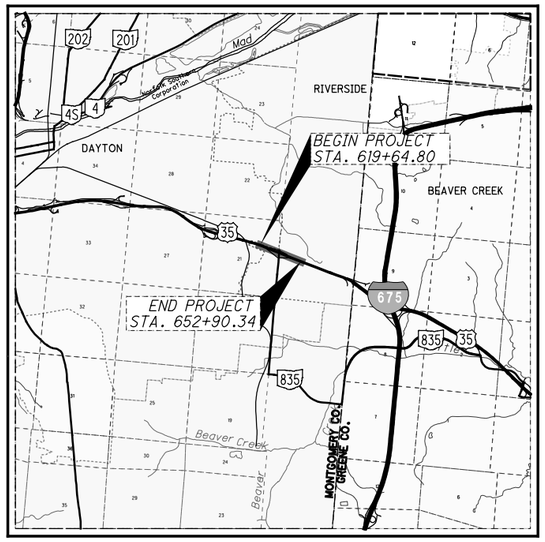
STATE OF OHIO
DEPARTMENT OF TRANSPORTATION
MOT-35-19.80
CITY OF DAYTON, CITY OF RIVERSIDE
MONTGOMERY COUNTY



LOCATION MAP

LATITUDE: 39°44'45" LONGITUDE: 84°07'14"

SCALE IN MILES
0 1 2 3 4

N

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

DESIGN DESIGNATION

	US 35	WOODMAN DR. NORTH OF US 35	WOODMAN DR. SOUTH OF US 35
CURRENT ADT (2020)	79,810	28,280	31,400
DESIGN YEAR ADT (2040)	85,440	28,280	31,400
DESIGN HOURLY VOLUME (2040)	7,770	2,610	2,850
DIRECTIONAL DISTRIBUTION	57%	51%	53%
TRUCKS (24 HOUR B&C)	7%	3%	2%
DESIGN SPEED	60 MPH	45 MPH	40 MPH
LEGAL SPEED	55 MPH	45 MPH	35 MPH

DESIGN FUNCTIONAL CLASSIFICATION:
USR 35 - URBAN FREEWAY AND EXPRESSWAY
WOODMAN DR. - PRINCIPLE ARTERIAL
NHS PROJECT ..... YES

DESIGN EXCEPTIONS:
VERTICAL CLEARANCE - APPROVED - 4/28/20 - SHEET 124

ADA DESIGN WAIVERS: NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days Before You Dig
OHIO811.org Before You Dig
OHIO811, 8-1-1, or 1-800-362-2764
(Non-members must be called directly)

PLAN PREPARED BY:
E.L. ROBINSON ENGINEERING
950 Goodale Boulevard, Suite 180 · Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

ENGINEERS SEAL:
FOR LIGHTING, SIGNALS, TRAFFIC CONTROL
STATE OF OHIO · Mark J. Hunter 56376 · REGISTERED PROFESSIONAL ENGINEER
SIGNED: Mark J Hunter
DATE: 6/1/22

ENGINEERS SEAL:
FOR STRUCTURES
STATE OF OHIO · MICHAEL R. VOGT #E-75275 · REGISTERED PROFESSIONAL ENGINEER
SIGNED:
DATE: 8/19/2022

ENGINEERS SEAL:
FOR ENTIRE PLAN EXCEPT STRUCTURES & LIGHTING, SIGNALS, TRAFFIC CONTROL
STATE OF OHIO · MATTHEW J. CORNETT E-76213 · REGISTERED PROFESSIONAL ENGINEER
SIGNED: Matt Cornett
DATE: 8/19/2022

INDEX OF SHEETS:

STANDARD CONSTRUCTION DRAWINGS

BP-2.1	1/21/22	RM-1.1	1/15/21	HL-20.21	1/15/21	MT-99.60	7/15/16	TC-52.10	10/18/13	800-2019	SEE PROPOSAL
BP-2.2	1/15/21	RM-3.1	7/20/18	HL-30.11	1/15/21	MT-100.00	7/16/21	TC-52.20	1/15/21	809	7/15/22
BP-3.1	1/21/22	RM-4.2	4/17/20	HL-30.21	4/17/20	MT-101.60	1/17/20	TC-61.30	7/19/19	813	10/19/18
		RM-4.4	7/19/19	HL-30.22	1/15/21	MT-101.70	1/17/20	TC-65.10	1/17/14	821	4/20/12
CB-2-3	2-4, 7/16/21	RM-4.5	7/21/17	HL-30.32	4/17/20	MT-101.75	1/17/20	TC-65.11	7/21/17	823	1/21/22
CB-3A	7/16/21	RM-4.6	7/19/13	HL-30.33	4/17/20	MT-101.90	7/17/20	TC-71.10	7/15/22	832	7/15/22
CB-5	7/16/21	RM-5.1	7/18/14	HL-30.41	1/21/22	MT-102.10	1/17/20	TC-72.20	7/20/18	836	1/19/18
		RM-5.2	1/18/19	HL-40.10	7/17/20	MT-102.20	4/19/19	TC-73.20	1/17/20	863	7/16/21
DM-1.1	7/17/20			HL-50.21	7/15/22	MT-103.10	1/21/22	TC-74.10	1/21/22	895	4/18/14
DM-1.2	7/16/21	AS-1-15	7/17/15	HL-60.11	7/21/17	MT-105.10	1/17/20	TC-81.22	7/15/22	909	7/15/22
DM-4.1	7/17/20	AS-2-15	1/18/19	HL-60.12	7/16/21	MT-110.10	7/19/13	TC-83.10	1/17/20	913	4/16/21
DM-4.4	1/15/16	BR-2-15	1/21/22	HL-60.31	1/17/20	MT-120.00	7/15/22	TC-83.20	7/15/22	921	4/20/12
		GSD-1-19	1/15/21					TC-85.10	4/17/20	995	7/17/15
BP-5.1	7/15/22	HW-2.1	7/20/18	MT-95.30	7/15/22	TC-9.31	7/16/21	TC-85.20	7/20/18	**SPECIAL PROVISIONS**	
BP-7.1	1/21/22	HW-2.2	7/20/18	MT-95.31	7/19/19	TC-16.22	7/16/21				
BP-9.1	1/18/19	PCB-91	7/17/20	MT-95.32	4/19/19	TC-21.21	7/15/22	ITS-11.10	7/15/22		
		PSBD-2-07	7/20/18	MT-95.40	1/17/20	TC-22.10	4/17/20			OEPA DEMO	
F-1.1	7/19/13	SBR-1-20	7/17/20	MT-95.41	1/17/20	TC-22.20	1/17/14	ITS-12.10	7/15/22	08/02/2018	
		SICD-1-21	1/15/21	MT-95.45	1/17/20	TC-41.10	7/19/13	ITS-14.10	7/15/22		
MGS-1.1	7/16/21	SICD-2-14	7/18/14	MT-95.60	4/19/19	TC-41.20	10/18/13	ITS-14.11	1/21/22		
MGS-2.1	1/19/18	TVPF-1-18	7/20/18	MT-95.70	1/17/20	TC-41.30	10/18/13	ITS-50.10	7/15/22		
MGS-3.1	1/19/18	VPF-1-90	7/20/18	MT-98.10	1/17/20	TC-41.40	10/18/13				
MGS-3.2	1/18/13			MT-98.20	4/19/19	TC-41.50	10/18/13				
MGS-4.2	7/19/13	HL-10.11	7/15/22	MT-98.29	1/17/20	TC-42.10	10/18/13				
MGS-4.3	1/18/13	HL-10.12	1/20/17	MT-98.30	7/16/21	TC-42.20	10/18/13				
MGS-5.2	7/15/16	HL-10.13	4/17/20	MT-99.20	4/19/19	TC-51.11	1/15/16				
MGS-5.3	7/15/16	HL-20.14	4/17/20	MT-99.30	1/17/20	TC-51.12	1/15/16				

PROJECT DESCRIPTION

THE RECONFIGURATION OF THE WOODMAN DRIVE INTERCHANGE AND THE REHABILITATION OF MOT-835-0002 SUPERSTRUCTURE AND MOT-74-0065 SUPERSTRUCTURE WITH MISCELLANEOUS DRAINAGE, GUARDRAIL, LIGHTING AND TRAFFIC CONTROL IMPROVEMENTS.

PROJECT EARTH DISTURBED AREA:	14.7 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	1.0 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	15.7 ACRES

LIMITED ACCESS

THIS IMPROVEMENT IS ESPECIALLY DESIGNED FOR THROUGH TRAFFIC AND HAS BEEN DECLARED A LIMITED ACCESS HIGHWAY OR FREEWAY BY ACTION OF THE DIRECTOR IN ACCORDANCE WITH THE PROVISIONS OF SECTION 5511.02 OF THE OHIO REVISED CODE.

2019 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE PART TIME CLOSING OF THE HIGHWAY TO TRAFFIC, AS NOTED ON SHEETS 21 & 22. DURING WHICH TIME DETOURS WILL BE PROVIDED AS SHOWN HEREIN. PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS SET FORTH ON THE PLANS AND ESTIMATES.

APPROVED _____
DATE _____ DISTRICT DEPUTY DIRECTOR

APPROVED _____
DATE _____ DIRECTOR, DEPARTMENT OF TRANSPORTATION

FEDERAL PROJECT NO. E180 (360)
PID NO. 90273
CONSTRUCTION PROJECT NO.
RAILROAD INVOLVEMENT NONE
MOT-35-19.80
1 / 351

P:\90273\Design\Roadway\Sheets\90273GT001.dgn Sheet 9/29/2022 12:43:32 PM mcornett

UTILITIES

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

WATER/SEWER

MONTGOMERY COUNTY
ENVIRONMENTAL SERVICES
EDWARD SCHLAACK
1850 SPAULDING ROAD
DAYTON, OHIO 45432-3732
(937)-781-2632

CITY OF DAYTON
DEPARTMENT OF WATER
BEN SWAIN
320 WEST MONUMENT ST.
DAYTON, OHIO 45402
(937)-333-3737

FIBER OPTIC

WINDSTREAM COMMUNICATIONS
LEON TAYLOR
2165 S.R. 133 SOUTH
BLANCHESTER, OH 45107
(937)-725-5358

THE OHIO BELL TELEPHONE COMPANY
HOWARD LAUDERMILK
OFFICE: (937) 296-3588
CELL: (937) 286-7218
HL1596@ATT.COM
3233 WOODMAN DR
DAYTON, OHIO 45420

AT&T TRANSMISSION
DUANE SEARS
7201 FAR HILL AV
CENTERVILLE, OHIO 45459
(937)-562-1957

LUMEN
TERRY SPAW
9490 MERIDIAN WAY
WEST CHESTER, OH 45069
(513) 644-8933
NATIONALRELO@CENTURYLINK.COM

GAS

VECTREN ENERGY DELIVERY OF OHIO
JEFFREY PIKE
6500 CLYO ROAD
CENTERVILLE, OHIO 45459
(937)-312-2539
JEFFREY.T.PIKE@CENTERPOINTENERGY.COM

ELECTRIC

AES
DISTRIBUTION
BILL WARD
1900 DRYDEN RD.
DAYTON, OHIO 45439
(937)-554-9063

AES
TRANSMISSION
GREGORY TOKAR
P.O. BOX 1247
DAYTON, OHIO 45401
(937)-331-4647

SIGNALIZATION

CITY OF RIVERSIDE
DEPARTMENT OF PUBLIC SERVICE
KATHY BARTLETT
5200 SPRINGFIELD ST
RIVERSIDE, OHIO
(937)-233-1801

CATV

CHARTER COMMUNICATIONS
MARY EVANS
3691 TURNER ROAD
DAYTON, OHIO 45415
(937)-396-8611
MARY.EVANS@CHARTER.COM

ODOT ITS

ODOT ITS LAB
1606 WEST BROAD STREET
COLUMBUS, OHIO 43223
MAIN LINE: (614) 387-4113
CEN.ITS.LAB@DOT.OHIO.GOV

SEE SUPPLEMENTAL SPECIFICATION 809 FOR ALL ITS DEVICE DOWNTIME REQUIREMENTS.

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.

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.

DRINKING WATER RESOURCES PROTECTION

PORTIONS OF THE PROJECT ARE LOCATED WITHIN THE BOUNDARIES OF A DESIGNATED SOLE SOURCE AQUIFER. BEST CONSTRUCTION PRACTICES ARE TO BE IMPLEMENTED TO MINIMIZE WATER QUALITY IMPACTS. IDLE EQUIPMENT, PETROCHEMICALS, AND TOXIC/HAZARDOUS MATERIALS SHALL NOT BE STORED NEAR DRAINAGE WAYS, DITCHES OR STREAMS. REFUELING SHALL NOT BE UNDERTAKEN NEAR DRAINAGE WAYS, DITCHES OR STREAMS. A SPILL CONTAINMENT KIT IS TO BE MAINTAINED ON-SITE THROUGHOUT CONSTRUCTION ACTIVITIES. SPILLS OF FUELS, OILS, CHEMICALS, OR OTHER MATERIALS WHICH COULD POSE A THREAT TO GROUNDWATER SHALL BE CLEANED UP IMMEDIATELY. IF THE SPILL IS A REPORTABLE AMOUNT, THE LOCAL FIRE DEPARTMENT, LOCAL EMERGENCY COORDINATOR (937-901-5112) AND THE OEPA (1-800-282-9378) MUST BE CONTACTED WITHIN 30 MINUTES OF KNOWLEDGE OF THE RELEASE.

PROTECTION OF CREEKSIDE TRAIL

THE ENGINEER SHALL INVITE FIVE RIVERS METROPARKS (JOSEPH ZIMMERMAN AT 937-277-4825 OR JOSEPH.ZIMMERMAN@METROPARKS.ORG) AND MIAMI VALLEY REGIONAL PLANNING COMMISSION (MLINDSAY@MVRPC.ORG) TO THE PRE-CONSTRUCTION MEETING. AT THE PRE-CONSTRUCTION MEETING, THE CONTRACTOR SHALL VERIFY THE DETOUR ROUTE FOR THE TRAIL.

THE CONTRACTOR SHALL POST NOTICE OF THE UPCOMING DETOUR ON CREEKSIDE TRAIL AT LEAST TWO WEEKS PRIOR TO THE START OF THE DETOUR. THE CONTRACTOR SHALL ENSURE THAT CREEKSIDE TRAIL IS KEPT OPEN TO TRAFFIC WHEN SAFE FOR USERS. THE CONTRACTOR SHALL INSTALL APPROPRIATE SIGNAGE/BARRIERS ON THE TRAIL TO PROTECT THE PUBLIC.

OUTSIDE OF THE ESTABLISHED CONSTRUCTION LIMITS, THE CONTRACTOR SHALL NOT STAGE EQUIPMENT OR MATERIALS ON THE TRAIL.

THE CONTRACTOR MUST RESTORE ALL AREAS OF CREEKSIDE TRAIL DISTURBED BY CONSTRUCTION PRIOR TO FINALIZATION OF THE PROJECT. THE CONTRACTOR SHALL PROVIDE FIVE RIVERS METROPARKS (JOSEPH ZIMMERMAN AT 937-277-4825 OR JOSEPH.ZIMMERMAN@METROPARKS.ORG) AN OPPORTUNITY TO INSPECT AFFECTED SEGMENTS OF THE TRAIL PRIOR TO PROJECT FINALIZATION; THE CONTRACTOR SHALL ADDRESS CONSTRUCTION-RELATED CONCERNS TO THE SATISFACTION OF FIVE RIVERS METROPARKS.

COST FOR RESTORATION WORK CAUSED BY THE CONTRATOR'S MEANS AND METHODS SHALL BE BORNE BY THE CONTRACOR.

AES UTILITY COORDINATION

AES OWNES AND MAINTAINES 138 kV TRANSMISSION LINES PARALLEL TO US-35 WHICH CROSSES WOODMAN DR NEAR STA. 21+75. TWO WOOD SUPPORT STRUCTURES ARE IN CONFLICT WITH THE PROPOSED WORK NEAR RAMP B. THESE STRUCTURES WILL REMAIN IN PLACE UNTIL TWO NEW POLES ARE CONSTRUCTED APPROXIMATELY 30' WEST OF THE EXISTING POLES.

THE NEW POLES WILL BE CONSTRUCTED BY AES IN NEW EMBANKMENT THAT WILL BE PLACED BY THE CONTRACTOR ALONG THE RAMP B SUP. THE NEW EMBANKMENT SHALL BE CONSTRUCTED BETWEN SUP STA. 56+00 AND RAMP B STA. 29+50 TO PROVIDE AES SPACE FOR RELOCATION. THE CONTRACTOR SHALL PROVIDE THE PROJECT ENGINEER WITH A SCHEDULE SHOWING WHEN THE EMBANKMENT WILL CONSTRUCTED SO THE ENGINEER CAN COORDINATE WITH AES. THE CONTRACTOR SHALL ALLOW AES ACCSS TO THE WORK AREA TO PLAN AND PERFORM THE RELOCATION PRIOR TO COMPLETING WORK NEAR THE EXISTING POLES.

PETROLEUM CONTAMINATED SOILS

BASED ON PAST LAND USE, PETROLEUM-CONTAMINATED SOILS WILL BE ENCOUNTERED IN THE VICINITY OF THE MARANATHA CAR COMPANY (SOUTH SIDE OF US 35 FROM STA. 618+00 TO STA. 622+00).

PCE-CONTAMINTED SOILS

ENVIRONMENTAL STUDIES INDICATE PCE-CONTAMINATED SOILS WILL BE ENCOUNTERED DURING CONSTRUCTION ACTIVITIES BETWEEN STA. 618+00 AND STA. 620+00.

PCE-CONTAMINTED SOILS

IN THE EVENT CONTAMINATED MATERIALS ARE ENCOUNTERED, THE CONTRACTOR SHALL MANAGE THIS MATERIAL ACCORDING TO THE FOLLOWING NOTES:

ALL MATERIAL EXCAVATED BY THE CONTRACTOR MAY BE STOCKPILED IN AN AREA PROVIDED BY THE CONTRACTOR AND APPROVED BY THE ENGINEER. THE ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE EXCAVATED MATERIAL IN A LINED AND COVERED ROLL-OFF BOX. THE ENGINEER MAY PERMIT TEMPORARY STORAGE OF THE EXCAVATED MATERIAL ON AN IMPERMEABLE MEMBRANE. THE MEMBRANE SHALL BE SURROUNDED BY BALES OF STRAW TO PREVENT THE SUSPECTED SOILS FROM COMING IN CONTACT WITH THE ORIGINAL SOILS. AN IMPERMEABLE MEMBRANE SHALL BE PLACED OVER THE STOCKPILE TO PREVENT CONTACT WITH PRECIPITATION AND/OR SURFACE RUN-OFF. THE ENGINEER MAY PERMIT THE CONTRACTOR TO DIRECT LOAD THE EXCAVATED CONTAMINATED MATERIAL INTO TRUCKS.

THIS MATERIAL SHALL BE PROPERLY TESTED, TRANSPORTED, AND DISPOSED OF IN A LICENSED (BY THE LOCAL HEALTH DEPARTMENT) AND PERMITTED (BY THE OHIO ENVIRONMENTAL PROTECTION AGENCY) SOLID WASTE FACILITY. IF REQUIRED BY THE SOLID WASTE FACILITY, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONDUCTING SAMPLING AND ANALYSIS OF THIS MATERIAL.

THE CONTRACTOR SHALL FURNISH ALL THE LABOR, EQUIPMENT, AND MATERIALS NECESSARY TO PROPERLY HANDLE, STORE (IF NECESSARY), TEST FOR DISPOSAL, TRANSPORT, AND DISPOSE OF REGULATED MATERIALS, INCLUDING ANY REQUIRED PERMITS, APPROVALS, OR FEES WITHIN THE LIMITS IDENTIFIED ABOVE. PAYMENT FOR THIS WORK SHALL BE MADE AT THE CONTRACT PRICE BID PER TON. THE BASIS FOR CONVERSION FROM TONS TO CUBIC YARDS IS 1.5 TON/CUBIC YARD. THE FOLLOWING ESTIMATED CONTINGENCY QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE:

ITEM 690, WORK INVOLVING PETROLEUM-CONTAMINATED SOIL	25 TONS
ITEM 690, WORK INVOLVING SOLID WASTE (PCE CONTAMINATED SOIL)	25 TONS

POSSIBLE ORPHAN UNDERGROUND STORAGE TANKS

ENVIRONMENTAL STUDIES HAVE SHOWN THERE IS A POTENTIAL FOR ORPHAN UNDERGROUND STORAGE TANKS (USTS) IN VICINITY OF 3917 LINDEN (STA. 618 TO STA. 620).

THE CONTRACTOR SHALL REMOVE ANY ORPHAN USTS IN ACCORDANCE WITH ODOT CMS 202.08 AND PROVIDE AT LEAST TWO (2) COPIES OF THE CLOSURE REPORT TO THE ENGINEER, ONE FOR SUBMITTAL TO THE BUREAU OF UNDERGROUND STORAGE TANKS REGULATIONS (BUSTR) AND THE SECOND FOR ODOT'S RECORDS.

ALL COSTS AND WORK ASSOCIATED WITH THE COMPLIANCE OF THE AFOREMENTIONED RULES OR REGULATIONS SHALL BE INCLUDED IN THE UNIT PRICE FOR ITEM SPECIAL - REGULATED UNDERGROUND STORAGE TANK REMOVAL. UNDERGROUND STORAGE TANKS AND CONTENTS SHALL BE REMOVED IN THEIR ENTIRETY, AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND BE DISPOSED OF BY HIM. IF ANY CONTAMINATED WATER OR SOIL DISPOSAL OR REMEDIATION IS REQUIRED AS A RESULT OF THE UNDERGROUND STORAGE TANK REMOVAL, THEN THESE ITEMS OR WORK SHALL BE HANDLED UNDER OTHER ITEMS IN THE CONTRACT.

ITEM 202, REGULATED UNDERGROUND STORAGE TANK REMOVED	TWO (2) EACH

NON-FRIABLE ASBESTOS-CONTAINING MATERIALS

NON-FRIABLE ASBESTOS-CONTAINING ELECTRICAL WIRE AND RAIL PADDING HAVE BEEN IDENTIFIED ON THE BRIDGES. THESE MATERIALS ARE TO BE REMOVED PRIOR TO THE START OF CONSTRUCTION IN A MANNER THAT WILL ENSURE THE MATERIAL DOES NOT BECOME FRIABLE. THE DISPOSAL OF THE MATERIAL SHALL COMPLY WITH ALL APPLICABLE STATE AND FEDERAL LAWS & REGULATIONS RELATING TO DISPOSAL OF ASBESTOS-CONTAINING MATERIALS, INCLUDING OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS AND THE NATIONAL EMISSION STANDARD FOR HAZARDOUS AIR POLLUTANTS (NESHAP) STANDARDS.

UNLESS RELOCATED BY THE UTILITY OWNER PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL FURNISH ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO PROPERLY HANDLE, TRANSPORT AND DISPOSE OF ASBESTOS-CONTAINING MATERIALS IN A LICENSED SOLID WASTE LANDFILL; THE LANDFILL MUST BE PERMITTED BY THE OEPA TO ACCEPT ASBESTOS-CONTAINING MATERIALS. THE BASIS OF PAYMENT SHALL BE PRICE PER LINEAR FOOT. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE WORK NOTED ABOVE.

ITEM 202, ASBESTOS PIPE REMOVED	330 LINEAR FEET
ITEM 690, SPECIAL-ASBESTOS ABATEMENT - ASBESTOS RAIL PADDING	10 SF

NOISE MINIMIZATION

THE CONTRACTOR SHALL ENSURE THAT ALL HEAVY EQUIPMENT IN USE DURING CONSTRUCTION IS EQUIPPED WITH EFFECTIVE MUFFLERS TO MINIMIZE NOISE. THE CONTRACTOR SHALL AVOID UNNECESSARY IDLING OF EQUIPMENT. THE CONTRACTOR SHALL ENSURE THAT EQUIPMENT AND VEHICLE STAGING AREAS ARE LOCATED AS FAR FROM THE RESIDENTIAL AREAS ADJACENT TO THE CORRIDOR AS POSSIBLE.

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.

CALCULATED TDP CHECKED MJC

GENERAL NOTES

MOT-35-19.80

SHEET NUM.											PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
OFFICE CALCS	14	15		82		241		240		252	01/NHS/OT	02/NHS/BR	03/NHS/OT						
																		PAVEMENT	
		200									200			253	01001	200	SY	PAVEMENT REPAIR, AS PER PLAN (A)	15
		200									200			253	01001	200	SY	PAVEMENT REPAIR, AS PER PLAN (B)	15
566											566			254	01000	566	SY	PAVEMENT PLANING, ASPHALT CONCRETE (VARIABLE DEPTH)	
		250									250			254	01600	250	SY	PATCHING PLANED SURFACE	
2,299	28										2,327			301	56000	2,327	CY	ASPHALT CONCRETE BASE, PG64-22, (449)	
4,320											4,320			304	20000	4,320	CY	AGGREGATE BASE	
2,163											2,163			407	20000	2,163	GAL	NON-TRACKING TACK COAT	
726											726			442	22101	726	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (449), AS PER PLAN, PG76-22M	15
925											925			442	22400	925	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, 19 MM, TYPE A (449)	
9,617											9,617			452	14110	9,617	SY	11" NON-REINFORCED CONCRETE PAVEMENT, CLASS QC 1P	
				790							790			609	12000	790	FT	COMBINATION CURB AND GUTTER, TYPE 2	
				516							516			609	24000	516	FT	CURB, TYPE 4-A	
				505							505			609	24510	505	FT	CURB, TYPE 4-C	
				491							491			609	26000	491	FT	CURB, TYPE 6	
				69							69			609	54000	69	SY	6" CONCRETE TRAFFIC ISLAND	
2,215											2,215			618	40100	2,215	FT	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
48											48			823	40000	48	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (449)	
56											56			823	42000	56	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (449)	
																		LIGHTING	
								24			24			625	00480	24	EACH	~~CONNECTION, UNFUSED PERMANENT~~	
						24							24	625	10614	24	EACH	LIGHT POLE ANCHOR BOLTS ON STRUCTURE	
								2,379			2,379			625	23200	2,379	FT	NO. 4 AWG 2400 VOLT DISTRIBUTION CABLE	
								698			698			625	24320	698	FT	1-1/2" DUCT CABLE WITH THREE NO. 4 AWG 2400 VOLT CABLES	
						731		184			184		731	625	25400	915	FT	CONDUIT, 2", 725.04	
								231			231			625	25500	231	FT	CONDUIT, 3", 725.04	
								191			191			625	25902	191	FT	CONDUIT, JACKED OR DRILLED, 725.04: 3"	
								10			10			625	25910	10	FT	CONDUIT CLEANED AND CABLES REMOVED	238
						515		1,093			1,093		515	625	29002	1,608	FT	TRENCH, 24" DEEP	
						6							6	625	29920	6	EACH	STRUCTURE JUNCTION BOX	
						2							2	625	29940	2	EACH	BARRIER JUNCTION BOX	
								4			4			625	30700	4	EACH	PULL BOX, 725.08, 18"	
						4							4	625	30701	4	EACH	PULL BOX, 725.08, 18", AS PER PLAN	238
								4			4			625	31510	4	EACH	PULL BOX REMOVED	
								1			1			625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM	
								1			1			625	39520	1	EACH	PULL BOX CLEANED	238
								LS			LS			SPECIAL	62540000	LS		MAINTAIN EXISTING LIGHTING	239
								6			6			625	75800	6	EACH	DISCONNECT CIRCUIT	
								1			1			625	98000	1	EACH	LIGHTING, MISC.: REMOVE AND REINSTALL UNDERPASS LIGHTING SYSTEM	238

CALCULATED TDP
CHECKED MJC

GENERAL SUMMARY

MOT-35-19.80

SHEET NUM.					PART.			ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.
	252				01/NHS/OT	02/NHS/BR	03/NHS/OT						
												STRUCTURE OVER 20 FOOT SPAN (MOT-835-0002)	
	LUMP					LUMP		202	11203	LS		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	250, 255-256
	356					356		202	22900	356	SY	APPROACH SLAB REMOVED	
	356					356		202	23500	356	SY	WEARING COURSE REMOVED	
	LUMP					LUMP		503	11100	LS		COFFERDAMS AND EXCAVATION BRACING	
	LUMP					LUMP		503	21300	LS		UNCLASSIFIED EXCAVATION	
	11,646					11,646		509	10000	11,646	LB	EPOXY COATED REINFORCING STEEL	
	110,652					109,830	822	509	40000	110,652	LB	REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL	250
	6,862					6,862		509	40000	6,862	LB	REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL, AS PER PLAN	250&286
	100					100		509	20001	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN	250
	2,494					2,494		509	30021	2,494	FT	NO. 4 GFRP DEFORMED BARS, AS PER PLAN	288
	56					56		510	10000	56	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	
	2					2		511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	
	386					385	1	511	34446	386	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
	43					40	3	511	34451	43	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN	287&289
	3					3		511	41010	3	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS	
	82					82		511	44110	82	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	
	76					75	1	511	51513	76	CY	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK, AS PER PLAN	285
	1,364					1,364		512	10101	1,364	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	250
	6					6		512	33000	6	SY	TYPE 2 WATERPROOFING	
	27					27		512	10600	27	FT	CONCRETE REPAIR BY EPOXY INJECTION	
	292,718					292,718		513	10240	292,718	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2	
	5,252					5,252		513	20000	5,252	EACH	WELDED STUD SHEAR CONNECTORS	
	17,500					17,500		514	00060	17,500	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT	
	17,500					17,500		514	00066	17,500	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT	
	5					5		516	13200	5	SF	½" PREFORMED EXPANSION JOINT FILLER	
	91					91		516	13600	91	SF	1" PREFORMED EXPANSION JOINT FILLER	
	161					161		516	13900	161	SF	2" PREFORMED EXPANSION JOINT FILLER	
	222					222		516	14020	222	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
	10					10		516	44001	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 11"x17"x1 11/16" WITH VARYING LOAD PLATE, BEVELED	268
	2					2		516	44001	2	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 11"x17"x1 11/16" WITH VARYING LOAD PLATE AND HP ASSEMBLY, BEVELED	269
	1					1		516	44001	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 11"x17"x1 11/16" WITH DOUBLE LOAD PLATES, BEVELED	270
	26					26		516	44101	26	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 11"x14"x2 1/16" WITH LOAD PLATE AND HP ASSEMBLY, BEVELED	267
	147					147		517	75123	147	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING AND VANDAL PROTECTION FENCE), AS PER PLAN	286
	105					105		518	21200	105	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
	LUMP					LUMP		SPECIAL	51960000	LS		PATCHING CONCRETE STRUCTURE (ABUTMENT PATCHING)	250
	412					412		526	15010	412	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13")	
	104					104		526	90020	104	SY	TYPE B INSTALLATION	
	LUMP					LUMP		SPECIAL	53000200	LS		STRUCTURES (AESTHETIC LETTERING)	251, 290
	123					123		607	39901	123	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN	251, 289
	124					124		607	39931	124	FT	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC, AS PER PLAN	251
	245					245		607	39994	245	FT	TEMPORARY VANDAL FENCE, TYPE B	
	10					10		608	53020	10	SF	DETECTABLE WARNING	

CALCULATED TDP
CHECKED MJC

GENERAL SUMMARY

MOT-35-19.80

EXISTING CABLE AND CONDUIT

THE LOCATION OF EXISTING CIRCUIT CABLE, AS SHOWN IN THIS PLAN, WERE APPROXIMATED FROM EXISTING DESIGN PLANS. PRIOR TO INITIATING ANY NEW TRENCHING, THE CONTRACTOR SHALL FIELD LOCATE ALL EXISTING CIRCUITS, AND VERIFY THE ASSUMED CIRCUIT INFORMATION.

IT IS ALSO ASSUMED THAT PROPOSED FOUNDATION LOCATIONS AND PROPOSED TRENCH LOCATIONS MAY IMPACT EXISTING CIRCUITS. IF CONSTRUCTION PROCEDURES WILL IMPACT ENERGIZATION OF AN EXISTING LIGHTING UNIT FOR MORE THAN TWENTY-FOUR HOURS, THEN TEMPORARY CIRCUITS SHALL BE PROVIDED, PER "ITEM 625 SPECIAL, MAINTAIN EXISTING LIGHTING". THE CONTRACTOR SHALL NOT ADJUST PROPOSED FOUNDATION OR TRENCH LOCATIONS, WITHOUT APPROVAL IN WRITING FROM THE ENGINEER.

EXISTING CIRCUITS WHICH HAVE BEEN ABANDONED, AS INDICATED IN THE PLAN (OR AS A RESULT OF THE FIELD REVIEW/CONFIRMATION), MAY BE ABANDONED IN PLACE OR REMOVED. REMOVED CIRCUIT CABLE SHALL BE DISPOSED OF BY THE CONTRACTOR. THE REMOVAL OR ABANDONMENT OF THESE CIRCUITS SHALL BE CONSIDERED INCIDENTAL TO THE VARIOUS LIGHTING BID ITEMS.

REMOVAL OF CIRCUITS IN EXISTING UNDERGROUND OR BARRIER CONDUITS TO BE REUSED: WORK IS INCLUDED UNDER ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED".

625, PULL BOX CLEANED

THIS ITEM OF WORK SHALL CONSIST OF CLEANING AN EXISTING PULL BOX BY REMOVING ANY EXISTING CABLES NOT BEING RECONNECTED, AND DEBRIS SO THAT NEW CABLES CAN BE INSTALLED. ANY UNUSED OPENINGS SHALL BE CLOSED. DISTURBED AREAS NEAR THE PULL BOX SHALL BE CLEARED OF WEEDS OR DEBRIS AND SHALL BE FULLY RESTORED. MATERIAL REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE PROPERLY DISPOSED OF OFF OF THE PROJECT SITE.

PAYMENT WILL BE MADE AT THE UNIT PRICE BID UNDER CMS ITEM 625, "PULL BOX CLEANED" FOR EACH PULL BOX CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625 - CONDUIT CLEANED AND CABLES REMOVED

THIS ITEM SHALL CONSIST OF CLEANING AN EXISTING CONDUIT BY REMOVING EXISTING CABLES, MUD, AND DEBRIS SO THAT NEW CABLE MAY BE INSTALLED. INCIDENTAL TO THE CLEANING IS THE INSTALLATION OF BUSHINGS AND/OR COUPLINGS ON THE ENDS OF EXISTING CONDUIT AS REQUIRED. IN ADDITION, THIS ITEM WILL ALSO INCLUDE REPAIRS TO EXISTING CONDUIT, WHEN NECESSARY TO PROVIDE A SECURE CONNECTION. ALL CABLE AND DEBRIS SHALL BE PROPERLY REMOVED FROM THE PROJECT SITE. DISTURBED AREAS SHALL BE PROPERLY RESTORED.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE CONTRACT PRICE FOR ITEM 625, "CONDUIT CLEANED AND CABLES REMOVED" PER FOOT OF CONDUIT CLEANED WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIALS AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

ITEM 625, PULL BOX, 18", AS PER PLAN

ALL PULL BOXES SHALL MEET THE REQUIREMENTS OF CM&S SPECIFICATION 725.08, EXCEPT THE PULL BOX LIDS FOR BRIDGE DECORATIVE LIGHTING SHALL BE STAMPED "RIVERSIDE".

PAYMENT WILL BE MADE AT EACH PULL BOX AT THE UNIT PRICE BID FOR EACH C&MS ITEM 625 "PULL BOX, 18", AS PER PLAN: AND SHALL BE FULL COMPENSATION FOR FURNISHING AND PLACING EACH PULL BOX FOR DECORATIVE LIGHTING.

CONDUIT EXPANSION AND DEFLECTION

EXPANSION FITTINGS SHALL BE OZ TYPE AX, CROUSE HINDS TYPE XJG, OR EQUAL APPROVED BY THE ENGINEER. EACH EXPANSION FITTING SHALL PROVIDE 4 INCHES TOTAL MOVEMENT AS SPECIFIED BY THE PLAN DETAILS, AND SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE SPECIFIED BY THE PLAN DETAILS.

DEFLECTION COUPLINGS SHALL BE OZ TYPE DX, CROUSE HINDS TYPE XD, OR EQUAL APPROVED BY THE ENGINEER. EACH DEFLECTION COUPLING SHALL HAVE AN EXTERNAL COPPER BONDING JUMPER, UNLESS SPECIFIED OTHERWISE BY THE PLAN DETAILS. MINIMUM DEFLECTION CAPABILITY: 25 DEGREES.

EXPANSION AND DEFLECTION FITTINGS FULLY OR PARTIALLY EMBEDDED IN CONCRETE, SOIL, OR SIMILAR MATERIAL SHALL BE COMPLETELY WRAPPED IN A NEOPRENE SLEEVE OR SHEET OF 1/2-INCH MINIMUM THICKNESS. SECURE NEOPRENE WRAP WITH TIE-WRAPS PRIOR TO EMBEDMENT OF THE FITTING.

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:
POWER COMPANY - AES
ADDRESS - 1065 WOODMAN DR, DAYTON, OH 44035
PHONE NUMBER - 937.224.6000
CONTACT NAME - WILLIAM WARD

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 CMS 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.

HIGH VOLTAGE TEST WAIVED

THE HIGH VOLTAGE TEST SHALL NOT BE PERFORMED ON THE CIRCUITS CONSTRUCTED BY THIS PROJECT, SINCE THE TEST COULD DAMAGE THE PORTION OF THE COMPLETED CIRCUIT WHICH HAS BEEN IN SERVICE PRIOR TO THIS PROJECT.

ITEM 625 - LIGHTING, MISC.: REMOVE AND REINSTALL UNDERPASS LIGHTING SYSTEM

THIS ITEM SHALL CONSIST OF THE REMOVAL AND REPLACEMENT OF CONDUIT SYSTEMS IMPACTED BY THE BRIDGE WORK. THE CONTRACTOR SHALL REMOVE EXISTING CONDUITS MOUNTED TO BRIDGE BEAMS DESIGNATED FOR REMOVAL. THE CONTRACTOR SHALL REPLACE CONDUITS REMOVED FROM EXISTING BEAMS, AND MOUNT THE REPLACEMENT CONDUIT TO THE PROPOSED BEAMS, AND RESTORE ALL CIRCUIT CONNECTIONS. THE UNDERPASS LIGHTING MAY REMAIN OFF FOR A TIME NECESSARY TO COMPLETE THIS WORK, AS APPROVED BY THE ENGINEER.

PAYMENT SHALL BE MADE AT THE UNIT BID PRICE, UNDER CMS ITEM 625, "LIGHTING, MISC.: REMOVE AND REINSTALL UNDERPASS LIGHTING SYSTEM" FOR EACH UNDERPASS WITH LIGHTING SYSTEM REPAIRED, WHICH SHALL BE FULL COMPENSATION FOR ALL LABOR, MATERIAL AND INCIDENTALS REQUIRED TO COMPLETE THIS ITEM IN A SATISFACTORY AND WORKMANLIKE MANNER.

CALCULATED MJH
CHECKED KAE

LIGHTING GENERAL NOTES

MOT-35-19.80

ITEM SPECIAL, MAINTAIN EXISTING LIGHTING

THE CONTRACTOR SHALL MAINTAIN THE EXISTING LIGHTING ON ROADWAYS WITHIN THE PROJECT LIMITS THAT ARE OPEN TO TRAFFIC DURING CONSTRUCTION OF THIS PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE ENTIRETY OF ANY CIRCUIT THAT PASSES THROUGH THE PROJECT LIMITS OF THE PROJECT, INCLUDING ANY PORTION OF A CIRCUIT THAT EXTENDS BEYOND THE PROJECT LIMITS. BEFORE ANY WORK IS STARTED IN THE IMMEDIATE VICINITY OF THE EXISTING LIGHTING CIRCUITS, REPRESENTATIVES OF ODOT, THE MAINTAINING AGENCY AND THE CONTRACTOR SHALL MAKE A VISUAL INSPECTION OF THE EXISTING ROADWAY LIGHTING CIRCUITS TO BE MAINTAINED. DURING THIS INSPECTION, A WRITTEN RECORD OF THE CONDITION OF EXISTING LIGHTING SHALL BE MADE BY ODOT'S REPRESENTATIVE. THIS WRITTEN REPORT SHALL NOTE INDIVIDUAL LUMINAIRES WHICH ARE NOT IN WORKING ORDER, INDIVIDUAL POLES WHICH ARE NOT STANDING, AND INDIVIDUAL CIRCUITS WHICH ARE NOT IN WORKING ORDER. THE COMPLETED REPORT SHALL BE SIGNED BY THE REPRESENTATIVES OF ODOT, 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 THE REPAIRS NECESSARY TO RETURN THE SYSTEM TO AN ACCEPTABLE CONDITION. FOLLOWING THESE REPAIRS, THE SYSTEM SHALL AGAIN BE INSPECTED AND A REPORT SHALL BE 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 DOWNED 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 UNIT BASIS.

BETTERMENTS SHALL BE COVERED IN ITEMS OF WORK PERTAINING TO THE CONSTRUCTION OF PERMANENT IMPROVEMENT.

WHEN THE SEQUENCE OF CONSTRUCTION ACTIVITIES REQUIRES, OR SHOULD THE CONTRACTOR DESIRE, THE REMOVAL OF THE EXISTING LIGHTING BEFORE THE NEW LIGHTING IS OPERATIONAL, THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TEMPORARY LIGHTING OF THIS PORTION OF THE ROADWAY.

PRIOR TO INSTALLING SUCH LIGHTING, THE CONTRACTOR SHALL PREPARE AND SUBMIT A SET OF THE TEMPORARY LIGHTING PLAN TO THE ENGINEER FOR REVIEW AND APPROVAL.

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 (13 LUX) WITH AN AVERAGE TO MINIMUM UNIFORMITY NOT TO EXCEED 3:1. MOUNTING HEIGHT OF TEMPORARY LUMINAIRES SHALL NOT BE LESS THAN 30 FEET (9 METERS), AND THE MINIMUM OVERHEAD CONDUCTOR CLEARANCE SHALL BE 20 FEET (6 METERS). TEMPORARY OVERHEAD CONSTRUCTION SHALL NOT BE LESS THAN GRADE "A" 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. WHEN NO LONGER NEEDED, THE TEMPORARY LIGHTING INSTALLATION SHALL BE REMOVED AND PROPERLY DISPOSED OF BY THE CONTRACTOR.

THE LUMP SUM PRICE BID FOR ITEM SPECIAL "MAINTAIN EXISTING LIGHTING" SHALL INCLUDE PAYMENT FOR ALL LABOR, EQUIPMENT, MATERIAL AND INCIDENTALS NECESSARY TO MAINTAIN THE EXISTING LIGHTING AS SPECIFIED HEREIN.

CALCULATED MJH
CHECKED KAE

LIGHTING GENERAL NOTES

MOT-35-19.80

SHEET NO.	CALL-OUT	LOCATION	SIDE	625 LIGHT POLE ANCHOR BOLTS ON STRUCTURE	CONDUIT, 2", 725.04	TRENCH, 24" DEEP	STRUCTURE JUNCTION BOX	BARRIER JUNCTION BOX	PULL BOX, 725.08, 18", AS PER PLAN
		FROM - TO		EACH	FT	FT	EACH	EACH	EACH
243	L-1	15+30	RT						
	L-1 TO L-2	15+30 TO 15+21	RT						
	L-2	15+21	RT						1
	L-2 TO L-3	15+21 TO 15+21	RT		45	45			
	L-3	15+21	RT						1
	L-3 TO L-4	15+21 TO 17+34	RT		217	217			
	L-4	17+34	RT						1
	L-4 TO L-5	17+34 TO 18+69	RT		135	135			
	L-5	18+69	RT						1
	L-5 TO L-6	18+69 TO 18+90	RT		25	25			
	L-6	18+90	RT					1	
	L-6 TO L-7	18+90 TO 19+22	RT		32				
	L-7	19+22	RT	4			1		
	L-7 TO L-8	19+22 TO 19+60	RT		38				
	L-8	19+60	RT	4			1		
	L-8 TO L-9	19+60 TO 19+98	RT		38				
	L-9	19+98	RT	4			1		
	L-6 TO L-10	18+90 TO 19+16	RT&LT		93	93			
	L-10	19+16	LT					1	
	L-10 TO L-11	19+16 TO 19+47	LT		32				
	L-11	19+47	LT	4			1		
	L-11 TO L-12	19+47 TO 19+85	LT		38				
	L-12	19+85	LT	4			1		
	L-12 TO L-13	19+85 TO 20+23	LT		38				
	L-13	20+23	LT	4			1		
TO LIGHTING GENERAL SUMMARY				24	731	515	6	2	4

CALCULATED MJH
CHECKED KAE

DECORATIVE LIGHTING SUBSUMMARY

MOT-35-19.80

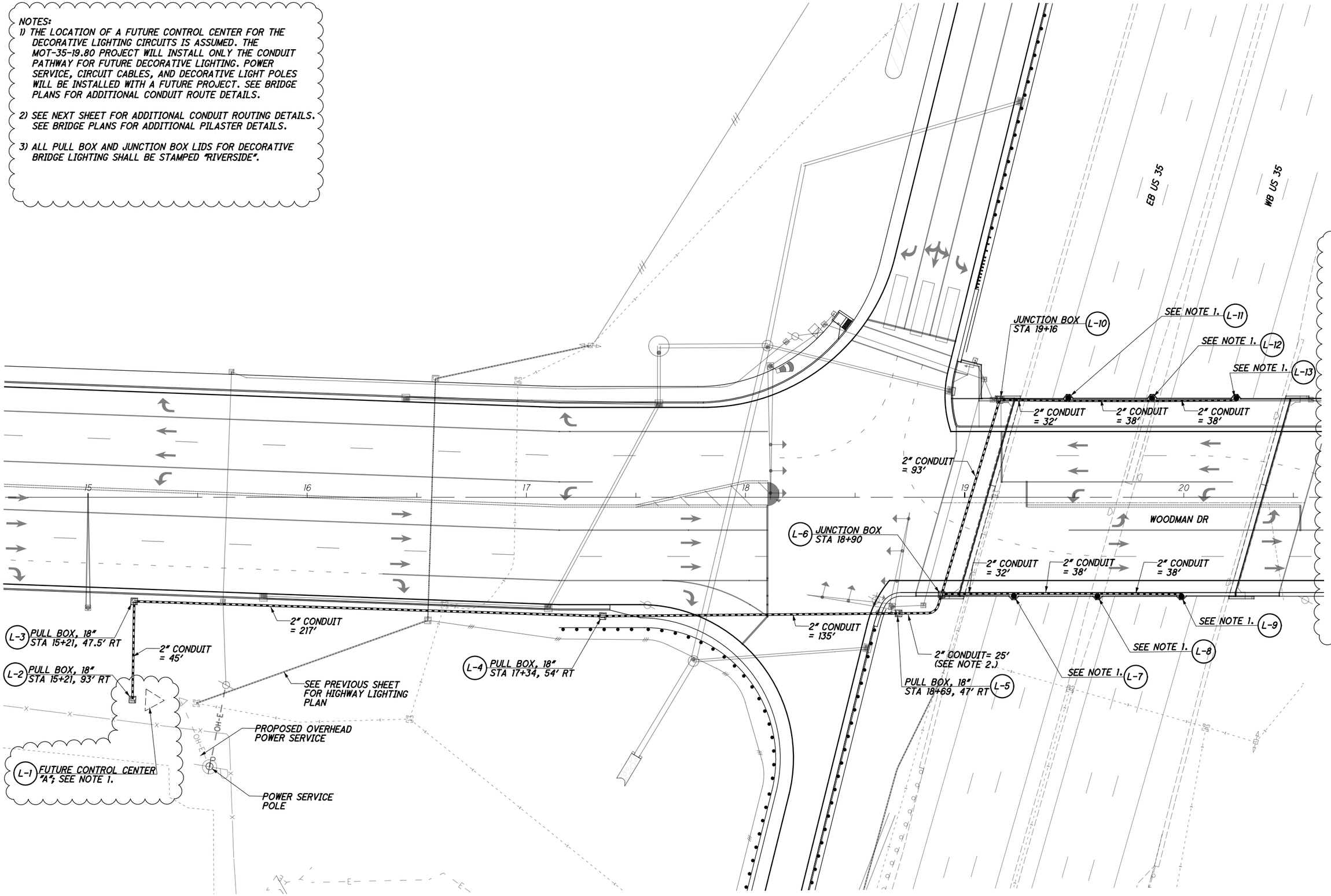
241
351

P:\90273\Proj\Admin\PlanReviews\Preaddendo\Dec Lighting\241-09273_LS002.dgn Sheet 9/29/2022 12:54:24 PM mcornett

NOTES:
1) THE LOCATION OF A FUTURE CONTROL CENTER FOR THE DECORATIVE LIGHTING CIRCUITS IS ASSUMED. THE MOT-35-19.80 PROJECT WILL INSTALL ONLY THE CONDUIT PATHWAY FOR FUTURE DECORATIVE LIGHTING. POWER SERVICE, CIRCUIT CABLES, AND DECORATIVE LIGHT POLES WILL BE INSTALLED WITH A FUTURE PROJECT. SEE BRIDGE PLANS FOR ADDITIONAL CONDUIT ROUTE DETAILS.

2) SEE NEXT SHEET FOR ADDITIONAL CONDUIT ROUTING DETAILS. SEE BRIDGE PLANS FOR ADDITIONAL PILASTER DETAILS.

3) ALL PULL BOX AND JUNCTION BOX LIDS FOR DECORATIVE BRIDGE LIGHTING SHALL BE STAMPED "RIVERSIDE".



HORIZONTAL SCALE IN FEET
0 10 20 40

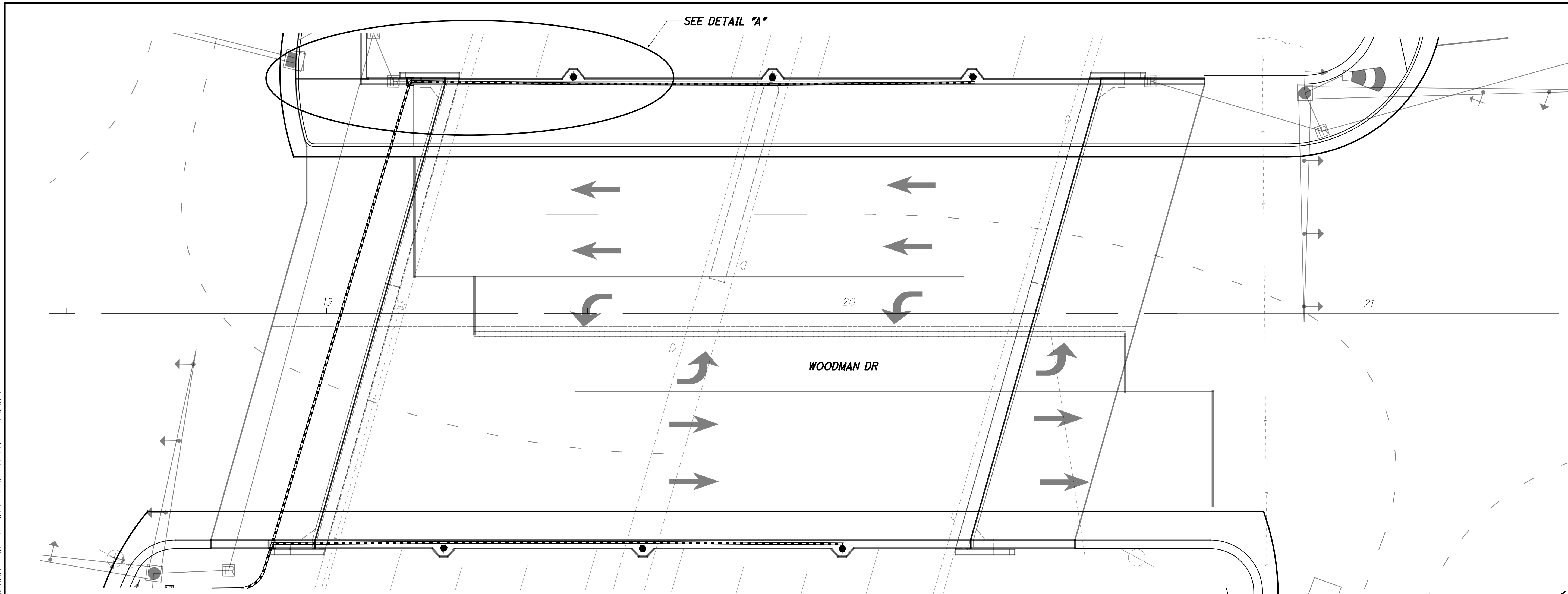
CALCULATED MJH
CHECKED KAE

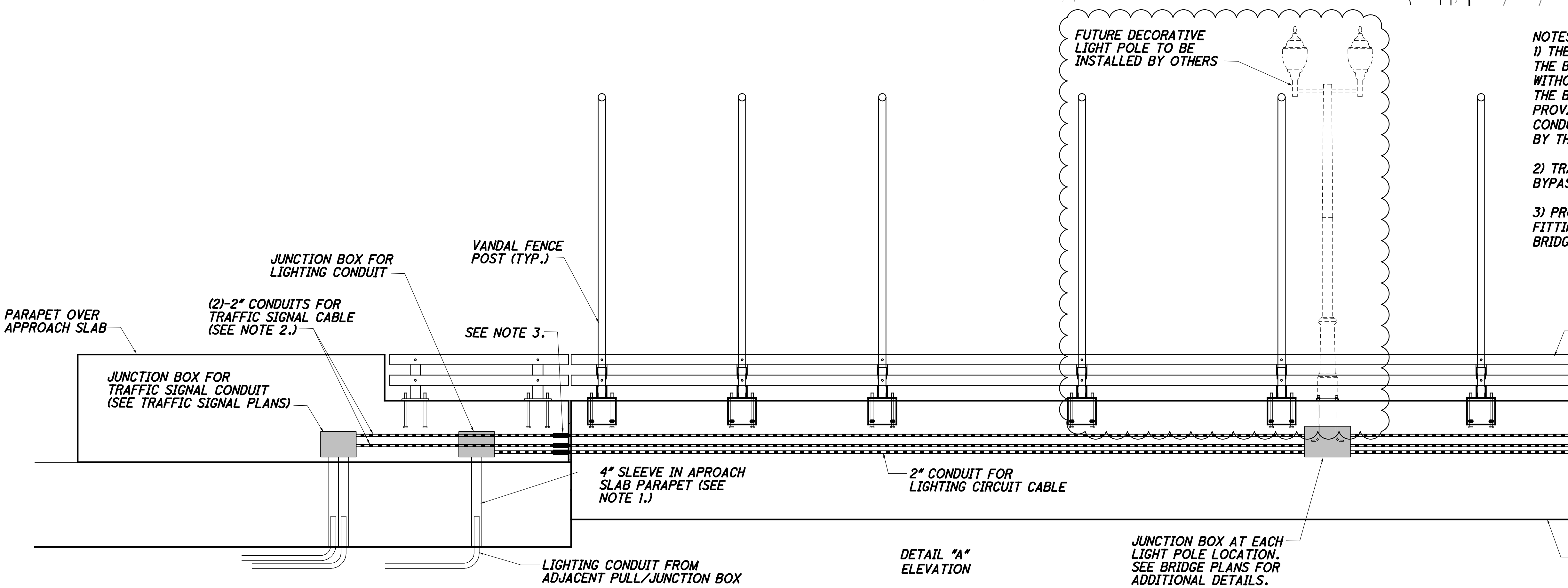
DECORATIVE LIGHTING WOODMAN DRIVE BRIDGE

MOT-35-19.80

243
351

C:\EEC\Projects\90273-MOT-35-Woodman-Drive\Design\Lighting\Sheets\243-09273_LP002.dgn Sheet 9/21/2022 7:33:51 AM mhunt





FUTURE DECORATIVE LIGHT POLE TO BE INSTALLED BY OTHERS
VANDAL FENCE POST (TYP.)
JUNCTION BOX FOR LIGHTING CONDUIT
(2)-2" CONDUITS FOR TRAFFIC SIGNAL CABLE (SEE NOTE 2.)
PARAPET OVER APPROACH SLAB
SEE NOTE 3.
BRIDGE RAIL
JUNCTION BOX FOR TRAFFIC SIGNAL CONDUIT (SEE TRAFFIC SIGNAL PLANS)
4" SLEEVE IN APROACH SLAB PARAPET (SEE NOTE 1.)
2" CONDUIT FOR LIGHTING CIRCUIT CABLE
LIGHTING CONDUIT FROM ADJACENT PULL/JUNCTION BOX
JUNCTION BOX AT EACH LIGHT POLE LOCATION. SEE BRIDGE PLANS FOR ADDITIONAL DETAILS.
BRIDGE PARAPET

DETAIL "A"
ELEVATION

NOTES:

1) THE 4" CONDUIT IS PROVIDED TO PERMIT THE BRIDGE TO EXPAND AND CONTRACT WITHOUT DAMAGING THE CONDUIT ENTERING THE BRIDGE. THE CONTRACTOR SHALL PROVIDE A FLEXIBLE SEAL BETWEEN THE CONDUIT AND THE SLEEVE, AS APPROVED BY THE ENGINEER.

2) TRAFFIC SIGNAL CONDUIT SHALL BYPASS ALL LIGHTING JUNCTION BOXES.

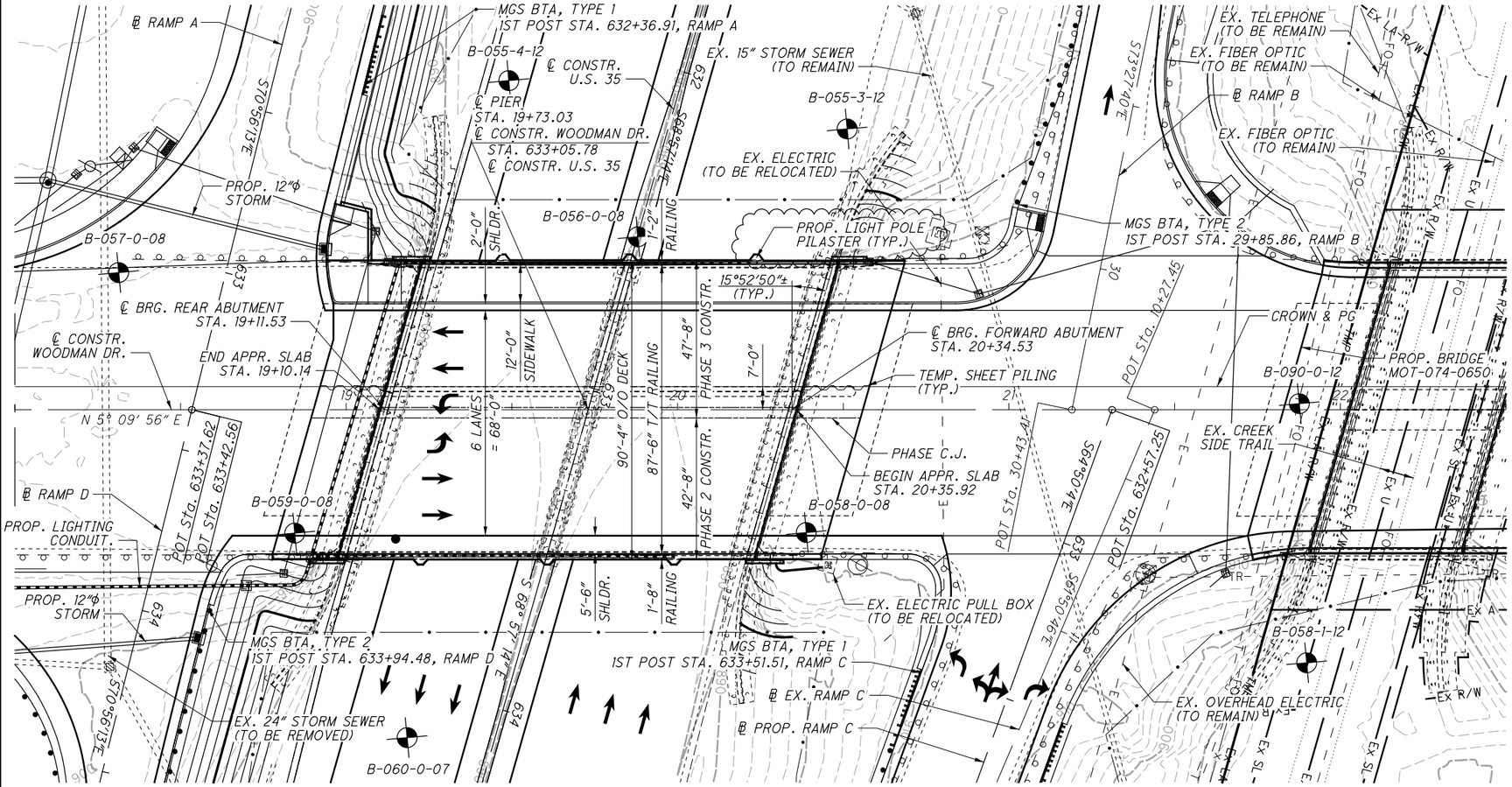
3) PROVIDE AN EXPANSION/DEFLECTION FITTING FOR ALL CONDUIT ENTERING THE BRIDGE PARAPET.

HORIZONTAL SCALE IN FEET 0 5 10 20

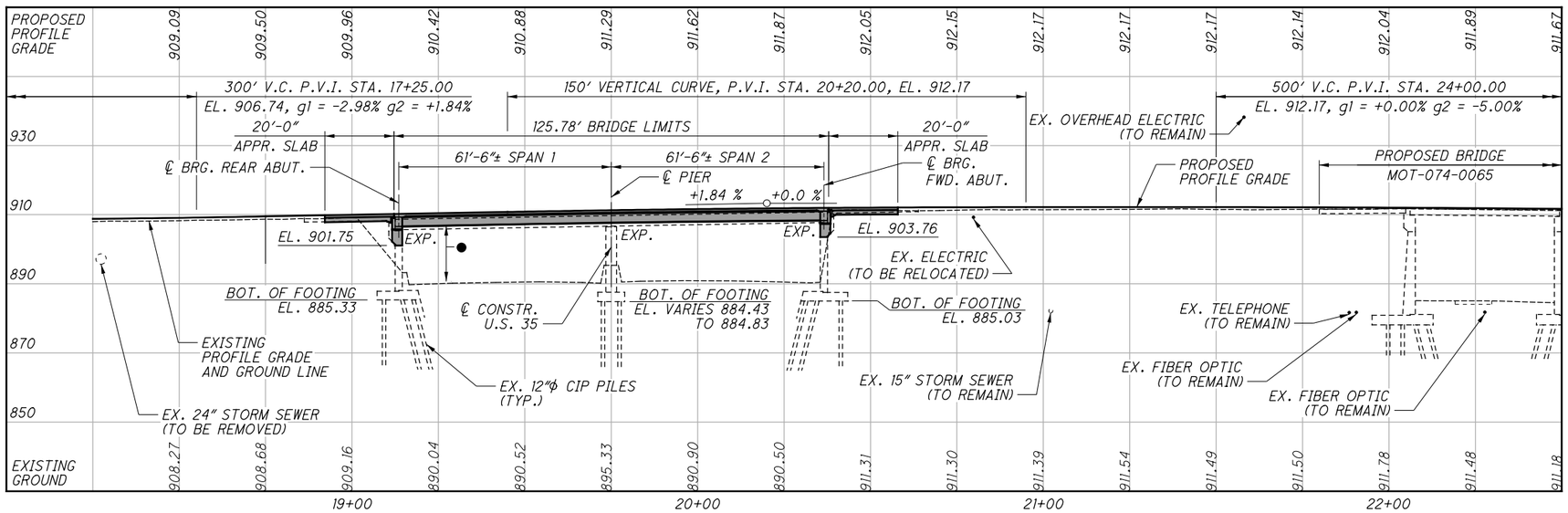
CALCULATED MJH
CHECKED KAE

DECORATIVE LIGHTING
WOODMAN DRIVE BRIDGE - CONDUIT DETAILS

MOT-35-19.80



PLAN



PROFILE ALONG PROFILE GRADE WOODMAN DRIVE

BENCHMARK DATA

BM MN#21	STA. 632+70.78,	ELEV. 890.01,	OFFSET 9.55' LT.
BM MN#20	STA. 637+24.85,	ELEV. 890.67,	OFFSET 53.68' RT.

FOR ADDITIONAL BENCHMARK INFORMATION SEE ROADWAY PLANS.

NOTES:

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

A DATUM CORRECTION OF -0.87 WAS USED TO CALCULATE PRESENT DAY ELEVATIONS.

FOR A DESCRIPTION OF PROPOSED WORK, SEE SHEET 4/47.

DESIGN TRAFFIC US-835 (WOODMAN DRIVE):
2020 ADT = 31,400 2020 ADTT = 628
2040 ADT = 31,400 2040 ADTT = 628
DIRECTIONAL DISTRIBUTION = 53%

LEGEND:

BORING LOCATION

- 14.6'± EXISTING VERTICAL CLEARANCE (BEFORE ADD LANE)
  15.0'± EXISTING VERTICAL CLEARANCE (AFTER ADD LANE PID 89130)
  15.11' ACTUAL MINIMUM VERTICAL CLEARANCE (15.0' REQ'D)

EXISTING STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH REINFORCED CONCRETE DECK ON WALL TYPE ABUTMENTS AND CAP AND COLUMN PIER
SPANS: 61'-6"±, 61'-6"± C/C BRG.
ROADWAY: 85'-8"± T/T OF RAILING
LOADING: CF2000 (57)
SKEW: 15° 52' 50"± LF.
APPROACH SLABS: AS-1-54 (25'± LONG)
ALIGNMENT: TANGENT
WEARING SURFACE: 1.2"± SUPERPLASTICIZED DENSE CONCRETE OVERLAY
CROWN: 0.0156± FT./FT.
STRUCTURAL FILE NUMBER: 5703069
DATE BUILT: 1965
DISPOSITION: SUPERSTRUCTURE TO BE REPLACED IN PHASES

PROPOSED STRUCTURE

TYPE: CONTINUOUS STEEL BEAM WITH COMPOSITE REINFORCED CONCRETE DECK ON FULL-HEIGHT SEMI-INTEGRAL ABUTMENTS AND CAP AND COLUMN PIER
SPANS: 61'-6"±, 61'-6"± C/C BRG.
ROADWAY: 75'-6" TOE OF RAILING TO TOE OF CURB WITH 12'-0" SIDEWALK ON WEST SIDE
LOADING: HL93 WITH 75 PSF PEDESTRIAN LIVE LOAD AND 60 PSF FUTURE WEARING SURFACE
SKEW: 15° 52' 50"± L.F.
APPROACH SLABS: 20'-0" LONG (AS-1-15 & AS-2-15)
ALIGNMENT: TANGENT
WEARING SURFACE: 1" MONOLITHIC CONCRETE
CROWN: 0.016 FT./FT.
DECK AREA: 11,370 SQ. FT.
COORDINATES: LATITUDE 39° 44' 44.44" N
LONGITUDE 84° 07' 14.55" W

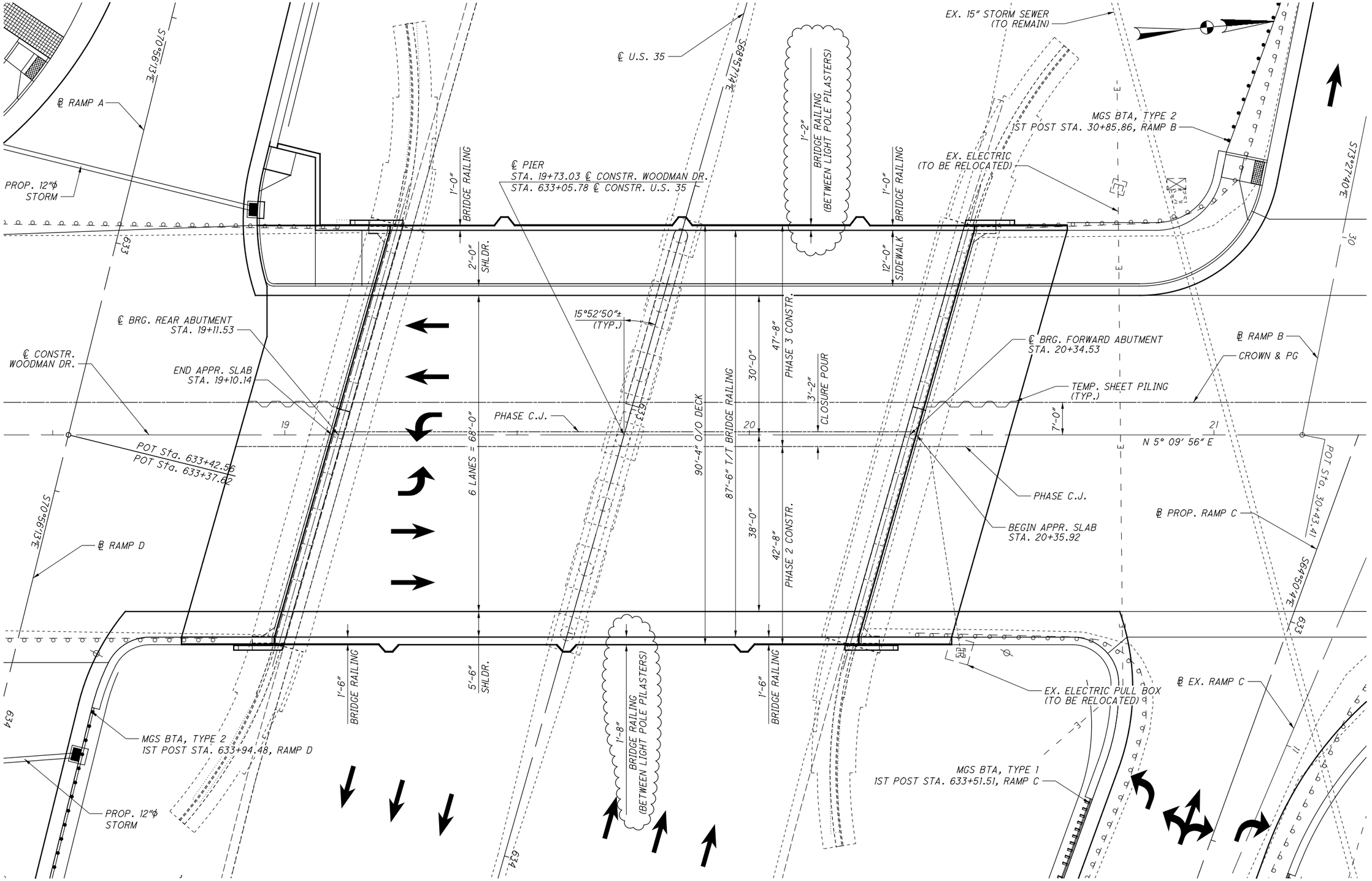
E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED MRV | DRAWN FIB | REVIEWED DFT | DATE 9/1/2021
CHECKED TAS | REVISED TAS | STRUCTURE FILE NUMBER 5703069

MONTGOMERY COUNTY
STA. 19+10.14
STA. 20+35.92

SITE PLAN
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273



GENERAL PLAN

P:\90273\Design\Structures\MOT835_0002C\Sheets\835_0002CSG001.dgn Sheet 9/28/2022 2:32:40 PM tsheldon

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED	DRAWN	REVIEWED	DATE
TAS	TAS	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
MRV	TAS	5703069	

GENERAL PLAN
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273

2 / 47

249
351

ITEM 530: SPECIAL - STRUCTURES, AESTHETIC LETTERING

FORMLINER FOR AESTHETIC LETTERING SHALL BE MADE OF PLASTICIZED POLYVINYL CHLORIDE. THE MATERIAL SHALL HAVE SUFFICIENT FIRMNESS TO RESIST DEFORMATION FROM FRESHLY PLACED CONCRETE AND HAVE SUFFICIENT PLIABILITY TO PERMIT REMOVAL WITHOUT DAMAGE TO EARLY AGE CONCRETE.

FORMLINERS SHALL HAVE A SHORE A HARDNESS OF APPROXIMATELY 25.

LETTERING FORMLINER SHALL BE INSTALLED IN THE FORMS TO PROVIDE THE DIMENSIONAL RELATIONSHIP BETWEEN LETTERS AS SHOWN ON THE PLANS. FORMLINERS SHALL BE ATTACHED TO THE PRIMARY FORM ELEMENTS TO ENSURE THAT THE FORMLINERS WILL BE TRUE AND STRAIGHT IN THE VERTICAL POSITION.

AFTER FORMS ARE STRIPPED, IMPERFECTIONS IN THE FINISHED CONCRETE SHALL BE PATCHED WITH THE SAME MATERIALS AND MIX USED IN THE CONCRETE POUR TO RESTORE FULLY THE TEXTURED SURFACES TO THE SATISFACTION OF THE ENGINEER.

AESTHETIC LETTERING, INCLUDING ALL LABOR, EQUIPMENT, AND MATERIALS REQUIRED TO PRODUCE THE FINISHED PRODUCT, SHALL BE PAID FOR UNDER ITEM 530: SPECIAL - STRUCTURES, AESTHETIC LETTERING.

ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN, AND ITEM 607 - VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC, AS PER PLAN:

INSTALL FENCING FOR EACH CONSTRUCTION PHASE PRIOR TO OPENING THAT PHASE TO VEHICULAR AND/OR PEDESTRIAN TRAFFIC.

THE COLOR OF THE FENCE FABRIC, RAILS, POSTS, PLATES, TIE WIRES, AND ADDITIONAL VISUAL HARDWARE AND CAULK SHALL BE BLACK.

PROPOSED WORK:

1. REMOVE EXISTING SUPERSTRUCTURE AND PORTIONS OF SUBSTRUCTURE.
2. RE-CONSTRUCT PORTIONS OF THE ABUTMENTS CONVERTING THEM TO SEMI-INTEGRAL.
3. CONSTRUCT NEW PORTIONS OF THE PIER.
4. INSTALL NEW BEAMS, BEARINGS, DECK, SIDEWALK, BARRIERS, AND VANDAL PROTECTION FENCE.
5. INSTALL LIGHTING HARDWARE IN STRUCTURE TO RECIEVE FUTURE LIGHT POLES AND ELECTRICAL EQUIPMENT.
5. CONSTRUCT NEW APPROACH SLABS.
6. FIELD PAINT STRUCTURAL STEEL BEAMS AND BARRIER LETTERING.
7. SEAL CONCRETE SURFACES.

ABBREVIATIONS:

ABUT. - ABUTMENT
ADT - AVERAGE DAILY TRAFFIC
ADTT - AVERAGE DAILY TRUCK TRAFFIC
APPR. - APPROACH
B - BOTTOM
℄ - BASELINE
B.F. - BACK FACE
BM - BENCHMARK
BOT. OR BTM. - BOTTOM
BRG. - BEARING
BTA - BRIDGE TERMINAL ASSEMBLY
℄ - CENTERLINE
C/C - CENTER TO CENTER
C.I.P. - CAST-IN-PLACE
C.J. - CONSTRUCTION JOINT
CLR. - CLEAR
CMS - CONSTRUCTION AND MATERIAL SPECIFICATIONS
CONC. - CONCRETE
CONSTR. - CONSTRUCTION
CVN - CHARPY V-NOTCH
DIA. - DIAMETER
DIM. - DIMENSION
DWG. - DRAWING
E - EAST
EB - EASTBOUND
E.F. - EACH FACE
EL. OR ELEV. - ELEVATION
EOP - EDGE OF PAVEMENT
EQ. - EQUAL
EST. - ESTIMATED
EX. - EXISTING
EXP. - EXPANSION
F.A. - FORWARD ABUTMENT
F/F - FACE TO FACE
F.F. - FRONT FACE
FT. - FOOT OR FEET
FTG. - FOOTING
FWD. - FORWARD
FWS - FUTURE WEARING SURFACE
HMWM - HIGH MOLECULAR WEIGHT METHACRYLATE
HW - HIGH WATER
IN. - INCH
JT. - JOINT
KSF - KIPS PER SQ. FT.
KSI - KIPS PER SQ. IN.
L.F. - LEFT FORWARD
LT. - LEFT
MAX. - MAXIMUM
MIN. - MINIMUM
MISC. - MISCELLANEOUS
MSE - MECHANICALLY STABILIZED EARTH
N - NORTH
NB - NORTHBOUND
NO. - NUMBER
N.P.C.P.P. - NON-PERFORATED CORRUGATED PLASTIC PIPE
OHWM - ORDINARY HIGH WATER MARK
O/O - OUT TO OUT
P.C.P.P. - PERFORATED CORRUGATED PLASTIC PIPE
P.E.J.F. - PREFORMED EXPANSION JOINT FILLER
PROP. - PROPOSED
PSF - POUNDS PER SQUARE FOOT
P.V.I. - POINT OF VERTICAL INTERSECTION
Q - FLOW RATE
R - RADIUS
R.A. - REAR ABUTMENT
RCP - ROCK CHANNEL PROTECTION
REQD. - REQUIRED
R.F. - RIGHT FORWARD
R.R. - RAILROAD
RT. - RIGHT
R/W - RIGHT OF WAY
S - SOUTH
SB - SOUTHBOUND
SER. - SERIES
SHLDR - SHOULDER
SPA. - SPACE OR SPACES
STA. - STATION
STD. - STANDARD
STR - STRAIGHT
T - TOP
T&B - TOP & BOTTOM
TBR - TO BE REMOVED
TEMP. - TEMPORARY
T.O.S. OR T/S - TOP OF SLOPE
T/T - TOE TO TOE
TYP. - TYPICAL
U.N.O. - UNLESS NOTED OTHERWISE
VAR. - VARIES
V - VELOCITY
W - WEST
WB - WESTBOUND
WWR - WELDED WIRE REINFORCEMENT

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED MRV | DRAWN MRV | REVIEWED DFT | DATE 9/1/2021
CHECKED JOL | REVISED TAS | STRUCTURE FILE NUMBER 5703069

GENERAL NOTES (2 OF 2)
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273

MADE BY: TAS DATE: 9/8/2021
CHECKED BY: MGB DATE: 9/9/2021

ESTIMATED QUANTITIES

STRUCTURAL FILE NUMBER: 5703069

ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIER	SUPER.	GEN.	REFERENCE SHEET NO.
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	3, 8, 9 AND 19 OF 47
202	22900	356	SY	APPROACH SLAB REMOVED				356	
202	23500	356	SY	WEARING COURSE REMOVED				356	
503	11100	LUMP		COFFERDAMS AND EXCAVATION BRACING				LUMP	
503	21300	LUMP		UNCLASSIFIED EXCAVATION				LUMP	
509	10000	11,646	LB	EPOXY COATED REINFORCING STEEL	10,850	796			
509	40000	110,652	LB	REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL			110,652		3 OF 47
509	40000	6,862	LB	REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL, AS PER PLAN			6,178	684	3 AND 39 OF 47
509	20001	100	LB	REINFORCING STEEL, REPLACEMENT OF EXISTING REINFORCING STEEL, AS PER PLAN				100	3 OF 47
509	30021	2,494	FT	NO. 4 GFRP DEFORMED BARS, AS PER PLAN			2,494		41 OF 47
510	10000	56	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT		56			
511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2				
511	34446	386	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			386		
511	34451	43	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET), AS PER PLAN			43		40 AND 42 OF 47
511	41010	3	CY	CLASS QC1 CONCRETE, PIER ABOVE FOOTINGS		3			
511	44110	82	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	82				
511	51513	76	CY	CLASS QC2 CONCRETE WITH QC/QA, SIDEWALK, AS PER PLAN			76		38 OF 47
512	10101	1,364	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE), AS PER PLAN	561	125	678		3 OF 47
512	33000	6	SY	TYPE 2 WATERPROOFING	6				
512	10600	27	FT	CONCRETE REPAIR BY EPOXY INJECTION	27				
513	10240	292,718	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2			292,718		
513	20000	5,252	EACH	WELDED STUD SHEAR CONNECTORS			5,252		
514	00060	17,500	SF	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			17,500		
514	00066	17,500	SF	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			17,500		
516	13200	5	SF	1/2" PREFORMED EXPANSION JOINT FILLER				5	
516	13600	91	SF	1" PREFORMED EXPANSION JOINT FILLER				91	
516	13900	161	SF	2" PREFORMED EXPANSION JOINT FILLER				161	
516	14020	222	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	222				
516	44001	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x17"x1.6741" WITH VARYING LOAD PLATE, BEVELED)		10			21 OF 47
516	44001	2	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x17"x1.6741" WITH VARYING LOAD PLATE AND HP ASSEMBLY, BEVELED)		2			22 OF 47
516	44001	1	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x17"x1.6741" WITH DOUBLE LOAD PLATES, BEVELED)		1			23 OF 47
516	44101	26	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN (11"x14"x2.0488" WITH LOAD PLATE AND HP ASSEMBLY, BEVELED)	26				20 OF 47
517	75123	147	FT	RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING AND VANDAL PROTECTION FENCE), AS PER PLAN				147	39 OF 47
518	21200	105	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC				105	
SPECIAL	51960000	LUMP		PATCHING CONCRETE STRUCTURE (ABUTMENT PATCHING)	LUMP				3 OF 47
526	15010	412	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=13")				412	
526	90020	104	SY	TYPE B INSTALLATION				104	
SPECIAL	53000200	LUMP		STRUCTURES (AESTHETIC LETTERING)			LUMP		4 AND 43 OF 47
607	39901	123	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN				123	4 AND 42 OF 47
607	39931	124	FT	VANDAL PROTECTION FENCE, 12' CURVED, COATED FABRIC, AS PER PLAN				124	4 OF 47
607	39994	245	FT	TEMPORARY VANDAL FENCE, TYPE B				245	
608	53020	10	SF	DETECTABLE WARNING				10	

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 · Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED TAS | DRAWN TAS | REVIEWED DFT | DATE 9/1/2021
CHECKED MGB | REVISED TAS | STRUCTURE FILE NUMBER 5703069

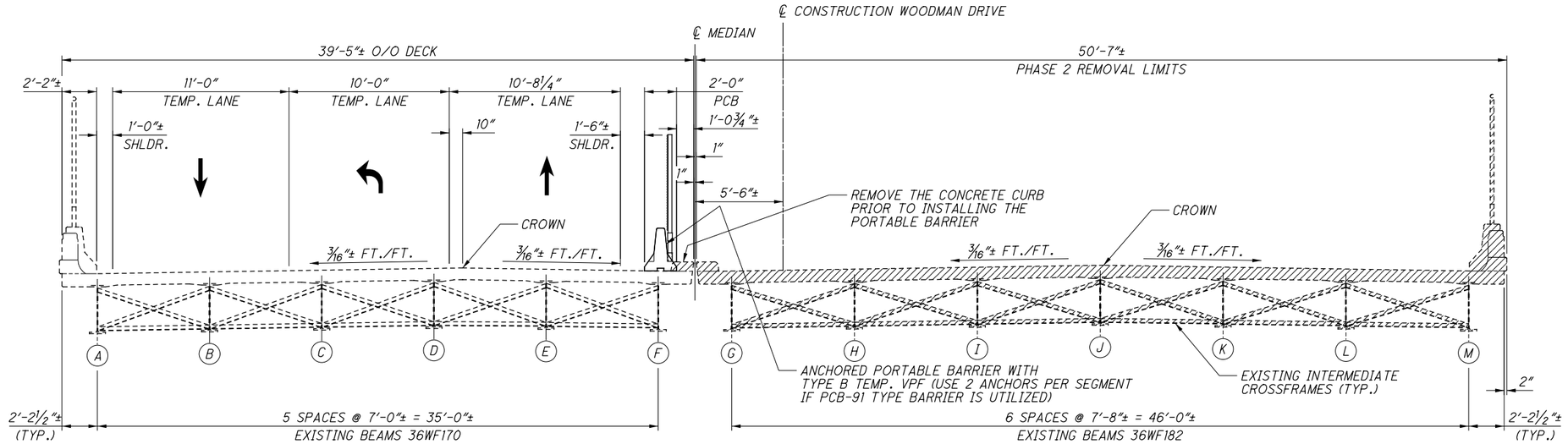
ESTIMATED QUANTITIES
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273

5 / 47

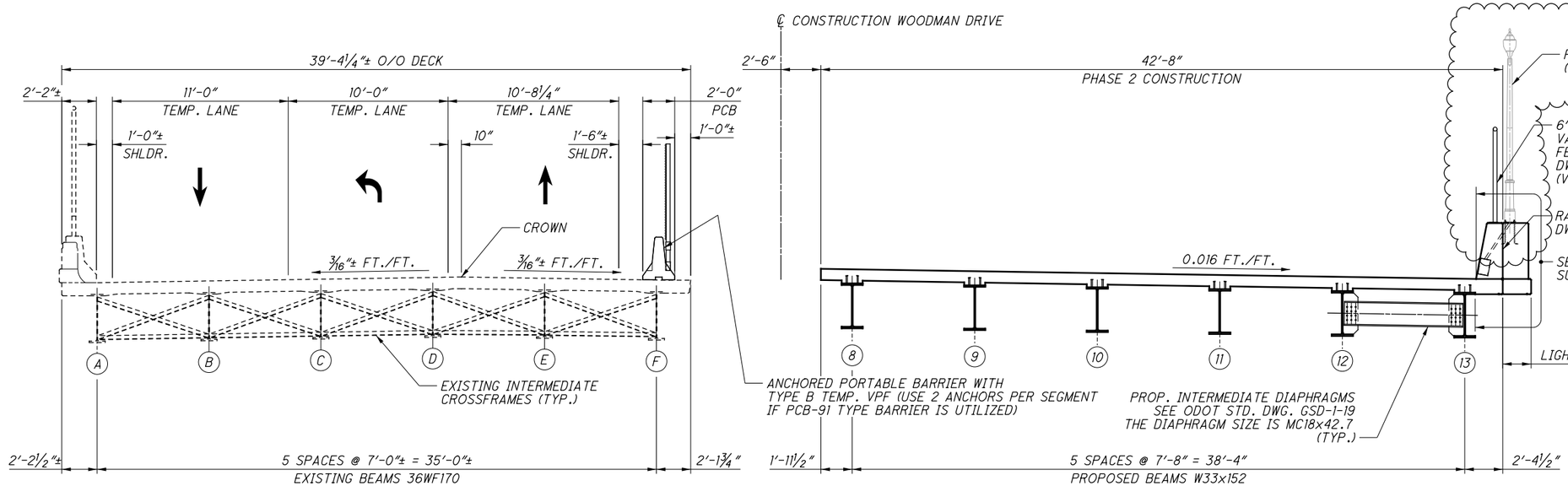
252
351

P:\90273\Design\Structures\MOT835_0002C\Sheets\835_0002CS000I.dgn Sheet 9/28/2022 2:32:45 PM tsheldon



PHASE 2 REMOVAL

(LOOKING UPSTATION)



PHASE 2 CONSTRUCTION

(LOOKING UPSTATION)

PHASE 2 - REMOVAL

1. REMOVE EXISTING MEDIAN CURB AS SHOWN ON THE LEFT BRIDGE.
2. INSTALL PORTABLE BARRIERS AND TEMPORARY VANDAL PROTECTION AS SHOWN.
3. MAINTAIN TRAFFIC ON LEFT BRIDGE AS SHOWN.
4. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
5. PLACE TEMPORARY SHEET PILING AND REMOVE EXISTING PORTIONS OF ABUTMENTS AS SHOWN IN THE PLANS.

PHASE 2 - CONSTRUCTION

1. INSTALL TEMPORARY SHEET PILING AND CONSTRUCT NEW PORTIONS OF THE ABUTMENTS TO THE LIMITS SHOWN IN THE PLANS & INSTALL NEW BEARINGS.
2. CONSTRUCT NEW BEAMS & SHEAR CONNECTORS, DIAPHRAGMS, SEMI-INTEGRAL DIAPHRAGMS, DECK, APPROACH SLABS AND BRIDGE RAILING INDICATED AS PHASE 2 CONSTRUCTION, TO THE LIMITS SHOWN IN THE PLANS.
3. SEAL CONCRETE SURFACES TO THE LIMITS SHOWN IN THE PLANS.
4. INSTALL VANDAL PROTECTION FENCE TO THE LIMITS SHOWN IN THE PLANS.

LEGEND:

- ▨ - INDICATES AREAS TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
- (A) - EXISTING BEAM NUMBER DESIGNATION
- (#) - PROPOSED BEAM NUMBER DESIGNATION

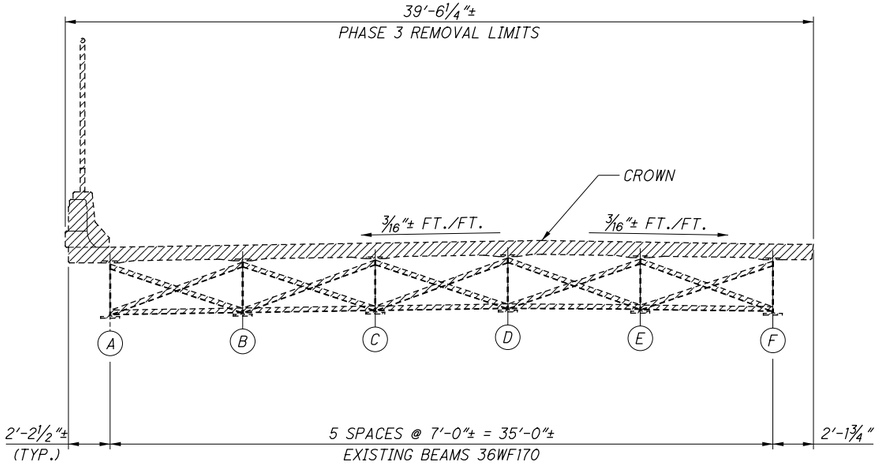
E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 · Grandview Heights, OH 43212
www.elrobinsonengineering.com

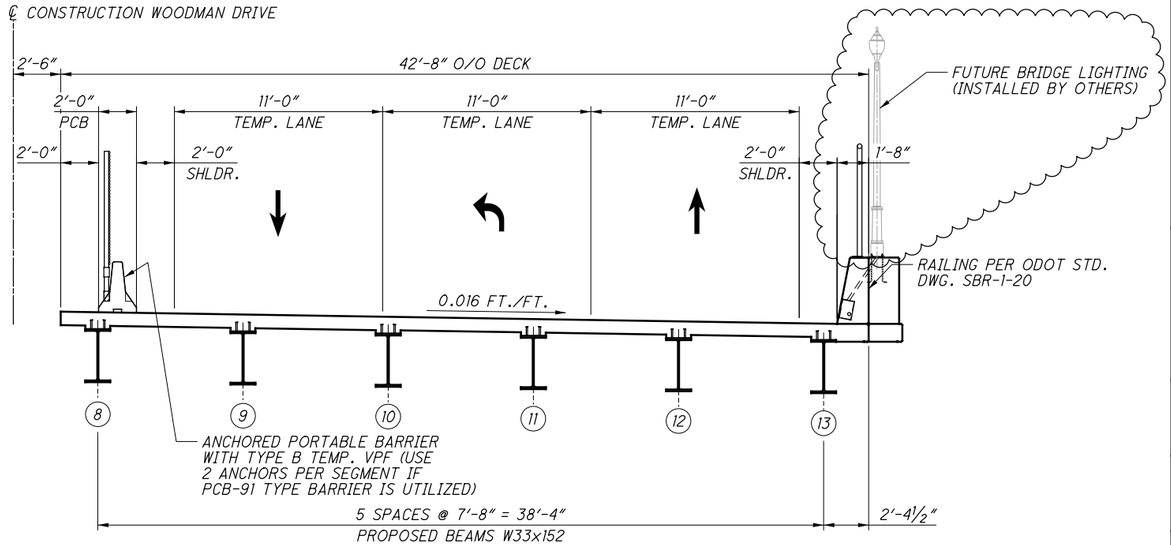
DESIGNED	DRAWN	REVIEWED	DATE
MRV	FIB	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
BCW	TAS	5703069	

PHASE CONSTRUCTION DETAILS (1 OF 2)

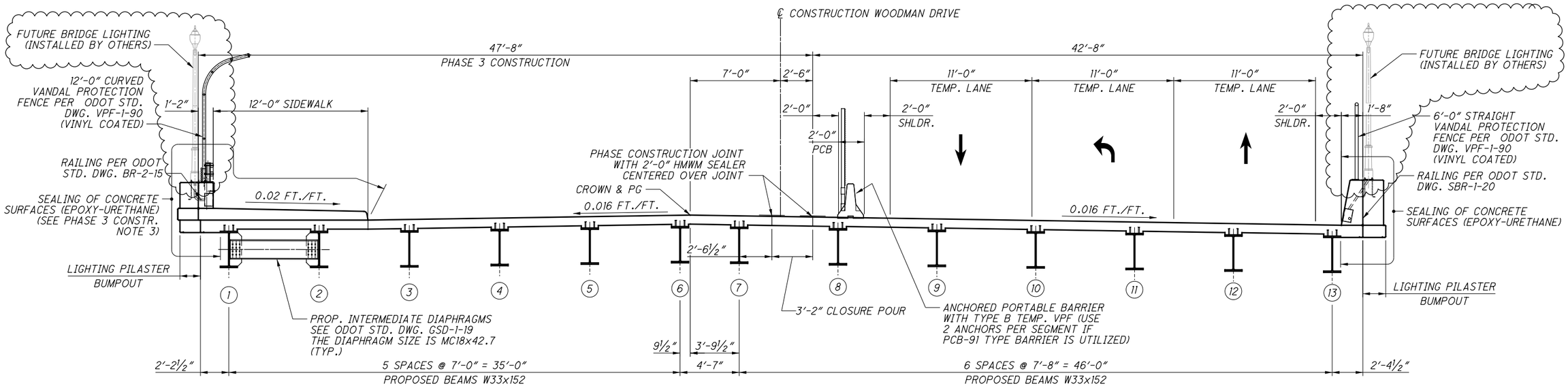
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273





PHASE 3 REMOVAL



PHASE 3 CONSTRUCTION

PHASE 3 REMOVAL

1. INSTALL PORTABLE BARRIERS AS SHOWN AND INSTALL TEMPORARY PROTECTION FENCE.
2. TRANSFER AND MAINTAIN TRAFFIC ON RIGHT BRIDGE AS SHOWN.
3. REMOVE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN IN THE PLANS.
4. PLACE TEMPORARY SHEET PILING AND REMOVE EXISTING PORTIONS OF ABUTMENTS AS SHOWN IN THE PLANS.

PHASE 3 CONSTRUCTION

1. INSTALL TEMPORARY SHEET PILING AND CONSTRUCT NEW PORTIONS OF THE ABUTMENTS TO THE LIMITS SHOWN IN THE PLANS & INSTALL NEW BEARINGS.
2. CONSTRUCT NEW BEAMS & SHEAR CONNECTORS, DIAPHRAGMS, SEMI-INTEGRAL DIAPHRAGMS, DECK, APPROCH SLABS, AND BRIDGE SIDWALK AND RAILING INDICATED AS PHASE 3 CONSTRUCTION, TO THE LIMITS SHOWN IN THE PLANS.
3. REMOVE TEMOPORARY SHEET PILING.
4. SEAL CONCRETE SURFACES TO THE LIMITS SHOWN IN THE PLANS. INTEGRATE SILICA SAND INTO SIDEWALK SURFACE TO PRODUCE NON-SKID SURFACE PER ODOT C&MS 512.03.
5. INSTALL VANDAL PROTECTION FENCE TO THE LIMITS SHOWN IN THE PLANS.
6. SEAL PHASE CONSTRUCTION JOINTS WITH HMWM SEALER.
7. PAINT THE SUPERSTRUCTURE STEEL.
8. OPEN BRIDGE AND MAINTAIN TRAFFIC AS SHOWN IN THE TRANSVERSE SECTION.

LEGEND:

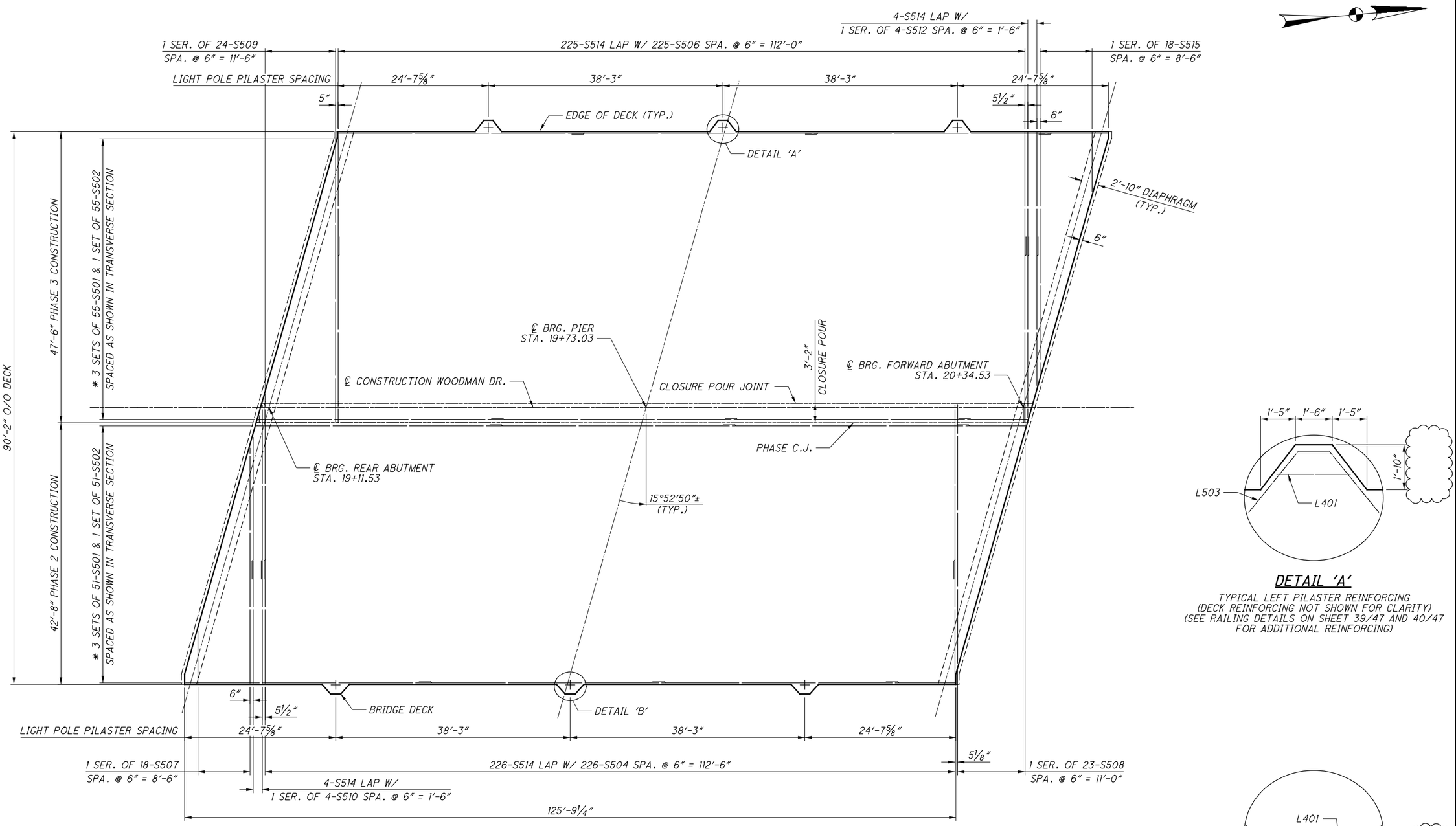
- ▨ - INDICATES AREAS TO BE REMOVED PER ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN
- (A) - EXISTING BEAM NUMBER DESIGNATION
- (#) - PROPOSED BEAM NUMBER DESIGNATION

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, OHio 43212
www.elrobinsonengineering.com

DESIGNED MRV | DRAWN FIB | REVIEWED DFT | DATE 9/1/2021
CHECKED BCW | REVISED TAS | STRUCTURE FILE NUMBER 5703069

PHASE CONSTRUCTION DETAILS (2 OF 2)
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273



DECK PLAN - BOTTOM REINFORCING

(SEMI-INTEGRAL DIAPHRAGM REINFORCHING NOT SHOWN)

MIN. LAP LENGTHS	
NO. 4 BARS	1'-11"
NO. 5 BARS	3'-0"

LEGEND:

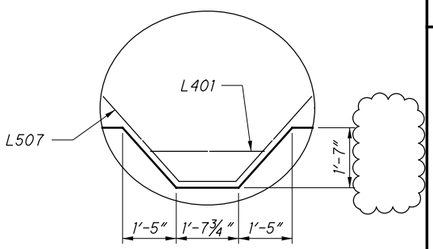
* ADJUST AS NECESSARY TO AVOID CONSTRUCTION JOINTS

NOTES:

1. FOR TOP OF DECK REINFORCING PLAN, SEE SHEET 30/47.

DETAIL 'A'

TYPICAL LEFT PILASTER REINFORCING
(DECK REINFORCING NOT SHOWN FOR CLARITY)
(SEE RAILING DETAILS ON SHEET 39/47 AND 40/47 FOR ADDITIONAL REINFORCING)



DETAIL 'B'

TYPICAL RIGHT PILASTER REINFORCING
(DECK REINFORCING NOT SHOWN FOR CLARITY)
(SEE RAILING DETAILS ON SHEET 41/47 AND 42/47 FOR ADDITIONAL REINFORCING)

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

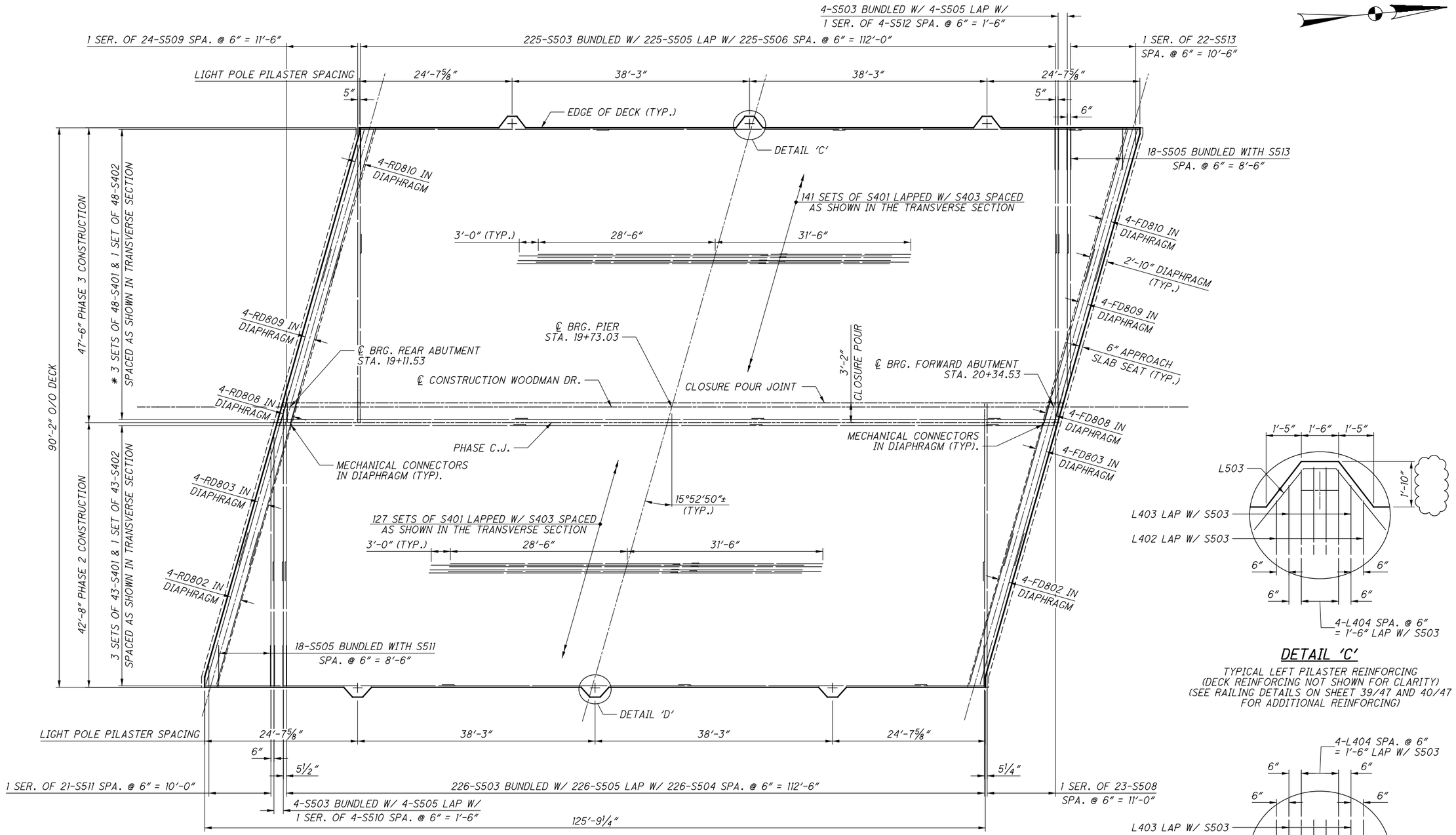
DESIGNED	DRAWN	REVIEWED	DATE
MRV	GLA/FIB	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAS	TAS	5703069	

DECK PLAN (BOTTOM REINFORCING)
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273

29/47

276/351



DECK PLAN - TOP REINFORCING

MIN. LAP LENGTHS	
NO. 4 BARS	1'-11"
NO. 5 BARS	3'-0"
NO. 8 BARS	5'-4"

LEGEND:

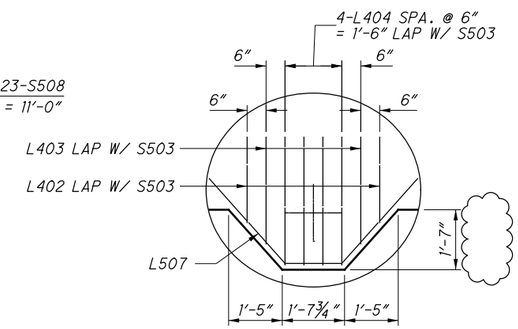
* - ADJUST AS NECESSARY TO AVOID CONSTRUCTION JOINTS

NOTES:

1. FOR BOTTOM OF DECK REINFORCING PLAN, SEE SHEET 29/47.

DETAIL 'C'

TYPICAL LEFT PILASTER REINFORCING
(DECK REINFORCING NOT SHOWN FOR CLARITY)
(SEE RAILING DETAILS ON SHEET 39/47 AND 40/47
FOR ADDITIONAL REINFORCING)



DETAIL 'D'

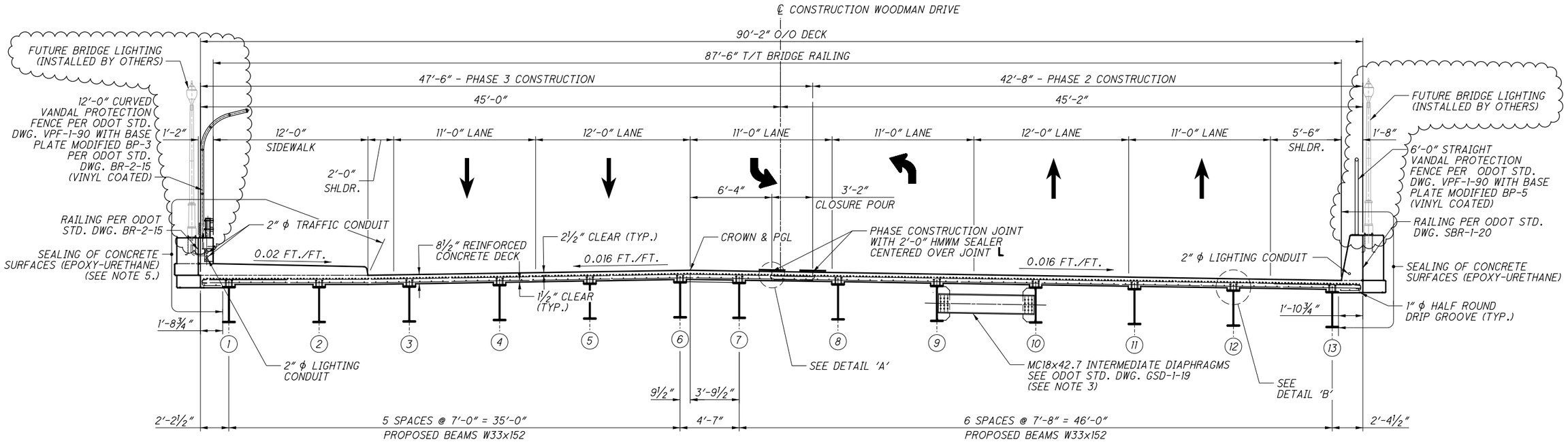
TYPICAL RIGHT PILASTER REINFORCING
(DECK REINFORCING NOT SHOWN FOR CLARITY)
(SEE RAILING DETAILS ON SHEET 41/47 AND 42/47
FOR ADDITIONAL REINFORCING)

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, OH 43212
www.elrobinsonengineering.com

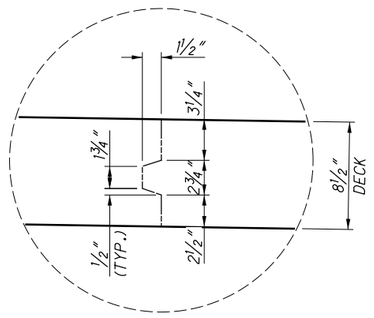
DESIGNED	DRAWN	REVIEWED	DATE
MRV	GLA/FIB	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAS	TAS	5703069	

DECK PLAN (TOP REINFORCING)
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

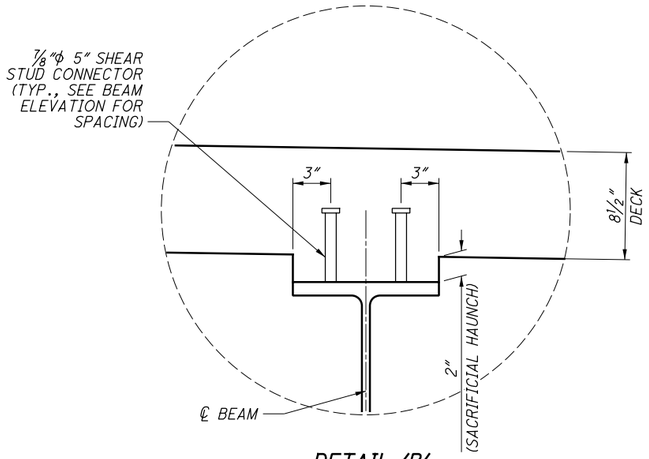
MOT-35-19.80
PID No. 90273



TRANSVERSE SECTION



DETAIL 'A'
(TYP. AT BOTH CONSTRUCTION JOINTS)



DETAIL 'B'

LEGEND:

(#) - BEAM NUMBER DESIGNATION

NOTES:

1. FOR DECK REINFORCING DETAILS, SEE SHEETS 29/47, 30/47, & 32/47.

2. DECK SLAB CONCRETE QUANTITY: THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK SLAB THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH BEAM HAUNCH. THE ESTIMATE ASSUMES A CONSTANT SACRIFICIAL HAUNCH THICKNESS OF 2" AT BEAMS 1 AND 2 AND 2⅛" INCHES AT BEAMS 3 THRU 13 AND A HAUNCH WIDTH EQUAL TO THE TOP FLANGE WIDTH. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.

   THE HAUNCH THICKNESS IS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE TOP OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS.

3. ALL DIAPHRAGMS LOCATED BETWEEN BEAMS 7 AND 8 SHALL BE INSTALLED AFTER THE DECK HAS BEEN POURED IN PHASE 3. DIAPHRAGMS IN THIS BAY SHALL BE DETAILED TO FIT AT THE COMPLETION OF THE DECK POURS ON EACH SIDE OF THE CLOSURE POUR.

4. FOR SIDEWALK REINFORCING DETAILS, SEE SHEET 38/47.

5. INTEGRATE SILICA SAND INTO SIDEWALK SURFACE TO PRODUCE NON-SKID SURFACE PER ODOT C&MS 512.03.

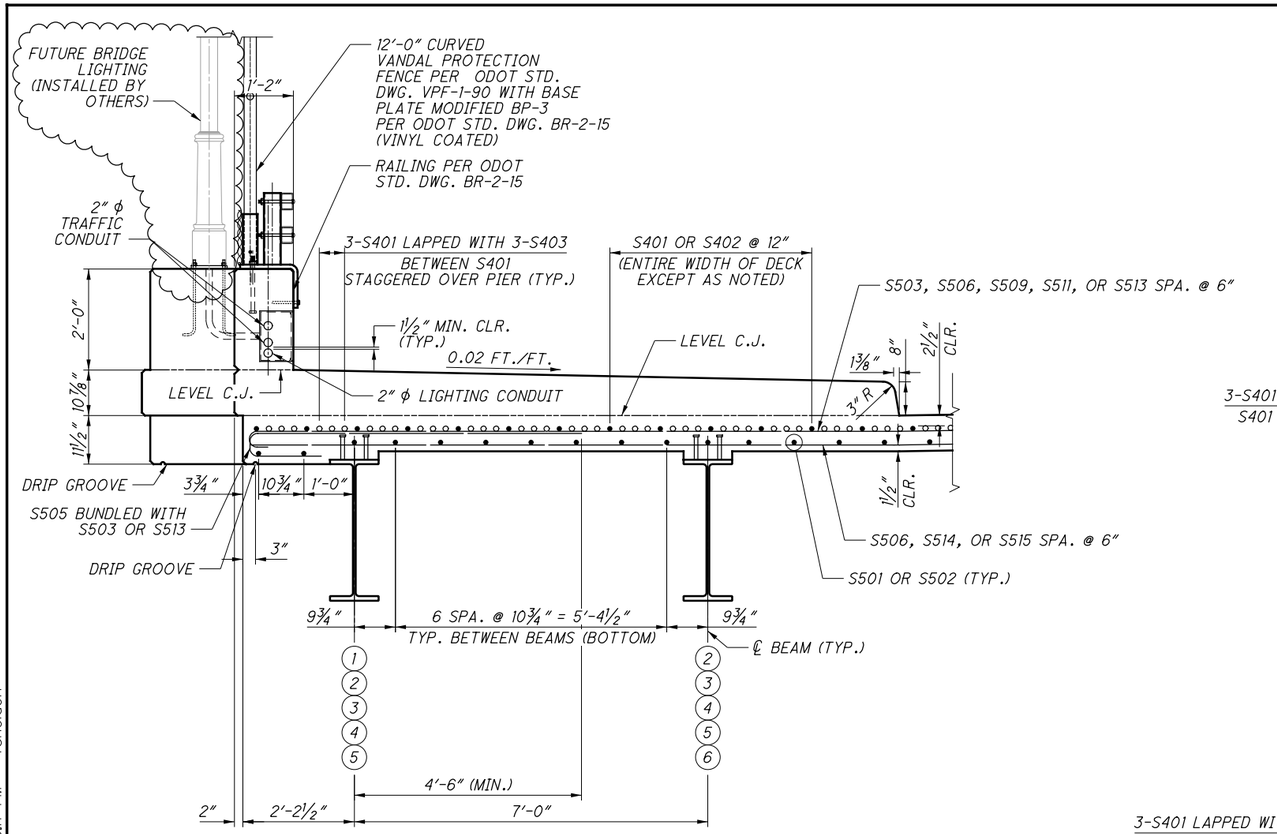
6. CONTRACTOR TO INSTALL ACCESS OPENINGS AT LOCATIONS OF THE FUTURE LIGHT POLES PER ODOT STD. DWG. VPF-1-90.

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

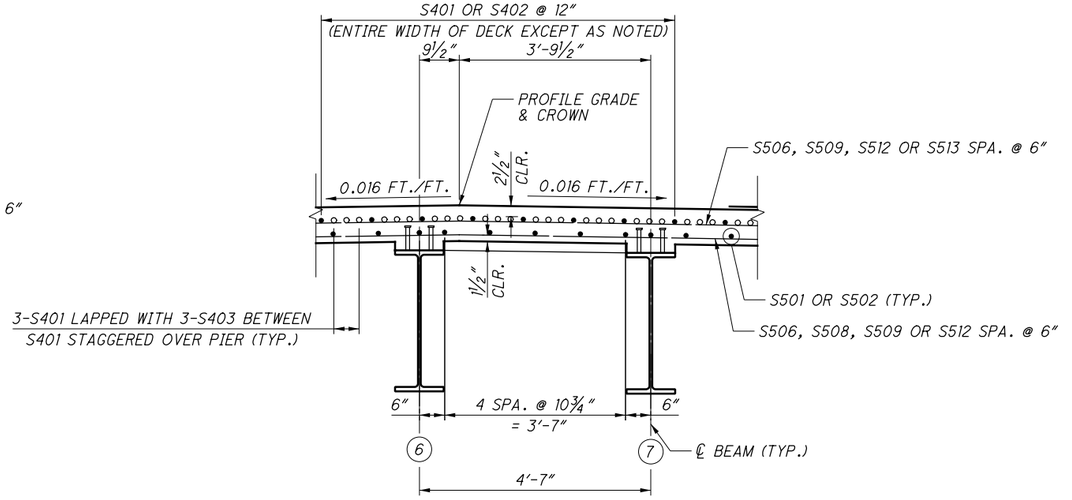
DESIGNED MRV | DRAWN FIB/GLA | CHECKED TAS | REVIEWED DFT | REVISED TAS | DATE 9/1/2021 | STRUCTURE FILE NUMBER 5703069

TRANSVERSE SECTION
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

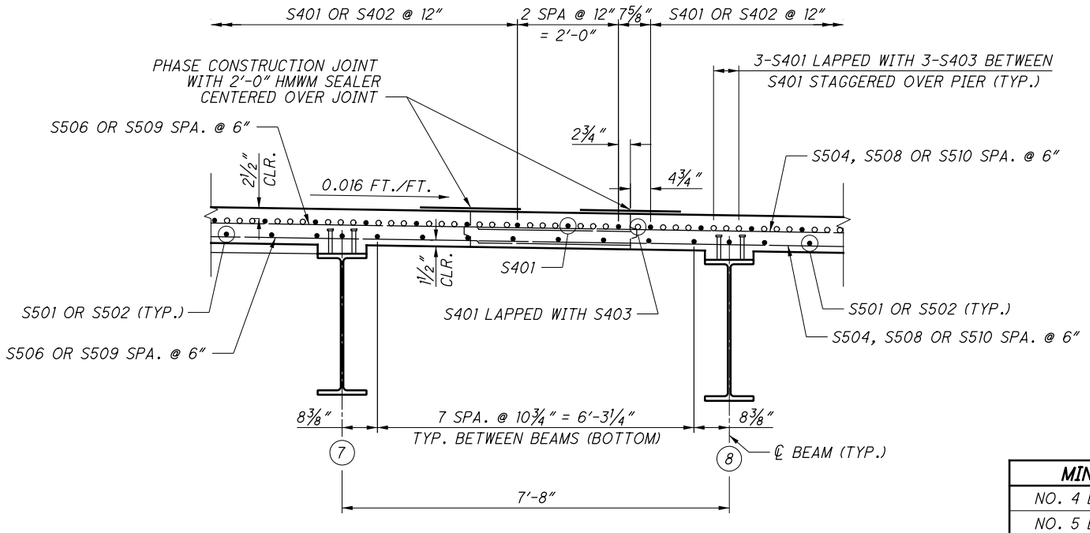
MOT-35-19.80
PID No. 90273



OVERHANG DETAIL AND BAYS BETWEEN BEAMS 1-6

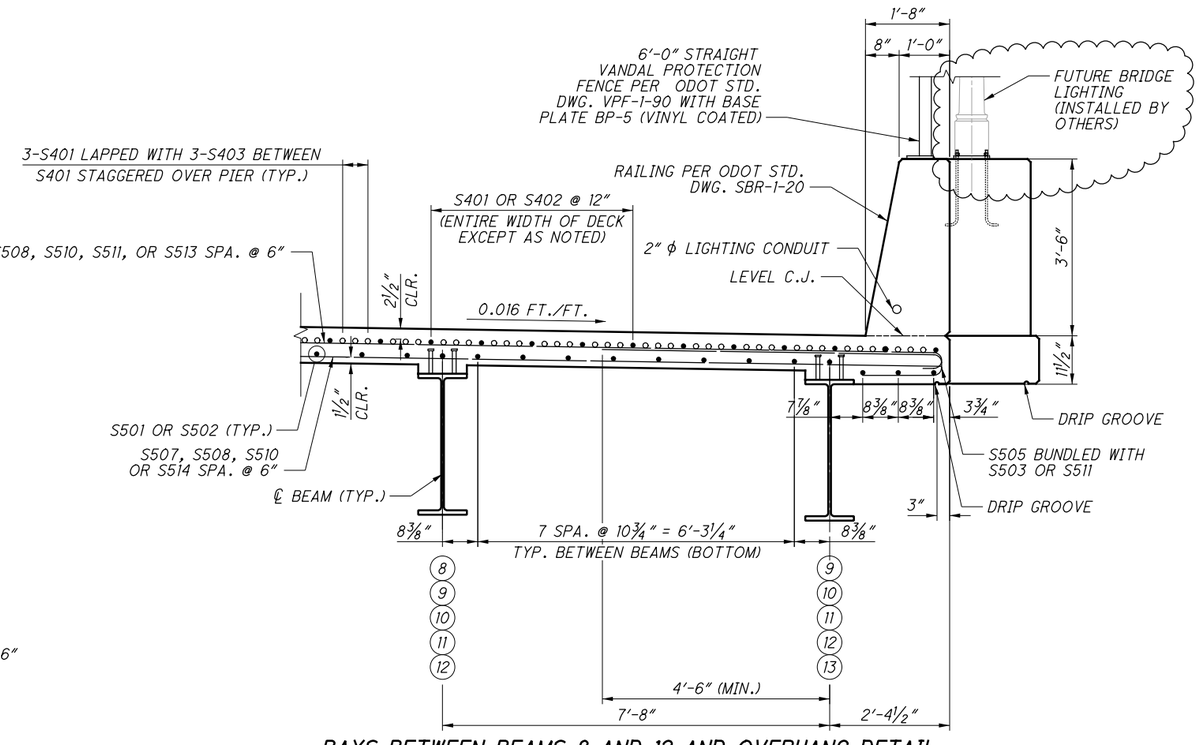


BAY BETWEEN BEAMS 6 AND 7



BAY BETWEEN BEAMS 7 AND 8

MIN. LAP LENGTHS	
NO. 4 BARS	1'-11"
NO. 5 BARS	3'-0"



BAYS BETWEEN BEAMS 8 AND 12 AND OVERHANG DETAIL

LEGEND:

(#) - BEAM NUMBER DESIGNATION

NOTES:

1. SIDEWALK REINFORCING NOT SHOWN FOR CLARITY. FOR REINFORCING IN THE SIDEWALK, SEE SHEET 38/47.

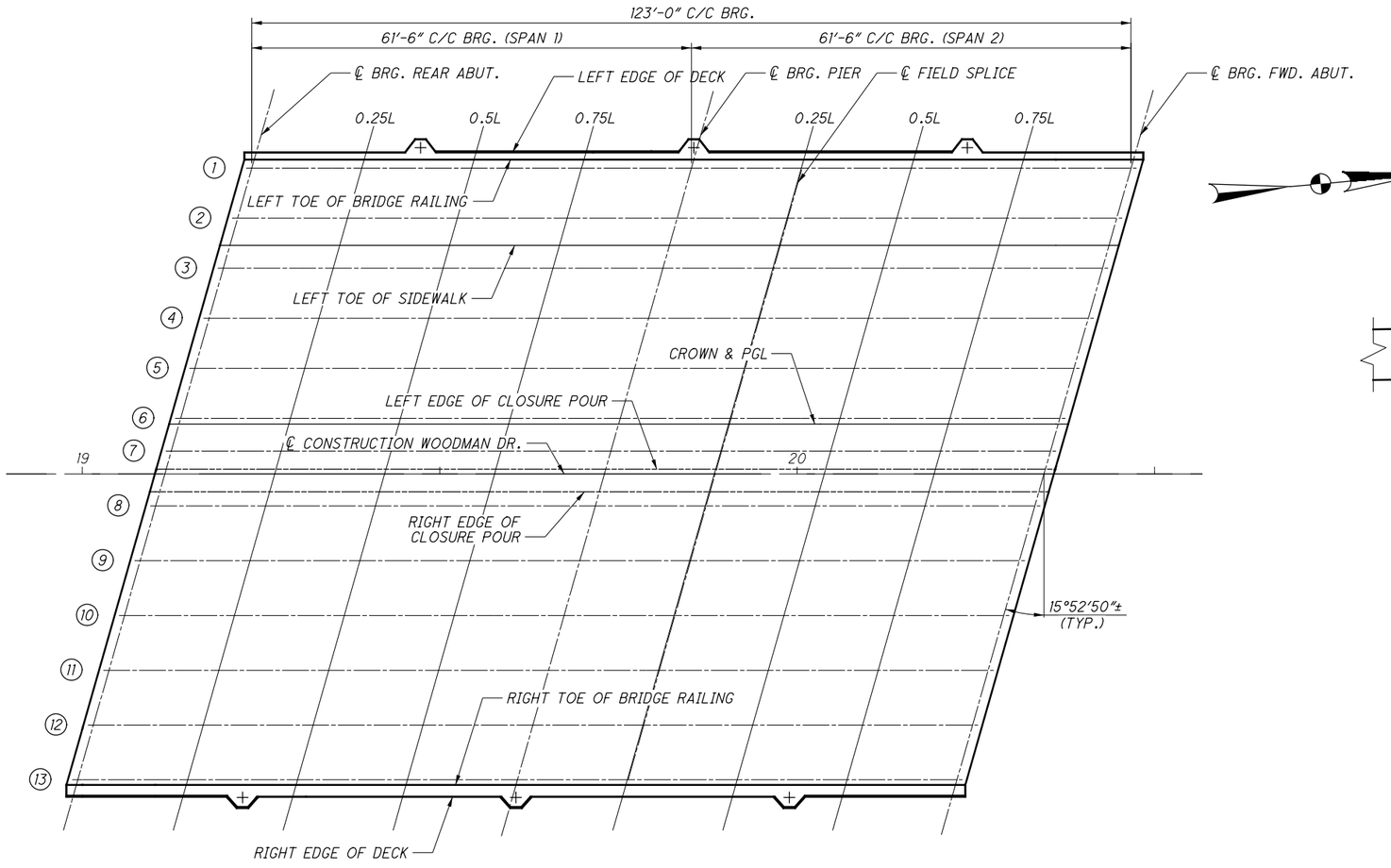
E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED MRV | DRAWN GLA | REVIEWED DFT | DATE 9/1/2021
CHECKED TAS | REVISED TAS | STRUCTURE FILE NUMBER 5703069

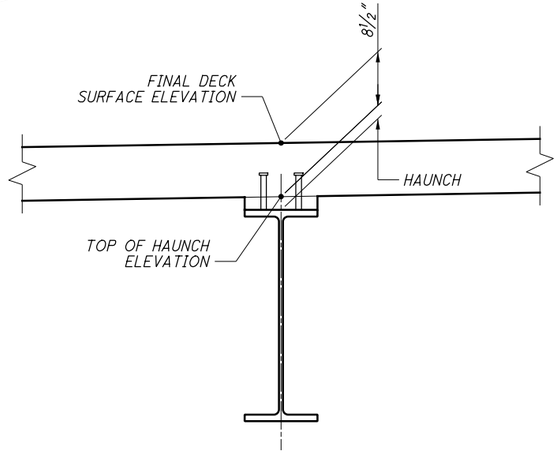
TRANSVERSE SECTION DETAILS

BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

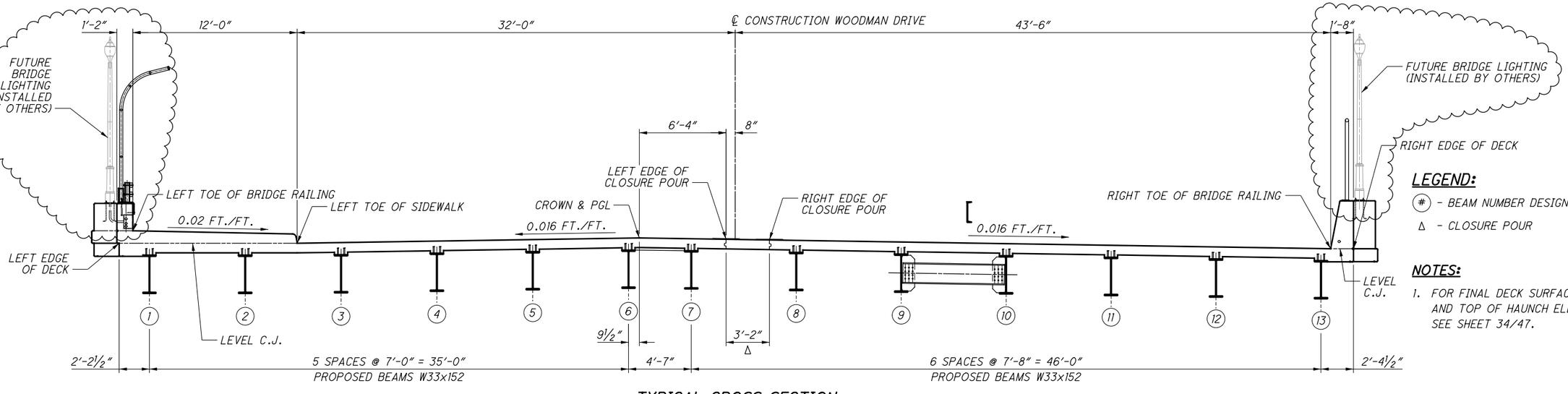
MOT-35-19.80
PID No. 90273



DECK KEY PLAN



DECK HAUNCH DETAIL



TYPICAL CROSS SECTION

LEGEND:

(#) - BEAM NUMBER DESIGNATION

Δ - CLOSURE POUR

NOTES:

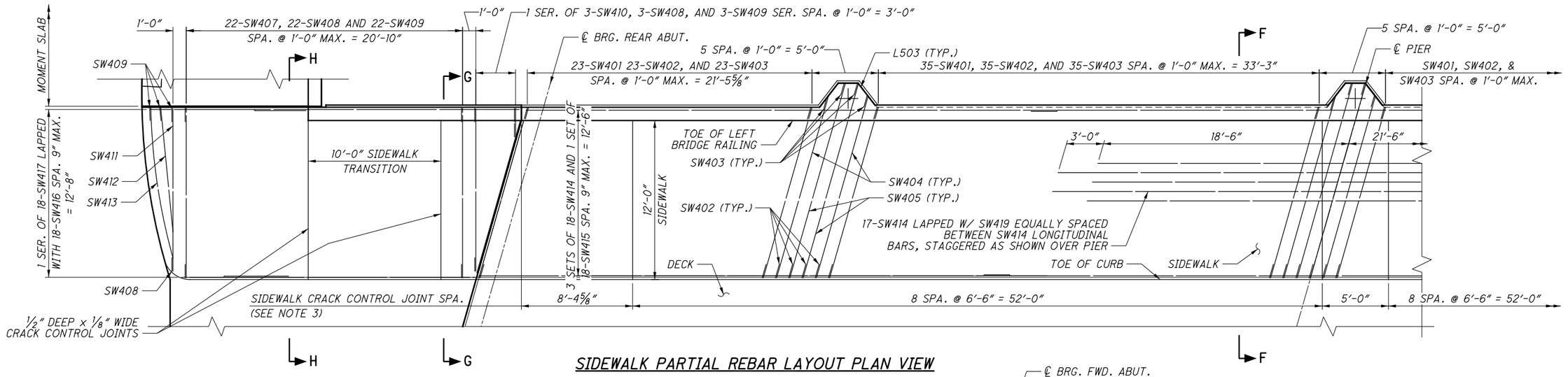
1. FOR FINAL DECK SURFACE, SCREED, AND TOP OF HAUNCH ELEVATIONS, SEE SHEET 34/47.

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

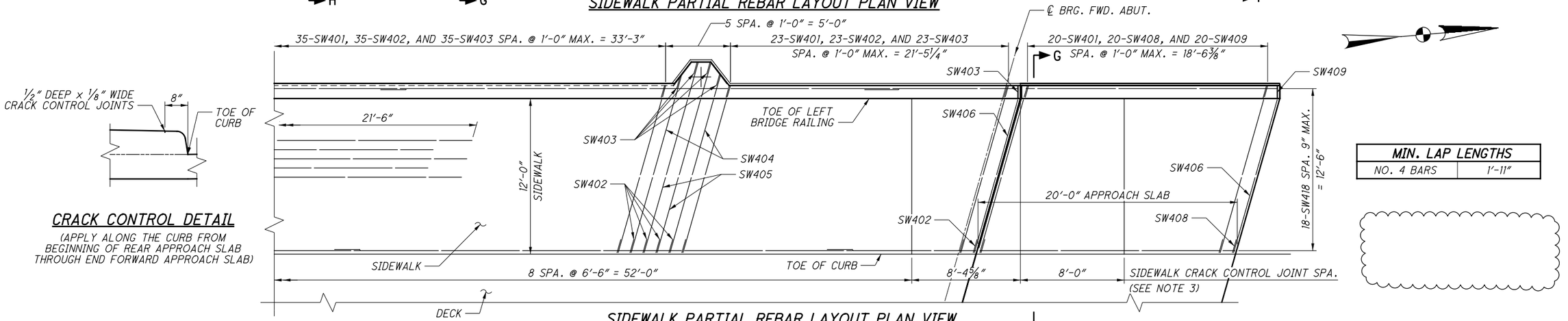
DESIGNED	DRAWN	REVIEWED	DATE
MRV	GLA	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAS	TAS	5703069	

DECK KEY PLAN
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273



SIDEWALK PARTIAL REBAR LAYOUT PLAN VIEW

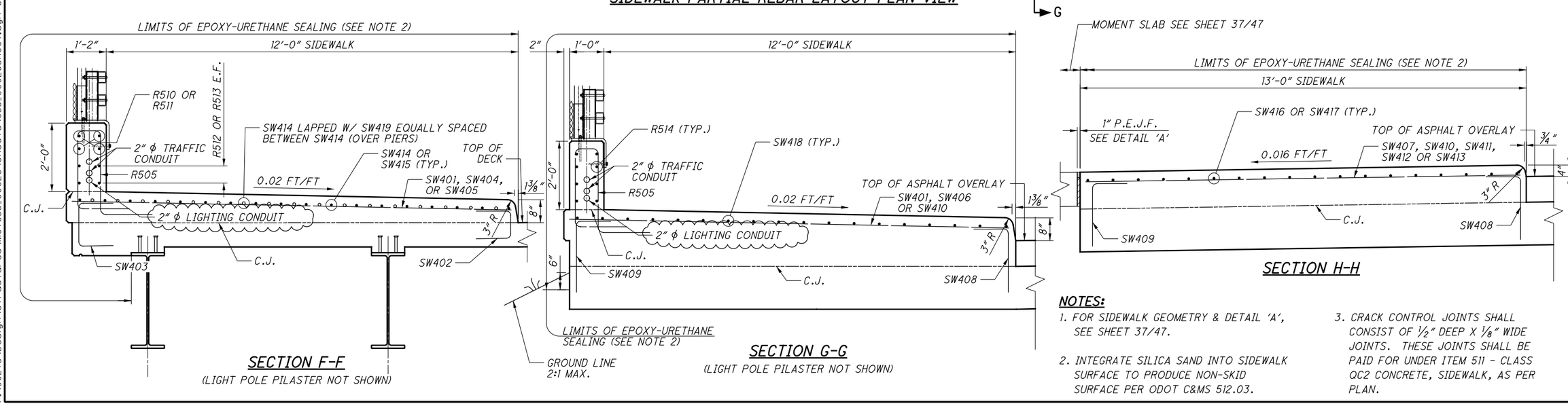


MIN. LAP LENGTHS	
NO. 4 BARS	1'-11"

CRACK CONTROL DETAIL

(APPLY ALONG THE CURB FROM BEGINNING OF REAR APPROACH SLAB THROUGH END FORWARD APPROACH SLAB)

SIDEWALK PARTIAL REBAR LAYOUT PLAN VIEW



SECTION F-F

(LIGHT POLE PILASTER NOT SHOWN)

SECTION G-G

(LIGHT POLE PILASTER NOT SHOWN)

SECTION H-H

NOTES:

1. FOR SIDEWALK GEOMETRY & DETAIL 'A', SEE SHEET 37/47.
2. INTEGRATE SILICA SAND INTO SIDEWALK SURFACE TO PRODUCE NON-SKID SURFACE PER ODOT C&MS 512.03.
3. CRACK CONTROL JOINTS SHALL CONSIST OF ½" DEEP X ⅛" WIDE JOINTS. THESE JOINTS SHALL BE PAID FOR UNDER ITEM 511 - CLASS QC2 CONCRETE, SIDEWALK, AS PER PLAN.

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

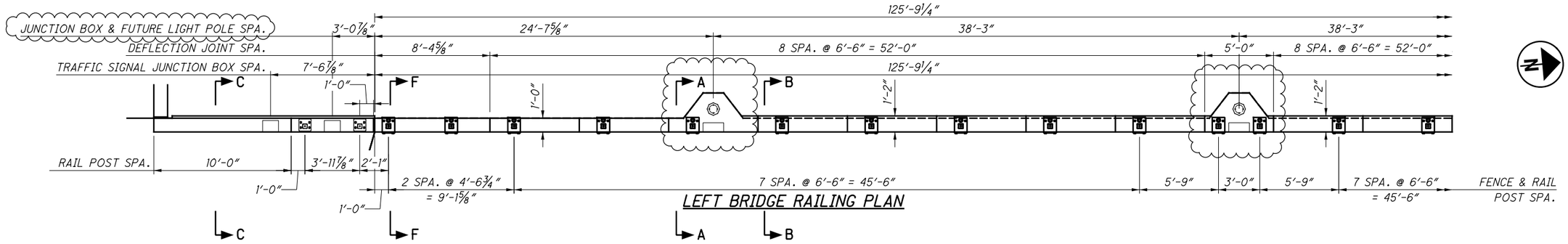
DESIGNED	DRAWN	REVIEWED	DATE
GLA	GLA	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
TAS	TAS	5703069	

SIDEWALK REINFORCING DETAILS
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

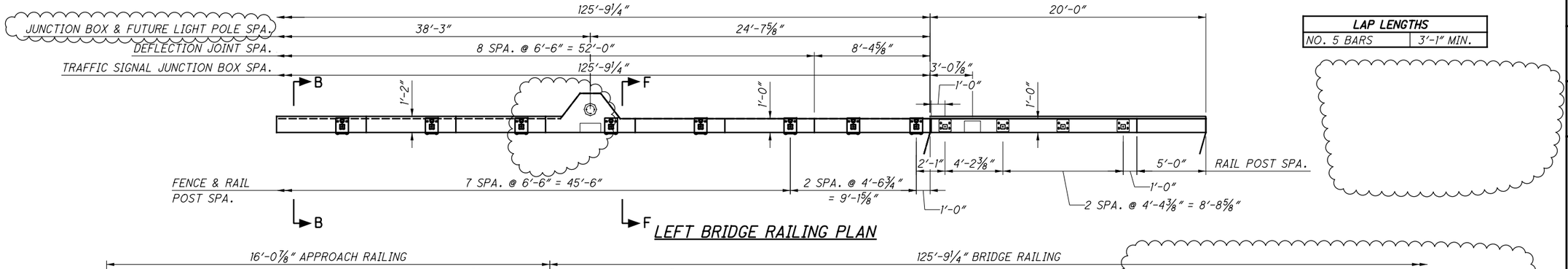
MOT-35-19.80
PID No. 90273

38 / 47

285 / 351

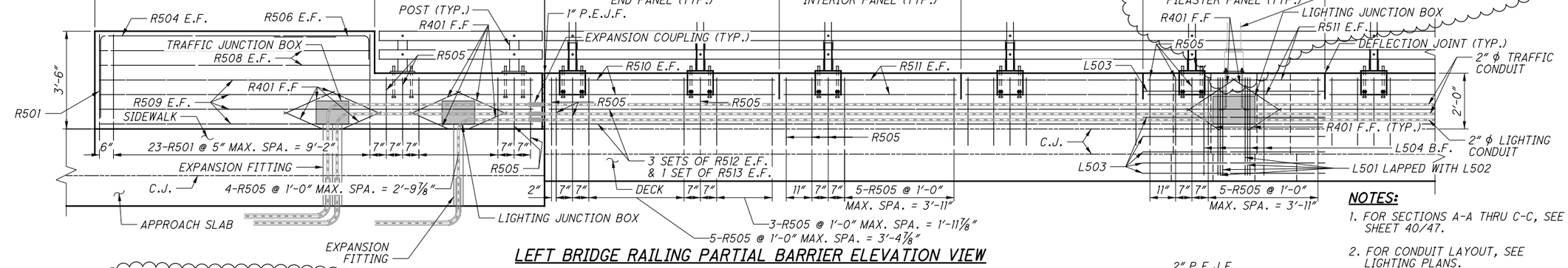


LEFT BRIDGE RAILING PLAN

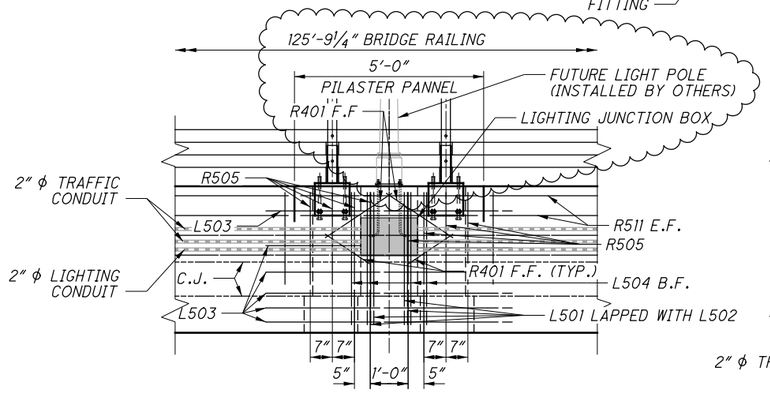


LAP LENGTHS	
NO. 5 BARS	3'-1" MIN.

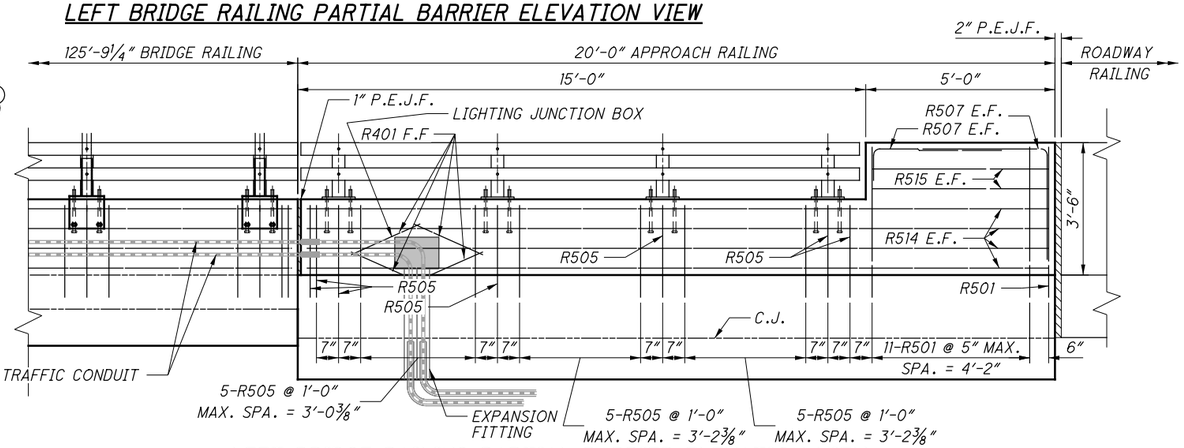
LEFT BRIDGE RAILING PLAN



LEFT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW



LEFT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW



LEFT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW

NOTES:

1. FOR SECTIONS A-A THRU C-C, SEE SHEET 40/47.
2. FOR CONDUIT LAYOUT, SEE LIGHTING PLANS.
3. LIGHTING CONDUIT TERMINATES AT THE NORTHERN-MOST LIGHTING PILASTER.
4. ALL ANCHOR BOLTS, STEEL PLATES, STEEL POSTS, STEEL TUBE RAILING, STEEL POST CAPS, BOLTS, HEX NUTS WASHERS AND OTHER HARDWARE NECESSARY TO INSTALL THE LEFT BRIDGE RAILING SHALL BE PAID FOR UNDER ITEM 517-RAILING (CONCRETE PARAPET WITH TWIN STEEL TUBE RAILING AND VANDAL PROTECTION FENCE), AS PER PLAN. CONCRETE AND STEEL REINFORCING FOR THE BRIDGE RAILING SHALL BE PAID FOR SEPARATELY.
5. BARS R505, R509 AND R512 ARE TO BE CUT TO FIT AROUND THE JUNCTION BOXES AND SHALL BE PAID FOR UNDER ITEM 509, REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL, AS PER PLAN.

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

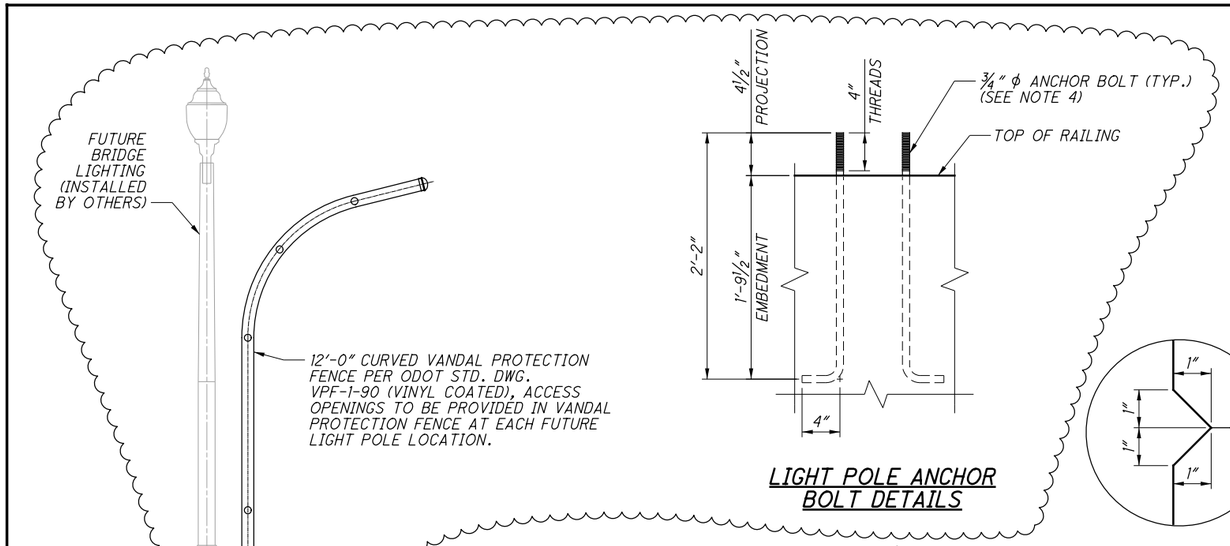
DESIGNED TAS | DRAWN DTA/GLA | REVIEWED DFT | DATE 9/1/2021
CHECKED JOL | REVISED TAS | STRUCTURE FILE NUMBER 5703069

LEFT BRIDGE RAILING DETAILS (1 OF 2)

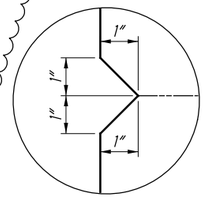
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273

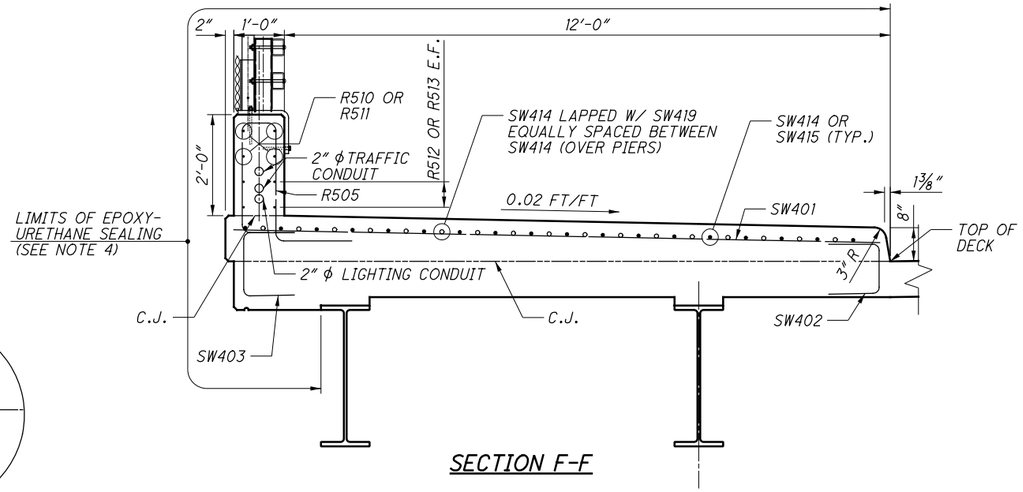
39/47
286/351



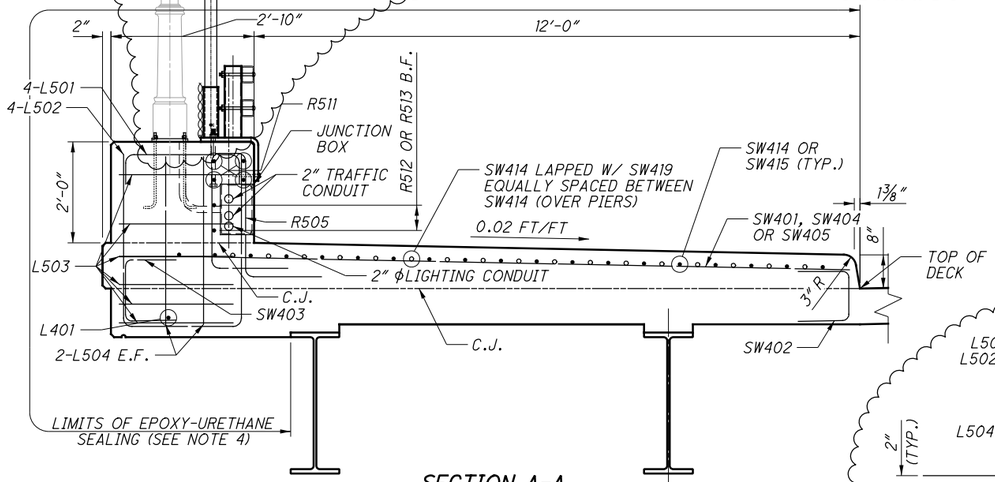
LIGHT POLE ANCHOR BOLT DETAILS



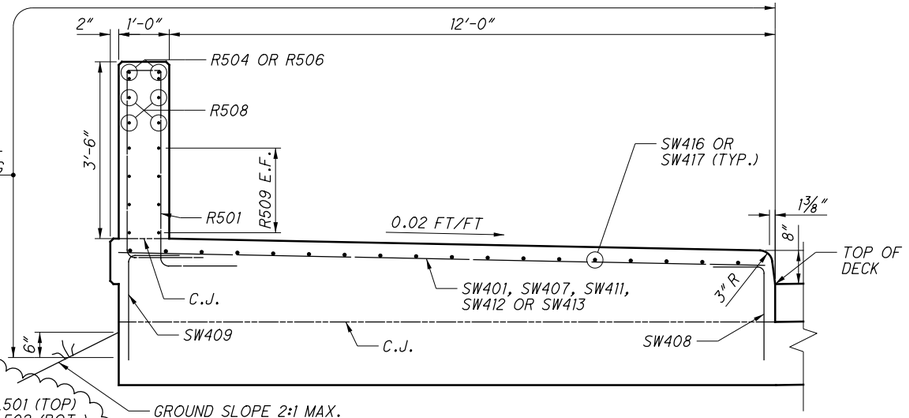
DETAIL A



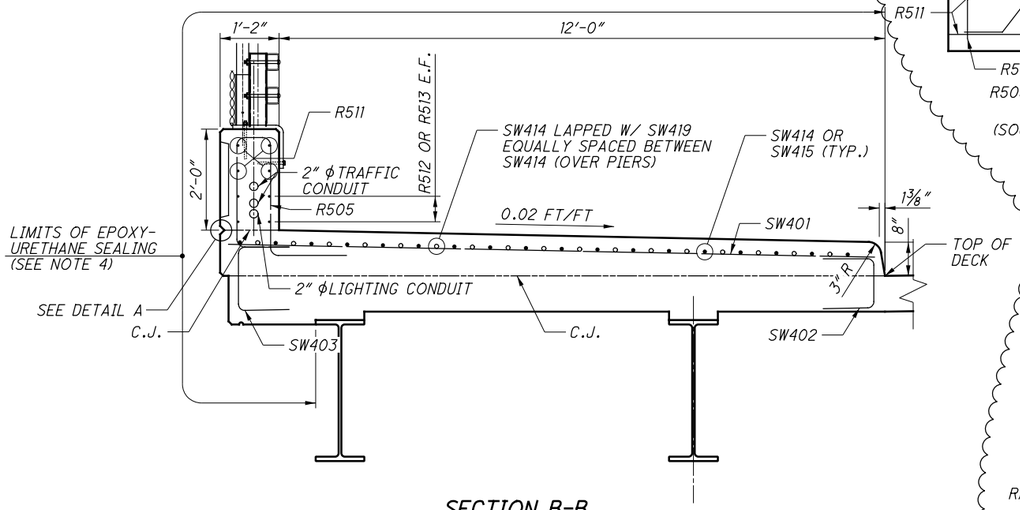
SECTION F-F



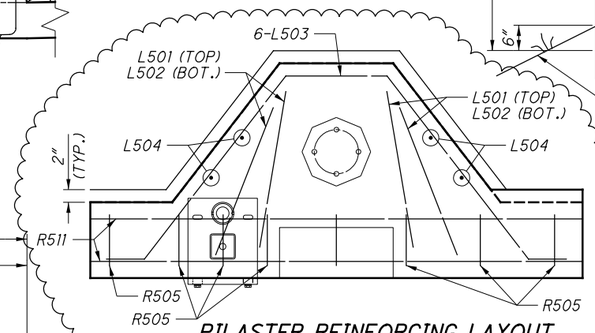
SECTION A-A



SECTION C-C

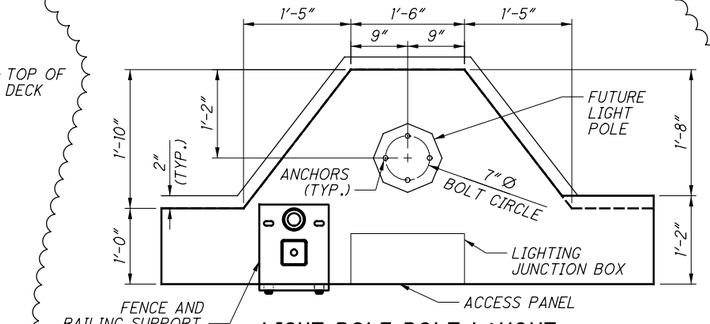


SECTION B-B



PILASTER REINFORCING LAYOUT

(SOUTHERNMOST LIGHT POLE PILASTER SHOWN, OTHERS SIMILAR)



LIGHT POLE BOLT LAYOUT

(SOUTHERNMOST LIGHT POLE PILASTER SHOWN, OTHERS SIMILAR)

NOTES:

1. FOR ADDITIONAL DETAILS, SEE ODOT STD. DWG. BR-2-15 AND HL-20.14.
2. FOR THE LOCATION OF SECTIONS A-A THRU C-C, SEE SHEET 39/47.
3. INTEGRATE SILICA SAND INTO SIDEWALK SURFACE TO PRODUCE NON-SKID SURFACE PER ODOT C&MS 512.03.
4. PROVIDED HOT-DIP GALVANIZED LIGHT POLE ANCHOR RODS. THREAD RODS WITH UNC CLASS 2A ROLLED THREADS. ANCHOR ROD GRADE SHALL BE ASTM F1554 GRADE 55. ANCHOR RODS ARE TO PAID FOR UNDER ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA BRIDGE DECK (PARAPET), AS PER PLAN.

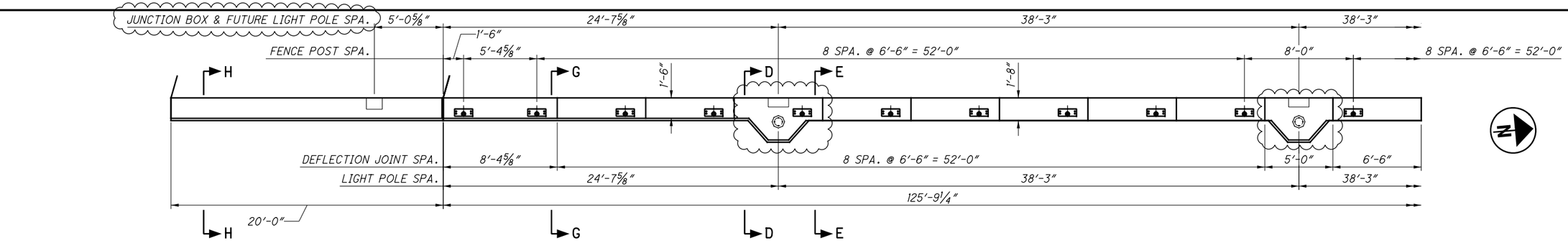
E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED	DRAWN	REVIEWED	DATE
TAS	DTA/GLA	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JOL	TAS	5703069	

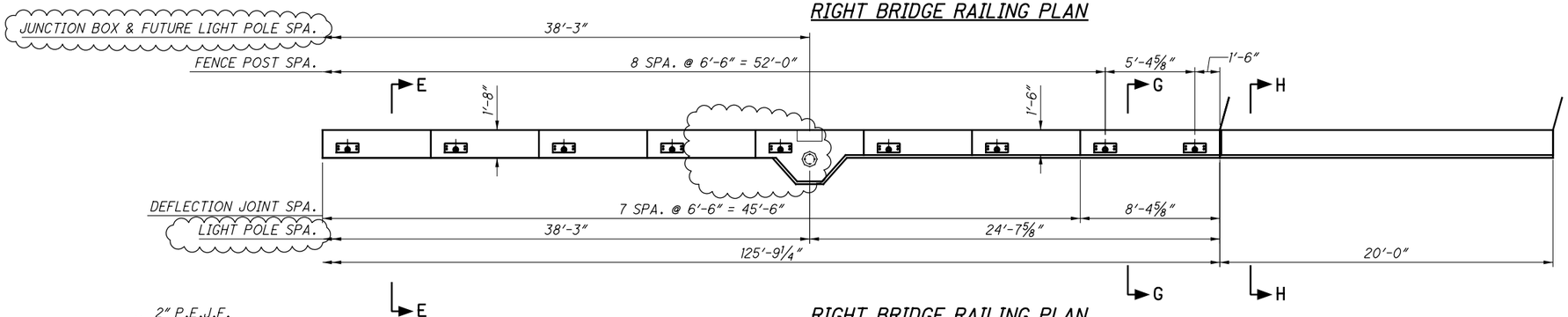
LEFT BRIDGE RAILING DETAILS (2 OF 2)

BRIDGE NO. MOT-00835-0002
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273

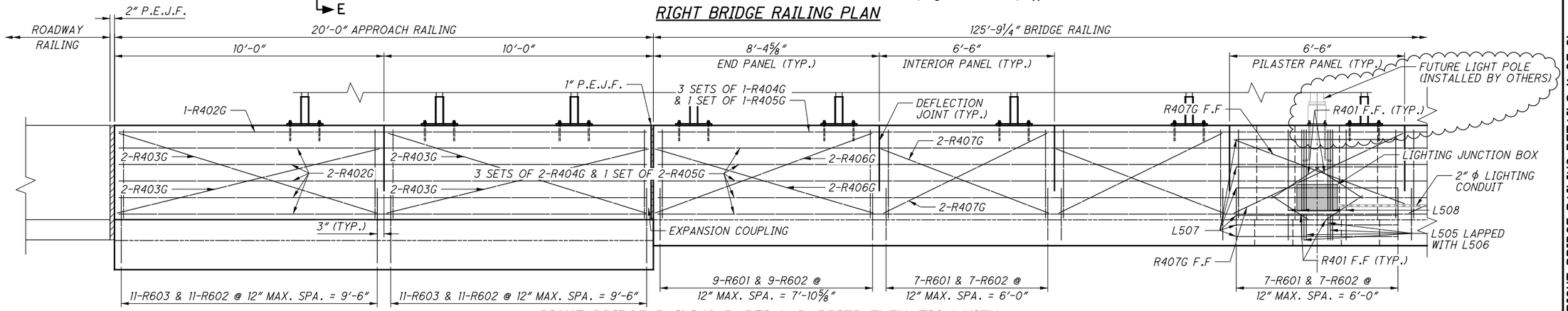


RIGHT BRIDGE RAILING PLAN

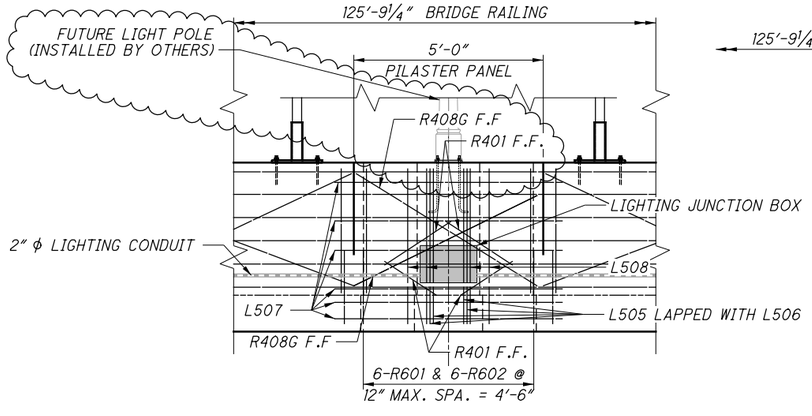


RIGHT BRIDGE RAILING PLAN

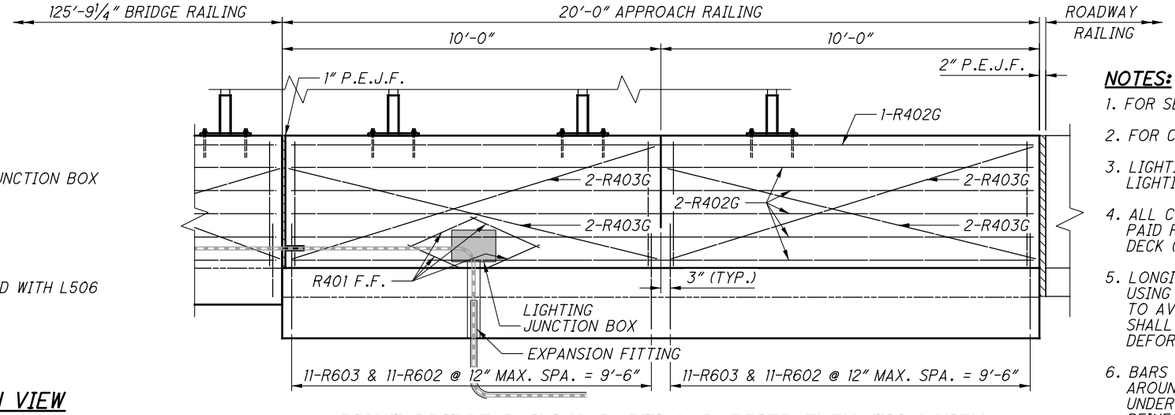
LAP LENGTHS	
NO. 4 BARS (GFRP)	1'-1" MIN.
NO. 5 BARS	3'-1" MIN.



RIGHT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW



RIGHT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW



RIGHT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW

NOTES:

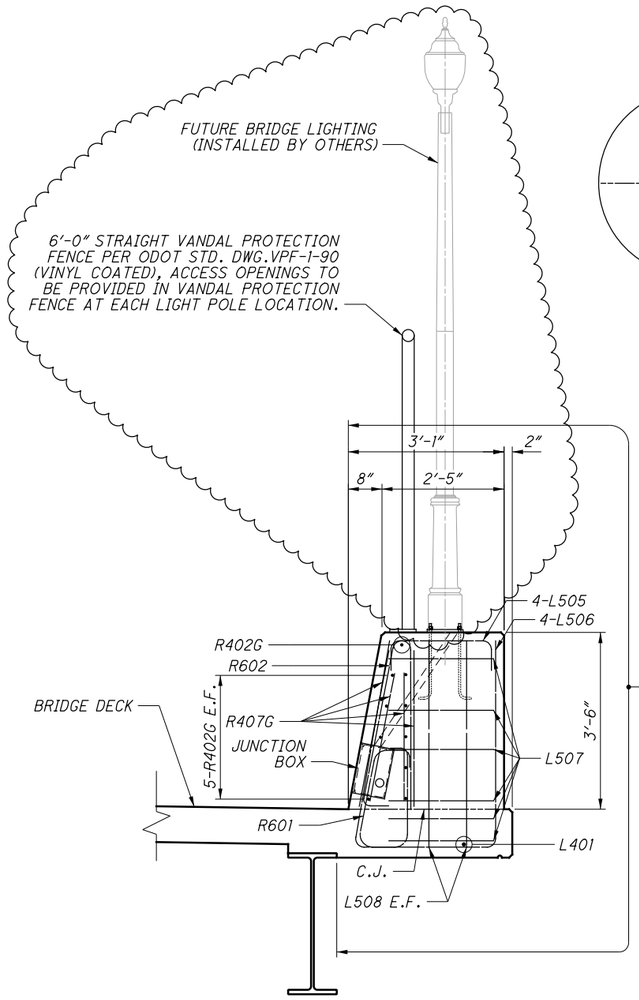
1. FOR SECTIONS D-D & E-E, SEE SHEET 42/47.
2. FOR CONDUIT LAYOUT, SEE LIGHTING PLANS.
3. LIGHTING CONDUIT TERMINATES AT THE NORTHERN-MOST LIGHTING PILASTER.
4. ALL CONCRETE FOR THE RIGHT BRIDGE RAILING SHALL BE PAID FOR UNDER ITEM 511 - CLASS QC2 CONCRETE BRIDGE DECK (PARAPET).
5. LONGITUDINAL GFRP REINFORCING BARS MAY BE CUT USING A FINE BLADE SAW, GRINDER OR DIAMOND BLADE TO AVOID INTERFERENCE WITH THE JUNCTION BOXES. THIS SHALL BE PAID FOR UNDER ITEM 509, NO. 4 GFRP DEFORMED BAR, AS PER PLAN.
6. BARS R601, R602 AND R603 ARE TO BE CUT TO FIT AROUND THE JUNCTION BOXES AND SHALL BE PAID FOR UNDER ITEM 509, REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL, AS PER PLAN.

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

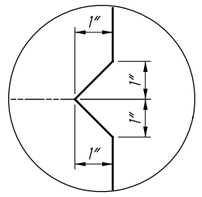
DESIGNED	DRAWN	REVIEWED	DATE
TAS	DTA/GLA	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JOL	TAS	5703069	

RIGHT BRIDGE RAILING DETAILS (1 OF 2)
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

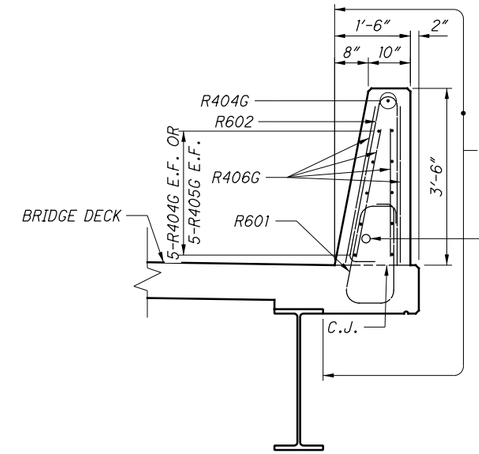
MOT-35-19.80
PID No. 90273



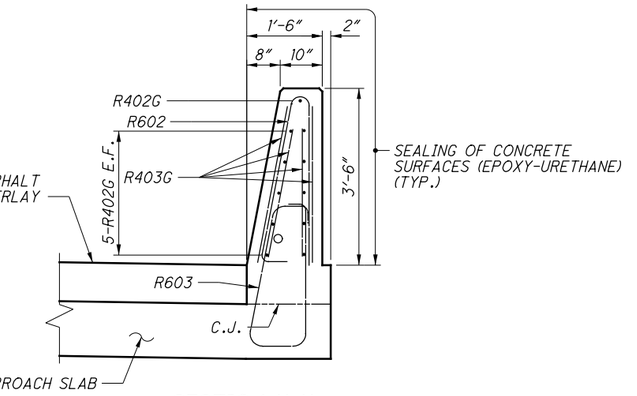
SECTION D-D



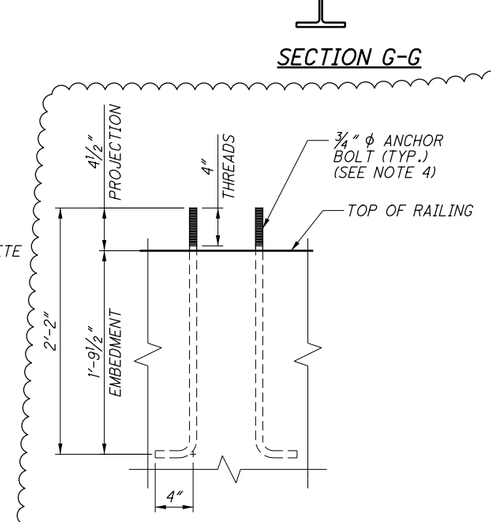
DETAIL A



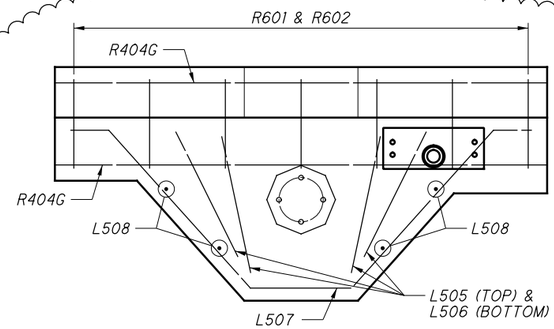
SECTION G-G



SECTION H-H

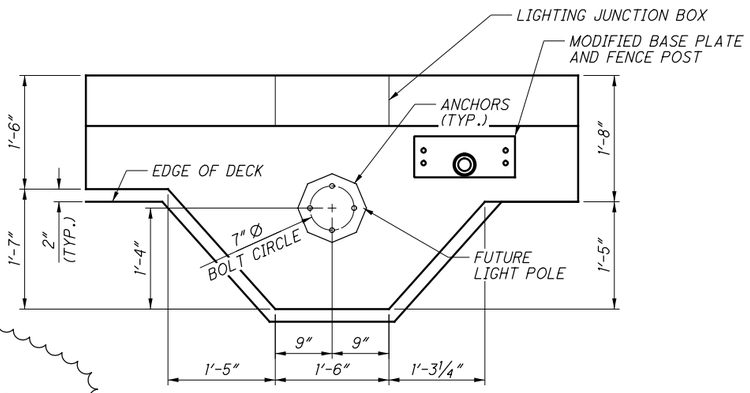


LIGHT POLE ANCHOR BOLT DETAILS



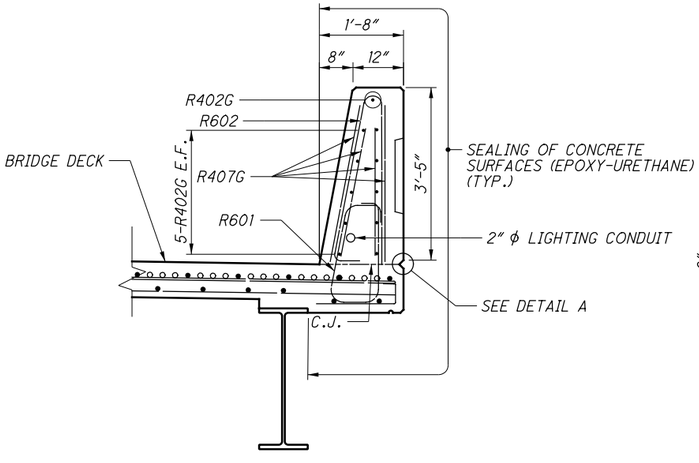
PILASTER REINFORCING LAYOUT

(SOUTHERNMOST LIGHT POLE PILASTER SHOWN, OTHERS SIMILAR)

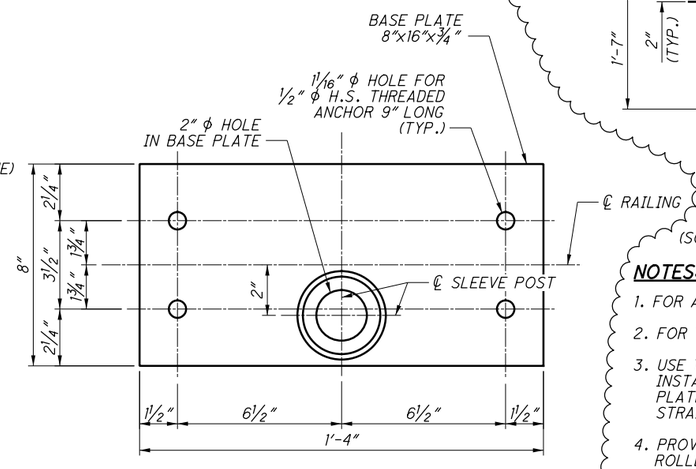


LIGHT POLE BOLT LAYOUT

(SOUTHERNMOST LIGHT POLE PILASTER SHOWN, OTHERS SIMILAR)



SECTION E-E



MODIFIED FENCE POST BASE PLATE

NOTES:

1. FOR ADDITIONAL DETAILS, SEE ODOT STD. DWG. SBR-1-20 AND HL-20.14.
2. FOR THE LOCATION OF SECTIONS D-D & E-E, SEE SHEET 41/47.
3. USE THE MODIFIED BASE PLATE FOR THE VANDAL PROTECTION FENCE. FOR ALL ADDITIONAL INSTALLATION DETAILS, REFER TO BASE PLATE BP-5 IN ODOT STD. DWG. VPF-1-90. THE BASE PLATE AND FENCE ARE TO BE PAID FOR UNDER ITEM 607 - VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN.
4. PROVIDED HOT-DIP GALVANIZED LIGHT POLE ANCHOR RODS. THREAD RODS WITH UNC CLASS 2A ROLLED THREADS. ANCHOR ROD GRADE SHALL BE ASTM F1554 GRADE 55. ANCHOR RODS ARE TO PAID FOR UNDER ITEM 511 - CLASS QC2 CONCRETE WITH QC/QA BRIDGE DECK (PARAPET), AS PER PLAN.

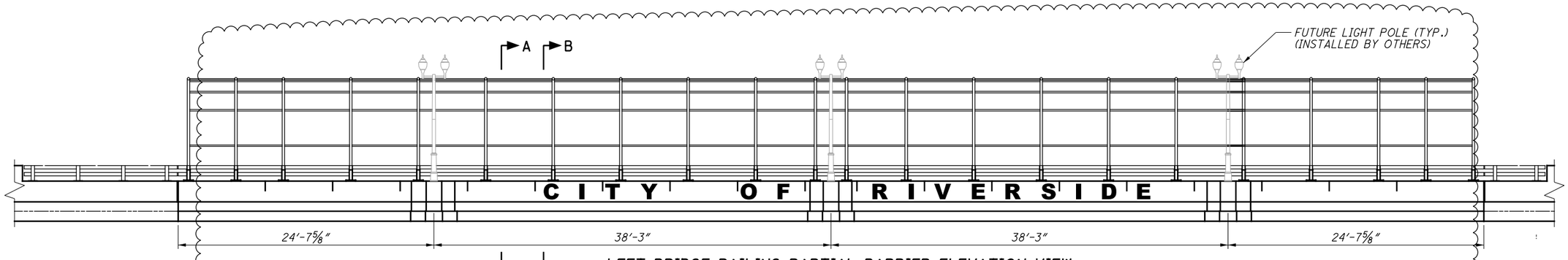
E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 · Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED	DRAWN	REVIEWED	DATE
TAS	DTA/GLA	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JOL	TAS	5703069	

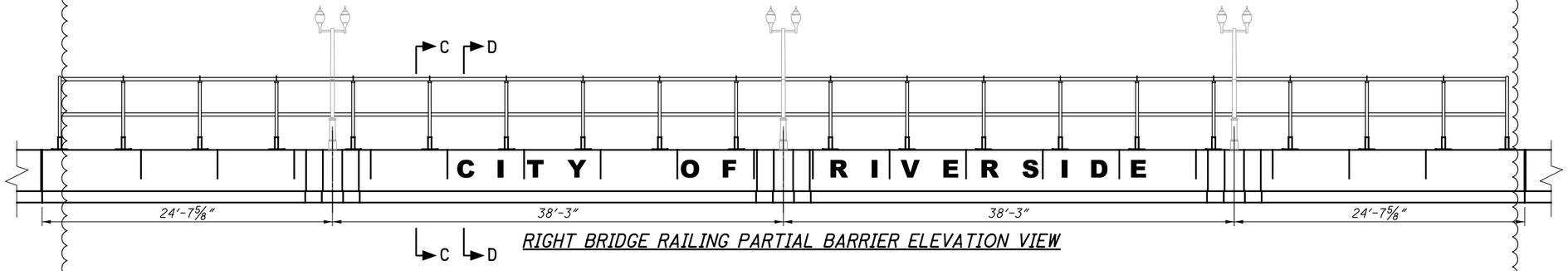
RIGHT BRIDGE RAILING DETAILS (2 OF 2)

BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

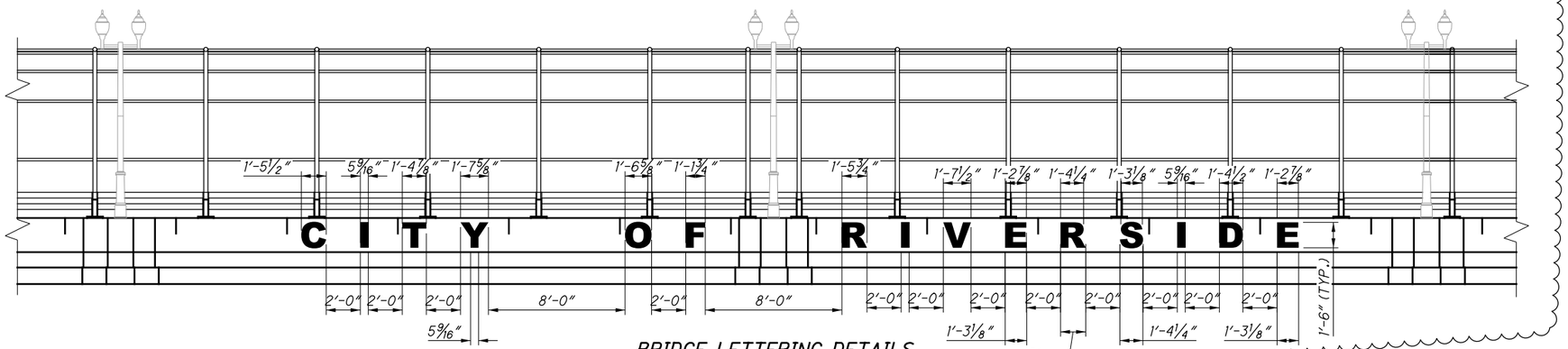
MOT-35-19.80
PID No. 90273



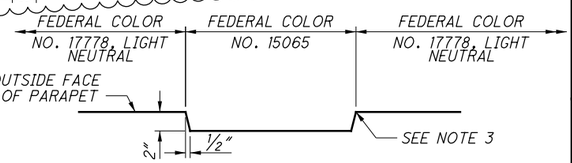
LEFT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW



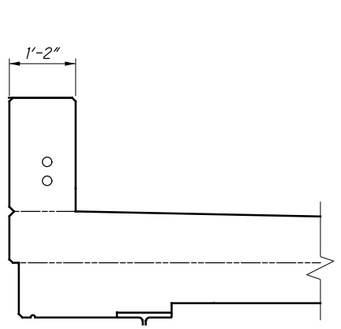
RIGHT BRIDGE RAILING PARTIAL BARRIER ELEVATION VIEW



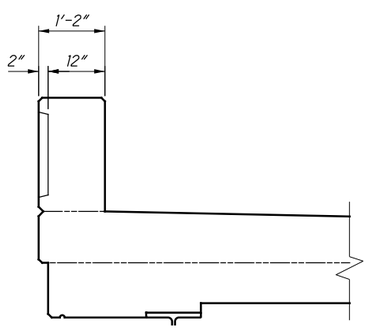
BRIDGE LETTERING DETAILS



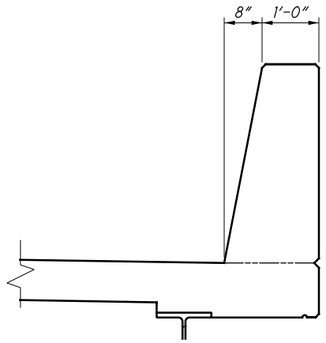
LETTERING INSET DETAIL



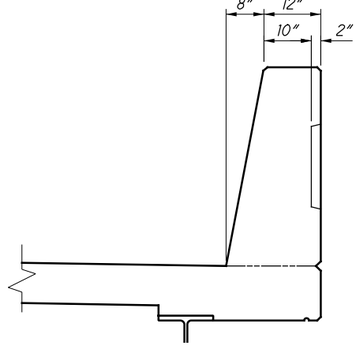
SECTION A-A



SECTION B-B



SECTION C-C



SECTION D-D

NOTES:

1. CADD FILES FOR LETTERS ARE AVAILABLE.
2. LETTER DIMENSIONS ARE PROVIDED TO THE OUTER EDGE OF THE INSERT
3. LETTERING FONT SHALL BE ARIAL. FEDERAL COLORS SHALL BE EPOXY-URETHANE SEALER
4. PAYMENT FOR PARAPET BRIDGE LETTERING, INCLUDING ALL LABOR, EQUIPMENT, CONSTRUCTION AND PLACEMENT OF FORMS, AND MATERIALS REQUIRED TO PRODUCE THE FINAL PRODUCT SHALLBE PAID FOR AS LUMP SUM UNDER ITEM 530: STRUCTURES (AESTHETIC LETTERING). SEE GENERAL NOTES SHEET 4/47 FOR ADDITIONAL DETAILS AND REQUIREMENTS.

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 • Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED	DRAWN	REVIEWED	DATE
TAS	DTA/GLA	DFT	9/1/2021
CHECKED	REVISED	STRUCTURE FILE NUMBER	
JOL	TAS	5703069	

RAILING LETTERING AESTHETIC DETAILS

BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
SUPERSTRUCTURE											
S401	541	40′-0″	14456	STR							
S402	91	11′-3″	684	STR							
S403	268	21′-11″	3924	STR							
S501	318	40′-0″	13267	STR							
S502	106	14′-6″	1603	STR							
S503	459	20′-7″	9854	16	20′-0″						
S504	452	28′-6″	13436	STR							
S505	495	8′-8″	4474	2	6′-9″	7″	1′-7″				
S506	450	30′-4″	14237	STR							
S507	1 SER. OF 18	6′-7″ TO 38′-5″	422	STR							1′-10 ½″
S508	2 SER. OF 23	3′-11″ TO 42′-3″	1107	STR							1′-8 ⅞″
S509	2 SER. OF 24	4′-8″ TO 44′-9″	1237	STR							1′-8 ⅞″
S510	2 SER. OF 4	23′-2″ TO 28′-5″	215	STR							1′-9″
S511	1 SER. OF 21	3′-10″ TO 38′-11″	468	16	3′-3″ TO 38′-4″						1′-9″
S512	2 SER. OF 4	24′-3″ TO 29′-6″	224	STR							1′-9″
S513	1 SER. OF 22	3′-2″ TO 40′-1″	496	16	2′-7″ TO 39′-6″						1′-9 ⅛″
S514	459	20′-0″	9575	STR							
S515	1 SER. OF 18	9′-7″ TO 39′-5″	460	STR							1′-9″
SUBTOTAL			90,139	ITEM 509 - REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL							

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TYPE	DIMENSIONS A	B	C	D	E	R	INC
PILASTER											
L401	6	2′-11″	12	STR							
L402	12	2′-3″	18	STR							
L403	12	2′-10″	23	STR							
L404	24	3′-5″	55	STR							
L501	12	3′-4″	42	2	7″	2′-5″	7″				
L502	12	9′-0″	113	2	3′-5″	2′-5″	3′-5″				
L503	18	8′-3″	155	21	1′-4″	1′-10″	6″	2′-5″			
L504	12	3′-5″	43	STR							
L505	12	2′-9″	34	2	7″	1′-10″	7″				
L506	12	10′-6″	131	9	8″	4′-0″	2′-9″	4′-0″			
L507	18	7′-9″	145	21	1′-4″	1′-10″	6″	2′-1″			
L508	12	4′-1″	51	STR							
SUBTOTAL			822	ITEM 509 - REINFORCING STEEL, MISC: GALVANIZED REINFORCING STEEL							

MARK	NUMBER TOTAL	LENGTH	WEIGHT	TOTAL LENGTH	TYPE	DIMENSIONS A	B	C	D	E	R	INC
RAILING (GFRP REINFORCING BARS)												
R402G	22	19′-8″	-	432′-8″	STR							
R403G	16	10′-0″	-	160′-0″	STR							
R404G	33	40′-0″	-	1320′-0″	STR							
R405G	11	8′-9″	-	96′-3″	STR							
R406G	8	8′-7″	-	68′-8″	STR							
R407G	60	6′-9″	-	405′-0″	STR							
R408G	2	5′-7″	-	11′-2″	STR							
SUBTOTAL				2493′-9″	ITEM 509 - NO. 4 GFRP DEFORMED BARS, AS PER PLAN							
RAILING												
R401	40	2′-2″	58		STR							
R501	62	10′-10″	701		30	1′-6″	8″	3′-11″	3′-9″			
R502	NOT USED											
R503	NOT USED											
R504	2	11′-2″	23		1	2′-11″	8′-5″					
R506	2	7′-11″	17		1	2′-11″	5′-2″					
R507	4	6′-8″	28		1	2′-11″	3′-11″					
R508	4	9′-8″	40		STR							
R510	8	8′-0″	67		STR							
R511	64	6′-2″	412		STR							
R513	4	14′-9″	62		STR							
R514	8	19′-7″	163		STR							
R515	4	4′-8″	19		STR							
R516	7	14′-8″	107		STR							
R517	7	15′-2″	111		STR							
R518	14	1′-8″	24		19	10″	3″	10″				
R519	7	8′-7″	63		STR							
R520	7	9′-1″	66		STR							
SUBTOTAL			1961		ITEM 509 - REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL							
RAILING												
R505	190	7′-10″	1552		30	1′-6″	8″	2′-5″	2′-3″			
R509	8	15′-8″	131		STR							
R512	12	40′-0″	501		STR							
R601	136	7′-4″	1498		38	2′-3″						
R602	180	7′-0″	1893		22	6″	3′-3″	3′-3″			2″	
R603	44	9′-0″	595		38	3′-0″						
SUBTOTAL			6170		ITEM 509 - REINFORCING STEEL, MISC.: GALVANIZED REINFORCING STEEL, AS PER PLAN							

E.L. ROBINSON ENGINEERING
950 Goodale Blvd., Suite 180 · Grandview Heights, Ohio 43212
www.elrobinsonengineering.com

DESIGNED TAS | DRAWN DTA | CHECKED MRV | REVIEWED DFT | DATE 9/1/2021 | REVISED TAS | STRUCTURE FILE NUMBER 5703069

REINFORCING DETAILS
BRIDGE NO. MOT-00835-00020
WOODMAN DRIVE OVER U.S. 35

MOT-35-19.80
PID No. 90273