APPROACH SLAB. THE REINFORCEMENT IN THE APPROACH SLAB IS PAID FOR WITH ITEM 509. THE CONCRETE AND THE REINFORCEMENT IN THE MEDIANS AND BARRIERS ON THE APPROACH SLABS ARE PAID FOR WITH ITEMS 509 AND 511 RESPECTIVELY.

APPROACH SLAB CONCRETE SHALL BE PLACED SEPARATELY FROM THE SUPERSTRUCTURE CONCRETE.

ITEM 526 - TYPE A INSTALLATION, AS PER PLAN:

THIS ITEM INCLUDES ITEMS LISTED IN THE STANDARD DRAWING AS-2-15 WITH THE EXCEPTION OF THE REINFORCING STEEL INCLUDING SUPPORTS, AND TIE WIRES. THE REINFORCEMENT SHALL BE PAID WITH ITEM 509.

POST-CONSTRUCTION BRIDGE INSPECTION

AT LEAST TWO WEEKS PRIOR TO OPENING THE BRIDGE TO TRAFFIC, THE CONTRACTOR SHALL NOTIFY THE ODOT DISTRICT 7 BRIDGE INSPECTION ENGINEER (937-497-6884) TO ALLOW FOR THE NATIONAL BRIDGE INSPECTION STANDARDS (NBIS) REQUIRED POST-CONSTRUCTION INITIAL INSPECTION OF THE BRIDGE.

STRUCTURE GROUNDING SYSTEM:

THE STRUCTURAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING LIGHTING DETAILS WITH THE LIGHTING CONTRACTOR AND ENSURING THE STRUCTURE GROUNDING SYSTEM IS INSTALLED PROPERLY AND WORKS AS INTENDED.

FOR STRUCTURE GROUNDING CONNECTION LOCATIONS AND DETAILS OF GROUNDING WITHIN THE STRUCTURE SEE LIGHTING PLAN SHEET 31 /72.

ABBREVIATIONS:			
ABUT.	- ABUTMENT	N-W	- NORTHWEST
ADT	- AVERAGE DAILY TRAFFIC	N.P.C.P.P.	- NON-PERFORATED CORRUGATED PLASTIC PIPE
APP.	- APPROACH		
BM	- BENCH MARK		
BOT	- BOTTOM	NTS.	- NOT TO SCALE
BRG.	- BEARING	O/O	- OUT TO OUT
BTW.	- BETWEEN	OHWM	- ORDINARY HIGH WATER MARK
C/C	- CENTER TO CENTER		
C.J.	- CONSTRUCTION JOINT	PCB	- PORTABLE CONCRETE BARRIER
C.I.P.	- CAST IN PLACE		
CL	- CENTERLINE	P.C.P.P.	- PERFORATED CORRUGATED PLASTIC PIPE
CLR.	- CLEARANCE		
CONSTR.	- CONSTRUCTION	PEJF	- PREFORMED EXPANSION JOINT FILLER
DIA.	- DIAMETER		
& Ø		P.G.	- PROFILE GRADE
DWG.	- DRAWING	PT	- POINT
E.F.	- EACH FACE	R	- RADIUS
EL.	- ELEVATION	R.ABUT	- REAR ABUTMENT
EXP.	- EXPANSION	& R.A.	
EXIST.	- EXISTING	REQ	- REQUIRED
& EX.		R.F.	- RIGHT FORWARD
F.F.	- FAR FACE	R.R.	- RIGHT REAR
F/F	- FACE TO FACE	RT.	- RIGHT
F.ABUT	- FORWARD ABUTMENT	S.B.	- SOUTH BOUND
& F.A.		S.R.	- STATE ROUTE
FTG.	- FOOTING	S-E	- SOUTHEAST
FWD.	- FORWARD	S-W	- SOUTHWEST
GR.	- GROUND	SER	- SERIES
G.R.	- GUARDRAIL	SHLDR	- SHOULDER
HORIZ.	- HORIZONTAL	SPA.	- SPACES
HW	- HIGH WATER	STA.	- STATION
JT.	- JOINT	STD.	- STANDARD
L.F.	- LEFT FORWARD	T/B	- TOP OF BENCH
L.R.	- LEFT REAR	T/R	- TOP OF ROCK
LT.	- LEFT	T/S	- TOP OF SLOPE
MIN.	- MINIMUM	T&B	- TOP AND BOTTOM
MISC.	- MISCELLANEOUS	TYP.	- TYPICAL
M.O.T.	- MAINTENANCE OF TRAFFIC	U.N.O.	- UNLESS NOTED OTHERWISE
N.F.	- NEAR FACE	V.C.	- VERTICAL CURVE
N.B.	- NORTH BOUND	WW	- WINGWALL
N-E	- NORTHEAST		

CALC:	VS	DATE:	5/8/2026
CHECKED:	CAB	DATE:	5/11/2026

ESTIMATED QUANTITIES (STRUCTURE OVER 20 FT. SPAN, MOT-835-02.570, SFN: 5712085)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	SEE SHEET
202	11002	LS		STRUCTURE REMOVED, OVER 20 FOOT SPAN				LS	
202	22900	380	SY	APPROACH SLAB REMOVED				380	
202	23500	2215	SY	WEARING COURSE REMOVED				2215	
503	11100	LS		COFFERDAMS AND EXCAVATION BRACING				LS	
503	21300	LS		UNCLASSIFIED EXCAVATION				LS	
505	11100	LS		PILE DRIVING EQUIPMENT MOBILIZATION				LS	
507	00600	6440	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, DRIVEN	2800	3640			
507	00650	6920	FT	14" CAST-IN-PLACE REINFORCED CONCRETE PILES, FURNISHED	3000	3920			
507	93300	96	EACH	STEEL POINTS OR SHOES	40	56			
509	10000	117470	LB	EPOXY COATED STEEL REINFORCEMENT	17902	43035		56533	
509	26000	110385	LB	GALVANIZED STEEL REINFORCEMENT			102293	8092	
509	30020	6439	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			5886	553	
511	34446	674	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			674		
511	34450	68	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)				68	
511	41012	123	CY	CLASS QC1 CONCRETE WITH QC/QA, PIER ABOVE FOOTINGS		123			
511	43512	182	CY	CLASS QC1 CONCRETE WITH QC/QA, ABUTMENT INCLUDING FOOTING	182				
511	46512	157	CY	CLASS QC1 CONCRETE WITH QC/QA, FOOTING		157			
512	10050	698	SY	SEALING OF CONCRETE SURFACES (NON-EPOXY)			698		
515	12090	72	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB33-48 (67'-0" LONG)			72		
516	13600	8	SF	1" PREFORMED EXPANSION JOINT FILLER			8		
516	13900	39	SF	2" PREFORMED EXPANSION JOINT FILLER	39				
516	14014	225	FT	INTEGRAL ABUTMENT EXPANSION JOINT SEAL	225				
516	41100	144	EACH	½" PREFORMED BEARING PAD, TYPE CDP	48	96			
516	43200	288	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (12" x 6 ½" x 2")	96	192			
517	76300	207	FT	RAILING, MISC.: MODIFIED TWIN STEEL TUBE BRIDGE RAILING			207		2 / 23
518	21200	148	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	148				
SPECIAL	51822300	247	FT	STEEL DRIP STRIP			247		
518	40000	244	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	244				
518	40010	49	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	49				
523	20001	4	EACH	DYNAMIC LOAD TESTING, AS PER PLAN	2	2			2 / 23
523	20501	4	EACH	RESTRIKE, AS PER PLAN	2	2			2 / 23
526	15011	427	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13"), AS PER PLAN				427	2 / 23
526	90011	199	FT	TYPE A INSTALLATION, AS PER PLAN				199	2 / 23

ITEM 601 ROCK CHANNEL PROTECTION, TYPE C, IS INCLUDED WITH ROADWAY QUANTITIES AND ITEM 625 STRUCTURE GROUNDING SYSTEM IS INCLUDED WITH LIGHTING QUANTITIES. SEE GENERAL SUMMARY SHEETS.

ESTIMATED QUANTITIES
BRIDGE NO.: MOT-00835-02.570
STATE ROUTE 835 OVER LITTLE BEAVER CREEK

SFN 5712085	
DESIGN AGENCY KORDA	
KORDA / NEMETH ENGINEERING, INC	
1650 Watermark Drive, Suite 200, Columbus, OH 43215	
DESIGNER VS	CHECKER CAB
REVIEWER BMV 03/13/26	
PROJECT ID 116922	
SUBSET 3	TOTAL 23
SHEET P.34	TOTAL 72