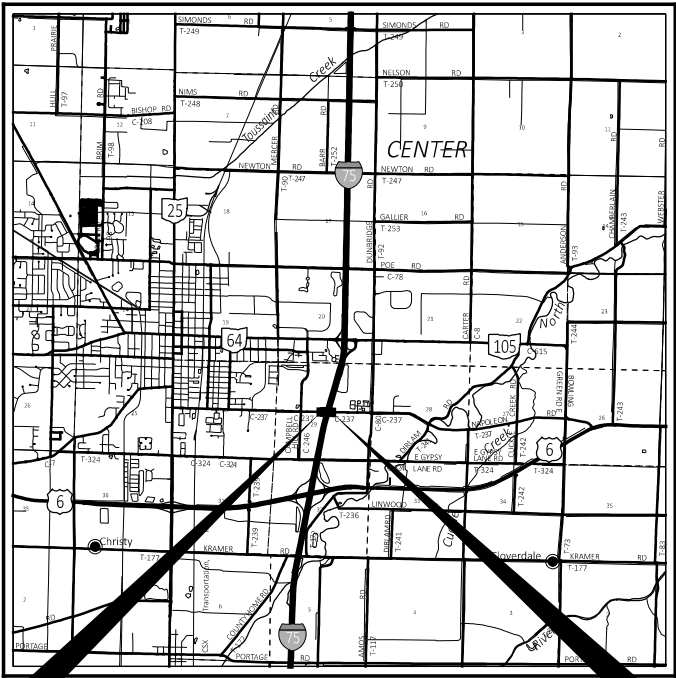




BEGIN PROJECT STA. 45+55.00 LOCATION MAP END PROJECT STA. 55+85.00

LATITUDE: 41° 21' 48.71" LONGITUDE: -83° 37' 11.84"

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

DESIGN DESIGNATION

	WOO-75-13.83	NAPOLEON RD
OPENING YEAR ADT (2027)	52000	5400
DESIGN YEAR ADT (2047)	59000	6000
DESIGN HOURLY VOLUME (DHV)	5300	600
DIRECTIONAL DISTRIBUTION	65%	60%
TRUCKS (24 HOUR B&C)	30%	2%
DESIGN SPEED	75 MPH	40 MPH
LEGAL SPEED	70 MPH	35 MPH
DESIGN FUNCTIONAL CLASSIFICATION:	URBAN INTERSTATE	URBAN LOCAL
NHS PROJECT	NO	

DESIGN EXCEPTIONS

SHOULDER WIDTH
DESIGN LOADING STRUCTURAL CAPACITY

ADA DESIGN WAIVERS

NONE REQUIRED

UNDERGROUND UTILITIES
Contact Two Working Days
Before You Dig

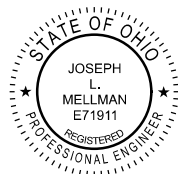
OHIO811.org
Before You Dig

OHIO811, 8-1-1, or 1-800-362-2764
(Non members must be called directly)

PLAN PREPARED BY:

LJB Inc.
2500 Newmark Drive
Miamisburg, OH 45342
(866) 552-3536 | LJBinc.com

ENGINEER'S SEAL:



STATE OF OHIO

DEPARTMENT OF TRANSPORTATION

WOO-75-13.83
(C.R. 237)

CITY OF BOWLING GREEN
CENTER TOWNSHIP
WOOD COUNTY

INDEX OF SHEETS:

TITLE SHEET	1
SCHEMATIC PLAN	2
TYPICAL SECTIONS	3-4
GENERAL NOTES	5
MAINTENANCE OF TRAFFIC	6-9
GENERAL SUMMARY	10
SUBSUMMARIES	11-12
PLAN AND PROFILE	13-17
CROSS SECTION	18-28
STRUCTURE OVER 20 FOOT SPAN	29-49
WOO-75-1383	
GEOTECHNICAL PROFILE	50-61

FEDERAL PROJECT NUMBER

E250425

RAILROAD INVOLVEMENT

NONE

PROJECT DESCRIPTION

REHABILITATION OF BRIDGE NUMBER WOO-75-1383 CARRYING NAPOLEON ROAD (CR 237) OVER I.R. 75. THE REHABILITATION INCLUDES DECK REPLACEMENT, GIRDER AND SUBSTRUCTURE REHABILITATION AND RAISING THE VERTICAL PROFILE TO ACHIEVE MINIMUM VERTICAL CLEARANCE OVER I.R. 75

EARTH DISTURBED AREAS

PROJECT EARTH DISTURBED AREA:	1.64 ACRES
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	0.01 ACRES
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A (NOI NOT REQUIRED)*
* ROUTINE MAINTENANCE PROJECT	

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.

2023 SPECIFICATIONS

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS, CHANGES LISTED IN THE PROPOSAL, AND THE SUPPLEMENTAL SPECIFICATION 800 VERSION INDICATED ON THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING TO THE TRAFFIC OF THE HIGHWAY AND THAT DETOURS WILL BE PROVIDED AS INDICATED ON SHEET 8.

Pat McColley, P.E., S.I.
District 02 Deputy Director

Pamela Boratyn
Director, Department of Transportation

STANDARD CONSTRUCTION DRAWINGS								SUPPLEMENTAL SPECIFICATIONS		SPECIAL PROVISIONS	
BP-3.1	01/19/24	MGS-2.1	01/17/25	TC-41.20	10/18/23			800	07/17/26	ASBESTOS	
BP-5.1	01/17/25	MGS-3.1	01/19/18	TC-42.20	10/18/13			821	04/20/12	REPORT 09/23/24	
		MGS-3.2	01/18/13	TC-52.10	10/18/13			832	07/18/25		
		MGS-4.2	01/17/25	TC-52.20	01/15/21			844	01/17/25		
DM-4.3	01/15/16	MGS-4.3	01/18/13	TC-61.30	07/19/24			921	07/19/24		
DM-4.4	01/15/16	MGS-5.3	07/15/16								
		MGS-6.1	01/19/18								
RM-1.1	01/20/23										
		MT-95.30	07/18/25								
AS-1-15	01/20/23	MT-95.45	07/18/25								
AS-2-15	07/21/23	MT-97.10	07/18/25								
SBR-1-20	07/19/24	MT-97.12	01/16/26								
SBR-1-21	01/19/24	MT-101.60	01/17/25								
SCID-2-14	01/15/21	MT-101.70	07/19/24								
VPF-1-24	01/17/25	MT-105.10	01/17/20								
HL-50.21	07/15/22										

DESIGN AGENCY



DESIGNER

SS

REVIEWER

JLM 05/21/26

PROJECT ID

114710

SHEET

1

TOTAL

61

MODEL: Sheet PAPERSIZE: 17x11 (in.) DATE: 9/22/2026 TIME: 9:38:33 AM USER: jnellman
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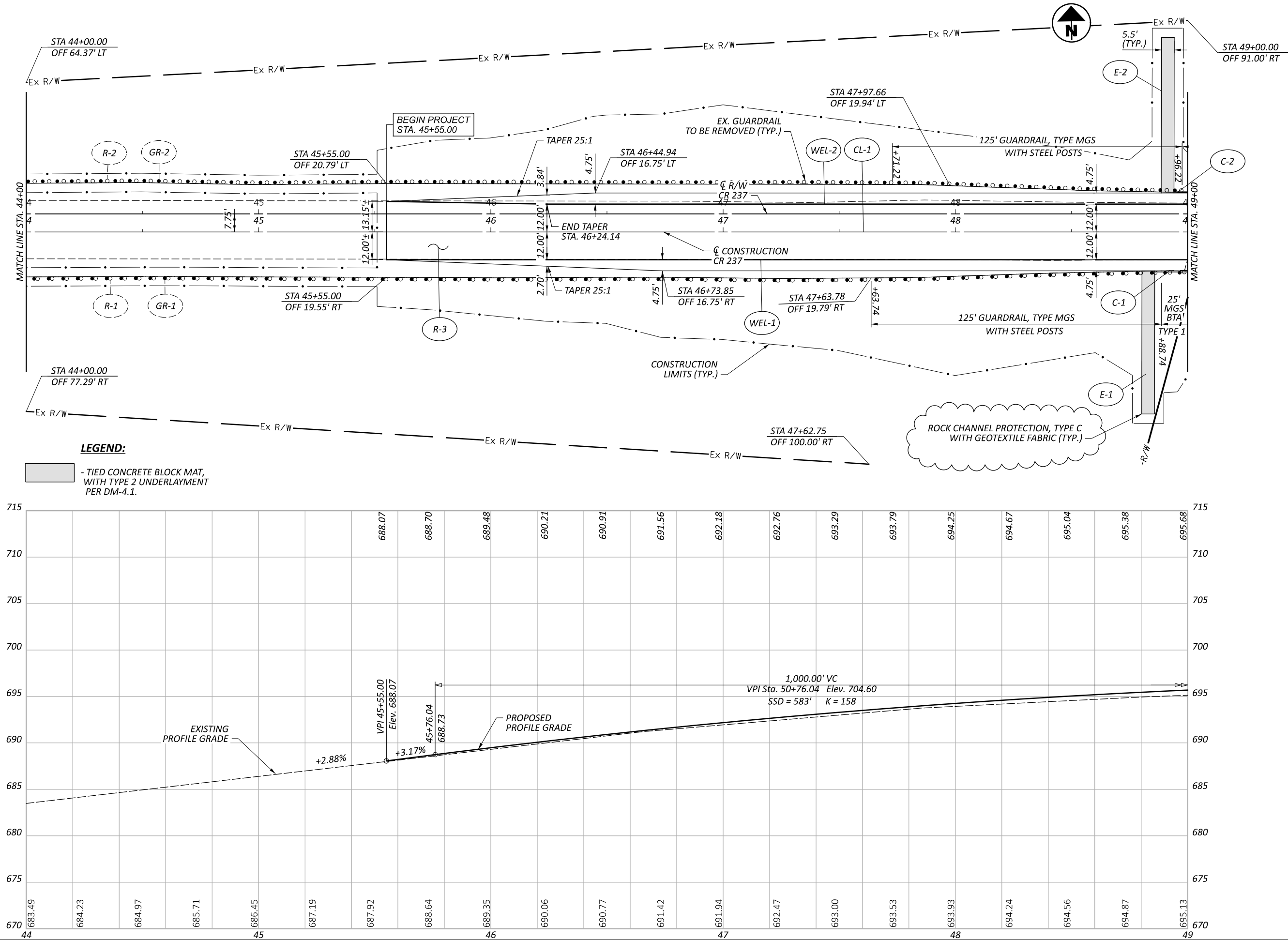
DESIGN AGENCY	
	
DESIGNER	
RKD	
REVIEWER	
JLM	05/21/26
PROJECT ID	
114710	
SHEET	TOTAL
10	61

GENERAL SUMMARY

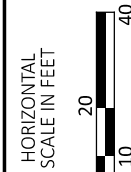
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104

DESIGN AGENCY	
DESIGNER	
RKD	
REVIEWER	
JLM	05/21/26
PROJECT ID	
114710	
SHEET	TOTAL
12	61



PLAN AND PROFILE
STA. 44+00.00 TO STA. 49+00.00



DESIGN AGENCY

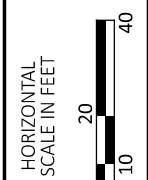


DESIGNER
SS

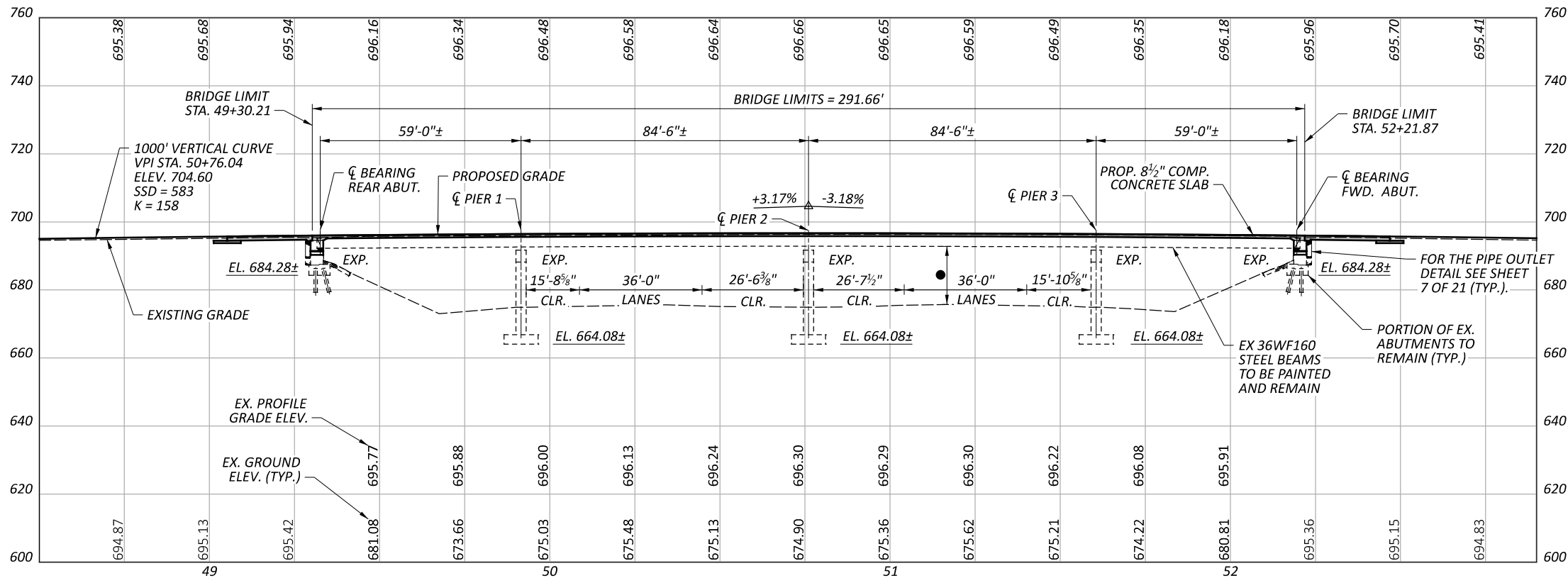
REVIEWER
JLM 05/21/26

PROJECT ID
114710

SHEET TOTAL
14 61



DESIGN AGENCY	
DESIGNER	
SS	
REVIEWER	
JLM 05/21/26	
PROJECT ID	
114710	
SHEET	TOTAL
15	61



SITE PLAN
BRIDGE NO. WOO-75-1383
NAPOLEON ROAD (CR 237) OVER I.R. 75

SHEET	TOTAL
29	61

ESTIMATED QUANTITIES (01/IMS)									
ITEM	ITEM EXTENSION	QUANTITY	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	AS PER PLAN SHEET NO.
202	11203	1	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN					2 / 21
202	22900	184	SQ YD	APPROACH SLAB REMOVED				184	
503	21301	1	LUMP	UNCLASSIFIED EXCAVATION, AS PER PLAN					2 / 21
509	10001	41435	POUND	EPOXY COATED STEEL REINFORCEMENT, AS PER PLAN	4253		37182		2 / 21
509	30020	26086	FT	NO. 4 DEFORMED GFRP REINFORCEMENT			26086		
509	30030	31386	FT	NO. 5 DEFORMED GFRP REINFORCEMENT			31386		
509	30040	42639	FT	NO. 6 DEFORMED GFRP REINFORCEMENT			42639		
510	10001	324	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT, AS PER PLAN	324				2 / 21
511	33500	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE	2				
511	34447	354	CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK, AS PER PLAN			354		3 / 21
511	34450	100	CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK (PARAPET)			100		
511	43510	42	CU YD	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	42				
512	10100	749	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	60		644	46	
512	33000	13	SQ YD	TYPE 2 WATERPROOFING	13				
513	20000	3465	EACH	WELDED STUD SHEAR CONNECTORS			3465		
514	00050	14226	SQ FT	SURFACE PREPARATION OF EXISTING STRUCTURAL STEEL			14226		
514	00056	14226	SQ FT	FIELD PAINTING OF EXISTING STRUCTURAL STEEL, PRIME COAT			14226		
514	00060	14226	SQ FT	FIELD PAINTING STRUCTURAL STEEL, INTERMEDIATE COAT			14226		
514	00066	14226	SQ FT	FIELD PAINTING STRUCTURAL STEEL, FINISH COAT			14226		
514	00504	32	MNHR	GRINDING FINS, TEARS, SLIVERS ON EXISTING STRUCTURAL STEEL			32		
514	10000	8	EACH	FINAL INSPECTION REPAIR			8		
514	27702	10	EACH	FIELD PAINTING, MISC.: COATING OF BEAM ENDS			10		3 / 21
516	13600	16	SQ FT	1" PREFORMED EXPANSION JOINT FILLER			16		
516	13900	106	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	58		48		
516	14020	93	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL			93		
516	44101	15	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 16"x16"x2 1⁄16"			15		
516	44301	10	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES AND LOAD PLATE (NEOPRENE), AS PER PLAN 13"x13"x4 1⁄16"			10		
516	47001	1	LUMP	JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN					3 / 21
518	21200	62	CU YD	POROUS BACKFILL WITH GEOTEXTILE FABRIC	62				
518	40000	102	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	102				
518	40010	103	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE	103				
SPECIAL	51900100	933	SQ FT	COMPOSITE FIBER WRAP SYSTEM		933			
519	11101	175	SQ FT	PATCHING CONCRETE STRUCTURE, AS PER PLAN		175			3 / 21
526	25011	197	SQ YD	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15"), AS PER PLAN				197	17 / 21
526	90030	69	FT	TYPE C INSTALLATION				69	
SPECIAL	53013000	2042	SQ FT	FORM LINER			2042		3 / 21
607	39900	582	FT	VANDAL PROTECTION FENCE, 6' STRAIGHT, COATED FABRIC, AS PER PLAN			582		3 / 21
625	33000	1	EACH	STRUCTURE GROUNDING SYSTEM				1	
844	20001	113	EACH	GALVANIC ANODE PROTECTION, AS PER PLAN		113			9 / 21

QUANTITIES COMPUTED BY: SS 01/14/26
QUANTITIES CHECKED BY: JLM 01/14/26

ESTIMATED QUANTITIES
BRIDGE NO. WOO-75-1383
NAPOLEON ROAD (CR 237) OVER I.R. 75

SFN
8703787
DESIGN AGENCY



DESIGNER
SS

CHECKER
AMT

REVIEWER
JLM 05/21/26

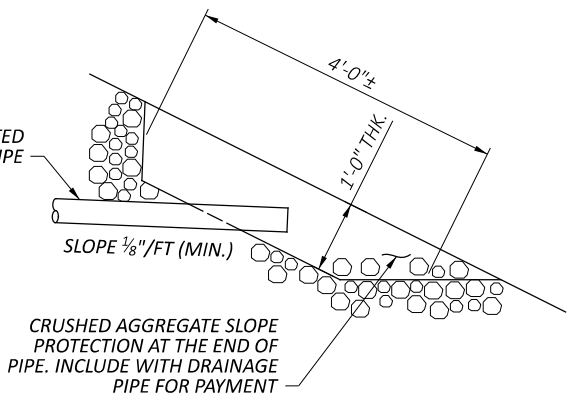
PROJECT ID
114710

SUBSET
4

TOTAL
21

SHEET
32

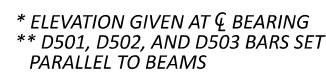
TOTAL
61



DIAPHRAGM GUIDE DETAIL
(FOR ADDITIONAL NOTES AND DETAILS,
SEE STD. DWG. SICD-2-14)

- NOTES:**
1. FOR GENERAL NOTES AND ABBREVIATIONS, SEE SHEETS 2 AND 3 OF 21.
 2. FOR VIEW D-D, VIEW E-E, AND SECTION F-F, SEE SHEET 8 OF 21.
 3. SCARIFY THE TOP OF THE EXISTING FOOTINGS TO A DEPTH OF ¼ INCH. INCLUDE WITH ITEM 202, PORTIONS OF STRUCTURE REMOVED, OVER 20 FT SPAN, AS PER PLAN.
 4. ABUTMENT DIAPHRAGM CONCRETE: PLACE THE DIAPHRAGM CONCRETE ENCASING THE STRUCTURAL MEMBERS ENDS WITH THE DECK CONCRETE OR AT LEAST 48 HOURS BEFORE PLACEMENT OF THE DECK CONCRETE. IF PLACED SEPARATELY, LOCATE A HORIZONTAL CONSTRUCTION JOINT IN THE DIAPHRAGM AS SHOWN ON SICD-1-21 FOR STEEL SUPERSTRUCTURES AND PLACE REMAINING DIAPHRAGM CONCRETE WITH THE DECK.

NO. 5 BAR = 2'-5"
NO. 8 BAR = 4'-9"



ABUTMENT ELEVATION
(REAR ABUTMENT SHOWN,
FWD. ABUTMENT OPPOSITE HAND)

ABUTMENT DETAILS
BRIDGE NO. WOO-75-1383
NAPOLEON ROAD (CR 237) OVER I.R. 75

SFN	
8703787	
DESIGN AGENCY	
	
DESIGNER	CHECKER
SS	AMT
REVIEWER	
JLM 05/21/26	
PROJECT ID	
114710	
SUBSET	TOTAL
7	21
SHEET	TOTAL
35	61

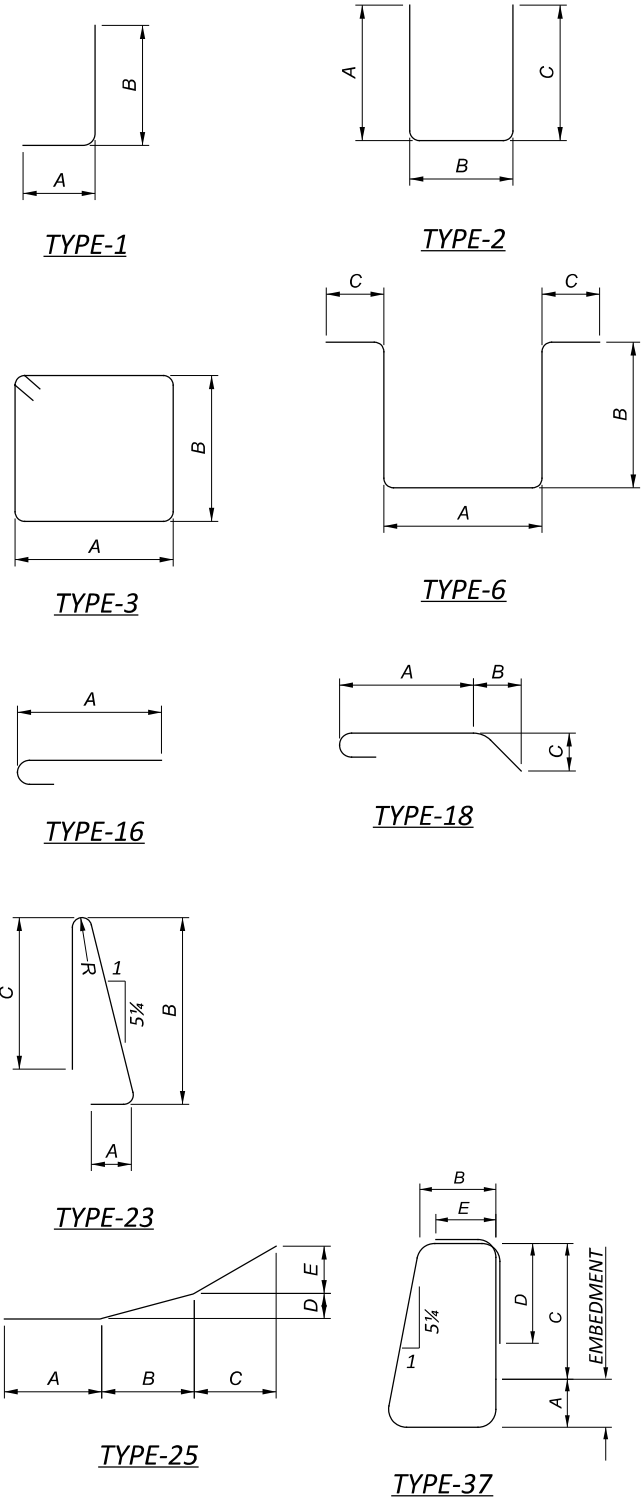
MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS							
	RA	FA	TOTAL				A	B	C	D	E	R	INC	
ABUTMENT REINFORCING SCHEDULE														
A601	68	68	136	2'-2"	391	1	1'-0"	1'-4"						
A602	34	34	68	3'-8"	374	2	0'-4"	3'-5"	0'-4"					
A801	8	8	16	23'-0"	983	STR								
			ABUTMENT SUBTOTAL=		1748									
SEMI-INTEGRAL DIAPHRAGM GUIDE (FOR INFORMATION ONLY)														
DG601	5	5	10	9'-6"	143	2	3'-2"	3'-6"	3'-2"					
DG801	7	7	14	8'-6"	318	2	3'-1"	2'-9"	3'-1"					
			SEMI-INTEGRAL DIAPHRAGM GUIDE SUBTOTAL=		461									
WINGWALL REINFORCING SCHEDULE														
W501	8	8	16	13'-8"	228	STR								
W502	8	8	16	14'-0"	234	STR								
W503	4	4	8	5'-6"	46	STR								
W504	6	6	12	8'-2"	102	STR								
W505	6	6	12	8'-5"	105	STR								
			4	5'-0"										
W506			SER. OF	TO	87	STR								1 5/8"
			4	5'-5"										
W507	14	14	28	8'-2"	239	STR								
W508	14	14	28	6'-0"	175	16	5'-5"							
W509	14	14	28	8'-3"	241	STR								
W510	16	16	32	9'-7"	320	3	1'-8"	2'-10"						
W511	6	6	12	11'-0"	138	STR								
W512	6	6	12	11'-6"	144	STR								
W513	14	14	28	4'-0"	117	STR								
W514	74	74	148	2'-0"	309	STR								
W515	1	1	2	9'-9"	20	3	1'-9"	2'-10"						
			WINGWALL SUBTOTAL=		2505									
			SUBSTRUCTURE TOTAL=		4253									

MARK	NUMBER			LENGTH	WEIGHT	TYPE	DIMENSIONS							
	RA	FA	TOTAL				A	B	C	D	E	R	INC	
DIAPHRAGM REINFORCING SCHEDULE														
D501	56	56	112	9'-2"	1071	2	2'-11"	3'-6 1/2"	2'-11"					
D502	28	28	56	7'-7"	443	2	2'-5"	3'-0"	2'-5"					
D801	4	4	8	14'-4"	306	1	13'-2"	1'-4"						
D802	2	2	4	13'-1"	140	STR								
D803	8	8	16	21'-6"	918	STR								
D804	4	4	8	22'-0"	470	1	20'-10"	1'-4"						
D805	2	2	4	20'-10"	222	STR								
D806	8	8	16	21'-0"	897	STR								
D807	8	8	16	4'-11"	289	18	3'-6"	0'-4"	0'-7"					
D808	26	26	52	4'-11"	683	18	2'-9"	1'-0"	1'-0					
			DIAPHRAGM SUBTOTAL=		5439									

MARK	MAT'RL TYPE	TOTAL	LENGTH	WEIGHT (lbs.)	TYPE	DIMENSIONS								
						A	B	C	D	E	R	INC		
DECK (EPOXY COATED STEEL REINFORCEMENT - ECSR)														
S404	ECSR	578	8'-3"	3185	16	7'-9"								
S604	ECSR	1130	8'-5"	14286	16	7'-9"								
S605	ECSR	100	3'-0"	451	6	0'-10"	0'-5"	1'-0"						
			DECK ECSR SUBTOTAL=	17922										
			SUPERSTRUCTURE TOTAL=	23361										

MARK	MAT'RL TYPE	TOTAL	LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS								
						A	B	C	D	E	R	INC		
DECK (GLASS FIBER REINFORCED POLYMER REINFORCEMENT - GFRP)														
S401	GFRP	132	16'-6"	2178'-0"	STR									
S402	GFRP	504	30'-0"	15120'-0"	STR									
S403	GFRP	578	2'-7"	1493'-0"	STR									
S501	GFRP	148	18'-2"	2688'-8"	STR									
S502	GFRP	831	30'-0"	24930'-0"	STR									
S503	GFRP	165	22'-10"	3767'-6"	STR									
S601	GFRP	1130	36'-6"	41245'-0"	STR									
		4	12'-0"			11'-4"								
S602	GFRP	SER. OF	TO	1209'-0"	16	TO							1'-10 3/8"	
		13	34'-5'			33'-9"								
		4	8'-4"			7'-8"								
S603	GFRP	SER. OF	TO	185'-0"	16	TO							5 1/2"	
		5	10'-2"			9'-6"								
			DECK GFRP SUBTOTAL=	92816'-2"										

BENDING DIAGRAMS

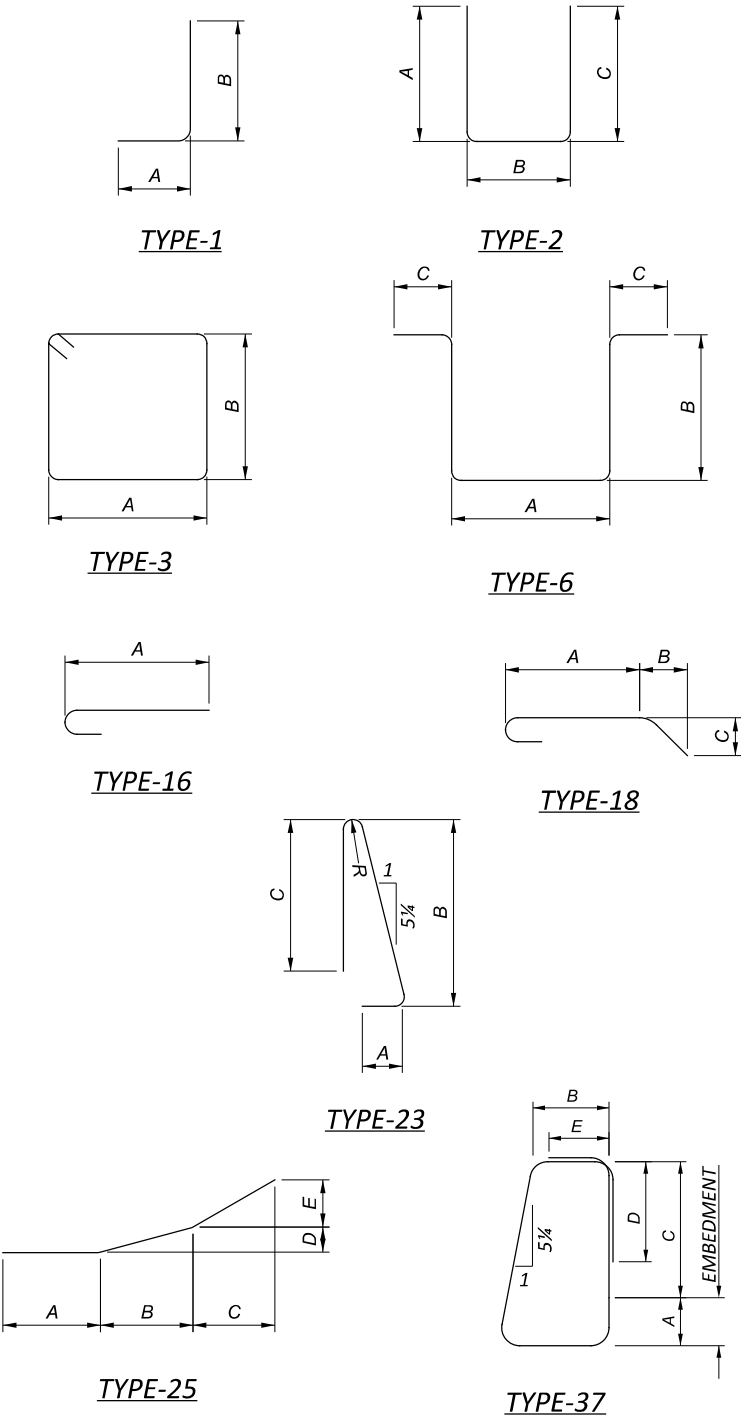


NOTES:

- 1. ALL DIMENSIONS ARE OUT TO OUT OF BAR.
- 2. RADIUS DIMENSION "R" IS TO THE OUTSIDE OF THE BAR.
- 3. THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER.
- 4. ALL REINFORCING CLEARANCES ARE 2" UNLESS OTHERWISE NOTED IN THE PLANS.

MARK	MAT'RL TYPE	TOTAL	LENGTH	WEIGHT (lbs.)	TYPE	DIMENSIONS						
						A	B	C	D	E	R	INC
PARAPETS (SBR-1-20) (EPOXY COATED STEEL REINFORCEMENT - ECSR)												
Y601	ECSR	642	7'-4"	7071	37	10"	9 ½"	1'-5"	12"	7"		
Y602	ECSR	642	7'-0"	6750	23	6"	3'-3"	3'-3"			2"	
PARAPETS ECSR SUBTOTAL =				13821								
MARK	MAT'RL TYPE	TOTAL	LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS						
						A	B	C	D	E	R	INC
PARAPETS (SBR-1-20) (GLASS FIBER REINFORCED POLYMER REINFORCEMENT - GFRP)												
G401	GFRP	180	30'-0"	5400'-0"	STR							
G402	GFRP	40	16'-1"	643'-4"	STR							
G403	GFRP	216	10'-0"	1080'-0"	STR							
G404	GFRP	16	10'-9"	172'-0"	STR							
PARAPETS GFRP SUBTOTAL =				7295'-4"								
MARK	MAT'RL TYPE	TOTAL	LENGTH	WEIGHT (lbs.)	TYPE	DIMENSIONS						
						A	B	C	D	E	R	INC
PARAPETS TRANSITIONS (EPOXY COATED STEEL REINFORCEMENT - ECSR) (FOR INFORMATION ONLY)												
		1 SERIES	5'-2"				4'-4"					
AR601	ECSR	OF 11 =	TO	628	1	1'-0"	TO					1"
		88	4'-4"				3'-6"					
AR602	ECSR	32	4'-4"	208	1	1'-0"	3'-6"					
PARAPET TRANSITIONS ECSR SUBTOTAL =				836								
MARK	MAT'RL TYPE	TOTAL	LENGTH	TOTAL LENGTH	TYPE	DIMENSIONS						
						A	B	C	D	E	R	INC
PARAPET TRANSITIONS (GLASS FIBER REINFORCED POLYMER REINFORCEMENT - GFRP) (FOR INFORMATION ONLY)												
AG401	GFRP	84	9'-8"	812'-0"	STR							
AG402	GFRP	24	5'-0"	120'-0"	25	1'-1"	2'-5"	1'-5"	1 ½"	5"		
AG403	GFRP	24	5'-1"	122'-0"	STR							
PARAPET TRANSITIONS GFRP SUBTOTAL =				1054'-0"								

BENDING DIAGRAMS



NOTES:

- ALL DIMENSIONS ARE OUT TO OUT OF BAR.
- RADIUS DIMENSION "R" IS TO THE OUTSIDE OF THE BAR.
- THE BAR SIZE NUMBER IS SPECIFIED ON THE PLANS IN THE BAR MARK COLUMN. THE FIRST DIGIT WHERE THREE DIGITS ARE USED, AND THE FIRST TWO DIGITS WHERE FOUR ARE USED, INDICATES THE BAR SIZE NUMBER.
- ALL REINFORCING CLEARANCES ARE 2" UNLESS OTHERWISE NOTED IN THE PLANS.
- REINFORCING FOR APPROACH SLAB PARAPETS IS FOR INFORMATION ONLY AND IS INCLUDED FOR PAYMENT WITH ITEM 526 REINFORCED CONCRETE APPROACH SLAB WITH QC/QA AS PER PLAN (T=15")

REINFORCING LIST
BRIDGE NO. WOO-75-1383
NAPOLEON ROAD (CR 237) OVER I.R. 75

SFN	
8703787	
DESIGN AGENCY	
DESIGNER	CHECKER
SS	AMT
REVIEWER	
JLM 05/21/26	
PROJECT ID	
114710	
SUBSET	TOTAL
21	21
SHEET	TOTAL
49	61